

CTC Silverlight Client Generator

Version 1.0.2

ReadMe

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Prerequisites

The following software levels are required for the CTC Silverlight Client Generator version 1.0.2 and the generated user interface application.

Microsoft Software requirements:

- .NET 3.5 SP1 or higher
- IIS 5.0 or higher (see note below on IIS 7 Configuration)
- Visual Studio 2008 SP1
- Microsoft Silverlight 3.0 Tools for Visual Studio 2008 SP1 (obtained from <http://www.microsoft.com/downloads/details.aspx?familyid=9442B0F2-7465-417A-88F3-5E7B5409E9DD&displaylang=en>)
- Internet Explorer 7 or higher

Optional

- Silverlight 3 Toolkit.
This is required to use any of the additional controls from the Toolkit such as Charting Control and Themes Control. The Silverlight 3 Toolkit can be downloaded from <http://silverlight.codeplex.com/>. The CTC Silverlight Client Generator 1.0.2 has been tested with the July 2009 release of the toolkit.

Unisys Software requirements:

- EAE 3.3 with CE IC 3240 or higher with support for VS2005 and .NET 2.0.
 - Users of EAE 3.3 IC3260 or earlier, see CTC Software requirements below.
 - Users of EAE 3.3 IC3270 or later must be using CE 1.2 with the CE .NET Generate Environment enabled.

or

- AB Suite 1.2 IC 1450 or higher with CE 1.2

or

- AB Suite 2.0 with CE 2.0

CTC Software requirements:

- Users of EAE 3.3 IC 3260 or earlier must download and install the CTC Generate Gateway 1.0 software. The CTC Generate Gateway allows generators, such as the CTC generators, written in .NET and C# to be run from EAE Developer.

Install Instructions

Download the installation package CTCSilverlightClientGeneratorSetupV1.0.2.zip to your computer and save. Unzip and run the installation package and follow the instructions to install this release.

When generating a new bundle for the first time, all infrastructure files required will automatically be copied to the bundle views directory.

When upgrading from a previous version of the generator and local changes have been made to any of the generator infrastructure files, ensure you have a recent backup before installing the new version, as the generator infrastructure files may have changed.

When generating a bundle for the first time after upgrading to a newer version of the generator, all infrastructure files that have been changed since last release, will automatically be copied to the bundle views directory. If local changes have been made to any of the infrastructure files of the bundle, ensure you have a recent backup before generating the bundle.

Uninstall Instructions

Uninstall this package from Control Panel/Add or Remove Programs, select "CTC Silverlight Client Generator 1.0.2" and follow the instructions.

If you have made changes to any of the infrastructure files or the sample Custom Controls project, ensure you have a recent backup of these files before you uninstall the CTC Silverlight Client Generator.

Getting Started

To start the generator, set up a bundle in EAE 3.3 or a folder in AB Suite for Component Enabler and specify "**CTCSilverlightClientGenerate.dll**" as the name of the generator. For further instructions on how to setup a bundle/folder for Component Enabler, refer to the **Component Enabler User Guide** or the **CTC Silverlight Client Generator** documentation.

When building the folder/bundle from the AB Suite Developer, it is recommended the 'Rebuild' option is always chosen, in order to ensure the configuration setting of the CTC Silverlight Client Generator takes effect on all ispecs in the folder/bundle.

When starting the generator for the first time, a dialog prompting for a License Key will open. Cut and paste the License Key exactly as received from CTC, into the dialog. The License Key can also be entered using the CTC Configurator.

To configure the generator, start the **CTC Configurator** from the desktop shortcut created during the installation of the generator, or from the Start Menu/All Programs/CTC Software/CTC Configurator 2.0.2.

To start the generated Silverlight User Interface Application, open the browser and enter the URL of the application. The URL which is created by default by the generator is: [http://\[MachineName\]/\[ApplicationName\]_\[BundleName\]/](http://[MachineName]/[ApplicationName]_[BundleName]/) (i.e. http://localhost/Sample_Inquiry/).

To request a License Key from CTC, start the CTC Configurator, navigate to 'Help/How To Obtain a License Key...' and follow the instructions.

Installed Files

The following directories and files are installed:

[CEROOT]

- Bin
 - CTCSilverlightClientConfigurator.chm
 - CTCSilverlightClientConfigurator.dll
 - CTCSilverlightClientCustomControls.dll
 - CTCSilverlightClientGenerate.dll
 - CTCSilverlightClientInfrastructureFiles.xml
 - CTCSilverlightClientStandardControls.dll
 - CTCSilverlightClientStandardControls.xml
 - CTConfigurator.chm
 - CTConfigurator.exe
 - CTCGeneratorConfig.xml
- CTC-Software
 - CTC Silverlight Client Generator
 - CustomControls
 - Properties
 - AssemblyInfo.cs
 - ChartingControl.cs
 - ComboBoxSLControl.cs
 - CTCSilverlightClientCustomControls.csproj
 - DataGridControl.cs
 - DatePickerControl.cs
 - DomainUpDownControl.cs
 - NumericUpDownControl.cs
 - SliderControl.cs
 - ThemesFormControl.cs
 - Documentation
 - CTC Silverlight Client Configurator.pdf
 - CTC Silverlight Client Generator.pdf
 - CTC Silverlight Client Generator ReadMe.pdf
 - Views
 - Bin
 - CTCSilverlightCEServices.dll
 - CTCSilverlightCEServices.xml
 - CTCSilverlightControls.dll
 - CTCSilverlightControls.xml
 - CTCSilverlightStandardRuntime.dll
 - CTCSilverlightStandardRuntime.xml

- DevExpress.AgMenu.v8.2.dll
- CTCSilverlightExtendedRuntime
 - Properties
 - AssemblyInfo.cs
 - CTCExtendedIspecView.cs
 - CTCSilverlightExtendedRuntime.csproj
 - CTCViewModelExtended.cs
 - List_Row.cs
 - List_Row_Ext.cs
 - List_Row_Grid.cs
- Lang
 - IspecView
 - Properties
 - AppManifest.xml
 - AssemblyInfo.cs
 - App.xaml
 - App.xaml.cs
 - IspecView.csproj
- SilverlightApplication
 - Icons
 - Icon16.png
 - Icon32.png
 - Icon48.png
 - Icon128.png
 - Properties
 - AppManifest.xml
 - AssemblyInfo.cs
 - OutOfBrowserSettings.xml
 - App.xaml
 - App.xaml.cs
 - CommandConsole.xaml
 - CommandConsole.xaml.cs
 - Language.xaml
 - Language.xaml.cs
 - LoginForm.xaml
 - LoginForm.xaml.cs
 - MessageStrings.cs
 - Page.xaml
 - Page.xaml.cs
 - SelectIspec.xaml
 - SelectIspec.xaml.cs
 - SilverlightApplication.csproj
 - SplashScreen.xaml
 - SplashScreen.xaml.cs
 - SystemMessage.xaml
 - SystemMessage.xaml.cs
 - TransactionError.xaml
 - TransactionError.xaml.cs
 - WaitIndicator.xaml
 - WaitIndicator.xaml.cs
- SilverlightApplication.web
 - ClientBin
 - Images

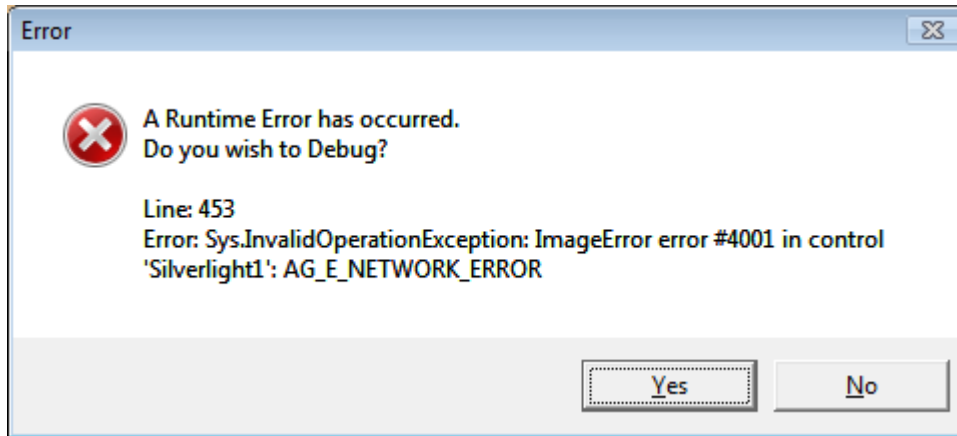
- blank.png
 - Properties
 - AssemblyInfo.cs
 - CTCSilverlightViewControllerServices.aspx
 - CTCSilverlightViewControllerServices.aspx.cs
 - CTCSilverlightViewControllerServices.aspx.designer.cs
 - Default.aspx
 - Default.aspx.cs
 - Default.aspx.designer.cs
 - Global.asax
 - Global.asax.cs
 - IspecList.xml
 - Silverlight.js
 - SilverlightApplication.Web.csproj
 - Web.config
- CTCSilverlightApplication.sln
- DeploySolution.bat
- MSBuildSolution.bat
- CTC Configurator
 - CTC Configurator Framework Help.pdf

Silverlight 3 Limitations

- 1) Image formats are limited to JPG and PNG.
- 2) Fonts are limited to: Arial, Arial Black, Comic Sans MS, Courier New, Georgia, Lucida Sans Unicode, Portable User Interface, Times New Roman, Trebuchet MS, Verdana, and Webdings. However, the CTC Silverlight Client Generator provides facilities for configuring font substitutions as well as embedding fonts with the generated forms. When no font substitutions are configured and the font doesn't match any of the fonts supported by Silverlight, Silverlight defaults to 'Portable User Interface' font.
- 3) Strikethrough text decoration is not supported.
- 4) Access Key/Short Cut to controls using Alt-Key is not supported.
- 5) Positioning of the Label on Radio Buttons and Check Boxes is not supported. The Label is always positioned on the right hand side of the Circle/Check Mark.
- 6) Background image is not supported on Radio Buttons and Check Boxes.
- 7) Border style is always a solid line.
- 8) Menu control and right-click context menu are not available.
- 9) Printing is not supported.

Images Directory

The default location of images is the **images** directory of the **ClientBin** within the **.Web** folder of the generated solution (i.e. `views\sample_bundle.web\ClientBin\images`). When Silverlight cannot find an image, the following error message will pop up on the client workstation when running the application:



When opening the generated forms in Visual Studio, images are not shown. This is because the URL pointing to the image source is not known at design time.

Menu Control

As Silverlight 3 doesn't provide a menu control or support for right-click context menu, included with the installation is a redistributable dll 'DevExpress.AgMenu.v8.2.dll' from the company DevExpress, which provides a menu control for Silverlight 3. As an example of how to include a menu bar, the CTC default generated Silverlight application use the DevExpress Menu control for providing 'standard' menu items such as Open/Close Session, Select Ispec, Change Language, Copy To Clipboard, and others. For further information and to download the latest release of the AgMenu control visit the DevExpress web site www.devexpress.com.

IIS 7 Configuration

When using IIS 7, the CTC Silverlight Client Generator requires the IIS 6 Management Compatibility Component to be installed in order for the generator to set up the virtual directory for the generated solution.

To install the IIS 6 Management Compatibility Components by using the Windows vista Control Panel:

1. Click **Start**, click **Control Panel**, click **Programs and Features**, and then click **Turn Windows features on or off**.
2. Open **Internet Information Services**.
3. Open **Web Management Tools**.
4. Open **IIS 6 Management Compatibility**.
5. Select the check box for **IIS 6 Metabase and IIS 6 configuration compatibility**.
6. Select the checkbox for **IIS 6 Management Console**.
7. Click **OK**.

CTC Generate Gateway Issue

Upgrading the CE environment de-installs the CTC Generate Gateway interface causing the CTC Silverlight Client Generator to stop working when running the generator from EAE 3.3. It is therefore required to re-install the CTC Generate Gateway after upgrading the CE environment. Re-run the CTC Generate Gateway Installer Package and select the 'Repair' option.

Version History

V1.0.0	15/June/2009	Initial Release
V1.0.1	7/August/2009	Qualified with Silverlight 3.0
		AlternateViewCreate/Remove options have been added to make it easy for Form Designers to utilize external tools such as Microsoft Expression Blend for designing forms.
		Silverlight 3.0 Assembly Caching feature added.
		Assemblies/Control dll's shared across forms added to the main page to optimize assembly loading and to keep the size of the forms to a minimum.
		Support for the Silverlight 3.0 Out-Of-Browser feature has been added.
		Custom control 'ThemesFormControl' for utilizing the Silverlight 3.0 Toolkit Themes controls has been added.
		Custom control 'ComboBoxSIControl' for utilizing the Silverlight 3.0 ComboBox control has been added.
		Download and cache the Ispec List locally on the client has been added. The IspecList.xml file is downloaded and cached locally on the client until deploying a new generate.
V1.0.2	9/September/2009	CopyFromType option has been added. CopyFromType allows selecting between two types of CopyFrom tables to generate. 'Table' option generates the CopyFrom region as a traditional table based on the Silverlight Grid Layout control. 'Grid' option generates the CopyFrom region as a Grid based on the Silverlight DataGrid control.
		List Controls such as ListBox, ComboBox, DataGrid and Charting have been extended to support retrieving and displaying data from external files in XML format.
		Custom controls 'ClearFieldsButtonControl'

		and 'ClearFieldsButtonListControl' have been added. These custom controls provides the ability to clear the fields on a form without causing a transmit to the host system. They are intended for substituting the standard ButtonControl or ButtonListControl on forms where this feature is required.
V1.0.2.10/11	8/November/2009	Automatic detection of the path to the Windows directory to enable build of the generated solution.
V1.0.2.20/21	12/November/2009	Enhanced algorithm for calculating position and size of controls to match the painted forms.
		Fixed issues with CopyFrom as Table when CopyFrom regions are painted inside panels.
V1.0.2.30/31	15/November/2009	Reference to System.Web.Silverlight.dll which is no longer available with Silverlight 3.0 has been resolved.
V1.0.2.40/41	4/December/2009	Enhanced the build order to ensure the CTCSilverlightExtendedRuntime project is built first.
V1.0.2.42/43	27/April/2010	Added ExcludeTeachScreen option, which when set will exclude teach screens from the generate process.
V1.0.2.44/45	13/June/2010	Fixed issue causing compile error when generating a single CheckBox.
V1.0.2.46/47	16/July/2010	Fixed issue on Page.xaml.cs that is causing Main Menu to throw exception when used with Silverlight 4 Runtime.
		Added submit on Enter Key for the following forms: CommandConsole, Language, LoginForm and SelectIspec.
		Fixed issue with Dynamic Attributes list causing it to go to the host system to retrieve the Dynamic Attributes list on every transaction.
		Added TextBox AutoSelect option as a new feature. When setting this option, the text of a TextBox will be selected when the user puts focus on the TextBox.
		Added Description property to the Control Specifications allowing the user to enter a short description of the specifications.
		Fixed issues with CopyFrom spanning

		multiple lines.
		Updated installation script to allow installing the generator on 64 bit OS.
		The following infrastructure source files has been updated for this version: - CommandConsole.xaml.cs - Language.xaml.cs - LoginForm.xaml.cs - Page.xaml.cs - SelectIspec.xaml.cs
V1.0.2.48/49	19/July/2010	Updated the Grid Control to allow tabbing trough controls within a Grid.
		Added workaround to avoid tab stop on the Silverlight Theming controls.
V1.0.2.50/51	23/July/2010	Enhanced LabelId Detection to allow using the Name property in MatchOnField expressions.
		Fixed issue with control templates that causes spaces to be removed.
		Enhanced conversion of arithmetic calculations to integer value to use en-US culture to avoid issues with comma as decimal point.
V1.0.2.52/53	27/July/2010	Fixed issue with control template when applying arithmetic expression to an attribute with a blank/empty value.
V1.0.2.54/55	30/July/2010	Added AlternateViewOriginalRemove option that allows removing the original Ispec View from the generated project when an Alternate View has been created. This keeps the size of the package to be downloaded to the client to a minimum.
		Removed the App.xaml and App.xaml.cs files from the Ispec projects as these files are no longer required.
		Fixed issue getting correct background of ThemesFormControl. The Control Specifications Template of the ThemesFormControl has been changed.
		The following infrastructure source files has been updated for this version: - Page.xaml - Page.xaml.cs

		- Lang\IspecView.csproj
V1.0.2.56/57	8/August/2010	Added CopyFromMultiLineAsSingle option that allows generating a CopyFrom spanning multiple lines as single lines.
		DefaultDateFormat option for specifying the default format of dates (UK, US or International) to be used by Date Controls has been added.
V1.0.2.58/59	18/August/2010	Fixed issue with AutoTabbing skipping a field when doing tab to a field that is filled to maxlength.
V1.0.2.60/61	23/August/2010	Added Video Player Custom Control that can be configured to substitute to the standard Image control.
		Added HostSessionClosing event which occurs just before closing the session with the host system. The Page.xaml.cs file has been updated to provide an example of how to use this.
		Added UserControl feature allowing adding standard Silverlight controls to the generated views/forms. UserControls are similar to CustomControls except UserControls are not associated with data items. Refer to UserControlAdd, ControlAdditionAdd and ControlAdditionRemove in the CTC Silverlight Client Configurator document.
		Added Unsolicited Message event to the CTCSilverlightViewController. This allows the application to listen to and receive messages from the host system and to determine how to display the messages to the user. The Page.xaml and Page.xaml.cs files have been updated to provide an example of how to use this.
		The following infrastructure source files has been updated for this version: - Page.xaml - Page.xaml.cs

		- Console.xaml - Console.xaml.cs
V1.0.2.62/63	24/August/2010	Fixed issue with HostSessionClosing event when doing final access to the host system.
		The following infrastructure source files has been updated for this version: - Page.xaml.cs - Global.asax.cs - CTCSilverlightViewControllerServices.aspx.cs
V1.0.2.64/65	31/August/2010	Fixed issue with tab navigation on ComboBox.
		Fixed issue with auto tabbing into a DatePicker control.
V1.0.2.66/67	3/September/2010	Fixed issue with auto tabbing when multiple keys are pressed down at the same time.
		<p>Added new feature allowing multiple ispec to be opened at the same time within the same session.</p> <p>This feature is only suitable for use with EAE/AB Suite application that are designed and programmed as stateless systems.</p> <p>The following new methods and properties has been added to the CTCSilverlightViewController:</p> <ul style="list-style-type: none"> • OpenIspec (string ispecName, bool saveCurrentIspec, OpenIspecDelegate callback) This method opens or reopens the specified ispec and returns an instance of the IspecView User Control. The caller displays the IspecView in a ContentControl on the user interface. • CloseIspec (string ispecName) This method removes the specified ispec from the collection of open ispecs. • CloseAllIspecs () This method removes all open ispecs from the collection of open ispecs. • CurrentIspecView property. This property points to the current active IspecView User Control. • DefaultIspecViewContainer property. This property is set by the caller as the default ContentControl on the user interface. • CurrentIspecViewContainer property. This property points to the ContentControl in which the current IspecView is displayed. • CurrentIspecInfo property This property point to the current IspecInfo object. IspecInfo

	<p>object holds pointers to the IspecModel, IspecView and IspecViewModel objects.</p> <ul style="list-style-type: none"> • OpenIspecs property. This property is a dictionary collection of currently open ispecs. This key to the collection is the IspecName and the value is the IspecInfo object. <p>The PageWindows.xaml and PageWindows.xaml.cs files in the [ceroot]\CTC-Software\CTC Silverlight Client Generator\views\SilverlightApplication folder provide an example of how to use the new methods/properties.</p>