

Silverlight support for Csharp and VB.NET - 1.1



The **Silverlight extension** is deprecated and no new development will be actioned. All new features and functionality for the support of Silverlight are now handled instead by the **.NET XAML** extension. Please see the section of documentation entitled **Existing extensions for WPF and Silverlight** for more information about the .NET XAML extension and the impacts of moving to it.

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Summary: This document provides basic information about the beta release of the extension providing Silverlight support for C# and VB.NET

Description

This extension provides support for **Silverlight**. The calculation of Automated Function Points for your .NET analyses will be supplemented through the creation of new objects and links specific to the Silverlight framework that will link back to objects/links produced by the base .NET analyzer.

In what situation should you install this extension?

If your .NET application contains Silverlight source code and you want to view these object types and their links, then you should install this extension.

Silverlight framework support

The following Silverlight frameworks are supported by this extension:

Version	Supported
All versions up to 5.0	

Function Point, Quality and Sizing support

This extension provides the following support:

- **Function Points (transactions)**: a green tick indicates that OMG Function Point counting and Transaction Risk Index are supported
- **Quality and Sizing**: a green tick indicates that CAST can measure size and that a minimum set of Quality Rules exist

Function Points (transactions)	Quality and Sizing
	

CAST AIP compatibility

This extension is compatible with:

CAST AIP release	Supported	Technology
8.3.x	✓	C# and VB.NET
8.2.x	✓	C# and VB.NET

Supported DBMS servers

This extension is compatible with the following DBMS servers:

DBMS	Supported
CSS/PostgreSQL	✓
Oracle	✓
Microsoft SQL Server	✗

Prerequisites

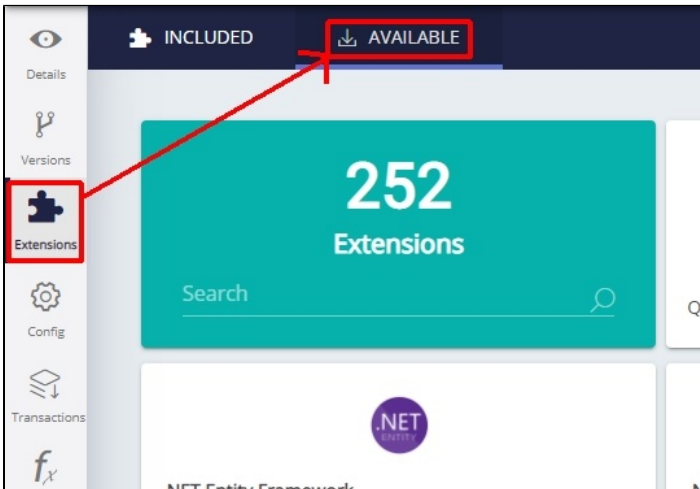
- ✓ An installation of any compatible release of CAST AIP (see table above)

Bug Fix List

Please see [Silverlight 1.1 - Bug Fix List](#).

Download and installation instructions

Include the extension using the interface in AIP Console:



There is nothing further to do. Follow the instructions below to run a new analysis/snapshot to generate new results:


- [Advanced onboarding - run and validate the initial analysis](#)
- [Advanced onboarding - snapshot generation and validation](#)

What results can you expect?

Once the analysis/snapshot generation has completed, you can view the results in the normal manner. The following **objects** and **links** will be displayed in CAST Enlighten:

Objects

All objects are represented under the **File browser** > **Xaml Source file** folders in CAST Enlighten:

Icon	Object type
	XAML Control

Note that if the **Name Attribute** of an object is present, then it will be used to display that object in CAST Enlighten. For example:

Name not present	Name present
 <p><u>Silverlight XAML Control</u> Button_1</p>	 <p><u>Silverlight</u> Button_Nun</p>

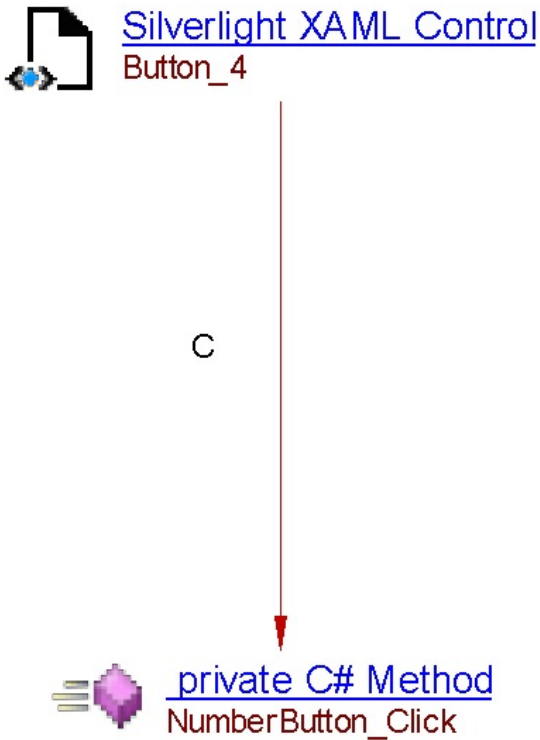

The following objects are detected:

Border
BulletDecorator
Button
Calendar
Canvas
CheckBox
ComboBox
ContextMenu
DataGrid
DatePicker
DockPanel
DocumentViewer
DropShadowBitmapEffect
Expander
FlowDocumentPageViewer
FlowDocumentReader
FlowDocumentScrollViewer
Frame
Grid
GridSplitter
GroupBox
HyperlinkButton
Image

Label
ListBox
ListView
Menu
Panel
PasswordBox
Popup
ProgressBar
PrintDialog
RadioButton
RepeatButton
Ribbon
RichTextBox
ScrollBar
ScrollViewer
Separator
Slider
StackPanel
StatusBar
TabControl
TextBlock
TextBox
ToolBar
ToolTip
TreeView
WrapPanel
Viewbox

Links

Source	Link type	Target	Example
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<p>XAML Control</p>	<p>call</p>	<p>Action Event method implemented in source file</p>	 <p><u>Silverlight XAML Control</u> Button_4</p> <p>C</p> <p><u>private C# Method</u> NumberButton_Click</p>
<p>XAML Control</p>	<p>relyOn</p>	<p>Set and get accessors of Property implemented in source file</p>	 <p><u>Silverlight XAML Control</u> Menu_168</p> <p><u>public C# Property Get</u> get</p> <p><u>public C# Property Set</u> set</p>

XAML Control	relyOn	XAML Control which is used by another XAML Control	 <p>Silverlight XAML Control TextBlock_6</p> <p>Silverlight XAML Control TextBox_4</p>
XAML Source File	relyOn	Referred Class	 <p>Xaml Source File MainPage.xaml</p> <p>public C# Class MainPage</p>

Limitations

In this section we list the most significant functional limitations that may affect the analysis of applications using Silverlight:

- **Binding in code** is not supported - see [https://msdn.microsoft.com/en-us/library/ms742863\(v=vs.110\).aspx?cs-save-lang=1&cs-lang=csharp#code-snippet-1](https://msdn.microsoft.com/en-us/library/ms742863(v=vs.110).aspx?cs-save-lang=1&cs-lang=csharp#code-snippet-1) for an example
- **Binding links** are not handled correctly when the same **binding target** exists in different classes
- **The direction of the data flow** (Binding.Mode properties such as OneWay, TwoWay and OneWayToSource) is not supported - see [https://msdn.microsoft.com/en-us/library/ms752347\(v=vs.110\).aspx#direction_of_data_flow](https://msdn.microsoft.com/en-us/library/ms752347(v=vs.110).aspx#direction_of_data_flow) for an example
- **The RelativeSource property** (Gets or sets the binding source by specifying its location relative to the position of the binding target) is not supported - see [https://msdn.microsoft.com/en-us/library/system.windows.data.binding.relative-source\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.windows.data.binding.relative-source(v=vs.110).aspx) for an example
- Some XAML control objects which are visible in CAST Enlighten may not be seen in the CAST Application Engineering Dashboard.
- Links between XAML Control objects and code embedded in XAML are not supported.

Limitations/open bugs in Functional Release 1.1

- In Silverlight applications, the number of transactions is empty in Transaction entry points after making Silverlight XAML controls and XAML custom controls as transaction entry points, if the plugin is installed on existing triplet.