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WPF Xaml Vocabulary Specification 2019

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Table of Contents

1	Introduction	32
2	Specification Conventions	33
2.1	Xaml Types	33
2.2	Xaml Type Order	35
2.3	Xaml Members where [is attachable] is True	37
2.4	Xaml Types where [is generic] is True.....	38
2.5	Xaml Members where [is event] is True	38
2.6	Xaml Members where [is static] is True.....	38
2.7	Constructors.....	38
3	The WPF Xaml Schema Information Set.....	39
4	WPF XamlType Information Items	40
4.1	AccessText.....	40
4.2	AdornedElementPlaceholder	41
4.3	AdornerDecorator	42
4.4	AffineTransform3D.....	42
4.5	AlignmentX.....	42
4.6	AlignmentY	43
4.7	AlternationConverter	43
4.8	AmbientLight.....	44
4.9	AnchoredBlock	44
4.10	Animatable.....	45
4.11	AnimationTimeline.....	45
4.12	Application	46
4.13	ApplicationCommands	47
4.14	ApplicationGesture	49
4.15	ArcSegment	49
4.16	AutomationLiveSetting	50
4.17	AutomationProperties	50
4.18	AutoToolTipPlacement.....	52
4.19	AxisAngleRotation3D	53
4.20	BackEase.....	53
4.21	BaseCompatibilityPreferences	54
4.22	BaselineAlignment	54
4.23	BaseValueSource.....	55
4.24	BeginStoryboard	55
4.25	BezierSegment	56
4.26	Binding	56
4.27	BindingBase.....	58
4.28	BindingGroup	59
4.29	BindingMode.....	60
4.30	BindingOperations	60
4.31	BindingStatus	61
4.32	BitmapCache	61
4.33	BitmapCacheBrush.....	62
4.34	BitmapCacheOption	62

4.35	BitmapCreateOptions	62
4.36	BitmapEncoder.....	63
4.37	BitmapFrame.....	63
4.38	BitmapImage	64
4.39	BitmapPalette	65
4.40	BitmapPalettes.....	65
4.41	BitmapScalingMode	68
4.42	BitmapSource.....	68
4.43	Block.....	69
4.44	BlockCollection.....	71
4.45	BlockUIContainer	71
4.46	BlurEffect.....	72
4.47	BmpBitmapEncoder	72
4.48	Bold	73
4.49	BooleanAnimationBase.....	73
4.50	BooleanAnimationUsingKeyFrames.....	73
4.51	BooleanKeyFrame	74
4.52	BooleanKeyFrameCollection	74
4.53	BooleanToVisibilityConverter	75
4.54	Border	75
4.55	BorderGapMaskConverter	76
4.56	BounceEase	76
4.57	Brush	77
4.58	Brushes.....	78
4.59	BrushMappingMode	87
4.60	BulletDecorator.....	87
4.61	Button	88
4.62	ButtonBase.....	88
4.63	ByteAnimation	89
4.64	ByteAnimationBase.....	90
4.65	ByteAnimationUsingKeyFrames.....	90
4.66	ByteKeyFrame	91
4.67	ByteKeyFrameCollection	91
4.68	CachedBitmap	92
4.69	CacheMode	92
4.70	CachingHint	92
4.71	Calendar	93
4.72	CalendarBlackoutDatesCollection.....	94
4.73	CalendarButton.....	95
4.74	CalendarDateRange	95
4.75	CalendarDayButton.....	95
4.76	CalendarItem.....	96
4.77	CalendarMode.....	96
4.78	CalendarSelectionMode.....	97
4.79	Camera	97
4.80	Canvas	97
4.81	CaptureMode	98

4.82	CharacterBufferRange.....	99
4.83	CharacterBufferReference	99
4.84	CharacterCasing	99
4.85	CharacterHit	100
4.86	CharacterMetrics	100
4.87	CharacterMetricsDictionary.....	100
4.88	CharAnimationBase.....	101
4.89	CharAnimationUsingKeyFrames	101
4.90	CharKeyFrame	102
4.91	CharKeyFrameCollection.....	102
4.92	CheckBox.....	103
4.93	CircleEase	103
4.94	ClearTypeHint.....	104
4.95	ClickMode.....	104
4.96	Clock.....	104
4.97	ClockCollection.....	105
4.98	ClockState.....	105
4.99	CollectionContainer	105
4.100	CollectionView	106
4.101	CollectionViewSource	107
4.102	Color	108
4.103	ColorAnimation	109
4.104	ColorAnimationBase	110
4.105	ColorAnimationUsingKeyFrames	110
4.106	ColorContext	111
4.107	ColorConvertedBitmap	111
4.108	ColorConvertedBitmapExtension.....	112
4.109	ColorInterpolationMode	112
4.110	ColorKeyFrame.....	112
4.111	ColorKeyFrameCollection.....	113
4.112	Colors	113
4.113	ColumnDefinition	123
4.114	ColumnDefinitionCollection.....	123
4.115	ColumnSpaceDistribution	124
4.116	CombinedGeometry.....	124
4.117	ComboBox.....	125
4.118	ComboBoxItem	126
4.119	CommandBinding.....	126
4.120	CommandBindingCollection.....	127
4.121	ComponentCommands	127
4.122	ComponentResourceKey.....	129
4.123	CompositeCollection	130
4.124	Condition.....	130
4.125	ConditionCollection.....	131
4.126	ContainerUIElement3D	131
4.127	ContainerVisual.....	132
4.128	ContentControl	133

4.129	ContentElement	133
4.130	ContentOperations	138
4.131	ContentPresenter	138
4.132	ContextMenu	139
4.133	ContextMenuService	140
4.134	Control	142
4.135	ControllableStoryboardAction	144
4.136	ControlTemplate	144
4.137	CoreCompatibilityPreferences	145
4.138	CornerRadius	145
4.139	CroppedBitmap	146
4.140	CubicEase	146
4.141	Cursor	147
4.142	Cursors	147
4.143	CursorType	149
4.144	CustomPopupPlacement	149
4.145	DashStyle	150
4.146	DashStyles	150
4.147	DataErrorValidationRule	151
4.148	DataGrid	151
4.149	DataGridColumn	156
4.150	DataGridCell	157
4.151	DataGridCellInfo	158
4.152	DataGridCellsPanel	158
4.153	DataGridCellsPresenter	158
4.154	DataGridCheckBoxColumn	159
4.155	DataGridClipboardCellContent	159
4.156	DataGridClipboardCopyMode	160
4.157	DataGridColumn	160
4.158	DataGridColumnHeader	162
4.159	DataGridColumnHeadersPresenter	162
4.160	DataGridComboBoxColumn	163
4.161	DataGridDetailsPresenter	164
4.162	DataGridEditAction	164
4.163	DataGridEditingUnit	165
4.164	DataGridGridLinesVisibility	165
4.165	DataGridHeadersVisibility	165
4.166	DataGridHyperlinkColumn	166
4.167	DataGridLength	166
4.168	DataGridLengthUnitType	167
4.169	DataGridRow	167
4.170	DataGridRowDetailsVisibilityMode	168
4.171	DataGridRowHeader	169
4.172	DataGridRowsPresenter	169
4.173	DataGridSelectionMode	170
4.174	DataGridSelectionUnit	170
4.175	DataGridTemplateColumn	171

4.176	DataGridTextColumn.....	171
4.177	DataObject	172
4.178	DataTemplate.....	172
4.179	DataTemplateKey.....	173
4.180	DataTemplateSelector	174
4.181	DataTrigger.....	174
4.182	DatePicker	175
4.183	DatePickerFormat	176
4.184	DatePickerTextBox	176
4.185	DecimalAnimation.....	177
4.186	DecimalAnimationBase	177
4.187	DecimalAnimationUsingKeyFrames	178
4.188	DecimalKeyFrame	178
4.189	DecimalKeyFrameCollection	179
4.190	Decorator	179
4.191	DeferrableContent	180
4.192	DefinitionBase	180
4.193	DependencyObject.....	181
4.194	DependencyProperty	181
4.195	DiffuseMaterial	181
4.196	DirectionalLight.....	182
4.197	DiscreteBooleanKeyFrame.....	182
4.198	DiscreteByteKeyFrame	183
4.199	DiscreteCharKeyFrame.....	183
4.200	DiscreteColorKeyFrame	183
4.201	DiscreteDecimalKeyFrame	183
4.202	DiscreteDoubleKeyFrame	184
4.203	DiscreteInt16KeyFrame.....	184
4.204	DiscreteInt32KeyFrame.....	184
4.205	DiscreteInt64KeyFrame.....	184
4.206	DiscreteMatrixKeyFrame	185
4.207	DiscreteObjectKeyFrame	185
4.208	DiscretePoint3DKeyFrame	185
4.209	DiscretePointKeyFrame.....	186
4.210	DiscreteQuaternionKeyFrame.....	186
4.211	DiscreteRectKeyFrame	186
4.212	DiscreteRotation3DKeyFrame.....	186
4.213	DiscreteSingleKeyFrame	187
4.214	DiscreteSizeKeyFrame.....	187
4.215	DiscreteStringKeyFrame.....	187
4.216	DiscreteThicknessKeyFrame	187
4.217	DiscreteVector3DKeyFrame	188
4.218	DiscreteVectorKeyFrame	188
4.219	Dock.....	188
4.220	DockPanel.....	189
4.221	DocumentPageView.....	189
4.222	DocumentReference	190

4.223	DocumentReferenceCollection	190
4.224	DocumentViewer	191
4.225	DocumentViewerBase.....	192
4.226	DoubleAnimation	193
4.227	DoubleAnimationBase	194
4.228	DoubleAnimationUsingKeyFrames	194
4.229	DoubleAnimationUsingPath.....	195
4.230	DoubleCollection.....	195
4.231	DoubleKeyFrame.....	196
4.232	DoubleKeyFrameCollection.....	196
4.233	DpiScale.....	197
4.234	DragAction.....	197
4.235	DragDropEffects.....	197
4.236	DragDropKeyStates	197
4.237	Drawing	198
4.238	DrawingAttributes.....	198
4.239	DrawingBrush.....	199
4.240	DrawingCollection.....	200
4.241	DrawingGroup	200
4.242	DrawingImage	201
4.243	DrawingVisual	201
4.244	DropShadowEffect	201
4.245	Duration	202
4.246	DynamicResourceExtension.....	202
4.247	EasingByteKeyFrame.....	203
4.248	EasingColorKeyFrame	203
4.249	EasingDecimalKeyFrame	204
4.250	EasingDoubleKeyFrame	204
4.251	EasingFunctionBase	204
4.252	EasingInt16KeyFrame.....	205
4.253	EasingInt32KeyFrame.....	205
4.254	EasingInt64KeyFrame.....	206
4.255	EasingMode.....	206
4.256	EasingPoint3DKeyFrame	206
4.257	EasingPointKeyFrame.....	207
4.258	EasingQuaternionKeyFrame	207
4.259	EasingRectKeyFrame	208
4.260	EasingRotation3DKeyFrame.....	208
4.261	EasingSingleKeyFrame	208
4.262	EasingSizeKeyFrame.....	209
4.263	EasingThicknessKeyFrame	209
4.264	EasingVector3DKeyFrame.....	209
4.265	EasingVectorKeyFrame	210
4.266	EdgeMode	210
4.267	EdgeProfile	211
4.268	EditingCommands	211
4.269	Effect	216

4.270	ElasticEase	216
4.271	Ellipse	217
4.272	EllipseGeometry	217
4.273	EmissiveMaterial	218
4.274	EventPrivateKey	218
4.275	EventSetter	218
4.276	EventTrigger	219
4.277	ExceptionValidationRule	219
4.278	ExpandDirection	220
4.279	Expander	220
4.280	ExponentialEase	221
4.281	FamilyTypeface	221
4.282	FamilyTypefaceCollection	222
4.283	Figure	223
4.284	FigureHorizontalAnchor	224
4.285	FigureLength	224
4.286	FigureUnitType	224
4.287	FigureVerticalAnchor	225
4.288	FillBehavior	225
4.289	FillRule	225
4.290	FixedDocument	226
4.291	FixedDocumentSequence	226
4.292	FixedPage	227
4.293	Floater	229
4.294	FlowDirection	229
4.295	FlowDocument	230
4.296	FlowDocumentPageViewer	232
4.297	FlowDocumentReader	233
4.298	FlowDocumentReaderViewingMode	234
4.299	FlowDocumentScrollViewer	235
4.300	FocusManager	236
4.301	FocusNavigationDirection	237
4.302	FontCapitals	237
4.303	FontEastAsianLanguage	237
4.304	FontEastAsianWidths	238
4.305	FontEmbeddingManager	238
4.306	FontEmbeddingRight	239
4.307	FontFamily	239
4.308	FontFamilyMap	240
4.309	FontFamilyMapCollection	240
4.310	FontFraction	241
4.311	FontNumeralAlignment	241
4.312	FontNumeralStyle	242
4.313	Fonts	242
4.314	FontStretch	242
4.315	FontStretches	243
4.316	FontStyle	244

4.317	FontStyles.....	244
4.318	FontVariants.....	245
4.319	FontWeight	245
4.320	FontWeights.....	245
4.321	FormatConvertedBitmap	247
4.322	Frame	247
4.323	FrameworkCompatibilityPreferences	248
4.324	FrameworkContentElement.....	249
4.325	FrameworkElement.....	251
4.326	FrameworkPropertyMetadataOptions	254
4.327	FrameworkTemplate.....	255
4.328	Freezable.....	255
4.329	GeneralTransform	256
4.330	GeneralTransform3D.....	256
4.331	GeneralTransform3DCollection	257
4.332	GeneralTransform3DGroup	257
4.333	GeneralTransformCollection.....	257
4.334	GeneralTransformGroup.....	258
4.335	GeneratorDirection	258
4.336	GeneratorPosition.....	259
4.337	GeneratorStatus.....	259
4.338	Geometry	259
4.339	Geometry3D.....	260
4.340	GeometryCollection	260
4.341	GeometryCombineMode	261
4.342	GeometryDrawing.....	261
4.343	GeometryGroup	262
4.344	GeometryModel3D	262
4.345	GestureRecognizer	263
4.346	GifBitmapEncoder	263
4.347	GlyphRun.....	263
4.348	GlyphRunDrawing	264
4.349	Glyphs.....	265
4.350	GlyphTypeface.....	266
4.351	GradientBrush	269
4.352	GradientSpreadMethod.....	270
4.353	GradientStop	270
4.354	GradientStopCollection.....	270
4.355	Grid.....	271
4.356	GridLength.....	272
4.357	GridResizeBehavior	272
4.358	GridResizeDirection.....	273
4.359	GridSplitter	273
4.360	GridUnitType	274
4.361	GridView.....	274
4.362	GridViewColumn	276
4.363	GridViewColumnCollection.....	277

4.364	GridViewColumnHeader	277
4.365	GridViewColumnHeaderRole	278
4.366	GridViewHeaderRowPresenter	278
4.367	GridViewRowPresenter.....	279
4.368	GridViewRowPresenterBase	279
4.369	GroupBox	280
4.370	GroupItem	280
4.371	GroupStyle.....	280
4.372	GuidelineSet.....	281
4.373	HandoffBehavior	282
4.374	HeaderedContentControl.....	282
4.375	HeaderedItemsControl.....	283
4.376	HierarchicalDataTemplate	284
4.377	HierarchicalVirtualizationConstraints	285
4.378	HierarchicalVirtualizationHeaderDesiredSizes.....	285
4.379	HierarchicalVirtualizationItemDesiredSizes	285
4.380	HitTestFilterBehavior	286
4.381	HitTestResultBehavior.....	286
4.382	HorizontalAlignment	286
4.383	HostVisual	287
4.384	Hyperlink	287
4.385	IAnimatable.....	288
4.386	ICommandSource.....	290
4.387	IContainItemStorage	290
4.388	IContentHost	290
4.389	IDataObject	291
4.390	IEasingFunction	291
4.391	IFrameworkInputElement	292
4.392	IHierarchicalVirtualizationAndScrollInfo.....	293
4.393	IInputElement	293
4.394	IKeyFrame	296
4.395	IKeyFrameAnimation.....	297
4.396	Image.....	298
4.397	ImageBrush	298
4.398	ImageDrawing	299
4.399	ImageSource.....	299
4.400	ImeConversionModeValues	300
4.401	ImeSentenceModeValues	300
4.402	IMultiValueConverter.....	300
4.403	InertiaExpansionBehavior	301
4.404	InertiaRotationBehavior.....	301
4.405	InertiaTranslationBehavior	302
4.406	InheritanceBehavior.....	302
4.407	InkCanvas	303
4.408	InkCanvasClipboardFormat.....	305
4.409	InkCanvasEditingMode	305
4.410	InkCanvasSelectionHitResult.....	306

4.411	InkPresenter	306
4.412	Inline.....	306
4.413	InlineCollection	307
4.414	InlineUIContainer	308
4.415	InputBinding	308
4.416	InputBindingCollection.....	309
4.417	InputDevice	309
4.418	InputGesture	309
4.419	InputGestureCollection	310
4.420	InputLanguageManager	310
4.421	InputManager	311
4.422	InputMethod	312
4.423	InputMethodState.....	313
4.424	InputMode	314
4.425	InputScope	314
4.426	InputScopeName.....	315
4.427	InputScopeNameValue	315
4.428	InputScopePhrase	316
4.429	InputType	316
4.430	Int16Animation	316
4.431	Int16AnimationBase.....	317
4.432	Int16AnimationUsingKeyFrames.....	317
4.433	Int16KeyFrame	318
4.434	Int16KeyFrameCollection.....	319
4.435	Int32Animation	319
4.436	Int32AnimationBase.....	320
4.437	Int32AnimationUsingKeyFrames.....	320
4.438	Int32Collection	321
4.439	Int32KeyFrame	321
4.440	Int32KeyFrameCollection.....	322
4.441	Int32Rect	322
4.442	Int64Animation	323
4.443	Int64AnimationBase.....	324
4.444	Int64AnimationUsingKeyFrames.....	324
4.445	Int64KeyFrame	325
4.446	Int64KeyFrameCollection.....	325
4.447	IntersectionDetail.....	326
4.448	InvertAxes	326
4.449	IScrollInfo	326
4.450	IsOffscreenBehavior	327
4.451	Italic.....	327
4.452	ItemCollection	327
4.453	ItemContainerTemplate.....	329
4.454	ItemContainerTemplateKey	329
4.455	ItemsControl	330
4.456	ItemsPanelTemplate	331
4.457	ItemsPresenter.....	332

4.458	IValueConverter	332
4.459	IWeakEventListener	332
4.460	JournalEntry	333
4.461	JournalEntryListConverter.....	333
4.462	JournalEntryPosition	334
4.463	JournalEntryUnifiedViewConverter	334
4.464	JournalOwnership	334
4.465	JpegBitmapEncoder	335
4.466	JumpItem	335
4.467	JumpItemRejectionReason	336
4.468	JumpList	336
4.469	JumpPath.....	337
4.470	JumpTask.....	337
4.471	KernelType	338
4.472	Key.....	339
4.473	KeyBinding.....	339
4.474	Keyboard	339
4.475	KeyboardDevice	340
4.476	KeyboardNavigation.....	341
4.477	KeyboardNavigationMode	342
4.478	KeyGesture	342
4.479	KeySpline.....	343
4.480	KeyStates.....	343
4.481	KeyTime.....	343
4.482	KeyTimeType	344
4.483	KeyTipControl.....	344
4.484	KeyTipHorizontalPlacement.....	345
4.485	KeyTipService	345
4.486	KeyTipVerticalPlacement	346
4.487	Label	347
4.488	LanguageSpecificStringDictionary.....	347
4.489	Light.....	348
4.490	Line	348
4.491	LinearByteKeyFrame	349
4.492	LinearColorKeyFrame	349
4.493	LinearDecimalKeyFrame	349
4.494	LinearDoubleKeyFrame.....	350
4.495	LinearGradientBrush	350
4.496	LinearInt16KeyFrame	350
4.497	LinearInt32KeyFrame	351
4.498	LinearInt64KeyFrame	351
4.499	LinearPoint3DKeyFrame	351
4.500	LinearPointKeyFrame	351
4.501	LinearQuaternionKeyFrame.....	352
4.502	LinearRectKeyFrame	352
4.503	LinearRotation3DKeyFrame	352
4.504	LinearSingleKeyFrame.....	353

4.505	LinearSizeKeyFrame	353
4.506	LinearThicknessKeyFrame.....	353
4.507	LinearVector3DKeyFrame	353
4.508	LinearVectorKeyFrame.....	354
4.509	LineBreak.....	354
4.510	LineBreakCondition	354
4.511	LineGeometry.....	355
4.512	LineSegment.....	355
4.513	LineStackingStrategy	356
4.514	LinkTarget.....	356
4.515	LinkTargetCollection	356
4.516	List	357
4.517	ListBox.....	357
4.518	ListBoxItem.....	358
4.519	ListItem.....	359
4.520	ListItemCollection	360
4.521	ListView	360
4.522	ListViewItem.....	361
4.523	Localization	361
4.524	LocalizationCategory	362
4.525	LocalValueEntry.....	362
4.526	LocalValueEnumerator.....	362
4.527	LogicalDirection.....	363
4.528	Manipulation.....	363
4.529	ManipulationModes.....	364
4.530	ManipulationPivot.....	364
4.531	Material.....	364
4.532	MaterialCollection.....	365
4.533	MaterialGroup.....	365
4.534	Matrix.....	366
4.535	Matrix3D	366
4.536	MatrixAnimationBase	368
4.537	MatrixAnimationUsingKeyFrames	368
4.538	MatrixAnimationUsingPath.....	369
4.539	MatrixCamera	369
4.540	MatrixKeyFrame.....	370
4.541	MatrixKeyFrameCollection.....	370
4.542	MatrixTransform	371
4.543	MatrixTransform3D.....	371
4.544	MediaCommands	372
4.545	MediaElement.....	373
4.546	MediaPlayer	375
4.547	MediaState.....	376
4.548	MediaTimeline	376
4.549	Menu	376
4.550	MenuBase	377
4.551	MenuItem	378

4.552	MenuItemRole	379
4.553	MenuScrollingVisibilityConverter	380
4.554	MeshGeometry3D.....	380
4.555	MessageBoxButton	380
4.556	MessageBoxImage	381
4.557	MessageBoxOptions.....	381
4.558	MessageBoxResult	381
4.559	MinMaxParagraphWidth	382
4.560	Model3D.....	382
4.561	Model3DCollection	383
4.562	Model3DGroup	383
4.563	ModelUIElement3D.....	383
4.564	ModelVisual3D.....	384
4.565	Modifiability	384
4.566	ModifierKeys	385
4.567	Mouse	385
4.568	MouseAction	386
4.569	MouseBinding	387
4.570	MouseButton	387
4.571	MouseButtonState	387
4.572	MouseDevice.....	388
4.573	MouseGesture.....	388
4.574	MultiBinding.....	389
4.575	MultiDataTrigger	390
4.576	MultiSelector.....	391
4.577	MultiTrigger.....	391
4.578	NavigationCommands.....	392
4.579	NavigationMode.....	393
4.580	NavigationUIVisibility	393
4.581	NavigationWindow.....	394
4.582	NonClientFrameEdges.....	395
4.583	NotifyDataErrorValidationRule	395
4.584	NumberCultureSource	396
4.585	NumberSubstitution.....	396
4.586	NumberSubstitutionMethod.....	397
4.587	ObjectAnimationBase	397
4.588	ObjectAnimationUsingKeyFrames	398
4.589	ObjectDataProvider.....	398
4.590	ObjectKeyFrame.....	399
4.591	ObjectKeyFrameCollection.....	399
4.592	Orientation	400
4.593	OrthographicCamera.....	400
4.594	OverflowMode	401
4.595	Page.....	401
4.596	PageContent.....	402
4.597	PageContentCollection	403
4.598	PageRange.....	403

4.599	PageRangeSelection	404
4.600	Panel.....	404
4.601	PanningMode	405
4.602	Paragraph.....	405
4.603	ParallelTimeline.....	406
4.604	PasswordBox	407
4.605	Path	408
4.606	PathAnimationSource	408
4.607	PathFigure	409
4.608	PathFigureCollection	409
4.609	PathGeometry.....	410
4.610	PathSegment.....	410
4.611	PathSegmentCollection.....	411
4.612	PauseStoryboard.....	411
4.613	Pen	411
4.614	PenLineCap.....	412
4.615	PenLineJoin	413
4.616	PerspectiveCamera	413
4.617	PixelFormat	413
4.618	PixelFormatChannelMask	414
4.619	PixelFormats.....	414
4.620	PixelShader.....	417
4.621	PlacementMode.....	417
4.622	PngBitmapEncoder.....	418
4.623	PngInterlaceOption	418
4.624	Point	418
4.625	Point3D.....	419
4.626	Point3DAnimation.....	420
4.627	Point3DAnimationBase	420
4.628	Point3DAnimationUsingKeyFrames	421
4.629	Point3DCollection	421
4.630	Point3DKeyFrame	422
4.631	Point3DKeyFrameCollection	422
4.632	Point4D.....	423
4.633	PointAnimation	423
4.634	PointAnimationBase.....	424
4.635	PointAnimationUsingKeyFrames	425
4.636	PointAnimationUsingPath.....	425
4.637	PointCollection	426
4.638	PointKeyFrame	426
4.639	PointKeyFrameCollection.....	427
4.640	PointLight	427
4.641	PointLightBase.....	427
4.642	PolyBezierSegment	428
4.643	Polygon.....	428
4.644	Polyline.....	429
4.645	PolyLineSegment.....	429

4.646	PolyQuadraticBezierSegment	430
4.647	Popup	430
4.648	PopupAnimation	431
4.649	PopupPrimaryAxis	432
4.650	PowerEase	432
4.651	PowerLineStatus	433
4.652	PresentationTraceLevel.....	433
4.653	PresentationTraceSources	433
4.654	PriorityBinding.....	434
4.655	ProgressBar	435
4.656	ProjectionCamera	436
4.657	PropertyGroupDescription.....	436
4.658	PropertyPath	437
4.659	QuadraticBezierSegment	438
4.660	QuadraticEase	438
4.661	QuarticEase	438
4.662	Quaternion	439
4.663	QuaternionAnimation	439
4.664	QuaternionAnimationBase	440
4.665	QuaternionAnimationUsingKeyFrames	440
4.666	QuaternionKeyFrame	441
4.667	QuaternionKeyFrameCollection.....	442
4.668	QuaternionRotation3D.....	442
4.669	QuinticEase	442
4.670	RadialGradientBrush	443
4.671	RadioButton	443
4.672	RangeBase	444
4.673	Readability.....	445
4.674	ReasonSessionEnding.....	445
4.675	RecognitionConfidence	445
4.676	Rect	446
4.677	Rect3D.....	447
4.678	Rectangle.....	447
4.679	RectangleGeometry	448
4.680	RectAnimation.....	449
4.681	RectAnimationBase	449
4.682	RectAnimationUsingKeyFrames.....	450
4.683	RectKeyFrame	450
4.684	RectKeyFrameCollection	451
4.685	RelativeSource	451
4.686	RelativeSourceMode	453
4.687	RemoveStoryboard	453
4.688	RenderCapability.....	453
4.689	RenderingBias	454
4.690	RenderOptions	454
4.691	RenderTargetBitmap.....	455
4.692	RepeatBehavior.....	456

4.693	RepeatButton	456
4.694	ResizeGrip	457
4.695	ResizeGripDirection.....	457
4.696	ResizeMode.....	457
4.697	ResourceDictionary	458
4.698	ResourceDictionaryLocation	459
4.699	ResourceKey.....	459
4.700	RestoreFocusMode	459
4.701	ResumeStoryboard.....	460
4.702	Ribbon	460
4.703	RibbonApplicationMenu	462
4.704	RibbonApplicationMenuItem.....	463
4.705	RibbonApplicationMenuItemLevel	464
4.706	RibbonApplicationSplitMenuItem.....	464
4.707	RibbonButton	464
4.708	RibbonCheckBox	466
4.709	RibbonComboBox	469
4.710	RibbonCommands.....	469
4.711	RibbonContentPresenter	470
4.712	RibbonContextMenu.....	471
4.713	RibbonContextualTabGroup	471
4.714	RibbonContextualTabGroupItemsControl	472
4.715	RibbonControl	472
4.716	RibbonControlGroup.....	473
4.717	RibbonControlLength	473
4.718	RibbonControlLengthUnitType	473
4.719	RibbonControlService	474
4.720	RibbonControlSizeDefinition.....	478
4.721	RibbonControlSizeDefinitionCollection.....	478
4.722	RibbonDismissPopupMode	479
4.723	RibbonFilterMenuButton	479
4.724	RibbonGallery.....	480
4.725	RibbonGalleryCategory	483
4.726	RibbonGalleryItem	484
4.727	RibbonGroup	485
4.728	RibbonGroupSizeDefinition.....	487
4.729	RibbonGroupSizeDefinitionBase	487
4.730	RibbonGroupSizeDefinitionBaseCollection.....	488
4.731	RibbonGroupTemplateSizeDefinition	488
4.732	RibbonImageSize.....	488
4.733	RibbonMenuItem	489
4.734	RibbonMenuItem	491
4.735	RibbonQuickAccessToolBar.....	493
4.736	RibbonRadioButton.....	494
4.737	RibbonSeparator	496
4.738	RibbonSplitButton.....	496
4.739	RibbonSplitButtonLabelPosition	498

4.740	RibbonSplitMenuItem	499
4.741	RibbonTab	500
4.742	RibbonTabHeader	500
4.743	RibbonTabHeaderItemsControl	501
4.744	RibbonTextBox	502
4.745	RibbonToggleButton	504
4.746	RibbonToolTip	506
4.747	RibbonTwoLineText.....	507
4.748	RibbonWindow.....	508
4.749	RichTextBox.....	509
4.750	RotateTransform	509
4.751	RotateTransform3D	510
4.752	Rotation.....	510
4.753	Rotation3D	511
4.754	Rotation3DAnimation	511
4.755	Rotation3DAnimationBase.....	512
4.756	Rotation3DAnimationUsingKeyFrames.....	512
4.757	Rotation3DKeyFrame	513
4.758	Rotation3DKeyFrameCollection	513
4.759	RoutedCommand	514
4.760	RoutedEvent.....	514
4.761	RoutedEventHandlerInfo	515
4.762	RoutedUICommand.....	515
4.763	RoutingStrategy.....	516
4.764	RowDefinition	516
4.765	RowDefinitionCollection	517
4.766	Run	517
4.767	SamplingMode	517
4.768	ScaleTransform	518
4.769	ScaleTransform3D	518
4.770	ScrollBar	519
4.771	ScrollBarVisibility.....	520
4.772	ScrollContentPresenter.....	520
4.773	ScrollEventType.....	521
4.774	ScrollUnit.....	521
4.775	ScrollViewer	521
4.776	Section.....	523
4.777	SeekStoryboard	524
4.778	SelectedDatesCollection	524
4.779	SelectionMode	525
4.780	SelectiveScrollingGrid	525
4.781	SelectiveScrollingOrientation.....	526
4.782	Selector	526
4.783	Separator.....	527
4.784	SetStoryboardSpeedRatio	527
4.785	Setter.....	528
4.786	SetterBase	528

4.787	SetterBaseCollection	529
4.788	ShaderRenderMode	529
4.789	Shape.....	529
4.790	ShutdownMode	531
4.791	SineEase	531
4.792	SingleAnimation	531
4.793	SingleAnimationBase	532
4.794	SingleAnimationUsingKeyFrames	532
4.795	SingleKeyFrame.....	533
4.796	SingleKeyFrameCollection.....	533
4.797	Size	534
4.798	Size3D.....	535
4.799	SizeAnimation	535
4.800	SizeAnimationBase.....	536
4.801	SizeAnimationUsingKeyFrames.....	536
4.802	SizeKeyFrame	537
4.803	SizeKeyFrameCollection	537
4.804	SizeToContent	538
4.805	SkewTransform	538
4.806	SkipStoryboardToFill	539
4.807	Slider	539
4.808	SlipBehavior	541
4.809	SolidColorBrush.....	542
4.810	SoundPlayerAction	542
4.811	Span.....	542
4.812	SpecularMaterial.....	543
4.813	SpeechMode	543
4.814	SpellCheck	544
4.815	SpellingReform.....	545
4.816	SplineByteKeyFrame	545
4.817	SplineColorKeyFrame	545
4.818	SplineDecimalKeyFrame.....	546
4.819	SplineDoubleKeyFrame.....	546
4.820	SplineInt16KeyFrame	547
4.821	SplineInt32KeyFrame	547
4.822	SplineInt64KeyFrame	547
4.823	SplinePoint3DKeyFrame.....	548
4.824	SplinePointKeyFrame	548
4.825	SplineQuaternionKeyFrame	548
4.826	SplineRectKeyFrame	549
4.827	SplineRotation3DKeyFrame	549
4.828	SplineSingleKeyFrame.....	550
4.829	SplineSizeKeyFrame	550
4.830	SplineThicknessKeyFrame.....	550
4.831	SplineVector3DKeyFrame	551
4.832	SplineVectorKeyFrame.....	551
4.833	SpotLight	551

4.834	StackPanel	552
4.835	StaticResourceExtension	553
4.836	StatusBar	553
4.837	StatusBarItem	554
4.838	StickyNoteType	554
4.839	StopStoryboard	555
4.840	Storyboard	555
4.841	StreamGeometry	555
4.842	Stretch	556
4.843	StretchDirection	556
4.844	StringAnimationBase	557
4.845	StringAnimationUsingKeyFrames	557
4.846	StringKeyFrame	557
4.847	StringKeyFrameCollection	558
4.848	Stroke	558
4.849	StrokeCollection	559
4.850	Style	560
4.851	StyleSelector	561
4.852	StyleSimulations	561
4.853	Stylus	561
4.854	StylusButton	563
4.855	StylusButtonCollection	563
4.856	StylusButtonState	564
4.857	StylusDevice	564
4.858	StylusDeviceCollection	564
4.859	StylusPoint	565
4.860	StylusPointCollection	565
4.861	StylusPointDescription	566
4.862	StylusPointPropertyUnit	566
4.863	StylusTip	566
4.864	SweepDirection	567
4.865	SystemColors	567
4.866	SystemCommands	576
4.867	SystemFonts	577
4.868	SystemGesture	582
4.869	SystemParameters	582
4.870	TabControl	600
4.871	TableItem	600
4.872	Table	601
4.873	TableCell	601
4.874	TableCellCollection	603
4.875	TableColumn	603
4.876	TableColumnCollection	604
4.877	TableRow	604
4.878	TableRowCollection	605
4.879	TableRowGroup	605
4.880	TableRowGroupCollection	606

4.881	Tablet	606
4.882	TabletDevice.....	607
4.883	TabletDeviceCollection	607
4.884	TabletDeviceType.....	607
4.885	TabletHardwareCapabilities.....	608
4.886	TabPanel.....	608
4.887	TaskbarItemInfo	608
4.888	TaskbarItemProgressState	609
4.889	TemplateBindingExtension	610
4.890	TemplateKey	610
4.891	TextAlignment.....	611
4.892	TextBlock.....	611
4.893	TextBox.....	614
4.894	TextBoxBase	615
4.895	TextCollapsingStyle	617
4.896	TextCompositionAutoComplete	617
4.897	TextDataFormat	617
4.898	TextDecoration.....	618
4.899	TextDecorationCollection	618
4.900	TextDecorationLocation.....	619
4.901	TextDecorations	619
4.902	TextDecorationUnit.....	620
4.903	TextEffect	620
4.904	TextEffectCollection	621
4.905	TextElement	621
4.906	TextFormattingMode	623
4.907	TextHintingMode	623
4.908	TextMarkerStyle.....	623
4.909	TextOptions.....	624
4.910	TextPointerContext	624
4.911	TextRenderingMode	625
4.912	TextRunCache	625
4.913	TextSearch.....	625
4.914	TextTabAlignment	626
4.915	TextTrimming	626
4.916	TextWrapping.....	626
4.917	ThemeDictionaryExtension	627
4.918	Thickness.....	627
4.919	ThicknessAnimation	628
4.920	ThicknessAnimationBase	629
4.921	ThicknessAnimationUsingKeyFrames	629
4.922	ThicknessKeyFrame.....	630
4.923	ThicknessKeyFrameCollection.....	630
4.924	Thumb	631
4.925	ThumbButtonInfo.....	631
4.926	ThumbButtonInfoCollection	632
4.927	TickBar.....	633

4.928	TickBarPlacement.....	634
4.929	TickPlacement	634
4.930	TiffBitmapEncoder	635
4.931	TiffCompressOption	635
4.932	TileBrush.....	635
4.933	TileMode	636
4.934	Timeline.....	637
4.935	TimelineCollection	638
4.936	TimelineGroup	638
4.937	TimeSeekOrigin	639
4.938	ToggleButton.....	639
4.939	ToleranceType.....	640
4.940	ToolBar	640
4.941	ToolBarOverflowPanel	642
4.942	ToolBarPanel	642
4.943	ToolBarTray	643
4.944	ToolTip.....	643
4.945	ToolTipService	645
4.946	TouchAction	646
4.947	TouchPoint	647
4.948	TouchPointCollection	647
4.949	Track.....	648
4.950	Transform.....	649
4.951	Transform3D	649
4.952	Transform3DCollection	650
4.953	Transform3DGroup	650
4.954	TransformCollection.....	650
4.955	TransformedBitmap	651
4.956	TransformGroup.....	651
4.957	TranslateTransform.....	652
4.958	TranslateTransform3D	652
4.959	TreeView	653
4.960	TreeViewItem.....	653
4.961	Trigger	654
4.962	TriggerAction.....	655
4.963	TriggerActionCollection.....	655
4.964	TriggerBase.....	655
4.965	TriggerCollection	656
4.966	Typeface	656
4.967	Typography	657
4.968	UIElement.....	664
4.969	UIElement3D	671
4.970	UIElementCollection	676
4.971	Underline.....	676
4.972	UndoAction	676
4.973	UniformGrid	677
4.974	UpdateSourceTrigger	677

4.975	UserControl	678
4.976	Validation	678
4.977	ValidationErrorEventAction	679
4.978	ValidationResult	679
4.979	ValidationRule	679
4.980	ValidationStep	680
4.981	ValueSource	680
4.982	Vector	681
4.983	Vector3D	681
4.984	Vector3DAnimation	682
4.985	Vector3DAnimationBase	683
4.986	Vector3DAnimationUsingKeyFrames	683
4.987	Vector3DCollection	684
4.988	Vector3DKeyFrame	684
4.989	Vector3DKeyFrameCollection	685
4.990	VectorAnimation	685
4.991	VectorAnimationBase	686
4.992	VectorAnimationUsingKeyFrames	686
4.993	VectorCollection	687
4.994	VectorKeyFrame	687
4.995	VectorKeyFrameCollection	688
4.996	VerticalAlignment	688
4.997	VideoDrawing	688
4.998	ViewBase	689
4.999	Viewbox	689
4.1000	Viewport2DVisual3D	690
4.1001	Viewport3D	691
4.1002	Viewport3DVisual	691
4.1003	VirtualizationCacheLength	692
4.1004	VirtualizationCacheLengthUnit	692
4.1005	VirtualizationMode	693
4.1006	VirtualizingPanel	693
4.1007	VirtualizingStackPanel	694
4.1008	Visibility	695
4.1009	Visual	696
4.1010	Visual3D	696
4.1011	Visual3DCollection	696
4.1012	VisualBrush	697
4.1013	VisualCollection	697
4.1014	VisualState	698
4.1015	VisualStateGroup	698
4.1016	VisualStateManager	699
4.1017	VisualTransition	700
4.1018	WebBrowser	700
4.1019	Window	701
4.1020	WindowChrome	703
4.1021	WindowCollection	704

4.1022	WindowStartupLocation	704
4.1023	WindowState.....	705
4.1024	WindowStyle	705
4.1025	WmpBitmapEncoder.....	706
4.1026	WrapDirection.....	707
4.1027	WrapPanel.....	707
4.1028	WriteableBitmap.....	708
4.1029	XmlDataProvider	709
4.1030	XmlNamespaceMapping	709
4.1031	XmlNamespaceMappingCollection	710
4.1032	ZoomPercentageConverter	710
5	WPF XamlType Information Items for Assignable Types.....	711
5.1	ActiveXHost	711
5.2	x:Boolean	711
5.3	x:Byte	711
5.4	x:Char	711
5.5	Collection(T)	712
5.6	CollectionBase.....	712
5.7	CultureInfo	712
5.8	DataSourceProvider	713
5.9	x:DateTime	713
5.10	DayOfWeek	713
5.11	x:Decimal.....	714
5.12	Delegate	714
5.13	x:Double	714
5.14	FreezableCollection(T)	715
5.15	GroupDescription.....	715
5.16	ICollection(T)	715
5.17	ICommand.....	716
5.18	IComparer	716
5.19	IDictionary.....	717
5.20	IDictionary(T,U).....	717
5.21	IDocumentPaginatorSource	718
5.22	IEnumerable	718
5.23	IList	718
5.24	IList(T).....	719
5.25	x:Int16	719
5.26	x:Int32	720
5.27	x:Int64	720
5.28	IntPtr	720
5.29	IXmlSerializable	720
5.30	KeyValuePair(T,U)	721
5.31	List(T).....	721
5.32	ListSortDirection.....	721
5.33	ManipulationParameters2D.....	722
5.34	x:MarkupExtension	722
5.35	x:Nullable(T)	722

5.36	x:Object	722
5.37	ObservableCollection(T).....	723
5.38	Predicate(T).....	724
5.39	ReadOnlyCollection(T)	724
5.40	RenderMode	724
5.41	RequestCachePolicy	725
5.42	x:Single	725
5.43	SortDescription	725
5.44	SortDescriptionCollection	726
5.45	x:String	726
5.46	StringCollection.....	726
5.47	StringComparison.....	726
5.48	TextElementCollection(T).....	727
5.49	x:TimeSpan.....	727
5.50	TraceSource.....	728
5.51	x:XamlType.....	728
5.52	UInt16.....	728
5.53	x:Uri.....	728
5.54	XmlDocument	729
5.55	XmlLanguage	729
5.56	XmlNamespaceManager	729
6	WPF Xaml Text Syntax Information Sets	731
6.1	AlignmentXSyntax	731
6.2	AlignmentYSyntax	731
6.3	ApplicationGestureSyntax.....	731
6.4	AutomationLiveSettingSyntax.....	734
6.5	AutoToolTipPlacementSyntax.....	735
6.6	BaselineAlignmentSyntax.....	735
6.7	BaseValueSourceSyntax.....	735
6.8	BindingModeSyntax	736
6.9	BindingStatusSyntax.....	737
6.10	BitmapCacheOptionSyntax	737
6.11	BitmapCreateOptionsSyntax.....	738
6.12	BitmapScalingModeSyntax	738
6.13	BrushMappingModeSyntax.....	739
6.14	BrushSyntax.....	739
6.15	CacheModeSyntax	744
6.16	CachingHintSyntax	745
6.17	CalendarModeSyntax.....	745
6.18	CalendarSelectionModeSyntax	745
6.19	CaptureModeSyntax	745
6.20	CharacterCasingSyntax.....	746
6.21	ClearTypeHintSyntax.....	746
6.22	ClickModeSyntax.....	746
6.23	ClockStateSyntax.....	747
6.24	ColorInterpolationModeSyntax	747
6.25	ColorSyntax	747

6.26	ColumnSpaceDistributionSyntax.....	753
6.27	CommandSyntax	753
6.28	CornerRadiusSyntax	762
6.29	CultureInfoletfLanguageTagSyntax.....	763
6.30	CultureInfoSyntax.....	763
6.31	CursorSyntax	764
6.32	CursorTypeSyntax	766
6.33	DataGridClipboardCopyModeSyntax	767
6.34	DataGridEditActionSyntax.....	767
6.35	DataGridEditingUnitSyntax	767
6.36	DataGridGridLinesVisibilitySyntax.....	768
6.37	DataGridHeadersVisibilitySyntax	768
6.38	DataGridLengthSyntax	768
6.39	DataGridLengthUnitTypeSyntax.....	769
6.40	DataGridRowDetailsVisibilityModeSyntax	769
6.41	DataGridSelectionModeSyntax	769
6.42	DataGridSelectionUnitSyntax.....	769
6.43	DatePickerFormatSyntax.....	770
6.44	DayOfWeekSyntax.....	770
6.45	DependencyPropertySyntax	771
6.46	DockSyntax.....	771
6.47	DoubleCollectionSyntax	771
6.48	DragActionSyntax.....	772
6.49	DragDropEffectsSyntax	772
6.50	DragDropKeyStatesSyntax	772
6.51	DurationSyntax.....	773
6.52	EasingModeSyntax	773
6.53	EdgeModeSyntax	774
6.54	EdgeProfileSyntax	774
6.55	ExpandDirectionSyntax	774
6.56	FigureHorizontalAnchorSyntax	775
6.57	FigureLengthSyntax.....	775
6.58	FigureUnitTypeSyntax	776
6.59	FigureVerticalAnchorSyntax.....	776
6.60	FillBehaviorSyntax.....	777
6.61	FillRuleSyntax	777
6.62	FlowDirectionSyntax	777
6.63	FlowDocumentReaderViewingModeSyntax	778
6.64	FocusNavigationDirectionSyntax	778
6.65	FontCapitalsSyntax.....	779
6.66	FontEastAsianLanguageSyntax.....	779
6.67	FontEastAsianWidthsSyntax	780
6.68	FontEmbeddingRightSyntax.....	780
6.69	FontFamilySyntax	782
6.70	FontFractionSyntax	782
6.71	FontNumeralAlignmentSyntax.....	782
6.72	FontNumeralStyleSyntax.....	783

6.73	FontSizeSyntax	783
6.74	FontStretchSyntax	783
6.75	FontStyleSyntax	784
6.76	FontVariantsSyntax	784
6.77	FontWeightSyntax	785
6.78	FrameworkPropertyMetadataOptionsSyntax	786
6.79	GeneratorDirectionSyntax	787
6.80	GeneratorStatusSyntax	787
6.81	GeometryCombineModeSyntax	788
6.82	GeometrySyntax	788
6.83	GradientSpreadMethodSyntax	788
6.84	GridLengthSyntax	789
6.85	GridResizeBehaviorSyntax	789
6.86	GridResizeDirectionSyntax	790
6.87	GridUnitTypeSyntax	790
6.88	GridViewColumnHeaderRoleSyntax	790
6.89	HandoffBehaviorSyntax	790
6.90	HitTestFilterBehaviorSyntax	791
6.91	HitTestResultBehaviorSyntax	791
6.92	HorizontalAlignmentSyntax	791
6.93	ImeConversionModeValuesSyntax	792
6.94	ImeSentenceModeValuesSyntax	792
6.95	InheritanceBehaviorSyntax	793
6.96	InkCanvasClipboardFormatSyntax	793
6.97	InkCanvasEditingModeSyntax	794
6.98	InkCanvasSelectionHitResultSyntax	794
6.99	InputMethodStateSyntax	795
6.100	InputModeSyntax	795
6.101	InputScopeNameValueSyntax	795
6.102	InputScopeSyntax	797
6.103	InputTypeSyntax	797
6.104	Int32CollectionSyntax	798
6.105	Int32RectSyntax	798
6.106	IntersectionDetailSyntax	798
6.107	InvertAxesSyntax	799
6.108	IsOffscreenBehaviorSyntax	799
6.109	JournalEntryPositionSyntax	799
6.110	JournalOwnershipSyntax	800
6.111	JumpItemRejectionReasonSyntax	800
6.112	KernelTypeSyntax	800
6.113	KeyboardNavigationModeSyntax	801
6.114	KeyGestureSyntax	801
6.115	KeySplineSyntax	801
6.116	KeyStatesSyntax	802
6.117	KeySyntax	802
6.118	KeyTimeSyntax	809
6.119	KeyTimeTypeSyntax	809

6.120	KeyTipHorizontalPlacementSyntax	810
6.121	KeyTipVerticalPlacementSyntax.....	810
6.122	LengthSyntax.....	811
6.123	LineBreakConditionSyntax	811
6.124	LineStackingStrategySyntax	811
6.125	ListSortDirectionSyntax.....	812
6.126	LocalizationCategorySyntax	812
6.127	LogicalDirectionSyntax.....	813
6.128	ManipulationModesSyntax	813
6.129	Matrix3DSyntax.....	813
6.130	MatrixSyntax	814
6.131	MediaStateSyntax	814
6.132	MenuItemRoleSyntax.....	815
6.133	MessageBoxButtonSyntax	815
6.134	MessageBoxImageSyntax.....	816
6.135	MessageBoxOptionsSyntax.....	816
6.136	MessageBoxResultSyntax.....	817
6.137	ModifiabilitySyntax	817
6.138	ModifierKeysSyntax	817
6.139	MouseActionSyntax	818
6.140	MouseButtonStateSyntax	818
6.141	MouseButtonSyntax.....	818
6.142	MouseGestureSyntax.....	819
6.143	NavigationModeSyntax.....	819
6.144	NavigationUIVisibilitySyntax	819
6.145	NonClientFrameEdgesSyntax.....	820
6.146	NumberCultureSourceSyntax.....	820
6.147	NumberSubstitutionMethodSyntax.....	820
6.148	OrientationSyntax	821
6.149	OverflowModeSyntax	821
6.150	PageRangeSelectionSyntax	821
6.151	PanningModeSyntax	822
6.152	PathAnimationSourceSyntax.....	822
6.153	PathFigureCollectionSyntax	823
6.154	PenLineCapSyntax.....	823
6.155	PenLineJoinSyntax.....	823
6.156	PixelFormatSyntax.....	824
6.157	PlacementModeSyntax	826
6.158	PngInterlaceOptionSyntax	828
6.159	Point3DCollectionSyntax.....	828
6.160	Point3DSyntax.....	828
6.161	Point4DSyntax.....	829
6.162	PointCollectionSyntax	829
6.163	PointSyntax	829
6.164	PopupAnimationSyntax.....	830
6.165	PopupPrimaryAxisSyntax	830
6.166	PowerLineStatusSyntax.....	831

6.167	PresentationTraceLevelSyntax	831
6.168	PropertyPathSyntax	831
6.169	QuaternionSyntax	832
6.170	ReadabilitySyntax	832
6.171	ReasonSessionEndingSyntax	832
6.172	RecognitionConfidenceSyntax	832
6.173	Rect3DSyntax	833
6.174	RectSyntax	833
6.175	RelativeSourceModeSyntax	834
6.176	RenderingBiasSyntax	834
6.177	RenderModeSyntax	834
6.178	RepeatBehaviorSyntax	835
6.179	RequestCachePolicySyntax	835
6.180	ResizeGripDirectionSyntax	836
6.181	ResizeModeSyntax	837
6.182	ResourceDictionaryLocationSyntax	837
6.183	RestoreFocusModeSyntax	838
6.184	RibbonApplicationMenuItemLevelSyntax	838
6.185	RibbonControlLengthSyntax	838
6.186	RibbonControlLengthUnitTypeSyntax	838
6.187	RibbonDismissPopupModeSyntax	839
6.188	RibbonImageSizeSyntax	839
6.189	RibbonSplitButtonLabelPositionSyntax	839
6.190	RotationSyntax	839
6.191	RoutedEventSyntax	840
6.192	RoutingStrategySyntax	840
6.193	SamplingModeSyntax	841
6.194	ScrollBarVisibilitySyntax	841
6.195	ScrollEventTypeSyntax	841
6.196	ScrollUnitSyntax	843
6.197	SelectionModeSyntax	843
6.198	SelectiveScrollingOrientationSyntax	843
6.199	ShaderRenderModeSyntax	844
6.200	ShutdownModeSyntax	844
6.201	Size3DSyntax	844
6.202	SizeSyntax	845
6.203	SizeToContentSyntax	845
6.204	SlipBehaviorSyntax	845
6.205	SpeechModeSyntax	846
6.206	SpellingReformSyntax	846
6.207	StickyNoteTypeSyntax	846
6.208	StretchDirectionSyntax	847
6.209	StretchSyntax	847
6.210	StringCollectionSyntax	847
6.211	StringComparisonSyntax	848
6.212	StrokeCollectionSyntax	848
6.213	StyleSimulationsSyntax	848

6.214	StylusButtonStateSyntax.....	849
6.215	StylusPointPropertyUnitSyntax.....	849
6.216	StylusTipSyntax.....	849
6.217	SweepDirectionSyntax.....	850
6.218	SystemGestureSyntax.....	850
6.219	TabletDeviceTypeSyntax.....	851
6.220	TabletHardwareCapabilitiesSyntax.....	851
6.221	TaskbarItemProgressStateSyntax.....	851
6.222	TextAlignmentSyntax.....	852
6.223	TextCollapsingStyleSyntax.....	852
6.224	TextCompositionAutoCompleteSyntax.....	852
6.225	TextDataFormatSyntax.....	852
6.226	TextDecorationCollectionSyntax.....	853
6.227	TextDecorationLocationSyntax.....	853
6.228	TextDecorationUnitSyntax.....	853
6.229	TextFormattingModeSyntax.....	854
6.230	TextHintingModeSyntax.....	854
6.231	TextMarkerStyleSyntax.....	854
6.232	TextPointerContextSyntax.....	855
6.233	TextRenderingModeSyntax.....	855
6.234	TextTabAlignmentSyntax.....	856
6.235	TextTrimmingSyntax.....	856
6.236	TextWrappingSyntax.....	856
6.237	ThicknessSyntax.....	857
6.238	TickBarPlacementSyntax.....	857
6.239	TickPlacementSyntax.....	858
6.240	TiffCompressOptionSyntax.....	858
6.241	TileModeSyntax.....	858
6.242	TimeSeekOriginSyntax.....	859
6.243	ToleranceTypeSyntax.....	859
6.244	TouchActionSyntax.....	859
6.245	TransformSyntax.....	860
6.246	UndoActionSyntax.....	860
6.247	UpdateSourceTriggerSyntax.....	861
6.248	ValidationErrorEventActionSyntax.....	861
6.249	ValidationStepSyntax.....	861
6.250	Vector3DCollectionSyntax.....	862
6.251	Vector3DSyntax.....	862
6.252	VectorCollectionSyntax.....	862
6.253	VectorSyntax.....	863
6.254	VerticalAlignmentSyntax.....	863
6.255	VirtualizationCacheLengthSyntax.....	863
6.256	VirtualizationCacheLengthUnitSyntax.....	864
6.257	VirtualizationModeSyntax.....	864
6.258	VisibilitySyntax.....	864
6.259	WindowStartupLocationSyntax.....	865
6.260	WindowStateSyntax.....	865

6.261	WindowStyleSyntax	865
6.262	WrapDirectionSyntax	866
6.263	XmlLanguageSyntax	866
7	Index	867
Appendix A:		References
	882	

1 Introduction

Xaml is defined in the Xaml Object Mapping Specification (referred to as '[MS-XAML](#)' for short). The MS-XAML specification enables each application that uses Xaml to define its own vocabulary. Vocabularies are formally specified using the Xaml Schema Information Set, a data model defined by MS-XAML.

This specification defines the Xaml Schema Information Set information items for the Windows Presentation Foundation (WPF) Xaml Vocabulary. The information items in the Xaml Schema Information Set presented in this specification can be used in conjunction with MS-XAML to determine whether any particular Xaml instance or XML document is valid WPF Xaml.

2 Specification Conventions

The [MS-XAML](#) specification only defines a data model for the Xaml Schema Information Set. It does not prescribe the representation of the information items that constitute a schema. While MS-XAML does introduce a notation with which it defines its intrinsic information items, this specification does not use that notation. Instead, a more compact representation is used to minimize redundancy.

The WPF Xaml Vocabulary contains several thousand information items, many of which share much in common. The following sections describe the conventions used in this specification, which exploit this commonality to reduce the volume of text required to describe each information item, and to make it easier to see each item's distinguishing features.

2.1 Xaml Types

The [MS-XAML](#) specification defines a XamlType Information Item. Throughout this specification, when a XamlType Information Item is presented, only those values that do not match the default value are listed. The following table defines the default values for a XamlType Information Item.

Property	Default Value
[is default constructible]	True
[is nullable]	True
[text syntax]	Null
[dictionary key property]	Null
[name property]	Null
[xml lang property]	Null
[trim surrounding whitespace]	False
[whitespace significant collection]	False
[is list]	False
[is dictionary]	False
[members]	Empty set
[content property]	Null
[allowed types]	Empty set
[allowed key types]	Empty set
[is xdata]	False
[is name scope]	False
[constructors]	Empty set
[return value type]	Null

This specification denotes non-default values for the information set items with rows that begin with the relevant property name in square brackets. Each Xaml Type definition in this specification includes some non-normative information, in order to aid understanding of the type. In order to distinguish them, these rows begin with a name in parentheses.

There is a (usage) row that illustrates the way in which the type is used in XML. If the type cannot contain content, a self-closing tag will be displayed, as the following example shows:

(usage)	<code><DependencyObject /></code>
----------------	---

Some types offer a choice of content. The following example indicates that the three fixed string values shown are acceptable as content:

(usage)	<code>OnLastWindowClose OnMainWindowClose OnExplicitShutdown</code>
----------------	---

Elements that may contain string content look like the following example. Note that there are typically constraints on which strings are valid. The purpose of the (usage) row is only to provide an approximate indication of content, rather than a formal description.

(usage)	<code><PropertyPath> string </PropertyPath></code>
----------------	--

Types that can contain an instance of some other type show the name of the type in the usage, as shown in the following example:

(usage)	<code><BeginStoryboard> Storyboard </BeginStoryboard></code>
----------------	--

Types that can contain multiple instances of some other type indicate this with an asterisk, as shown in the following example:

(usage)	<code><XmlNamespaceMappingCollection> XmlNamespaceMapping* </XmlNamespaceMappingCollection></code>
----------------	--

Some types cannot be used directly in a Xaml document. For example, a type might be used as the [value type] of a member, but may be marked as [is default constructible] False, and have no [text syntax]. A Xaml document might contain types that list such a type in their [types assignable to] property, but the type itself cannot be used directly. (This corresponds to the idea of an abstract type in some object-oriented programming systems.) Such types have “None” in their Usage row.

Type definitions also include (description) rows, both for the type and also for the members of that type. This is also non-normative.

The (used by) row is also non-normative. Each (used by) row provides a list of types that use this type in some way. For example, it lists types that use this type as the [value type] of a member. The (used by) row is provided to make it easier to see how a type is used, and it does not translate into a property in the Xaml Schema Information Set.

Some types that are used as the [value type] of a member, but which are not typically used directly as objects have a (types assignable from) row. This is non-normative, and is provided as a guide to the role of the type. Note that this list is necessarily not complete, because the set of types from which a type is assignable is not closed: anyone is free to define a new Xaml vocabulary which defines types that are assignable to types in this specification.

2.2 Xaml Type Order

Xaml types in this specification are ordered in an alphabetical way. The WPF Xaml Vocabulary uses the [types assignable to] property in a way that corresponds to inheritance in object-oriented programming. On the row above each type name is a list of 'Base' types. On the row below each type name are types which directly 'inherit' from that type.

The following example shows the XamlType Information Items for the Fruit, Apple, and Banana types.

Fruit	
Fruit	
Apple Banana	
(usage)	Value
...	...
property N	Value

Fruit > Apple	
Apple	
(usage)	Value
...	...
property N	Value

Fruit > Banana	
Banana (4.8)	
(usage)	Value
...	...
property N	Value

Since this specification models typical object-oriented inheritance, a 'derived' type inherits all members from a 'base' type. This is not made explicit. For each type, only additional members are listed. The [MS-XAML](#) specification does not require this inheritance-like style. In the Xaml Schema Information Set data model, each type lists its members exhaustively. Therefore, the correct interpretation of a type definition in this specification is that the corresponding XamlType Information Item's [members] property should include not just the listed members, but also all of the [members] of each type listed in its [types assignable to] property.

The “Banana” type, in the example above, has “(4.8)” listed after it to indicate that this type was introduced in this XAML Vocabulary’s version 4.8 release. All types or members without a version number after it were released in versions previous to that.

XamlMember Information Items have numerous properties, and in this specification, members are more similar than they are different. So a notation is used to minimize redundancy. Some XamlMember Information Item properties may be omitted. Unless specified otherwise, the default values described in the following table apply.

Property	Default Value
[text syntax]	Null
[is read only]	False
[is static]	False
[is attachable]	False
[target type]	Null
[allowed location]	Any
[is event]	False
[is directive]	False

Members are not defined in distinct sections of this specification – they are listed inside their defining type following a row named (properties). This means that the [owner type] member defined by MS-XAML is never specified explicitly in this specification. The [owner type] is always the type in which the member definition appears. Likewise, the [members] property of the defining type is never explicitly defined – it always contains all of the members listed for that type. The [name] and [value type] are specified on the first line of the property description. This line may be followed by non-default values for other properties. The following example shows the XamlType Information Item for the Satsuma type, which defines a member named SegmentCount of type Int32.

Fruit > Satsuma	
Satsuma	
(usage)	<Satsuma />
(description)	Specifies a small, orange citrus fruit.
(properties)	
SegmentCount	Int32
(description)	The number of segments in this satsuma.

If all of the XamlMember Information Item properties had been listed in full for this property, it would look like the following table.

Property	Value
[name]	SegmentCount

[owner type]	Satsuma
[value type]	Int32
[text syntax]	Null
[is read only]	False
[is static]	False
[is attachable]	False
[target type]	Null
[allowed location]	Any
[is event]	False

As with the type-level (description), the per-member (description) entries in this specification are non-normative.

XamlType Information Item descriptions in this document may contain up to three additional member categories: attachable members, event members, and static members. These three member categories have slightly different defaults, and are grouped separately in the type definitions for clarity. The conventions for these member categories are defined in the following sections.

2.3 Xaml Members where [is attachable] is True

A type that defines members whose [is attachable] property is True will list them in a section that begins with “(attachable properties)”. The following FruitBowl type example defines a Children member for which the normal defaults apply. This FruitBowl type also defines an attachable member named ZIndex for which [is attachable] is True. (The other member defaults still apply for ZIndex.)

Object > Bowl(T) > FruitBowl	
FruitBowl	
(usage)	<FruitBowl>Fruit*</FruitBowl>
(description)	A container of fruit.
[content property]	Children
(properties)	
Children	FruitCollection
(description)	The items of fruit
(attachable properties)	
FruitBowl.ZIndex	Int32
(description)	Indicates how deeply buried within the fruit bowl a piece of fruit is.
[target type]	Fruit

The name for an attachable member is specified as *TypeName.MemberName*. This is a syntactical convention to make it clear that this is an attachable property, and to illustrate how the property will look in a Xaml document. The [name] property of the XamlMember Information Item will only contain the *MemberName* part (the part after the period).

2.4 Xaml Types where [is generic] is True

A type whose [is generic] property is True will be represented with a (T) notation following the [type name]. “Bowl(Fruit)” would be describing a generic Bowl type, with Fruit as the type argument.

Object > Bowl(T)	
Bowl(T)	
FruitBowl	
(usage)	<Bowl x:TypeArguments="T" >
(description)	A container for different types of objects.
[is collection]	True

2.5 Xaml Members where [is event] is True

A type that defines members whose [is event] property is True will list them in a section that begins with “(events)”. For members in this section, the default value for [value type] is the x:XamlEvent type defined in Section 5 “Intrinsic Schema Information Items” of [MS-XAML](#). (The other defaults still apply.)

2.6 Xaml Members where [is static] is True

A type that defines members whose [is static] property is True will list them in a section that begins with “(static properties)”.

2.7 Constructors

Types with a non-empty [constructors] property use a convention similar to that for members. This example includes a constructor:

4.97.4 BruleeToppingExtension	
(usage)	{BruleeToppingExtension}
(description)	Defines the way in which the topping on a brulée-style dessert is prepared.
[types assignable to]	Brulee MarkupExtension Object
(used by)	FruitBrulee CremeBrulee
[return value type]	BruleeTopping
[constructors]	
(2 parameters)	
thickness	Double

(description)	The thickness of the topping in 1/96 th of an inch.
burnFactor	Double
(description)	The extent to which the sugar is burnt: 0 for raw sugar, 1 for carbon.

Unlike members, which are identified by names, a constructor for a type is distinguished only by the number of parameters it has. This type has a single constructor that takes two parameters. This is interpreted as a Constructor Information Item, whose [arguments] contains one entry per parameter. The [arguments] list contains just XamlType Information Items – both the Double type in this case. Note that the type is the only formal part of the constructor argument – the name and description are only provided for informational purposes.

3 The WPF Xaml Schema Information Set

The WPF Xaml Schema Information Item is a Xaml Schema Information Item (as defined in Section 3 “Xaml Schema Information Set” of MS-XAML). Its properties are defined in the following table.

Property	Value
[target namespace]	“http://schemas.microsoft.com/winfx/2006/xaml/presentation”
[types]	All of the XamlType Information Items defined in the “ WPF XamlType Information Items ” section of this specification.
[assignable types]	All of the XamlType Information Items defined in the “WPF XamlType Information Items for Assignable Types” section of this specification.
[directives]	The XamlMember Information Items defined in this specification for which the [is directive] property is True.
[compatible with schemas]	Empty

A WPF Xaml instance MUST be well-formed and valid with respect to this schema, using the rules for ‘well-formed’ and ‘valid’ defined in MS-XAML.

An XML document that is a WPF Xaml document MUST yield a WPF Xaml instance when the processing rules in Section 6 “Creating a Xaml Information Set from XML” are applied using this schema.

4 WPF XamlType Information Items

4.1 AccessText

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > AccessText , InputElement	
AccessText	
(usage)	<AccessText> x:String </AccessText>
(description)	Specifies with an underscore the character that is used as the access key.
[content property]	Text
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The Brush that fills the content area.
BaselineOffset	x:Double
(description)	A value that adjusts the baseline offset position of text in an AccessText element.
FontFamily	FontFamily
(description)	The font family to use with the AccessText element.
FontSize	x:Double
(description)	The font size to use with the AccessText element.
[text syntax]	FontSizeSyntax
FontStretch	FontStretch
(description)	A FontStretch property that selects a normal, condensed, or expanded font from a FontFamily.
FontStyle	FontStyle
(description)	The font style to use with the AccessText element.
FontWeight	FontWeight
(description)	The font weight to use with the AccessText element.
Foreground	Brush
(description)	The Brush that draws the text content of the element.
LineHeight	x:Double
(description)	The height of each line box.

[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	How the LineHeight property is enforced.
Text	x:String
(description)	The text that is displayed by the AccessText element.
TextAlignment	TextAlignment
(description)	The horizontal alignment of the content.
TextDecorations	TextDecorationCollection
(description)	The decorations that are added to the text of an AccessText element.
TextEffects	TextEffectCollection
(description)	The effects that are added to the text of an AccessText element.
TextTrimming	TextTrimming
(description)	How the textual content of an AccessText element is clipped if it overflows the line box.
TextWrapping	TextWrapping
(description)	Whether the textual content of an AccessText element is wrapped if it overflows the line box.

4.2 AdornedElementPlaceholder

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > AdornedElementPlaceholder , InputElement	
AdornedElementPlaceholder	
(usage)	<AdornedElementPlaceholder> UIElement </AdornedElementPlaceholder>
(description)	Represents the element used in a ControlTemplate to specify where a decorated control is placed relative to other elements in the ControlTemplate.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Child	UIElement
(description)	The single child object of this AdornedElementPlaceholder object.

4.3 AdornerDecorator

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Decorator > AdornerDecorator , InputElement	
<h2>AdornerDecorator</h2>	
(usage)	<AdornerDecorator> UIElement </AdornerDecorator>
(description)	Provides an AdornerLayer for the child elements in the visual tree.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Child	UIElement
(description)	The single child of an AdornerDecorator.

4.4 AffineTransform3D

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D > Transform3D > AffineTransform3D	
<h2>AffineTransform3D</h2>	
RotateTransform3D ScaleTransform3D TranslateTransform3D	
(usage)	None.
(description)	Base type from which all concrete affine 3-D transforms - translations, rotations, and scale transformations - derive.
[is default constructible]	false

4.5 AlignmentX

x:Object > AlignmentX	
<h2>AlignmentX</h2>	
(usage)	Left Center Right
(description)	Describes how content is positioned horizontally in a container.

(used by)	TileBrush
[is nullable]	false
[text syntax]	AlignmentXSyntax

4.6 AlignmentY

x:Object > AlignmentY	
AlignmentY	
(usage)	Top Center Bottom
(description)	Describes how content is positioned vertically in a container.
(used by)	TileBrush
[is nullable]	false
[text syntax]	AlignmentYSyntax

4.7 AlternationConverter

x:Object > AlternationConverter , IValueConverter	
AlternationConverter	
(usage)	<AlternationConverter> x:Object *</AlternationConverter>
(description)	Converts an integer to and from an object by applying the integer as an index to a list of objects.
[content property]	Values
(properties)	
Values	IList
(description)	A list of objects that the AlternationConverter returns when an integer is passed to the CultureInfo) method.
[read only]	true

4.8 AmbientLight

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Model3D](#) > [Light](#) > [AmbientLight](#)

AmbientLight

(usage)	<AmbientLight />
(description)	Light object that applies light to objects uniformly, regardless of their shape.

4.9 AnchoredBlock

[x:Object](#) > [DependencyObject](#) > [ContentElement](#) > [FrameworkContentElement](#) > [TextElement](#) > [Inline](#) > [AnchoredBlock](#), [InputElement](#)

AnchoredBlock

[Figure Floater](#)

(usage)	None.
(description)	A base type that provides a base for Inline elements that are used to anchor Block elements to flow content.
[is default constructible]	false
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	
Blocks	BlockCollection
(description)	A BlockCollection containing the top-level Block elements that comprise the contents of the element.
[read only]	true
BorderBrush	Brush
(description)	A Brush to use when painting the element's border.
BorderThickness	Thickness
(description)	The border thickness for the element.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax

LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which a line box is determined for each line of text within the text element.
Margin	Thickness
(description)	The margin thickness for the element.
Padding	Thickness
(description)	The padding thickness for the element.
TextAlignment	TextAlignment
(description)	A value that indicates the horizontal alignment of text content.

4.10 Animatable

x:Object > DependencyObject > Freezable > Animatable	
<h2>Animatable</h2>	
Brush CacheMode Camera DashStyle Drawing DrawingCollection Effect GeneralTransform GeneralTransform3D GeneralTransform3DCollection GeneralTransformCollection Geometry Geometry3D GeometryCollection GradientStop GradientStopCollection GuidelineSet ImageSource Material MaterialCollection MediaPlayer Model3D Model3DCollection PathFigure PathFigureCollection PathSegment PathSegmentCollection Pen PixelShader Rotation3D TextDecoration TextDecorationCollection TextEffect TextEffectCollection Timeline TimelineCollection Transform3DCollection TransformCollection	
(usage)	None.
(description)	A base type that provides animation support.
[is default constructible]	false

4.11 AnimationTimeline

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline	
<h2>AnimationTimeline</h2>	
BooleanAnimationBase ByteAnimationBase CharAnimationBase ColorAnimationBase DecimalAnimationBase DoubleAnimationBase Int16AnimationBase Int32AnimationBase Int64AnimationBase MatrixAnimationBase ObjectAnimationBase Point3DAnimationBase PointAnimationBase QuaternionAnimationBase RectAnimationBase Rotation3DAnimationBase SingleAnimationBase SizeAnimationBase StringAnimationBase ThicknessAnimationBase Vector3DAnimationBase VectorAnimationBase	

(usage)	None.
(description)	Defines a segment of time over which output values are produced. These values are used to animate a target property.
[is default constructible]	false
[name property]	Name

4.12 Application

x:Object > Application	
<h1>Application</h1>	
(usage)	<Application />
(description)	Encapsulates an application.
(properties)	
MainWindow	Window
(description)	The main window of the application.
Properties	IDictionary
(description)	A collection of application-scope properties.
[read only]	true
Resources	ResourceDictionary
(description)	A collection of application-scope resources, such as styles and brushes.
ShutdownMode	ShutdownMode
(description)	The condition that causes the Shutdown method to be called.
StartupUri	x:Uri
(description)	A UI that is automatically shown when an application starts.
(attachable properties)	
Application.Cookie	x:String
(description)	
[target type]	x:Uri
(static properties)	
Current	Application
(description)	The Application object for the current AppDomain.

(events)	
Activated	Occurs when an application becomes the foreground application.
Deactivated	Occurs when an application stops being the foreground application.
DispatcherUnhandledException	Occurs when an exception is thrown by an application but not handled.
Exit	Occurs just before an application shuts down, and cannot be canceled.
FragmentNavigation	Occurs when a navigator in the application begins navigation to a content fragment, Navigation occurs immediately if the desired fragment is in the current content, or after the source XAML content has been loaded if the desired fragment is in different content.
LoadCompleted	Occurs when content that was navigated to by a navigator in the application has been loaded, parsed, and has begun rendering.
Navigated	Occurs when the content that is being navigated to by a navigator in the application has been found, although it may not have completed loading.
Navigating	Occurs when a new navigation is requested by a navigator in the application.
NavigationFailed	Occurs when an error occurs while a navigator in the application is navigating to the requested content.
NavigationProgress	Occurs periodically during a download that is being managed by a navigator in the application to provide navigation progress information.
NavigationStopped	Occurs when the StopLoading method of a navigator in the application is called, or when a new navigation is requested by a navigator while a current navigation is in progress.
SessionEnding	Occurs when the user ends the Windows session by logging off or shutting down the operating system.
Startup	Occurs when the Run method of the Application object is called.

4.13 ApplicationCommands

x:Object > ApplicationCommands	
ApplicationCommands	
(usage)	{x:Static ApplicationCommands.StaticPropertyName}
(description)	Provides a standard set of application related commands.
[is default constructible]	false
(static properties)	
CancelPrint	RoutedUICommand

(description)	The value that represents the Cancel Print command.
Close	RoutedUICommand
(description)	The value that represents the Close command.
ContextMenu	RoutedUICommand
(description)	The value that represents the Context Menu command.
Copy	RoutedUICommand
(description)	The value that represents the Copy command.
CorrectionList	RoutedUICommand
(description)	The value that represents the Correction List command.
Cut	RoutedUICommand
(description)	The value that represents the Cut command.
Delete	RoutedUICommand
(description)	The value that represents the Delete command.
Find	RoutedUICommand
(description)	The value that represents the Find command.
Help	RoutedUICommand
(description)	The value that represents the Help command.
New	RoutedUICommand
(description)	The value that represents the New command.
NotACommand	RoutedUICommand
(description)	Represents a command which is always ignored.
Open	RoutedUICommand
(description)	The value that represents the Open command.
Paste	RoutedUICommand
(description)	The value that represents the Paste command.
Print	RoutedUICommand
(description)	The value that represents the Print command.
PrintPreview	RoutedUICommand
(description)	The value that represents the Print Preview command.
Properties	RoutedUICommand
(description)	The value that represents the Properties command.
Redo	RoutedUICommand

(description)	The value that represents the Redo command.
Replace	RoutedUICommand
(description)	The value that represents the Replace command.
Save	RoutedUICommand
(description)	The value that represents the Save command.
SaveAs	RoutedUICommand
(description)	The value that represents the Save As command.
SelectAll	RoutedUICommand
(description)	The value that represents the Select All command.
Stop	RoutedUICommand
(description)	The value that represents the Stop command.
Undo	RoutedUICommand
(description)	The value that represents the Undo command.

4.14 ApplicationGesture

x:Object > ApplicationGesture	
<h2>ApplicationGesture</h2>	
(usage)	AllGestures ArrowDown ArrowLeft ArrowRight ArrowUp Check ChevronDown ChevronLeft ChevronRight ...
(description)	Specifies the available application-specific .
[is nullable]	false
[text syntax]	ApplicationGestureSyntax

4.15 ArcSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment > ArcSegment	
<h2>ArcSegment</h2>	
(usage)	<ArcSegment />
(description)	Represents an elliptical arc between two points.

(properties)	
IsLargeArc	x:Boolean
(description)	A value that indicates whether the arc should be greater than 180 degrees.
Point	Point
(description)	The endpoint of the elliptical arc.
RotationAngle	x:Double
(description)	The amount (in degrees) by which the ellipse is rotated about the x-axis.
Size	Size
(description)	The x- and y-radius of the arc as a Size structure.
SweepDirection	SweepDirection
(description)	A value that specifies whether the arc is drawn in the Clockwise or Counterclockwise direction.

4.16 AutomationLiveSetting

x:Object > AutomationLiveSetting	
<h2>AutomationLiveSetting</h2>	
(usage)	Off Polite Assertive
(description)	Describes the notification characteristics of a particular live region.
(used by)	AutomationProperties
[is nullable]	false
[text syntax]	AutomationLiveSettingSyntax

4.17 AutomationProperties

x:Object > AutomationProperties	
<h2>AutomationProperties</h2>	
(usage)	None.
(description)	Provides a way to manipulate the value of the associated properties of the AutomationPeer element instance.

[is default constructible]	false
(attachable properties)	
AutomationProperties.AcceleratorKey	x:String
(description)	The accelerator key for the specified element.
[target type]	DependencyObject
AutomationProperties.AccessKey	x:String
(description)	The access key for the specified element.
[target type]	DependencyObject
AutomationProperties.AutomationId	x:String
(description)	The string that uniquely identifies the specified element.
[target type]	DependencyObject
AutomationProperties.HelpText	x:String
(description)	The help text for the specified element. The help text generally is the same text that is provided in the tooltip for the control.
[target type]	DependencyObject
AutomationProperties.IsColumnHeader	x:Boolean
(description)	A value indicating whether the specified element is a column header.
[target type]	DependencyObject
AutomationProperties.IsOffscreenBehavior	IsOffscreenBehavior
(description)	A value that specifies how the IsOffscreen property is determined.
[target type]	DependencyObject
AutomationProperties.IsRequiredForForm	x:Boolean
(description)	A value that indicates whether the specified element is required to be filled out on a form.
[target type]	DependencyObject
AutomationProperties.IsRowHeader	x:Boolean
(description)	A value indicating whether the specified element is a row header.
[target type]	DependencyObject

AutomationProperties.ItemStatus	x:String
(description)	A description of the status of an item within an element.
[target type]	DependencyObject
AutomationProperties.ItemType	x:String
(description)	A description of the type of the specified element.
[target type]	DependencyObject
AutomationProperties.LabeledBy	UIElement
(description)	The element that contains the text label for the specified element.
[target type]	DependencyObject
AutomationProperties.LiveSetting	AutomationLiveSetting
(description)	A value that describes the notification characteristics of a particular live region.
[target type]	DependencyObject
AutomationProperties.Name	x:String
(description)	The name of the element.
[target type]	DependencyObject
AutomationProperties.PositionInSet (4.8)	x:Int32
(description)	The ordinal location of this element within a set of elements that are considered to be siblings.
[target type]	DependencyObject
AutomationProperties.SizeOfSet (4.8)	x:Int32
(description)	The count of automation elements in a group or set that are considered to be siblings.
[target type]	DependencyObject

4.18 AutoToolTipPlacement

x:Object > AutoToolTipPlacement	
<h2>AutoToolTipPlacement</h2>	
(usage)	None TopLeft BottomRight

(description)	Describes the means by which the automatic ToolTip is positioned on a Slider control.
(used by)	Slider
[is nullable]	false
[text syntax]	AutoToolTipPlacementSyntax

4.19 AxisAngleRotation3D

x:Object > DependencyObject > Freezable > Animatable > Rotation3D > AxisAngleRotation3D	
AxisAngleRotation3D	
(usage)	<AxisAngleRotation3D />
(description)	Represents a 3-D rotation of a specified angle about a specified axis.
(properties)	
Angle	x:Double
(description)	The angle of a 3-D rotation, in degrees.
Axis	Vector3D
(description)	The axis of a 3-D rotation.

4.20 BackEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > BackEase , IEasingFunction	
BackEase	
(usage)	<BackEase />
(description)	Represents an easing function that retracts the motion of an animation slightly before it begins to animate in the path indicated.
(properties)	
Amplitude	x:Double
(description)	The amplitude of retraction associated with a BackEase animation.

4.21 BaseCompatibilityPreferences

x:Object > BaseCompatibilityPreferences	
<h3>BaseCompatibilityPreferences</h3>	
(usage)	{x:Static BaseCompatibilityPreferences.StaticPropertyName}
(description)	Contains properties that specify how an application should behave relative to new features that are in the WindowsBase assembly.
[is default constructible]	false
(static properties)	
FlowDispatcherSynchronizationContextPriority	x:Boolean
(description)	A value that indicates whether information about the Priority is saved to the DispatcherSynchronizationContext.
InlineDispatcherSynchronizationContextSend	x:Boolean
(description)	A value that indicates whether the Object) method puts the delegates on the dispatcher queue or if the delegate is directly invoked.
ReuseDispatcherSynchronizationContextInstance	x:Boolean
(description)	A value that indicates whether a single DispatcherSynchronizationContext is used for multiple dispatcher operations.

4.22 BaselineAlignment

x:Object > BaselineAlignment	
<h3>BaselineAlignment</h3>	
(usage)	Top Center Bottom Baseline TextTop TextBottom Subscript Superscript
(description)	Describes how the baseline for a text-based element is positioned on the vertical axis, relative to the established baseline for text.
(used by)	Inline
[is nullable]	false
[text syntax]	BaselineAlignmentSyntax

4.23 BaseValueSource

x:Object > BaseValueSource	
BaseValueSource	
(usage)	Unknown Default Inherited DefaultStyle DefaultStyleTrigger Style TemplateTrigger StyleTrigger ImplicitStyleReference ...
(description)	Identifies the property system source of a particular property value.
[is nullable]	false
[text syntax]	BaseValueSourceSyntax

4.24 BeginStoryboard

x:Object > DependencyObject > TriggerAction > BeginStoryboard	
BeginStoryboard	
(usage)	<BeginStoryboard> Storyboard </BeginStoryboard>
(description)	A trigger action that begins a Storyboard and distributes its animations to their targeted objects and properties.
[content property]	Storyboard
[name property]	Name
(properties)	
HandoffBehavior	HandoffBehavior
(description)	The proper hand-off behavior to start an animation clock in this storyboard
Name	x:String
(description)	The name of the BeginStoryboard object. By naming the BeginStoryboard object, the Storyboard can be controlled after it is started.
Storyboard	Storyboard
(description)	The Storyboard that this BeginStoryboard starts.

4.25 BezierSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment > BezierSegment	
<h1>BezierSegment</h1>	
(usage)	<BezierSegment />
(description)	Represents a cubic Bezier curve drawn between two points.
(properties)	
Point1	Point
(description)	The first control point of the curve.
Point2	Point
(description)	The second control point of the curve.
Point3	Point
(description)	The end point of the curve.

4.26 Binding

x:Object > x:MarkupExtension > BindingBase > Binding	
<h1>Binding</h1>	
(usage)	{Binding } <Binding />
(description)	Provides high-level access to the definition of a binding, which connects the properties of binding target objects, and any data source (for example, a database, an XML file, or any object that contains data).
[return value type]	x:Object
[constructors]	
(1 parameter)	
path	x:String
(description)	The initial Path for the binding.
(properties)	
AsyncState	x:Object
(description)	Opaque data passed to the asynchronous data dispatcher.
BindsDirectlyToSource	x:Boolean

(description)	A value that indicates whether to evaluate the Path relative to the data item or the DataSourceProvider object.
Converter	IValueConverter
(description)	The converter to use.
ConverterCulture	CultureInfo
(description)	The culture in which to evaluate the converter.
[text syntax]	CultureInfoletflanguageTagSyntax
ConverterParameter	x:Object
(description)	The parameter to pass to the Converter.
ElementName	x:String
(description)	The name of the element to use as the binding source object.
IsAsync	x:Boolean
(description)	A value that indicates whether the Binding should get and set values asynchronously.
Mode	BindingMode
(description)	A value that indicates the direction of the data flow in the binding.
NotifyOnSourceUpdated	x:Boolean
(description)	A value that indicates whether to raise the SourceUpdated event when a value is transferred from the binding target to the binding source.
NotifyOnTargetUpdated	x:Boolean
(description)	A value that indicates whether to raise the TargetUpdated event when a value is transferred from the binding source to the binding target.
NotifyOnValidationError	x:Boolean
(description)	A value that indicates whether to raise the Error attached event on the bound object.
Path	PropertyPath
(description)	The path to the binding source property.
RelativeSource	RelativeSource
(description)	The binding source by specifying its location relative to the position of the binding target.
Source	x:Object
(description)	The object to use as the binding source.
UpdateSourceTrigger	UpdateSourceTrigger
(description)	A value that determines the timing of binding source updates.

ValidatesOnDataErrors	x:Boolean
(description)	A value that indicates whether to include the DataErrorValidationRule.
ValidatesOnExceptions	x:Boolean
(description)	A value that indicates whether to include the ExceptionValidationRule.
ValidatesOnNotifyDataErrors	x:Boolean
(description)	A value that indicates whether to include the NotifyDataErrorValidationRule.
ValidationRules	Collection(ValidationRule)
(description)	A collection of rules that check the validity of the user input.
[read only]	true
XPath	x:String
(description)	An XPath query that returns the value on the XML binding source to use.
(attachable properties)	
Binding.XmlNamespaceManager	XmlNamespaceManager
(description)	The XmlNamespaceManager used to perform namespace-aware XPath queries in XML bindings.
[target type]	DependencyObject
(attachable events)	
Binding.SourceUpdated	Occurs when a value is transferred from the binding target to the binding source, but only for bindings with the NotifyOnSourceUpdated value set to true.
Binding.TargetUpdated	Occurs when a value is transferred from the binding source to the binding target, but only for bindings with the NotifyOnTargetUpdated value set to true.

4.27 BindingBase

x:Object > x:MarkupExtension > BindingBase	
<h1>BindingBase</h1>	
Binding MultiBinding PriorityBinding	
(usage)	None.
(description)	A base type for binding types.
(used by)	Collection(BindingBase) Condition DataGridBoundColumn DataGridColumn DataGridComboBoxColumn DataGridHyperlinkColumn DataTrigger GridViewColumn HierarchicalDataTemplate MultiBinding PriorityBinding

[is default constructible]	false
[return value type]	x:Object
(properties)	
BindingGroupName	x:String
(description)	The name of the BindingGroup to which this binding belongs.
Delay	x:Int32
(description)	The amount of time, in milliseconds, to wait before updating the binding source after the value on the target changes.
FallbackValue	x:Object
(description)	The value to use when the binding is unable to return a value.
StringFormat	x:String
(description)	A string that specifies how to format the binding if it displays the bound value as a string.
TargetNullValue	x:Object
(description)	The value that is used in the target when the value of the source is null.

4.28 BindingGroup

x:Object > DependencyObject > BindingGroup	
<h1>BindingGroup</h1>	
(usage)	<BindingGroup />
(description)	Contains a collection of bindings and ValidationRule objects that are used to validate an object.
(used by)	FrameworkContentElement FrameworkElement HierarchicalDataTemplate ItemsControl
(properties)	
Items	IList
(description)	The sources that are used by the Binding objects in the BindingGroup.
[read only]	true
Name	x:String
(description)	The name that identifies the BindingGroup, which can be used to include and exclude Binding objects in the BindingGroup.

NotifyOnValidationError	x:Boolean
(description)	Whether the Error event occurs when the state of a ValidationRule changes.
SharesProposedValues	x:Boolean
(description)	A value that indicates whether the BindingGroup reuses target values that have not been committed to the source.
ValidatesOnNotifyDataError	x:Boolean
(description)	A value that indicates whether to include the NotifyDataErrorValidationRule.
ValidationRules	Collection(ValidationRule)
(description)	A collection of ValidationRule objects that validate the source objects in the BindingGroup.
[read only]	true

4.29 BindingMode

x:Object > BindingMode	
BindingMode	
(usage)	TwoWay OneWay OneTime OneWayToSource Default
(description)	Describes the direction of the data flow in a binding.
(used by)	Binding MultiBinding
[is nullable]	false
[text syntax]	BindingModeSyntax

4.30 BindingOperations

x:Object > BindingOperations	
BindingOperations	
(usage)	{x:Static BindingOperations.StaticPropertyName}
(description)	Provides static methods to manipulate bindings, including Binding, MultiBinding, and PriorityBinding objects.
[is default constructible]	false
(static properties)	

DisconnectedSource	x:Object
(description)	An object that replaces the DataContext when an item container is removed from the visual tree.

4.31 BindingStatus

x:Object > BindingStatus	
BindingStatus	
(usage)	Unattached Inactive Active Detached AsyncRequestPending PathError UpdateTargetError UpdateSourceError
(description)	Describes the status of a binding.
[is nullable]	false
[text syntax]	BindingStatusSyntax

4.32 BitmapCache

x:Object > DependencyObject > Freezable > Animatable > CacheMode > BitmapCache	
BitmapCache	
(usage)	<BitmapCache> string </BitmapCache>
(description)	Creates and caches a bitmap representation of a UIElement.
(used by)	BitmapCacheBrush
[text syntax]	CacheModeSyntax
(properties)	
EnableClearType	x:Boolean
(description)	A value that indicates whether the bitmap is rendered with ClearType activated.
RenderAtScale	x:Double
(description)	A value that indicates the scale that is applied to the bitmap.
SnapsToDevicePixels	x:Boolean
(description)	A value that indicates whether the bitmap is rendered with pixel snapping.

4.33 BitmapCacheBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > BitmapCacheBrush	
BitmapCacheBrush	
(usage)	<BitmapCacheBrush> string </BitmapCacheBrush>
(description)	Paints an area with cached content.
[text syntax]	BrushSyntax
(properties)	
AutoLayoutContent	x:Boolean
(description)	A value that indicates whether layout is applied to the contents of this brush.
BitmapCache	BitmapCache
(description)	A CacheMode that represents cached content.
Target	Visual
(description)	The target visual to cache.

4.34 BitmapCacheOption

x:Object > BitmapCacheOption	
BitmapCacheOption	
(usage)	Default OnDemand OnLoad None
(description)	Specifies how a bitmap image takes advantage of memory caching.
(used by)	BitmapImage
[is nullable]	false
[text syntax]	BitmapCacheOptionSyntax

4.35 BitmapCreateOptions

x:Object > BitmapCreateOptions	
BitmapCreateOptions	

(usage)	None PreservePixelFormat DelayCreation IgnoreColorProfile IgnoreImageCache
(description)	Specifies initialization options for bitmap images.
(used by)	BitmapImage
[is nullable]	false
[text syntax]	BitmapCreateOptionsSyntax

4.36 BitmapEncoder

x:Object > BitmapEncoder	
BitmapEncoder	
BmpBitmapEncoder GifBitmapEncoder JpegBitmapEncoder PngBitmapEncoder TiffBitmapEncoder WmpBitmapEncoder	
(usage)	None.
(description)	Encodes a collection of BitmapFrame objects to an image stream.
[is default constructible]	false
(properties)	
ColorContexts	ReadOnlyCollection(ColorContext)
(description)	A value that represents the color profile that is associated with this encoder.
Frames	IList(BitmapFrame)
(description)	The individual frames within an image.
Preview	BitmapSource
(description)	A BitmapSource that represents the global preview of a bitmap, if there is one.
Thumbnail	BitmapSource
(description)	A BitmapSource that represents the global embedded thumbnail.

4.37 BitmapFrame

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > BitmapFrame	
BitmapFrame	
(usage)	<BitmapFrame> string </BitmapFrame>

(description)	Represents image data returned by a decoder and accepted by encoders.
(used by)	BitmapEncoder IList(BitmapFrame)
[is default constructible]	false
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
BaseUri	x:Uri
(description)	A value that represents the base Uri of the current context.

4.38 BitmapImage

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > BitmapImage	
BitmapImage	
(usage)	<BitmapImage> string </BitmapImage>
(description)	Provides a specialized BitmapSource that is optimized for loading images using XAML.
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
BaseUri	x:Uri
(description)	A value that represents the base Uri of the current BitmapImage context.
CacheOption	BitmapCacheOption
(description)	The BitmapCacheOption to use for this instance of BitmapImage.
CreateOptions	BitmapCreateOptions
(description)	The BitmapCreateOptions for a BitmapImage.
DecodePixelHeight	x:Int32
(description)	The height, in pixels, that the image is decoded to.
DecodePixelWidth	x:Int32
(description)	The width, in pixels, that the image is decoded to.
Rotation	Rotation
(description)	The angle that this BitmapImage is rotated to.
SourceRect	Int32Rect
(description)	The rectangle that is used as the source of the BitmapImage.

UriCachePolicy	RequestCachePolicy
(description)	A value that represents the caching policy for images that come from an HTTP source.
[text syntax]	RequestCachePolicySyntax
UriSource	x:Uri
(description)	The Uri source of the BitmapImage.

4.39 BitmapPalette

x:Object > BitmapPalette	
BitmapPalette	
(usage)	BlackAndWhite BlackAndWhiteTransparent Gray16 Gray16Transparent Gray256 Gray256Transparent Gray4 Gray4Transparent Halftone125 ...
(description)	Defines the available color palette for a supported image type.
(used by)	BitmapPalettes
[is default constructible]	false
(properties)	
Colors	IList(Color)
(description)	Get the colors defined in a palette.
[read only]	true

4.40 BitmapPalettes

x:Object > BitmapPalettes	
BitmapPalettes	
(usage)	{x:Static BitmapPalettes.StaticPropertyName}
(description)	Defines several color palettes that are commonly used by bitmap images.
[is default constructible]	false
(static properties)	
BlackAndWhite	BitmapPalette

(description)	A value that represents a black-and-white color palette. This palette consists of 2 colors total.
BlackAndWhiteTransparent	BitmapPalette
(description)	A value that represents a black, white, and transparent color palette. This palette consists of 3 colors total.
Gray16	BitmapPalette
(description)	A value that represents a color palette that contains 16 shades of gray. The palette ranges from black to gray to white. This palette contains 16 total colors.
Gray16Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 16 shades of gray. The palette ranges from black to gray to white with an additional transparent color. This palette contains 17 total colors.
Gray256	BitmapPalette
(description)	A value that represents a color palette that contains 256 shades of gray, ranging from black to gray to white. This palette contains 256 total colors.
Gray256Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 256 shades of gray, ranging from black to gray to white with an additional transparent color. This palette contains 257 total colors.
Gray4	BitmapPalette
(description)	A value that represents a color palette that contains 4 shades of gray, ranging from black to gray to white. This palette contains 4 total colors.
Gray4Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 4 shades of gray, ranging from black to gray to white with an additional transparent color. This palette contains 5 total colors.
Halftone125	BitmapPalette
(description)	A value that represents a color palette that contains 125 primary colors and 16 system colors, with duplicate colors removed. There are a total of 133 colors in this palette.
Halftone125Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 125 primary colors, 16 system colors, and 1 additional transparent color. Duplicate colors in the palette are removed. There are a total of 134 colors in this palette.
Halftone216	BitmapPalette

(description)	A value that represents a color palette that contains 216 primary colors and 16 system colors, with duplicate colors removed. There are a total of 224 colors in this palette.
Halftone216Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 216 primary colors, 16 system colors, and 1 additional transparent color. Duplicate colors in the palette are removed. There are a total of 225 colors in this palette.
Halftone252	BitmapPalette
(description)	A value that represents a color palette that contains 252 primary colors and 16 system colors, with duplicate colors removed. There are a total of 256 colors in this palette.
Halftone252Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 252 primary colors, 16 system colors, and 1 additional transparent color. Duplicate colors in the palette are removed. There are a total of 256 colors in this palette.
Halftone256	BitmapPalette
(description)	A value that represents a color palette that contains 256 primary colors and 16 system colors, with duplicate colors removed. There are a total of 256 colors in this palette.
Halftone256Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 256 primary colors, 16 system colors, and 1 additional transparent color that replaces the final color in the sequence. Duplicate colors in the palette are removed. There are a total of 256 colors in this palette.
Halftone27	BitmapPalette
(description)	A value that represents a color palette that contains 27 primary colors and 16 system colors, with duplicate colors removed. There are a total of 35 colors in this palette.
Halftone27Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 27 primary colors and 16 system colors, with duplicate colors removed and 1 additional transparent color. There are a total of 36 colors in this palette.
Halftone64	BitmapPalette
(description)	A value that represents a color palette that contains 64 primary colors and 16 system colors, with duplicate colors removed. There are a total of 72 colors in this palette.
Halftone64Transparent	BitmapPalette

(description)	A value that represents a color palette that contains 64 primary colors and 16 system colors, with duplicate colors removed and 1 additional transparent color. There are a total of 73 colors in this palette.
Halftone8	BitmapPalette
(description)	A value that represents a color palette that contains 8 primary colors and 16 system colors, with duplicate colors removed. There are a total of 16 colors in this palette, which are the same as the system palette.
Halftone8Transparent	BitmapPalette
(description)	A value that represents a color palette that contains 8 primary colors and 16 system colors, with duplicate colors removed and 1 additional transparent color. There are a total of 17 colors in this palette.
WebPalette	BitmapPalette
(description)	A value that represents a color palette that contains 216 primary colors and 16 system colors, with duplicate colors removed. There are a total of 224 colors in this palette.
WebPaletteTransparent	BitmapPalette
(description)	A value that represents a color palette that contains 216 primary colors and 16 system colors, with duplicate colors removed and 1 additional transparent color. There are a total of 225 colors in this palette.

4.41 BitmapScalingMode

x:Object > BitmapScalingMode	
BitmapScalingMode	
(usage)	Unspecified LowQuality HighQuality Linear Fant NearestNeighbor
(description)	Specifies which technique is used to scale bitmap images.
(used by)	RenderOptions
[is nullable]	false
[text syntax]	BitmapScalingModeSyntax

4.42 BitmapSource

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource

BitmapSource	
BitmapFrame BitmapImage CachedBitmap ColorConvertedBitmap CroppedBitmap FormatConvertedBitmap RenderTargetBitmap TransformedBitmap WriteableBitmap	
(usage)	<BitmapSource> string </BitmapSource>
(description)	Represents a single, constant set of pixels at a certain size and resolution.
(used by)	BitmapEncoder ColorConvertedBitmap CroppedBitmap FormatConvertedBitmap TransformedBitmap
[is default constructible]	false
[text syntax]	x:Uri, from [MS-XAML-2017]
(events)	
DecodeFailed	Occurs when the image fails to load, due to a corrupt image header.
DownloadCompleted	Occurs when the bitmap content has been completely downloaded.
DownloadFailed	Occurs when the bitmap content failed to download.
DownloadProgress	Occurs when the download progress of the bitmap content has changed.

4.43 Block

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Block , InputElement	
Block	
BlockUIContainer List Paragraph Section Table	
(usage)	None.
(description)	A base type that provides a base for all block-level flow content elements.
(used by)	BlockCollection ICollection(Block) TextElementCollection(Block)
[is default constructible]	false
[name property]	Name
[xml lang property]	Language
(properties)	
BorderBrush	Brush
(description)	A Brush to use when painting the element's border.
BorderThickness	Thickness
(description)	The border thickness for the element.

BreakColumnBefore	x:Boolean
(description)	A value that indicates whether to automatically insert a column-break before this element in cases where the element participates in a column-based presentation.
BreakPageBefore	x:Boolean
(description)	A value that indicates whether to automatically insert a page-break before this element.
ClearFloaters	WrapDirection
(description)	The direction in which any Floater elements contained by a Block element should be repositioned.
FlowDirection	FlowDirection
(description)	The relative direction for flow of content within a Block element.
IsHyphenationEnabled	x:Boolean
(description)	A value that indicates whether automatic hyphenation of words is enabled or disabled.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	How a line box is determined for each line of text within the block-level flow content element.
Margin	Thickness
(description)	The margin thickness for the element.
Padding	Thickness
(description)	The padding thickness for the element.
SiblingBlocks	BlockCollection
(description)	A collection of Block elements that are siblings to the current Block element.
[read only]	true
TextAlignment	TextAlignment
(description)	The horizontal alignment of text content.
(attachable properties)	
Block.IsHyphenationEnabled	x:Boolean
(description)	A value that indicates whether automatic hyphenation of words is enabled or disabled.

[target type]	DependencyObject
Block.LineHeight	x:Double
(description)	The height of each line of content.
[target type]	DependencyObject
[text syntax]	LengthSyntax
Block.LineStackingStrategy	LineStackingStrategy
(description)	How a line box is determined for each line of text within the block-level flow content element.
[target type]	DependencyObject
Block.TextAlignment	TextAlignment
(description)	The horizontal alignment of text content.
[target type]	DependencyObject

4.44 BlockCollection

x:Object > TextElementCollection(Block) > BlockCollection	
BlockCollection	
(usage)	None.
(description)	Represents a collection of Block elements. BlockCollection defines the allowable child content of the FlowDocument, Section, ListItem, TableCell, Floater, and Figure elements.
(used by)	AnchoredBlock Block FlowDocument ListItem Section TableCell
[is default constructible]	false
[is list]	true
[allowed types]	Block

4.45 BlockUIContainer

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Block > BlockUIContainer , InputElement	
BlockUIContainer	

(usage)	<BlockUIContainer> UIElement </BlockUIContainer>
(description)	A block-level flow content element which enables UIElement elements (i.e. a Button) to be embedded (hosted) in flow content.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Child	UIElement
(description)	The UIElement hosted by the BlockUIContainer.

4.46 BlurEffect

x:Object > DependencyObject > Freezable > Animatable > Effect > BlurEffect	
BlurEffect	
(usage)	<BlurEffect />
(description)	A bitmap effect that blurs the target texture.
(properties)	
KernelType	KernelType
(description)	A value representing the curve that is used to calculate the blur.
Radius	x:Double
(description)	A value that indicates the radius of the blur effect's curve.
RenderingBias	RenderingBias
(description)	A value that indicates whether the system renders an effect with emphasis on speed or quality.

4.47 BmpBitmapEncoder

x:Object > BitmapEncoder > BmpBitmapEncoder	
BmpBitmapEncoder	
(usage)	<BmpBitmapEncoder />

(description)	Defines an encoder that is used to encode bitmap (BMP) format images.
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4.48 Bold

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > Span > Bold , InputElement	
Bold	
(usage)	<Bold> Inline UIElement x:String *</Bold>
(description)	An inline-level flow content element which causes content to appear with a bold font weight.
[content property]	Inlines
[name property]	Name
[xml lang property]	Language

4.49 BooleanAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > BooleanAnimationBase	
BooleanAnimationBase	
BooleanAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Boolean value.
[is default constructible]	false
[name property]	Name

4.50 BooleanAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > BooleanAnimationBase > BooleanAnimationUsingKeyFrames	
BooleanAnimationUsingKeyFrames	

(usage)	<BooleanAnimationUsingKeyFrames> BooleanKeyFrame *</BooleanAnimationUsingKeyFrames>
(description)	Animates the value of a property that takes a Boolean along a set of KeyFrames over a specified Duration.
[content property]	KeyFrames
[name property]	Name
(properties)	
KeyFrames	BooleanKeyFrameCollection
(description)	The collection of BooleanKeyFrame objects that define the animation.

4.51 BooleanKeyFrame

x:Object > DependencyObject > Freezable > BooleanKeyFrame	
BooleanKeyFrame	
DiscreteBooleanKeyFrame	
(usage)	None.
(description)	A base type that defines a segment with its own target value and interpolation technique for a BooleanAnimationUsingKeyFrames.
(used by)	BooleanKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached
Value	x:Boolean
(description)	The key frame's target value.

4.52 BooleanKeyFrameCollection

x:Object > DependencyObject > Freezable > BooleanKeyFrameCollection	
BooleanKeyFrameCollection	

(usage)	<BooleanKeyFrameCollection> BooleanKeyFrame *</BooleanKeyFrameCollection>
(description)	Represents a collection of BooleanKeyFrame objects.
(used by)	BooleanAnimationUsingKeyFrames
[is list]	true
[allowed types]	BooleanKeyFrame
(static properties)	
Empty	BooleanKeyFrameCollection
(description)	An empty BooleanKeyFrameCollection.

4.53 BooleanToVisibilityConverter

x:Object > BooleanToVisibilityConverter , IValueConverter	
BooleanToVisibilityConverter	
(usage)	<BooleanToVisibilityConverter />
(description)	Represents the converter that converts Boolean values to and from Visibility enumeration values.

4.54 Border

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Decorator > Border , InputElement	
Border	
(usage)	<Border> UIElement </Border>
(description)	Draws a border, background, or both around another element.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The Brush that fills the area between the bounds of a Border.

BorderBrush	Brush
(description)	The Brush that draws the outer border color.
BorderThickness	Thickness
(description)	The relative Thickness of a Border.
CornerRadius	CornerRadius
(description)	A value that represents the degree to which the corners of a Border are rounded.
Padding	Thickness
(description)	A Thickness value that describes the amount of space between a Border and its child element.

4.55 BorderGapMaskConverter

x:Object > BorderGapMaskConverter , IMultiValueConverter	
BorderGapMaskConverter	
(usage)	<BorderGapMaskConverter />
(description)	Represents a converter that converts the dimensions of a GroupBox control into a VisualBrush.

4.56 BounceEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > BounceEase , IEasingFunction	
BounceEase	
(usage)	<BounceEase />
(description)	Represents an easing function that creates an animated bouncing effect.
(properties)	
Bounces	x:Int32
(description)	The number of bounces.
Bounciness	x:Double

(description)	A value that specifies how bouncy the bounce animation is. Low values of this property result in bounces with little loss of height between bounces (more bouncy) while high values result in dampened bounces (less bouncy).
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4.57 Brush

x:Object > DependencyObject > Freezable > Animatable > Brush	
Brush	
BitmapCacheBrush GradientBrush SolidColorBrush TileBrush	
(usage)	AliceBlue AntiqueWhite Aqua Aquamarine Azure Beige Bisque Black BlanchedAlmond ...
(description)	Defines objects used to paint graphical objects. Types that derive from Brush describe how the area is painted.
(used by)	AccessText AnchoredBlock Block Border BulletDecorator ContainerVisual Control DataGrid DataGridColumnHeader DataGridRowHeader DataGridTextColumn DiffuseMaterial DrawingGroup Effect EmissiveMaterial FixedPage FlowDocument FlowDocumentPageViewer FlowDocumentReader FlowDocumentScrollViewer GeometryDrawing GlyphRunDrawing Glyphs InkCanvas ListItem Page Panel PasswordBox Pen Ribbon RibbonButton RibbonCheckBox RibbonControlService RibbonGalleryItem RibbonGroup RibbonMenuButton RibbonMenuItem RibbonRadioButton RibbonSplitButton RibbonTabHeader RibbonTextBox RibbonToggleButton RibbonTwoLineText Shape SpecularMaterial SystemParameters TableCell TableColumn TextBlock TextBoxBase TextEffect TextElement TickBar ToolBarTray UIElement Viewport3DVisual
[is default constructible]	false
[text syntax]	BrushSyntax
(properties)	
Opacity	x:Double
(description)	The degree of opacity of a Brush.
RelativeTransform	Transform
(description)	The transformation that is applied to the brush using relative coordinates.
Transform	Transform
(description)	The transformation that is applied to the brush. This transformation is applied after the brush's output has been mapped and positioned.

4.58 Brushes

x:Object > Brushes	
<h1>Brushes</h1>	
(usage)	{x:Static Brushes.StaticPropertyName}
(description)	Implements a set of predefined SolidColorBrush objects.
[is default constructible]	false
(static properties)	
AliceBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF0F8FF.
AntiqueWhite	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFAEBD7.
Aqua	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00FFFF.
Aquamarine	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF7FFFD4.
Azure	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF0FFFF.
Beige	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF5F5DC.
Bisque	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFE4C4.
Black	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF000000.
BlanchedAlmond	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFEBDCD.
Blue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF0000FF.
BlueViolet	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF8A2BE2.
Brown	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFA52A2A.
BurlyWood	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDEB887.
CadetBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF5F9EA0.
Chartreuse	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF7FFF00.
Chocolate	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFD2691E.
Coral	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF7F50.
CornflowerBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF6495ED.
Cornsilk	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFF8DC.
Crimson	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDC143C.
Cyan	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00FFFF.
DarkBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00008B.
DarkCyan	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF008B8B.
DarkGoldenrod	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFB8860B.
DarkGray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFA9A9A9.
DarkGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF006400.
DarkKhaki	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFBDB76B.
DarkMagenta	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FF8B008B.
DarkOliveGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF556B2F.
DarkOrange	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF8C00.
DarkOrchid	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF9932CC.
DarkRed	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF8B0000.
DarkSalmon	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFE9967A.
DarkSeaGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF8FBC8F.
DarkSlateBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF483D8B.
DarkSlateGray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF2F4F4F.
DarkTurquoise	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00CED1.
DarkViolet	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF9400D3.
DeepPink	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF1493.
DeepSkyBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00BFFF.
DimGray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF696969.
DodgerBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF1E90FF.
Firebrick	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFB22222.
FloralWhite	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFFFFFA0.
ForestGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF228B22.
Fuchsia	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF00FF.
Gainsboro	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDCDCDC.
GhostWhite	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF8F8FF.
Gold	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFD700.
Goldenrod	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDAA520.
Gray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF808080.
Green	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF008000.
GreenYellow	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFADFF2F.
Honeydew	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF0FFF0.
HotPink	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF69B4.
IndianRed	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFCD5C5C.
Indigo	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF4B0082.
Ivory	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFFFF0.
Khaki	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF0E68C.
Lavender	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFE6E6FA.
LavenderBlush	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFFF0F5.
LawnGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF7CFC00.
LemonChiffon	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFFFACD.
LightBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFADD8E6.
LightCoral	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF08080.
LightCyan	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFE0FFFF.
LightGoldenrodYellow	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFAFAD2.
LightGray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFD3D3D3.
LightGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF90EE90.
LightPink	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFB6C1.
LightSalmon	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFA07A.
LightSeaGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF20B2AA.
LightSkyBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF87CEFA.
LightSlateGray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF778899.
LightSteelBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFB0C4DE.
LightYellow	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFFFFFE0.
Lime	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00FF00.
LimeGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF32CD32.
Linen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFAF0E6.
Magenta	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF00FF.
Maroon	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF800000.
MediumAquaMarine	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF66CDAA.
MediumBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF0000CD.
MediumOrchid	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFBA55D3.
MediumPurple	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF9370DB.
MediumSeaGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF3CB371.
MediumSlateBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF7B68EE.
MediumSpringGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00FA9A.
MediumTurquoise	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF48D1CC.
MediumVioletRed	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFC71585.
MidnightBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF191970.
MintCream	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFF5FFFA.
MistyRose	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFE4E1.
Moccasin	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFE4B5.
NavajoWhite	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFDEAD.
Navy	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00080.
OldLace	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFD5E6.
Olive	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF808000.
OliveDrab	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF6B8E23.
Orange	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFA500.
OrangeRed	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF4500.
Orchid	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDA70D6.
PaleGoldenrod	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFEEE8AA.
PaleGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF98FB98.
PaleTurquoise	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFAFEEEE.
PaleVioletRed	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDB7093.
PapayaWhip	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFEFD5.
PeachPuff	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFFFDAB9.
Peru	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFCD853F.
Pink	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFC0CB.
Plum	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFDDA0DD.
PowderBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFB0E0E6.
Purple	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF800080.
Red	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF0000.
RosyBrown	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFBC8F8F.
RoyalBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF4169E1.
SaddleBrown	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF8B4513.
Salmon	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFA8072.
SandyBrown	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF4A460.
SeaGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF2E8B57.
SeaShell	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFFF5EE.
Sienna	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFA0522D.
Silver	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFC0C0C0.
SkyBlue	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FF87CEEB.
SlateBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF6A5ACD.
SlateGray	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF708090.
Snow	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFFFAFA.
SpringGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF00FF7F.
SteelBlue	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF4682B4.
Tan	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFD2B48C.
Teal	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF008080.
Thistle	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFD8BFD8.
Tomato	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFF6347.
Transparent	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #00FFFFFF.
Turquoise	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF40E0D0.
Violet	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFEE82EE.
Wheat	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF5DEB3.
White	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFFFFFFF.
WhiteSmoke	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FFF5F5F5.
Yellow	SolidColorBrush

(description)	The solid fill color that has a hexadecimal value of #FFFFFF00.
YellowGreen	SolidColorBrush
(description)	The solid fill color that has a hexadecimal value of #FF9ACD32.

4.59 BrushMappingMode

x:Object > BrushMappingMode	
BrushMappingMode	
(usage)	Absolute RelativeToBoundingBox
(description)	Specifies the coordinate system used by a Brush.
(used by)	GradientBrush TileBrush
[is nullable]	false
[text syntax]	BrushMappingModeSyntax

4.60 BulletDecorator

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Decorator > BulletDecorator , InputElement	
BulletDecorator	
(usage)	<BulletDecorator> UIElement </BulletDecorator>
(description)	Represents a layout control that aligns a bullet and another visual object.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The background color for a BulletDecorator control.
Bullet	UIElement
(description)	The object to use as the bullet in a BulletDecorator.

4.61 Button

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > Button , InputElement	
<h1>Button</h1>	
CalendarButton CalendarDayButton RibbonButton	
(usage)	<Button> x:Object </Button>
(description)	Represents a button control, which reacts to the Click event.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
IsCancel	x:Boolean
(description)	A value that indicates whether a Button is a Cancel button. A user can activate the Cancel button by pressing the ESC key.
IsDefault	x:Boolean
(description)	A value that indicates whether a Button is the default button. A user invokes the default button by pressing the ENTER key.

4.62 ButtonBase

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase , InputElement	
<h1>ButtonBase</h1>	
Button DataGridColumnHeader DataGridRowHeader GridViewColumnHeader RepeatButton ToggleButton	
(usage)	None.
(description)	Represents the base type for all Button controls.
[is default constructible]	false
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	

ClickMode	ClickMode
(description)	When the Click event occurs.
Command	ICommand
(description)	The command to invoke when this button is pressed.
CommandParameter	x:Object
(description)	The parameter to pass to the Command property.
CommandTarget	IInputElement
(description)	The element on which to raise the specified command.
IsPressed	x:Boolean
(description)	A value that indicates whether a ButtonBase is currently activated.
(events)	
Click	Occurs when a Button is clicked.

4.63 ByteAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ByteAnimationBase > ByteAnimation	
<h2>ByteAnimation</h2>	
(usage)	<ByteAnimation />
(description)	Animates the value of a Byte property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(x:Byte)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Byte)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.

IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Byte)
(description)	The animation's ending value.

4.64 ByteAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ByteAnimationBase	
ByteAnimationBase	
ByteAnimation ByteAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Byte value.
[is default constructible]	false
[name property]	Name

4.65 ByteAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ByteAnimationBase > ByteAnimationUsingKeyFrames	
ByteAnimationUsingKeyFrames	
(usage)	<ByteAnimationUsingKeyFrames> ByteKeyFrame *</ByteAnimationUsingKeyFrames>
(description)	Animates the value of a Byte property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean

(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	ByteKeyFrameCollection
(description)	The collection of ByteKeyFrame objects that define the animation.

4.66 ByteKeyFrame

x:Object > DependencyObject > Freezable > ByteKeyFrame	
<h2>ByteKeyFrame</h2>	
DiscreteByteKeyFrame EasingByteKeyFrame LinearByteKeyFrame SplineByteKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a ByteAnimationUsingKeyFrames.
(used by)	ByteKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Byte
(description)	The key frame's target value.

4.67 ByteKeyFrameCollection

x:Object > DependencyObject > Freezable > ByteKeyFrameCollection	
<h2>ByteKeyFrameCollection</h2>	
(usage)	<ByteKeyFrameCollection> ByteKeyFrame *</ByteKeyFrameCollection>
(description)	Represents a collection of ByteKeyFrame objects.
(used by)	ByteAnimationUsingKeyFrames
[is list]	true
[allowed types]	ByteKeyFrame

(static properties)	
Empty	ByteKeyFrameCollection
(description)	An empty ByteKeyFrameCollection.

4.68 CachedBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > CachedBitmap	
CachedBitmap	
(usage)	<CachedBitmap> string </CachedBitmap>
(description)	Provides caching functionality for a BitmapSource.
[is default constructible]	false
[text syntax]	x:Uri, from [MS-XAML-2017]

4.69 CacheMode

x:Object > DependencyObject > Freezable > Animatable > CacheMode	
CacheMode	
BitmapCache	
(usage)	<CacheMode> string </CacheMode>
(description)	Provides a base implementation for caching a UIElement.
(used by)	ContainerVisual UIElement Viewport2DVisual3D
[is default constructible]	false
[text syntax]	CacheModeSyntax

4.70 CachingHint

x:Object > CachingHint	
CachingHint	
(usage)	Unspecified Cache

(description)	Specifies whether to cache tile brush objects.
(used by)	RenderOptions
[is nullable]	false
[text syntax]	CachingHintSyntax

4.71 Calendar

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > Calendar , IInputElement	
<h2>Calendar</h2>	
(usage)	<Calendar />
(description)	Represents a control that enables a user to select a date by using a visual calendar display.
[name property]	Name
[xml lang property]	Language
(properties)	
BlackoutDates	CalendarBlackoutDatesCollection
(description)	A collection of dates that are marked as not selectable.
[read only]	true
CalendarButtonStyle	Style
(description)	The Style associated with the control's internal CalendarButton object.
CalendarDayButtonStyle	Style
(description)	The Style associated with the control's internal CalendarDayButton object.
CalendarItemStyle	Style
(description)	The Style associated with the control's internal CalendarItem object.
DisplayDate	x:DateTime
(description)	The date to display.
DisplayDateEnd	x:Nullable(x:DateTime)
(description)	The last date in the date range that is available in the calendar.
DisplayDateStart	x:Nullable(x:DateTime)
(description)	The first date that is available in the calendar.
DisplayMode	CalendarMode

(description)	A value that indicates whether the calendar displays a month, year, or decade.
FirstDayOfWeek	DayOfWeek
(description)	The day that is considered the beginning of the week.
IsTodayHighlighted	x:Boolean
(description)	A value that indicates whether the current date is highlighted.
SelectedDate	x:Nullable(x:DateTime)
(description)	The currently selected date.
SelectedDates	SelectedDatesCollection
(description)	A collection of selected dates.
[read only]	true
SelectionMode	CalendarSelectionMode
(description)	A value that indicates what kind of selections are allowed.
(events)	
DisplayDateChanged	Occurs when the DisplayDate property is changed.
DisplayModeChanged	Occurs when the DisplayMode property is changed.
SelectedDatesChanged	Occurs when the collection returned by the SelectedDates property is changed.
SelectionModeChanged	Occurs when the SelectionMode changes.

4.72 CalendarBlackoutDatesCollection

[x:Object](#) > [Collection\(CalendarDateRange\)](#) > [ObservableCollection\(CalendarDateRange\)](#) > [CalendarBlackoutDatesCollection](#)

CalendarBlackoutDatesCollection

(usage)	None.
(description)	Represents a collection of non-selectable dates in a Calendar.
(used by)	Calendar DatePicker
[is default constructible]	false
[is list]	true
[allowed types]	CalendarDateRange

4.73 CalendarButton

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ContentControl](#) > [ButtonBase](#) > [Button](#) > [CalendarButton](#), [InputElement](#)

CalendarButton

(usage)	<CalendarButton> x:Object </CalendarButton>
(description)	Represents a month or year on a Calendar object.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.74 CalendarDateRange

[x:Object](#) > [CalendarDateRange](#)

CalendarDateRange

(usage)	<CalendarDateRange />
(description)	Represents a range of dates in a Calendar.
(used by)	CalendarBlackoutDatesCollection ICollection (CalendarDateRange) IList (CalendarDateRange) ObservableCollection (CalendarDateRange)
(properties)	
End	x:DateTime
(description)	The last date in the represented range.
Start	x:DateTime
(description)	The first date in the represented range.
(events)	
PropertyChanged	Occurs when a property value changes.

4.75 CalendarDayButton

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ContentControl](#) > [ButtonBase](#) > [Button](#) > [CalendarDayButton](#), [InputElement](#)

CalendarDayButton	
(usage)	<CalendarDayButton> x:Object </CalendarDayButton>
(description)	Represents a day on a Calendar.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.76 CalendarItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > CalendarItem , InputElement	
CalendarItem	
(usage)	<CalendarItem />
(description)	Represents the currently displayed month or year on a Calendar.
[name property]	Name
[xml lang property]	Language
(static properties)	
DayTitleTemplateResourceKey	ComponentResourceKey
(description)	The resource key for the DataTemplate that displays the days of the week.

4.77 CalendarMode

x:Object > CalendarMode	
CalendarMode	
(usage)	Month Year Decade
(description)	Specifies whether a Calendar displays a month, year, or decade.
(used by)	Calendar
[is nullable]	false
[text syntax]	CalendarModeSyntax

4.78 CalendarSelectionMode

x:Object > CalendarSelectionMode	
<h2>CalendarSelectionMode</h2>	
(usage)	SingleDate SingleRange MultipleRange None
(description)	Specifies whether a single or multiple dates can be selected in a Calendar.
(used by)	Calendar
[is nullable]	false
[text syntax]	CalendarSelectionModeSyntax

4.79 Camera

x:Object > DependencyObject > Freezable > Animatable > Camera	
<h2>Camera</h2>	
MatrixCamera ProjectionCamera	
(usage)	None.
(description)	Specifies what portion of the 3D scene is rendered by the Viewport3DVisual or Viewport3D element.
(used by)	Viewport3D Viewport3DVisual
[is default constructible]	false
(properties)	
Transform	Transform3D
(description)	The Transform3D applied to the camera.

4.80 Canvas

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > Canvas , InputElement	
<h2>Canvas</h2>	
(usage)	<Canvas> UIElement *</Canvas>

(description)	Defines an area within which you can explicitly position child elements by using coordinates that are relative to the Canvas area.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(attachable properties)	
Canvas.Bottom	x:Double
(description)	A value that represents the distance between the bottom of an element and the bottom of its parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax
Canvas.Left	x:Double
(description)	A value that represents the distance between the left side of an element and the left side of its parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax
Canvas.Right	x:Double
(description)	A value that represents the distance between the right side of an element and the right side of its parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax
Canvas.Top	x:Double
(description)	A value that represents the distance between the top of an element and the top of its parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax

4.81 CaptureMode

x:Object > CaptureMode	
CaptureMode	
(usage)	None Element SubTree

(description)	Specifies the mouse capture policies.
[is nullable]	false
[text syntax]	CaptureModeSyntax

4.82 CharacterBufferRange

x:Object > CharacterBufferRange	
CharacterBufferRange	
(usage)	<CharacterBufferRange />
(description)	Describes a string of characters.
[is nullable]	false
(static properties)	
Empty	CharacterBufferRange
(description)	An empty character string.

4.83 CharacterBufferReference

x:Object > CharacterBufferReference	
CharacterBufferReference	
(usage)	<CharacterBufferReference />
(description)	Describes a character buffer for a text run.
[is nullable]	false

4.84 CharacterCasing

x:Object > CharacterCasing	
CharacterCasing	
(usage)	Normal Lower Upper
(description)	Specifies the case of characters typed manually into a TextBox control.

(used by)	TextBox
[is nullable]	false
[text syntax]	CharacterCasingSyntax

4.85 CharacterHit

x:Object > CharacterHit	
CharacterHit	
(usage)	<CharacterHit />
(description)	Represents information about a character hit within a glyph run.
[is nullable]	false

4.86 CharacterMetrics

x:Object > CharacterMetrics	
CharacterMetrics	
(usage)	<CharacterMetrics />
(description)	Represents the metrics used to lay out a character in a device font.
(used by)	CharacterMetricsDictionary ICollection (CharacterMetrics) IDictionary (x:Int32 , CharacterMetrics)
(properties)	
Metrics	x:String
(description)	A comma-delimited string representing metric values.

4.87 CharacterMetricsDictionary

x:Object > CharacterMetricsDictionary	
CharacterMetricsDictionary	
(usage)	None.

(description)	Represents a dictionary of CharacterMetrics objects for a device font that is indexed by Unicode scalar values.
(used by)	FamilyTypeface
[is default constructible]	false
[is dictionary]	true
[allowed types]	CharacterMetrics
[allowed key types]	x:Int32
(properties)	
Keys	ICollection(x:Int32)
(description)	A collection of character codes from CharacterMetricsDictionary.
[read only]	true
Values	ICollection(CharacterMetrics)
(description)	The collection of CharacterMetrics values in the CharacterMetricsDictionary.
[read only]	true

4.88 CharAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > CharAnimationBase	
<h2>CharAnimationBase</h2>	
CharAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Char value.
[is default constructible]	false
[name property]	Name

4.89 CharAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > CharAnimationBase > CharAnimationUsingKeyFrames	
<h2>CharAnimationUsingKeyFrames</h2>	

(usage)	<CharAnimationUsingKeyFrames> CharKeyFrame *</CharAnimationUsingKeyFrames>
(description)	Animates the value of a Char property along a set of KeyFrames over a specified Duration.
[content property]	KeyFrames
[name property]	Name
(properties)	
KeyFrames	CharKeyFrameCollection
(description)	The collection of CharKeyFrame objects that define the animation.

4.90 CharKeyFrame

x:Object > DependencyObject > Freezable > CharKeyFrame	
<h2>CharKeyFrame</h2>	
DiscreteCharKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a CharAnimationUsingKeyFrames.
(used by)	CharKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Char
(description)	The key frame's target value.

4.91 CharKeyFrameCollection

x:Object > DependencyObject > Freezable > CharKeyFrameCollection	
<h2>CharKeyFrameCollection</h2>	
(usage)	<CharKeyFrameCollection> CharKeyFrame *</CharKeyFrameCollection>

(description)	Represents a collection of CharKeyFrame objects.
(used by)	CharAnimationUsingKeyFrames
[is list]	true
[allowed types]	CharKeyFrame
(static properties)	
Empty	CharKeyFrameCollection
(description)	An empty CharKeyFrameCollection.

4.92 CheckBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > ToggleButton > CheckBox , InputElement	
<h2>CheckBox</h2>	
RibbonCheckBox	
(usage)	<CheckBox> x:Object </CheckBox>
(description)	Represents a control that a user can select and clear.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.93 CircleEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > CircleEase , IEasingFunction	
<h2>CircleEase</h2>	
(usage)	<CircleEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using a circular function.

4.94 ClearTypeHint

x:Object > ClearTypeHint	
ClearTypeHint	
(usage)	Auto Enabled
(description)	An enumeration that specifies a hint to the rendering engine that text can be rendered with ClearType.
(used by)	RenderOptions
[is nullable]	false
[text syntax]	ClearTypeHintSyntax

4.95 ClickMode

x:Object > ClickMode	
ClickMode	
(usage)	Release Press Hover
(description)	Specifies when the Click event should be raised.
(used by)	ButtonBase
[is nullable]	false
[text syntax]	ClickModeSyntax

4.96 Clock

x:Object > Clock	
Clock	
(usage)	None.
(description)	Maintains run-time timing state for a Timeline.
(used by)	ClockCollection ICollection(Clock)
[is default constructible]	false
(events)	

Completed	Occurs when this clock has completely finished playing.
CurrentGlobalSpeedInvalidated	Occurs when the clock's speed is updated.
CurrentStateInvalidated	Occurs when the clock's CurrentState property is updated.
CurrentTimeInvalidated	Occurs when this clock's CurrentTime becomes invalid.
RemoveRequested	Occurs when the Remove method is called on this Clock or one of its parent clocks.

4.97 ClockCollection

x:Object > ClockCollection	
ClockCollection	
(usage)	None.
(description)	Represents an ordered collection of Clock objects.
[is default constructible]	false
[is list]	true
[allowed types]	Clock

4.98 ClockState

x:Object > ClockState	
ClockState	
(usage)	Active Filling Stopped
(description)	Describes the potential states of a timeline's Clock object.
[is nullable]	false
[text syntax]	ClockStateSyntax

4.99 CollectionContainer

x:Object > DependencyObject > CollectionContainer

<h1>CollectionContainer</h1>	
(usage)	<CollectionContainer />
(description)	Holds an existing collection structure, such as an ObservableCollection or a DataSet, to be used inside a CompositeCollection.

4.100 CollectionView

x:Object > CollectionView	
<h1>CollectionView</h1>	
ItemCollection	
(usage)	{x:Static CollectionView.StaticPropertyName}
(description)	Represents a view for grouping, sorting, filtering, and navigating a data collection.
[is default constructible]	false
(properties)	
Culture	CultureInfo
(description)	The culture information to use during sorting.
[text syntax]	CultureInfoletfLanguageTagSyntax
GroupDescriptions	ObservableCollection (GroupDescription)
(description)	A collection of GroupDescription objects that describes how the items in the collection are grouped in the view.
[read only]	true
SortDescriptions	SortDescriptionCollection
(description)	A collection of SortDescription structures that describes how the items in the collection are sorted in the view.
[read only]	true
(static properties)	
NewItemPlaceholder	x:Object
(description)	The object that is in the collection to represent a new item.
(events)	
CurrentChanged	Occurs after the CurrentItem has changed.

CurrentChanging	Occurs when the CurrentItem is changing.
-----------------	--

4.101 CollectionViewSource

x:Object > DependencyObject > CollectionViewSource	
<h2>CollectionViewSource</h2>	
(usage)	<CollectionViewSource />
(description)	The XAML proxy of a CollectionView type.
(properties)	
CollectionViewType	x:XamlType
(description)	The desired view type.
Culture	CultureInfo
(description)	The culture that is used for operations such as sorting and comparisons.
[text syntax]	CultureInfoletfLanguageTagSyntax
GroupDescriptions	ObservableCollection(GroupDescription)
(description)	A collection of GroupDescription objects that describes how the items in the collection are grouped in the view.
[read only]	true
IsLiveFilteringRequested	x:Boolean
(description)	A value that indicates whether CollectionViewSource should filter the data in real time if it can.
IsLiveGroupingRequested	x:Boolean
(description)	A value that indicates whether CollectionViewSource should group the data in real time if it can.
IsLiveSortingRequested	x:Boolean
(description)	A value that indicates whether CollectionViewSource should sort the data in real time if it can.
LiveFilteringProperties	ObservableCollection(x:String)
(description)	A collection of strings that specify the properties that participate in filtering data in real time.
[read only]	true
LiveGroupingProperties	ObservableCollection(x:String)

(description)	A collection of strings that specify the properties that participate in grouping data in real time.
[read only]	true
LiveSortingProperties	ObservableCollection(x:String)
(description)	A collection of strings that specify the properties that participate in sorting data in real time.
[read only]	true
SortDescriptions	SortDescriptionCollection
(description)	A collection of SortDescription objects that describes how the items in the collection are sorted in the view.
[read only]	true
Source	x:Object
(description)	The collection object from which to create this view.
(events)	
Filter	Provides filtering logic.

4.102 Color

x:Object > Color	
Color	
(usage)	AliceBlue AntiqueWhite Aqua Aquamarine Azure Beige Bisque Black BlanchedAlmond ...
(description)	Describes a color in terms of alpha, red, green, and blue channels.
(used by)	BitmapPalette ColorAnimation ColorKeyFrame Colors DiffuseMaterial DrawingAttributes DropShadowEffect EmissiveMaterial GradientStop IList(Color) Light SolidColorBrush SpecularMaterial SystemColors SystemParameters
[is nullable]	false
[text syntax]	ColorSyntax
(properties)	
A	x:Byte
(description)	The sRGB alpha channel value of the color.
B	x:Byte

(description)	The sRGB blue channel value of the color.
G	x:Byte
(description)	The sRGB green channel value of the color.
R	x:Byte
(description)	The sRGB red channel value of the color.
ScA	x:Single
(description)	The ScRGB alpha channel value of the color.
ScB	x:Single
(description)	The ScRGB blue channel value of the color.
ScG	x:Single
(description)	The ScRGB green channel value of the color.
ScR	x:Single
(description)	The ScRGB red channel value of the color.

4.103 ColorAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ColorAnimationBase > ColorAnimation	
<h2>ColorAnimation</h2>	
(usage)	<ColorAnimation />
(description)	Animates the value of a Color property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(Color)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Color)
(description)	The animation's starting value.
IsAdditive	x:Boolean

(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Color)
(description)	The animation's ending value.

4.104 ColorAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ColorAnimationBase	
ColorAnimationBase	
ColorAnimation ColorAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Color value.
[is default constructible]	false
[name property]	Name

4.105 ColorAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ColorAnimationBase > ColorAnimationUsingKeyFrames	
ColorAnimationUsingKeyFrames	
(usage)	<ColorAnimationUsingKeyFrames> ColorKeyFrame *</ColorAnimationUsingKeyFrames>
(description)	Animates the value of a Color property along a set of KeyFrames over a specified Duration.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean

(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	ColorKeyFrameCollection
(description)	The collection of ColorKeyFrame objects that define the animation.

4.106 ColorContext

x:Object > ColorContext	
<h2>ColorContext</h2>	
(usage)	None.
(description)	Represents the International Color Consortium (ICC) or Image Color Management (ICM) color profile that is associated with a bitmap image.
(used by)	BitmapEncoder ReadOnlyCollection(ColorContext)
[is default constructible]	false

4.107 ColorConvertedBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > ColorConvertedBitmap	
<h2>ColorConvertedBitmap</h2>	
(usage)	<ColorConvertedBitmap> string </ColorConvertedBitmap>
(description)	Changes the color space of a BitmapSource.
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
DestinationFormat	PixelFormat
(description)	A value that represents the PixelFormat of the converted bitmap.
Source	BitmapSource
(description)	A value that identifies the source bitmap that is converted.

4.108 ColorConvertedBitmapExtension

x:Object > x:MarkupExtension > ColorConvertedBitmapExtension	
<h2>ColorConvertedBitmapExtension</h2>	
(usage)	{ColorConvertedBitmap } <ColorConvertedBitmap />
(description)	Implements a markup extension that enables ColorConvertedBitmap creation. A ColorConvertedBitmap does not have an embedded profile, the profile instead being based on source and destination values.
[return value type]	ColorConvertedBitmap
[constructors]	
(1 parameter)	
image	x:Object
(description)	A string that is parsed to determine three URIs: image source, source color context, and destination color context.

4.109 ColorInterpolationMode

x:Object > ColorInterpolationMode	
<h2>ColorInterpolationMode</h2>	
(usage)	ScRgbLinearInterpolation SRgbLinearInterpolation
(description)	Determines how the colors in a gradient are interpolated.
(used by)	GradientBrush
[is nullable]	false
[text syntax]	ColorInterpolationModeSyntax

4.110 ColorKeyFrame

x:Object > DependencyObject > Freezable > ColorKeyFrame	
<h2>ColorKeyFrame</h2>	
DiscreteColorKeyFrame EasingColorKeyFrame LinearColorKeyFrame SplineColorKeyFrame	

(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a ColorAnimationUsingKeyFrames .
(used by)	ColorKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Color
(description)	The key frame's target value.

4.111 ColorKeyFrameCollection

x:Object > DependencyObject > Freezable > ColorKeyFrameCollection	
<h2>ColorKeyFrameCollection</h2>	
(usage)	<ColorKeyFrameCollection> ColorKeyFrame *</ColorKeyFrameCollection>
(description)	Represents a collection of ColorKeyFrame objects.
(used by)	ColorAnimationUsingKeyFrames
[is list]	true
[allowed types]	ColorKeyFrame
(static properties)	
Empty	ColorKeyFrameCollection
(description)	An empty ColorKeyFrameCollection .

4.112 Colors

x:Object > Colors	
<h2>Colors</h2>	
(usage)	{x:Static Colors.StaticPropertyName}
(description)	Implements a set of predefined colors.

[is default constructible]	false
(static properties)	
AliceBlue	Color
(description)	The system-defined color that has an ARGB value of #FFF0F8FF.
AntiqueWhite	Color
(description)	The system-defined color that has an ARGB value of #FFFAEBD7.
Aqua	Color
(description)	The system-defined color that has an ARGB value of #FF00FFFF.
Aquamarine	Color
(description)	The system-defined color that has an ARGB value of #FF7FFFD4.
Azure	Color
(description)	The system-defined color that has an ARGB value of #FFF0FFFF.
Beige	Color
(description)	The system-defined color that has an ARGB value of #FFF5F5DC.
Bisque	Color
(description)	The system-defined color that has an ARGB value of #FFF5E4C4.
Black	Color
(description)	The system-defined color that has an ARGB value of #FF000000.
BlanchedAlmond	Color
(description)	The system-defined color that has an ARGB value of #FFF5EBCD.
Blue	Color
(description)	The system-defined color that has an ARGB value of #FF0000FF.
BlueViolet	Color
(description)	The system-defined color that has an ARGB value of #FF8A2BE2.
Brown	Color
(description)	The system-defined color that has an ARGB value of #FFA52A2A.
BurlyWood	Color
(description)	The system-defined color that has an ARGB value of #FFDEB887.
CadetBlue	Color
(description)	The system-defined color that has an ARGB value of #FF5F9EA0.
Chartreuse	Color
(description)	The system-defined color that has an ARGB value of #FF7FFF00.

Chocolate	Color
(description)	The system-defined color that has an ARGB value of #FFD2691E.
Coral	Color
(description)	The system-defined color that has an ARGB value of #FFFF7F50.
CornflowerBlue	Color
(description)	The system-defined color that has an ARGB value of #FF6495ED.
Cornsilk	Color
(description)	The system-defined color that has an ARGB value of #FFFFF8DC.
Crimson	Color
(description)	The system-defined color that has an ARGB value of #FFDC143C.
Cyan	Color
(description)	The system-defined color that has an ARGB value of #FF00FFFF.
DarkBlue	Color
(description)	The system-defined color that has an ARGB value of #FF00008B.
DarkCyan	Color
(description)	The system-defined color that has an ARGB value of #FF008B8B.
DarkGoldenrod	Color
(description)	The system-defined color that has an ARGB value of #FFB8860B.
DarkGray	Color
(description)	The system-defined color that has an ARGB value of #FFA9A9A9.
DarkGreen	Color
(description)	The system-defined color that has an ARGB value of #FF006400.
DarkKhaki	Color
(description)	The system-defined color that has an ARGB value of #FFBDB76B.
DarkMagenta	Color
(description)	The system-defined color that has an ARGB value of #FF8B008B.
DarkOliveGreen	Color
(description)	The system-defined color that has an ARGB value of #FF556B2F.
DarkOrange	Color
(description)	The system-defined color that has an ARGB value of #FFFF8C00.
DarkOrchid	Color
(description)	The system-defined color that has an ARGB value of #FF9932CC.

DarkRed	Color
(description)	The system-defined color that has an ARGB value of #FF8B0000.
DarkSalmon	Color
(description)	The system-defined color that has an ARGB value of #FFE9967A.
DarkSeaGreen	Color
(description)	The system-defined color that has an ARGB value of #FF8FBC8F.
DarkSlateBlue	Color
(description)	The system-defined color that has an ARGB value of #FF483D8B.
DarkSlateGray	Color
(description)	The system-defined color that has an ARGB value of #FF2F4F4F.
DarkTurquoise	Color
(description)	The system-defined color that has an ARGB value of #FF00CED1.
DarkViolet	Color
(description)	The system-defined color that has an ARGB value of #FF9400D3.
DeepPink	Color
(description)	The system-defined color that has an ARGB value of #FFFF1493.
DeepSkyBlue	Color
(description)	The system-defined color that has an ARGB value of #FF00BFFF.
DimGray	Color
(description)	The system-defined color that has an ARGB value of #FF696969.
DodgerBlue	Color
(description)	The system-defined color that has an ARGB value of #FF1E90FF.
Firebrick	Color
(description)	The system-defined color that has an ARGB value of #FFB22222.
FloralWhite	Color
(description)	The system-defined color that has an ARGB value of #FFFFFFA0.
ForestGreen	Color
(description)	The system-defined color that has an ARGB value of #FF228B22.
Fuchsia	Color
(description)	The system-defined color that has an ARGB value of #FFFF00FF.
Gainsboro	Color
(description)	The system-defined color that has an ARGB value of #FFDCDCDC.

GhostWhite	Color
(description)	The system-defined color that has an ARGB value of #FFF8F8FF.
Gold	Color
(description)	The system-defined color that has an ARGB value of #FFFFD700.
Goldenrod	Color
(description)	The system-defined color that has an ARGB value of #FFDAA520.
Gray	Color
(description)	The system-defined color that has an ARGB value of #FF808080.
Green	Color
(description)	The system-defined color that has an ARGB value of #FF008000.
GreenYellow	Color
(description)	The system-defined color that has an ARGB value of #FFADFF2F.
Honeydew	Color
(description)	The system-defined color that has an ARGB value of #FFF0FF0.
HotPink	Color
(description)	The system-defined color that has an ARGB value of #FFF69B4.
IndianRed	Color
(description)	The system-defined color that has an ARGB value of #FFCD5C5C.
Indigo	Color
(description)	The system-defined color that has an ARGB value of #FF4B0082.
Ivory	Color
(description)	The system-defined color that has an ARGB value of #FFFFFFF0.
Khaki	Color
(description)	The system-defined color that has an ARGB value of #FFF0E68C.
Lavender	Color
(description)	The system-defined color that has an ARGB value of #FFE6E6FA.
LavenderBlush	Color
(description)	The system-defined color that has an ARGB value of #FFFFFF0F5.
LawnGreen	Color
(description)	The system-defined color that has an ARGB value of #FF7CFC00.
LemonChiffon	Color
(description)	The system-defined color that has an ARGB value of #FFFFACD.

LightBlue	Color
(description)	The system-defined color that has an ARGB value of #FFADD8E6.
LightCoral	Color
(description)	The system-defined color that has an ARGB value of #FFF08080.
LightCyan	Color
(description)	The system-defined color that has an ARGB value of #FFE0FFFF.
LightGoldenrodYellow	Color
(description)	The system-defined color that has an ARGB value of #FFFAFAD2.
LightGray	Color
(description)	The system-defined color that has an ARGB value of #FFD3D3D3.
LightGreen	Color
(description)	The system-defined color that has an ARGB value of #FF90EE90.
LightPink	Color
(description)	The system-defined color that has an ARGB value of #FFFB6C1.
LightSalmon	Color
(description)	The system-defined color that has an ARGB value of #FFFA07A.
LightSeaGreen	Color
(description)	The system-defined color that has an ARGB value of #FF20B2AA.
LightSkyBlue	Color
(description)	The system-defined color that has an ARGB value of #FF87CEFA.
LightSlateGray	Color
(description)	The system-defined color that has an ARGB value of #FF778899.
LightSteelBlue	Color
(description)	The system-defined color that has an ARGB value of #FFB0C4DE.
LightYellow	Color
(description)	The system-defined color that has an ARGB value of #FFFFFFE0.
Lime	Color
(description)	The system-defined color that has an ARGB value of #FF00FF00.
LimeGreen	Color
(description)	The system-defined color that has an ARGB value of #FF32CD32.
Linen	Color
(description)	The system-defined color that has an ARGB value of #FFFAF0E6.

Magenta	Color
(description)	The system-defined color that has an ARGB value of #FFFF00FF.
Maroon	Color
(description)	The system-defined color that has an ARGB value of #FF800000.
MediumAquaMarine	Color
(description)	The system-defined color that has an ARGB value of #FF66CDAA.
MediumBlue	Color
(description)	The system-defined color that has an ARGB value of #FF0000CD.
MediumOrchid	Color
(description)	The system-defined color that has an ARGB value of #FFBA55D3.
MediumPurple	Color
(description)	The system-defined color that has an ARGB value of #FF9370DB.
MediumSeaGreen	Color
(description)	The system-defined color that has an ARGB value of #FF3CB371.
MediumSlateBlue	Color
(description)	The system-defined color that has an ARGB value of #FF7B68EE.
MediumSpringGreen	Color
(description)	The system-defined color that has an ARGB value of #FF00FA9A.
MediumTurquoise	Color
(description)	The system-defined color that has an ARGB value of #FF48D1CC.
MediumVioletRed	Color
(description)	The system-defined color that has an ARGB value of #FFC71585.
MidnightBlue	Color
(description)	The system-defined color that has an ARGB value of #FF191970.
MintCream	Color
(description)	The system-defined color that has an ARGB value of #FFF5FFFA.
MistyRose	Color
(description)	The system-defined color that has an ARGB value of #FFFFE4E1.
Moccasin	Color
(description)	The system-defined color that has an ARGB value of #FFFFE4B5.
NavajoWhite	Color
(description)	The system-defined color that has an ARGB value of #FFFDEAD.

Navy	Color
(description)	The system-defined color that has an ARGB value of #FF00080.
OldLace	Color
(description)	The system-defined color that has an ARGB value of #FFDF5E6.
Olive	Color
(description)	The system-defined color that has an ARGB value of #FF80800.
OliveDrab	Color
(description)	The system-defined color that has an ARGB value of #FF6B8E23.
Orange	Color
(description)	The system-defined color that has an ARGB value of #FFFA500.
OrangeRed	Color
(description)	The system-defined color that has an ARGB value of #FFF4500.
Orchid	Color
(description)	The system-defined color that has an ARGB value of #FFDA70D6.
PaleGoldenrod	Color
(description)	The system-defined color that has an ARGB value of #FFEE8AA.
PaleGreen	Color
(description)	The system-defined color that has an ARGB value of #FF98FB98.
PaleTurquoise	Color
(description)	The system-defined color that has an ARGB value of #FFAFEEEE.
PaleVioletRed	Color
(description)	The system-defined color that has an ARGB value of #FFDB7093.
PapayaWhip	Color
(description)	The system-defined color that has an ARGB value of #FFFDFD5.
PeachPuff	Color
(description)	The system-defined color that has an ARGB value of #FFFDAB9.
Peru	Color
(description)	The system-defined color that has an ARGB value of #FFCD853F.
Pink	Color
(description)	The system-defined color that has an ARGB value of #FFF0C0CB.
Plum	Color
(description)	The system-defined color that has an ARGB value of #FFDDA0DD.

PowderBlue	Color
(description)	The system-defined color that has an ARGB value of #FFB0E0E6.
Purple	Color
(description)	The system-defined color that has an ARGB value of #FF800080.
Red	Color
(description)	The system-defined color that has an ARGB value of #FFFF0000.
RosyBrown	Color
(description)	The system-defined color that has an ARGB value of #FFBC8F8F.
RoyalBlue	Color
(description)	The system-defined color that has an ARGB value of #FF4169E1.
SaddleBrown	Color
(description)	The system-defined color that has an ARGB value of #FF8B4513.
Salmon	Color
(description)	The system-defined color that has an ARGB value of #FFFA8072.
SandyBrown	Color
(description)	The system-defined color that has an ARGB value of #FFF4A460.
SeaGreen	Color
(description)	The system-defined color that has an ARGB value of #FF2E8B57.
SeaShell	Color
(description)	The system-defined color that has an ARGB value of #FFFFFF5EE.
Sienna	Color
(description)	The system-defined color that has an ARGB value of #FFA0522D.
Silver	Color
(description)	The system-defined color that has an ARGB value of #FFC0C0C0.
SkyBlue	Color
(description)	The system-defined color that has an ARGB value of #FF87CEEB.
SlateBlue	Color
(description)	The system-defined color that has an ARGB value of #FF6A5ACD.
SlateGray	Color
(description)	The system-defined color that has an ARGB value of #FF708090.
Snow	Color
(description)	The system-defined color that has an ARGB value of #FFFFFFAFA.

SpringGreen	Color
(description)	The system-defined color that has an ARGB value of #FF00FF7F.
SteelBlue	Color
(description)	The system-defined color that has an ARGB value of #FF4682B4.
Tan	Color
(description)	The system-defined color that has an ARGB value of #FFD2B48C.
Teal	Color
(description)	The system-defined color that has an ARGB value of #FF008080.
Thistle	Color
(description)	The system-defined color that has an ARGB value of #FFD8BFD8.
Tomato	Color
(description)	The system-defined color that has an ARGB value of #FFFF6347.
Transparent	Color
(description)	The system-defined color that has an ARGB value of #00FFFFFF.
Turquoise	Color
(description)	The system-defined color that has an ARGB value of #FF40E0D0.
Violet	Color
(description)	The system-defined color that has an ARGB value of #FFEE82EE.
Wheat	Color
(description)	The system-defined color that has an ARGB value of #FFF5DEB3.
White	Color
(description)	The system-defined color that has an ARGB value of #FFFFFFFF.
WhiteSmoke	Color
(description)	The system-defined color that has an ARGB value of #FFF5F5F5.
Yellow	Color
(description)	The system-defined color that has an ARGB value of #FFFFFF00.
YellowGreen	Color
(description)	The system-defined color that has an ARGB value of #FF9ACD32.

4.113 ColumnDefinition

x:Object > DependencyObject > ContentElement > FrameworkContentElement > DefinitionBase > ColumnDefinition, InputElement	
ColumnDefinition	
(usage)	<ColumnDefinition />
(description)	Defines column-specific properties that apply to Grid elements.
(used by)	ColumnDefinitionCollection ICollection(ColumnDefinition) IList(ColumnDefinition)
[name property]	Name
[xml lang property]	Language
(properties)	
MaxWidth	x:Double
(description)	A value that represents the maximum width of a ColumnDefinition.
[text syntax]	LengthSyntax
MinWidth	x:Double
(description)	A value that represents the minimum width of a ColumnDefinition.
[text syntax]	LengthSyntax
Width	GridLength
(description)	The calculated width of a ColumnDefinition element, or sets the GridLength value of a column that is defined by the ColumnDefinition.

4.114 ColumnDefinitionCollection

x:Object > ColumnDefinitionCollection	
ColumnDefinitionCollection	
(usage)	None.
(description)	Provides access to an ordered, strongly typed collection of ColumnDefinition objects.
(used by)	Grid
[is default constructible]	false
[is list]	true

[allowed types]	ColumnDefinition
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4.115 ColumnSpaceDistribution

x:Object > ColumnSpaceDistribution	
<h2>ColumnSpaceDistribution</h2>	
(usage)	Left Right Between
(description)	Describes how to distribute space in columnated flow content.
[is nullable]	false
[text syntax]	ColumnSpaceDistributionSyntax

4.116 CombinedGeometry

x:Object > DependencyObject > Freezable > Animatable > Geometry > CombinedGeometry	
<h2>CombinedGeometry</h2>	
(usage)	<CombinedGeometry> string </CombinedGeometry>
(description)	Represents a 2-D geometric shape defined by the combination of two Geometry objects.
[text syntax]	GeometrySyntax
(properties)	
Geometry1	Geometry
(description)	The first Geometry object of this CombinedGeometry object.
Geometry2	Geometry
(description)	The second Geometry object of this CombinedGeometry object.
GeometryCombineMode	GeometryCombineMode
(description)	The way by which the two geometries (specified by the Geometry1 and Geometry2 properties) are combined.

4.117 ComboBox

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [Selector](#) > [ComboBox](#), [IInputElement](#)

ComboBox

(usage)	<ComboBox> x:Object *</ComboBox>
(description)	Represents a selection control with a drop-down list that can be shown or hidden by clicking the arrow on the control.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
IsDropDownOpen	x:Boolean
(description)	A value that indicates whether the drop-down for a combo box is currently open.
IsEditable	x:Boolean
(description)	A value that enables or disables editing of the text in text box of the ComboBox.
IsReadOnly	x:Boolean
(description)	A value that enables selection-only mode, in which the contents of the combo box are selectable but not editable.
MaxDropDownHeight	x:Double
(description)	The maximum height for a combo box drop-down.
[text syntax]	LengthSyntax
ShouldPreserveUserEnteredPrefix	x:Boolean
(description)	A value that indicates whether the ComboBox keeps the user's input or replaces the input with a matching item.
StaysOpenOnEdit	x:Boolean
(description)	Whether a ComboBox that is open and displays a drop-down control will remain open when a user clicks the TextBox.
Text	x:String
(description)	The text of the currently selected item.
(events)	
DropDownClosed	Occurs when the drop-down list of the combo box closes.

DropDownOpened	Occurs when the drop-down list of the combo box opens.
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4.118 ComboBoxItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ListBoxItem > ComboBoxItem , InputElement	
<h2>ComboBoxItem</h2>	
(usage)	<ComboBoxItem> x:Object </ComboBoxItem>
(description)	Implements a selectable item inside a ComboBox.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.119 CommandBinding

x:Object > CommandBinding	
<h2>CommandBinding</h2>	
(usage)	<CommandBinding />
(description)	Binds a RoutedCommand to the event handlers that implement the command.
(used by)	CommandBindingCollection
(properties)	
Command	ICommand
(description)	The ICommand associated with this CommandBinding.
(events)	
CanExecute	Occurs when the command associated with this CommandBinding initiates a check to determine whether the command can be executed on the command target.
Executed	Occurs when the command associated with this CommandBinding executes.
PreviewCanExecute	Occurs when the command associated with this CommandBinding initiates a check to determine whether the command can be executed on the current command target.

PreviewExecuted	Occurs when the command associated with this CommandBinding executes.
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4.120 CommandBindingCollection

x:Object > CommandBindingCollection	
CommandBindingCollection	
(usage)	<CommandBindingCollection> CommandBinding *</CommandBindingCollection>
(description)	Represents a collection of CommandBinding objects.
(used by)	ContentElement UIElement UIElement3D
[is list]	true
[allowed types]	CommandBinding

4.121 ComponentCommands

x:Object > ComponentCommands	
ComponentCommands	
(usage)	{x:Static ComponentCommands.StaticPropertyName}
(description)	Provides a standard set of component-related commands, which have predefined key input gestures and Text properties.
[is default constructible]	false
(static properties)	
ExtendSelectionDown	RoutedUICommand
(description)	The value that represents the Extend Selection Down command.
ExtendSelectionLeft	RoutedUICommand
(description)	The value that represents the Extend Selection Left command.
ExtendSelectionRight	RoutedUICommand
(description)	The value that represents the Extend Selection Right command.
ExtendSelectionUp	RoutedUICommand
(description)	The value that represents the Extend Selection Up command.

MoveDown	RoutedUICommand
(description)	The value that represents the Move Down command.
MoveFocusBack	RoutedUICommand
(description)	The value that represents the Move Focus Back command.
MoveFocusDown	RoutedUICommand
(description)	The value that represents the Move Focus Down command.
MoveFocusForward	RoutedUICommand
(description)	The value that represents the Move Focus Forward command.
MoveFocusPageDown	RoutedUICommand
(description)	The value that represents the Move Focus Page Down command.
MoveFocusPageUp	RoutedUICommand
(description)	The value that represents the Move Focus Page Up command.
MoveFocusUp	RoutedUICommand
(description)	The value that represents the Move Focus Up command.
MoveLeft	RoutedUICommand
(description)	The value that represents the Move Left command.
MoveRight	RoutedUICommand
(description)	The value that represents the Move Right command.
MoveToEnd	RoutedUICommand
(description)	The value that represents the Move To End command.
MoveToHome	RoutedUICommand
(description)	The value that represents the Move To Home command.
MoveToPageDown	RoutedUICommand
(description)	The value that represents the Move To Page Down command.
MoveToPageUp	RoutedUICommand
(description)	The value that represents the Move To Page Up command.
MoveUp	RoutedUICommand
(description)	The value that represents the Move Up command.
ScrollByLine	RoutedUICommand
(description)	The value that represents the Scroll By Line command.
ScrollPageDown	RoutedUICommand
(description)	The value that represents the Scroll Page Down command.

ScrollPageLeft	RoutedUICommand
(description)	The value that represents the Scroll Page Left command.
ScrollPageRight	RoutedUICommand
(description)	The value that represents the Scroll Page Right command.
ScrollPageUp	RoutedUICommand
(description)	The value that represents the Scroll Page Up command.
SelectToEnd	RoutedUICommand
(description)	The value that represents the Select To End command.
SelectToHome	RoutedUICommand
(description)	The value that represents the Select To Home command.
SelectToPageDown	RoutedUICommand
(description)	The value that represents the Select To Page Down command.
SelectToPageUp	RoutedUICommand
(description)	The value that represents the Select To Page Up command.

4.122 ComponentResourceKey

x:Object > x:MarkupExtension > ResourceKey > ComponentResourceKey	
<h2>ComponentResourceKey</h2>	
(usage)	{ComponentResourceKey } <ComponentResourceKey />
(description)	Defines or references resource keys based on type names in external assemblies, as well as an additional identifier.
(used by)	CalendarItem DataGrid DataGridColumnHeader DataGridComboBoxColumn
[return value type]	ResourceKey
[constructors]	
(2 parameters)	
typeInTargetAssembly	x:XamlType
(description)	The type that defines the resource key.
resourceId	x:Object
(description)	A unique identifier to differentiate this ComponentResourceKey from others associated with the type.

(properties)	
ResourceId	x:Object
(description)	A unique identifier to differentiate this key from others associated with this type.
TypeInTargetAssembly	x:XamlType
(description)	The Type that defines the resource key.

4.123 CompositeCollection

x:Object > CompositeCollection	
CompositeCollection	
(usage)	<CompositeCollection> x:Object *</CompositeCollection>
(description)	Enables multiple collections and items to be displayed as a single list.
[is list]	true
[allowed types]	x:Object

4.124 Condition

x:Object > Condition	
Condition	
(usage)	<Condition />
(description)	Represents a condition for the MultiTrigger and the MultiDataTrigger, which apply changes to property values based on a set of conditions.
(used by)	Collection(Condition) ConditionCollection ICollection(Condition) IList(Condition)
(properties)	
Binding	BindingBase
(description)	The binding that specifies the property of the condition. This is only applicable to MultiDataTrigger objects.
Property	DependencyProperty
(description)	The property of the condition. This is only applicable to MultiTrigger objects.
SourceName	x:String

(description)	The name of the object with the property that causes the associated setters to be applied. This is only applicable to MultiTrigger objects.
Value	x:Object
(description)	The value of the condition.
[text syntax]	This property's text syntax is the text syntax of the Property.

4.125 ConditionCollection

x:Object > Collection(Condition) > ConditionCollection	
ConditionCollection	
(usage)	<ConditionCollection> Condition *</ConditionCollection>
(description)	Represents a collection of Condition objects.
(used by)	MultiDataTrigger MultiTrigger
[is list]	true
[allowed types]	Condition

4.126 ContainerUIElement3D

x:Object > DependencyObject > Visual3D > UIElement3D > ContainerUIElement3D , InputElement	
ContainerUIElement3D	
(usage)	<ContainerUIElement3D> Visual3D *</ContainerUIElement3D>
(description)	Represents a container for Visual3D objects.
[content property]	Children
(properties)	
Children	Visual3DCollection
(description)	A Visual3DCollection of child elements of this ContainerUIElement3D object.
[read only]	true

4.127 ContainerVisual

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [ContainerVisual](#)

ContainerVisual

[DrawingVisual](#) [HostVisual](#)

(usage)	<ContainerVisual />
(description)	Manages a collection of Visual objects.
(properties)	
CacheMode	CacheMode
(description)	A cached representation of the ContainerVisual.
Children	VisualCollection
(description)	The child collection of the ContainerVisual.
[read only]	true
Clip	Geometry
(description)	The clipping region of the ContainerVisual.
Effect	Effect
(description)	The bitmap effect to apply to the ContainerVisual.
Offset	Vector
(description)	The offset value of the ContainerVisual from its reference point.
Opacity	x:Double
(description)	The opacity of the ContainerVisual, based on 0=transparent, 1=opaque.
OpacityMask	Brush
(description)	A brush that specifies a possible opacity mask for the ContainerVisual.
Transform	Transform
(description)	The transform that is applied to the ContainerVisual.
XSnappingGuidelines	DoubleCollection
(description)	The X (horizontal) guideline for the ContainerVisual.
YSnappingGuidelines	DoubleCollection
(description)	The Y (vertical) guideline for the ContainerVisual.

4.128 ContentControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl , InputElement	
<h1>ContentControl</h1>	
ButtonBase DataGridCell Frame GroupItem HeaderedContentControl Label ListBoxItem RibbonControl RibbonGalleryItem RibbonTabHeader ScrollViewer StatusBarItem ToolTip UserControl Window	
(usage)	<code><ContentControl>x:Object</ContentControl></code>
(description)	Represents a control with a single piece of content of any type.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
Content	x:Object
(description)	The content of a ContentControl.
ContentStringFormat	x:String
(description)	A composite string that specifies how to format the Content property if it is displayed as a string.
ContentTemplate	DataTemplate
(description)	The data template used to display the content of the ContentControl.
ContentTemplateSelector	DataTemplateSelector
(description)	A template selector that enables an application writer to provide custom template-selection logic.

4.129 ContentElement

x:Object > DependencyObject > ContentElement , InputElement	
<h1>ContentElement</h1>	
FrameworkContentElement	
(usage)	<code><ContentElement /></code>
(description)	Provides a core-level base type for content elements. Content elements are designed for flow-style presentation, using an intuitive markup-oriented layout model and a deliberately simple object model.
(properties)	

AllowDrop	x:Boolean
(description)	A value that indicates whether this element can be used as the target of a drag-and-drop operation.
CommandBindings	CommandBindingCollection
(description)	A collection of CommandBinding objects that are associated with this element.
[read only]	true
Focusable	x:Boolean
(description)	A value that indicates whether the element can receive focus.
InputBindings	InputBindingCollection
(description)	The collection of input bindings that are associated with this element.
[read only]	true
IsEnabled	x:Boolean
(description)	A value that indicates whether this element is enabled in the user interface (UI).
(events)	
DragEnter	Occurs when the input system reports an underlying drag event with this element as the drag target.
DragLeave	Occurs when the input system reports an underlying drag event with this element as the drag origin.
DragOver	Occurs when the input system reports an underlying drag event with this element as the potential drop target.
Drop	Occurs when the input system reports an underlying drop event with this element as the drop target.
FocusableChanged	Occurs when the value of the Focusable property changes.
GiveFeedback	Occurs when the input system reports an underlying drag-and-drop event that involves this element.
GotFocus	Occurs when this element gets logical focus.
GotKeyboardFocus	Occurs when the keyboard is focused on this element.
GotMouseCapture	Occurs when this element captures the mouse.
GotStylusCapture	Occurs when this element captures the stylus.
GotTouchCapture	Occurs when a touch is captured to this element.
IsEnabledChanged	Occurs when the value of the IsEnabled property on this element changes.
IsKeyboardFocusedChanged	Occurs when the value of the IsKeyboardFocused property changes on this element.

IsKeyboardFocusWithinChanged	Occurs when the value of the IsKeyboardFocusWithinChanged property changes on this element.
IsMouseCapturedChanged	Occurs when the value of the IsMouseCaptured property changes on this element.
IsMouseCaptureWithinChanged	Occurs when the value of the IsMouseCaptureWithinProperty changes on this element.
IsMouseDirectlyOverChanged	Occurs when the value of the IsMouseDirectlyOver property changes on this element.
IsStylusCapturedChanged	Occurs when the value of the IsStylusCaptured property changes on this element.
IsStylusCaptureWithinChanged	Occurs when the value of the IsStylusCaptureWithin property changes on this element.
IsStylusDirectlyOverChanged	Occurs when the value of the IsStylusDirectlyOver property changes on this element.
KeyDown	Occurs when a key is pressed while focus is on this element.
KeyUp	Occurs when a key is released while focus is on this element.
LostFocus	Occurs when this element loses logical focus.
LostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
LostMouseCapture	Occurs when this element loses mouse capture.
LostStylusCapture	Occurs when this element loses stylus capture.
LostTouchCapture	Occurs when this element loses a touch capture.
MouseDown	Occurs when any mouse button is pressed while the pointer is over this element.
MouseEnter	Occurs when the mouse pointer enters the bounds of this element.
MouseLeave	Occurs when the mouse pointer leaves the bounds of this element.
MouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over this element.
MouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over this element.
MouseMove	Occurs when the mouse pointer moves while over this element.
MouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over this element.
MouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over this element.
MouseUp	Occurs when any mouse button is released over this element.

MouseWheel	Occurs when the user rotates the mouse wheel while the mouse pointer is over this element.
PreviewDragEnter	Occurs when the input system reports an underlying drag event with this element as the drag target.
PreviewDragLeave	Occurs when the input system reports an underlying drag event with this element as the drag origin.
PreviewDragOver	Occurs when the input system reports an underlying drag event with this element as the potential drop target.
PreviewDrop	Occurs when the input system reports an underlying drop event with this element as the drop target.
PreviewGiveFeedback	Occurs when a drag-and-drop operation is started.
PreviewGotKeyboardFocus	Occurs when the keyboard is focused on this element.
PreviewKeyDown	Occurs when a key is pressed while the keyboard is focused on this element.
PreviewKeyUp	Occurs when a key is released while the keyboard is focused on this element.
PreviewLostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
PreviewMouseDown	Occurs when any mouse button is pressed while the pointer is over this element.
PreviewMouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over this element.
PreviewMouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over this element.
PreviewMouseMove	Occurs when the mouse pointer moves while the mouse pointer is over this element.
PreviewMouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over this element.
PreviewMouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over this element.
PreviewMouseUp	Occurs when any mouse button is released while the mouse pointer is over this element.
PreviewMouseWheel	Occurs when the user rotates the mouse wheel while the mouse pointer is over this element.
PreviewQueryContinueDrag	Occurs when there is a change in the keyboard or mouse button state during a drag-and-drop operation.
PreviewStylusButtonDown	Occurs when the stylus button is pressed while the pointer is over this element.
PreviewStylusButtonUp	Occurs when the stylus button is released while the pointer is over this element.

PreviewStylusDown	Occurs when the stylus touches the digitizer while it is over this element.
PreviewStylusInAirMove	Occurs when the stylus moves over an element without actually touching the digitizer.
PreviewStylusInRange	Occurs when the stylus is close enough to the digitizer to be detected, while over this element.
PreviewStylusMove	Occurs when the stylus moves while over the element. The stylus must move while being detected by the digitizer to raise this event, otherwise, PreviewStylusInAirMove is raised instead.
PreviewStylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected.
PreviewStylusSystemGesture	Occurs when a user performs one of several stylus gestures.
PreviewStylusUp	Occurs when the user raises the stylus off the digitizer while the stylus is over this element.
PreviewTextInput	Occurs when this element gets text in a device-independent manner.
PreviewTouchDown	Occurs when a finger touches the screen while the finger is over this element.
PreviewTouchMove	Occurs when a finger moves on the screen while the finger is over this element.
PreviewTouchUp	Occurs when a finger is raised off of the screen while the finger is over this element.
QueryContinueDrag	Occurs when there is a change in the keyboard or mouse button state during a drag-and-drop operation.
QueryCursor	Occurs when the cursor is requested to display. This event is raised on an element each time that the mouse pointer moves to a new location, which means the cursor object might need to be changed based on its new position.
StylusButtonDown	Occurs when the stylus button is pressed while the pointer is over this element.
StylusButtonUp	Occurs when the stylus button is released while the pointer is over this element.
StylusDown	Occurs when the stylus touches the digitizer while the stylus is over this element.
StylusEnter	Occurs when the stylus enters the bounds of this element.
StylusInAirMove	Occurs when the stylus moves over an element without actually touching the digitizer.
StylusInRange	Occurs when the stylus is close enough to the digitizer to be detected, while over this element.
StylusLeave	Occurs when the stylus leaves the bounds of the element.
StylusMove	Occurs when the stylus moves over this element. The stylus must move while on the digitizer to raise this event. Otherwise, StylusInAirMove is raised instead.

StylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected, while over this element.
StylusSystemGesture	Occurs when a user performs one of several stylus gestures.
StylusUp	Occurs when the user raises the stylus off the digitizer while it is over this element.
TextInput	Occurs when this element gets text in a device-independent manner.
TouchDown	Occurs when a finger touches the screen while the finger is over this element.
TouchEnter	Occurs when a touch moves from outside to inside the bounds of this element.
TouchLeave	Occurs when a touch moves from inside to outside the bounds of this element.
TouchMove	Occurs when a finger moves on the screen while the finger is over this element.
TouchUp	Occurs when a finger is raised off of the screen while the finger is over this element.

4.130 ContentOperations

x:Object > ContentOperations	
ContentOperations	
(usage)	None.
(description)	Provides ways for manipulating the position of a ContentElement in an element tree.
[is default constructible]	false
(attachable properties)	
ContentOperations.Parent	DependencyObject
(description)	
[target type]	ContentElement

4.131 ContentPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ContentPresenter , IInputElement	
ContentPresenter	
DataGridDetailsPresenter RibbonContentPresenter ScrollContentPresenter	

(usage)	<ContentPresenter />
(description)	Displays the content of a ContentControl.
[name property]	Name
[xml lang property]	Language
(properties)	
Content	x:Object
(description)	The data used to generate the child elements of a ContentPresenter.
ContentSource	x:String
(description)	The base name to use during automatic aliasing.
ContentStringFormat	x:String
(description)	A composite string that specifies how to format the Content property if it is displayed as a string.
ContentTemplate	DataTemplate
(description)	The template used to display the content of the control.
ContentTemplateSelector	DataTemplateSelector
(description)	The DataTemplateSelector, which allows the application writer to provide custom logic for choosing the template that is used to display the content of the control.
RecognizesAccessKey	x:Boolean
(description)	A value that indicates whether the ContentPresenter should use AccessText in its style.

4.132 ContextMenu

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase > ContextMenu , InputElement	
<h2>ContextMenu</h2>	
RibbonContextMenu	
(usage)	<ContextMenu> x:Object *</ContextMenu>
(description)	Represents a pop-up menu that enables a control to expose functionality that is specific to the context of the control.
(used by)	ContextMenuService FrameworkContentElement FrameworkElement GridView GridViewHeaderRowPresenter

[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
HasDropShadow	x:Boolean
(description)	A value that indicates whether the context menu appears with a dropped shadow.
HorizontalOffset	x:Double
(description)	Get or sets the horizontal distance between the target origin and the popup alignment point.
[text syntax]	LengthSyntax
IsOpen	x:Boolean
(description)	A value that indicates whether the ContextMenu is visible.
Placement	PlacementMode
(description)	The Placement property of a ContextMenu.
PlacementRectangle	Rect
(description)	The area relative to which the context menu is positioned when it opens.
PlacementTarget	UIElement
(description)	The UIElement relative to which the ContextMenu is positioned when it opens.
StaysOpen	x:Boolean
(description)	A value that indicates whether the ContextMenu should close automatically.
VerticalOffset	x:Double
(description)	Get or sets the vertical distance between the target origin and the popup alignment point.
[text syntax]	LengthSyntax
(events)	
Closed	Occurs when a particular instance of a ContextMenu closes.
Opened	Occurs when a particular instance of a context menu opens.

4.133 ContextMenuService

[x:Object](#) > [ContextMenuService](#)

ContextMenuService	
(usage)	None.
(description)	Provides the system implementation for displaying a ContextMenu.
[is default constructible]	false
(attachable properties)	
ContextMenuService.ContextMenu	ContextMenu
(description)	The content of a ContextMenu.
[target type]	DependencyObject
ContextMenuService.HasDropShadow	x:Boolean
(description)	A value that indicates whether the ContextMenu has the drop shadow effect enabled.
[target type]	DependencyObject
ContextMenuService.HorizontalOffset	x:Double
(description)	A value that indicates where along the x-direction to place the ContextMenu with respect to the parent control.
[target type]	DependencyObject
[text syntax]	LengthSyntax
ContextMenuService.IsEnabled	x:Boolean
(description)	A value that indicates whether the ContextMenu can be shown.
[target type]	DependencyObject
ContextMenuService.Placement	PlacementMode
(description)	A value that specifies the placement of the ContextMenu relative to the PlacementTarget or PlacementRectangle.
[target type]	DependencyObject
ContextMenuService.PlacementRectangle	Rect
(description)	The area relative to which the context menu is positioned when it opens.
[target type]	DependencyObject
ContextMenuService.PlacementTarget	UIElement
(description)	The parent control of the ContextMenu.

[target type]	DependencyObject
ContextMenuService.ShowOnDisabled	x:Boolean
(description)	A value that indicates whether the ContextMenu should be shown when its parent is grayed out.
[target type]	DependencyObject
ContextMenuService.VerticalOffset	x:Double
(description)	A value that indicates where along the y-direction to place the ContextMenu with respect to the parent control.
[target type]	DependencyObject
[text syntax]	LengthSyntax
(attachable events)	
ContextMenuService.ContextMenuClosing	Occurs when the ContextMenu closes.
ContextMenuService.ContextMenuOpening	Occurs when the ContextMenu opens.

4.134 Control

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control , InputElement	
<h2>Control</h2>	
Calendar CalendarItem ContentControl DataGridRow DatePicker DocumentViewerBase FlowDocumentReader FlowDocumentScrollViewer ItemsControl KeyTipControl PasswordBox RangeBase ResizeGrip RibbonContextualTabGroup RibbonTwoLineText Separator TextBoxBase Thumb	
(usage)	<Control />
(description)	Represents the base type for user interface (UI) elements that use a ControlTemplate to define their appearance.
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	A brush that describes the background of a control.
BorderBrush	Brush

(description)	A brush that describes the border background of a control.
BorderThickness	Thickness
(description)	The border thickness of a control.
FontFamily	FontFamily
(description)	The font family of the control.
FontSize	x:Double
(description)	The font size.
[text syntax]	FontSizeSyntax
FontStretch	FontStretch
(description)	The degree to which a font is condensed or expanded on the screen.
FontStyle	FontStyle
(description)	The font style.
FontWeight	FontWeight
(description)	The weight or thickness of the specified font.
Foreground	Brush
(description)	A brush that describes the foreground color.
HorizontalContentAlignment	HorizontalAlignment
(description)	The horizontal alignment of the control's content.
IsTabStop	x:Boolean
(description)	A value that indicates whether a control is included in tab navigation.
Padding	Thickness
(description)	The padding inside a control.
TabIndex	x:Int32
(description)	A value that determines the order in which elements receive focus when the user navigates through controls by using the TAB key.
Template	ControlTemplate
(description)	A control template.
VerticalContentAlignment	VerticalAlignment
(description)	The vertical alignment of the control's content.
(events)	
MouseDoubleClick	Occurs when a mouse button is clicked two or more times.
PreviewMouseDoubleClick	Occurs when a user clicks the mouse button two or more times.

4.135 ControllableStoryboardAction

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction	
<h2>ControllableStoryboardAction</h2>	
PauseStoryboard RemoveStoryboard ResumeStoryboard SeekStoryboard SetStoryboardSpeedRatio SkipStoryboardToFill StopStoryboard	
(usage)	None.
(description)	Manipulates a Storyboard that has been applied by a BeginStoryboard action.
[is default constructible]	false
(properties)	
BeginStoryboardName	x:String
(description)	The Name of the BeginStoryboard that began the Storyboard you want to interactively control.

4.136 ControlTemplate

x:Object > FrameworkTemplate > ControlTemplate	
<h2>ControlTemplate</h2>	
(usage)	<ControlTemplate> FrameworkElement </ControlTemplate>
(description)	Specifies the visual structure and behavioral aspects of a Control that can be shared across multiple instances of the control.
(used by)	Control DataGrid DataGridRow Page Validation
[content property]	Template
[dictionary key property]	TargetType
[is name scope]	true
(properties)	
TargetType	x:XamlType
(description)	The type for which this ControlTemplate is intended.
Triggers	TriggerCollection

(description)	A collection of TriggerBase objects that apply property changes or perform actions based on specified conditions.
[read only]	true

4.137 CoreCompatibilityPreferences

x:Object > CoreCompatibilityPreferences	
CoreCompatibilityPreferences	
(usage)	{x:Static CoreCompatibilityPreferences.StaticPropertyName}
(description)	Contains properties that specify how an application should behave relative to features that are in the PresentationCore assembly.
[is default constructible]	false
(static properties)	
EnableMultiMonitorDisplayClipping	x:Nullable(x:Boolean)
(description)	A value that indicates whether to enable clipping in a multi-monitor display.
IsAltKeyRequiredInAccessKeyDefaultScope	x:Boolean
(description)	A value that indicates whether the user needs to use the ALT key to invoke a shortcut.

4.138 CornerRadius

x:Object > CornerRadius	
CornerRadius	
(usage)	<CornerRadius> string </CornerRadius>
(description)	Represents the radii of a rectangle's corners.
(used by)	Border RibbonButton RibbonControlService RibbonRadioButton RibbonToggleButton SystemParameters WindowChrome
[is nullable]	false
[text syntax]	CornerRadiusSyntax
(properties)	

BottomLeft	x:Double
(description)	The radius of the bottom-left corner.
BottomRight	x:Double
(description)	The radius of the bottom-right corner.
TopLeft	x:Double
(description)	The radius of the top-left corner.
TopRight	x:Double
(description)	The radius of the top-right corner.

4.139 CroppedBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > CroppedBitmap	
<h2>CroppedBitmap</h2>	
(usage)	<CroppedBitmap> string </CroppedBitmap>
(description)	Crops a BitmapSource.
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
Source	BitmapSource
(description)	The source for the bitmap.
SourceRect	Int32Rect
(description)	The rectangular area that the bitmap is cropped to.

4.140 CubicEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > CubicEase , IEasingFunction	
<h2>CubicEase</h2>	
(usage)	<CubicEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using the formula $f(t) = t^3$.

4.141 Cursor

x:Object > Cursor	
<h2>Cursor</h2>	
(usage)	AppStarting Arrow ArrowCD Cross Hand Help IBeam No None ...
(description)	Represents the image used for the mouse pointer.
(used by)	Cursors FrameworkContentElement FrameworkElement Mouse MouseDevice
[is default constructible]	false
[text syntax]	CursorSyntax

4.142 Cursors

x:Object > Cursors	
<h2>Cursors</h2>	
(usage)	{x:Static Cursors.StaticPropertyName}
(description)	Defines a set of default cursors.
[is default constructible]	false
(static properties)	
AppStarting	Cursor
(description)	The Cursor that appears when an application is starting.
Arrow	Cursor
(description)	The Arrow Cursor.
ArrowCD	Cursor
(description)	The arrow with a compact disk Cursor.
Cross	Cursor
(description)	The crosshair Cursor.
Hand	Cursor
(description)	A hand Cursor.
Help	Cursor
(description)	A help Cursor which is a combination of an arrow and a question mark.

IBeam	Cursor
(description)	An I-beam Cursor, which is used to show where the text cursor appears when the mouse is clicked.
No	Cursor
(description)	A Cursor with which indicates that a particular region is invalid for a given operation.
None	Cursor
(description)	A special cursor that is invisible.
Pen	Cursor
(description)	A pen Cursor.
ScrollAll	Cursor
(description)	The scroll all Cursor.
ScrollE	Cursor
(description)	The scroll east Cursor.
ScrollN	Cursor
(description)	The scroll north Cursor.
ScrollNE	Cursor
(description)	The scroll northeast cursor.
ScrollNS	Cursor
(description)	The scroll north/south cursor.
ScrollNW	Cursor
(description)	A scroll northwest cursor.
ScrollS	Cursor
(description)	The scroll south Cursor.
ScrollSE	Cursor
(description)	A south/east scrolling Cursor.
ScrollSW	Cursor
(description)	The scroll southwest Cursor.
ScrollW	Cursor
(description)	The scroll west Cursor.
ScrollWE	Cursor
(description)	A west/east scrolling Cursor.

SizeAll	Cursor
(description)	A four-headed sizing Cursor, which consists of four joined arrows that point north, south, east, and west.
SizeNESW	Cursor
(description)	A two-headed northeast/southwest sizing Cursor.
SizeNS	Cursor
(description)	A two-headed north/south sizing Cursor.
SizeNWSE	Cursor
(description)	A two-headed northwest/southeast sizing Cursor.
SizeWE	Cursor
(description)	A two-headed west/east sizing Cursor.
UpArrow	Cursor
(description)	An up arrow Cursor, which is typically used to identify an insertion point.
Wait	Cursor
(description)	Specifies a wait (or hourglass) Cursor.

4.143 CursorType

x:Object > CursorType	
CursorType	
(usage)	None No Arrow AppStarting Cross Help IBeam SizeAll SizeNESW ...
(description)	Specifies the built in cursor types.
[is nullable]	false
[text syntax]	CursorTypeSyntax

4.144 CustomPopupPlacement

x:Object > CustomPopupPlacement	
CustomPopupPlacement	
(usage)	<CustomPopupPlacement />

(description)	Defines custom placement parameters for a Popup control.
[is nullable]	false
(properties)	
Point	Point
(description)	The point that is relative to the target object where the upper-left corner of the Popup control is placed.
PrimaryAxis	PopupPrimaryAxis
(description)	The direction in which to move a Popup control when the Popup is obscured by screen boundaries.

4.145 DashStyle

x:Object > DependencyObject > Freezable > Animatable > DashStyle	
<h2>DashStyle</h2>	
(usage)	Dash DashDot DashDotDot Dot Solid
(description)	Represents the sequence of dashes and gaps that will be applied by a Pen.
(used by)	DashStyles Pen
(properties)	
Dashes	DoubleCollection
(description)	The collection of dashes and gaps in this DashStyle.
Offset	x:Double
(description)	How far in the dash sequence the stroke will start.

4.146 DashStyles

x:Object > DashStyles	
<h2>DashStyles</h2>	
(usage)	{x:Static DashStyles.StaticPropertyName}
(description)	Implements a set of predefined DashStyle objects.
[is default constructible]	false

(static properties)	
Dash	DashStyle
(description)	A DashStyle with a Dashes property equal to 2, 2.
DashDot	DashStyle
(description)	A DashStyle with a Dashes property equal to 2, 2, 0, 2.
DashDotDot	DashStyle
(description)	A DashStyle with a Dashes property equal to 2, 2, 0, 2, 0, 2.
Dot	DashStyle
(description)	A DashStyle with a Dashes property equal to 0, 2.
Solid	DashStyle
(description)	A DashStyle with an empty Dashes property.

4.147 DataErrorValidationRule

x:Object > ValidationRule > DataErrorValidationRule	
<h2>DataErrorValidationRule</h2>	
(usage)	<DataErrorValidationRule />
(description)	Represents a rule that checks for errors that are raised by the IDataErrorInfo implementation of the source object.

4.148 DataGrid

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > Selector > MultiSelector > DataGrid , InputElement	
<h2>DataGrid</h2>	
(usage)	<DataGrid> x:Object *</DataGrid>
(description)	Represents a control that displays data in a customizable grid.
[content property]	Items
[name property]	Name
[xml lang property]	Language

(properties)	
AlternatingRowBackground	Brush
(description)	The background brush for use on alternating rows.
AreRowDetailsFrozen	x:Boolean
(description)	A value that indicates whether the row details can scroll horizontally.
AutoGenerateColumns	x:Boolean
(description)	A value that indicates whether the columns are created automatically.
CanUserAddRows	x:Boolean
(description)	A value that indicates whether the user can add new rows to the DataGrid.
CanUserDeleteRows	x:Boolean
(description)	A value that indicates whether the user can delete rows from the DataGrid.
CanUserReorderColumns	x:Boolean
(description)	A value that indicates whether the user can change the column display order by dragging column headers with the mouse.
CanUserResizeColumns	x:Boolean
(description)	A value that indicates whether the user can adjust the width of columns by using the mouse.
CanUserResizeRows	x:Boolean
(description)	A value that indicates whether the user can adjust the height of rows by using the mouse.
CanUserSortColumns	x:Boolean
(description)	A value that indicates whether the user can sort columns by clicking the column header.
CellStyle	Style
(description)	The style applied to all cells in the DataGrid.
ClipboardCopyMode	DataGridClipboardCopyMode
(description)	A value that indicates how content is copied to the clipboard.
ColumnHeaderHeight	x:Double
(description)	The height of the column headers row.
ColumnHeaderStyle	Style
(description)	The style applied to all column headers in the DataGrid.
Columns	ObservableCollection(DataGridColumn)
(description)	A collection that contains all the columns in the DataGrid.

[read only]	true
ColumnWidth	DataGridLength
(description)	The standard width and sizing mode of columns and headers in the DataGrid.
CurrentCell	DataGridCellInfo
(description)	The cell that has focus.
CurrentColumn	DataGridColumn
(description)	The column that contains the current cell.
CurrentItem	x:Object
(description)	The data item bound to the row that contains the current cell.
DragIndicatorStyle	Style
(description)	The style that is used when rendering the drag indicator that is displayed while dragging a column header.
DropLocationIndicatorStyle	Style
(description)	The style that is applied to indicate the drop location when dragging a column header.
EnableColumnVirtualization	x:Boolean
(description)	A value that indicates whether column virtualization is enabled.
EnableRowVirtualization	x:Boolean
(description)	A value that indicates whether row virtualization is enabled.
FrozenColumnCount	x:Int32
(description)	The number of non-scrolling columns.
GridLinesVisibility	DataGridGridLinesVisibility
(description)	A value that indicates which grid lines are shown.
HeadersVisibility	DataGridHeadersVisibility
(description)	The value that specifies the visibility of the row and column headers.
HorizontalGridLinesBrush	Brush
(description)	The brush that is used to draw the horizontal grid lines.
HorizontalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates how horizontal scroll bars are displayed in the DataGrid.
IsReadOnly	x:Boolean
(description)	A value that indicates whether the user can edit values in the DataGrid.
MaxColumnWidth	x:Double

(description)	The maximum width constraint of the columns and headers in the DataGrid.
MinColumnWidth	x:Double
(description)	The minimum width constraint of the columns and headers in the DataGrid.
MinRowHeight	x:Double
(description)	The minimum height constraint of the rows and headers in the DataGrid.
RowBackground	Brush
(description)	The default brush for the row background.
RowDetailsTemplate	DataTemplate
(description)	The template that is used to display the row details.
RowDetailsTemplateSelector	DataTemplateSelector
(description)	The template selector that is used for the row details.
RowDetailsVisibilityMode	DataGridRowDetailsVisibilityMode
(description)	A value that indicates when the details section of a row is displayed.
RowHeaderStyle	Style
(description)	The style applied to all row headers.
RowHeaderTemplate	DataTemplate
(description)	The template for the row headers.
RowHeaderTemplateSelector	DataTemplateSelector
(description)	The template selector for row headers.
RowHeaderWidth	x:Double
(description)	The width of the row header column.
RowHeight	x:Double
(description)	The suggested height for all rows.
RowStyle	Style
(description)	The style applied to all rows.
RowStyleSelector	StyleSelector
(description)	The style selector for the rows.
RowValidationErrorTemplate	ControlTemplate
(description)	The template that is used to visually indicate an error in row validation.
RowValidationRules	ObservableCollection(ValidationRule)
(description)	The rules that are used to validate the data in each row.
[read only]	true

SelectedCells	IList(DataGridCellInfo)
(description)	The list of cells that are currently selected.
[read only]	true
SelectionMode	DataGridSelectionMode
(description)	A value that indicates how rows and cells are selected in the DataGrid.
SelectionUnit	DataGridSelectionUnit
(description)	A value that indicates whether rows, cells, or both can be selected in the DataGrid.
VerticalGridLinesBrush	Brush
(description)	The brush that is used to draw the vertical grid lines.
VerticalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates how vertical scroll bars are displayed in the DataGrid.
(static properties)	
DeleteCommand	RoutedUICommand
(description)	Represents the command that indicates the intention to delete the current row.
FocusBorderBrushKey	ComponentResourceKey
(description)	The key that references the default border brush for a focused cell.
HeadersVisibilityConverter	IValueConverter
(description)	The converter that converts a DataGridHeadersVisibility to a Visibility.
RowDetailsScrollingConverter	IValueConverter
(description)	The converter that converts a Boolean value to a SelectiveScrollingOrientation.
SelectAllCommand	RoutedUICommand
(description)	Represents the command that indicates the intention to select all cells in the DataGrid.
(events)	
AddingNewItem	Occurs before a new item is added to the DataGrid.
AutoGeneratedColumns	Occurs when auto generation of all columns is completed.
AutoGeneratingColumn	Occurs when an individual column is auto-generated.
BeginningEdit	Occurs before a row or cell enters edit mode.
CellEditEnding	Occurs before a cell edit is committed or canceled.
ColumnDisplayIndexChanged	Occurs when the DisplayIndex property on one of the columns changes.

ColumnHeaderDragCompleted	Occurs when the user releases a column header after dragging it by using the mouse.
ColumnHeaderDragDelta	Occurs every time the mouse position changes while the user drags a column header.
ColumnHeaderDragStarted	Occurs when the user begins dragging a column header by using the mouse.
ColumnReordered	Occurs when a column moves to a new position in the display order.
ColumnReordering	Occurs before a column moves to a new position in the display order.
CopyingRowClipboardContent	Occurs after the default row content is prepared.
CurrentCellChanged	Occurs when the value of the CurrentCell property has changed.
InitializingNewItem	Occurs when a new item is created.
LoadingRow	Occurs after a DataRow is instantiated, so that you can customize it before it is used.
LoadingRowDetails	Occurs when a new row details template is applied to a row.
PreparingCellForEdit	Occurs when a cell enters edit mode.
RowDetailsVisibilityChanged	Occurs when the visibility of a row details element changes.
RowEditEnding	Occurs before a row edit is committed or canceled.
SelectedCellsChanged	Occurs when the SelectedCells collection changes.
Sorting	Occurs when a column is being sorted.
UnloadingRow	Occurs when a DataRow object becomes available for reuse.
UnloadingRowDetails	Occurs when a row details element becomes available for reuse.

4.149 DataGridBoundColumn

x:Object > DependencyObject > DataGridColumn > DataGridBoundColumn	
<h2>DataGridBoundColumn</h2>	
DataGridCheckBoxColumn DataGridHyperlinkColumn DataGridTextColumn	
(usage)	None.
(description)	Serves as the base type for columns that can bind to a property in the data source of a DataGrid.
[is default constructible]	false
(properties)	
Binding	BindingBase

(description)	The binding that associates the column with a property in the data source.
ClipboardContentBinding	BindingBase
(description)	The binding object to use when getting or setting cell content for the clipboard.
EditingElementStyle	Style
(description)	The style that is used when rendering the element that the column displays for a cell in editing mode.
ElementStyle	Style
(description)	The style that is used when rendering the element that the column displays for a cell that is not in editing mode.

4.150 DataGridCell

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > DataGridCell , InputElement	
DataGridCell	
(usage)	<DataGridCell> x:Object </DataGridCell>
(description)	Represents a cell of a DataGrid control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
IsEditing	x:Boolean
(description)	A value that indicates whether the cell is in edit mode.
IsSelected	x:Boolean
(description)	A value that indicates whether the cell is selected.
(events)	
Selected	Occurs when the cell is selected.
Unselected	Occurs when the cell selection is cleared.

4.151 DataGridCellInfo

x:Object > DataGridCellInfo	
DataGridCellInfo	
(usage)	<DataGridCellInfo />
(description)	Represents information about a specific cell in a DataGrid.
(used by)	DataGrid IList(DataGridCellInfo)
[is nullable]	false

4.152 DataGridCellsPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > VirtualizingPanel > DataGridCellsPanel , InputElement	
DataGridCellsPanel	
(usage)	<DataGridCellsPanel> UIElement *</DataGridCellsPanel>
(description)	Represents a panel that lays out cells and column headers in a data grid.
[content property]	Children
[name property]	Name
[xml lang property]	Language

4.153 DataGridCellsPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > DataGridCellsPresenter , InputElement	
DataGridCellsPresenter	
(usage)	<DataGridCellsPresenter> x:Object *</DataGridCellsPresenter>
(description)	Used within the template of a DataGrid to specify the location in the control's visual tree where the cells are to be added.
[content property]	Items
[name property]	Name
[xml lang property]	Language

(properties)	
Item	x:Object
(description)	The data item that the row represents.

4.154 DataGridCheckBoxColumn

x:Object > DependencyObject > DataGridColumn > DataGridBoundColumn > DataGridCheckBoxColumn	
DataGridCheckBoxColumn	
(usage)	<DataGridCheckBoxColumn />
(description)	Represents a DataGrid column that hosts CheckBox controls in its cells.
(properties)	
IsThreeState	x:Boolean
(description)	A value that indicates whether the hosted CheckBox controls enable three states or two.
(static properties)	
DefaultEditingStyle	Style
(description)	The default value of the EditingElementStyle property.
DefaultElementStyle	Style
(description)	The default value of the ElementStyle property.

4.155 DataGridClipboardCellContent

x:Object > DataGridClipboardCellContent	
DataGridClipboardCellContent	
(usage)	<DataGridClipboardCellContent />
(description)	Encapsulates the value and location of a DataGrid cell for use when copying content to the Clipboard.
[is nullable]	false

4.156 DataGridClipboardCopyMode

x:Object > DataGridClipboardCopyMode	
<h2>DataGridClipboardCopyMode</h2>	
(usage)	None ExcludeHeader IncludeHeader
(description)	Defines constants that specify whether users can copy data from a DataGrid control to the Clipboard and whether column header values are included.
(used by)	DataGrid
[is nullable]	false
[text syntax]	DataGridClipboardCopyModeSyntax

4.157 DataGridColumn

x:Object > DependencyObject > DataGridColumn	
<h2>DataGridColumn</h2>	
DataGridBoundColumn DataGridComboBoxColumn DataGridTemplateColumn	
(usage)	None.
(description)	Represents a DataGrid column.
(used by)	DataGrid ObservableCollection(DataGridColumn)
[is default constructible]	false
(properties)	
CanUserReorder	x:Boolean
(description)	A value that indicates whether the user can change the column display position by dragging the column header.
CanUserResize	x:Boolean
(description)	A value that indicates whether the user can adjust the column width by using the mouse.
CanUserSort	x:Boolean
(description)	A value that indicates whether the user can sort the column by clicking the column header.
CellStyle	Style
(description)	The style that is used to render cells in the column.

ClipboardContentBinding	BindingBase
(description)	The binding object to use when getting or setting cell content for the clipboard.
DisplayIndex	x:Int32
(description)	The display position of the column relative to the other columns in the DataGrid.
DragIndicatorStyle	Style
(description)	The style object to apply to the column header during a drag operation.
Header	x:Object
(description)	The content of the column header.
HeaderStringFormat	x:String
(description)	The format pattern to apply to the content of the column header.
HeaderStyle	Style
(description)	The style that is used when rendering the column header.
HeaderTemplate	DataTemplate
(description)	The template that defines the visual representation of the column header.
HeaderTemplateSelector	DataTemplateSelector
(description)	The object that selects which template to use for the column header.
IsReadOnly	x:Boolean
(description)	A value that indicates whether cells in the column can be edited.
MaxWidth	x:Double
(description)	The maximum width constraint of the column.
MinWidth	x:Double
(description)	The minimum width constraint of the column.
SortDirection	x:Nullable(ListSortDirection)
(description)	The sort direction (ascending or descending) of the column.
SortMemberPath	x:String
(description)	A property name, or a period-delimited hierarchy of property names, that indicates the member to sort by.
Visibility	Visibility
(description)	The visibility of the column.
Width	DataGridLength
(description)	The column width or automatic sizing mode.

(events)	
CopyingCellClipboardContent	Occurs after the cell clipboard content is prepared.
PastingCellClipboardContent	Occurs before the clipboard content is moved to the cell.

4.158 DataGridColumnHeader

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ContentControl](#) > [ButtonBase](#) > [DataGridColumnHeader](#), [InputElement](#)

DataGridColumnHeader

(usage)	<DataGridColumnHeader> x:Object </DataGridColumnHeader>
(description)	Represents an individual DataGrid column header.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
SeparatorBrush	Brush
(description)	The Brush used to paint the column header separator lines.
SeparatorVisibility	Visibility
(description)	The user interface (UI) visibility of the column header separator lines.
(static properties)	
ColumnFloatingHeaderStyleKey	ComponentResourceKey
(description)	The key that references the style for displaying column headers during a header drag operation.
ColumnHeaderDropSeparatorStyleKey	ComponentResourceKey
(description)	The key that references the style for the drop location indicator during a header drag operation.

4.159 DataGridColumnHeadersPresenter

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [DataGridColumnHeadersPresenter](#), [InputElement](#)

DataGridColumnHeadersPresenter

(usage)	<DataGridColumnHeadersPresenter> x:Object *</DataGridColumnHeadersPresenter>
(description)	Used within the template of a DataGrid to specify the location in the control's visual tree where the column headers are to be added.
[content property]	Items
[name property]	Name
[xml lang property]	Language

4.160 DataGridComboBoxColumn

[x:Object](#) > [DependencyObject](#) > [DataGridColumn](#) > [DataGridComboBoxColumn](#)

DataGridComboBoxColumn

(usage)	<DataGridComboBoxColumn />
(description)	Represents a DataGrid column that hosts ComboBox controls in its cells.
(properties)	
ClipboardContentBinding	BindingBase
(description)	The binding object to use when getting or setting cell content for the clipboard.
DisplayMemberPath	x:String
(description)	A path to a value on the source object to provide the visual representation of the object.
EditingElementStyle	Style
(description)	The style that is used when rendering the element that the column displays for a cell in editing mode.
ElementStyle	Style
(description)	The style that is used when rendering the element that the column displays for a cell that is not in editing mode.
ItemsSource	IEnumerable
(description)	A collection that is used to generate the content of the combo box control.
SelectedItemBinding	BindingBase
(description)	The binding for the currently selected item.
SelectedValueBinding	BindingBase

(description)	The value of the selected item, obtained by using SelectedValuePath.
SelectedValuePath	x:String
(description)	The path that is used to get the SelectedValue from the SelectedItem.
TextBinding	BindingBase
(description)	The binding for the text in the text box portion of the ComboBox control.
(static properties)	
DefaultEditingElementStyle	Style
(description)	The default value of the EditingElementStyle property.
DefaultElementStyle	Style
(description)	The default value of the ElementStyle.
TextBlockComboBoxStyleKey	ComponentResourceKey
(description)	The resource key for the style to apply to a read-only combo box.

4.161 DataGridDetailsPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ContentPresenter > DataGridDetailsPresenter , InputElement	
<h2>DataGridDetailsPresenter</h2>	
(usage)	<DataGridDetailsPresenter />
(description)	Used within the template of a DataGrid to specify the location in the control's visual tree where the row details are to be added.
[name property]	Name
[xml lang property]	Language

4.162 DataGridEditAction

x:Object > DataGridEditAction	
<h2>DataGridEditAction</h2>	
(usage)	Cancel Commit
(description)	Defines constants that specify whether an edit is being canceled or committed.

[is nullable]	false
[text syntax]	DataGridEditActionSyntax

4.163 DataGridEditingUnit

x:Object > DataGridEditingUnit	
DataGridEditingUnit	
(usage)	Cell Row
(description)	Defines constants that specify whether editing is enabled on a cell level or on a row level.
[is nullable]	false
[text syntax]	DataGridEditingUnitSyntax

4.164 DataGridGridLinesVisibility

x:Object > DataGridGridLinesVisibility	
DataGridGridLinesVisibility	
(usage)	All Horizontal None Vertical
(description)	Defines constants that specify the visibility of the grid lines in a DataGrid.
(used by)	DataGrid
[is nullable]	false
[text syntax]	DataGridGridLinesVisibilitySyntax

4.165 DataGridHeadersVisibility

x:Object > DataGridHeadersVisibility	
DataGridHeadersVisibility	
(usage)	All Column Row None

(description)	Defines constants that specify the visibility of row and column headers in a DataGrid.
(used by)	DataGrid
[is nullable]	false
[text syntax]	DataGridHeadersVisibilitySyntax

4.166 DataGridHyperlinkColumn

x:Object > DependencyObject > DataGridColumn > DataGridBoundColumn > DataGridHyperlinkColumn	
<h2>DataGridHyperlinkColumn</h2>	
(usage)	<DataGridHyperlinkColumn />
(description)	Represents a DataGrid column that hosts Uri elements in its cells.
(properties)	
ContentBinding	BindingBase
(description)	The binding to the text of the hyperlink.
TargetName	x:String
(description)	The name of a target window or frame for the hyperlink.
(static properties)	
DefaultEditingElementStyle	Style
(description)	The default value of the EditingElementStyle property.
DefaultElementStyle	Style
(description)	The default value of the ElementStyle property.

4.167 DataGridLength

x:Object > DataGridLength	
<h2>DataGridLength</h2>	
(usage)	<DataGridLength> string </DataGridLength>
(description)	Represents the lengths of elements within the DataGrid control.
(used by)	DataGrid DataGridColumn

[is nullable]	false
[text syntax]	DataGridLengthSyntax
(static properties)	
Auto	DataGridLength
(description)	A DataGridLength structure that represents the standard automatic sizing mode.
SizeToCells	DataGridLength
(description)	A DataGridLength structure that represents the cell-based automatic sizing mode.
SizeToHeader	DataGridLength
(description)	A DataGridLength structure that represents the header-based automatic sizing mode.

4.168 DataGridLengthUnitType

x:Object > DataGridLengthUnitType	
DataGridLengthUnitType	
(usage)	Auto Pixel SizeToCells SizeToHeader Star
(description)	Defines constants that specify how elements in a DataGrid are sized.
[is nullable]	false
[text syntax]	DataGridLengthUnitTypeSyntax

4.169 DataGridRow

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > DataGridRow , InputElement	
DataGridRow	
(usage)	<DataGridRow />
(description)	Represents a DataGrid row.
[name property]	Name
[xml lang property]	Language
(properties)	

DetailsTemplate	DataTemplate
(description)	The template that is used to display the details section of the row.
DetailsTemplateSelector	DataTemplateSelector
(description)	A template selector that provides custom logic for choosing a row details template.
DetailsVisibility	Visibility
(description)	A value that indicates when the details section of the row is displayed.
Header	x:Object
(description)	An object that represents the row header contents.
HeaderStyle	Style
(description)	The style that is used when rendering the row header.
HeaderTemplate	DataTemplate
(description)	The template that is used to display the row header.
HeaderTemplateSelector	DataTemplateSelector
(description)	A template selector that provides custom logic for choosing a row header template.
IsSelected	x:Boolean
(description)	A value that indicates whether the row is selected.
Item	x:Object
(description)	The data item that the row represents.
ItemsPanel	ItemsPanelTemplate
(description)	The template that defines the panel that controls the layout of cells in the row.
ValidationErrorTemplate	ControlTemplate
(description)	The template that is used to visually indicate an error in row validation.
(events)	
Selected	Occurs when the row is selected.
Unselected	Occurs when the row selection is cleared.

4.170 DataGridRowDetailsVisibilityMode

[x:Object](#) > [DataGridRowDetailsVisibilityMode](#)

DataGridRowDetailsVisibilityMode

(usage)	Collapsed Visible VisibleWhenSelected
(description)	Defines constants that specify when DataGrid row details are displayed.
(used by)	DataGrid
[is nullable]	false
[text syntax]	DataGridRowDetailsVisibilityModeSyntax

4.171 DataGridRowHeader

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ContentControl](#) > [ButtonBase](#) > [DataGridRowHeader](#), [InputElement](#)

DataGridRowHeader

(usage)	<DataGridRowHeader> x:Object </DataGridRowHeader>
(description)	Represents an individual DataGrid row header.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
SeparatorBrush	Brush
(description)	The Brush used to paint the row header separator lines.
SeparatorVisibility	Visibility
(description)	The user interface (UI) visibility of the row header separator lines.

4.172 DataGridRowsPresenter

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Panel](#) > [VirtualizingPanel](#) > [VirtualizingStackPanel](#) > [DataGridRowsPresenter](#), [InputElement](#)

DataGridRowsPresenter

(usage)	<DataGridRowsPresenter> UIElement *</DataGridRowsPresenter>
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(description)	Used within the template of a DataGrid to specify the location in the control's visual tree where the rows are to be added.
[content property]	Children
[name property]	Name
[xml lang property]	Language

4.173 DataGridSelectionMode

x:Object > DataGridSelectionMode	
<h2>DataGridSelectionMode</h2>	
(usage)	Single Extended
(description)	Defines constants that specify whether single or multiple item selections are supported by a DataGrid control.
(used by)	DataGrid
[is nullable]	false
[text syntax]	DataGridSelectionModeSyntax

4.174 DataGridSelectionUnit

x:Object > DataGridSelectionUnit	
<h2>DataGridSelectionUnit</h2>	
(usage)	Cell FullRow CellOrRowHeader
(description)	Defines constants that specify whether cells, rows, or both, are used for selection in a DataGrid control.
(used by)	DataGrid
[is nullable]	false
[text syntax]	DataGridSelectionUnitSyntax

4.175 DataGridTemplateColumn

x:Object > DependencyObject > DataGridColumn > DataGridTemplateColumn	
<h2>DataGridTemplateColumn</h2>	
(usage)	<DataGridTemplateColumn />
(description)	Represents a DataGrid column that hosts template-specified content in its cells.
(properties)	
CellEditingTemplate	DataTemplate
(description)	The template to use to display the contents of a cell that is in editing mode.
CellEditingTemplateSelector	DataTemplateSelector
(description)	The object that determines which template to use to display the contents of a cell that is in editing mode.
CellTemplate	DataTemplate
(description)	The template to use to display the contents of a cell that is not in editing mode.
CellTemplateSelector	DataTemplateSelector
(description)	The object that determines which template to use to display the contents of a cell that is not in editing mode.

4.176 DataGridTextColumn

x:Object > DependencyObject > DataGridColumn > DataGridBoundColumn > DataGridTextColumn	
<h2>DataGridTextColumn</h2>	
(usage)	<DataGridTextColumn />
(description)	Represents a DataGrid column that hosts textual content in its cells.
(properties)	
FontFamily	FontFamily
(description)	The font family for the content of cells in the column.
FontSize	x:Double
(description)	The font size for the content of cells in the column.
[text syntax]	FontSizeSyntax
FontStyle	FontStyle
(description)	The font style for the content of cells in the column.

FontWeight	FontWeight
(description)	The font weight for the content of cells in the column.
Foreground	Brush
(description)	The Brush that is used to paint the text contents of cells in the column.
(static properties)	
DefaultEditingStyle	Style
(description)	The default value of the EditingElementStyle property.
DefaultElementStyle	Style
(description)	The default value of the ElementStyle property.

4.177 DataObject

x:Object > DataObject	
DataObject	
(usage)	<DataObject />
(description)	Provides a basic implementation of the IDataObject interface, which defines a format-independent mechanism for transferring data.
(attachable events)	
DataObject.Copying	Occurs when the associated dependency object has prepared appropriate data formats that represent the copy selection, added the copy selection formats to a DataObject, and is ready to either place the DataObject on the Clipboard or begin a drag-and-drop operation.
DataObject.Pasting	Occurs when the associated dependency object is ready to paste data.
DataObject.SettingData	Occurs when the associated dependency object attempts to add a new data format to a DataObject.

4.178 DataTemplate

x:Object > FrameworkTemplate > DataTemplate
DataTemplate
HierarchicalDataTemplate ItemContainerTemplate

(usage)	<DataTemplate> FrameworkElement </DataTemplate>
(description)	Describes the visual structure of a data object.
(used by)	ContentControl ContentPresenter DataGrid DataGridColumn DataGridRow DataGridTemplateColumn GridView GridViewColumn GridViewHeaderRowPresenter GroupStyle HeaderedContentControl HeaderedItemsControl HierarchicalDataTemplate ItemsControl Ribbon RibbonApplicationMenu RibbonContextualTabGroup RibbonGallery RibbonGroupTemplateSizeDefinition TabControl
[content property]	Template
[dictionary key property]	DataTemplateKey
[is name scope]	true
(properties)	
DataTemplateKey	x:Object
(description)	The default key of the DataTemplate.
[read only]	true
DataType	x:Object
(description)	The type for which this DataTemplate is intended.
Triggers	TriggerCollection
(description)	A collection of triggers that apply property values or perform actions based on one or more conditions.
[read only]	true

4.179 DataTemplateKey

x:Object > x:MarkupExtension > ResourceKey > TemplateKey > DataTemplateKey	
<h2>DataTemplateKey</h2>	
(usage)	{DataTemplateKey } <DataTemplateKey />
(description)	Represents the resource key for the DataTemplate type.
[return value type]	ResourceKey
[constructors]	
(1 parameter)	
dataType	x:Object

(description)	The type for which this template is designed. This is either a Type (to indicate that the DataTemplate is used to display items of the given type), or a string (to indicate that the DataTemplate is used to display XmlNode elements with the given tag name).
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4.180 DataTemplateSelector

x:Object > DataTemplateSelector	
<h2>DataTemplateSelector</h2>	
(usage)	<DataTemplateSelector />
(description)	Provides a way to choose a DataTemplate based on the data object and the data-bound element.
(used by)	ContentControl ContentPresenter DataGrid DataGridColumn DataGridRow DataGridTemplateColumn GridView GridViewColumn GridViewHeaderRowPresenter GroupStyle HeaderedContentControl HeaderedItemsControl HierarchicalDataTemplate ItemsControl RibbonApplicationMenu RibbonContextualTabGroup RibbonGallery TabControl

4.181 DataTrigger

x:Object > DependencyObject > TriggerBase > DataTrigger	
<h2>DataTrigger</h2>	
(usage)	<DataTrigger> SetterBase *</DataTrigger>
(description)	Represents a trigger that applies property values or performs actions when the bound data meets a specified condition.
[content property]	Setters
(properties)	
Binding	BindingBase
(description)	The binding that produces the property value of the data object.
Setters	SetterBaseCollection
(description)	A collection of Setter objects, which describe the property values to apply when the data item meets the specified condition.
[read only]	true

Value	x:Object
(description)	The value to be compared with the property value of the data object.

4.182 DatePicker

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > DatePicker, InputElement	
DatePicker	
(usage)	<DatePicker />
(description)	Represents a control that allows the user to select a date.
[name property]	Name
[xml lang property]	Language
(properties)	
BlackoutDates	CalendarBlackoutDatesCollection
(description)	A collection of dates that are marked as not selectable.
[read only]	true
CalendarStyle	Style
(description)	The style that is used when rendering the calendar.
DisplayDate	x:DateTime
(description)	The date to display.
DisplayDateEnd	x:Nullable(x:DateTime)
(description)	The last date to be displayed.
DisplayDateStart	x:Nullable(x:DateTime)
(description)	The first date to be displayed.
FirstDayOfWeek	DayOfWeek
(description)	The day that is considered the beginning of the week.
IsDropDownOpen	x:Boolean
(description)	A value that indicates whether the drop-down Calendar is open or closed.
IsTodayHighlighted	x:Boolean
(description)	A value that indicates whether the current date will be highlighted.
SelectedDate	x:Nullable(x:DateTime)
(description)	The currently selected date.

SelectedDateFormat	DatePickerFormat
(description)	The format that is used to display the selected date.
Text	x:String
(description)	The text that is displayed by the DatePicker, or sets the selected date.
(events)	
CalendarClosed	Occurs when the drop-down Calendar is closed.
CalendarOpened	Occurs when the drop-down Calendar is opened.
DateValidationError	Occurs when Text is set to a value that cannot be interpreted as a date or when the date cannot be selected.
SelectedDateChanged	Occurs when the SelectedDate property is changed.

4.183 DatePickerFormat

x:Object > DatePickerFormat	
<h2>DatePickerFormat</h2>	
(usage)	Long Short
(description)	Specifies date formats for a DatePicker.
(used by)	DatePicker
[is nullable]	false
[text syntax]	DatePickerFormatSyntax

4.184 DatePickerTextBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > TextBoxBase > TextBox > DatePickerTextBox , InputElement	
<h2>DatePickerTextBox</h2>	
(usage)	<DatePickerTextBox> x:String </DatePickerTextBox>
(description)	Represents the text input of a DatePicker.
[content property]	Text
[name property]	Name

[xml lang property]	Language
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4.185 DecimalAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > DecimalAnimationBase > DecimalAnimation	
<h2>DecimalAnimation</h2>	
(usage)	<DecimalAnimation />
(description)	Animates the value of a Decimal property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(x:Decimal)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Decimal)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Decimal)
(description)	The animation's ending value.

4.186 DecimalAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > DecimalAnimationBase	
<h2>DecimalAnimationBase</h2>	

DecimalAnimation DecimalAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Decimal value.
[is default constructible]	false
[name property]	Name

4.187 DecimalAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > DecimalAnimationBase > DecimalAnimationUsingKeyFrames	
DecimalAnimationUsingKeyFrames	
(usage)	<DecimalAnimationUsingKeyFrames> DecimalKeyFrame *</DecimalAnimationUsingKeyFrames>
(description)	Animates the value of a Decimal property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	DecimalKeyFrameCollection
(description)	The collection of DecimalKeyFrame objects that define the animation.

4.188 DecimalKeyFrame

x:Object > DependencyObject > Freezable > DecimalKeyFrame	
DecimalKeyFrame	
DiscreteDecimalKeyFrame EasingDecimalKeyFrame LinearDecimalKeyFrame SplineDecimalKeyFrame	

(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a <code>DecimalAnimationUsingKeyFrames</code> .
(used by)	DecimalKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Decimal
(description)	The key frame's target value.

4.189 `DecimalKeyFrameCollection`

x:Object > DependencyObject > Freezable > DecimalKeyFrameCollection	
<h2>DecimalKeyFrameCollection</h2>	
(usage)	<code><DecimalKeyFrameCollection>DecimalKeyFrame*</DecimalKeyFrameCollection></code>
(description)	Represents a collection of <code>DecimalKeyFrame</code> objects.
(used by)	DecimalAnimationUsingKeyFrames
[is list]	true
[allowed types]	DecimalKeyFrame
(static properties)	
Empty	DecimalKeyFrameCollection
(description)	An empty <code>DecimalKeyFrameCollection</code> .

4.190 `Decorator`

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Decorator , InputElement	
<h2>Decorator</h2>	
AdornerDecorator Border BulletDecorator InkPresenter Viewbox	

(usage)	<Decorator> UIElement </Decorator>
(description)	Provides a base type for elements that apply effects onto or around a single child element, such as Border or Viewbox.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Child	UIElement
(description)	The single child element of a Decorator.

4.191 DeferrableContent

x:Object > DeferrableContent	
DeferrableContent	
(usage)	<DeferrableContent> string </DeferrableContent>
(description)	Represents deferrable content that is held within BAML as a stream.
(used by)	ResourceDictionary
[is default constructible]	false

4.192 DefinitionBase

x:Object > DependencyObject > ContentElement > FrameworkContentElement > DefinitionBase , InputElement	
DefinitionBase	
ColumnDefinition RowDefinition	
(usage)	None.
(description)	Defines the functionality required to support a shared-size group that is used by the ColumnDefinitionCollection and RowDefinitionCollection types.
[is default constructible]	false
[name property]	Name
[xml lang property]	Language

(properties)	
SharedSizeGroup	x:String
(description)	A value that identifies a ColumnDefinition or RowDefinition as a member of a defined group that shares sizing properties.

4.193 DependencyObject

x:Object > DependencyObject	
<h2>DependencyObject</h2>	
BindingGroup CollectionContainer CollectionViewSource ContentElement DataGridColumn Freezable GestureRecognizer GridViewColumn JournalEntry TextSearch TriggerAction TriggerBase ViewBase Visual Visual3D VisualState VisualStateGroup VisualStateManager VisualTransition	
(usage)	<DependencyObject />
(description)	A base type that supports visual and graphic elements.
(used by)	ContentOperations Storyboard Validation

4.194 DependencyProperty

x:Object > DependencyProperty	
<h2>DependencyProperty</h2>	
(usage)	<DependencyProperty> string </DependencyProperty>
(description)	Represents a property that can depend on other values.
(used by)	Condition Setter TemplateBindingExtension Trigger
[is default constructible]	false
[text syntax]	DependencyPropertySyntax

4.195 DiffuseMaterial

x:Object > DependencyObject > Freezable > Animatable > Material > DiffuseMaterial	
<h2>DiffuseMaterial</h2>	

(usage)	<DiffuseMaterial />
(description)	Allows the application of a 2-D brush, like a SolidColorBrush or TileBrush, to a diffusely-lit 3-D model.
(properties)	
AmbientColor	Color
(description)	A color that represents how the material reflects AmbientLight.
Brush	Brush
(description)	Brush to be applied as a Material to a 3-D model.
Color	Color
(description)	The color filter for the material's texture.

4.196 DirectionalLight

x:Object > DependencyObject > Freezable > Animatable > Model3D > Light > DirectionalLight	
DirectionalLight	
(usage)	<DirectionalLight />
(description)	Light object that projects its effect along a direction specified by a Vector3D.
(properties)	
Direction	Vector3D
(description)	Represents the vector along which the light's effect will be seen on models in a 3-D scene.

4.197 DiscreteBooleanKeyFrame

x:Object > DependencyObject > Freezable > BooleanKeyFrame > DiscreteBooleanKeyFrame	
DiscreteBooleanKeyFrame	
(usage)	<DiscreteBooleanKeyFrame />
(description)	Animates from the Boolean value of the previous key frame to its own Value using discrete interpolation.

4.198 DiscreteByteKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [ByteKeyFrame](#) > [DiscreteByteKeyFrame](#)

DiscreteByteKeyFrame

(usage)	<DiscreteByteKeyFrame />
(description)	Animates from the Byte value of the previous key frame to its own Value using discrete interpolation.

4.199 DiscreteCharKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [CharKeyFrame](#) > [DiscreteCharKeyFrame](#)

DiscreteCharKeyFrame

(usage)	<DiscreteCharKeyFrame />
(description)	Animates from the Char value of the previous key frame to its own Value using discrete interpolation.

4.200 DiscreteColorKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [ColorKeyFrame](#) > [DiscreteColorKeyFrame](#)

DiscreteColorKeyFrame

(usage)	<DiscreteColorKeyFrame />
(description)	Animates from the Color value of the previous key frame to its own Value using discrete interpolation.

4.201 DiscreteDecimalKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [DecimalKeyFrame](#) > [DiscreteDecimalKeyFrame](#)

DiscreteDecimalKeyFrame

(usage)	<DiscreteDecimalKeyFrame />
(description)	Animates from the Decimal value of the previous key frame to its own Value using discrete interpolation.

4.202 DiscreteDoubleKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [DoubleKeyFrame](#) > [DiscreteDoubleKeyFrame](#)

DiscreteDoubleKeyFrame

(usage)	<DiscreteDoubleKeyFrame />
(description)	Animates from the Double value of the previous key frame to its own Value using discrete interpolation.

4.203 DiscreteInt16KeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Int16KeyFrame](#) > [DiscreteInt16KeyFrame](#)

DiscreteInt16KeyFrame

(usage)	<DiscreteInt16KeyFrame />
(description)	Animates from the Int16 value of the previous key frame to its own Value using discrete interpolation.

4.204 DiscreteInt32KeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Int32KeyFrame](#) > [DiscreteInt32KeyFrame](#)

DiscreteInt32KeyFrame

(usage)	<DiscreteInt32KeyFrame />
(description)	Animates from the Int32 value of the previous key frame to its own Value using discrete interpolation.

4.205 DiscreteInt64KeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Int64KeyFrame](#) > [DiscreteInt64KeyFrame](#)

DiscreteInt64KeyFrame

(usage)	<DiscreteInt64KeyFrame />
(description)	Animates from the Int64 value of the previous key frame to its own Value using discrete interpolation.

4.206 DiscreteMatrixKeyFrame

x:Object > DependencyObject > Freezable > MatrixKeyFrame > DiscreteMatrixKeyFrame	
DiscreteMatrixKeyFrame	
(usage)	<DiscreteMatrixKeyFrame />
(description)	Animates from the Matrix value of the previous key frame to its own Value using discrete interpolation.

4.207 DiscreteObjectKeyFrame

x:Object > DependencyObject > Freezable > ObjectKeyFrame > DiscreteObjectKeyFrame	
DiscreteObjectKeyFrame	
(usage)	<DiscreteObjectKeyFrame />
(description)	Animates from the Object value of the previous key frame to its own Value using discrete interpolation.

4.208 DiscretePoint3DKeyFrame

x:Object > DependencyObject > Freezable > Point3DKeyFrame > DiscretePoint3DKeyFrame	
DiscretePoint3DKeyFrame	
(usage)	<DiscretePoint3DKeyFrame />
(description)	Animates from the Point3D value of the previous key frame to its own Value using discrete interpolation.

4.209 DiscretePointKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [PointKeyFrame](#) > [DiscretePointKeyFrame](#)

DiscretePointKeyFrame

(usage)	<DiscretePointKeyFrame />
(description)	Animates from the Point value of the previous key frame to its own Value using discrete interpolation.

4.210 DiscreteQuaternionKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [QuaternionKeyFrame](#) > [DiscreteQuaternionKeyFrame](#)

DiscreteQuaternionKeyFrame

(usage)	<DiscreteQuaternionKeyFrame />
(description)	Animates from the Quaternion value of the previous key frame to its own Value using discrete interpolation.

4.211 DiscreteRectKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [RectKeyFrame](#) > [DiscreteRectKeyFrame](#)

DiscreteRectKeyFrame

(usage)	<DiscreteRectKeyFrame />
(description)	Animates from the Rect value of the previous key frame to its own Value using discrete interpolation.

4.212 DiscreteRotation3DKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Rotation3DKeyFrame](#) > [DiscreteRotation3DKeyFrame](#)

DiscreteRotation3DKeyFrame

(usage)	<DiscreteRotation3DKeyFrame />
(description)	Animates from the Rotation3D value of the previous key frame to its own Value using discrete interpolation.

4.213 DiscreteSingleKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [SingleKeyFrame](#) > [DiscreteSingleKeyFrame](#)

DiscreteSingleKeyFrame

(usage)	<DiscreteSingleKeyFrame />
(description)	Animates from the Single value of the previous key frame to its own Value using discrete interpolation.

4.214 DiscreteSizeKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [SizeKeyFrame](#) > [DiscreteSizeKeyFrame](#)

DiscreteSizeKeyFrame

(usage)	<DiscreteSizeKeyFrame />
(description)	Animates from the Size value of the previous key frame to its own Value using discrete interpolation.

4.215 DiscreteStringKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [StringKeyFrame](#) > [DiscreteStringKeyFrame](#)

DiscreteStringKeyFrame

(usage)	<DiscreteStringKeyFrame />
(description)	Animates from the String value of the previous key frame to its own Value using discrete interpolation.

4.216 DiscreteThicknessKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [ThicknessKeyFrame](#) > [DiscreteThicknessKeyFrame](#)

DiscreteThicknessKeyFrame

(usage)	<DiscreteThicknessKeyFrame />
(description)	Animates from the Thickness value of the previous key frame to its own Value using discrete interpolation.

4.217 DiscreteVector3DKeyFrame

x:Object > DependencyObject > Freezable > Vector3DKeyFrame > DiscreteVector3DKeyFrame	
DiscreteVector3DKeyFrame	
(usage)	<DiscreteVector3DKeyFrame />
(description)	Animates from the Vector3D value of the previous key frame to its own Value using discrete interpolation.

4.218 DiscreteVectorKeyFrame

x:Object > DependencyObject > Freezable > VectorKeyFrame > DiscreteVectorKeyFrame	
DiscreteVectorKeyFrame	
(usage)	<DiscreteVectorKeyFrame />
(description)	Animates from the Vector value of the previous key frame to its own Value using discrete interpolation.

4.219 Dock

x:Object > Dock	
Dock	
(usage)	Left Top Right Bottom
(description)	Specifies the Dock position of a child element that is inside a DockPanel.
(used by)	DockPanel TabControl
[is nullable]	false
[text syntax]	DockSyntax

4.220 DockPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > DockPanel , IInputElement	
<h1>DockPanel</h1>	
(usage)	<DockPanel> UIElement *</DockPanel>
(description)	Defines an area where you can arrange child elements either horizontally or vertically, relative to each other.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
LastChildFill	x:Boolean
(description)	A value that indicates whether the last child element within a DockPanel stretches to fill the remaining available space.
(attachable properties)	
DockPanel.Dock	Dock
(description)	A value that indicates the position of a child element within a parent DockPanel.
[target type]	UIElement

4.221 DocumentPageView

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > DocumentPageView , IInputElement	
<h1>DocumentPageView</h1>	
(usage)	<DocumentPageView />
(description)	Represents a viewport for a paginated DocumentPage.
[name property]	Name
[xml lang property]	Language
(properties)	
PageNumber	x:Int32
(description)	The page number of the current page displayed.

Stretch	Stretch
(description)	A Stretch enumeration that specifies how content should be stretched to fill the display page.
StretchDirection	StretchDirection
(description)	A StretchDirection enumeration that specifies in what scaling directions Stretch should be applied.
(events)	
PageConnected	Occurs when a Visual element of the DocumentPage is connected.
PageDisconnected	Occurs when a Visual element of the DocumentPage is disconnected.

4.222 DocumentReference

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > DocumentReference , InputElement	
DocumentReference	
(usage)	<DocumentReference />
(description)	Provides access to reference a FixedDocument.
(used by)	DocumentReferenceCollection
[name property]	Name
[xml lang property]	Language
(properties)	
Source	x:Uri
(description)	The uniform resource identifier (URI) for this document reference.

4.223 DocumentReferenceCollection

x:Object > DocumentReferenceCollection	
DocumentReferenceCollection	
(usage)	None.
(description)	Defines an ordered list of DocumentReference elements.
(used by)	FixedDocumentSequence

[is default constructible]	false
[is list]	true
[allowed types]	DocumentReference
(events)	
CollectionChanged	Occurs when an element is added or removed.

4.224 DocumentViewer

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > DocumentViewerBase > DocumentViewer , InputElement	
<h2>DocumentViewer</h2>	
(usage)	<DocumentViewer> IDocumentPaginatorSource </DocumentViewer>
(description)	Represents a document viewing control that can host paginated FixedDocument content such as an XpsDocument.
[content property]	Document
[name property]	Name
[xml lang property]	Language
(properties)	
HorizontalOffset	x:Double
(description)	The horizontal scroll position.
HorizontalPageSpacing	x:Double
(description)	The horizontal space between pages.
MaxPagesAcross	x:Int32
(description)	A value defining the maximum number of page columns to display.
ShowPageBorders	x:Boolean
(description)	A value that indicates whether drop-shadow page borders are displayed.
VerticalOffset	x:Double
(description)	The vertical scroll position.
VerticalPageSpacing	x:Double
(description)	The vertical spacing between displayed pages.
Zoom	x:Double

(description)	The document zoom percentage.
(static properties)	
FitToHeightCommand	RoutedUICommand
(description)	The RoutedUICommand that performs the FitToHeight operation.
FitToMaxPagesAcrossCommand	RoutedUICommand
(description)	The RoutedUICommand that performs the MaxPagesAcross operation.
FitToWidthCommand	RoutedUICommand
(description)	The RoutedUICommand that performs the FitToWidth operation.
ViewThumbnailsCommand	RoutedUICommand
(description)	The RoutedUICommand that performs the ViewThumbnails operation.

4.225 DocumentViewerBase

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > DocumentViewerBase , InputElement	
<h2>DocumentViewerBase</h2>	
DocumentViewer FlowDocumentPageViewer	
(usage)	None.
(description)	Provides a base type for viewers that are intended to display fixed or flow content (represented by a FixedDocument or FlowDocument, respectively).
[is default constructible]	false
[content property]	Document
[name property]	Name
[xml lang property]	Language
(properties)	
Document	IDocumentPaginatorSource
(description)	A IDocumentPaginatorSource to be paginated and displayed by the viewer.
(attachable properties)	
DocumentViewerBase.IsMasterPage	x:Boolean
(description)	A value that indicates whether or not a child element in the viewer should be used as a master page.

[target type]	DependencyObject
(events)	
PageViewsChanged	Occurs when the collection of DocumentPageView items associated with this viewer (represented by the PageViews property) changes.

4.226 DoubleAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > DoubleAnimationBase > DoubleAnimation	
<h2>DoubleAnimation</h2>	
(usage)	<DoubleAnimation />
(description)	Animates the value of a Double property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(x:Double)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Double)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Double)
(description)	The animation's ending value.

4.227 DoubleAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > DoubleAnimationBase	
<h1>DoubleAnimationBase</h1>	
DoubleAnimation DoubleAnimationUsingKeyFrames DoubleAnimationUsingPath	
(usage)	None.
(description)	A base type that animates a Double value.
[is default constructible]	false
[name property]	Name

4.228 DoubleAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > DoubleAnimationBase > DoubleAnimationUsingKeyFrames	
<h1>DoubleAnimationUsingKeyFrames</h1>	
(usage)	<DoubleAnimationUsingKeyFrames> DoubleKeyFrame *</DoubleAnimationUsingKeyFrames>
(description)	Animates the value of a Double property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	DoubleKeyFrameCollection
(description)	The collection of DoubleKeyFrame objects that define the animation.

4.229 DoubleAnimationUsingPath

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [DoubleAnimationBase](#) > [DoubleAnimationUsingPath](#)

DoubleAnimationUsingPath

(usage)	<DoubleAnimationUsingPath />
(description)	Animates the value of a Double property between two or more target values using a PathGeometry to specify those values. This animation can be used to move a visual object along a path.
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
PathGeometry	PathGeometry
(description)	Specifies the geometry used to generate this animation's output values.
Source	PathAnimationSource
(description)	The aspect of this animation's PathGeometry that determines its output value.

4.230 DoubleCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [DoubleCollection](#)

DoubleCollection

(usage)	<DoubleCollection> string </DoubleCollection>
(description)	Represents an ordered collection of Double values.
(used by)	ContainerVisual DashStyle GuidelineSet Shape Slider TickBar
[text syntax]	DoubleCollectionSyntax
[is list]	true
[allowed types]	x:Double

4.231 DoubleKeyFrame

x:Object > DependencyObject > Freezable > DoubleKeyFrame	
<h2>DoubleKeyFrame</h2>	
DiscreteDoubleKeyFrame EasingDoubleKeyFrame LinearDoubleKeyFrame SplineDoubleKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a DoubleAnimationUsingKeyFrames.
(used by)	DoubleKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Double
(description)	The key frame's target value.

4.232 DoubleKeyFrameCollection

x:Object > DependencyObject > Freezable > DoubleKeyFrameCollection	
<h2>DoubleKeyFrameCollection</h2>	
(usage)	<DoubleKeyFrameCollection> DoubleKeyFrame *</DoubleKeyFrameCollection>
(description)	Represents a collection of DoubleKeyFrame objects.
(used by)	DoubleAnimationUsingKeyFrames
[is list]	true
[allowed types]	DoubleKeyFrame
(static properties)	
Empty	DoubleKeyFrameCollection
(description)	An empty DoubleKeyFrameCollection.

4.233 DpiScale

x:Object > DpiScale	
DpiScale	
(usage)	<DpiScale />
(description)	Stores DPI information from which a Visual or UIElement is rendered.
[is nullable]	false

4.234 DragAction

x:Object > DragAction	
DragAction	
(usage)	Continue Drop Cancel
(description)	Specifies how and if a drag-and-drop operation should continue.
[is nullable]	false
[text syntax]	DragActionSyntax

4.235 DragDropEffects

x:Object > DragDropEffects	
DragDropEffects	
(usage)	None Copy Move Link Scroll All
(description)	Specifies the effects of a drag-and-drop operation.
[is nullable]	false
[text syntax]	DragDropEffectsSyntax

4.236 DragDropKeyStates

x:Object > DragDropKeyStates
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DragDropKeyStates	
(usage)	None LeftMouseButton RightMouseButton ShiftKey ControlKey MiddleMouseButton AltKey
(description)	Specifies the current state of the modifier keys (SHIFT, CTRL, and ALT), as well as the state of the mouse buttons.
[is nullable]	false
[text syntax]	DragDropKeyStatesSyntax

4.237 Drawing

x:Object > DependencyObject > Freezable > Animatable > Drawing	
Drawing	
DrawingGroup GeometryDrawing GlyphRunDrawing ImageDrawing VideoDrawing	
(usage)	None.
(description)	A base type that describes a 2-D drawing.
(used by)	DrawingBrush DrawingCollection DrawingImage ICollection(Drawing) IList(Drawing)
[is default constructible]	false

4.238 DrawingAttributes

x:Object > DrawingAttributes	
DrawingAttributes	
(usage)	<DrawingAttributes />
(description)	Specifies the appearance of a Stroke
(used by)	InkCanvas Stroke
(properties)	
Color	Color
(description)	The color of a Stroke.
FitToCurve	x:Boolean

(description)	A value that indicates whether Bezier smoothing is used to render the Stroke.
Height	x:Double
(description)	The height of the stylus used to draw the Stroke.
IgnorePressure	x:Boolean
(description)	A value that indicates whether the thickness of a Stroke changes according to the amount of pressure applied.
IsHighlighter	x:Boolean
(description)	A value that indicates whether the Stroke looks like a highlighter.
StylusTip	StylusTip
(description)	The shape of the stylus used to draw the Stroke.
StylusTipTransform	Matrix
(description)	The Matrix that specifies the transformation to perform on the stylus' tip.
Width	x:Double
(description)	The width of the stylus used to draw the Stroke.
(events)	
AttributeChanged	Occurs when a property in the DrawingAttributes object changes.
PropertyDataChanged	Occurs when property data is added or removed from the StrokeCollection.

4.239 DrawingBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > TileBrush > DrawingBrush	
<h2>DrawingBrush</h2>	
(usage)	<DrawingBrush> string </DrawingBrush>
(description)	Paints an area with a Drawing, which can include shapes, text, video, images, or other drawings.
[text syntax]	BrushSyntax
(properties)	
Drawing	Drawing
(description)	The Drawing that describes the contents of this DrawingBrush.

4.240 DrawingCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [DrawingCollection](#)

DrawingCollection

(usage)	<DrawingCollection> Drawing *</DrawingCollection>
(description)	Represents an ordered collection of Drawing objects.
(used by)	DrawingGroup
[is list]	true
[allowed types]	Drawing

4.241 DrawingGroup

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Drawing](#) > [DrawingGroup](#)

DrawingGroup

(usage)	<DrawingGroup> Drawing *</DrawingGroup>
(description)	Represents a collection of drawings that can be operated upon as a single drawing.
[content property]	Children
(properties)	
Children	DrawingCollection
(description)	The Drawing objects that are contained in this DrawingGroup.
ClipGeometry	Geometry
(description)	The clip region of this DrawingGroup.
GuidelineSet	GuidelineSet
(description)	The GuidelineSet to apply to this DrawingGroup.
Opacity	x:Double
(description)	The opacity of this DrawingGroup.
OpacityMask	Brush
(description)	The brush used to alter the opacity of select regions of this DrawingGroup.
Transform	Transform
(description)	The Transform that is applied to this DrawingGroup.

4.242 DrawingImage

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [ImageSource](#) > [DrawingImage](#)

DrawingImage

(usage)	<DrawingImage> string </DrawingImage>
(description)	An ImageSource that uses a Drawing for content.
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
Drawing	Drawing
(description)	The drawing content for the DrawingImage.

4.243 DrawingVisual

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [ContainerVisual](#) > [DrawingVisual](#)

DrawingVisual

(usage)	<DrawingVisual />
(description)	DrawingVisual is a visual object that can be used to render vector graphics on the screen. The content is persisted by the system.

4.244 DropShadowEffect

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Effect](#) > [DropShadowEffect](#)

DropShadowEffect

(usage)	<DropShadowEffect />
(description)	A bitmap effect that paints a drop shadow around the target texture.
(properties)	
BlurRadius	x:Double
(description)	A value that indicates the radius of the shadow's blur effect.
Color	Color

(description)	The color of the drop shadow.
Direction	x:Double
(description)	The direction of the drop shadow.
Opacity	x:Double
(description)	The opacity of the drop shadow.
RenderingBias	RenderingBias
(description)	A value that indicates whether the system renders the drop shadow with emphasis on speed or quality.
ShadowDepth	x:Double
(description)	The distance of the drop shadow below the texture.

4.245 Duration

x:Object > Duration	
Duration	
(usage)	<Duration> string </Duration>
(description)	Represents the duration of time that a Timeline is active.
(used by)	Timeline VisualTransition
[is nullable]	false
[text syntax]	DurationSyntax
(static properties)	
Automatic	Duration
(description)	A Duration value that is automatically determined.
Forever	Duration
(description)	A Duration value that represents an infinite interval.

4.246 DynamicResourceExtension

x:Object > x:MarkupExtension > DynamicResourceExtension	
DynamicResourceExtension	

(usage)	{DynamicResource } <DynamicResource />
(description)	Implements a markup extension that supports dynamic resource references made from XAML.
[return value type]	x:Object
[constructors]	
(1 parameter)	
resourceKey	x:Object
(description)	The key of the resource that this markup extension references.
(properties)	
ResourceKey	x:Object
(description)	The key specified by this dynamic resource reference. The key is used to lookup a resource in resource dictionaries, by means of an intermediate expression.

4.247 EasingByteKeyFrame

x:Object > DependencyObject > Freezable > ByteKeyFrame > EasingByteKeyFrame	
EasingByteKeyFrame	
(usage)	<EasingByteKeyFrame />
(description)	A type that enables you to associate easing functions with a ByteAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.248 EasingColorKeyFrame

x:Object > DependencyObject > Freezable > ColorKeyFrame > EasingColorKeyFrame	
EasingColorKeyFrame	
(usage)	<EasingColorKeyFrame />
(description)	A type that enables you to associate easing functions with a ColorAnimationUsingKeyFrames key frame animation.

(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.249 EasingDecimalKeyFrame

x:Object > DependencyObject > Freezable > DecimalKeyFrame > EasingDecimalKeyFrame	
EasingDecimalKeyFrame	
(usage)	<EasingDecimalKeyFrame />
(description)	A base type that enables you to associate easing functions with a DecimalAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.250 EasingDoubleKeyFrame

x:Object > DependencyObject > Freezable > DoubleKeyFrame > EasingDoubleKeyFrame	
EasingDoubleKeyFrame	
(usage)	<EasingDoubleKeyFrame />
(description)	A type that enables you to associate easing functions with a DoubleAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.251 EasingFunctionBase

x:Object > DependencyObject > Freezable > EasingFunctionBase , IEasingFunction
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EasingFunctionBase

[BackEase](#) [BounceEase](#) [CircleEase](#) [CubicEase](#) [ElasticEase](#) [ExponentialEase](#) [PowerEase](#) [QuadraticEase](#) [QuarticEase](#) [QuinticEase](#) [SineEase](#)

(usage)	None.
(description)	Provides the base type for all the easing functions.
[is default constructible]	false
(properties)	
EasingMode	EasingMode
(description)	A value that specifies how the animation interpolates.

4.252 EasingInt16KeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Int16KeyFrame](#) > [EasingInt16KeyFrame](#)

EasingInt16KeyFrame

(usage)	<EasingInt16KeyFrame />
(description)	A type that enables you to associate easing functions with a <code>Int16AnimationUsingKeyFrames</code> key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.253 EasingInt32KeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Int32KeyFrame](#) > [EasingInt32KeyFrame](#)

EasingInt32KeyFrame

(usage)	<EasingInt32KeyFrame />
(description)	A type that enables you to associate easing functions with a <code>Int32AnimationUsingKeyFrames</code> key frame animation.
(properties)	
EasingFunction	IEasingFunction

(description)	The easing function applied to the key frame.
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4.254 EasingInt64KeyFrame

x:Object > DependencyObject > Freezable > Int64KeyFrame > EasingInt64KeyFrame	
EasingInt64KeyFrame	
(usage)	<EasingInt64KeyFrame />
(description)	A type that enables you to associate easing functions with a Int64AnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.255 EasingMode

x:Object > EasingMode	
EasingMode	
(usage)	EaseIn EaseOut EaseInOut
(description)	Defines the modes in which types derived from EasingFunctionBase perform their easing.
(used by)	EasingFunctionBase
[is nullable]	false
[text syntax]	EasingModeSyntax

4.256 EasingPoint3DKeyFrame

x:Object > DependencyObject > Freezable > Point3DKeyFrame > EasingPoint3DKeyFrame	
EasingPoint3DKeyFrame	
(usage)	<EasingPoint3DKeyFrame />

(description)	A type that enables you to associate easing functions with a <code>Point3DAnimationUsingKeyFrames</code> key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.257 EasingPointKeyFrame

x:Object > DependencyObject > Freezable > PointKeyFrame > EasingPointKeyFrame	
<h2>EasingPointKeyFrame</h2>	
(usage)	<EasingPointKeyFrame />
(description)	A type that enables you to associate easing functions with a <code>PointAnimationUsingKeyFrames</code> key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.258 EasingQuaternionKeyFrame

x:Object > DependencyObject > Freezable > QuaternionKeyFrame > EasingQuaternionKeyFrame	
<h2>EasingQuaternionKeyFrame</h2>	
(usage)	<EasingQuaternionKeyFrame />
(description)	A type that enables you to associate easing functions with a <code>QuaternionAnimationUsingKeyFrames</code> key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.
UseShortestPath	x:Boolean
(description)	A value that indicates whether the animation will automatically flip the sign of the destination quaternion to ensure the shortest path is taken.

4.259 EasingRectKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [RectKeyFrame](#) > [EasingRectKeyFrame](#)

EasingRectKeyFrame

(usage)	<EasingRectKeyFrame />
(description)	A type that enables you to associate easing functions with a RectAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.260 EasingRotation3DKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Rotation3DKeyFrame](#) > [EasingRotation3DKeyFrame](#)

EasingRotation3DKeyFrame

(usage)	<EasingRotation3DKeyFrame />
(description)	A type that enables you to associate easing functions with a Rotation3DAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.261 EasingSingleKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [SingleKeyFrame](#) > [EasingSingleKeyFrame](#)

EasingSingleKeyFrame

(usage)	<EasingSingleKeyFrame />
(description)	A type that enables you to associate easing functions with a SingleAnimationUsingKeyFrames key frame animation.
(properties)	

EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.262 EasingSizeKeyFrame

x:Object > DependencyObject > Freezable > SizeKeyFrame > EasingSizeKeyFrame	
EasingSizeKeyFrame	
(usage)	<EasingSizeKeyFrame />
(description)	A type that enables you to associate easing functions with a SizeAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.263 EasingThicknessKeyFrame

x:Object > DependencyObject > Freezable > ThicknessKeyFrame > EasingThicknessKeyFrame	
EasingThicknessKeyFrame	
(usage)	<EasingThicknessKeyFrame />
(description)	A type that enables you to associate easing functions with a ThicknessAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.264 EasingVector3DKeyFrame

x:Object > DependencyObject > Freezable > Vector3DKeyFrame > EasingVector3DKeyFrame	
EasingVector3DKeyFrame	

(usage)	<EasingVector3DKeyFrame />
(description)	A type that enables you to associate easing functions with a Vector3DAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.265 EasingVectorKeyFrame

x:Object > DependencyObject > Freezable > VectorKeyFrame > EasingVectorKeyFrame	
EasingVectorKeyFrame	
(usage)	<EasingVectorKeyFrame />
(description)	A type that enables you to associate easing functions with a VectorAnimationUsingKeyFrames key frame animation.
(properties)	
EasingFunction	IEasingFunction
(description)	The easing function applied to the key frame.

4.266 EdgeMode

x:Object > EdgeMode	
EdgeMode	
(usage)	Unspecified Aliased
(description)	Determines how the edges of non-text drawing primitives are rendered.
(used by)	RenderOptions
[is nullable]	false
[text syntax]	EdgeModeSyntax

4.267 EdgeProfile

x:Object > EdgeProfile	
EdgeProfile	
(usage)	Linear CurvedIn CurvedOut BulgedUp
(description)	Specifies the type of curve to apply to the edge of a bitmap.
[is nullable]	false
[text syntax]	EdgeProfileSyntax

4.268 EditingCommands

x:Object > EditingCommands	
EditingCommands	
(usage)	{x:Static EditingCommands.StaticPropertyName}
(description)	Provides a standard set of editing related commands.
[is default constructible]	false
(static properties)	
AlignCenter	RoutedUICommand
(description)	Represents the AlignCenter command, which requests that the current paragraph or a selection of paragraphs be centered.
AlignJustify	RoutedUICommand
(description)	Represents the AlignJustify command, which requests that the current paragraph or a selection of paragraphs be justified.
AlignLeft	RoutedUICommand
(description)	Represents the AlignLeft command, which requests that a selection of content be aligned left.
AlignRight	RoutedUICommand
(description)	Represents the AlignRight command, which requests that a selection of content be aligned right.
Backspace	RoutedUICommand
(description)	Represents the Backspace command, which requests that a backspace be entered at the current position or over the current selection.
CorrectSpellingError	RoutedUICommand

(description)	Represents the CorrectSpellingError command, which requests that any misspelled word at the current position be corrected.
DecreaseFontSize	RoutedUICommand
(description)	Represents the DecreaseFontSize command, which requests that the font size for the current selection be decreased by 1 point.
DecreaseIndentation	RoutedUICommand
(description)	Represents the DecreaseIndentation command, which requests that indentation for the current paragraph be decreased by one tab stop.
Delete	RoutedUICommand
(description)	Represents the Delete command, which requests that the current selection be deleted.
DeleteNextWord	RoutedUICommand
(description)	Represents the DeleteNextWord command, which requests that the next word (relative to a current position) be deleted.
DeletePreviousWord	RoutedUICommand
(description)	Represents the DeletePreviousWord command, which requests that the previous word (relative to a current position) be deleted.
EnterLineBreak	RoutedUICommand
(description)	Represents the EnterLineBreak command, which requests that a line break be inserted at the current position or over the current selection.
EnterParagraphBreak	RoutedUICommand
(description)	Represents the EnterParagraphBreak command, which requests that a paragraph break be inserted at the current position or over the current selection.
IgnoreSpellingError	RoutedUICommand
(description)	Represents the IgnoreSpellingError command, which requests that any instances of misspelled words at the current position or in the current selection be ignored.
IncreaseFontSize	RoutedUICommand
(description)	Represents the IncreaseFontSize command, which requests that the font size for the current selection be increased by 1 point.
IncreaseIndentation	RoutedUICommand
(description)	Represents the IncreaseIndentation command, which requests that indentation for the current paragraph be increased by one tab stop.
MoveDownByLine	RoutedUICommand

(description)	Represents the MoveDownByLine command, which requests that the caret move down by one line.
MoveDownByPage	RoutedUICommand
(description)	Represents the MoveDownByPage command, which requests that the caret move down by one page.
MoveDownByParagraph	RoutedUICommand
(description)	Represents the MoveDownByParagraph command, which requests that the caret move down by one paragraph.
MoveLeftByCharacter	RoutedUICommand
(description)	Represents the MoveLeftByCharacter command, which requests that the caret move one character left.
MoveLeftByWord	RoutedUICommand
(description)	Represents the MoveLeftByWord command, which requests that the caret move one word left.
MoveRightByCharacter	RoutedUICommand
(description)	Represents the MoveRightByCharacter command, which requests that the caret move one character right.
MoveRightByWord	RoutedUICommand
(description)	Represents the MoveRightByWord command, which requests that the caret move right by one word.
MoveToEndDocument	RoutedUICommand
(description)	Represents the MoveToEndDocument command, which requests that the caret move to the very end of content.
MoveToDocumentStart	RoutedUICommand
(description)	Represents the MoveToDocumentStart command, which requests that the caret move to the very beginning of content.
MoveToLineEnd	RoutedUICommand
(description)	Represents the MoveToLineEnd command, which requests that the caret move to the end of the current line.
MoveToLineStart	RoutedUICommand
(description)	Represents the MoveToLineStart command, which requests that the caret move to the beginning of the current line.
MoveUpByLine	RoutedUICommand
(description)	Represents the MoveUpByLine command, which requests that the caret move up by one line.

MoveUpByPage	RoutedUICommand
(description)	Represents the MoveUpByPage command, which requests that the caret move up by one page.
MoveUpByParagraph	RoutedUICommand
(description)	Represents the MoveUpByParagraph command, which requests that the caret move up by one paragraph.
SelectDownByLine	RoutedUICommand
(description)	Represents the SelectDownByLine command, which requests that the current selection be expanded down by one line.
SelectDownByPage	RoutedUICommand
(description)	Represents the SelectDownByPage command, which requests that the current selection be expanded down by one page.
SelectDownByParagraph	RoutedUICommand
(description)	Represents the SelectDownByParagraph command, which requests that the current selection be expanded down by one paragraph.
SelectLeftByCharacter	RoutedUICommand
(description)	Represents the SelectLeftByCharacter command, which requests that the current selection be expanded left by one character.
SelectLeftByWord	RoutedUICommand
(description)	Represents the SelectLeftByWord command, which requests that the current selection be expanded left by one word.
SelectRightByCharacter	RoutedUICommand
(description)	Represents the SelectRightByCharacter command, which requests that the current selection be expanded right by one character.
SelectRightByWord	RoutedUICommand
(description)	Represents the SelectRightByWord command, which requests that the current selection be expanded right by one word.
SelectToDocumentEnd	RoutedUICommand
(description)	Represents the SelectToDocumentEnd command, which requests that the current selection be expanded to the very end of content.
SelectToDocumentStart	RoutedUICommand
(description)	Represents the SelectToDocumentStart command, which requests that the current selection be expanded to the very beginning of content.
SelectToLineEnd	RoutedUICommand

(description)	Represents the SelectToLineEnd command, which requests that the current selection be expanded to the end of the current line.
SelectToLineStart	RoutedUICommand
(description)	Represents the SelectToLineStart command, which requests that the current selection be expanded to the beginning of the current line.
SelectUpByLine	RoutedUICommand
(description)	Represents the SelectUpByLine command, which requests that the current selection be expanded up by one line.
SelectUpByPage	RoutedUICommand
(description)	Represents the SelectUpByPage command, which requests that the current selection be expanded up by one page.
SelectUpByParagraph	RoutedUICommand
(description)	Represents the SelectUpByParagraph command, which requests that the current selection be expanded up by one paragraph.
TabBackward	RoutedUICommand
(description)	Represents the TabBackward command.
TabForward	RoutedUICommand
(description)	Represents the TabForward command.
ToggleBold	RoutedUICommand
(description)	Represents the ToggleBold command, which requests that Bold formatting be toggled on the current selection.
ToggleBullets	RoutedUICommand
(description)	Represents the ToggleBullets command, which requests that unordered list (also referred to as bulleted list) formatting be toggled on the current selection.
ToggleInsert	RoutedUICommand
(description)	Represents the ToggleInsert command, which toggles the typing mode between Insert and Overtyping.
ToggleItalic	RoutedUICommand
(description)	Represents the ToggleItalic command, which requests that Italic formatting be toggled on the current selection.
ToggleNumbering	RoutedUICommand
(description)	Represents the ToggleNumbering command, which requests that ordered list (also referred to as numbered list) formatting be toggled on the current selection.
ToggleSubscript	RoutedUICommand

(description)	Represents the ToggleSubscript command, which requests that subscript formatting be toggled on the current selection.
ToggleSuperscript	RoutedUICommand
(description)	Represents the ToggleSuperscript command, which requests that superscript formatting be toggled on the current selection.
ToggleUnderline	RoutedUICommand
(description)	Represents the ToggleUnderline command, which requests that Underline formatting be toggled on the current selection.

4.269 Effect

x:Object > DependencyObject > Freezable > Animatable > Effect	
Effect	
BlurEffect DropShadowEffect	
(usage)	{x:Static Effect.StaticPropertyName}
(description)	Provides a custom bitmap effect.
(used by)	ContainerVisual UIElement
[is default constructible]	false
(static properties)	
ImplicitInput	Brush
(description)	A Brush that, when it is used as an input for an Effect, causes the bitmap of the UIElement that the Effect is applied to be that input.

4.270 ElasticEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > ElasticEase , IEasingFunction	
ElasticEase	
(usage)	<ElasticEase />
(description)	Represents an easing function that creates an animation that resembles a spring oscillating back and forth until it comes to rest.
(properties)	

Oscillations	x:Int32
(description)	The number of times the target slides back and forth over the animation destination.
Springiness	x:Double
(description)	The stiffness of the spring. The smaller the Springiness value is, the stiffer the spring and the faster the elasticity decreases in intensity over each oscillation.

4.271 Ellipse

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape > Ellipse , IInputElement	
<h2>Ellipse</h2>	
(usage)	<Ellipse />
(description)	Draws an ellipse.
[name property]	Name
[xml lang property]	Language

4.272 EllipseGeometry

x:Object > DependencyObject > Freezable > Animatable > Geometry > EllipseGeometry	
<h2>EllipseGeometry</h2>	
(usage)	<EllipseGeometry> string </EllipseGeometry>
(description)	Represents the geometry of a circle or ellipse.
[text syntax]	GeometrySyntax
(properties)	
Center	Point
(description)	The center point of the EllipseGeometry.
RadiusX	x:Double
(description)	The x-radius value of the EllipseGeometry.
RadiusY	x:Double
(description)	The y-radius value of the EllipseGeometry.

4.273 EmissiveMaterial

x:Object > DependencyObject > Freezable > Animatable > Material > EmissiveMaterial	
EmissiveMaterial	
(usage)	<EmissiveMaterial />
(description)	Applies a Brush to a 3-D model so that it participates in lighting calculations as if the Material were emitting light equal to the color of the Brush.
(properties)	
Brush	Brush
(description)	The Brush applied by the EmissiveMaterial.
Color	Color
(description)	The color filter for the material's texture.

4.274 EventPrivateKey

x:Object > EventPrivateKey	
EventPrivateKey	
(usage)	<EventPrivateKey />
(description)	Provides unique identification for events whose handlers are stored into an internal hashtable.

4.275 EventSetter

x:Object > SetterBase > EventSetter	
EventSetter	
(usage)	<EventSetter />
(description)	Represents an event setter in a style. Event setters invoke the specified event handlers in response to events.
(properties)	
Event	RoutedEvent

(description)	The particular routed event that this EventSetter responds to.
HandledEventsToo	x:Boolean
(description)	A value that determines whether the handler assigned to the setter should still be invoked, even if the event is marked handled in its event data.

4.276 EventTrigger

x:Object > DependencyObject > TriggerBase > EventTrigger	
EventTrigger	
(usage)	<EventTrigger> TriggerAction *</EventTrigger>
(description)	Represents a trigger that applies a set of actions in response to an event.
[content property]	Actions
(properties)	
Actions	TriggerActionCollection
(description)	The collection of actions to apply when the event occurs.
[read only]	true
RoutedEvent	RoutedEvent
(description)	The RoutedEvent that will activate this trigger.
SourceName	x:String
(description)	The name of the object with the event that activates this trigger. This is only used by element triggers or template triggers.

4.277 ExceptionValidationRule

x:Object > ValidationRule > ExceptionValidationRule	
ExceptionValidationRule	
(usage)	<ExceptionValidationRule />
(description)	Represents a rule that checks for exceptions that are thrown during the update of the binding source property.

4.278 ExpandDirection

x:Object > ExpandDirection	
<h1>ExpandDirection</h1>	
(usage)	Down Up Left Right
(description)	Specifies the direction in which an Expander control opens.
(used by)	Expander
[is nullable]	false
[text syntax]	ExpandDirectionSyntax

4.279 Expander

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > HeaderedContentControl > Expander , InputElement	
<h1>Expander</h1>	
(usage)	<Expander> x:Object </Expander>
(description)	Represents the control that displays a header that has a collapsible window that displays content.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
ExpandDirection	ExpandDirection
(description)	The direction in which the Expander content window opens.
IsExpanded	x:Boolean
(description)	Whether the Expander content window is visible.
(events)	
Collapsed	Occurs when the content window of an Expander control closes and only the Header is visible.
Expanded	Occurs when the content window of an Expander control opens to display both its header and content.

4.280 ExponentialEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > ExponentialEase , IEasingFunction	
<h1>ExponentialEase</h1>	
(usage)	<ExponentialEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using an exponential formula.
(properties)	
Exponent	x:Double
(description)	The exponent used to determine the interpolation of the animation.

4.281 FamilyTypeface

x:Object > FamilyTypeface	
<h1>FamilyTypeface</h1>	
(usage)	<FamilyTypeface />
(description)	Specifies the details of a single typeface supported by a FontFamily.
(used by)	FamilyTypefaceCollection ICollection(FamilyTypeface) IList(FamilyTypeface)
(properties)	
AdjustedFaceNames	IDictionary(XmlLanguage,x:String)
(description)	A collection of localized face names adjusted by the font differentiator.
[read only]	true
CapsHeight	x:Double
(description)	The distance from baseline to top of an English capital, relative to em size.
DeviceFontCharacterMetrics	CharacterMetricsDictionary
(description)	The collection of character metrics for a device font family typeface.
[read only]	true
DeviceFontName	x:String
(description)	The name or unique identifier for a device font family typeface.
Stretch	FontStretch
(description)	The designed stretch of the font family typeface.

StrikethroughPosition	x:Double
(description)	The position of the strikethrough value relative to the baseline. The value is also relative to em size.
StrikethroughThickness	x:Double
(description)	The thickness of the strikethrough relative to em size.
Style	FontStyle
(description)	The style of the font family typeface design.
UnderlinePosition	x:Double
(description)	The position of underline value relative to the baseline. The value is also relative to em size.
UnderlineThickness	x:Double
(description)	The thickness of underline relative to em size.
Weight	FontWeight
(description)	The designed weight of this font family typeface.
XHeight	x:Double
(description)	The Western x-height relative to em size.

4.282 FamilyTypefaceCollection

x:Object > FamilyTypefaceCollection	
FamilyTypefaceCollection	
(usage)	None.
(description)	Represents a collection of FamilyTypeface instances.
(used by)	FontFamily
[is default constructible]	false
[is list]	true
[allowed types]	FamilyTypeface

4.283 Figure

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > AnchoredBlock > Figure , InputElement	
<h1>Figure</h1>	
(usage)	<Figure> Block *</Figure>
(description)	An inline-level flow content element used to host a figure. A figure is a portion of flow content with placement properties that can be customized independently from the primary content flow within a FlowDocument.
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	
CanDelayPlacement	x:Boolean
(description)	A value that indicates whether this figure can delay its placement in the flow of content.
Height	FigureLength
(description)	A value that indicates the height of a Figure element.
HorizontalAnchor	FigureHorizontalAnchor
(description)	A value that indicates the position that content is anchored to in the horizontal direction.
HorizontalOffset	x:Double
(description)	A value that indicates the distance that a Figure is offset from its baseline in the horizontal direction.
[text syntax]	LengthSyntax
VerticalAnchor	FigureVerticalAnchor
(description)	A value that indicates the position that content is anchored to in the vertical direction.
VerticalOffset	x:Double
(description)	A value that indicates the distance that a Figure is offset from its baseline in the vertical direction.
[text syntax]	LengthSyntax
Width	FigureLength
(description)	A value that indicates the width of a Figure element.
WrapDirection	WrapDirection

(description)	A value that indicates the allowable ways in which content can flow around a Figure.
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4.284 FigureHorizontalAnchor

x:Object > FigureHorizontalAnchor	
FigureHorizontalAnchor	
(usage)	PageLeft PageCenter PageRight ContentLeft ContentCenter ContentRight ColumnLeft ColumnCenter ColumnRight ...
(description)	Describes a position reference for a figure in a horizontal direction.
(used by)	Figure
[is nullable]	false
[text syntax]	FigureHorizontalAnchorSyntax

4.285 FigureLength

x:Object > FigureLength	
FigureLength	
(usage)	<FigureLength> string </FigureLength>
(description)	Describes the height or width of a Figure.
(used by)	Figure
[is nullable]	false
[text syntax]	FigureLengthSyntax

4.286 FigureUnitType

x:Object > FigureUnitType	
FigureUnitType	
(usage)	Auto Pixel Column Content Page

(description)	Describes the unit type associated with the width or height of a FigureLength.
[is nullable]	false
[text syntax]	FigureUnitTypeSyntax

4.287 FigureVerticalAnchor

x:Object > FigureVerticalAnchor	
FigureVerticalAnchor	
(usage)	PageTop PageCenter PageBottom ContentTop ContentCenter ContentBottom ParagraphTop
(description)	Describes the point of reference of a figure in the vertical direction.
(used by)	Figure
[is nullable]	false
[text syntax]	FigureVerticalAnchorSyntax

4.288 FillBehavior

x:Object > FillBehavior	
FillBehavior	
(usage)	HoldEnd Stop
(description)	Specifies how a Timeline behaves when it is outside its active period but its parent is inside its active or hold period.
(used by)	Timeline
[is nullable]	false
[text syntax]	FillBehaviorSyntax

4.289 FillRule

x:Object > FillRule

FillRule	
(usage)	EvenOdd Nonzero
(description)	Specifies how the intersecting areas of PathFigure objects contained in a Geometry are combined to form the area of the Geometry.
(used by)	GeometryGroup PathGeometry Polygon Polyline StreamGeometry
[is nullable]	false
[text syntax]	FillRuleSyntax

4.290 FixedDocument

x:Object > DependencyObject > ContentElement > FrameworkContentElement > FixedDocument , IInputElement	
FixedDocument	
(usage)	<FixedDocument> PageContent *</FixedDocument>
(description)	Hosts a portable, high fidelity, fixed-format document with read access for user text selection, keyboard navigation, and search.
[content property]	Pages
[name property]	Name
[xml lang property]	Language
(properties)	
Pages	PageContentCollection
(description)	A collection of the document's PageContent elements.
[read only]	true
PrintTicket	x:Object
(description)	The PrintTicket that is associated with this document.

4.291 FixedDocumentSequence

x:Object > DependencyObject > ContentElement > FrameworkContentElement > FixedDocumentSequence , IInputElement	
FixedDocumentSequence	

(usage)	<FixedDocumentSequence> DocumentReference *</FixedDocumentSequence>
(description)	Hosts one or more DocumentReference elements that define a sequence of fixed documents.
[content property]	References
[name property]	Name
[xml lang property]	Language
(properties)	
PrintTicket	x:Object
(description)	The PrintTicket that is associated with this document sequence.
References	DocumentReferenceCollection
(description)	A collection of the document sequence's DocumentReference child elements.
[read only]	true

4.292 FixedPage

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > FixedPage , InputElement	
FixedPage	
(usage)	<FixedPage> UIElement *</FixedPage>
(description)	Provides the content for a high fidelity, fixed-format page.
(used by)	PageContent
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The Brush used for the page background.
BleedBox	Rect
(description)	A rectangle defining the overflow area for bleeds, registration marks, and crop marks.
Children	UIElementCollection
(description)	A collection of the FixedPage child elements.

[read only]	true
ContentBox	Rect
(description)	The bounding rectangle of the content area; that is, the area of the page within the margins, if any.
PrintTicket	x:Object
(description)	The PrintTicket that is associated with the page.
(attachable properties)	
FixedPage.Bottom	x:Double
(description)	The distance between the bottom of the page and the bottom of the parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax
FixedPage.Left	x:Double
(description)	The distance between the left edge of the page and the left edge of the parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax
FixedPage.NavigateUri	x:Uri
(description)	The URI associated with the page.
[target type]	UIElement
FixedPage.Right	x:Double
(description)	The distance between the right edge of the page and the right edge of the parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax
FixedPage.Top	x:Double
(description)	The distance between the top of the page and the top of the parent Canvas.
[target type]	UIElement
[text syntax]	LengthSyntax

4.293 Floater

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > AnchoredBlock > Floater , InputElement	
Floater	
(usage)	<Floater> Block *</Floater>
(description)	Provides an inline-level flow content element used to host a floater. A floater displays images and other content parallel to the main content flow in a FlowDocument.
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	
HorizontalAlignment	HorizontalAlignment
(description)	A value that indicates the horizontal alignment for a Floater object.
Width	x:Double
(description)	A value that indicates the width of a Floater object.
[text syntax]	LengthSyntax

4.294 FlowDirection

x:Object > FlowDirection	
FlowDirection	
(usage)	LeftToRight RightToLeft
(description)	Defines constants that specify the content flow direction for text and user interface (UI) elements.
(used by)	Block FlowDocument FrameworkElement Inline ListItem TableCell
[is nullable]	false
[text syntax]	FlowDirectionSyntax

4.295 FlowDocument

x:Object > DependencyObject > ContentElement > FrameworkContentElement > FlowDocument , InputElement	
<h1>FlowDocument</h1>	
(usage)	<FlowDocument> Block *</FlowDocument>
(description)	Hosts and formats flow content with advanced document features, such as pagination and columns.
(used by)	FlowDocumentReader FlowDocumentScrollViewer RichTextBox
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The Brush used to fill the background of content area.
Blocks	BlockCollection
(description)	The top-level Block elements of the contents of the FlowDocument.
[read only]	true
ColumnGap	x:Double
(description)	The column gap value, which indicates the spacing between columns in a FlowDocument.
[text syntax]	LengthSyntax
ColumnRuleBrush	Brush
(description)	The Brush used to draw the rule between columns.
ColumnRuleWidth	x:Double
(description)	The column rule width.
[text syntax]	LengthSyntax
ColumnWidth	x:Double
(description)	The minimum desired width of the columns in a FlowDocument.
[text syntax]	LengthSyntax
FlowDirection	FlowDirection
(description)	The relative direction for flow of content in a FlowDocument.
FontFamily	FontFamily
(description)	The preferred top-level font family for the FlowDocument.

FontSize	x:Double
(description)	The top-level font size for the FlowDocument.
[text syntax]	FontSizeSyntax
FontStretch	FontStretch
(description)	The top-level font-stretching characteristics for the FlowDocument.
FontStyle	FontStyle
(description)	The top-level font style for the FlowDocument.
FontWeight	FontWeight
(description)	The top-level font weight for the FlowDocument.
Foreground	Brush
(description)	The Brush to apply to the text contents of the FlowDocument.
IsColumnWidthFlexible	x:Boolean
(description)	A value that indicates whether the ColumnWidth value is flexible or fixed.
IsHyphenationEnabled	x:Boolean
(description)	A value that indicates whether automatic hyphenation of words is enabled or disabled.
IsOptimalParagraphEnabled	x:Boolean
(description)	A value that indicates whether optimal paragraph layout is enabled or disabled.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which a line box is determined for each line of text within the FlowDocument.
MaxPageHeight	x:Double
(description)	The maximum height for pages in a FlowDocument.
[text syntax]	LengthSyntax
MaxPageWidth	x:Double
(description)	The maximum width for pages in a FlowDocument.
[text syntax]	LengthSyntax
MinPageHeight	x:Double
(description)	The minimum height for pages in a FlowDocument.

[text syntax]	LengthSyntax
MinPageWidth	x:Double
(description)	The minimum width for pages in a FlowDocument.
[text syntax]	LengthSyntax
PageHeight	x:Double
(description)	The preferred height for pages in a FlowDocument.
[text syntax]	LengthSyntax
PagePadding	Thickness
(description)	A value that indicates the thickness of padding space between the boundaries of a page and the page's content.
PageWidth	x:Double
(description)	The preferred width for pages in a FlowDocument.
[text syntax]	LengthSyntax
TextAlignment	TextAlignment
(description)	A value that indicates the horizontal alignment of text content.
TextEffects	TextEffectCollection
(description)	The effects to apply to the text of a FlowDocument.

4.296 FlowDocumentPageViewer

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > DocumentViewerBase > FlowDocumentPageViewer , IInputElement	
<h2>FlowDocumentPageViewer</h2>	
(usage)	<FlowDocumentPageViewer> IDocumentPaginatorSource </FlowDocumentPageViewer>
(description)	Represents a control for viewing flow content in a fixed viewing mode that shows content one page at a time.
[content property]	Document
[name property]	Name
[xml lang property]	Language
(properties)	

IsInactiveSelectionHighlighted	x:Boolean
(description)	A value that indicates whether FlowDocumentPageViewer displays selected text when the control does not have focus.
MaxZoom	x:Double
(description)	The maximum allowable Zoom level for the FlowDocumentPageViewer.
MinZoom	x:Double
(description)	The minimum allowable Zoom level for the FlowDocumentPageViewer.
SelectionBrush	Brush
(description)	The brush that highlights the selected text.
SelectionOpacity	x:Double
(description)	The opacity of the SelectionBrush.
Zoom	x:Double
(description)	The current zoom level for the FlowDocumentPageViewer.
ZoomIncrement	x:Double
(description)	The zoom increment.

4.297 FlowDocumentReader

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [FlowDocumentReader](#), [InputElement](#)

FlowDocumentReader

(usage)	<FlowDocumentReader> FlowDocument </FlowDocumentReader>
(description)	Provides a control for viewing flow content, with built-in support for multiple viewing modes.
[content property]	Document
[name property]	Name
[xml lang property]	Language
(properties)	
Document	FlowDocument
(description)	A FlowDocument that hosts the content to be displayed by the FlowDocumentReader.

IsFindEnabled	x:Boolean
(description)	A value that indicates whether the Find routed command is enabled.
IsInactiveSelectionHighlightEnabled	x:Boolean
(description)	A value that indicates whether FlowDocumentReader displays selected text when the control does not have focus.
IsPageViewEnabled	x:Boolean
(description)	A value that indicates whether Page is available as a viewing mode.
IsPrintEnabled	x:Boolean
(description)	A value that indicates whether the Print routed command is enabled.
IsScrollViewEnabled	x:Boolean
(description)	A value that indicates whether Scroll is available as a viewing mode.
IsTwoPageViewEnabled	x:Boolean
(description)	A value that indicates whether TwoPage is available as a viewing mode.
MaxZoom	x:Double
(description)	The maximum allowable Zoom level for the FlowDocumentReader.
MinZoom	x:Double
(description)	The minimum allowable Zoom level for the FlowDocumentReader.
SelectionBrush	Brush
(description)	The brush that highlights the selected text.
SelectionOpacity	x:Double
(description)	The opacity of the SelectionBrush.
ViewingMode	FlowDocumentReaderViewingMode
(description)	The viewing mode for the FlowDocumentReader.
Zoom	x:Double
(description)	The current zoom level.
ZoomIncrement	x:Double
(description)	The zoom increment.

4.298 FlowDocumentReaderViewingMode

[x:Object](#) > [FlowDocumentReaderViewingMode](#)

FlowDocumentReaderViewingMode	
(usage)	Page TwoPage Scroll
(description)	Names viewing modes for the FlowDocumentReader control.
(used by)	FlowDocumentReader
[is nullable]	false
[text syntax]	FlowDocumentReaderViewingModeSyntax

4.299 FlowDocumentScrollViewer

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > FlowDocumentScrollViewer , InputElement	
FlowDocumentScrollViewer	
(usage)	<FlowDocumentScrollViewer> FlowDocument </FlowDocumentScrollViewer>
(description)	Provides a control for viewing flow content in a continuous scrolling mode.
[content property]	Document
[name property]	Name
[xml lang property]	Language
(properties)	
Document	FlowDocument
(description)	A FlowDocument that hosts the content to be displayed by the FlowDocumentScrollViewer.
HorizontalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a horizontal scroll bar is shown.
IsInactiveSelectionHighlightEnabled	x:Boolean
(description)	A value that indicates whether FlowDocumentScrollViewer displays selected text when the control does not have focus.
IsSelectionEnabled	x:Boolean
(description)	A value that indicates whether selection of content within the FlowDocumentScrollViewer is enabled.
IsToolBarVisible	x:Boolean

(description)	A value that indicates whether the FlowDocumentScrollViewer toolbar is visible.
MaxZoom	x:Double
(description)	The maximum allowable Zoom level for the FlowDocumentScrollViewer.
MinZoom	x:Double
(description)	The minimum allowable Zoom level for the FlowDocumentScrollViewer.
SelectionBrush	Brush
(description)	The brush that highlights the selected text.
SelectionOpacity	x:Double
(description)	The opacity of the SelectionBrush.
VerticalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a vertical scroll bar is shown.
Zoom	x:Double
(description)	The current zoom level.
ZoomIncrement	x:Double
(description)	The zoom increment.

4.300 FocusManager

x:Object > FocusManager	
<h2>FocusManager</h2>	
(usage)	None.
(description)	Provides ways for determining and setting focus scopes and for setting the focused element within the scope.
[is default constructible]	false
(attachable properties)	
FocusManager.FocusedElement	IInputElement
(description)	Determines whether the element this property is attached to has logical focus.
[target type]	DependencyObject
FocusManager.IsFocusScope	x:Boolean
(description)	Determines whether the element this property is attached to is a focus scope.

[target type]	DependencyObject
(attachable events)	
FocusManager.GotFocus	Occurs when an element gets focus.
FocusManager.LostFocus	Occurs when an element loses focus.

4.301 FocusNavigationDirection

x:Object > FocusNavigationDirection	
<h2>FocusNavigationDirection</h2>	
(usage)	Next Previous First Last Left Right Up Down
(description)	Specifies the direction within a user interface (UI) in which a desired focus change request is attempted. The direction is either based on tab order or by relative direction in layout.
[is nullable]	false
[text syntax]	FocusNavigationDirectionSyntax

4.302 FontCapitals

x:Object > FontCapitals	
<h2>FontCapitals</h2>	
(usage)	Normal AllSmallCaps SmallCaps AllPetiteCaps PetiteCaps Unicase Titling
(description)	Describes the capital letter style for a Typography object.
(used by)	Typography
[is nullable]	false
[text syntax]	FontCapitalsSyntax

4.303 FontEastAsianLanguage

x:Object > FontEastAsianLanguage
--

FontEastAsianLanguage	
(usage)	Normal Jis78 Jis83 Jis90 Jis04 HojoKanji Nlckanji Simplified Traditional ...
(description)	Provides a mechanism for the user to select font-specific versions of glyphs for a specified East Asian writing system or language.
(used by)	Typography
[is nullable]	false
[text syntax]	FontEastAsianLanguageSyntax

4.304 FontEastAsianWidths

x:Object > FontEastAsianWidths	
FontEastAsianWidths	
(usage)	Normal Proportional Full Half Third Quarter
(description)	Provides a mechanism for the user to select glyphs of different width styles.
(used by)	Typography
[is nullable]	false
[text syntax]	FontEastAsianWidthsSyntax

4.305 FontEmbeddingManager

x:Object > FontEmbeddingManager	
FontEmbeddingManager	
(usage)	<FontEmbeddingManager />
(description)	Provides functionality for physical and composite font embedding.
(properties)	
GlyphTypefaceUri	ICollection(x:Uri)
(description)	Returns the collection of glyph typefaces used by the GlyphRun specified in the GlyphRun) method.
[read only]	true

4.306 FontEmbeddingRight

x:Object > FontEmbeddingRight	
FontEmbeddingRight	
(usage)	Installable InstallableButNoSubsetting InstallableButWithBitmapsOnly InstallableButNoSubsettingAndWithBitmapsOnly RestrictedLicense PreviewAndPrint PreviewAndPrintButNoSubsetting PreviewAndPrintButWithBitmapsOnly PreviewAndPrintButNoSubsettingAndWithBitmapsOnly ...
(description)	Describes font embedding permissions specified in an OpenType font file.
[is nullable]	false
[text syntax]	FontEmbeddingRightSyntax

4.307 FontFamily

x:Object > FontFamily	
FontFamily	
(usage)	<FontFamily> string </FontFamily>
(description)	Represents a family of related fonts.
(used by)	AccessText Control DataGridTextColumn FlowDocument Fonts ICollection(FontFamily) Page SystemFonts TextBlock TextElement
[text syntax]	FontFamilySyntax
(properties)	
Baseline	x:Double
(description)	The distance between the baseline and the character cell top.
FamilyMaps	FontFamilyMapCollection
(description)	The collection of FontFamilyMap objects.
[read only]	true
FamilyNames	LanguageSpecificStringDictionary
(description)	A collection of strings and CultureInfo values that represent the font family names of the FontFamily object.

[read only]	true
FamilyTypefaces	FamilyTypefaceCollection
(description)	A collection of typefaces for the FontFamily object.
[read only]	true
LineSpacing	x:Double
(description)	The line spacing value for the FontFamily object. The line spacing is the recommended baseline-to-baseline distance for the text in this font relative to the em size.

4.308 FontFamilyMap

[x:Object](#) > [FontFamilyMap](#)

FontFamilyMap

(usage)	<FontFamilyMap />
(description)	Defines which FontFamily to use for a specified set of Unicode code points and a culture-specific language.
(used by)	FontFamilyMapCollection ICollection(FontFamilyMap) IList(FontFamilyMap)
(properties)	
Language	XmlLanguage
(description)	The culture-specific language for the FontFamilyMap.
Scale	x:Double
(description)	The font scale factor for the target FontFamily.
Target	x:String
(description)	The target font family name for which the Unicode range applies to.
Unicode	x:String
(description)	A string value representing one or more Unicode code point ranges.

4.309 FontFamilyMapCollection

[x:Object](#) > [FontFamilyMapCollection](#)

FontFamilyMapCollection

(usage)	None.
(description)	Represents an ordered collection of FontFamilyMap objects.
(used by)	FontFamily
[is default constructible]	false
[is list]	true
[allowed types]	FontFamilyMap

4.310 FontFraction

x:Object > FontFraction	
FontFraction	
(usage)	Normal Slashed Stacked
(description)	Describes the fraction style for a Typography object.
(used by)	Typography
[is nullable]	false
[text syntax]	FontFractionSyntax

4.311 FontNumeralAlignment

x:Object > FontNumeralAlignment	
FontNumeralAlignment	
(usage)	Normal Proportional Tabular
(description)	Describes the numeral alignment for a Typography object.
(used by)	Typography
[is nullable]	false
[text syntax]	FontNumeralAlignmentSyntax

4.312 FontNumeralStyle

x:Object > FontNumeralStyle	
FontNumeralStyle	
(usage)	Normal Lining OldStyle
(description)	Describes the numeral style for a Typography object.
(used by)	Typography
[is nullable]	false
[text syntax]	FontNumeralStyleSyntax

4.313 Fonts

x:Object > Fonts	
Fonts	
(usage)	{x:Static Fonts.StaticPropertyName}
(description)	Provides enumeration support for FontFamily and Typeface objects.
[is default constructible]	false
(static properties)	
SystemFontFamilies	ICollection (FontFamily)
(description)	The collection of FontFamily objects from the default system font location.
SystemTypefaces	ICollection (Typeface)
(description)	The collection of Typeface objects from the default system font location.

4.314 FontStretch

x:Object > FontStretch	
FontStretch	
(usage)	Condensed Expanded ExtraCondensed ExtraExpanded Medium Normal SemiCondensed SemiExpanded UltraCondensed ...
(description)	Describes the degree to which a font has been stretched compared to the normal aspect ratio of that font.

(used by)	AccessText Control FamilyTypeface FlowDocument FontStretches TextBlock TextElement
[is nullable]	false
[text syntax]	FontStretchSyntax

4.315 FontStretches

x:Object > FontStretches	
FontStretches	
(usage)	{x:Static FontStretches.StaticPropertyName}
(description)	Provides a set of static predefined FontStretch values.
[is default constructible]	false
(static properties)	
Condensed	FontStretch
(description)	Specifies a condensed FontStretch.
Expanded	FontStretch
(description)	Specifies an expanded FontStretch.
ExtraCondensed	FontStretch
(description)	Specifies an extra-condensed FontStretch.
ExtraExpanded	FontStretch
(description)	Specifies an extra-expanded FontStretch.
Medium	FontStretch
(description)	Specifies a medium FontStretch.
Normal	FontStretch
(description)	Specifies a normal FontStretch.
SemiCondensed	FontStretch
(description)	Specifies a semi-condensed FontStretch.
SemiExpanded	FontStretch
(description)	Specifies a semi-expanded FontStretch.
UltraCondensed	FontStretch
(description)	Specifies an ultra-condensed FontStretch.

UltraExpanded	FontStretch
(description)	Specifies an ultra-expanded FontStretch.

4.316 FontStyle

x:Object > FontStyle	
FontStyle	
(usage)	Italic Normal Oblique
(description)	Defines a structure that represents the style of a font face as normal, italic, or oblique.
(used by)	AccessText Control DataGridTextColumn FamilyTypeface FlowDocument FontStyles SystemFonts TextBlock TextElement
[is nullable]	false
[text syntax]	FontStyleSyntax

4.317 FontStyles

x:Object > FontStyles	
FontStyles	
(usage)	{x:Static FontStyles.StaticPropertyName}
(description)	Provides a set of static predefined FontStyle values.
[is default constructible]	false
(static properties)	
Italic	FontStyle
(description)	Specifies an italic FontStyle.
Normal	FontStyle
(description)	Specifies a normal FontStyle.
Oblique	FontStyle
(description)	Specifies an oblique FontStyle.

4.318 FontVariants

x:Object > FontVariants	
FontVariants	
(usage)	Normal Superscript Subscript Ordinal Inferior Ruby
(description)	Renders variant typographic glyph forms.
(used by)	Typography
[is nullable]	false
[text syntax]	FontVariantsSyntax

4.319 FontWeight

x:Object > FontWeight	
FontWeight	
(usage)	Black Bold DemiBold ExtraBlack ExtraBold ExtraLight Heavy Light Medium ...
(description)	Refers to the density of a typeface, in terms of the lightness or heaviness of the strokes.
(used by)	AccessText Control DataGridTextColumn FamilyTypeface FlowDocument FontWeights SystemFonts TextBlock TextElement
[is nullable]	false
[text syntax]	FontWeightSyntax

4.320 FontWeights

x:Object > FontWeights	
FontWeights	
(usage)	{x:Static FontWeights.StaticPropertyName}
(description)	Provides a set of static predefined FontWeight values.
[is default constructible]	false
(static properties)	

Black	FontWeight
(description)	Specifies a "Black" font weight.
Bold	FontWeight
(description)	Specifies a "Bold" font weight.
DemiBold	FontWeight
(description)	Specifies a "Demi-bold" font weight.
ExtraBlack	FontWeight
(description)	Specifies an "Extra-black" font weight.
ExtraBold	FontWeight
(description)	Specifies an "Extra-bold" font weight.
ExtraLight	FontWeight
(description)	Specifies an "Extra-light" font weight.
Heavy	FontWeight
(description)	Specifies a "Heavy" font weight.
Light	FontWeight
(description)	Specifies a "Light" font weight.
Medium	FontWeight
(description)	Specifies a "Medium" font weight.
Normal	FontWeight
(description)	Specifies a "Normal" font weight.
Regular	FontWeight
(description)	Specifies a "Regular" font weight.
SemiBold	FontWeight
(description)	Specifies a "Semi-bold" font weight.
Thin	FontWeight
(description)	Specifies a "Thin" font weight.
UltraBlack	FontWeight
(description)	Specifies an "Ultra-black" font weight.
UltraBold	FontWeight
(description)	Specifies an "Ultra-bold" font weight.
UltraLight	FontWeight
(description)	Specifies an "Ultra-light" font weight.

4.321 FormatConvertedBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > FormatConvertedBitmap	
<h2>FormatConvertedBitmap</h2>	
(usage)	<FormatConvertedBitmap> string </FormatConvertedBitmap>
(description)	Provides pixel format conversion functionality for a BitmapSource.
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
AlphaThreshold	x:Double
(description)	The alpha channel threshold of a bitmap when converting to palletized formats that recognizes an alpha color.
DestinationFormat	PixelFormat
(description)	The pixel format to convert the bitmap to.
Source	BitmapSource
(description)	The source for the bitmap.

4.322 Frame

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > Frame , InputElement	
<h2>Frame</h2>	
(usage)	<Frame />
(description)	Frame is a content control that supports navigation.
[name property]	Name
[xml lang property]	Language
(properties)	
JournalOwnership	JournalOwnership
(description)	Whether a Frame is responsible for managing its own navigation history, or yields navigation history management to a parent navigator (NavigationWindow, Frame).

NavigationUIVisibility	NavigationUIVisibility
(description)	When the Frame can show its navigation UI.
SandboxExternalContent	x:Boolean
(description)	Whether a Frame isolates external XAML content within a partial trust security sandbox (with the default Internet permission set).
Source	x:Uri
(description)	The uniform resource identifier (URI) of the current content, or the URI of new content that is currently being navigated to.
(events)	
ContentRendered	Occurs after Frame content has been rendered.
FragmentNavigation	Occurs when navigation to a content fragment begins, which occurs immediately, if the desired fragment is in the current content, or after the source XAML content has been loaded, if the desired fragment is in different content.
LoadCompleted	Occurs when content that was navigated to has been loaded, parsed, and has begun rendering.
Navigated	Occurs when the content that is being navigated to has been found, and is available from the Content property, although it may not have completed loading.
Navigating	Occurs when a new navigation is requested.
NavigationFailed	Occurs when an error is raised while navigating to the requested content.
NavigationProgress	Occurs periodically during a download to provide navigation progress information.
NavigationStopped	Occurs when the StopLoading method is called, or when a new navigation is requested while a current navigation is in progress.

4.323 FrameworkCompatibilityPreferences

x:Object > FrameworkCompatibilityPreferences	
FrameworkCompatibilityPreferences	
(usage)	{x:Static FrameworkCompatibilityPreferences.StaticPropertyName}
(description)	Contains properties that specify how an application should behave relative to features that are in the PresentationFramework assembly.
[is default constructible]	false

(static properties)	
AreInactiveSelectionHighlightBrushKeysSupported	x:Boolean
(description)	A value that indicates whether the application should use the InactiveSelectionHighlightBrush and InactiveSelectionHighlightTextBrush properties for the colors of inactive selected items.
KeepTextBoxDisplaySynchronizedWithTextProperty	x:Boolean
(description)	A value that indicates whether a data-bound TextBox should display a string that is identical to the value of the source its Text property
ShouldThrowOnCopyOrCutFailure	x:Boolean
(description)	A value that indicates whether a failed copy or cut operation in a TextBoxBase instance results in a ExternalException.

4.324 FrameworkContentElement

x:Object > DependencyObject > ContentElement > FrameworkContentElement , InputElement	
<h2>FrameworkContentElement</h2>	
DefinitionBase FixedDocument FixedDocumentSequence FlowDocument TableColumn TextElement	
(usage)	<FrameworkContentElement />
(description)	Adds support for additional input (including tooltips and context menus), storyboards, data context for databinding, styles, and logical trees. FrameworkContentElement is an implementation of the ContentElement base type.
[name property]	Name
[xml lang property]	Language
(properties)	
BindingGroup	BindingGroup
(description)	The BindingGroup that is used for the element.
ContextMenu	ContextMenu
(description)	The context menu element that should appear whenever the context menu is requested via user interface (UI) from within this element.
Cursor	Cursor
(description)	The cursor that displays when the mouse pointer is over this element.

DataContext	x:Object
(description)	The data context for an element when it participates in data binding.
FocusVisualStyle	Style
(description)	An object that enables customization of appearance, effects, or other style characteristics that will apply to this element when it captures keyboard focus.
ForceCursor	x:Boolean
(description)	A value indicating whether this FrameworkContentElement should force the user interface (UI) to render the cursor as declared by this instance's Cursor property.
InputScope	InputScope
(description)	The context for input used by this FrameworkContentElement.
Language	XmlLanguage
(description)	Localization/globalization language information that applies to an individual element.
Name	x:String
(description)	The identifying name of the element. The name provides a reference so that the element can be referred to after it is constructed during XAML parsing.
OverridesDefaultStyle	x:Boolean
(description)	A value indicating whether this element incorporates style properties from theme styles.
Resources	ResourceDictionary
(description)	The current locally-defined resource dictionary.
Style	Style
(description)	The style to be used by this element.
Tag	x:Object
(description)	An arbitrary object value that can be used to store custom information about this element.
ToolTip	x:Object
(description)	The tool-tip object that is displayed for this element in the user interface (UI).
(events)	
ContextMenuClosing	Occurs just before any context menu on the element is closed.
ContextMenuOpening	Occurs when any context menu on the element is opened.
DataContextChanged	Occurs when this element's data context changes.

Initialized	Occurs when this FrameworkContentElement is initialized. This coincides with cases where the value of the IsInitialized property changes from false (or undefined) to true.
Loaded	Occurs when the element is laid out, rendered, and ready for interaction.
SourceUpdated	Occurs when any associated data source participating in a binding on this element changes.
TargetUpdated	Occurs when any associated target property participating in a binding on this element changes.
ToolTipClosing	Occurs just before any tooltip on the element is closed.
ToolTipOpening	Occurs when any tooltip on the element is opened.
Unloaded	Occurs when the element is removed from an element tree of loaded elements.

4.325 FrameworkElement

x:Object > DependencyObject > Visual > UIElement > FrameworkElement , InputElement	
<h2>FrameworkElement</h2>	
AccessText AdornedElementPlaceholder ContentPresenter Control Decorator DocumentPageView DocumentReference FixedPage Glyphs GridViewRowPresenterBase Image InkCanvas ItemsPresenter MediaElement Page PageContent Panel Popup Shape TextBlock TickBar ToolBarTray Track Viewport3D	
(usage)	<FrameworkElement />
(description)	A base type for elements that provides advanced features, such as styling and advanced layout.
[name property]	Name
[xml lang property]	Language
(properties)	
BindingGroup	BindingGroup
(description)	The BindingGroup that is used for the element.
ContextMenu	ContextMenu
(description)	The context menu element that should appear whenever the context menu is requested through user interface (UI) from within this element.
Cursor	Cursor
(description)	The cursor that displays when the mouse pointer is over this element.
DataContext	x:Object

(description)	The data context for an element when it participates in data binding.
FlowDirection	FlowDirection
(description)	The direction that text and other user interface (UI) elements flow within any parent element that controls their layout.
FocusVisualStyle	Style
(description)	A property that enables customization of appearance, effects, or other style characteristics that will apply to this element when it captures keyboard focus.
ForceCursor	x:Boolean
(description)	A value that indicates whether this FrameworkElement should force the user interface (UI) to render the cursor as declared by the Cursor property.
Height	x:Double
(description)	The suggested height of the element.
[text syntax]	LengthSyntax
HorizontalAlignment	HorizontalAlignment
(description)	The horizontal alignment characteristics applied to this element when it is composed within a parent element, such as a panel or items control.
InputScope	InputScope
(description)	The context for input used by this FrameworkElement.
Language	XmlLanguage
(description)	Localization/globalization language information that applies to an element.
LayoutTransform	Transform
(description)	A graphics transformation that should apply to this element when layout is performed.
Margin	Thickness
(description)	The outer margin of an element.
MaxHeight	x:Double
(description)	The maximum height constraint of the element.
[text syntax]	LengthSyntax
MaxWidth	x:Double
(description)	The maximum width constraint of the element.
[text syntax]	LengthSyntax
MinHeight	x:Double
(description)	The minimum height constraint of the element.

[text syntax]	LengthSyntax
MinWidth	x:Double
(description)	The minimum width constraint of the element.
[text syntax]	LengthSyntax
Name	x:String
(description)	The identifying name of the element. The name provides a reference so that the element can be referred to after it is constructed during XAML parsing.
OverridesDefaultStyle	x:Boolean
(description)	A value that indicates whether this element incorporates style properties from theme styles.
Resources	ResourceDictionary
(description)	The locally-defined resource dictionary.
Style	Style
(description)	The style used by this element when it is rendered.
Tag	x:Object
(description)	An arbitrary object value that can be used to store custom information about this element.
ToolTip	x:Object
(description)	The tool-tip object that is displayed for this element in the user interface (UI).
Triggers	TriggerCollection
(description)	The collection of triggers established directly on this element, or in child elements.
[read only]	true
UseLayoutRounding	x:Boolean
(description)	A value that indicates whether layout rounding should be applied to this element's size and position during layout.
VerticalAlignment	VerticalAlignment
(description)	The vertical alignment characteristics applied to this element when it is composed within a parent element such as a panel or items control.
Width	x:Double
(description)	The width of the element.
[text syntax]	LengthSyntax
(attachable properties)	

FrameworkElement.FlowDirection	FlowDirection
(description)	The direction that text and other user interface (UI) elements flow within any parent element that controls their layout.
[target type]	DependencyObject
(events)	
ContextMenuClosing	Occurs just before any context menu on the element is closed.
ContextMenuOpening	Occurs when any context menu on the element is opened.
DataContextChanged	Occurs when the data context for this element changes.
Initialized	Occurs when this FrameworkElement is initialized. This event coincides with cases where the value of the IsInitialized property changes from false (or undefined) to true.
Loaded	Occurs when the element is laid out, rendered, and ready for interaction.
RequestBringIntoView	Occurs when an attempt is made to bring the specified element region into view.
SizeChanged	Occurs when either the ActualHeight or the ActualWidth properties change value on this element.
SourceUpdated	Occurs when the source value changes for any existing property binding on this element.
TargetUpdated	Occurs when the target value changes for any property binding on this element.
ToolTipClosing	Occurs just before any tooltip on the element is closed.
ToolTipOpening	Occurs when any tooltip on the element is opened.
Unloaded	Occurs when the element is removed from within an element tree of loaded elements.

4.326 FrameworkPropertyMetadataOptions

x:Object > FrameworkPropertyMetadataOptions	
FrameworkPropertyMetadataOptions	
(usage)	None AffectsMeasure AffectsArrange AffectsParentMeasure AffectsParentArrange AffectsRender Inherits OverridesInheritanceBehavior NotDataBindable ...
(description)	Specifies the types of framework-level property behavior that pertain to a particular property in the property system.

[is nullable]	false
[text syntax]	FrameworkPropertyMetadataOptionsSyntax

4.327 FrameworkTemplate

x:Object > FrameworkTemplate	
<h2>FrameworkTemplate</h2>	
ControlTemplate DataTemplate ItemsPanelTemplate	
(usage)	None.
(description)	A base type that defines a tree of elements that comprise the template.
[is default constructible]	false
[content property]	Template
[is name scope]	true
(properties)	
Resources	ResourceDictionary
(description)	The collection of resources that can be used within the scope of this template.
Template	FrameworkElement
(description)	A reference to the object that records or plays the XAML nodes for the template when the template is defined or applied by a writer.

4.328 Freezable

x:Object > DependencyObject > Freezable
<h2>Freezable</h2>
Animatable BooleanKeyFrame BooleanKeyFrameCollection ByteKeyFrame ByteKeyFrameCollection CharKeyFrame CharKeyFrameCollection ColorKeyFrame ColorKeyFrameCollection DecimalKeyFrame DecimalKeyFrameCollection DoubleCollection DoubleKeyFrame DoubleKeyFrameCollection EasingFunctionBase InputBinding Int16KeyFrame Int16KeyFrameCollection Int32Collection Int32KeyFrame Int32KeyFrameCollection Int64KeyFrame Int64KeyFrameCollection KeySpline MatrixKeyFrame MatrixKeyFrameCollection ObjectKeyFrame ObjectKeyFrameCollection Point3DCollection Point3DKeyFrame Point3DKeyFrameCollection PointCollection PointKeyFrame PointKeyFrameCollection QuaternionKeyFrame QuaternionKeyFrameCollection RectKeyFrame RectKeyFrameCollection RibbonControlSizeDefinition RibbonGroupSizeDefinitionBase Rotation3DKeyFrame Rotation3DKeyFrameCollection SingleKeyFrame SingleKeyFrameCollection SizeKeyFrame SizeKeyFrameCollection

StringKeyFrame StringKeyFrameCollection TaskbarItemInfo ThicknessKeyFrame ThicknessKeyFrameCollection ThumbButtonInfo Vector3DCollection Vector3DKeyFrame Vector3DKeyFrameCollection VectorCollection VectorKeyFrame VectorKeyFrameCollection WindowChrome	
(usage)	None.
(description)	Defines an object that has a modifiable state and a read-only (frozen) state. Types that derive from Freezable provide detailed change notification, can be made immutable, and can clone themselves.
[is default constructible]	false
(events)	
Changed	Occurs when the Freezable or an object it contains is modified.

4.329 GeneralTransform

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform	
<h2>GeneralTransform</h2>	
GeneralTransformGroup Transform	
(usage)	None.
(description)	Provides generalized transformation support for objects, such as points and rectangles.
(used by)	GeneralTransformCollection ICollection(GeneralTransform) IList(GeneralTransform)
[is default constructible]	false

4.330 GeneralTransform3D

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D	
<h2>GeneralTransform3D</h2>	
GeneralTransform3DGroup Transform3D	
(usage)	None.
(description)	Provides generalized transformation support for 3-D objects.
(used by)	GeneralTransform3DCollection ICollection(GeneralTransform3D) IList(GeneralTransform3D)

[is default constructible]	false
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4.331 GeneralTransform3DCollection

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3DCollection	
GeneralTransform3DCollection	
(usage)	<GeneralTransform3DCollection> GeneralTransform3D *</GeneralTransform3DCollection>
(description)	Represents an ordered collection of GeneralTransform3D objects.
(used by)	GeneralTransform3DGroup
[is list]	true
[allowed types]	GeneralTransform3D

4.332 GeneralTransform3DGroup

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D > GeneralTransform3DGroup	
GeneralTransform3DGroup	
(usage)	<GeneralTransform3DGroup> GeneralTransform3D *</GeneralTransform3DGroup>
(description)	Represents a GeneralTransform3D that is a composite of the transforms in its GeneralTransform3DCollection.
[content property]	Children
(properties)	
Children	GeneralTransform3DCollection
(description)	The collection of GeneralTransform3DGroup objects that form this GeneralTransform3DGroup.

4.333 GeneralTransformCollection

x:Object > DependencyObject > Freezable > Animatable > GeneralTransformCollection	
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GeneralTransformCollection	
(usage)	<GeneralTransformCollection> GeneralTransform *</GeneralTransformCollection>
(description)	Represents an ordered collection of GeneralTransform objects.
(used by)	GeneralTransformGroup
[is list]	true
[allowed types]	GeneralTransform

4.334 GeneralTransformGroup

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > GeneralTransformGroup	
GeneralTransformGroup	
(usage)	<GeneralTransformGroup> GeneralTransform *</GeneralTransformGroup>
(description)	Represents a GeneralTransform that is a composite of the transforms in its GeneralTransformCollection.
[content property]	Children
(properties)	
Children	GeneralTransformCollection
(description)	The collection of GeneralTransformGroup objects that form this GeneralTransformGroup.

4.335 GeneratorDirection

x:Object > GeneratorDirection	
GeneratorDirection	
(usage)	Forward Backward
(description)	Specifies the direction in which item generation will occur. GeneratorDirection is used by StartAt.
[is nullable]	false
[text syntax]	GeneratorDirectionSyntax

4.336 GeneratorPosition

x:Object > GeneratorPosition	
<h2>GeneratorPosition</h2>	
(usage)	<GeneratorPosition />
(description)	GeneratorPosition is used to describe the position of an item that is managed by ItemContainerGenerator.
[is nullable]	false
(properties)	
Index	x:Int32
(description)	The Int32 index that is relative to the generated (realized) items.
Offset	x:Int32
(description)	The Int32 offset that is relative to the ungenerated (unrealized) items near the indexed item.

4.337 GeneratorStatus

x:Object > GeneratorStatus	
<h2>GeneratorStatus</h2>	
(usage)	NotStarted GeneratingContainers ContainersGenerated Error
(description)	Used by ItemContainerGenerator to indicate the status of its item generation.
[is nullable]	false
[text syntax]	GeneratorStatusSyntax

4.338 Geometry

x:Object > DependencyObject > Freezable > Animatable > Geometry
<h2>Geometry</h2>
CombinedGeometry EllipseGeometry GeometryGroup LineGeometry PathGeometry RectangleGeometry StreamGeometry

(usage)	<Geometry> string </Geometry>
(description)	A base type for geometric shapes.
(used by)	CombinedGeometry ContainerVisual DrawingGroup GeometryCollection GeometryDrawing ICollection(Geometry) IList(Geometry) Path RibbonTwoLineText TextEffect UIElement Viewport3DVisual
[is default constructible]	false
[text syntax]	GeometrySyntax
(properties)	
Transform	Transform
(description)	The Transform object applied to a Geometry.
(static properties)	
Empty	Geometry
(description)	An empty object.
StandardFlatteningTolerance	x:Double
(description)	The standard tolerance used for polygonal approximation.

4.339 Geometry3D

x:Object > DependencyObject > Freezable > Animatable > Geometry3D	
Geometry3D	
MeshGeometry3D	
(usage)	None.
(description)	A base type for three-dimensional geometric shapes.
(used by)	GeometryModel3D Viewport2DVisual3D
[is default constructible]	false

4.340 GeometryCollection

x:Object > DependencyObject > Freezable > Animatable > GeometryCollection	
GeometryCollection	

(usage)	<GeometryCollection> Geometry *</GeometryCollection>
(description)	Represents a collection of Geometry objects.
(used by)	GeometryGroup
[is list]	true
[allowed types]	Geometry

4.341 GeometryCombineMode

x:Object > GeometryCombineMode	
GeometryCombineMode	
(usage)	Union Intersect Xor Exclude
(description)	Specifies the different ways by which two geometries can be combined.
(used by)	CombinedGeometry
[is nullable]	false
[text syntax]	GeometryCombineModeSyntax

4.342 GeometryDrawing

x:Object > DependencyObject > Freezable > Animatable > Drawing > GeometryDrawing	
GeometryDrawing	
(usage)	<GeometryDrawing />
(description)	Draws a Geometry using the specified Brush and Pen.
(properties)	
Brush	Brush
(description)	The Brush used to fill the interior of the shape described by this GeometryDrawing.
Geometry	Geometry
(description)	The Geometry that describes the shape of this GeometryDrawing.
Pen	Pen
(description)	The Pen used to stroke this GeometryDrawing.

4.343 GeometryGroup

x:Object > DependencyObject > Freezable > Animatable > Geometry > GeometryGroup	
<h2>GeometryGroup</h2>	
(usage)	<GeometryGroup> string Geometry *</GeometryGroup>
(description)	Represents a composite geometry, composed of other Geometry objects.
[text syntax]	GeometrySyntax
[content property]	Children
(properties)	
Children	GeometryCollection
(description)	The GeometryCollection that contains the objects that define this GeometryGroup.
FillRule	FillRule
(description)	How the intersecting areas of the objects contained in this GeometryGroup are combined.

4.344 GeometryModel3D

x:Object > DependencyObject > Freezable > Animatable > Model3D > GeometryModel3D	
<h2>GeometryModel3D</h2>	
(usage)	<GeometryModel3D />
(description)	Renders a Geometry3D with the specified Material.
(properties)	
BackMaterial	Material
(description)	The Material used to render the back of this GeometryModel3D.
Geometry	Geometry3D
(description)	The Geometry3D that describes the shape of this GeometryModel3D.
Material	Material
(description)	The Material used to render the front of this GeometryModel3D.

4.345 GestureRecognizer

x:Object > DependencyObject > GestureRecognizer	
GestureRecognizer	
(usage)	<GestureRecognizer />
(description)	Recognizes ink gestures.

4.346 GifBitmapEncoder

x:Object > BitmapEncoder > GifBitmapEncoder	
GifBitmapEncoder	
(usage)	<GifBitmapEncoder />
(description)	Defines an encoder that is used to encode Graphics Interchange Format (GIF) images.

4.347 GlyphRun

x:Object > GlyphRun	
GlyphRun	
(usage)	<GlyphRun />
(description)	Represents a sequence of glyphs from a single face of a single font at a single size, and with a single rendering style.
(used by)	GlyphRunDrawing
(properties)	
AdvanceWidths	IList(x:Double)
(description)	The list of Double values that represent the advance widths corresponding to the glyph indices.
BaselineOrigin	Point
(description)	The baseline origin of the GlyphRun.
BidiLevel	x:Int32

(description)	The bidirectional nesting level of the GlyphRun.
CaretStops	IList(x:Boolean)
(description)	The list of Boolean values that determine whether there are caret stops for every UTF16 code point in the Unicode representing the GlyphRun.
Characters	IList(x:Char)
(description)	The list of UTF16 code points that represent the Unicode content of the GlyphRun.
ClusterMap	IList(UInt16)
(description)	The list of UInt16 values that maps characters in the GlyphRun to glyph indices.
DeviceFontName	x:String
(description)	The specific device font for which the GlyphRun has been optimized.
FontRenderingEmSize	x:Double
(description)	The em size used for rendering the GlyphRun.
GlyphIndices	IList(UInt16)
(description)	An array of UInt16 values that represent the glyph indices in the rendering physical font.
GlyphOffsets	IList(Point)
(description)	An array of Point values representing the offsets of the glyphs in the GlyphRun.
GlyphTypeface	GlyphTypeface
(description)	The GlyphTypeface for the GlyphRun.
IsSideways	x:Boolean
(description)	A value indicating whether to rotate glyphs.
Language	XmlLanguage
(description)	The XmlLanguage for the GlyphRun.
PixelsPerDip	x:Single
(description)	Get or sets the PixelsPerDip at which the text should be rendered.

4.348 GlyphRunDrawing

x:Object > DependencyObject > Freezable > Animatable > Drawing > GlyphRunDrawing	
GlyphRunDrawing	
(usage)	<GlyphRunDrawing />

(description)	Represents a Drawing object that renders a GlyphRun.
(properties)	
ForegroundBrush	Brush
(description)	The foreground brush of the GlyphRunDrawing.
GlyphRun	GlyphRun
(description)	The GlyphRun that describes the text to draw.

4.349 Glyphs

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Glyphs, IInputElement	
<h2>Glyphs</h2>	
(usage)	<Glyphs />
(description)	Represents the set of glyphs that are used for rendering fixed text.
[name property]	Name
[xml lang property]	Language
(properties)	
BidiLevel	x:Int32
(description)	The bidirectional nesting level of Glyphs.
CaretStops	x:String
(description)	The caret stops that correspond to the code points in the Unicode string representing the Glyphs.
DeviceFontName	x:String
(description)	The specific device font for which the Glyphs object has been optimized.
Fill	Brush
(description)	The sets the Brush that is used for the fill of the Glyphs type.
FontRenderingEmSize	x:Double
(description)	The em size used for rendering the Glyphs type.
[text syntax]	FontSizeSyntax
FontUri	x:Uri
(description)	The Uri that represents the location of the font used for rendering the Glyphs type.

Indices	x:String
(description)	A collection of glyph specifications that represents the Glyphs object.
IsSideways	x:Boolean
(description)	Determines whether to rotate the Glyphs object.
OriginX	x:Double
(description)	The value of the x origin for the Glyphs object.
[text syntax]	LengthSyntax
OriginY	x:Double
(description)	The value of the y origin for the Glyphs object.
[text syntax]	LengthSyntax
StyleSimulations	StyleSimulations
(description)	The StyleSimulations for the Glyphs type.
UnicodeString	x:String
(description)	The String that represents the Unicode string for the Glyphs object.

4.350 GlyphTypeface

x:Object > GlyphTypeface	
GlyphTypeface	
(usage)	<GlyphTypeface />
(description)	Specifies a physical font face that corresponds to a font file on the disk.
(used by)	GlyphRun
(properties)	
AdvanceHeights	IDictionary<UInt16,x:Double>
(description)	The advance heights for the glyphs represented by the GlyphTypeface object.
[read only]	true
AdvanceWidths	IDictionary<UInt16,x:Double>
(description)	The advance widths for the glyphs represented by the GlyphTypeface object.
[read only]	true
BottomSideBearings	IDictionary<UInt16,x:Double>

(description)	The distance from bottom edge of the black box to the bottom end of the advance vector for the glyphs represented by the GlyphTypeface object.
[read only]	true
CharacterToGlyphMap	IDictionary(x:Int32,UInt16)
(description)	The nominal mapping of a Unicode code point to a glyph index as defined by the font 'CMAP' table.
[read only]	true
Copyrights	IDictionary(CultureInfo,x:String)
(description)	The copyright information for the GlyphTypeface object.
[read only]	true
Descriptions	IDictionary(CultureInfo,x:String)
(description)	The description information for the GlyphTypeface object.
[read only]	true
DesignerNames	IDictionary(CultureInfo,x:String)
(description)	The designer information for the GlyphTypeface object.
[read only]	true
DesignerUrls	IDictionary(CultureInfo,x:String)
(description)	The designer URL information for the GlyphTypeface object.
[read only]	true
DistancesFromHorizontalBaseline ToBlackBoxBottom	IDictionary(UInt16,x:Double)
(description)	The offset value from the horizontal Western baseline to the bottom of the glyph black box for the glyphs represented by the GlyphTypeface object.
[read only]	true
FaceNames	IDictionary(CultureInfo,x:String)
(description)	The face name for the GlyphTypeface object.
[read only]	true
FamilyNames	IDictionary(CultureInfo,x:String)
(description)	The family name for the GlyphTypeface object.
[read only]	true
FontUri	x:Uri
(description)	The URI for the GlyphTypeface object.
LeftSideBearings	IDictionary(UInt16,x:Double)

(description)	The distance from the leading end of the advance vector to the left edge of the black box for the glyphs represented by the GlyphTypeface object.
[read only]	true
LicenseDescriptions	IDictionary(CultureInfo,x:String)
(description)	The font license description information for the GlyphTypeface object.
[read only]	true
ManufacturerNames	IDictionary(CultureInfo,x:String)
(description)	The font manufacturer information for the GlyphTypeface object.
[read only]	true
RightSideBearings	IDictionary(UInt16,x:Double)
(description)	The distance from the right edge of the black box to the right end of the advance vector for the glyphs represented by the GlyphTypeface object.
[read only]	true
SampleTexts	IDictionary(CultureInfo,x:String)
(description)	The sample text information for the GlyphTypeface object.
[read only]	true
StyleSimulations	StyleSimulations
(description)	The StyleSimulations for the GlyphTypeface object.
TopSideBearings	IDictionary(UInt16,x:Double)
(description)	The distance from the top end of the vertical advance vector to the top edge of the black box for the glyphs represented by the GlyphTypeface object.
[read only]	true
Trademarks	IDictionary(CultureInfo,x:String)
(description)	The trademark notice information for the GlyphTypeface object.
[read only]	true
VendorUrls	IDictionary(CultureInfo,x:String)
(description)	The vendor URL information for the GlyphTypeface object.
[read only]	true
VersionStrings	IDictionary(CultureInfo,x:String)
(description)	The version string information for the GlyphTypeface object interpreted from the font's 'NAME' table.
[read only]	true
Win32FaceNames	IDictionary(CultureInfo,x:String)

(description)	The face name for the font represented by the <code>GlyphTypeface</code> object.
[read only]	true
Win32FamilyNames	IDictionary(CultureInfo,x:String)
(description)	The family name for the font represented by the <code>GlyphTypeface</code> object.
[read only]	true

4.351 GradientBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > GradientBrush	
<h2>GradientBrush</h2>	
LinearGradientBrush RadialGradientBrush	
(usage)	<GradientBrush> string</GradientBrush>
(description)	A base type that describes a gradient, composed of gradient stops.
[is default constructible]	false
[text syntax]	BrushSyntax
[content property]	GradientStops
(properties)	
ColorInterpolationMode	ColorInterpolationMode
(description)	A <code>ColorInterpolationMode</code> enumeration that specifies how the gradient's colors are interpolated.
GradientStops	GradientStopCollection
(description)	The brush's gradient stops.
MappingMode	BrushMappingMode
(description)	A <code>BrushMappingMode</code> enumeration that specifies whether the gradient brush's positioning coordinates are absolute or relative to the output area.
SpreadMethod	GradientSpreadMethod
(description)	The type of spread method that specifies how to draw a gradient that starts or ends inside the bounds of the object to be painted.

4.352 GradientSpreadMethod

x:Object > GradientSpreadMethod	
<h2>GradientSpreadMethod</h2>	
(usage)	Pad Reflect Repeat
(description)	Specifies how to draw the gradient outside a gradient brush's gradient vector or space.
(used by)	GradientBrush
[is nullable]	false
[text syntax]	GradientSpreadMethodSyntax

4.353 GradientStop

x:Object > DependencyObject > Freezable > Animatable > GradientStop	
<h2>GradientStop</h2>	
(usage)	<GradientStop />
(description)	Describes the location and color of a transition point in a gradient.
(used by)	GradientStopCollection ICollection(GradientStop) IList(GradientStop)
(properties)	
Color	Color
(description)	The color of the gradient stop.
Offset	x:Double
(description)	The location of the gradient stop within the gradient vector.

4.354 GradientStopCollection

x:Object > DependencyObject > Freezable > Animatable > GradientStopCollection	
<h2>GradientStopCollection</h2>	
(usage)	<GradientStopCollection> GradientStop *</GradientStopCollection>
(description)	Represents a collection of GradientStop objects that can be individually accessed by index.

(used by)	GradientBrush
[is list]	true
[allowed types]	GradientStop

4.355 Grid

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > Grid , InputElement	
Grid	
SelectiveScrollingGrid	
(usage)	<Grid> UIElement *</Grid>
(description)	Defines a flexible grid area that consists of columns and rows.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
ColumnDefinitions	ColumnDefinitionCollection
(description)	A ColumnDefinitionCollection defined on this instance of Grid.
[read only]	true
RowDefinitions	RowDefinitionCollection
(description)	A RowDefinitionCollection defined on this instance of Grid.
[read only]	true
ShowGridLines	x:Boolean
(description)	A value that indicates whether grid lines are visible within this Grid.
(attachable properties)	
Grid.Column	x:Int32
(description)	A value that indicates which column child content within a Grid should appear in.
[target type]	UIElement
Grid.ColumnSpan	x:Int32
(description)	A value that indicates the total number of columns that child content spans within a Grid.

[target type]	UIElement
Grid.IsSharedSizeScope	x:Boolean
(description)	A value that indicates that multiple Grid elements are sharing size information.
[target type]	UIElement
Grid.Row	x:Int32
(description)	A value that indicates which row child content within a Grid should appear in.
[target type]	UIElement
Grid.RowSpan	x:Int32
(description)	A value that indicates the total number of rows that child content spans within a Grid.
[target type]	UIElement

4.356 GridLength

x:Object > GridLength	
GridLength	
(usage)	<GridLength> string </GridLength>
(description)	Represents the length of elements that explicitly support Star unit types.
(used by)	ColumnDefinition RowDefinition TableColumn
[is nullable]	false
[text syntax]	GridLengthSyntax
(static properties)	
Auto	GridLength
(description)	An instance of GridLength that holds a value whose size is determined by the size properties of the content object.

4.357 GridResizeBehavior

x:Object > GridResizeBehavior	
GridResizeBehavior	

(usage)	BasedOnAlignment CurrentAndNext PreviousAndCurrent PreviousAndNext
(description)	Specifies the rows or columns that are resized by a GridSplitter control.
(used by)	GridSplitter
[is nullable]	false
[text syntax]	GridResizeBehaviorSyntax

4.358 GridResizeDirection

x:Object > GridResizeDirection	
GridResizeDirection	
(usage)	Auto Columns Rows
(description)	Specifies whether a GridSplitter control redistributes space between rows or between columns.
(used by)	GridSplitter
[is nullable]	false
[text syntax]	GridResizeDirectionSyntax

4.359 GridSplitter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > Thumb > GridSplitter , InputElement	
GridSplitter	
(usage)	<GridSplitter />
(description)	Represents the control that redistributes space between columns or rows of a Grid control.
[name property]	Name
[xml lang property]	Language
(properties)	
DragIncrement	x:Double

(description)	The minimum distance that a user must drag a mouse to resize rows or columns with a GridSplitter control.
KeyboardIncrement	x:Double
(description)	The distance that each press of an arrow key moves a GridSplitter control.
PreviewStyle	Style
(description)	The style that customizes the appearance, effects, or other style characteristics for the GridSplitter control preview indicator that is displayed when the ShowsPreview property is set to true.
ResizeBehavior	GridResizeBehavior
(description)	Which columns or rows are resized relative to the column or row for which the GridSplitter control is defined.
ResizeDirection	GridResizeDirection
(description)	A value that indicates whether the GridSplitter control resizes rows or columns.
ShowsPreview	x:Boolean
(description)	A value that indicates whether the GridSplitter control updates the column or row size as the user drags the control.

4.360 GridUnitType

x:Object > GridUnitType	
<h2>GridUnitType</h2>	
(usage)	Auto Pixel Star
(description)	Describes the kind of value that a GridLength object is holding.
[is nullable]	false
[text syntax]	GridUnitTypeSyntax

4.361 GridView

x:Object > DependencyObject > ViewBase > GridView	
<h2>GridView</h2>	
(usage)	<GridView> GridViewColumn *</GridView>

(description)	Represents a view mode that displays data items in columns for a ListView control.
[content property]	Columns
(properties)	
AllowsColumnReorder	x:Boolean
(description)	Whether columns in a GridView can be reordered by a drag-and-drop operation.
ColumnHeaderContainerStyle	Style
(description)	The style to apply to column headers.
ColumnHeaderContextMenu	ContextMenu
(description)	A ContextMenu for the GridView.
ColumnHeaderStringFormat	x:String
(description)	A composite string that specifies how to format the column headers of the GridView if they are displayed as strings.
ColumnHeaderTemplate	DataTemplate
(description)	A template to use to display the column headers.
ColumnHeaderTemplateSelector	DataTemplateSelector
(description)	The selector object that provides logic for selecting a template to use for each column header.
ColumnHeaderToolTip	x:Object
(description)	The content of a tooltip that appears when the mouse pointer pauses over one of the column headers.
Columns	GridViewColumnCollection
(description)	The collection of GridViewColumn objects that is defined for this GridView.
[read only]	true
(attachable properties)	
GridView.ColumnCollection	GridViewColumnCollection
(description)	The attached property that contains the GridViewColumnCollection.
[target type]	DependencyObject
(static properties)	
GridViewItemContainerStyleKey	ResourceKey
(description)	The key that references the style that is defined for each ListViewItem in a GridView.
GridViewScrollViewerStyleKey	ResourceKey

(description)	The key that references the style that is defined for the ScrollViewer control that encloses the content that is displayed by a GridView.
GridViewStyleKey	ResourceKey
(description)	The key that references the style that is defined for the GridView.

4.362 GridViewColumn

x:Object > DependencyObject > GridViewColumn	
<h2>GridViewColumn</h2>	
(usage)	<GridViewColumn> x:Object </GridViewColumn>
(description)	Represents a column that displays data.
(used by)	GridViewColumnCollection ICollection(GridViewColumn) IList(GridViewColumn) ObservableCollection(GridViewColumn)
[content property]	Header
(properties)	
ActualWidth	x:Double
(description)	The actual width of a GridViewColumn.
CellTemplate	DataTemplate
(description)	The template to use to display the contents of a column cell.
CellTemplateSelector	DataTemplateSelector
(description)	A DataTemplateSelector that determines the template to use to display cells in a column.
DisplayMemberBinding	BindingBase
(description)	The data item to bind to for this column.
Header	x:Object
(description)	The content of the header of a GridViewColumn.
HeaderContainerStyle	Style
(description)	The style to use for the header of the GridViewColumn.
HeaderStringFormat	x:String
(description)	A composite string that specifies how to format the Header property if it is displayed as a string.
HeaderTemplate	DataTemplate

(description)	The template to use to display the content of the column header.
HeaderTemplateSelector	DataTemplateSelector
(description)	The DataTemplateSelector that provides logic to select the template to use to display the column header.
Width	x:Double
(description)	The width of the column.
[text syntax]	LengthSyntax

4.363 GridViewColumnCollection

x:Object > Collection(GridViewColumn) > ObservableCollection(GridViewColumn) > GridViewColumnCollection	
<h2>GridViewColumnCollection</h2>	
(usage)	<GridViewColumnCollection> GridViewColumn *</GridViewColumnCollection>
(description)	Represents a collection of GridViewColumn objects.
(used by)	GridView GridViewRowPresenterBase
[is list]	true
[allowed types]	GridViewColumn

4.364 GridViewColumnHeader

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > GridViewColumnHeader , InputElement	
<h2>GridViewColumnHeader</h2>	
(usage)	<GridViewColumnHeader> x:Object </GridViewColumnHeader>
(description)	Represents a column header for a GridViewColumn.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.365 GridViewColumnHeaderRole

x:Object > GridViewColumnHeaderRole	
<h2>GridViewColumnHeaderRole</h2>	
(usage)	Normal Floating Padding
(description)	Defines the state or role of a GridViewColumnHeader control.
[is nullable]	false
[text syntax]	GridViewColumnHeaderRoleSyntax

4.366 GridViewHeaderRowPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > GridViewRowPresenterBase > GridViewHeaderRowPresenter , InputElement	
<h2>GridViewHeaderRowPresenter</h2>	
(usage)	<GridViewHeaderRowPresenter />
(description)	Represents an object that is used to define the layout of a row of column headers.
[name property]	Name
[xml lang property]	Language
(properties)	
AllowsColumnReorder	x:Boolean
(description)	A value that indicates whether columns can change positions.
ColumnHeaderContainerStyle	Style
(description)	The Style to use for the column headers.
ColumnHeaderContextMenu	ContextMenu
(description)	A ContextMenu for the column headers.
ColumnHeaderStringFormat	x:String
(description)	A composite string that specifies how to format the column headers if they are displayed as strings.
ColumnHeaderTemplate	DataTemplate
(description)	The template to use to display the column headers.
ColumnHeaderTemplateSelector	DataTemplateSelector

(description)	A DataTemplateSelector that provides logic that selects the data template to use to display a column header.
ColumnHeaderToolTip	x:Object
(description)	The content for a tooltip for the column header row.

4.367 GridViewRowPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > GridViewRowPresenterBase > GridViewRowPresenter , InputElement	
<h2>GridViewRowPresenter</h2>	
(usage)	<GridViewRowPresenter />
(description)	Represents an object that specifies the layout of a row of data.
[name property]	Name
[xml lang property]	Language
(properties)	
Content	x:Object
(description)	The data content to display in a row.

4.368 GridViewRowPresenterBase

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > GridViewRowPresenterBase , InputElement	
<h2>GridViewRowPresenterBase</h2>	
GridViewHeaderRowPresenter GridViewRowPresenter	
(usage)	None.
(description)	Represents the base type for types that define the layout for a row of data where different data items are displayed in different columns.
[is default constructible]	false
[name property]	Name
[xml lang property]	Language
(properties)	
Columns	GridViewColumnCollection

(description)	A GridViewColumnCollection.
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4.369 GroupBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > HeaderedContentControl > GroupBox , InputElement	
GroupBox	
(usage)	<GroupBox> x:Object </GroupBox>
(description)	Represents a control that creates a container that has a border and a header for user interface (UI) content.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.370 GroupItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > GroupItem , InputElement	
GroupItem	
(usage)	<GroupItem> x:Object </GroupItem>
(description)	Appears as the root of the visual subtree generated for a group.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.371 GroupStyle

x:Object > GroupStyle	
GroupStyle	
(usage)	<GroupStyle />

(description)	Defines how you want the group to look at each level.
(used by)	ItemsControl ObservableCollection (GroupStyle)
(properties)	
AlternationCount	x:Int32
(description)	The number of alternating GroupItem objects.
ContainerStyle	Style
(description)	The style that is applied to the GroupItem generated for each item.
ContainerStyleSelector	StyleSelector
(description)	Enables the application writer to provide custom selection logic for a style to apply to each generated GroupItem.
HeaderStringFormat	x:String
(description)	A composite string that specifies how to format the header if it is displayed as a string.
HeaderTemplate	DataTemplate
(description)	The template that is used to display the group header.
HeaderTemplateSelector	DataTemplateSelector
(description)	Enables the application writer to provide custom selection logic for a template that is used to display the group header.
HidesIfEmpty	x:Boolean
(description)	A value that indicates whether items corresponding to empty groups should be displayed.
Panel	ItemsPanelTemplate
(description)	A template that creates the panel used to layout the items.
(static properties)	
Default	GroupStyle
(description)	The default style of the group.

4.372 GuidelineSet

x:Object > DependencyObject > Freezable > Animatable > GuidelineSet	
<h2>GuidelineSet</h2>	
(usage)	<GuidelineSet />

(description)	Represents a collection of guide lines that can assist in adjusting rendered figures to a device pixel grid.
(used by)	DrawingGroup
(properties)	
GuidelinesX	DoubleCollection
(description)	A series of coordinate values that represent guide lines on the X-axis.
GuidelinesY	DoubleCollection
(description)	A series of coordinate values that represent guide lines on the Y-axis.

4.373 HandoffBehavior

x:Object > HandoffBehavior	
<h2>HandoffBehavior</h2>	
(usage)	SnapshotAndReplace Compose
(description)	Specifies how new animations interact with any existing ones that are already applied to a property.
(used by)	BeginStoryboard
[is nullable]	false
[text syntax]	HandoffBehaviorSyntax

4.374 HeaderedContentControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > HeaderedContentControl , InputElement	
<h2>HeaderedContentControl</h2>	
Expander GroupBox TabItem	
(usage)	<HeaderedContentControl> x:Object </HeaderedContentControl>
(description)	Provides the base implementation for all controls that contain single content and have a header.
[content property]	Content
[name property]	Name

[xml lang property]	Language
(properties)	
Header	x:Object
(description)	The data used for the header of each control.
HeaderStringFormat	x:String
(description)	A composite string that specifies how to format the Header property if it is displayed as a string.
HeaderTemplate	DataTemplate
(description)	The template used to display the content of the control's header.
HeaderTemplateSelector	DataTemplateSelector
(description)	A data template selector that provides custom logic for choosing the template used to display the header.

4.375 HeaderedItemsControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > HeaderedItemsControl , InputElement	
<h2>HeaderedItemsControl</h2>	
MenuItem RibbonGalleryCategory RibbonGroup RibbonTab ToolBar TreeViewItem	
(usage)	<HeaderedItemsControl> x:Object *</HeaderedItemsControl>
(description)	Represents a control that contains multiple items and has a header.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
Header	x:Object
(description)	The item that labels the control.
HeaderStringFormat	x:String
(description)	A composite string that specifies how to format the Header property if it is displayed as a string.
HeaderTemplate	DataTemplate
(description)	The template used to display the contents of the control's header.

HeaderTemplateSelector	DataTemplateSelector
(description)	The object that provides custom selection logic for a template used to display the header of each item.

4.376 HierarchicalDataTemplate

x:Object > FrameworkTemplate > DataTemplate > HierarchicalDataTemplate	
HierarchicalDataTemplate	
(usage)	<HierarchicalDataTemplate> FrameworkElement </HierarchicalDataTemplate>
(description)	Represents a DataTemplate that supports HeaderedItemsControl, such as TreeViewItem or MenuItem.
[content property]	Template
[dictionary key property]	DataTemplateKey
[is name scope]	true
(properties)	
AlternationCount	x:Int32
(description)	The number of alternating item containers for the child items.
ItemBindingGroup	BindingGroup
(description)	The BindingGroup that is copied to each child item.
ItemContainerStyle	Style
(description)	The Style that is applied to the item container for each child item.
ItemContainerStyleSelector	StyleSelector
(description)	Custom style-selection logic for a style that can be applied to each item container.
ItemsSource	BindingBase
(description)	The binding for this data template, which indicates where to find the collection that represents the next level in the data hierarchy.
ItemStringFormat	x:String
(description)	A composite string that specifies how to format the items in the next level in the data hierarchy if they are displayed as strings.
ItemTemplate	DataTemplate

(description)	The DataTemplate to apply to the ItemTemplate property on a generated HeaderedItemsControl (such as a MenuItem or a TreeViewItem), to indicate how to display items from the next level in the data hierarchy.
ItemTemplateSelector	DataTemplateSelector
(description)	The DataTemplateSelector to apply to the ItemTemplateSelector property on a generated HeaderedItemsControl (such as a MenuItem or a TreeViewItem), to indicate how to select a template to display items from the next level in the data hierarchy.

4.377 HierarchicalVirtualizationConstraints

x:Object > HierarchicalVirtualizationConstraints	
HierarchicalVirtualizationConstraints	
(usage)	<HierarchicalVirtualizationConstraints />
(description)	Specifies the sizes of a control's viewport and cache. This structure is used by the IHierarchicalVirtualizationAndScrollInfo interface.
(used by)	IHierarchicalVirtualizationAndScrollInfo
[is nullable]	false

4.378 HierarchicalVirtualizationHeaderDesiredSizes

x:Object > HierarchicalVirtualizationHeaderDesiredSizes	
HierarchicalVirtualizationHeaderDesiredSizes	
(usage)	<HierarchicalVirtualizationHeaderDesiredSizes />
(description)	Represents the desired size of the control's header, in pixels and in logical units. This structure is used by the IHierarchicalVirtualizationAndScrollInfo interface.
[is nullable]	false

4.379 HierarchicalVirtualizationItemDesiredSizes

x:Object > HierarchicalVirtualizationItemDesiredSizes

HierarchicalVirtualizationItemDesiredSizes	
(usage)	<HierarchicalVirtualizationItemDesiredSizes />
(description)	Represents the desired size of the control's items, in device-independent units (1/96th inch per unit) and in logical units.
(used by)	IHierarchicalVirtualizationAndScrollInfo
[is nullable]	false

4.380 HitTestFilterBehavior

x:Object > HitTestFilterBehavior	
HitTestFilterBehavior	
(usage)	ContinueSkipChildren ContinueSkipSelfAndChildren ContinueSkipSelf Continue Stop
(description)	Specifies the return behavior of a hit test in a hit test filter callback method.
[is nullable]	false
[text syntax]	HitTestFilterBehaviorSyntax

4.381 HitTestResultBehavior

x:Object > HitTestResultBehavior	
HitTestResultBehavior	
(usage)	Stop Continue
(description)	Determines whether to continue the enumeration of any remaining visual objects during a hit test.
[is nullable]	false
[text syntax]	HitTestResultBehaviorSyntax

4.382 HorizontalAlignment

x:Object > HorizontalAlignment	
--	--

HorizontalAlignment

(usage)	Left Center Right Stretch
(description)	Indicates where an element should be displayed on the horizontal axis relative to the allocated layout slot of the parent element.
(used by)	Control Floater FrameworkElement
[is nullable]	false
[text syntax]	HorizontalAlignmentSyntax

4.383 HostVisual

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [ContainerVisual](#) > [HostVisual](#)

HostVisual

(usage)	<HostVisual />
(description)	Represents a Visual object that can be connected anywhere to a parent visual tree.

4.384 Hyperlink

[x:Object](#) > [DependencyObject](#) > [ContentElement](#) > [FrameworkContentElement](#) > [TextElement](#) > [Inline](#) > [Span](#) > [Hyperlink](#), [InputElement](#)

Hyperlink

(usage)	<Hyperlink> Inline UIElement x:String *</Hyperlink>
(description)	An inline-level flow content element that provides facilities for hosting hyperlinks within flow content.
[content property]	Inlines
[name property]	Name
[xml lang property]	Language
(properties)	
Command	ICommand
(description)	A command to associate with the Hyperlink.

CommandParameter	x:Object
(description)	Command parameters associated with the command specified by the Command property.
CommandTarget	InputElement
(description)	A target element on which to execute the command specified by the Command property.
NavigateUri	x:Uri
(description)	A URI to navigate to when the Hyperlink is activated.
TargetName	x:String
(description)	The name of a target window or frame for the Hyperlink.
(events)	
Click	Occurs when the left mouse button is clicked on a Hyperlink.
RequestNavigate	Occurs when navigation events are requested.

4.385 IAnimatable

IAnimatable
<h2>IAnimatable</h2>
AccessText AdornedElementPlaceholder AdornerDecorator AffineTransform3D AmbientLight AnchoredBlock Animatable AnimationTimeline ArcSegment AxisAngleRotation3D BezierSegment BitmapCache BitmapCacheBrush BitmapFrame BitmapImage BitmapSource Block BlockUIContainer BlurEffect Bold BooleanAnimationBase BooleanAnimationUsingKeyFrames Border Brush BulletDecorator Button ButtonBase ByteAnimation ByteAnimationBase ByteAnimationUsingKeyFrames CachedBitmap CacheMode Calendar CalendarButton CalendarDayButton CalendarItem Camera Canvas CharAnimationBase CharAnimationUsingKeyFrames CheckBox ColorAnimation ColorAnimationBase ColorAnimationUsingKeyFrames ColorConvertedBitmap ColumnDefinition CombinedGeometry ComboBox ComboBoxItem ContainerUIElement3D ContentControl ContentElement ContentPresenter ContextMenu Control CroppedBitmap DashStyle DataGrid DataGridCell DataGridCellsPanel DataGridCellsPresenter DataGridColumnHeader DataGridColumnHeadersPresenter DataGridDetailsPresenter DataGridRow DataGridRowHeader DataGridRowsPresenter DatePicker DatePickerTextBox DecimalAnimation DecimalAnimationBase DecimalAnimationUsingKeyFrames Decorator DefinitionBase DiffuseMaterial DirectionalLight DockPanel DocumentPageView DocumentReference DocumentViewer DocumentViewerBase DoubleAnimation DoubleAnimationBase DoubleAnimationUsingKeyFrames DoubleAnimationUsingPath Drawing DrawingBrush DrawingCollection DrawingGroup DrawingImage DropShadowEffect Effect Ellipse EllipseGeometry EmissiveMaterial Expander Figure FixedDocument FixedDocumentSequence FixedPage Floater FlowDocument FlowDocumentPageViewer FlowDocumentReader FlowDocumentScrollViewer FormatConvertedBitmap Frame FrameworkContentElement FrameworkElement GeneralTransform GeneralTransform3D GeneralTransform3DCollection GeneralTransform3DGroup GeneralTransformCollection GeneralTransformGroup Geometry Geometry3D GeometryCollection GeometryDrawing GeometryGroup GeometryModel3D GlyphRunDrawing Glyphs GradientBrush GradientStop GradientStopCollection Grid GridSplitter GridViewColumnHeader

[GridViewHeaderRowPresenter](#) [GridViewRowPresenter](#) [GridViewRowPresenterBase](#) [GroupBox](#) [GroupItem](#) [GuidelineSet](#) [HeaderedContentControl](#) [HeaderedItemsControl](#) [Hyperlink](#) [Image](#) [ImageBrush](#) [ImageDrawing](#) [ImageSource](#) [InkCanvas](#) [InkPresenter](#) [Inline](#) [InlineUIContainer](#) [Int16Animation](#) [Int16AnimationBase](#) [Int16AnimationUsingKeyFrames](#) [Int32Animation](#) [Int32AnimationBase](#) [Int32AnimationUsingKeyFrames](#) [Int64Animation](#) [Int64AnimationBase](#) [Int64AnimationUsingKeyFrames](#) [Italic](#) [ItemsControl](#) [ItemsPresenter](#) [KeyTipControl](#) [Label](#) [Light](#) [Line](#) [LinearGradientBrush](#) [LineBreak](#) [LineGeometry](#) [LineSegment](#) [List](#) [ListBox](#) [ListBoxItem](#) [ListItem](#) [ListView](#) [ListViewItem](#) [Material](#) [MaterialCollection](#) [MaterialGroup](#) [MatrixAnimationBase](#) [MatrixAnimationUsingKeyFrames](#) [MatrixAnimationUsingPath](#) [MatrixCamera](#) [MatrixTransform](#) [MatrixTransform3D](#) [MediaElement](#) [MediaPlayer](#) [MediaTimeline](#) [Menu](#) [MenuBase](#) [MenuItem](#) [MeshGeometry3D](#) [Model3D](#) [Model3DCollection](#) [Model3DGroup](#) [ModelUIElement3D](#) [ModelVisual3D](#) [MultiSelector](#) [NavigationWindow](#) [ObjectAnimationBase](#) [ObjectAnimationUsingKeyFrames](#) [OrthographicCamera](#) [Page](#) [PageContent](#) [Panel](#) [Paragraph](#) [ParallelTimeline](#) [PasswordBox](#) [Path](#) [PathFigure](#) [PathFigureCollection](#) [PathGeometry](#) [PathSegment](#) [PathSegmentCollection](#) [Pen](#) [PerspectiveCamera](#) [PixelShader](#) [Point3DAnimation](#) [Point3DAnimationBase](#) [Point3DAnimationUsingKeyFrames](#) [PointAnimation](#) [PointAnimationBase](#) [PointAnimationUsingKeyFrames](#) [PointAnimationUsingPath](#) [PointLight](#) [PointLightBase](#) [PolyBezierSegment](#) [Polygon](#) [Polyline](#) [PolyLineSegment](#) [PolyQuadraticBezierSegment](#) [Popup](#) [ProgressBar](#) [ProjectionCamera](#) [QuadraticBezierSegment](#) [QuaternionAnimation](#) [QuaternionAnimationBase](#) [QuaternionAnimationUsingKeyFrames](#) [QuaternionRotation3D](#) [RadialGradientBrush](#) [RadioButton](#) [RangeBase](#) [Rectangle](#) [RectangleGeometry](#) [RectAnimation](#) [RectAnimationBase](#) [RectAnimationUsingKeyFrames](#) [RenderTargetBitmap](#) [RepeatButton](#) [ResizeGrip](#) [Ribbon](#) [RibbonApplicationMenu](#) [RibbonApplicationMenuItem](#) [RibbonApplicationSplitMenuItem](#) [RibbonButton](#) [RibbonCheckBox](#) [RibbonComboBox](#) [RibbonContentPresenter](#) [RibbonContextMenu](#) [RibbonContextualTabGroup](#) [RibbonContextualTabGroupItemsControl](#) [RibbonControl](#) [RibbonControlGroup](#) [RibbonControlSizeDefinitionCollection](#) [RibbonFilterMenuButton](#) [RibbonGallery](#) [RibbonGalleryCategory](#) [RibbonGalleryItem](#) [RibbonGroup](#) [RibbonGroupSizeDefinitionBaseCollection](#) [RibbonMenuButton](#) [RibbonMenuItem](#) [RibbonQuickAccessToolBar](#) [RibbonRadioButton](#) [RibbonSeparator](#) [RibbonSplitButton](#) [RibbonSplitMenuItem](#) [RibbonTab](#) [RibbonTabHeader](#) [RibbonTabHeaderItemsControl](#) [RibbonTextBox](#) [RibbonToggleButton](#) [RibbonToolTip](#) [RibbonTwoLineText](#) [RibbonWindow](#) [RichTextBox](#) [RotateTransform](#) [RotateTransform3D](#) [Rotation3D](#) [Rotation3DAnimation](#) [Rotation3DAnimationBase](#) [Rotation3DAnimationUsingKeyFrames](#) [RowDefinition](#) [Run](#) [ScaleTransform](#) [ScaleTransform3D](#) [ScrollBar](#) [ScrollContentPresenter](#) [ScrollViewer](#) [Section](#) [SelectiveScrollingGrid](#) [Selector](#) [Separator](#) [Shape](#) [SingleAnimation](#) [SingleAnimationBase](#) [SingleAnimationUsingKeyFrames](#) [SizeAnimation](#) [SizeAnimationBase](#) [SizeAnimationUsingKeyFrames](#) [SkewTransform](#) [Slider](#) [SolidColorBrush](#) [Span](#) [SpecularMaterial](#) [SpotLight](#) [StackPanel](#) [StatusBar](#) [StatusBarItem](#) [Storyboard](#) [StreamGeometry](#) [StringAnimationBase](#) [StringAnimationUsingKeyFrames](#) [TabControl](#) [TabItem](#) [Table](#) [TableCell](#) [TableColumn](#) [TableRow](#) [TableRowGroup](#) [TabPanel](#) [TextBlock](#) [TextBox](#) [TextBoxBase](#) [TextDecoration](#) [TextDecorationCollection](#) [TextEffect](#) [TextEffectCollection](#) [TextElement](#) [ThicknessAnimation](#) [ThicknessAnimationBase](#) [ThicknessAnimationUsingKeyFrames](#) [Thumb](#) [ThumbButtonInfoCollection](#) [TickBar](#) [TileBrush](#) [Timeline](#) [TimelineCollection](#) [TimelineGroup](#) [ToggleButton](#) [ToolBar](#) [ToolBarOverflowPanel](#) [ToolBarPanel](#) [ToolBarTray](#) [ToolTip](#) [Track](#) [Transform](#) [Transform3D](#) [Transform3DCollection](#) [Transform3DGroup](#) [TransformCollection](#) [TransformedBitmap](#) [TransformGroup](#) [TranslateTransform](#) [TranslateTransform3D](#) [TreeView](#) [TreeViewItem](#) [UIElement](#) [UIElement3D](#) [Underline](#) [UniformGrid](#) [UserControl](#) [Vector3DAnimation](#) [Vector3DAnimationBase](#) [Vector3DAnimationUsingKeyFrames](#) [VectorAnimation](#) [VectorAnimationBase](#) [VectorAnimationUsingKeyFrames](#) [VideoDrawing](#) [Viewbox](#) [Viewport2DVisual3D](#) [Viewport3D](#) [VirtualizingPanel](#) [VirtualizingStackPanel](#) [Visual3D](#) [VisualBrush](#) [WebBrowser](#) [Window](#) [WrapPanel](#) [WriteableBitmap](#)

(usage)	None.
(description)	This type supports the infrastructure. To make a type animatable, it should derive from UIElement, ContentElement, or Animatable.
[is default constructible]	false

4.386 ICommandSource

ICommandSource	
ICommandSource	
Button ButtonBase CalendarButton CalendarDayButton CheckBox DataGridColumnHeader DataGridRowHeader GridViewColumnHeader Hyperlink InputBinding KeyBinding MenuItem MouseBinding RadioButton RepeatButton RibbonApplicationMenuItem RibbonApplicationSplitMenuItem RibbonButton RibbonCheckBox RibbonGallery RibbonMenuItem RibbonRadioButton RibbonSplitButton RibbonSplitMenuItem RibbonTextBox RibbonToggleButton ThumbButtonInfo ToggleButton	
(usage)	None.
(description)	Defines an object that knows how to invoke a command.
[is default constructible]	false

4.387 IContainItemStorage

IContainItemStorage	
IContainItemStorage	
ComboBox ContextMenu DataGrid DataGridCellsPresenter DataGridColumnHeadersPresenter GroupItem HeaderedItemsControl ItemsControl ListBox ListView Menu MenuBase MenuItem MultiSelector Ribbon RibbonApplicationMenu RibbonApplicationMenuItem RibbonApplicationSplitMenuItem RibbonComboBox RibbonContextMenu RibbonContextualTabGroupItemsControl RibbonControlGroup RibbonFilterMenuButton RibbonGallery RibbonGalleryCategory RibbonGroup RibbonMenuButton RibbonMenuItem RibbonQuickAccessToolBar RibbonSplitButton RibbonSplitMenuItem RibbonTab RibbonTabHeaderItemsControl Selector StatusBar TabControl ToolBar TreeView TreeViewItem	
(usage)	None.
(description)	Provides a property bag implementation for item panels.
[is default constructible]	false

4.388 IContentHost

IContentHost
IContentHost

TextBlock	
(usage)	None.
(description)	This interface is implemented by layouts which host ContentElement.
[is default constructible]	false

4.389 IDataObject

IDataObject	
IDataObject	
DataObject	
(usage)	None.
(description)	Provides a format-independent mechanism for transferring data.
[is default constructible]	false

4.390 IEasingFunction

IEasingFunction	
IEasingFunction	
BackEase BounceEase CircleEase CubicEase EasingFunctionBase ElasticEase ExponentialEase PowerEase QuadraticEase QuarticEase QuinticEase SineEase	
(usage)	None.
(description)	Defines the basic functionality of an easing function.
(used by)	ByteAnimation ColorAnimation DecimalAnimation DoubleAnimation EasingByteKeyFrame EasingColorKeyFrame EasingDecimalKeyFrame EasingDoubleKeyFrame EasingInt16KeyFrame EasingInt32KeyFrame EasingInt64KeyFrame EasingPoint3DKeyFrame EasingPointKeyFrame EasingQuaternionKeyFrame EasingRectKeyFrame EasingRotation3DKeyFrame EasingSingleKeyFrame EasingSizeKeyFrame EasingThicknessKeyFrame EasingVector3DKeyFrame EasingVectorKeyFrame Int16Animation Int32Animation Int64Animation Point3DAnimation PointAnimation QuaternionAnimation RectAnimation Rotation3DAnimation SingleAnimation SizeAnimation ThicknessAnimation Vector3DAnimation VectorAnimation VisualTransition

[is default constructible]	false
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4.391 IFrameworkInputElement

[IFrameworkInputElement](#), [IInputElement](#)

IFrameworkInputElement

[AccessText](#) [AdornedElementPlaceholder](#) [AdornerDecorator](#) [AnchoredBlock](#) [Block](#) [BlockUIContainer](#) [Bold](#) [Border](#) [BulletDecorator](#) [Button](#) [ButtonBase](#) [Calendar](#) [CalendarButton](#) [CalendarDayButton](#) [CalendarItem](#) [Canvas](#) [CheckBox](#) [ColumnDefinition](#) [ComboBox](#) [ComboBoxItem](#) [ContentControl](#) [ContentPresenter](#) [ContextMenu](#) [Control](#) [DataGrid](#) [DataGridCell](#) [DataGridCellsPanel](#) [DataGridCellsPresenter](#) [DataGridColumnHeader](#) [DataGridColumnHeadersPresenter](#) [DataGridDetailsPresenter](#) [DataGridRow](#) [DataGridRowHeader](#) [DataGridRowsPresenter](#) [DatePicker](#) [DatePickerTextBox](#) [Decorator](#) [DefinitionBase](#) [DockPanel](#) [DocumentPageView](#) [DocumentReference](#) [DocumentViewer](#) [DocumentViewerBase](#) [Ellipse](#) [Expander](#) [Figure](#) [FixedDocument](#) [FixedDocumentSequence](#) [FixedPage](#) [Floater](#) [FlowDocument](#) [FlowDocumentPageViewer](#) [FlowDocumentReader](#) [FlowDocumentScrollViewer](#) [Frame](#) [FrameworkContentElement](#) [FrameworkElement](#) [Glyphs](#) [Grid](#) [GridSplitter](#) [GridViewColumnHeader](#) [GridViewHeaderRowPresenter](#) [GridViewRowPresenter](#) [GridViewRowPresenterBase](#) [GroupBox](#) [GroupItem](#) [HeaderedContentControl](#) [HeaderedItemsControl](#) [Hyperlink](#) [Image](#) [InkCanvas](#) [InkPresenter](#) [Inline](#) [InlineUIContainer](#) [Italic](#) [ItemsControl](#) [ItemsPresenter](#) [KeyTipControl](#) [Label](#) [Line](#) [LineBreak](#) [List](#) [ListBox](#) [ListBoxItem](#) [ListItem](#) [ListView](#) [ListViewItem](#) [MediaElement](#) [Menu](#) [MenuBase](#) [MenuItem](#) [MultiSelector](#) [NavigationWindow](#) [Page](#) [PageContent](#) [Panel](#) [Paragraph](#) [PasswordBox](#) [Path](#) [Polygon](#) [Polyline](#) [Popup](#) [ProgressBar](#) [RadioButton](#) [RangeBase](#) [Rectangle](#) [RepeatButton](#) [ResizeGrip](#) [Ribbon](#) [RibbonApplicationMenu](#) [RibbonApplicationMenuItem](#) [RibbonApplicationSplitMenuItem](#) [RibbonButton](#) [RibbonCheckBox](#) [RibbonComboBox](#) [RibbonContentPresenter](#) [RibbonContextMenu](#) [RibbonContextualTabGroup](#) [RibbonContextualTabGroupItemsControl](#) [RibbonControl](#) [RibbonControlGroup](#) [RibbonFilterMenuButton](#) [RibbonGallery](#) [RibbonGalleryCategory](#) [RibbonGalleryItem](#) [RibbonGroup](#) [RibbonMenuButton](#) [RibbonMenuItem](#) [RibbonQuickAccessToolBar](#) [RibbonRadioButton](#) [RibbonSeparator](#) [RibbonSplitButton](#) [RibbonSplitMenuItem](#) [RibbonTab](#) [RibbonTabHeader](#) [RibbonTabHeaderItemsControl](#) [RibbonTextBox](#) [RibbonToggleButton](#) [RibbonToolTip](#) [RibbonTwoLineText](#) [RibbonWindow](#) [RichTextBox](#) [RowDefinition](#) [Run](#) [ScrollBar](#) [ScrollContentPresenter](#) [ScrollViewer](#) [Section](#) [SelectiveScrollingGrid](#) [Selector](#) [Separator](#) [Shape](#) [Slider](#) [Span](#) [StackPanel](#) [StatusBar](#) [StatusBarItem](#) [TabControl](#) [TableItem](#) [Table](#) [TableCell](#) [TableColumn](#) [TableRow](#) [TableRowGroup](#) [TabPanel](#) [TextBlock](#) [TextBox](#) [TextBoxBase](#) [TextElement](#) [Thumb](#) [TickBar](#) [ToggleButton](#) [ToolBar](#) [ToolBarOverflowPanel](#) [ToolBarPanel](#) [ToolBarTray](#) [ToolTip](#) [Track](#) [TreeView](#) [TreeViewItem](#) [Underline](#) [UniformGrid](#) [UserControl](#) [Viewbox](#) [Viewport3D](#) [VirtualizingPanel](#) [VirtualizingStackPanel](#) [WebBrowser](#) [Window](#) [WrapPanel](#)

(usage)	None.
(description)	Declares a namespace contract for framework elements.
[is default constructible]	false
(properties)	
Name	x:String
(description)	The name of an element.

4.392 IHierarchicalVirtualizationAndScrollInfo

IHierarchicalVirtualizationAndScrollInfo	
IHierarchicalVirtualizationAndScrollInfo	
GroupItem TreeViewItem	
(usage)	None.
(description)	Provides properties through which a control that displays hierarchical data communicates with a VirtualizingPanel.
[is default constructible]	false
(properties)	
Constraints	HierarchicalVirtualizationConstraints
(description)	An object that represents the sizes of the control's viewport and cache.
InBackgroundLayout	x:Boolean
(description)	A value that indicates whether the control's layout pass occurs at a lower priority.
ItemDesiredSizes	HierarchicalVirtualizationItemDesiredSizes
(description)	An object that represents the desired size of the control's items, in device-independent units (1/96th inch per unit) and in logical units.
MustDisableVirtualization	x:Boolean
(description)	A value that indicates whether the owning ItemsControl should virtualize its items.

4.393 IInputElement

IInputElement
IInputElement
AccessText AdornedElementPlaceholder AdornerDecorator AnchoredBlock Block BlockUIContainer Bold Border BulletDecorator Button ButtonBase Calendar CalendarButton CalendarDayButton CalendarItem Canvas CheckBox ColumnDefinition ComboBox ComboBoxItem ContainerUIElement3D ContentControl ContentElement ContentPresenter ContextMenu Control DataGrid DataGridCell DataGridCellsPanel DataGridCellsPresenter DataGridColumnHeader DataGridColumnHeadersPresenter DataGridDetailsPresenter DataGridRow DataGridRowHeader DataGridRowsPresenter DatePicker DatePickerTextBox Decorator DefinitionBase DockPanel DocumentPageView DocumentReference DocumentViewer DocumentViewerBase Ellipse Expander Figure FixedDocument FixedDocumentSequence FixedPage Floater FlowDocument FlowDocumentPageViewer FlowDocumentReader FlowDocumentScrollViewer Frame

[FrameworkContentElement](#) [FrameworkElement](#) [Glyphs](#) [Grid](#) [GridSplitter](#) [GridViewColumnHeader](#) [GridViewHeaderRowPresenter](#) [GridViewRowPresenter](#) [GridViewRowPresenterBase](#) [GroupBox](#) [GroupItem](#) [HeaderedContentControl](#) [HeaderedItemsControl](#) [Hyperlink](#) [IFrameworkInputElement](#) [Image](#) [InkCanvas](#) [InkPresenter](#) [Inline](#) [InlineUIContainer](#) [Italic](#) [ItemsControl](#) [ItemsPresenter](#) [KeyTipControl](#) [Label](#) [Line](#) [LineBreak](#) [List](#) [ListBox](#) [ListBoxItem](#) [ListItem](#) [ListView](#) [ListViewItem](#) [MediaElement](#) [Menu](#) [MenuBase](#) [MenuItem](#) [ModelUIElement3D](#) [MultiSelector](#) [NavigationWindow](#) [Page](#) [PageContent](#) [Panel](#) [Paragraph](#) [PasswordBox](#) [Path](#) [Polygon](#) [Polyline](#) [Popup](#) [ProgressBar](#) [RadioButton](#) [RangeBase](#) [Rectangle](#) [RepeatButton](#) [ResizeGrip](#) [Ribbon](#) [RibbonApplicationMenu](#) [RibbonApplicationMenuItem](#) [RibbonApplicationSplitMenuItem](#) [RibbonButton](#) [RibbonCheckBox](#) [RibbonComboBox](#) [RibbonContentPresenter](#) [RibbonContextMenu](#) [RibbonContextualTabGroup](#) [RibbonContextualTabGroupItemsControl](#) [RibbonControl](#) [RibbonControlGroup](#) [RibbonFilterMenuItem](#) [RibbonGallery](#) [RibbonGalleryCategory](#) [RibbonGalleryItem](#) [RibbonGroup](#) [RibbonMenuItem](#) [RibbonMenuItem](#) [RibbonQuickAccessToolBar](#) [RibbonRadioButton](#) [RibbonSeparator](#) [RibbonSplitButton](#) [RibbonSplitMenuItem](#) [RibbonTab](#) [RibbonTabHeader](#) [RibbonTabHeaderItemsControl](#) [RibbonTextBox](#) [RibbonToggleButton](#) [RibbonToolTip](#) [RibbonTwoLineText](#) [RibbonWindow](#) [RichTextBox](#) [RowDefinition](#) [Run](#) [ScrollBar](#) [ScrollContentPresenter](#) [ScrollViewer](#) [Section](#) [SelectiveScrollingGrid](#) [Selector](#) [Separator](#) [Shape](#) [Slider](#) [Span](#) [StackPanel](#) [StatusBar](#) [StatusBarItem](#) [TabControl](#) [TabItem](#) [Table](#) [TableCell](#) [TableColumn](#) [TableRow](#) [TableRowGroup](#) [TabPanel](#) [TextBlock](#) [TextBox](#) [TextBoxBase](#) [TextElement](#) [Thumb](#) [TickBar](#) [ToggleButton](#) [ToolBar](#) [ToolBarOverflowPanel](#) [ToolBarPanel](#) [ToolBarTray](#) [ToolTip](#) [Track](#) [TreeView](#) [TreeViewItem](#) [UIElement](#) [UIElement3D](#) [Underline](#) [UniformGrid](#) [UserControl](#) [Viewbox](#) [Viewport3D](#) [VirtualizingPanel](#) [VirtualizingStackPanel](#) [WebBrowser](#) [Window](#) [WrapPanel](#)

(usage)	None.
(description)	Establishes the common events and also the event-related properties and methods for basic input processing by elements.
(used by)	ButtonBase FocusManager Hyperlink InputBinding Keyboard Manipulation MenuItem Mouse RibbonGallery RibbonSplitButton RibbonTextBox Stylus ThumbButtonInfo
[is default constructible]	false
(properties)	
Focusable	x:Boolean
(description)	A value that indicates whether focus can be set to this element.
(events)	
GotKeyboardFocus	Occurs when the keyboard is focused on this element.
GotMouseCapture	Occurs when the element captures the mouse.
GotStylusCapture	Occurs when the element captures the stylus.
KeyDown	Occurs when a key is pressed while the keyboard is focused on this element.
KeyUp	Occurs when a key is released while the keyboard is focused on this element.
LostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
LostMouseCapture	Occurs when this element loses mouse capture.
LostStylusCapture	Occurs when this element loses stylus capture.
MouseEnter	Occurs when the mouse pointer enters the bounds of this element.

MouseLeave	Occurs when the mouse pointer leaves the bounds of this element.
MouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over the element.
MouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over the element.
MouseMove	Occurs when the mouse pointer moves while the mouse pointer is over the element.
MouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over the element.
MouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over the element.
MouseWheel	Occurs when the mouse wheel moves while the mouse pointer is over this element.
PreviewGotKeyboardFocus	Occurs when the keyboard is focused on this element.
PreviewKeyDown	Occurs when a key is pressed while the keyboard is focused on this element.
PreviewKeyUp	Occurs when a key is released while the keyboard is focused on this element.
PreviewLostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
PreviewMouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over the element.
PreviewMouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over the element.
PreviewMouseMove	Occurs when the mouse pointer moves while the mouse pointer is over the element.
PreviewMouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over the element.
PreviewMouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over the element.
PreviewMouseWheel	Occurs when the mouse wheel moves while the mouse pointer is over this element.
PreviewStylusButtonDown	Occurs when the stylus button is pressed down while the stylus is over this element.
PreviewStylusButtonUp	Occurs when the stylus button is released while the stylus is over this element.
PreviewStylusDown	Occurs when the stylus touches the digitizer while over this element.
PreviewStylusInAirMove	Occurs when the stylus moves over an element, but without touching the digitizer.
PreviewStylusInRange	Occurs when the stylus is close enough to the digitizer to be detected.

PreviewStylusMove	Occurs when the stylus moves while the stylus is over the element.
PreviewStylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected.
PreviewStylusSystemGesture	Occurs when one of several stylus gestures are detected, for example, Tap or Drag.
PreviewStylusUp	Occurs when the stylus is raised off the digitizer while over this element.
PreviewTextInput	Occurs when this element gets text in a device-independent manner.
StylusButtonDown	Occurs when the stylus button is pressed while the stylus is over this element.
StylusButtonUp	Occurs when the stylus button is released while the stylus is over this element.
StylusDown	Occurs when the stylus touches the digitizer while over this element.
StylusEnter	Occurs when the stylus cursor enters the bounds of the element.
StylusInAirMove	Occurs when the stylus moves over an element, but without touching the digitizer.
StylusInRange	Occurs when the stylus is close enough to the digitizer to be detected.
StylusLeave	Occurs when the stylus cursor leaves the bounds of the element.
StylusMove	Occurs when the stylus cursor moves over the element.
StylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected.
StylusSystemGesture	Occurs when one of several stylus gestures are detected, for example, Tap or Drag.
StylusUp	Occurs when the stylus is raised off the digitizer while over this element.
TextInput	Occurs when this element gets text in a device-independent manner.

4.394 IKeyFrame

IKeyFrame
IKeyFrame
BooleanKeyFrame ByteKeyFrame CharKeyFrame ColorKeyFrame DecimalKeyFrame DiscreteBooleanKeyFrame DiscreteByteKeyFrame DiscreteCharKeyFrame DiscreteColorKeyFrame DiscreteDecimalKeyFrame DiscreteDoubleKeyFrame DiscreteInt16KeyFrame DiscreteInt32KeyFrame DiscreteInt64KeyFrame DiscreteMatrixKeyFrame DiscreteObjectKeyFrame DiscretePoint3DKeyFrame DiscretePointKeyFrame DiscreteQuaternionKeyFrame DiscreteRectKeyFrame DiscreteRotation3DKeyFrame DiscreteSingleKeyFrame DiscreteSizeKeyFrame DiscreteStringKeyFrame DiscreteThicknessKeyFrame DiscreteVector3DKeyFrame DiscreteVectorKeyFrame DoubleKeyFrame EasingByteKeyFrame EasingColorKeyFrame EasingDecimalKeyFrame EasingDoubleKeyFrame EasingInt16KeyFrame EasingInt32KeyFrame EasingInt64KeyFrame EasingPoint3DKeyFrame EasingPointKeyFrame EasingQuaternionKeyFrame EasingRectKeyFrame EasingRotation3DKeyFrame EasingSingleKeyFrame EasingSizeKeyFrame EasingThicknessKeyFrame EasingVector3DKeyFrame EasingVectorKeyFrame

Int16KeyFrame Int32KeyFrame Int64KeyFrame LinearByteKeyFrame LinearColorKeyFrame LinearDecimalKeyFrame LinearDoubleKeyFrame LinearInt16KeyFrame LinearInt32KeyFrame LinearInt64KeyFrame LinearPoint3DKeyFrame LinearPointKeyFrame LinearQuaternionKeyFrame LinearRectKeyFrame LinearRotation3DKeyFrame LinearSingleKeyFrame LinearSizeKeyFrame LinearThicknessKeyFrame LinearVector3DKeyFrame LinearVectorKeyFrame MatrixKeyFrame ObjectKeyFrame Point3DKeyFrame PointKeyFrame QuaternionKeyFrame RectKeyFrame Rotation3DKeyFrame SingleKeyFrame SizeKeyFrame SplineByteKeyFrame SplineColorKeyFrame SplineDecimalKeyFrame SplineDoubleKeyFrame SplineInt16KeyFrame SplineInt32KeyFrame SplineInt64KeyFrame SplinePoint3DKeyFrame SplinePointKeyFrame SplineQuaternionKeyFrame SplineRectKeyFrame SplineRotation3DKeyFrame SplineSingleKeyFrame SplineSizeKeyFrame SplineThicknessKeyFrame SplineVector3DKeyFrame SplineVectorKeyFrame StringKeyFrame ThicknessKeyFrame Vector3DKeyFrame VectorKeyFrame	
(usage)	None.
(description)	An IKeyFrame interface implementation provides un-typed access to KeyTime properties.
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	KeyTime values associated with a KeyFrame object.
Value	x:Object
(description)	The value associated with a KeyTime instance.

4.395 IKeyFrameAnimation

IKeyFrameAnimation	
<h2>IKeyFrameAnimation</h2>	
BooleanAnimationUsingKeyFrames ByteAnimationUsingKeyFrames CharAnimationUsingKeyFrames ColorAnimationUsingKeyFrames DecimalAnimationUsingKeyFrames DoubleAnimationUsingKeyFrames Int16AnimationUsingKeyFrames Int32AnimationUsingKeyFrames Int64AnimationUsingKeyFrames MatrixAnimationUsingKeyFrames ObjectAnimationUsingKeyFrames Point3DAnimationUsingKeyFrames PointAnimationUsingKeyFrames QuaternionAnimationUsingKeyFrames RectAnimationUsingKeyFrames Rotation3DAnimationUsingKeyFrames SingleAnimationUsingKeyFrames SizeAnimationUsingKeyFrames StringAnimationUsingKeyFrames ThicknessAnimationUsingKeyFrames Vector3DAnimationUsingKeyFrames VectorAnimationUsingKeyFrames	
(usage)	None.
(description)	An IKeyFrameAnimation interface implementation provides untyped access to key frame collection members.
[is default constructible]	false
(properties)	

KeyFrames	IList
(description)	An ordered collection KeyFrames associated with this animation sequence.

4.396 Image

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Image , InputElement	
Image	
(usage)	<Image />
(description)	Represents a control that displays an image.
[name property]	Name
[xml lang property]	Language
(properties)	
Source	ImageSource
(description)	The ImageSource for the image.
Stretch	Stretch
(description)	A value that describes how an Image should be stretched to fill the destination rectangle.
StretchDirection	StretchDirection
(description)	A value that indicates how the image is scaled.
(events)	
DpiChanged	Occurs after the DPI of the screen on which the Image is displayed changes.
ImageFailed	Occurs when there is a failure in the image.

4.397 ImageBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > TileBrush > ImageBrush	
ImageBrush	
(usage)	<ImageBrush> string </ImageBrush>
(description)	Paints an area with an image.
[text syntax]	BrushSyntax

(properties)	
ImageSource	ImageSource
(description)	The image displayed by this ImageBrush.

4.398 ImageDrawing

x:Object > DependencyObject > Freezable > Animatable > Drawing > ImageDrawing	
ImageDrawing	
(usage)	<ImageDrawing />
(description)	Draws an image within a region defined by a Rect.
(properties)	
ImageSource	ImageSource
(description)	The source of the image
Rect	Rect
(description)	The region in which the image is drawn.

4.399 ImageSource

x:Object > DependencyObject > Freezable > Animatable > ImageSource	
ImageSource	
BitmapSource DrawingImage	
(usage)	<ImageSource> string </ImageSource>
(description)	Represents an object type that has a width, height, and ImageMetadata such as a BitmapSource and a DrawingImage .
(used by)	Image ImageBrush ImageDrawing RibbonButton RibbonCheckBox RibbonControlService RibbonGallery RibbonGalleryItem RibbonGroup RibbonMenuButton RibbonMenuItem RibbonRadioButton RibbonSplitButton RibbonSplitMenuItem RibbonTextBox RibbonToggleButton RibbonToolTip TaskbarItemInfo ThumbButtonInfo Window
[is default constructible]	false
[text syntax]	x:Uri, from [MS-XAML-2017]

4.400 ImeConversionModeValues

x:Object > ImeConversionModeValues	
<h2>ImeConversionModeValues</h2>	
(usage)	Native Katakana FullShape Roman CharCode NoConversion Eudc Symbol Fixed ...
(description)	Describes a mode of input conversion to be performed by an input method.
(used by)	InputMethod
[is nullable]	false
[text syntax]	ImeConversionModeValuesSyntax

4.401 ImeSentenceModeValues

x:Object > ImeSentenceModeValues	
<h2>ImeSentenceModeValues</h2>	
(usage)	None PluralClause SingleConversion Automatic PhrasePrediction Conversation DoNotCare
(description)	Specifies the mode of sentence conversion performed by an input method.
(used by)	InputMethod
[is nullable]	false
[text syntax]	ImeSentenceModeValuesSyntax

4.402 IMultiValueConverter

IMultiValueConverter	
<h2>IMultiValueConverter</h2>	
BorderGapMaskConverter JournalEntryUnifiedViewConverter MenuScrollingVisibilityConverter	
(usage)	None.
(description)	Provides a way to apply custom logic in a MultiBinding.
(used by)	MultiBinding

[is default constructible]	false
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4.403 InertiaExpansionBehavior

x:Object > InertiaExpansionBehavior	
InertiaExpansionBehavior	
(usage)	<InertiaExpansionBehavior />
(description)	Controls the deceleration of a resizing manipulation during inertia.
(properties)	
DesiredDeceleration	x:Double
(description)	The rate that resizing slows in device-independent units (1/96th inch per unit) per square milliseconds.
DesiredExpansion	Vector
(description)	The amount the element resizes at the end of inertia.
InitialRadius	x:Double
(description)	The initial average radius.
InitialVelocity	Vector
(description)	The initial rate the element resizes at the start of inertia.

4.404 InertiaRotationBehavior

x:Object > InertiaRotationBehavior	
InertiaRotationBehavior	
(usage)	<InertiaRotationBehavior />
(description)	Controls the deceleration of a rotation manipulation during inertia.
(properties)	
DesiredDeceleration	x:Double
(description)	The rate the rotation slows in degrees per squared millisecond.
DesiredRotation	x:Double
(description)	The rotation, in degrees, at the end of the inertial movement.

InitialVelocity	x:Double
(description)	The initial rate of the rotation at the start of the inertia phase.

4.405 InertiaTranslationBehavior

x:Object > InertiaTranslationBehavior	
InertiaTranslationBehavior	
(usage)	<InertiaTranslationBehavior />
(description)	Controls deceleration on a translation manipulation during inertia.
(properties)	
DesiredDeceleration	x:Double
(description)	The rate the linear movement slows in device-independent units (1/96th inch per unit) per squared millisecond.
DesiredDisplacement	x:Double
(description)	The linear movement of the manipulation at the end of inertia.
InitialVelocity	Vector
(description)	The initial rate of linear movement at the start of the inertia phase.

4.406 InheritanceBehavior

x:Object > InheritanceBehavior	
InheritanceBehavior	
(usage)	Default SkipToAppNow SkipToAppNext SkipToThemeNow SkipToThemeNext SkipAllNow SkipAllNext
(description)	Indicates the current mode of lookup for both property value inheritance, a resource lookup, and a RelativeSource FindAncestor lookup.
[is nullable]	false
[text syntax]	InheritanceBehaviorSyntax

4.407 InkCanvas

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > InkCanvas , InputElement	
<h1>InkCanvas</h1>	
(usage)	<InkCanvas> UIElement *</InkCanvas>
(description)	Defines an area that receives and displays ink strokes.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	A Brush. The brush is used to fill the border area surrounding a InkCanvas.
Children	UIElementCollection
(description)	Retrieves child elements of the InkCanvas.
[read only]	true
DefaultDrawingAttributes	DrawingAttributes
(description)	The drawing attributes that are applied to new ink strokes made on the InkCanvas.
DefaultStylusPointDescription	StylusPointDescription
(description)	The stylus point description for an InkCanvas.
EditingMode	InkCanvasEditingMode
(description)	The user editing mode used by an active pointing device.
EditingModeInverted	InkCanvasEditingMode
(description)	The user editing mode if the stylus is inverted when it interacts with the InkCanvas.
MoveEnabled	x:Boolean
(description)	A Boolean value which indicates whether the user is enabled to move selected ink strokes and/or elements on the InkCanvas.
ResizeEnabled	x:Boolean
(description)	A Boolean value that indicates whether the user can resize selected ink strokes and/or elements on the InkCanvas.
Strokes	StrokeCollection
(description)	The collection of ink Stroke objects collected by the InkCanvas.

UseCustomCursor	x:Boolean
(description)	A Boolean value that indicates whether to override standard InkCanvas cursor functionality to support a custom cursor.
(attachable properties)	
InkCanvas.Bottom	x:Double
(description)	The distance between the bottom of an element and the bottom of its parent InkCanvas.
[target type]	UIElement
[text syntax]	LengthSyntax
InkCanvas.Left	x:Double
(description)	The distance between the left side of an element and the left side of its parent InkCanvas.
[target type]	UIElement
[text syntax]	LengthSyntax
InkCanvas.Right	x:Double
(description)	The distance between the right side of an element and the right side of its parent InkCanvas.
[target type]	UIElement
[text syntax]	LengthSyntax
InkCanvas.Top	x:Double
(description)	The distance between the top of an element and the top of its parent InkCanvas.
[target type]	UIElement
[text syntax]	LengthSyntax
(events)	
ActiveEditingModeChanged	Occurs when the current editing mode changes.
DefaultDrawingAttributesReplaced	Occurs when the DefaultDrawingAttributes property is replaced.
EditingModeChanged	Occurs when the EditingMode property of an InkCanvas object has been changed.
EditingModelInvertedChanged	Occurs when the EditingModelInverted property of an InkCanvas object has been changed.
Gesture	Occurs when the InkCanvas detects a gesture.
SelectionChanged	Occurs when the selection on the InkCanvas changes.

SelectionChanging	Occurs when a new set of ink strokes and/or elements is being selected.
SelectionMoved	Occurs after the user moves a selection of strokes and/or elements.
SelectionMoving	Occurs before selected strokes and elements are moved.
SelectionResized	Occurs when a selection of strokes and/or elements has been resized by the user.
SelectionResizing	Occurs before selected strokes and elements are resized.
StrokeCollected	Occurs when a stroke drawn by the user is added to the Strokes property.
StrokeErased	Occurs when user erases a stroke.
StrokeErasing	Occurs just before a user erases a stroke.
StrokesReplaced	Occurs when the Strokes property is replaced.

4.408 InkCanvasClipboardFormat

x:Object > InkCanvasClipboardFormat	
InkCanvasClipboardFormat	
(usage)	InkSerializedFormat Text Xaml
(description)	Specifies the formats that an InkCanvas will accept from the Clipboard.
[is nullable]	false
[text syntax]	InkCanvasClipboardFormatSyntax

4.409 InkCanvasEditingMode

x:Object > InkCanvasEditingMode	
InkCanvasEditingMode	
(usage)	None Ink GestureOnly InkAndGesture Select EraseByPoint EraseByStroke
(description)	Specifies the editing mode for the InkCanvas
(used by)	InkCanvas
[is nullable]	false
[text syntax]	InkCanvasEditingModeSyntax

4.410 InkCanvasSelectionHitResult

x:Object > InkCanvasSelectionHitResult	
<h2>InkCanvasSelectionHitResult</h2>	
(usage)	None TopLeft Top TopRight Right BottomRight Bottom BottomLeft Left ...
(description)	Identifies the various parts of a selection adorning on an InkCanvas.
[is nullable]	false
[text syntax]	InkCanvasSelectionHitResultSyntax

4.411 InkPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Decorator > InkPresenter , IInputElement	
<h2>InkPresenter</h2>	
(usage)	<InkPresenter> UIElement </InkPresenter>
(description)	Renders ink on a surface.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Strokes	StrokeCollection
(description)	The strokes that the InkPresenter displays.

4.412 Inline

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline , IInputElement	
<h2>Inline</h2>	
AnchoredBlock InlineUIContainer LineBreak Run Span	
(usage)	None.

(description)	A base type that provides a base for all inline flow content elements.
(used by)	ICollection(Inline) InlineCollection TextElementCollection(Inline)
[is default constructible]	false
[name property]	Name
[xml lang property]	Language
(properties)	
BaselineAlignment	BaselineAlignment
(description)	The baseline alignment for the Inline element.
FlowDirection	FlowDirection
(description)	A value that specifies the relative direction for flow of content within a Inline element.
SiblingInlines	InlineCollection
(description)	An InlineCollection that contains the Inline elements that are siblings (peers) to this element.
[read only]	true
TextDecorations	TextDecorationCollection
(description)	A TextDecorationCollection that contains text decorations to apply to this element.

4.413 InlineCollection

x:Object > TextElementCollection(Inline) > InlineCollection	
<h2>InlineCollection</h2>	
(usage)	None.
(description)	Represents a collection of Inline elements. InlineCollection defines the allowable child content of the Paragraph, Span, and TextBlock elements.
(used by)	Inline Paragraph Span TextBlock
[is default constructible]	false
[whitespace significant collection]	true
[is list]	true
[allowed types]	Inline UIElement x:String

4.414 InlineUIContainer

[x:Object](#) > [DependencyObject](#) > [ContentElement](#) > [FrameworkContentElement](#) > [TextElement](#) > [Inline](#) > [InlineUIContainer](#), [InputElement](#)

InlineUIContainer

(usage)	<InlineUIContainer> UIElement </InlineUIContainer>
(description)	An inline-level flow content element which enables UIElement elements (i.e. a Button) to be embedded (hosted) in flow content.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Child	UIElement
(description)	The UIElement hosted by the InlineUIContainer.

4.415 InputBinding

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [InputBinding](#)

InputBinding

[KeyBinding](#) [MouseBinding](#)

(usage)	None.
(description)	Represents a binding between an InputGesture and a command. The command is potentially a RoutedCommand.
(used by)	InputBindingCollection
[is default constructible]	false
(properties)	
Command	ICommand
(description)	The ICommand associated with this input binding.
CommandParameter	x:Object
(description)	The command-specific data for a particular command.
CommandTarget	InputElement

(description)	The target element of the command.
Gesture	InputGesture
(description)	The InputGesture associated with this input binding.

4.416 InputBindingCollection

x:Object > InputBindingCollection	
InputBindingCollection	
(usage)	<InputBindingCollection> InputBinding *</InputBindingCollection>
(description)	Represents an ordered collection of InputBinding objects.
(used by)	ContentElement UIElement UIElement3D
[is list]	true
[allowed types]	InputBinding

4.417 InputDevice

x:Object > InputDevice	
InputDevice	
KeyboardDevice MouseDevice StylusDevice TabletDevice	
(usage)	None.
(description)	A base type that describes an input devices.
[is default constructible]	false

4.418 InputGesture

x:Object > InputGesture	
InputGesture	
KeyGesture MouseGesture	
(usage)	None.

(description)	A base type that describes input device gestures.
(used by)	InputBinding InputGestureCollection KeyBinding MouseButton
[is default constructible]	false

4.419 InputGestureCollection

x:Object > InputGestureCollection	
InputGestureCollection	
(usage)	<InputGestureCollection> InputGesture *</InputGestureCollection>
(description)	Represents an ordered collection of InputGesture objects.
(used by)	RoutedCommand
[is list]	true
[allowed types]	InputGesture

4.420 InputLanguageManager

x:Object > InputLanguageManager	
InputLanguageManager	
(usage)	{x:Static InputLanguageManager.StaticPropertyName}
(description)	Provides facilities for managing input languages in.
[is default constructible]	false
(properties)	
CurrentInputLanguage	CultureInfo
(description)	The current input language.
[text syntax]	CultureInfoletfLanguageTagSyntax
(attachable properties)	
InputLanguageManager.InputLanguage	CultureInfo
(description)	The preferred input language for the associated dependency object.
[target type]	DependencyObject

[text syntax]	CultureInfoletfLanguageTagSyntax
InputLanguageManager.RestoreInputLanguage	x:Boolean
(description)	A value that indicates whether or not the previously active input language should be restored when the associated dependency object loses the input focus.
[target type]	DependencyObject
(static properties)	
Current	InputLanguageManager
(description)	The input language manager associated with the current context.
(events)	
InputLanguageChanged	Occurs when a change of input language is completed.
InputLanguageChanging	Occurs when a change of input language is initiated.

4.421 InputManager

x:Object > InputManager	
InputManager	
(usage)	{x:Static InputManager.StaticPropertyName}
(description)	Manages all the input systems in.
[is default constructible]	false
(static properties)	
Current	InputManager
(description)	The InputManager associated with the current thread.
(events)	
EnterMenuMode	Occurs when a control enters menu mode by calling the PresentationSource) method.
HitTestInvalidatedAsync	Occurs when the result of a hit-test may have changed.
LeaveMenuMode	Occurs when a control leaves menu mode by calling the PresentationSource) method.
PostNotifyInput	Occurs after the PreNotifyInput handlers have finished processing the input and the corresponding events have been raised.
PostProcessInput	Occurs after the PreNotifyInput handlers have finished processing the input.

PreNotifyInput	Occurs when the PreProcessInput handlers have finished processing the input, if the input was not canceled.
PreProcessInput	Occurs when the InputManager starts to process the input item.

4.422 InputMethod

x:Object > InputMethod	
InputMethod	
(usage)	{x:Static InputMethod.StaticPropertyName}
(description)	Provides facilities for managing and interacting with the Text Services Framework, which provides support for alternate text input methods such as speech and handwriting.
[is default constructible]	false
(properties)	
HandwritingState	InputMethodState
(description)	The current state of handwriting input for this input method.
ImeConversionMode	ImeConversionModeValues
(description)	The current conversion mode for the input method editor associated with this input method.
ImeSentenceMode	ImeSentenceModeValues
(description)	The current sentence mode for the input method editor associated with this input method.
ImeState	InputMethodState
(description)	The current state of the input method editor associated with this input method.
MicrophoneState	InputMethodState
(description)	The current state of microphone input for this input method.
SpeechMode	SpeechMode
(description)	The speech mode for this input method.
(attachable properties)	
InputMethod.InputScope	InputScope
(description)	The input scope for a specified dependency object.
[target type]	DependencyObject

InputMethod.IsEnabled	x:Boolean
(description)	A value that indicates whether this input method is enabled.
[target type]	DependencyObject
InputMethod.IsInputMethodSuspended	x:Boolean
(description)	A value that indicates whether this input method is suspended.
[target type]	DependencyObject
InputMethod.PreferredImeConversionMode	ImeConversionModeValues
(description)	A preferred ImeConversionModeValues value for a specified dependency object.
[target type]	DependencyObject
InputMethod.PreferredImeSentenceMode	ImeSentenceModeValues
(description)	A preferred ImeSentenceModeValues value for a specified dependency object.
[target type]	DependencyObject
InputMethod.PreferredImeState	InputMethodState
(description)	A preferred input method state for a specified dependency object.
[target type]	DependencyObject
(static properties)	
Current	InputMethod
(description)	A reference to any currently active input method associated with the current context.
(events)	
StateChanged	Occurs when the input method state (represented by the ImeState property) changes.

4.423 InputMethodState

x:Object > InputMethodState	
InputMethodState	
(usage)	Off On DoNotCare

(description)	Describes the state of an InputMethod.
(used by)	InputMethod
[is nullable]	false
[text syntax]	InputMethodStateSyntax

4.424 InputMode

x:Object > InputMode	
InputMode	
(usage)	Foreground Sink
(description)	Specifies the possible values for the input mode.
[is nullable]	false
[text syntax]	InputModeSyntax

4.425 InputScope

x:Object > InputScope	
InputScope	
(usage)	<InputScope> string </InputScope>
(description)	Represents information related to the scope of data provided by an input method.
(used by)	FrameworkContentElement FrameworkElement InputMethod
[text syntax]	InputScopeSyntax
(properties)	
Names	IList
(description)	The input scope name.
[read only]	true
PhraseList	IList
(description)	A collection of phrases to be used as suggested input patterns by input processors.

[read only]	true
RegularExpression	x:String
(description)	A regular expression to be used as a suggested text input pattern by input processors.
SrgsMarkup	x:String
(description)	A string that specifies any Speech Recognition Grammar Specification (SRGS) markup to be used as a suggested input pattern by input processors.

4.426 InputScopeName

x:Object > InputScopeName	
InputScopeName	
(usage)	<InputScopeName> string InputScopeNameValue </InputScopeName>
(description)	Defines a name for text input patterns.
[content property]	NameValue
(properties)	
NameValue	InputScopeNameValue
(description)	The input scope name value which modifies how input from alternative input methods is interpreted.

4.427 InputScopeNameValue

x:Object > InputScopeNameValue	
InputScopeNameValue	
(usage)	Default Url FullFilePath FileName EmailUserName EmailSmtpAddress LogOnName PersonalFullName PersonalNamePrefix ...
(description)	Specifies the input scope name which modifies how input from alternative input methods is interpreted.
(used by)	InputScopeName
[is nullable]	false
[text syntax]	InputScopeNameValueSyntax

4.428 InputScopePhrase

x:Object > InputScopePhrase	
<h2>InputScopePhrase</h2>	
(usage)	<InputScopePhrase> x:String </InputScopePhrase>
(description)	Represents a suggested input text pattern.
[content property]	Name
(properties)	
Name	x:String
(description)	A descriptive name associated with the text input pattern for this InputScopePhrase.

4.429 InputType

x:Object > InputType	
<h2>InputType</h2>	
(usage)	Keyboard Mouse Stylus Hid Text Command
(description)	Specifies the possible types of input being reported.
[is nullable]	false
[text syntax]	InputTypeSyntax

4.430 Int16Animation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int16AnimationBase > Int16Animation	
<h2>Int16Animation</h2>	
(usage)	<Int16Animation />
(description)	Animates the value of a Int16 property between two target values using linear interpolation over a specified Duration.
[name property]	Name

(properties)	
By	x:Nullable(x:Int16)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Int16)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Int16)
(description)	The animation's ending value.

4.431 Int16AnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int16AnimationBase	
Int16AnimationBase	
Int16Animation Int16AnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Int16 value.
[is default constructible]	false
[name property]	Name

4.432 Int16AnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int16AnimationBase > Int16AnimationUsingKeyFrames	
Int16AnimationUsingKeyFrames	

(usage)	<Int16AnimationUsingKeyFrames> Int16KeyFrame *</Int16AnimationUsingKeyFrames>
(description)	Animates the value of a Int16 property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	Int16KeyFrameCollection
(description)	The collection of Int16KeyFrame objects that define the animation.

4.433 Int16KeyFrame

x:Object > DependencyObject > Freezable > Int16KeyFrame	
<h2>Int16KeyFrame</h2>	
DiscreteInt16KeyFrame EasingInt16KeyFrame LinearInt16KeyFrame SplineInt16KeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a Int16AnimationUsingKeyFrames.
(used by)	Int16KeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Int16
(description)	The key frame's target value.

4.434 Int16KeyFrameCollection

x:Object > DependencyObject > Freezable > Int16KeyFrameCollection	
<h2>Int16KeyFrameCollection</h2>	
(usage)	<Int16KeyFrameCollection> Int16KeyFrame *</Int16KeyFrameCollection>
(description)	Represents a collection of Int16KeyFrame objects.
(used by)	Int16AnimationUsingKeyFrames
[is list]	true
[allowed types]	Int16KeyFrame
(static properties)	
Empty	Int16KeyFrameCollection
(description)	An empty Int16KeyFrameCollection.

4.435 Int32Animation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int32AnimationBase > Int32Animation	
<h2>Int32Animation</h2>	
(usage)	<Int32Animation />
(description)	Animates the value of an Int32 property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(x:Int32)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Int32)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.

IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Int32)
(description)	The animation's ending value.

4.436 Int32AnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int32AnimationBase	
Int32AnimationBase	
Int32Animation Int32AnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Int32 value.
[is default constructible]	false
[name property]	Name

4.437 Int32AnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int32AnimationBase > Int32AnimationUsingKeyFrames	
Int32AnimationUsingKeyFrames	
(usage)	<Int32AnimationUsingKeyFrames> Int32KeyFrame *</Int32AnimationUsingKeyFrames>
(description)	Animates the value of a Int32 property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean

(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	Int32KeyFrameCollection
(description)	The collection of Int32KeyFrame objects that define the animation.

4.438 Int32Collection

x:Object > DependencyObject > Freezable > Int32Collection	
<h2>Int32Collection</h2>	
(usage)	<Int32Collection> string </Int32Collection>
(description)	Represents a collection of Int32 values.
(used by)	MeshGeometry3D
[text syntax]	Int32CollectionSyntax
[is list]	true
[allowed types]	x:Int32

4.439 Int32KeyFrame

x:Object > DependencyObject > Freezable > Int32KeyFrame	
<h2>Int32KeyFrame</h2>	
DiscreteInt32KeyFrame EasingInt32KeyFrame LinearInt32KeyFrame SplineInt32KeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a Int32AnimationUsingKeyFrames.
(used by)	Int32KeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Int32

(description)	The key frame's target value.
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4.440 Int32KeyFrameCollection

x:Object > DependencyObject > Freezable > Int32KeyFrameCollection	
Int32KeyFrameCollection	
(usage)	<Int32KeyFrameCollection> Int32KeyFrame *</Int32KeyFrameCollection>
(description)	Represents a collection of Int32KeyFrame objects.
(used by)	Int32AnimationUsingKeyFrames
[is list]	true
[allowed types]	Int32KeyFrame
(static properties)	
Empty	Int32KeyFrameCollection
(description)	An empty Int32KeyFrameCollection.

4.441 Int32Rect

x:Object > Int32Rect	
Int32Rect	
(usage)	<Int32Rect> string </Int32Rect>
(description)	Describes the width, height, and location of an integer rectangle.
(used by)	BitmapImage CroppedBitmap
[is nullable]	false
[text syntax]	Int32RectSyntax
(properties)	
Height	x:Int32
(description)	The height of the rectangle.
Width	x:Int32
(description)	The width of the rectangle.
X	x:Int32

(description)	The x-coordinate of the top-left corner of the rectangle.
Y	x:Int32
(description)	The y-coordinate of the top-left corner of the rectangle.
(static properties)	
Empty	Int32Rect
(description)	The empty rectangle, a special value that represents a rectangle with no position or area.

4.442 Int64Animation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Int64AnimationBase > Int64Animation	
Int64Animation	
(usage)	<Int64Animation />
(description)	Animates the value of a Int64 property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(x:Int64)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Int64)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Int64)
(description)	The animation's ending value.

4.443 Int64AnimationBase

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [Int64AnimationBase](#)

Int64AnimationBase

[Int64Animation](#) [Int64AnimationUsingKeyFrames](#)

(usage)	None.
(description)	A base type that animates a Int64 value.
[is default constructible]	false
[name property]	Name

4.444 Int64AnimationUsingKeyFrames

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [Int64AnimationBase](#) > [Int64AnimationUsingKeyFrames](#)

Int64AnimationUsingKeyFrames

(usage)	<Int64AnimationUsingKeyFrames> Int64KeyFrame *</Int64AnimationUsingKeyFrames>
(description)	Animates the value of a Int64 property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	Int64KeyFrameCollection
(description)	The collection of Int64KeyFrame objects that define the animation.

4.445 Int64KeyFrame

x:Object > DependencyObject > Freezable > Int64KeyFrame	
<h2>Int64KeyFrame</h2>	
DiscreteInt64KeyFrame EasingInt64KeyFrame LinearInt64KeyFrame SplineInt64KeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a Int64AnimationUsingKeyFrames .
(used by)	Int64KeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Int64
(description)	The key frame's target value.

4.446 Int64KeyFrameCollection

x:Object > DependencyObject > Freezable > Int64KeyFrameCollection	
<h2>Int64KeyFrameCollection</h2>	
(usage)	< Int64KeyFrameCollection > Int64KeyFrame *</ Int64KeyFrameCollection >
(description)	Represents a collection of Int64KeyFrame objects.
(used by)	Int64AnimationUsingKeyFrames
[is list]	true
[allowed types]	Int64KeyFrame
(static properties)	
Empty	Int64KeyFrameCollection
(description)	An empty Int64KeyFrameCollection .

4.447 IntersectionDetail

x:Object > IntersectionDetail	
IntersectionDetail	
(usage)	NotCalculated Empty FullyInside FullyContains Intersects
(description)	Provides information about the intersection between the geometries in the GeometryHitTestParameters and the visual which was hit.
[is nullable]	false
[text syntax]	IntersectionDetailSyntax

4.448 InvertAxes

x:Object > InvertAxes	
InvertAxes	
(usage)	None Horizontal Vertical Both
(description)	Indicate the inversion of horizontal and vertical axes of the drawing surface.
[is nullable]	false
[text syntax]	InvertAxesSyntax

4.449 IScrollInfo

IScrollInfo	
IScrollInfo	
DataGridRowsPresenter ScrollContentPresenter StackPanel ToolBarPanel VirtualizingStackPanel	
(usage)	None.
(description)	Represents the main scrollable region inside a ScrollViewer control.
[is default constructible]	false
(properties)	
CanHorizontallyScroll	x:Boolean
(description)	A value that indicates whether scrolling on the horizontal axis is possible.

CanVerticallyScroll	x:Boolean
(description)	A value that indicates whether scrolling on the vertical axis is possible.
ScrollOwner	ScrollView
(description)	A ScrollView element that controls scrolling behavior.

4.450 IsOffscreenBehavior

x:Object > IsOffscreenBehavior	
IsOffscreenBehavior	
(usage)	Default Onscreen Offscreen FromClip
(description)	Specifies how the IsOffscreen property is determined.
(used by)	AutomationProperties
[is nullable]	false
[text syntax]	IsOffscreenBehaviorSyntax

4.451 Italic

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > Span > Italic , InputElement	
Italic	
(usage)	<Italic> Inline UIElement x:String * </Italic>
(description)	Provides an inline-level flow content element that causes content to appear with an italic font style.
[content property]	Inlines
[name property]	Name
[xml lang property]	Language

4.452 ItemCollection

x:Object > CollectionView > ItemCollection
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ItemCollection	
(usage)	None.
(description)	Holds the list of items that constitute the content of an ItemsControl.
(used by)	ItemsControl
[is default constructible]	false
[is list]	true
[allowed types]	x:Object
(properties)	
GroupDescriptions	ObservableCollection (GroupDescription)
(description)	A collection of GroupDescription objects that defines how to group the items.
[read only]	true
IsLiveFiltering	x:Nullable (x:Boolean)
(description)	A value that indicates whether filtering data in real time is enabled.
IsLiveGrouping	x:Nullable (x:Boolean)
(description)	A value that indicates whether grouping data in real time is enabled.
IsLiveSorting	x:Nullable (x:Boolean)
(description)	A value that indicates whether sorting in real time is enabled.
LiveFilteringProperties	ObservableCollection (x:String)
(description)	A collection of strings that specify the properties that participate in filtering data in real time.
[read only]	true
LiveGroupingProperties	ObservableCollection (x:String)
(description)	A collection of strings that specify the properties that participate in grouping data in real time.
[read only]	true
LiveSortingProperties	ObservableCollection (x:String)
(description)	A collection of strings that specify the properties that participate in sorting data in real time.
[read only]	true
SortDescriptions	SortDescriptionCollection
(description)	A collection of SortDescription objects that describe how the items in the collection are sorted in the view.

[read only]	true
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4.453 ItemContainerTemplate

x:Object > FrameworkTemplate > DataTemplate > ItemContainerTemplate	
<h2>ItemContainerTemplate</h2>	
(usage)	<ItemContainerTemplate> FrameworkElement </ItemContainerTemplate>
(description)	Provides the template for producing a container for an ItemsControl object.
[content property]	Template
[dictionary key property]	ItemContainerTemplateKey
[is name scope]	true
(properties)	
ItemContainerTemplateKey	x:Object
(description)	The default key of the ItemContainerTemplate.
[read only]	true

4.454 ItemContainerTemplateKey

x:Object > x:MarkupExtension > ResourceKey > TemplateKey > ItemContainerTemplateKey	
<h2>ItemContainerTemplateKey</h2>	
(usage)	{ItemContainerTemplateKey } <ItemContainerTemplateKey />
(description)	Provides a resource key for an ItemContainerTemplate object.
[return value type]	ResourceKey
[constructors]	
(1 parameter)	
dataType	x:Object
(description)	The type for which this template is designed.

4.455 ItemsControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl , InputElement	
<h1>ItemsControl</h1>	
DataGridCellsPresenter DataGridColumnHeadersPresenter HeaderedItemsControl MenuBase RibbonContextualTabGroupItemsControl RibbonControlGroup RibbonGallery RibbonQuickAccessToolBar RibbonTabHeaderItemsControl Selector StatusBar TreeView	
(usage)	<ItemsControl> x:Object *</ItemsControl>
(description)	Represents a control that can be used to present a collection of items.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
AlternationCount	x:Int32
(description)	The number of alternating item containers in the ItemsControl, which enables alternating containers to have a unique appearance.
DisplayMemberPath	x:String
(description)	A path to a value on the source object to serve as the visual representation of the object.
GroupStyle	ObservableCollection (GroupStyle)
(description)	A collection of GroupStyle objects that define the appearance of each level of groups.
[read only]	true
IsTextSearchCaseSensitive	x:Boolean
(description)	A value that indicates whether case is a condition when searching for items.
IsTextSearchEnabled	x:Boolean
(description)	A value that indicates whether TextSearch is enabled on the ItemsControl instance.
ItemBindingGroup	BindingGroup
(description)	The BindingGroup that is copied to each item in the ItemsControl.
ItemContainerStyle	Style
(description)	The Style that is applied to the container element generated for each item.
ItemContainerStyleSelector	StyleSelector

(description)	Custom style-selection logic for a style that can be applied to each generated container element.
Items	ItemCollection
(description)	The collection used to generate the content of the ItemsControl.
[read only]	true
ItemsPanel	ItemsPanelTemplate
(description)	The template that defines the panel that controls the layout of items.
ItemsSource	IEnumerable
(description)	A collection used to generate the content of the ItemsControl.
ItemStringFormat	x:String
(description)	A composite string that specifies how to format the items in the ItemsControl if they are displayed as strings.
ItemTemplate	DataTemplate
(description)	The DataTemplate used to display each item.
ItemTemplateSelector	DataTemplateSelector
(description)	The custom logic for choosing a template used to display each item.
(attachable properties)	
ItemsControl.AlternationIndex	x:Int32
(description)	The assigned value of the item container when alternating item containers are used.
[target type]	DependencyObject

4.456 ItemsPanelTemplate

x:Object > FrameworkTemplate > ItemsPanelTemplate	
<h2>ItemsPanelTemplate</h2>	
(usage)	<ItemsPanelTemplate> FrameworkElement </ItemsPanelTemplate>
(description)	Specifies the panel that the ItemsPresenter creates for the layout of the items of an ItemsControl.
(used by)	DataGridRow GroupStyle ItemsControl
[content property]	Template
[is name scope]	true

4.457 ItemsPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ItemsPresenter , InputElement	
ItemsPresenter	
(usage)	<ItemsPresenter />
(description)	Used within the template of an item control to specify the place in the control's visual tree where the ItemsPanel defined by the ItemsControl is to be added.
[name property]	Name
[xml lang property]	Language

4.458 IValueConverter

IValueConverter	
IValueConverter	
AlternationConverter BooleanToVisibilityConverter JournalEntryListConverter ZoomPercentageConverter	
(usage)	None.
(description)	Provides a way to apply custom logic to a binding.
(used by)	Binding DataGrid PropertyGroupDescription TemplateBindingExtension
[is default constructible]	false

4.459 IWeakEventListener

IWeakEventListener	
IWeakEventListener	
CollectionContainer CollectionViewSource CompositeCollection GridViewHeaderRowPresenter GridViewRowPresenter GridViewRowPresenterBase ItemCollection RibbonGallery RibbonGalleryCategory	
(usage)	None.
(description)	Provides event listening support for types that expect to receive events through the WeakEvent pattern and a WeakEventManager.

[is default constructible]	false
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4.460 JournalEntry

x:Object > DependencyObject > JournalEntry	
JournalEntry	
(usage)	None.
(description)	Represents an entry in either back or forward navigation history.
[is default constructible]	false
(properties)	
Name	x:String
(description)	The name of the journal entry.
Source	x:Uri
(description)	The URI of the content that was navigated to.
(attachable properties)	
JournalEntry.KeepAlive	x:Boolean
(description)	A value that indicates whether the content of a journal entry is either retained or re-created when navigated to in navigation history.
[target type]	DependencyObject
JournalEntry.Name	x:String
(description)	The name of the journal entry.
[target type]	DependencyObject

4.461 JournalEntryListConverter

x:Object > JournalEntryListConverter , IValueConverter	
JournalEntryListConverter	
(usage)	<JournalEntryListConverter />
(description)	This type or member supports the Microsoft .NET infrastructure.

4.462 JournalEntryPosition

x:Object > JournalEntryPosition	
<h2>JournalEntryPosition</h2>	
(usage)	Back Current Forward
(description)	Specifies the position in navigation history of a piece of content with respect to current content. JournalEntryPosition is used by JournalEntryUnifiedViewConverter.
(used by)	JournalEntryUnifiedViewConverter
[is nullable]	false
[text syntax]	JournalEntryPositionSyntax

4.463 JournalEntryUnifiedViewConverter

x:Object > JournalEntryUnifiedViewConverter , IMultiValueConverter	
<h2>JournalEntryUnifiedViewConverter</h2>	
(usage)	<JournalEntryUnifiedViewConverter />
(description)	Merges navigation back history and navigation forward history (as exposed by Frame or NavigationWindow) into a single navigation menu.
(attachable properties)	
JournalEntryUnifiedViewConverter.JournalEntryPosition	JournalEntryPosition
(description)	A value that specifies whether an entry is in back navigation history, forward navigation history, or is the current content of a navigator.
[target type]	DependencyObject

4.464 JournalOwnership

x:Object > JournalOwnership	
<h2>JournalOwnership</h2>	

(usage)	Automatic OwnsJournal UsesParentJournal
(description)	Specifies whether a Frame uses its own journal. JournalOwnership is used by the JournalOwnership property.
(used by)	Frame
[is nullable]	false
[text syntax]	JournalOwnershipSyntax

4.465 JpegBitmapEncoder

x:Object > BitmapEncoder > JpegBitmapEncoder	
JpegBitmapEncoder	
(usage)	<JpegBitmapEncoder />
(description)	Defines an encoder that is used to encode Joint Photographics Experts Group (JPEG) format images.
(properties)	
FlipHorizontal	x:Boolean
(description)	A value that indicates whether a Joint Photographics Experts Group (JPEG) image should be flipped horizontally during encoding.
FlipVertical	x:Boolean
(description)	A value that indicates whether a Joint Photographics Experts Group (JPEG) image should be flipped vertically during encoding.
QualityLevel	x:Int32
(description)	A value that indicates the quality level of the resulting Joint Photographics Experts Group (JPEG) image.
Rotation	Rotation
(description)	A value that represents the degree to which a Joint Photographics Experts Group (JPEG) image is rotated.

4.466 JumpItem

x:Object > JumpItem	
JumpItem	

JumpPath JumpTask	
(usage)	None.
(description)	Represents the base type for the JumpPath and JumpTask types.
(used by)	JumpList List(Jumpltem)
[is default constructible]	false
(properties)	
CustomCategory	x:String
(description)	The name of the category the Jumpltem is grouped with in the Windows 7 taskbar Jump List .

4.467 JumpItemRejectionReason

x:Object > JumpltemRejectionReason	
JumpltemRejectionReason	
(usage)	None InvalidItem NoRegisteredHandler RemovedByUser
(description)	Describes why a Jumpltem could not be added to the Jump List by the Windows shell.
[is nullable]	false
[text syntax]	JumpltemRejectionReasonSyntax

4.468 JumpList

x:Object > JumpList	
JumpList	
(usage)	<JumpList> Jumpltem *</JumpList>
(description)	Represents a list of items and tasks displayed as a menu on a Windows 7 taskbar button.
[content property]	Jumpltems
(properties)	
Jumpltems	List(Jumpltem)
(description)	The collection of Jumpltem objects that are displayed in the Jump List .

[read only]	true
ShowFrequentCategory	x:Boolean
(description)	A value that indicates whether frequently used items are displayed in the Jump List.
ShowRecentCategory	x:Boolean
(description)	A value that indicates whether recently used items are displayed in the Jump List.
(attachable properties)	
JumpList.JumpList	JumpList
(description)	
[target type]	Application
(events)	
JumpItemsRejected	Occurs when jump items are not successfully added to the Jump List by the Windows shell.
JumpItemsRemovedByUser	Occurs when jump items previously in the Jump List are removed from the list by the user.

4.469 JumpPath

x:Object > Jumpltem > JumpPath	
JumpPath	
(usage)	<JumpPath />
(description)	Represents a link to a file that is displayed in a Windows 7 taskbar Jump List.
(properties)	
Path	x:String
(description)	The path to the file to be included in the Jump List.

4.470 JumpTask

x:Object > Jumpltem > JumpTask	
JumpTask	

(usage)	<JumpTask />
(description)	Represents a shortcut to an application in the Windows 7 taskbar Jump List.
(properties)	
ApplicationPath	x:String
(description)	The path to the application.
Arguments	x:String
(description)	The arguments passed to the application on startup.
Description	x:String
(description)	The text displayed in the tooltip for the task in the Jump List.
IconResourceIndex	x:Int32
(description)	The zero-based index of an icon embedded in a resource.
IconResourcePath	x:String
(description)	The path to a resource that contains the icon to display in the Jump List.
Title	x:String
(description)	The text displayed for the task in the Jump List.
WorkingDirectory	x:String
(description)	The working directory of the application on startup.

4.471 KernelType

x:Object > KernelType	
KernelType	
(usage)	Gaussian Box
(description)	Describes the kernel used to create the effect.
(used by)	BlurEffect
[is nullable]	false
[text syntax]	KernelTypeSyntax

4.472 Key

x:Object > Key	
Key	
(usage)	None Cancel Back Tab LineFeed Clear Return Enter Pause ...
(description)	Specifies the possible key values on a keyboard.
(used by)	KeyBinding
[is nullable]	false
[text syntax]	KeySyntax

4.473 KeyBinding

x:Object > DependencyObject > Freezable > InputBinding > KeyBinding	
KeyBinding	
(usage)	<KeyBinding />
(description)	Binds a KeyGesture to a RoutedCommand (or another ICommand implementation).
(properties)	
Gesture	InputGesture
(description)	The gesture associated with this KeyBinding.
[text syntax]	KeyGestureSyntax
Key	Key
(description)	The Key of the KeyGesture associated with this KeyBinding.
Modifiers	ModifierKeys
(description)	The ModifierKeys of the KeyGesture associated with this KeyBinding.

4.474 Keyboard

x:Object > Keyboard
Keyboard

(usage)	{x:Static Keyboard.StaticPropertyName}
(description)	Represents the keyboard device.
[is default constructible]	false
(static properties)	
DefaultRestoreFocusMode	RestoreFocusMode
(description)	The behavior of when restoring focus.
FocusedElement	InputElement
(description)	The element that has keyboard focus.
Modifiers	ModifierKeys
(description)	The set of ModifierKeys that are currently pressed.
PrimaryDevice	KeyboardDevice
(description)	The primary keyboard input device.
(attachable events)	
Keyboard.GotKeyboardFocus	Occurs when an element receives keyboard focus.
Keyboard.KeyboardInputProviderAcquireFocus	Occurs when the keyboard input provider acquires focus.
Keyboard.KeyDown	Occurs when a key on the keyboard is pressed.
Keyboard.KeyUp	Occurs when a key on the keyboard is released.
Keyboard.LostKeyboardFocus	Occurs when an element loses keyboard focus.
Keyboard.PreviewGotKeyboardFocus	Occurs when an element is in the process of acquiring keyboard focus.
Keyboard.PreviewKeyboardInputProviderAcquireFocus	Occurs when the keyboard input provider is in the process of acquiring focus.
Keyboard.PreviewKeyDown	Occurs when a key on the keyboard is pressed.
Keyboard.PreviewKeyUp	Occurs when a key on the keyboard is released.
Keyboard.PreviewLostKeyboardFocus	Occurs when an element is in the process of losing keyboard focus.

4.475 KeyboardDevice

[x:Object](#) > [InputDevice](#) > [KeyboardDevice](#)

KeyboardDevice

(usage)	None.
(description)	A base type that represents a keyboard device.
(used by)	Keyboard
[is default constructible]	false
(properties)	
DefaultRestoreFocusMode	RestoreFocusMode
(description)	The behavior of when restoring focus.

4.476 KeyboardNavigation

x:Object > KeyboardNavigation	
KeyboardNavigation	
(usage)	None.
(description)	Provides logical and directional navigation between focusable objects.
[is default constructible]	false
(attachable properties)	
KeyboardNavigation.AcceptsReturn	x:Boolean
(description)	A value indicating whether the Return character is accepted by a control.
[target type]	DependencyObject
KeyboardNavigation.ControlTabNavigation	KeyboardNavigationMode
(description)	The logical control tab navigation behavior for the children of the element that this property is set on.
[target type]	DependencyObject
KeyboardNavigation.DirectionalNavigation	KeyboardNavigationMode
(description)	The directional navigation behavior for the children of the element that this property is set on.
[target type]	DependencyObject
KeyboardNavigation.IsTabStop	x:Boolean
(description)	A value indicating whether the element that this property is set on is a tab stop.

[target type]	DependencyObject
KeyboardNavigation.TabIndex	x:Int32
(description)	The tab index for the element that this property is set on.
[target type]	DependencyObject
KeyboardNavigation.TabNavigation	KeyboardNavigationMode
(description)	The logical tab navigation behavior for the children of the element that this property is set on.
[target type]	DependencyObject

4.477 KeyboardNavigationMode

x:Object > KeyboardNavigationMode	
<h2>KeyboardNavigationMode</h2>	
(usage)	Continue Once Cycle None Contained Local
(description)	Specifies the possible values for changes in focus when logical and directional navigation occurs.
(used by)	KeyboardNavigation
[is nullable]	false
[text syntax]	KeyboardNavigationModeSyntax

4.478 KeyGesture

x:Object > InputGesture > KeyGesture	
<h2>KeyGesture</h2>	
(usage)	<KeyGesture> string </KeyGesture>
(description)	Defines a keyboard combination that can be used to invoke a command.
[is default constructible]	false
[text syntax]	KeyGestureSyntax

4.479 KeySpline

x:Object > DependencyObject > Freezable > KeySpline	
<h2>KeySpline</h2>	
(usage)	<KeySpline> string </KeySpline>
(description)	This type is used by a spline key frame to define animation progress.
(used by)	SplineByteKeyFrame SplineColorKeyFrame SplineDecimalKeyFrame SplineDoubleKeyFrame SplineInt16KeyFrame SplineInt32KeyFrame SplineInt64KeyFrame SplinePoint3DKeyFrame SplinePointKeyFrame SplineQuaternionKeyFrame SplineRectKeyFrame SplineRotation3DKeyFrame SplineSingleKeyFrame SplineSizeKeyFrame SplineThicknessKeyFrame SplineVector3DKeyFrame SplineVectorKeyFrame
[text syntax]	KeySplineSyntax
(properties)	
ControlPoint1	Point
(description)	The first control point used to define a Bezier curve that describes a KeySpline.
ControlPoint2	Point
(description)	The second control point used to define a Bezier curve that describes a KeySpline.

4.480 KeyStates

x:Object > KeyStates	
<h2>KeyStates</h2>	
(usage)	None Down Toggled
(description)	Specifies constants that define the state of a key.
[is nullable]	false
[text syntax]	KeyStatesSyntax

4.481 KeyTime

x:Object > KeyTime
--

KeyTime	
(usage)	<KeyTime> string </KeyTime>
(description)	During the relative course of an animation, a KeyTime instance specifies the precise timing when a particular key frame should take place.
(used by)	BooleanKeyFrame ByteKeyFrame CharKeyFrame ColorKeyFrame DecimalKeyFrame DoubleKeyFrame IKeyFrame Int16KeyFrame Int32KeyFrame Int64KeyFrame MatrixKeyFrame ObjectKeyFrame Point3DKeyFrame PointKeyFrame QuaternionKeyFrame RectKeyFrame Rotation3DKeyFrame SingleKeyFrame SizeKeyFrame StringKeyFrame ThicknessKeyFrame Vector3DKeyFrame VectorKeyFrame
[is nullable]	false
[text syntax]	KeyTimeSyntax
(static properties)	
Paced	KeyTime
(description)	The Paced value which creates timing behavior resulting in an animation that interpolates at a constant rate.
Uniform	KeyTime
(description)	The Uniform value which divides the allotted time of the animation evenly between key frames.

4.482 KeyTimeType

x:Object > KeyTimeType	
KeyTimeType	
(usage)	Uniform Percent TimeSpan Paced
(description)	Represents the different types that may represent a KeyTime instance.
[is nullable]	false
[text syntax]	KeyTimeTypeSyntax

4.483 KeyTipControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > KeyTipControl , InputElement
--

KeyTipControl	
(usage)	<KeyTipControl />
(description)	Represents the control used inside the KeyTip.
[name property]	Name
[xml lang property]	Language
(properties)	
Text	x:String
(description)	The text associated with this control.

4.484 KeyTipHorizontalPlacement

x:Object > KeyTipHorizontalPlacement	
KeyTipHorizontalPlacement	
(usage)	KeyTipLeftAtTargetLeft KeyTipLeftAtTargetCenter KeyTipLeftAtTargetRight KeyTipCenterAtTargetLeft KeyTipCenterAtTargetCenter KeyTipCenterAtTargetRight KeyTipRightAtTargetLeft KeyTipRightAtTargetCenter KeyTipRightAtTargetRight ...
(description)	Specifies the values for the horizontal placement of the KeyTip relative to its placement target.
[is nullable]	false
[text syntax]	KeyTipHorizontalPlacementSyntax

4.485 KeyTipService

x:Object > KeyTipService	
KeyTipService	
(usage)	None.
(description)	Represents a service that provides properties, methods, and events to enable and manage KeyTips in Ribbon controls.
[is default constructible]	false
(attachable properties)	

KeyTipService.IsKeyTipScope	x:Boolean
(description)	A value that indicates whether the element that this property is attached to is in KeyTip scope.
[target type]	DependencyObject
KeyTipService.KeyTip	x:String
(description)	The text to use for the KeyTip.
[target type]	DependencyObject
KeyTipService.KeyTipStyle	Style
(description)	The style to use with the KeyTip.
[target type]	DependencyObject
(attachable events)	
KeyTipService.ActivatingKeyTip	Occurs when the KeyTip is activated.
KeyTipService.KeyTipAccessed	Occurs when the KeyTip is accessed.
KeyTipService.PreviewKeyTipAccessed	Occurs when the KeyTip is accessed.

4.486 KeyTipVerticalPlacement

x:Object > KeyTipVerticalPlacement	
KeyTipVerticalPlacement	
(usage)	KeyTipTopAtTargetTop KeyTipTopAtTargetCenter KeyTipTopAtTargetBottom KeyTipCenterAtTargetTop KeyTipCenterAtTargetCenter KeyTipCenterAtTargetBottom KeyTipBottomAtTargetTop KeyTipBottomAtTargetCenter KeyTipBottomAtTargetBottom ...
(description)	Specifies the values for the vertical placement of the KeyTip relative to its placement target.
[is nullable]	false
[text syntax]	KeyTipVerticalPlacementSyntax

4.487 Label

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > Label , InputElement	
Label	
(usage)	<Label> x:Object </Label>
(description)	Represents the text label for a control and provides support for access keys.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
Target	UIElement
(description)	The element that receives focus when the user presses the label's access key.
[text syntax]	x:NameReference, from [MS-XAML-2017]

4.488 LanguageSpecificStringDictionary

x:Object > LanguageSpecificStringDictionary	
LanguageSpecificStringDictionary	
(usage)	None.
(description)	Represents a dictionary of strings that are used to represent the name of an object in different languages.
(used by)	FontFamily Typeface
[is default constructible]	false
[is dictionary]	true
[allowed types]	x:String
[allowed key types]	XmlLanguage
(properties)	
Keys	ICollection(XmlLanguage)
(description)	A collection containing the keys, or XmlLanguage objects, in the dictionary.
[read only]	true
Values	ICollection(x:String)

(description)	A collection containing the values, or strings, in the dictionary.
[read only]	true

4.489 Light

x:Object > DependencyObject > Freezable > Animatable > Model3D > Light	
Light	
AmbientLight DirectionalLight PointLightBase	
(usage)	None.
(description)	Model3D object that represents lighting applied to a 3-D scene.
[is default constructible]	false
(properties)	
Color	Color
(description)	The color of the light.

4.490 Line

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape > Line , InputElement	
Line	
(usage)	<Line />
(description)	Draws a straight line between two points.
[name property]	Name
[xml lang property]	Language
(properties)	
X1	x:Double
(description)	The x-coordinate of the Line start point.
[text syntax]	LengthSyntax
X2	x:Double
(description)	The x-coordinate of the Line end point.
[text syntax]	LengthSyntax

Y1	x:Double
(description)	The y-coordinate of the Line start point.
[text syntax]	LengthSyntax
Y2	x:Double
(description)	The y-coordinate of the Line end point.
[text syntax]	LengthSyntax

4.491 LinearByteKeyFrame

x:Object > DependencyObject > Freezable > ByteKeyFrame > LinearByteKeyFrame	
LinearByteKeyFrame	
(usage)	<LinearByteKeyFrame />
(description)	Animates from the Byte value of the previous key frame to its own Value using linear interpolation.

4.492 LinearColorKeyFrame

x:Object > DependencyObject > Freezable > ColorKeyFrame > LinearColorKeyFrame	
LinearColorKeyFrame	
(usage)	<LinearColorKeyFrame />
(description)	Animates from the Color value of the previous key frame to its own Value using linear interpolation.

4.493 LinearDecimalKeyFrame

x:Object > DependencyObject > Freezable > DecimalKeyFrame > LinearDecimalKeyFrame	
LinearDecimalKeyFrame	
(usage)	<LinearDecimalKeyFrame />
(description)	Animates from the Decimal value of the previous key frame to its own Value using linear interpolation.

4.494 LinearDoubleKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [DoubleKeyFrame](#) > [LinearDoubleKeyFrame](#)

LinearDoubleKeyFrame

(usage)	<LinearDoubleKeyFrame />
(description)	Animates from the Double value of the previous key frame to its own Value using linear interpolation.

4.495 LinearGradientBrush

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Brush](#) > [GradientBrush](#) > [LinearGradientBrush](#)

LinearGradientBrush

(usage)	<LinearGradientBrush> string GradientStop *</LinearGradientBrush>
(description)	Paints an area with a linear gradient.
[text syntax]	BrushSyntax
[content property]	GradientStops
(properties)	
EndPoint	Point
(description)	The ending two-dimensional coordinates of the linear gradient.
StartPoint	Point
(description)	The starting two-dimensional coordinates of the linear gradient.

4.496 LinearInt16KeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Int16KeyFrame](#) > [LinearInt16KeyFrame](#)

LinearInt16KeyFrame

(usage)	<LinearInt16KeyFrame />
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(description)	Animates from the Int16 value of the previous key frame to its own Value using linear interpolation.
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4.497 LinearInt32KeyFrame

x:Object > DependencyObject > Freezable > Int32KeyFrame > LinearInt32KeyFrame	
LinearInt32KeyFrame	
(usage)	<LinearInt32KeyFrame />
(description)	Animates from the Int32 value of the previous key frame to its own Value using linear interpolation.

4.498 LinearInt64KeyFrame

x:Object > DependencyObject > Freezable > Int64KeyFrame > LinearInt64KeyFrame	
LinearInt64KeyFrame	
(usage)	<LinearInt64KeyFrame />
(description)	Animates from the Int64 value of the previous key frame to its own Value using linear interpolation.

4.499 LinearPoint3DKeyFrame

x:Object > DependencyObject > Freezable > Point3DKeyFrame > LinearPoint3DKeyFrame	
LinearPoint3DKeyFrame	
(usage)	<LinearPoint3DKeyFrame />
(description)	Animates from the Point3D value of the previous key frame to its own Value using linear interpolation.

4.500 LinearPointKeyFrame

x:Object > DependencyObject > Freezable > PointKeyFrame > LinearPointKeyFrame	
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LinearPointKeyFrame	
(usage)	<LinearPointKeyFrame />
(description)	Animates from the Point value of the previous key frame to its own Value using linear interpolation.

4.501 LinearQuaternionKeyFrame

x:Object > DependencyObject > Freezable > QuaternionKeyFrame > LinearQuaternionKeyFrame	
LinearQuaternionKeyFrame	
(usage)	<LinearQuaternionKeyFrame />
(description)	Animates from the Quaternion value of the previous key frame to its own Value using linear interpolation.
(properties)	
UseShortestPath	x:Boolean
(description)	A Boolean value that indicates whether the animation uses spherical linear interpolation to calculate the shortest arc between positions.

4.502 LinearRectKeyFrame

x:Object > DependencyObject > Freezable > RectKeyFrame > LinearRectKeyFrame	
LinearRectKeyFrame	
(usage)	<LinearRectKeyFrame />
(description)	Animates from the Rect value of the previous key frame to its own Value using linear interpolation.

4.503 LinearRotation3DKeyFrame

x:Object > DependencyObject > Freezable > Rotation3DKeyFrame > LinearRotation3DKeyFrame	
LinearRotation3DKeyFrame	
(usage)	<LinearRotation3DKeyFrame />

(description)	Animates from the Rotation3D value of the previous key frame to its own Value using linear interpolation.
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4.504 LinearSingleKeyFrame

x:Object > DependencyObject > Freezable > SingleKeyFrame > LinearSingleKeyFrame	
LinearSingleKeyFrame	
(usage)	<LinearSingleKeyFrame />
(description)	Animates from the Single value of the previous key frame to its own Value using linear interpolation.

4.505 LinearSizeKeyFrame

x:Object > DependencyObject > Freezable > SizeKeyFrame > LinearSizeKeyFrame	
LinearSizeKeyFrame	
(usage)	<LinearSizeKeyFrame />
(description)	Animates from the Size value of the previous key frame to its own Value using linear interpolation.

4.506 LinearThicknessKeyFrame

x:Object > DependencyObject > Freezable > ThicknessKeyFrame > LinearThicknessKeyFrame	
LinearThicknessKeyFrame	
(usage)	<LinearThicknessKeyFrame />
(description)	Animates from the Thickness value of the previous key frame to its own Value using linear interpolation.

4.507 LinearVector3DKeyFrame

x:Object > DependencyObject > Freezable > Vector3DKeyFrame > LinearVector3DKeyFrame	
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LinearVector3DKeyFrame

(usage)	<LinearVector3DKeyFrame />
(description)	Animates from the Vector3D value of the previous key frame to its own Value using linear interpolation.

4.508 LinearVectorKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [VectorKeyFrame](#) > [LinearVectorKeyFrame](#)

LinearVectorKeyFrame

(usage)	<LinearVectorKeyFrame />
(description)	Animates from the Vector value of the previous key frame to its own Value using linear interpolation.

4.509 LineBreak

[x:Object](#) > [DependencyObject](#) > [ContentElement](#) > [FrameworkContentElement](#) > [TextElement](#) > [Inline](#) > [LineBreak](#), [InputElement](#)

LineBreak

(usage)	<LineBreak />
(description)	An inline flow content element that causes a line break to occur in flow content.
[name property]	Name
[xml lang property]	Language
[trim surrounding whitespace]	true

4.510 LineBreakCondition

[x:Object](#) > [LineBreakCondition](#)

LineBreakCondition

(usage)	BreakDesired BreakPossible BreakRestrained BreakAlways
---------	--

(description)	Describes the breaking condition around an inline object.
[is nullable]	false
[text syntax]	LineBreakConditionSyntax

4.511 LineGeometry

x:Object > DependencyObject > Freezable > Animatable > Geometry > LineGeometry	
LineGeometry	
(usage)	<LineGeometry> string </LineGeometry>
(description)	Represents the geometry of a line.
[text syntax]	GeometrySyntax
(properties)	
EndPoint	Point
(description)	The end point of a line.
StartPoint	Point
(description)	The start point of the line.

4.512 LineSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment > LineSegment	
LineSegment	
(usage)	<LineSegment />
(description)	Creates a line between two points in a PathFigure.
(properties)	
Point	Point
(description)	The end point of the line segment.

4.513 LineStackingStrategy

x:Object > LineStackingStrategy	
LineStackingStrategy	
(usage)	BlockLineHeight MaxHeight
(description)	Describes a mechanism by which a line box is determined for each line.
(used by)	AccessText AnchoredBlock Block FlowDocument ListItem RibbonTwoLineText TableCell TextBlock
[is nullable]	false
[text syntax]	LineStackingStrategySyntax

4.514 LinkTarget

x:Object > LinkTarget	
LinkTarget	
(usage)	<LinkTarget />
(description)	Represents an element on a page that can be linked to from other documents or other places in the same document.
(used by)	LinkTargetCollection
(properties)	
Name	x:String
(description)	The name of the element that this LinkTarget identifies as a linkable element.

4.515 LinkTargetCollection

x:Object > CollectionBase > LinkTargetCollection	
LinkTargetCollection	
(usage)	<LinkTargetCollection> LinkTarget *</LinkTargetCollection>
(description)	Provides a collection of all of the LinkTarget elements in a Package.
(used by)	PageContent
[is list]	true

[allowed types]	LinkTarget
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4.516 List

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Block > List , IInputElement	
List	
(usage)	<List> ListItem *</List>
(description)	A block-level flow content element that provides facilities for presenting content in an ordered or unordered list.
[content property]	ListItems
[name property]	Name
[xml lang property]	Language
(properties)	
ListItems	ListItemCollection
(description)	A ListItemCollection containing the ListItem elements that comprise the contents of the List.
[read only]	true
MarkerOffset	x:Double
(description)	The desired distance between the contents of each ListItem element, and the near edge of the list marker.
[text syntax]	LengthSyntax
MarkerStyle	TextMarkerStyle
(description)	The marker style for the List.
StartIndex	x:Int32
(description)	The starting index for labeling the items in an ordered list.

4.517 ListBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > Selector > ListBox , IInputElement
--

ListBox	
ListView	
(usage)	<ListBox> x:Object *</ListBox>
(description)	Contains a list of selectable items.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
SelectedItems	IList
(description)	The currently selected items.
[read only]	true
SelectionMode	SelectionMode
(description)	The selection behavior for a ListBox.

4.518 ListBoxItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ListBoxItem , InputElement	
ListBoxItem	
ComboBoxItem ListViewItem	
(usage)	<ListBoxItem> x:Object </ListBoxItem>
(description)	Represents a selectable item in a ListBox.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
IsSelected	x:Boolean
(description)	A value that indicates whether a ListBoxItem is selected.
(events)	
Selected	Occurs when a ListBoxItem is selected.

Unselected	Occurs when a ListBoxItem is unselected.
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4.519 ListItem

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > ListItem , InputElement	
ListItem	
(usage)	<ListItem> Block *</ListItem>
(description)	A flow content element that represents a particular content item in an ordered or unordered List.
(used by)	ICollection(ListItem) ListItemCollection TextElementCollection(ListItem)
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	
Blocks	BlockCollection
(description)	A block collection that contains the top-level Block elements of the ListItem.
[read only]	true
BorderBrush	Brush
(description)	A Brush to use when painting the element's border.
BorderThickness	Thickness
(description)	The border thickness for the element.
FlowDirection	FlowDirection
(description)	The relative direction for flow of content within a ListItem element.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which a line box is determined for each line of text within the ListItem.
Margin	Thickness
(description)	The margin thickness for the element.

Padding	Thickness
(description)	The padding thickness for the element.
SiblingListItems	ListItemCollection
(description)	A ListItemCollection that contains the ListItem elements that are siblings of the current ListItem element.
[read only]	true
TextAlignment	TextAlignment
(description)	A value that indicates the horizontal alignment of text content.

4.520 ListItemCollection

x:Object > TextElementCollection(ListItem) > ListItemCollection	
ListItemCollection	
(usage)	None.
(description)	Represents a collection of ListItem elements. ListItemCollection defines the allowable child content of a List element.
(used by)	List ListItem
[is default constructible]	false
[is list]	true
[allowed types]	ListItem

4.521 ListView

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > Selector > ListBox > ListView , InputElement	
ListView	
(usage)	<ListView> x:Object *</ListView>
(description)	Represents a control that displays a list of data items.
[content property]	Items
[name property]	Name
[xml lang property]	Language

(properties)	
View	ViewBase
(description)	An object that defines how the data is styled and organized in a ListView control.

4.522 ListViewItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ListBoxItem > ListViewItem , InputElement	
ListViewItem	
(usage)	<ListViewItem> x:Object </ListViewItem>
(description)	Represents an item in a ListView control.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.523 Localization

x:Object > Localization	
Localization	
(usage)	None.
(description)	The Localization type defines attached properties for localization attributes and comments.
[is default constructible]	false
(attachable properties)	
Localization.Attributes	x:String
(description)	Which resources, such as FontFamily, are to be localized.
[target type]	x:Object
Localization.Comments	x:String
(description)	Comments, which are free-form text that the markup author includes.
[target type]	x:Object

4.524 LocalizationCategory

x:Object > LocalizationCategory	
LocalizationCategory	
(usage)	None Text Title Label Button CheckBox ComboBox ListBox Menu ...
(description)	Specifies the category value of a LocalizabilityAttribute for a type or type member.
[is nullable]	false
[text syntax]	LocalizationCategorySyntax

4.525 LocalValueEntry

x:Object > LocalValueEntry	
LocalValueEntry	
(usage)	<LocalValueEntry />
(description)	Represents a property identifier and the property value for a locally set property.
[is nullable]	false

4.526 LocalValueEnumerator

x:Object > LocalValueEnumerator	
LocalValueEnumerator	
(usage)	<LocalValueEnumerator />
(description)	Provides enumeration support for the local values of any properties that exist on a DependencyObject.
[is nullable]	false

4.527 LogicalDirection

x:Object > LogicalDirection	
LogicalDirection	
(usage)	Backward Forward
(description)	Specifies a logical direction in which to perform certain text operations, such as inserting, retrieving, or navigating through text relative to a specified position (a TextPointer).
[is nullable]	false
[text syntax]	LogicalDirectionSyntax

4.528 Manipulation

x:Object > Manipulation	
Manipulation	
(usage)	None.
(description)	Contains methods to get and update information about a manipulation.
[is default constructible]	false
(attachable properties)	
Manipulation.ManipulationContainer	InputElement
(description)	
[target type]	UIElement
Manipulation.ManipulationMode	ManipulationModes
(description)	
[target type]	UIElement
Manipulation.ManipulationParameter	ManipulationParameters2D
(description)	
[target type]	UIElement
Manipulation.ManipulationPivot	ManipulationPivot

(description)	
[target type]	UIElement

4.529 ManipulationModes

x:Object > ManipulationModes	
ManipulationModes	
(usage)	None TranslateX TranslateY Translate Rotate Scale All
(description)	Specifies how manipulation events are interpreted.
(used by)	Manipulation
[is nullable]	false
[text syntax]	ManipulationModesSyntax

4.530 ManipulationPivot

x:Object > ManipulationPivot	
ManipulationPivot	
(usage)	<ManipulationPivot />
(description)	Specifies how a rotation occurs with one point of user input.
(used by)	Manipulation
(properties)	
Center	Point
(description)	The center of a single-point manipulation.
Radius	x:Double
(description)	The area around the pivot that is used to determine how much rotation and translation occurs when a single point of contact initiates the manipulation.

4.531 Material

x:Object > DependencyObject > Freezable > Animatable > Material

Material

[DiffuseMaterial](#) [EmissiveMaterial](#) [MaterialGroup](#) [SpecularMaterial](#)

(usage)	None.
(description)	A base type for materials.
(used by)	GeometryModel3D ICollection(Material) IList(Material) MaterialCollection Viewport2DVisual3D
[is default constructible]	false

4.532 MaterialCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [MaterialCollection](#)

MaterialCollection

(usage)	<MaterialCollection> Material *</MaterialCollection>
(description)	Collection of Material objects.
(used by)	MaterialGroup
[is list]	true
[allowed types]	Material

4.533 MaterialGroup

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Material](#) > [MaterialGroup](#)

MaterialGroup

(usage)	<MaterialGroup> Material *</MaterialGroup>
(description)	Represents a Material that is a composite of the Materials in its collection.
[content property]	Children
(properties)	
Children	MaterialCollection
(description)	A collection of child Material objects.

4.534 Matrix

x:Object > Matrix	
Matrix	
(usage)	<Matrix> string </Matrix>
(description)	Represents a 3x3 affine transformation matrix used for transformations in 2-D space.
(used by)	DrawingAttributes MatrixKeyFrame MatrixTransform
[is nullable]	false
[text syntax]	MatrixSyntax
(properties)	
M11	x:Double
(description)	The value of the first row and first column of this Matrix structure.
M12	x:Double
(description)	The value of the first row and second column of this Matrix structure.
M21	x:Double
(description)	The value of the second row and first column of this Matrix structure.
M22	x:Double
(description)	The value of the second row and second column of this Matrix structure.
OffsetX	x:Double
(description)	The value of the third row and first column of this Matrix structure.
OffsetY	x:Double
(description)	The value of the third row and second column of this Matrix structure.
(static properties)	
Identity	Matrix
(description)	An identity Matrix.

4.535 Matrix3D

x:Object > Matrix3D	
Matrix3D	

(usage)	<Matrix3D> string </Matrix3D>
(description)	Represents a 4 x 4 matrix used for transformations in 3-D space.
(used by)	MatrixCamera MatrixTransform3D
[is nullable]	false
[text syntax]	Matrix3DSyntax
(properties)	
M11	x:Double
(description)	The value of the first row and first column of this Matrix3D structure.
M12	x:Double
(description)	The value of the first row and second column of this Matrix3D structure.
M13	x:Double
(description)	The value of the first row and third column of this Matrix3D structure.
M14	x:Double
(description)	The value of the first row and fourth column of this Matrix3D structure.
M21	x:Double
(description)	The value of the second row and first column of this Matrix3D structure.
M22	x:Double
(description)	The value of the second row and second column of this Matrix3D structure.
M23	x:Double
(description)	The value of the second row and third column of this Matrix3D structure.
M24	x:Double
(description)	The value of the second row and fourth column of this Matrix3D structure.
M31	x:Double
(description)	The value of the third row and first column of this Matrix3D structure.
M32	x:Double
(description)	The value of the third row and second column of this Matrix3D structure.
M33	x:Double
(description)	The value of the third row and third column of this Matrix3D structure.
M34	x:Double
(description)	The value of the third row and fourth column of this Matrix3D structure.
M44	x:Double
(description)	The value of the fourth row and fourth column of this Matrix3D structure.

OffsetX	x:Double
(description)	The value of the fourth row and first column of this Matrix3D structure.
OffsetY	x:Double
(description)	The value of the fourth row and second column of this Matrix3D structure.
OffsetZ	x:Double
(description)	The value of the fourth row and third column of this Matrix3D structure.
(static properties)	
Identity	Matrix3D
(description)	Changes a Matrix3D structure into an identity Matrix3D.

4.536 MatrixAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > MatrixAnimationBase	
MatrixAnimationBase	
MatrixAnimationUsingKeyFrames MatrixAnimationUsingPath	
(usage)	None.
(description)	A base type that animates a Matrix value.
[is default constructible]	false
[name property]	Name

4.537 MatrixAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > MatrixAnimationBase > MatrixAnimationUsingKeyFrames	
MatrixAnimationUsingKeyFrames	
(usage)	<MatrixAnimationUsingKeyFrames> MatrixKeyFrame *</MatrixAnimationUsingKeyFrames>
(description)	Animates the value of a Matrix property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name

(properties)	
KeyFrames	MatrixKeyFrameCollection
(description)	The collection of MatrixKeyFrame objects that define the animation.

4.538 MatrixAnimationUsingPath

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [MatrixAnimationBase](#) > [MatrixAnimationUsingPath](#)

MatrixAnimationUsingPath

(usage)	<MatrixAnimationUsingPath />
(description)	Animates the value of a Matrix property by using a PathGeometry to generate the animated values. This animation can be used to move a visual object along a path.
[name property]	Name
(properties)	
DoesRotateWithTangent	x:Boolean
(description)	A value indicating whether the object rotates along the tangent of the path.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsAngleCumulative	x:Boolean
(description)	A value that specifies whether the rotation angle of the animated matrix should accumulate over repetitions.
IsOffsetCumulative	x:Boolean
(description)	A value indicating whether the offset produced by the animated matrix will accumulate over repetitions.
PathGeometry	PathGeometry
(description)	The geometry used to generate this animation's output values.

4.539 MatrixCamera

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Camera](#) > [MatrixCamera](#)

<h1>MatrixCamera</h1>	
(usage)	<MatrixCamera />
(description)	Camera which specifies the view and projection transforms as Matrix3D objects
(properties)	
ProjectionMatrix	Matrix3D
(description)	A Matrix3D as the projection transformation matrix.
ViewMatrix	Matrix3D
(description)	A Matrix3D as the view transformation matrix.

4.540 MatrixKeyFrame

x:Object > DependencyObject > Freezable > MatrixKeyFrame	
<h1>MatrixKeyFrame</h1>	
DiscreteMatrixKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a MatrixAnimationUsingKeyFrames.
(used by)	MatrixKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Matrix
(description)	The key frame's target value.

4.541 MatrixKeyFrameCollection

x:Object > DependencyObject > Freezable > MatrixKeyFrameCollection	
<h1>MatrixKeyFrameCollection</h1>	

(usage)	<MatrixKeyFrameCollection> MatrixKeyFrame *</MatrixKeyFrameCollection>
(description)	Represents a collection of MatrixKeyFrame objects.
(used by)	MatrixAnimationUsingKeyFrames
[is list]	true
[allowed types]	MatrixKeyFrame
(static properties)	
Empty	MatrixKeyFrameCollection
(description)	An empty MatrixKeyFrameCollection.

4.542 MatrixTransform

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > Transform > MatrixTransform	
MatrixTransform	
(usage)	<MatrixTransform> string </MatrixTransform>
(description)	Creates an arbitrary affine matrix transformation that is used to manipulate objects or coordinate systems in a 2-D plane.
[text syntax]	TransformSyntax
(properties)	
Matrix	Matrix
(description)	The Matrix structure that defines this transformation.

4.543 MatrixTransform3D

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D > Transform3D > MatrixTransform3D	
MatrixTransform3D	
(usage)	<MatrixTransform3D />
(description)	Creates a transformation specified by a Matrix3D, used to manipulate objects or coordinate systems in 3-D world space.
(properties)	
Matrix	Matrix3D

(description)	A Matrix3D that specifies a 3-D transformation.
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4.544 MediaCommands

x:Object > MediaCommands	
MediaCommands	
(usage)	{x:Static MediaCommands.StaticPropertyName}
(description)	Provides a standard set of media related commands.
[is default constructible]	false
(static properties)	
BoostBass	RoutedUICommand
(description)	The value that represents the Boost Base command.
ChannelDown	RoutedUICommand
(description)	The value that represents the Channel Down command.
ChannelUp	RoutedUICommand
(description)	The value that represents the Channel Up command.
DecreaseBass	RoutedUICommand
(description)	The value that represents the Decrease Bass command.
DecreaseMicrophoneVolume	RoutedUICommand
(description)	The value that represents the Decrease Microphone Volume command.
DecreaseTreble	RoutedUICommand
(description)	The value that represents the Decrease Treble command.
DecreaseVolume	RoutedUICommand
(description)	The value that represents the Decrease Volume command.
FastForward	RoutedUICommand
(description)	The value that represents the Fast Forward command.
IncreaseBass	RoutedUICommand
(description)	The value that represents the Increase Bass command.
IncreaseMicrophoneVolume	RoutedUICommand
(description)	The value that represents the Increase Microphone Volume command.
IncreaseTreble	RoutedUICommand

(description)	The value that represents the Increase Treble command.
IncreaseVolume	RoutedUICommand
(description)	The value that represents the Increase Volume command.
MuteMicrophoneVolume	RoutedUICommand
(description)	The value that represents the Mute Microphone Volume command.
MuteVolume	RoutedUICommand
(description)	The value that represents the Mute Volume command.
NextTrack	RoutedUICommand
(description)	The value that represents the Next Track command.
Pause	RoutedUICommand
(description)	The value that represents the Pause command.
Play	RoutedUICommand
(description)	The value that represents the Play command.
PreviousTrack	RoutedUICommand
(description)	The value that represents the Previous Track command.
Record	RoutedUICommand
(description)	The value that represents the Record command.
Rewind	RoutedUICommand
(description)	The value that represents the Rewind command.
Select	RoutedUICommand
(description)	The value that represents the Select command.
Stop	RoutedUICommand
(description)	The value that represents the Stop command.
ToggleMicrophoneOnOff	RoutedUICommand
(description)	The value that represents the Toggle Microphone On Off command.
TogglePlayPause	RoutedUICommand
(description)	The value that represents the Toggle Play Pause command.

4.545 MediaElement

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [MediaElement](#), [IInputElement](#)

MediaElement	
(usage)	<MediaElement />
(description)	Represents a control that contains audio and/or video.
[name property]	Name
[xml lang property]	Language
(properties)	
Balance	x:Double
(description)	A ratio of volume across speakers.
IsMuted	x:Boolean
(description)	A value indicating whether the audio is muted.
LoadedBehavior	MediaState
(description)	The load behavior MediaState for the media.
Position	x:TimeSpan
(description)	The current position of progress through the media's playback time.
ScrubbingEnabled	x:Boolean
(description)	A value that indicates whether the MediaElement will update frames for seek operations while paused.
Source	x:Uri
(description)	A media source on the MediaElement.
SpeedRatio	x:Double
(description)	The speed ratio of the media.
Stretch	Stretch
(description)	A Stretch value that describes how a MediaElement fills the destination rectangle.
StretchDirection	StretchDirection
(description)	A value that determines the restrictions on scaling that are applied to the image.
UnloadedBehavior	MediaState
(description)	The unload behavior MediaState for the media.
Volume	x:Double
(description)	The media's volume.
(events)	

BufferingEnded	Occurs when media buffering has ended.
BufferingStarted	Occurs when media buffering has begun.
MediaEnded	Occurs when the media has ended.
MediaFailed	Occurs when an error is encountered.
MediaOpened	Occurs when media loading has finished.
ScriptCommand	Occurs when a script command is encountered in the media.

4.546 MediaPlayer

x:Object > DependencyObject > Freezable > Animatable > MediaPlayer	
<h2>MediaPlayer</h2>	
(usage)	<MediaPlayer />
(description)	Provides media playback for drawings.
(used by)	VideoDrawing
(properties)	
Balance	x:Double
(description)	The balance between the left and right speaker volumes.
IsMuted	x:Boolean
(description)	A value that indicates whether the media is muted.
Position	x:TimeSpan
(description)	The current position of the media.
ScrubbingEnabled	x:Boolean
(description)	A value that indicates whether scrubbing is enabled.
SpeedRatio	x:Double
(description)	The ratio of speed that media is played at.
Volume	x:Double
(description)	The media's volume.
(events)	
BufferingEnded	Occurs when buffering has finished.
BufferingStarted	Occurs when buffering has started.
MediaEnded	Occurs when the media has finished playback.

MediaFailed	Occurs when an error is encountered
MediaOpened	Occurs when the media is opened.
ScriptCommand	Occurs when a script command has been encountered within the media.

4.547 MediaState

x:Object > MediaState	
<h2>MediaState</h2>	
(usage)	Manual Play Close Pause Stop
(description)	Specifies the states that can be applied to a MediaElement for the LoadedBehavior and UnloadedBehavior properties.
(used by)	MediaElement
[is nullable]	false
[text syntax]	MediaStateSyntax

4.548 MediaTimeline

x:Object > DependencyObject > Freezable > Animatable > Timeline > MediaTimeline	
<h2>MediaTimeline</h2>	
(usage)	<MediaTimeline />
(description)	Provides a Timeline for media content.
[name property]	Name
(properties)	
Source	x:Uri
(description)	The media source associated with the timeline.

4.549 Menu

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase > Menu , InputElement

<h1>Menu</h1>	
RibbonMenuButton	
(usage)	<Menu> x:Object *</Menu>
(description)	Represents a menu control that enables you to hierarchically organize elements associated with commands and event handlers.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
IsMainMenu	x:Boolean
(description)	A value that indicates whether this Menu receives a main menu activation notification.

4.550 MenuBase

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase , InputElement	
<h1>MenuBase</h1>	
ContextMenu Menu	
(usage)	None.
(description)	Represents a control that defines choices for users to select.
[is default constructible]	false
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
UsesItemContainerTemplate	x:Boolean
(description)	A value that indicates whether the menu selects different item containers, depending on the type of the item in the underlying collection or some other heuristic.

4.551 MenuItem

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [HeaderedItemsControl](#) > [MenuItem](#), [InputElement](#)

MenuItem

[RibbonMenuItem](#)

(usage)	<MenuItem> x:Object *</MenuItem>
(description)	Represents a selectable item inside a Menu.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
Command	ICommand
(description)	The command associated with the menu item.
CommandParameter	x:Object
(description)	The parameter to pass to the Command property of a MenuItem.
CommandTarget	InputElement
(description)	The target element on which to raise the specified command.
Icon	x:Object
(description)	The icon that appears in a MenuItem.
InputGestureText	x:String
(description)	The text describing an input gesture that will call the command tied to the specified item.
IsCheckable	x:Boolean
(description)	A value that indicates whether a MenuItem can be checked.
IsChecked	x:Boolean
(description)	A value that indicates whether the MenuItem is checked.
IsSubMenuOpen	x:Boolean
(description)	A value that indicates whether the submenu of the MenuItem is open.
StaysOpenOnClick	x:Boolean
(description)	A value that indicates that the submenu in which this MenuItem is located should not close when this item is clicked.
UsesItemContainerTemplate	x:Boolean

(description)	A value that indicates whether the menu selects different item containers, depending on the type of the item in the underlying collection or some other heuristic.
(static properties)	
SeparatorStyleKey	ResourceKey
(description)	The resource key for a style applied to a MenuItem when the MenuItem is a Separator.
SubmenuHeaderTemplateKey	ResourceKey
(description)	The resource key for a style applied to a MenuItem when the MenuItem is a header of a submenu.
SubmenuItemTemplateKey	ResourceKey
(description)	The resource key for a style applied to a MenuItem when the MenuItem is a submenu.
TopLevelHeaderTemplateKey	ResourceKey
(description)	The resource key for a style applied to a MenuItem when the MenuItem is a header of a top-level menu.
TopLevelItemTemplateKey	ResourceKey
(description)	The resource key for a style applied to a MenuItem when it is a top-level MenuItem that can invoke commands.
(events)	
Checked	Occurs when a menu item is checked.
Click	Occurs when a MenuItem is clicked.
SubmenuClosed	Occurs when the state of the IsSubmenuOpen property changes to false.
SubmenuOpened	Occurs when the state of the IsSubmenuOpen property changes to true.
Unchecked	Occurs when a MenuItem is unchecked.

4.552 MenuItemRole

x:Object > MenuItemRole	
<h2>MenuItemRole</h2>	
(usage)	TopLevelItem TopLevelHeader SubmenuItem SubmenuHeader
(description)	Defines the different roles that a MenuItem can have.
[is nullable]	false

[text syntax]	MenuItemRoleSyntax
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4.553 MenuScrollingVisibilityConverter

x:Object > MenuScrollingVisibilityConverter , IMultiValueConverter	
MenuScrollingVisibilityConverter	
(usage)	<MenuScrollingVisibilityConverter />
(description)	Represents a data-binding converter to handle the visibility of repeat buttons in scrolling menus.

4.554 MeshGeometry3D

x:Object > DependencyObject > Freezable > Animatable > Geometry3D > MeshGeometry3D	
MeshGeometry3D	
(usage)	<MeshGeometry3D />
(description)	Triangle primitive for building a 3-D shape.
(properties)	
Normals	Vector3DCollection
(description)	A collection of normal vectors for the MeshGeometry3D.
Positions	Point3DCollection
(description)	A collection of vertex positions for a MeshGeometry3D.
TextureCoordinates	PointCollection
(description)	A collection of texture coordinates for the MeshGeometry3D.
TriangleIndices	Int32Collection
(description)	A collection of triangle indices for the MeshGeometry3D.

4.555 MessageBoxButton

x:Object > MessageBoxButton

MessageBoxButton	
(usage)	OK OKCancel YesNoCancel YesNo
(description)	Specifies the buttons that are displayed on a message box. Used as an argument of the Show method.
[is nullable]	false
[text syntax]	MessageBoxButtonSyntax

4.556 MessageBoxImage

x:Object > MessageBoxImage	
MessageBoxImage	
(usage)	None Hand Question Exclamation Asterisk Stop Error Warning Information ...
(description)	Specifies the icon that is displayed by a message box.
[is nullable]	false
[text syntax]	MessageBoxImageSyntax

4.557 MessageBoxOptions

x:Object > MessageBoxOptions	
MessageBoxOptions	
(usage)	None ServiceNotification DefaultDesktopOnly RightAlign RtlReading
(description)	Specifies special display options for a message box.
[is nullable]	false
[text syntax]	MessageBoxOptionsSyntax

4.558 MessageBoxResult

x:Object > MessageBoxResult

<h2>MessageBoxResult</h2>	
(usage)	None OK Cancel Yes No
(description)	Specifies which message box button that a user clicks. MessageBoxResult is returned by the Show method.
[is nullable]	false
[text syntax]	MessageBoxResultSyntax

4.559 MinMaxParagraphWidth

x:Object > MinMaxParagraphWidth	
<h2>MinMaxParagraphWidth</h2>	
(usage)	<MinMaxParagraphWidth />
(description)	Represents the smallest and largest possible paragraph width that can fully contain the specified text content.
[is nullable]	false

4.560 Model3D

x:Object > DependencyObject > Freezable > Animatable > Model3D	
<h2>Model3D</h2>	
GeometryModel3D Light Model3DGroup	
(usage)	None.
(description)	Provides functionality for 3-D models.
(used by)	ICollection(Model3D) IList(Model3D) Model3DCollection ModelUIElement3D ModelVisual3D
[is default constructible]	false
(properties)	
Transform	Transform3D
(description)	The Transform3D set on the model.

4.561 Model3DCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Model3DCollection](#)

Model3DCollection

(usage)	<Model3DCollection> Model3D *</Model3DCollection>
(description)	Represents an ordered collection of Model3D objects.
(used by)	Model3DGroup
[is list]	true
[allowed types]	Model3D

4.562 Model3DGroup

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Model3D](#) > [Model3DGroup](#)

Model3DGroup

(usage)	<Model3DGroup> Model3D *</Model3DGroup>
(description)	Enables using a number of 3-D models as a unit.
[content property]	Children
(properties)	
Children	Model3DCollection
(description)	A collection of Model3D objects.

4.563 ModelUIElement3D

[x:Object](#) > [DependencyObject](#) > [Visual3D](#) > [UIElement3D](#) > [ModelUIElement3D](#), [InputElement](#)

ModelUIElement3D

(usage)	<ModelUIElement3D> Model3D </ModelUIElement3D>
(description)	Renders a 3-D model that supports input, focus, and events.
[content property]	Model
(properties)	

Model	Model3D
(description)	The Model3D to render.

4.564 ModelVisual3D

x:Object > DependencyObject > Visual3D > ModelVisual3D	
ModelVisual3D	
(usage)	<ModelVisual3D> Visual3D *</ModelVisual3D>
(description)	Provides a Visual3D that renders Model3D objects.
[content property]	Children
(properties)	
Children	Visual3DCollection
(description)	A collection of child Visual3D objects.
[read only]	true
Content	Model3D
(description)	The model that comprises the content of the ModelVisual3D.
Transform	Transform3D
(description)	The transform set on the ModelVisual3D.

4.565 Modifiability

x:Object > Modifiability	
Modifiability	
(usage)	Unmodifiable Modifiable Inherit
(description)	Specifies the modifiability value of a LocalizabilityAttribute for a type or type member.
[is nullable]	false
[text syntax]	ModifiabilitySyntax

4.566 ModifierKeys

x:Object > ModifierKeys	
<h1>ModifierKeys</h1>	
(usage)	None Alt Control Shift Windows
(description)	Specifies the set of modifier keys.
(used by)	KeyBinding Keyboard MouseGesture
[is nullable]	false
[text syntax]	ModifierKeysSyntax

4.567 Mouse

x:Object > Mouse	
<h1>Mouse</h1>	
(usage)	{x:Static Mouse.StaticPropertyName}
(description)	Represents the mouse device to a specific thread.
[is default constructible]	false
(static properties)	
Captured	IInputElement
(description)	The element that has captured the mouse.
DirectlyOver	IInputElement
(description)	The element the mouse pointer is directly over.
LeftButton	MouseButtonState
(description)	The state of the left button of the mouse.
MiddleButton	MouseButtonState
(description)	The state of the middle button of the mouse.
OverrideCursor	Cursor
(description)	The cursor for the entire application.
PrimaryDevice	MouseDevice
(description)	The primary mouse device.
RightButton	MouseButtonState

(description)	The state of the right button.
XButton1	MouseButtonState
(description)	The state of the first extended button.
XButton2	MouseButtonState
(description)	The state of the second extended button.
(attachable events)	
Mouse.GotMouseCapture	Occurs when an element captures the mouse.
Mouse.LostMouseCapture	Occurs when an element loses mouse capture.
Mouse.MouseDown	Occurs when any mouse button is depressed.
Mouse.MouseEnter	Occurs when the mouse pointer enters the boundaries of an element.
Mouse.MouseLeave	Occurs when the mouse pointer leaves the boundaries of an element.
Mouse.MouseMove	Occurs when the mouse pointer moves.
Mouse.MouseUp	Occurs when any mouse button is released.
Mouse.MouseWheel	Occurs when the mouse wheel is rotated.
Mouse.PreviewMouseDown	Occurs when any mouse button is depressed.
Mouse.PreviewMouseDownOutsideCapturedElement	Occurs when the primary mouse button is pressed outside the element that is capturing mouse events.
Mouse.PreviewMouseMove	Occurs when the mouse moves over an element.
Mouse.PreviewMouseUp	Occurs when any mouse button is released.
Mouse.PreviewMouseUpOutsideCapturedElement	Occurs when the primary mouse button is released outside the element that is capturing mouse events.
Mouse.PreviewMouseWheel	Occurs when the mouse wheel rotates.
Mouse.QueryCursor	Occurs when an element queries for the current mouse cursor.

4.568 MouseAction

x:Object > MouseAction	
MouseAction	
(usage)	None LeftClick RightClick MiddleClick WheelClick LeftDoubleClick RightDoubleClick MiddleDoubleClick
(description)	Specifies constants that define actions performed by the mouse.
(used by)	MouseBinding MouseGesture

[is nullable]	false
[text syntax]	MouseActionSyntax

4.569 MouseBinding

x:Object > DependencyObject > Freezable > InputBinding > MouseBinding	
<h2>MouseBinding</h2>	
(usage)	<MouseBinding />
(description)	Binds a MouseGesture to a RoutedCommand (or another ICommand implementation).
(properties)	
Gesture	InputGesture
(description)	The gesture associated with this MouseBinding.
[text syntax]	MouseGestureSyntax
MouseAction	MouseAction
(description)	The MouseAction associated with this MouseBinding.

4.570 MouseButton

x:Object > MouseButton	
<h2>MouseButton</h2>	
(usage)	Left Middle Right XButton1 XButton2
(description)	Defines values that specify the buttons on a mouse device.
[is nullable]	false
[text syntax]	MouseButtonSyntax

4.571 MouseButtonState

x:Object > MouseButtonState

<h2>MouseButtonState</h2>	
(usage)	Released Pressed
(description)	Specifies the possible states of a mouse button.
(used by)	Mouse
[is nullable]	false
[text syntax]	MouseButtonStateSyntax

4.572 MouseDevice

x:Object > InputDevice > MouseDevice	
<h2>MouseDevice</h2>	
(usage)	None.
(description)	Represents a mouse device.
(used by)	Mouse
[is default constructible]	false
(properties)	
OverrideCursor	Cursor
(description)	The cursor for the entire application.

4.573 MouseGesture

x:Object > InputGesture > MouseGesture	
<h2>MouseGesture</h2>	
(usage)	<MouseGesture> string </MouseGesture>
(description)	Defines a mouse input gesture that can be used to invoke a command.
[text syntax]	MouseGestureSyntax
(properties)	
Modifiers	ModifierKeys
(description)	The modifier keys associated with this MouseGesture.

MouseAction	MouseAction
(description)	The MouseAction associated with this gesture.

4.574 MultiBinding

x:Object > x:MarkupExtension > BindingBase > MultiBinding	
<h2>MultiBinding</h2>	
(usage)	<MultiBinding> BindingBase *</MultiBinding>
(description)	Describes a collection of Binding objects attached to a single binding target property.
[content property]	Bindings
[return value type]	x:Object
(properties)	
Bindings	Collection(BindingBase)
(description)	The collection of Binding objects within this MultiBinding instance.
[read only]	true
Converter	IMultiValueConverter
(description)	The converter to use to convert the source values to or from the target value.
ConverterCulture	CultureInfo
(description)	The CultureInfo object that applies to any converter assigned to bindings wrapped by the MultiBinding or on the MultiBinding itself.
[text syntax]	CultureInfoletfLanguageTagSyntax
ConverterParameter	x:Object
(description)	An optional parameter to pass to a converter as additional information.
Mode	BindingMode
(description)	A value that indicates the direction of the data flow of this binding.
NotifyOnSourceUpdated	x:Boolean
(description)	A value that indicates whether to raise the SourceUpdated event when a value is transferred from the binding target to the binding source.
NotifyOnTargetUpdated	x:Boolean
(description)	A value that indicates whether to raise the TargetUpdated event when a value is transferred from the binding source to the binding target.

NotifyOnValidationError	x:Boolean
(description)	A value that indicates whether to raise the Error attached event on the bound element.
UpdateSourceTrigger	UpdateSourceTrigger
(description)	A value that determines the timing of binding source updates.
ValidatesOnDataErrors	x:Boolean
(description)	A value that indicates whether to include the DataErrorValidationRule.
ValidatesOnExceptions	x:Boolean
(description)	A value that indicates whether to include the ExceptionValidationRule.
ValidatesOnNotifyDataErrors	x:Boolean
(description)	A value that indicates whether to include the NotifyDataErrorValidationRule.
ValidationRules	Collection(ValidationRule)
(description)	The collection of ValidationRule objects for this instance of MultiBinding.
[read only]	true

4.575 MultiDataTrigger

x:Object > DependencyObject > TriggerBase > MultiDataTrigger	
<h2>MultiDataTrigger</h2>	
(usage)	<MultiDataTrigger> SetterBase *</MultiDataTrigger>
(description)	Represents a trigger that applies property values or performs actions when the bound data meet a set of conditions.
[content property]	Setters
(properties)	
Conditions	ConditionCollection
(description)	A collection of Condition objects. Changes to property values are applied when all the conditions in the collection are met.
[read only]	true
Setters	SetterBaseCollection
(description)	A collection of Setter objects that describe the property values to apply when all the conditions of the MultiDataTrigger are met.
[read only]	true

4.576 MultiSelector

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [Selector](#) > [MultiSelector](#), [InputElement](#)

MultiSelector

[DataGrid](#)

(usage)	None.
(description)	Provides a base type for controls that allow multiple items to be selected.
[is default constructible]	false
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
SelectedItems	IList
(description)	The items in the MultiSelector that are selected.
[read only]	true

4.577 MultiTrigger

[x:Object](#) > [DependencyObject](#) > [TriggerBase](#) > [MultiTrigger](#)

MultiTrigger

(usage)	<MultiTrigger> SetterBase *</MultiTrigger>
(description)	Represents a trigger that applies property values or performs actions when a set of conditions are satisfied.
[content property]	Setters
(properties)	
Conditions	ConditionCollection
(description)	A collection of Condition objects. Changes to property values are applied when all of the conditions in the collection are met.
[read only]	true

Setters	SetterBaseCollection
(description)	A collection of Setter objects, which describe the property values to apply when all of the conditions of the MultiTrigger are met.
[read only]	true

4.578 NavigationCommands

x:Object > NavigationCommands	
<h2>NavigationCommands</h2>	
(usage)	{x:Static NavigationCommands.StaticPropertyName}
(description)	Provides a standard set of navigation-related commands.
[is default constructible]	false
(static properties)	
BrowseBack	RoutedUICommand
(description)	The value that represents the Browse Back command.
BrowseForward	RoutedUICommand
(description)	The value that represents the Browse Forward command.
BrowseHome	RoutedUICommand
(description)	The value that represents the Browse Home command.
BrowseStop	RoutedUICommand
(description)	The value that represents the Browse Stop command.
DecreaseZoom	RoutedUICommand
(description)	The value that represents the Decrease Zoom command.
Favorites	RoutedUICommand
(description)	The value that represents the Favorites command.
FirstPage	RoutedUICommand
(description)	The value that represents the First Page command.
GoToPage	RoutedUICommand
(description)	The value that represents the Go To Page command.
IncreaseZoom	RoutedUICommand
(description)	The value that represents the Increase Zoom command.

LastPage	RoutedUICommand
(description)	The value that represents the Last Page command.
NavigateJournal	RoutedUICommand
(description)	The value that represents the Navigate Journal command.
NextPage	RoutedUICommand
(description)	The value that represents the Next Page command.
PreviousPage	RoutedUICommand
(description)	The value that represents the Previous Page command.
Refresh	RoutedUICommand
(description)	The value that represents the Refresh command.
Search	RoutedUICommand
(description)	The value that represents the Search command.
Zoom	RoutedUICommand
(description)	The value that represents the Zoom command.

4.579 NavigationMode

x:Object > NavigationMode	
NavigationMode	
(usage)	New Back Forward Refresh
(description)	Specifies the type of navigation that is taking place. NavigationMode is used by the NavigationMode property.
[is nullable]	false
[text syntax]	NavigationModeSyntax

4.580 NavigationUIVisibility

x:Object > NavigationUIVisibility	
NavigationUIVisibility	
(usage)	Automatic Visible Hidden

(description)	Specifies whether a Frame displays its navigation chrome. NavigationUIVisibility is used by the NavigationUIVisibility property.
(used by)	Frame
[is nullable]	false
[text syntax]	NavigationUIVisibilitySyntax

4.581 NavigationWindow

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > Window > NavigationWindow , InputElement	
<h2>NavigationWindow</h2>	
(usage)	<NavigationWindow />
(description)	Represents a window that supports content navigation.
[name property]	Name
[xml lang property]	Language
(properties)	
SandboxExternalContent	x:Boolean
(description)	A value that indicates whether a NavigationWindow isolates external XAML content within a partial trust security sandbox (with default Internet zone permission set).
ShowsNavigationUI	x:Boolean
(description)	A value that indicates whether a NavigationWindow shows its navigation UI.
Source	x:Uri
(description)	The uniform resource identifier (URI) of the current content, or the URI of new content that is currently being navigated to.
(events)	
FragmentNavigation	Occurs when navigation to a content fragment begins, which occurs immediately, if the desired fragment is in the current content, or after the source XAML content has been loaded, if the desired fragment is in different content.
LoadCompleted	Occurs when content that was navigated to has been loaded, parsed, and has begun rendering.

Navigated	Occurs when the content that is being navigated to has been found, and is available from the Content property, although it may not have completed loading.
Navigating	Occurs when a new navigation is requested.
NavigationFailed	Occurs when an error is raised while navigating to the requested content.
NavigationProgress	Occurs periodically during a download to provide navigation progress information.
NavigationStopped	Occurs when the StopLoading method is called, or when a new navigation is requested while a current navigation is in progress.

4.582 NonClientFrameEdges

x:Object > NonClientFrameEdges	
<h2>NonClientFrameEdges</h2>	
(usage)	None Left Top Right Bottom
(description)	Specifies constants that indicate which edges of the window frame are not owned by the client.
(used by)	WindowChrome
[is nullable]	false
[text syntax]	NonClientFrameEdgesSyntax

4.583 NotifyDataErrorValidationRule

x:Object > ValidationRule > NotifyDataErrorValidationRule	
<h2>NotifyDataErrorValidationRule</h2>	
(usage)	<NotifyDataErrorValidationRule />
(description)	Represents a rule that checks for errors that are raised by a data source that implements INotifyDataErrorInfo.

4.584 NumberCultureSource

x:Object > NumberCultureSource	
NumberCultureSource	
(usage)	Text User Override
(description)	Specifies how the culture for numbers in a text run is determined.
(used by)	NumberSubstitution
[is nullable]	false
[text syntax]	NumberCultureSourceSyntax

4.585 NumberSubstitution

x:Object > NumberSubstitution	
NumberSubstitution	
(usage)	<NumberSubstitution />
(description)	Specifies how numbers in text are displayed in different cultures.
(properties)	
CultureOverride	CultureInfo
(description)	A value which identifies which culture to use when the value of the CultureSource property is set to Override.
[text syntax]	CultureInfoletfLanguageTagSyntax
CultureSource	NumberCultureSource
(description)	A value which identifies the source of the culture value that is used to determine number substitution.
Substitution	NumberSubstitutionMethod
(description)	A value which identifies the substitution method that is used to determine number substitution.
(attachable properties)	
NumberSubstitution.CultureOverride	CultureInfo
(description)	A value which identifies which culture to use when the value of the CultureSource property is set to Override.
[target type]	DependencyObject

[text syntax]	CultureInfoLetfLanguageTagSyntax
NumberSubstitution.CultureSource	NumberCultureSource
(description)	A value which identifies the source of the culture value that is used to determine number substitution.
[target type]	DependencyObject
NumberSubstitution.Substitution	NumberSubstitutionMethod
(description)	A value which identifies the substitution method that is used to determine number substitution.
[target type]	DependencyObject

4.586 NumberSubstitutionMethod

x:Object > NumberSubstitutionMethod	
<h2>NumberSubstitutionMethod</h2>	
(usage)	AsCulture Context European NativeNational Traditional
(description)	Defines an enumerator type that specifies the type of number substitution to perform on numbers in a text run.
(used by)	NumberSubstitution
[is nullable]	false
[text syntax]	NumberSubstitutionMethodSyntax

4.587 ObjectAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ObjectAnimationBase	
<h2>ObjectAnimationBase</h2>	
ObjectAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Object value.
[is default constructible]	false
[name property]	Name

4.588 ObjectAnimationUsingKeyFrames

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [ObjectAnimationBase](#) > [ObjectAnimationUsingKeyFrames](#)

ObjectAnimationUsingKeyFrames

(usage)	<ObjectAnimationUsingKeyFrames> ObjectKeyFrame *</ObjectAnimationUsingKeyFrames>
(description)	Animates the value of an Object property along a set of KeyFrames over a specified Duration.
[content property]	KeyFrames
[name property]	Name
(properties)	
KeyFrames	ObjectKeyFrameCollection
(description)	The collection of ObjectKeyFrame objects that define the animation.

4.589 ObjectDataProvider

[x:Object](#) > [DataSourceProvider](#) > [ObjectDataProvider](#)

ObjectDataProvider

(usage)	<ObjectDataProvider />
(description)	Wraps and creates an object that you can use as a binding source.
(properties)	
ConstructorParameters	IList
(description)	The list of parameters to pass to the constructor.
[read only]	true
IsAsynchronous	x:Boolean
(description)	A value that indicates whether to perform object creation in a worker thread or in the active context.
MethodName	x:String
(description)	The name of the method to call.

MethodParameters	IList
(description)	The list of parameters to pass to the method.
[read only]	true
ObjectInstance	x:Object
(description)	The object used as the binding source.
ObjectType	x:XamlType
(description)	The type of object to create an instance of.

4.590 ObjectKeyFrame

x:Object > DependencyObject > Freezable > ObjectKeyFrame	
ObjectKeyFrame	
DiscreteObjectKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a ObjectAnimationUsingKeyFrames .
(used by)	ObjectKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Object
(description)	The key frame's target value.

4.591 ObjectKeyFrameCollection

x:Object > DependencyObject > Freezable > ObjectKeyFrameCollection	
ObjectKeyFrameCollection	
(usage)	<ObjectKeyFrameCollection> ObjectKeyFrame *</ObjectKeyFrameCollection>
(description)	Represents a collection of ObjectKeyFrame objects.

(used by)	ObjectAnimationUsingKeyFrames
[is list]	true
[allowed types]	ObjectKeyFrame
(static properties)	
Empty	ObjectKeyFrameCollection
(description)	An empty ObjectKeyFrameCollection.

4.592 Orientation

x:Object > Orientation	
<h2>Orientation</h2>	
(usage)	Horizontal Vertical
(description)	Defines the different orientations that a control or layout can have.
(used by)	ProgressBar ScrollBar Slider StackPanel ToolBarTray Track VirtualizingStackPanel WrapPanel
[is nullable]	false
[text syntax]	OrientationSyntax

4.593 OrthographicCamera

x:Object > DependencyObject > Freezable > Animatable > Camera > ProjectionCamera > OrthographicCamera	
<h2>OrthographicCamera</h2>	
(usage)	<OrthographicCamera />
(description)	Represents an orthographic projection camera.
(properties)	
Width	x:Double
(description)	The width of the camera's viewing box, in world units.

4.594 OverflowMode

x:Object > OverflowMode	
OverflowMode	
(usage)	AsNeeded Always Never
(description)	Specifies how ToolBar items are placed in the main toolbar panel and in the overflow panel.
(used by)	ToolBar
[is nullable]	false
[text syntax]	OverflowModeSyntax

4.595 Page

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Page , InputElement	
Page	
(usage)	<Page> x:Object </Page>
(description)	Represents a navigatable unit.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The background for a Page.
Content	x:Object
(description)	The content of a Page.
FontFamily	FontFamily
(description)	The name of the specified font family.
FontSize	x:Double
(description)	The font size.
[text syntax]	FontSizeSyntax
Foreground	Brush

(description)	The foreground for a Page.
KeepAlive	x:Boolean
(description)	A value that indicates whether the Page instance is retained in navigation history.
ShowsNavigationUI	x:Boolean
(description)	Whether the navigation UI of a NavigationWindow is visible.
Template	ControlTemplate
(description)	The control template for a Page.
Title	x:String
(description)	The title of the Page.
WindowHeight	x:Double
(description)	The height of the host Window or NavigationWindow of a Page.
WindowTitle	x:String
(description)	The title of the host Window or NavigationWindow of a Page.
WindowWidth	x:Double
(description)	The width of the host Window or NavigationWindow of a Page.

4.596 PageContent

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > PageContent , InputElement	
<h2>PageContent</h2>	
(usage)	<PageContent> FixedPage </PageContent>
(description)	Provides information about the FixedPage elements within a FixedDocument.
(used by)	PageContentCollection
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
Child	FixedPage
(description)	The FixedPage associated with this PageContent.
LinkTargets	LinkTargetCollection

(description)	A collection of LinkTarget elements that identify the hyperlink-addressable locations on the page.
[read only]	true
Source	x:Uri
(description)	The uniform resource identifier (URI) to the FixedPage content data stream.
(events)	
GetPageRootCompleted	Occurs when the asynchronous load of a fixed-format page has completed.

4.597 PageContentCollection

x:Object > PageContentCollection	
<h2>PageContentCollection</h2>	
(usage)	None.
(description)	Provides collection support for a collection of document pages.
(used by)	FixedDocument
[is default constructible]	false
[is list]	true
[allowed types]	PageContent

4.598 PageRange

x:Object > PageRange	
<h2>PageRange</h2>	
(usage)	<PageRange />
(description)	Specifies a range of pages.
[is nullable]	false
(properties)	
PageFrom	x:Int32
(description)	The page number of the first page in the range.
PageTo	x:Int32

(description)	The page number of the last page in the range.
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4.599 PageRangeSelection

x:Object > PageRangeSelection	
PageRangeSelection	
(usage)	AllPages UserPages CurrentPage SelectedPages
(description)	Specifies whether all the pages or only a limited range will be processed by an operation, usually printing.
[is nullable]	false
[text syntax]	PageRangeSelectionSyntax

4.600 Panel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel , InputElement	
Panel	
Canvas DockPanel Grid StackPanel TabPanel ToolBarOverflowPanel UniformGrid VirtualizingPanel WrapPanel	
(usage)	None.
(description)	A base type for all panel elements and used to position and arrange child objects.
[is default constructible]	false
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	A Brush that is used to fill the area between the borders of a Panel.
Children	UIElementCollection
(description)	A UIElementCollection of child elements of this Panel.
[read only]	true

IsItemsHost	x:Boolean
(description)	A value that indicates that this Panel is a container for user interface (UI) items that are generated by an ItemsControl.
(attachable properties)	
Panel.ZIndex	x:Int32
(description)	A value that represents the order on the z-plane in which an element appears.
[target type]	UIElement

4.601 PanningMode

x:Object > PanningMode	
PanningMode	
(usage)	None HorizontalOnly VerticalOnly Both HorizontalFirst VerticalFirst
(description)	Specifies how ScrollViewer reacts to touch manipulation.
(used by)	ScrollViewer
[is nullable]	false
[text syntax]	PanningModeSyntax

4.602 Paragraph

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Block > Paragraph , InputElement	
Paragraph	
(usage)	<Paragraph> Inline UIElement x:String *</Paragraph>
(description)	A block-level flow content element used to group content into a paragraph.
[content property]	Inlines
[name property]	Name
[xml lang property]	Language
(properties)	
Inlines	InlineCollection

(description)	An InlineCollection containing the top-level Inline elements that comprise the contents of the Paragraph.
[read only]	true
KeepTogether	x:Boolean
(description)	A value that indicates whether the text of the paragraph may be broken by a page break or column break.
KeepWithNext	x:Boolean
(description)	A value that indicates whether a break may occur between this paragraph and the next paragraph.
MinOrphanLines	x:Int32
(description)	A value that specifies the minimum number of lines that can be left before the break when a Paragraph is broken by a page break or column break.
MinWidowLines	x:Int32
(description)	A value that specifies the minimum number of lines that can be placed after the break when a Paragraph is broken by a page break or column break.
TextDecorations	TextDecorationCollection
(description)	A TextDecorationCollection that contains text decorations to apply to this element.
TextIndent	x:Double
(description)	A value that indicates how far to indent the first line of a Paragraph.
[text syntax]	LengthSyntax

4.603 ParallelTimeline

x:Object > DependencyObject > Freezable > Animatable > Timeline > TimelineGroup > ParallelTimeline	
<h2>ParallelTimeline</h2>	
Storyboard	
(usage)	<ParallelTimeline> Timeline *</ParallelTimeline>
(description)	Defines a segment of time that may contain child Timeline objects. These child timelines become active according to their respective BeginTime properties. Also, child timelines are able to overlap (run in parallel) with each other.
[content property]	Children
[name property]	Name

(properties)	
SlipBehavior	SlipBehavior
(description)	A value that specifies how this timeline will behave when one or more of its Timeline children slips.

4.604 PasswordBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > PasswordBox , InputElement	
PasswordBox	
(usage)	<PasswordBox />
(description)	Represents a control designed for entering and handling passwords.
[name property]	Name
[xml lang property]	Language
(properties)	
CaretBrush	Brush
(description)	The brush that specifies the color of the password box's caret.
IsInactiveSelectionHighlightEnabled	x:Boolean
(description)	A value that indicates whether the PasswordBox displays selected text when the PasswordBox does not have focus.
MaxLength	x:Int32
(description)	The maximum length for passwords to be handled by this PasswordBox.
Password	x:String
(description)	The password currently held by the PasswordBox.
PasswordChar	x:Char
(description)	The masking character for the PasswordBox.
SelectionBrush	Brush
(description)	The brush that highlights selected text.
SelectionOpacity	x:Double
(description)	The opacity of the SelectionBrush.
SelectionTextBrush (4.8)	Brush

(description)	A value that defines the brush used for selected text in the PasswordBox control.
(events)	
PasswordChanged	Occurs when the value of the Password property changes.

4.605 Path

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape > Path , InputElement	
Path	
(usage)	<Path />
(description)	Draws a series of connected lines and curves.
[name property]	Name
[xml lang property]	Language
(properties)	
Data	Geometry
(description)	A Geometry that specifies the shape to be drawn.

4.606 PathAnimationSource

x:Object > PathAnimationSource	
PathAnimationSource	
(usage)	X Y Angle
(description)	Specifies the output property value of the path that is used to drive the animation.
(used by)	DoubleAnimationUsingPath
[is nullable]	false
[text syntax]	PathAnimationSourceSyntax

4.607 PathFigure

x:Object > DependencyObject > Freezable > Animatable > PathFigure	
PathFigure	
(usage)	<PathFigure> PathSegment *</PathFigure>
(description)	Represents a subsection of a geometry, a single connected series of two-dimensional geometric segments.
(used by)	ICollection(PathFigure) IList(PathFigure) PathFigureCollection
[content property]	Segments
(properties)	
IsClosed	x:Boolean
(description)	A value that specifies whether this figures first and last segments are connected.
IsFilled	x:Boolean
(description)	Whether the contained area of this PathFigure is to be used for hit-testing, rendering, and clipping.
Segments	PathSegmentCollection
(description)	The collection of segments that define the shape of this PathFigure object.
StartPoint	Point
(description)	The Point where the PathFigure begins.

4.608 PathFigureCollection

x:Object > DependencyObject > Freezable > Animatable > PathFigureCollection	
PathFigureCollection	
(usage)	<PathFigureCollection> string </PathFigureCollection>
(description)	Represents a collection of PathFigure objects that collectively make up the geometry of a PathGeometry.
(used by)	PathGeometry
[text syntax]	PathFigureCollectionSyntax
[is list]	true
[allowed types]	PathFigure

4.609 PathGeometry

x:Object > DependencyObject > Freezable > Animatable > Geometry > PathGeometry	
<h1>PathGeometry</h1>	
(usage)	<PathGeometry> string PathFigure *</PathGeometry>
(description)	Represents a complex shape that may be composed of arcs, curves, ellipses, lines, and rectangles.
(used by)	DoubleAnimationUsingPath MatrixAnimationUsingPath PointAnimationUsingPath
[text syntax]	GeometrySyntax
[content property]	Figures
(properties)	
Figures	PathFigureCollection
(description)	The collection of PathFigure objects that describe the path's contents.
FillRule	FillRule
(description)	A value that determines how the intersecting areas contained in this PathGeometry are combined.

4.610 PathSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment	
<h1>PathSegment</h1>	
ArcSegment BezierSegment LineSegment PolyBezierSegment PolyLineSegment PolyQuadraticBezierSegment QuadraticBezierSegment	
(usage)	None.
(description)	Represents a segment of a PathFigure object.
(used by)	ICollection(PathSegment) IList(PathSegment) PathSegmentCollection
[is default constructible]	false
(properties)	
IsSmoothJoin	x:Boolean

(description)	A value that indicates whether the join between this PathSegment and the previous PathSegment is treated as a corner when it is stroked with a Pen.
IsStroked	x:Boolean
(description)	A value that indicates whether the segment is stroked.

4.611 PathSegmentCollection

x:Object > DependencyObject > Freezable > Animatable > PathSegmentCollection	
<h2>PathSegmentCollection</h2>	
(usage)	<PathSegmentCollection> PathSegment *</PathSegmentCollection>
(description)	Represents a collection of PathSegment objects that can be individually accessed by index.
(used by)	PathFigure
[is list]	true
[allowed types]	PathSegment

4.612 PauseStoryboard

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction > PauseStoryboard	
<h2>PauseStoryboard</h2>	
(usage)	<PauseStoryboard />
(description)	A trigger action that pauses a Storyboard.

4.613 Pen

x:Object > DependencyObject > Freezable > Animatable > Pen	
<h2>Pen</h2>	
(usage)	<Pen />
(description)	Describes how a shape is outlined.

(used by)	GeometryDrawing TextDecoration
(properties)	
Brush	Brush
(description)	The fill the outline produced by this Pen.
DashCap	PenLineCap
(description)	A value that specifies how the ends of each dash are drawn.
DashStyle	DashStyle
(description)	A value that describes the pattern of dashes generated by this Pen.
EndLineCap	PenLineCap
(description)	The type of shape to use at the end of a stroke.
LineJoin	PenLineJoin
(description)	The type of joint used at the vertices of a shape's outline.
MiterLimit	x:Double
(description)	The limit on the ratio of the miter length to half this pen's Thickness.
StartLineCap	PenLineCap
(description)	The type of shape to use at the beginning of a stroke.
Thickness	x:Double
(description)	The thickness of the stroke produced by this Pen.

4.614 PenLineCap

x:Object > PenLineCap	
<h2>PenLineCap</h2>	
(usage)	Flat Square Round Triangle
(description)	Describes the shape at the end of a line or segment.
(used by)	Pen Shape
[is nullable]	false
[text syntax]	PenLineCapSyntax

4.615 PenLineJoin

x:Object > PenLineJoin	
PenLineJoin	
(usage)	Miter Bevel Round
(description)	Describes the shape that joins two lines or segments.
(used by)	Pen Shape
[is nullable]	false
[text syntax]	PenLineJoinSyntax

4.616 PerspectiveCamera

x:Object > DependencyObject > Freezable > Animatable > Camera > ProjectionCamera > PerspectiveCamera	
PerspectiveCamera	
(usage)	<PerspectiveCamera />
(description)	Represents a perspective projection camera.
(properties)	
FieldOfView	x:Double
(description)	A value that represents the camera's horizontal field of view.

4.617 PixelFormat

x:Object > PixelFormat	
PixelFormat	
(usage)	Bgr101010 Bgr24 Bgr32 Bgr555 Bgr565 Bgra32 BlackWhite Cmyk32 Default ...
(description)	Defines a pixel format for images and pixel-based surfaces.
(used by)	ColorConvertedBitmap FormatConvertedBitmap PixelFormatFormats
[is nullable]	false
[text syntax]	PixelFormatSyntax

(properties)	
Masks	IList(PixelFormatChannelMask)
(description)	A collection of bit masks associated with the PixelFormat.
[read only]	true

4.618 PixelFormatChannelMask

x:Object > PixelFormatChannelMask	
PixelFormatChannelMask	
(usage)	<PixelFormatChannelMask />
(description)	Defines the bit mask and shift for a specific pixel formats
(used by)	IList(PixelFormatChannelMask) PixelFormat
[is nullable]	false
(properties)	
Mask	IList(x:Byte)
(description)	The bitmask for a color channel. The value will never be greater than 0xffffffff
[read only]	true

4.619 PixelFormats

x:Object > PixelFormats	
PixelFormats	
(usage)	{x:Static PixelFormats.StaticPropertyName}
(description)	Represents the collection of supported pixel formats.
[is default constructible]	false
(static properties)	
Bgr101010	PixelFormat
(description)	The Bgr101010 pixel format. Bgr101010 is a sRGB format with 32 bits per pixel (BPP). Each color channel (blue, green, and red) is allocated 10 bits per pixel (BPP).

Bgr24	PixelFormat
(description)	The Bgr24 pixel format. Bgr24 is a sRGB format with 24 bits per pixel (BPP). Each color channel (blue, green, and red) is allocated 8 bits per pixel (BPP).
Bgr32	PixelFormat
(description)	The Bgr32 pixel format. Bgr32 is a sRGB format with 32 bits per pixel (BPP). Each color channel (blue, green, and red) is allocated 8 bits per pixel (BPP).
Bgr555	PixelFormat
(description)	The Bgr555 pixel format. Bgr555 is a sRGB format with 16 bits per pixel (BPP). Each color channel (blue, green, and red) is allocated 5 bits per pixel (BPP).
Bgr565	PixelFormat
(description)	The Bgr565 pixel format. Bgr565 is a sRGB format with 16 bits per pixel (BPP). Each color channel (blue, green, and red) is allocated 5, 6, and 5 bits per pixel (BPP) respectively.
Bgra32	PixelFormat
(description)	The Bgra32 pixel format. Bgra32 is a sRGB format with 32 bits per pixel (BPP). Each channel (blue, green, red, and alpha) is allocated 8 bits per pixel (BPP).
BlackWhite	PixelFormat
(description)	The black and white pixel format which displays one bit of data per pixel as either black or white.
Cmyk32	PixelFormat
(description)	The Cmyk32 pixel format which displays 32 bits per pixel (BPP) with each color channel (cyan, magenta, yellow, and black) allocated 8 bits per pixel (BPP).
Default	PixelFormat
(description)	The pixel format that is best suited for the particular operation.
Gray16	PixelFormat
(description)	The Gray16 pixel format which displays a 16 bits-per-pixel grayscale channel, allowing 65536 shades of gray. This format has a gamma of 1.0.
Gray2	PixelFormat
(description)	The Gray2 pixel format which displays a 2 bits-per-pixel grayscale channel, allowing 4 shades of gray.
Gray32Float	PixelFormat
(description)	The Gray32Float pixel format. Gray32Float displays a 32 bits per pixel (BPP) grayscale channel, allowing over 4 billion shades of gray. This format has a gamma of 1.0.
Gray4	PixelFormat

(description)	The Gray4 pixel format which displays a 4 bits-per-pixel grayscale channel, allowing 16 shades of gray.
Gray8	PixelFormat
(description)	The Gray8 pixel format which displays an 8 bits-per-pixel grayscale channel, allowing 256 shades of gray.
Indexed1	PixelFormat
(description)	The pixel format specifying a paletted bitmap with 2 colors.
Indexed2	PixelFormat
(description)	The pixel format specifying a paletted bitmap with 4 colors.
Indexed4	PixelFormat
(description)	The pixel format specifying a paletted bitmap with 16 colors.
Indexed8	PixelFormat
(description)	The pixel format specifying a paletted bitmap with 256 colors.
Pbgra32	PixelFormat
(description)	The Pbgra32 pixel format. Pbgra32 is a sRGB format with 32 bits per pixel (BPP). Each channel (blue, green, red, and alpha) is allocated 8 bits per pixel (BPP). Each color channel is pre-multiplied by the alpha value.
Prgba128Float	PixelFormat
(description)	The Prgba128Float pixel format. Prgba128Float is a ScRGB format with 128 bits per pixel (BPP). Each channel (red, green, blue, and alpha) is allocated 32 bits per pixel (BPP). Each color channel is pre-multiplied by the alpha value. This format has a gamma of 1.0.
Prgba64	PixelFormat
(description)	The Prgba64 pixel format. Prgba64 is a sRGB format with 64 bits per pixel (BPP). Each channel (blue, green, red, and alpha) is allocated 32 bits per pixel (BPP). Each color channel is pre-multiplied by the alpha value. This format has a gamma of 1.0.
Rgb128Float	PixelFormat
(description)	The Rgb128Float pixel format. Rgb128Float is a ScRGB format with 128 bits per pixel (BPP). Each color channel is allocated 32 BPP. This format has a gamma of 1.0.
Rgb24	PixelFormat
(description)	The Rgb24 pixel format. Rgb24 is a sRGB format with 24 bits per pixel (BPP). Each color channel (red, green, and blue) is allocated 8 bits per pixel (BPP).
Rgb48	PixelFormat

(description)	The Rgb48 pixel format. Rgb48 is a sRGB format with 48 bits per pixel (BPP). Each color channel (red, green, and blue) is allocated 16 bits per pixel (BPP). This format has a gamma of 1.0.
Rgba128Float	PixelFormat
(description)	The Rgba128Float pixel format. Rgba128Float is a ScRGB format with 128 bits per pixel (BPP). Each color channel is allocated 32 bits per pixel (BPP). This format has a gamma of 1.0.
Rgba64	PixelFormat
(description)	The Rgba64 pixel format. Rgba64 is an sRGB format with 64 bits per pixel (BPP). Each channel (red, green, blue, and alpha) is allocated 16 bits per pixel (BPP). This format has a gamma of 1.0.

4.620 PixelShader

x:Object > DependencyObject > Freezable > Animatable > PixelShader	
PixelShader	
(usage)	<PixelShader />
(description)	Provides a managed wrapper around a High Level Shading Language (HLSL) pixel shader.
(properties)	
ShaderRenderMode	ShaderRenderMode
(description)	A value indicating whether to use hardware or software rendering.
UriSource	x:Uri
(description)	A Pack URI reference to HLSL bytecode in the assembly.

4.621 PlacementMode

x:Object > PlacementMode	
PlacementMode	
(usage)	Absolute Relative Bottom Center Right AbsolutePoint RelativePoint Mouse MousePoint ...
(description)	Describes the placement of where a Popup control appears on the screen.

(used by)	ContextMenu ContextMenuService Popup ToolTip ToolTipService
[is nullable]	false
[text syntax]	PlacementModeSyntax

4.622 PngBitmapEncoder

x:Object > BitmapEncoder > PngBitmapEncoder	
<h2>PngBitmapEncoder</h2>	
(usage)	<PngBitmapEncoder />
(description)	Defines an encoder that is used to encode Portable Network Graphics (PNG) format images.
(properties)	
Interlace	PngInterlaceOption
(description)	A value that indicates whether the Portable Network Graphics (PNG) bitmap should interlace.

4.623 PngInterlaceOption

x:Object > PngInterlaceOption	
<h2>PngInterlaceOption</h2>	
(usage)	Default On Off
(description)	Specifies whether a Portable Network Graphics (PNG) format image is interlaced during encoding.
(used by)	PngBitmapEncoder
[is nullable]	false
[text syntax]	PngInterlaceOptionSyntax

4.624 Point

x:Object > Point
--

<h1>Point</h1>	
(usage)	<Point> string </Point>
(description)	Represents an x- and y-coordinate pair in two-dimensional space.
(used by)	ArcSegment BezierSegment CustomPopupPlacement EllipseGeometry GlyphRun ICollection(Point) IList(Point) KeySpline LinearGradientBrush LineGeometry LineSegment ManipulationPivot PathFigure PointAnimation PointCollection PointKeyFrame QuadraticBezierSegment RadialGradientBrush Rect TouchPoint UIElement
[is nullable]	false
[text syntax]	PointSyntax
(properties)	
X	x:Double
(description)	The X-coordinate value of this Point structure.
Y	x:Double
(description)	The Y-coordinate value of this Point.

4.625 Point3D

x:Object > Point3D	
<h1>Point3D</h1>	
(usage)	<Point3D> string </Point3D>
(description)	Represents an x-, y-, and z-coordinate point in 3-D space.
(used by)	ICollection(Point3D) IList(Point3D) Point3DAnimation Point3DCollection Point3DKeyFrame PointLightBase ProjectionCamera Rect3D
[is nullable]	false
[text syntax]	Point3DSyntax
(properties)	
X	x:Double
(description)	The x-coordinate of this Point3D structure.
Y	x:Double
(description)	The y-coordinate of this Point3D structure.
Z	x:Double

(description)	The z-coordinate of this Point3D structure.
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4.626 Point3DAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Point3DAnimationBase > Point3DAnimation	
<h2>Point3DAnimation</h2>	
(usage)	<Point3DAnimation />
(description)	Animates the value of a Point3D property using linear interpolation between two values.
[name property]	Name
(properties)	
By	x:Nullable(Point3D)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Point3D)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Point3D)
(description)	The animation's ending value.

4.627 Point3DAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Point3DAnimationBase	
<h2>Point3DAnimationBase</h2>	

Point3DAnimation Point3DAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Point3D value.
[is default constructible]	false
[name property]	Name

4.628 Point3DAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Point3DAnimationBase > Point3DAnimationUsingKeyFrames	
Point3DAnimationUsingKeyFrames	
(usage)	<Point3DAnimationUsingKeyFrames> Point3DKeyFrame *</Point3DAnimationUsingKeyFrames>
(description)	Animates the value of a Point3D property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	Point3DKeyFrameCollection
(description)	The collection of Point3DKeyFrame objects that define the animation.

4.629 Point3DCollection

x:Object > DependencyObject > Freezable > Point3DCollection	
Point3DCollection	
(usage)	<Point3DCollection> string </Point3DCollection>

(description)	Represents an ordered collection of Point3D objects.
(used by)	MeshGeometry3D
[text syntax]	Point3DCollectionSyntax
[is list]	true
[allowed types]	Point3D

4.630 Point3DKeyFrame

x:Object > DependencyObject > Freezable > Point3DKeyFrame	
Point3DKeyFrame	
DiscretePoint3DKeyFrame EasingPoint3DKeyFrame LinearPoint3DKeyFrame SplinePoint3DKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a Point3DAnimationUsingKeyFrames.
(used by)	Point3DKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Point3D
(description)	The key frame's target value.

4.631 Point3DKeyFrameCollection

x:Object > DependencyObject > Freezable > Point3DKeyFrameCollection	
Point3DKeyFrameCollection	
(usage)	<Point3DKeyFrameCollection> Point3DKeyFrame *</Point3DKeyFrameCollection>
(description)	Represents a collection of Point3DKeyFrame objects.
(used by)	Point3DAnimationUsingKeyFrames

[is list]	true
[allowed types]	Point3DKeyFrame
(static properties)	
Empty	Point3DKeyFrameCollection
(description)	An empty Point3DKeyFrameCollection.

4.632 Point4D

x:Object > Point4D	
Point4D	
(usage)	<Point4D> string </Point4D>
(description)	Represents an x-, y-, z-, and w-coordinate point in world space used in performing transformations with non-affine 3-D matrices.
[is nullable]	false
[text syntax]	Point4DSyntax
(properties)	
W	x:Double
(description)	The W component of this Point4D structure.
X	x:Double
(description)	The X component of this Point4D structure.
Y	x:Double
(description)	The Y component of this Point4D structure.
Z	x:Double
(description)	The Z component of this Point4D structure.

4.633 PointAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > PointAnimationBase > PointAnimation
PointAnimation

(usage)	<PointAnimation />
(description)	Animates the value of a Point property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(Point)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Point)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Point)
(description)	The animation's ending value.

4.634 PointAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > PointAnimationBase	
PointAnimationBase	
PointAnimation PointAnimationUsingKeyFrames PointAnimationUsingPath	
(usage)	None.
(description)	A base type that animates a Point value.
[is default constructible]	false
[name property]	Name

4.635 PointAnimationUsingKeyFrames

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [PointAnimationBase](#) > [PointAnimationUsingKeyFrames](#)

PointAnimationUsingKeyFrames

(usage)	<PointAnimationUsingKeyFrames> PointKeyFrame *</PointAnimationUsingKeyFrames>
(description)	Animates the value of a Point property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	PointKeyFrameCollection
(description)	The collection of PointKeyFrame objects that define the animation.

4.636 PointAnimationUsingPath

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [PointAnimationBase](#) > [PointAnimationUsingPath](#)

PointAnimationUsingPath

(usage)	<PointAnimationUsingPath />
(description)	Animates the value of a Point property between two or more target values using a PathGeometry to specify those values. This animation can be used to move a visual object along a path.
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.

IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
PathGeometry	PathGeometry
(description)	Specifies the geometry used to generate this animation's output values.

4.637 PointCollection

x:Object > DependencyObject > Freezable > PointCollection	
PointCollection	
(usage)	<PointCollection> string </PointCollection>
(description)	Represents a collection of Point values that can be individually accessed by index.
(used by)	MeshGeometry3D PolyBezierSegment Polygon Polyline PolyLineSegment PolyQuadraticBezierSegment
[text syntax]	PointCollectionSyntax
[is list]	true
[allowed types]	Point

4.638 PointKeyFrame

x:Object > DependencyObject > Freezable > PointKeyFrame	
PointKeyFrame	
DiscretePointKeyFrame EasingPointKeyFrame LinearPointKeyFrame SplinePointKeyFrame	
(usage)	None.
(description)	Defines an animation segment with its own target value and interpolation technique for a PointAnimationUsingKeyFrames.
(used by)	PointKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime

(description)	The time at which the key frame's target Value should be reached.
Value	Point
(description)	The key frame's target value.

4.639 PointKeyFrameCollection

x:Object > DependencyObject > Freezable > PointKeyFrameCollection	
<h2>PointKeyFrameCollection</h2>	
(usage)	<PointKeyFrameCollection> PointKeyFrame *</PointKeyFrameCollection>
(description)	Represents a collection of PointKeyFrame objects.
(used by)	PointAnimationUsingKeyFrames
[is list]	true
[allowed types]	PointKeyFrame
(static properties)	
Empty	PointKeyFrameCollection
(description)	An empty PointKeyFrameCollection.

4.640 PointLight

x:Object > DependencyObject > Freezable > Animatable > Model3D > Light > PointLightBase > PointLight	
<h2>PointLight</h2>	
(usage)	<PointLight />
(description)	Represents a light source that has a specified position in space and projects its light in all directions.

4.641 PointLightBase

x:Object > DependencyObject > Freezable > Animatable > Model3D > Light > PointLightBase	
<h2>PointLightBase</h2>	

PointLight SpotLight	
(usage)	None.
(description)	A base type that represents a light object that has a position in space and projects its light in all directions.
[is default constructible]	false
(properties)	
ConstantAttenuation	x:Double
(description)	A constant value by which the intensity of the light diminishes over distance.
LinearAttenuation	x:Double
(description)	A value that specifies the linear diminution of the light's intensity over distance.
Position	Point3D
(description)	A Point3D that specifies the light's position in world space.
QuadraticAttenuation	x:Double
(description)	A value that specifies the diminution of the light's effect over distance, calculated by a quadratic operation.
Range	x:Double
(description)	The distance beyond which the light has no effect.

4.642 PolyBezierSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment > PolyBezierSegment	
PolyBezierSegment	
(usage)	<PolyBezierSegment />
(description)	Represents one or more cubic Bezier curves.
(properties)	
Points	PointCollection
(description)	The PointCollection that define this PolyBezierSegment object.

4.643 Polygon

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape > Polygon , InputElement
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<h1>Polygon</h1>	
(usage)	<Polygon />
(description)	Draws a polygon, which is a connected series of lines that form a closed shape.
[name property]	Name
[xml lang property]	Language
(properties)	
FillRule	FillRule
(description)	A FillRule enumeration that specifies how the interior fill of the shape is determined.
Points	PointCollection
(description)	A collection that contains the vertex points of the polygon.

4.644 Polyline

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape > Polyline , InputElement	
<h1>Polyline</h1>	
(usage)	<Polyline />
(description)	Draws a series of connected straight lines.
[name property]	Name
[xml lang property]	Language
(properties)	
FillRule	FillRule
(description)	A FillRule enumeration that specifies how the interior fill of the shape is determined.
Points	PointCollection
(description)	A collection that contains the vertex points of the Polyline.

4.645 PolyLineSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment > PolyLineSegment
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PolyLineSegment	
(usage)	<PolyLineSegment />
(description)	Represents a set of line segments defined by a PointCollection with each Point specifying the end point of a line segment.
(properties)	
Points	PointCollection
(description)	The collection of Point structures that defines this PolyLineSegment object.

4.646 PolyQuadraticBezierSegment

x:Object > DependencyObject > Freezable > Animatable > PathSegment > PolyQuadraticBezierSegment	
PolyQuadraticBezierSegment	
(usage)	<PolyQuadraticBezierSegment />
(description)	Represents a set of quadratic Bezier segments.
(properties)	
Points	PointCollection
(description)	The PointCollection that defines this PolyQuadraticBezierSegment object.

4.647 Popup

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Popup , IInputElement	
Popup	
(usage)	<Popup> UIElement </Popup>
(description)	Represents a pop-up window that has content.
[content property]	Child
[name property]	Name
[xml lang property]	Language
(properties)	
AllowsTransparency	x:Boolean

(description)	A value that indicates whether a Popup control can contain transparent content.
Child	UIElement
(description)	The content of the Popup control.
HorizontalOffset	x:Double
(description)	Get or sets the horizontal distance between the target origin and the popup alignment point.
[text syntax]	LengthSyntax
IsOpen	x:Boolean
(description)	A value that indicates whether the Popup is visible.
Placement	PlacementMode
(description)	The orientation of the Popup control when the control opens, and specifies the behavior of the Popup control when it overlaps screen boundaries.
PlacementRectangle	Rect
(description)	The rectangle relative to which the Popup control is positioned when it opens.
PlacementTarget	UIElement
(description)	The element relative to which the Popup is positioned when it opens.
PopupAnimation	PopupAnimation
(description)	An animation for the opening and closing of a Popup control.
StaysOpen	x:Boolean
(description)	A value that indicates whether the Popup control closes when the control is no longer in focus.
VerticalOffset	x:Double
(description)	The vertical distance between the target origin and the popup alignment point.
[text syntax]	LengthSyntax
(events)	
Closed	Occurs when the IsOpen property changes to false.
Opened	Occurs when the IsOpen property changes to true.

4.648 PopupAnimation

[x:Object](#) > [PopupAnimation](#)

<h2>PopupAnimation</h2>	
(usage)	None Fade Slide Scroll
(description)	Describes how a Popup control animates when it opens.
(used by)	Popup SystemParameters
[is nullable]	false
[text syntax]	PopupAnimationSyntax

4.649 PopupPrimaryAxis

x:Object > PopupPrimaryAxis	
<h2>PopupPrimaryAxis</h2>	
(usage)	None Horizontal Vertical
(description)	Describes the direction to move a Popup control to increase the amount of the Popup that is visible.
(used by)	CustomPopupPlacement
[is nullable]	false
[text syntax]	PopupPrimaryAxisSyntax

4.650 PowerEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > PowerEase , IEasingFunction	
<h2>PowerEase</h2>	
(usage)	<PowerEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using the formula $f(t) = tp$ where p is equal to the Power property.
(properties)	
Power	x:Double
(description)	The exponential power of the animation interpolation. For example, a value of 7 will create an animation interpolation curve that follows the formula $f(t) = t^7$.

4.651 PowerLineStatus

x:Object > PowerLineStatus	
PowerLineStatus	
(usage)	Offline Online Unknown
(description)	Indicates whether the system power is online, or that the system power status is unknown.
(used by)	SystemParameters
[is nullable]	false
[text syntax]	PowerLineStatusSyntax

4.652 PresentationTraceLevel

x:Object > PresentationTraceLevel	
PresentationTraceLevel	
(usage)	None Low Medium High
(description)	Describes the level of detail to trace about a particular object.
(used by)	PresentationTraceSources
[is nullable]	false
[text syntax]	PresentationTraceLevelSyntax

4.653 PresentationTraceSources

x:Object > PresentationTraceSources	
PresentationTraceSources	
(usage)	{x:Static PresentationTraceSources.StaticPropertyName}
(description)	Provides debug tracing support that is specifically targeted for applications.
[is default constructible]	false
(attachable properties)	

PresentationTraceSources.TraceLevel	PresentationTraceLevel
(description)	A value that specifies the level of detail to trace about a particular object.
[target type]	x:Object
(static properties)	
AnimationSource	TraceSource
(description)	An animation trace source.
DataBindingSource	TraceSource
(description)	A data-binding trace source.
DependencyPropertySource	TraceSource
(description)	A property trace source.
DocumentsSource	TraceSource
(description)	A document trace source.
FreezableSource	TraceSource
(description)	A Freezable trace source.
HwndHostSource	TraceSource
(description)	An hwnd host trace source.
MarkupSource	TraceSource
(description)	A markup trace source.
NameScopeSource	TraceSource
(description)	A name scope trace source.
ResourceDictionarySource	TraceSource
(description)	A resource dictionary trace source.
RoutedEventSource	TraceSource
(description)	A routed event trace source.
ShellSource	TraceSource
(description)	A shell trace source.

4.654 PriorityBinding

[x:Object](#) > [x:MarkupExtension](#) > [BindingBase](#) > [PriorityBinding](#)

PriorityBinding	
(usage)	<PriorityBinding> BindingBase *</PriorityBinding>
(description)	Describes a collection of Binding objects that is attached to a single binding target property, which receives its value from the first binding in the collection that produces a value successfully.
[content property]	Bindings
[return value type]	x:Object
(properties)	
Bindings	Collection(BindingBase)
(description)	The collection of Binding objects that is established for this instance of PriorityBinding.
[read only]	true

4.655 ProgressBar

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > RangeBase > ProgressBar , InputElement	
ProgressBar	
(usage)	<ProgressBar />
(description)	Indicates the progress of an operation.
[name property]	Name
[xml lang property]	Language
(properties)	
IsIndeterminate	x:Boolean
(description)	Whether the ProgressBar shows actual values or generic, continuous progress feedback.
Orientation	Orientation
(description)	The orientation of a ProgressBar: horizontal or vertical.

4.656 ProjectionCamera

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Camera](#) > [ProjectionCamera](#)

ProjectionCamera

[OrthographicCamera](#) [PerspectiveCamera](#)

(usage)	None.
(description)	A base type for perspective and orthographic projection cameras.
[is default constructible]	false
(properties)	
FarPlaneDistance	x:Double
(description)	A value that specifies the distance from the camera of the camera's far clip plane.
LookDirection	Vector3D
(description)	A Vector3D which defines the direction in which the camera is looking in world coordinates.
NearPlaneDistance	x:Double
(description)	A value that specifies the distance from the camera of the camera's near clip plane.
Position	Point3D
(description)	The position of the camera in world coordinates.
UpDirection	Vector3D
(description)	A Vector3D which defines the upward direction of the camera.

4.657 PropertyGroupDescription

[x:Object](#) > [GroupDescription](#) > [PropertyGroupDescription](#)

PropertyGroupDescription

(usage)	<PropertyGroupDescription />
(description)	Describes the grouping of items using a property name as the criteria.
(properties)	
Converter	IValueConverter

(description)	A converter to apply to the property value or the item to produce the final value that is used to determine which group(s) an item belongs to.
PropertyName	x:String
(description)	The name of the property that is used to determine which group(s) an item belongs to.
StringComparison	StringComparison
(description)	A StringComparison value that specifies the comparison between the value of an item (as determined by PropertyName and Converter) and the name of a group.
(static properties)	
CompareNameAscending	IComparer
(description)	An IComparer value that orders groups in ascending order of name.
CompareNameDescending	IComparer
(description)	An IComparer value that orders groups in descending order of name.

4.658 PropertyPath

x:Object > PropertyPath	
PropertyPath	
(usage)	<PropertyPath> string </PropertyPath>
(description)	Implements a data structure for describing a property as a path below another property, or below an owning type. Property paths are used in data binding to objects, and in storyboards and timelines for animations.
(used by)	Binding Storyboard
[is default constructible]	false
[text syntax]	PropertyPathSyntax
(properties)	
Path	x:String
(description)	The string that describes the path.
PathParameters	Collection(x:Object)
(description)	The list of parameters to use when the path refers to indexed parameters.
[read only]	true

4.659 QuadraticBezierSegment

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [PathSegment](#) > [QuadraticBezierSegment](#)

QuadraticBezierSegment

(usage)	<QuadraticBezierSegment />
(description)	Creates a quadratic Bezier curve between two points in a PathFigure.
(properties)	
Point1	Point
(description)	The control Point of the curve.
Point2	Point
(description)	The end Point of this QuadraticBezierSegment.

4.660 QuadraticEase

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [EasingFunctionBase](#) > [QuadraticEase](#), [IEasingFunction](#)

QuadraticEase

(usage)	<QuadraticEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using the formula $f(t) = t^2$

4.661 QuarticEase

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [EasingFunctionBase](#) > [QuarticEase](#), [IEasingFunction](#)

QuarticEase

(usage)	<QuarticEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using the formula $f(t) = t^4$.

4.662 Quaternion

x:Object > Quaternion	
<h1>Quaternion</h1>	
(usage)	<Quaternion> string </Quaternion>
(description)	Structure that represents a rotation in three dimensions.
(used by)	QuaternionAnimation QuaternionKeyFrame QuaternionRotation3D
[is nullable]	false
[text syntax]	QuaternionSyntax
(properties)	
W	x:Double
(description)	The W component of the quaternion.
X	x:Double
(description)	The X component of the quaternion.
Y	x:Double
(description)	The Y component of the quaternion.
Z	x:Double
(description)	The Z component of the quaternion.
(static properties)	
Identity	Quaternion
(description)	The Identity quaternion

4.663 QuaternionAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > QuaternionAnimationBase > QuaternionAnimation	
<h1>QuaternionAnimation</h1>	
(usage)	<QuaternionAnimation />
(description)	Animates the value of a Quaternion property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	

By	x:Nullable(Quaternion)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Quaternion)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Quaternion)
(description)	The animation's ending value.
UseShortestPath	x:Boolean
(description)	A Boolean value that indicates whether the animation uses spherical linear interpolation to calculate the shortest arc between positions.

4.664 QuaternionAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > QuaternionAnimationBase	
<h2>QuaternionAnimationBase</h2>	
QuaternionAnimation QuaternionAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Quaternion value.
[is default constructible]	false
[name property]	Name

4.665 QuaternionAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > QuaternionAnimationBase > QuaternionAnimationUsingKeyFrames

QuaternionAnimationUsingKeyFrames

(usage)	<QuaternionAnimationUsingKeyFrames> QuaternionKeyFrame *</QuaternionAnimationUsingKeyFrames>
(description)	Animates the value of a Quaternion property along a set of KeyFrames over a specified Duration.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	QuaternionKeyFrameCollection
(description)	The collection of QuaternionKeyFrame objects that define the animation.

4.666 QuaternionKeyFrame

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [QuaternionKeyFrame](#)

QuaternionKeyFrame

[DiscreteQuaternionKeyFrame](#) [EasingQuaternionKeyFrame](#) [LinearQuaternionKeyFrame](#) [SplineQuaternionKeyFrame](#)

(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a QuaternionAnimationUsingKeyFrames.
(used by)	QuaternionKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Quaternion
(description)	The key frame's target value.

4.667 QuaternionKeyFrameCollection

x:Object > DependencyObject > Freezable > QuaternionKeyFrameCollection	
<h2>QuaternionKeyFrameCollection</h2>	
(usage)	<QuaternionKeyFrameCollection> QuaternionKeyFrame *</QuaternionKeyFrameCollection>
(description)	Represents a collection of QuaternionKeyFrame objects.
(used by)	QuaternionAnimationUsingKeyFrames
[is list]	true
[allowed types]	QuaternionKeyFrame
(static properties)	
Empty	QuaternionKeyFrameCollection
(description)	An empty QuaternionKeyFrameCollection.

4.668 QuaternionRotation3D

x:Object > DependencyObject > Freezable > Animatable > Rotation3D > QuaternionRotation3D	
<h2>QuaternionRotation3D</h2>	
(usage)	<QuaternionRotation3D />
(description)	Represents a rotation transformation defined as a quaternion.
(properties)	
Quaternion	Quaternion
(description)	The Quaternion that defines the destination rotation.

4.669 QuinticEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > QuinticEase , IEasingFunction	
<h2>QuinticEase</h2>	

(usage)	<QuinticEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using the formula $f(t) = t^5$.

4.670 RadialGradientBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > GradientBrush > RadialGradientBrush	
RadialGradientBrush	
(usage)	<RadialGradientBrush> string GradientStop *</RadialGradientBrush>
(description)	Paints an area with a radial gradient. A focal point defines the beginning of the gradient, and a circle defines the end point of the gradient.
[text syntax]	BrushSyntax
[content property]	GradientStops
(properties)	
Center	Point
(description)	The center of the outermost circle of the radial gradient.
GradientOrigin	Point
(description)	The location of the two-dimensional focal point that defines the beginning of the gradient.
RadiusX	x:Double
(description)	The horizontal radius of the outermost circle of the radial gradient.
RadiusY	x:Double
(description)	The vertical radius of the outermost circle of a radial gradient.

4.671 RadioButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > ToggleButton > RadioButton , InputElement	
RadioButton	
RibbonRadioButton	
(usage)	<RadioButton> x:Object </RadioButton>

(description)	Represents a button that can be selected, but not cleared, by a user. The IsChecked property of a RadioButton can be set by clicking it, but it can only be cleared programmatically.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
GroupName	x:String
(description)	The name that specifies which RadioButton controls are mutually exclusive.

4.672 RangeBase

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > RangeBase , InputElement	
<h2>RangeBase</h2>	
ProgressBar ScrollBar Slider	
(usage)	None.
(description)	Represents an element that has a value within a specific range.
[is default constructible]	false
[name property]	Name
[xml lang property]	Language
(properties)	
LargeChange	x:Double
(description)	A value to be added to or subtracted from the Value of a RangeBase control.
Maximum	x:Double
(description)	The highest possible Value of the range element.
Minimum	x:Double
(description)	The Minimum possible Value of the range element.
SmallChange	x:Double
(description)	A Value to be added to or subtracted from the Value of a RangeBase control.
Value	x:Double
(description)	The current magnitude of the range control.

(events)	
ValueChanged	Occurs when the range value changes.

4.673 Readability

x:Object > Readability	
Readability	
(usage)	Unreadable Readable Inherit
(description)	Specifies the readability value of a LocalizabilityAttribute for a type or type member.
[is nullable]	false
[text syntax]	ReadabilitySyntax

4.674 ReasonSessionEnding

x:Object > ReasonSessionEnding	
ReasonSessionEnding	
(usage)	Logoff Shutdown
(description)	Specifies the reason for which the user's session is ending. Used by the ReasonSessionEnding property.
[is nullable]	false
[text syntax]	ReasonSessionEndingSyntax

4.675 RecognitionConfidence

x:Object > RecognitionConfidence	
RecognitionConfidence	
(usage)	Strong Intermediate Poor
(description)	Specifies the confidence level that the GestureRecognizer determines for a particular ink gesture.

[is nullable]	false
[text syntax]	RecognitionConfidenceSyntax

4.676 Rect

x:Object > Rect	
Rect	
(usage)	<Rect> string </Rect>
(description)	Describes the width, height, and location of a rectangle.
(used by)	ContextMenu ContextMenuService FixedPage ImageDrawing Popup RectangleGeometry RectAnimation RectKeyFrame SystemParameters TileBrush ToolTip ToolTipService TouchPoint VideoDrawing Viewport3DVisual
[is nullable]	false
[text syntax]	RectSyntax
(properties)	
Height	x:Double
(description)	The height of the rectangle.
Location	Point
(description)	The position of the top-left corner of the rectangle.
Size	Size
(description)	The width and height of the rectangle.
Width	x:Double
(description)	The width of the rectangle.
X	x:Double
(description)	The x-axis value of the left side of the rectangle.
Y	x:Double
(description)	The y-axis value of the top side of the rectangle.
(static properties)	
Empty	Rect
(description)	A special value that represents a rectangle with no position or area.

4.677 Rect3D

x:Object > Rect3D	
Rect3D	
(usage)	<Rect3D> string </Rect3D>
(description)	Represents a 3-D rectangle: for example, a cube.
[is nullable]	false
[text syntax]	Rect3DSyntax
(properties)	
Location	Point3D
(description)	A Point3D that represents the origin of the Rect3D.
Size	Size3D
(description)	The area of the Rect3D.
SizeX	x:Double
(description)	The size of the Rect3D in the X dimension.
SizeY	x:Double
(description)	The size of the Rect3D in the Y dimension.
SizeZ	x:Double
(description)	The size of the Rect3D in the Z dimension.
X	x:Double
(description)	The value of the X coordinate of the Rect3D.
Y	x:Double
(description)	The value of the Y coordinate of the Rect3D.
Z	x:Double
(description)	The value of the Z coordinate of the Rect3D.
(static properties)	
Empty	Rect3D
(description)	An empty Rect3D.

4.678 Rectangle

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape > Rectangle , InputElement
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Rectangle	
(usage)	<Rectangle />
(description)	Draws a rectangle.
[name property]	Name
[xml lang property]	Language
(properties)	
RadiusX	x:Double
(description)	The x-axis radius of the ellipse that is used to round the corners of the rectangle.
[text syntax]	LengthSyntax
RadiusY	x:Double
(description)	The y-axis radius of the ellipse that is used to round the corners of the rectangle.
[text syntax]	LengthSyntax

4.679 RectangleGeometry

x:Object > DependencyObject > Freezable > Animatable > Geometry > RectangleGeometry	
RectangleGeometry	
(usage)	<RectangleGeometry> string </RectangleGeometry>
(description)	Describes a two-dimensional rectangle.
[text syntax]	GeometrySyntax
(properties)	
RadiusX	x:Double
(description)	The x-radius of the ellipse use to round the corners of the rectangle.
RadiusY	x:Double
(description)	The y-radius of the ellipse use to round the corners of the rectangle.
Rect	Rect
(description)	The dimensions of the rectangle.

4.680 RectAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > RectAnimationBase > RectAnimation	
<h1>RectAnimation</h1>	
(usage)	<RectAnimation />
(description)	Animates the value of a Rect property between two target values using linear interpolation.
[name property]	Name
(properties)	
By	x:Nullable(Rect)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Rect)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Rect)
(description)	The animation's ending value.

4.681 RectAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > RectAnimationBase	
<h1>RectAnimationBase</h1>	
RectAnimation RectAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Rect value.

[is default constructible]	false
[name property]	Name

4.682 RectAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > RectAnimationBase > RectAnimationUsingKeyFrames	
<h2>RectAnimationUsingKeyFrames</h2>	
(usage)	<RectAnimationUsingKeyFrames> RectKeyFrame *</RectAnimationUsingKeyFrames>
(description)	Animates the value of a property that takes a Rect along a set of key frames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that indicates whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that indicates whether the animation's value accumulates when it repeats.
KeyFrames	RectKeyFrameCollection
(description)	The collection of RectKeyFrame objects that define the animation.

4.683 RectKeyFrame

x:Object > DependencyObject > Freezable > RectKeyFrame	
<h2>RectKeyFrame</h2>	
DiscreteRectKeyFrame EasingRectKeyFrame LinearRectKeyFrame SplineRectKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a RectAnimationUsingKeyFrames.

(used by)	RectKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Rect
(description)	The key frame's target value.

4.684 RectKeyFrameCollection

x:Object > DependencyObject > Freezable > RectKeyFrameCollection	
<h2>RectKeyFrameCollection</h2>	
(usage)	<RectKeyFrameCollection> RectKeyFrame *</RectKeyFrameCollection>
(description)	Represents a collection of RectKeyFrame objects.
(used by)	RectAnimationUsingKeyFrames
[is list]	true
[allowed types]	RectKeyFrame
(static properties)	
Empty	RectKeyFrameCollection
(description)	An empty RectKeyFrameCollection.

4.685 RelativeSource

x:Object > x:MarkupExtension > RelativeSource	
<h2>RelativeSource</h2>	
(usage)	{RelativeSource } <RelativeSource />
(description)	Implements a markup extension that describes the location of the binding source relative to the position of the binding target.
(used by)	Binding
[return value type]	RelativeSource

[constructors]	
(1 parameter)	
mode	RelativeSourceMode
(description)	One of the RelativeSourceMode values.
(3 parameters)	
mode	RelativeSourceMode
(description)	One of the RelativeSourceMode values. For this signature to be relevant, this should be FindAncestor.
ancestorType	x:XamlType
(description)	The Type of ancestor to look for.
ancestorLevel	x:Int32
(description)	The ordinal position of the desired ancestor among all ancestors of the given type.
(properties)	
AncestorLevel	x:Int32
(description)	The level of ancestor to look for, in FindAncestor mode. Use 1 to indicate the one nearest to the binding target element.
AncestorType	x:XamlType
(description)	The type of ancestor to look for.
Mode	RelativeSourceMode
(description)	A RelativeSourceMode value that describes the location of the binding source relative to the position of the binding target.
(static properties)	
PreviousData	RelativeSource
(description)	A static value that is used to return a RelativeSource constructed for the PreviousData mode.
Self	RelativeSource
(description)	A static value that is used to return a RelativeSource constructed for the Self mode.
TemplatedParent	RelativeSource
(description)	A static value that is used to return a RelativeSource constructed for the TemplatedParent mode.

4.686 RelativeSourceMode

x:Object > RelativeSourceMode	
RelativeSourceMode	
(usage)	PreviousData TemplatedParent Self FindAncestor
(description)	Describes the location of the binding source relative to the position of the binding target.
(used by)	RelativeSource
[is nullable]	false
[text syntax]	RelativeSourceModeSyntax

4.687 RemoveStoryboard

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction > RemoveStoryboard	
RemoveStoryboard	
(usage)	<RemoveStoryboard />
(description)	A trigger action that removes a Storyboard.

4.688 RenderCapability

x:Object > RenderCapability	
RenderCapability	
(usage)	{x:Static RenderCapability.StaticPropertyName}
(description)	Enables applications to query for the current rendering tier for their associated Dispatcher object and to register for notification of changes.
[is default constructible]	false
(static properties)	
IsShaderEffectSoftwareRendering Supported	x:Boolean
(description)	A value that indicates whether the system can render bitmap effects in software.

MaxHardwareTextureSize	Size
(description)	The maximum width and height for bitmap creation of the underlying hardware device.
Tier	x:Int32
(description)	A value that indicates the rendering tier for the current thread.

4.689 RenderingBias

x:Object > RenderingBias	
<h2>RenderingBias</h2>	
(usage)	Performance Quality
(description)	Indicates whether the system renders an effect with emphasis on speed or quality.
(used by)	BlurEffect DropShadowEffect
[is nullable]	false
[text syntax]	RenderingBiasSyntax

4.690 RenderOptions

x:Object > RenderOptions	
<h2>RenderOptions</h2>	
(usage)	{x:Static RenderOptions.StaticPropertyName}
(description)	Provides options for controlling the rendering behavior of objects.
[is default constructible]	false
(attachable properties)	
RenderOptions.BitmapScalingMode	BitmapScalingMode
(description)	The BitmapScalingMode for a given DependencyObject.
[target type]	DependencyObject
RenderOptions.CacheInvalidationThresholdMaximum	x:Double

(description)	The cache invalidation threshold maximum value for a given DependencyObject.
[target type]	DependencyObject
RenderOptions.CacheInvalidationThresholdMinimum	x:Double
(description)	The cache invalidation threshold minimum value for a given DependencyObject.
[target type]	DependencyObject
RenderOptions.CachingHint	CachingHint
(description)	A value that indicates that rendered content should be cached when possible.
[target type]	DependencyObject
RenderOptions.ClearTypeHint	ClearTypeHint
(description)	A value that indicates to the rendering engine whether text can be rendered with ClearType.
[target type]	DependencyObject
RenderOptions.EdgeMode	EdgeMode
(description)	The EdgeMode enumeration value for a non-text primitive that determines how its edges are rendered.
[target type]	DependencyObject
(static properties)	
ProcessRenderMode	RenderMode
(description)	Specifies the render mode preference for the current process.

4.691 RenderTargetBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > RenderTargetBitmap	
<h2>RenderTargetBitmap</h2>	
(usage)	<RenderTargetBitmap> string </RenderTargetBitmap>
(description)	Converts a Visual object into a bitmap.
[is default constructible]	false
[text syntax]	x:Uri, from [MS-XAML-2017]

4.692 RepeatBehavior

x:Object > RepeatBehavior	
<h3>RepeatBehavior</h3>	
(usage)	<RepeatBehavior> string </RepeatBehavior>
(description)	Describes how a Timeline repeats its simple duration.
(used by)	Timeline
[is nullable]	false
[text syntax]	RepeatBehaviorSyntax
(static properties)	
Forever	RepeatBehavior
(description)	A RepeatBehavior that specifies an infinite number of repetitions.

4.693 RepeatButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > RepeatButton , InputElement	
<h3>RepeatButton</h3>	
(usage)	<RepeatButton> x:Object </RepeatButton>
(description)	Represents a control that raises its Click event repeatedly from the time it is pressed until it is released.
(used by)	Track
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
Delay	x:Int32
(description)	The amount of time, in milliseconds, the RepeatButton waits while it is pressed before it starts repeating. The value must be non-negative.
Interval	x:Int32
(description)	The amount of time, in milliseconds, between repeats once repeating starts. The value must be non-negative.

4.694 ResizeGrip

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ResizeGrip , InputElement	
ResizeGrip	
(usage)	<ResizeGrip />
(description)	Represents an implementation of a Thumb control that enables a Window to change its size.
[name property]	Name
[xml lang property]	Language

4.695 ResizeGripDirection

x:Object > ResizeGripDirection	
ResizeGripDirection	
(usage)	None TopLeft Top TopRight Right BottomRight Bottom BottomLeft Left ...
(description)	Specifies constants that indicate the direction of the resize grip behavior on an input element.
(used by)	WindowChrome
[is nullable]	false
[text syntax]	ResizeGripDirectionSyntax

4.696 ResizeMode

x:Object > ResizeMode	
ResizeMode	
(usage)	NoResize CanMinimize CanResize CanResizeWithGrip
(description)	Specifies whether a window can be resized and, if so, how it can be resized. Used by the ResizeMode property.
(used by)	Window

[is nullable]	false
[text syntax]	ResizeModeSyntax

4.697 ResourceDictionary

x:Object > ResourceDictionary	
ResourceDictionary	
(usage)	<ResourceDictionary> ResourceDictionary </ResourceDictionary>
(description)	Provides a hash table / dictionary implementation that contains resources used by components and other elements of an application.
(used by)	Application Collection(ResourceDictionary) FrameworkContentElement FrameworkElement FrameworkTemplate Style
[is dictionary]	true
[allowed types]	x:Object
[allowed key types]	x:Object
(properties)	
DeferrableContent	DeferrableContent
(description)	The deferrable content for this resource dictionary.
InvalidatesImplicitDataTemplateResources	x:Boolean
(description)	A value that indicates whether the invalidations fired by the ResourceDictionary object cause ContentPresenter objects to reevaluate their choice of template. The invalidations happen when an implicit data template resource changes.
IsReadOnly	x:Boolean
(description)	Whether this ResourceDictionary is read-only.
MergedDictionaries	Collection(ResourceDictionary)
(description)	A collection of the ResourceDictionary dictionaries that constitute the various resource dictionaries in the merged dictionaries.
[read only]	true
Source	x:Uri
(description)	The uniform resource identifier (URI) to load resources from.

4.698 ResourceDictionaryLocation

x:Object > ResourceDictionaryLocation	
<h2>ResourceDictionaryLocation</h2>	
(usage)	None SourceAssembly ExternalAssembly
(description)	Specifies the locations where theme resource dictionaries are located.
[is nullable]	false
[text syntax]	ResourceDictionaryLocationSyntax

4.699 ResourceKey

x:Object > x:MarkupExtension > ResourceKey	
<h2>ResourceKey</h2>	
ComponentResourceKey TemplateKey	
(usage)	None.
(description)	A base type for various resource keys.
(used by)	GridView MenuItem StatusBar SystemColors SystemFonts SystemParameters ToolBar
[is default constructible]	false
[return value type]	ResourceKey

4.700 RestoreFocusMode

x:Object > RestoreFocusMode	
<h2>RestoreFocusMode</h2>	
(usage)	Auto None
(description)	Specifies how restores focus to the window.
(used by)	Keyboard KeyboardDevice
[is nullable]	false

[text syntax]	RestoreFocusModeSyntax
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4.701 ResumeStoryboard

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction > ResumeStoryboard	
ResumeStoryboard	
(usage)	<ResumeStoryboard />
(description)	Supports a trigger action that resumes a paused Storyboard.

4.702 Ribbon

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > Selector > Ribbon , InputElement	
Ribbon	
(usage)	<Ribbon> x:Object *</Ribbon>
(description)	Represents the root element of a ribbon user interface that hosts a Quick Access Toolbar, Application Menu, and tabs.
(used by)	RibbonControlService
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
ApplicationMenu	RibbonApplicationMenu
(description)	The RibbonApplicationMenu that is a logical child of this Ribbon control.
CheckedBackground	Brush
(description)	The brush that is used to draw the background of Ribbon controls when they are in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of Ribbon controls when they are in the Checked state.

ContextualTabGroupHeaderTemplate	DataTemplate
(description)	The template that is used to display Header items in the RibbonContextualTabGroup.
ContextualTabGroups	Collection(RibbonContextualTabGroup)
(description)	A collection that contains all of the RibbonContextualTabGroup items in the Ribbon.
[read only]	true
ContextualTabGroupStyle	Style
(description)	The style that is used when rendering RibbonContextualTabGroup items in the Ribbon.
FocusedBackground	Brush
(description)	The brush used to draw the background of Ribbon controls in the Focused state.
FocusedBorderBrush	Brush
(description)	The brush used to draw the outer border of Ribbon controls in the Focused state.
HelpPaneContent	x:Object
(description)	The contents of the help pane.
HelpPaneContentTemplate	DataTemplate
(description)	The template that is used to display the content of the help pane.
IsCollapsed	x:Boolean
(description)	A value that indicates whether the Ribbon is collapsed.
IsDropDownOpen	x:Boolean
(description)	A value that indicates whether the drop-down for a RibbonTab is open.
IsMinimized	x:Boolean
(description)	A value that indicates whether the Ribbon is minimized.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of Ribbon controls when they are in the MouseOver state.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of Ribbon controls when they are in the MouseOver state.
PressedBackground	Brush

(description)	The brush that is used to draw the background of Ribbon controls when they are in the Pressed state.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of Ribbon controls when they are in the Pressed state.
QuickAccessToolBar	RibbonQuickAccessToolBar
(description)	The RibbonQuickAccessToolBar that is a logical child of this Ribbon.
ShowQuickAccessToolBarOnTop	x:Boolean
(description)	A value that indicates whether to show the Quick Access Toolbar above the Ribbon.
TabHeaderStyle	Style
(description)	The style that is used when rendering tab headers.
TabHeaderTemplate	DataTemplate
(description)	The template that is used to display tab headers.
Title	x:Object
(description)	The title of this Ribbon control.
TitleTemplate	DataTemplate
(description)	The template that is used to display the Ribbon title.
WindowIconVisibility	Visibility
(description)	The Visibility for the icon of the RibbonWindow that contains this Ribbon.
(events)	
Collapsed	Occurs when the IsCollapsed property is changed to true and the Ribbon is collapsed.
Expanded	Occurs when the IsCollapsed property is changed to false and the Ribbon is expanded.

4.703 RibbonApplicationMenu

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase > Menu > RibbonMenuItem > RibbonApplicationMenu , InputElement	
RibbonApplicationMenu	
(usage)	<RibbonApplicationMenu> x:Object *</RibbonApplicationMenu>
(description)	Represents an Application Menu that is used in a Ribbon control.

(used by)	Ribbon
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
AuxiliaryPaneContent	x:Object
(description)	The content of the Application Menu auxiliary pane.
AuxiliaryPaneContentTemplate	DataTemplate
(description)	The template that is used to display the content of the Application Menu auxiliary pane.
AuxiliaryPaneContentTemplateSelector	DataTemplateSelector
(description)	The custom logic for selecting a DataTemplate that is used to display the contents of the Application Menu auxiliary pane.
FooterPaneContent	x:Object
(description)	The content of the Application Menu footer pane.
FooterPaneContentTemplate	DataTemplate
(description)	The template that is used to display the content of the Application Menu footer pane.
FooterPaneContentTemplateSelector	DataTemplateSelector
(description)	The custom logic for selecting a DataTemplate that is used to display the contents of the Application Menu footer pane.

4.704 RibbonApplicationMenuItem

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [HeaderedItemsControl](#) > [MenuItem](#) > [RibbonMenuItem](#) > [RibbonApplicationMenuItem](#), [InputElement](#)

RibbonApplicationMenuItem

(usage)	<RibbonApplicationMenuItem> x:Object *</RibbonApplicationMenuItem>
(description)	Represents a menu item inside a RibbonApplicationMenu control.
[content property]	Items
[name property]	Name

[xml lang property]	Language
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4.705 RibbonApplicationMenuItemLevel

x:Object > RibbonApplicationMenuItemLevel	
RibbonApplicationMenuItemLevel	
(usage)	Top Middle Sub
(description)	Defines constants that specify the level that a menu item is displayed at in the ribbon Application Menu.
[is nullable]	false
[text syntax]	RibbonApplicationMenuItemLevelSyntax

4.706 RibbonApplicationSplitMenuItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > HeaderedItemsControl > MenuItem > RibbonMenuItem > RibbonSplitMenuItem > RibbonApplicationSplitMenuItem , InputElement	
RibbonApplicationSplitMenuItem	
(usage)	<RibbonApplicationSplitMenuItem> x:Object *</RibbonApplicationSplitMenuItem>
(description)	Represents a menu item inside a RibbonApplicationMenu control that can invoke a command and also display a submenu.
[content property]	Items
[name property]	Name
[xml lang property]	Language

4.707 RibbonButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > Button > RibbonButton , InputElement	
RibbonButton	

(usage)	<RibbonButton> x:Object </RibbonButton>
(description)	Represents a button that is used in a Ribbon control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.
CornerRadius	CornerRadius
(description)	A value that indicates the amount that the corners of a ribbon button are rounded.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
FocusedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it has focus.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
Label	x:String
(description)	The text that is displayed next to or below the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush

(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.708 RibbonCheckBox

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ContentControl](#) > [ButtonBase](#) > [ToggleButton](#) > [CheckBox](#) > [RibbonCheckBox](#), [InputElement](#)

RibbonCheckBox

(usage)	<RibbonCheckBox> x:Object </RibbonCheckBox>
(description)	Represents a check box that is used in a Ribbon control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
FocusedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it has focus.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
Label	x:String
(description)	The text that is displayed next to or below the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush

(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.709 RibbonComboBox

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [MenuBase](#) > [Menu](#) > [RibbonMenuButton](#) > [RibbonComboBox](#), [InputElement](#)

RibbonComboBox

(usage)	<RibbonComboBox> x:Object *</RibbonComboBox>
(description)	Represents a combo box that is used in a Ribbon control.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
IsEditable	x:Boolean
(description)	A value that indicates whether the content of the combo box can be edited.
IsReadOnly	x:Boolean
(description)	A value that indicates whether selection-only mode is enabled, in which the contents of the combo box are selectable but not editable.
SelectionBoxWidth	x:Double
(description)	The width of the text box that displays the selected item in the combo box.
StaysOpenOnEdit	x:Boolean
(description)	A value that indicates whether a combo box that is open and displays a drop-down control will remain open when a user clicks the selection box.
Text	x:String
(description)	The text of the currently selected item.

4.710 RibbonCommands

[x:Object](#) > [RibbonCommands](#)

RibbonCommands

(usage)	{ x:Static RibbonCommands.StaticPropertyName }
(description)	Provides static access to standard ribbon commands.
[is default constructible]	false
(static properties)	

AddToQuickAccessToolBarCommand	RoutedUICommand
(description)	A reference to the AddToQuickAccessToolBar command.
MaximizeRibbonCommand	RoutedUICommand
(description)	A reference to the MaximizeRibbon command.
MinimizeRibbonCommand	RoutedUICommand
(description)	A reference to the MinimizeRibbon command.
RemoveFromQuickAccessToolBarCommand	RoutedUICommand
(description)	A reference to the RemoveFromQuickAccessToolBar command.
ShowQuickAccessToolBarAboveRibbonCommand	RoutedUICommand
(description)	A reference to the ShowQuickAccessToolBarAboveRibbon command.
ShowQuickAccessToolBarBelowRibbonCommand	RoutedUICommand
(description)	A reference to the ShowQuickAccessToolBarBelowRibbon command.

4.711 RibbonContentPresenter

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [ContentPresenter](#) > [RibbonContentPresenter](#), [InputElement](#)

RibbonContentPresenter

(usage)	<RibbonContentPresenter />
(description)	Displays the content of a ribbon control.
[name property]	Name
[xml lang property]	Language
(properties)	
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.

4.712 RibbonContextMenu

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [MenuBase](#) > [ContextMenu](#) > [RibbonContextMenu](#), [InputElement](#)

RibbonContextMenu

(usage)	<RibbonContextMenu> x:Object *</RibbonContextMenu>
(description)	Represents a menu that is displayed in the context of a particular control.
[content property]	Items
[name property]	Name
[xml lang property]	Language

4.713 RibbonContextualTabGroup

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [RibbonContextualTabGroup](#), [InputElement](#)

RibbonContextualTabGroup

(usage)	<RibbonContextualTabGroup> x:Object </RibbonContextualTabGroup>
(description)	Represents a Ribbon tab group that dynamically displays controls that are only relevant in a particular context.
(used by)	Collection (RibbonContextualTabGroup) Ribbon
[content property]	Header
[name property]	Name
[xml lang property]	Language
(properties)	
Header	x:Object
(description)	The content of the contextual tab group header.
HeaderStringFormat	x:String
(description)	The format that is used to display the header content as a string.
HeaderTemplate	DataTemplate
(description)	The DataTemplate that is used to display the contents of the header.
HeaderTemplateSelector	DataTemplateSelector

(description)	The custom logic for selecting a DataTemplate that is used to display the contents of the header.
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4.714 RibbonContextualTabGroupItemsControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > RibbonContextualTabGroupItemsControl , InputElement	
<h2>RibbonContextualTabGroupItemsControl</h2>	
(usage)	<RibbonContextualTabGroupItemsControl> x:Object *</RibbonContextualTabGroupItemsControl>
(description)	Represents an items control that hosts contextual tab groups in a Ribbon.
[content property]	Items
[name property]	Name
[xml lang property]	Language

4.715 RibbonControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > RibbonControl , InputElement	
<h2>RibbonControl</h2>	
(usage)	<RibbonControl> x:Object </RibbonControl>
(description)	Represents a container for controls in a ribbon.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.

4.716 RibbonControlGroup

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [RibbonControlGroup](#), [InputElement](#)

RibbonControlGroup

(usage)	<RibbonControlGroup> x:Object *</RibbonControlGroup>
(description)	Groups a set of ribbon controls into a visual and conceptual unit.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.

4.717 RibbonControlLength

[x:Object](#) > [RibbonControlLength](#)

RibbonControlLength

(usage)	<RibbonControlLength> string </RibbonControlLength>
(description)	Represents widths in a RibbonControlSizeDefinition.
(used by)	RibbonControlSizeDefinition
[is nullable]	false
[text syntax]	RibbonControlLengthSyntax
(static properties)	
Auto	RibbonControlLength
(description)	A RibbonControlLength structure that represents the standard automatic sizing mode.

4.718 RibbonControlLengthUnitType

[x:Object](#) > [RibbonControlLengthUnitType](#)

RibbonControlLengthUnitType	
(usage)	Auto Pixel Item Star
(description)	Defines constants that specify how elements in a Ribbon are sized.
[is nullable]	false
[text syntax]	RibbonControlLengthUnitTypeSyntax

4.719 RibbonControlService

x:Object > RibbonControlService	
RibbonControlService	
(usage)	None.
(description)	Represents a service that provides properties and methods to control the display and behavior of Ribbon controls.
[is default constructible]	false
(attachable properties)	
RibbonControlService.CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
[target type]	DependencyObject
RibbonControlService.CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
[target type]	DependencyObject
RibbonControlService.CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it in the Checked state.
[target type]	DependencyObject
RibbonControlService.ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.

[target type]	DependencyObject
RibbonControlService.CornerRadius	CornerRadius
(description)	A value that indicates the amount that the corners of a ribbon button are rounded.
[target type]	DependencyObject
RibbonControlService.DefaultControlSizeDefinition	RibbonControlSizeDefinition
(description)	The default RibbonControlSizeDefinition for this control.
[target type]	DependencyObject
RibbonControlService.FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
[target type]	DependencyObject
RibbonControlService.FocusedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it has focus.
[target type]	DependencyObject
RibbonControlService.IsInControlGroup	x:Boolean
(description)	A value that indicates whether the control is hosted in a RibbonControlGroup.
[target type]	DependencyObject
RibbonControlService.IsInQuickAccessToolBar	x:Boolean
(description)	A value that indicates whether the control is hosted in the Quick Access Toolbar.
[target type]	DependencyObject
RibbonControlService.Label	x:String
(description)	The text that is displayed next to or below the control.
[target type]	DependencyObject
RibbonControlService.LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
[target type]	DependencyObject

RibbonControlService.MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
[target type]	DependencyObject
RibbonControlService.MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
[target type]	DependencyObject
RibbonControlService.PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
[target type]	DependencyObject
RibbonControlService.PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
[target type]	DependencyObject
RibbonControlService.QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
[target type]	DependencyObject
RibbonControlService.QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
[target type]	DependencyObject
RibbonControlService.Ribbon	Ribbon
(description)	A reference to the Ribbon that this control belongs to.
[target type]	DependencyObject
RibbonControlService.ShowKeyboardCues	x:Boolean

(description)	A value that indicates whether to show the keyboard focus visual for this control.
[target type]	DependencyObject
RibbonControlService.SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
[target type]	DependencyObject
RibbonControlService.ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
[target type]	DependencyObject
RibbonControlService.ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
[target type]	DependencyObject
RibbonControlService.ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
[target type]	DependencyObject
RibbonControlService.ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
[target type]	DependencyObject
RibbonControlService.ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
[target type]	DependencyObject
RibbonControlService.ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.
[target type]	DependencyObject
(attachable events)	
RibbonControlService.DismissPopup	Occurs when a ribbon popup is closed.

4.720 RibbonControlSizeDefinition

x:Object > DependencyObject > Freezable > RibbonControlSizeDefinition	
<h2>RibbonControlSizeDefinition</h2>	
(usage)	<RibbonControlSizeDefinition />
(description)	Specifies information about the size and visibility of the images and label associated with a Ribbon control.
(used by)	FreezableCollection(RibbonControlSizeDefinition) ICollection(RibbonControlSizeDefinition) IList(RibbonControlSizeDefinition) RibbonButton RibbonCheckBox RibbonContentPresenter RibbonControl RibbonControlGroup RibbonControlService RibbonControlSizeDefinitionCollection RibbonMenuButton RibbonRadioButton RibbonTextBox RibbonToggleButton
(properties)	
ImageSize	RibbonImageSize
(description)	A value that indicates how to show the image on a control.
IsCollapsed	x:Boolean
(description)	A value that indicates whether a control is collapsed.
IsLabelVisible	x:Boolean
(description)	A value that indicates whether the control's label is visible.
MaxWidth	RibbonControlLength
(description)	The maximum width constraint of a container control in a Ribbon.
MinWidth	RibbonControlLength
(description)	The minimum width constraint of a container control in a Ribbon.
Width	RibbonControlLength
(description)	The width of a container control in a Ribbon.

4.721 RibbonControlSizeDefinitionCollection

x:Object > DependencyObject > Freezable > Animatable > FreezableCollection(RibbonControlSizeDefinition) > RibbonControlSizeDefinitionCollection	
<h2>RibbonControlSizeDefinitionCollection</h2>	

(usage)	<RibbonControlSizeDefinitionCollection> RibbonControlSizeDefinition *</RibbonControlSizeDefinitionCollection>
(description)	Represents a collection of RibbonControlSizeDefinition objects.
(used by)	RibbonGroupSizeDefinition
[is list]	true
[allowed types]	RibbonControlSizeDefinition

4.722 RibbonDismissPopupMode

x:Object > RibbonDismissPopupMode	
<h2>RibbonDismissPopupMode</h2>	
(usage)	Always MousePhysicallyNotOver
(description)	Defines constants that specify whether the DismissPopup attached event closes all drop-downs in a chain of drop-downs or only drop-downs that the mouse pointer is not over.
[is nullable]	false
[text syntax]	RibbonDismissPopupModeSyntax

4.723 RibbonFilterMenuButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase > Menu > RibbonMenuButton > RibbonFilterMenuButton , InputElement	
<h2>RibbonFilterMenuButton</h2>	
(usage)	<RibbonFilterMenuButton> x:Object *</RibbonFilterMenuButton>
(description)	Represents a button that opens a filter menu drop-down in a RibbonGallery.
[content property]	Items
[name property]	Name
[xml lang property]	Language

4.724 RibbonGallery

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [RibbonGallery](#), [InputElement](#)

RibbonGallery

(usage)	<RibbonGallery> x:Object *</RibbonGallery>
(description)	Represents a menu that displays a set of related items or commands in a visually rich format that can be organized into multiple categorized subsets.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
AllFilterItemContainerStyle	Style
(description)	The style that is applied to items in the filter when the "All" filter is selected.
AllFilterItemTemplate	DataTemplate
(description)	The DataTemplate that is used to display items in the filter when the "All" filter is selected.
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
CanUserFilter	x:Boolean
(description)	A value that indicates whether a user can apply a filter to gallery items.
CategoryStyle	Style
(description)	The style that is applied to the RibbonGalleryCategory element generated for each item.
CategoryTemplate	DataTemplate
(description)	The DataTemplate that is used to display each item in a RibbonGalleryCategory.
ColumnsStretchToFill	x:Boolean
(description)	A value that indicates that the gallery distributes all its available width equally between its columns.
Command	ICommand
(description)	The command that is associated with this ribbon gallery.
CommandParameter	x:Object

(description)	A user-defined data value to pass to the command.
CommandTarget	IInputElement
(description)	The element on which to invoke the specified command.
FilterItemContainerStyle	Style
(description)	The style that is applied to the filter items container generated from a RibbonGalleryCategory header.
FilterItemContainerStyleSelector	StyleSelector
(description)	The custom logic for selecting a Style that is applied to items in the filter when a custom filter is selected.
FilterItemTemplate	DataTemplate
(description)	The DataTemplate that is used to display items in the filter when a custom filter is selected.
FilterItemTemplateSelector	DataTemplateSelector
(description)	The custom logic for selecting a DataTemplate that is used to display items in the filter when a custom filter is selected.
FilterMenuButtonStyle	Style
(description)	The style that is applied to the filter menu button.
FilterPaneContent	x:Object
(description)	The contents of the filter pane.
FilterPaneContentTemplate	DataTemplate
(description)	The DataTemplate that is used to display the contents of the filter pane.
GalleryItemStyle	Style
(description)	The style that is applied to items in the RibbonGallery.
GalleryItemTemplate	DataTemplate
(description)	The DataTemplate that is used to display each item in a RibbonGallery.
IsSharedColumnSizeScope	x:Boolean
(description)	A value that specifies whether this gallery defines the scope used for uniform layout of items.
IsSynchronizedWithCurrentItem	x:Nullable(x:Boolean)
(description)	A value that indicates whether the gallery should keep the SelectedItem synchronized with the current item in the Items collection.
MaxColumnCount	x:Int32
(description)	A value that specifies the maximum number of columns used to layout items in a gallery ItemsPanel.

MinColumnCount	x:Int32
(description)	A value that specifies the minimum number of columns used to layout items in a gallery ItemsPanel.
PreviewCommandParameter	x:Object
(description)	A user-defined data value to pass to the command when it is previewed.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SelectedItem	x:Object
(description)	The currently selected item in the ribbon gallery.
SelectedValue	x:Object
(description)	The value of the property on the SelectedItem that is specified by the SelectedValuePath.
SelectedValuePath	x:String
(description)	The path that is used to get the SelectedValue of the SelectedItem in a RibbonGallery.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.
(static properties)	
AllFilterItem	x:Object

(description)	The filter that returns all items in a ribbon gallery.
FilterCommand	RoutedCommand
(description)	The command to invoke when the current gallery filter is changed by the user.
(events)	
SelectionChanged	Occurs when the SelectedItem property changes.

4.725 RibbonGalleryCategory

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > HeaderedItemsControl > RibbonGalleryCategory , IInputElement	
<h2>RibbonGalleryCategory</h2>	
(usage)	<RibbonGalleryCategory> x:Object *</RibbonGalleryCategory>
(description)	Represents a group of related items in a RibbonGallery.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
ColumnsStretchToFill	x:Boolean
(description)	A value that indicates that the gallery category distributes all its available width equally between its columns.
HeaderVisibility	Visibility
(description)	The Visibility for the ribbon gallery header.
IsSharedColumnSizeScope	x:Boolean
(description)	A value that specifies whether this gallery category defines the scope used for uniform layout of items.
MaxColumnCount	x:Int32
(description)	A value that specifies the maximum number of columns used to lay out items in a gallery ItemsPanel.
MinColumnCount	x:Int32
(description)	A value that specifies the minimum number of columns used to lay out items in a gallery ItemsPanel.

4.726 RibbonGalleryItem

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ContentControl](#) > [RibbonGalleryItem](#), [IInputElement](#)

RibbonGalleryItem

(usage)	<RibbonGalleryItem> x:Object </RibbonGalleryItem>
(description)	Represents an individual item of a RibbonGallery that is used in a Ribbon control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
IsSelected	x:Boolean
(description)	A value that indicates whether this item is selected.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
ToolTipDescription	x:String

(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.
(events)	
Selected	Occurs when the IsSelected property of the item changes to true.
Unselected	Occurs when the IsSelected property of the item changes to false.

4.727 RibbonGroup

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [HeaderedItemsControl](#) > [RibbonGroup](#), [IInputElement](#)

RibbonGroup

(usage)	<RibbonGroup> x:Object *</RibbonGroup>
(description)	Represents a logical group of controls as they appear on a RibbonTab.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
GroupSizeDefinitions	RibbonGroupSizeDefinitionBaseCollection

(description)	The RibbonGroupSizeDefinition collection for a ribbon group.
IsDropDownOpen	x:Boolean
(description)	A value that indicates whether the drop-down for the group is open.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.728 RibbonGroupSizeDefinition

x:Object > DependencyObject > Freezable > RibbonGroupSizeDefinitionBase > RibbonGroupSizeDefinition	
<h2>RibbonGroupSizeDefinition</h2>	
(usage)	<RibbonGroupSizeDefinition> RibbonControlSizeDefinition *</RibbonGroupSizeDefinition>
(description)	Specifies information about the size of controls in a RibbonGroup and the visual state of the group.
[content property]	ControlSizeDefinitions
(properties)	
ControlSizeDefinitions	RibbonControlSizeDefinitionCollection
(description)	A collection of RibbonControlSizeDefinition items that specify the size of controls in the group.

4.729 RibbonGroupSizeDefinitionBase

x:Object > DependencyObject > Freezable > RibbonGroupSizeDefinitionBase	
<h2>RibbonGroupSizeDefinitionBase</h2>	
RibbonGroupSizeDefinition RibbonGroupTemplateSizeDefinition	
(usage)	None.
(description)	Provides a base type for ribbon group definition types.
(used by)	FreezableCollection(RibbonGroupSizeDefinitionBase) ICollection(RibbonGroupSizeDefinitionBase) IList(RibbonGroupSizeDefinitionBase) RibbonGroupSizeDefinitionBaseCollection
[is default constructible]	false
(properties)	
IsCollapsed	x:Boolean
(description)	A value that indicates whether the control group is collapsed.

4.730 RibbonGroupSizeDefinitionBaseCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [FreezableCollection\(RibbonGroupSizeDefinitionBase\)](#) > [RibbonGroupSizeDefinitionBaseCollection](#)

RibbonGroupSizeDefinitionBaseCollection

(usage)	<RibbonGroupSizeDefinitionBaseCollection> RibbonGroupSizeDefinitionBase *</RibbonGroupSizeDefinitionBaseCollection>
(description)	Provides a friendly name for XAML usage of a RibbonGroupSizeDefinition collection.
(used by)	RibbonGroup
[is list]	true
[allowed types]	RibbonGroupSizeDefinitionBase

4.731 RibbonGroupTemplateSizeDefinition

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [RibbonGroupSizeDefinitionBase](#) > [RibbonGroupTemplateSizeDefinition](#)

RibbonGroupTemplateSizeDefinition

(usage)	<RibbonGroupTemplateSizeDefinition> DataTemplate </RibbonGroupTemplateSizeDefinition>
(description)	Provides a default content template for a RibbonGroup.
[content property]	ContentTemplate
(properties)	
ContentTemplate	DataTemplate
(description)	The DataTemplate that is used to display a RibbonGroup.

4.732 RibbonImageSize

[x:Object](#) > [RibbonImageSize](#)

RibbonImageSize

(usage)	Collapsed Small Large
(description)	Defines constants that specify how images are shown on Ribbon controls.

(used by)	RibbonControlSizeDefinition
[is nullable]	false
[text syntax]	RibbonImageSizeSyntax

4.733 RibbonMenuButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase > Menu > RibbonMenuButton , InputElement	
RibbonMenuButton	
RibbonApplicationMenu RibbonComboBox RibbonFilterMenuButton RibbonSplitButton	
(usage)	<RibbonMenuButton> x:Object *</RibbonMenuButton>
(description)	Represents a button on the ribbon that displays a drop-down menu when clicked.
(used by)	RibbonQuickAccessToolBar
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
CanUserResizeHorizontally	x:Boolean
(description)	A value that indicates whether the user can resize the drop-down horizontally.
CanUserResizeVertically	x:Boolean
(description)	A value that indicates whether the user can resize the drop-down vertically.
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.
DropDownHeight	x:Double
(description)	The height of the drop-down.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.

FocusedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it has focus.
IsDropDownOpen	x:Boolean
(description)	A value that indicates whether the drop-down is open.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
Label	x:String
(description)	The text that is displayed next to or below the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.

ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.
(events)	
DropDownClosed	Occurs when the drop-down is closed.
DropDownOpened	Occurs when the drop-down is opened.

4.734 RibbonMenuItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > HeaderedItemsControl > MenuItem > RibbonMenuItem , InputElement	
<h2>RibbonMenuItem</h2>	
RibbonApplicationMenuItem RibbonSplitMenuItem	
(usage)	<RibbonMenuItem> x:Object *</RibbonMenuItem>
(description)	Represents a menu item inside a Ribbon menu control.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
CanUserResizeHorizontally	x:Boolean

(description)	A value that indicates whether the user can resize the drop-down horizontally.
CanUserResizeVertically	x:Boolean
(description)	A value that indicates whether the user can resize the drop-down vertically.
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
DropDownHeight	x:Double
(description)	The height of the drop-down.
ImageSource	ImageSource
(description)	The image that is displayed on the control.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
QuickAccessToolBarImageSource	ImageSource
(description)	The image that is displayed on the control when it is hosted in the Quick Access Toolbar.
ToolTipDescription	x:String

(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.735 RibbonQuickAccessToolBar

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > RibbonQuickAccessToolBar , InputElement	
<h2>RibbonQuickAccessToolBar</h2>	
(usage)	<RibbonQuickAccessToolBar> x:Object *</RibbonQuickAccessToolBar>
(description)	Represents a ribbon toolbar that is always visible in the window frame to provide access to common commands.
(used by)	Ribbon
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
CustomizeMenuButton	RibbonMenuButton
(description)	A RibbonMenuButton that is used to show the Quick Access Toolbar customization menu.
IsOverflowOpen	x:Boolean
(description)	A value that indicates whether the Quick Access Toolbar overflow menu is open.

(attachable events)	
RibbonQuickAccessToolBar.Clone	Occurs when an element in the Quick Access Toolbar is cloned.

4.736 RibbonRadioButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > ToggleButton > RadioButton > RibbonRadioButton , InputElement	
RibbonRadioButton	
(usage)	<RibbonRadioButton> x:Object </RibbonRadioButton>
(description)	Represents a radio button that is used in a Ribbon control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.
CornerRadius	CornerRadius
(description)	A value that indicates the amount that the corners of a ribbon button are rounded.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
FocusedBorderBrush	Brush

(description)	The brush that is used to draw the outer border of the control when it has focus.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
Label	x:String
(description)	The text that is displayed next to or below the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.

ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.737 RibbonSeparator

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > Separator > RibbonSeparator , InputElement	
RibbonSeparator	
(usage)	<RibbonSeparator />
(description)	Represents a control that provides a divider and optional label between elements in a Ribbon menu or RibbonGallery.
[name property]	Name
[xml lang property]	Language
(properties)	
Label	x:String
(description)	The text that is displayed with the visual separator line.

4.738 RibbonSplitButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > MenuBase > Menu > RibbonMenuButton > RibbonSplitButton , InputElement	
RibbonSplitButton	
(usage)	<RibbonSplitButton> x:Object *</RibbonSplitButton>

(description)	Represents a composite control that has a primary button that responds to a Click event and a secondary button that displays a drop-down list of mutually exclusive values.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
Command	ICommand
(description)	The command that is associated with this control.
CommandParameter	x:Object
(description)	A user-defined data value to pass to the command.
CommandTarget	IInputElement
(description)	The element on which to raise the specified command.
DropDownToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for the drop-down area of this control.
DropDownToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for the drop-down area of this control.
DropDownToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for the drop-down area of this control.
DropDownToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for the drop-down area of this control.
DropDownToolTipImageSource	ImageSource

(description)	The image that is displayed in the ToolTip for the drop-down area of this control.
DropDownToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for the drop-down area of this control.
HeaderKeyTip	x:String
(description)	The keyboard shortcut for the header area of this control.
HeaderQuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
IsCheckable	x:Boolean
(description)	A value that indicates whether a user can check and uncheck the button.
IsChecked	x:Boolean
(description)	A value that indicates whether the button is checked.
LabelPosition	RibbonSplitButtonLabelPosition
(description)	A value that indicates the relative position of the label for this control.
(events)	
Click	Occurs when the button is clicked.

4.739 RibbonSplitButtonLabelPosition

x:Object > RibbonSplitButtonLabelPosition	
<h2>RibbonSplitButtonLabelPosition</h2>	
(usage)	Header DropDown
(description)	Provides values that indicate the position of the label of a RibbonSplitButton.
(used by)	RibbonSplitButton
[is nullable]	false
[text syntax]	RibbonSplitButtonLabelPositionSyntax

4.740 RibbonSplitMenuItem

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [HeaderedItemsControl](#) > [MenuItem](#) > [RibbonMenuItem](#) > [RibbonSplitMenuItem](#), [InputElement](#)

RibbonSplitMenuItem

[RibbonApplicationSplitMenuItem](#)

(usage)	<RibbonSplitMenuItem> x:Object *</RibbonSplitMenuItem>
(description)	Represents a menu item inside a Ribbon menu that can invoke a command and also display a submenu.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
DropDownToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for the drop-down area of this control.
DropDownToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for the drop-down area of this control.
DropDownToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for the drop-down area of this control.
DropDownToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for the drop-down area of this control.
DropDownToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for the drop-down area of this control.
DropDownToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for the drop-down area of this control.
HeaderKeyTip	x:String
(description)	The keyboard shortcut for the header area of this control.

HeaderQuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.

4.741 RibbonTab

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > HeaderedItemsControl > RibbonTab , IInputElement	
RibbonTab	
(usage)	<RibbonTab> x:Object *</RibbonTab>
(description)	Represents a tab in a Ribbon.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
ContextualTabGroupHeader	x:Object
(description)	The header content of the RibbonContextualTabGroup that this tab is in.
GroupSizeReductionOrder	StringCollection
(description)	A collection of RibbonGroup names that specify the order in which group size definitions are applied as the ribbon is reduced in size.
[text syntax]	StringCollectionSyntax
HeaderStyle	Style
(description)	The style that is applied to the header of the ribbon tab.
IsSelected	x:Boolean
(description)	A value that indicates whether the ribbon tab is selected.
KeyTip	x:String
(description)	The keyboard shortcut for the control.

4.742 RibbonTabHeader

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > RibbonTabHeader , IInputElement
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RibbonTabHeader	
(usage)	<RibbonTabHeader> x:Object </RibbonTabHeader>
(description)	Represents the header of a RibbonTab control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
FocusedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it has focus.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse is over it.

4.743 RibbonTabHeaderItemsControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > RibbonTabHeaderItemsControl , InputElement	
RibbonTabHeaderItemsControl	
(usage)	<RibbonTabHeaderItemsControl> x:Object *</RibbonTabHeaderItemsControl>
(description)	Represents an items control that hosts RibbonTabHeader items.

[content property]	Items
[name property]	Name
[xml lang property]	Language

4.744 RibbonTextBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > TextBoxBase > TextBox > RibbonTextBox , InputElement	
RibbonTextBox	
(usage)	<RibbonTextBox> x:String </RibbonTextBox>
(description)	Represents a text box that is used in a Ribbon control.
[content property]	Text
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
Command	ICommand
(description)	The command that is associated with this control.
CommandParameter	x:Object
(description)	A user defined data value to pass to the command.
CommandTarget	InputElement
(description)	The element on which to raise the specified command.
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
FocusedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it has focus.

KeyTip	x:String
(description)	The keyboard shortcut for the control.
Label	x:String
(description)	The text that is displayed next to or below the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
TextBoxWidth	x:Double
(description)	The width of the control.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.
ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.

ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.745 RibbonToggleButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > ToggleButton > RibbonToggleButton , InputElement	
RibbonToggleButton	
(usage)	<RibbonToggleButton> x:Object </RibbonToggleButton>
(description)	Represents a toggle button that is used in a Ribbon control.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CanAddToQuickAccessToolBarDirectly	x:Boolean
(description)	A value that indicates whether this control can be added directly to the Quick Access Toolbar.
CheckedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is in the Checked state.
CheckedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is in the Checked state.
ControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control.
CornerRadius	CornerRadius
(description)	A value that indicates the amount that the corners of a ribbon button are rounded.
FocusedBackground	Brush
(description)	The brush that is used to draw the background of the control when it has focus.
FocusedBorderBrush	Brush

(description)	The brush that is used to draw the outer border of the control when it has focus.
KeyTip	x:String
(description)	The keyboard shortcut for the control.
Label	x:String
(description)	The text that is displayed next to or below the control.
LargeImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Large.
MouseOverBackground	Brush
(description)	The brush that is used to draw the background of the control when the mouse pointer is over it.
MouseOverBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when the mouse pointer is over it.
PressedBackground	Brush
(description)	The brush that is used to draw the background of the control when it is pressed.
PressedBorderBrush	Brush
(description)	The brush that is used to draw the outer border of the control when it is pressed.
QuickAccessToolBarControlSizeDefinition	RibbonControlSizeDefinition
(description)	The RibbonControlSizeDefinition for this control when it is hosted in the Quick Access Toolbar.
QuickAccessToolBarId	x:Object
(description)	A unique identifier that links a ribbon control to a corresponding control in the Quick Access Toolbar.
SmallImageSource	ImageSource
(description)	The image that is displayed on the control when the image size is set to Small.
ToolTipDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip for this control.
ToolTipFooterDescription	x:String
(description)	The descriptive text that is displayed in the footer of the ToolTip for this control.

ToolTipFooterImageSource	ImageSource
(description)	The image that is displayed in the footer of the ToolTip for this control.
ToolTipFooterTitle	x:String
(description)	The title text that is displayed in the footer of the ToolTip for this control.
ToolTipImageSource	ImageSource
(description)	The image that is displayed in the ToolTip for this control.
ToolTipTitle	x:String
(description)	The title text that is displayed in the ToolTip for this control.

4.746 RibbonToolTip

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ToolTip > RibbonToolTip , InputElement	
<h2>RibbonToolTip</h2>	
(usage)	<RibbonToolTip> x:Object </RibbonToolTip>
(description)	Represents a control that creates a pop-up window to display information about an element in the Ribbon.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
Description	x:String
(description)	The descriptive text that is displayed for the control that is associated with this ToolTip.
FooterDescription	x:String
(description)	The descriptive text that is displayed in the ToolTip footer for the control that is associated with this ToolTip.
FooterImageSource	ImageSource
(description)	The image that is displayed in the ToolTip footer for the control that is associated with this ToolTip.
FooterTitle	x:String
(description)	The title text that is displayed in the ToolTip footer for the control that is associated with this ToolTip.

ImageSource	ImageSource
(description)	The image that is displayed for the control that is associated with this ToolTip.
Title	x:String
(description)	The title text that is displayed for the control that is associated with this ToolTip.

4.747 RibbonTwoLineText

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > RibbonTwoLineText , InputElement	
RibbonTwoLineText	
(usage)	<RibbonTwoLineText />
(description)	Represents a specialized label that can display its contents on one or two lines, with an optional shape displayed inline with the text.
[name property]	Name
[xml lang property]	Language
(properties)	
BaselineOffset	x:Double
(description)	The amount by which each line of text is offset from the baseline.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which the line box is determined for each line of content.
Padding	Thickness
(description)	The thickness of the space between the boundaries of the content area and the displayed content.
PathFill	Brush
(description)	The brush that is used to draw the inside of the shape that is displayed with the label.
PathStroke	Brush
(description)	The brush that is used to draw the outline of the shape that is displayed with the label.

Text	x:String
(description)	The text content in this element.
TextAlignment	TextAlignment
(description)	A value that indicates the horizontal alignment of text content in this element.
TextDecorations	TextDecorationCollection
(description)	A TextDecorationCollection that contains the effects to apply to the text content in this element.
TextEffects	TextEffectCollection
(description)	The effects to apply to the text content in this element.
TextTrimming	TextTrimming
(description)	The text trimming behavior to use when content overflows the content area.
(attachable properties)	
RibbonTwoLineText.HasTwoLines	x:Boolean
(description)	A value that indicates whether this control layout can extend to two lines or if it is restricted to one line.
[target type]	DependencyObject
RibbonTwoLineText.PathData	Geometry
(description)	The geometry data that defines the shape that is displayed with the label.
[target type]	DependencyObject

4.748 RibbonWindow

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > Window > RibbonWindow , InputElement	
RibbonWindow	
(usage)	<RibbonWindow> x:Object </RibbonWindow>
(description)	Represents a window that can draw a Ribbon Quick Access Toolbar and contextual tab groups in its border.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.749 RichTextBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > TextBoxBase > RichTextBox , InputElement	
<h2>RichTextBox</h2>	
(usage)	<RichTextBox> FlowDocument </RichTextBox>
(description)	Represents a rich editing control which operates on FlowDocument objects.
[content property]	Document
[name property]	Name
[xml lang property]	Language
(properties)	
Document	FlowDocument
(description)	The FlowDocument that represents the contents of the RichTextBox.
IsDocumentEnabled	x:Boolean
(description)	A value that indicates whether the user can interact with UIElement and ContentElement objects within the RichTextBox.

4.750 RotateTransform

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > Transform > RotateTransform	
<h2>RotateTransform</h2>	
(usage)	<RotateTransform> string </RotateTransform>
(description)	Rotates an object clockwise about a specified point in a 2-D x-y coordinate system.
[text syntax]	TransformSyntax
(properties)	
Angle	x:Double
(description)	The angle, in degrees, of clockwise rotation.
CenterX	x:Double
(description)	The x-coordinate of the rotation center point.
CenterY	x:Double

(description)	The y-coordinate of the rotation center point.
---------------	--

4.751 RotateTransform3D

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D > Transform3D > AffineTransform3D > RotateTransform3D	
RotateTransform3D	
(usage)	<RotateTransform3D />
(description)	Specifies a rotation transformation.
(properties)	
CenterX	x:Double
(description)	The X coordinate of the Point3D about which to rotate.
CenterY	x:Double
(description)	The Y coordinate of the Point3D about which to rotate.
CenterZ	x:Double
(description)	The Z coordinate of the Point3D about which to rotate.
Rotation	Rotation3D
(description)	A Rotation3D that specifies the rotation.

4.752 Rotation

x:Object > Rotation	
Rotation	
(usage)	Rotate0 Rotate90 Rotate180 Rotate270
(description)	Specifies the rotation to apply to a bitmap image.
(used by)	BitmapImage JpegBitmapEncoder WmpBitmapEncoder
[is nullable]	false
[text syntax]	RotationSyntax

4.753 Rotation3D

x:Object > DependencyObject > Freezable > Animatable > Rotation3D	
<h1>Rotation3D</h1>	
AxisAngleRotation3D QuaternionRotation3D	
(usage)	{x:Static Rotation3D.StaticPropertyName}
(description)	Specifies the 3-D rotation to be used in a transformation.
(used by)	RotateTransform3D Rotation3DAnimation Rotation3DKeyFrame
[is default constructible]	false
(static properties)	
Identity	Rotation3D
(description)	Singleton identity Rotation3D.

4.754 Rotation3DAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Rotation3DAnimationBase > Rotation3DAnimation	
<h1>Rotation3DAnimation</h1>	
(usage)	<Rotation3DAnimation />
(description)	Animates the value of a Rotation3D property using linear interpolation between two values determined by the combination of From, To, or By properties that are set for the animation.
[name property]	Name
(properties)	
By	Rotation3D
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	Rotation3D
(description)	The animation's starting value.
IsAdditive	x:Boolean

(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	Rotation3D
(description)	The animation's ending value.

4.755 Rotation3DAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Rotation3DAnimationBase	
<h2>Rotation3DAnimationBase</h2>	
Rotation3DAnimation Rotation3DAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Rotation3D value.
[is default constructible]	false
[name property]	Name

4.756 Rotation3DAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Rotation3DAnimationBase > Rotation3DAnimationUsingKeyFrames	
<h2>Rotation3DAnimationUsingKeyFrames</h2>	
(usage)	<Rotation3DAnimationUsingKeyFrames> Rotation3DKeyFrame *</Rotation3DAnimationUsingKeyFrames>
(description)	Animates the value of a Rotation3D property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean

(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	Rotation3DKeyFrameCollection
(description)	The collection of Rotation3DKeyFrame objects that define the animation.

4.757 Rotation3DKeyFrame

x:Object > DependencyObject > Freezable > Rotation3DKeyFrame	
<h2>Rotation3DKeyFrame</h2>	
DiscreteRotation3DKeyFrame EasingRotation3DKeyFrame LinearRotation3DKeyFrame SplineRotation3DKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a Rotation3DAnimationUsingKeyFrames.
(used by)	Rotation3DKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Rotation3D
(description)	The key frame's target value.

4.758 Rotation3DKeyFrameCollection

x:Object > DependencyObject > Freezable > Rotation3DKeyFrameCollection	
<h2>Rotation3DKeyFrameCollection</h2>	
(usage)	<Rotation3DKeyFrameCollection> Rotation3DKeyFrame *</Rotation3DKeyFrameCollection>
(description)	Represents a collection of Rotation3DKeyFrame objects.

(used by)	Rotation3DAnimationUsingKeyFrames
[is list]	true
[allowed types]	Rotation3DKeyFrame
(static properties)	
Empty	Rotation3DKeyFrameCollection
(description)	An empty Rotation3DKeyFrameCollection.

4.759 RoutedCommand

x:Object > RoutedCommand	
<h2>RoutedCommand</h2>	
RoutedUICommand	
(usage)	<RoutedCommand> string </RoutedCommand>
(description)	Defines a command that implements ICommand and is routed through the element tree.
(used by)	RibbonGallery Slider SystemCommands
[text syntax]	CommandSyntax
(properties)	
InputGestures	InputGestureCollection
(description)	The collection of InputGesture objects that are associated with this command.
[read only]	true
(events)	
CanExecuteChanged	Occurs when changes to the command source are detected by the command manager. These changes often affect whether the command should execute on the current command target.

4.760 RoutedEvent

x:Object > RoutedEvent	
<h2>RoutedEvent</h2>	
(usage)	<RoutedEvent> string </RoutedEvent>

(description)	Represents and identifies a routed event and declares its characteristics.
(used by)	EventSetter EventTrigger
[is default constructible]	false
[text syntax]	RoutedEventSyntax

4.761 RoutedEventHandlerInfo

x:Object > RoutedEventHandlerInfo	
RoutedEventHandlerInfo	
(usage)	<RoutedEventHandlerInfo />
(description)	Provides special handling information to inform event listeners whether specific handlers should be invoked.
[is nullable]	false

4.762 RoutedUICommand

x:Object > RoutedCommand > RoutedUICommand	
RoutedUICommand	
(usage)	<RoutedUICommand> string </RoutedUICommand>
(description)	Defines an ICommand that is routed through the element tree and contains a text property.
(used by)	ApplicationCommands ComponentCommands DataGrid DocumentViewer EditingCommands MediaCommands NavigationCommands RibbonCommands
[text syntax]	CommandSyntax
(properties)	
Text	x:String
(description)	The text that describes this command.

4.763 RoutingStrategy

x:Object > RoutingStrategy	
<h3>RoutingStrategy</h3>	
(usage)	Tunnel Bubble Direct
(description)	Indicates the routing strategy of a routed event.
[is nullable]	false
[text syntax]	RoutingStrategySyntax

4.764 RowDefinition

x:Object > DependencyObject > ContentElement > FrameworkContentElement > DefinitionBase > RowDefinition , InputElement	
<h3>RowDefinition</h3>	
(usage)	<RowDefinition />
(description)	Defines row-specific properties that apply to Grid elements.
(used by)	ICollection(RowDefinition) IList(RowDefinition) RowDefinitionCollection
[name property]	Name
[xml lang property]	Language
(properties)	
Height	GridLength
(description)	The calculated height of a RowDefinition element, or sets the GridLength value of a row that is defined by the RowDefinition.
MaxHeight	x:Double
(description)	A value that represents the maximum height of a RowDefinition.
[text syntax]	LengthSyntax
MinHeight	x:Double
(description)	A value that represents the minimum allowable height of a RowDefinition.
[text syntax]	LengthSyntax

4.765 RowDefinitionCollection

x:Object > RowDefinitionCollection	
RowDefinitionCollection	
(usage)	None.
(description)	Provides access to an ordered, strongly typed collection of RowDefinition objects.
(used by)	Grid
[is default constructible]	false
[is list]	true
[allowed types]	RowDefinition

4.766 Run

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > Run , InputElement	
Run	
(usage)	<Run> x:String </Run>
(description)	An inline-level flow content element intended to contain a run of formatted or unformatted text.
[content property]	Text
[name property]	Name
[xml lang property]	Language
(properties)	
Text	x:String
(description)	The unformatted text contents of this text Run.

4.767 SamplingMode

x:Object > SamplingMode
SamplingMode

(usage)	NearestNeighbor Bilinear Auto
(description)	Indicates the way Brush-valued properties are sampled in a custom shader effect.
[is nullable]	false
[text syntax]	SamplingModeSyntax

4.768 ScaleTransform

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > Transform > ScaleTransform	
<h2>ScaleTransform</h2>	
(usage)	<ScaleTransform> string </ScaleTransform>
(description)	Scales an object in the 2-D x-y coordinate system.
[text syntax]	TransformSyntax
(properties)	
CenterX	x:Double
(description)	The x-coordinate of the center point of this ScaleTransform.
CenterY	x:Double
(description)	The y-coordinate of the center point of this ScaleTransform.
ScaleX	x:Double
(description)	The x-axis scale factor.
ScaleY	x:Double
(description)	The y-axis scale factor.

4.769 ScaleTransform3D

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D > Transform3D > AffineTransform3D > ScaleTransform3D	
<h2>ScaleTransform3D</h2>	
(usage)	<ScaleTransform3D />

(description)	Scales an object in the three-dimensional x-y-z plane, starting from a defined center point. Scale factors are defined in x-, y-, and z- directions from this center point.
(properties)	
CenterX	x:Double
(description)	The x-coordinate of the transform's center point.
CenterY	x:Double
(description)	The z-coordinate of the transform's center point.
CenterZ	x:Double
(description)	The z-coordinate of the transform's center point.
ScaleX	x:Double
(description)	The scale factor in the x-direction.
ScaleY	x:Double
(description)	The scale factor in the y-direction.
ScaleZ	x:Double
(description)	The scale factor in the z-direction.

4.770 ScrollBar

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > RangeBase > ScrollBar , InputElement	
<h2>ScrollBar</h2>	
(usage)	<ScrollBar />
(description)	Represents a control that provides a scroll bar that has a sliding Thumb whose position corresponds to a value.
[name property]	Name
[xml lang property]	Language
(properties)	
Orientation	Orientation
(description)	Whether the ScrollBar is displayed horizontally or vertically.
ViewportSize	x:Double
(description)	The amount of the scrollable content that is currently visible.

(events)	
Scroll	Occurs one or more times as content scrolls in a ScrollBar when the user moves the Thumb by using the mouse.

4.771 ScrollBarVisibility

x:Object > ScrollBarVisibility	
ScrollBarVisibility	
(usage)	Disabled Auto Hidden Visible
(description)	Specifies the visibility of a ScrollBar for scrollable content.
(used by)	DataGrid FlowDocumentScrollViewer ScrollViewer TextBoxBase
[is nullable]	false
[text syntax]	ScrollBarVisibilitySyntax

4.772 ScrollContentPresenter

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ContentPresenter > ScrollContentPresenter , InputElement	
ScrollContentPresenter	
(usage)	<ScrollContentPresenter />
(description)	Displays the content of a ScrollViewer control.
[name property]	Name
[xml lang property]	Language
(properties)	
CanContentScroll	x:Boolean
(description)	Indicates whether the content, if it supports IScrollInfo, should be allowed to control scrolling.
CanHorizontallyScroll	x:Boolean
(description)	A value that indicates whether scrolling on the horizontal axis is possible.
CanVerticallyScroll	x:Boolean
(description)	A value that indicates whether scrolling on the vertical axis is possible.

ScrollOwner	ScrollViewer
(description)	A ScrollViewer element that controls scrolling behavior.

4.773 ScrollEventType

x:Object > ScrollEventType	
ScrollEventType	
(usage)	EndScroll First LargeDecrement LargeIncrement Last SmallDecrement SmallIncrement ThumbPosition ThumbTrack ...
(description)	Describes the behavior that caused a Scroll event for a ScrollBar control.
[is nullable]	false
[text syntax]	ScrollEventTypeSyntax

4.774 ScrollUnit

x:Object > ScrollUnit	
ScrollUnit	
(usage)	Pixel Item
(description)	Specifies the type of unit that is used by the ScrollUnit attached property.
(used by)	VirtualizingPanel
[is nullable]	false
[text syntax]	ScrollUnitSyntax

4.775 ScrollViewer

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ScrollViewer , InputElement	
ScrollViewer	
(usage)	<ScrollViewer> x:Object </ScrollViewer>

(description)	Represents a scrollable area that can contain other visible elements.
(used by)	IScrollInfo ScrollContentPresenter StackPanel VirtualizingStackPanel
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
CanContentScroll	x:Boolean
(description)	A value that indicates whether elements that support the IScrollInfo interface are allowed to scroll.
HorizontalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a horizontal ScrollBar should be displayed.
IsDeferredScrollingEnabled	x:Boolean
(description)	A value that indicates whether the content is stationary when the user drags the Thumb of a ScrollBar.
PanningDeceleration	x:Double
(description)	The rate ScrollViewer slows in device-independent units (1/96th inch per unit) per squared millisecond when in inertia.
PanningMode	PanningMode
(description)	The way ScrollViewer reacts to touch manipulation.
PanningRatio	x:Double
(description)	The ratio of scrolling offset to translate manipulation offset.
VerticalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a vertical ScrollBar should be displayed.
(attachable properties)	
ScrollViewer.CanContentScroll	x:Boolean
(description)	A value that indicates whether elements that support the IScrollInfo interface are allowed to scroll.
[target type]	DependencyObject
ScrollViewer.HorizontalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a horizontal ScrollBar should be displayed.
[target type]	DependencyObject
ScrollViewer.IsDeferredScrollingEnabled	x:Boolean

(description)	A value that indicates whether the content is stationary when the user drags the Thumb of a ScrollBar.
[target type]	DependencyObject
ScrollViewer.PanningDeceleration	x:Double
(description)	The rate ScrollViewer slows in device-independent units (1/96th inch per unit) per squared millisecond when in inertia.
[target type]	DependencyObject
ScrollViewer.PanningMode	PanningMode
(description)	The way ScrollViewer reacts to touch manipulation.
[target type]	DependencyObject
ScrollViewer.PanningRatio	x:Double
(description)	The ratio of scrolling offset to translate manipulation offset.
[target type]	DependencyObject
ScrollViewer.VerticalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a vertical ScrollBar should be displayed.
[target type]	DependencyObject
(events)	
ScrollChanged	Occurs when changes are detected to the scroll position, extent, or viewport size.

4.776 Section

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Block > Section , InputElement	
<h2>Section</h2>	
(usage)	<Section> Block *</Section>
(description)	A block-level flow content element used for grouping other Block elements.
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	

Blocks	BlockCollection
(description)	A BlockCollection containing the top-level Block elements that comprise the contents of the Section.
[read only]	true
HasTrailingParagraphBreakOnPaste	x:Boolean
(description)	A value that indicates whether or not a trailing paragraph break should be inserted after the last paragraph when placing the contents of a root Section element on the clipboard.

4.777 SeekStoryboard

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction > SeekStoryboard	
SeekStoryboard	
(usage)	<SeekStoryboard />
(description)	A trigger action that provides functionality for seeking (skipping) to a specified time within the active period of a Storyboard.
(properties)	
Offset	x:TimeSpan
(description)	The amount by which the storyboard should move forward or backward from the seek origin Origin.
Origin	TimeSeekOrigin
(description)	The position from which this seek operation's Offset is applied.

4.778 SelectedDatesCollection

x:Object > Collection(x:DateTime) > ObservableCollection(x:DateTime) > SelectedDatesCollection	
SelectedDatesCollection	
(usage)	None.
(description)	Represents a set of selected dates in a Calendar.
(used by)	Calendar
[is default constructible]	false

[is list]	true
[allowed types]	x:DateTime

4.779 SelectionMode

x:Object > SelectionMode	
SelectionMode	
(usage)	Single Multiple Extended
(description)	Defines the selection behavior for a ListBox.
(used by)	ListBox
[is nullable]	false
[text syntax]	SelectionModeSyntax

4.780 SelectiveScrollingGrid

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > Grid > SelectiveScrollingGrid , InputElement	
SelectiveScrollingGrid	
(usage)	<SelectiveScrollingGrid> UIElement *</SelectiveScrollingGrid>
(description)	A panel that can hold specified cells in place when the view is scrolled.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(attachable properties)	
SelectiveScrollingGrid.SelectiveSc rollingOrientation	SelectiveScrollingOrientation
(description)	The direction that cells can scroll.
[target type]	DependencyObject

4.781 SelectiveScrollingOrientation

x:Object > SelectiveScrollingOrientation	
<h1>SelectiveScrollingOrientation</h1>	
(usage)	None Horizontal Vertical Both
(description)	Specifies the direction that SelectiveScrollingGrid panels can scroll.
(used by)	SelectiveScrollingGrid
[is nullable]	false
[text syntax]	SelectiveScrollingOrientationSyntax

4.782 Selector

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > Selector , InputElement	
<h1>Selector</h1>	
ComboBox ListBox MultiSelector Ribbon TabControl	
(usage)	None.
(description)	Represents a control that allows a user to select items from among its child elements.
[is default constructible]	false
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
IsSynchronizedWithCurrentItem	x:Nullable(x:Boolean)
(description)	A value that indicates whether a Selector should keep the SelectedItem synchronized with the current item in the Items property.
SelectedIndex	x:Int32
(description)	The index of the first item in the current selection or returns negative one (-1) if the selection is empty.
SelectedItem	x:Object
(description)	The first item in the current selection or returns null if the selection is empty

SelectedValue	x:Object
(description)	The value of the SelectedItem, obtained by using SelectedValuePath.
SelectedValuePath	x:String
(description)	The path that is used to get the SelectedValue from the SelectedItem.
(attachable properties)	
Selector.IsSelected	x:Boolean
(description)	A value that indicates whether an item is selected.
[target type]	DependencyObject
(events)	
SelectionChanged	Occurs when the selection of a Selector changes.
(attachable events)	
Selector.Selected	Occurs when an item is selected.
Selector.Unselected	Occurs when an item is unselected.

4.783 Separator

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > Separator , InputElement	
<h2>Separator</h2>	
RibbonSeparator	
(usage)	<Separator />
(description)	Control that is used to separate items in items controls.
[name property]	Name
[xml lang property]	Language

4.784 SetStoryboardSpeedRatio

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction > SetStoryboardSpeedRatio	
<h2>SetStoryboardSpeedRatio</h2>	
(usage)	<SetStoryboardSpeedRatio />
(description)	A trigger action that changes the speed of a Storyboard.

(properties)	
SpeedRatio	x:Double
(description)	A new Storyboard animation speed as a ratio of the old animation speed.

4.785 Setter

x:Object > SetterBase > Setter	
Setter	
(usage)	<Setter />
(description)	Represents a setter that applies a property value.
(properties)	
Property	DependencyProperty
(description)	The property to which the Value will be applied.
TargetName	x:String
(description)	The name of the object this Setter is intended for.
Value	x:Object
(description)	The value to apply to the property that is specified by this Setter.
[text syntax]	This property's text syntax is the text syntax of the Property.

4.786 SetterBase

x:Object > SetterBase	
SetterBase	
EventSetter Setter	
(usage)	None.
(description)	Represents the base type for value setters.
(used by)	Collection(SetterBase) ICollection(SetterBase) IList(SetterBase) SetterBaseCollection
[is default constructible]	false

4.787 SetterBaseCollection

x:Object > Collection(SetterBase) > SetterBaseCollection	
<h2>SetterBaseCollection</h2>	
(usage)	<SetterBaseCollection> SetterBase *</SetterBaseCollection>
(description)	Represents a collection of SetterBase objects.
(used by)	DataTrigger MultiDataTrigger MultiTrigger Style Trigger
[is list]	true
[allowed types]	SetterBase

4.788 ShaderRenderMode

x:Object > ShaderRenderMode	
<h2>ShaderRenderMode</h2>	
(usage)	Auto SoftwareOnly HardwareOnly
(description)	Indicates the policy for rendering a ShaderEffect in software.
(used by)	PixelShader
[is nullable]	false
[text syntax]	ShaderRenderModeSyntax

4.789 Shape

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Shape , InputElement	
<h2>Shape</h2>	
Ellipse Line Path Polygon Polyline Rectangle	
(usage)	None.
(description)	A base type for vector shapes.
[is default constructible]	false
[name property]	Name

[xml lang property]	Language
(properties)	
Fill	Brush
(description)	The Brush that specifies how the shape's interior is painted.
Stretch	Stretch
(description)	A Stretch enumeration value that describes how the shape fills its allocated space.
Stroke	Brush
(description)	The Brush that specifies how the Shape outline is painted.
StrokeDashArray	DoubleCollection
(description)	A collection of Double values that indicate the pattern of dashes and gaps that is used to outline shapes.
StrokeDashCap	PenLineCap
(description)	A PenLineCap enumeration value that specifies how the ends of a dash are drawn.
StrokeDashOffset	x:Double
(description)	A Double that specifies the distance within the dash pattern where a dash begins.
StrokeEndLineCap	PenLineCap
(description)	A PenLineCap enumeration value that describes the Shape at the end of a line.
StrokeLineJoin	PenLineJoin
(description)	A PenLineJoin enumeration value that specifies the type of join that is used at the vertices of a Shape.
StrokeMiterLimit	x:Double
(description)	A limit on the ratio of the miter length to half the StrokeThickness of a Shape element.
StrokeStartLineCap	PenLineCap
(description)	A PenLineCap enumeration value that describes the Shape at the start of a Stroke.
StrokeThickness	x:Double
(description)	The width of the Shape outline.
[text syntax]	LengthSyntax

4.790 ShutdownMode

x:Object > ShutdownMode	
<h2>ShutdownMode</h2>	
(usage)	OnLastWindowClose OnMainWindowClose OnExplicitShutdown
(description)	Specifies how an application will shutdown. Used by the ShutdownMode property.
(used by)	Application
[is nullable]	false
[text syntax]	ShutdownModeSyntax

4.791 SineEase

x:Object > DependencyObject > Freezable > EasingFunctionBase > SineEase , IEasingFunction	
<h2>SineEase</h2>	
(usage)	<SineEase />
(description)	Represents an easing function that creates an animation that accelerates and/or decelerates using a sine formula.

4.792 SingleAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > SingleAnimationBase > SingleAnimation	
<h2>SingleAnimation</h2>	
(usage)	<SingleAnimation />
(description)	Animates the value of a Single property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(x:Single)
(description)	The total amount by which the animation changes its starting value.

EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(x:Single)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(x:Single)
(description)	The animation's ending value.

4.793 SingleAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > SingleAnimationBase	
SingleAnimationBase	
SingleAnimation SingleAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Single value.
[is default constructible]	false
[name property]	Name

4.794 SingleAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > SingleAnimationBase > SingleAnimationUsingKeyFrames	
SingleAnimationUsingKeyFrames	
(usage)	<SingleAnimationUsingKeyFrames> SingleKeyFrame *</SingleAnimationUsingKeyFrames>
(description)	Animates the value of a Single property along a set of KeyFrames.

[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	SingleKeyFrameCollection
(description)	The collection of SingleKeyFrame objects that define the animation.

4.795 SingleKeyFrame

x:Object > DependencyObject > Freezable > SingleKeyFrame	
<h2>SingleKeyFrame</h2>	
DiscreteSingleKeyFrame EasingSingleKeyFrame LinearSingleKeyFrame SplineSingleKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a SingleAnimationUsingKeyFrames.
(used by)	SingleKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:Single
(description)	The key frame's target value.

4.796 SingleKeyFrameCollection

x:Object > DependencyObject > Freezable > SingleKeyFrameCollection
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SingleKeyFrameCollection	
(usage)	<SingleKeyFrameCollection> SingleKeyFrame *</SingleKeyFrameCollection>
(description)	Represents a collection of SingleKeyFrame objects.
(used by)	SingleAnimationUsingKeyFrames
[is list]	true
[allowed types]	SingleKeyFrame
(static properties)	
Empty	SingleKeyFrameCollection
(description)	An empty SingleKeyFrameCollection.

4.797 Size

x:Object > Size	
Size	
(usage)	<Size> string </Size>
(description)	Implements a structure that is used to describe the Size of an object.
(used by)	ArcSegment Rect RenderCapability SizeAnimation SizeKeyFrame UIElement
[is nullable]	false
[text syntax]	SizeSyntax
(properties)	
Height	x:Double
(description)	The Height of this instance of Size.
Width	x:Double
(description)	The Width of this instance of Size.
(static properties)	
Empty	Size
(description)	A value that represents a static empty Size.

4.798 Size3D

x:Object > Size3D	
Size3D	
(usage)	<Size3D> string </Size3D>
(description)	Data structure that describes the size of a three-dimensional object.
(used by)	Rect3D
[is nullable]	false
[text syntax]	Size3DSyntax
(properties)	
X	x:Double
(description)	The X value of this Size3D structure.
Y	x:Double
(description)	The Y value of this Size3D structure.
Z	x:Double
(description)	The Z value of this Size3D structure.
(static properties)	
Empty	Size3D
(description)	A value that represents an empty Size3D structure.

4.799 SizeAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > SizeAnimationBase > SizeAnimation	
SizeAnimation	
(usage)	<SizeAnimation />
(description)	Animates the value of a Size property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(Size)
(description)	The total amount by which the animation changes its starting value.

EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Size)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Size)
(description)	The animation's ending value.

4.800 SizeAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > SizeAnimationBase	
<h2>SizeAnimationBase</h2>	
SizeAnimation SizeAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Size value.
[is default constructible]	false
[name property]	Name

4.801 SizeAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > SizeAnimationBase > SizeAnimationUsingKeyFrames	
<h2>SizeAnimationUsingKeyFrames</h2>	
(usage)	<SizeAnimationUsingKeyFrames> SizeKeyFrame *</SizeAnimationUsingKeyFrames>
(description)	Animates the value of a Size property along a set of KeyFrames.

[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	SizeKeyFrameCollection
(description)	The collection of SizeKeyFrame objects that define the animation.

4.802 SizeKeyFrame

x:Object > DependencyObject > Freezable > SizeKeyFrame	
<h2>SizeKeyFrame</h2>	
DiscreteSizeKeyFrame EasingSizeKeyFrame LinearSizeKeyFrame SplineSizeKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a SizeAnimationUsingKeyFrames.
(used by)	SizeKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Size
(description)	The key frame's target value.

4.803 SizeKeyFrameCollection

x:Object > DependencyObject > Freezable > SizeKeyFrameCollection
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SizeKeyFrameCollection	
(usage)	<SizeKeyFrameCollection> SizeKeyFrame *</SizeKeyFrameCollection>
(description)	Represents a collection of SizeKeyFrame objects.
(used by)	SizeAnimationUsingKeyFrames
[is list]	true
[allowed types]	SizeKeyFrame
(static properties)	
Empty	SizeKeyFrameCollection
(description)	An empty SizeKeyFrameCollection.

4.804 SizeToContent

x:Object > SizeToContent	
SizeToContent	
(usage)	Manual Width Height WidthAndHeight
(description)	Specifies how a window will automatically size itself to fit the size of its content. Used by the SizeToContent property.
(used by)	Window
[is nullable]	false
[text syntax]	SizeToContentSyntax

4.805 SkewTransform

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > Transform > SkewTransform	
SkewTransform	
(usage)	<SkewTransform> string </SkewTransform>
(description)	Represents a 2-D skew.
[text syntax]	TransformSyntax
(properties)	

AngleX	x:Double
(description)	The x-axis skew angle, which is measured in degrees counterclockwise from the y-axis.
AngleY	x:Double
(description)	The y-axis skew angle, which is measured in degrees counterclockwise from the x-axis.
CenterX	x:Double
(description)	The x-coordinate of the transform center.
CenterY	x:Double
(description)	The y-coordinate of the transform center.

4.806 SkipStoryboardToFill

x:Object > DependencyObject > TriggerAction > ControllableStoryboardAction > SkipStoryboardToFill	
SkipStoryboardToFill	
(usage)	<SkipStoryboardToFill />
(description)	A trigger action that advances a Storyboard to the end of its fill period.

4.807 Slider

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > RangeBase > Slider , InputElement	
Slider	
(usage)	<Slider />
(description)	Represents a control that lets the user select from a range of values by moving a Thumb control along a Track.
[name property]	Name
[xml lang property]	Language
(properties)	
AutoToolTipPlacement	AutoToolTipPlacement

(description)	Whether a tooltip that contains the current value of the Slider displays when the Thumb is pressed. If a tooltip is displayed, this property also specifies the placement of the tooltip.
AutoToolTipPrecision	x:Int32
(description)	The number of digits that are displayed to the right side of the decimal point for the Value of the Slider in a tooltip.
Delay	x:Int32
(description)	The amount of time in milliseconds that a RepeatButton waits, while it is pressed, before a command to move the Thumb executes, such as a DecreaseLarge command.
Interval	x:Int32
(description)	The amount of time in milliseconds between increase or decrease commands when a user clicks the RepeatButton of a Slider.
IsDirectionReversed	x:Boolean
(description)	The direction of increasing value.
IsMoveToPointEnabled	x:Boolean
(description)	A value that indicates whether the Thumb of a Slider moves immediately to the location of the mouse click that occurs while the mouse pointer pauses on the Slider track.
IsSelectionRangeEnabled	x:Boolean
(description)	A value that indicates whether the Slider displays a selection range along the Slider.
IsSnapToTickEnabled	x:Boolean
(description)	A value that indicates whether the Slider automatically moves the Thumb to the closest tick mark.
Orientation	Orientation
(description)	The orientation of a Slider.
SelectionEnd	x:Double
(description)	The largest value of a specified selection for a Slider.
SelectionStart	x:Double
(description)	The smallest value of a specified selection for a Slider.
TickFrequency	x:Double
(description)	The interval between tick marks.
TickPlacement	TickPlacement
(description)	The position of tick marks with respect to the Track of the Slider.

Ticks	DoubleCollection
(description)	The positions of the tick marks to display for a Slider.
(static properties)	
DecreaseLarge	RoutedCommand
(description)	A command that decreases the value of the Slider by the same amount as the LargeChange property.
DecreaseSmall	RoutedCommand
(description)	A command that decreases the value of the Slider by the same amount as the SmallChange property.
IncreaseLarge	RoutedCommand
(description)	A command that increases the value of the slider by the same amount as the LargeChange property.
IncreaseSmall	RoutedCommand
(description)	A command that increases the value of the slider by the same amount as the SmallChange property.
MaximizeValue	RoutedCommand
(description)	A command that sets the Slider Value to the Maximum value.
MinimizeValue	RoutedCommand
(description)	A command that sets the Slider Value to the Minimum value.

4.808 SlipBehavior

x:Object > SlipBehavior	
SlipBehavior	
(usage)	Grow Slip
(description)	Indicates how a ParallelTimeline will behave when one or more of its Timeline children slips.
(used by)	ParallelTimeline
[is nullable]	false
[text syntax]	SlipBehaviorSyntax

4.809 SolidColorBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > SolidColorBrush	
<h2>SolidColorBrush</h2>	
(usage)	<SolidColorBrush> string </SolidColorBrush>
(description)	Paints an area with a solid color.
(used by)	Brushes SystemColors
[text syntax]	BrushSyntax
(properties)	
Color	Color
(description)	The color of this SolidColorBrush.

4.810 SoundPlayerAction

x:Object > DependencyObject > TriggerAction > SoundPlayerAction	
<h2>SoundPlayerAction</h2>	
(usage)	<SoundPlayerAction />
(description)	Represents a lightweight audio playback TriggerAction used to play .wav files.
(properties)	
Source	x:Uri
(description)	The audio source location.

4.811 Span

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > Span , InputElement	
<h2>Span</h2>	
Bold Hyperlink Italic Underline	
(usage)	 Inline UIElement x:String *
(description)	Groups other Inline flow content elements.

[content property]	Inlines
[name property]	Name
[xml lang property]	Language
(properties)	
Inlines	InlineCollection
(description)	An InlineCollection containing the top-level Inline elements that comprise the contents of the Span.
[read only]	true

4.812 SpecularMaterial

x:Object > DependencyObject > Freezable > Animatable > Material > SpecularMaterial	
SpecularMaterial	
(usage)	<SpecularMaterial />
(description)	Allows a 2-D brush, like a SolidColorBrush or TileBrush, to be applied to a specularly-lit 3-D model.
(properties)	
Brush	Brush
(description)	The 2-D brush to apply to a specularly-lit 3-D model.
Color	Color
(description)	A value that filters the color properties of the material applied to the model.
SpecularPower	x:Double
(description)	A value that specifies the degree to which a material applied to a 3-D model reflects the lighting model as shine.

4.813 SpeechMode

x:Object > SpeechMode	
SpeechMode	
(usage)	Dictation Command Indeterminate
(description)	Specifies the mode of interpretation for speech input.

(used by)	InputMethod
[is nullable]	false
[text syntax]	SpeechModeSyntax

4.814 SpellCheck

x:Object > SpellCheck	
<h2>SpellCheck</h2>	
(usage)	None.
(description)	Provides real-time spell-checking functionality to text-editing controls, such as TextBox and RichTextBox.
[is default constructible]	false
(properties)	
CustomDictionaries	IList
(description)	The collection of lexicon file locations that are used for custom spell checking.
[read only]	true
IsEnabled	x:Boolean
(description)	A value that determines whether the spelling checker is enabled on this text-editing control, such as TextBox or RichTextBox.
SpellingReform	SpellingReform
(description)	The spelling reform rules that are used by the spelling checker.
(attachable properties)	
SpellCheck.CustomDictionaries	IList
(description)	The collection of lexicon file locations that are used for custom spell checking.
[target type]	TextBoxBase
[read only]	true
SpellCheck.IsEnabled	x:Boolean
(description)	A value that determines whether the spelling checker is enabled on this text-editing control, such as TextBox or RichTextBox.
[target type]	TextBoxBase
SpellCheck.SpellingReform	SpellingReform
(description)	The spelling reform rules that are used by the spelling checker.

[target type]	TextBoxBase
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4.815 SpellingReform

x:Object > SpellingReform	
SpellingReform	
(usage)	PreAndPostreform Prereform Postreform
(description)	Specifies the spelling reform rules used by the spellchecker of the text editing control (i.e. TextBox or RichTextBox).
(used by)	SpellCheck
[is nullable]	false
[text syntax]	SpellingReformSyntax

4.816 SplineByteKeyFrame

x:Object > DependencyObject > Freezable > ByteKeyFrame > SplineByteKeyFrame	
SplineByteKeyFrame	
(usage)	<SplineByteKeyFrame />
(description)	Animates from the Byte value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.817 SplineColorKeyFrame

x:Object > DependencyObject > Freezable > ColorKeyFrame > SplineColorKeyFrame	
SplineColorKeyFrame	
(usage)	<SplineColorKeyFrame />

(description)	Animates from the Color value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.818 SplineDecimalKeyFrame

x:Object > DependencyObject > Freezable > DecimalKeyFrame > SplineDecimalKeyFrame	
<h2>SplineDecimalKeyFrame</h2>	
(usage)	<SplineDecimalKeyFrame />
(description)	Animates from the Decimal value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.819 SplineDoubleKeyFrame

x:Object > DependencyObject > Freezable > DoubleKeyFrame > SplineDoubleKeyFrame	
<h2>SplineDoubleKeyFrame</h2>	
(usage)	<SplineDoubleKeyFrame />
(description)	Animates from the Double value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.820 SplineInt16KeyFrame

x:Object > DependencyObject > Freezable > Int16KeyFrame > SplineInt16KeyFrame	
<h2>SplineInt16KeyFrame</h2>	
(usage)	<SplineInt16KeyFrame />
(description)	Animates from the Int16 value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.821 SplineInt32KeyFrame

x:Object > DependencyObject > Freezable > Int32KeyFrame > SplineInt32KeyFrame	
<h2>SplineInt32KeyFrame</h2>	
(usage)	<SplineInt32KeyFrame />
(description)	Animates from the Int32 value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.822 SplineInt64KeyFrame

x:Object > DependencyObject > Freezable > Int64KeyFrame > SplineInt64KeyFrame	
<h2>SplineInt64KeyFrame</h2>	
(usage)	<SplineInt64KeyFrame />
(description)	Animates from the Int64 value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline

(description)	The two control points that define animation progress for this key frame.
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4.823 SplinePoint3DKeyFrame

x:Object > DependencyObject > Freezable > Point3DKeyFrame > SplinePoint3DKeyFrame	
SplinePoint3DKeyFrame	
(usage)	<SplinePoint3DKeyFrame />
(description)	Animates from the Point3D value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.824 SplinePointKeyFrame

x:Object > DependencyObject > Freezable > PointKeyFrame > SplinePointKeyFrame	
SplinePointKeyFrame	
(usage)	<SplinePointKeyFrame />
(description)	Animates from the Point value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.825 SplineQuaternionKeyFrame

x:Object > DependencyObject > Freezable > QuaternionKeyFrame > SplineQuaternionKeyFrame	
SplineQuaternionKeyFrame	
(usage)	<SplineQuaternionKeyFrame />

(description)	Animates from the Quaternion value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.
UseShortestPath	x:Boolean
(description)	A value that indicates whether the animation uses spherical linear interpolation to calculate the shortest arc between positions.

4.826 SplineRectKeyFrame

x:Object > DependencyObject > Freezable > RectKeyFrame > SplineRectKeyFrame	
SplineRectKeyFrame	
(usage)	<SplineRectKeyFrame />
(description)	Animates from the Rect value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.827 SplineRotation3DKeyFrame

x:Object > DependencyObject > Freezable > Rotation3DKeyFrame > SplineRotation3DKeyFrame	
SplineRotation3DKeyFrame	
(usage)	<SplineRotation3DKeyFrame />
(description)	Animates from the Rotation3D value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.828 SplineSingleKeyFrame

x:Object > DependencyObject > Freezable > SingleKeyFrame > SplineSingleKeyFrame	
SplineSingleKeyFrame	
(usage)	<SplineSingleKeyFrame />
(description)	Animates from the Single value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.829 SplineSizeKeyFrame

x:Object > DependencyObject > Freezable > SizeKeyFrame > SplineSizeKeyFrame	
SplineSizeKeyFrame	
(usage)	<SplineSizeKeyFrame />
(description)	Animates from the Size value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.830 SplineThicknessKeyFrame

x:Object > DependencyObject > Freezable > ThicknessKeyFrame > SplineThicknessKeyFrame	
SplineThicknessKeyFrame	
(usage)	<SplineThicknessKeyFrame />
(description)	Animates from the Thickness value of the previous key frame to its own Value using splined interpolation.
(properties)	

KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.831 SplineVector3DKeyFrame

x:Object > DependencyObject > Freezable > Vector3DKeyFrame > SplineVector3DKeyFrame	
SplineVector3DKeyFrame	
(usage)	<SplineVector3DKeyFrame />
(description)	Animates from the Vector3D value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.832 SplineVectorKeyFrame

x:Object > DependencyObject > Freezable > VectorKeyFrame > SplineVectorKeyFrame	
SplineVectorKeyFrame	
(usage)	<SplineVectorKeyFrame />
(description)	Animates from the Vector value of the previous key frame to its own Value using splined interpolation.
(properties)	
KeySpline	KeySpline
(description)	The two control points that define animation progress for this key frame.

4.833 SpotLight

x:Object > DependencyObject > Freezable > Animatable > Model3D > Light > PointLightBase > SpotLight	
SpotLight	

(usage)	<SpotLight />
(description)	Light object that projects its effect in a cone-shaped area along a specified direction.
(properties)	
Direction	Vector3D
(description)	A Vector3D that specifies the direction in which the SpotLight projects its light.
InnerConeAngle	x:Double
(description)	An angle that specifies the proportion of a SpotLight's cone-shaped projection in which the light fully illuminates objects in the scene.
OuterConeAngle	x:Double
(description)	An angle that specifies the proportion of a SpotLight's cone-shaped projection outside which the light does not illuminate objects in the scene.

4.834 StackPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > StackPanel , InputElement	
StackPanel	
ToolBarPanel	
(usage)	<StackPanel> UIElement *</StackPanel>
(description)	Arranges child elements into a single line that can be oriented horizontally or vertically.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
CanHorizontallyScroll	x:Boolean
(description)	A value that indicates whether a StackPanel can scroll in the horizontal dimension.
CanVerticallyScroll	x:Boolean
(description)	A value that indicates whether content can scroll in the vertical dimension.
Orientation	Orientation
(description)	A value that indicates the dimension by which child elements are stacked.

ScrollOwner	ScrollViewer
(description)	A value that identifies the container that controls scrolling behavior in this StackPanel.

4.835 StaticResourceExtension

x:Object > x:MarkupExtension > StaticResourceExtension	
StaticResourceExtension	
(usage)	{StaticResource } <StaticResource />
(description)	Implements a markup extension that supports static (XAML load time) resource references made from XAML.
[return value type]	x:Object
[constructors]	
(1 parameter)	
resourceKey	x:Object
(description)	The key of the resource that this markup extension references.
(properties)	
ResourceKey	x:Object
(description)	The key value passed by this static resource reference. They key is used to return the object matching that key in resource dictionaries.

4.836 StatusBar

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > StatusBar , IInputElement	
StatusBar	
(usage)	<StatusBar> x:Object *</StatusBar>
(description)	Represents a control that displays items and information in a horizontal bar in an application window.
[content property]	Items
[name property]	Name

[xml lang property]	Language
(properties)	
UsesItemContainerTemplate	x:Boolean
(description)	A value that indicates whether the menu selects different item containers, depending on the type of the item in the underlying collection or some other heuristic.
(static properties)	
SeparatorStyleKey	ResourceKey
(description)	The key that represents the style to use for Separator objects in the StatusBar.

4.837 StatusBarItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > StatusBarItem , InputElement	
StatusBarItem	
(usage)	<StatusBarItem> x:Object </StatusBarItem>
(description)	Represents an item of a StatusBar control.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.838 StickyNoteType

x:Object > StickyNoteType	
StickyNoteType	
(usage)	Text Ink
(description)	Specifies whether a StickyNoteControl accepts text or ink.
[is nullable]	false
[text syntax]	StickyNoteTypeSyntax

4.839 StopStoryboard

[x:Object](#) > [DependencyObject](#) > [TriggerAction](#) > [ControllableStoryboardAction](#) > [StopStoryboard](#)

StopStoryboard

(usage)	<StopStoryboard />
(description)	A trigger action that stops a Storyboard.

4.840 Storyboard

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [TimelineGroup](#) > [ParallelTimeline](#) > [Storyboard](#)

Storyboard

(usage)	<Storyboard> Timeline *</Storyboard>
(description)	A container timeline that provides object and property targeting information for its child animations.
(used by)	BeginStoryboard VisualState VisualTransition
[content property]	Children
[name property]	Name
(attachable properties)	
Storyboard.Target	DependencyObject
(description)	The object that should be animated.
[target type]	DependencyObject
Storyboard.TargetName	x:String
(description)	The name of the object to animate. The object must be a DependencyObject.
[target type]	DependencyObject
Storyboard.TargetProperty	PropertyPath
(description)	The property that should be animated.
[target type]	DependencyObject

4.841 StreamGeometry

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Geometry](#) > [StreamGeometry](#)

StreamGeometry	
(usage)	<StreamGeometry> string </StreamGeometry>
(description)	Defines a geometric shape, described using a StreamGeometryContext. This geometry is light-weight alternative to PathGeometry: it does not support data binding, animation, or modification.
[text syntax]	GeometrySyntax
(properties)	
FillRule	FillRule
(description)	A value that determines how the intersecting areas contained in this StreamGeometry are combined.

4.842 Stretch

x:Object > Stretch	
Stretch	
(usage)	None Fill Uniform UniformToFill
(description)	Describes how content is resized to fill its allocated space.
(used by)	DocumentPageView Image MediaElement Shape TileBrush Viewbox
[is nullable]	false
[text syntax]	StretchSyntax

4.843 StretchDirection

x:Object > StretchDirection	
StretchDirection	
(usage)	UpOnly DownOnly Both
(description)	Describes how scaling applies to content and restricts scaling to named axis types.
(used by)	DocumentPageView Image MediaElement Viewbox
[is nullable]	false

[text syntax]	StretchDirectionSyntax
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4.844 StringAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > StringAnimationBase	
StringAnimationBase	
StringAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a String value.
[is default constructible]	false
[name property]	Name

4.845 StringAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > StringAnimationBase > StringAnimationUsingKeyFrames	
StringAnimationUsingKeyFrames	
(usage)	<StringAnimationUsingKeyFrames> StringKeyFrame *</StringAnimationUsingKeyFrames>
(description)	Animates the value of a String property along a set of KeyFrames over a specified Duration.
[content property]	KeyFrames
[name property]	Name
(properties)	
KeyFrames	StringKeyFrameCollection
(description)	The collection of StringKeyFrame objects that define the animation.

4.846 StringKeyFrame

x:Object > DependencyObject > Freezable > StringKeyFrame
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<h2>StringKeyFrame</h2>	
DiscreteStringKeyFrame	
(usage)	None.
(description)	Defines an animation segment with its own target value and interpolation technique for a StringAnimationUsingKeyFrames.
(used by)	StringKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	x:String
(description)	The key frame's target value.

4.847 StringKeyFrameCollection

x:Object > DependencyObject > Freezable > StringKeyFrameCollection	
<h2>StringKeyFrameCollection</h2>	
(usage)	<StringKeyFrameCollection> StringKeyFrame *</StringKeyFrameCollection>
(description)	Represents a collection of StringKeyFrame objects.
(used by)	StringAnimationUsingKeyFrames
[is list]	true
[allowed types]	StringKeyFrame
(static properties)	
Empty	StringKeyFrameCollection
(description)	An empty StringKeyFrameCollection.

4.848 Stroke

x:Object > Stroke

Stroke	
(usage)	None.
(description)	Represents a single ink stroke.
(used by)	Collection(Stroke) ICollection(Stroke) IList(Stroke) StrokeCollection
[is default constructible]	false
(properties)	
DrawingAttributes	DrawingAttributes
(description)	The DrawingAttributes for the Stroke object.
StylusPoints	StylusPointCollection
(description)	Returns the stylus points of the Stroke.
(events)	
DrawingAttributesChanged	Occurs when the DrawingAttributes associated with the Stroke object change.
DrawingAttributesReplaced	Occurs when the drawing attributes of a Stroke object are replaced.
Invalidated	Occurs when the appearance of the Stroke changes.
PropertyDataChanged	Occurs when the custom properties on a Stroke object changes.
StylusPointsChanged	Occurs when the StylusPoints property changes.
StylusPointsReplaced	Occurs when the StylusPoints property is assigned a new StylusPointCollection.

4.849 StrokeCollection

x:Object > Collection(Stroke) > StrokeCollection	
StrokeCollection	
(usage)	<StrokeCollection> string </StrokeCollection>
(description)	Represents a collection of Stroke objects.
(used by)	InkCanvas InkPresenter
[text syntax]	StrokeCollectionSyntax
[is list]	true
[allowed types]	Stroke
(events)	
PropertyDataChanged	Occurs when custom property is added or removed from the StrokeCollection.

StrokesChanged	Occurs when a Stroke in the collection changes.
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4.850 Style

x:Object > Style	
<h1>Style</h1>	
(usage)	<Style> SetterBase *</Style>
(description)	Enables the sharing of properties, resources, and event handlers between instances of a type.
(used by)	Calendar DataGrid DataGridBoundColumn DataGridCheckBoxColumn DataGridColumn DataGridComboBoxColumn DataGridHyperlinkColumn DataGridRow DataGridTextColumn DatePicker FrameworkContentElement FrameworkElement GridSplitter GridView GridViewColumn GridViewHeaderRowPresenter GroupStyle HierarchicalDataTemplate ItemsControl KeyTipService Ribbon RibbonGallery RibbonTab
[content property]	Setters
[dictionary key property]	TargetType
[is name scope]	true
(properties)	
BasedOn	Style
(description)	A defined style that is the basis of the current style.
Resources	ResourceDictionary
(description)	The collection of resources that can be used within the scope of this style.
Setters	SetterBaseCollection
(description)	A collection of Setter and EventSetter objects.
[read only]	true
TargetType	x:XamlType
(description)	The type for which this style is intended.
Triggers	TriggerCollection
(description)	A collection of TriggerBase objects that apply property values based on specified conditions.
[read only]	true

4.851 StyleSelector

x:Object > StyleSelector	
<h2>StyleSelector</h2>	
(usage)	<StyleSelector />
(description)	Provides a way to apply styles based on custom logic.
(used by)	DataGrid GroupStyle HierarchicalDataTemplate ItemsControl RibbonGallery

4.852 StyleSimulations

x:Object > StyleSimulations	
<h2>StyleSimulations</h2>	
(usage)	None BoldSimulation ItalicSimulation BoldItalicSimulation
(description)	Defines an enumerator type that describes the simulation style of a font.
(used by)	Glyphs GlyphTypeface
[is nullable]	false
[text syntax]	StyleSimulationsSyntax

4.853 Stylus

x:Object > Stylus	
<h2>Stylus</h2>	
(usage)	{x:Static Stylus.StaticPropertyName}
(description)	Provides access to general information about a tablet pen.
[is default constructible]	false
(attachable properties)	
Stylus.IsFlicksEnabled	x:Boolean
(description)	A value indicating whether flicks are enabled.
[target type]	DependencyObject

Stylus.IsPressAndHoldEnabled	x:Boolean
(description)	A values indicating whether press and hold is enabled.
[target type]	DependencyObject
Stylus.IsTapFeedbackEnabled	x:Boolean
(description)	Whether a value indicating whether tap feedback is enabled.
[target type]	DependencyObject
Stylus.IsTouchFeedbackEnabled	x:Boolean
(description)	Whether a value indicating whether touch feedback is enabled.
[target type]	DependencyObject
(static properties)	
Captured	IInputElement
(description)	The element to which the stylus is bound.
CurrentStylusDevice	StylusDevice
(description)	The stylus that represents the stylus currently in use.
DirectlyOver	IInputElement
(description)	The element that is directly beneath the stylus.
(attachable events)	
Stylus.GotStylusCapture	Occurs when an element captures the stylus events.
Stylus.LostStylusCapture	Occurs when an element releases stylus events.
Stylus.PreviewStylusButtonDown	Occurs when the user presses one of the buttons on the stylus.
Stylus.PreviewStylusButtonUp	Occurs when the user releases one of the buttons on the stylus.
Stylus.PreviewStylusDown	Occurs when user touches the tip of the stylus to the tablet.
Stylus.PreviewStylusInAirMove	Occurs if the stylus moves while it is within range of (but not touching) the tablet.
Stylus.PreviewStylusInRange	Occurs when the stylus comes within range of the tablet.
Stylus.PreviewStylusMove	Occurs when the stylus moves while it is touching the tablet.
Stylus.PreviewStylusOutOfRange	Occurs when the stylus goes out of range of the tablet.
Stylus.PreviewStylusSystemGesture	Occurs when the user makes a system gesture with this stylus.
Stylus.PreviewStylusUp	Occurs when the user lifts the stylus from the tablet.
Stylus.StylusButtonDown	Occurs when the user presses one of the buttons on the stylus.
Stylus.StylusButtonUp	Occurs when the user releases one of the buttons on the stylus.

Stylus.StylusDown	Occurs when the user touches the tip of the stylus to the tablet.
Stylus.StylusEnter	Occurs when the stylus cursor enters the bounds of an element.
Stylus.StylusInAirMove	Occurs when the stylus moves while it is in range of, but not touching, the tablet.
Stylus.StylusInRange	Occurs when the stylus comes within range of the tablet.
Stylus.StylusLeave	Occurs when the stylus cursor leaves the bounds of an element.
Stylus.StylusMove	Occurs when the stylus moves while it is touching the tablet.
Stylus.StylusOutOfRange	Occurs when the stylus goes out of range of the tablet.
Stylus.StylusSystemGesture	Occurs when the user makes a system gesture with this stylus.
Stylus.StylusUp	Occurs when the user raises the stylus from the Tablet PC.

4.854 StylusButton

x:Object > StylusButton	
StylusButton	
(usage)	None.
(description)	Represents a button on a stylus.
(used by)	ICollection(StylusButton) IList(StylusButton) ReadOnlyCollection(StylusButton) StylusButtonCollection
[is default constructible]	false

4.855 StylusButtonCollection

x:Object > ReadOnlyCollection(StylusButton) > StylusButtonCollection	
StylusButtonCollection	
(usage)	None.
(description)	Contains a collection of StylusButton objects.
(used by)	StylusDevice
[is default constructible]	false
[is list]	true

[allowed types]	StylusButton
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4.856 StylusButtonState

x:Object > StylusButtonState	
StylusButtonState	
(usage)	Up Down
(description)	Represents the state of a StylusButton.
[is nullable]	false
[text syntax]	StylusButtonStateSyntax

4.857 StylusDevice

x:Object > InputDevice > StylusDevice	
StylusDevice	
(usage)	None.
(description)	Represents a tablet pen used with a Tablet PC.
(used by)	ICollection(StylusDevice) IList(StylusDevice) ReadOnlyCollection(StylusDevice) Stylus StylusDeviceCollection
[is default constructible]	false
(properties)	
StylusButtons	StylusButtonCollection
(description)	The stylus buttons on the stylus.
[read only]	true

4.858 StylusDeviceCollection

x:Object > ReadOnlyCollection(StylusDevice) > StylusDeviceCollection	
StylusDeviceCollection	

(usage)	None.
(description)	Contains the StylusDevice objects that represent a Tablet PC's stylus devices.
(used by)	TabletDevice
[is default constructible]	false
[is list]	true
[allowed types]	StylusDevice

4.859 StylusPoint

x:Object > StylusPoint	
StylusPoint	
(usage)	<StylusPoint />
(description)	Represents a single data point collected from the digitizer and stylus.
(used by)	Collection(StylusPoint) ICollection(StylusPoint) IList(StylusPoint) StylusPointCollection
[is nullable]	false
(properties)	
Description	StylusPointDescription
(description)	The StylusPointDescription that specifies the properties stored in the StylusPoint.
PressureFactor	x:Single
(description)	A value between 0 and 1 that reflects the amount of pressure the stylus applies to the digitizer's surface when the StylusPoint is created.
X	x:Double
(description)	The value for the x-coordinate of the StylusPoint.
Y	x:Double
(description)	The y-coordinate of the StylusPoint.

4.860 StylusPointCollection

x:Object > Collection(StylusPoint) > StylusPointCollection
--

StylusPointCollection	
(usage)	<StylusPointCollection> StylusPoint *</StylusPointCollection>
(description)	Contains a collection of StylusPoint objects.
(used by)	Stroke
[is list]	true
[allowed types]	StylusPoint
(events)	
Changed	Occurs when the StylusPointCollection changes.

4.861 StylusPointDescription

x:Object > StylusPointDescription	
StylusPointDescription	
(usage)	<StylusPointDescription />
(description)	Specifies the properties that are in a StylusPoint.
(used by)	InkCanvas StylusPoint

4.862 StylusPointPropertyUnit

x:Object > StylusPointPropertyUnit	
StylusPointPropertyUnit	
(usage)	None Inches Centimeters Degrees Radians Seconds Pounds Grams
(description)	Specifies the unit of measurement for a StylusPoint property.
[is nullable]	false
[text syntax]	StylusPointPropertyUnitSyntax

4.863 StylusTip

x:Object > StylusTip
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StylusTip	
(usage)	Rectangle Ellipse
(description)	Specifies the tip to be used to draw a Stroke.
(used by)	DrawingAttributes
[is nullable]	false
[text syntax]	StylusTipSyntax

4.864 SweepDirection

x:Object > SweepDirection	
SweepDirection	
(usage)	Counterclockwise Clockwise
(description)	Defines the direction an elliptical arc is drawn.
(used by)	ArcSegment
[is nullable]	false
[text syntax]	SweepDirectionSyntax

4.865 SystemColors

x:Object > SystemColors	
SystemColors	
(usage)	{x:Static SystemColors.StaticPropertyName}
(description)	Contains system colors, system brushes, and system resource keys that correspond to system display elements.
[is default constructible]	false
(static properties)	
ActiveBorderBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the active window's border.
ActiveBorderBrushKey	ResourceKey

(description)	The ResourceKey for the SolidColorBrush used to paint the active window's border.
ActiveBorderColor	Color
(description)	A Color structure that is the color of the active window's border.
ActiveBorderColorKey	ResourceKey
(description)	The ResourceKey for the Color of the active window's border.
ActiveCaptionBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the background of the active window's title bar.
ActiveCaptionBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush used to paint the background of the active window's title bar.
ActiveCaptionColor	Color
(description)	A Color structure that is the background color of the active window's title bar.
ActiveCaptionColorKey	ResourceKey
(description)	The ResourceKey for the background Color of the active window's title bar.
ActiveCaptionTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the text in the active window's title bar.
ActiveCaptionTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the text in the active window's title bar.
ActiveCaptionTextColor	Color
(description)	A Color structure that is the color of the text in the active window's title bar.
ActiveCaptionTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of the text in the active window's title bar.
AppWorkspaceBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the application workspace.
AppWorkspaceBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the application workspace.
AppWorkspaceColor	Color
(description)	A Color structure that is the color of the application workspace.
AppWorkspaceColorKey	ResourceKey

(description)	The ResourceKey for the Color of the application workspace.
ControlBrush	SolidColorBrush
(description)	A SolidColorBrush that is the face color of a three-dimensional display element.
ControlBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the face of a three-dimensional display element.
ControlColor	Color
(description)	A Color structure that is the face color of a three-dimensional display element.
ControlColorKey	ResourceKey
(description)	The ResourceKey for the face Color of a three-dimensional display element.
ControlDarkBrush	SolidColorBrush
(description)	A SolidColorBrush that is the shadow color of a three-dimensional display element.
ControlDarkBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the shadow of a three-dimensional display element.
ControlDarkColor	Color
(description)	A Color structure that is the shadow color of a three-dimensional display element.
ControlDarkColorKey	ResourceKey
(description)	The ResourceKey for the shadow Color of a three-dimensional display element.
ControlDarkDarkBrush	SolidColorBrush
(description)	A SolidColorBrush that is the dark shadow color of a three-dimensional display element.
ControlDarkDarkBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the dark shadow of a three-dimensional display element.
ControlDarkDarkColor	Color
(description)	A Color structure that is the dark shadow color of a three-dimensional display element.
ControlDarkDarkColorKey	ResourceKey
(description)	The ResourceKey for the dark shadow Color of the highlight color of a three-dimensional display element.
ControlLightBrush	SolidColorBrush

(description)	A SolidColorBrush that is the light color of a three-dimensional display element.
ControlLightBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the light area of a three-dimensional display element.
ControlLightColor	Color
(description)	A Color structure that is the light color of a three-dimensional display element.
ControlLightColorKey	ResourceKey
(description)	The ResourceKey for the highlight Color of a three-dimensional display element.
ControlLightLightBrush	SolidColorBrush
(description)	A SolidColorBrush that is the highlight color of a three-dimensional display element.
ControlLightLightBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the highlight of a three-dimensional display element.
ControlLightLightColor	Color
(description)	A Color structure that is the highlight color of a three-dimensional display element.
ControlLightLightColorKey	ResourceKey
(description)	The ResourceKey for the highlight Color of a three-dimensional display element.
ControlTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of text in a three-dimensional display element.
ControlTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints text in a three-dimensional display element.
ControlTextColor	Color
(description)	A Color structure that is the color of text in a three-dimensional display element.
ControlTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of text in a three-dimensional display element.
DesktopBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the desktop.

DesktopBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the desktop.
DesktopColor	Color
(description)	A Color structure that is the color of the desktop.
DesktopColorKey	ResourceKey
(description)	The ResourceKey for the Color of the desktop.
GradientActiveCaptionBrush	SolidColorBrush
(description)	A SolidColorBrush that is the right side color in the gradient of an active window's title bar.
GradientActiveCaptionBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that is the color of the right side of the gradient of an active window's title bar.
GradientActiveCaptionColor	Color
(description)	A Color structure that is the right side color in the gradient of an active window's title bar.
GradientActiveCaptionColorKey	ResourceKey
(description)	The ResourceKey for the right-side Color in the gradient of an active window's title bar.
GradientInactiveCaptionBrush	SolidColorBrush
(description)	A SolidColorBrush that is the right side color in the gradient of an inactive window's title bar.
GradientInactiveCaptionBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that is the color of the right side of the gradient of an inactive window's title bar.
GradientInactiveCaptionColor	Color
(description)	A Color structure that is the right side color in the gradient of an inactive window's title bar.
GradientInactiveCaptionColorKey	ResourceKey
(description)	The ResourceKey for the right-side Color in the gradient of an inactive window's title bar.
GrayTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of disabled text.
GrayTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints disabled text.

GrayTextColor	Color
(description)	A Color structure that is the color of disabled text.
GrayTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of disabled text.
HighlightBrush	SolidColorBrush
(description)	A SolidColorBrush that paints the background of selected items.
HighlightBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of selected items.
HighlightColor	Color
(description)	A Color structure that is the background color of selected items.
HighlightColorKey	ResourceKey
(description)	The ResourceKey for the background Color of selected items.
HighlightTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the text of selected items.
HighlightTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the text of selected items.
HighlightTextColor	Color
(description)	A Color structure that is the color of the text of selected items.
HighlightTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of a selected item's text.
HotTrackBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color used to designate a hot-tracked item.
HotTrackBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints hot-tracked items.
HotTrackColor	Color
(description)	A Color structure that is the color used to designate a hot-tracked item.
HotTrackColorKey	ResourceKey
(description)	The ResourceKey for the Color that designates a hot-tracked item.
InactiveBorderBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of an inactive window's border.
InactiveBorderBrushKey	ResourceKey

(description)	The ResourceKey for the SolidColorBrush that paints the border of an inactive window.
InactiveBorderColor	Color
(description)	A Color structure that is the color of an inactive window's border.
InactiveBorderColorKey	ResourceKey
(description)	The ResourceKey for the Color of an inactive window's border.
InactiveCaptionBrush	SolidColorBrush
(description)	A SolidColorBrush that is the background color of an inactive window's title bar.
InactiveCaptionBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of an inactive window's title bar.
InactiveCaptionColor	Color
(description)	A Color structure that is the background color of an inactive window's title bar.
InactiveCaptionColorKey	ResourceKey
(description)	The ResourceKey for the background Color of an inactive window's title bar.
InactiveCaptionTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the text of an inactive window's title bar.
InactiveCaptionTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the text of an inactive window's title bar.
InactiveCaptionTextColor	Color
(description)	A Color structure that is the color of the text of an inactive window's title bar.
InactiveCaptionTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of the text of an inactive window's title bar.
InactiveSelectionHighlightBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color used to highlight a selected item that is inactive.
InactiveSelectionHighlightBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of an inactive selected item.
InactiveSelectionHighlightTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of an inactive selected item's text.

InactiveSelectionHighlightTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints a an inactive selected item's text.
InfoBrush	SolidColorBrush
(description)	A SolidColorBrush that is the background color for the ToolTip control.
InfoBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of the ToolTip control.
InfoColor	Color
(description)	A Color structure that is the background color for the ToolTip control.
InfoColorKey	ResourceKey
(description)	The ResourceKey for the background Color of the ToolTip control.
InfoTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the text color for the ToolTip control.
InfoTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the text in a ToolTip control.
InfoTextColor	Color
(description)	A Color structure that is the text color for the ToolTip control.
InfoTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of the text in a ToolTip control.
MenuBarBrush	SolidColorBrush
(description)	A SolidColorBrush that is the background color for a menu bar.
MenuBarBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of a menu bar.
MenuBarColor	Color
(description)	A Color structure that is the background color for a menu bar.
MenuBarColorKey	ResourceKey
(description)	The ResourceKey for the background Color of a menu bar.
MenuBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of a menu's background.

MenuBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of a menu.
MenuColor	Color
(description)	A Color structure that is the color of a menu's background.
MenuColorKey	ResourceKey
(description)	The ResourceKey for the background Color of a menu.
MenuHighlightBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color used to highlight a menu item.
MenuHighlightBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints a highlighted menu item.
MenuHighlightColor	Color
(description)	A Color structure that is the color used to highlight a menu item.
MenuHighlightColorKey	ResourceKey
(description)	The ResourceKey for the background Color of a highlighted menu item.
MenuTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of a menu's text.
MenuTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints a menu's text.
MenuTextColor	Color
(description)	A Color structure that is the color of a menu's text.
MenuTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of a menu's text.
ScrollBarBrush	SolidColorBrush
(description)	A SolidColorBrush that is the background color of a scroll bar.
ScrollBarBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of a scroll bar.
ScrollBarColor	Color
(description)	A Color structure that is the background color of a scroll bar.
ScrollBarColorKey	ResourceKey
(description)	The ResourceKey for the background Color of a scroll bar.

WindowBrush	SolidColorBrush
(description)	A SolidColorBrush that is the background color in the client area of a window.
WindowBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the background of a window's client area.
WindowColor	Color
(description)	A Color structure that is the background color in the client area of a window.
WindowColorKey	ResourceKey
(description)	The ResourceKey for the background Color of a window's client area.
WindowFrameBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of a window frame.
WindowFrameBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints a window frame.
WindowFrameColor	Color
(description)	A Color structure that is the color of a window frame.
WindowFrameColorKey	ResourceKey
(description)	The ResourceKey for the Color of a window frame.
WindowTextBrush	SolidColorBrush
(description)	A SolidColorBrush that is the color of the text in the client area of a window.
WindowTextBrushKey	ResourceKey
(description)	The ResourceKey for the SolidColorBrush that paints the text in the client area of a window.
WindowTextColor	Color
(description)	A Color structure that is the color of the text in the client area of a window.
WindowTextColorKey	ResourceKey
(description)	The ResourceKey for the Color of text in a window's client area.

4.866 SystemCommands

[x:Object](#) > [SystemCommands](#)

SystemCommands

(usage)	{x:Static SystemCommands.StaticPropertyName}
(description)	Defines routed commands that are common to window management.
[is default constructible]	false
(static properties)	
CloseWindowCommand	RoutedCommand
(description)	A command that closes a window.
MaximizeWindowCommand	RoutedCommand
(description)	A command that maximizes a window.
MinimizeWindowCommand	RoutedCommand
(description)	A command that maximizes a window.
RestoreWindowCommand	RoutedCommand
(description)	A command that restores a window.
ShowSystemMenuCommand	RoutedCommand
(description)	A command that displays the system menu.

4.867 SystemFonts

x:Object > SystemFonts	
SystemFonts	
(usage)	{x:Static SystemFonts.StaticPropertyName}
(description)	Contains properties that expose the system resources that concern fonts.
[is default constructible]	false
(static properties)	
CaptionFontFamily	FontFamily
(description)	The metric that determines the font family of the caption of the nonclient area of a nonminimized window.
CaptionFontFamilyKey	ResourceKey
(description)	The ResourceKey for the CaptionFontFamily property.
CaptionFontSize	x:Double
(description)	The metric that determines the caption font-size for the nonclient area of a nonminimized window.

CaptionFontSizeKey	ResourceKey
(description)	The ResourceKey for the CaptionFontSize property.
CaptionFontStyle	FontStyle
(description)	The metric that determines the caption font-style for the nonclient area of a nonminimized window.
CaptionFontStyleKey	ResourceKey
(description)	The ResourceKey for the CaptionFontStyle property.
CaptionFontTextDecorations	TextDecorationCollection
(description)	The metric that determines the caption text-decorations for the nonclient area of a nonminimized window.
CaptionFontTextDecorationsKey	ResourceKey
(description)	The ResourceKey for the CaptionFontTextDecorations property.
CaptionFontWeight	FontWeight
(description)	The metric that determines the caption font-weight for the nonclient area of a nonminimized window.
CaptionFontWeightKey	ResourceKey
(description)	The ResourceKey for the CaptionFontWeight property.
IconFontFamily	FontFamily
(description)	The font family from the logical font information for the current icon-title font.
IconFontFamilyKey	ResourceKey
(description)	The ResourceKey for the IconFontFamily property.
IconFontSize	x:Double
(description)	The font size from the logical font information for the current icon-title font.
IconFontSizeKey	ResourceKey
(description)	The ResourceKey for the IconFontSize property.
IconFontStyle	FontStyle
(description)	The font style from the logical font information for the current icon-title font.
IconFontStyleKey	ResourceKey
(description)	The ResourceKey for the IconFontStyle property.
IconFontTextDecorations	TextDecorationCollection
(description)	The text decorations from the logical font information for the current icon-title font.
IconFontTextDecorationsKey	ResourceKey

(description)	The ResourceKey for the IconFontTextDecorations property.
IconFontWeight	FontWeight
(description)	The font weight from the logical font information for the current icon-title font.
IconFontWeightKey	ResourceKey
(description)	The ResourceKey for the IconFontWeight property.
MenuFontFamily	FontFamily
(description)	The metric that determines the font family for menu text.
MenuFontFamilyKey	ResourceKey
(description)	The ResourceKey for the MenuFontFamily property.
MenuFontSize	x:Double
(description)	The metric that determines the font size of menu text.
MenuFontSizeKey	ResourceKey
(description)	The ResourceKey for the MenuFontSize property.
MenuFontStyle	FontStyle
(description)	The metric that determines the font style for menu text.
MenuFontStyleKey	ResourceKey
(description)	The ResourceKey for the MenuFontStyle property.
MenuFontTextDecorations	TextDecorationCollection
(description)	The metric that determines the text decorations for menu text.
MenuFontTextDecorationsKey	ResourceKey
(description)	The ResourceKey for the MenuFontTextDecorations property.
MenuFontWeight	FontWeight
(description)	The metric that determines the font weight for menu text.
MenuFontWeightKey	ResourceKey
(description)	The ResourceKey for the MenuFontWeight property.
MessageFontFamily	FontFamily
(description)	The metric that determines the font family for message box text.
MessageFontFamilyKey	ResourceKey
(description)	The ResourceKey for the MessageFontFamily property.
MessageFontSize	x:Double
(description)	The metric that determines the font size of message box text.
MessageFontSizeKey	ResourceKey

(description)	The ResourceKey for the MessageFontSize property.
MessageFontStyle	FontStyle
(description)	The metric that determines the font style for message box text.
MessageFontStyleKey	ResourceKey
(description)	The ResourceKey for the MessageFontStyle property.
MessageFontTextDecorations	TextDecorationCollection
(description)	The metric that determines the decorations for message box text.
MessageFontTextDecorationsKey	ResourceKey
(description)	The ResourceKey for the MessageFontTextDecorations property.
MessageFontWeight	FontWeight
(description)	The metric that determines the font weight for message box text.
MessageFontWeightKey	ResourceKey
(description)	The ResourceKey for the MessageFontWeight property.
SmallCaptionFontFamily	FontFamily
(description)	The metric that determines the font family of the small-caption text for the nonclient area of a nonminimized window.
SmallCaptionFontFamilyKey	ResourceKey
(description)	The ResourceKey for the SmallCaptionFontFamily property.
SmallCaptionFontSize	x:Double
(description)	The metric that determines the font size of the small-caption text for the nonclient area of a nonminimized window.
SmallCaptionFontSizeKey	ResourceKey
(description)	The ResourceKey for the SmallCaptionFontSize property.
SmallCaptionFontStyle	FontStyle
(description)	The metric that determines the font style of the small-caption text for the nonclient area of a nonminimized window.
SmallCaptionFontStyleKey	ResourceKey
(description)	The ResourceKey for the SmallCaptionFontStyle property.
SmallCaptionFontTextDecorations	TextDecorationCollection
(description)	The metric that determines the decorations of the small-caption text for the nonclient area of a nonminimized window.
SmallCaptionFontTextDecorations Key	ResourceKey

(description)	The ResourceKey for the SmallCaptionFontTextDecorations property.
SmallCaptionFontWeight	FontWeight
(description)	The metric that determines the font weight of the small-caption text for the nonclient area of a nonminimized window.
SmallCaptionFontWeightKey	ResourceKey
(description)	The ResourceKey for the SmallCaptionFontWeight property.
StatusFontFamily	FontFamily
(description)	The metric that determines the font family of the text used in status bars and ToolTips for the nonclient area of a nonminimized window.
StatusFontFamilyKey	ResourceKey
(description)	The ResourceKey for the StatusFontFamily property.
StatusFontSize	x:Double
(description)	The metric that determines the font size of the text used in status bars and ToolTips for the nonclient area of a nonminimized window.
StatusFontSizeKey	ResourceKey
(description)	The ResourceKey for the StatusFontSize property.
StatusFontStyle	FontStyle
(description)	The metric that determines the font style of the text used in status bars and ToolTips for the nonclient area of a nonminimized window.
StatusFontStyleKey	ResourceKey
(description)	The ResourceKey for the StatusFontStyle property.
StatusFontTextDecorations	TextDecorationCollection
(description)	The metric that determines the decorations of the text used in status bars and ToolTips for the nonclient area of a nonminimized window.
StatusFontTextDecorationsKey	ResourceKey
(description)	The ResourceKey for the StatusFontTextDecorations property.
StatusFontWeight	FontWeight
(description)	The metric that determines the font weight of the text used in status bars and ToolTips for the nonclient area of a nonminimized window.
StatusFontWeightKey	ResourceKey
(description)	The ResourceKey for the StatusFontWeight property.

4.868 SystemGesture

x:Object > SystemGesture	
<h1>SystemGesture</h1>	
(usage)	None Tap RightTap Drag RightDrag HoldEnter HoverEnter HoverLeave Flick ...
(description)	Defines the available system gestures.
[is nullable]	false
[text syntax]	SystemGestureSyntax

4.869 SystemParameters

x:Object > SystemParameters	
<h1>SystemParameters</h1>	
(usage)	{x:Static SystemParameters.StaticPropertyName}
(description)	Contains properties that you can use to query system settings.
[is default constructible]	false
(static properties)	
Border	x:Int32
(description)	The border multiplier factor that determines the width of a window's sizing border.
BorderKey	ResourceKey
(description)	The ResourceKey for the Border property.
BorderWidth	x:Double
(description)	The metric that determines the border width of the nonclient area of a nonminimized window.
BorderWidthKey	ResourceKey
(description)	The ResourceKey for the BorderWidth property.
CaptionHeight	x:Double
(description)	The metric that determines the caption height for the nonclient area of a nonminimized window.
CaptionHeightKey	ResourceKey

(description)	The ResourceKey for the CaptionHeight property.
CaptionWidth	x:Double
(description)	The metric that determines the caption width for the nonclient area of a nonminimized window.
CaptionWidthKey	ResourceKey
(description)	The ResourceKey for the CaptionWidth property.
CaretWidth	x:Double
(description)	The caret width, in pixels, for edit controls.
CaretWidthKey	ResourceKey
(description)	The ResourceKey for the CaretWidth property.
ClientAreaAnimation	x:Boolean
(description)	A value indicating whether the client area animation feature is enabled.
ClientAreaAnimationKey	ResourceKey
(description)	A ResourceKey for the ClientAreaAnimation property.
ComboBoxAnimation	x:Boolean
(description)	A value indicating whether the slide-open effect for combo boxes is enabled.
ComboBoxAnimationKey	ResourceKey
(description)	The ResourceKey for the ComboBoxAnimation property.
ComboBoxPopupAnimation	PopupAnimation
(description)	The system value of the PopupAnimation property for combo boxes.
ComboBoxPopupAnimationKey	ResourceKey
(description)	The ResourceKey for the ComboBoxPopupAnimation property.
CursorHeight	x:Double
(description)	The height, in pixels, of a cursor.
CursorHeightKey	ResourceKey
(description)	The ResourceKey for the CursorHeight property.
CursorShadow	x:Boolean
(description)	A value indicating whether the cursor has a shadow around it.
CursorShadowKey	ResourceKey
(description)	The ResourceKey for the CursorShadow property.
CursorWidth	x:Double
(description)	The width, in pixels, of a cursor.

CursorWidthKey	ResourceKey
(description)	The ResourceKey for the CursorWidth property.
DragFullWindows	x:Boolean
(description)	A value indicating whether dragging of full windows is enabled.
DragFullWindowsKey	ResourceKey
(description)	The ResourceKey for the DragFullWindows property.
DropShadow	x:Boolean
(description)	A value indicating whether the drop shadow effect is enabled.
DropShadowKey	ResourceKey
(description)	The ResourceKey for the DropShadow property.
FixedFrameHorizontalBorderHeight	x:Double
(description)	The height of the horizontal border of the frame around a window.
FixedFrameHorizontalBorderHeightKey	ResourceKey
(description)	The ResourceKey for the FixedFrameHorizontalBorderHeight property.
FixedFrameVerticalBorderWidth	x:Double
(description)	The width of the vertical border of the frame around a window.
FixedFrameVerticalBorderWidthKey	ResourceKey
(description)	The ResourceKey for the FixedFrameVerticalBorderWidth property.
FlatMenu	x:Boolean
(description)	A value indicating whether native menus appear as a flat menu.
FlatMenuKey	ResourceKey
(description)	The ResourceKey for the FlatMenu property.
FocusBorderHeight	x:Double
(description)	The height, in pixels, of the upper and lower edges of the focus rectangle.
FocusBorderHeightKey	ResourceKey
(description)	The ResourceKey for the FocusBorderHeight property.
FocusBorderWidth	x:Double
(description)	The width, in pixels, of the left and right edges of the focus rectangle.
FocusBorderWidthKey	ResourceKey
(description)	The ResourceKey for the FocusBorderWidth property.

FocusHorizontalBorderHeight	x:Double
(description)	The height of the upper and lower edges of the focus rectangle.
FocusHorizontalBorderHeightKey	ResourceKey
(description)	The ResourceKey for the FocusHorizontalBorderHeight property.
FocusVerticalBorderWidth	x:Double
(description)	The width of the left and right edges of the focus rectangle.
FocusVerticalBorderWidthKey	ResourceKey
(description)	The ResourceKey for the FocusVerticalBorderWidth property.
FocusVisualStyleKey	ResourceKey
(description)	The ResourceKey for the FocusVisualStyle property.
ForegroundFlashCount	x:Int32
(description)	The number of times the Set Foreground Window flashes the taskbar button when rejecting a foreground switch request.
ForegroundFlashCountKey	ResourceKey
(description)	The ResourceKey for the ForegroundFlashCount property.
FullPrimaryScreenHeight	x:Double
(description)	The height, in pixels, of the client area for a full-screen window on the primary display monitor.
FullPrimaryScreenHeightKey	ResourceKey
(description)	The ResourceKey for the FullPrimaryScreenHeight property.
FullPrimaryScreenWidth	x:Double
(description)	The width, in pixels, of the client area for a full-screen window on the primary display monitor.
FullPrimaryScreenWidthKey	ResourceKey
(description)	The ResourceKey for the FullPrimaryScreenWidth property.
GradientCaptions	x:Boolean
(description)	A value indicating whether the gradient effect for window title bars is enabled.
GradientCaptionsKey	ResourceKey
(description)	The ResourceKey for the GradientCaptions property.
HighContrast	x:Boolean
(description)	Information about the High Contrast accessibility feature.
HighContrastKey	ResourceKey
(description)	The ResourceKey for the HighContrast property.

HorizontalScrollBarButtonWidth	x:Double
(description)	The width, in pixels, of the arrow bitmap on a horizontal scroll bar.
HorizontalScrollBarButtonWidthKey	ResourceKey
(description)	The ResourceKey for the HorizontalScrollBarButtonWidth property.
HorizontalScrollBarHeight	x:Double
(description)	The height of a horizontal scroll bar, in pixels.
HorizontalScrollBarHeightKey	ResourceKey
(description)	The ResourceKey for the HorizontalScrollBarHeight property.
HorizontalScrollBarThumbWidth	x:Double
(description)	The width, in pixels, of the Thumb in a horizontal scroll bar.
HorizontalScrollBarThumbWidthKey	ResourceKey
(description)	The ResourceKey for the HorizontalScrollBarThumbWidth property.
HotTracking	x:Boolean
(description)	A value indicating whether hot tracking of user-interface elements, such as menu names on menu bars, is enabled.
HotTrackingKey	ResourceKey
(description)	The ResourceKey for the HotTracking property.
IconGridHeight	x:Double
(description)	The height of a grid in which a large icon will fit.
IconGridHeightKey	ResourceKey
(description)	The ResourceKey for the IconGridHeight property.
IconGridWidth	x:Double
(description)	The width of a grid that a large icon will fit into.
IconGridWidthKey	ResourceKey
(description)	The ResourceKey for the IconGridWidth property.
IconHeight	x:Double
(description)	The default height of an icon.
IconHeightKey	ResourceKey
(description)	The ResourceKey for the IconHeight property.
IconHorizontalSpacing	x:Double

(description)	The width, in pixels, of an icon cell. The system uses this rectangle to arrange icons in large icon view.
IconHorizontalSpacingKey	ResourceKey
(description)	The ResourceKey for the IconHorizontalSpacing property.
IconTitleWrap	x:Boolean
(description)	A value indicating whether icon-title wrapping is enabled.
IconTitleWrapKey	ResourceKey
(description)	The ResourceKey for the IconTitleWrap property.
IconVerticalSpacing	x:Double
(description)	The height, in pixels, of an icon cell. The system uses this rectangle to arrange icons in large icon view.
IconVerticalSpacingKey	ResourceKey
(description)	The ResourceKey for the IconVerticalSpacing property.
IconWidth	x:Double
(description)	The default width of an icon.
IconWidthKey	ResourceKey
(description)	The ResourceKey for the IconWidth property.
IsGlassEnabled	x:Boolean
(description)	A value that indicates whether glass window frames are being used.
IsImmEnabled	x:Boolean
(description)	A value that indicates whether the system is ready to use a Unicode-based Input Method Editor (IME) on a Unicode application.
IsImmEnabledKey	ResourceKey
(description)	The ResourceKey for the IsImmEnabled property.
IsMediaCenter	x:Boolean
(description)	A value that indicates whether the current system is a media center.
IsMediaCenterKey	ResourceKey
(description)	The ResourceKey for the IsMediaCenter property.
IsMenuDropRightAligned	x:Boolean
(description)	A value that indicates whether drop-down menus are right-aligned with the corresponding menu item.
IsMenuDropRightAlignedKey	ResourceKey
(description)	The ResourceKey for the IsMenuDropRightAligned property.

IsMiddleEastEnabled	x:Boolean
(description)	A value that indicates whether the system is enabled for Hebrew and Arabic languages.
IsMiddleEastEnabledKey	ResourceKey
(description)	The ResourceKey for the IsMiddleEastEnabled property.
IsMousePresent	x:Boolean
(description)	A value that indicates whether a mouse is installed.
IsMousePresentKey	ResourceKey
(description)	The ResourceKey for the IsMousePresent property.
IsMouseWheelPresent	x:Boolean
(description)	A value that indicates whether the installed mouse has a vertical scroll wheel.
IsMouseWheelPresentKey	ResourceKey
(description)	The ResourceKey for the IsMouseWheelPresent property.
IsPenWindows	x:Boolean
(description)	A value that indicates whether a pen system is installed.
IsPenWindowsKey	ResourceKey
(description)	The ResourceKey for the IsPenWindows property.
IsRemotelyControlled	x:Boolean
(description)	A value that indicates whether the current session is remotely controlled.
IsRemotelyControlledKey	ResourceKey
(description)	The ResourceKey for the IsRemotelyControlled property.
IsRemoteSession	x:Boolean
(description)	A value that indicates whether the calling process is associated with a Terminal Services client session.
IsRemoteSessionKey	ResourceKey
(description)	The ResourceKey for the IsRemoteSession property.
IsSlowMachine	x:Boolean
(description)	A value that indicates whether the computer has a low-end (slow) processor.
IsSlowMachineKey	ResourceKey
(description)	The ResourceKey for the IsSlowMachine property.
IsTabletPC	x:Boolean
(description)	A value that indicates whether the current system is a tablet.

IsTabletPCKey	ResourceKey
(description)	The ResourceKey for the IsTabletPC property.
KanjiWindowHeight	x:Double
(description)	A value that indicates the height, in pixels, of the kanji window at the bottom of the screen for systems that use double-byte characters.
KanjiWindowHeightKey	ResourceKey
(description)	The ResourceKey for the KanjiWindowHeight property.
KeyboardCues	x:Boolean
(description)	A value indicating whether menu access keys are always underlined.
KeyboardCuesKey	ResourceKey
(description)	The ResourceKey for the KeyboardCues property.
KeyboardDelay	x:Int32
(description)	The keyboard repeat-delay setting, which is a value in the range from 0 (approximately 250 milliseconds delay) through 3 (approximately 1 second delay).
KeyboardDelayKey	ResourceKey
(description)	The ResourceKey for the KeyboardDelay property.
KeyboardPreference	x:Boolean
(description)	A value indicating whether the user relies on the keyboard instead of the mouse, and whether the user wants applications to display keyboard interfaces that are typically hidden.
KeyboardPreferenceKey	ResourceKey
(description)	The ResourceKey for the KeyboardPreference property.
KeyboardSpeed	x:Int32
(description)	The keyboard repeat-speed setting, which is a value in the range from 0 (approximately 2.5 repetitions per second) through 31 (approximately 30 repetitions per second).
KeyboardSpeedKey	ResourceKey
(description)	The ResourceKey for the KeyboardSpeed property.
ListBoxSmoothScrolling	x:Boolean
(description)	A value indicating whether the smooth-scrolling effect for list boxes is enabled.
ListBoxSmoothScrollingKey	ResourceKey
(description)	The ResourceKey for the ListBoxSmoothScrolling property.
MaximizedPrimaryScreenHeight	x:Double

(description)	A value that indicates the height, in pixels, of a maximized top-level window on the primary display monitor.
MaximizedPrimaryScreenHeightKey	ResourceKey
(description)	The ResourceKey for the MaximizedPrimaryScreenHeight property.
MaximizedPrimaryScreenWidth	x:Double
(description)	A value that indicates the width, in pixels, of a maximized top-level window on the primary display monitor.
MaximizedPrimaryScreenWidthKey	ResourceKey
(description)	The ResourceKey for the MaximizedPrimaryScreenWidth property.
MaximumWindowTrackHeight	x:Double
(description)	A value that indicates the maximum height, in pixels, of a window that has a caption and sizing borders.
MaximumWindowTrackHeightKey	ResourceKey
(description)	The ResourceKey for the MaximumWindowTrackHeight property.
MaximumWindowTrackWidth	x:Double
(description)	A value that indicates the maximum width, in pixels, of a window that has a caption and sizing borders.
MaximumWindowTrackWidthKey	ResourceKey
(description)	The ResourceKey for the MaximumWindowTrackWidth property.
MenuAnimation	x:Boolean
(description)	A value indicating whether the menu animation feature is enabled.
MenuAnimationKey	ResourceKey
(description)	The ResourceKey for the MenuAnimation property.
MenuBarHeight	x:Double
(description)	A value that indicates the height, in pixels, of a single-line menu bar.
MenuBarHeightKey	ResourceKey
(description)	The ResourceKey for the MenuBarHeight property.
MenuButtonHeight	x:Double
(description)	A value that indicates the height, in pixels, of a menu bar button.
MenuButtonHeightKey	ResourceKey
(description)	The ResourceKey for the MenuButtonHeight property.
MenuButtonWidth	x:Double

(description)	A value that indicates the width, in pixels, of a menu bar button.
MenuButtonWidthKey	ResourceKey
(description)	The ResourceKey for the MenuButtonWidth property.
MenuCheckmarkHeight	x:Double
(description)	A value that indicates the height, in pixels, of the default menu check-mark bitmap.
MenuCheckmarkHeightKey	ResourceKey
(description)	The ResourceKey for the MenuCheckmarkHeight property.
MenuCheckmarkWidth	x:Double
(description)	A value that indicates the width, in pixels, of the default menu check-mark bitmap.
MenuCheckmarkWidthKey	ResourceKey
(description)	The ResourceKey for the MenuCheckmarkWidth property.
MenuDropAlignment	x:Boolean
(description)	A value indicating whether pop-up menus are left-aligned or right-aligned, relative to the corresponding menu item.
MenuDropAlignmentKey	ResourceKey
(description)	The ResourceKey for the MenuDropAlignment property.
MenuFade	x:Boolean
(description)	A value indicating whether menu fade animation is enabled.
MenuFadeKey	ResourceKey
(description)	The ResourceKey for the MenuFade property.
MenuHeight	x:Double
(description)	The metric that determines the height of the menu.
MenuHeightKey	ResourceKey
(description)	The ResourceKey for the MenuHeight property.
MenuPopupAnimation	PopupAnimation
(description)	The system value of the PopupAnimation property for menus.
MenuPopupAnimationKey	ResourceKey
(description)	The ResourceKey for the MenuPopupAnimation property.
MenuShowDelay	x:Int32
(description)	The time, in milliseconds, that the system waits before displaying a shortcut menu when the mouse cursor is over a submenu item.

MenuShowDelayKey	ResourceKey
(description)	The ResourceKey for the MenuShowDelay property.
MenuWidth	x:Double
(description)	The metric that determines the width of the menu.
MenuWidthKey	ResourceKey
(description)	The ResourceKey for the MenuWidth property.
MinimizeAnimation	x:Boolean
(description)	The animation effects associated with user actions.
MinimizeAnimationKey	ResourceKey
(description)	The ResourceKey for the MinimizeAnimation property.
MinimizedGridHeight	x:Double
(description)	A value that indicates the height, in pixels, of a grid cell for a minimized window.
MinimizedGridHeightKey	ResourceKey
(description)	The ResourceKey for the MinimizedGridHeight property.
MinimizedGridWidth	x:Double
(description)	A value that indicates the width, in pixels, of a grid cell for a minimized window.
MinimizedGridWidthKey	ResourceKey
(description)	The ResourceKey for the MinimizedGridWidth property.
MinimizedWindowHeight	x:Double
(description)	A value that indicates the height, in pixels, of a minimized window.
MinimizedWindowHeightKey	ResourceKey
(description)	The ResourceKey for the MinimizedWindowHeight property.
MinimizedWindowWidth	x:Double
(description)	A value that indicates the width, in pixels, of a minimized window.
MinimizedWindowWidthKey	ResourceKey
(description)	The ResourceKey for the MinimizedWindowWidth property.
MinimumHorizontalDragDistance	x:Double
(description)	The width of a rectangle centered on a drag point to allow for limited movement of the mouse pointer before a drag operation begins.
MinimumVerticalDragDistance	x:Double
(description)	The height of a rectangle centered on a drag point to allow for limited movement of the mouse pointer before a drag operation begins.

MinimumWindowHeight	x:Double
(description)	A value that indicates the minimum height, in pixels, of a window.
MinimumWindowHeightKey	ResourceKey
(description)	The ResourceKey for the MinimumWindowHeight property.
MinimumWindowTrackHeight	x:Double
(description)	A value that indicates the minimum tracking height of a window, in pixels.
MinimumWindowTrackHeightKey	ResourceKey
(description)	The ResourceKey for the MinimumWindowTrackHeight property.
MinimumWindowTrackWidth	x:Double
(description)	A value that indicates the minimum tracking width of a window, in pixels.
MinimumWindowTrackWidthKey	ResourceKey
(description)	The ResourceKey for the MinimumWindowTrackWidth property.
MinimumWindowWidth	x:Double
(description)	A value that indicates the minimum width, in pixels, of a window.
MinimumWindowWidthKey	ResourceKey
(description)	The ResourceKey for the MinimumWindowWidth property.
MouseHoverHeight	x:Double
(description)	The height, in pixels, of the rectangle within which the mouse pointer has to stay to generate a mouse-hover event.
MouseHoverHeightKey	ResourceKey
(description)	The ResourceKey for the MouseHoverHeight property.
MouseHoverTime	x:TimeSpan
(description)	The time, in milliseconds, that the mouse pointer must remain in the hover rectangle to generate a mouse-hover event.
MouseHoverTimeKey	ResourceKey
(description)	The ResourceKey for the MouseHoverTime property.
MouseHoverWidth	x:Double
(description)	The width, in pixels, of the rectangle within which the mouse pointer has to stay to generate a mouse-hover event.
MouseHoverWidthKey	ResourceKey
(description)	The ResourceKey for the MouseHoverWidth property.
NavigationChromeDownLevelStyleKey	ResourceKey

(description)	The ResourceKey for the NavigationChromeDownLevelStyleKey property.
NavigationChromeStyleKey	ResourceKey
(description)	The ResourceKey for the NavigationChromeStyleKey property.
PowerLineStatus	PowerLineStatus
(description)	A value indicating whether the system power is online, or that the system power status is unknown.
PowerLineStatusKey	ResourceKey
(description)	A ResourceKey for the PowerLineStatus property.
PrimaryScreenHeight	x:Double
(description)	A value that indicates the screen height, in pixels, of the primary display monitor.
PrimaryScreenHeightKey	ResourceKey
(description)	The ResourceKey for the PrimaryScreenHeight property.
PrimaryScreenWidth	x:Double
(description)	A value that indicates the screen width, in pixels, of the primary display monitor.
PrimaryScreenWidthKey	ResourceKey
(description)	The ResourceKey for the PrimaryScreenWidth property.
ResizeFrameHorizontalBorderHeight	x:Double
(description)	A value that indicates the height (thickness), in pixels, of the horizontal sizing border around the perimeter of a window that can be resized.
ResizeFrameHorizontalBorderHeightKey	ResourceKey
(description)	The ResourceKey for the ResizeFrameHorizontalBorderHeight property.
ResizeFrameVerticalBorderWidth	x:Double
(description)	A value that indicates the width (thickness), in pixels, of the vertical sizing border around the perimeter of a window that can be resized.
ResizeFrameVerticalBorderWidthKey	ResourceKey
(description)	The ResourceKey for the ResizeFrameVerticalBorderWidth property.
ScrollHeight	x:Double
(description)	The metric that determines the scroll height of the nonclient area of a nonminimized window.

ScrollHeightKey	ResourceKey
(description)	The ResourceKey for the ScrollHeight property.
ScrollWidth	x:Double
(description)	The metric that determines the scroll width of the nonclient area of a nonminimized window.
ScrollWidthKey	ResourceKey
(description)	The ResourceKey for the ScrollWidth property.
SelectionFade	x:Boolean
(description)	A value indicating whether the selection fade effect is enabled.
SelectionFadeKey	ResourceKey
(description)	The ResourceKey for the SelectionFade property.
ShowSounds	x:Boolean
(description)	A value that indicates whether the user requires information in visual format.
ShowSoundsKey	ResourceKey
(description)	The ResourceKey for the ShowSounds property.
SmallCaptionHeight	x:Double
(description)	The metric that determines the height of the small caption of the nonclient area of a nonminimized window.
SmallCaptionHeightKey	ResourceKey
(description)	The ResourceKey for the SmallCaptionHeight property.
SmallCaptionWidth	x:Double
(description)	The metric that determines the width of the small caption of the nonclient area of a nonminimized window.
SmallCaptionWidthKey	ResourceKey
(description)	The ResourceKey for the SmallCaptionWidth property.
SmallIconHeight	x:Double
(description)	A value that indicates the recommended height, in pixels, of a small icon.
SmallIconHeightKey	ResourceKey
(description)	The ResourceKey for the SmallIconHeight property.
SmallIconWidth	x:Double
(description)	A value that indicates the recommended width, in pixels, of a small icon.
SmallIconWidthKey	ResourceKey
(description)	The ResourceKey for the SmallIconWidth property.

SmallWindowCaptionButtonHeight	x:Double
(description)	A value that indicates the height, in pixels, of small caption buttons.
SmallWindowCaptionButtonHeightKey	ResourceKey
(description)	The ResourceKey for the SmallWindowCaptionButtonHeight property.
SmallWindowCaptionButtonWidth	x:Double
(description)	A value that indicates the width, in pixels, of small caption buttons.
SmallWindowCaptionButtonWidthKey	ResourceKey
(description)	The ResourceKey for the SmallWindowCaptionButtonWidth property.
SnapToDefaultButton	x:Boolean
(description)	A value indicating whether the snap-to-default button is enabled. If enabled, the mouse cursor automatically moves to the default button of a dialog box, such as OK or Apply.
SnapToDefaultButtonKey	ResourceKey
(description)	The ResourceKey for the SnapToDefaultButton property.
StylusHotTracking	x:Boolean
(description)	A value indicating whether hot tracking of a stylus is enabled.
StylusHotTrackingKey	ResourceKey
(description)	The ResourceKey for the StylusHotTracking property.
SwapButtons	x:Boolean
(description)	A value that indicates whether the functionality of the left and right mouse buttons are swapped.
SwapButtonsKey	ResourceKey
(description)	The ResourceKey for the SwapButtons property.
ThickHorizontalBorderHeight	x:Double
(description)	A value that indicates the height, in pixels, of a 3-D border.
ThickHorizontalBorderHeightKey	ResourceKey
(description)	The ResourceKey for the ThickHorizontalBorderHeight property.
ThickVerticalBorderWidth	x:Double
(description)	A value that indicates the width, in pixels, of a 3-D border.
ThickVerticalBorderWidthKey	ResourceKey

(description)	The ResourceKey for the ThickVerticalBorderWidth property.
ThinHorizontalBorderHeight	x:Double
(description)	A value that indicates the height, in pixels, of a horizontal window border.
ThinHorizontalBorderHeightKey	ResourceKey
(description)	The ResourceKey for the ThinHorizontalBorderHeight property.
ThinVerticalBorderWidth	x:Double
(description)	A value that indicates the width, in pixels, of a vertical window border.
ThinVerticalBorderWidthKey	ResourceKey
(description)	The ResourceKey for the ThinVerticalBorderWidth property.
ToolTipAnimation	x:Boolean
(description)	A value indicating whether ToolTip animation is enabled.
ToolTipAnimationKey	ResourceKey
(description)	The ResourceKey for the ToolTipAnimation property.
ToolTipFade	x:Boolean
(description)	A value indicating whether ToolTip animation uses a fade effect or a slide effect.
ToolTipFadeKey	ResourceKey
(description)	The ResourceKey for the ToolTipFade property.
ToolTipPopupAnimation	PopupAnimation
(description)	The system value of the PopupAnimation property for ToolTips.
ToolTipPopupAnimationKey	ResourceKey
(description)	The ResourceKey for the ToolTipPopupAnimation property.
UIEffects	x:Boolean
(description)	A value that indicates whether all user interface (UI) effects are enabled.
UIEffectsKey	ResourceKey
(description)	The ResourceKey for the UIEffects property.
UxThemeColor	x:String
(description)	The color theme name.
UxThemeName	x:String
(description)	The theme name.
VerticalScrollBarButtonHeight	x:Double

(description)	A value that indicates the height, in pixels, of the arrow bitmap on a vertical scroll bar.
VerticalScrollBarButtonHeightKey	ResourceKey
(description)	The ResourceKey for the VerticalScrollBarButtonHeight property.
VerticalScrollBarThumbHeight	x:Double
(description)	A value that indicates the height, in pixels, of the thumb in a vertical scroll bar.
VerticalScrollBarThumbHeightKey	ResourceKey
(description)	The ResourceKey for the VerticalScrollBarThumbHeight property.
VerticalScrollBarWidth	x:Double
(description)	A value that indicates the width, in pixels, of a vertical scroll bar.
VerticalScrollBarWidthKey	ResourceKey
(description)	The ResourceKey for the VerticalScrollBarWidth property.
VirtualScreenHeight	x:Double
(description)	A value that indicates the height, in pixels, of the virtual screen.
VirtualScreenHeightKey	ResourceKey
(description)	The ResourceKey for the VirtualScreenHeight property.
VirtualScreenLeft	x:Double
(description)	A value that indicates the coordinate for the left side of the virtual screen.
VirtualScreenLeftKey	ResourceKey
(description)	The ResourceKey for the VirtualScreenLeft property.
VirtualScreenTop	x:Double
(description)	A value that indicates the upper coordinate of the virtual screen.
VirtualScreenTopKey	ResourceKey
(description)	The ResourceKey for the VirtualScreenTop property.
VirtualScreenWidth	x:Double
(description)	A value that indicates the width, in pixels, of the virtual screen.
VirtualScreenWidthKey	ResourceKey
(description)	The ResourceKey for the VirtualScreenWidth property.
WheelScrollLines	x:Int32
(description)	A value that indicates the number of lines to scroll when the mouse wheel is rotated.
WheelScrollLinesKey	ResourceKey

(description)	The ResourceKey for the WheelScrollLines property.
WindowCaptionButtonHeight	x:Double
(description)	A value that indicates the height, in pixels, of a button in the title bar of a window.
WindowCaptionButtonHeightKey	ResourceKey
(description)	The ResourceKey for the WindowCaptionButtonHeight property.
WindowCaptionButtonWidth	x:Double
(description)	A value that indicates the width, in pixels, of a button in the title bar of a window.
WindowCaptionButtonWidthKey	ResourceKey
(description)	The ResourceKey for the WindowCaptionButtonWidth property.
WindowCaptionHeight	x:Double
(description)	A value that indicates the height, in pixels, of a caption area.
WindowCaptionHeightKey	ResourceKey
(description)	The ResourceKey for the WindowCaptionHeight property.
WindowCornerRadius	CornerRadius
(description)	The radius of the corners for a window.
WindowGlassBrush	Brush
(description)	The brush that paints the glass window frame.
WindowGlassColor	Color
(description)	The color that is used to paint the glass window frame.
WindowNonClientFrameThickness	Thickness
(description)	The size of the non-client area of the window.
WindowResizeBorderThickness	Thickness
(description)	The size of the resizing border around the window.
WorkArea	Rect
(description)	The size of the work area on the primary display monitor.
WorkAreaKey	ResourceKey
(description)	The ResourceKey for the WorkArea property.

4.870 TabControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > Selector > TabControl , InputElement	
<h1>TabControl</h1>	
(usage)	<TabControl> x:Object *</TabControl>
(description)	Represents a control that contains multiple items that share the same space on the screen.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
ContentStringFormat	x:String
(description)	A composite string that specifies how to format the contents of the TabItem objects if they are displayed as strings.
ContentTemplate	DataTemplate
(description)	The DataTemplate to apply to any TabItem that does not have a ContentTemplate or ContentTemplateSelector property defined.
ContentTemplateSelector	DataTemplateSelector
(description)	A DataTemplateSelector that provides custom logic for choosing the template that is used to display the content of the control.
TabStripPlacement	Dock
(description)	How tab headers align relative to the tab content.

4.871 TabItem

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > HeaderedContentControl > TabItem , InputElement	
<h1>TabItem</h1>	
(usage)	<TabItem> x:Object </TabItem>
(description)	Represents a selectable item inside a TabControl.
[content property]	Content
[name property]	Name

[xml lang property]	Language
(properties)	
IsSelected	x:Boolean
(description)	A value that indicates whether the TabItem is selected.

4.872 Table

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Block > Table , InputElement	
Table	
(usage)	<Table> TableRowGroup *</Table>
(description)	A block-level flow content element that provides a grid-based presentation organized by rows and columns.
[content property]	RowGroups
[name property]	Name
[xml lang property]	Language
(properties)	
CellSpacing	x:Double
(description)	The amount of spacing between cells in a table.
[text syntax]	LengthSyntax
Columns	TableColumnCollection
(description)	A TableColumnCollection object that contains the columns hosted by the table.
[read only]	true
RowGroups	TableRowGroupCollection
(description)	A TableRowGroupCollection collection object that contains the row groups hosted by the table.
[read only]	true

4.873 TableCell

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > TableCell , InputElement

TableCell	
(usage)	<TableCell> Block *</TableCell>
(description)	A flow content element that defines a cell of content within a Table.
(used by)	ICollection(TableCell) IList(TableCell) TableCellCollection
[content property]	Blocks
[name property]	Name
[xml lang property]	Language
(properties)	
Blocks	BlockCollection
(description)	A BlockCollection containing the top-level Block elements that comprise the contents of the TableCell.
[read only]	true
BorderBrush	Brush
(description)	A Brush to use when painting the element's border.
BorderThickness	Thickness
(description)	The border thickness for the element.
ColumnSpan	x:Int32
(description)	The number of columns that the TableCell should span.
FlowDirection	FlowDirection
(description)	A value that specifies the relative direction for flow of content within a TableCell element.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which a line box is determined for each line of text within the TableCell.
Padding	Thickness
(description)	The padding thickness for the element.
RowSpan	x:Int32
(description)	The number of rows that the TableCell should span.
TextAlignment	TextAlignment

(description)	A value that indicates the horizontal alignment of text content.
---------------	--

4.874 TableCellCollection

x:Object > TableCellCollection	
TableCellCollection	
(usage)	None.
(description)	Provides standard facilities for creating and managing a type-safe, ordered collection of TableCell objects.
(used by)	TableRow
[is default constructible]	false
[is list]	true
[allowed types]	TableCell
(properties)	
Capacity	x:Int32
(description)	The preallocated collection item capacity for this collection.

4.875 TableColumn

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TableColumn , InputElement	
TableColumn	
(usage)	<TableColumn />
(description)	A flow content element that defines a column within a Table.
(used by)	ICollection(TableColumn) IList(TableColumn) TableColumnCollection
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The background Brush used to fill the content of the TableColumn.
Width	GridLength

(description)	The width of a TableColumn element. The Width property measures the sum of the TableColumn content, padding, and border from side to side.
---------------	--

4.876 TableColumnCollection

x:Object > TableColumnCollection	
TableColumnCollection	
(usage)	None.
(description)	Provides standard facilities for creating and managing a type-safe, ordered collection of TableColumn objects.
(used by)	Table
[is default constructible]	false
[is list]	true
[allowed types]	TableColumn
(properties)	
Capacity	x:Int32
(description)	The pre-allocated collection item capacity for this collection.

4.877 TableRow

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > TableRow , InputElement	
TableRow	
(usage)	<TableRow> TableCell *</TableRow>
(description)	A flow content element that defines a row within a Table.
(used by)	ICollection(TableRow) IList(TableRow) TableRowCollection
[content property]	Cells
[name property]	Name
[xml lang property]	Language
(properties)	
Cells	TableCellCollection

(description)	A TableCellCollection that contains cells of a TableRow.
[read only]	true

4.878 TableRowCollection

x:Object > TableRowCollection	
TableRowCollection	
(usage)	None.
(description)	Provides standard facilities for creating and managing a type-safe, ordered collection of TableRow objects.
(used by)	TableRowGroup
[is default constructible]	false
[is list]	true
[allowed types]	TableRow
(properties)	
Capacity	x:Int32
(description)	The pre-allocated collection item capacity for this collection.

4.879 TableRowGroup

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > TableRowGroup , InputElement	
TableRowGroup	
(usage)	<TableRowGroup> TableRow *</TableRowGroup>
(description)	Represents a flow content element used to group TableRow elements within a Table.
(used by)	ICollection(TableRowGroup) IList(TableRowGroup) TableRowGroupCollection
[content property]	Rows
[name property]	Name
[xml lang property]	Language
(properties)	

Rows	TableRowCollection
(description)	A TableRowCollection that contains the TableRow objects that comprise the contents of the TableRowGroup.
[read only]	true

4.880 TableRowGroupCollection

x:Object > TableRowGroupCollection	
TableRowGroupCollection	
(usage)	None.
(description)	Provides standard facilities for creating and managing a type-safe, ordered collection of TableRowGroup objects.
(used by)	Table
[is default constructible]	false
[is list]	true
[allowed types]	TableRowGroup
(properties)	
Capacity	x:Int32
(description)	The pre-allocated collection item capacity for this collection.

4.881 Tablet

x:Object > Tablet	
Tablet	
(usage)	{x:Static Tablet.StaticPropertyName}
(description)	Provides support for returning the tablet devices attached to the system.
[is default constructible]	false
(static properties)	
CurrentTabletDevice	TabletDevice
(description)	The current TabletDevice.

TabletDevices	TabletDeviceCollection
(description)	The TabletDeviceCollection associated with the system.

4.882 TabletDevice

x:Object > InputDevice > TabletDevice	
TabletDevice	
(usage)	None.
(description)	Represents the digitizer device of a Tablet PC.
(used by)	Tablet
[is default constructible]	false
(properties)	
StylusDevices	StylusDeviceCollection
(description)	The StylusDeviceCollection associated with the tablet device.
[read only]	true

4.883 TabletDeviceCollection

x:Object > TabletDeviceCollection	
TabletDeviceCollection	
(usage)	<TabletDeviceCollection />
(description)	Contains the TabletDevice objects that represent the digitizer devices of a tablet device.
(used by)	Tablet

4.884 TabletDeviceType

x:Object > TabletDeviceType	
TabletDeviceType	

(usage)	Stylus Touch
(description)	Defines values for the type of devices the tablet device uses.
[is nullable]	false
[text syntax]	TabletDeviceTypeSyntax

4.885 TabletHardwareCapabilities

x:Object > TabletHardwareCapabilities	
TabletHardwareCapabilities	
(usage)	None Integrated StylusMustTouch HardProximity StylusHasPhysicalIds SupportsPressure
(description)	Defines values that specify the hardware capabilities of a tablet device, including desktop digitizers and mice.
[is nullable]	false
[text syntax]	TabletHardwareCapabilitiesSyntax

4.886 TabPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > TabPanel , IInputElement	
TabPanel	
(usage)	<TabPanel> UIElement *</TabPanel>
(description)	Handles the layout of the TabItem objects on a TabControl.
[content property]	Children
[name property]	Name
[xml lang property]	Language

4.887 TaskbarItemInfo

x:Object > DependencyObject > Freezable > TaskbarItemInfo

TaskbarItemInfo	
(usage)	<TaskbarItemInfo />
(description)	Represents information about how the taskbar thumbnail is displayed.
(used by)	Window
(properties)	
Description	x:String
(description)	The text for the taskbar item tooltip.
Overlay	ImageSource
(description)	The image that is displayed over the program icon in the taskbar button.
ProgressState	TaskbarItemProgressState
(description)	A value that indicates how the progress indicator is displayed in the taskbar button.
ProgressValue	x:Double
(description)	A value that indicates the fullness of the progress indicator in the taskbar button.
ThumbButtonInfos	ThumbButtonInfoCollection
(description)	The collection of ThumbButtonInfo objects that are associated with the Window.
ThumbnailClipMargin	Thickness
(description)	A value that specifies the part of the application window's client area that is displayed in the taskbar thumbnail.

4.888 TaskbarItemProgressState

x:Object > TaskbarItemProgressState	
TaskbarItemProgressState	
(usage)	None Indeterminate Normal Error Paused
(description)	Specifies the state of the progress indicator in the Windows taskbar.
(used by)	TaskbarItemInfo
[is nullable]	false
[text syntax]	TaskbarItemProgressStateSyntax

4.889 TemplateBindingExtension

[x:Object](#) > [x:MarkupExtension](#) > [TemplateBindingExtension](#)

TemplateBindingExtension

(usage)	{TemplateBinding } <TemplateBinding />
(description)	Implements a markup extension that supports the binding between the value of a property in a template and the value of some other exposed property on the templated control.
[return value type]	x:Object
[constructors]	
(1 parameter)	
property	DependencyProperty
(description)	The identifier of the property being bound.
(properties)	
Converter	IValueConverter
(description)	The converter that interprets between source and target of a binding.
ConverterParameter	x:Object
(description)	The parameter to pass to the converter.
Property	DependencyProperty
(description)	The property being bound to.

4.890 TemplateKey

[x:Object](#) > [x:MarkupExtension](#) > [ResourceKey](#) > [TemplateKey](#)

TemplateKey

[DataTemplateKey](#) [ItemContainerTemplateKey](#)

(usage)	None.
(description)	When used as a resource key for a data template, allows the data template to participate in the lookup process.
[is default constructible]	false
[return value type]	ResourceKey

(properties)	
Data Type	x:Object
(description)	The type for which the template is designed.

4.891 TextAlignment

x:Object > TextAlignment	
TextAlignment	
(usage)	Left Right Center Justify
(description)	Specifies whether the text in the object is left-aligned, right-aligned, centered, or justified.
(used by)	AccessText AnchoredBlock Block FlowDocument ListItem RibbonTwoLineText TableCell TextBlock TextBox
[is nullable]	false
[text syntax]	TextAlignmentSyntax

4.892 TextBlock

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > TextBlock , InputElement	
TextBlock	
(usage)	<TextBlock> Inline UIElement x:String *</TextBlock>
(description)	Provides a lightweight control for displaying small amounts of flow content.
[content property]	Inlines
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The Brush used to fill the background of content area.
BaselineOffset	x:Double
(description)	The amount by which each line of text is offset from the baseline.

FontFamily	FontFamily
(description)	The preferred top-level font family for the TextBlock.
FontSize	x:Double
(description)	The top-level font size for the TextBlock.
[text syntax]	FontSizeSyntax
FontStretch	FontStretch
(description)	The top-level font-stretching characteristics for the TextBlock.
FontStyle	FontStyle
(description)	The top-level font style for the TextBlock.
FontWeight	FontWeight
(description)	The top-level font weight for the TextBlock.
Foreground	Brush
(description)	The Brush to apply to the text contents of the TextBlock.
Inlines	InlineCollection
(description)	An InlineCollection containing the top-level Inline elements that comprise the contents of the TextBlock.
[read only]	true
IsHyphenationEnabled	x:Boolean
(description)	A value that indicates whether automatic hyphenation of words is enabled or disabled.
LineHeight	x:Double
(description)	The height of each line of content.
[text syntax]	LengthSyntax
LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which a line box is determined for each line of text within the TextBlock.
Padding	Thickness
(description)	A value that indicates the thickness of padding space between the boundaries of the content area, and the content displayed by a TextBlock.
Text	x:String
(description)	The text contents of a TextBlock.
TextAlignment	TextAlignment
(description)	A value that indicates the horizontal alignment of text content.

TextDecorations	TextDecorationCollection
(description)	A TextDecorationCollection that contains the effects to apply to the text of a TextBlock.
TextEffects	TextEffectCollection
(description)	The effects to apply to the text content in this element.
TextTrimming	TextTrimming
(description)	The text trimming behavior to employ when content overflows the content area.
TextWrapping	TextWrapping
(description)	How the TextBlock should wrap text.
(attachable properties)	
TextBlock.BaselineOffset	x:Double
(description)	The amount by which each line of text is offset from the baseline.
[target type]	DependencyObject
TextBlock.FontFamily	FontFamily
(description)	The preferred top-level font family for the TextBlock.
[target type]	DependencyObject
TextBlock.FontSize	x:Double
(description)	The top-level font size for the TextBlock.
[target type]	DependencyObject
[text syntax]	FontSizeSyntax
TextBlock.FontStretch	FontStretch
(description)	The top-level font-stretching characteristics for the TextBlock.
[target type]	DependencyObject
TextBlock.FontStyle	FontStyle
(description)	The top-level font style for the TextBlock.
[target type]	DependencyObject
TextBlock.FontWeight	FontWeight
(description)	The top-level font weight for the TextBlock.
[target type]	DependencyObject
TextBlock.Foreground	Brush
(description)	The Brush to apply to the text contents of the TextBlock.

[target type]	DependencyObject
TextBlock.LineHeight	x:Double
(description)	The height of each line of content.
[target type]	DependencyObject
[text syntax]	LengthSyntax
TextBlock.LineStackingStrategy	LineStackingStrategy
(description)	The mechanism by which a line box is determined for each line of text within the TextBlock.
[target type]	DependencyObject
TextBlock.TextAlignment	TextAlignment
(description)	A value that indicates the horizontal alignment of text content.
[target type]	DependencyObject

4.893 TextBox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > TextBoxBase > TextBox , InputElement	
<h2>TextBox</h2>	
DatePickerTextBox RibbonTextBox	
(usage)	<TextBox> x:String </TextBox>
(description)	Represents a control that can be used to display or edit unformatted text.
[content property]	Text
[name property]	Name
[xml lang property]	Language
(properties)	
CaretIndex	x:Int32
(description)	The insertion position index of the caret.
CharacterCasing	CharacterCasing
(description)	How characters are cased when they are manually entered into the text box.
MaxLength	x:Int32
(description)	The maximum number of characters that can be manually entered into the text box.

MaxLines	x:Int32
(description)	The maximum number of visible lines.
MinLines	x:Int32
(description)	The minimum number of visible lines.
SelectedText	x:String
(description)	The content of the current selection in the text box.
SelectionLength	x:Int32
(description)	A value indicating the number of characters in the current selection in the text box.
SelectionStart	x:Int32
(description)	A character index for the beginning of the current selection.
Text	x:String
(description)	The text contents of the text box.
TextAlignment	TextAlignment
(description)	The horizontal alignment of the contents of the text box.
TextDecorations	TextDecorationCollection
(description)	The text decorations to apply to the text box.
TextWrapping	TextWrapping
(description)	How the text box should wrap text.

4.894 TextBoxBase

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > TextBoxBase , InputElement	
TextBoxBase	
RichTextBox TextBox	
(usage)	None.
(description)	A base type that provides functionality for text editing controls.
[is default constructible]	false
[name property]	Name
[xml lang property]	Language
(properties)	

AcceptsReturn	x:Boolean
(description)	A value that indicates how the text editing control responds when the user presses the ENTER key.
AcceptsTab	x:Boolean
(description)	A value that indicates how the text editing control responds when the user presses the TAB key.
AutoWordSelection	x:Boolean
(description)	A value that determines whether when a user selects part of a word by dragging across it with the mouse, the rest of the word is selected.
CaretBrush	Brush
(description)	The brush that is used to paint the caret of the text box.
HorizontalScrollBarVisibility	ScrollBarVisibility
(description)	A value that indicates whether a horizontal scroll bar is shown.
IsInactiveSelectionHighlightEnabled	x:Boolean
(description)	A value that indicates whether the text box displays selected text when the text box does not have focus.
IsReadOnly	x:Boolean
(description)	A value that indicates whether the text editing control is read-only to a user interacting with the control.
IsReadOnlyCaretVisible	x:Boolean
(description)	A value that indicates whether a read-only text box displays a caret.
IsUndoEnabled	x:Boolean
(description)	A value that indicates whether undo support is enabled for the text-editing control.
SelectionBrush	Brush
(description)	The brush that highlights selected text.
SelectionOpacity	x:Double
(description)	The opacity of the SelectionBrush.
SelectionTextBrush (4.8)	Brush
(description)	A value that defines the brush used for selected text.
UndoLimit	x:Int32
(description)	The number of actions stored in the undo queue.
VerticalScrollBarVisibility	ScrollBarVisibility

(description)	A value that indicates whether a vertical scroll bar is shown.
(events)	
SelectionChanged	Occurs when the text selection has changed.
TextChanged	Occurs when content changes in the text element.

4.895 TextCollapsingStyle

x:Object > TextCollapsingStyle	
TextCollapsingStyle	
(usage)	TrailingCharacter TrailingWord
(description)	Specifies the style of collapsed text.
[is nullable]	false
[text syntax]	TextCollapsingStyleSyntax

4.896 TextCompositionAutoComplete

x:Object > TextCompositionAutoComplete	
TextCompositionAutoComplete	
(usage)	Off On
(description)	Defines a set of states for the handling of automatic completion of a text composition.
[is nullable]	false
[text syntax]	TextCompositionAutoCompleteSyntax

4.897 TextDataFormat

x:Object > TextDataFormat	
TextDataFormat	
(usage)	Text UnicodeText Rtf Html CommaSeparatedValue Xaml

(description)	Specifies the data format of the text data.
[is nullable]	false
[text syntax]	TextDataFormatSyntax

4.898 TextDecoration

x:Object > DependencyObject > Freezable > Animatable > TextDecoration	
<h2>TextDecoration</h2>	
(usage)	Baseline OverLine Strikethrough Underline
(description)	Represents a text decoration, which a visual ornamentation that is added to text (such as an underline).
(used by)	ICollection(TextDecoration) IList(TextDecoration) TextDecorationCollection
(properties)	
Location	TextDecorationLocation
(description)	The vertical location at which the text decoration is drawn.
Pen	Pen
(description)	The Pen used to draw the text decoration.
PenOffset	x:Double
(description)	The text decoration's offset from its Location.
PenOffsetUnit	TextDecorationUnit
(description)	The units in which the PenOffset value is expressed.
PenThicknessUnit	TextDecorationUnit
(description)	The units in which the Thickness of the text decoration's Pen is expressed.

4.899 TextDecorationCollection

x:Object > DependencyObject > Freezable > Animatable > TextDecorationCollection	
<h2>TextDecorationCollection</h2>	
(usage)	<TextDecorationCollection> string </TextDecorationCollection>
(description)	Represents a collection of TextDecoration instances.

(used by)	AccessText Inline Paragraph RibbonTwoLineText SystemFonts TextBlock TextBox TextDecorations
[text syntax]	TextDecorationCollectionSyntax
[is list]	true
[allowed types]	TextDecoration

4.900 TextDecorationLocation

x:Object > TextDecorationLocation	
<h2>TextDecorationLocation</h2>	
(usage)	Underline OverLine Strikethrough Baseline
(description)	Specifies the vertical position of a TextDecoration object.
(used by)	TextDecoration
[is nullable]	false
[text syntax]	TextDecorationLocationSyntax

4.901 TextDecorations

x:Object > TextDecorations	
<h2>TextDecorations</h2>	
(usage)	{x:Static TextDecorations.StaticPropertyName}
(description)	Provides a set of static predefined text decorations.
[is default constructible]	false
(static properties)	
Baseline	TextDecorationCollection
(description)	Specifies a baseline TextDecoration.
OverLine	TextDecorationCollection
(description)	Specifies an overline TextDecoration.
Strikethrough	TextDecorationCollection
(description)	Specifies a strikethrough TextDecoration.

Underline	TextDecorationCollection
(description)	Specifies an underline TextDecoration.

4.902 TextDecorationUnit

x:Object > TextDecorationUnit	
TextDecorationUnit	
(usage)	FontRecommended FontRenderingEmSize Pixel
(description)	Specifies the unit type of either a TextDecorationPenOffset or a Pen thickness value.
(used by)	TextDecoration
[is nullable]	false
[text syntax]	TextDecorationUnitSyntax

4.903 TextEffect

x:Object > DependencyObject > Freezable > Animatable > TextEffect	
TextEffect	
(usage)	<TextEffect />
(description)	Represents a text effect that can be applied to text objects.
(used by)	ICollection(TextEffect) IList(TextEffect) TextEffectCollection
(properties)	
Clip	Geometry
(description)	The clipping region of the TextEffect.
Foreground	Brush
(description)	The Brush to apply to the content of the TextEffect.
PositionCount	x:Int32
(description)	The position in the text that the TextEffect applies to.
PositionStart	x:Int32
(description)	The starting position in the text that the TextEffect applies to.

Transform	Transform
(description)	The Transform that is applied to the TextEffect.

4.904 TextEffectCollection

x:Object > DependencyObject > Freezable > Animatable > TextEffectCollection	
TextEffectCollection	
(usage)	<TextEffectCollection> TextEffect *</TextEffectCollection>
(description)	Provides collection support for a collection of TextEffect objects.
(used by)	AccessText FlowDocument RibbonTwoLineText TextBlock TextElement
[is list]	true
[allowed types]	TextEffect

4.905 TextElement

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement , InputElement	
TextElement	
Block Inline ListItem TableCell TableRow TableRowGroup	
(usage)	None.
(description)	A base type for elements that contain text.
[is default constructible]	false
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	The Brush used to fill the background of the content area.
FontFamily	FontFamily
(description)	The preferred top-level font family for the content of the element.
FontSize	x:Double
(description)	The font size for the content of the element.

[text syntax]	FontSizeSyntax
FontStretch	FontStretch
(description)	The font-stretching characteristics for the content of the element.
FontStyle	FontStyle
(description)	The font style for the content of the element.
FontWeight	FontWeight
(description)	The top-level font weight for the content of the element.
Foreground	Brush
(description)	The Brush to apply to the content of the element.
TextEffects	TextEffectCollection
(description)	A collection of text effects to apply to the content of the element.
(attachable properties)	
TextElement.FontFamily	FontFamily
(description)	The preferred top-level font family for the content of the element.
[target type]	DependencyObject
TextElement.FontSize	x:Double
(description)	The font size for the content of the element.
[target type]	DependencyObject
[text syntax]	FontSizeSyntax
TextElement.FontStretch	FontStretch
(description)	The font-stretching characteristics for the content of the element.
[target type]	DependencyObject
TextElement.FontStyle	FontStyle
(description)	The font style for the content of the element.
[target type]	DependencyObject
TextElement.FontWeight	FontWeight
(description)	The top-level font weight for the content of the element.
[target type]	DependencyObject
TextElement.Foreground	Brush
(description)	The Brush to apply to the content of the element.
[target type]	DependencyObject

4.906 TextFormattingMode

x:Object > TextFormattingMode	
TextFormattingMode	
(usage)	Ideal Display
(description)	Defines the formatting methods supported by the TextFormatter type.
(used by)	TextOptions
[is nullable]	false
[text syntax]	TextFormattingModeSyntax

4.907 TextHintingMode

x:Object > TextHintingMode	
TextHintingMode	
(usage)	Auto Fixed Animated
(description)	Defines the rendering behavior of static or animated text.
(used by)	TextOptions
[is nullable]	false
[text syntax]	TextHintingModeSyntax

4.908 TextMarkerStyle

x:Object > TextMarkerStyle	
TextMarkerStyle	
(usage)	None Disc Circle Square Box LowerRoman UpperRoman LowerLatin UpperLatin ...
(description)	Describes the appearance of a list item's bullet style.
(used by)	List
[is nullable]	false

[text syntax]	TextMarkerStyleSyntax
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4.909 TextOptions

x:Object > TextOptions	
TextOptions	
(usage)	None.
(description)	Defines a set of attached properties that affect the way text is displayed in an element.
[is default constructible]	false
(attachable properties)	
TextOptions.TextFormattingMode	TextFormattingMode
(description)	The TextFormattingMode for the element. This is an attached property.
[target type]	DependencyObject
TextOptions.TextHintingMode	TextHintingMode
(description)	The TextHintingMode for the element. This is an attached property.
[target type]	DependencyObject
TextOptions.TextRenderingMode	TextRenderingMode
(description)	The TextRenderingMode for the element. This is an attached property.
[target type]	DependencyObject

4.910 TextPointerContext

x:Object > TextPointerContext	
TextPointerContext	
(usage)	None Text EmbeddedElement ElementStart ElementEnd
(description)	Determines the category of content that is adjacent to a TextPointer in a specified LogicalDirection.
[is nullable]	false
[text syntax]	TextPointerContextSyntax

4.911 TextRenderingMode

x:Object > TextRenderingMode	
TextRenderingMode	
(usage)	Auto Aliased Grayscale ClearType
(description)	Defines the supported rendering modes for text.
(used by)	TextOptions
[is nullable]	false
[text syntax]	TextRenderingModeSyntax

4.912 TextRunCache

x:Object > TextRunCache	
TextRunCache	
(usage)	<TextRunCache />
(description)	Provides caching services to the TextFormatter object in order to improve performance.

4.913 TextSearch

x:Object > DependencyObject > TextSearch	
TextSearch	
(usage)	None.
(description)	Enables a user to quickly access items in a set by typing prefixes of strings.
[is default constructible]	false
(attachable properties)	
TextSearch.Text	x:String
(description)	The string that identifies an item in a control's collection.
[target type]	DependencyObject

TextSearch.TextPath	x:String
(description)	The name of the items' property that identifies each item in a control's collection.
[target type]	DependencyObject

4.914 TextTabAlignment

x:Object > TextTabAlignment	
TextTabAlignment	
(usage)	Left Center Right Character
(description)	Describes how text is aligned at a tab location.
[is nullable]	false
[text syntax]	TextTabAlignmentSyntax

4.915 TextTrimming

x:Object > TextTrimming	
TextTrimming	
(usage)	None CharacterEllipsis WordEllipsis
(description)	Describes how text is trimmed when it overflows the edge of its containing box.
(used by)	AccessText RibbonTwoLineText TextBlock
[is nullable]	false
[text syntax]	TextTrimmingSyntax

4.916 TextWrapping

x:Object > TextWrapping	
TextWrapping	
(usage)	WrapWithOverflow NoWrap Wrap

(description)	Specifies whether text wraps when it reaches the edge of the containing box
(used by)	AccessText TextBlock TextBox
[is nullable]	false
[text syntax]	TextWrappingSyntax

4.917 ThemeDictionaryExtension

x:Object > x:MarkupExtension > ThemeDictionaryExtension	
<h2>ThemeDictionaryExtension</h2>	
(usage)	{ThemeDictionary } <ThemeDictionary />
(description)	Implements a markup extension that enables application authors to customize control styles based on the current system theme.
[return value type]	x:Uri
[constructors]	
(1 parameter)	
assemblyName	x:String
(description)	The assembly name string.
(properties)	
AssemblyName	x:String
(description)	A particular naming convention to identify which dictionary applies for a particular theme.

4.918 Thickness

x:Object > Thickness	
<h2>Thickness</h2>	
(usage)	<Thickness> string </Thickness>
(description)	Describes the thickness of a frame around a rectangle. Four Double values describe the Left, Top, Right, and Bottom sides of the rectangle, respectively.

(used by)	AnchoredBlock Block Border Control FlowDocument FrameworkElement ListItem RibbonTwoLineText SystemParameters TableCell TaskbarItemInfo TextBlock ThicknessAnimation ThicknessKeyFrame WindowChrome
[is nullable]	false
[text syntax]	ThicknessSyntax
(properties)	
Bottom	x:Double
(description)	The width, in pixels, of the lower side of the bounding rectangle.
Left	x:Double
(description)	The width, in pixels, of the left side of the bounding rectangle.
Right	x:Double
(description)	The width, in pixels, of the right side of the bounding rectangle.
Top	x:Double
(description)	The width, in pixels, of the upper side of the bounding rectangle.

4.919 ThicknessAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ThicknessAnimationBase > ThicknessAnimation	
<h2>ThicknessAnimation</h2>	
(usage)	<ThicknessAnimation />
(description)	Animates the value of a Thickness property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(Thickness)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Thickness)
(description)	The animation's starting value.
IsAdditive	x:Boolean

(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Thickness)
(description)	The animation's ending value.

4.920 ThicknessAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ThicknessAnimationBase	
ThicknessAnimationBase	
ThicknessAnimation ThicknessAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Thickness value.
[is default constructible]	false
[name property]	Name

4.921 ThicknessAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > ThicknessAnimationBase > ThicknessAnimationUsingKeyFrames	
ThicknessAnimationUsingKeyFrames	
(usage)	<ThicknessAnimationUsingKeyFrames> ThicknessKeyFrame *</ThicknessAnimationUsingKeyFrames>
(description)	Animates the value of a Thickness property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean

(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	ThicknessKeyFrameCollection
(description)	The collection of ThicknessKeyFrame objects that define the animation.

4.922 ThicknessKeyFrame

x:Object > DependencyObject > Freezable > ThicknessKeyFrame	
<h2>ThicknessKeyFrame</h2>	
DiscreteThicknessKeyFrame EasingThicknessKeyFrame LinearThicknessKeyFrame SplineThicknessKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a ThicknessAnimationUsingKeyFrames.
(used by)	ThicknessKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Thickness
(description)	The key frame's target value.

4.923 ThicknessKeyFrameCollection

x:Object > DependencyObject > Freezable > ThicknessKeyFrameCollection	
<h2>ThicknessKeyFrameCollection</h2>	
(usage)	<ThicknessKeyFrameCollection> ThicknessKeyFrame *</ThicknessKeyFrameCollection>
(description)	Represents a collection of ThicknessKeyFrame objects.

(used by)	ThicknessAnimationUsingKeyFrames
[is list]	true
[allowed types]	ThicknessKeyFrame
(static properties)	
Empty	ThicknessKeyFrameCollection
(description)	An empty ThicknessKeyFrameCollection.

4.924 Thumb

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > Thumb , InputElement	
<h2>Thumb</h2>	
GridSplitter	
(usage)	<Thumb />
(description)	Represents a control that can be dragged by the user.
(used by)	Track
[name property]	Name
[xml lang property]	Language
(events)	
DragCompleted	Occurs when the Thumb control loses mouse capture.
DragDelta	Occurs one or more times as the mouse changes position when a Thumb control has logical focus and mouse capture.
DragStarted	Occurs when a Thumb control receives logical focus and mouse capture.

4.925 ThumbButtonInfo

x:Object > DependencyObject > Freezable > ThumbButtonInfo	
<h2>ThumbButtonInfo</h2>	
(usage)	<ThumbButtonInfo />
(description)	Represents information about how to display a button in the Windows 7 taskbar thumbnail.

(used by)	FreezableCollection(ThumbButtonInfo) ICollection(ThumbButtonInfo) IList(ThumbButtonInfo) ThumbButtonInfoCollection
(properties)	
Command	ICommand
(description)	The command to invoke when this thumbnail button is clicked.
CommandParameter	x:Object
(description)	The parameter to pass to the Command property.
CommandTarget	IInputElement
(description)	The element on which to raise the specified command.
Description	x:String
(description)	The text to display for the thumbnail button tooltip.
DismissWhenClicked	x:Boolean
(description)	A value that indicates whether the taskbar thumbnail closes when the thumbnail button is clicked.
ImageSource	ImageSource
(description)	The image that is displayed on the thumbnail button.
IsBackgroundVisible	x:Boolean
(description)	A value that indicates whether a border and highlight is displayed around the thumbnail button.
IsEnabled	x:Boolean
(description)	A value that indicates whether the thumbnail button is enabled.
IsInteractive	x:Boolean
(description)	A value that indicates whether the user can interact with the thumbnail button.
Visibility	Visibility
(description)	A value that specifies the display state of the thumbnail button.
(events)	
Click	Occurs when the thumbnail button is clicked.

4.926 ThumbButtonInfoCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [FreezableCollection\(ThumbButtonInfo\)](#) > [ThumbButtonInfoCollection](#)

ThumbButtonInfoCollection

(usage)	<ThumbButtonInfoCollection> ThumbButtonInfo *</ThumbButtonInfoCollection>
(description)	Represents a collection of ThumbButtonInfo objects that are associated with a Window.
(used by)	TaskbarItemInfo
[is list]	true
[allowed types]	ThumbButtonInfo

4.927 TickBar

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [TickBar](#), [InputElement](#)

TickBar

(usage)	<TickBar />
(description)	Represents a control that draws a set of tick marks for a Slider control.
[name property]	Name
[xml lang property]	Language
(properties)	
Fill	Brush
(description)	The Brush that is used to draw the tick marks.
IsDirectionReversed	x:Boolean
(description)	The direction of increasing value of the tick marks.
IsSelectionRangeEnabled	x:Boolean
(description)	Whether the TickBar displays a selection range.
Maximum	x:Double
(description)	The maximum value that is possible for a tick mark.
Minimum	x:Double
(description)	The minimum value that is possible for a tick mark.
Placement	TickBarPlacement
(description)	Where tick marks appear relative to a Track of a Slider control.
ReservedSpace	x:Double

(description)	A space buffer for the area that contains the tick marks that are specified for a TickBar.
SelectionEnd	x:Double
(description)	The end point of a selection.
SelectionStart	x:Double
(description)	The start point of a selection.
TickFrequency	x:Double
(description)	The interval between tick marks.
Ticks	DoubleCollection
(description)	The positions of the tick marks.

4.928 TickBarPlacement

x:Object > TickBarPlacement	
TickBarPlacement	
(usage)	Left Top Right Bottom
(description)	Specifies the placement of a TickBar with respect to the Track of a Slider control.
(used by)	TickBar
[is nullable]	false
[text syntax]	TickBarPlacementSyntax

4.929 TickPlacement

x:Object > TickPlacement	
TickPlacement	
(usage)	None TopLeft BottomRight Both
(description)	Specifies the position of tick marks in a Slider control with respect to the Track that the control implements.
(used by)	Slider
[is nullable]	false

[text syntax]	TickPlacementSyntax
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4.930 TiffBitmapEncoder

x:Object > BitmapEncoder > TiffBitmapEncoder	
TiffBitmapEncoder	
(usage)	<TiffBitmapEncoder />
(description)	Defines an encoder that is used to encode Tagged Image File Format (TIFF) format images.
(properties)	
Compression	TiffCompressOption
(description)	A value that indicates the type of compression that is used by this Tagged Image File Format (TIFF) image.

4.931 TiffCompressOption

x:Object > TiffCompressOption	
TiffCompressOption	
(usage)	Default None Ccitt3 Ccitt4 Lzw Rle Zip
(description)	Specifies the possible compression schemes for Tagged Image File Format (TIFF) bitmap images.
(used by)	TiffBitmapEncoder
[is nullable]	false
[text syntax]	TiffCompressOptionSyntax

4.932 TileBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > TileBrush	
TileBrush	
DrawingBrush ImageBrush VisualBrush	

(usage)	<TileBrush> string </TileBrush>
(description)	Describes a way to paint a region by using one or more tiles.
[is default constructible]	false
[text syntax]	BrushSyntax
(properties)	
AlignmentX	AlignmentX
(description)	The horizontal alignment of content in the TileBrush base tile.
AlignmentY	AlignmentY
(description)	The vertical alignment of content in the TileBrush base tile.
Stretch	Stretch
(description)	A value that specifies how the content of this TileBrush stretches to fit its tiles.
TileMode	TileMode
(description)	A value that specifies how a TileBrush fills the area that you are painting if the base tile is smaller than the output area.
Viewbox	Rect
(description)	The position and dimensions of the content in a TileBrush tile.
ViewboxUnits	BrushMappingMode
(description)	A value that specifies whether the Viewbox value is relative to the bounding box of the TileBrush contents or whether the value is absolute.
Viewport	Rect
(description)	The position and dimensions of the base tile for a TileBrush.
ViewportUnits	BrushMappingMode
(description)	A BrushMappingMode enumeration that specifies whether the value of the Viewport, which indicates the size and position of the TileBrush base tile, is relative to the size of the output area.

4.933 TileMode

x:Object > TileMode	
<h2>TileMode</h2>	
(usage)	None Tile FlipX FlipY FlipXY
(description)	Describes how a TileBrush paints tiles onto an output area.

(used by)	TileBrush
[is nullable]	false
[text syntax]	TileModeSyntax

4.934 Timeline

x:Object > DependencyObject > Freezable > Animatable > Timeline	
<h2>Timeline</h2>	
AnimationTimeline MediaTimeline TimelineGroup	
(usage)	None.
(description)	Defines a segment of time.
(used by)	ICollection(Timeline) IList(Timeline) TimelineCollection
[is default constructible]	false
[name property]	Name
(properties)	
AccelerationRatio	x:Double
(description)	A value specifying the percentage of the timeline's Duration spent accelerating the passage of time from zero to its maximum rate.
AutoReverse	x:Boolean
(description)	A value that indicates whether the timeline plays in reverse after it completes a forward iteration.
BeginTime	x:Nullable(x:TimeSpan)
(description)	The time at which this Timeline should begin.
DecelerationRatio	x:Double
(description)	A value specifying the percentage of the timeline's Duration spent decelerating the passage of time from its maximum rate to zero.
Duration	Duration
(description)	The length of time for which this timeline plays, not counting repetitions.
FillBehavior	FillBehavior
(description)	A value that specifies how the Timeline behaves after it reaches the end of its active period.
Name	x:String

(description)	The name of this Timeline.
RepeatBehavior	RepeatBehavior
(description)	The repeating behavior of this timeline.
SpeedRatio	x:Double
(description)	The rate, relative to its parent, at which time progresses for this Timeline.
(attachable properties)	
Timeline.DesiredFrameRate	x:Nullable(x:Int32)
(description)	The desired frame rate for this timeline and its child timelines.
[target type]	Timeline
(events)	
Completed	Occurs when this timeline has completely finished playing: it will no longer enter its active period.
CurrentGlobalSpeedInvalidated	Occurs when the rate at which time progresses for the timeline's clock changes.
CurrentStateInvalidated	Occurs when the CurrentState property of the timeline's Clock is updated.
CurrentTimeInvalidated	Occurs when the CurrentTime property of the timeline's Clock is updated.
RemoveRequested	Occurs when the clock created for this timeline or one of its parent timelines is removed.

4.935 TimelineCollection

x:Object > DependencyObject > Freezable > Animatable > TimelineCollection	
<h2>TimelineCollection</h2>	
(usage)	<TimelineCollection> Timeline *</TimelineCollection>
(description)	Represents a collection of Timeline objects.
(used by)	TimelineGroup
[is list]	true
[allowed types]	Timeline

4.936 TimelineGroup

x:Object > DependencyObject > Freezable > Animatable > Timeline > TimelineGroup

<h1>TimelineGroup</h1>	
ParallelTimeline	
(usage)	None.
(description)	A base type that represents a Timeline that may contain a collection of child Timeline objects.
[is default constructible]	false
[content property]	Children
[name property]	Name
(properties)	
Children	TimelineCollection
(description)	The collection of direct child Timeline objects of the TimelineGroup.

4.937 TimeSeekOrigin

x:Object > TimeSeekOrigin	
<h1>TimeSeekOrigin</h1>	
(usage)	BeginTime Duration
(description)	Indicates the origin of a seek operation. The offset of the seek operation is relative to this origin.
(used by)	SeekStoryboard
[is nullable]	false
[text syntax]	TimeSeekOriginSyntax

4.938 ToggleButton

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > ButtonBase > ToggleButton , InputElement	
<h1>ToggleButton</h1>	
CheckBox RadioButton RibbonToggleButton	
(usage)	<ToggleButton> x:Object </ToggleButton>

(description)	Base type for controls that can switch states, such as CheckBox.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
IsChecked	x:Nullable(x:Boolean)
(description)	Whether the ToggleButton is checked.
IsThreeState	x:Boolean
(description)	Determines whether the control supports two or three states.
(events)	
Checked	Occurs when a ToggleButton is checked.
Indeterminate	Occurs when the state of a ToggleButton is neither on nor off.
Unchecked	Occurs when a ToggleButton is unchecked.

4.939 ToleranceType

x:Object > ToleranceType	
ToleranceType	
(usage)	Absolute Relative
(description)	Determines the means by which an error tolerance value is interpreted.
[is nullable]	false
[text syntax]	ToleranceTypeSyntax

4.940 ToolBar

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ItemsControl > HeaderedItemsControl > ToolBar , InputElement	
ToolBar	
(usage)	<ToolBar> x:Object *</ToolBar>
(description)	Provides a container for a group of commands or controls.

(used by)	Collection(ToolBar) ToolBarTray
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
Band	x:Int32
(description)	A value that indicates where the toolbar should be located in the ToolBarTray.
BandIndex	x:Int32
(description)	The band index number that indicates the position of the toolbar on the band.
IsOverflowOpen	x:Boolean
(description)	A value that indicates whether the ToolBar overflow area is currently visible.
(attachable properties)	
ToolBar.OverflowMode	OverflowMode
(description)	A value that indicates when an item should be placed in the overflow panel instead of in the main panel.
[target type]	DependencyObject
(static properties)	
ButtonStyleKey	ResourceKey
(description)	The Style applied to buttons on a toolbar.
CheckBoxStyleKey	ResourceKey
(description)	The Style applied to check boxes on a ToolBar.
ComboBoxStyleKey	ResourceKey
(description)	The Style applied to combo boxes on a ToolBar.
MenuStyleKey	ResourceKey
(description)	The Style applied to menus on a ToolBar.
RadioButtonStyleKey	ResourceKey
(description)	The Style applied to radio buttons on a toolbar.
SeparatorStyleKey	ResourceKey
(description)	The Style applied to separators on a ToolBar.
TextBoxStyleKey	ResourceKey
(description)	The Style applied to text boxes on a ToolBar.
ToggleButtonStyleKey	ResourceKey

(description)	The Style applied to ToggleButton controls on a ToolBar.
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4.941 ToolBarOverflowPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > ToolBarOverflowPanel , IInputElement	
ToolBarOverflowPanel	
(usage)	<ToolBarOverflowPanel> UIElement *</ToolBarOverflowPanel>
(description)	Used to arrange overflow ToolBar items.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
WrapWidth	x:Double
(description)	The recommended width for an overflow ToolBar before items flow to the next line.

4.942 ToolBarPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > StackPanel > ToolBarPanel , IInputElement	
ToolBarPanel	
(usage)	<ToolBarPanel> UIElement *</ToolBarPanel>
(description)	Arranges ToolBar items inside a ToolBar.
[content property]	Children
[name property]	Name
[xml lang property]	Language

4.943 ToolBarTray

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ToolBarTray , InputElement	
<h1>ToolBarTray</h1>	
(usage)	<ToolBarTray> ToolBar *</ToolBarTray>
(description)	Represents the container that handles the layout of a ToolBar.
[content property]	ToolBars
[name property]	Name
[xml lang property]	Language
(properties)	
Background	Brush
(description)	A brush to use for the background color of the ToolBarTray.
IsLocked	x:Boolean
(description)	A value that indicates whether a ToolBar can be moved inside a ToolBarTray.
Orientation	Orientation
(description)	Specifies the orientation of a ToolBarTray.
ToolBars	Collection(ToolBar)
(description)	The collection of ToolBar elements in the ToolBarTray.
[read only]	true
(attachable properties)	
ToolBarTray.IsLocked	x:Boolean
(description)	A value that indicates whether a ToolBar can be moved inside a ToolBarTray.
[target type]	DependencyObject

4.944 Tooltip

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > Tooltip , InputElement	
<h1>Tooltip</h1>	
RibbonTooltip	
(usage)	<Tooltip> x:Object </Tooltip>

(description)	Represents a control that creates a pop-up window that displays information for an element in the interface.
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
HasDropShadow	x:Boolean
(description)	A value that indicates whether the control has a drop shadow.
HorizontalOffset	x:Double
(description)	Get or sets the horizontal distance between the target origin and the popup alignment point.
[text syntax]	LengthSyntax
IsOpen	x:Boolean
(description)	A value that indicates whether a ToolTip is visible.
Placement	PlacementMode
(description)	The orientation of the ToolTip control when it opens, and specifies how the ToolTip control behaves when it overlaps screen boundaries.
PlacementRectangle	Rect
(description)	The rectangular area relative to which the ToolTip control is positioned when it opens.
PlacementTarget	UIElement
(description)	The UIElement relative to which the ToolTip is positioned when it opens.
StaysOpen	x:Boolean
(description)	A value that indicates whether an open ToolTip remains open until the user clicks the mouse when the mouse is not over the ToolTip.
VerticalOffset	x:Double
(description)	Get or sets the vertical distance between the target origin and the popup alignment point.
[text syntax]	LengthSyntax
(events)	
Closed	Occurs when a ToolTip is closed and is no longer visible.
Opened	Occurs when a ToolTip becomes visible.

4.945 ToolTipService

x:Object > ToolTipService	
<h1>ToolTipService</h1>	
(usage)	None.
(description)	Represents a service that provides properties and events to control the display and behavior of tooltips.
[is default constructible]	false
(attachable properties)	
ToolTipService.BetweenShowDelay	x:Int32
(description)	The maximum time between the display of two tooltips where the second tooltip appears without a delay.
[target type]	DependencyObject
ToolTipService.HasDropShadow	x:Boolean
(description)	Whether the tooltip displays a drop shadow effect.
[target type]	DependencyObject
ToolTipService.HorizontalOffset	x:Double
(description)	The offset from the left of the area that is specified for the tooltip by the PlacementRectangle and PlacementTarget properties.
[target type]	DependencyObject
[text syntax]	LengthSyntax
ToolTipService.InitialShowDelay	x:Int32
(description)	The length of time before a tooltip opens.
[target type]	DependencyObject
ToolTipService.IsEnabled	x:Boolean
(description)	Whether a tooltip appears.
[target type]	DependencyObject
ToolTipService.Placement	PlacementMode
(description)	The orientation of the tooltip when it opens, and specifies how the tooltip behaves when it overlaps screen boundaries.
[target type]	DependencyObject
ToolTipService.PlacementRectangle	Rect

(description)	The rectangular area relative to which the tooltip is positioned.
[target type]	DependencyObject
ToolTipService.PlacementTarget	UIElement
(description)	The object relative to which the tooltip is positioned.
[target type]	DependencyObject
ToolTipService.ShowDuration	x:Int32
(description)	The amount of time that a tooltip remains visible.
[target type]	DependencyObject
ToolTipService.ShowOnDisabled	x:Boolean
(description)	Whether a tooltip appears for an object that is not enabled.
[target type]	DependencyObject
ToolTipService.ToolTip	x:Object
(description)	The content of a tooltip.
[target type]	DependencyObject
ToolTipService.VerticalOffset	x:Double
(description)	The distance from the top of the area that is specified for the tooltip by the PlacementRectangle and PlacementTarget properties.
[target type]	DependencyObject
[text syntax]	LengthSyntax
(attachable events)	
ToolTipService.ToolTipClosing	Occurs when the ToolTip closes.
ToolTipService.ToolTipOpening	Occurs when the ToolTip opens.

4.946 TouchAction

x:Object > TouchAction	
<h2>TouchAction</h2>	
(usage)	Down Move Up
(description)	Describes the action of a specific touch point.
(used by)	TouchPoint
[is nullable]	false

[text syntax]	TouchActionSyntax
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4.947 TouchPoint

x:Object > TouchPoint	
TouchPoint	
(usage)	None.
(description)	Represents a single touch point from a multitouch message source.
(used by)	Collection(TouchPoint) ICollection(TouchPoint) IList(TouchPoint) TouchPointCollection
[is default constructible]	false
(properties)	
Action	TouchAction
(description)	The last action that occurred at this location.
Bounds	Rect
(description)	The bounds of the area that the finger has in contact with the screen.
Position	Point
(description)	The location of the touch point.

4.948 TouchPointCollection

x:Object > Collection(TouchPoint) > TouchPointCollection	
TouchPointCollection	
(usage)	<TouchPointCollection> TouchPoint *</TouchPointCollection>
(description)	Contains a collection of TouchPoint objects.
[is list]	true
[allowed types]	TouchPoint

4.949 Track

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Track](#), [InputElement](#)

Track

(usage)	<code><Track /></code>
(description)	Represents a control primitive that handles the positioning and sizing of a Thumb control and two RepeatButton controls that are used to set a Value.
[name property]	Name
[xml lang property]	Language
(properties)	
DecreaseRepeatButton	RepeatButton
(description)	The RepeatButton that decreases the Value property of the Track.
IncreaseRepeatButton	RepeatButton
(description)	The RepeatButton that increases the Value property of the Track type.
IsDirectionReversed	x:Boolean
(description)	Whether the direction of increasing Value is reversed from the default direction.
Maximum	x:Double
(description)	The maximum possible Value of the Track.
Minimum	x:Double
(description)	The minimum possible Value of the Track.
Orientation	Orientation
(description)	A value that indicates whether the Track is displayed horizontally or vertically.
Thumb	Thumb
(description)	The Thumb control that is used to change the Value of a Track.
Value	x:Double
(description)	The current value of the Track as determined by the position of the Thumb control.
ViewportSize	x:Double
(description)	The size of the part of the scrollable content that is visible.

4.950 Transform

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > Transform	
<h1>Transform</h1>	
MatrixTransform RotateTransform ScaleTransform SkewTransform TransformGroup TranslateTransform	
(usage)	<Transform> string </Transform>
(description)	A base type for transformations in a two-dimensional plane.
(used by)	Brush ContainerVisual DrawingGroup FrameworkElement Geometry ICollection(Transform) IList(Transform) TextEffect TransformCollection TransformedBitmap UIElement Viewport3DVisual
[is default constructible]	false
[text syntax]	TransformSyntax
(static properties)	
Identity	Transform
(description)	An identity transform.

4.951 Transform3D

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform3D > Transform3D	
<h1>Transform3D</h1>	
AffineTransform3D MatrixTransform3D Transform3DGroup	
(usage)	{x:Static Transform3D.StaticPropertyName}
(description)	A base type for transformations in a three-dimensional plane.
(used by)	Camera ICollection(Transform3D) IList(Transform3D) Model3D ModelVisual3D Transform3DCollection Visual3D
[is default constructible]	false
(static properties)	
Identity	Transform3D
(description)	The identity transformation.

4.952 Transform3DCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Transform3DCollection](#)

Transform3DCollection

(usage)	<Transform3DCollection> Transform3D *</Transform3DCollection>
(description)	Represents an ordered collection of Transform3D objects.
(used by)	Transform3DGroup
[is list]	true
[allowed types]	Transform3D

4.953 Transform3DGroup

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [GeneralTransform3D](#) > [Transform3D](#) > [Transform3DGroup](#)

Transform3DGroup

(usage)	<Transform3DGroup> Transform3D *</Transform3DGroup>
(description)	Represents a transformation that is a composite of the Transform3D children in its Transform3DCollection.
[content property]	Children
(properties)	
Children	Transform3DCollection
(description)	A collection of Transform3D objects.

4.954 TransformCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [TransformCollection](#)

TransformCollection

(usage)	<TransformCollection> Transform *</TransformCollection>
(description)	Represents a collection of Transform objects that can be individually accessed by index.
(used by)	TransformGroup
[is list]	true

[allowed types]	Transform
-----------------	---------------------------

4.955 TransformedBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > TransformedBitmap	
TransformedBitmap	
(usage)	<TransformedBitmap> string </TransformedBitmap>
(description)	Scales and rotates a BitmapSource.
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
Source	BitmapSource
(description)	The source for the bitmap.
Transform	Transform
(description)	The Transform, which specifies the scale or rotation of the bitmap.

4.956 TransformGroup

x:Object > DependencyObject > Freezable > Animatable > GeneralTransform > Transform > TransformGroup	
TransformGroup	
(usage)	<TransformGroup> string Transform * </TransformGroup>
(description)	Represents a composite Transform composed of other Transform objects.
[text syntax]	TransformSyntax
[content property]	Children
(properties)	
Children	TransformCollection
(description)	The TransformCollection that defines this TransformGroup.

4.957 TranslateTransform

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [GeneralTransform](#) > [Transform](#) > [TranslateTransform](#)

TranslateTransform

(usage)	<TranslateTransform> string </TranslateTransform>
(description)	Translates (moves) an object in the 2-D x-y coordinate system.
[text syntax]	TransformSyntax
(properties)	
X	x:Double
(description)	The distance to translate along the x-axis.
Y	x:Double
(description)	The distance to translate (move) an object along the y-axis.

4.958 TranslateTransform3D

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [GeneralTransform3D](#) > [Transform3D](#) > [AffineTransform3D](#) > [TranslateTransform3D](#)

TranslateTransform3D

(usage)	<TranslateTransform3D />
(description)	Translates an object in the three-dimensional x-y-z plane.
(properties)	
OffsetX	x:Double
(description)	The X-axis value of the translation's offset.
OffsetY	x:Double
(description)	The Y-axis value of the translation's offset.
OffsetZ	x:Double
(description)	The Z-axis value of the translation's offset.

4.959 TreeView

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [TreeView](#), [InputElement](#)

TreeView

(usage)	<TreeView> x:Object *</TreeView>
(description)	Represents a control that displays hierarchical data in a tree structure that has items that can expand and collapse.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
SelectedValuePath	x:String
(description)	The path that is used to get the SelectedValue of the SelectedItem in a TreeView.
(events)	
SelectedItemChanged	Occurs when the SelectedItem changes.

4.960 TreeViewItem

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Control](#) > [ItemsControl](#) > [HeaderedItemsControl](#) > [TreeViewItem](#), [InputElement](#)

TreeViewItem

(usage)	<TreeViewItem> x:Object *</TreeViewItem>
(description)	Implements a selectable item in a TreeView control.
[content property]	Items
[name property]	Name
[xml lang property]	Language
(properties)	
IsExpanded	x:Boolean
(description)	Whether the nested items in a TreeViewItem are expanded or collapsed.
IsSelected	x:Boolean

(description)	Whether a TreeViewItem control is selected.
(events)	
Collapsed	Occurs when the IsExpanded property changes from true to false.
Expanded	Occurs when the IsExpanded property changes from false to true.
Selected	Occurs when the IsSelected property of a TreeViewItem changes from false to true.
Unselected	Occurs when the IsSelected property of a TreeViewItem changes from true to false.

4.961 Trigger

x:Object > DependencyObject > TriggerBase > Trigger	
<h2>Trigger</h2>	
(usage)	<Trigger> SetterBase *</Trigger>
(description)	Represents a trigger that applies property values or performs actions conditionally.
[content property]	Setters
(properties)	
Property	DependencyProperty
(description)	The property that returns the value that is compared with the Value property of the trigger. The comparison is a reference equality check.
Setters	SetterBaseCollection
(description)	A collection of Setter objects, which describe the property values to apply when the specified condition has been met.
[read only]	true
SourceName	x:String
(description)	The name of the object with the property that causes the associated setters to be applied.
Value	x:Object
(description)	The value to be compared with the property value of the element. The comparison is a reference equality check.
[text syntax]	This property's text syntax is the text syntax of the Property.

4.962 TriggerAction

x:Object > DependencyObject > TriggerAction	
<h2>TriggerAction</h2>	
BeginStoryboard ControllableStoryboardAction SoundPlayerAction	
(usage)	None.
(description)	Describes an action to perform for a trigger.
(used by)	ICollection(TriggerAction) IList(TriggerAction) TriggerActionCollection
[is default constructible]	false

4.963 TriggerActionCollection

x:Object > TriggerActionCollection	
<h2>TriggerActionCollection</h2>	
(usage)	<TriggerActionCollection> TriggerAction *</TriggerActionCollection>
(description)	Represents a collection of TriggerAction objects.
(used by)	EventTrigger TriggerBase
[is list]	true
[allowed types]	TriggerAction

4.964 TriggerBase

x:Object > DependencyObject > TriggerBase	
<h2>TriggerBase</h2>	
DataTrigger EventTrigger MultiDataTrigger MultiTrigger Trigger	
(usage)	None.
(description)	Represents the base type for specifying a conditional value within a Style object.
(used by)	Collection(TriggerBase) ICollection(TriggerBase) IList(TriggerBase) TriggerCollection

[is default constructible]	false
(properties)	
EnterActions	TriggerActionCollection
(description)	A collection of TriggerAction objects to apply when the trigger object becomes active. This property does not apply to the EventTrigger type.
[read only]	true
ExitActions	TriggerActionCollection
(description)	A collection of TriggerAction objects to apply when the trigger object becomes inactive. This property does not apply to the EventTrigger type.
[read only]	true

4.965 TriggerCollection

x:Object > Collection(TriggerBase) > TriggerCollection	
TriggerCollection	
(usage)	None.
(description)	Represents a collection of TriggerBase objects.
(used by)	ControlTemplate DataTemplate FrameworkElement Style
[is default constructible]	false
[is list]	true
[allowed types]	TriggerBase

4.966 Typeface

x:Object > Typeface	
Typeface	
(usage)	None.
(description)	Represents a combination of FontFamily, FontWeight, FontStyle, and FontStretch.
(used by)	Fonts ICollection(Typeface)
[is default constructible]	false

(properties)	
FaceNames	LanguageSpecificStringDictionary
(description)	A collection of culture-specific names for the Typeface.
[read only]	true

4.967 Typography

x:Object > Typography	
Typography	
(usage)	None.
(description)	Provides access to a rich set of OpenType typography properties.
[is default constructible]	false
(properties)	
AnnotationAlternates	x:Int32
(description)	A value that specifies the index of an alternate annotation form.
Capitals	FontCapitals
(description)	A FontCapitals enumerated value that indicates the capital form of the selected font.
CapitalSpacing	x:Boolean
(description)	A value that determines whether inter-glyph spacing for all-capital text is globally adjusted to improve readability.
CaseSensitiveForms	x:Boolean
(description)	A value that determines whether glyphs adjust their vertical position to better align with uppercase glyphs.
ContextualAlternates	x:Boolean
(description)	A value that determines whether custom glyph forms can be used based upon the context of the text being rendered.
ContextualLigatures	x:Boolean
(description)	A value that determines whether contextual ligatures are enabled.
ContextualSwashes	x:Int32
(description)	A value that specifies the index of a contextual swashes form.
DiscretionaryLigatures	x:Boolean

(description)	A value that determines whether discretionary ligatures are enabled.
EastAsianExpertForms	x:Boolean
(description)	A value that determines whether the standard Japanese font forms have been replaced with the corresponding preferred typographic forms.
EastAsianLanguage	FontEastAsianLanguage
(description)	A FontEastAsianLanguage enumerated value that indicates the version of glyphs to be used for a specific writing system or language.
EastAsianWidths	FontEastAsianWidths
(description)	A FontEastAsianWidths enumerated value that indicates the proportional width to be used for Latin characters in an East Asian font.
Fraction	FontFraction
(description)	A FontFraction enumerated value that indicates the fraction style.
HistoricalForms	x:Boolean
(description)	A value that determines whether historical forms are enabled.
HistoricalLigatures	x:Boolean
(description)	A value that indicates whether historical ligatures are enabled.
Kerning	x:Boolean
(description)	A value that indicates whether kerning is enabled.
MathematicalGreek	x:Boolean
(description)	A value that indicates whether standard typographic font forms of Greek glyphs have been replaced with corresponding font forms commonly used in mathematical notation.
NumeralAlignment	FontNumeralAlignment
(description)	A FontNumeralAlignment enumerated value that indicates the alignment of widths when using numerals.
NumeralStyle	FontNumeralStyle
(description)	A FontNumeralStyle enumerated value that determines the set of glyphs that are used to render numeric alternate font forms.
SlashedZero	x:Boolean
(description)	A value that indicates whether a nominal zero font form should be replaced with a slashed zero.
StandardLigatures	x:Boolean
(description)	A value that indicates whether standard ligatures are enabled.
StandardSwashes	x:Int32

(description)	A value that specifies the index of a standard swashes form.
StylisticAlternates	x:Int32
(description)	A value that specifies the index of a stylistic alternates form.
StylisticSet1	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet10	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet11	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet12	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet13	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet14	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet15	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet16	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet17	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet18	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet19	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet2	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet20	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet3	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet4	x:Boolean

(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet5	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet6	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet7	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet8	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
StylisticSet9	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
Variants	FontVariants
(description)	A FontVariants enumerated value that indicates a variation of the standard typographic form to be used.
(attachable properties)	
Typography.AnnotationAlternates	x:Int32
(description)	A value that specifies the index of an alternate annotation form.
[target type]	DependencyObject
Typography.Capitals	FontCapitals
(description)	A FontCapitals enumerated value that indicates the capital form of the selected font.
[target type]	DependencyObject
Typography.CapitalSpacing	x:Boolean
(description)	A value that determines whether inter-glyph spacing for all-capital text is globally adjusted to improve readability.
[target type]	DependencyObject
Typography.CaseSensitiveForms	x:Boolean
(description)	A value that determines whether glyphs adjust their vertical position to better align with uppercase glyphs.
[target type]	DependencyObject
Typography.ContextualAlternates	x:Boolean
(description)	A value that determines whether custom glyph forms can be used based upon the context of the text being rendered.

[target type]	DependencyObject
Typography.ContextualLigatures	x:Boolean
(description)	A value that determines whether contextual ligatures are enabled.
[target type]	DependencyObject
Typography.ContextualSwashes	x:Int32
(description)	A value that specifies the index of a contextual swashes form.
[target type]	DependencyObject
Typography.DiscretionaryLigatures	x:Boolean
(description)	A value that determines whether discretionary ligatures are enabled.
[target type]	DependencyObject
Typography.EastAsianExpertForms	x:Boolean
(description)	A value that determines whether the standard Japanese font forms have been replaced with the corresponding preferred typographic forms.
[target type]	DependencyObject
Typography.EastAsianLanguage	FontEastAsianLanguage
(description)	A FontEastAsianLanguage enumerated value that indicates the version of glyphs to be used for a specific writing system or language.
[target type]	DependencyObject
Typography.EastAsianWidths	FontEastAsianWidths
(description)	A FontEastAsianWidths enumerated value that indicates the proportional width to be used for Latin characters in an East Asian font.
[target type]	DependencyObject
Typography.Fraction	FontFraction
(description)	A FontFraction enumerated value that indicates the fraction style.
[target type]	DependencyObject
Typography.HistoricalForms	x:Boolean
(description)	A value that determines whether historical forms are enabled.
[target type]	DependencyObject
Typography.HistoricalLigatures	x:Boolean
(description)	A value that indicates whether historical ligatures are enabled.
[target type]	DependencyObject

Typography.Kerning	x:Boolean
(description)	A value that indicates whether kerning is enabled.
[target type]	DependencyObject
Typography.MathematicalGreek	x:Boolean
(description)	A value that indicates whether standard typographic font forms of Greek glyphs have been replaced with corresponding font forms commonly used in mathematical notation.
[target type]	DependencyObject
Typography.NumeralAlignment	FontNumeralAlignment
(description)	A FontNumeralAlignment enumerated value that indicates the alignment of widths when using numerals.
[target type]	DependencyObject
Typography.NumeralStyle	FontNumeralStyle
(description)	A FontNumeralStyle enumerated value that determines the set of glyphs that are used to render numeric alternate font forms.
[target type]	DependencyObject
Typography.SlashedZero	x:Boolean
(description)	A value that indicates whether a nominal zero font form should be replaced with a slashed zero.
[target type]	DependencyObject
Typography.StandardLigatures	x:Boolean
(description)	A value that indicates whether standard ligatures are enabled.
[target type]	DependencyObject
Typography.StandardSwashes	x:Int32
(description)	A value that specifies the index of a standard swashes form.
[target type]	DependencyObject
Typography.StylisticAlternates	x:Int32
(description)	A value that specifies the index of a stylistic alternates form.
[target type]	DependencyObject
Typography.StylisticSet1	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet10	x:Boolean

(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet11	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet12	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet13	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet14	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet15	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet16	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet17	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet18	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet19	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet2	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject

Typography.StylisticSet20	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet3	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet4	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet5	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet6	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet7	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet8	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.StylisticSet9	x:Boolean
(description)	A value that indicates whether a stylistic set of a font form is enabled.
[target type]	DependencyObject
Typography.Variants	FontVariants
(description)	A FontVariants enumerated value that indicates a variation of the standard typographic form to be used.
[target type]	DependencyObject

4.968 UIElement

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#), [InputElement](#)

UIElement	
FrameworkElement	
(usage)	<UIElement />
(description)	A base type for core elements and basic presentation characteristics.
(used by)	AdornedElementPlaceholder AdornerDecorator AutomationProperties BlockUIContainer BulletDecorator ContextMenu ContextMenuService Decorator InlineCollection InlineUIContainer Label Popup ToolTip ToolTipService UIElementCollection Viewbox
(properties)	
AllowDrop	x:Boolean
(description)	A value indicating whether this element can be used as the target of a drag-and-drop operation.
CacheMode	CacheMode
(description)	A cached representation of the UIElement.
Clip	Geometry
(description)	The geometry used to define the outline of the contents of an element.
ClipToBounds	x:Boolean
(description)	A value indicating whether to clip the content of this element (or content coming from the child elements of this element) to fit into the size of the containing element.
CommandBindings	CommandBindingCollection
(description)	A collection of CommandBinding objects associated with this element. A CommandBinding enables command handling for this element, and declares the linkage between a command, its events, and the handlers attached by this element.
[read only]	true
Effect	Effect
(description)	The bitmap effect to apply to the UIElement.
Focusable	x:Boolean
(description)	A value that indicates whether the element can receive focus.
InputBindings	InputBindingCollection
(description)	The collection of input bindings associated with this element.
[read only]	true
IsEnabled	x:Boolean

(description)	A value indicating whether this element is enabled in the user interface (UI).
IsHitTestVisible	x:Boolean
(description)	A value that declares whether this element can possibly be returned as a hit test result from some portion of its rendered content.
IsManipulationEnabled	x:Boolean
(description)	A value that indicates whether manipulation events are enabled on this UIElement.
Opacity	x:Double
(description)	The opacity factor applied to the entire UIElement when it is rendered in the user interface (UI).
OpacityMask	Brush
(description)	An opacity mask, as a Brush implementation that is applied to any alpha-channel masking for the rendered content of this element.
RenderSize	Size
(description)	The final render size of this element.
RenderTransform	Transform
(description)	Transform information that affects the rendering position of this element.
RenderTransformOrigin	Point
(description)	The center point of any possible render transform declared by RenderTransform, relative to the bounds of the element.
SnapsToDevicePixels	x:Boolean
(description)	A value that determines whether rendering for this element should use device-specific pixel settings during rendering.
Uid	x:String
(description)	The unique identifier (for localization) for this element.
Visibility	Visibility
(description)	The user interface (UI) visibility of this element.
(events)	
DragEnter	Occurs when the input system reports an underlying drag event with this element as the drag target.
DragLeave	Occurs when the input system reports an underlying drag event with this element as the drag origin.
DragOver	Occurs when the input system reports an underlying drag event with this element as the potential drop target.

Drop	Occurs when the input system reports an underlying drop event with this element as the drop target.
FocusableChanged	Occurs when the value of the Focusable property changes.
GiveFeedback	Occurs when the input system reports an underlying drag-and-drop event that involves this element.
GotFocus	Occurs when this element gets logical focus.
GotKeyboardFocus	Occurs when the keyboard is focused on this element.
GotMouseCapture	Occurs when this element captures the mouse.
GotStylusCapture	Occurs when this element captures the stylus.
GotTouchCapture	Occurs when a touch is captured to this element.
IsEnabledChanged	Occurs when the value of the IsEnabled property on this element changes.
IsHitTestVisibleChanged	Occurs when the value of the IsHitTestVisible property changes on this element.
IsKeyboardFocusedChanged	Occurs when the value of the IsKeyboardFocused property changes on this element.
IsKeyboardFocusWithinChanged	Occurs when the value of the IsKeyboardFocusWithinChanged property changes on this element.
IsMouseCapturedChanged	Occurs when the value of the IsMouseCaptured property changes on this element.
IsMouseCaptureWithinChanged	Occurs when the value of the IsMouseCaptureWithinProperty changes on this element.
IsMouseDirectlyOverChanged	Occurs when the value of the IsMouseDirectlyOver property changes on this element.
IsStylusCapturedChanged	Occurs when the value of the IsStylusCaptured property changes on this element.
IsStylusCaptureWithinChanged	Occurs when the value of the IsStylusCaptureWithin property changes on this element.
IsStylusDirectlyOverChanged	Occurs when the value of the IsStylusDirectlyOver property changes on this element.
IsVisibleChanged	Occurs when the value of the IsVisible property changes on this element.
KeyDown	Occurs when a key is pressed while focus is on this element.
KeyUp	Occurs when a key is released while focus is on this element.
LayoutUpdated	Occurs when the layout of the various visual elements associated with the current Dispatcher changes.
LostFocus	Occurs when this element loses logical focus.

LostKeyboardFocus	Occurs when the keyboard is no longer focused on this element,.
LostMouseCapture	Occurs when this element loses mouse capture.
LostStylusCapture	Occurs when this element loses stylus capture.
LostTouchCapture	Occurs when this element loses a touch capture.
ManipulationBoundaryFeedback	Occurs when the manipulation encounters a boundary.
ManipulationCompleted	Occurs when a manipulation and inertia on the UIElement object is complete.
ManipulationDelta	Occurs when the input device changes position during a manipulation.
ManipulationInertiaStarting	Occurs when the input device loses contact with the UIElement object during a manipulation and inertia begins.
ManipulationStarted	Occurs when an input device begins a manipulation on the UIElement object.
ManipulationStarting	Occurs when the manipulation processor is first created.
MouseDown	Occurs when any mouse button is pressed while the pointer is over this element.
MouseEnter	Occurs when the mouse pointer enters the bounds of this element.
MouseLeave	Occurs when the mouse pointer leaves the bounds of this element.
MouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over this element.
MouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over this element.
MouseMove	Occurs when the mouse pointer moves while over this element.
MouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over this element.
MouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over this element.
MouseUp	Occurs when any mouse button is released over this element.
MouseWheel	Occurs when the user rotates the mouse wheel while the mouse pointer is over this element.
PreviewDragEnter	Occurs when the input system reports an underlying drag event with this element as the drag target.
PreviewDragLeave	Occurs when the input system reports an underlying drag event with this element as the drag origin.
PreviewDragOver	Occurs when the input system reports an underlying drag event with this element as the potential drop target.
PreviewDrop	Occurs when the input system reports an underlying drop event with this element as the drop target.

PreviewGiveFeedback	Occurs when a drag-and-drop operation is started.
PreviewGotKeyboardFocus	Occurs when the keyboard is focused on this element.
PreviewKeyDown	Occurs when a key is pressed while focus is on this element.
PreviewKeyUp	Occurs when a key is released while focus is on this element.
PreviewLostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
PreviewMouseDown	Occurs when any mouse button is pressed while the pointer is over this element.
PreviewMouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over this element.
PreviewMouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over this element.
PreviewMouseMove	Occurs when the mouse pointer moves while the mouse pointer is over this element.
PreviewMouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over this element.
PreviewMouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over this element.
PreviewMouseUp	Occurs when any mouse button is released while the mouse pointer is over this element.
PreviewMouseWheel	Occurs when the user rotates the mouse wheel while the mouse pointer is over this element.
PreviewQueryContinueDrag	Occurs when there is a change in the keyboard or mouse button state during a drag-and-drop operation.
PreviewStylusButtonDown	Occurs when the stylus button is pressed while the pointer is over this element.
PreviewStylusButtonUp	Occurs when the stylus button is released while the pointer is over this element.
PreviewStylusDown	Occurs when the stylus touches the digitizer while it is over this element.
PreviewStylusInAirMove	Occurs when the stylus moves over an element without actually touching the digitizer.
PreviewStylusInRange	Occurs when the stylus is close enough to the digitizer to be detected, while over this element.
PreviewStylusMove	Occurs when the stylus moves while over the element. The stylus must move while being detected by the digitizer to raise this event, otherwise, PreviewStylusInAirMove is raised instead.
PreviewStylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected.
PreviewStylusSystemGesture	Occurs when a user performs one of several stylus gestures.

PreviewStylusUp	Occurs when the user raises the stylus off the digitizer while the stylus is over this element.
PreviewTextInput	Occurs when this element gets text in a device-independent manner.
PreviewTouchDown	Occurs when a finger touches the screen while the finger is over this element.
PreviewTouchMove	Occurs when a finger moves on the screen while the finger is over this element.
PreviewTouchUp	Occurs when a finger is raised off of the screen while the finger is over this element.
QueryContinueDrag	Occurs when there is a change in the keyboard or mouse button state during a drag-and-drop operation.
QueryCursor	Occurs when the cursor is requested to display. This event is raised on an element each time that the mouse pointer moves to a new location, which means the cursor object might need to be changed based on its new position.
StylusButtonDown	Occurs when the stylus button is pressed while the pointer is over this element.
StylusButtonUp	Occurs when the stylus button is released while the pointer is over this element.
StylusDown	Occurs when the stylus touches the digitizer while the stylus is over this element.
StylusEnter	Occurs when the stylus enters the bounds of this element.
StylusInAirMove	Occurs when the stylus moves over an element without actually touching the digitizer.
StylusInRange	Occurs when the stylus is close enough to the digitizer to be detected, while over this element.
StylusLeave	Occurs when the stylus leaves the bounds of the element.
StylusMove	Occurs when the stylus moves over this element. The stylus must move while on the digitizer to raise this event. Otherwise, StylusInAirMove is raised instead.
StylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected, while over this element.
StylusSystemGesture	Occurs when a user performs one of several stylus gestures.
StylusUp	Occurs when the user raises the stylus off the digitizer while it is over this element.
TextInput	Occurs when this element gets text in a device-independent manner.
TouchDown	Occurs when a finger touches the screen while the finger is over this element.
TouchEnter	Occurs when a touch moves from outside to inside the bounds of this element.
TouchLeave	Occurs when a touch moves from inside to outside the bounds of this element.
TouchMove	Occurs when a finger moves on the screen while the finger is over this element.

TouchUp	Occurs when a finger is raised off of the screen while the finger is over this element.
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4.969 UIElement3D

x:Object > DependencyObject > Visual3D > UIElement3D , InputElement	
UIElement3D	
ContainerUIElement3D ModelUIElement3D	
(usage)	None.
(description)	UIElement3D is a base type for core level implementations building on elements and basic presentation characteristics.
[is default constructible]	false
(properties)	
AllowDrop	x:Boolean
(description)	A value indicating whether this element can be used as the target of a drag-and-drop operation.
CommandBindings	CommandBindingCollection
(description)	A collection of CommandBinding objects associated with this element.
[read only]	true
Focusable	x:Boolean
(description)	A value that indicates whether the element can receive focus.
InputBindings	InputBindingCollection
(description)	The collection of input bindings associated with this element.
[read only]	true
IsEnabled	x:Boolean
(description)	A value indicating whether this element is enabled in the user interface (UI).
IsHitTestVisible	x:Boolean
(description)	A value that declares whether this element can possibly be returned as a hit test result from some portion of its rendered content.
Visibility	Visibility
(description)	The user interface (UI) visibility of this element.
(events)	

DragEnter	Occurs when the input system reports an underlying drag event with this element as the drag target.
DragLeave	Occurs when the input system reports an underlying drag event with this element as the drag origin.
DragOver	Occurs when the input system reports an underlying drag event with this element as the potential drop target.
Drop	Occurs when the input system reports an underlying drop event with this element as the drop target.
FocusableChanged	Occurs when the value of the Focusable property changes.
GiveFeedback	Occurs when the input system reports an underlying drag-and-drop event that involves this element.
GotFocus	Occurs when this element gets logical focus.
GotKeyboardFocus	Occurs when the keyboard is focused on this element.
GotMouseCapture	Occurs when this element captures the mouse.
GotStylusCapture	Occurs when this element captures the stylus.
GotTouchCapture	Occurs when a touch is captured to this element.
IsEnabledChanged	Occurs when the value of the IsEnabled property on this element changes.
IsHitTestVisibleChanged	Occurs when the value of the IsHitTestVisible property changes on this element.
IsKeyboardFocusedChanged	Occurs when the value of the IsKeyboardFocused property changes on this element.
IsKeyboardFocusWithinChanged	Occurs when the value of the IsKeyboardFocusWithin property changes on this element.
IsMouseCapturedChanged	Occurs when the value of the IsMouseCaptured property changes on this element.
IsMouseCaptureWithinChanged	Occurs when the value of the IsMouseCaptureWithin property changes on this element.
IsMouseDirectlyOverChanged	Occurs when the value of the IsMouseDirectlyOver property changes on this element.
IsStylusCapturedChanged	Occurs when the value of the IsStylusCaptured property changes on this element.
IsStylusCaptureWithinChanged	Occurs when the value of the IsStylusCaptureWithin property changes on this element.
IsStylusDirectlyOverChanged	Occurs when the value of the IsStylusDirectlyOver property changes on this element.
IsVisibleChanged	Occurs when the value of the IsVisible property changes on this element.

KeyDown	Occurs when a key is pressed while the keyboard is focused on this element.
KeyUp	Occurs when a key is released while the keyboard is focused on this element.
LostFocus	Occurs when this element loses logical focus.
LostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
LostMouseCapture	Occurs when this element loses mouse capture.
LostStylusCapture	Occurs when this element loses stylus capture.
LostTouchCapture	Occurs when this element loses a touch capture.
MouseDown	Occurs when any mouse button is pressed while the pointer is over this element.
MouseEnter	Occurs when the mouse pointer enters the bounds of this element.
MouseLeave	Occurs when the mouse pointer leaves the bounds of this element.
MouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over this element.
MouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over this element.
MouseMove	Occurs when the mouse pointer moves while over this element.
MouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over this element.
MouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over this element.
MouseUp	Occurs when any mouse button is released over this element.
MouseWheel	Occurs when the user rotates the mouse wheel while the mouse pointer is over this element.
PreviewDragEnter	Occurs when the input system reports an underlying drag event with this element as the drag target.
PreviewDragLeave	Occurs when the input system reports an underlying drag event with this element as the drag origin.
PreviewDragOver	Occurs when the input system reports an underlying drag event with this element as the potential drop target.
PreviewDrop	Occurs when the input system reports an underlying drop event with this element as the drop target.
PreviewGiveFeedback	Occurs when a drag-and-drop operation is started.
PreviewGotKeyboardFocus	Occurs when the keyboard is focused on this element.
PreviewKeyDown	Occurs when a key is pressed while the keyboard is focused on this element.
PreviewKeyUp	Occurs when a key is released while the keyboard is focused on this element.

PreviewLostKeyboardFocus	Occurs when the keyboard is no longer focused on this element.
PreviewMouseDown	Occurs when any mouse button is pressed while the pointer is over this element.
PreviewMouseLeftButtonDown	Occurs when the left mouse button is pressed while the mouse pointer is over this element.
PreviewMouseLeftButtonUp	Occurs when the left mouse button is released while the mouse pointer is over this element.
PreviewMouseMove	Occurs when the mouse pointer moves while the mouse pointer is over this element.
PreviewMouseRightButtonDown	Occurs when the right mouse button is pressed while the mouse pointer is over this element.
PreviewMouseRightButtonUp	Occurs when the right mouse button is released while the mouse pointer is over this element.
PreviewMouseUp	Occurs when any mouse button is released while the mouse pointer is over this element.
PreviewMouseWheel	Occurs when the user rotates the mouse wheel while the mouse pointer is over this element.
PreviewQueryContinueDrag	Occurs when there is a change in the keyboard or mouse button state during a drag-and-drop operation.
PreviewStylusButtonDown	Occurs when the stylus button is pressed while the pointer is over this element.
PreviewStylusButtonUp	Occurs when the stylus button is released while the pointer is over this element.
PreviewStylusDown	Occurs when the stylus touches the digitizer while it is over this element.
PreviewStylusInAirMove	Occurs when the stylus moves over an element without actually touching the digitizer.
PreviewStylusInRange	Occurs when the stylus is close enough to the digitizer to be detected, while over this element.
PreviewStylusMove	Occurs when the stylus moves while over the element. The stylus must move while being detected by the digitizer to raise this event, otherwise, PreviewStylusInAirMove is raised instead.
PreviewStylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected.
PreviewStylusSystemGesture	Occurs when a user performs one of several stylus gestures.
PreviewStylusUp	Occurs when the user raises the stylus off the digitizer while the stylus is over this element.
PreviewTextInput	Occurs when this element gets text in a device-independent manner.
PreviewTouchDown	Occurs when a finger touches the screen while the finger is over this element.

PreviewTouchMove	Occurs when a finger moves on the screen while the finger is over this element.
PreviewTouchUp	Occurs when a finger is raised off of the screen while the finger is over this element.
QueryContinueDrag	Occurs when there is a change in the keyboard or mouse button state during a drag-and-drop operation.
QueryCursor	Occurs when the cursor is requested to display. This event is raised on an element each time that the mouse pointer moves to a new location, which means the cursor object might need to be changed based on its new position.
StylusButtonDown	Occurs when the stylus button is pressed while the pointer is over this element.
StylusButtonUp	Occurs when the stylus button is released while the pointer is over this element.
StylusDown	Occurs when the stylus touches the digitizer while the stylus is over this element.
StylusEnter	Occurs when the stylus enters the bounds of this element.
StylusInAirMove	Occurs when the stylus moves over an element without actually touching the digitizer.
StylusInRange	Occurs when the stylus is close enough to the digitizer to be detected, while over this element.
StylusLeave	Occurs when the stylus leaves the bounds of the element.
StylusMove	Occurs when the stylus moves over this element. The stylus must move while on the digitizer to raise this event. Otherwise, StylusInAirMove is raised instead.
StylusOutOfRange	Occurs when the stylus is too far from the digitizer to be detected, while over this element.
StylusSystemGesture	Occurs when a user performs one of several stylus gestures.
StylusUp	Occurs when the user raises the stylus off the digitizer while it is over this element.
TextInput	Occurs when this element gets text in a device-independent manner.
TouchDown	Occurs when a finger touches the screen while the finger is over this element.
TouchEnter	Occurs when a touch moves from outside to inside the bounds of this element.
TouchLeave	Occurs when a touch moves from inside to outside the bounds of this element.
TouchMove	Occurs when a finger moves on the screen while the finger is over this element.
TouchUp	Occurs when a finger is raised off of the screen while the finger is over this element.

4.970 UIElementCollection

x:Object > UIElementCollection	
UIElementCollection	
(usage)	None.
(description)	Represents an ordered collection of UIElement child elements.
(used by)	FixedPage InkCanvas Panel
[is default constructible]	false
[is list]	true
[allowed types]	UIElement
(properties)	
Capacity	x:Int32
(description)	The number of elements that the UIElementCollection can contain.

4.971 Underline

x:Object > DependencyObject > ContentElement > FrameworkContentElement > TextElement > Inline > Span > Underline , InputElement	
Underline	
(usage)	<Underline> Inline UIElement x:String *</Underline>
(description)	An inline-level flow content element which causes content to appear with an underlined text decoration.
[content property]	Inlines
[name property]	Name
[xml lang property]	Language

4.972 UndoAction

x:Object > UndoAction	
UndoAction	
(usage)	None Merge Undo Redo Clear Create

(description)	How the undo stack caused or is affected by a text change.
[is nullable]	false
[text syntax]	UndoActionSyntax

4.973 UniformGrid

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > UniformGrid , InputElement	
UniformGrid	
(usage)	<UniformGrid> UIElement *</UniformGrid>
(description)	Provides a way to arrange content in a grid where all the cells in the grid have the same size.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
Columns	x:Int32
(description)	The number of columns that are in the grid.
FirstColumn	x:Int32
(description)	The number of leading blank cells in the first row of the grid.
Rows	x:Int32
(description)	The number of rows that are in the grid.

4.974 UpdateSourceTrigger

x:Object > UpdateSourceTrigger	
UpdateSourceTrigger	
(usage)	Default PropertyChanged LostFocus Explicit
(description)	Describes the timing of binding source updates.
(used by)	Binding MultiBinding
[is nullable]	false

[text syntax]	UpdateSourceTriggerSyntax
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4.975 UserControl

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > UserControl , InputElement	
<h2>UserControl</h2>	
(usage)	<UserControl> x:Object </UserControl>
(description)	Provides a simple way to create a control.
[content property]	Content
[name property]	Name
[xml lang property]	Language

4.976 Validation

x:Object > Validation	
<h2>Validation</h2>	
(usage)	None.
(description)	Provides support for data validation.
[is default constructible]	false
(attachable properties)	
Validation.ErrorTemplate	ControlTemplate
(description)	The ControlTemplate used to generate validation error feedback on the adorning layer.
[target type]	DependencyObject
Validation.ValidationAdornerSite	DependencyObject
(description)	The element that appears to indicate that a validation error occurred on the bound element where this property is set.
[target type]	DependencyObject
Validation.ValidationAdornerSiteF or	DependencyObject

(description)	The element for which this element appears to indicate that an error occurred.
[target type]	DependencyObject
(attachable events)	
Validation.Error	Occurs when the bound element runs into a validation error, but only for bindings with the NotifyOnValidationError value set to true.

4.977 ValidationErrorEventAction

x:Object > ValidationErrorEventAction	
<h2>ValidationErrorEventAction</h2>	
(usage)	Added Removed
(description)	Describes whether a ValidationError object has been added or cleared.
[is nullable]	false
[text syntax]	ValidationErrorEventActionSyntax

4.978 ValidationResult

x:Object > ValidationResult	
<h2>ValidationResult</h2>	
(usage)	{x:Static ValidationResult.StaticPropertyName}
(description)	Represents the result returned by the validation rule that indicates whether the checked value passed.
[is default constructible]	false
(static properties)	
ValidResult	ValidationResult
(description)	A valid instance of ValidationResult.

4.979 ValidationRule

x:Object > ValidationRule

ValidationRule	
DataErrorValidationRule ExceptionValidationRule NotifyDataErrorValidationRule	
(usage)	None.
(description)	Provides a way to create a custom rule in order to check the validity of user input.
(used by)	Binding BindingGroup Collection(ValidationRule) DataGrid MultiBinding ObservableCollection(ValidationRule)
[is default constructible]	false
(properties)	
ValidatesOnTargetUpdated	x:Boolean
(description)	A value that indicates whether the validation rule runs when the target of the Binding is updated.
ValidationStep	ValidationStep
(description)	When the validation rule runs.

4.980 ValidationStep

x:Object > ValidationStep	
ValidationStep	
(usage)	RawProposedValue ConvertedProposedValue UpdatedValue CommittedValue
(description)	Specifies when a ValidationRule runs.
(used by)	ValidationRule
[is nullable]	false
[text syntax]	ValidationStepSyntax

4.981 ValueSource

x:Object > ValueSource	
ValueSource	

(usage)	<ValueSource />
(description)	Reports the information returned from DependencyProperty).
[is nullable]	false

4.982 Vector

x:Object > Vector	
Vector	
(usage)	<Vector> string </Vector>
(description)	Represents a displacement in 2-D space.
(used by)	ContainerVisual ICollection(Vector) IList(Vector) InertiaExpansionBehavior InertiaTranslationBehavior VectorAnimation VectorCollection VectorKeyFrame Viewport3DVisual
[is nullable]	false
[text syntax]	VectorSyntax
(properties)	
X	x:Double
(description)	The X component of this vector.
Y	x:Double
(description)	The Y component of this vector.

4.983 Vector3D

x:Object > Vector3D	
Vector3D	
(usage)	<Vector3D> string </Vector3D>
(description)	Represents a displacement in 3-D space.
(used by)	AxisAngleRotation3D DirectionalLight ICollection(Vector3D) IList(Vector3D) ProjectionCamera SpotLight Vector3DAnimation Vector3DCollection Vector3DKeyFrame
[is nullable]	false

[text syntax]	Vector3DSyntax
(properties)	
X	x:Double
(description)	The X component of this Vector3D structure.
Y	x:Double
(description)	The Y component of this Vector3D structure.
Z	x:Double
(description)	The Z component of this Vector3D structure.

4.984 Vector3DAnimation

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Vector3DAnimationBase > Vector3DAnimation	
<h2>Vector3DAnimation</h2>	
(usage)	<Vector3DAnimation />
(description)	Animates the value of a Vector3D property using linear interpolation between two values.
[name property]	Name
(properties)	
By	x:Nullable(Vector3D)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Vector3D)
(description)	The animation's starting value.
IsAdditive	x:Boolean
(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Vector3D)

(description)	The animation's ending value.
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4.985 Vector3DAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Vector3DAnimationBase	
<h2>Vector3DAnimationBase</h2>	
Vector3DAnimation Vector3DAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that represents an animated Vector3D value.
[is default constructible]	false
[name property]	Name

4.986 Vector3DAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > Vector3DAnimationBase > Vector3DAnimationUsingKeyFrames	
<h2>Vector3DAnimationUsingKeyFrames</h2>	
(usage)	<Vector3DAnimationUsingKeyFrames> Vector3DKeyFrame *</Vector3DAnimationUsingKeyFrames>
(description)	Animates the value of a Vector3D property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean
(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	Vector3DKeyFrameCollection
(description)	The collection of Vector3DKeyFrame objects that define the animation.

4.987 Vector3DCollection

x:Object > DependencyObject > Freezable > Vector3DCollection	
<h2>Vector3DCollection</h2>	
(usage)	<Vector3DCollection> string </Vector3DCollection>
(description)	Collection of Vector3D objects.
(used by)	MeshGeometry3D
[text syntax]	Vector3DCollectionSyntax
[is list]	true
[allowed types]	Vector3D

4.988 Vector3DKeyFrame

x:Object > DependencyObject > Freezable > Vector3DKeyFrame	
<h2>Vector3DKeyFrame</h2>	
DiscreteVector3DKeyFrame EasingVector3DKeyFrame LinearVector3DKeyFrame SplineVector3DKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a Vector3DAnimationUsingKeyFrames .
(used by)	Vector3DKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.
Value	Vector3D
(description)	The key frame's target value.

4.989 Vector3DKeyFrameCollection

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Vector3DKeyFrameCollection](#)

Vector3DKeyFrameCollection

(usage)	<Vector3DKeyFrameCollection> Vector3DKeyFrame *</Vector3DKeyFrameCollection>
(description)	Represents a collection of Vector3DKeyFrame objects.
(used by)	Vector3DAnimationUsingKeyFrames
[is list]	true
[allowed types]	Vector3DKeyFrame
(static properties)	
Empty	Vector3DKeyFrameCollection
(description)	An empty Vector3DKeyFrameCollection.

4.990 VectorAnimation

[x:Object](#) > [DependencyObject](#) > [Freezable](#) > [Animatable](#) > [Timeline](#) > [AnimationTimeline](#) > [VectorAnimationBase](#) > [VectorAnimation](#)

VectorAnimation

(usage)	<VectorAnimation />
(description)	Animates the value of a Vector property between two target values using linear interpolation over a specified Duration.
[name property]	Name
(properties)	
By	x:Nullable(Vector)
(description)	The total amount by which the animation changes its starting value.
EasingFunction	IEasingFunction
(description)	The easing function applied to this animation.
From	x:Nullable(Vector)
(description)	The animation's starting value.
IsAdditive	x:Boolean

(description)	A value that indicates whether the target property's current value should be added to this animation's starting value.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
To	x:Nullable(Vector)
(description)	The animation's ending value.

4.991 VectorAnimationBase

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > VectorAnimationBase	
VectorAnimationBase	
VectorAnimation VectorAnimationUsingKeyFrames	
(usage)	None.
(description)	A base type that animates a Vector value.
[is default constructible]	false
[name property]	Name

4.992 VectorAnimationUsingKeyFrames

x:Object > DependencyObject > Freezable > Animatable > Timeline > AnimationTimeline > VectorAnimationBase > VectorAnimationUsingKeyFrames	
VectorAnimationUsingKeyFrames	
(usage)	<VectorAnimationUsingKeyFrames> VectorKeyFrame *</VectorAnimationUsingKeyFrames>
(description)	Animates the value of a Vector property along a set of KeyFrames.
[content property]	KeyFrames
[name property]	Name
(properties)	
IsAdditive	x:Boolean

(description)	A value that specifies whether the animation's output value is added to the base value of the property being animated.
IsCumulative	x:Boolean
(description)	A value that specifies whether the animation's value accumulates when it repeats.
KeyFrames	VectorKeyFrameCollection
(description)	The collection of VectorKeyFrame objects that define the animation.

4.993 VectorCollection

x:Object > DependencyObject > Freezable > VectorCollection	
<h2>VectorCollection</h2>	
(usage)	<VectorCollection> string </VectorCollection>
(description)	Represents an ordered collection of Vector values.
[text syntax]	VectorCollectionSyntax
[is list]	true
[allowed types]	Vector

4.994 VectorKeyFrame

x:Object > DependencyObject > Freezable > VectorKeyFrame	
<h2>VectorKeyFrame</h2>	
DiscreteVectorKeyFrame EasingVectorKeyFrame LinearVectorKeyFrame SplineVectorKeyFrame	
(usage)	None.
(description)	A base type that defines an animation segment with its own target value and interpolation technique for a VectorAnimationUsingKeyFrames.
(used by)	VectorKeyFrameCollection
[is default constructible]	false
(properties)	
KeyTime	KeyTime
(description)	The time at which the key frame's target Value should be reached.

Value	Vector
(description)	The key frame's target value.

4.995 VectorKeyFrameCollection

x:Object > DependencyObject > Freezable > VectorKeyFrameCollection	
<h2>VectorKeyFrameCollection</h2>	
(usage)	<VectorKeyFrameCollection> VectorKeyFrame *</VectorKeyFrameCollection>
(description)	Represents a collection of VectorKeyFrame objects.
(used by)	VectorAnimationUsingKeyFrames
[is list]	true
[allowed types]	VectorKeyFrame
(static properties)	
Empty	VectorKeyFrameCollection
(description)	An empty VectorKeyFrameCollection.

4.996 VerticalAlignment

x:Object > VerticalAlignment	
<h2>VerticalAlignment</h2>	
(usage)	Top Center Bottom Stretch
(description)	Describes how a child element is vertically positioned or stretched within a parent's layout slot.
(used by)	Control FrameworkElement
[is nullable]	false
[text syntax]	VerticalAlignmentSyntax

4.997 VideoDrawing

x:Object > DependencyObject > Freezable > Animatable > Drawing > VideoDrawing

VideoDrawing	
(usage)	<VideoDrawing />
(description)	Plays a media file. If the media is a video file, the VideoDrawing draws it to the specified rectangle.
(properties)	
Player	MediaPlayer
(description)	The media player associated with the drawing.
Rect	Rect
(description)	The rectangular area in which the video is drawn.

4.998 ViewBase

x:Object > DependencyObject > ViewBase	
ViewBase	
GridView	
(usage)	None.
(description)	Represents the base type for views that define the appearance of data in a ListView control.
(used by)	ListView
[is default constructible]	false

4.999 Viewbox

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Decorator > Viewbox , InputElement	
Viewbox	
(usage)	<Viewbox> UIElement </Viewbox>
(description)	Defines a content decorator that can stretch and scale a single child to fill the available space.
[content property]	Child
[name property]	Name

[xml lang property]	Language
(properties)	
Child	UIElement
(description)	The single child of a Viewbox element.
Stretch	Stretch
(description)	The Viewbox Stretch mode, which determines how content fits into the available space.
StretchDirection	StretchDirection
(description)	The StretchDirection, which determines how scaling is applied to the contents of a Viewbox.

4.1000 Viewport2DVisual3D

x:Object > DependencyObject > Visual3D > Viewport2DVisual3D	
Viewport2DVisual3D	
(usage)	<Viewport2DVisual3D> Visual </Viewport2DVisual3D>
(description)	Renders the 2-D children within the specified 3-D viewport bounds.
[content property]	Visual
(properties)	
CacheMode	CacheMode
(description)	A cached representation of the Viewport2DVisual3D.
Geometry	Geometry3D
(description)	The 3-D geometry for this Viewport2DVisual3D.
Material	Material
(description)	The material that describes the appearance of the 3-D object.
Visual	Visual
(description)	The 2-D visual to be placed on the 3-D object.
(attachable properties)	
Viewport2DVisual3D.IsVisualHost Material	x:Boolean
(description)	A value that specifies whether a material should be interactive.
[target type]	Material

4.1001 Viewport3D

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Viewport3D , InputElement	
Viewport3D	
(usage)	<Viewport3D> Visual3D *</Viewport3D>
(description)	Renders the contained 3-D content within the 2-D layout bounds of the Viewport3D element.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
Camera	Camera
(description)	A camera object that projects the 3-D contents of the Viewport3D to the 2-D surface of the Viewport3D.
Children	Visual3DCollection
(description)	A collection of the Visual3D children of the Viewport3D.
[read only]	true

4.1002 Viewport3DVisual

x:Object > DependencyObject > Visual > Viewport3DVisual	
Viewport3DVisual	
(usage)	<Viewport3DVisual> Visual3D *</Viewport3DVisual>
(description)	Renders the Visual3D children within the specified 2D viewport bounds.
[content property]	Children
(properties)	
Camera	Camera
(description)	The Camera used by the Viewport3DVisual.
Children	Visual3DCollection

(description)	A collection of Visual3D objects contained by Viewport3DVisual.
[read only]	true
Clip	Geometry
(description)	The clipping region of the Viewport3DVisual.
Offset	Vector
(description)	The offset value of the Viewport3DVisual.
Opacity	x:Double
(description)	The opacity of the Viewport3DVisual.
OpacityMask	Brush
(description)	The opacity mask value of the Viewport3DVisual.
Transform	Transform
(description)	The transform value of the Viewport3DVisual.
Viewport	Rect
(description)	The rectangle in which the Viewport3DVisual will be rendered.

4.1003 VirtualizationCacheLength

x:Object > VirtualizationCacheLength	
VirtualizationCacheLength	
(usage)	<VirtualizationCacheLength> string </VirtualizationCacheLength>
(description)	Represents the measurements for the CacheLength attached property.
(used by)	VirtualizingPanel
[is nullable]	false
[text syntax]	VirtualizationCacheLengthSyntax

4.1004 VirtualizationCacheLengthUnit

x:Object > VirtualizationCacheLengthUnit	
VirtualizationCacheLengthUnit	
(usage)	Pixel Item Page

(description)	Specifies the type of unit that is used by the CacheLength attached property.
(used by)	VirtualizingPanel
[is nullable]	false
[text syntax]	VirtualizationCacheLengthUnitSyntax

4.1005 VirtualizationMode

x:Object > VirtualizationMode	
<h2>VirtualizationMode</h2>	
(usage)	Standard Recycling
(description)	Specifies the method the VirtualizingStackPanel uses to manage virtualizing its child items.
(used by)	VirtualizingPanel
[is nullable]	false
[text syntax]	VirtualizationModeSyntax

4.1006 VirtualizingPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > VirtualizingPanel , InputElement	
<h2>VirtualizingPanel</h2>	
DataGridCellsPanel VirtualizingStackPanel	
(usage)	None.
(description)	A base type for panels that virtualize their child data collection.
[is default constructible]	false
[content property]	Children
[name property]	Name
[xml lang property]	Language
(attachable properties)	
VirtualizingPanel.CacheLength	VirtualizationCacheLength

(description)	The size of the cache before and after the viewport when the VirtualizingPanel is virtualizing.
[target type]	DependencyObject
VirtualizingPanel.CacheLengthUnit	VirtualizationCacheLengthUnit
(description)	The type of unit that is used by the CacheLength property.
[target type]	DependencyObject
VirtualizingPanel.IsContainerVirtualizable	x:Boolean
(description)	Get or sets a value that indicates whether this VirtualizingPanel should virtualize an item.
[target type]	DependencyObject
VirtualizingPanel.IsVirtualizing	x:Boolean
(description)	A value that indicates that this VirtualizingPanel is virtualizing its child collection.
[target type]	DependencyObject
VirtualizingPanel.IsVirtualizingWhenGrouping	x:Boolean
(description)	A value that indicates whether this VirtualizingPanel virtualizes the items in its collection when it displays groups.
[target type]	DependencyObject
VirtualizingPanel.ScrollUnit	ScrollUnit
(description)	A value that indicates whether scrolling is measured as items in the collection or as pixels.
[target type]	DependencyObject
VirtualizingPanel.VirtualizationMode	VirtualizationMode
(description)	How a panel in an ItemsControl virtualizes its child items.
[target type]	DependencyObject

4.1007 VirtualizingStackPanel

[x:Object](#) > [DependencyObject](#) > [Visual](#) > [UIElement](#) > [FrameworkElement](#) > [Panel](#) > [VirtualizingPanel](#) > [VirtualizingStackPanel](#), [InputElement](#)

VirtualizingStackPanel	
DataGridRowsPresenter	
(usage)	<VirtualizingStackPanel> UIElement *</VirtualizingStackPanel>
(description)	Arranges and virtualizes content on a single line that is oriented either horizontally or vertically.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
CanHorizontallyScroll	x:Boolean
(description)	A value that indicates whether a VirtualizingStackPanel can scroll in the horizontal dimension.
CanVerticallyScroll	x:Boolean
(description)	A value that indicates whether content can scroll in the vertical dimension.
Orientation	Orientation
(description)	A value that describes the horizontal or vertical orientation of stacked content.
ScrollOwner	ScrollViewer
(description)	A value that identifies the container that controls scrolling behavior in this VirtualizingStackPanel.
(attachable events)	
VirtualizingStackPanel.CleanUpVirtualizedItem	Occurs when an item is being re-virtualized by the ItemsControl that is associated with this instance of VirtualizingStackPanel.

4.1008 Visibility

x:Object > Visibility	
Visibility	
(usage)	Visible Hidden Collapsed
(description)	Specifies the display state of an element.
(used by)	DataGridColumn DataGridColumnHeader DataGridRow DataGridRowHeader Ribbon RibbonGalleryCategory ThumbButtonInfo UIElement UIElement3D
[is nullable]	false

[text syntax]	VisibilitySyntax
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4.1009 Visual

x:Object > DependencyObject > Visual	
<h2>Visual</h2>	
ContainerVisual UIElement Viewport3DVisual	
(usage)	None.
(description)	Represents a visual object.
(used by)	BitmapCacheBrush Viewport2DVisual3D VisualBrush VisualCollection
[is default constructible]	false

4.1010 Visual3D

x:Object > DependencyObject > Visual3D	
<h2>Visual3D</h2>	
ModelVisual3D UIElement3D Viewport2DVisual3D	
(usage)	None.
(description)	Provides services and properties that are common to visual 3-D objects, including hit-testing, coordinate transformation, and bounding box calculations.
(used by)	ICollection(Visual3D) IList(Visual3D) Visual3DCollection
[is default constructible]	false
(properties)	
Transform	Transform3D
(description)	The transformation that is applied to the 3-D object.

4.1011 Visual3DCollection

x:Object > Visual3DCollection

<h2>Visual3DCollection</h2>	
(usage)	None.
(description)	Represents an ordered collection of Visual3D objects.
(used by)	ContainerUIElement3D ModelVisual3D Viewport3D Viewport3DVisual
[is default constructible]	false
[is list]	true
[allowed types]	Visual3D

4.1012 VisualBrush

x:Object > DependencyObject > Freezable > Animatable > Brush > TileBrush > VisualBrush	
<h2>VisualBrush</h2>	
(usage)	<VisualBrush> string </VisualBrush>
(description)	Paints an area with a Visual.
[text syntax]	BrushSyntax
(properties)	
AutoLayoutContent	x:Boolean
(description)	A value that specifies whether this VisualBrush will run layout its Visual.
Visual	Visual
(description)	The brush's content.

4.1013 VisualCollection

x:Object > VisualCollection	
<h2>VisualCollection</h2>	
(usage)	None.
(description)	Represents an ordered collection of Visual objects.
(used by)	ContainerVisual
[is default constructible]	false

[is list]	true
[allowed types]	Visual
(properties)	
Capacity	x:Int32
(description)	The number of elements that the VisualCollection can contain.

4.1014 VisualState

x:Object > DependencyObject > VisualState	
<h2>VisualState</h2>	
(usage)	
(description)	Represents the visual appearance of the control when it is in a specific state.
(used by)	VisualStateManager
[content property]	Storyboard
[name property]	Name
(properties)	
Name	x:String
(description)	The name of the VisualState.
Storyboard	Storyboard
(description)	A Storyboard that defines the appearance of the control when it is in the state that is represented by the VisualState.

4.1015 VisualStateManager

x:Object > DependencyObject > VisualStateManager	
<h2>VisualStateManager</h2>	
(usage)	<VisualStateManager> x:Object *</VisualStateManager>
(description)	Contains mutually exclusive VisualState objects and VisualTransition objects that are used to move from one state to another.
[content property]	States

[name property]	Name
(properties)	
CurrentState	VisualState
(description)	The VisualState that is currently applied to the control.
Name	x:String
(description)	The name of the VisualStateGroup.
States	IList
(description)	The collection of mutually exclusive VisualState objects.
[read only]	true
Transitions	IList
(description)	The collection of VisualTransition objects.
[read only]	true
(events)	
CurrentStateChanged	Occurs after a control transitions to a different state.
CurrentStateChanging	Occurs when a control starts transitioning to a different state.

4.1016 VisualStateManager

x:Object > DependencyObject > VisualStateManager	
<h2>VisualStateManager</h2>	
(usage)	<VisualStateManager />
(description)	Manages states and the logic for transitioning between states for controls.
(attachable properties)	
VisualStateManager.CustomVisualStateManager	VisualStateManager
(description)	The VisualStateManager object that transitions between the states of a control.
[target type]	FrameworkElement
VisualStateManager.VisualStateGroups	IList
(description)	A collection of VisualStateGroup objects.
[target type]	FrameworkElement

[read only]	true
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4.1017 VisualTransition

x:Object > DependencyObject > VisualTransition	
VisualTransition	
(usage)	<VisualTransition> Storyboard </VisualTransition>
(description)	Represents the visual behavior that occurs when a control transitions from one state to another.
[content property]	Storyboard
(properties)	
From	x:String
(description)	The name of the VisualState to transition from.
GeneratedDuration	Duration
(description)	The time that it takes to move from one state to another.
GeneratedEasingFunction	IEasingFunction
(description)	A custom mathematical formula that is used to transition between states.
Storyboard	Storyboard
(description)	The Storyboard that occurs when the transition occurs.
To	x:String
(description)	The name of the VisualState to transition to.

4.1018 WebBrowser

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ActiveXHost > WebBrowser , InputElement	
WebBrowser	
(usage)	<WebBrowser />
(description)	Hosts and navigates between HTML documents. Enables interoperability between managed code and HTML script.
[name property]	Name

[xml lang property]	Language
(properties)	
ObjectForScripting	x:Object
(description)	An instance of a public type, implemented by the host application, that can be accessed by script from a hosted document.
Source	x:Uri
(description)	The Uri of the current document hosted in the WebBrowser.
(events)	
LoadCompleted	Occurs when the document being navigated to has finished downloading.
Navigated	Occurs when the document being navigated to is located and has started downloading.
Navigating	Occurs just before navigation to a document.

4.1019 Window

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Control > ContentControl > Window , InputElement	
<h2>Window</h2>	
NavigationWindow RibbonWindow	
(usage)	<Window> x:Object </Window>
(description)	Provides the ability to create, configure, show, and manage the lifetime of windows and dialog boxes.
(used by)	Application
[content property]	Content
[name property]	Name
[xml lang property]	Language
(properties)	
AllowsTransparency	x:Boolean
(description)	A value that indicates whether a window's client area supports transparency.
DialogResult	x:Nullable(x:Boolean)
(description)	The dialog result value, which is the value that is returned from the ShowDialog method.

Icon	ImageSource
(description)	A window's icon.
Left	x:Double
(description)	The position of the window's left edge, in relation to the desktop.
[text syntax]	LengthSyntax
Owner	Window
(description)	The Window that owns this Window.
ResizeMode	ResizeMode
(description)	The resize mode.
ShowActivated	x:Boolean
(description)	A value that indicates whether a window is activated when first shown.
ShowInTaskbar	x:Boolean
(description)	A value that indicates whether the window has a task bar button.
SizeToContent	SizeToContent
(description)	A value that indicates whether a window will automatically size itself to fit the size of its content.
TaskbarItemInfo	TaskbarItemInfo
(description)	The Windows 7 taskbar thumbnail for the Window.
Title	x:String
(description)	A window's title.
Top	x:Double
(description)	The position of the window's top edge, in relation to the desktop.
[text syntax]	LengthSyntax
Topmost	x:Boolean
(description)	A value that indicates whether a window appears in the topmost z-order.
WindowStartupLocation	WindowStartupLocation
(description)	The position of the window when first shown.
WindowState	WindowState
(description)	A value that indicates whether a window is restored, minimized, or maximized.
WindowStyle	WindowStyle
(description)	A window's border style.
(events)	

Activated	Occurs when a window becomes the foreground window.
Closed	Occurs when the window is about to close.
Closing	Occurs directly after Close is called, and can be handled to cancel window closure.
ContentRendered	Occurs after a window's content has been rendered.
Deactivated	Occurs when a window becomes a background window.
DpiChanged	Occurs after the DPI of the screen on which the Window is displayed changes.
LocationChanged	Occurs when the window's location changes.
SourceInitialized	This event is raised to support interoperation.
StateChanged	Occurs when the window's WindowState property changes.

4.1020 WindowChrome

x:Object > DependencyObject > Freezable > WindowChrome	
<h2>WindowChrome</h2>	
(usage)	<WindowChrome />
(description)	Represents an object that describes the customizations to the non-client area of a window.
(properties)	
CaptionHeight	x:Double
(description)	The height of the caption area at the top of a window.
CornerRadius	CornerRadius
(description)	A value that indicates the amount that the corners of a window are rounded.
GlassFrameThickness	Thickness
(description)	A value that indicates the width of the glass border around a window.
NonClientFrameEdges	NonClientFrameEdges
(description)	A value that indicates which edges of the window frame are not owned by the client.
ResizeBorderThickness	Thickness
(description)	A value that indicates the width of the border that is used to resize a window.
UseAeroCaptionButtons	x:Boolean

(description)	A value that indicates whether hit-testing is enabled on the Windows Aero caption buttons.
(attachable properties)	
WindowChrome.IsHitTestVisibleInChrome	x:Boolean
(description)	A value that indicates whether hit-testing is enabled on the part of an element that is in the non-client area of a window.
[target type]	InputElement
WindowChrome.ResizeGripDirection	ResizeGripDirection
(description)	A value that indicates the direction of the resize grip behavior on an input element.
[target type]	InputElement
WindowChrome.WindowChrome	WindowChrome
(description)	The instance of WindowChrome that is attached to a window.
[target type]	Window
(static properties)	
GlassFrameCompleteThickness	Thickness
(description)	A uniform thickness of -1.

4.1021 WindowCollection

x:Object > WindowCollection	
WindowCollection	
(usage)	<WindowCollection />
(description)	Represents a collection of Window objects.

4.1022 WindowStartupLocation

x:Object > WindowStartupLocation	
WindowStartupLocation	

(usage)	Manual CenterScreen CenterOwner
(description)	Specifies the position that a Window will be shown in when it is first opened. Used by the WindowStartupLocation property.
(used by)	Window
[is nullable]	false
[text syntax]	WindowStartupLocationSyntax

4.1023 WindowState

x:Object > WindowState	
<h2>WindowState</h2>	
(usage)	Normal Minimized Maximized
(description)	Specifies whether a window is minimized, maximized, or restored. Used by the WindowState property.
(used by)	Window
[is nullable]	false
[text syntax]	WindowStateSyntax

4.1024 WindowStyle

x:Object > WindowStyle	
<h2>WindowStyle</h2>	
(usage)	None SingleBorderWindow ThreeDBorderWindow ToolWindow
(description)	Specifies the type of border that a Window has. Used by the WindowStyle property.
(used by)	Window
[is nullable]	false
[text syntax]	WindowStyleSyntax

4.1025 WmpBitmapEncoder

[x:Object](#) > [BitmapEncoder](#) > [WmpBitmapEncoder](#)

WmpBitmapEncoder

(usage)	<WmpBitmapEncoder />
(description)	Defines an encoder that is used to encode Microsoft Windows Media Photo images.
(properties)	
AlphaDataDiscardLevel	x:Byte
(description)	The level of alpha frequency data to discard during a compressed domain transcode.
AlphaQualityLevel	x:Byte
(description)	The compression quality for a planar alpha channel.
CompressedDomainTranscode	x:Boolean
(description)	A value that indicates whether compressed domain operations can be used. Compressed domain operations are transformation operations that are done without decoding the image data.
FlipHorizontal	x:Boolean
(description)	A value indicating whether to flip the image horizontally.
FlipVertical	x:Boolean
(description)	A value that indicates whether to flip the image vertically.
FrequencyOrder	x:Boolean
(description)	A value that indicates whether to encoding in frequency order.
HorizontalTileSlices	x:Int16
(description)	The number of horizontal divisions to use during compression encoding. A single division creates two horizontal regions.
IgnoreOverlap	x:Boolean
(description)	A value that indicates whether to ignore region overlap pixels in subregion compressed domain encoding.
ImageDataDiscardLevel	x:Byte
(description)	The level of image data to discard during a compressed domain transcode.
ImageQualityLevel	x:Single
(description)	The image quality level.
InterleavedAlpha	x:Boolean

(description)	A value that indicates whether to encode the alpha channel data as an additional interleaved channel.
Lossless	x:Boolean
(description)	A value that indicates whether to encode using lossless compression.
OverlapLevel	x:Byte
(description)	The overlap processing level.
QualityLevel	x:Byte
(description)	The compression quality for the main image.
Rotation	Rotation
(description)	The Rotation of the image.
SubsamplingLevel	x:Byte
(description)	The sub-sampling level for RGB image encoding.
UseCodecOptions	x:Boolean
(description)	A value that indicates codec options are to be used.
VerticalTileSlices	x:Int16
(description)	The number of vertical divisions to use during compression encoding. A single division creates two vertical regions.

4.1026 WrapDirection

x:Object > WrapDirection	
<h2>WrapDirection</h2>	
(usage)	None Left Right Both
(description)	Specifies the allowable directions that content can wrap around an object.
(used by)	Block Figure
[is nullable]	false
[text syntax]	WrapDirectionSyntax

4.1027 WrapPanel

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > Panel > WrapPanel , InputElement
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WrapPanel	
(usage)	<WrapPanel> UIElement *</WrapPanel>
(description)	Positions child elements in sequential position from left to right, breaking content to the next line at the edge of the containing box. Subsequent ordering happens sequentially from top to bottom or from right to left, depending on the value of the Orientation property.
[content property]	Children
[name property]	Name
[xml lang property]	Language
(properties)	
ItemHeight	x:Double
(description)	A value that specifies the height of all items that are contained within a WrapPanel.
[text syntax]	LengthSyntax
ItemWidth	x:Double
(description)	A value that specifies the width of all items that are contained within a WrapPanel.
[text syntax]	LengthSyntax
Orientation	Orientation
(description)	A value that specifies the dimension in which child content is arranged.

4.1028 WriteableBitmap

x:Object > DependencyObject > Freezable > Animatable > ImageSource > BitmapSource > WriteableBitmap	
WriteableBitmap	
(usage)	<WriteableBitmap> string </WriteableBitmap>
(description)	Provides a BitmapSource that can be written to and updated.
[is default constructible]	false
[text syntax]	x:Uri, from [MS-XAML-2017]
(properties)	
BackBuffer	IntPtr
(description)	A pointer to the back buffer.

4.1029 XmlDataProvider

x:Object > DataSourceProvider > XmlDataProvider	
<h2>XmlDataProvider</h2>	
(usage)	<XmlDataProvider><XData/></XmlDataProvider>
(description)	Enables declarative access to XML data for data binding.
[content property]	XmlSerializer
(properties)	
IsAsynchronous	x:Boolean
(description)	A value that indicates whether node collection creation will be performed in a worker thread or in the active context.
Source	x:Uri
(description)	The Uri of the XML data file to use as the binding source.
XmlNamespaceManager	XmlNamespaceManager
(description)	The XmlNamespaceManager used to run XPath queries.
XmlSerializer	IXmlSerializable
(description)	The inline XML content.
[read only]	true
[is xdata]	true
XPath	x:String
(description)	The XPath query used to generate the data collection.

4.1030 XmlNamespaceMapping

x:Object > XmlNamespaceMapping	
<h2>XmlNamespaceMapping</h2>	
(usage)	<XmlNamespaceMapping />
(description)	Declares a mapping between a uniform resource identifier (URI) and a prefix.
(used by)	ICollection(XmlNamespaceMapping) XmlNamespaceMappingCollection

(properties)	
Prefix	x:String
(description)	The prefix to use in XAML.
Uri	x:Uri
(description)	The Uri of the namespace for which to create a mapping.

4.1031 XmlNamespaceMappingCollection

x:Object > XmlNamespaceManager > XmlNamespaceMappingCollection	
XmlNamespaceMappingCollection	
(usage)	<XmlNamespaceMappingCollection> XmlNamespaceMapping *</XmlNamespaceMappingCollection>
(description)	Represents a collection of XmlNamespaceMapping objects.
[is list]	true
[allowed types]	XmlNamespaceMapping

4.1032 ZoomPercentageConverter

x:Object > ZoomPercentageConverter , IValueConverter	
ZoomPercentageConverter	
(usage)	<ZoomPercentageConverter />
(description)	Implements a type converter for converting Double (used as the value of Zoom) to and from other types.

5 WPF XamlType Information Items for Assignable Types

5.1 ActiveXHost

x:Object > DependencyObject > Visual > UIElement > FrameworkElement > ActiveXHost , InputElement	
ActiveXHost	
WebBrowser	
(usage)	None.
(description)	Hosts an ActiveX control as an element within content.
[is default constructible]	false
[name property]	Name
[xml lang property]	Language

5.2 x:Boolean

x:Object > x:Boolean	
x:Boolean	
link to externally defined type	x:Boolean, from [MS-XAML-2017]

5.3 x:Byte

x:Object > x:Byte	
x:Byte	
link to externally defined type	x:Byte, from [MS-XAML-2017]

5.4 x:Char

x:Object > x:Char	
x:Char	
link to externally defined type	x:Char, from [MS-XAML-2017]

5.5 Collection(T)

x:Object > Collection(T)	
<h1>Collection(T)</h1>	
ConditionCollection SetterBaseCollection StrokeCollection StylusPointCollection TouchPointCollection TriggerCollection	
(usage)	<Collection x:TypeArguments="T">T* </Collection>
(description)	Provides the base type for a generic collection.
(used by)	Binding BindingGroup MultiBinding PriorityBinding PropertyPath ResourceDictionary Ribbon ToolBarTray
[is list]	true
[allowed types]	T

5.6 CollectionBase

x:Object > CollectionBase	
<h1>CollectionBase</h1>	
LinkTargetCollection	
(usage)	None.
(description)	Provides the base type for a strongly typed collection.
[is default constructible]	false
[is list]	true
[allowed types]	x:Object

5.7 CultureInfo

x:Object > CultureInfo	
<h1>CultureInfo</h1>	
(usage)	<CultureInfo> string </CultureInfo>

(description)	Provides information about a specific culture. The information includes the names for the culture, the writing system, the calendar used, and formatting for dates and sort strings.
(used by)	Binding CollectionView CollectionViewSource InputLanguageManager MultiBinding NumberSubstitution
[is default constructible]	false
[text syntax]	CultureInfoSyntax

5.8 DataSourceProvider

x:Object > DataSourceProvider	
DataSourceProvider	
ObjectDataProvider XmlDataProvider	
(usage)	None.
(description)	Common base type and contract for DataSourceProvider objects, which are factories that execute some queries to produce a single object or a list of objects that you can use as binding source objects.
[is default constructible]	false

5.9 x:DateTime

x:Object > x:DateTime	
x:DateTime	
link to externally defined type	x:DateTime, from [MS-XAML-2017]

5.10 DayOfWeek

x:Object > DayOfWeek	
DayOfWeek	
(usage)	Sunday Monday Tuesday Wednesday Thursday Friday Saturday

(description)	Specifies the day of the week.
(used by)	Calendar DatePicker
[is nullable]	false
[text syntax]	DayOfWeekSyntax

5.11 x:Decimal

x:Object > x:Decimal	
x:Decimal	
link to externally defined type	x:Decimal, from [MS-XAML-2017]

5.12 Delegate

x:Object > Delegate	
Delegate	
(usage)	<Delegate> string </Delegate>
(description)	Represents a delegate, which is a data structure that refers to a static method or to a type instance and an instance method of that type.
(used by)	EventSetter
[is default constructible]	false
[text syntax]	x:XamlEvent, from [MS-XAML-2017]

5.13 x:Double

x:Object > x:Double	
x:Double	
link to externally defined type	x:Double, from [MS-XAML-2017]

5.14 FreezableCollection(T)

x:Object > DependencyObject > Freezable > Animatable > FreezableCollection(T)	
<h1>FreezableCollection(T)</h1>	
RibbonControlSizeDefinitionCollection RibbonGroupSizeDefinitionBaseCollection ThumbButtonInfoCollection	
(usage)	<FreezableCollection x:TypeArguments="T">T* </FreezableCollection>
(description)	Represents a collection of DependencyObject, Freezable, or Animatable objects. FreezableCollection is itself an Animatable type.
[is list]	true
[allowed types]	T

5.15 GroupDescription

x:Object > GroupDescription	
<h1>GroupDescription</h1>	
PropertyGroupDescription	
(usage)	None.
(description)	A base type that describes how to divide the items in a collection into groups.
(used by)	Collection(GroupDescription) CollectionView CollectionViewSource ItemCollection ObservableCollection(GroupDescription)
[is default constructible]	false

5.16 ICollection(T)

ICollection(T)
<h1>ICollection(T)</h1>
BlockCollection CalendarBlackoutDatesCollection CharacterMetricsDictionary ClockCollection ColumnDefinitionCollection ConditionCollection DoubleCollection DrawingCollection FamilyTypefaceCollection FontFamilyMapCollection GeneralTransform3DCollection GeneralTransformCollection GeometryCollection GradientStopCollection GridViewColumnCollection InlineCollection Int32Collection LanguageSpecificStringDictionary ListItemCollection MaterialCollection Model3DCollection PathFigureCollection PathSegmentCollection Point3DCollection PointCollection RibbonControlSizeDefinitionCollection RibbonGroupSizeDefinitionBaseCollection RowDefinitionCollection SelectedDatesCollection SetterBaseCollection StrokeCollection StylusButtonCollection

[StylusDeviceCollection](#) [StylusPointCollection](#) [TableCellCollection](#) [TableColumnCollection](#) [TableRowCollection](#) [TableRowGroupCollection](#) [TextDecorationCollection](#) [TextEffectCollection](#) [ThumbButtonInfoCollection](#) [TimelineCollection](#) [TouchPointCollection](#) [Transform3DCollection](#) [TransformCollection](#) [TriggerActionCollection](#) [TriggerCollection](#) [Vector3DCollection](#) [VectorCollection](#) [Visual3DCollection](#) [XmlNamespaceMappingCollection](#)

(usage)	None.
(description)	Defines methods to manipulate generic collections.
(used by)	CharacterMetricsDictionary FontEmbeddingManager Fonts LanguageSpecificStringDictionary
[is default constructible]	false
[is list]	true
[allowed types]	T

5.17 ICommand

ICommand	
ICommand	
RoutedCommand RoutedUICommand	
(usage)	<ICommand> string </ICommand>
(description)	Defines a command.
(used by)	ButtonBase CommandBinding Hyperlink InputBinding MenuItem RibbonGallery RibbonSplitButton RibbonTextBox ThumbButtonInfo
[is default constructible]	false
[text syntax]	CommandSyntax

5.18 IComparer

IComparer	
IComparer	
(usage)	None.
(description)	Exposes a method that compares two objects.
(used by)	PropertyGroupDescription

[is default constructible]	false
----------------------------	-------

5.19 IDictionary

IDictionary	
IDictionary	
CharacterMetricsDictionary LanguageSpecificStringDictionary ResourceDictionary	
(usage)	None.
(description)	Represents a nongeneric collection of key/value pairs.
(used by)	Application
[is default constructible]	false
[is dictionary]	true
[allowed types]	x:Object
[allowed key types]	x:Object

5.20 IDictionary(T,U)

IDictionary(T,U)	
IDictionary(T,U)	
CharacterMetricsDictionary LanguageSpecificStringDictionary	
(usage)	None.
(description)	Represents a generic collection of key/value pairs.
(used by)	FamilyTypeface GlyphTypeface
[is default constructible]	false
[is dictionary]	true
[allowed types]	x:String
[allowed key types]	CultureInfo

5.21 IDocumentPaginatorSource

IDocumentPaginatorSource	
IDocumentPaginatorSource	
FixedDocument FixedDocumentSequence FlowDocument	
(usage)	None.
(description)	Defines the source object that performs actual content pagination.
(used by)	DocumentViewerBase
[is default constructible]	false

5.22 IEnumerable

IEnumerable	
IEnumerable	
(usage)	None.
(description)	Exposes an enumerator, which supports a simple iteration over a non-generic collection.
(used by)	DataGridComboBoxColumn ItemsControl
[is default constructible]	false

5.23 IList

IList	
IList	
(usage)	None.
(description)	Represents a non-generic collection of objects that can be individually accessed by index.
(used by)	AlternationConverter BindingGroup IKeyFrameAnimation InputScope ListBox MultiSelector ObjectDataProvider SpellCheck VisualStateManager VisualStateManager
[is default constructible]	false

[is list]	true
[allowed types]	x:Object

5.24 IList(T)

IList(T)	
IList(T)	
CalendarBlackoutDatesCollection ColumnDefinitionCollection ConditionCollection DoubleCollection DrawingCollection FamilyTypefaceCollection FontFamilyMapCollection GeneralTransform3DCollection GeneralTransformCollection GeometryCollection GradientStopCollection GridViewColumnCollection Int32Collection MaterialCollection Model3DCollection PathFigureCollection PathSegmentCollection Point3DCollection PointCollection RibbonControlSizeDefinitionCollection RibbonGroupSizeDefinitionBaseCollection RowDefinitionCollection SelectedDatesCollection SetterBaseCollection StrokeCollection StylusButtonCollection StylusDeviceCollection StylusPointCollection TableCellCollection TableColumnCollection TableRowCollection TableRowGroupCollection TextDecorationCollection TextEffectCollection ThumbButtonInfoCollection TimelineCollection TouchPointCollection Transform3DCollection TransformCollection TriggerActionCollection TriggerCollection Vector3DCollection VectorCollection Visual3DCollection	
(usage)	None.
(description)	Represents a collection of objects that can be individually accessed by index.
(used by)	BitmapEncoder BitmapPalette DataGrid GlyphRun PixelFormat PixelFormatChannelMask
[is default constructible]	false
[is list]	true
[allowed types]	T

5.25 x:Int16

x:Object > x:Int16	
x:Int16	
link to externally defined type	x:Int16, from [MS-XAML-2017]

5.26 x:Int32

x:Object > x:Int32	
x:Int32	
link to externally defined type	x:Int32, from [MS-XAML-2017]

5.27 x:Int64

x:Object > x:Int64	
x:Int64	
link to externally defined type	x:Int64, from [MS-XAML-2017]

5.28 IntPtr

x:Object > IntPtr	
IntPtr	
(usage)	<IntPtr />
(description)	A platform-specific type that is used to represent a pointer or a handle.
(used by)	WriteableBitmap
[is nullable]	false

5.29 IXmlSerializable

IXmlSerializable	
IXmlSerializable	
(usage)	None.
(description)	Provides custom formatting for XML serialization and deserialization.
(used by)	XmlDataProvider
[is default constructible]	false

[is xdata]	true
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5.30 KeyValuePair(T,U)

x:Object > KeyValuePair(T,U)	
KeyValuePair(T,U)	
(usage)	<KeyValuePair x:TypeArguments="T" />
(description)	Defines a key/value pair that can be set or retrieved.
(used by)	ICollection(KeyValuePair(x:Int32,CharacterMetrics))
[is nullable]	false

5.31 List(T)

x:Object > List(T)	
List(T)	
(usage)	<List x:TypeArguments="T">T* </List>
(description)	Represents a strongly typed list of objects that can be accessed by index. Provides methods to search, sort, and manipulate lists.
(used by)	JumpList
[is list]	true
[allowed types]	T

5.32 ListSortDirection

x:Object > ListSortDirection	
ListSortDirection	
(usage)	Ascending Descending
(description)	Specifies the direction of a sort operation.
(used by)	DataGridColumn

[is nullable]	false
[text syntax]	ListSortDirectionSyntax

5.33 ManipulationParameters2D

x:Object > ManipulationParameters2D	
ManipulationParameters2D	
(usage)	None.
(description)	Base type from which all manipulation parameter types are derived.
(used by)	Manipulation
[is default constructible]	false

5.34 x:MarkupExtension

x:Object > x:MarkupExtension	
x:MarkupExtension	
BindingBase ColorConvertedBitmapExtension DynamicResourceExtension RelativeSource ResourceKey StaticResourceExtension TemplateBindingExtension ThemeDictionaryExtension	
link to externally defined type	x:MarkupExtension, from [MS-XAML-2017]

5.35 x:Nullable(T)

x:Object > x:Nullable(T)	
x:Nullable(T)	
link to externally defined type	x:Nullable(T), from [MS-XAML-2017]

5.36 x:Object

x:Object

x:Object

[AlternationConverter](#) [ApplicationCommands](#) [AutomationProperties](#) [BaseCompatibilityPreferences](#) [BindingOperations](#) [BitmapPalettes](#) [BooleanToVisibilityConverter](#) [BorderGapMaskConverter](#) [Brushes](#) [CalendarDateRange](#) [CharacterMetrics](#) [CharacterMetricsDictionary](#) [ClockCollection](#) [ColorContext](#) [Colors](#) [ColumnDefinitionCollection](#) [CommandBinding](#) [CommandBindingCollection](#) [ComponentCommands](#) [CompositeCollection](#) [Condition](#) [ContentOperations](#) [ContextMenuService](#) [CoreCompatibilityPreferences](#) [Cursor](#) [Cursors](#) [DashStyles](#) [DataObject](#) [DataTemplateSelector](#) [DeferrableContent](#) [DependencyProperty](#) [DocumentReferenceCollection](#) [DrawingAttributes](#) [EditingCommands](#) [EventPrivateKey](#) [FamilyTypeface](#) [FamilyTypefaceCollection](#) [FocusManager](#) [FontEmbeddingManager](#) [FontFamily](#) [FontFamilyMap](#) [FontFamilyMapCollection](#) [Fonts](#) [FontStretches](#) [FontStyles](#) [FontWeights](#) [FrameworkCompatibilityPreferences](#) [GlyphRun](#) [GlyphTypeface](#) [GroupStyle](#) [InertiaExpansionBehavior](#) [InertiaRotationBehavior](#) [InertiaTranslationBehavior](#) [InputBindingCollection](#) [InputGesture](#) [InputGestureCollection](#) [InputScope](#) [InputScopeName](#) [InputScopePhrase](#) [JournalEntryListConverter](#) [JournalEntryUnifiedViewConverter](#) [Jumpltem](#) [JumpList](#) [Keyboard](#) [KeyboardNavigation](#) [KeyTipService](#) [LanguageSpecificStringDictionary](#) [LinkTarget](#) [Localization](#) [Manipulation](#) [ManipulationPivot](#) [MediaCommands](#) [MenuScrollingVisibilityConverter](#) [Mouse](#) [NavigationCommands](#) [NumberSubstitution](#) [PageContentCollection](#) [PixelFormats](#) [PresentationTraceSources](#) [PropertyPath](#) [RenderCapability](#) [RenderOptions](#) [ResourceDictionary](#) [RibbonCommands](#) [RibbonControlService](#) [RoutedCommand](#) [RoutedEvent](#) [RowDefinitionCollection](#) [SetterBase](#) [SpellCheck](#) [Stroke](#) [StyleSelector](#) [Stylus](#) [StylusButton](#) [StylusPointDescription](#) [SystemColors](#) [SystemCommands](#) [SystemFonts](#) [SystemParameters](#) [TableCellCollection](#) [TableColumnCollection](#) [TableRowCollection](#) [TableRowGroupCollection](#) [Tablet](#) [TabletDeviceCollection](#) [FrameworkElement](#) [TextDecorations](#) [TextOptions](#) [TextRunCache](#) [ToolTipService](#) [TouchPoint](#) [TriggerActionCollection](#) [Typeface](#) [Typography](#) [UIElementCollection](#) [Validation](#) [ValidationResult](#) [ValidationRule](#) [Visual3DCollection](#) [VisualCollection](#) [WindowCollection](#) [XmlNamespaceMapping](#) [ZoomPercentageConverter](#)

link to externally defined type

x:Object, from [\[MS-XAML-2017\]](#)

5.37 ObservableCollection(T)

[x:Object](#) > [Collection\(CalendarDateRange\)](#) > [ObservableCollection\(T\)](#)

ObservableCollection(T)

[CalendarBlackoutDatesCollection](#) [GridViewColumnCollection](#) [SelectedDatesCollection](#)

(usage)	<ObservableCollection x:TypeArguments="T">T*</ObservableCollection>
(description)	Represents a dynamic data collection that provides notifications when items get added, removed, or when the whole list is refreshed.
(used by)	CollectionView CollectionViewSource DataGrid ItemCollection ItemsControl
[is list]	true
[allowed types]	T

5.38 Predicate(T)

x:Object > Delegate > Predicate(T)	
Predicate(T)	
(usage)	<Predicate x:TypeArguments="T"> string </Predicate>
(description)	Represents the method that defines a set of criteria and determines whether the specified object meets those criteria.
(used by)	CollectionView ItemCollection
[is default constructible]	false
[text syntax]	x:XamlEvent, from [MS-XAML-2017]

5.39 ReadOnlyCollection(T)

x:Object > ReadOnlyCollection(T)	
ReadOnlyCollection(T)	
StylusButtonCollection StylusDeviceCollection	
(usage)	None.
(description)	Provides the base type for a generic read-only collection.
(used by)	BitmapEncoder
[is default constructible]	false
[is list]	true
[allowed types]	T

5.40 RenderMode

x:Object > RenderMode	
RenderMode	
(usage)	Default SoftwareOnly
(description)	Specifies the rendering preference.
(used by)	RenderOptions

[is nullable]	false
[text syntax]	RenderModeSyntax

5.41 RequestCachePolicy

x:Object > RequestCachePolicy	
RequestCachePolicy	
(usage)	<RequestCachePolicy />
(description)	Defines an application's caching requirements for resources obtained by using WebRequest objects.
(used by)	BitmapImage

5.42 x:Single

x:Object > x:Single	
x:Single	
link to externally defined type	x:Single, from [MS-XAML-2017]

5.43 SortDescription

x:Object > SortDescription	
SortDescription	
(usage)	<SortDescription />
(description)	Defines the direction and the property name to be used as the criteria for sorting a collection.
(used by)	Collection(SortDescription) SortDescriptionCollection
[is nullable]	false

5.44 SortDescriptionCollection

[x:Object](#) > [Collection\(SortDescription\)](#) > [SortDescriptionCollection](#)

SortDescriptionCollection

(usage)	<SortDescriptionCollection> SortDescription *</SortDescriptionCollection>
(description)	Represents a collection of SortDescription objects.
(used by)	CollectionView CollectionViewSource ItemCollection
[is list]	true
[allowed types]	SortDescription

5.45 x:String

[x:Object](#) > [x:String](#)

x:String

link to externally defined type	x:String, from [MS-XAML-2017]
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5.46 StringCollection

[x:Object](#) > [StringCollection](#)

StringCollection

(usage)	<StringCollection> x:String *</StringCollection>
(description)	Represents a collection of strings.
(used by)	RibbonTab
[is list]	true
[allowed types]	x:String

5.47 StringComparison

[x:Object](#) > [StringComparison](#)

StringComparison	
(usage)	CurrentCulture CurrentCultureIgnoreCase InvariantCulture InvariantCultureIgnoreCase Ordinal OrdinalIgnoreCase
(description)	Specifies the culture, case, and sort rules to be used by certain overloads of the String) and Object) methods.
(used by)	PropertyGroupDescription
[is nullable]	false
[text syntax]	StringComparisonSyntax

5.48 TextElementCollection(T)

x:Object > TextElementCollection(T)	
TextElementCollection(T)	
BlockCollection InlineCollection ListItemCollection	
(usage)	None.
(description)	Provides standard facilities for creating and managing a type-safe, ordered collection of TextElement objects. This is a generic collection for working with objects of a specified type that derives from TextElement.
[is default constructible]	false
[is list]	true
[allowed types]	T

5.49 x:TimeSpan

x:Object > x:TimeSpan	
x:TimeSpan	
link to externally defined type	x:TimeSpan, from [MS-XAML-2017]

5.50 TraceSource

x:Object > TraceSource	
TraceSource	
(usage)	None.
(description)	Provides a set of methods and properties that enable applications to trace the execution of code and associate trace messages with their source.
(used by)	PresentationTraceSources
[is default constructible]	false

5.51 x:XamlType

x:Object > x:XamlType	
x:XamlType	
link to externally defined type	x:XamlType, from [MS-XAML-2017]

5.52 UInt16

x:Object > UInt16	
UInt16	
(usage)	<UInt16> string </UInt16>
(description)	Represents a 16-bit unsigned integer.
(used by)	GlyphRun GlyphTypeface IDictionary(x:Int32,UInt16) IList(UInt16)
[is nullable]	false

5.53 x:Uri

x:Object > x:Uri	
x:Uri	
link to externally defined type	x:Uri, from [MS-XAML-2017]

5.54 XmlDocument

x:Object > XmlDocument	
XmlDocument	
(usage)	<XmlDocument />
(description)	Represents an XML document.
(used by)	XmlDataProvider

5.55 XmlLanguage

x:Object > XmlLanguage	
XmlLanguage	
(usage)	<XmlLanguage> string </XmlLanguage>
(description)	Represents a language tag for use in XAML markup.
(used by)	FontFamilyMap FrameworkContentElement FrameworkElement GlyphRun ICollection(XmlLanguage) LanguageSpecificStringDictionary
[is default constructible]	false
[text syntax]	XmlLanguageSyntax

5.56 XmlNamespaceManager

x:Object > XmlNamespaceManager	
XmlNamespaceManager	
XmlNamespaceMappingCollection	
(usage)	None.
(description)	Resolves, adds, and removes namespaces to a collection and provides scope management for these namespaces.
(used by)	Binding XmlDataProvider

[is default constructible]	false
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6 WPF Xaml Text Syntax Information Sets

6.1 AlignmentXSyntax

AlignmentXSyntax	
[values]	
Center	The contents align toward the center of the container.
Left	The contents align toward the left of the container.
Right	The contents align toward the right of the container.

6.2 AlignmentYSyntax

AlignmentYSyntax	
[values]	
Bottom	The contents align toward the lower edge of the container.
Center	The contents align toward the center of the container.
Top	The contents align toward the upper edge of the container.

6.3 ApplicationGestureSyntax

ApplicationGestureSyntax	
[values]	
AllGestures	Recognizes all application-specific gestures.
ArrowDown	Has no suggested semantic behavior or action. The arrow can be drawn in single stroke or in two strokes where one stroke is the line and the other is the arrow head. Do not use more than two strokes to draw the arrow.
ArrowLeft	Has no suggested semantic behavior or action. The arrow can be drawn in single stroke or in two strokes where one stroke is the line and the other is the arrow head. Do not use more than two strokes to draw the arrow.
ArrowRight	Has no suggested semantic behavior or action. The arrow can be drawn in single stroke or in two strokes where one stroke is the line and the other is the arrow head. Do not use more than two strokes to draw the arrow.

ArrowUp	Has no suggested semantic behavior or action. The arrow can be drawn in single stroke or in two strokes where one stroke is the line and the other is the arrow head. Do not use more than two strokes to draw the arrow.
Check	Has no suggested semantic behavior or action. The upward stroke must be twice as long as the smaller downward stroke.
ChevronDown	Has no suggested semantic behavior or action. Both sides of the chevron must be drawn as equal as possible. The angle must be sharp and end in a point.
ChevronLeft	Has no suggested semantic behavior or action. Both sides of the chevron must be drawn as equal as possible. The angle must be sharp and end in a point.
ChevronRight	Has no suggested semantic behavior or action. Both sides of the chevron must be drawn as equal as possible. The angle must be sharp and end in a point.
ChevronUp	Has no suggested semantic behavior or action. Both sides of the chevron must be drawn as equal as possible. The angle must be sharp and end in a point.
Circle	Has no suggested semantic behavior or action. The circle must be drawn in a single stroke without lifting the pen.
Curlicue	Has no suggested semantic behavior or action. Start the curlicue on the word you intend to cut.
DoubleCircle	Has no suggested semantic behavior or action. The two circles must overlap each other and be drawn in a single stroke without lifting the pen.
DoubleCurlicue	Has no suggested semantic behavior or action. Start the double-curlicue on the word you intend to copy.
DoubleTap	Signifies a mouse double-click. The two taps must be made quickly to result in the least amount of slippage and the least duration between taps. In addition, the taps must be as close to each other as possible.
Down	Has no suggested semantic behavior or action. This gesture must be drawn as a single fast flick in the downward direction.
DownLeft	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the down stroke. The two sides must be as equal in length as possible and at a right angle.
DownLeftLong	Signifies pressing an ENTER key. This gesture must be drawn in a single stroke starting with the down stroke. The left stroke is about twice as long as the up stroke, and the two strokes must be at a right angle.
DownRight	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the down stroke. The two sides must be as equal in length as possible and at a right angle.
DownRightLong	Signifies pressing the spacebar. This gesture must be drawn in a single stroke starting with the down stroke. The right stroke must be about twice as long as the up stroke, and the two strokes must be at a right angle.

DownUp	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the down stroke. The two strokes must be as close to each other as possible.
Exclamation	Has no suggested semantic behavior or action. The line must be drawn first and then the dot drawn quickly and as close to the line as possible.
Left	Specifies a backspace. This gesture must be drawn as a single fast flick to the left.
LeftDown	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the left stroke. The two sides are as equal in length as possible and at a right angle.
LeftRight	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the left stroke. The two sides are as equal in length as possible and at a right angle.
LeftUp	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the left stroke. The two sides must be as equal in length as possible and at a right angle.
NoGesture	Recognizes no application-specific gestures.
Right	Signifies a space. This gesture must be drawn as a single fast flick to the right.
RightDown	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the right stroke. The two sides must be as equal in length as possible and at a right angle.
RightLeft	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the right stroke. The two strokes must be as close to each other as possible.
RightUp	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the right stroke. The two sides must be as equal in length as possible and at a right angle.
ScratchOut	Erases content. This gesture must be drawn as a single stroke that has at least three back-and-forth motions.
SemicircleLeft	Has no suggested semantic behavior or action. The semicircle must be drawn from left to right. The two ends of the semicircle should be as horizontally even as possible.
SemicircleRight	Has no suggested semantic behavior or action. The semicircle must be drawn from right to left. The two ends of the semicircle should be as horizontally even as possible.
Square	Has no suggested semantic behavior or action. The square can be drawn in one or two strokes. In one stroke, draw the entire square without lifting the pen. In two strokes, draw three sides of the square and use another stroke to draw the remaining side. Do not use more than two strokes to draw the square.

Star	Has no suggested semantic behavior or action. The star must have exactly five points and be drawn in a single stroke without lifting the pen.
Tap	Signifies a mouse click. For the least amount of slippage, the tap must be made quickly.
Triangle	Has no suggested semantic behavior or action. The triangle must be drawn in a single stroke, without lifting the pen.
Up	Has no suggested semantic behavior or action. This gesture must be drawn as a single fast flick in the upward direction.
UpDown	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the up stroke. The two strokes must be as close to each other as possible.
UpLeft	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the up stroke. The two sides must be as equal in length as possible and at a right angle.
UpLeftLong	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the up stroke. The left stroke must be about twice as long as the up stroke, and the two strokes must be at a right angle.
UpRight	Has no suggested semantic behavior or action. This gesture must be drawn in a single stroke starting with the up stroke. The two sides must be as equal in length as possible and at a right angle.
UpRightLong	Signifies pressing a TAB key. This gesture must be drawn in a single stroke starting with the up stroke. The right stroke must be about twice as long as the up stroke, and the two strokes must be at a right angle.

6.4 AutomationLiveSettingSyntax

AutomationLiveSettingSyntax	
[values]	
Assertive	The element sends interruptive notifications if the content of the live region has changed. With this setting, UI Automation clients and assistive technologies are expected to interrupt the user to inform of changes to the live region.
Off	The element doesn't send notifications if the content of the live region has changed.
Polite	The element sends non-interruptive notifications if the content of the live region has changed. With this setting, UI Automation clients and assistive technologies are expected to not interrupt the user to inform of changes to the live region.

6.5 AutoToolTipPlacementSyntax

AutoToolTipPlacementSyntax	
[values]	
BottomRight	For a horizontal Slider show the automatic ToolTip at the bottom edge of the Thumb. For a vertical Slider show the automatic ToolTip at the right edge of the Thumb.
None	No automatic ToolTip
TopLeft	For a horizontal Slider show the automatic ToolTip at the top edge of the Thumb. For a vertical Slider show the automatic ToolTip at the left edge of the Thumb.

6.6 BaselineAlignmentSyntax

BaselineAlignmentSyntax	
[values]	
Baseline	A baseline that is aligned at the actual baseline of the containing box.
Bottom	A baseline that is aligned at the lower edge of the containing box.
Center	A baseline that is aligned to the center of the containing box.
Subscript	A baseline that is aligned at the subscript position of the containing box.
Superscript	A baseline that is aligned at the superscript position of the containing box.
TextBottom	A baseline that is aligned at the lower edge of the text baseline.
TextTop	A baseline that is aligned at the upper edge of the text baseline.
Top	A baseline that is aligned to the upper edge of the containing box.

6.7 BaseValueSourceSyntax

BaseValueSourceSyntax	
[values]	

Default	Source is the default value, as defined by property metadata.
DefaultStyle	Source is from a setter in the default style. The default style comes from the current theme.
DefaultStyleTrigger	Source is from a trigger in the default style. The default style comes from the current theme.
ImplicitStyleReference	Source is an implicit style reference (style was based on detected type or based type). This value is only returned for the Style property itself, not for properties that are set through setters or triggers of such a style.
Inherited	Source is a value through property value inheritance.
Local	Source is a locally set value.
ParentTemplate	Source is based on a parent template being used by an element.
ParentTemplateTrigger	Source is a trigger-based value from a parent template that created the element.
Style	Source is from a style setter of a non-theme style.
StyleTrigger	Source is a trigger-based value of a non-theme style.
TemplateTrigger	Source is a trigger-based value in a template that is from a non-theme style.
Unknown	Source is not known. This is the default value.

6.8 BindingModeSyntax

BindingModeSyntax	
[values]	
Default	Uses the default Mode value of the binding target. The default value varies for each property. In general, user-editable control properties, such as those of text boxes and check boxes, default to two-way bindings, whereas most other properties default to one-way bindings.
OneTime	Updates the binding target when the application starts or when the data context changes. This type of binding is appropriate if you are using data where either a snapshot of the current state is appropriate to use or the data is truly static. This type of binding is also useful if you want to initialize your target property with some value from a source property and the data context is not known in advance.
OneWay	Updates the binding target property when the binding source changes. This type of binding is appropriate if the control being bound is implicitly read-only, such as a stock ticker. Or perhaps the target property has no control interface for making changes, such as a data-bound background color of a table. If there

	is no need to monitor the changes of the target property, the OneWay binding mode can be used instead of the TwoWay binding mode.
OneWayToSource	Updates the source property when the target property changes.
TwoWay	Causes changes to either the source property or the target property to automatically update the other. This type of binding is appropriate for editable forms or other fully-interactive UI scenarios.

6.9 BindingStatusSyntax

BindingStatusSyntax	
[values]	
Active	The binding has been successfully activated. This means that the binding has been attached to its binding target (target) property and has located the binding source (source), resolved the Path and/or XPath, and begun transferring values.
AsyncRequestPending	The binding is waiting for an asynchronous operation to complete.
Detached	The binding has been detached from its target property.
Inactive	The binding has not been activated.
PathError	The binding was unable to resolve the source path.
Unattached	The binding has not yet been attached to its target property.
UpdateSourceError	The binding was unable to send the value to the source property.
UpdateTargetError	The binding could not successfully return a source value to update the target value. For more information, see the remarks on FallbackValue.

6.10 BitmapCacheOptionSyntax

BitmapCacheOptionSyntax	
[values]	
Default	Caches the entire image into memory. This is the default value.
None	Do not create a memory store. All requests for the image are filled directly by the image file.
OnDemand	Creates a memory store for requested data only. The first request loads the image directly; subsequent requests are filled from the cache.

OnLoad	Caches the entire image into memory at load time. All requests for image data are filled from the memory store.
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6.11 BitmapCreateOptionsSyntax

BitmapCreateOptionsSyntax	
[values]	
DelayCreation	Causes a BitmapSource object to delay initialization until it is necessary. This is useful when dealing with collections of images.
IgnoreColorProfile	Causes a BitmapSource to ignore an embedded color profile.
IgnoreImageCache	Loads images without using an existing image cache. This option should only be selected when images in a cache need to be refreshed.
None	No BitmapCreateOptions are specified. This is the default value.
PreservePixelFormat	Ensures that the PixelFormat a file is stored in is the same as it is loaded to.

6.12 BitmapScalingModeSyntax

BitmapScalingModeSyntax	
[values]	
Fant	Use very high quality Fant bitmap scaling, which is slower than all other bitmap scaling modes, but produces higher quality output.
HighQuality	Use high quality bitmap scaling, which is slower than LowQuality mode, but produces higher quality output. The HighQuality mode is the same as the Fant mode.
Linear	Use linear bitmap scaling, which is faster than HighQuality mode, but produces lower quality output.
LowQuality	Use bilinear bitmap scaling, which is faster than HighQuality mode, but produces lower quality output. The LowQuality mode is the same as the Linear mode.
NearestNeighbor	Use nearest-neighbor bitmap scaling, which provides performance benefits over LowQuality mode when the software rasterizer is used. This mode is often used to magnify a bitmap.
Unspecified	Use the default bitmap scaling mode, which is Linear.

6.13 BrushMappingModeSyntax

BrushMappingModeSyntax	
[values]	
Absolute	The coordinate system is not relative to a bounding box. Values are interpreted directly in local space.
RelativeToBoundingBox	The coordinate system is relative to a bounding box: 0 indicates 0 percent of the bounding box, and 1 indicates 100 percent of the bounding box. For example, (0.5, 0.5) describes a point in the middle of the bounding box, and (1, 1) describes a point at the bottom right of the bounding box.

6.14 BrushSyntax

BrushSyntax	
[values]	
AliceBlue	The solid fill color that has a hexadecimal value of #FFF0F8FF.
AntiqueWhite	The solid fill color that has a hexadecimal value of #FFFAEBD7.
Aqua	The solid fill color that has a hexadecimal value of #FF00FFFF.
Aquamarine	The solid fill color that has a hexadecimal value of #FF7FFFD4.
Azure	The solid fill color that has a hexadecimal value of #FFF0FFFF.
Beige	The solid fill color that has a hexadecimal value of #FFF5F5DC.
Bisque	The solid fill color that has a hexadecimal value of #FFF4E4C4.
Black	The solid fill color that has a hexadecimal value of #FF000000.
BlanchedAlmond	The solid fill color that has a hexadecimal value of #FFF5EBCD.
Blue	The solid fill color that has a hexadecimal value of #FF0000FF.
BlueViolet	The solid fill color that has a hexadecimal value of #FF8A2BE2.
Brown	The solid fill color that has a hexadecimal value of #FFA52A2A.
BurlyWood	The solid fill color that has a hexadecimal value of #FFDEB887.
CadetBlue	The solid fill color that has a hexadecimal value of #FF5F9EA0.
Chartreuse	The solid fill color that has a hexadecimal value of #FF7FFF00.
Chocolate	The solid fill color that has a hexadecimal value of #FFD2691E.

Coral	The solid fill color that has a hexadecimal value of #FFFF7F50.
CornflowerBlue	The solid fill color that has a hexadecimal value of #FF6495ED.
Cornsilk	The solid fill color that has a hexadecimal value of #FFFFFF8DC.
Crimson	The solid fill color that has a hexadecimal value of #FFDC143C.
Cyan	The solid fill color that has a hexadecimal value of #FF00FFFF.
DarkBlue	The solid fill color that has a hexadecimal value of #FF00008B.
DarkCyan	The solid fill color that has a hexadecimal value of #FF008B8B.
DarkGoldenrod	The solid fill color that has a hexadecimal value of #FFB8860B.
DarkGray	The solid fill color that has a hexadecimal value of #FFA9A9A9.
DarkGreen	The solid fill color that has a hexadecimal value of #FF006400.
DarkKhaki	The solid fill color that has a hexadecimal value of #FFBDB76B.
DarkMagenta	The solid fill color that has a hexadecimal value of #FF8B008B.
DarkOliveGreen	The solid fill color that has a hexadecimal value of #FF556B2F.
DarkOrange	The solid fill color that has a hexadecimal value of #FFFF8C00.
DarkOrchid	The solid fill color that has a hexadecimal value of #FF9932CC.
DarkRed	The solid fill color that has a hexadecimal value of #FF8B0000.
DarkSalmon	The solid fill color that has a hexadecimal value of #FFE9967A.
DarkSeaGreen	The solid fill color that has a hexadecimal value of #FF8FBC8F.
DarkSlateBlue	The solid fill color that has a hexadecimal value of #FF483D8B.
DarkSlateGray	The solid fill color that has a hexadecimal value of #FF2F4F4F.
DarkTurquoise	The solid fill color that has a hexadecimal value of #FF00CED1.
DarkViolet	The solid fill color that has a hexadecimal value of #FF9400D3.
DeepPink	The solid fill color that has a hexadecimal value of #FFFF1493.
DeepSkyBlue	The solid fill color that has a hexadecimal value of #FF00BFFF.
DimGray	The solid fill color that has a hexadecimal value of #FF696969.
DodgerBlue	The solid fill color that has a hexadecimal value of #FF1E90FF.
Firebrick	The solid fill color that has a hexadecimal value of #FFB22222.
FloralWhite	The solid fill color that has a hexadecimal value of #FFFFFFAF0.
ForestGreen	The solid fill color that has a hexadecimal value of #FF228B22.
Fuchsia	The solid fill color that has a hexadecimal value of #FFFF00FF.
Gainsboro	The solid fill color that has a hexadecimal value of #FFDCDCDC.
GhostWhite	The solid fill color that has a hexadecimal value of #FFF8F8FF.

Gold	The solid fill color that has a hexadecimal value of #FFFD700.
Goldenrod	The solid fill color that has a hexadecimal value of #FFDAA520.
Gray	The solid fill color that has a hexadecimal value of #FF808080.
Green	The solid fill color that has a hexadecimal value of #FF008000.
GreenYellow	The solid fill color that has a hexadecimal value of #FFADFF2F.
Honeydew	The solid fill color that has a hexadecimal value of #FFF0FF0.
HotPink	The solid fill color that has a hexadecimal value of #FFF69B4.
IndianRed	The solid fill color that has a hexadecimal value of #FFCD5C5C.
Indigo	The solid fill color that has a hexadecimal value of #FF4B0082.
Ivory	The solid fill color that has a hexadecimal value of #FFFFFFF0.
Khaki	The solid fill color that has a hexadecimal value of #FFF0E68C.
Lavender	The solid fill color that has a hexadecimal value of #FFE6E6FA.
LavenderBlush	The solid fill color that has a hexadecimal value of #FFFFFF0F5.
LawnGreen	The solid fill color that has a hexadecimal value of #FF7CFC00.
LemonChiffon	The solid fill color that has a hexadecimal value of #FFFFACD.
LightBlue	The solid fill color that has a hexadecimal value of #FFADD8E6.
LightCoral	The solid fill color that has a hexadecimal value of #FFF08080.
LightCyan	The solid fill color that has a hexadecimal value of #FFE0FFFF.
LightGoldenrodYellow	The solid fill color that has a hexadecimal value of #FFFAFAD2.
LightGray	The solid fill color that has a hexadecimal value of #FFD3D3D3.
LightGreen	The solid fill color that has a hexadecimal value of #FF90EE90.
LightPink	The solid fill color that has a hexadecimal value of #FFFB6C1.
LightSalmon	The solid fill color that has a hexadecimal value of #FFFA07A.
LightSeaGreen	The solid fill color that has a hexadecimal value of #FF20B2AA.
LightSkyBlue	The solid fill color that has a hexadecimal value of #FF87CEFA.
LightSlateGray	The solid fill color that has a hexadecimal value of #FF778899.
LightSteelBlue	The solid fill color that has a hexadecimal value of #FFB0C4DE.
LightYellow	The solid fill color that has a hexadecimal value of #FFFFFFE0.
Lime	The solid fill color that has a hexadecimal value of #FF00FF00.
LimeGreen	The solid fill color that has a hexadecimal value of #FF32CD32.
Linen	The solid fill color that has a hexadecimal value of #FFFAF0E6.
Magenta	The solid fill color that has a hexadecimal value of #FFF00FF.

Maroon	The solid fill color that has a hexadecimal value of #FF800000.
MediumAquamarine	The solid fill color that has a hexadecimal value of #FF66CDAA.
MediumBlue	The solid fill color that has a hexadecimal value of #FF0000CD.
MediumOrchid	The solid fill color that has a hexadecimal value of #FFBA55D3.
MediumPurple	The solid fill color that has a hexadecimal value of #FF9370DB.
MediumSeaGreen	The solid fill color that has a hexadecimal value of #FF3CB371.
MediumSlateBlue	The solid fill color that has a hexadecimal value of #FF7B68EE.
MediumSpringGreen	The solid fill color that has a hexadecimal value of #FF00FA9A.
MediumTurquoise	The solid fill color that has a hexadecimal value of #FF48D1CC.
MediumVioletRed	The solid fill color that has a hexadecimal value of #FFC71585.
MidnightBlue	The solid fill color that has a hexadecimal value of #FF191970.
MintCream	The solid fill color that has a hexadecimal value of #FFF5FFFA.
MistyRose	The solid fill color that has a hexadecimal value of #FFFFFFE4E1.
Moccasin	The solid fill color that has a hexadecimal value of #FFFFFFE4B5.
NavajoWhite	The solid fill color that has a hexadecimal value of #FFFFDEAD.
Navy	The solid fill color that has a hexadecimal value of #FF000080.
OldLace	The solid fill color that has a hexadecimal value of #FFFDF5E6.
Olive	The solid fill color that has a hexadecimal value of #FF808000.
OliveDrab	The solid fill color that has a hexadecimal value of #FF6B8E23.
Orange	The solid fill color that has a hexadecimal value of #FFFFA500.
OrangeRed	The solid fill color that has a hexadecimal value of #FFFF4500.
Orchid	The solid fill color that has a hexadecimal value of #FFDA70D6.
PaleGoldenrod	The solid fill color that has a hexadecimal value of #FFEEE8AA.
PaleGreen	The solid fill color that has a hexadecimal value of #FF98FB98.
PaleTurquoise	The solid fill color that has a hexadecimal value of #FFAFEEEE.
PaleVioletRed	The solid fill color that has a hexadecimal value of #FFDB7093.
PapayaWhip	The solid fill color that has a hexadecimal value of #FFFFFFFD5.
PeachPuff	The solid fill color that has a hexadecimal value of #FFFFDAB9.
Peru	The solid fill color that has a hexadecimal value of #FFCD853F.
Pink	The solid fill color that has a hexadecimal value of #FFFFC0CB.
Plum	The solid fill color that has a hexadecimal value of #FFDDA0DD.
PowderBlue	The solid fill color that has a hexadecimal value of #FFB0E0E6.

Purple	The solid fill color that has a hexadecimal value of #FF800080.
Red	The solid fill color that has a hexadecimal value of #FFFFFF00.
RosyBrown	The solid fill color that has a hexadecimal value of #FFBC8F8F.
RoyalBlue	The solid fill color that has a hexadecimal value of #FF4169E1.
SaddleBrown	The solid fill color that has a hexadecimal value of #FF8B4513.
Salmon	The solid fill color that has a hexadecimal value of #FFFA8072.
SandyBrown	The solid fill color that has a hexadecimal value of #FFF4A460.
SeaGreen	The solid fill color that has a hexadecimal value of #FF2E8B57.
SeaShell	The solid fill color that has a hexadecimal value of #FFFFFF5EE.
Sienna	The solid fill color that has a hexadecimal value of #FFA0522D.
Silver	The solid fill color that has a hexadecimal value of #FFC0C0C0.
SkyBlue	The solid fill color that has a hexadecimal value of #FF87CEEB.
SlateBlue	The solid fill color that has a hexadecimal value of #FF6A5ACD.
SlateGray	The solid fill color that has a hexadecimal value of #FF708090.
Snow	The solid fill color that has a hexadecimal value of #FFFFFFAFA.
SpringGreen	The solid fill color that has a hexadecimal value of #FF00FF7F.
SteelBlue	The solid fill color that has a hexadecimal value of #FF4682B4.
Tan	The solid fill color that has a hexadecimal value of #FFD2B48C.
Teal	The solid fill color that has a hexadecimal value of #FF008080.
Thistle	The solid fill color that has a hexadecimal value of #FFD8BFD8.
Tomato	The solid fill color that has a hexadecimal value of #FFFF6347.
Transparent	The solid fill color that has a hexadecimal value of #00FFFFFF.
Turquoise	The solid fill color that has a hexadecimal value of #FF40E0D0.
Violet	The solid fill color that has a hexadecimal value of #FFEE82EE.
Wheat	The solid fill color that has a hexadecimal value of #FFF5DEB3.
White	The solid fill color that has a hexadecimal value of #FFFFFFFF.
WhiteSmoke	The solid fill color that has a hexadecimal value of #FFF5F5F5.
Yellow	The solid fill color that has a hexadecimal value of #FFFFFF00.
YellowGreen	The solid fill color that has a hexadecimal value of #FF9ACD32.
[patterns]	

<code>#[\dA-F]{3}</code>	An RGB value in the sRGB color space with one hexadecimal digit per channel. Examples: #F00 Red: 100%, Green 0%, Blue 0% #fb0 Red: 100%, Green 73%, Blue 0% #FFF Red: 100%, Green 100%, Blue 100%
<code>#[\dA-F]{4}</code>	An ARGB value in the sRGB color space with one hexadecimal digit per channel. Examples: #FF00 Alpha: 100% Red: 100%, Green 0%, Blue 0% #8fb0 Alpha: 53% Red: 100%, Green 73%, Blue 0% #4FFF Alpha 27% Red: 100%, Green 100%, Blue 100%
<code>#[\dA-F]{6}</code>	An RGB value in the sRGB color space with two hexadecimal digits per channel. Examples: #FF0000 Red: 100%, Green 0%, Blue 0% #ff3300 Red: 100%, Green 20%, Blue 0% #FFFFFF Red: 100%, Green 100%, Blue 100%
<code>#[\dA-F]{8}</code>	An ARGB value in the sRGB color space with two hexadecimal digits per channel. Examples: #FFFF0000 Alpha: 100% Red: 100%, Green 0%, Blue 0% #80ffb00 Alpha: 50% Red: 100%, Green 75%, Blue 0% #40FFFFFF Alpha 25% Red: 100%, Green 100%, Blue 100%
<code>sc#\s*(([+-]?(\\d+(\\.d*)?) (\\d*\\.d+))([eE][+-]?(\\d+)?)(\\s*,\\s*) \\s+)){2,3}([+-]?(\\d+(\\.d*)?) (\\d*\\.d+))([eE][+-]?\\d+)?</code>	An RGB or ARGB value in the scRGB color space, with each channel specified as a decimal floating point number, separated by either commas or whitespace. Examples: sc# 1 0 0 Red: 100%, Green 0%, Blue 0% sc# 1 0.75, 0 Red: 100%, Green 75%, Blue 0% sc# 2.5E-1 1 0 0 Alpha: 25%, Red: 100%, Green 0%, Blue 0% sc# 1.5,0,-0.5 Red: 150%, Green 0%, Blue -50%
[is case sensitive]	true
<code>ContextColor\s+[^\\s]*\s*(([+-]?(\\d+(\\.d*)?) (\\d*\\.d+))([eE][+-]?(\\d+)?)(\\s*,\\s*) \\s+)){3,8}([+-]?(\\d+(\\.d*)?) (\\d*\\.d+))([eE][+-]?\\d+)?</code>	A color in a color space identified by a URI; the color space URI is followed by a sequence of decimal floating point values separated by whitespace and/or commas. The first is an alpha value, and it is followed by the color-space-specific channel values (of which there may be from 3 to 8 inclusive). Examples: ContextColor ../color/sRGB.icm 1 1 0 0
[is case sensitive]	true

6.15 CacheModeSyntax

CacheModeSyntax	
[values]	
BitmapCache	Caches the visual content as a bitmap.

6.16 CachingHintSyntax

CachingHintSyntax	
[values]	
Cache	Cache the tiled brush objects in an off-screen buffer, using the caching hints specified by the RenderOptions settings.
Unspecified	No caching hints are specified.

6.17 CalendarModeSyntax

CalendarModeSyntax	
[values]	
Decade	The Calendar displays a decade at a time.
Month	The Calendar displays a month at a time.
Year	The Calendar displays a year at a time.

6.18 CalendarSelectionModeSyntax

CalendarSelectionModeSyntax	
[values]	
MultipleRange	Multiple non-contiguous ranges of dates can be selected. Use the SelectedDates property to retrieve the selected dates.
None	No selections are allowed.
SingleDate	A single date can be selected. Use the SelectedDate property to retrieve the selected date.
SingleRange	A single range of dates can be selected. Use the SelectedDates property to retrieve the selected dates.

6.19 CaptureModeSyntax

CaptureModeSyntax	
-------------------	--

[values]	
Element	Mouse capture is applied to a single element. Mouse input goes to the captured element.
None	No mouse capture. Mouse input goes to the element under the mouse.
SubTree	Mouse capture is applied to a subtree of elements. If the mouse is over a child of the element with capture, mouse input is sent to the child element. Otherwise, mouse input is sent to the element with mouse capture.

6.20 CharacterCasingSyntax

CharacterCasingSyntax	
[values]	
Lower	Characters typed into a TextBox are converted to lowercase.
Normal	Characters typed into a TextBox are not converted.
Upper	Characters typed into a TextBox are converted to uppercase.

6.21 ClearTypeHintSyntax

ClearTypeHintSyntax	
[values]	
Auto	The rendering engine uses ClearType when it is possible. If opacity is introduced, ClearType is disabled for that subtree.
Enabled	The rendering engine re-enables ClearType for the current subtree. Where opacity is introduced in this subtree, ClearType is disabled.

6.22 ClickModeSyntax

ClickModeSyntax	
[values]	
Hover	Specifies that the Click event should be raised when the mouse hovers over a control.

Press	Specifies that the Click event should be raised as soon as a button is pressed.
Release	Specifies that the Click event should be raised when a button is pressed and released.

6.23 ClockStateSyntax

ClockStateSyntax	
[values]	
Active	The current Clock time changes in direct relation to that of its parent. If the timeline is an animation, it is actively affecting targeted properties, so their value may change from tick (a sampling point in time) to tick. If the timeline has children, they may be Active, Filling, or Stopped.
Filling	The Clock timing continues, but does not change in relation to that of its parent. If the timeline is an animation, it is actively affecting targeted properties, but its values don't change from tick to tick. If the timeline has children, they may be Active, Filling, or Stopped.
Stopped	The Clock timing is halted, making the clock's current time and progress values undefined. If this timeline is an animation, it no longer affects targeted properties. If this timeline has children, they are also Stopped.

6.24 ColorInterpolationModeSyntax

ColorInterpolationModeSyntax	
[values]	
ScRgbLinearInterpolation	Colors are interpolated in the scRGB color space
SRgbLinearInterpolation	Colors are interpolated in the sRGB color space

6.25 ColorSyntax

ColorSyntax	
[values]	
AliceBlue	The solid fill color that has a hexadecimal value of #FFF0F8FF.

AntiqueWhite	The solid fill color that has a hexadecimal value of #FFFAEBD7.
Aqua	The solid fill color that has a hexadecimal value of #FF00FFFF.
Aquamarine	The solid fill color that has a hexadecimal value of #FF7FFFD4.
Azure	The solid fill color that has a hexadecimal value of #FFF0FFFF.
Beige	The solid fill color that has a hexadecimal value of #FFF5F5DC.
Bisque	The solid fill color that has a hexadecimal value of #FFFFFFE4C4.
Black	The solid fill color that has a hexadecimal value of #FF000000.
BlanchedAlmond	The solid fill color that has a hexadecimal value of #FFFEBDCD.
Blue	The solid fill color that has a hexadecimal value of #FF0000FF.
BlueViolet	The solid fill color that has a hexadecimal value of #FF8A2BE2.
Brown	The solid fill color that has a hexadecimal value of #FFA52A2A.
BurlyWood	The solid fill color that has a hexadecimal value of #FFDEB887.
CadetBlue	The solid fill color that has a hexadecimal value of #FF5F9EAO.
Chartreuse	The solid fill color that has a hexadecimal value of #FF7FFF00.
Chocolate	The solid fill color that has a hexadecimal value of #FFD2691E.
Coral	The solid fill color that has a hexadecimal value of #FFFF7F50.
CornflowerBlue	The solid fill color that has a hexadecimal value of #FF6495ED.
Cornsilk	The solid fill color that has a hexadecimal value of #FFFFFF8DC.
Crimson	The solid fill color that has a hexadecimal value of #FFDC143C.
Cyan	The solid fill color that has a hexadecimal value of #FF00FFFF.
DarkBlue	The solid fill color that has a hexadecimal value of #FF00008B.
DarkCyan	The solid fill color that has a hexadecimal value of #FF008B8B.
DarkGoldenrod	The solid fill color that has a hexadecimal value of #FFB8860B.
DarkGray	The solid fill color that has a hexadecimal value of #FFA9A9A9.
DarkGreen	The solid fill color that has a hexadecimal value of #FF006400.
DarkKhaki	The solid fill color that has a hexadecimal value of #FFBDB76B.
DarkMagenta	The solid fill color that has a hexadecimal value of #FF8B008B.
DarkOliveGreen	The solid fill color that has a hexadecimal value of #FF556B2F.
DarkOrange	The solid fill color that has a hexadecimal value of #FFFF8C00.
DarkOrchid	The solid fill color that has a hexadecimal value of #FF9932CC.
DarkRed	The solid fill color that has a hexadecimal value of #FF8B0000.
DarkSalmon	The solid fill color that has a hexadecimal value of #FFE9967A.

DarkSeaGreen	The solid fill color that has a hexadecimal value of #FF8FBC8F.
DarkSlateBlue	The solid fill color that has a hexadecimal value of #FF483D8B.
DarkSlateGray	The solid fill color that has a hexadecimal value of #FF2F4F4F.
DarkTurquoise	The solid fill color that has a hexadecimal value of #FF00CED1.
DarkViolet	The solid fill color that has a hexadecimal value of #FF9400D3.
DeepPink	The solid fill color that has a hexadecimal value of #FFFF1493.
DeepSkyBlue	The solid fill color that has a hexadecimal value of #FF00BFFF.
DimGray	The solid fill color that has a hexadecimal value of #FF696969.
DodgerBlue	The solid fill color that has a hexadecimal value of #FF1E90FF.
Firebrick	The solid fill color that has a hexadecimal value of #FFB22222.
FloralWhite	The solid fill color that has a hexadecimal value of #FFFFFFA0.
ForestGreen	The solid fill color that has a hexadecimal value of #FF228B22.
Fuchsia	The solid fill color that has a hexadecimal value of #FFFF00FF.
Gainsboro	The solid fill color that has a hexadecimal value of #FFDCDCDC.
GhostWhite	The solid fill color that has a hexadecimal value of #FFF8F8FF.
Gold	The solid fill color that has a hexadecimal value of #FFFD700.
Goldenrod	The solid fill color that has a hexadecimal value of #FFDAA520.
Gray	The solid fill color that has a hexadecimal value of #FF808080.
Green	The solid fill color that has a hexadecimal value of #FF008000.
GreenYellow	The solid fill color that has a hexadecimal value of #FFADFF2F.
Honeydew	The solid fill color that has a hexadecimal value of #FFF0FFF0.
HotPink	The solid fill color that has a hexadecimal value of #FFF69B4.
IndianRed	The solid fill color that has a hexadecimal value of #FFCD5C5C.
Indigo	The solid fill color that has a hexadecimal value of #FF4B0082.
Ivory	The solid fill color that has a hexadecimal value of #FFFFFFF0.
Khaki	The solid fill color that has a hexadecimal value of #FFF0E68C.
Lavender	The solid fill color that has a hexadecimal value of #FFE6E6FA.
LavenderBlush	The solid fill color that has a hexadecimal value of #FFFFFF0F5.
LawnGreen	The solid fill color that has a hexadecimal value of #FF7CFC00.
LemonChiffon	The solid fill color that has a hexadecimal value of #FFFFFFACD.
LightBlue	The solid fill color that has a hexadecimal value of #FFADD8E6.
LightCoral	The solid fill color that has a hexadecimal value of #FFF08080.

LightCyan	The solid fill color that has a hexadecimal value of #FFE0FFFF.
LightGoldenrodYellow	The solid fill color that has a hexadecimal value of #FFFACD.
LightGray	The solid fill color that has a hexadecimal value of #FFD3D3.
LightGreen	The solid fill color that has a hexadecimal value of #90EE90.
LightPink	The solid fill color that has a hexadecimal value of #FFB6C1.
LightSalmon	The solid fill color that has a hexadecimal value of #FFA07A.
LightSeaGreen	The solid fill color that has a hexadecimal value of #20B2AA.
LightSkyBlue	The solid fill color that has a hexadecimal value of #87CEFA.
LightSlateGray	The solid fill color that has a hexadecimal value of #778899.
LightSteelBlue	The solid fill color that has a hexadecimal value of #B0C4DE.
LightYellow	The solid fill color that has a hexadecimal value of #FFFFE0.
Lime	The solid fill color that has a hexadecimal value of #00FF00.
LimeGreen	The solid fill color that has a hexadecimal value of #32CD32.
Linen	The solid fill color that has a hexadecimal value of #FAFAD2.
Magenta	The solid fill color that has a hexadecimal value of #FF00FF.
Maroon	The solid fill color that has a hexadecimal value of #800000.
MediumAquaMarine	The solid fill color that has a hexadecimal value of #66CDAA.
MediumBlue	The solid fill color that has a hexadecimal value of #0000CD.
MediumOrchid	The solid fill color that has a hexadecimal value of #BA55D3.
MediumPurple	The solid fill color that has a hexadecimal value of #9370DB.
MediumSeaGreen	The solid fill color that has a hexadecimal value of #3CB371.
MediumSlateBlue	The solid fill color that has a hexadecimal value of #7B68EE.
MediumSpringGreen	The solid fill color that has a hexadecimal value of #00FA9A.
MediumTurquoise	The solid fill color that has a hexadecimal value of #48D1CC.
MediumVioletRed	The solid fill color that has a hexadecimal value of #C71585.
MidnightBlue	The solid fill color that has a hexadecimal value of #191970.
MintCream	The solid fill color that has a hexadecimal value of #5FF5E0.
MistyRose	The solid fill color that has a hexadecimal value of #F5E0E5.
Moccasin	The solid fill color that has a hexadecimal value of #FFDAB9.
NavajoWhite	The solid fill color that has a hexadecimal value of #FFDEAD.
Navy	The solid fill color that has a hexadecimal value of #000080.
OldLace	The solid fill color that has a hexadecimal value of #F5F5DC.

Olive	The solid fill color that has a hexadecimal value of #FF808000.
OliveDrab	The solid fill color that has a hexadecimal value of #FF6B8E23.
Orange	The solid fill color that has a hexadecimal value of #FFFA500.
OrangeRed	The solid fill color that has a hexadecimal value of #FFFF4500.
Orchid	The solid fill color that has a hexadecimal value of #FFDA70D6.
PaleGoldenrod	The solid fill color that has a hexadecimal value of #FFEEE8AA.
PaleGreen	The solid fill color that has a hexadecimal value of #FF98FB98.
PaleTurquoise	The solid fill color that has a hexadecimal value of #FFAFEEEE.
PaleVioletRed	The solid fill color that has a hexadecimal value of #FFDB7093.
PapayaWhip	The solid fill color that has a hexadecimal value of #FFFFEFD5.
PeachPuff	The solid fill color that has a hexadecimal value of #FFFDAB9.
Peru	The solid fill color that has a hexadecimal value of #FFCD853F.
Pink	The solid fill color that has a hexadecimal value of #FFFC0CB.
Plum	The solid fill color that has a hexadecimal value of #FFDDA0DD.
PowderBlue	The solid fill color that has a hexadecimal value of #FFB0E0E6.
Purple	The solid fill color that has a hexadecimal value of #FF800080.
Red	The solid fill color that has a hexadecimal value of #FFFF0000.
RosyBrown	The solid fill color that has a hexadecimal value of #FFBC8F8F.
RoyalBlue	The solid fill color that has a hexadecimal value of #FF4169E1.
SaddleBrown	The solid fill color that has a hexadecimal value of #FF8B4513.
Salmon	The solid fill color that has a hexadecimal value of #FFFA8072.
SandyBrown	The solid fill color that has a hexadecimal value of #FFF4A460.
SeaGreen	The solid fill color that has a hexadecimal value of #FF2E8B57.
SeaShell	The solid fill color that has a hexadecimal value of #FFFFFF5EE.
Sienna	The solid fill color that has a hexadecimal value of #FFA0522D.
Silver	The solid fill color that has a hexadecimal value of #FFC0C0C0.
SkyBlue	The solid fill color that has a hexadecimal value of #FF87CEEB.
SlateBlue	The solid fill color that has a hexadecimal value of #FF6A5ACD.
SlateGray	The solid fill color that has a hexadecimal value of #FF708090.
Snow	The solid fill color that has a hexadecimal value of #FFFFFFAFA.
SpringGreen	The solid fill color that has a hexadecimal value of #FF00FF7F.
SteelBlue	The solid fill color that has a hexadecimal value of #FF4682B4.

Tan	The solid fill color that has a hexadecimal value of #FFD2B48C.
Teal	The solid fill color that has a hexadecimal value of #FF008080.
Thistle	The solid fill color that has a hexadecimal value of #FFD8BFD8.
Tomato	The solid fill color that has a hexadecimal value of #FFFF6347.
Transparent	The solid fill color that has a hexadecimal value of #00FFFFFF.
Turquoise	The solid fill color that has a hexadecimal value of #FF40E0D0.
Violet	The solid fill color that has a hexadecimal value of #FFEE82EE.
Wheat	The solid fill color that has a hexadecimal value of #FFF5DEB3.
White	The solid fill color that has a hexadecimal value of #FFFFFFFF.
WhiteSmoke	The solid fill color that has a hexadecimal value of #FFF5F5F5.
Yellow	The solid fill color that has a hexadecimal value of #FFFFFF00.
YellowGreen	The solid fill color that has a hexadecimal value of #FF9ACD32.
[patterns]	
#[\dA-F]{3}	An RGB value in the sRGB color space with one hexadecimal digit per channel. Examples: #F00 Red: 100%, Green 0%, Blue 0% #fb0 Red: 100%, Green 73%, Blue 0% #FFF Red: 100%, Green 100%, Blue 100%
#[\dA-F]{4}	An ARGB value in the sRGB color space with one hexadecimal digit per channel. Examples: #FF00 Alpha: 100% Red: 100%, Green 0%, Blue 0% #8fb0 Alpha: 53% Red: 100%, Green 73%, Blue 0% #4FFF Alpha 27% Red: 100%, Green 100%, Blue 100%
#[\dA-F]{6}	An RGB value in the sRGB color space with two hexadecimal digits per channel. Examples: #FF0000 Red: 100%, Green 0%, Blue 0% #ff3300 Red: 100%, Green 20%, Blue 0% #FFFFFF Red: 100%, Green 100%, Blue 100%
#[\dA-F]{8}	An ARGB value in the sRGB color space with two hexadecimal digits per channel. Examples: #FFFF0000 Alpha: 100% Red: 100%, Green 0%, Blue 0% #80ffb00 Alpha: 50% Red: 100%, Green 75%, Blue 0% #40FFFFFF Alpha 25% Red: 100%, Green 100%, Blue 100%
sc#\s*(([+-]?(?(\d+(\.d*))?)(\d*\.\d+))([eE][+-]?(\d+)?)((\s* s*) s+)){2,3}([+-]?(?(\d+(\.d*))?)(\d*\.\d+))([eE][+-]?(\d+)?)	An RGB or ARGB value in the scRGB color space, with each channel specified as a decimal floating point number, separated by either commas or whitespace. Examples: sc# 1 0 0 Red: 100%, Green 0%, Blue 0% sc# 1 0.75, 0 Red: 100%, Green 75%, Blue 0% sc# 2.5E-1 1 0 0 Alpha: 25%, Red: 100%, Green 0%, Blue 0% sc# 1.5,0,-0.5 Red: 150%, Green 0%, Blue -50%
[is case sensitive]	true
ContextColor\s+[\^s]*\s*(([+-]?(?(\d+(\.d*))?)(\d*\.\d+))([eE][+-]?)	A color in a color space identified by a URI; the color space URI is followed by a sequence of decimal floating point values separated by whitespace and/or commas. The first is an alpha value, and it is followed by the color-space-

$]?\d+)((\s*,\s*) \s+)){3,8}([+-]?\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?$	specific channel values (of which there may be from 3 to 8 inclusive). Examples: ContextColor ../color/sRGB.icm 1 1 0 0
[is case sensitive]	true

6.26 ColumnSpaceDistributionSyntax

ColumnSpaceDistributionSyntax	
[values]	
Between	Space is distributed evenly between all columns.
Left	Space is distributed before the first column.
Right	Space is distributed after the last column.

6.27 CommandSyntax

CommandSyntax	
[values]	
BrowseBack	The Browse Back command
[is case sensitive]	true
BrowseForward	The Browse Forward command
[is case sensitive]	true
BrowseHome	The Browse Home command
[is case sensitive]	true
BrowseStop	The Browse Stop command
[is case sensitive]	true
Refresh	The Refresh command
[is case sensitive]	true
Favorites	The Favorites command
[is case sensitive]	true
Search	The Search command

[is case sensitive]	true
IncreaseZoom	The Increase Zoom command
[is case sensitive]	true
DecreaseZoom	The Decrease Zoom command
[is case sensitive]	true
Zoom	The Zoom command
[is case sensitive]	true
NextPage	The Next Page command
[is case sensitive]	true
PreviousPage	The Previous Page command
[is case sensitive]	true
FirstPage	The First Page command
[is case sensitive]	true
LastPage	The Last Page command
[is case sensitive]	true
GoToPage	The Go To Page command
[is case sensitive]	true
NavigateJournal	The Navigate Journal command
[is case sensitive]	true
Cut	The Cut command
[is case sensitive]	true
Copy	The Copy command
[is case sensitive]	true
Paste	The Paste command
[is case sensitive]	true
Undo	The Undo command
[is case sensitive]	true
Redo	The Redo command
[is case sensitive]	true
Find	The Find command
[is case sensitive]	true
Replace	The Replace command

[is case sensitive]	true
Help	The Help command
[is case sensitive]	true
New	The New command
[is case sensitive]	true
Open	The Open command
[is case sensitive]	true
Save	The Save command
[is case sensitive]	true
SaveAs	The Save As command
[is case sensitive]	true
Close	The Close command
[is case sensitive]	true
Print	The Print command
[is case sensitive]	true
PrintPreview	The Print Preview command
[is case sensitive]	true
Properties	The Properties command
[is case sensitive]	true
ContextMenu	The Context Menu command
[is case sensitive]	true
CorrectionList	The Correction List command
[is case sensitive]	true
SelectAll	The Select All command
[is case sensitive]	true
NotACommand	Indicates the absence of a command.
[is case sensitive]	true
ScrollPageLeft	The Scroll Page Left command
[is case sensitive]	true
ScrollPageRight	The Scroll Page Right command
[is case sensitive]	true
ScrollPageUp	The Scroll Page Up command

[is case sensitive]	true
ScrollPageDown	The Scroll Page Down command
[is case sensitive]	true
ScrollByLine	The Scroll By Line command
[is case sensitive]	true
MoveLeft	The Move Left command
[is case sensitive]	true
MoveRight	The Move Right command
[is case sensitive]	true
MoveUp	The Move Up command
[is case sensitive]	true
MoveDown	The Move Down command
[is case sensitive]	true
ExtendSelectionUp	The Extend Selection Up command
[is case sensitive]	true
ExtendSelectionDown	The Extend Selection Down command
[is case sensitive]	true
ExtendSelectionLeft	The Extend Selection Left command
[is case sensitive]	true
ExtendSelectionRight	The Extend Selection Right command
[is case sensitive]	true
MoveToHome	The Move To Home command
[is case sensitive]	true
MoveToEnd	The Move To End command
[is case sensitive]	true
MoveToPageUp	The Move To Page Up command
[is case sensitive]	true
MoveToPageDown	The Move To Page Down command
[is case sensitive]	true
SelectToHome	The Select To Home command
[is case sensitive]	true
SelectToEnd	The Select To End command

[is case sensitive]	true
SelectToPageDown	The Select To Page Down command
[is case sensitive]	true
SelectToPageUp	The Select To Page Up command
[is case sensitive]	true
MoveFocusUp	The Move Focus Up command
[is case sensitive]	true
MoveFocusDown	The Move Focus Down command
[is case sensitive]	true
MoveFocusBack	The Move Focus Back command
[is case sensitive]	true
MoveFocusForward	The Move Focus Forward command
[is case sensitive]	true
MoveFocusPageUp	The Move Focus Page Up command
[is case sensitive]	true
MoveFocusPageDown	The Move Focus Page Down command
[is case sensitive]	true
ToggleInsert	The Toggle Insert command
[is case sensitive]	true
Delete	The Delete command
[is case sensitive]	true
Backspace	The Backspace command
[is case sensitive]	true
DeleteNextWord	The Delete Next Word command
[is case sensitive]	true
DeletePreviousWord	The Delete Previous Word command
[is case sensitive]	true
EnterParagraphBreak	The Enter Paragraph Break command
[is case sensitive]	true
EnterLineBreak	The Enter Line Break command
[is case sensitive]	true
TabForward	The Tab Forward command

[is case sensitive]	true
TabBackward	The Tab Backward command
[is case sensitive]	true
MoveRightByCharacter	The Move Right By Character command
[is case sensitive]	true
MoveLeftByCharacter	The Move Left By Character command
[is case sensitive]	true
MoveRightByWord	The Move Right By Word command
[is case sensitive]	true
MoveLeftByWord	The Move Left By Word command
[is case sensitive]	true
MoveDownByLine	The Move Down By Line command
[is case sensitive]	true
MoveUpByLine	The Move Up By Line command
[is case sensitive]	true
MoveDownByParagraph	The Move Down By Paragraph command
[is case sensitive]	true
MoveUpByParagraph	The Move Up By Paragraph command
[is case sensitive]	true
MoveDownByPage	The Move Down By Page command
[is case sensitive]	true
MoveUpByPage	The Move Up By Page command
[is case sensitive]	true
MoveToLineStart	The Move To Line Start command
[is case sensitive]	true
MoveToLineEnd	The Move To Line End command
[is case sensitive]	true
MoveToDocumentStart	The Move To Document Start command
[is case sensitive]	true
MoveToDocumentEnd	The Move To Document End command
[is case sensitive]	true
SelectRightByCharacter	The Select Right By Character command

[is case sensitive]	true
SelectLeftByCharacter	The Select Left By Character command
[is case sensitive]	true
SelectRightByWord	The Select Right By Word command
[is case sensitive]	true
SelectLeftByWord	The Select Left By Word command
[is case sensitive]	true
SelectDownByLine	The Select Down By Line command
[is case sensitive]	true
SelectUpByLine	The Select Up By Line command
[is case sensitive]	true
SelectDownByParagraph	The Select Down By Paragraph command
[is case sensitive]	true
SelectUpByParagraph	The Select Up By Paragraph command
[is case sensitive]	true
SelectDownByPage	The Select Down By Page command
[is case sensitive]	true
SelectUpByPage	The Select Up By Page command
[is case sensitive]	true
SelectToLineStart	The Select To Line Start command
[is case sensitive]	true
SelectToLineEnd	The Select To Line End command
[is case sensitive]	true
SelectToDocumentStart	The Select To Document Start command
[is case sensitive]	true
SelectToDocumentEnd	The Select To Document End command
[is case sensitive]	true
ToggleBold	The Toggle Bold command
[is case sensitive]	true
ToggleItalic	The Toggle Italic command
[is case sensitive]	true
ToggleUnderline	The Toggle Underline command

[is case sensitive]	true
ToggleSubscript	The Toggle Subscript command
[is case sensitive]	true
ToggleSuperscript	The Toggle Superscript command
[is case sensitive]	true
IncreaseFontSize	The Increase Font Size command
[is case sensitive]	true
DecreaseFontSize	The Decrease Font Size command
[is case sensitive]	true
ApplyFontSize	The Apply Font Size command
[is case sensitive]	true
ApplyFontFamily	The Apply Font Family command
[is case sensitive]	true
ApplyForeground	The Apply Foreground command
[is case sensitive]	true
ApplyBackground	The Apply Background command
[is case sensitive]	true
AlignLeft	The Align Left command
[is case sensitive]	true
AlignCenter	The Align Center command
[is case sensitive]	true
AlignRight	The Align Right command
[is case sensitive]	true
AlignJustify	The Align Justify command
[is case sensitive]	true
ToggleBullets	The Toggle Bullets command
[is case sensitive]	true
ToggleNumbering	The Toggle Numbering command
[is case sensitive]	true
IncreaseIndentation	The Increase Indentation command
[is case sensitive]	true
DecreaseIndentation	The Decrease Indentation command

[is case sensitive]	true
Play	The Play command
[is case sensitive]	true
Pause	The Pause command
[is case sensitive]	true
Stop	The Stop command
[is case sensitive]	true
Record	The Record command
[is case sensitive]	true
NextTrack	The Next Track command
[is case sensitive]	true
PreviousTrack	The Previous Track command
[is case sensitive]	true
FastForward	The Fast Forward command
[is case sensitive]	true
Rewind	The Rewind command
[is case sensitive]	true
ChannelUp	The Channel Up command
[is case sensitive]	true
ChannelDown	The Channel Down command
[is case sensitive]	true
TogglePlayPause	The Toggle Play Pause command
[is case sensitive]	true
IncreaseVolume	The Increase Volume command
[is case sensitive]	true
DecreaseVolume	The Decrease Volume command
[is case sensitive]	true
MuteVolume	The Mute Volume command
[is case sensitive]	true
IncreaseTreble	The Increase Treble command
[is case sensitive]	true
DecreaseTreble	The Decrease Treble command

[is case sensitive]	true
IncreaseBass	The Increase Bass command
[is case sensitive]	true
DecreaseBass	The Decrease Bass command
[is case sensitive]	true
BoostBass	The Boost Bass command
[is case sensitive]	true
IncreaseMicrophoneVolume	The Increase Microphone Volume command
[is case sensitive]	true
DecreaseMicrophoneVolume	The Decrease Microphone Volume command
[is case sensitive]	true
MuteMicrophoneVolume	The Mute Microphone Volume command
[is case sensitive]	true
ToggleMicrophoneOnOff	The Toggle Microphone On Off command
[is case sensitive]	true
Select	The Select command
[is case sensitive]	true
[patterns]	
([_\p{L}]{- .\w}*:([_\p{Lu}\p{LI}\p{Lo}\p{Lt}\p{NI}][_\p{L}\p{Mn}\p{Mc}\p{Nd}\p{NI}]*\.)?[_\p{Lu}\p{LI}\p{Lo}\p{Lt}\p{NI}][_\p{L}\p{Mn}\p{Mc}\p{Nd}\p{NI}]*)	Either just a command name, or a string of the form TypeName.CommandName, or a string of the form namespacePrefix:TypeName.CommandName.
[is case sensitive]	true

6.28 CornerRadiusSyntax

CornerRadiusSyntax	
[patterns]	

<code>(([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?)((\\s*,\\s*) \\s+){3}([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?)</code>	Four whitespace and/or comma separated decimal floating point values specifying the radius of curvature for the top left, top right, bottom right, and bottom left corners of a shape.
[is case sensitive]	true
<code>(([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?)</code>	A single decimal floating point value indicating the radius of curvature for a corner or some corners.
[is case sensitive]	true

6.29 CultureInfoIetfLanguageTagSyntax

CultureInfoIetfLanguageTagSyntax	
[patterns]	
<code>[A-Z]{2}(-[0-9A-Z]{2})</code>	A two letter language code identifier optionally followed by a dash then a two-letter country or region code.

6.30 CultureInfoSyntax

CultureInfoSyntax	
[values]	
CurrentCulture	The CultureInfo object that represents the culture used by the current thread.
CurrentUICulture	The CultureInfo object that represents the current user interface culture used by the Resource Manager to look up culture-specific resources at run time.
DefaultThreadCurrentCulture	The default culture for threads in the current application domain.
DefaultThreadCurrentUICulture	The default UI culture for threads in the current application domain.
InstalledUICulture	The CultureInfo that represents the culture installed with the operating system.
InvariantCulture	The CultureInfo object that is culture-independent (invariant).

6.31 CursorSyntax

CursorSyntax	
[values]	
AppStarting	The Cursor that appears when an application is starting.
[is case sensitive]	true
Arrow	The Arrow Cursor.
[is case sensitive]	true
ArrowCD	The arrow with a compact disk Cursor.
[is case sensitive]	true
Cross	The crosshair Cursor.
[is case sensitive]	true
Hand	A hand Cursor.
[is case sensitive]	true
Help	A help Cursor which is a combination of an arrow and a question mark.
[is case sensitive]	true
IBeam	An I-beam Cursor, which is used to show where the text cursor appears when the mouse is clicked.
[is case sensitive]	true
No	A Cursor with which indicates that a particular region is invalid for a given operation.
[is case sensitive]	true
None	A special cursor that is invisible.
[is case sensitive]	true
Pen	A pen Cursor.
[is case sensitive]	true
ScrollAll	The scroll all Cursor.
[is case sensitive]	true
ScrollE	The scroll east Cursor.
[is case sensitive]	true
ScrollN	The scroll north Cursor.
[is case sensitive]	true
ScrollNE	The scroll northeast cursor.

[is case sensitive]	true
ScrollINS	The scroll north/south cursor.
[is case sensitive]	true
ScrollNW	A scroll northwest cursor.
[is case sensitive]	true
ScrollS	The scroll south Cursor.
[is case sensitive]	true
ScrollSE	A south/east scrolling Cursor.
[is case sensitive]	true
ScrollSW	The scroll southwest Cursor.
[is case sensitive]	true
ScrollW	The scroll west Cursor.
[is case sensitive]	true
ScrollWE	A west/east scrolling Cursor.
[is case sensitive]	true
SizeAll	A four-headed sizing Cursor, which consists of four joined arrows that point north, south, east, and west.
[is case sensitive]	true
SizeNESW	A two-headed northeast/southwest sizing Cursor.
[is case sensitive]	true
SizeNS	A two-headed north/south sizing Cursor.
[is case sensitive]	true
SizeNWSE	A two-headed northwest/southeast sizing Cursor.
[is case sensitive]	true
SizeWE	A two-headed west/east sizing Cursor.
[is case sensitive]	true
UpArrow	An up arrow Cursor, which is typically used to identify an insertion point.
[is case sensitive]	true
Wait	Specifies a wait (or hourglass) Cursor.
[is case sensitive]	true
[patterns]	
.*\.(CUR) (ANI)	Any string ending in either “.cur” or “.ani”

6.32 CursorTypeSyntax

CursorTypeSyntax	
[values]	
AppStarting	A standard arrow with small hourglass cursor.
Arrow	A standard arrow cursor.
ArrowCD	An arrow cd cursor.
Cross	A crosshair cursor.
Hand	A hand cursor.
Help	A help cursor.
IBeam	A text I-Beam cursor.
No	No cursor.
None	A value indicating that no cursor should be displayed.
Pen	A pen cursor.
ScrollAll	A scrolling cursor with arrows pointing north, south, east, and west.
ScrollE	A scrolling cursor with an arrow pointing east.
ScrollN	A scrolling cursor with an arrow pointing north.
ScrollNE	A scrolling cursor with arrows pointing north and east.
ScrollNS	A scrolling cursor with arrows pointing north and south.
ScrollNW	A scrolling cursor with arrows pointing north and west.
ScrollS	A scrolling cursor with an arrow pointing south.
ScrollSE	A scrolling cursor with arrows pointing south and east.
ScrollSW	A scrolling cursor with arrows pointing south and west.
ScrollW	A scrolling cursor with an arrow pointing west.
ScrollWE	A scrolling cursor with arrows pointing west and east.
SizeAll	A cursor with arrows pointing north, south, east, and west.
SizeNESW	A cursor with arrows pointing northeast and southwest.
SizeNS	A cursor with arrows pointing north and south.
SizeNWSE	A cursor with arrows pointing northwest and southeast.
SizeWE	A cursor with arrows pointing west and east.

UpArrow	A vertical arrow cursor.
Wait	An hourglass cursor.

6.33 DataGridClipboardCopyModeSyntax

DataGridClipboardCopyModeSyntax	
[values]	
ExcludeHeader	Users can copy the text values of selected cells to the Clipboard, and column header values are not included.
IncludeHeader	Users can copy the text values of selected cells to the Clipboard, and column header values are included.
None	Clipboard support is disabled.

6.34 DataGridEditActionSyntax

DataGridEditActionSyntax	
[values]	
Cancel	The edit is being canceled.
Commit	The edit is being committed.

6.35 DataGridEditingUnitSyntax

DataGridEditingUnitSyntax	
[values]	
Cell	Cell editing is enabled.
Row	Row editing is enabled.

6.36 DataGridGridLinesVisibilitySyntax

DataGridGridLinesVisibilitySyntax	
[values]	
All	Both horizontal and vertical grid lines are visible.
Horizontal	Only horizontal grid lines are visible.
None	No grid lines are visible.
Vertical	Only vertical grid lines are visible.

6.37 DataGridHeadersVisibilitySyntax

DataGridHeadersVisibilitySyntax	
[values]	
All	Both row and column headers are visible.
Column	Only column headers are visible.
None	No headers are visible.
Row	Only row headers are visible.

6.38 DataGridLengthSyntax

DataGridLengthSyntax	
[values]	
Auto	A DataGridLength structure that represents the standard automatic sizing mode.
SizeToCells	A DataGridLength structure that represents the cell-based automatic sizing mode.
SizeToHeader	A DataGridLength structure that represents the header-based automatic sizing mode.

6.39 DataGridLengthUnitTypeSyntax

DataGridLengthUnitTypeSyntax	
[values]	
Auto	The size is based on the contents of both the cells and the column header.
Pixel	The size is a fixed value expressed in pixels.
SizeToCells	The size is based on the contents of the cells.
SizeToHeader	The size is based on the contents of the column header.
Star	The size is a weighted proportion of available space.

6.40 DataGridRowDetailsVisibilityModeSyntax

DataGridRowDetailsVisibilityModeSyntax	
[values]	
Collapsed	The row details section is not displayed for any rows.
Visible	The row details section is displayed for all rows.
VisibleWhenSelected	The row details section is displayed only for selected rows.

6.41 DataGridSelectionModeSyntax

DataGridSelectionModeSyntax	
[values]	
Extended	Multiple items in the DataGrid can be selected at the same time.
Single	Only one item in the DataGrid can be selected at a time.

6.42 DataGridSelectionUnitSyntax

DataGridSelectionUnitSyntax	
[values]	

Cell	Only cells are selectable. Clicking a cell selects the cell. Clicking a row or column header does nothing.
CellOrRowHeader	Cells and rows are selectable. Clicking a cell selects only the cell. Clicking a row header selects the full row.
FullRow	Only full rows are selectable. Clicking a cell or a row header selects the full row.

6.43 DatePickerFormatSyntax

DatePickerFormatSyntax	
[values]	
Long	Specifies that the date should be displayed by using unabbreviated days of the week and month names. This value displays a string that is equal to the string that is returned by the ToLongDateString method.
Short	Specifies that the date should be displayed by using abbreviated days of the week and month names. This value displays a string that is equal to the string that is returned by the ToShortDateString method.

6.44 DayOfWeekSyntax

DayOfWeekSyntax	
[values]	
Friday	Indicates Friday.
Monday	Indicates Monday.
Saturday	Indicates Saturday.
Sunday	Indicates Sunday.
Thursday	Indicates Thursday.
Tuesday	Indicates Tuesday.
Wednesday	Indicates Wednesday.

6.45 DependencyPropertySyntax

DependencyPropertySyntax	
[patterns]	
<pre>([_\p{L}]{- .\w}*:)?([\p{Lu}\p{LI}\p{Lo}\p{Lt}\p{NI}][_\p{L}\p{Mn}\p{Mc}\p{Nd}\p{NI}]*\.)?[_\p{Lu}\p{LI}\p{Lo}\p{Lt}\p{NI}][_\p{L}\p{Mn}\p{Mc}\p{Nd}\p{NI}]*</pre>	Either just a property name, or a string of the form TypeName.PropertyName, or a string of the form namespacePrefix:TypeName.PropertyName, or a string of the form namespacePrefix:PropertyName.
[is case sensitive]	true

6.46 DockSyntax

DockSyntax	
[values]	
Bottom	A child element that is positioned at the bottom of the DockPanel.
Left	A child element that is positioned on the left side of the DockPanel.
Right	A child element that is positioned on the right side of the DockPanel.
Top	A child element that is positioned at the top of the DockPanel.

6.47 DoubleCollectionSyntax

DoubleCollectionSyntax	
[patterns]	
<pre>([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?(((\\s*,\\s*) \\s+)([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?))*</pre>	One or more whitespace and/or comma separated decimal floating point values.
[is case sensitive]	true

6.48 DragActionSyntax

DragActionSyntax	
[values]	
Cancel	The operation is canceled with no drop message.
Continue	The operation will continue.
Drop	The operation will stop with a drop.

6.49 DragDropEffectsSyntax

DragDropEffectsSyntax	
[values]	
All	The data is copied, removed from the drag source, and scrolled in the drop target.
Copy	The data is copied to the drop target.
Link	The data from the drag source is linked to the drop target.
Move	The data from the drag source is moved to the drop target.
None	The drop target does not accept the data.
Scroll	Scrolling is about to start or is currently occurring in the drop target.

6.50 DragDropKeyStatesSyntax

DragDropKeyStatesSyntax	
[values]	
AltKey	The ALT key is pressed.
ControlKey	The control (CTRL) key is pressed.
LeftMouseButton	The left mouse button is pressed.
MiddleMouseButton	The middle mouse button is pressed.
None	No modifier keys or mouse buttons are pressed.

RightMouseButton	The right mouse button is pressed.
ShiftKey	The shift (SHIFT) key is pressed.

6.51 DurationSyntax

DurationSyntax	
[values]	
Automatic	
[is case sensitive]	true
Forever	
[is case sensitive]	true
[patterns]	
(\d+\.)?\d\d?:\d\d?:((\d\d?) (\d?\d?\.\d*))	The string may optionally begin with a decimal number and a dot. When present, this optional part indicates the number of days. The string always contains three parts separated by colons. The first two of these are one or two digit numbers specifying hours and minutes. The third part indicates the number of seconds and can be a two-digit integer, or a floating point number with 0, 1, or 2 digits before the point, and any number of digits after the point. Examples: 0:0:1 One second 1.0:0:0 One day 0:0:0.5 Half a second 0:0:.5 Half a second 2.5:2:22 Two days, five hours, two minutes, 22 seconds
[is case sensitive]	true
\d+	A decimal number specifying the number of days. Examples: 1 One day 10 Ten days
[is case sensitive]	true

6.52 EasingModeSyntax

EasingModeSyntax	
[values]	
EaseIn	Interpolation follows the mathematical formula associated with the easing function.
EaseInOut	Interpolation uses EaseIn for the first half of the animation and EaseOut for the second half.

EaseOut	Interpolation follows 100% interpolation minus the output of the formula associated with the easing function.
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6.53 EdgeModeSyntax

EdgeModeSyntax	
[values]	
Aliased	Render the edges of non-text drawing primitives as aliased edges.
Unspecified	No edge mode is specified. Do not alter the current edge mode of non-text drawing primitives. This is the default value.

6.54 EdgeProfileSyntax

EdgeProfileSyntax	
[values]	
BulgedUp	An edge that curves up and then down, like a ridge.
CurvedIn	A concave edge that curves in.
CurvedOut	A convex edge that curves out.
Linear	An edge that is a straight line.

6.55 ExpandDirectionSyntax

ExpandDirectionSyntax	
[values]	
Down	The Expander control opens down.
Left	The Expander control opens left.
Right	The Expander control opens right.
Up	The Expander control opens up.

6.56 FigureHorizontalAnchorSyntax

FigureHorizontalAnchorSyntax	
[values]	
ColumnCenter	Anchor the figure in the center of the column content area.
ColumnLeft	Anchor the figure to the left of the column content area.
ColumnRight	Anchor the figure to the right of the column content area.
ContentCenter	Anchor the figure in the center of the page content area.
ContentLeft	Anchor the figure to the left of the page content area.
ContentRight	Anchor the figure to the right of the page content area.
PageCenter	Anchor the figure in the center of the page area.
PageLeft	Anchor the figure to the left of the page area.
PageRight	Anchor the figure to the right of the page area.

6.57 FigureLengthSyntax

FigureLengthSyntax	
[values]	
Auto	Indicates that automatic sizing should be used
[patterns]	
$([+-]?\d{0,2}(\.\d{0,2})? (\d{0,2}(\.\d{0,2})*)?\d+)([eE][+-]?\d+)?\s*((COLUMN(S)? CONTENT PAGE))$	An optional decimal floating point number, followed by either 'column', 'columns', 'content' or 'page'
$([+-]?\d{0,2}(\.\d{0,2})? (\d{0,2}(\.\d{0,2})*)?\d+)([eE][+-]?\d+)?\s*(px in cm pt)?$	A decimal floating point number, optionally followed by either 'in', 'cm', 'pt', or 'px'

6.58 FigureUnitTypeSyntax

FigureUnitTypeSyntax	
[values]	
Auto	Default value when the FigureLength is not specified which creates a value for the width or height of the Figure that is calculated without constraints. Note: When FigureUnitType is set to Auto, the Value property of FigureLength is set to 1.
Column	The value of the width or height of the Figure is expressed as a fraction (including fractions greater than 1) of the width of the column the Figure is in.
Content	The value of the width or height of the Figure is expressed as a fraction (including fractions greater than 1) of the content width of the Figure. Note: Note: When FigureUnitType is set to Content, the Value property of FigureLength must be set to a value between 0 and 1.
Page	The value of the width or height of the Figure is expressed as a fraction (including fractions greater than 1) of the page width of that the Figure is in. Note: Note: When FigureUnitType is set to Page, the Value property of FigureLength must be set to a value between 0 and 1.
Pixel	The value of the width or height of the Figure is expressed in pixels (96 pixels-per-inch).

6.59 FigureVerticalAnchorSyntax

FigureVerticalAnchorSyntax	
[values]	
ContentBottom	Anchor the figure to the bottom of the page content area.
ContentCenter	Anchor the figure to the center of the page content area.
ContentTop	Anchor the figure to the top of the page content area.
PageBottom	Anchor the figure to the bottom of the page area.
PageCenter	Anchor the figure to the center of the page area.
PageTop	Anchor the figure to the top of the page area.
ParagraphTop	Anchor the figure to the top of the current paragraph.

6.60 FillBehaviorSyntax

FillBehaviorSyntax	
[values]	
HoldEnd	After it reaches the end of its active period, the timeline holds its progress until the end of its parent's active and hold periods.
Stop	The timeline stops if it is outside its active period while its parent is inside its active period.

6.61 FillRuleSyntax

FillRuleSyntax	
[values]	
EvenOdd	Rule that determines whether a point is in the fill region by drawing a ray from that point to infinity in any direction and counting the number of path segments within the given shape that the ray crosses. If this number is odd, the point is inside; if even, the point is outside.
Nonzero	Rule that determines whether a point is in the fill region of the path by drawing a ray from that point to infinity in any direction and then examining the places where a segment of the shape crosses the ray. Starting with a count of zero, add one each time a segment crosses the ray from left to right and subtract one each time a path segment crosses the ray from right to left. After counting the crossings, if the result is zero then the point is outside the path. Otherwise, it is inside.

6.62 FlowDirectionSyntax

FlowDirectionSyntax	
[values]	
LeftToRight	Indicates that content should flow from left to right.
RightToLeft	Indicates that content should flow from right to left.

6.63 FlowDocumentReaderViewingModeSyntax

FlowDocumentReaderViewingModeSyntax	
[values]	
Page	Indicates that the FlowDocumentReader should show content one page at a time.
Scroll	Indicates that the FlowDocumentReader should show content in continuous scrolling mode.
TwoPage	Indicates that the FlowDocumentReader should show content two pages at a time, similar to an open book.

6.64 FocusNavigationDirectionSyntax

FocusNavigationDirectionSyntax	
[values]	
Down	Move focus to another focusable element downwards from the currently focused element.
First	Move focus to the first focusable element in tab order. Not supported for FocusNavigationDirection).
Last	Move focus to the last focusable element in tab order. Not supported for FocusNavigationDirection).
Left	Move focus to another focusable element to the left of the currently focused element.
Next	Move focus to the next focusable element in tab order. Not supported for FocusNavigationDirection).
Previous	Move focus to the previous focusable element in tab order. Not supported for FocusNavigationDirection).
Right	Move focus to another focusable element to the right of the currently focused element.
Up	Move focus to another focusable element upwards from the currently focused element.

6.65 FontCapitalsSyntax

FontCapitalsSyntax	
[values]	
AllPetiteCaps	Both capital and lowercase letters are replaced with a glyph form of an uppercase letter with the same approximate height. Petite capitals are smaller than small capitals.
AllSmallCaps	Both capital and lowercase letters are replaced with a glyph form of an uppercase letter with the same approximate height.
Normal	Capital letters render normally.
PetiteCaps	Lowercase letters are replaced with a glyph form of an uppercase letter with the same approximate height. Petite capitals are smaller than small capitals.
SmallCaps	Lowercase letters are replaced with a glyph form of an uppercase letter with the same approximate height.
Titling	Glyph forms are substituted with a typographic form specifically designed for titles.
Unicase	Capital letters display in unicase. Unicase fonts render both upper and lowercase letters in a mixture of upper and lowercase glyphs determined by the type designer.

6.66 FontEastAsianLanguageSyntax

FontEastAsianLanguageSyntax	
[values]	
HojoKanji	Replaces default glyphs with the corresponding forms from the Hojo Kanji specification.
Jis04	Replaces default Japanese glyphs with the corresponding forms from the JIS04 specification.
Jis78	Replaces default Japanese glyphs with the corresponding forms from the JIS78 specification.
Jis83	Replaces default Japanese glyphs with the corresponding forms from the JIS83 specification.
Jis90	Replaces default Japanese glyphs with the corresponding forms from the JIS90 specification.
Nlckanji	Replaces default glyphs with the corresponding forms from the NLC Kanji specification.

Normal	No font-specific glyph versions are applied.
Simplified	Replaces traditional Chinese or Japanese forms with their corresponding simplified forms.
Traditional	Replaces simplified Chinese or Japanese forms with their corresponding traditional forms.
TraditionalNames	Replaces simplified Kanji forms with their corresponding traditional forms. This glyph set is explicitly limited to the traditional forms considered proper for use in personal names.

6.67 FontEastAsianWidthsSyntax

FontEastAsianWidthsSyntax	
[values]	
Full	Replaces uniform width glyphs with full width (usually em) glyphs.
Half	Replaces uniform width glyphs with half width (half em) glyphs.
Normal	Default width style.
Proportional	Replaces uniform width glyphs with proportionally spaced glyphs.
Quarter	Replaces uniform width glyphs with one-quarter width (one-quarter em) glyphs.
Third	Replaces uniform width glyphs with one-third width (one-third em) glyphs.

6.68 FontEmbeddingRightSyntax

FontEmbeddingRightSyntax	
[values]	
Editable	The font may be embedded but must only be installed temporarily on other systems. In contrast to the PreviewAndPrint setting, documents containing Editable fonts may be opened, edited, or saved.
EditableButNoSubsetting	The font may be embedded but must only be installed temporarily on other systems. Documents containing the font may be opened, edited, or saved. The font may not be subsetted prior to embedding.
EditableButNoSubsettingAndWithBitmapsOnly	The font may be embedded but must only be installed temporarily on other systems. Documents containing the font may be opened, edited, or saved. The

	font may not be subsetted prior to embedding. Only bitmaps contained in the font may be embedded. No outline data may be embedded.
EditableButWithBitmapsOnly	The font may be embedded but must only be installed temporarily on other systems. Documents containing the font may be opened, edited, or saved. Only bitmaps contained in the font may be embedded. No outline data may be embedded.
Installable	Fonts with this setting indicate that they may be embedded and permanently installed on the remote system by an application. The user of the remote system acquires the identical rights, obligations and licenses for that font as the original purchaser of the font, and is subject to the same end-user license agreement, copyright, design patent, and/or trademark as was the original purchaser.
InstallableButNoSubsetting	Fonts with this setting indicate that they may be embedded and permanently installed on the remote system by an application. They may not be subsetted prior to embedding.
InstallableButNoSubsettingAndWithBitmapsOnly	Fonts with this setting indicate that they may be embedded and permanently installed on the remote system by an application. They may not be subsetted prior to embedding. Only bitmaps contained in the fonts may be embedded. No outline data may be embedded.
InstallableButWithBitmapsOnly	Fonts with this setting indicate that they may be embedded and permanently installed on the remote system by an application. Only bitmaps contained in the fonts may be embedded. No outline data may be embedded.
PreviewAndPrint	The font may be embedded and temporarily loaded on the remote system. Documents containing the font must be opened in a read-only mode.
PreviewAndPrintButNoSubsetting	The font may be embedded and temporarily loaded on the remote system. Documents containing the font must be opened in a read-only mode. The font may not be subsetted prior to embedding.
PreviewAndPrintButNoSubsettingAndWithBitmapsOnly	The font may be embedded and temporarily loaded on the remote system. Documents containing the font must be opened in a read-only mode. The font may not be subsetted prior to embedding. Only bitmaps contained in the font may be embedded. No outline data may be embedded.
PreviewAndPrintButWithBitmapsOnly	The font may be embedded and temporarily loaded on the remote system. Documents containing the font must be opened in a read-only mode. Only bitmaps contained in the font may be embedded. No outline data may be embedded.
RestrictedLicense	Fonts with this setting must not be modified, embedded or exchanged in any manner without first obtaining permission of the legal owner.

6.69 FontFamilySyntax

FontFamilySyntax	
[patterns]	
.*	A sequence of comma-separated font family names. Each name can optionally start with a string indicating the location of the font file. This optional location specifier is indicated by a # symbol – the part before the hash is the location and the part after the hash is the family name. The absence of a # indicates that only the family name is specified. (The regular expression does not reflect this, because there are no restrictions on what text appears as the font name other than that it must not contain a '#' or a ',' and since those are both allowed as delimiters, there are no syntactic limits on the string. Of course whether the string is meaningful in practice depends on whether the specified font is available.)
[is case sensitive]	true

6.70 FontFractionSyntax

FontFractionSyntax	
[values]	
Normal	Default style is used.
Slashed	Slashed fraction style is used.
Stacked	Stacked fraction style is used.

6.71 FontNumeralAlignmentSyntax

FontNumeralAlignmentSyntax	
[values]	
Normal	Default numeral alignment is used.
Proportional	Proportional width alignment is used.
Tabular	Tabular alignment is used.

6.72 FontNumeralStyleSyntax

FontNumeralStyleSyntax	
[values]	
Lining	Lining numeral style is used. Replaces default glyphs with numeric forms of even height.
Normal	Default numeral style is used.
OldStyle	Old style numeral style is used. Replaces default glyphs with a figure style that matches lowercase letters in height and color.

6.73 FontSizeSyntax

FontSizeSyntax	
[patterns]	
<code>[+-]?((\d[\d,]*\.\d*)? ((\d[\d,]*)*?)\.\d+)(([eE][+-]?\d+)?(\s*(PX IN CM PT)))?</code>	A decimal floating point number, optionally followed by either 'in', 'cm', 'pt', or 'px'

6.74 FontStretchSyntax

FontStretchSyntax	
[values]	
Condensed	Specifies a condensed FontStretch.
[trim whitespace]	false
Expanded	Specifies an expanded FontStretch.
[trim whitespace]	false
ExtraCondensed	Specifies an extra-condensed FontStretch.
[trim whitespace]	false
ExtraExpanded	Specifies an extra-expanded FontStretch.
[trim whitespace]	false
Medium	Specifies a medium FontStretch.

[trim whitespace]	false
Normal	Specifies a normal FontStretch.
[trim whitespace]	false
SemiCondensed	Specifies a semi-condensed FontStretch.
[trim whitespace]	false
SemiExpanded	Specifies a semi-expanded FontStretch.
[trim whitespace]	false
UltraCondensed	Specifies an ultra-condensed FontStretch.
[trim whitespace]	false
UltraExpanded	Specifies an ultra-expanded FontStretch.
[trim whitespace]	false
[patterns]	
\+?0*[1-9]	A single digit in the range 1-9, optionally preceded by a + sign and/or any number of leading zeros.
[is case sensitive]	true

6.75 FontStyleSyntax

FontStyleSyntax	
[values]	
Italic	Specifies an italic FontStyle.
Normal	Specifies a normal FontStyle.
Oblique	Specifies an oblique FontStyle.

6.76 FontVariantsSyntax

FontVariantsSyntax	
[values]	
Inferior	Replaces a default glyph with an inferior glyph, or it may combine glyph substitution with positioning adjustments for proper placement. Inferior forms are typically used in chemical formulas or mathematical notation.

Normal	Default font behavior. Font scaling and positioning is normal.
Ordinal	Replaces a default glyph with an ordinal glyph, or it may combine glyph substitution with positioning adjustments for proper placement. Ordinal forms are normally associated with numeric notation of an ordinal word, such as "1st" for "first."
Ruby	Replaces a default glyph with a smaller Japanese Kana glyph. This is used to clarify the meaning of Kanji, which may be unfamiliar to the reader.
Subscript	Replaces a default glyph with a subscript glyph.
Superscript	Replaces a default glyph with a superscript glyph. Superscript is commonly used for footnotes.

6.77 FontWeightSyntax

FontWeightSyntax	
[values]	
Black	Specifies a "Black" font weight.
[trim whitespace]	false
Bold	Specifies a "Bold" font weight.
[trim whitespace]	false
DemiBold	Specifies a "Demi-bold" font weight.
[trim whitespace]	false
ExtraBlack	Specifies an "Extra-black" font weight.
[trim whitespace]	false
ExtraBold	Specifies an "Extra-bold" font weight.
[trim whitespace]	false
ExtraLight	Specifies an "Extra-light" font weight.
[trim whitespace]	false
Heavy	Specifies a "Heavy" font weight.
[trim whitespace]	false
Light	Specifies a "Light" font weight.
[trim whitespace]	false
Medium	Specifies a "Medium" font weight.

[trim whitespace]	false
Normal	Specifies a "Normal" font weight.
[trim whitespace]	false
Regular	Specifies a "Regular" font weight.
[trim whitespace]	false
SemiBold	Specifies a "Semi-bold" font weight.
[trim whitespace]	false
Thin	Specifies a "Thin" font weight.
[trim whitespace]	false
UltraBlack	Specifies an "Ultra-black" font weight.
[trim whitespace]	false
UltraBold	Specifies an "Ultra-bold" font weight.
[trim whitespace]	false
UltraLight	Specifies an "Ultra-light" font weight.
[trim whitespace]	false
[patterns]	
\+?\d*	An integer numeric value. (This should be in the range 1-999.)
[is case sensitive]	true

6.78 FrameworkPropertyMetadataOptionsSyntax

FrameworkPropertyMetadataOptionsSyntax	
[values]	
AffectsArrange	The arrange pass of layout composition is affected by value changes to this property.
AffectsMeasure	The measure pass of layout compositions is affected by value changes to this property.
AffectsParentArrange	The arrange pass on the parent element is affected by value changes to this property.
AffectsParentMeasure	The measure pass on the parent element is affected by value changes to this property.

AffectsRender	Some aspect of rendering or layout composition (other than measure or arrange) is affected by value changes to this property.
BindsTwoWayByDefault	The BindingMode for data bindings on this property defaults to TwoWay.
Inherits	The values of this property are inherited by child elements.
Journal	The values of this property should be saved or restored by journaling processes, or when navigating by Uniform resource identifiers (URIs).
None	No options are specified; the property uses the default behavior of the property system.
NotDataBindable	Data binding to this property is not allowed.
OverridesInheritanceBehavior	The values of this property span separated trees for purposes of property value inheritance.
SubPropertiesDoNotAffectRender	The subproperties on the value of this property do not affect any aspect of rendering.

6.79 GeneratorDirectionSyntax

GeneratorDirectionSyntax	
[values]	
Backward	Specifies to generate items in a backward direction.
Forward	Specifies to generate items in a forward direction.

6.80 GeneratorStatusSyntax

GeneratorStatusSyntax	
[values]	
ContainersGenerated	The generator has finished generating containers.
Error	The generator has finished generating containers, but encountered one or more errors.
GeneratingContainers	The generator is generating containers.
NotStarted	The generator has not tried to generate content.

6.81 GeometryCombineModeSyntax

GeometryCombineModeSyntax	
[values]	
Exclude	The second region is excluded from the first.
Intersect	The two regions are combined by taking their intersection. The new area consists of the overlapping region between the two geometries.
Union	The two regions are combined by taking the union.
Xor	The two regions are combined by taking the area that exists in the first region but not the second and the area that exists in the second region but not the first.

6.82 GeometrySyntax

GeometrySyntax	
[patterns]	
<code>(F\s*[01])?\s*[mMILhHvVcCsSqQtTaAzZ]\s*((([+-]?\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+))*([+-]?\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)?)*</code>	Optionally begins with a fill rule specifier: an uppercase F followed by a 0 or a 1, with optional whitespace between the F and the digit. Remainder of string consists of a sequence of single letter commands, each followed by a sequence of comma and/or whitespace-separated floating point decimal values.
[is case sensitive]	true

6.83 GradientSpreadMethodSyntax

GradientSpreadMethodSyntax	
[values]	
Pad	Default value. The color values at the ends of the gradient vector fill the remaining space.
Reflect	The gradient is repeated in the reverse direction until the space is filled.
Repeat	The gradient is repeated in the original direction until the space is filled.

6.84 GridLengthSyntax

GridLengthSyntax	
[values]	
auto	Indicates that automatic sizing should be used
*	Equivalent to a value of "1*"
[patterns]	
[+-]?((\d[\d,]*\.\d*)? ((\d[\d,] *)?\.\d+))([eE][+-]?\d+)? (\s*(* PX IN CM PT))?	A decimal floating point number, optionally followed by either '*', 'in', 'cm', 'pt', or 'px'

6.85 GridResizeBehaviorSyntax

GridResizeBehaviorSyntax	
[values]	
BasedOnAlignment	Space is redistributed based on the value of the HorizontalAlignment and VerticalAlignment properties.
CurrentAndNext	For a horizontal GridSplitter, space is redistributed between the row that is specified for the GridSplitter and the next row that is below it. For a vertical GridSplitter, space is redistributed between the column that is specified for the GridSplitter and the next column that is to the right.
PreviousAndCurrent	For a horizontal GridSplitter, space is redistributed between the row that is specified for the GridSplitter and the next row that is above it. For a vertical GridSplitter, space is redistributed between the column that is specified for the GridSplitter and the next column that is to the left.
PreviousAndNext	For a horizontal GridSplitter, space is redistributed between the rows that are above and below the row that is specified for the GridSplitter. For a vertical GridSplitter, space is redistributed between the columns that are to the left and right of the column that is specified for the GridSplitter.

6.86 GridResizeDirectionSyntax

GridResizeDirectionSyntax	
[values]	
Auto	Space is redistributed based on the values of the HorizontalAlignment, VerticalAlignment, ActualWidth, and ActualHeight properties of the GridSplitter.
Columns	Space is redistributed between columns.
Rows	Space is redistributed between rows.

6.87 GridUnitTypeSyntax

GridUnitTypeSyntax	
[values]	
Auto	The size is determined by the size properties of the content object.
Pixel	The value is expressed as a pixel.
Star	The value is expressed as a weighted proportion of available space.

6.88 GridViewColumnHeaderRoleSyntax

GridViewColumnHeaderRoleSyntax	
[values]	
Floating	The column header is the object of a drag-and-drop operation to move a column.
Normal	The column header displays above its associated column.
Padding	The column header is the last header in the row of column headers and is used for padding.

6.89 HandoffBehaviorSyntax

HandoffBehaviorSyntax	
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[values]	
Compose	New animations are combined with existing animations by appending the new animations to the end of the composition chain.
SnapshotAndReplace	New animations replace any existing animations on the properties to which they are applied.

6.90 HitTestFilterBehaviorSyntax

HitTestFilterBehaviorSyntax	
[values]	
Continue	Hit test against the current Visual and its descendants.
ContinueSkipChildren	Hit test against the current Visual, but not its descendants.
ContinueSkipSelf	Do not hit test against the current Visual, but hit test against its descendants.
ContinueSkipSelfAndChildren	Do not hit test against the current Visual or its descendants.
Stop	Stop hit testing at the current Visual.

6.91 HitTestResultBehaviorSyntax

HitTestResultBehaviorSyntax	
[values]	
Continue	Continue hit testing against the next visual in the visual tree hierarchy.
Stop	Stop any further hit testing and return from the callback.

6.92 HorizontalAlignmentSyntax

HorizontalAlignmentSyntax	
[values]	
Center	An element aligned to the center of the layout slot for the parent element.
Left	An element aligned to the left of the layout slot for the parent element.

Right	An element aligned to the right of the layout slot for the parent element.
Stretch	An element stretched to fill the entire layout slot of the parent element.

6.93 ImeConversionModeValuesSyntax

ImeConversionModeValuesSyntax	
[values]	
Alphanumeric	The input method uses alphanumeric conversion mode.
CharCode	The input method uses character code conversion mode.
DoNotCare	The input method does not care what input conversion method is used; the actual conversion method is indeterminate.
Eudc	The input method uses EUDC (end user defined character) conversion mode.
Fixed	The input method uses fixed conversion mode.
FullShape	The input method uses full-shape conversion mode.
Katakana	The input method uses Katakana conversion mode.
Native	The input method uses a native character (Hiragana, Hangul, Chinese) conversion mode.
NoConversion	The input method will not perform any input conversion.
Roman	The input method uses Roman character conversion mode.
Symbol	The input method uses symbol conversion mode.

6.94 ImeSentenceModeValuesSyntax

ImeSentenceModeValuesSyntax	
[values]	
Automatic	The input method uses the sentence conversion method automatically.
Conversation	The input method uses conversation-style sentence conversion.
DoNotCare	The input method does not care what sentence conversion method is used; the actual sentence conversion mode is indeterminate.
None	The input method does not perform any sentence conversion.
PhrasePrediction	The input method uses phrase prediction sentence conversion.

PluralClause	The input method uses plural clause sentence conversion.
SingleConversion	The input method uses single Kanji/Hanja sentence conversion.

6.95 InheritanceBehaviorSyntax

InheritanceBehaviorSyntax	
[values]	
Default	Property value inheritance lookup will query the current element and continue walking up the element tree to the page root.
SkipAllNext	Property value inheritance lookup will query the current element but not any further.
SkipAllNow	Property value inheritance lookup will not query the current element or any further.
SkipToAppNext	Property value inheritance lookup will query the current element but not any further.
SkipToAppNow	Property value inheritance lookup will not query the current element or any further.
SkipToThemeNext	Property value inheritance lookup will query the current element but not any further.
SkipToThemeNow	Property value inheritance lookup will not query the current element or any further.

6.96 InkCanvasClipboardFormatSyntax

InkCanvasClipboardFormatSyntax	
[values]	
InkSerializedFormat	Indicates that the InkCanvas accepts Ink Serialized Format (ISF).
Text	Indicates that the InkCanvas accepts text.
Xaml	Indicates that the InkCanvas accepts "Extensible Application Markup Language" (XAML) format.

6.97 InkCanvasEditingModeSyntax

InkCanvasEditingModeSyntax	
[values]	
EraseByPoint	Indicates that the pen erases part of a stroke when the pen intersects the stroke.
EraseByStroke	Indicates that the pen erases an entire stroke when the pen intersects the stroke.
GestureOnly	Indicates that the InkCanvas responds to gestures, and does not receive ink.
Ink	Indicates that ink appears on the InkCanvas when the pen sends data to it.
InkAndGesture	Indicates that the InkCanvas responds to gestures, and receives ink.
None	Indicates that no action is taken when the pen sends data to the InkCanvas.
Select	Indicates that the pen selects strokes and elements on the InkCanvas.

6.98 InkCanvasSelectionHitResultSyntax

InkCanvasSelectionHitResultSyntax	
[values]	
Bottom	The lower middle handle of the selection adorer.
BottomLeft	The lower left handle of the selection adorer.
BottomRight	The lower right handle of the selection adorer.
Left	The middle handle on the left edge of the selection adorer.
None	No part of the selection adorer.
Right	The middle handle on the right edge of the selection adorer.
Selection	The area within the bounds of the selection adorer.
Top	The upper middle handle of the selection adorer.
TopLeft	The upper left handle of the selection adorer.
TopRight	The upper right handle of the selection adorer.

6.99 InputMethodStateSyntax

InputMethodStateSyntax	
[values]	
DoNotCare	The input method is in an indeterminate state.
Off	The input method is off.
On	The input method is on.

6.100 InputModeSyntax

InputModeSyntax	
[values]	
Foreground	The input was provided when the application was in the foreground.
Sink	The input was provided when the application was not in the foreground.

6.101 InputScopeNameValueSyntax

InputScopeNameValueSyntax	
[values]	
AddressCity	The text input pattern for a city address.
AddressCountryName	The text input pattern for the name of a country.
AddressCountryShortName	The text input pattern for the abbreviated name of a country.
AddressStateOrProvince	The text input pattern for a state or province.
AddressStreet	The text input pattern for a street address.
AlphanumericFullWidth	The text input pattern for alphanumeric full-width characters.
AlphanumericHalfWidth	The text input pattern for alphanumeric half-width characters.
Bopomofo	The text input pattern for the Bopomofo Mandarin Chinese phonetic transcription system.
CurrencyAmount	The text input pattern for amount of currency.
CurrencyAmountAndSymbol	The text input pattern for amount and symbol of currency.

CurrencyChinese	The text input pattern for Chinese currency.
Date	The text input pattern for a calendar date.
DateDay	The text input pattern for the numeric day in a calendar date.
DateDayName	The text input pattern for the name of the day in a calendar date.
DateMonth	The text input pattern for the numeric month in a calendar date.
DateMonthName	The text input pattern for the name of the month in a calendar date.
DateYear	The text input pattern for the year in a calendar date.
Default	The default handling of input commands.
Digits	The text input pattern for digits.
EmailSmtpAddress	The text input pattern for a Simple Mail Transfer Protocol (SMTP) email address.
EmailUserName	The text input pattern for an email user name.
FileName	The text input pattern for a file name.
FullFilePath	The text input pattern for the full path of a file.
Hanja	The text input pattern for Hanja characters.
Hiragana	The text input pattern for the Hiragana writing system.
KatakanaFullWidth	The text input pattern for full-width Katakana characters.
KatakanaHalfWidth	The text input pattern for half-width Katakana characters.
LogOnName	The text input pattern for a log on name.
Number	The text input pattern for a number.
NumberFullWidth	The text input pattern for a full-width number.
OneChar	The text input pattern for one character.
Password	The text input pattern for a password.
PersonalFullName	The text input pattern for a person's full name.
PersonalGivenName	The text input pattern for a person's given name.
PersonalMiddleName	The text input pattern for a person's middle name.
PersonalNamePrefix	The text input pattern for the prefix of a person's name.
PersonalNameSuffix	The text input pattern for the suffix of a person's name.
PersonalSurname	The text input pattern for a person's surname.
PhraseList	The text input pattern for a phrase list.
PostalAddress	The text input pattern for a postal address.
PostalCode	The text input pattern for a postal code.

RegularExpression	The text input pattern for a regular expression.
Srgs	The text input pattern for the Speech Recognition Grammar Specification (SRGS).
TelephoneAreaCode	The text input pattern for a telephone area code.
TelephoneCountryCode	The text input pattern for a telephone country code.
TelephoneLocalNumber	The text input pattern for a telephone local number.
TelephoneNumber	The text input pattern for a telephone number.
Time	The text input pattern for the time.
TimeHour	The text input pattern for the hour of the time.
TimeMinorSec	The text input pattern for the minutes or seconds of time.
Url	The text input pattern for a Uniform Resource Locator (URL).
Xml	The text input pattern for XML.

6.102 InputScopeSyntax

InputScopeSyntax	
[patterns]	
$(([_\{Lu\}\{Ll\}\{Lo\}\{Lt\}\{NI\}][_\{L\}\{Mn\}\{Mc\}\{Nd\}\{NI\}^*\.\.])?[_\{Lu\}\{Ll\}\{Lo\}\{Lt\}\{NI\}][_\{L\}\{Mn\}\{Mc\}\{Nd\}\{NI\}]^*$	Either a string of the form TypeName.ScopeName, or a string of the form ScopeName.
[is case sensitive]	true

6.103 InputTypeSyntax

InputTypeSyntax	
[values]	
Command	Input was provided by a command.
Hid	Input was provided a Human Interface Device that was not a keyboard, a mouse, or a stylus.
Keyboard	Input was provided by a keyboard.

Mouse	Input was provided by a mouse.
Stylus	Input was provided by a stylus.
Text	Input was provided by text.

6.104 Int32CollectionSyntax

Int32CollectionSyntax	
[patterns]	
\d+(((\s*,\s*) \s+)\d+)*	A sequence of decimal integers separated by either a comma or whitespace
[is case sensitive]	true

6.105 Int32RectSyntax

Int32RectSyntax	
[values]	
Empty	Equivalent to a value of "0,0,0,0"
[is case sensitive]	true
[patterns]	
(\d+((\s*,\s*) \s+)){3}\d+	Four decimal integers separated by either a comma or whitespace.
[is case sensitive]	true

6.106 IntersectionDetailSyntax

IntersectionDetailSyntax	
[values]	
Empty	The Geometry hit test parameter and the target visual, or geometry, do not intersect.
FullyContains	The Geometry hit test parameter is fully contained within the boundary of the target visual or geometry.

FullyInside	The target visual, or geometry, is fully inside the Geometry hit test parameter.
Intersects	The Geometry hit test parameter and the target visual, or geometry, intersect. This means that the two elements overlap, but neither element contains the other.
NotCalculated	The IntersectionDetail value is not calculated.

6.107 InvertAxesSyntax

InvertAxesSyntax	
[values]	
Both	Drawing surface is inverted in both axes.
Horizontal	Drawing surface is inverted in the horizontal axis.
None	Drawing surface is not inverted in either axis.
Vertical	Drawing surface is inverted in the vertical axis.

6.108 IsOffscreenBehaviorSyntax

IsOffscreenBehaviorSyntax	
[values]	
Default	IsOffscreen is calculated based on the IsVisible property.
FromClip	IsOffscreen is calculated based on clip regions.
Offscreen	IsOffscreen is true.
Onscreen	IsOffscreen is false.

6.109 JournalEntryPositionSyntax

JournalEntryPositionSyntax	
[values]	
Back	Content is in back navigation history relative to current content.

Current	Content is the current content.
Forward	Content is in forward navigation history with respect to current content.

6.110 JournalOwnershipSyntax

JournalOwnershipSyntax	
[values]	
Automatic	Whether or not this Frame will create and use its own journal depends on its parent.
OwnsJournal	The Frame maintains its own journal.
UsesParentJournal	The Frame uses the journal of the next available navigation host up the content tree, if available. Otherwise, navigation history is not maintained for the Frame.

6.111 JumpItemRejectionReasonSyntax

JumpItemRejectionReasonSyntax	
[values]	
InvalidItem	The JumpItem references an invalid file path, or the operating system does not support Jump Lists.
None	The reason is not specified.
NoRegisteredHandler	The application is not registered to handle the file name extension of the JumpItem.
RemovedByUser	The item was previously in the Jump List but was removed by the user.

6.112 KernelTypeSyntax

KernelTypeSyntax	
[values]	
Box	A simple blur created with a square distribution curve.
Gaussian	A distributed curve that creates a smooth distribution for a blur.

6.113 KeyboardNavigationModeSyntax

KeyboardNavigationModeSyntax	
[values]	
Contained	Depending on the direction of the navigation, focus returns to the first or the last item when the end or the beginning of the container is reached, but does not move past the beginning or end of the container.
Continue	Each element receives keyboard focus, as long as it is a navigation stop. Navigation leaves the containing element when an edge is reached.
Cycle	Depending on the direction of the navigation, the focus returns to the first or the last item when the end or the beginning of the container is reached. Focus cannot leave the container using logical navigation.
Local	Tab Indexes are considered on local subtree only inside this container and behave like Continue after that.
None	No keyboard navigation is allowed inside this container.
Once	The container and all of its child elements as a whole receive focus only once. Either the first tree child or the or the last focused element in the group receives focus

6.114 KeyGestureSyntax

KeyGestureSyntax	
[patterns]	
<code>((CONTROL CTRL SHIFT ALT WINDOWS WIN)\s*\+\s*)+\w+(,.\+)?</code>	A sequence of one or more key modifiers delimited by '+', followed by a key name (which follows the final '+' in the list of modifiers). This may be followed by a comma which, if present, must be followed by a string representing the display text for the key gesture. Note that although this regular expression does not enforce it, the key name should be a valid KeySyntax.

6.115 KeySplineSyntax

KeySplineSyntax

[patterns]	
<pre> ([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?(\\s* \\s+){3}([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)? </pre>	Four decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.116 KeyStatesSyntax

KeyStatesSyntax	
[values]	
Down	The key is pressed.
None	The key is not pressed.
Toggled	The key is toggled.

6.117 KeySyntax

KeySyntax	
[values]	
A	The A key.
AbntC1	The ABNT_C1 (Brazilian) key.
AbntC2	The ABNT_C2 (Brazilian) key.
Add	The Add key.
Apps	The Application key (Microsoft Natural Keyboard).
Attn	The ATTN key.
B	The B key.
Back	The Backspace key.
BrowserBack	The Browser Back key.
BrowserFavorites	The Browser Favorites key.

BrowserForward	The Browser Forward key.
BrowserHome	The Browser Home key.
BrowserRefresh	The Browser Refresh key.
BrowserSearch	The Browser Search key.
BrowserStop	The Browser Stop key.
C	The C key.
Cancel	The Cancel key.
Capital	The Caps Lock key.
CapsLock	The Caps Lock key.
Clear	The Clear key.
CrSel	The CRSEL key.
D	The D key.
D0	The 0 (zero) key.
D1	The 1 (one) key.
D2	The 2 key.
D3	The 3 key.
D4	The 4 key.
D5	The 5 key.
D6	The 6 key.
D7	The 7 key.
D8	The 8 key.
D9	The 9 key.
DbeAlphanumeric	The DBE_ALPHANUMERIC key.
DbeCodeInput	The DBE_CODEINPUT key.
DbeDbcsChar	The DBE_DBCSCHAR key.
DbeDetermineString	The DBE_DETERMINESTRING key.
DbeEnterDialogConversionMode	The DBE_ENTERDLGCONVERSIONMODE key.
DbeEnterImeConfigureMode	The DBE_ENTERIMECONFIGMODE key.
DbeEnterWordRegisterMode	The DBE_ENTERWORDREGISTERMODE key.
DbeFlushString	The DBE_FLUSHSTRING key.
DbeHiragana	The DBE_HIRAGANA key.
DbeKatakana	The DBE_KATAKANA key.

DbeNoCodeInput	The DBE_NOCODEINPUT key.
DbeNoRoman	The DBE_NOROMAN key.
DbeRoman	The DBE_ROMAN key.
DbeSbcsChar	The DBE_SBCSCHAR key.
DeadCharProcessed	The key is used with another key to create a single combined character.
Decimal	The Decimal key.
Delete	The Delete key.
Divide	The Divide key.
Down	The Down Arrow key.
E	The E key.
End	The End key.
Enter	The Enter key.
EraseEof	The ERASE EOF key.
Escape	The ESC key.
Execute	The Execute key.
ExSel	The EXSEL key.
F	The F key.
F1	The F1 key.
F10	The F10 key.
F11	The F11 key.
F12	The F12 key.
F13	The F13 key.
F14	The F14 key.
F15	The F15 key.
F16	The F16 key.
F17	The F17 key.
F18	The F18 key.
F19	The F19 key.
F2	The F2 key.
F20	The F20 key.
F21	The F21 key.
F22	The F22 key.

F23	The F23 key.
F24	The F24 key.
F3	The F3 key.
F4	The F4 key.
F5	The F5 key.
F6	The F6 key.
F7	The F7 key.
F8	The F8 key.
F9	The F9 key.
FinalMode	The IME Final mode key.
G	The G key.
H	The H key.
HangulMode	The IME Hangul mode key.
HanjaMode	The IME Hanja mode key.
Help	The Help key.
Home	The Home key.
I	The I key.
ImeAccept	The IME Accept key.
ImeConvert	The IME Convert key.
ImeModeChange	The IME Mode change request.
ImeNonConvert	The IME NonConvert key.
ImeProcessed	A special key masking the real key being processed by an IME.
Insert	The Insert key.
J	The J key.
JunjaMode	The IME Junja mode key.
K	The K key.
KanaMode	The IME Kana mode key.
KanjiMode	The IME Kanji mode key.
L	The L key.
LaunchApplication1	The Launch Application1 key.
LaunchApplication2	The Launch Application2 key.
LaunchMail	The Launch Mail key.

Left	The Left Arrow key.
LeftAlt	The left ALT key.
LeftCtrl	The left CTRL key.
LeftShift	The left Shift key.
LineFeed	The Linefeed key.
LWin	The left Windows logo key (Microsoft Natural Keyboard).
M	The M key.
MediaNextTrack	The Media Next Track key.
MediaPlayPause	The Media Play Pause key.
MediaPreviousTrack	The Media Previous Track key.
MediaStop	The Media Stop key.
Multiply	The Multiply key.
N	The N key.
Next	The Page Down key.
NoName	A constant reserved for future use.
None	No key pressed.
NumLock	The Num Lock key.
NumPad0	The 0 key on the numeric keypad.
NumPad1	The 1 key on the numeric keypad.
NumPad2	The 2 key on the numeric keypad.
NumPad3	The 3 key on the numeric keypad.
NumPad4	The 4 key on the numeric keypad.
NumPad5	The 5 key on the numeric keypad.
NumPad6	The 6 key on the numeric keypad.
NumPad7	The 7 key on the numeric keypad.
NumPad8	The 8 key on the numeric keypad.
NumPad9	The 9 key on the numeric keypad.
O	The O key.
Oem1	The OEM 1 key.
Oem102	The OEM 102 key.
Oem2	The OEM 2 key.
Oem3	The OEM 3 key.

Oem4	The OEM 4 key.
Oem5	The OEM 5 key.
Oem6	The OEM 6 key.
Oem7	The OEM 7 key.
Oem8	The OEM 8 key.
OemAttn	The OEM ATTN key.
OemAuto	The OEM AUTO key.
OemBackslash	The OEM Backslash key.
OemBackTab	The OEM BACKTAB key.
OemClear	The OEM Clear key.
OemCloseBrackets	The OEM Close Brackets key.
OemComma	The OEM Comma key.
OemCopy	The OEM COPY key.
OemEnlw	The OEM ENLW key.
OemFinish	The OEM FINISH key.
OemMinus	The OEM Minus key.
OemOpenBrackets	The OEM Open Brackets key.
OemPeriod	The OEM Period key.
OemPipe	The OEM Pipe key.
OemPlus	The OEM Addition key.
OemQuestion	The OEM Question key.
OemQuotes	The OEM Quotes key.
OemSemicolon	The OEM Semicolon key.
OemTilde	The OEM Tilde key.
P	The P key.
Pa1	The PA1 key.
PageDown	The Page Down key.
PageUp	The Page Up key.
Pause	The Pause key.
Play	The PLAY key.
Print	The Print key.
PrintScreen	The Print Screen key.

Prior	The Page Up key.
Q	The Q key.
R	The R key.
Return	The Return key.
Right	The Right Arrow key.
RightAlt	The right ALT key.
RightCtrl	The right CTRL key.
RightShift	The right Shift key.
RWin	The right Windows logo key (Microsoft Natural Keyboard).
S	The S key.
Scroll	The Scroll Lock key.
Select	The Select key.
SelectMedia	The Select Media key.
Separator	The Separator key.
Sleep	The Computer Sleep key.
Snapshot	The Print Screen key.
Space	The Spacebar key.
Subtract	The Subtract key.
System	A special key masking the real key being processed as a system key.
T	The T key.
Tab	The Tab key.
U	The U key.
Up	The Up Arrow key.
V	The V key.
VolumeDown	The Volume Down key.
VolumeMute	The Volume Mute key.
VolumeUp	The Volume Up key.
W	The W key.
X	The X key.
Y	The Y key.
Z	The Z key.
Zoom	The ZOOM key.

6.118 KeyTimeSyntax

KeyTimeSyntax	
[values]	
Uniform	Key frames will be uniformly spaced throughout the animation if they are all set to a key time of Uniform
[is case sensitive]	true
Paced	Indicates that a key frame's duration should be calculated so as to keep a constant rate of change over the entire animation's duration.
[is case sensitive]	true
[patterns]	
(\d+\.)?\d\d?:\d\d?:((\d\d?) (\d?\d?)\.d*)	The string may optionally begin with a decimal number and a dot. When present, this optional part indicates the number of days. The string always contains three parts separated by colons. The first two of these are one or two digit numbers specifying hours and minutes. The third part indicates the number of seconds and can be a two-digit integer, or a floating point number with 0, 1, or 2 digits before the point, and any number of digits after the point. Examples: 0:0:1 One second 1.0:0:0 One day 0:0:0.5 Half a second 0:0:.5 Half a second 2.5:2:22 Two days, five hours, two minutes, 22 seconds
[is case sensitive]	true
\d+	A decimal number specifying the number of days. Examples: 1 One day 10 Ten days
[is case sensitive]	true
\+?((\d+(\.d*)?) (\d*\.\d+))([eE][+-]?d+)?s*%	Decimal floating point number followed by a '%' symbol. (This is a percentage representing a proportion of the total duration of the animation, so it should have a value in the range from 0 to 100.)
[is case sensitive]	true

6.119 KeyTimeTypeSyntax

KeyTimeTypeSyntax	
[values]	

Paced	Specifies that adjacent KeyFrames are each allotted a slice of time proportional to their length, respectively. The overall goal is to produce a length value that keeps the pace of the animation sequence constant.
Percent	Specifies that each KeyTime value is expressed as a percentage of the total time allotted for a given animation sequence.
TimeSpan	Specifies that each KeyTime is expressed as a TimeSpan value relative to the BeginTime of an animation sequence.
Uniform	Specifies that the allotted total time for an animation sequence is divided evenly amongst each of the key frames.

6.120 KeyTipHorizontalPlacementSyntax

KeyTipHorizontalPlacementSyntax	
[values]	
KeyTipCenterAtTargetCenter	The center of the KeyTip is aligned with the center of the target element.
KeyTipCenterAtTargetLeft	The center of the KeyTip is aligned with the left of the target element.
KeyTipCenterAtTargetRight	The center of the KeyTip is aligned with the right of the target element.
KeyTipLeftAtTargetCenter	The left of the KeyTip is aligned with the center of the target element.
KeyTipLeftAtTargetLeft	The left of the KeyTip is aligned with the left of the target element.
KeyTipLeftAtTargetRight	The left of the KeyTip is aligned with the right of the target element.
KeyTipRightAtTargetCenter	The right of the KeyTip is aligned with the center of the target element.
KeyTipRightAtTargetLeft	The right of the KeyTip is aligned with the left of the target element.
KeyTipRightAtTargetRight	The right of the KeyTip is aligned with the right of the target element.

6.121 KeyTipVerticalPlacementSyntax

KeyTipVerticalPlacementSyntax	
[values]	
KeyTipBottomAtTargetBottom	The bottom of the KeyTip is aligned with the bottom of the target element.
KeyTipBottomAtTargetCenter	The bottom of the KeyTip is aligned with the center of the target element.
KeyTipBottomAtTargetTop	The bottom of the KeyTip is aligned with the top of the target element.

KeyTipCenterAtTargetBottom	The center of the KeyTip is aligned with the bottom of the target element.
KeyTipCenterAtTargetCenter	The center of the KeyTip is aligned with the center of the target element.
KeyTipCenterAtTargetTop	The center of the KeyTip is aligned with the top of the target element.
KeyTipTopAtTargetBottom	The top of the KeyTip is aligned with the bottom of the target element.
KeyTipTopAtTargetCenter	The top of the KeyTip is aligned with the center of the target element.
KeyTipTopAtTargetTop	The top of the KeyTip is aligned with the top of the target element.

6.122 LengthSyntax

LengthSyntax	
[values]	
Auto	Indicates that automatic sizing should be used
[patterns]	
[+-]?((\d[\d,]*\.\d*) ((\d[\d,]* *)?\.\d+))([eE][+-]?\d+)? (\s*(PX IN CM PT))?	A decimal floating point number, optionally followed by either 'in', 'cm', 'pt', or 'px'

6.123 LineBreakConditionSyntax

LineBreakConditionSyntax	
[values]	
BreakAlways	Break is always allowed.
BreakDesired	Break if not prohibited by another object.
BreakPossible	Break if allowed by another object.
BreakRestrained	Break always prohibited unless the other object is set to BreakAlways.

6.124 LineStackingStrategySyntax

LineStackingStrategySyntax

[values]	
BlockLineHeight	The stack height is determined by the block element line-height property value.
MaxHeight	The stack height is the smallest value that containing all the inline elements on that line when those elements are properly aligned.

6.125 ListSortDirectionSyntax

ListSortDirectionSyntax	
[values]	
Ascending	Sorts in ascending order.
Descending	Sorts in descending order.

6.126 LocalizationCategorySyntax

LocalizationCategorySyntax	
[values]	
Button	A Button or related control.
CheckBox	A CheckBox or related control.
ComboBox	A ComboBox or related control such as ComboBoxItem.
Font	Font-related data such as font name, style, or size.
Hyperlink	A Hyperlink or related control.
Ignore	Do not localize this resource. This does not apply to any child nodes that might exist.
Inherit	Inherits its category from a parent node.
Label	A Label or related control.
ListBox	A ListBox or related control such as ListBoxItem.
Menu	A Menu or related control such as MenuItem.
NeverLocalize	Do not localize this resource, or any child nodes whose category is set to Inherit.
None	Resource does not belong to a standard category.
RadioButton	A RadioButton or related control.

Text	For a lengthy piece of text.
TextFlow	For panels that can contain text.
Title	For a single line of text, such as text used for a title.
ToolTip	A ToolTip or related control.
XmlData	XML data.

6.127 LogicalDirectionSyntax

LogicalDirectionSyntax	
[values]	
Backward	Backward, or from right to left.
Forward	Forward, or from left to right.

6.128 ManipulationModesSyntax

ManipulationModesSyntax	
[values]	
All	A manipulation can scale, translate, or rotate an object and can occur with one point of input.
None	Manipulation events do not occur.
Rotate	A manipulation can rotate an object.
Scale	A manipulation can scale an object.
Translate	A manipulation can translate an object.
TranslateX	A manipulation can translate an object horizontally.
TranslateY	A manipulation can translate an object vertically.

6.129 Matrix3DSyntax

Matrix3DSyntax

[values]	
Identity	The identity matrix.
[is case sensitive]	true
[patterns]	
<pre>(([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]]?\d+)?)((\s*,\s*) \s+)){15}([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)</pre>	Sixteen decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.130 MatrixSyntax

MatrixSyntax	
[values]	
Identity	The identity matrix.
[is case sensitive]	true
[patterns]	
<pre>(([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]]?\d+)?)((\s*,\s*) \s+)){5}([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)</pre>	Six decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.131 MediaStateSyntax

MediaStateSyntax	
[values]	
Close	The state used to close the media. All media resources are released (including video memory).

Manual	The state used to control a MediaElement manually. Interactive methods like Play and Pause can be used. Media will preroll but not play when the MediaElement is assigned a valid media source.
Pause	The state used to pause the media. Media will preroll but remains paused when the MediaElement is assigned a valid media source.
Play	The state used to play the media. Media will preroll automatically when the MediaElement is assigned a valid media source.
Stop	The state used to stop the media. Media will preroll but not play when the MediaElement is assigned a valid media source. Media resources are not released.

6.132 MenuItemRoleSyntax

MenuItemRoleSyntax	
[values]	
SubmenuHeader	Header for a submenu.
SubmenuItem	Menu item in a submenu that can invoke commands.
TopLevelHeader	Header for top-level menus.
TopLevelItem	Top-level menu item that can invoke commands.

6.133 MessageBoxButtonSyntax

MessageBoxButtonSyntax	
[values]	
OK	The message box displays an OK button.
OKCancel	The message box displays OK and Cancel buttons.
YesNo	The message box displays Yes and No buttons.
YesNoCancel	The message box displays Yes, No, and Cancel buttons.

6.134 MessageBoxImageSyntax

MessageBoxImageSyntax	
[values]	
Asterisk	The message box contains a symbol consisting of a lowercase letter i in a circle.
Error	The message box contains a symbol consisting of white X in a circle with a red background.
Exclamation	The message box contains a symbol consisting of an exclamation point in a triangle with a yellow background.
Hand	The message box contains a symbol consisting of a white X in a circle with a red background.
Information	The message box contains a symbol consisting of a lowercase letter i in a circle.
None	No icon is displayed.
Question	The message box contains a symbol consisting of a question mark in a circle.
Stop	The message box contains a symbol consisting of white X in a circle with a red background.
Warning	The message box contains a symbol consisting of an exclamation point in a triangle with a yellow background.

6.135 MessageBoxOptionsSyntax

MessageBoxOptionsSyntax	
[values]	
DefaultDesktopOnly	The message box is displayed on the default desktop of the interactive window station. Specifies that the message box is displayed from a windows service application in order to notify the user of an event.
None	No options are set.
RightAlign	The message box text and title bar caption are right-aligned.
RtlReading	All text, buttons, icons, and title bars are displayed right-to-left.
ServiceNotification	The message box is displayed on the currently active desktop even if a user is not logged on to the computer. Specifies that the message box is displayed from a windows service application in order to notify the user of an event.

6.136 MessageBoxResultSyntax

MessageBoxResultSyntax	
[values]	
Cancel	The result value of the message box is Cancel.
No	The result value of the message box is No.
None	The message box returns no result.
OK	The result value of the message box is OK.
Yes	The result value of the message box is Yes.

6.137 ModifiabilitySyntax

ModifiabilitySyntax	
[values]	
Inherit	Targeted value modifiability is inherited from its parent node.
Modifiable	Targeted value is modifiable by localizers.
Unmodifiable	Targeted value is not modifiable by localizers.

6.138 ModifierKeysSyntax

ModifierKeysSyntax	
[values]	
Alt	The ALT key.
Control	The CTRL key.
None	No modifiers are pressed.
Shift	The SHIFT key.
Windows	The Windows logo key.

6.139 MouseActionSyntax

MouseActionSyntax	
[values]	
LeftClick	A left mouse button click.
LeftDoubleClick	A left mouse button double-click.
MiddleClick	A middle mouse button click.
MiddleDoubleClick	A middle mouse button double-click.
None	No action.
RightClick	A right mouse button click.
RightDoubleClick	A right mouse button double-click.
WheelClick	A mouse wheel rotation.

6.140 MouseButtonStateSyntax

MouseButtonStateSyntax	
[values]	
Pressed	The button is pressed.
Released	The button is released.

6.141 MouseButtonSyntax

MouseButtonSyntax	
[values]	
Left	The left mouse button.
Middle	The middle mouse button.
Right	The right mouse button.
XButton1	The first extended mouse button.
XButton2	The second extended mouse button.

6.142 MouseGestureSyntax

MouseGestureSyntax	
[patterns]	
((CONTROL CTRL SHIFT ALT WINDOWS WIN)\s*\+\s*)*(LEFTCLICK RIGHTCLICK MIDDLECLICK WHEELCLICK LEFTDOUBLECLICK RIGHTDOUBLECLICK MIDDLEDOUBLECLICK)	One of the MouseActionSyntax values, optionally preceded by a '+'-delimited sequence from the ModifierKeysSyntax.

6.143 NavigationModeSyntax

NavigationModeSyntax	
[values]	
Back	Navigating back to the most recent content in back navigation history. This occurs when the GoBack method is called.
Forward	Navigating to the most recent content on forward navigation history. This occurs when the GoForward method is called.
New	Navigating to new content. This occurs when the Navigate method is called, or when Source property is set.
Refresh	Reloading the current content. This occurs when the Refresh method is called.

6.144 NavigationUIVisibilitySyntax

NavigationUIVisibilitySyntax	
[values]	
Automatic	The navigation chrome is visible when a Frame uses its own journal (see JournalOwnership).
Hidden	The navigation chrome is not visible.
Visible	The navigation chrome is visible.

6.145 NonClientFrameEdgesSyntax

NonClientFrameEdgesSyntax	
[values]	
Bottom	The bottom edge is not owned by the client (value = 8).
Left	The left edge is not owned by the client (value = 1).
None	All edges are owned by the client (value = 0).
Right	The right edge is not owned by the client (value = 4).
Top	The top edge is not owned by the client (value = 2).

6.146 NumberCultureSourceSyntax

NumberCultureSourceSyntax	
[values]	
Override	Number culture is derived from the CultureOverride property.
Text	Default. Number culture is derived from the value of the CultureInfo property, which is the culture of the text run. In markup, this is represented by the xml:lang attribute.
User	Number culture is derived from the culture value of the current thread, which by default is the user default culture.

6.147 NumberSubstitutionMethodSyntax

NumberSubstitutionMethodSyntax	
[values]	
AsCulture	Default. Specifies that the substitution method should be determined based on the number culture's DigitSubstitution property value.
Context	If the number culture is an Arabic or Farsi culture, specifies that the digits depend on the context. Either traditional or Latin digits are used depending on the nearest preceding strong character, or, if there is none, the text direction of the paragraph.

European	Specifies that code points 0x30-0x39 are always rendered as European digits, in which case, no number substitution is performed.
NativeNational	Specifies that numbers are rendered using the national digits for the number culture, as specified by the culture's NativeDigits property value.
Traditional	Specifies that numbers are rendered using the traditional digits for the number culture. For most cultures, this is the same as the NativeNational enumeration value. However, using NativeNational can result in Latin digits for some Arabic cultures, whereas using Traditional results in Arabic digits for all Arabic cultures.

6.148 OrientationSyntax

OrientationSyntax	
[values]	
Horizontal	Control or layout should be horizontally oriented.
Vertical	Control or layout should be vertically oriented.

6.149 OverflowModeSyntax

OverflowModeSyntax	
[values]	
Always	Item is permanently placed in the overflow panel.
AsNeeded	Item moves between the main panel and overflow panel, depending on the available space.
Never	Item is never allowed to overflow.

6.150 PageRangeSelectionSyntax

PageRangeSelectionSyntax	
[values]	
AllPages	All pages.

CurrentPage	The current page.
SelectedPages	The selected pages.
UserPages	A user-specified range of pages.

6.151 PanningModeSyntax

PanningModeSyntax	
[values]	
Both	The ScrollViewer scrolls horizontally and vertically.
HorizontalFirst	The ScrollViewer scrolls when the user moves a finger horizontally first. If the user moves the vertically first, the movement is treated as mouse events. After the ScrollViewer begins to scroll, it will scroll horizontally and vertically.
HorizontalOnly	The ScrollViewer scrolls horizontally only.
None	The ScrollViewer does not respond to touch input.
VerticalFirst	The ScrollViewer scrolls when the user moves a finger vertically first. If the user moves the horizontally first, the movement is treated as mouse events. After the ScrollViewer begins to scroll, it will scroll horizontally and vertically.
VerticalOnly	The ScrollViewer scrolls vertically only.

6.152 PathAnimationSourceSyntax

PathAnimationSourceSyntax	
[values]	
Angle	Specifies the tangent angle of rotation during the progression along an animation sequence path.
X	Specifies the x-coordinate offset during the progression along an animation sequence path.
Y	Specifies the y-coordinate offset during the progression along an animation sequence path.

6.153 PathFigureCollectionSyntax

PathFigureCollectionSyntax	
[patterns]	
<pre>(\s*[mMlLhHvVcCsSqQtTaAZZ]\s* ((([+]?(\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+))*([+]?(\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)?)?)*</pre>	A sequence of single letter commands, each followed by a sequence of comma and/or whitespace-separated floating point decimal values.
[is case sensitive]	true

6.154 PenLineCapSyntax

PenLineCapSyntax	
[values]	
Flat	A cap that does not extend past the last point of the line. Comparable to no line cap.
Round	A semicircle that has a diameter equal to the line thickness.
Square	A rectangle that has a height equal to the line thickness and a length equal to half the line thickness.
Triangle	An isosceles right triangle whose base length is equal to the thickness of the line.

6.155 PenLineJoinSyntax

PenLineJoinSyntax	
[values]	
Bevel	Beveled vertices.
Miter	Regular angular vertices.
Round	Rounded vertices.

6.156 PixelFormatSyntax

PixelFormatSyntax	
[values]	
Default	The default pixel format. (The meaning of this is context-specific.)
[trim whitespace]	false
Extended	No specific meaning is defined for this value, but individual properties may define a meaning for it.
[trim whitespace]	false
Indexed1	A color-indexed format with 2 entries in the index.
[trim whitespace]	false
Indexed2	A color-indexed format with 4 entries in the index.
[trim whitespace]	false
Indexed4	A color-indexed format with 16 entries in the index.
[trim whitespace]	false
Indexed8	A color-indexed format with 256 entries in the index.
[trim whitespace]	false
BlackWhite	A 1bpp black and white image.
[trim whitespace]	false
Gray2	A monochrome image with 4 levels of brightness.
[trim whitespace]	false
Gray4	A monochrome image with 16 levels of brightness.
[trim whitespace]	false
Gray8	A monochrome image with 256 levels of brightness.
[trim whitespace]	false
Gray16	A monochrome image with 65536 levels of brightness.
[trim whitespace]	false
Gray32Float	A monochrome image with brightness represented as a 32-bit floating point value.
[trim whitespace]	false

Bgr555	An image in which each pixel is represented by a 16-bit value containing 5 bits of blue, 5 bits of green, then 5 bits of red channel data for each pixel (with one unused bit)
[trim whitespace]	false
Bgr565	An image in which each pixel is represented by a 16-bit value containing 5 bits of blue, 6 bits of green, then 5 bits of red channel data for each pixel
[trim whitespace]	false
Bgr24	An image where each pixel is represented by a 24-bit value comprising a blue, then a green, then a red octet (8-bit byte)
[trim whitespace]	false
Rgb24	An image where each pixel is represented by a red, then a green, then a blue octet (8-bit byte)
[trim whitespace]	false
Bgr101010	An image with 10 bits each for the blue, green, and red channels.
[trim whitespace]	false
Bgr32	An image where each pixel is represented by a 32-bit value comprising a blue, then a green, then a red octet (8-bit byte), with one unused octet per pixel
[trim whitespace]	false
Bgra32	An image where each pixel is represented by a 32-bit value comprising a blue, then a green, then a red, then an alpha octet (8-bit byte)
[trim whitespace]	false
Pbgra32	An image where each pixel is represented by a 32-bit value comprising a blue, then a green, then a red, then an alpha octet (8-bit byte), where the red, green, and blue channels are pre-multiplied by the alpha channel.
[trim whitespace]	false
Rgb48	An image with 16 bits each for the red, green, and blue channels.
[trim whitespace]	false
Rgba64	An image with 16 bits each for the red, green, blue, and alpha channels.
[trim whitespace]	false
Prgba64	An image with 16 bits each for the red, green, blue, and alpha channels, where the red, green, and blue channels are pre-multiplied by the alpha channel.
[trim whitespace]	false
Rgb128Float	An image where the red, green, and blue channels are each represented by a 32-bit floating point value, and the pixel size is padded to be 128 bits wide.
[trim whitespace]	false

Rgba128Float	An image where the red, green, blue, and alpha channels are each represented by a 32-bit floating point value.
[trim whitespace]	false
Prgba128Float	An image where the red, green, blue, and alpha channels are each represented by a 32-bit floating point value, and the red, green, and blue channels are pre-multiplied by the alpha channel.
[trim whitespace]	false
Cmyk32	An image where each pixel is represented by a 32-bit value comprising a cyan, then a magenta, then a yellow, then a black octet.
[trim whitespace]	false

6.157 PlacementModeSyntax

PlacementModeSyntax	
[values]	
Absolute	A position of the Popup control relative to the upper-left corner of the screen and at an offset that is defined by the HorizontalOffset and VerticalOffset property values. If the screen edge obscures the Popup, the control then repositions itself to align with the edge.
AbsolutePoint	A position of the Popup control relative to the upper-left corner of the screen and at an offset that is defined by the HorizontalOffset and VerticalOffset property values. If the screen edge obscures the Popup, the control extends in the opposite direction from the axis defined by the HorizontalOffset or VerticalOffset.
Bottom	A position of the Popup control where the control aligns its upper edge with the lower edge of the PlacementTarget and aligns its left edge with the left edge of the PlacementTarget. If the lower screen-edge obscures the Popup, the control repositions itself so that its lower edge aligns with the upper edge of the PlacementTarget. If the upper screen-edge obscures the Popup, the control then repositions itself so that its upper edge aligns with the upper screen-edge.
Center	A position of the Popup control where it is centered over the PlacementTarget. If a screen edge obscures the Popup, the control repositions itself to align with the screen edge.
Left	A Popup control that aligns its right edge with the left edge of the PlacementTarget and aligns its upper edge with the upper edge of the PlacementTarget. If the left screen-edge obscures the Popup, the Popup repositions itself so that its left edge aligns with the right edge of the PlacementTarget. If the right screen-edge obscures the Popup, the right edge

	of the control aligns with the right screen-edge. If the upper or lower screen-edge obscures the Popup, the control repositions itself to align with the obscuring screen edge.
Mouse	A position of the Popup control that aligns its upper edge with the lower edge of the bounding box of the mouse and aligns its left edge with the left edge of the bounding box of the mouse. If the lower screen-edge obscures the Popup, it repositions itself to align with the upper edge of the bounding box of the mouse. If the upper screen-edge obscures the Popup, the control repositions itself to align with the upper screen-edge.
MousePoint	A position of the Popup control relative to the tip of the mouse cursor and at an offset that is defined by the HorizontalOffset and VerticalOffset property values. If a horizontal or vertical screen edge obscures the Popup, it opens in the opposite direction from the obscuring edge. If the opposite screen edge also obscures the Popup, it then aligns with the obscuring screen edge.
Relative	A position of the Popup control relative to the upper-left corner of the PlacementTarget and at an offset that is defined by the HorizontalOffset and VerticalOffset property values. If the screen edge obscures the Popup, the control repositions itself to align with the screen edge.
RelativePoint	A position of the Popup control relative to the upper-left corner of the PlacementTarget and at an offset that is defined by the HorizontalOffset and VerticalOffset property values. If a screen edge obscures the Popup, the Popup extends in the opposite direction from the direction from the axis defined by the HorizontalOffset or VerticalOffset. If the opposite screen edge also obscures the Popup, the control then aligns with this screen edge.
Right	A position of the Popup control that aligns its left edge with the right edge of the PlacementTarget and aligns its upper edge with the upper edge of the PlacementTarget. If the right screen-edge obscures the Popup, the control repositions itself so that its left edge aligns with the left edge of the PlacementTarget. If the left screen-edge obscures the Popup, the control repositions itself so that its left edge aligns with the left screen-edge. If the upper or lower screen-edge obscures the Popup, the control then repositions itself to align with the obscuring screen edge.
Top	A position of the Popup control that aligns its lower edge with the upper edge of the PlacementTarget and aligns its left edge with the left edge of the PlacementTarget. If the upper screen-edge obscures the Popup, the control repositions itself so that its upper edge aligns with the lower edge of the PlacementTarget. If the lower screen-edge obscures the Popup, the lower edge of the control aligns with the lower screen-edge. If the left or right screen-edge obscures the Popup, it then repositions itself to align with the obscuring screen.

6.158 PngInterlaceOptionSyntax

PngInterlaceOptionSyntax	
[values]	
Default	The PngBitmapEncoder determines whether the image should be interlaced.
Off	The resulting bitmap image is not interlaced.
On	The resulting bitmap image is interlaced.

6.159 Point3DCollectionSyntax

Point3DCollectionSyntax	
[patterns]	
<pre>([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)(((\s*,\s*) \s+)([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)?){2}(((\s*,\s*) \s+)([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)?){3})*</pre>	Sequence of decimal floating point values, separated by either a comma or whitespace. The number of values in the sequence is a multiple of three.
[is case sensitive]	true

6.160 Point3DSyntax

Point3DSyntax	
[patterns]	
<pre>(([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+){2}([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)</pre>	Three decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.161 Point4DSyntax

Point4DSyntax	
[patterns]	
<pre>(([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?)((\\s*,\\s*) \\s+){3}([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?</pre>	Four decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.162 PointCollectionSyntax

PointCollectionSyntax	
[patterns]	
<pre>(([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?)((\\s*,\\s*) \\s+)([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?(((\\s*,\\s*) \\s+)([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?){2}}*</pre>	Sequence of decimal floating point values, separated by either a comma or whitespace. The number of values in the sequence is a multiple of two.
[is case sensitive]	true

6.163 PointSyntax

PointSyntax	
[patterns]	
<pre>([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?</pre>	Two decimal floating point values, separated by either a comma or whitespace.

eE][+-]?\\d+)?((\\s*,\\s*) \\s+)([+-]?((\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?	
[is case sensitive]	true

6.164 PopupAnimationSyntax

PopupAnimationSyntax	
[values]	
Fade	The Popup control gradually appears, or fades in. This effect is created by increasing the opacity of the Popup window over time.
None	The Popup control appears without animation.
Scroll	The Popup control scrolls from the upper-left corner of its parent. If the screen does not provide enough room to allow the Popup default behavior, the Popup scrolls from the lower-right corner instead.
Slide	The Popup control slides down or up into place. By default, a Popup slides down. However, if the screen does not provide enough room for the Popup to slide down, it slides up instead.

6.165 PopupPrimaryAxisSyntax

PopupPrimaryAxisSyntax	
[values]	
Horizontal	A Popup control changes position by moving along the horizontal axis of the screen before moving along the vertical axis.
None	A Popup control changes position according to default Popup behavior.
Vertical	A Popup control changes position by moving along the vertical axis of the screen before moving along the horizontal axis.

6.166 PowerLineStatusSyntax

PowerLineStatusSyntax	
[values]	
Offline	The system power is not on.
Online	The system power is on.
Unknown	The status of the system power cannot be determined.

6.167 PresentationTraceLevelSyntax

PresentationTraceLevelSyntax	
[values]	
High	Traces all additional information.
Low	Traces some additional information.
Medium	Traces a medium amount of additional information.
None	Traces no available additional information.

6.168 PropertyPathSyntax

PropertyPathSyntax	
[patterns]	
.*	Property paths have a syntax that involves balanced parentheses and balanced square brackets, and so it cannot be represented as a regular expression. The syntax takes the form of a list of property identifiers each separated by either a . or a /. Each property identifier is either an alphanumeric string of characters, or a sequence of characters enclosed in parentheses. Each property may optionally be followed by one or more square-bracket-enclosed alphanumeric strings. Examples: Property Property.More.Properties MyCollection[100] MyHashTable[foo].Bar Multi[10][20] Prop.Coll/Foo[10]
[is case sensitive]	true

6.169 QuaternionSyntax

QuaternionSyntax	
[values]	
Identity	The Identity quaternion

6.170 ReadabilitySyntax

ReadabilitySyntax	
[values]	
Inherit	Targeted value readability is inherited from its parent node.
Readable	Targeted value is readable text.
Unreadable	Targeted value is not readable.

6.171 ReasonSessionEndingSyntax

ReasonSessionEndingSyntax	
[values]	
Logoff	The session is ending because the user is logging off.
Shutdown	The session is ending because the user is shutting down Windows.

6.172 RecognitionConfidenceSyntax

RecognitionConfidenceSyntax	
[values]	
Intermediate	Indicates intermediate confidence in the recognition result.
Poor	Indicates poor confidence in the recognition result.
Strong	Indicates strong confidence in the recognition result.

6.173 Rect3DSyntax

Rect3DSyntax	
[values]	
Empty	Equivalent to a value of "0,0,0,0,0,0"
[is case sensitive]	true
[patterns]	
$(([+-]?\d+(\.d*)?) (\d*\.\d+))([eE][+-]?\d+)?((\s*,\s*) \s+){3}(([+-]?\d+(\.d*)?) (\d*\.\d+))([eE][+-]?\d+)?((\s*,\s*) \s+){2}([+-]?\d+(\.d*)?) (\d*\.\d+))([eE][+-]?\d+)?$	Six decimal floating point values, separated by either a comma or whitespace. The last three digits must not be negative.
[is case sensitive]	true

6.174 RectSyntax

RectSyntax	
[values]	
Empty	Equivalent to a value of "0,0,0,0"
[is case sensitive]	true
[patterns]	
$(([+-]?\d+(\.d*)?) (\d*\.\d+))([eE][+-]?\d+)?((\s*,\s*) \s+){2}(([+-]?\d+(\.d*)?) (\d*\.\d+))([eE][+-]?\d+)?((\s*,\s*) \s+)([+-]?\d+(\.d*)?) (\d*\.\d+))([eE][+-]?\d+)?$	Four decimal floating point values, separated by either a comma or whitespace. The last two digits must not be negative.
[is case sensitive]	true

6.175 RelativeSourceModeSyntax

RelativeSourceModeSyntax	
[values]	
FindAncestor	Refers to the ancestor in the parent chain of the data-bound element. You can use this to bind to an ancestor of a specific type or its subtypes. This is the mode you use if you want to specify AncestorType and/or AncestorLevel.
PreviousData	Allows you to bind the previous data item (not that control that contains the data item) in the list of data items being displayed.
Self	Refers to the element on which you are setting the binding and allows you to bind one property of that element to another property on the same element.
TemplatedParent	Refers to the element to which the template (in which the data-bound element exists) is applied. This is similar to setting a TemplateBindingExtension and is only applicable if the Binding is within a template.

6.176 RenderingBiasSyntax

RenderingBiasSyntax	
[values]	
Performance	The rendering system emphasizes performance.
Quality	The rendering system emphasizes quality.

6.177 RenderModeSyntax

RenderModeSyntax	
[values]	
Default	The rendering is in hardware, if possible; software otherwise.
SoftwareOnly	The rendering is in software only.

6.178 RepeatBehaviorSyntax

RepeatBehaviorSyntax	
[values]	
Forever	Indicates that an animation should repeat indefinitely.
[is case sensitive]	true
[patterns]	
([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)x	A decimal floating point number followed by an 'x'. Indicates that the animation should repeat the specified number of times. Example: 2x Repeat twice 4.5x Repeat four and a half times
[is case sensitive]	true
(\d+\.)?\d\d?:\d\d?:((\d\d?) (\d?\d?\.\d*))	The string may optionally begin with a decimal number and a dot. When present, this optional part indicates the number of days. The string always contains three parts separated by colons. The first two of these are one or two digit numbers specifying hours and minutes. The third part indicates the number of seconds and can be a two-digit integer, or a floating point number with 0, 1, or 2 digits before the point, and any number of digits after the point. Examples: 0:0:1 Repeat for one second 1.0:0:0 Repeat for one day 0:0:0.5 Repeat for half a second 0:0:.5 Repeat for half a second 2.5:2:22 Repeat for two days, five hours, two minutes, 22 seconds
[is case sensitive]	true
\d+	A decimal number specifying the number of days. Examples: 1 Repeat for one day 10 Repeat for ten days
[is case sensitive]	true

6.179 RequestCachePolicySyntax

RequestCachePolicySyntax	
[values]	
BypassCache	Satisfies a request by using the server. No entries are taken from caches, added to caches, or removed from caches between the client and server. No entries are taken from caches, added to caches, or removed from caches between the client and server. This is the default cache behavior specified in the machine configuration file that ships with the.
CachelfAvailable	Satisfies a request for a resource from the cache if the resource is available; otherwise, sends a request for a resource to the server. If the requested item is

	available in any cache between the client and the server, the request might be satisfied by the intermediate cache.
CacheOnly	Satisfies a request using the locally cached resource; does not send a request for an item that is not in the cache. When this cache policy level is specified, a WebException exception is thrown if the item is not in the client cache.
CacheOrNextCacheOnly	Satisfies a request for a resource either from the local computer's cache or a remote cache on the local area network. If the request cannot be satisfied, a WebException exception is thrown. In the HTTP caching protocol, this is achieved using the only-if-cached cache control directive.
Default	Satisfies a request for a resource either by using the cached copy of the resource or by sending a request for the resource to the server. The action taken is determined by the current cache policy and the age of the content in the cache. This is the cache level that should be used by most applications.
NoCacheNoStore	Never satisfies a request by using resources from the cache and does not cache resources. If the resource is present in the local cache, it is removed. This policy level indicates to intermediate caches that they should remove the resource. In the HTTP caching protocol, this is achieved using the no-cache cache control directive.
Refresh	Satisfies a request by using the server or a cache other than the local cache. Before the request can be satisfied by an intermediate cache, that cache must revalidate its cached entry with the server. In the HTTP caching protocol, this is achieved using the max-age = 0 cache control directive and the no-cache Pragma header.
Reload	Satisfies a request by using the server. The response might be saved in the cache. In the HTTP caching protocol, this is achieved using the no-cache cache control directive and the no-cache Pragma header.
Revalidate	Compares the copy of the resource in the cache with the copy on the server. If the copy on the server is newer, it is used to satisfy the request and replaces the copy in the cache. If the copy in the cache is the same as the server copy, the cached copy is used. In the HTTP caching protocol, this is achieved using a conditional request.

6.180 ResizeGripDirectionSyntax

ResizeGripDirectionSyntax	
[values]	
Bottom	The window resizes from its bottom edge.
BottomLeft	The window resizes from its bottom-left corner.

BottomRight	The window resizes from its bottom-right corner.
Left	The windows resizes from its left edge.
None	No resize behavior is specified.
Right	The window resizes from its right edge.
Top	The window resizes from its top edge.
TopLeft	The window resizes from its top-left corner.
TopRight	The window resizes from its top-right corner.

6.181 ResizeModeSyntax

ResizeModeSyntax	
[values]	
CanMinimize	A window can only be minimized and restored. The Minimize and Maximize buttons are both shown, but only the Minimize button is enabled.
CanResize	A window can be resized. The Minimize and Maximize buttons are both shown and enabled.
CanResizeWithGrip	A window can be resized. The Minimize and Maximize buttons are both shown and enabled. A resize grip appears in the bottom-right corner of the window.
NoResize	A window cannot be resized. The Minimize and Maximize buttons are not displayed in the title bar.

6.182 ResourceDictionaryLocationSyntax

ResourceDictionaryLocationSyntax	
[values]	
ExternalAssembly	Theme dictionaries exist in assemblies external to the one defining the types being themed.
None	No theme dictionaries exist.
SourceAssembly	Theme dictionaries exist in the assembly that defines the types being themed.

6.183 RestoreFocusModeSyntax

RestoreFocusModeSyntax	
[values]	
Auto	WPF automatically tries to restore focus to the element that last had focus.
None	WPF does not restore focus.

6.184 RibbonApplicationMenuItemLevelSyntax

RibbonApplicationMenuItemLevelSyntax	
[values]	
Middle	The menu item is displayed in the middle level.
Sub	The menu item is displayed in the lowest level.
Top	The menu item is displayed in the top level.

6.185 RibbonControlLengthSyntax

RibbonControlLengthSyntax	
[values]	
Auto	A RibbonControlLength structure that represents the standard automatic sizing mode.

6.186 RibbonControlLengthUnitTypeSyntax

RibbonControlLengthUnitTypeSyntax	
[values]	
Auto	The sizing method is not specified.
Item	The size is a fixed value expressed in the number of child elements.
Pixel	The size is a fixed value expressed in pixels.
Star	The size is a weighted proportion of the available space.

6.187 RibbonDismissPopupModeSyntax

RibbonDismissPopupModeSyntax	
[values]	
Always	All drop-downs in a chain are closed.
MousePhysicallyNotOver	Drop-downs in a chain are closed up to the one that the mouse pointer is over.

6.188 RibbonImageSizeSyntax

RibbonImageSizeSyntax	
[values]	
Collapsed	The image is collapsed.
Large	The large image is shown.
Small	The small image is shown.

6.189 RibbonSplitButtonLabelPositionSyntax

RibbonSplitButtonLabelPositionSyntax	
[values]	
DropDown	Indicates that the label should be positioned in the drop-down section of the RibbonSplitButton.
Header	Indicates that the label should be positioned in the header section of the RibbonSplitButton.

6.190 RotationSyntax

RotationSyntax	
[values]	

Rotate0	The bitmap is not rotated. This is the default value.
Rotate180	Rotate the bitmap clockwise by 180 degrees.
Rotate270	Rotate the bitmap clockwise by 270 degrees.
Rotate90	Rotate the bitmap clockwise by 90 degrees.

6.191 RoutedEventSyntax

RoutedEventSyntax	
[patterns]	
<pre>([_\p{L}][- .\w]*:)?([_\p{Lu}\p{LI}\p{Lo}\p{Lt}\p{NI}][_\p{L}\p{Mn}\p{Mc}\p{Nd}\p{NI}]*\.)[_\p{Lu}\p{LI}\p{Lo}\p{Lt}\p{NI}][_\p{L}\p{Mn}\p{Mc}\p{Nd}\p{NI}]*)</pre>	Either a string of the form namespacePrefix:TypeName.EventName, or a string of the form TypeName.PropertyName.
[is case sensitive]	true

6.192 RoutingStrategySyntax

RoutingStrategySyntax	
[values]	
Bubble	The routed event uses a bubbling strategy, where the event instance routes upwards through the tree, from event source to root.
Direct	The routed event does not route through an element tree, but does support other routed event capabilities such as type handling, EventTrigger or EventSetter.
Tunnel	The routed event uses a tunneling strategy, where the event instance routes downwards through the tree, from root to source element.

6.193 SamplingModeSyntax

SamplingModeSyntax	
[values]	
Auto	The system selects the most appropriate sampling mode.
Bilinear	Use bilinear sampling.
NearestNeighbor	Use nearest neighbor sampling.

6.194 ScrollBarVisibilitySyntax

ScrollBarVisibilitySyntax	
[values]	
Auto	A ScrollBar appears and the dimension of the ScrollViewer is applied to the content when the viewport cannot display all of the content. For a horizontal ScrollBar, the width of the content is set to the ViewportWidth of the ScrollViewer. For a vertical ScrollBar, the height of the content is set to the ViewportHeight of the ScrollViewer.
Disabled	A ScrollBar does not appear even when the viewport cannot display all of the content. The dimension of the content is set to the corresponding dimension of the ScrollViewer parent. For a horizontal ScrollBar, the width of the content is set to the ViewportWidth of the ScrollViewer. For a vertical ScrollBar, the height of the content is set to the ViewportHeight of the ScrollViewer.
Hidden	A ScrollBar does not appear even when the viewport cannot display all of the content. The dimension of the ScrollViewer is not applied to the content.
Visible	A ScrollBar always appears. The dimension of the ScrollViewer is applied to the content. For a horizontal ScrollBar, the width of the content is set to the ViewportWidth of the ScrollViewer. For a vertical ScrollBar, the height of the content is set to the ViewportHeight of the ScrollViewer.

6.195 ScrollEventTypeSyntax

ScrollEventTypeSyntax	
[values]	

EndScroll	The Thumb was dragged to a new position and is now no longer being dragged by the user.
First	The Thumb moved to the Minimum position of the ScrollBar. For a vertical ScrollBar, this movement occurs when the CTRL+HOME keys are pressed. This movement corresponds to a ScrollToTopCommand in a vertical ScrollBar and a ScrollToLeftEndCommand in a horizontal ScrollBar.
LargeDecrement	The Thumb moved a specified distance, as determined by the value of LargeChange, to the left for a horizontal ScrollBar or upward for a vertical ScrollBar. For a vertical ScrollBar, this movement occurs when the page button that is above the Thumb is pressed, or when the PAGE UP key is pressed, and corresponds to a PageUpCommand. For a horizontal ScrollBar, this movement occurs when the page button to the left of the Thumb is pressed, and corresponds to a PageLeftCommand.
LargeIncrement	The Thumb moved a specified distance, as determined by the value of LargeChange, to the right for a horizontal ScrollBar or downward for a vertical ScrollBar. For a vertical ScrollBar, this movement occurs when the page button that is below the Thumb is pressed, or when the PAGE DOWN key is pressed, and corresponds to a PageDownCommand. For a horizontal ScrollBar, this movement occurs when the page button to the right of the Thumb is pressed, and corresponds to a PageRightCommand.
Last	The Thumb moved to the Maximum position of the ScrollBar. For a vertical ScrollBar, this movement occurs when the CTRL+END keys are pressed. This movement corresponds to a ScrollToEndCommand in a vertical ScrollBar and a ScrollToRightEndCommand in a horizontal ScrollBar.
SmallDecrement	The Thumb moved a small distance, as determined by the value of SmallChange, to the left for a horizontal ScrollBar or upward for a vertical ScrollBar. For a vertical ScrollBar, this movement occurs when the upper RepeatButton is pressed or when the UP ARROW key is pressed, and corresponds to a LineUpCommand. For a horizontal ScrollBar, this movement occurs when the left RepeatButton is pressed, and corresponds to a LineLeftCommand.
SmallIncrement	The Thumb moved a small distance, as determined by the value of SmallChange, to the right for a horizontal ScrollBar or downward for a vertical ScrollBar. For a vertical ScrollBar, this movement occurs when the lower RepeatButton is pressed or when the DOWN ARROW key is pressed, and corresponds to a LineDownCommand. For a horizontal ScrollBar, this movement occurs when the right RepeatButton is pressed, and corresponds to a LineRightCommand.
ThumbPosition	The Thumb moved to a new position because the user selected Scroll Here in the shortcut menu of the ScrollBar. This movement corresponds to the ScrollHereCommand. To view the shortcut menu, right-click the mouse when the pointer is over the ScrollBar.

ThumbTrack	The Thumb was dragged and caused a MouseMove event. A Scroll event of this ScrollEventType may occur more than one time when the Thumb is dragged in the ScrollBar.
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6.196 ScrollUnitSyntax

ScrollUnitSyntax	
[values]	
Item	The ScrollUnit is measured in terms of the items that are displayed in the panel.
Pixel	The ScrollUnit is measured in terms of device-independent units (1/96th inch per unit).

6.197 SelectionModeSyntax

SelectionModeSyntax	
[values]	
Extended	The user can select multiple consecutive items while holding down the SHIFT key.
Multiple	The user can select multiple items without holding down a modifier key.
Single	The user can select only one item at a time.

6.198 SelectiveScrollingOrientationSyntax

SelectiveScrollingOrientationSyntax	
[values]	
Both	The panel scrolls in both the horizontal and vertical direction.
Horizontal	The panel scrolls in the horizontal direction only.
None	The panel does not scroll.
Vertical	The panel scrolls in the vertical direction only.

6.199 ShaderRenderModeSyntax

ShaderRenderModeSyntax	
[values]	
Auto	Allow hardware and software rendering.
HardwareOnly	Require hardware rendering, ignore if unavailable.
SoftwareOnly	Force software rendering.

6.200 ShutdownModeSyntax

ShutdownModeSyntax	
[values]	
OnExplicitShutdown	An application shuts down only when Shutdown is called.
OnLastWindowClose	An application shuts down when either the last window closes, or Shutdown is called.
OnMainWindowClose	An application shuts down when either the main window closes, or Shutdown is called.

6.201 Size3DSyntax

Size3DSyntax	
[values]	
Empty	Equivalent to a value of "0,0,0"
[is case sensitive]	true
[patterns]	
$((\backslash+?((\backslash d+(\backslash \cdot \backslash d^*)?) (\backslash d^*\backslash \cdot \backslash d+)))([eE][+-]? \backslash d+)?)((\backslash s^*, \backslash s^*) \backslash s+))\{2\}(\backslash+?((\backslash d+(\backslash \cdot \backslash d^*)?) (\backslash d^*\backslash \cdot \backslash d+)))([eE][+-]? \backslash d+)?$	Three decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.202 SizeSyntax

SizeSyntax	
[values]	
Empty	Equivalent to a value of "0,0"
[is case sensitive]	true
[patterns]	
$(\backslash+?((\backslash d+(\backslash.\backslash d^*)?) (\backslash d^*\backslash.\backslash d+)))([eE][+-]? \backslash d+)?((\backslash s^*,\backslash s^*) \backslash s+)(\backslash+?((\backslash d+(\backslash.\backslash d^*)?) (\backslash d^*\backslash.\backslash d+)))([eE][+-]? \backslash d+)?$	Two decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.203 SizeToContentSyntax

SizeToContentSyntax	
[values]	
Height	Specifies that a window will automatically set its height to fit the height of its content, but not the width.
Manual	Specifies that a window will not automatically set its size to fit the size of its content. Instead, the size of a window is determined by other properties, including Width, Height, MaxWidth, MaxHeight, MinWidth, and MinHeight.
Width	Specifies that a window will automatically set its width to fit the width of its content, but not the height.
WidthAndHeight	Specifies that a window will automatically set both its width and height to fit the width and height of its content.

6.204 SlipBehaviorSyntax

SlipBehaviorSyntax

[values]	
Grow	Indicates that a ParallelTimeline will not slip with the child Timeline, but will expand to fit all slipping Timeline children. NOTE: This is only effective when the Duration of the ParallelTimeline is not explicitly specified.
Slip	Indicates that a ParallelTimeline will slip along with its first child Timeline that can slip whenever that child is delayed or accelerated.

6.205 SpeechModeSyntax

SpeechModeSyntax	
[values]	
Command	Speech input is interpreted as commands.
Dictation	Speech input is interpreted as dictation.
Indeterminate	Speech input mode is indeterminate.

6.206 SpellingReformSyntax

SpellingReformSyntax	
[values]	
Postreform	Use spelling rules from after the spelling reform.
PreAndPostreform	Use spelling rules from both before and after the spelling reform.
Prereform	Use spelling rules from before the spelling reform.

6.207 StickyNoteTypeSyntax

StickyNoteTypeSyntax	
[values]	
Ink	An ink sticky note.
Text	A text sticky note.

6.208 StretchDirectionSyntax

StretchDirectionSyntax	
[values]	
Both	The content stretches to fit the parent according to the Stretch mode.
DownOnly	The content scales downward only when it is larger than the parent. If the content is smaller, no scaling upward is performed.
UpOnly	The content scales upward only when it is smaller than the parent. If the content is larger, no scaling downward is performed.

6.209 StretchSyntax

StretchSyntax	
[values]	
Fill	The content is resized to fill the destination dimensions. The aspect ratio is not preserved.
None	The content preserves its original size.
Uniform	The content is resized to fit in the destination dimensions while it preserves its native aspect ratio.
UniformToFill	The content is resized to fill the destination dimensions while it preserves its native aspect ratio. If the aspect ratio of the destination rectangle differs from the source, the source content is clipped to fit in the destination dimensions.

6.210 StringCollectionSyntax

StringCollectionSyntax	
[patterns]	
(([,])*?)?([,])*	A comma-separated list of strings.
[is case sensitive]	true

6.211 StringComparisonSyntax

StringComparisonSyntax	
[values]	
CurrentCulture	Compare strings using culture-sensitive sort rules and the current culture.
CurrentCultureIgnoreCase	Compare strings using culture-sensitive sort rules, the current culture, and ignoring the case of the strings being compared.
InvariantCulture	Compare strings using culture-sensitive sort rules and the invariant culture.
InvariantCultureIgnoreCase	Compare strings using culture-sensitive sort rules, the invariant culture, and ignoring the case of the strings being compared.
Ordinal	Compare strings using ordinal (binary) sort rules.
OrdinalIgnoreCase	Compare strings using ordinal (binary) sort rules and ignoring the case of the strings being compared.

6.212 StrokeCollectionSyntax

StrokeCollectionSyntax	
[patterns]	
[A-Za-z0-9+/*]	A base64 string.
[is case sensitive]	true

6.213 StyleSimulationsSyntax

StyleSimulationsSyntax	
[values]	
BoldItalicSimulation	Bold and Italic style simulation.
BoldSimulation	Bold style simulation.
ItalicSimulation	Italic style simulation.
None	No font style simulation.

6.214 StylusButtonStateSyntax

StylusButtonStateSyntax	
[values]	
Down	The button is pressed down.
Up	The button is up.

6.215 StylusPointPropertyUnitSyntax

StylusPointPropertyUnitSyntax	
[values]	
Centimeters	Indicates that a StylusPoint property is measured in centimeters.
Degrees	Indicates that a StylusPoint property is measured in degrees.
Grams	Indicates that a StylusPoint property is measured in grams.
Inches	Indicates that a StylusPoint property is measured in inches.
None	Indicates that a StylusPoint property's measurement is not specified.
Pounds	Indicates that a StylusPoint property is measured in pounds.
Radians	Indicates that a StylusPoint property is measured in radians.
Seconds	Indicates that a StylusPoint property is measured in seconds.

6.216 StylusTipSyntax

StylusTipSyntax	
[values]	
Ellipse	Represents an ellipse-shaped tip.
Rectangle	Represents a rectangle-shaped tip.

6.217 SweepDirectionSyntax

SweepDirectionSyntax	
[values]	
Clockwise	Specifies that arcs are drawn in a clockwise (positive-angle) direction.
Counterclockwise	Specifies that arcs are drawn in a counter clockwise (negative-angle) direction.

6.218 SystemGestureSyntax

SystemGestureSyntax	
[values]	
Drag	Maps to a left drag on a mouse.
Flick	Occurs with a short, quick stroke that translates into a specific command. The action taken by a flick is set system-wide. An application can listen for a Flick and prevent it from becoming one of the standard ApplicationCommands by setting the Handled property to true in the StylusSystemGesture event.
HoldEnter	Indicates that press and hold has occurred.
HoldLeave	
HoverEnter	Maps to a mouse hover. This can be used to show ToolTip rollover effects, or other mouse hover behaviors.
HoverLeave	Maps to a mouse leaving a hover. This can be used to end ToolTip rollover effects or other mouse hover behaviors.
None	No system gesture.
RightDrag	Maps to a right drag on a mouse. This can be used to drag an object or selection to a different area and is followed by the appearance of the shortcut menu which provides options for moving the object.
RightTap	Maps to a right-click on a mouse. This can be used to show a shortcut menu.
Tap	Maps to a left-click on a mouse. This can be used to choose a command from the menu or toolbar, take action if a command is chosen, set an insertion point, or show selection feedback.
TwoFingerTap	Maps to a double-click of a mouse.

6.219 TabletDeviceTypeSyntax

TabletDeviceTypeSyntax	
[values]	
Stylus	Indicates the tablet device is a stylus.
Touch	Indicates the tablet device is a touch screen.

6.220 TabletHardwareCapabilitiesSyntax

TabletHardwareCapabilitiesSyntax	
[values]	
HardProximity	Indicates the tablet device can generate in-air packets when the stylus is in the physical detection range (proximity) of the tablet device.
Integrated	Indicates the digitizer is integrated with the display.
None	Indicates the tablet device cannot provide this information.
StylusHasPhysicalIds	Indicates the tablet device can uniquely identify the active stylus.
StylusMustTouch	Indicates the stylus must be in physical contact with the tablet device to report its position.
SupportsPressure	Indicates that the tablet device can detect the amount of pressure the user applies when using the stylus.

6.221 TaskbarItemProgressStateSyntax

TaskbarItemProgressStateSyntax	
[values]	
Error	A red progress indicator is displayed in the taskbar button.
Indeterminate	A pulsing green indicator is displayed in the taskbar button.
None	No progress indicator is displayed in the taskbar button.
Normal	A green progress indicator is displayed in the taskbar button.
Paused	A yellow progress indicator is displayed in the taskbar button.

6.222 TextAlignmentSyntax

TextAlignmentSyntax	
[values]	
Center	Text is centered.
Justify	Text is justified.
Left	Default. Text is aligned to the left.
Right	Text is aligned to the right.

6.223 TextCollapsingStyleSyntax

TextCollapsingStyleSyntax	
[values]	
TrailingCharacter	Collapse trailing characters.
TrailingWord	Collapse trailing words.

6.224 TextCompositionAutoCompleteSyntax

TextCompositionAutoCompleteSyntax	
[values]	
Off	Auto-complete is off.
On	Auto-complete is on. A TextInput event will be raised automatically by the TextCompositionManager after a TextInputStart event is handled.

6.225 TextDataFormatSyntax

TextDataFormatSyntax	
[values]	

CommaSeparatedValue	Specifies that the text data is in the CommaSeparatedValue data format.
Html	Specifies that the text data is in the Html data format.
Rtf	Specifies that the text data is in the Rtf data format.
Text	Specifies that the text data is in the Text data format.
UnicodeText	Specifies that the text data is in the UnicodeText data format.
Xaml	Specifies that the text data is in the Xaml data format.

6.226 TextDecorationCollectionSyntax

TextDecorationCollectionSyntax	
[patterns]	
(NONE) (OVERLINE BASELINE UNDERLINE STRIKETHROUGH)?((\s*,\s*)(OVERLINE BASELINE UNDERLINE STRIKETHROUGH))*	Either 'none', or a comma-separated list of any combination of overline, baseline, underline, and strikethrough.

6.227 TextDecorationLocationSyntax

TextDecorationLocationSyntax	
[values]	
Baseline	The vertical position of a baseline.
OverLine	The vertical position of an overline.
Strikethrough	The vertical position of a strikethrough.
Underline	The vertical position of an underline. This is the default value.

6.228 TextDecorationUnitSyntax

TextDecorationUnitSyntax	
[values]	

FontRecommended	A unit value that is relative to the font used for the TextDecoration. If the decoration spans multiple fonts, an average recommended value is calculated. This is the default value.
FontRenderingEmSize	A unit value that is relative to the em size of the font. The value of the offset or thickness is equal to the offset or thickness value multiplied by the font em size.
Pixel	A unit value that is expressed in pixels.

6.229 TextFormattingModeSyntax

TextFormattingModeSyntax	
[values]	
Display	Indicates that the TextFormatter lays out text by using GDI-compatible font metrics.
Ideal	Indicates that the TextFormatter lays out text by using ideal font metrics.

6.230 TextHintingModeSyntax

TextHintingModeSyntax	
[values]	
Animated	The rendering engine renders text with the highest animated quality.
Auto	The rendering engine automatically determines whether to draw text with quality settings appropriate for animated or static text.
Fixed	The rendering engine renders text with the highest static quality.

6.231 TextMarkerStyleSyntax

TextMarkerStyleSyntax	
[values]	
Box	A solid square box.
Circle	A hollow disc circle.

Decimal	A decimal starting with the number one. For example, 1, 2, and 3. The decimal value is automatically incremented for each item added to the list.
Disc	A solid disc circle.
LowerLatin	A lowercase ASCII character starting with the letter a. For example, a, b, and c. The character value is automatically incremented for each item added to the list.
LowerRoman	A lowercase Roman numeral starting with the numeral i. For example, i, ii, iii, and iv. The numeral is automatically incremented for each item added to the list.
None	No marker.
Square	A hollow square shape.
UpperLatin	An uppercase ASCII character starting with the letter A. For example, A, B, and C. The character value is automatically incremented for each item added to the list.
UpperRoman	An uppercase Roman numeral starting with the numeral I. For example, I, II, III, and IV. The numeric value is automatically incremented for each item added to the list.

6.232 TextPointerContextSyntax

TextPointerContextSyntax	
[values]	
ElementEnd	The TextPointer is adjacent to the closing tag of a TextElement.
ElementStart	The TextPointer is adjacent to the opening tag of a TextElement.
EmbeddedElement	The TextPointer is adjacent to an embedded UIElement or ContentElement.
None	The TextPointer is adjacent to the beginning or end of content.
Text	The TextPointer is adjacent to text.

6.233 TextRenderingModeSyntax

TextRenderingModeSyntax	
[values]	
Aliased	Text is rendered with bilevel anti-aliasing.

Auto	Text is rendered with the most appropriate rendering algorithm based on the layout mode that was used to format the text.
ClearType	Text is rendered with the most appropriate ClearType rendering algorithm based on the layout mode that was used to format the text.
Grayscale	Text is rendered with grayscale anti-aliasing.

6.234 TextTabAlignmentSyntax

TextTabAlignmentSyntax	
[values]	
Center	Text is center-aligned at the tab location.
Character	Text is aligned at the tab location at a specified character.
Left	Text is left-aligned at the tab location.
Right	Text is right-aligned at the tab location.

6.235 TextTrimmingSyntax

TextTrimmingSyntax	
[values]	
CharacterEllipsis	Text is trimmed at a character boundary. An ellipsis (...) is drawn in place of remaining text.
None	Text is not trimmed.
WordEllipsis	Text is trimmed at a word boundary. An ellipsis (...) is drawn in place of remaining text.

6.236 TextWrappingSyntax

TextWrappingSyntax	
[values]	
NoWrap	No line wrapping is performed.

Wrap	Line breaking occurs if the line overflows beyond the available block width, even if a line-breaking opportunity cannot be determined, as in the case of a very long word constrained in a fixed-width container with no scrolling allowed.
WrapWithOverflow	Line breaking occurs if the line overflows beyond the available block width. However, a line may overflow beyond the block width if a line-break opportunity cannot be determined, as in the case of a very long word constrained in a fixed-width container with no scrolling allowed.

6.237 ThicknessSyntax

ThicknessSyntax	
[patterns]	
<pre>(([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]]?\d+)?)((\s*,\s*) \s+))?([+]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)</pre>	One decimal floating point value, or two values separated by either a comma or whitespace.
[is case sensitive]	true
<pre>(([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]]?\d+)?)((\s*,\s*) \s+)){3}([+-]]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)</pre>	Four decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.238 TickBarPlacementSyntax

TickBarPlacementSyntax	
[values]	
Bottom	The tick bar is positioned below the Track of the Slider.
Left	The tick bar is positioned to the left of the Track of the Slider.
Right	The tick bar is positioned to the right of the Track of the Slider.
Top	The tick bar is positioned above the Track of the Slider.

6.239 TickPlacementSyntax

TickPlacementSyntax	
[values]	
Both	Tick marks appear above and below the Track bar for a horizontal Slider, or to the left and right of the Track for a vertical Slider.
BottomRight	Tick marks appear below the Track for a horizontal Slider, or to the right of the Track for a vertical Slider.
None	No tick marks appear.
TopLeft	Tick marks appear above the Track for a horizontal Slider, or to the left of the Track for a vertical Slider.

6.240 TiffCompressOptionSyntax

TiffCompressOptionSyntax	
[values]	
Ccitt3	The CCITT3 compression schema is used.
Ccitt4	The CCITT4 compression schema is used.
Default	The TiffBitmapEncoder encoder attempts to save the bitmap with the best possible compression schema.
Lzw	The LZW compression schema is used.
None	The Tagged Image File Format (TIFF) image is not compressed.
Rle	The RLE compression schema is used.
Zip	Zip compression schema is used.

6.241 TileModeSyntax

TileModeSyntax	
[values]	

FlipX	The same as Tile except that alternate columns of tiles are flipped horizontally. The base tile itself is not flipped.
FlipXY	The combination of FlipX and FlipY. The base tile itself is not flipped.
FlipY	The same as Tile except that alternate rows of tiles are flipped vertically. The base tile itself is not flipped.
None	The base tile is drawn but not repeated. The remaining area is transparent
Tile	The base tile is drawn and the remaining area is filled by repeating the base tile. The right edge of one tile meets the left edge of the next, and similarly for the bottom and top edges.

6.242 TimeSeekOriginSyntax

TimeSeekOriginSyntax	
[values]	
BeginTime	The offset is relative to the beginning of the activation period of the Timeline.
Duration	The offset is relative to the Duration of the Timeline, the length of a single iteration. This value has no meaning if the Duration of the Timeline is not resolved.

6.243 ToleranceTypeSyntax

ToleranceTypeSyntax	
[values]	
Absolute	Error tolerance is treated as an absolute value.
Relative	Error tolerance is treated as a relative value.

6.244 TouchActionSyntax

TouchActionSyntax	
[values]	
Down	The act of putting a finger onto the screen.

Move	The act of dragging a finger across the screen.
Up	The act of lifting a finger off of the screen.

6.245 TransformSyntax

TransformSyntax	
[values]	
Identity	The identity matrix.
[is case sensitive]	true
[patterns]	
<pre> ([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+)){5}([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?) </pre>	Six decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.246 UndoActionSyntax

UndoActionSyntax	
[values]	
Clear	This change will clear the undo stack
Create	This change will create a new undo unit
Merge	This change will merge into the previous undo unit
None	This change will not affect the undo stack at all
Redo	This change is the result of a call to Redo()
Undo	This change is the result of a call to Undo()

6.247 UpdateSourceTriggerSyntax

UpdateSourceTriggerSyntax	
[values]	
Default	The default UpdateSourceTrigger value of the binding target property. The default value for most properties is PropertyChanged, while the Text property has a default value of LostFocus.
Explicit	Updates the binding source only when you call the UpdateSource method.
LostFocus	Updates the binding source whenever the binding target element loses focus.
PropertyChanged	Updates the binding source immediately whenever the binding target property changes.

6.248 ValidationErrorEventActionSyntax

ValidationErrorEventActionSyntax	
[values]	
Added	A new ValidationError object has been detected.
Removed	An existing ValidationError object has been cleared.

6.249 ValidationStepSyntax

ValidationStepSyntax	
[values]	
CommittedValue	Runs the ValidationRule after the value has been committed to the source.
ConvertedProposedValue	Runs the ValidationRule after the value is converted.
RawProposedValue	Runs the ValidationRule before any conversion occurs.
UpdatedValue	Runs the ValidationRule after the source is updated.

6.250 Vector3DCollectionSyntax

Vector3DCollectionSyntax	
[patterns]	
<pre> ([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)(((\s*,\s*) \s+)([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)?){2}(((\s*,\s*) \s+)([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]? \d+)?)?){3})* </pre>	Sequence of decimal floating point values, separated by either a comma or whitespace. The number of values in the sequence is a multiple of three.
[is case sensitive]	true

6.251 Vector3DSyntax

Vector3DSyntax	
[patterns]	
<pre> (([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+)){2}([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]? \d+)?) </pre>	Three decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.252 VectorCollectionSyntax

VectorCollectionSyntax	
[patterns]	
<pre> ([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+)([+-]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]? \d+)?) </pre>	Sequence of decimal floating point values, separated by either a comma or whitespace. The number of values in the sequence is a multiple of two.

<pre>]?((\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?(((\s*,\s*) \s+)([+-]?(?(\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?))){2}*</pre>	
[is case sensitive]	true

6.253 VectorSyntax

<h2>VectorSyntax</h2>	
[patterns]	
<pre>(([+-]?(?(\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)((\s*,\s*) \s+)([+-]?(?(\d+(\.\d*)?) (\d*\.\d+))([eE][+-]?\d+)?)</pre>	Two decimal floating point values, separated by either a comma or whitespace.
[is case sensitive]	true

6.254 VerticalAlignmentSyntax

<h2>VerticalAlignmentSyntax</h2>	
[values]	
Bottom	The child element is aligned to the bottom of the parent's layout slot.
Center	The child element is aligned to the center of the parent's layout slot.
Stretch	The child element stretches to fill the parent's layout slot.
Top	The child element is aligned to the top of the parent's layout slot.

6.255 VirtualizationCacheLengthSyntax

<h2>VirtualizationCacheLengthSyntax</h2>	
[patterns]	

<pre> ([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)?((\\s*,\\s*) \\s+)?([+-]?(\\d+(\\.\\d*)?) (\\d*\\.\\d+))([eE][+-]?\\d+)? </pre>	One decimal floating point value, or two values separated by either a comma or whitespace.
[is case sensitive]	true

6.256 VirtualizationCacheLengthUnitSyntax

VirtualizationCacheLengthUnitSyntax	
[values]	
Item	The CacheLength is measured in terms of the items that are displayed in the panel.
Page	The CacheLength is measured in terms of a page, which is equal to the size of the panel's viewport.
Pixel	The CacheLength is measured in terms of device-independent units (1/96th inch per unit).

6.257 VirtualizationModeSyntax

VirtualizationModeSyntax	
[values]	
Recycling	Reuse the item containers.
Standard	Create and discard the item containers.

6.258 VisibilitySyntax

VisibilitySyntax	
[values]	
Collapsed	Do not display the element, and do not reserve space for it in layout.

Hidden	Do not display the element, but reserve space for the element in layout.
Visible	Display the element.

6.259 WindowStartupLocationSyntax

WindowStartupLocationSyntax	
[values]	
CenterOwner	The startup location of a Window is the center of the Window that owns it, as specified by the Owner property.
CenterScreen	The startup location of a Window is the center of the screen that contains the mouse cursor.
Manual	The startup location of a Window is set manually, or defers to the default Windows location.

6.260 WindowStateSyntax

WindowStateSyntax	
[values]	
Maximized	The window is maximized.
Minimized	The window is minimized.
Normal	The window is restored.

6.261 WindowStyleSyntax

WindowStyleSyntax	
[values]	
None	Only the client area is visible - the title bar and border are not shown. A NavigationWindow with a WindowStyle of None will still display the navigation user interface (UI).
SingleBorderWindow	A window with a single border. This is the default value.

ThreeDBorderWindow	A window with a 3-D border.
ToolWindow	A fixed tool window.

6.262 WrapDirectionSyntax

WrapDirectionSyntax	
[values]	
Both	Content that flows around both sides of the object.
Left	Content that only flows around the left side of the object.
None	Content that does not flow around the object.
Right	Content that only flows around the right side of the object.

6.263 XmlLanguageSyntax

XmlLanguageSyntax	
[patterns]	
[A-Z]{1,8}(-[0-9A-Z]{1,8})*	A series of tags, each from 1-8 characters long, separated by hyphens. The first tag can use upper and lowercase ASCII letters. The remaining tags can use the same and may also contain digits.
[trim whitespace]	false

7 Index

AccessText 53
ActiveXHost 710
AdornedElementPlaceholder 54
AdornerDecorator 55
AffineTransform3D 55
AlignmentX 55
AlignmentXSyntax 729
AlignmentY 56
AlignmentYSyntax 729
AlternationConverter 56
AmbientLight 57
AnchoredBlock 57
Animatable 58
AnimationTimeline 58
Application 59
ApplicationCommands 60
ApplicationGesture 62
ApplicationGestureSyntax 729
ArcSegment 62
AutomationLiveSetting 63
AutomationLiveSettingSyntax 732
AutomationProperties 63
AutoToolTipPlacement 65
AutoToolTipPlacementSyntax 733
AxisAngleRotation3D 66
BackEase 66
BaseCompatibilityPreferences 66
BaselineAlignment 67
BaselineAlignmentSyntax 733
BaseValueSource 67
BaseValueSourceSyntax 733
BeginStoryboard 68
BezierSegment 68
Binding 69
BindingBase 71
BindingGroup 72
BindingMode 72
BindingModeSyntax 734
BindingOperations 73
BindingStatus 73
BindingStatusSyntax 735
BitmapCache 74
BitmapCacheBrush 74
BitmapCacheOption 75
BitmapCacheOptionSyntax 735
BitmapCreateOptions 75
BitmapCreateOptionsSyntax 736
BitmapEncoder 75
BitmapFrame 76
BitmapImage 76
BitmapPalette 77
BitmapPalettes 78
BitmapScalingMode 80
BitmapScalingModeSyntax 736
BitmapSource 81
Block 81
BlockCollection 83
BlockUIContainer 84
BlurEffect 84
BmpBitmapEncoder 85
Bold 85
BooleanAnimationBase 85
BooleanAnimationUsingKeyFrames 86
BooleanKeyFrame 86
BooleanKeyFrameCollection 87
BooleanToVisibilityConverter 87
Border 87
BorderGapMaskConverter 88
BounceEase 88
Brush 89
Brushes 90
BrushMappingMode 99
BrushMappingModeSyntax 737
BrushSyntax 737
BulletDecorator 99
Button 100
ButtonBase 100
ByteAnimation 101
ByteAnimationBase 102
ByteAnimationUsingKeyFrames 102
ByteKeyFrame 103
ByteKeyFrameCollection 103
CachedBitmap 104
CacheMode 104
CacheModeSyntax 742
CachingHint 104
CachingHintSyntax 742
Calendar 105

CalendarBlackoutDatesCollection 106
 CalendarButton 106
 CalendarDateRange 107
 CalendarDayButton 107
 CalendarItem 108
 CalendarMode 108
 CalendarModeSyntax 743
 CalendarSelectionMode 108
 CalendarSelectionModeSyntax 743
 Camera 109
 Canvas 109
 CaptureMode 110
 CaptureModeSyntax 743
 CharacterBufferRange 111
 CharacterBufferReference 111
 CharacterCasing 111
 CharacterCasingSyntax 744
 CharacterHit 112
 CharacterMetrics 112
 CharacterMetricsDictionary 112
 CharAnimationBase 113
 CharAnimationUsingKeyFrames 113
 CharKeyFrame 114
 CharKeyFrameCollection 114
 CheckBox 115
 CircleEase 115
 ClearTypeHint 115
 ClearTypeHintSyntax 744
 ClickMode 116
 ClickModeSyntax 744
 Clock 116
 ClockCollection 116
 ClockState 117
 ClockStateSyntax 745
 Collection(T) 711
 CollectionBase 711
 CollectionContainer 117
 CollectionView 117
 CollectionViewSource 118
 Color 120
 ColorAnimation 121
 ColorAnimationBase 121
 ColorAnimationUsingKeyFrames 122
 ColorContext 122
 ColorConvertedBitmap 123
 ColorConvertedBitmapExtension 123
 ColorInterpolationMode 124
 ColorInterpolationModeSyntax 745
 ColorKeyFrame 124
 ColorKeyFrameCollection 124
 Colors 125
 ColorSyntax 745
 ColumnDefinition 134
 ColumnDefinitionCollection 135
 ColumnSpaceDistribution 135
 ColumnSpaceDistributionSyntax 751
 CombinedGeometry 135
 ComboBox 136
 ComboBoxItem 137
 CommandBinding 137
 CommandBindingCollection 138
 CommandSyntax 751
 ComponentCommands 138
 ComponentResourceKey 140
 CompositeCollection 141
 Condition 141
 ConditionCollection 142
 ContainerUIElement3D 142
 ContainerVisual 143
 ContentControl 144
 ContentElement 144
 ContentOperations 149
 ContentPresenter 149
 ContextMenu 150
 ContextMenuService 151
 Control 153
 ControllableStoryboardAction 155
 ControlTemplate 155
 CoreCompatibilityPreferences 156
 CornerRadius 156
 CornerRadiusSyntax 760
 CroppedBitmap 157
 CubicEase 157
 CultureInfo 711
 CultureInfoletfLanguageTagSyntax 761
 CultureInfoSyntax 761
 Cursor 157
 Cursors 158
 CursorSyntax 761
 CursorType 160
 CursorTypeSyntax 763
 CustomPopupPlacement 160
 DashStyle 161
 DashStyles 161

DataErrorValidationRule 162
DataGrid 162
DataGridBoundColumn 167
DataGridColumn 168
DataGridColumnInfo 168
DataGridColumnPanel 168
DataGridColumnPresenter 169
DataGridColumnCheckBoxColumn 169
DataGridColumnClipboardCellContent 170
DataGridColumnClipboardCopyMode 170
DataGridColumnClipboardCopyModeSyntax 764
DataGridColumnHeader 170
DataGridColumnHeaderPresenter 173
DataGridColumnHeaderVisibility 173
DataGridColumnHeaderVisibilitySyntax 764
DataGridColumnLength 177
DataGridColumnLengthSyntax 766
DataGridColumnLengthUnitType 177
DataGridColumnLengthUnitTypeSyntax 766
DataGridRow 178
DataGridRowDetailsVisibilityMode 179
DataGridRowDetailsVisibilityModeSyntax 766
DataGridRowHeader 179
DataGridRowsPresenter 180
DataGridSelectionMode 180
DataGridSelectionModeSyntax 767
DataGridSelectionUnit 180
DataGridSelectionUnitSyntax 767
DataGridTemplateColumn 181
DataGridTextColumn 181
DataObject 182
DataSourceProvider 712
DataTemplate 183
DataTemplateKey 183
DataTemplateSelector 184
DataTrigger 184
DatePicker 185
DatePickerFormat 186
DatePickerFormatSyntax 767
DatePickerTextBox 186
DayOfWeek 712
DayOfWeekSyntax 768
DecimalAnimation 187
DecimalAnimationBase 187
DecimalAnimationUsingKeyFrames 188
DecimalKeyFrame 188
DecimalKeyFrameCollection 189
Decorator 189
DeferrableContent 190
DefinitionBase 190
Delegate 713
DependencyObject 191
DependencyProperty 191
DependencyPropertySyntax 768
DiffuseMaterial 191
DirectionalLight 192
DiscreteBooleanKeyFrame 192
DiscreteByteKeyFrame 192
DiscreteCharKeyFrame 193
DiscreteColorKeyFrame 193
DiscreteDecimalKeyFrame 193
DiscreteDoubleKeyFrame 194
DiscreteInt16KeyFrame 194
DiscreteInt32KeyFrame 194
DiscreteInt64KeyFrame 194
DiscreteMatrixKeyFrame 195
DiscreteObjectKeyFrame 195
DiscretePoint3DKeyFrame 195
DiscretePointKeyFrame 195
DiscreteQuaternionKeyFrame 196
DiscreteRectKeyFrame 196
DiscreteRotation3DKeyFrame 196
DiscreteSingleKeyFrame 196
DiscreteSizeKeyFrame 197
DiscreteStringKeyFrame 197
DiscreteThicknessKeyFrame 197
DiscreteVector3DKeyFrame 198
DiscreteVectorKeyFrame 198
Dock 198
DockPanel 198
DockSyntax 768
DocumentPageView 199
DocumentReference 200
DocumentReferenceCollection 200

DocumentViewer 201
 DocumentViewerBase 202
 DoubleAnimation 203
 DoubleAnimationBase 203
 DoubleAnimationUsingKeyFrames 204
 DoubleAnimationUsingPath 204
 DoubleCollection 205
 DoubleCollectionSyntax 769
 DoubleKeyFrame 205
 DoubleKeyFrameCollection 206
 DpiScale 206
 DragAction 206
 DragActionSyntax 769
 DragDropEffects 207
 DragDropEffectsSyntax 769
 DragDropKeyStates 207
 DragDropKeyStatesSyntax 770
 Drawing 207
 DrawingAttributes 208
 DrawingBrush 209
 DrawingCollection 209
 DrawingGroup 209
 DrawingImage 210
 DrawingVisual 211
 DropShadowEffect 211
 Duration 211
 DurationSyntax 770
 DynamicResourceExtension 212
 EasingByteKeyFrame 213
 EasingColorKeyFrame 213
 EasingDecimalKeyFrame 213
 EasingDoubleKeyFrame 214
 EasingFunctionBase 214
 EasingInt16KeyFrame 214
 EasingInt32KeyFrame 215
 EasingInt64KeyFrame 215
 EasingMode 215
 EasingModeSyntax 771
 EasingPoint3DKeyFrame 216
 EasingPointKeyFrame 216
 EasingQuaternionKeyFrame 217
 EasingRectKeyFrame 217
 EasingRotation3DKeyFrame 217
 EasingSingleKeyFrame 218
 EasingSizeKeyFrame 218
 EasingThicknessKeyFrame 218
 EasingVector3DKeyFrame 219
 EasingVectorKeyFrame 219
 EdgeMode 220
 EdgeModeSyntax 771
 EdgeProfile 220
 EdgeProfileSyntax 771
 EditingCommands 220
 Effect 225
 ElasticEase 226
 Ellipse 226
 EllipseGeometry 226
 EmissiveMaterial 227
 EventPrivateKey 227
 EventSetter 227
 EventTrigger 228
 ExceptionValidationRule 228
 ExpandDirection 229
 ExpandDirectionSyntax 772
 Expander 229
 ExponentialEase 230
 FamilyTypeface 230
 FamilyTypefaceCollection 231
 Figure 232
 FigureHorizontalAnchor 233
 FigureHorizontalAnchorSyntax 772
 FigureLength 233
 FigureLengthSyntax 772
 FigureUnitType 233
 FigureUnitTypeSyntax 773
 FigureVerticalAnchor 234
 FigureVerticalAnchorSyntax 773
 FillBehavior 234
 FillBehaviorSyntax 774
 FillRule 235
 FillRuleSyntax 774
 FixedDocument 235
 FixedDocumentSequence 235
 FixedPage 236
 Floater 237
 FlowDirection 238
 FlowDirectionSyntax 775
 FlowDocument 238
 FlowDocumentPageViewer 241
 FlowDocumentReader 242
 FlowDocumentReaderViewingMode 243
 FlowDocumentReaderViewingModeSyntax 775
 FlowDocumentScrollViewer 244
 FocusManager 245

FocusNavigationDirection 245
FocusNavigationDirectionSyntax 775
FontCapitals 246
FontCapitalsSyntax 776
FontEastAsianLanguage 246
FontEastAsianLanguageSyntax 776
FontEastAsianWidths 247
FontEastAsianWidthsSyntax 777
FontEmbeddingManager 247
FontEmbeddingRight 247
FontEmbeddingRightSyntax 777
FontFamily 248
FontFamilyMap 248
FontFamilyMapCollection 249
FontFamilySyntax 779
FontFraction 249
FontFractionSyntax 779
FontNumeralAlignment 250
FontNumeralAlignmentSyntax 779
FontNumeralStyle 250
FontNumeralStyleSyntax 780
Fonts 250
FontSizeSyntax 780
FontStretch 251
FontStretches 251
FontStretchSyntax 780
FontStyle 252
FontStyles 253
FontStyleSyntax 781
FontVariants 253
FontVariantsSyntax 781
FontWeight 253
FontWeights 254
FontWeightSyntax 782
FormatConvertedBitmap 255
Frame 256
FrameworkCompatibilityPreferences 257
FrameworkContentElement 257
FrameworkElement 259
FrameworkPropertyMetadataOptions 263
FrameworkPropertyMetadataOptionsSyntax 783
FrameworkTemplate 263
Freezable 264
FreezableCollection(T) 713
GeneralTransform 264
GeneralTransform3D 265
GeneralTransform3DCollection 265
GeneralTransform3DGroup 265
GeneralTransformCollection 266
GeneralTransformGroup 266
GeneratorDirection 267
GeneratorDirectionSyntax 784
GeneratorPosition 267
GeneratorStatus 267
GeneratorStatusSyntax 784
Geometry 268
Geometry3D 268
GeometryCollection 269
GeometryCombineMode 269
GeometryCombineModeSyntax 785
GeometryDrawing 269
GeometryGroup 270
GeometryModel3D 270
GeometrySyntax 785
GestureRecognizer 271
GifBitmapEncoder 271
GlyphRun 271
GlyphRunDrawing 273
Glyphs 273
GlyphTypeface 274
GradientBrush 277
GradientSpreadMethod 278
GradientSpreadMethodSyntax 785
GradientStop 278
GradientStopCollection 278
Grid 279
GridLength 280
GridLengthSyntax 786
GridResizeBehavior 280
GridResizeBehaviorSyntax 786
GridResizeDirection 281
GridResizeDirectionSyntax 786
GridSplitter 281
GridUnitType 282
GridUnitTypeSyntax 787
GridView 282
GridViewColumn 284
GridViewColumnCollection 285
GridViewColumnHeader 285
GridViewColumnHeaderRole 285
GridViewColumnHeaderRoleSyntax 787
GridViewHeaderRowPresenter 286
GridViewRowPresenter 287
GridViewRowPresenterBase 287

GroupBox 288
 GroupDescription 714
 GroupItem 288
 GroupStyle 288
 GuidelineSet 289
 HandoffBehavior 290
 HandoffBehaviorSyntax 787
 HeaderedContentControl 290
 HeaderedItemsControl 291
 HierarchicalDataTemplate 291
 HierarchicalVirtualizationConstraints 293
 HierarchicalVirtualizationHeaderDesiredSizes 293
 HierarchicalVirtualizationItemDesiredSizes 293
 HitTestFilterBehavior 294
 HitTestFilterBehaviorSyntax 788
 HitTestResultBehavior 294
 HitTestResultBehaviorSyntax 788
 HorizontalAlignment 294
 HorizontalAlignmentSyntax 788
 HostVisual 295
 Hyperlink 295
 IAnimatable 296
 ICollection(T) 714
 ICommand 715
 ICommandSource 297
 IComparer 715
 IContainItemStorage 298
 IContentHost 298
 IDataObject 298
 IDictionary 716
 IDictionary(T,U) 716
 IDocumentPaginatorSource 716
 IEasingFunction 299
 IEnumerable 717
 IFrameworkInputElement 299
 IHierarchicalVirtualizationAndScrollInfo 300
 IInputElement 301
 IKeyFrame 304
 IKeyFrameAnimation 305
 IList 717
 IList(T) 717
 Image 305
 ImageBrush 306
 ImageDrawing 306
 ImageSource 307
 ImeConversionModeValues 307
 ImeConversionModeValuesSyntax 789
 ImeSentenceModeValues 308
 ImeSentenceModeValuesSyntax 789
 IMultiValueConverter 308
 InertiaExpansionBehavior 308
 InertiaRotationBehavior 309
 InertiaTranslationBehavior 309
 InheritanceBehavior 310
 InheritanceBehaviorSyntax 790
 InkCanvas 310
 InkCanvasClipboardFormat 312
 InkCanvasClipboardFormatSyntax 790
 InkCanvasEditingMode 313
 InkCanvasEditingModeSyntax 790
 InkCanvasSelectionHitResult 313
 InkCanvasSelectionHitResultSyntax 791
 InkPresenter 313
 Inline 314
 InlineCollection 315
 InlineUIContainer 315
 InputBinding 315
 InputBindingCollection 316
 InputDevice 316
 InputGesture 317
 InputGestureCollection 317
 InputLanguageManager 317
 InputManager 318
 InputMethod 319
 InputMethodState 321
 InputMethodStateSyntax 791
 InputMode 321
 InputModeSyntax 792
 InputScope 321
 InputScopeName 322
 InputScopeNameValue 322
 InputScopeNameValueSyntax 792
 InputScopePhrase 323
 InputScopeSyntax 794
 InputType 323
 InputTypeSyntax 794
 Int16Animation 324
 Int16AnimationBase 324
 Int16AnimationUsingKeyFrames 325
 Int16KeyFrame 325
 Int16KeyFrameCollection 326
 Int32Animation 326
 Int32AnimationBase 327
 Int32AnimationUsingKeyFrames 327

Int32Collection 328
Int32CollectionSyntax 794
Int32KeyFrame 328
Int32KeyFrameCollection 329
Int32Rect 329
Int32RectSyntax 795
Int64Animation 330
Int64AnimationBase 331
Int64AnimationUsingKeyFrames 331
Int64KeyFrame 332
Int64KeyFrameCollection 332
IntersectionDetail 333
IntersectionDetailSyntax 795
IntPtr 719
InvertAxes 333
InvertAxesSyntax 795
IScrollInfo 333
IsOffscreenBehavior 334
IsOffscreenBehaviorSyntax 796
Italic 334
ItemCollection 335
ItemContainerTemplate 336
ItemContainerTemplateKey 336
ItemsControl 337
ItemsPanelTemplate 338
ItemsPresenter 339
IValueConverter 339
IWeakEventListener 339
IXmlSerializable 719
JournalEntry 340
JournalEntryListConverter 340
JournalEntryPosition 341
JournalEntryPositionSyntax 796
JournalEntryUnifiedViewConverter 341
JournalOwnership 341
JournalOwnershipSyntax 796
JpegBitmapEncoder 342
JumpItem 342
JumpItemRejectionReason 343
JumpItemRejectionReasonSyntax 797
JumpList 343
JumpPath 344
JumpTask 344
KernelType 345
KernelTypeSyntax 797
Key 345
KeyBinding 346
Keyboard 346
KeyboardDevice 347
KeyboardNavigation 348
KeyboardNavigationMode 349
KeyboardNavigationModeSyntax 797
KeyGesture 349
KeyGestureSyntax 798
KeySpline 349
KeySplineSyntax 798
KeyStates 350
KeyStatesSyntax 798
KeySyntax 799
KeyTime 350
KeyTimeSyntax 805
KeyTimeType 351
KeyTimeTypeSyntax 806
KeyTipControl 351
KeyTipHorizontalPlacement 352
KeyTipHorizontalPlacementSyntax 806
KeyTipService 352
KeyTipVerticalPlacement 353
KeyTipVerticalPlacementSyntax 807
KeyValuePair(T,U) 719
Label 353
LanguageSpecificStringDictionary 354
LengthSyntax 807
Light 354
Line 355
LinearByteKeyFrame 355
LinearColorKeyFrame 356
LinearDecimalKeyFrame 356
LinearDoubleKeyFrame 356
LinearGradientBrush 356
LinearInt16KeyFrame 357
LinearInt32KeyFrame 357
LinearInt64KeyFrame 357
LinearPoint3DKeyFrame 358
LinearPointKeyFrame 358
LinearQuaternionKeyFrame 358
LinearRectKeyFrame 359
LinearRotation3DKeyFrame 359
LinearSingleKeyFrame 359
LinearSizeKeyFrame 359
LinearThicknessKeyFrame 360
LinearVector3DKeyFrame 360
LinearVectorKeyFrame 360
LineBreak 360

LineBreakCondition 361
LineBreakConditionSyntax 808
LineGeometry 361
LineSegment 362
LineStackingStrategy 362
LineStackingStrategySyntax 808
LinkTarget 362
LinkTargetCollection 363
List 363
List(T) 720
ListBox 364
ListBoxItem 364
ListItem 365
ListItemCollection 366
ListSortDirection 720
ListSortDirectionSyntax 808
ListView 367
ListViewItem 367
Localization 367
LocalizationCategory 368
LocalizationCategorySyntax 809
LocalValueEntry 368
LocalValueEnumerator 369
LogicalDirection 369
LogicalDirectionSyntax 809
Manipulation 369
ManipulationModes 370
ManipulationModesSyntax 810
ManipulationParameters2D 720
ManipulationPivot 370
Material 371
MaterialCollection 371
MaterialGroup 371
Matrix 372
Matrix3D 373
Matrix3DSyntax 810
MatrixAnimationBase 374
MatrixAnimationUsingKeyFrames 374
MatrixAnimationUsingPath 375
MatrixCamera 376
MatrixKeyFrame 376
MatrixKeyFrameCollection 377
MatrixSyntax 810
MatrixTransform 377
MatrixTransform3D 377
MediaCommands 378
MediaElement 380
MediaPlayer 381
MediaState 382
MediaStateSyntax 811
MediaTimeline 382
Menu 383
MenuBase 383
MenuItem 384
MenuItemRole 385
MenuItemRoleSyntax 811
MenuScrollingVisibilityConverter 386
MeshGeometry3D 386
MessageBoxButton 386
MessageBoxButtonSyntax 812
MessageBoxImage 387
MessageBoxImageSyntax 812
MessageBoxOptions 387
MessageBoxOptionsSyntax 813
MessageBoxResult 387
MessageBoxResultSyntax 813
MinMaxParagraphWidth 388
Model3D 388
Model3DCollection 389
Model3DGroup 389
ModelUIElement3D 389
ModelVisual3D 390
Modifiability 390
ModifiabilitySyntax 813
ModifierKeys 390
ModifierKeysSyntax 814
Mouse 391
MouseAction 392
MouseActionSyntax 814
MouseBinding 393
MouseButton 393
MouseButtonState 393
MouseButtonStateSyntax 814
MouseButtonSyntax 815
MouseDevice 394
MouseGesture 394
MouseGestureSyntax 815
MultiBinding 395
MultiDataTrigger 396
MultiSelector 396
MultiTrigger 397
NavigationCommands 398
NavigationMode 399
NavigationModeSyntax 815

NavigationUIVisibility 399
NavigationUIVisibilitySyntax 816
NavigationWindow 400
NonClientFrameEdges 401
NonClientFrameEdgesSyntax 816
NotifyDataErrorValidationRule 401
NumberCultureSource 401
NumberCultureSourceSyntax 816
NumberSubstitution 401
NumberSubstitutionMethod 402
NumberSubstitutionMethodSyntax 817
ObjectAnimationBase 403
ObjectAnimationUsingKeyFrames 403
ObjectDataProvider 404
ObjectKeyFrame 404
ObjectKeyFrameCollection 405
ObservableCollection(T) 722
Orientation 405
OrientationSyntax 817
OrthographicCamera 406
OverflowMode 406
OverflowModeSyntax 817
Page 406
PageContent 408
PageContentCollection 408
PageRange 409
PageRangeSelection 409
PageRangeSelectionSyntax 818
Panel 409
PanningMode 410
PanningModeSyntax 818
Paragraph 411
ParallelTimeline 412
PasswordBox 412
Path 413
PathAnimationSource 413
PathAnimationSourceSyntax 818
PathFigure 414
PathFigureCollection 414
PathFigureCollectionSyntax 819
PathGeometry 415
PathSegment 415
PathSegmentCollection 416
PauseStoryboard 416
Pen 416
PenLineCap 417
PenLineCapSyntax 819
PenLineJoin 418
PenLineJoinSyntax 820
PerspectiveCamera 418
PixelFormat 418
PixelFormatChannelMask 419
PixelFormats 419
PixelFormatSyntax 820
PixelShader 422
PlacementMode 422
PlacementModeSyntax 822
PngBitmapEncoder 423
PngInterlaceOption 423
PngInterlaceOptionSyntax 824
Point 423
Point3D 424
Point3DAnimation 425
Point3DAnimationBase 425
Point3DAnimationUsingKeyFrames 426
Point3DCollection 426
Point3DCollectionSyntax 824
Point3DKeyFrame 427
Point3DKeyFrameCollection 427
Point3DSyntax 824
Point4D 428
Point4DSyntax 825
PointAnimation 428
PointAnimationBase 429
PointAnimationUsingKeyFrames 429
PointAnimationUsingPath 430
PointCollection 430
PointCollectionSyntax 825
PointKeyFrame 431
PointKeyFrameCollection 431
PointLight 432
PointLightBase 432
PointSyntax 826
PolyBezierSegment 433
Polygon 433
Polyline 434
PolyLineSegment 434
PolyQuadraticBezierSegment 434
Popup 435
PopupAnimation 436
PopupAnimationSyntax 826
PopupPrimaryAxis 436
PopupPrimaryAxisSyntax 826
PowerEase 437

PowerLineStatus 437
PowerLineStatusSyntax 827
Predicate(T) 722
PresentationTraceLevel 438
PresentationTraceLevelSyntax 827
PresentationTraceSources 438
PriorityBinding 439
ProgressBar 440
ProjectionCamera 440
PropertyGroupDescription 441
PropertyPath 441
PropertyPathSyntax 827
QuadraticBezierSegment 442
QuadraticEase 442
QuarticEase 443
Quaternion 443
QuaternionAnimation 444
QuaternionAnimationBase 445
QuaternionAnimationUsingKeyFrames 445
QuaternionKeyFrame 446
QuaternionKeyFrameCollection 446
QuaternionRotation3D 447
QuaternionSyntax 828
QuinticEase 447
RadialGradientBrush 447
RadioButton 448
RangeBase 448
Readability 449
ReadabilitySyntax 828
ReadOnlyCollection(T) 723
ReasonSessionEnding 449
ReasonSessionEndingSyntax 828
RecognitionConfidence 450
RecognitionConfidenceSyntax 828
Rect 450
Rect3D 451
Rect3DSyntax 829
Rectangle 452
RectangleGeometry 452
RectAnimation 453
RectAnimationBase 454
RectAnimationUsingKeyFrames 454
RectKeyFrame 455
RectKeyFrameCollection 455
RectSyntax 829
RelativeSource 456
RelativeSourceMode 457
RelativeSourceModeSyntax 830
RemoveStoryboard 457
RenderCapability 457
RenderingBias 458
RenderingBiasSyntax 830
RenderMode 723
RenderModeSyntax 830
RenderOptions 458
RenderTargetBitmap 459
RepeatBehavior 460
RepeatBehaviorSyntax 831
RepeatButton 460
RequestCachePolicy 723
RequestCachePolicySyntax 831
ResizeGrip 461
ResizeGripDirection 461
ResizeGripDirectionSyntax 832
ResizeMode 462
ResizeModeSyntax 833
ResourceDictionary 462
ResourceDictionaryLocation 463
ResourceDictionaryLocationSyntax 833
ResourceKey 463
RestoreFocusMode 464
RestoreFocusModeSyntax 833
ResumeStoryboard 464
Ribbon 464
RibbonApplicationMenu 467
RibbonApplicationMenuItem 467
RibbonApplicationMenuItemLevel 468
RibbonApplicationMenuItemLevelSyntax 834
RibbonApplicationSplitMenuItem 468
RibbonButton 469
RibbonCheckBox 471
RibbonComboBox 473
RibbonCommands 473
RibbonContentPresenter 474
RibbonContextMenu 475
RibbonContextualTabGroup 475
RibbonContextualTabGroupItemsControl 476
RibbonControl 476
RibbonControlGroup 477
RibbonControlLength 477
RibbonControlLengthSyntax 834
RibbonControlLengthUnitType 477
RibbonControlLengthUnitTypeSyntax 834
RibbonControlService 478

RibbonControlSizeDefinition 481
 RibbonControlSizeDefinitionCollection 482
 RibbonDismissPopupMode 483
 RibbonDismissPopupModeSyntax 835
 RibbonFilterMenuButton 483
 RibbonGallery 483
 RibbonGalleryCategory 486
 RibbonGalleryItem 487
 RibbonGroup 489
 RibbonGroupSizeDefinition 490
 RibbonGroupSizeDefinitionBase 491
 RibbonGroupSizeDefinitionBaseCollection 491
 RibbonGroupTemplateSizeDefinition 492
 RibbonImageSize 492
 RibbonImageSizeSyntax 835
 RibbonMenuButton 492
 RibbonMenuItem 495
 RibbonQuickAccessToolBar 496
 RibbonRadioButton 497
 RibbonSeparator 499
 RibbonSplitButton 500
 RibbonSplitButtonLabelPosition 501
 RibbonSplitButtonLabelPositionSyntax 835
 RibbonSplitMenuItem 502
 RibbonTab 503
 RibbonTabHeader 504
 RibbonTabHeaderItemsControl 505
 RibbonTextBox 505
 RibbonToggleButton 507
 RibbonToolTip 509
 RibbonTwoLineText 510
 RibbonWindow 511
 RichTextBox 512
 RotateTransform 512
 RotateTransform3D 513
 Rotation 513
 Rotation3D 514
 Rotation3DAnimation 514
 Rotation3DAnimationBase 515
 Rotation3DAnimationUsingKeyFrames 515
 Rotation3DKeyFrame 516
 Rotation3DKeyFrameCollection 516
 RotationSyntax 835
 RoutedCommand 517
 RoutedEvent 517
 RoutedEventHandlerInfo 518
 RoutedEventSyntax 836
 RoutedUICommand 518
 RoutingStrategy 518
 RoutingStrategySyntax 836
 RowDefinition 519
 RowDefinitionCollection 519
 Run 520
 SamplingMode 520
 SamplingModeSyntax 836
 ScaleTransform 521
 ScaleTransform3D 521
 ScrollBar 522
 ScrollBarVisibility 522
 ScrollBarVisibilitySyntax 837
 ScrollContentPresenter 523
 ScrollEventType 523
 ScrollEventTypeSyntax 837
 ScrollUnit 524
 ScrollUnitSyntax 838
 ScrollViewer 524
 Section 526
 SeekStoryboard 526
 SelectedDatesCollection 527
 SelectionMode 527
 SelectionModeSyntax 839
 SelectiveScrollingGrid 528
 SelectiveScrollingOrientation 528
 SelectiveScrollingOrientationSyntax 839
 Selector 528
 Separator 530
 SetStoryboardSpeedRatio 530
 Setter 530
 SetterBase 531
 SetterBaseCollection 531
 ShaderRenderMode 531
 ShaderRenderModeSyntax 839
 Shape 532
 ShutdownMode 533
 ShutdownModeSyntax 840
 SineEase 533
 SingleAnimation 534
 SingleAnimationBase 534
 SingleAnimationUsingKeyFrames 535
 SingleKeyFrame 535
 SingleKeyFrameCollection 536
 Size 536
 Size3D 537
 Size3DSyntax 840

SizeAnimation 538
SizeAnimationBase 538
SizeAnimationUsingKeyFrames 539
SizeKeyFrame 539
SizeKeyFrameCollection 540
SizeSyntax 840
SizeToContent 540
SizeToContentSyntax 841
SkewTransform 541
SkipStoryboardToFill 541
Slider 541
SlipBehavior 543
SlipBehaviorSyntax 841
SolidColorBrush 544
SortDescription 724
SortDescriptionCollection 724
SoundPlayerAction 544
Span 544
SpecularMaterial 545
SpeechMode 546
SpeechModeSyntax 842
SpellCheck 546
SpellingReform 547
SpellingReformSyntax 842
SplineByteKeyFrame 547
SplineColorKeyFrame 548
SplineDecimalKeyFrame 548
SplineDoubleKeyFrame 548
SplineInt16KeyFrame 549
SplineInt32KeyFrame 549
SplineInt64KeyFrame 549
SplinePoint3DKeyFrame 550
SplinePointKeyFrame 550
SplineQuaternionKeyFrame 550
SplineRectKeyFrame 551
SplineRotation3DKeyFrame 551
SplineSingleKeyFrame 552
SplineSizeKeyFrame 552
SplineThicknessKeyFrame 552
SplineVector3DKeyFrame 553
SplineVectorKeyFrame 553
SpotLight 553
StackPanel 554
StaticResourceExtension 555
StatusBar 555
StatusBarItem 556
StickyNoteType 556
StickyNoteTypeSyntax 842
StopStoryboard 557
Storyboard 557
StreamGeometry 557
Stretch 558
StretchDirection 558
StretchDirectionSyntax 842
StretchSyntax 843
StringAnimationBase 559
StringAnimationUsingKeyFrames 559
StringCollection 725
StringCollectionSyntax 843
StringComparison 725
StringComparisonSyntax 843
StringKeyFrame 559
StringKeyFrameCollection 560
Stroke 560
StrokeCollection 561
StrokeCollectionSyntax 844
Style 562
StyleSelector 562
StyleSimulations 563
StyleSimulationsSyntax 844
Stylus 563
StylusButton 565
StylusButtonCollection 565
StylusButtonState 565
StylusButtonStateSyntax 844
StylusDevice 566
StylusDeviceCollection 566
StylusPoint 567
StylusPointCollection 567
StylusPointDescription 568
StylusPointPropertyUnit 568
StylusPointPropertyUnitSyntax 845
StylusTip 568
StylusTipSyntax 845
SweepDirection 569
SweepDirectionSyntax 845
SystemColors 569
SystemCommands 578
SystemFonts 579
SystemGesture 583
SystemGestureSyntax 845
SystemParameters 583
TabControl 601
TabItem 601

Table 602
TableCell 602
TableCellCollection 604
TableColumn 604
TableColumnCollection 605
TableRow 605
TableRowCollection 606
TableRowGroup 606
TableRowGroupCollection 607
Tablet 607
TabletDevice 608
TabletDeviceCollection 608
TabletDeviceType 608
TabletDeviceTypeSyntax 846
TabletHardwareCapabilities 609
TabletHardwareCapabilitiesSyntax 846
TabPanel 609
TaskbarItemInfo 609
TaskbarItemProgressState 610
TaskbarItemProgressStateSyntax 847
TemplateBindingExtension 610
TemplateKey 611
TextAlignment 612
TextAlignmentSyntax 847
TextBlock 612
TextBox 615
TextBoxBase 616
TextCollapsingStyle 618
TextCollapsingStyleSyntax 848
TextCompositionAutoComplete 618
TextCompositionAutoCompleteSyntax 848
TextDataFormat 618
TextDataFormatSyntax 848
TextDecoration 619
TextDecorationCollection 619
TextDecorationCollectionSyntax 848
TextDecorationLocation 620
TextDecorationLocationSyntax 849
TextDecorations 620
TextDecorationUnit 620
TextDecorationUnitSyntax 849
TextEffect 621
TextEffectCollection 621
TextElement 622
TextElementCollection(T) 725
TextFormattingMode 623
TextFormattingModeSyntax 849
TextHintingMode 624
TextHintingModeSyntax 850
TextMarkerStyle 624
TextMarkerStyleSyntax 850
TextOptions 624
TextPointerContext 625
TextPointerContextSyntax 851
TextRenderingMode 625
TextRenderingModeSyntax 851
TextRunCache 626
TextSearch 626
TextTabAlignment 626
TextTabAlignmentSyntax 851
TextTrimming 627
TextTrimmingSyntax 852
TextWrapping 627
TextWrappingSyntax 852
ThemeDictionaryExtension 627
Thickness 628
ThicknessAnimation 629
ThicknessAnimationBase 629
ThicknessAnimationUsingKeyFrames 630
ThicknessKeyFrame 630
ThicknessKeyFrameCollection 631
ThicknessSyntax 852
Thumb 631
ThumbButtonInfo 632
ThumbButtonInfoCollection 633
TickBar 633
TickBarPlacement 634
TickBarPlacementSyntax 853
TickPlacement 635
TickPlacementSyntax 853
TiffBitmapEncoder 635
TiffCompressOption 635
TiffCompressOptionSyntax 854
TileBrush 636
TileMode 637
TileModeSyntax 854
Timeline 637
TimelineCollection 639
TimelineGroup 639
TimeSeekOrigin 639
TimeSeekOriginSyntax 854
ToggleButton 640
ToleranceType 640
ToleranceTypeSyntax 855

ToolBar 641
ToolBarOverflowPanel 642
ToolBarPanel 643
ToolBarTray 643
ToolTip 644
ToolTipService 645
TouchAction 647
TouchActionSyntax 855
TouchPoint 647
TouchPointCollection 648
TraceSource 726
Track 648
Transform 649
Transform3D 649
Transform3DCollection 650
Transform3DGroup 650
TransformCollection 650
TransformedBitmap 651
TransformGroup 651
TransformSyntax 855
TranslateTransform 652
TranslateTransform3D 652
TreeView 653
TreeViewItem 653
Trigger 654
TriggerAction 655
TriggerActionCollection 655
TriggerBase 655
TriggerCollection 656
Typeface 656
Typography 657
UIElement 664
UIElement3D 671
UIElementCollection 675
UInt16 727
Underline 676
UndoAction 676
UndoActionSyntax 856
UniformGrid 677
UpdateSourceTrigger 677
UpdateSourceTriggerSyntax 856
UserControl 677
Validation 678
ValidationErrorEventAction 679
ValidationErrorEventActionSyntax 856
ValidationResult 679
ValidationRule 679
ValidationStep 680
ValidationStepSyntax 857
ValueSource 680
Vector 680
Vector3D 681
Vector3DAnimation 682
Vector3DAnimationBase 682
Vector3DAnimationUsingKeyFrames 683
Vector3DCollection 683
Vector3DCollectionSyntax 857
Vector3DKeyFrame 684
Vector3DKeyFrameCollection 684
Vector3DSyntax 857
VectorAnimation 685
VectorAnimationBase 685
VectorAnimationUsingKeyFrames 686
VectorCollection 686
VectorCollectionSyntax 858
VectorKeyFrame 687
VectorKeyFrameCollection 687
VectorSyntax 858
VerticalAlignment 688
VerticalAlignmentSyntax 859
VideoDrawing 688
ViewBase 688
Viewbox 689
Viewport2DVisual3D 689
Viewport3D 690
Viewport3DVisual 691
VirtualizationCacheLength 691
VirtualizationCacheLengthSyntax 859
VirtualizationCacheLengthUnit 692
VirtualizationCacheLengthUnitSyntax 859
VirtualizationMode 692
VirtualizationModeSyntax 860
VirtualizingPanel 692
VirtualizingStackPanel 694
Visibility 695
VisibilitySyntax 860
Visual 695
Visual3D 695
Visual3DCollection 696
VisualBrush 696
VisualCollection 697
VisualState 697
VisualStateGroup 698
VisualStateManager 698

VisualTransition 699
WebBrowser 699
Window 700
WindowChrome 702
WindowCollection 703
WindowStartupLocation 703
WindowStartupLocationSyntax 860
WindowState 704
WindowStateSyntax 860
WindowStyle 704
WindowStyleSyntax 861
WmpBitmapEncoder 705
WrapDirection 706
WrapDirectionSyntax 861
WrapPanel 707
WriteableBitmap 707
x
 Boolean 710
 Byte 710
 Char 710
 DateTime 712

Decimal 713
Double 713
Int16 718
Int32 718
Int64 719
MarkupExtension 721
Nullable(T) 721
Object 721
Single 724
String 725
TimeSpan 726
Uri 727
XamlType 726
XmlDataProvider 708
XmlDocument 727
XmlLanguage 727
XmlLanguageSyntax 861
XmlNamespaceManager 728
XmlNamespaceMapping 708
XmlNamespaceMappingCollection 709
ZoomPercentageConverter 709

Appendix A: References

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