

WinRT XAML Viewer for Reporting Services 2008/2008 R2/2012 Getting Started

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Introduction

The target of the following guide is to demonstrate how to build-in WinRT XAML Viewer for Reporting Services. It gives minimum necessary knowledge in order to start working with the component. We will examine the process of creating a server side project with a WCF service as well as a client side Windows Store application. We will consider creation and configuration of the service and at last integration of the report viewer component into the application pages. Your application can be configured to use the processing capability of Microsoft SQL Server 2008/2008 R2/2012 Reporting Services report server.

Product Prerequisites

Product works with the following configuration.

• MS Visual Studio 2012 or higher;

• .NET Framework 3.5 or higher for the Server side project and .NET 4.5 or higher for Client side project;

• ASP.NET 2.0 or higher;

• Microsoft SQL Server 2008 Reporting Services (Developer ,Enterprise, Standard or higher edition) or Microsoft SQL Server 2008 R2 Reporting Services (Developer, Enterprise, Standard or higher edition) or Microsoft SQL Server 2012

- Microsoft SQL Reporting Services 2008 or 2008R2 or 2012 Sample Reports;
- WinRT XAML Viewer for Reporting Services 3.1 or higher.

Creating a server side project using Microsoft SQL 2008/2008 R2/2012 Reporting Services report server

Step1

Create a new Web project.



			New Project		? ×
▷ Recent		.NET F	Framework 4 • Sort by: Default	- # E	Search Installed Templates (Ctrl+E)
▲ Installed		F	ASP.NET Empty Web Application	Visual C#	Type: Visual C#
▲ Templates ▲ Visual C# Windows 9	itore		ASP.NET Web Forms Application	Visual C#	An empty project for creating an application with a Web user interface
Windows	, conc		ASP.NET MVC 3 Web Application	Visual C#	
Extensibilit ▷ Office	у		ASP.NET MVC 4 Web Application	Visual C#	
Cloud Reporting		₿	ASP.NET Dynamic Data Entities Web Application	Visual C#	
SharePoint Silverlight	:	₿	ASP.NET Dynamic Data Linq to SQL Web Application	Visual C#	
Test WCF		Ð	ASP.NET AJAX Server Control	Visual C#	
Windows F Workflow	hone	Ð	ASP.NET AJAX Server Control Extender	Visual C#	
Windows Insta LightSwitch ▷ Other Languag ▷ Other Project Modeling Proj	ges Types	Ð	ASP.NET Server Control	Visual C#	
Samples					
▷ Online					
<u>N</u> ame:	WCFHostAppli	ation			
Location:	C:\tmp\Getting	Started\		*	<u>B</u> rowse
Solution na <u>m</u> e:	WCFHostAppli	ation			✓ Create directory for solution ☐ Add to source control
					OK Cancel

Step2

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Set a web application to use static port 5555.

Set the specific port to 5555 on the Web tab of the SampleApplication.Web properties (the "Properties" item in contextual menu of the WCFHostApplication in the "Solution Explorer").

Open the WCFHostApplication properties:

			bearch boluc		vpiorer (cur+,)		~
		_	Solutio	n 'WO	CFHostApplication' (1 proje	ct)	
	Build			FHos	tApplication		
	Rebuild			rope	erties		
	Clean			Neb.	confia		
E.	Dublish						
0	Publish						
5	Kun Code Analysis						
L B	View in Browser (internet Explorer)						
	Convert to Web Application	~					
₽ ₹	View in Page Inspector	Ctrl+K	, Ctrl+G				
G	Check Accessibility						
	Scope to This						
	New Solution Explorer View						
	Calculate Code Metrics						
	Add		Þ				
	Add Reference						
	Add Service Reference						
Ħ	Manage NuGet Packages						
4;;	View Class Diagram						
ø	Set as StartUp Project			orer	Team Explorer		
	Use IIS Express						- 1 -
	Debug				** D+ D+		* † ^
-	Add Solution to Source Control			plica	tion Project Properties		
ж	Cut	Ctrl+X	(han Daharatan		T
â	Paste	Ctrl+V	(nen Debugging		WCEHo
X	Remove	Del		lder			C:\tmp
X::-	Rename						
	Unload Project			wh	en Debuaaina		
¢	Open Folder in File Explorer			il We	b server even when not the	startup p	roject
ş	Properties	Alt+Er	nter				

Check the Specific port option and set it to 5555 on the Web tab of the WCFHostApplication properties.

WCFHostApplication + × So	ource Control Explorer	
Application Build	Configuration: N/A	~
Web	Start Action	
Package/Publish Web Package/Publish SQL	Current Page Specific Page	
Silverlight Applications Build Events	○ Start e <u>x</u> ternal program	
Settings Reference Paths	Command <u>l</u> ine arguments <u>W</u> orking directory	
Signing	◯ Start <u>U</u> RL	
Code Analysis	🔿 Don't open a page. Wait t	for a request fro
	Servers	
	✓ Apply server settings to al	l users (store in
	Ose Visual Studio <u>D</u> evelop	ment Server
	🔿 Auto-assi <u>g</u> n Port	
	• Sp <u>e</u> cific port	5555

Step3

To configure the server side you can use Templates.

Add a new item to the WCFHostApplication project (right-click the WCFHostApplication in the "Solution Explorer" and choose the Add\New Item...):



				Soluti	on 'WCFHostApplication' (1	project)
				🗊 W	CFHostApplication	
	*	Build		1 10	Properties	
		Rebuild			References	
		Clean		입	Web.config	
	€	Publish				
		Run Code Analysis				
	6	View in Browser (Internet Explorer)				
		Convert to Web Application				
	⊕*	View in Page Inspector	Ctrl+K, Ctrl+G			
	C	Check Accessibility				
t		Scope to This				
-	Ē	New Solution Explorer View				
F		Calculate Code Metrics				
		Add	•	°-	New Item	Ctrl+Shift+A
		Add Reference		* D	Existing Item	Shift+Alt+A
		Add Service Reference		82a	New Folder	
	Ħ	Manage NuGet Packages			Add ASP.NET Folder	
	•	View Class Diagram			Web Form	
	ø	Set as StartUp Project			Web User Control	
		Use IIS Express			JavaScript File	
		Debug			Style Sheet	
	10	Add Solution to Source Control			Nested Master Page	
2	ж	Cut	Ctrl+X		Master Page	
	â	Paste	Ctrl+V	te:	Class	Shift+Alt+C

Then choose Visual C#->RS.WinRT->Report Service Over HTTP.

		Add New	Item - WCFHostApplication		?	×
▲ Installed	Sor	rt by: Default	• # E		Search Installed Templates (Ctrl+E)	<i>-</i> م
 ✓ Visual C# Code Data General Web Windows Forms WPF Reporting RS.WinRT Silverlight Workflow P Online 		Report Service Over HTTP	S	Visual C# Visual C#	Type: Visual C#	
<u>N</u> ame: R	eportService.svc				<u>A</u> dd Ca	ncel

Step4

Now we need to configure the automatically created ReportService WCF-service. Make modifications to the web.config file (double-click the WCFHostApplication\Web.config in the "Solution Explorer").

In order to configure your WCF service you just need to set up a Url attribute of the MsReportingServer section. Also you should provide your Credentials to access Reporting Services including Domain, UserName and Password.

```
<PerpetuumSoftServices>
<!--
Set LogMode value="On" to log errors.
If hosting provider does not allow to write into files set LogMode value
to "Off".
-->
<LogMode value="On"/>
<Service Type="SampleApplication.Server.ReportService,
SampleApplication.Server">>
<MsReportingServer
Url="http://localhost/ReportServer/ReportExecution2005.asmx">
<Credentials Domain="myDomain.com" UserName="user1" Password="myPassword"/>
</service>
</PerpetuumSoftServices>>
```

The *LogMode* element is designated to setup exception logging. The Log.txt file is saved under the {Web Application Root}\Log directory on your server. Please note that some Hosting Providers don't allow your application to access the file system. Try to change the attribute value to "Off" if your SampleApplication cannot be executed properly.

MsReportingServer attributes and elements description:



The *Url* attribute specifies path to your Microsoft SQL Reporting Services 2008/2008 R2/2012 web service.

The *Credentials* element defines credentials to access Reporting Services' web service.

If you omit the Credentials element or leave the attributes blank, the server will use the Default Network Credentials of a Web Site.

Creating Windows Store application using Microsoft Visual Studio 2012

Step1

Creating Windows Store Application

Add a new project to the existing solution you've just created:

: yo	our A	SP.NET application,	please visit		Î	Search Solution Explore	er (Ctrl+;)
1094				*	Build Solution Rebuild Solution	F6	Application' (1 project)
ty	e="F	PerpetuumSoft.Reporti	ngServices.Vie		Clean Solution Run Code Analysis on Solutio	on Alt+F11	
<i>i</i> orł	(="4.	0" />		*	Batch Build Configuration Manager		
orts <u>Lhos</u> ' Pa	Servi st/re	.ce, WCFHostApplication <u>portserver/ReportExe</u> rd="" />	on"> cution2005.asm	₩ [²	Manage NuGet Packages Enable NuGet Package Restor New Solution Explorer View	re	
		New Project			Add	•	
1.R		Existing Project New Web Site Existing Web Site		‡7 ∱7	Set StartUp Projects Add Solution to Source Contr Paste	rol Ctrl+V	
≓"t :ta	ם לם	New Item Existing Item	Ctrl+Shift+A Shift+Alt+A	ی۔ ح	Rename Open Folder in File Explorer		
		New Solution Folder		¥	Properties	Alt+Enter	

Choose Visual C#->Windows Store->Blank App (XAML) and specify a name for a new project.

			Add New Proje	ct	? ×
▶ Recent	.NET	ramework 4 × So	ort by: Default	- # E	Search Installed Templates (Ctrl+E)
 Installed 		Blank App (XAML)		Visual C#	Type: Visual C#
▲ Visual C# Windows Store Windows	G	Grid App (XAML)		Visual C#	A single-page project for a Windows Store app that has no predefined controls or layout.
Web Extensibility		Split App (XAML)		Visual C#	
▷ Office Cloud		Class Library (Window	vs Store apps)	Visual C#	
Reporting SharePoint		Windows Runtime Co	mponent	Visual C#	
Silverlight Test WCF Windows Phone Workflow Windows Installer XML LightSwitch Other Languages Other Project Types Modeling Projects		Unit Test Library (Win	dows Store apps)	Visual C#	
<u>N</u> ame: Wir	nRTViewerClient				
Location: C:\1	tmp\Getting Started\	NCFHostApplication		v [Browse OK Cancel

NOTE: We suppose you have Microsoft SQL Reporting Services installed and configured.

It's necessary to add the report viewer component to a Windows Store application page for report displaying. Therefore you should add references to the following libraries:

PerpetuumSoft.Controls.dll

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PerpetuumSoft.ReportingServices.Viewer.WinRT.dll

These assemblies are located in the Bin\Client folder of the WinRT XAML Viewer for Reporting Services installation folder.

V	 Fropences 	2
⊳	🛤 Ref	Add Deferrer er
⊳	Ass Ass	Add Reference
Þ	Cor	Add Service Reference
⊳	🗋 Apr 🛗	Manage NuGet Packages
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	Salact the files to re	foronco			×
🔄 🎯 👻 🕇 <u>)</u> « WinRT	XAML Viewer for Reporting Services → Bin →	Client v C	Search Client		P
Organize 🔻 New folder				≣ ▼ 🔲	0
Microsoft Visual St	ame	Date modified	Гуре	Size	
	PerpetuumSoft.ReportingServices.Viewer	9/26/2012 5:32 PM	File folder		
🔶 Favorites	PerpetuumSoft.Controls.dll	9/12/2012 7:29 PM	Application extens	197 KB	
Desktop	PerpetuumSoft.ReportingServices.Viewer	9/26/2012 5:30 PM	Application extens	262 KB	
🗼 Downloads					
🔠 Recent places					
💔 Dropbox					
🕞 Libraries					
Documents					
al Music					
Pictures					
Videos					
v					
File <u>n</u> ame:	"PerpetuumSoft.ReportingServices.Viewer.Wi	nRT.dll" "PerpetuumSo N	Component File	s (*.dll;*.tlb;*.ol	V
			Add	Cancel	

Open MainPage.xaml in the markup designer and add an xml namespace for the PerpetuumSoft.ReportingServices.Viewer.WinRT assembly.

<pa< td=""><td>ge</td><td></td><td></td></pa<>	ge		
	x:Class="Win	RT۱	/iewerClient.MainPage"
	<pre>xmlns="http:</pre>	//:	<pre>schemas.microsoft.com/winfx/2006/xaml/presentation"</pre>
	xmlns:x="htt	p:/	//schemas.microsoft.com/winfx/2006/xaml"
	<pre>xmlns:local=</pre>	"us	sing:WinRTViewerClient"
	<pre>xmlns:d="htt</pre>	p:/	<pre>//schemas.microsoft.com/expression/blend/2008"</pre>
	<pre>xmlns:mc="ht</pre>	tp	://schemas.openxmlformats.org/markup-compatibility/2006"
	xmlns:SSRS="	per	•"
	<pre>mc:Ignorable</pre>	2	Microsoft.CSharp.RuntimeBinder
	<grid backer<="" td=""><td>2</td><td>Microsoft.VisualBasic</td></grid>	2	Microsoft.VisualBasic
	to in buckBr	2	Microsoft.VisualBasic.CompilerServices
		2	PerpetuumSoft.Controls
<td>age></td> <td>2</td> <td>PerpetuumSoft.Controls.PerpetuumSoft_Controls_XamITypeInfo</td>	age>	2	PerpetuumSoft.Controls.PerpetuumSoft_Controls_XamITypeInfo
		2	PerpetuumSoft.ReportingServices.Viewer.WinRT
6 .	4	8	PerpetuumSoft.ReportingServices.Viewer.WinRT.Commands
		2	PerpetuumSoft.ReportingServices.Viewer.WinRT.Controls
ut 🔅		2	PerpetuumSoft.ReportingServices.Viewer.WinRT.Controls.CustomItems
/ outp	out from:		- Le 두 🕹 🔁 👬

Then add ReportViewer on your page:

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```
And specify the required parameters:

<Grid Background="{StaticResource ApplicationPageBackgroundThemeBrush}">

<SSRS:ReportViewer

x:Name="winrtViewer"

ServiceUrl="http://localhost:5555/ReportService.svc"

ReportName="/Product Catalog 2008"

></SSRS:ReportViewer>
```

```
</Grid>
```

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Open the MainPage.xaml.cs source code and add the following code:

```
public sealed partial class MainPage : Page
{
    public MainPage()
    {
        this.InitializeComponent();
        winrtViewer.Loaded += winrtViewer_Loaded;
    }
    void winrtViewer_Loaded(object sender, RoutedEventArgs e)
    {
        winrtViewer.Commands.RenderReportCommand.Execute(null);
    }
...
}
```

The RenderDocument command invocation leads to the rendering of the current report on the server and it will be displayed in the Report Viewer.

The ServiceUrl attribute specifies Url to ReportService which we've created before, the DebugMode attribute specifies the display mode exception. There are two values available "Simple" and "Full". The Full mode can be useful if any error occurs during execution.

Step2

Now it's time to configure exports. First, we need to configure the Toast notification for our application. For that purposes open "*Package.appxmanifest"*:

The properties of the deplo properties.	yment package for your a	app are contained in t	he app manifest file. Y	ou can use the Manifest Designe	r to set or
Application UI	Capabilities	Declarations	Packaging		
Wide logo:				×	
				Required size: 310 x 150 pixels	
Small logo:	Assets\SmallLogo.png			×	
				Required size: 30 x 30 pixels	
Short name:					
Show name:	All Logos	-			
Foreground texts	Linka				
	Light	•			
Background color:	#464646				
Notifications:					
Badge logo:				×	
				Required size: 24 x 24 pixels	
Toast capable:	Yes	•			
Lock screen notifications:	(not set)				
	Yes				
Splash Screen:	NO				
Splash screen:	Assets\SplashScreen.png	9		×	
				Required size: 620 x 300 pixels	

Then, select "Toast capable" -> Yes

The second option you can be interested in is the sharing. In order to turn it on you need to subscribe to the DataRequested event sharing:

```
public MainPage()
        {
            this.InitializeComponent();
            SubscribeSharing();
        }
        private void SubscribeSharing()
        {
            DataTransferManager dataTransferManager = DataTransferManager.GetForCurrentView();
            dataTransferManager.DataRequested += dataTransferManager_DataRequested;
        }
        void dataTransferManager_DataRequested(DataTransferManager sender,
DataRequestedEventArgs args)
        {
            if (reportViewer.HasContentToBeShared)
            {
                reportViewer.ShareContent(args.Request);
            }
        }
```

Step3

Install Reporting Services Rendering Extension.msi on your server PC.

You can find the extension installer by the following path:



"C:\Program Files (x86)\Perpetuum Software\WinRT XAML Viewer for Reporting Services\Extension\Reporting Services Rendering Extension.msi"

NOTE: The extension must be installed ONLY to Microsoft SQL Server Reporting Services 2008/2008 R2/2012 Developer, Enterprise or Standard editons. Make sure that your SQL Server edition supports custom rendering extensions.

Run the extension installer on the machine where Microsoft SQL Server Reporting Services are installed.

Follow the installer instructions on the screen.

The installer determines your SQL configurations and offers the list of the available Reporting Services instances.

PerpetuumSoft XAML Rendering Extension Installer 🛛 – 🗖 🗙					
Select the Reporting Service instances to install or uninstall XAML rendering extension					
Reporting Server Instance Name	Status	Version	SQL Path		
MSSQLSERVER	Installed	11.0.2100.60	C:\Program Files\Microsoft SQL Server\MSRS:		
<			>		
			Cancel Apply Changes		

Check/uncheck the instances to install/uninstall Rendering Extension to selected Reporting Services instances and click the Apply Changes button.



Reporting Server Instance Name	Status	Version	SQL Path
MSSQLSERVER	Installed	11.0.2100.60	C:\Program Files\Microsoft SQL Server\MS
5			
			1



Restart the affected instances of Reporting Services.

Step4

Run the Sample Application.

Set your WinRT Client app as a startup project and hit F5 in Visual Studio environment to run the application.

NOTE: The first launch of your application may take some time. It's caused by the Slow Startup of SQL Reporting Services problem.



If you cannot run the application or any error occurs during execution please contact Perpetuum Software support team by <u>submitting a ticket</u> or by e-mail <u>support@perpetuumsoft.com</u>.

Please provide as much information as possible in the support request:

You can select the error message, copy it to clipboard and attach to your email.

You may also attach the log.txt file (if it exists) which can be found under the {Web Site Root}\Log directory.

Conclusion

We have examined basic steps and got a simple and quite operable application. We didn't have to write thousand lines of code – we only used ready-made implementation. It will be enough in most cases. If the required behavior differs greatly from the one provided by default, you can change not only many aspects of the WinRT Viewer for Reporting Services 2008/2008R2/2012 work but also the appearance of the report viewer.

More info

You can find more articles here:

http://helpcenter.perpetuumsoft.com/KB/c101/winrt-viewer-for-reporting-services.aspx



NOTE

There is a bug in Windows RTM and if you get the XAML parser error you need to apply the official Microsoft HotFix for this issue. You can find the details here:

http://social.msdn.microsoft.com/Forums/en-US/toolsforwinapps/thread/48a1d915-7f03-4058-84e3-8415d12e0b03

And if you don't want to call Microsoft in order to get this fix, you can download it here:

http://perpetuumsoft.com/Support/VS2012RTMHotfix/HotFix-KB2739194.zip