# AASHTOWare Bridge Rating and Design Training

## **RPT3** – Report Tool Using Crystal Reports (BrR/BrD 6.4)

This example describes how to generate report with Report Tool using user defined Crystal Reports RPT file. It also shows user the difference between the Report Tool in 6.3 and 6.4. This example assumes you have access to TrainingBridge1 (BID1) in the teaching database from the installation.

#### **Topics Covered**

- Difference between the Report Tool in 6.3 and 6.4
- How to use Crystal Report help
- How to generate Crystal Report with Report Tool using user defined XSL/RPT file

### Difference between the Report Tool in 6.3 and 6.4

The chart below shows how Report Tool works in VirtisOpis6.3.

#### Existing Process: Report Tool using XML/XSL



ABR - AASHTO BRIDGEWare Report Definition File XML - Extensible Markup Language File XSL - Extensible Stylesheet Language File

The Report Tool provides access to more than 30,000 attributes in the Bridge Workspace.

The chart below shows how Report Tool works in BrR6.4. Now BrR6.4 allows user to choose between the existing XSL report formatting and Crystal Reports formatting. The existing report generation process in VirtisOpis6.3 remains unchanged if XSL formatting is selected. If Crystal Reports is selected the Report Tool will generate and XML file containing the data to be reported (just like the XSL formatting option) and will open the custom Crystal Reports RPT file viewer to display the report. The file viewer merges the XML data file with a user-defined RPT file. The formatting files, a Crystal Reports RPT file, must be prepared by the user and associated with the report definition using the "Advanced" button on the Report Tool window. The RPT files can be prepared using Crystal Reports Designer software.

#### Additional Process: Report Tool using Crystal Reports



ABR - AASHTO BRIDGEWare Report Definition File RPT - Crystal Reports' Report File XML - Extensible Markup Language File

## How to use Crystal Report help

Open TrainingBridge1, click Report Tool button and the tool bar. Report Tool window will open as shown below.

🕰 TrainingBr	idge1 - Report Tool				
Report Type:	BWS Report	•	Advanced	🔽 Begin each topic	on a new page when printed
New	Open	Merge	Save	Save As	Generate
Edit Groups	Edit Attributes	Delete			Close

Click Advance button, Report Tool -Advanced dialog will open as shown below.

Report Tool - Advanced	×
User-defined XSL/RPT	
Use user-defined XSL/RPT file	
	<u> </u>
	OK Cancel

Click F1 to view Crystal Report help.



Click Crystal Report Tutorial button in help window to view tutorial.

Virtis_Opis_Crystal_Report	rt_Tutorial.pdf - Adobe Acrobat Pro	_ <b>_</b> X
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<b>1</b>	Virtis Opis 6.4 - Crystal Reporting Tutorial Aug-2011	
<b>17</b> 4		
	Overview	
	This document presents a tutorial that describes the process of registering and generating crystal reports using Virtis Opis. The crystal reporting process developed in Virtis Opis enables the end user to register and generate their crystal reports using XML data file created by the existing XSL file based Virtis Opis reporting framework. The following tutorial is intended to get the end user familiar with the Virtis Opis reporting process for crystal reports.	
	Steps	
	1. Generate XML Data Source File	
	Under this step, you will need to create an XML data file that will serve as the data source for your crystal report. The XML data file will be required during the development of your crystal report. This XML data file is generated by the XSL based Virtis Opis reporting framework. Click Open button to select an existing report definition or click New button to create a new report. You can click Save As button to create a new report definition from the existing one.	
	A TrainingBridge1 - Report Tool	
<b>%</b>	Report Type: BWS Report  Advanced  Begin each topic on a new page when printed Report New Open Merge Save Save As Generate	

The tutorial will guide user through step by step on how to generate XML data source, Crystal Report and how to explore Crystal Report.

### Generate Crystal Report with report tool using user defined XSL/RPT file

In this example we will use the sample abr and RPT files came from installation to generate Crystal Report. These reports are delivered with BrR/BrD 6.4release and can also be found under %InstallDir%\AASHTOWare\VirtisOpis64\Help\CrystalReportHelp folder.

Copy the sample Crystal Report abr and XML files to AASHTOWare\VirtisOpis64\Reports folder under your My Documents folder on your local drive. Copy the sample Crystal Report RPT file to a location of your choice.

Open TrainingBridge1, click Report Tool button on the tool bar. Report Tool window will open as shown below.

TrainingBridge1 - Report Tool	<u>_   ×</u>
Report Type: BWS Report Advanced V Begin each topic on a new part	ge when printed
Report           New         Open         Merge         Save         Save As	Generate
Edit Groups Edit Attributes Delete	Close

Click Open button and locate your sample abr file (BWS\_GS\_Framing\_Plan\_Details\_Crystal\_Sample.abr). After abr file is loaded Report Tool window will look like the following.



Click Advance button, Report Tool –Advanced dialog will open as shown below, browse to RPT file (BWS\_GS\_Framing\_Plan\_Details\_Crystal\_Sample.rpt), click Ok button to link abr file with sample RPT file at the location you selected before.

Report Tool - Advanced
User-defined XSL/RPT
☑ Use user-defined XSL/RPT file
C:\Documents and Settings\XLi\My Documents\AASHTOWARE\Virtis 💌
OK Cancel

Click Generate button to generate Crystal Report.

Virtis Opis Crystal Report Viewer	M 1	/2 🕅 🔍 🗸					SAP CRYSTAL REPORTS®
Main Report							
	Bridge Girder System Framing Plan Details						
	Bridge: Bridge Id NBI Struc	: TrainingBridge1 ture ID : TrainingBridge1		Name: Year Built:	Training Bridge 1(Ll 1999	RFD)	
	Girder System Structure Definition : Number of Girders : 4 Number of Spans : 1 Structure Framing Plan Details: Click To View Girder Spacing Details						
	Diaphragm Locations:						
		Left Member Distance	Number of Spaces	Right Member Distance	Spacings	Weight	
		0.00 (ft)	1	0.00 (ft)	0.00 (ft)		
		27.31 (ft)	1	18.21 (ft)	0.00 (ft)		
		27.31 (ft)	4	18.21 (ft)	26.83 (ft)		
		161.00 (ft)	1	161.00(ft)	0.00 (ft)		
	Bay Nu	mber: 2	Number of	Diald Marshar Dia	Spacings	Weight	-
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