



# Sunshine Connections

## Password Generator

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Final

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## Password Generator Overview

### 1 Introduction

#### 1.1 Goals and Objectives

The goal of this document is to describe the classes, subsystems and configurations used in the implementation of the Password Generator.

#### 1.2 Software Context

The business logic of the Password Generator is implemented as and works with components of the Sunshine Connections architecture system.

### 2 SunshineConnections Namespace

Class	Description
<a href="#">PasswordGenerator</a>	
<a href="#">PasswordGeneratorConfigSection</a>	

Structure	Description
<a href="#">PasswordTemplate</a>	

Enumeration	Description
<a href="#">PasswordElement</a>	

#### 2.1 Classes

##### 2.1.1 PasswordGenerator

###### 2.1.1.1 Overview

<b>Visual Basic (Declaration)</b>
Public Class PasswordGenerator
<b>Visual Basic (Usage)</b>



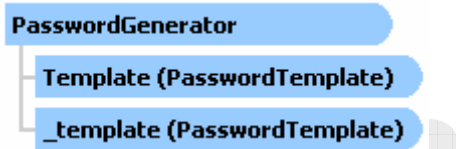
```
Dim instance As PasswordGenerator

C#
public class PasswordGenerator

Managed Extensions for C++
public __gc class PasswordGenerator

C++/CLI
public ref class PasswordGenerator
```

### 2.1.1.2 Object Model



### 2.1.1.3 Inheritance Hierarchy



### 2.1.1.4 Members

Constructors	Description
<a href="#">PasswordGenerator Constructor</a>	

Private Fields	Description
<a href="#">_ensureRequestedElements</a>	
<a href="#">_template</a>	
<a href="#">Elements</a>	
<a href="#">elementTypeCount</a>	
<a href="#">rnd</a>	

Public Properties	Description
<a href="#">EnsureRequestedElements</a>	
<a href="#">Template</a>	

Public Methods	Description
----------------	-------------



<a href="#">Equals</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">GetHashCode</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">GetType</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">Next</a>	
<a href="#">ToString</a>	(Inherited from <a href="#">System.Object</a> )

Protected Methods	Description
<a href="#">Finalize</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">MemberwiseClone</a>	(Inherited from <a href="#">System.Object</a> )

Private Methods	Description
<a href="#">EnsureCompliance</a>	
<a href="#">EnsureComplianceIsPossible</a>	

## 2.1.1.5 Constructors

### 2.1.1.5.1 PasswordGenerator Constructor

#### Visual Basic (Declaration)

```
Public Function New()
```

#### Visual Basic (Usage)

```
Dim instance As PasswordGenerator()
```

#### C#

```
public PasswordGenerator()
```

#### Managed Extensions for C++

```
public: PasswordGenerator();
```

#### C++/CLI

```
public:  
PasswordGenerator();
```

## 2.1.1.6 Methods

Public Methods	Description
<a href="#">Equals</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">GetHashCode</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">GetType</a>	(Inherited from <a href="#">System.Object</a> )



<a href="#">Next</a>	
<a href="#">ToString</a>	(Inherited from <a href="#">System.Object</a> )

Protected Methods	Description
<a href="#">Finalize</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">MemberwiseClone</a>	(Inherited from <a href="#">System.Object</a> )

Private Methods	Description
<a href="#">EnsureCompliance</a>	
<a href="#">EnsureComplianceIsPossible</a>	

## 2.1.1.6.1 EnsureCompliance Method

### Visual Basic (Declaration)

```
Private Function EnsureCompliance( _  
    ByVal password() As Char _  
    ) As String
```

### Visual Basic (Usage)

```
Dim instance As PasswordGenerator Dim password() As Char Dim value As String value =  
instance.EnsureCompliance(password)
```

### C#

```
private string EnsureCompliance(  
    char[] password  
    )
```

### Managed Extensions for C++

```
private: string* EnsureCompliance(  
    char]* password  
    )
```

### C++/CLI

```
private:  
String^ EnsureCompliance(  
    array<char>^ password  
    )
```

## Parameters

*password*

## 2.1.1.6.2 EnsureComplianceIsPossible Method



```

Visual Basic (Declaration)
Private Sub EnsureCompliancelsPossible()

Visual Basic (Usage)
Dim instance As PasswordGenerator instance.EnsureCompliancelsPossible()

C#
private void EnsureCompliancelsPossible()

Managed Extensions for C++
private: void EnsureCompliancelsPossible();

C++/CLI
private:
void EnsureCompliancelsPossible

```

### 2.1.1.6.3 Next Method

```

Visual Basic (Declaration)
Public Function Next() As String

Visual Basic (Usage)
Dim instance As PasswordGenerator Dim value As String value = instance.Next()

C#
public string Next()

Managed Extensions for C++
public: string* Next();

C++/CLI
public:
String^ Next();

```

### 2.1.1.7 Properties

	Public Properties	Description
	<a href="#">EnsureRequestedElements</a>	

#### 2.1.1.7.1 EnsureRequestedElements Property



## Visual Basic (Declaration)

Public Property EnsureRequestedElements As [Boolean](#)

## Visual Basic (Usage)

Dim instance As [PasswordGenerator](#) Dim value As [Boolean](#) instance.EnsureRequestedElements = value value = instance.EnsureRequestedElements

## C#

```
public bool EnsureRequestedElements {get; set;}
```

## Managed Extensions for C++

```
public: __property bool get_EnsureRequestedElements();  
public: __property void set_EnsureRequestedElements(  
    bool value  
);
```

## C++/CLI

```
public:  
property bool EnsureRequestedElements {  
    bool get();  
    void set (bool value);  
}
```

## 2.1.1.7.2 Template Property

### Visual Basic (Declaration)

Public Property Template As [PasswordTemplate](#)

### Visual Basic (Usage)

Dim instance As [PasswordGenerator](#) Dim value As [PasswordTemplate](#) instance.Template = value value = instance.Template

## C#

```
public PasswordTemplate Template {get; set;}
```

## Managed Extensions for C++

```
public: __property PasswordTemplate get_Template();  
public: __property void set_Template(  
    PasswordTemplate value  
);
```

## C++/CLI

```
public:  
property PasswordTemplate Template {
```



```
PasswordTemplate get();  
void set (PasswordTemplate value);  
}
```

## 2.1.1.8 Fields

Private Fields	Description
<a href="#">_ensureRequestedElements</a>	
<a href="#">_template</a>	
<a href="#">Elements</a>	

### 2.1.1.8.1 \_ensureRequestedElements Field

<b>Visual Basic (Declaration)</b>
Private _ensureRequestedElements As <a href="#">Boolean</a>
<b>Visual Basic (Usage)</b>
Dim instance As <a href="#">PasswordGenerator</a> Dim value As <a href="#">Boolean</a> value = instance._ensureRequestedElements instance._ensureRequestedElements = value
<b>C#</b>
private <a href="#">bool</a> _ensureRequestedElements
<b>Managed Extensions for C++</b>
private: <a href="#">bool</a> _ensureRequestedElements
<b>C++/CLI</b>
private: <a href="#">bool</a> _ensureRequestedElements

### 2.1.1.8.2 \_template Field

<b>Visual Basic (Declaration)</b>
Private _template As <a href="#">PasswordTemplate</a>
<b>Visual Basic (Usage)</b>
Dim instance As <a href="#">PasswordGenerator</a> Dim value As <a href="#">PasswordTemplate</a> value = instance._template instance._template = value
<b>C#</b>
private <a href="#">PasswordTemplate</a> _template



## Managed Extensions for C++

private: [PasswordTemplate](#) \_template

## C++/CLI

private:  
[PasswordTemplate](#) \_template

## 2.1.1.8.3 Elements Field

### Visual Basic (Declaration)

Private Elements As [String](#)

### Visual Basic (Usage)

Dim instance As [PasswordGenerator](#) Dim value As [String](#) value = instance.Elements  
instance.Elements = value

## C#

private [string](#) Elements

## Managed Extensions for C++

private: [string](#)\* Elements

## C++/CLI

private:  
[String](#)^ Elements

## 2.1.1.8.4 elementTypeCount Field

### Visual Basic (Declaration)

Private elementTypeCount As [Integer](#)

### Visual Basic (Usage)

Dim instance As [PasswordGenerator](#) Dim value As [Integer](#) value = instance.elementTypeCount  
instance.elementTypeCount = value

## C#

private [int](#) elementTypeCount

## Managed Extensions for C++

private: [int](#) elementTypeCount

## C++/CLI



private:  
[int](#) elementTypeCount

## 2.1.1.8.5 rnd Field

### Visual Basic (Declaration)

Private rnd As [Random](#)

### Visual Basic (Usage)

Dim instance As [PasswordGenerator](#) Dim value As [Random](#) value = instance.rnd instance.rnd = value

### C#

private [Random](#) rnd

### Managed Extensions for C++

private: [Random](#)\* rnd

### C++/CLI

private:  
[Random](#)^ rnd

## 2.1.2 PasswordGeneratorConfigSection

### 2.1.2.1 Overview

#### Visual Basic (Declaration)

Public NotInheritable Class PasswordGeneratorConfigSection  
Inherits [ConfigurationSection](#)

#### Visual Basic (Usage)

Dim instance As [PasswordGeneratorConfigSection](#)

#### C#

public sealed class PasswordGeneratorConfigSection : [ConfigurationSection](#)

#### Managed Extensions for C++

public \_\_gc \_\_sealed class PasswordGeneratorConfigSection : public [ConfigurationSection](#)

#### C++/CLI

public ref class PasswordGeneratorConfigSection sealed : public [ConfigurationSection](#)

### 2.1.2.2 Inheritance Hierarchy



[System.Object](#)  
[System.Configuration.ConfigurationElement](#)  
[System.Configuration.ConfigurationSection](#)  
**SunshineConnections**

**2.1.2.3 Members**

Public Constructors	Description
<a href="#">PasswordGeneratorConfigSection Constructor</a>	

Protected Fields	Description
<a href="#">_configRecord</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_evalContext</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_fItemLocked</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedAllExceptAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedAllExceptElementsList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedElementsList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )

Private Fields	Description
<a href="#">_Elements</a>	
<a href="#">_EnsureRequestedElements</a>	
<a href="#">_MaxLength</a>	
<a href="#">_MinLength</a>	
<a href="#">_Properties</a>	
<a href="#">_ReadOnly</a>	
<a href="#">_Symbols</a>	

Public Properties	Description
<a href="#">ElementInformation</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Elements</a>	
<a href="#">EnsureRequestedElements</a>	
<a href="#">LockAllAttributesExcept</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockAllElementsExcept</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockAttributes</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockElements</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockItem</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )



<a href="#">MaxLength</a>	
<a href="#">MinLength</a>	
<a href="#">SectionInformation</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">Symbols</a>	

Protected Properties	Description
<a href="#">DataToWriteInternal</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ElementPresent</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ElementProperty</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ElementTagName</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">EvaluationContext</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Item</a>	Overloaded. (Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ItemLocked</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockedAllExceptAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockedAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Properties</a>	Overridden.
<a href="#">Values</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )

Private Properties	Description
<a href="#">IsReadOnly</a>	

Public Methods	Description
<a href="#">Equals</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetHashCode</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetType</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">IsReadOnly</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ToString</a>	(Inherited from <a href="#">System.Object</a> )

Protected Methods	Description
<a href="#">AssociateContext</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">CallInit</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">CheckLockedElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">DeserializeElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">DeserializeSection</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">Dump</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Finalize</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">GetErrors</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )



<a href="#">GetErrorsList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetRuntimeObject</a>	Overridden.
<a href="#">HandleLockedAttributes</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Init</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">InitializeDefault</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">IsModified</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">ListErrors</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">MemberwiseClone</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">MergeLocks</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">OnDeserializeUnrecognizedAttribute</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">OnDeserializeUnrecognizedElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">OnRequiredPropertyNotFound</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PostDeserialize</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PreSerialize</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PropertyFileName</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PropertyInfoInternal</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PropertyLineNumber</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">RemoveAllInheritedLocks</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ReportInvalidLock</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Reset</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ResetLockLists</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ResetModified</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">SerializeElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SerializeSection</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">SerializeToXmlElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SetLocked</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SetPropertyValue</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SetReadOnly</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Unmerge</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">UnMergeLockList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )

Private Methods	Description
<a href="#">ThrowIfReadOnly</a>	

## 2.1.2.4 Constructor

### 2.1.2.4.1 PasswordGeneratorConfigSection Constructor

#### Visual Basic (Declaration)



Public Function New()
<b>Visual Basic (Usage)</b>
Dim instance As <a href="#">PasswordGeneratorConfigSection()</a>
<b>C#</b>
public PasswordGeneratorConfigSection()
<b>Managed Extensions for C++</b>
public: PasswordGeneratorConfigSection();
<b>C++/CLI</b>
public: PasswordGeneratorConfigSection();

## 2.1.2.5 Methods

Public Methods	Description
<a href="#">Equals</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetHashCode</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetType</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">IsReadOnly</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ToString</a>	(Inherited from <a href="#">System.Object</a> )

Protected Methods	Description
<a href="#">AssociateContext</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">CallInit</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">CheckLockedElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">DeserializeElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">DeserializeSection</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">Dump</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Finalize</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">GetErrors</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetErrorsList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">GetRuntimeObject</a>	Overridden.
<a href="#">HandleLockedAttributes</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Init</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">InitializeDefault</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">IsModified</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">ListErrors</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )



<a href="#">MemberwiseClone</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">MergeLocks</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">OnDeserializeUnrecognizedAttribute</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">OnDeserializeUnrecognizedElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">OnRequiredPropertyNotFound</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PostDeserialize</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PreSerialize</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PropertyFileName</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PropertyInfoInternal</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">PropertyLineNumber</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">RemoveAllInheritedLocks</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ReportInvalidLock</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Reset</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ResetLockLists</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ResetModified</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">SerializeElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SerializeSection</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">SerializeToXmlElement</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SetLocked</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SetPropertyValue</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">SetReadOnly</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Unmerge</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">UnMergeLockList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )

Private Methods	Description
<a href="#">ThrowIfReadOnly</a>	

## 2.1.2.5.1 GetRuntimeObject Method

### Visual Basic (Declaration)

Overrides Protected NotOverridable Function GetRuntimeObject() As [Object](#)

### Visual Basic (Usage)

```
Dim instance As PasswordGeneratorConfigSection Dim value As Object value = instance.GetRuntimeObject()
```

### C#

```
protected override object GetRuntimeObject()
```

### Managed Extensions for C++



```
protected: Object* GetRuntimeObject(); override
```

---

**C++/CLI**

```
protected:
Object^ GetRuntimeObject(); override
```

### 2.1.2.5.2 ThroIfReadOnly Method

**Visual Basic (Declaration)**

```
Private Sub ThrowIfReadOnly( _
    ByVal propertyName As String _
)
```

**Visual Basic (Usage)**

```
Dim instance As PasswordGeneratorConfigSection Dim propertyName As String
instance.ThrowIfReadOnly(propertyName)
```

**C#**

```
private void ThrowIfReadOnly(
    string propertyName
)
```

**Managed Extensions for C++**

```
private: void ThrowIfReadOnly(
    string* propertyName
)
```

**C++/CLI**

```
private:
void ThrowIfReadOnly(
    String^ propertyName
)
```

#### Parameters

*propertyName*

### 2.1.2.6 Properties

Public Properties	Description
<a href="#">ElementInformation</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Elements</a>	
<a href="#">EnsureRequestedElements</a>	
<a href="#">LockAllAttributesExcept</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )



<a href="#">LockAllElementsExcept</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockAttributes</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockElements</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockItem</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">MaxLength</a>	
<a href="#">MinLength</a>	
<a href="#">SectionInformation</a>	(Inherited from <a href="#">System.Configuration.ConfigurationSection</a> )
<a href="#">Symbols</a>	

Protected Properties	Description
<a href="#">DataToWriteInternal</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ElementPresent</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ElementProperty</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ElementTagName</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">EvaluationContext</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Item</a>	Overloaded. (Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">ItemLocked</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockedAllExceptAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">LockedAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">Properties</a>	Overridden.
<a href="#">Values</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )

Private Properties	Description
<a href="#">IsReadOnly</a>	

## 2.1.2.6.1 Elements Property

### Visual Basic (Declaration)

Public Property Elements As [PasswordElement](#)

### Visual Basic (Usage)

Dim instance As [PasswordGeneratorConfigSection](#) Dim value As [PasswordElement](#) instance.Elements = value value = instance.Elements

### C#

```
public PasswordElement Elements {get; set;}
```

### Managed Extensions for C++

```
public: __property PasswordElement get_Elements();
```



```
public: __property void set_Elements(  
    PasswordElement value  
);
```

## C++/CLI

```
public:  
property PasswordElement Elements {  
    PasswordElement get();  
    void set (PasswordElement value);  
}
```

### 2.1.2.6.2 EnsureRequestedElements Property

#### Visual Basic (Declaration)

Public Property EnsureRequestedElements As [Boolean](#)

#### Visual Basic (Usage)

Dim instance As [PasswordGeneratorConfigSection](#) Dim value As [Boolean](#)  
instance.EnsureRequestedElements = value value = instance.EnsureRequestedElements

## C#

```
public bool EnsureRequestedElements {get; set;}
```

#### Managed Extensions for C++

```
public: __property bool get_EnsureRequestedElements();  
public: __property void set_EnsureRequestedElements(  
    bool value  
);
```

## C++/CLI

```
public:  
property bool EnsureRequestedElements {  
    bool get();  
    void set (bool value);  
}
```

### 2.1.2.6.3 IsReadOnly Property

#### Visual Basic (Declaration)

Private ReadOnly Property IsReadOnly As [Boolean](#)

#### Visual Basic (Usage)

Dim instance As [PasswordGeneratorConfigSection](#) Dim value As [Boolean](#) value = instance.IsReadOnly



## C#

```
private bool IsReadOnly {get;}
```

## Managed Extensions for C++

```
private: __property bool get_IsReadOnly();
```

## C++/CLI

```
private:  
property bool IsReadOnly {  
    bool get();  
}
```

## 2.1.2.6.4 MaxLength Property

### Visual Basic (Declaration)

```
<LongValidatorAttribute(MinValue=1,  
    MaxValue=256,  
    ValidatorInstance=System.Configuration.LongValidator)>  
Public Property MaxLength As UShort
```

### Visual Basic (Usage)

```
Dim instance As PasswordGeneratorConfigSection Dim value As UShort instance.MaxLength = value  
value = instance.MaxLength
```

## C#

```
[LongValidatorAttribute(MinValue=1,  
    MaxValue=256,  
    ValidatorInstance=System.Configuration.LongValidator)]  
public ushort MaxLength {get; set;}
```

## Managed Extensions for C++

```
[LongValidatorAttribute(MinValue=1,  
    MaxValue=256,  
    ValidatorInstance=System.Configuration.LongValidator)]  
public: __property ushort get_MaxLength();  
public: __property void set_MaxLength(  
    ushort value  
);
```

## C++/CLI

```
[LongValidatorAttribute(MinValue=1,  
    MaxValue=256,  
    ValidatorInstance=System.Configuration.LongValidator)]  
public:  
property ushort MaxLength {  
    ushort get();
```



```
void set (ushort value);  
}
```

## 2.1.2.6.5 MinLength Property

### (Declaration)

```
<LongValidatorAttribute(ValidatorInstance=System.Configuration.LongValidator,  
    MinValue=1,  
    MaxValue=256)>  
Public Property MinLength As UShort
```

### Visual Basic (Usage)

```
Dim instance As PasswordGeneratorConfigSection Dim value As UShort instance.MinLength = value  
value = instance.MinLength
```

### C#

```
[LongValidatorAttribute(ValidatorInstance=System.Configuration.LongValidator,  
    MinValue=1,  
    MaxValue=256)]  
public ushort MinLength {get; set;}
```

### Managed Extensions for C++

```
[LongValidatorAttribute(ValidatorInstance=System.Configuration.LongValidator,  
    MinValue=1,  
    MaxValue=256)]  
public: __property ushort get_MinLength();  
public: __property void set_MinLength(  
    ushort value  
);
```

### C++/CLI

```
[LongValidatorAttribute(ValidatorInstance=System.Configuration.LongValidator,  
    MinValue=1,  
    MaxValue=256)]  
public:  
property ushort MinLength {  
    ushort get();  
    void set (ushort value);  
}
```

## 2.1.2.6.6 Properties Property

### Visual Basic (Declaration)

```
Overrides Protected NotOverridable ReadOnly Property Properties As ConfigurationPropertyCollection
```

### Visual Basic (Usage)



Dim instance As [PasswordGeneratorConfigSection](#) Dim value As [ConfigurationPropertyCollection](#) value = instance.Properties

## C#

protected override [ConfigurationPropertyCollection](#) Properties {get;}

## Managed Extensions for C++

protected: \_\_property [ConfigurationPropertyCollection](#) get\_Properties()override ;

## C++/CLI

protected:  
property [ConfigurationPropertyCollection](#) Properties override {  
    [ConfigurationPropertyCollection](#) get();  
}

## 2.1.2.6.7 Symbols Property

### Visual Basic (Declaration)

```
<StringValidatorAttribute(ValidatorInstance=System.Configuration.StringValidator,  
    MinLength=1,  
    MaxLength=60)>  
Public Property Symbols As String
```

### Visual Basic (Usage)

Dim instance As [PasswordGeneratorConfigSection](#) Dim value As [String](#) instance.Symbols = value value = instance.Symbols

## C#

```
[StringValidatorAttribute(ValidatorInstance=System.Configuration.StringValidator,  
    MinLength=1,  
    MaxLength=60)]  
public string Symbols {get; set;}
```

## Managed Extensions for C++

```
[StringValidatorAttribute(ValidatorInstance=System.Configuration.StringValidator,  
    MinLength=1,  
    MaxLength=60)]  
public: __property string* get_Symbols();  
public: __property void set_Symbols(  
    string* value  
);
```

## C++/CLI

```
[StringValidatorAttribute(ValidatorInstance=System.Configuration.StringValidator,  
    MinLength=1,  
    MaxLength=60)]
```



```
public:
property String^ Symbols {
String^ get();
void set (String^ value);
}
```

### 2.1.2.7 Fields

Protected Fields	Description
<a href="#">_configRecord</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_evalContext</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_fItemLocked</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedAllExceptAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedAllExceptElementsList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedAttributesList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )
<a href="#">_lockedElementsList</a>	(Inherited from <a href="#">System.Configuration.ConfigurationElement</a> )

Private Fields	Description
<a href="#">_Elements</a>	
<a href="#">_EnsureRequestedElements</a>	
<a href="#">_MaxLength</a>	
<a href="#">_MinLength</a>	
<a href="#">_Properties</a>	
<a href="#">_ReadOnly</a>	
<a href="#">_Symbols</a>	

## 2.2 Enumerations

### 2.2.1 PasswordElement

#### Visual Basic (Declaration)

```
<FlagsAttribute()>
Public Enum PasswordElement
Inherits Enum
```

#### Visual Basic (Usage)

```
Dim instance As PasswordElement
```

#### C#

```
[FlagsAttribute()]
```



```
public enum PasswordElement : Enum

Managed Extensions for C++

[FlagsAttribute\(\)]
__value public enum PasswordElement : public Enum

C++/CLI

[FlagsAttribute\(\)]
public enum class PasswordElement : public Enum
```

### 2.2.1.1 Members

Member	Description
None	
LowerChar	
UpperChar	
Digit	
Symbol	

### 2.2.1.2 Inheritance Hierarchy



## 2.3 Structures

### 2.3.1 Password Template

#### 2.3.1.1 Overview

```
Visual Basic (Declaration)

Public Structure PasswordTemplate
  Inherits ValueType

Visual Basic (Usage)

Dim instance As PasswordTemplate

C#

public struct PasswordTemplate : ValueType
```



```
Managed Extensions for C++
public __value struct PasswordTemplate : public ValueType

C++/CLI
public value class PasswordTemplate
```

### 2.3.1.2 Inheritance Hierarchy



### 2.3.1.3 Members

Public Fields	Description
<a href="#">Elements</a>	
<a href="#">EnsureRequestedElements</a>	
<a href="#">MaxLenght</a>	
<a href="#">MinLenght</a>	
<a href="#">Symbols</a>	

Public Methods	Description
<a href="#">Equals</a>	(Inherited from <a href="#">System.ValueType</a> )
<a href="#">GetHashCode</a>	(Inherited from <a href="#">System.ValueType</a> )
<a href="#">GetType</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">ToString</a>	(Inherited from <a href="#">System.ValueType</a> )

Protected Methods	Description
<a href="#">Finalize</a>	(Inherited from <a href="#">System.Object</a> )
<a href="#">MemberwiseClone</a>	(Inherited from <a href="#">System.Object</a> )

### 2.3.1.4 Fields

Public Fields	Description
<a href="#">Elements</a>	
<a href="#">EnsureRequestedElements</a>	
<a href="#">MaxLenght</a>	
<a href="#">MinLenght</a>	



[Symbols](#)

### 2.3.1.4.1 Elements Field

#### (Declaration)

Public Elements As [PasswordElement](#)

#### Visual Basic (Usage)

Dim instance As [PasswordTemplate](#) Dim value As [PasswordElement](#) value = instance.Elements  
instance.Elements = value

#### C#

public [PasswordElement](#) Elements

#### Managed Extensions for C++

public: [PasswordElement](#) Elements

#### C++/CLI

public:  
[PasswordElement](#) Elements

### 2.3.1.4.2 EnsureRequestedElements Field

#### Visual Basic (Declaration)

Public EnsureRequestedElements As [Boolean](#)

#### Visual Basic (Usage)

Dim instance As [PasswordTemplate](#) Dim value As [Boolean](#) value =  
instance.EnsureRequestedElements instance.EnsureRequestedElements = value

#### C#

public [bool](#) EnsureRequestedElements

#### Managed Extensions for C++

public: [bool](#) EnsureRequestedElements

#### C++/CLI

public:  
[bool](#) EnsureRequestedElements

### 2.3.1.4.3 MaxLength Field



## Visual Basic (Declaration)

Public MaxLenght As [UShort](#)

## Visual Basic (Usage)

Dim instance As [PasswordTemplate](#) Dim value As [UShort](#) value = instance.MaxLenght  
instance.MaxLenght = value

## C#

public [ushort](#) MaxLenght

## Managed Extensions for C++

public: [ushort](#) MaxLenght

## C++/CLI

public:  
[ushort](#) MaxLenght

## 2.3.1.4.4 MinLenght Field

### Visual Basic (Declaration)

Public MinLenght As [UShort](#)

### Visual Basic (Usage)

Dim instance As [PasswordTemplate](#) Dim value As [UShort](#) value = instance.MinLenght  
instance.MinLenght = value

### C#

public [ushort](#) MinLenght

### Managed Extensions for C++

public: [ushort](#) MinLenght

### C++/CLI

public:  
[ushort](#) MinLenght

## 2.3.1.4.5 Symbols Field

### Visual Basic (Declaration)

Public Symbols As [String](#)

### Visual Basic (Usage)



## Sunshine Connections Password Generator

Dim instance As [PasswordTemplate](#) Dim value As [String](#) value = instance.Symbols instance.Symbols = value

### C#

public [string](#) Symbols

### Managed Extensions for C++

public: [string](#)\* Symbols

### C++/CLI

public:  
[String](#)^ Symbols

# Final