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Welcome

You can view this document online or you can print it, in part or whole, by using the print feature in Adobe Acrobat Reader.

This guide assumes you know how to use Microsoft Windows, including navigating menus, moving from application to application, and moving objects on the screen. If you need help with these tasks, see the Microsoft online help.

Documentation Conventions

This documentation uses the following conventions:

Convention	Used for
Initial Capitals	Paths and file names.
Bold	Menus, commands, dialog box names, and dialog box options.
Monospace	Code samples and display text.

Technical Support

Wonderware Technical Support offers a variety of support options to answer any questions on Wonderware products and their implementation.

Before you contact Technical Support, refer to the relevant section(s) in this documentation for a possible solution to the problem. If you need to contact technical support for help, have the following information ready:

- The type and version of the operating system you are using. For example, Microsoft Windows XP, SP1.

- Details of how to recreate the problem.
- The exact wording of the error messages you saw.
- Any relevant output listing from the Log Viewer or any other diagnostic applications.
- Details of what you did to try to solve the problem(s) and your results.
- If known, the Wonderware Technical Support case number assigned to your problem, if this is an ongoing problem.

Chapter 2

Creating ArcestrA Reports

This document provides information that can be used by developers building ArcestrA Reports for Wonderware Information Server using Microsoft SQL Server 2005 Reporting Services.

This document does not replace the Administration Guide provided with Wonderware Information Server (WIS) but rather supplements it by providing:

- Detailed information on the standards used to create the report templates provided with Wonderware Information Server.
- Tips and guidelines on how to create new ArcestrA reports.

Glossary of Terms

The following terms are used in this document:

Term	Definition
BIDS	SQL Server <u>B</u> usiness <u>I</u> ntelligence <u>D</u> evelopment <u>S</u> tudio
RDL	<u>R</u> eport <u>D</u> efinition <u>L</u> anguage (XML document defining the report in RS)
RS	Microsoft SQL Server <u>R</u> eporting <u>S</u> ervices
WIS	<u>W</u> onderware <u>I</u> nformation <u>S</u> erver

References

Wonderware Information Server Administration Guide, Chapter 19.

Overview

Wonderware Information Server (WIS) 3.0 introduced ArcestrA Reports in order to extend its information display capabilities. ArcestrA Reports are based on Microsoft SQL Server 2005 Reporting Services (RS).

ArcestrA Reports provide report templates and additional functions that make it easier to create reports for the Industrial world. In addition, WIS provides user-friendly controls that facilitate parameter input when tag names and date ranges are used.

WIS also provides a report deployment utility that provides report deployment to multiple servers, for a multi-site enterprise.

Document Overview

This document provides information on the standards used to create the report templates and provides tips and guidelines on how to use these templates to create new reports and on how to create the SQL objects that support these reports.

The first section of this document provides a tutorial on how to create a report using one of the report templates as a starting point.

The next section provides tips and guidelines on how to build and structure an ArcestrA report. A description of the report templates follows, with details on the fonts, colors and functions.

Finally, the document provides a check list that can be used to verify and test the resulting ArcestrA Report.

Creating a New Report

This section provides a sample step-by-step procedure on how to create an ArcestrA report based on one of the 2 templates provided with WIS.

Note It is strongly suggested you read Chapter 19 of the *Wonderware Information Server Administration Guide* prior to reading this section. Training on Microsoft SQL Server Reporting Services is also recommended.

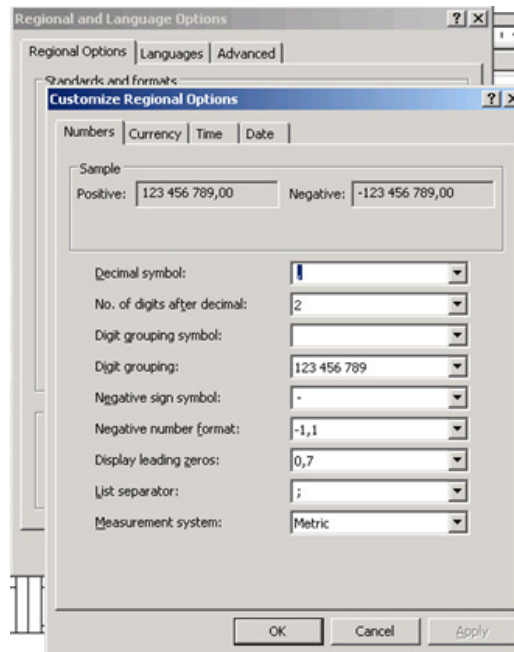
This procedure assumes that Wonderware Information Server is installed with the ArcestrA Reports option. The procedure also assumes that SQL Server Business Intelligence Development Studio (BIDS) is also installed on the WIS server and that development of the reports is done from that instance of BIDS.

Using Metric Units

Report templates were made using metric units, which makes it easier to control object sizing and positioning. It is therefore highly recommended to switch to metric units when working with the BIDS.

To switch to metric units

- 1 Open the Control Panel.
- 2 Click **Regional and Language Options**, then the **Regional Options** tab.
- 3 Click the **Customize** button.
- 4 Click the **Numbers** tab.
- 5 Select **Metric** from the **Measurement system** list.



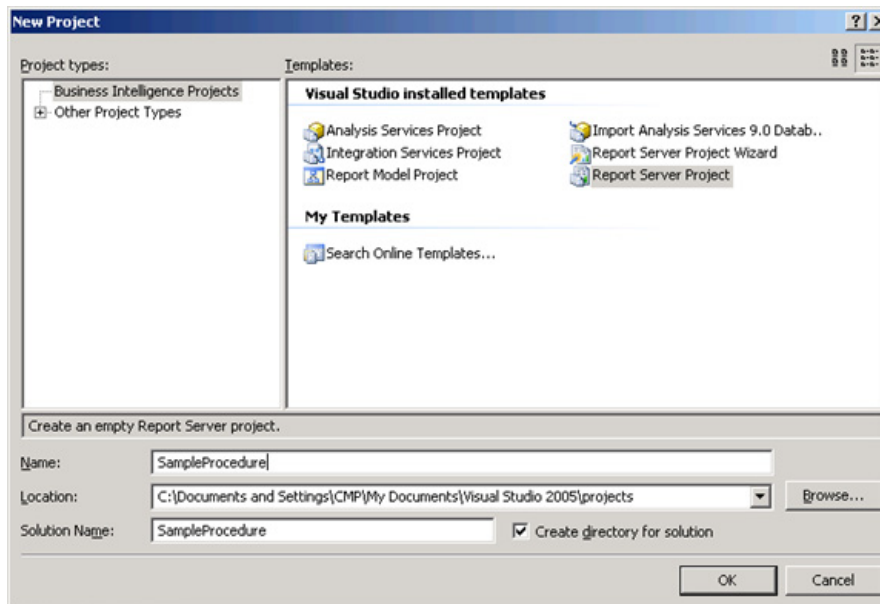
- 6 Click **OK**, then **OK** to exit the Regional and Language options.

Creating New Visual Studio and Report Server Projects

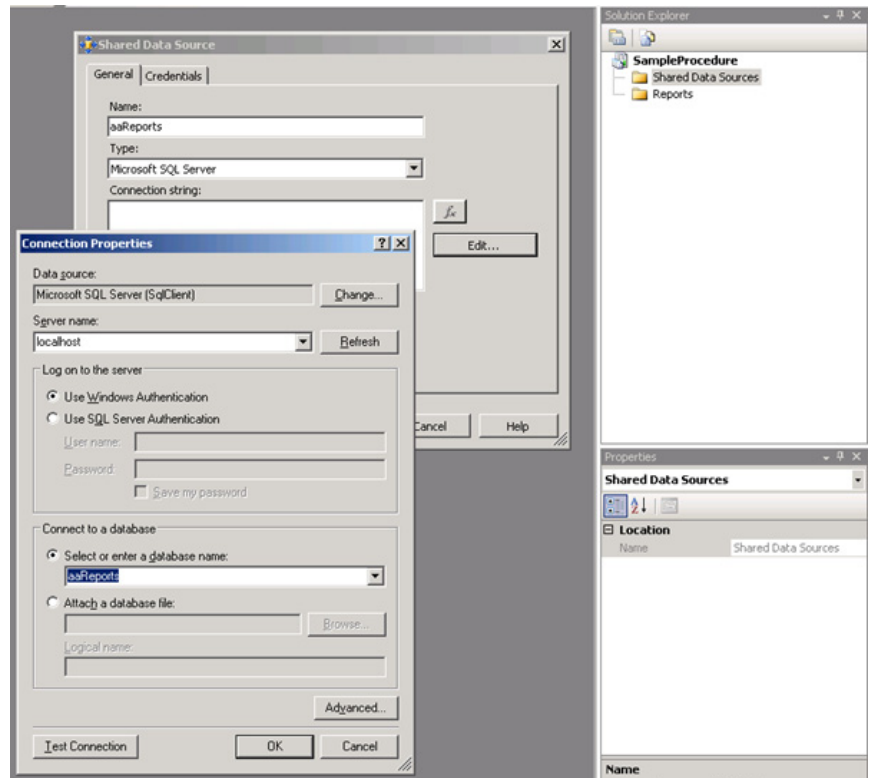
Next, you must create a project in Visual Studio.

To create a new project

- 1 Start BIDS on the WIS Server node and create a new Report Server Project.

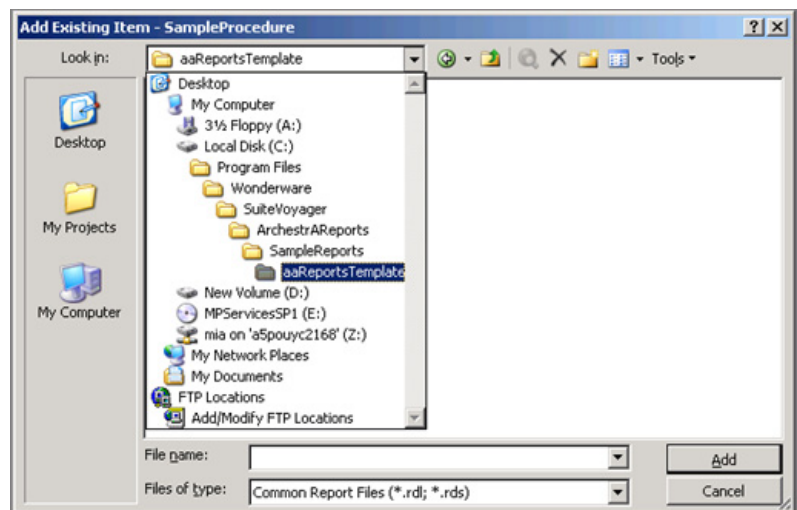


2 Create a new Data Source in the Solution Explorer.

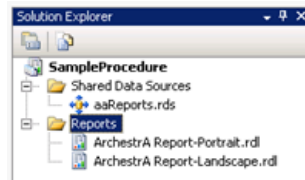


3 Add the 2 ArchestrA Reports templates to the Reports folder in Solution Explorer (Add existing item).

The location of these files is described in Chapter 19 of the WIS Administration Guide. They are typically found in the **Program Files** folder, or on the WIS installation CD.

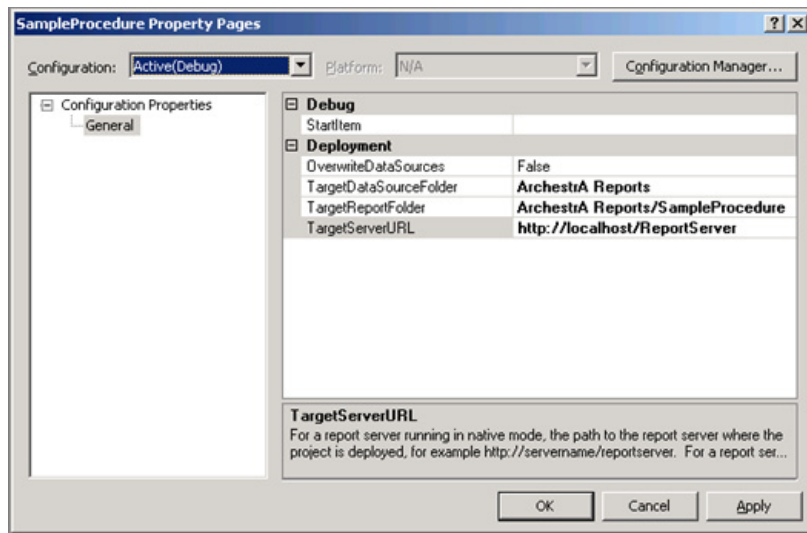


The following graphic shows the two report templates:



- 4 Modify the Project Properties for Arcestra Reports as shown in the following graphic.

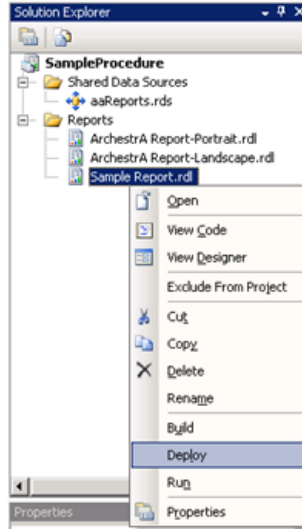
Note You should modify the TargetReportFolder with a name representing your project: Arcestra Reports/YourProjectName.



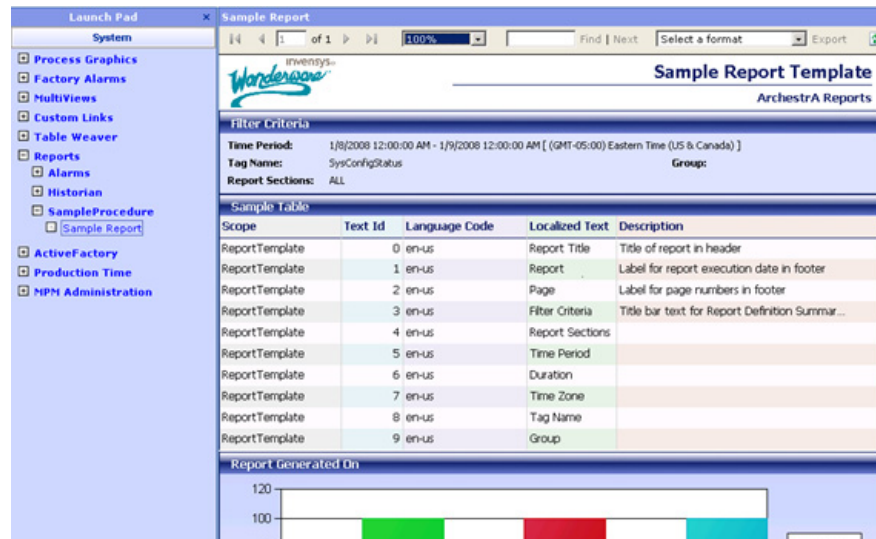
When you deploy the reports, they automatically appear in WIS, under the **Reports** node.

- 5 Make a copy of the desired template depending on the format of the report you want to create (portrait or landscape).
- 6 Select the report template and from the BIDS menu, use Copy/Paste. You can rename the report with a meaningful name.

- 7 Deploy your report. Report templates are fully functional examples. Therefore, you can already test your installation by deploying your report and testing it in WIS. The report displays data taken from the aaReports database installed with Arcestra Reports.



An example of a deployed report is shown below:



Modifying the Report Template

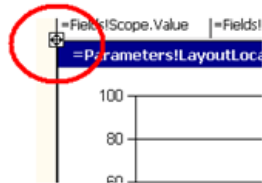
You are now ready to modify the template for your report content.

Open the report in layout mode by double-clicking on it in the Solution Explorer. The report contains an example of a table, a chart and a matrix section.

Working with Report Sections

Depending on your report layout, you can duplicate the sections that you need and eliminate the ones that you do not need.

Each section is a rectangle, which facilitates the handling of the section in terms of sizing and movement. You only need to select the rectangle, identified by the cross-arrow in the upper-left corner of the section when you move the mouse over the section, as shown in the following graphic:



By clicking the sizing icon, you select the entire rectangle and its content. You can now move, duplicate or move that rectangle as needed.

Note that it is important to respect the width of the report. The template is set at its maximum limit to fit A4 and Letter paper sizes: 18.95 cm for portrait and 26.9 cm for landscape.

Associating Report Sections with Datasets

Each of the report sections must be associated to a Dataset. Datasets are queries executed against the aaReports database. In order to access data in other databases, views referring to linked servers are created in the aaReports database.

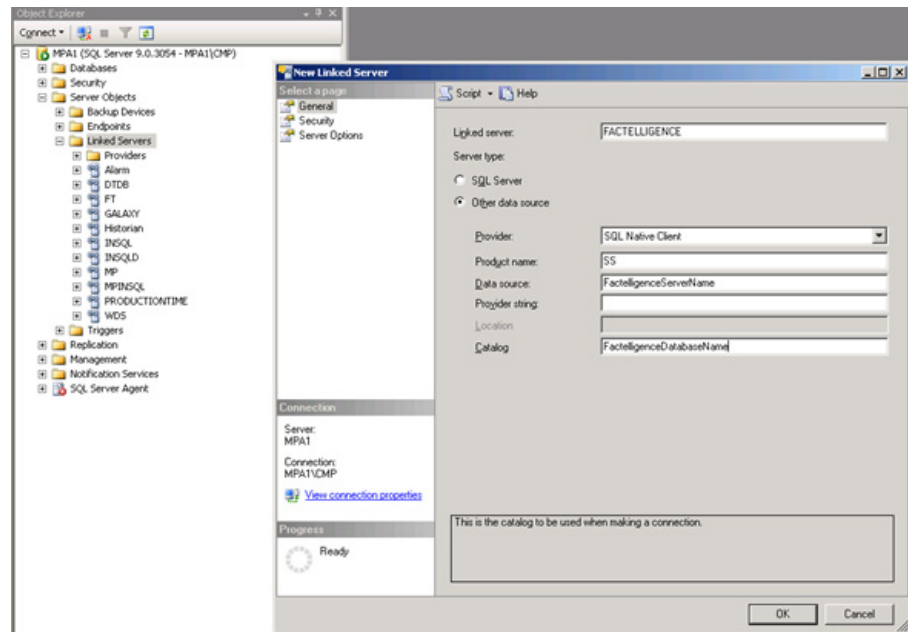
You can use stored procedures running against views defined in the aaReports database for more complex queries. These stored procedures are also defined in the aaReports database. Report Datasets then refer directly to the views or stored procedures defined in the aaReports database.

Creating SQL Objects and Report Datasets

The following steps explain how to create the supporting SQL objects and then the report Datasets. We will use a Factelligence remote database as an example.

Creating a Linked Server

Create a linked server to access the remote data. This can be done in SQL Server Management Studio. You may need to review the security settings of the linked server, depending on your network structure.



Defining the Required Views

You then need to define the view(s) required to access the data. The view is created in the aaReports database.

Using SQL Server Management Studio, here is an example:

