



Windows 8 개발자 컨퍼런스



Messaging



Internet Explorer



Control Panel



2012년 4월 13일

9:30 AM - 5:30 PM

건국대학교 새천년관 대공연장

13
FRIDAY



Store



Mail



Socialite



News

윈도우폰 7.5와 윈도우8 메트로 스타일 앱 개발

Jinho.Seo@microsoft.com

Sr. Developer Evangelist – Windows Phone and Academy
Microsoft

<http://blogs.msdn.com/jinhoseo>

<http://www.facebook.com/windowsphonekorea>

The era of Post-PC





- 아마존 베스트 셀러 1위 (주간 부문)
- Nokia Lumia 900
- 4.3 인치 디스플레이
- LTE 4G 통신
- 8백 메가 칼 짜이트 카메라 탑재



현재 80,000 개 넘어 곧 10만개로!



건강 3%

스포츠 4%

생활 5%

여행 6%

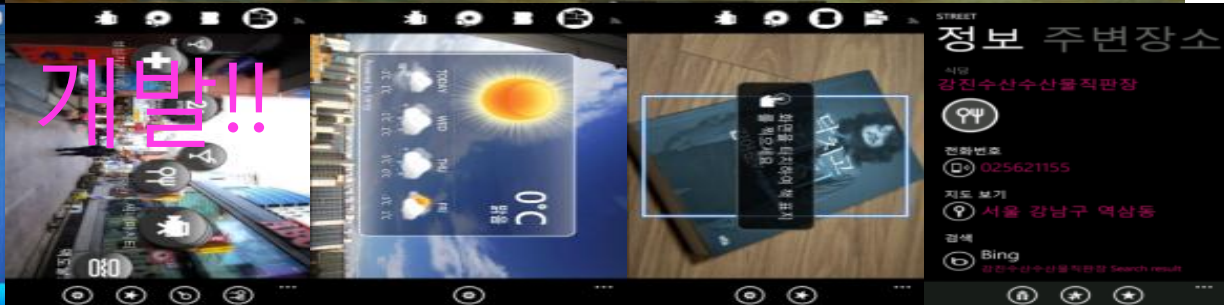
뉴스와
날씨 7%

책 및
참고서
14%

게임
14%

생산도구
15%

엔터테인먼트
17%



Case Study - 연합뉴스

분야명

해당분야 톱기사 제목

해당분야
톱기사 관련사진

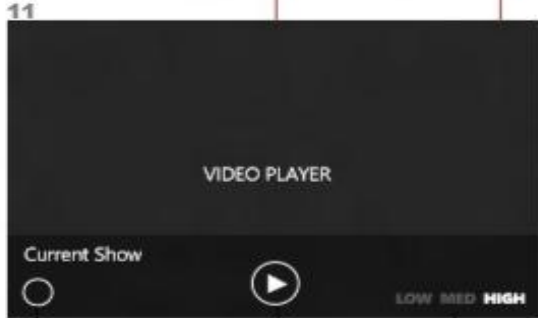
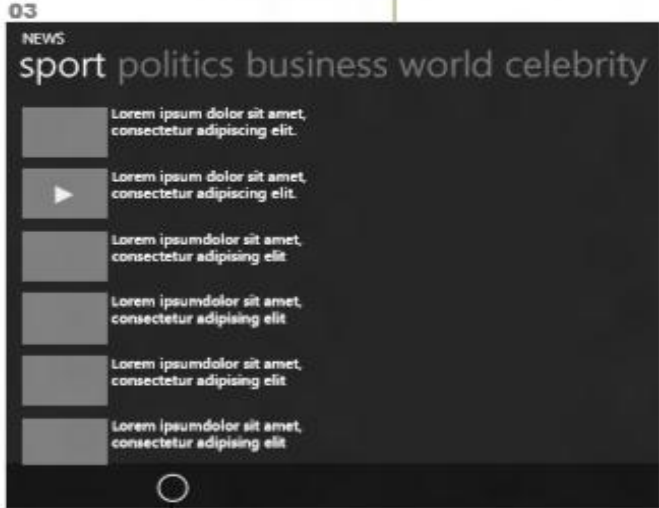
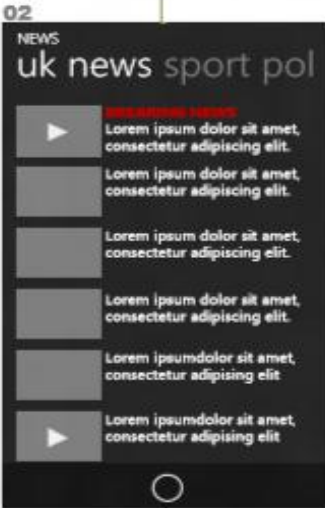


타일 영역



66px

26px



contoso news visual designs



NEWS PIVOT CONTROL



ARTICLE PAGE



CONTACT US FORM



START TILE FRONT

START TILE BACK



LIVE TV TILE



DIALOG BOX



CUSTOM VIDEO CONTROL



Demo

Bugs



계속해서 개발자들에게 디바이스 지원!!

<http://www.facebook.com/windowsphonekorea> 연락 바람!!

The Origin of Metro

start

more music



Movies

Television

Music + Radio

music library



playlist



search



radio



Help + Settings

Spotlight

music library

▶ play all

albums by year

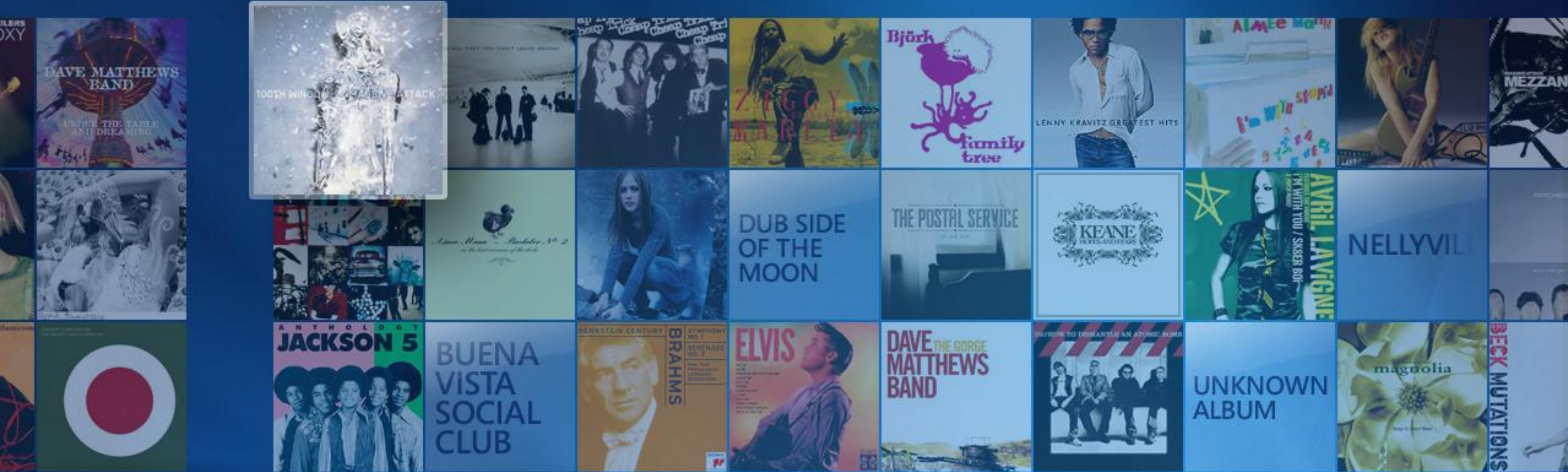
◀ **albums by title**

▶ albums by artist

artists

songs

genres



100th Window

Massive Attack

9 tracks 72:36 2002

society

information. efficient. global culture.
neutral. modernity.

1919 - 1933 Bauhaus

1950







3G

8:27[°]
Wednesday
March 26

Internal Design Review
Studio H/2010
12:45-2:00 PM

4 15 18 39

12:38

Phone 5 Internet Explorer

Twitter

12:38

12:38

PICTURES

albums favorites

Paris (64) Chillin' at the Old Skatepark (24)

Sasquach 2009 (96) My LEGO Toys (5)

12:38

12:38

MESSAGING

conversations

Dinara Reed 11:30 AM
Did you have fun on your trip? I'm so jealous that you went to the game!

Juan Atkins 11:15 AM
Yo dude can we talk?

Mark Farina 10:31 AM
Error sending: Ok I'll be there.

3 recipients 07/04/09
Dinara Reed, Ian Curtis, Johnny Ram
k sounds good. I'll see you guys there.

(425) 503-2331 06/30/09
Hey is this Chris?

+

3G

INCOMING CALL

Traci Williams

Mobile: 425-891-3988

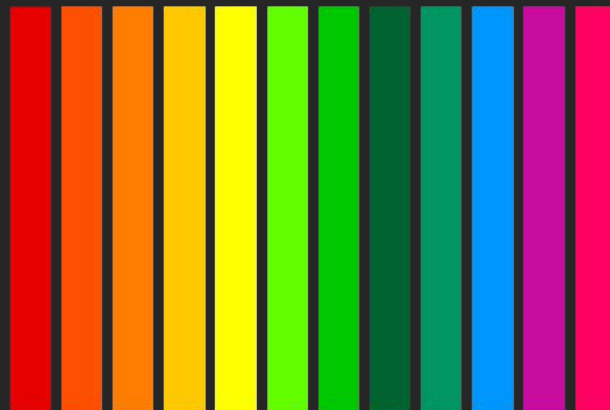
answer ignore

at&t



Design Language

Design Principles



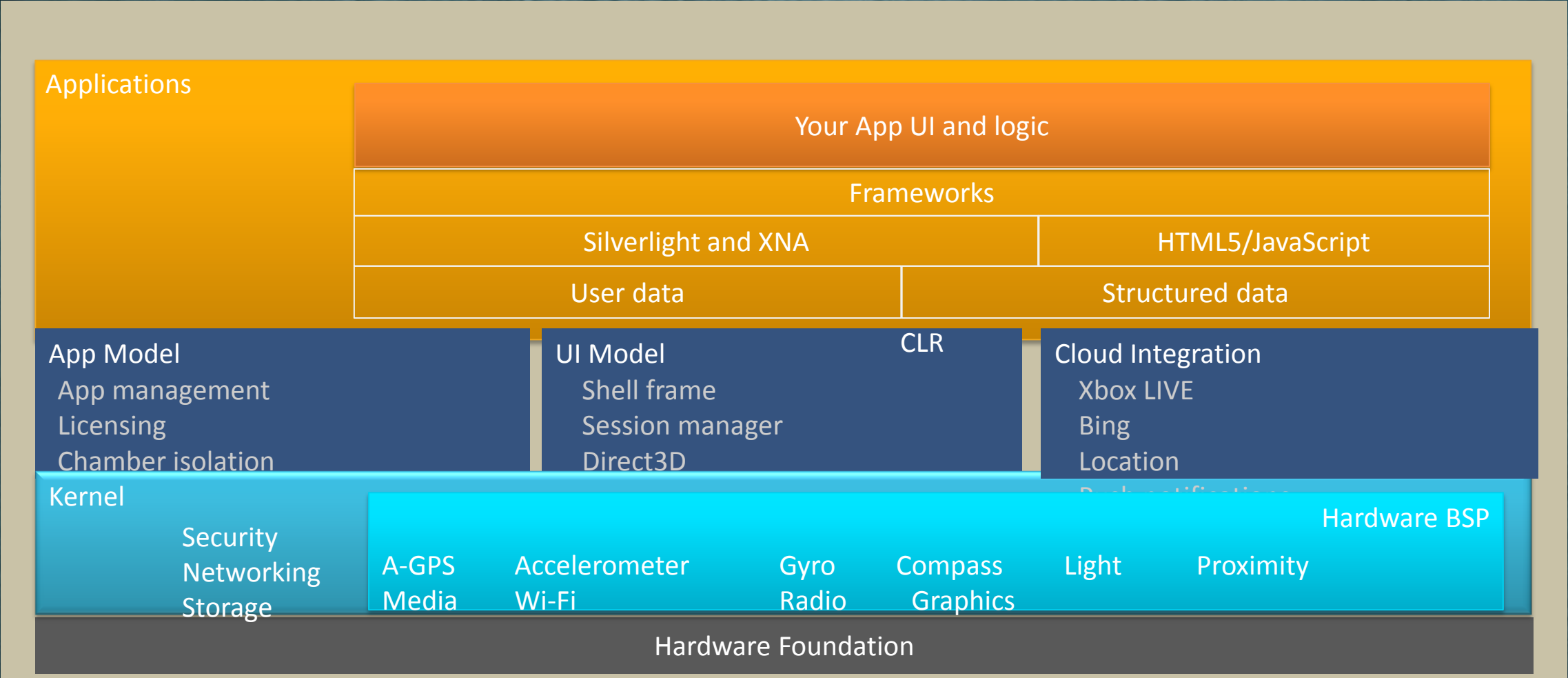
metro.

design principles describe
fundamental ideas about the
practice of good design, these ideas
are assumed to be the basis of all
intentional design strategies.

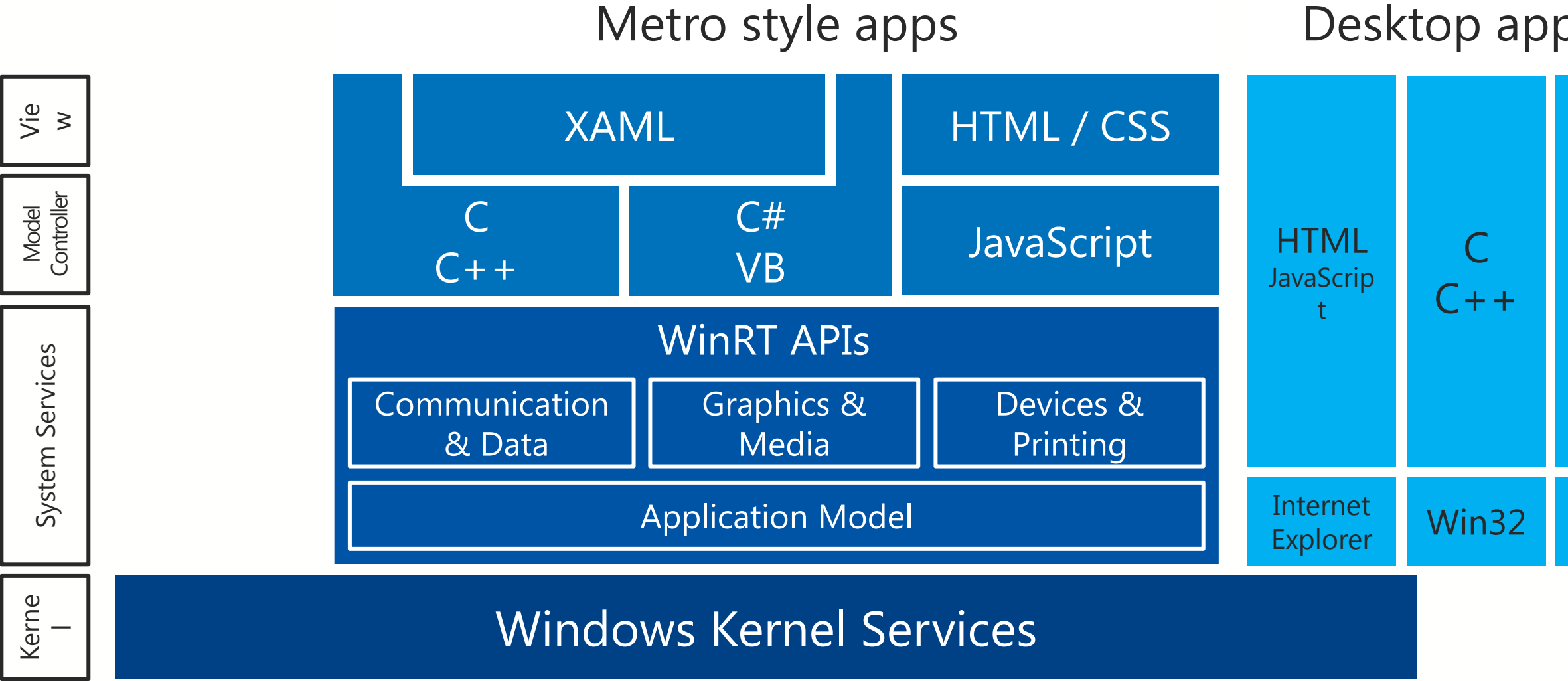
a design language is an overarching
scheme or style that guides the
creation of a common set of
experiences and user interfaces

윈도우폰 7.5 와 윈도우8 개요

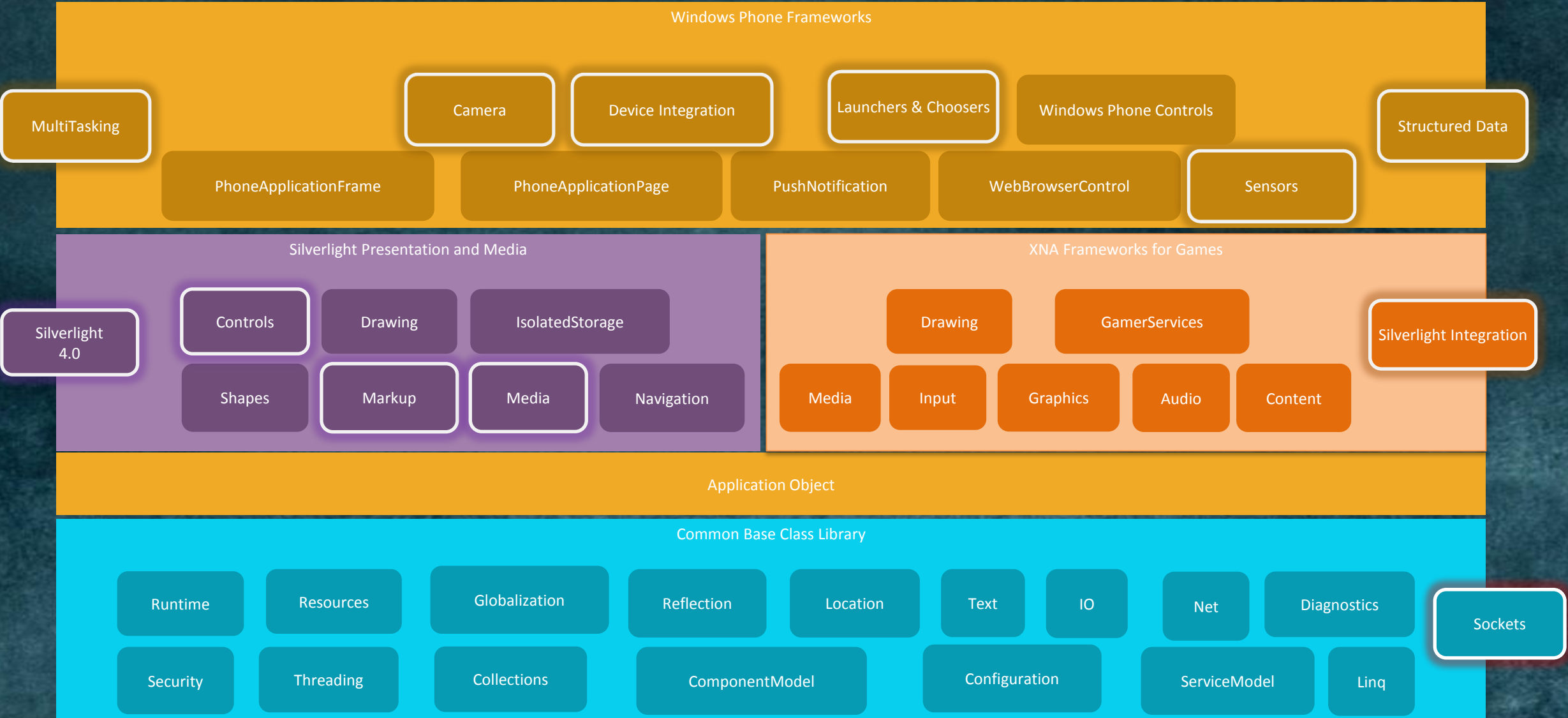
Windows Phone Application Architecture



Windows 8 Platform Architecture



Windows Phone Mango Frameworks



Metro style app APIs

User Interface

HTML5/CSS

XAML

DirectX

Controls

Data Binding

SVG

Tiles

Input

Accessibility

Printing

Devices

Geolocation

Portable

Sensors

NFC

Media

Playback

Capture

PlayTo

Visual Effects

Communications & Data

Contracts

Local & Cloud Storage

Web

Notifications

Streams

Background Transfer

XML

Networking

SMS

Fundamentals

Application Services

Threading/Timers

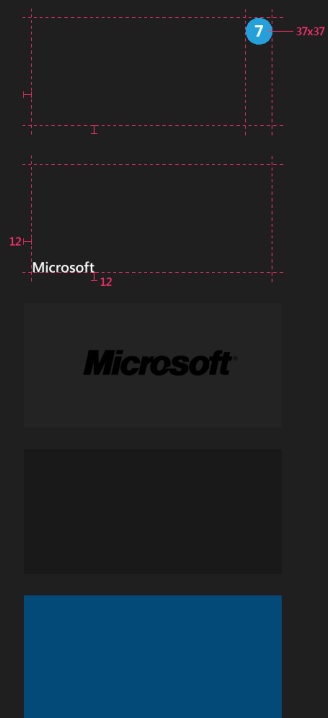
Memory Management

Authentication

Cryptography

Globalization

윈도우폰 라이브 타일



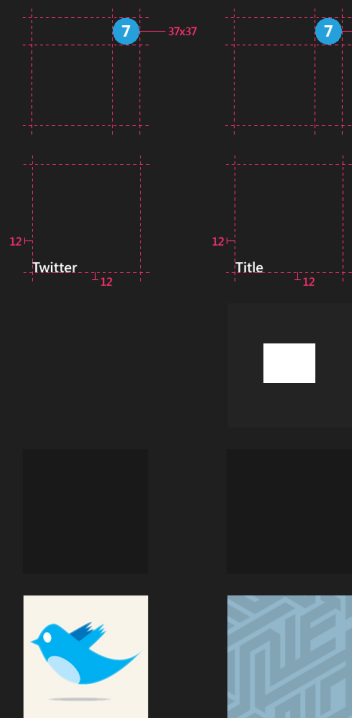
Updates
Optional updates

Title
Optional title

Icon
Set on a 358x173 transparent canvas

Overlay
20% black overlay set over background but under icon to insure readability of title and visibility on light theme

Background
Can be a solid color or can contain objects and patterns.



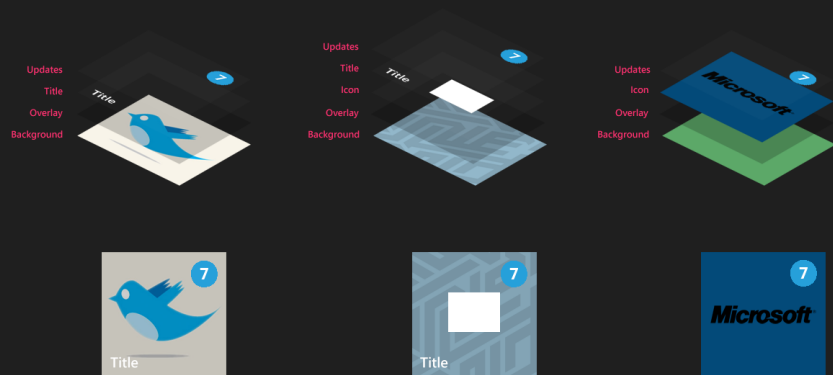
Updates
Optional updates

Title
Optional Title

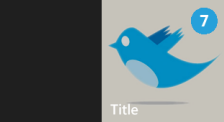
Icon
Set on a 173x173 transparent canvas

Overlay
20% black overlay set over background but under icon to insure readability of title and visibility on light theme

Background
Can be a solid color or can contain objects and patterns.



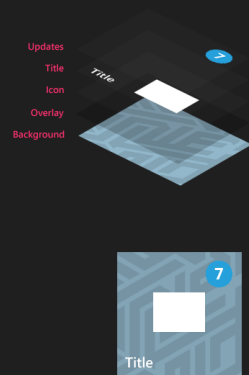
Updates
Title
Overlay
Background



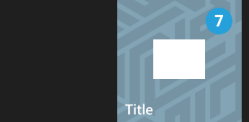
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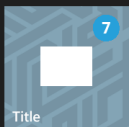
Background
Can be a solid color or can contain objects and patterns.



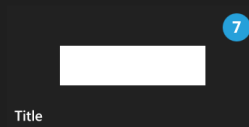
Microsoft



Twitter



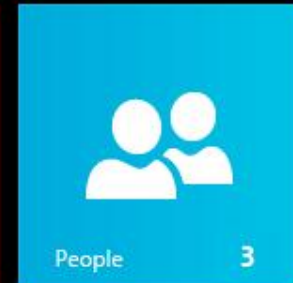
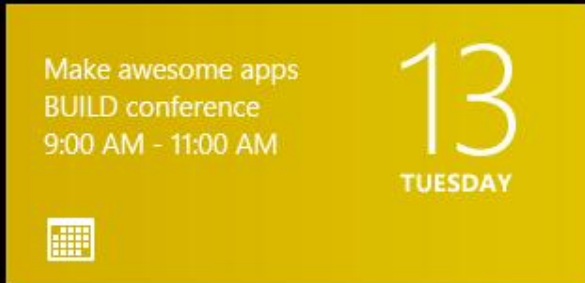
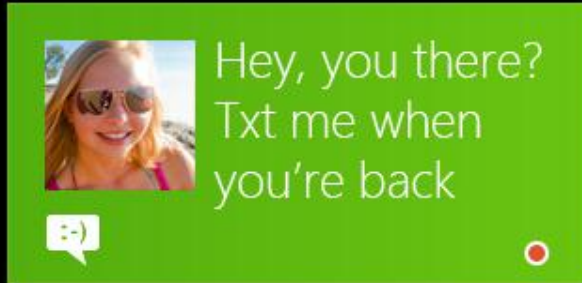
Title



Title



Title



윈도우8 앱으로 마이그레이션
하기 전에

마이그레이션 하기 전에 주의사항

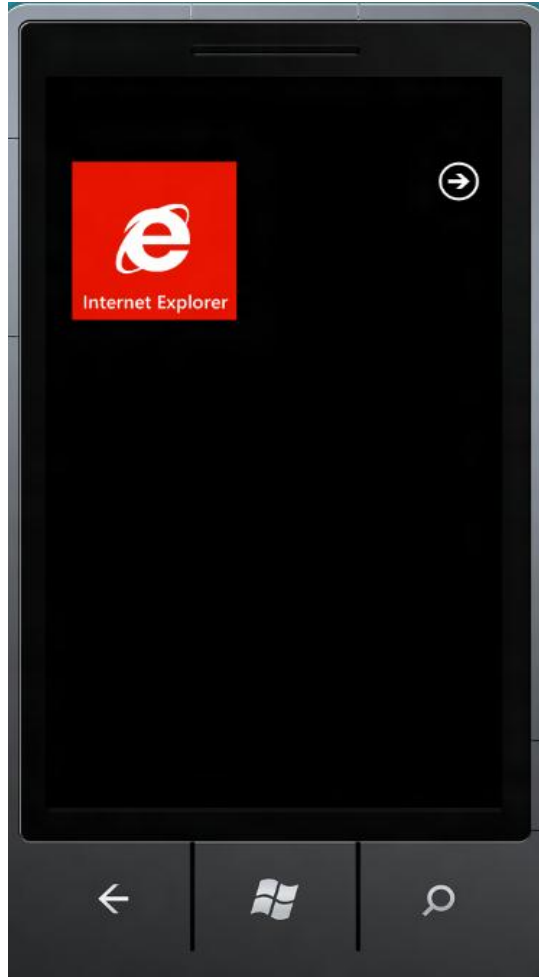
- Windows Metro Style UI 확장성 및 디자인 가이드를 꼭 읽어 보아라!
- Silverlight API 를 Windows Runtime API로 변경하라!
- .NET for Metro API 를 참고하라!

<http://msdn.microsoft.com/en-us/library/windows/apps/hh465136.aspx>

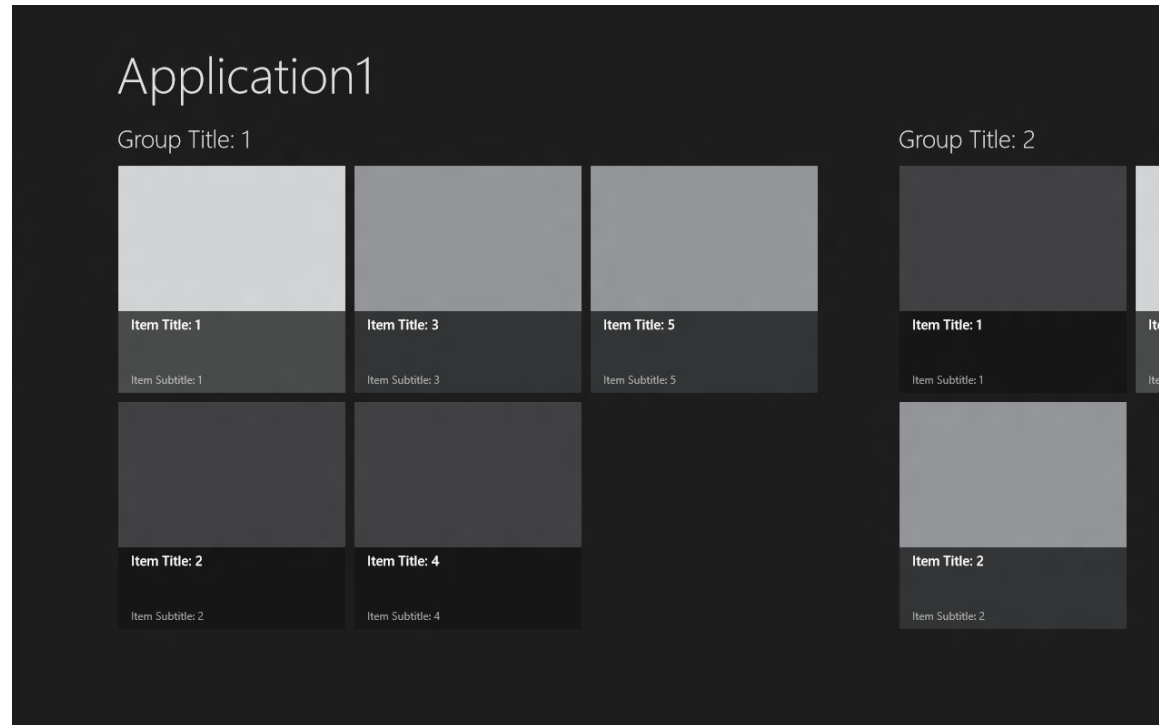
Windows 8 에서 윈도우폰 7.5 및 윈도우8 SDK 공통 설치 방법

- Windows 8 CP 설치하라!
- Windows Phone SDK 7.1 을 설치하라!
- Windows Phone SDK 7.1.1 로 업데이트 하라!
- Windows 8 SDK 설치하라!
- <http://www.microsoft.com/downloads>

Different Form factor (Screen)

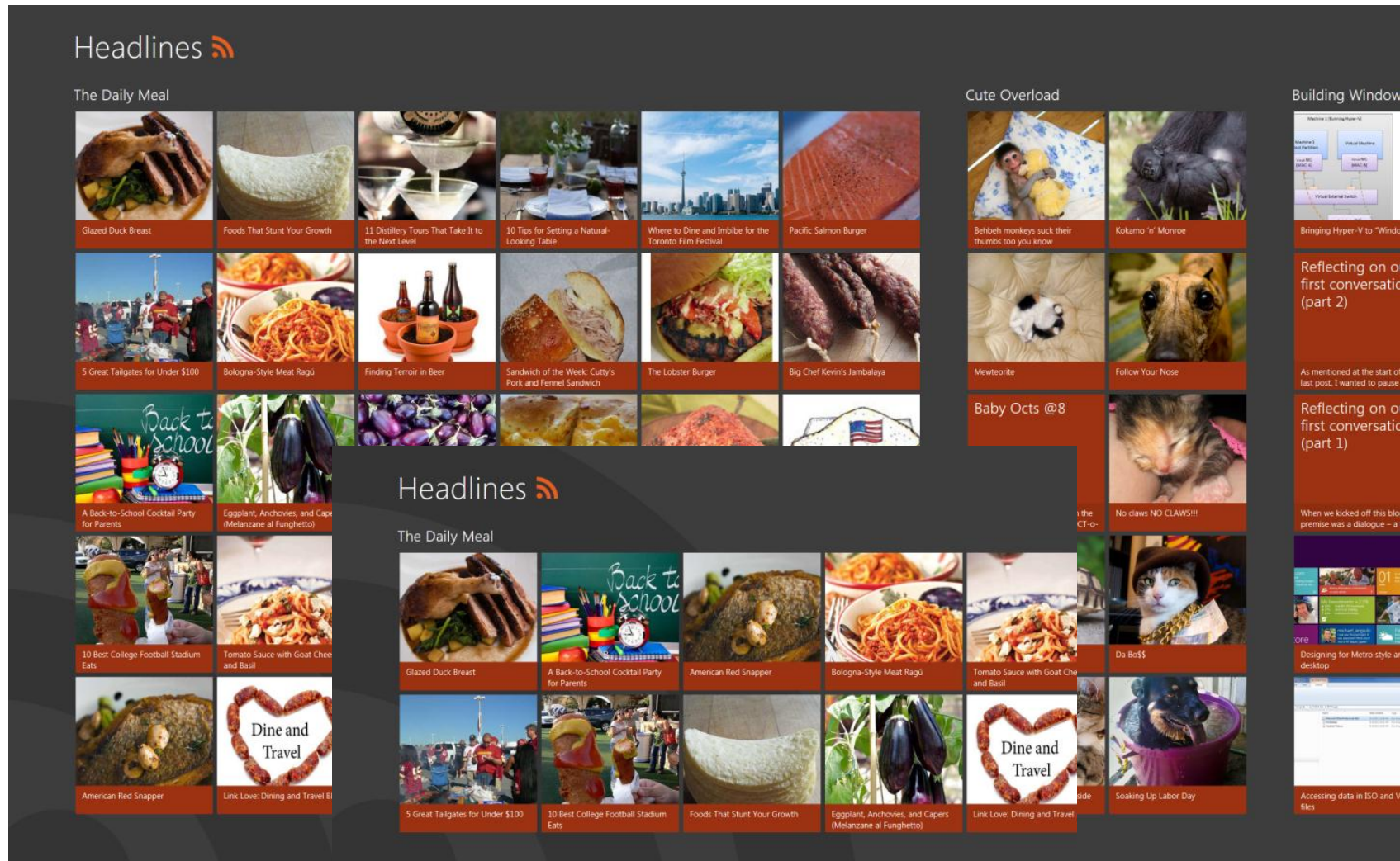


- 800X480(WVGA)



- 1399 X 768

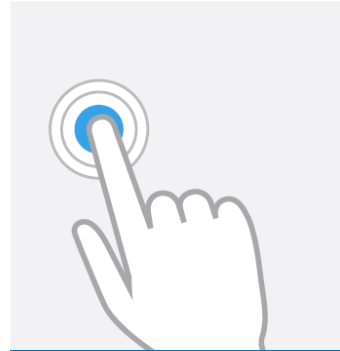
Windows 8 스크린 크기



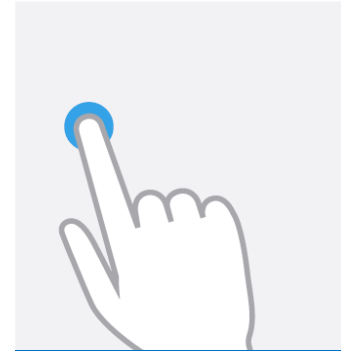
11.6" 1366x768

접근성(Input Method)

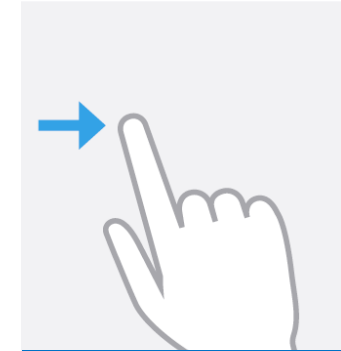
GESTURE	WINDOWS USAGE	GESTURE ACTION	ACTION (○ = finger down ◉ = finger up)	Single Contact	Multi Contact
Tap / Double Tap	Click / Double Click			★	★
Panning with Inertia	Scrolling	Drag 1 or 2 fingers up and down			★
Selection / Drag (left to right with one finger)	Mouse Drag / Selection	Drag one finger left / right		★	★
Press and Tap	Right-click	Press on target and tap using a second finger			★
Zoom	Zoom (defaults to CTRL key + Scroll wheel)	Move two fingers apart / toward each other			★
Rotate	No system default unless handled by Application (using WM_GESTURE API)	Move two fingers in opposing directions -or- Use one finger to pivot around another			★
Two-Finger Tap	N/A – Exposed through Gesture API, used by Application discretion.	Tap two fingers at the same time (where the target is the midpoint between the fingers)			★
Press and Hold	Right-click	Press, wait for blue ring animation to complete, then release		★	★
Flicks	Default: Pan up/ Pan Down/ Back, and Forward	Make quick drag gestures in the desired direction		★	★



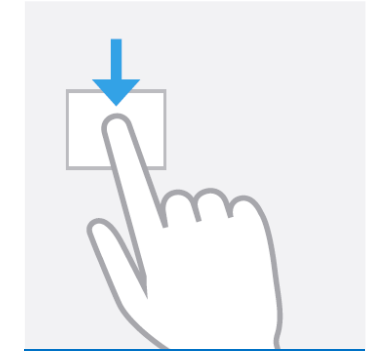
Press and hold **to learn**



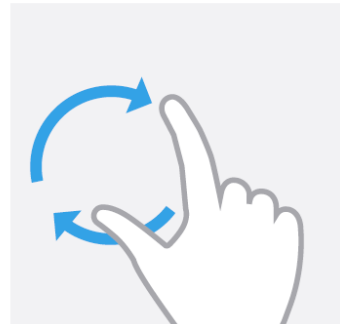
Tap **for primary action**



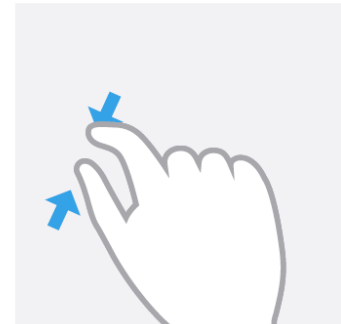
Slide **to pan**



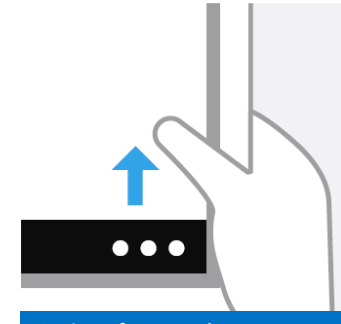
Swipe **to select**



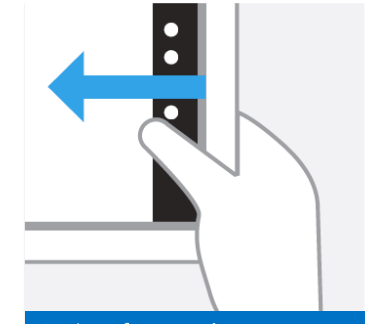
Turn **to rotate**



Pinch **to zoom**



Swipe from edge **for app commands**



Swipe from edge **for system commands**

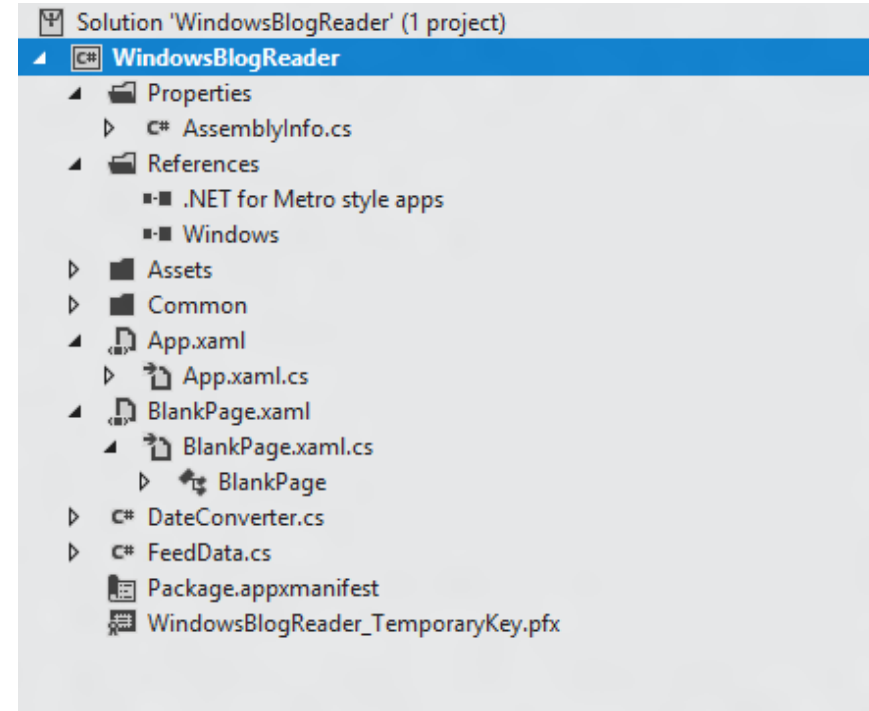
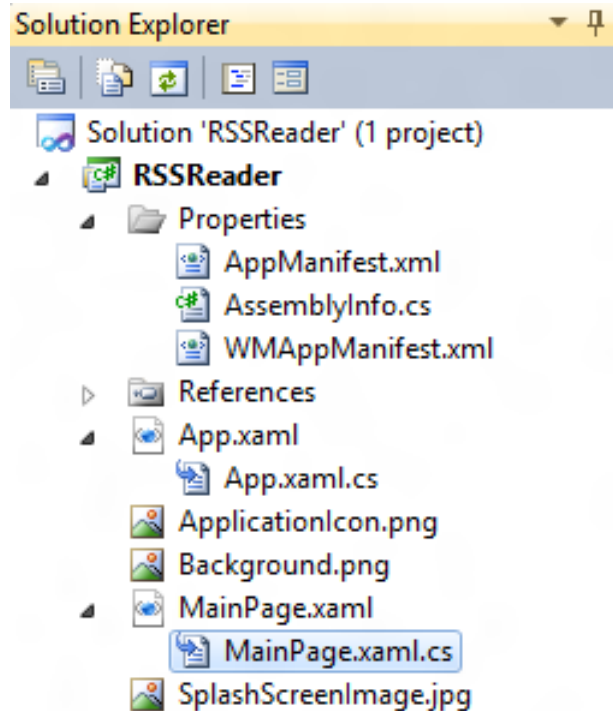
- WP – Touch Only

- Windows 8 – Touch Firstly, consider Mouse, Pen or Keyboard

Networking 및 Game 고려사항

- Windows Phone 에서 사용했던 API는 Windows 8 에서는 호환되지 않는다.
- Windows Phone 과 Windows 8 에서의 UI 수정이 적게 하려면 MVVM 모델로 고려해서 진행하라!
- Windows 8 에서의 게임을 개발하려면 XNA 가 아닌 Direct C/C++로 직접 개발하라!

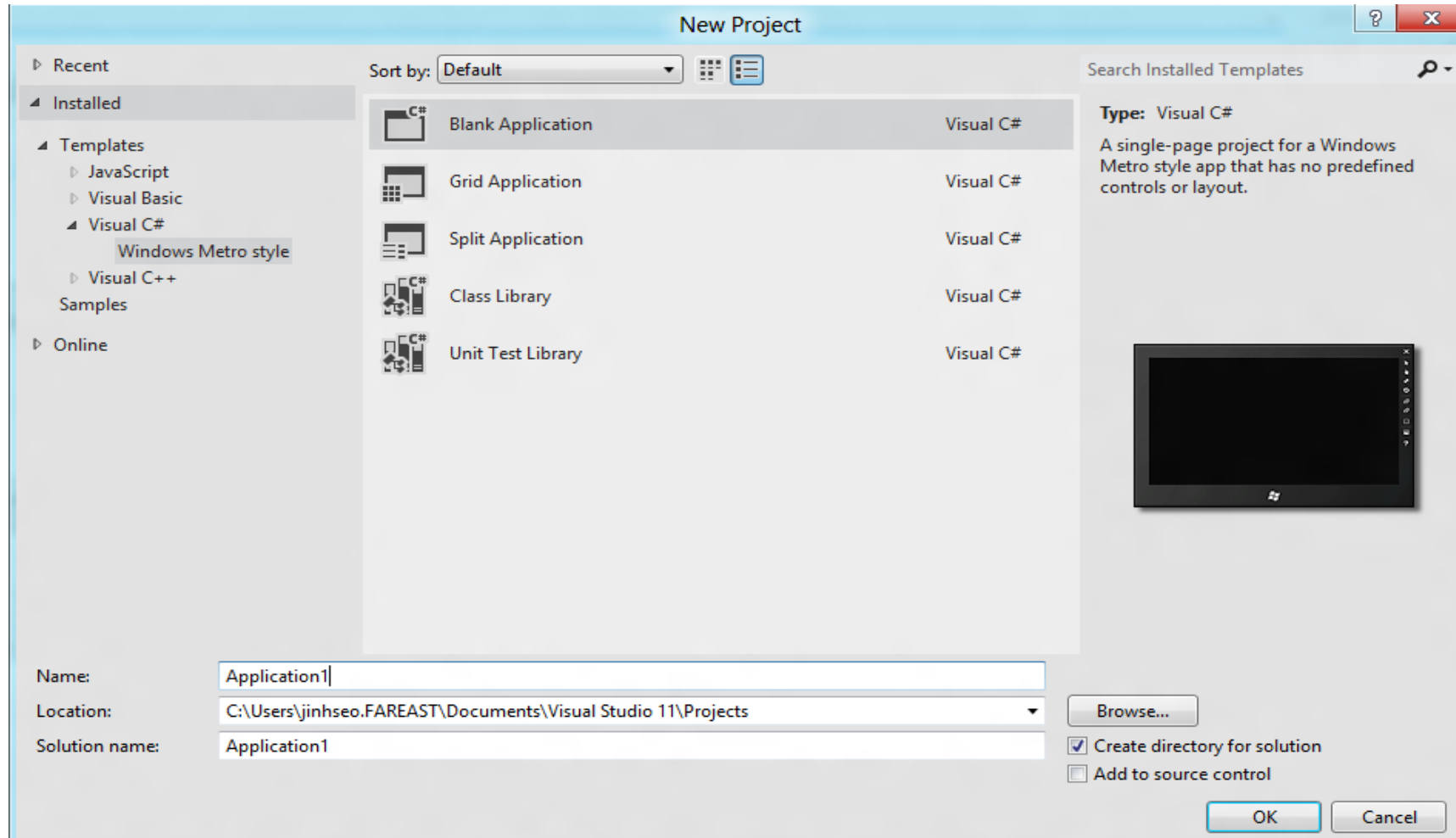
Solution File 및 App Capability 비교



- WMApManifest.xml vs. Package.appxmanifest

윈도우8 앱으로 실제 마이그레이션 가이드

기본 포팅 절차 (1)



- Blank Template 로 지정해서 Project 를 실행하라!

기본 포팅 절차 (2)

- MainPage 를 모두 BlankPage 로 변경하라!
- MainPage.cs 에서 System.Windows 를 모두 Windows.UI.Xaml 로 변경하라!
- PhoneApplicationPage 를 Page 로 변경하라!

기본 포팅 절차 (3)

- BlankPage.Xaml 에서 <Grid>는 그대로 놔두고 <Page>로 부분을 다음과 같이 변경하라!
- <Page
- x:Class="WinApp01.BlankPage"
- xmlns="http://schemas.microsoft.com/winfx/2006/xaml/presentation"
- xmlns:x="http://schemas.microsoft.com/winfx/2006/xaml"
- xmlns:local="using:WinApp01"
- xmlns:d="http://schemas.microsoft.com/expression/blend/2008"
- xmlns:mc="http://schemas.openxmlformats.org/markup-compatibility/2006"
- mc:Ignorable="d">
- </Page>

기본 포팅 절차 (4)

1단계	2단계	3단계
Metro Style App 디자인 및 설계	다른 폼 팩터에 대한 고려	Multiple View 지원
4단계	5단계	6단계
사용자 경험 디자인 (네비게이션, 레이아웃)	사용자 인터랙션 설계 (터치 및 접근성)	어드밴스드 디자인 설계

Silverlight UI 변경 사항

Silverlight XAML namespaces

System.Windows

System.Windows.Automation

System.Windows.Automation.Peers

System.Windows.Automation.Provider

System.Windows.Automation.Text

System.Windows.Controls

System.Windows.Controls.Primitives

System.Windows.Data

System.Windows.Documents

System.Windows.Input

System.Windows.Interop

System.Windows.Markup

System.Windows.Media

System.Windows.Media.Animation

System.Windows.Media.Imaging

System.Windows.Media.Media3D

System.Windows.Navigation

System.Windows.Printing

System.Windows.Resources

System.Windows.Shapes

Windows Runtime XAML namespaces

Windows.UI.Xaml

Windows.UI.Xaml.Automation

Windows.UI.Xaml.Automation.Peers

Windows.UI.Xaml.Automation.Provider

Windows.UI.Xaml.Automation.Text

Windows.UI.Xaml.Controls

Windows.UI.Xaml.Controls.Primitives

Windows.UI.Xaml.Data

Windows.UI.Xaml.Documents

Windows.UI.Xaml.Input

Windows.UI.Xaml.Interop

Windows.UI.Xaml.Markup

Windows.UI.Xaml.Media

Windows.UI.Xaml.Media.Animation

Windows.UI.Xaml.Media.Imaging

Windows.UI.Xaml.Media.Media3D

Windows.UI.Xaml.Navigation

Windows.UI.Xaml.Printing

Windows.UI.Xaml.Resources

Windows.UI.Xaml.Shapes

지원하지 않는 Silverlight

- System.Windows.Ink
- System.Windows.Media.Effects
- System.Windows.Messaging

XAML을 이용한 Silverlight 및 Metro Style App 차이

- Control and layout

- Windows 8 RT에서는 Pivot 과 Panorama Style 을 지원하지 않는다.
- Windows 8 는 Phone Factor 보다 큰 Tablet 및 PC Factor 를 지원해야 하므로 Navigation Experience 를 고려해야 한다.
- Grid 컨트롤과 FlipView 컨트롤로서 편리한 네비게이션을 이용하라!
- Windows 8 RT의 AppBar 는 Phone 의 Application Bar 와 비슷하지만 custom layout 과 Data Binding 을 지원한다!
- Windows 8 RT는 4가지 View Port 를 지원하는 Screen Orientation 을 지원한다.

- Tile and Notification

- Windows 8 RT의 Tile 과 Notification 은 Windows Phone 과 비슷하지만 더 확장적이다. C/C++, C#, HTML5 언어를 지원한다.

XAML을 이용한 Silverlight 및 Metro Style App 차이

• Data Scenario

- Windows 8 Metro Style 에서는 Data Sensitive 한 built-In 지원은 현재(CP)까지는 없다.
- 네트워크 상에서는 oData 와 XMAL 컨트롤과 데이터 바인딩을 할 수 있도록 인터페이스를 제공한다.
- Data Binding 은 변경된 것이 없으나 INotifyPropertyChanged 나 INotifyCollection 메서드를 구현한다.
- Binding 클래스를 지원하지 않기 때문에 IValueConverter 를 이용해 Language 지원에 따른 처리를 한다.

XAML을 이용한 Silverlight 및 Metro Style App 차이

• Navigation

- Windows Phone 에서는 page 기반의 네비게이션과 HW의 Back 버튼을 고려해서 개발한다.
- Windows 8 RT 에서는 URI 지정 방식은 지원하지 않고 XAML의 page 에서 x:Class 속성으로 타겟 페이지를 지정할 수 있다.
- Windows 8 RT에서는 Fragment navigation, journal (backstack) modification, URI Mapping 등은 지원하지 않는다.



Demo

How-To

결론

- 마이크로소프트에서 개발한 운영체제(Operation System) 이지만 Windows Phone 7.5 와 Windows 8은 전혀 다른 아키텍처를 가지고 있다.
- Metro Style 은 Windows Phone 7.5 와 Windows 8은 비슷하지만 Windows 8 에서는 확장적이며 폼 팩터를 Tablet 으로 고려한 스타일이다!

Reference

<http://msdn.microsoft.com/en-us/library/windows/apps/br211380.aspx>