Resolving Issues in Publishing ActiveFactory v9.2 Reports

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Introduction

Wonderware ActiveFactory allows you to publish reports using Microsoft Excel, Word, and Trend to the ActiveFactory Reporting Website (AFRWS).

If you experience any problem in publishing ActiveFactory reports to the AFRWS, you can use suggestions in this *Tech Note* to trouble-shoot and to resolve the problem. Since you can use the Wonderware Information Server (WIS) to view the published report, AFRWS and WIS are being used interchangeably in this *Tech Note.* Because any of these suggestions can resolve the issue, you should go back to check if it helps resolving the issue after applying each of the tips.

Application Versions

- Wonderware ActiveFactory 9.2

- Wonderware Information Server (WIS) 3.1

- Wonderware Historian 9.0 P02 or 10.0

- Microsoft Office Excel 2003 SP2 (or later), or 2007 SP2 (or later)

- Microsoft Office Word 2003 SP2 (or later), or 2007 SP2 (or later)

- Microsoft SQL Server 2005 SP2 (or later)

Acronyms

- **AF**: ActiveFactory Desktop version (Trend, Excel Workbook, Word Report)

- **AFRWS**: ActiveFactory Reporting Website

- **WIS 3.1**: Wonderware Information Server 3.1 (used interchangeably with AFRWS)

- **AF Web Client**: Machine using Internet browser to view published reports

- **InSQL**: Wonderware Historian version 9.0 or 10.0

Assumptions

This *Tech Note* assumes that you are familiar with the following products:

- Historian (or InSQL Server) v9.0 or later

- ActiveFactory v9.2 or later

- Wonderware Information Server (WIS) version 3.1 or later

- MS SQL Server version 2005 or later

- MS Windows Operating Systems (2003, Vista, or XP)

Report Publishing Overview

The following components are used during AF report publishing to the AFRWS:

Historian's Runtime Database Tables

The following tables are added to the **Runtime** database when AFRWS is first installed.

- **aaHistClientReport** table contains one row for each report that is published.

- **aaHistClientReportSite** table contains basic configuration information for the AFRWS such as the URL.

- **aaHistClientReportsFolder** table contains one row for each report folder that appears under the main Published Reports navigation node.
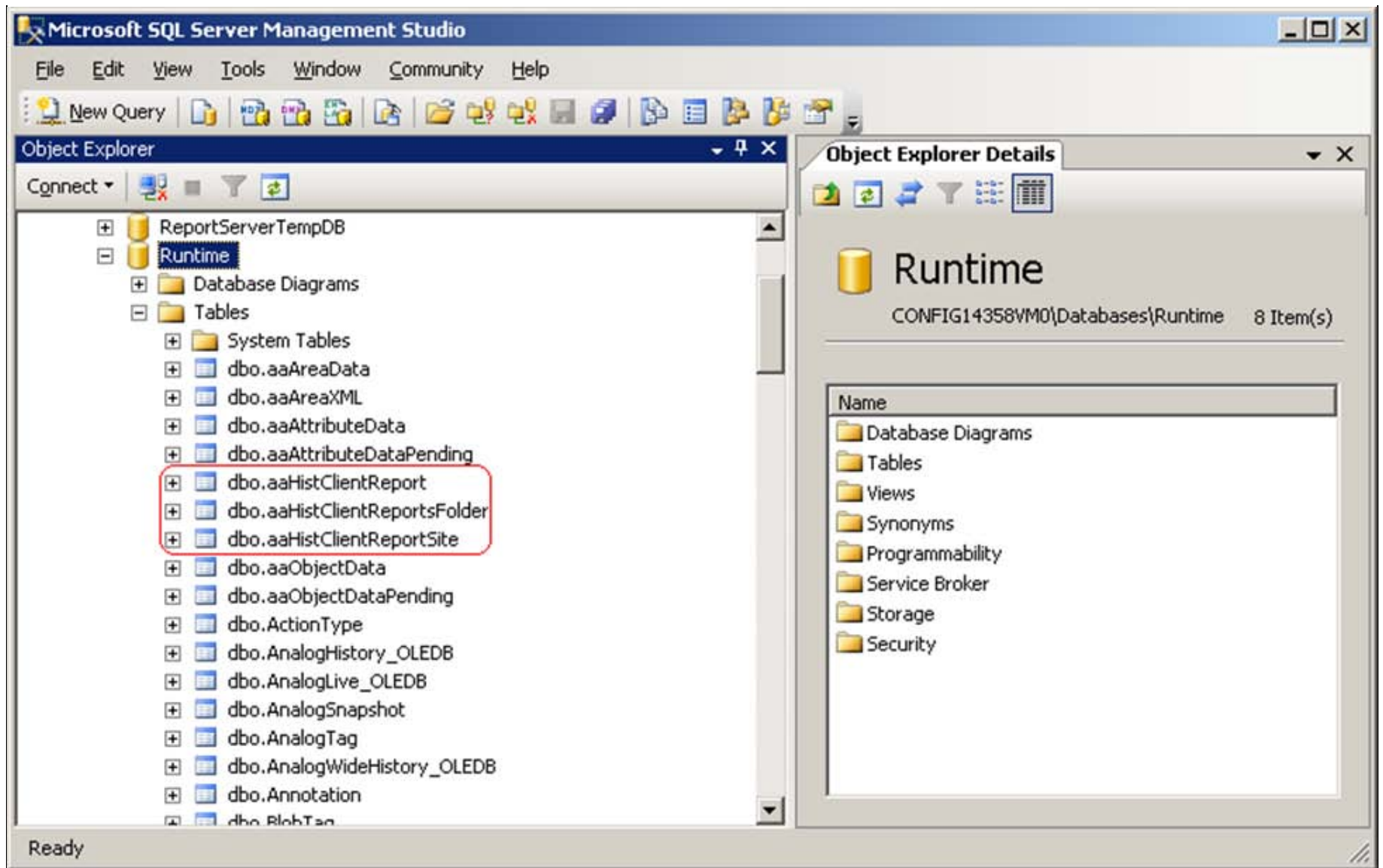
FIGURE 1: RUNTIME DB TABLES USED BY AFRWS

Report Folders Located on the Web Server

These folders contain the published reports. Each report type (**Static**, **On Demand**, and **Scheduled**) has its own folder. By default, they are configured under the AFWeb output folder at **C:\Inetpub\wwwroot\AFWeb\Output**.

Each of these folders contains two subfolders: **Source** and **Target**. When a report is published, the Report Service copies the published report file to the Source folder. The Target folder is used during the actual generation of the report by the website user. For scheduled reports, there is a subfolder for each time period.

Important: These tables and stored procedures are for internal use only. Do not modify them.

XML Files

The XML files control the configuration and parameters for published reports. They are created during the installation of AFRWS Server in the AFWeb folder at **C:\Inetpub\wwwroot\AFWeb\Output**. The following XML files are used by the Reporting Website:

- **ReportParameters.xml**. This file stores information related to the reports. There is a section for each report group (Pre-Defined, System Status, Summary Reports, and so on), as well as sections for each type of report in the report groups. For published reports, additional sections are included to contain information regarding the report name, file names and paths, the report type, and so on.

- **Configuration.config**. This file stores basic information for the website, such as schedules and archival rules for reports and the folders for scheduled, static, and on-demand reports.

- **ReportsDefinition.xml**. This file stores all of the query definitions for the pre-configured reports, as well as information regarding the style sheet files for these types of reports.

aaHistClientReportingService

This service performs all the report publishing tasks.

Report Publishing Sequence

- When a report is published to the AFRWS, information about the report is added to the Historian's Runtime database.

- The report file is then copied to the proper report folder on the computer running AFRWS by the aaHistClientReportingService service. The service checks the Runtime database periodically to see if there is a new report to be published to the AFRWS.

- For a **Static** report, the results are saved as an HTML file. When accessing the report, client users see the saved static data.

- For an **On-demand** report, only the report definition is saved, but no data. Current data is retrieved from the database whenever a client user accesses the report.

Troubleshooting Tips

1. Be sure to install MS Office 2003 (SP2 or later) or 2007 (SP2 or later) on the AFRWS/WIS Server node. This is a base-line requirement and will allow you to generate and view the published report.

2. Run the O/S Configuration utility if applicable.

3. Enable the **Enable Distributed COM (DCOM)** option for the computers running AF desktop components and AFRWS (or WIS). To check this, navigate to My Computer Properties by clicking through Windows Start -> Program -> Administrative Tools -> Component Services -> Computer -> My Computer -> Default properties.
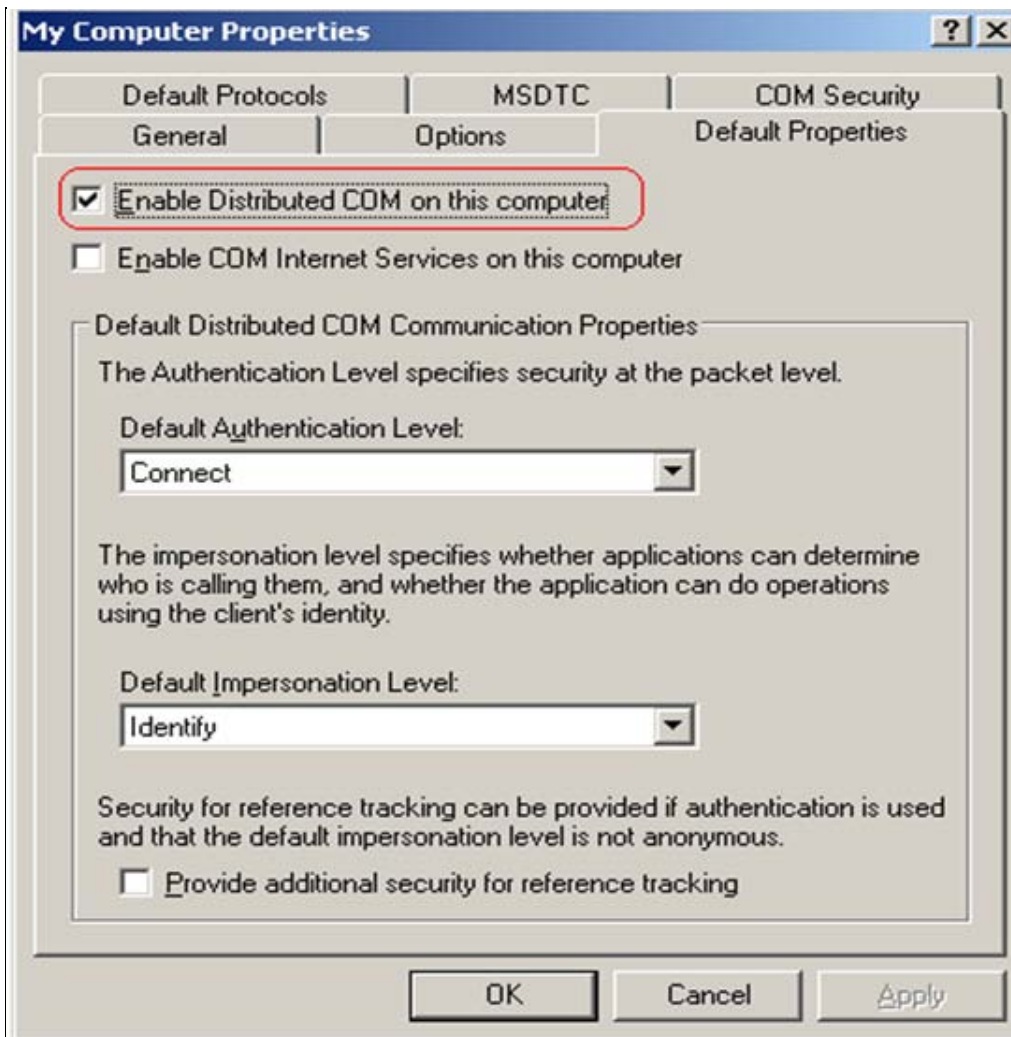
FIGURE 2: ENABLING DCOM

Configure DCOM for Excel to Use **The launching user**

1. Click the Windows **Start/Programs/Administrative Tools**.

2. Click **Component Services/Computers/My Computer/DCOM Config**.

3. Right-click on Microsoft Office Excel 2007 Workbook (or Microsoft Excel Application for MS Office 2003).

4. Click the **Identity** tab, then click the **The launching user** option.

- The **interactive User**: The application will run using the security context of the user currently logged onto the computer. If this option is selected and the user is not logged on, the application will not start.

- **The launching User**: The application will run using the security context of the user who started the application. The launching user and the interactive user can be the same.

- **This user**: You can specify the user whose security context will be used to run the application.
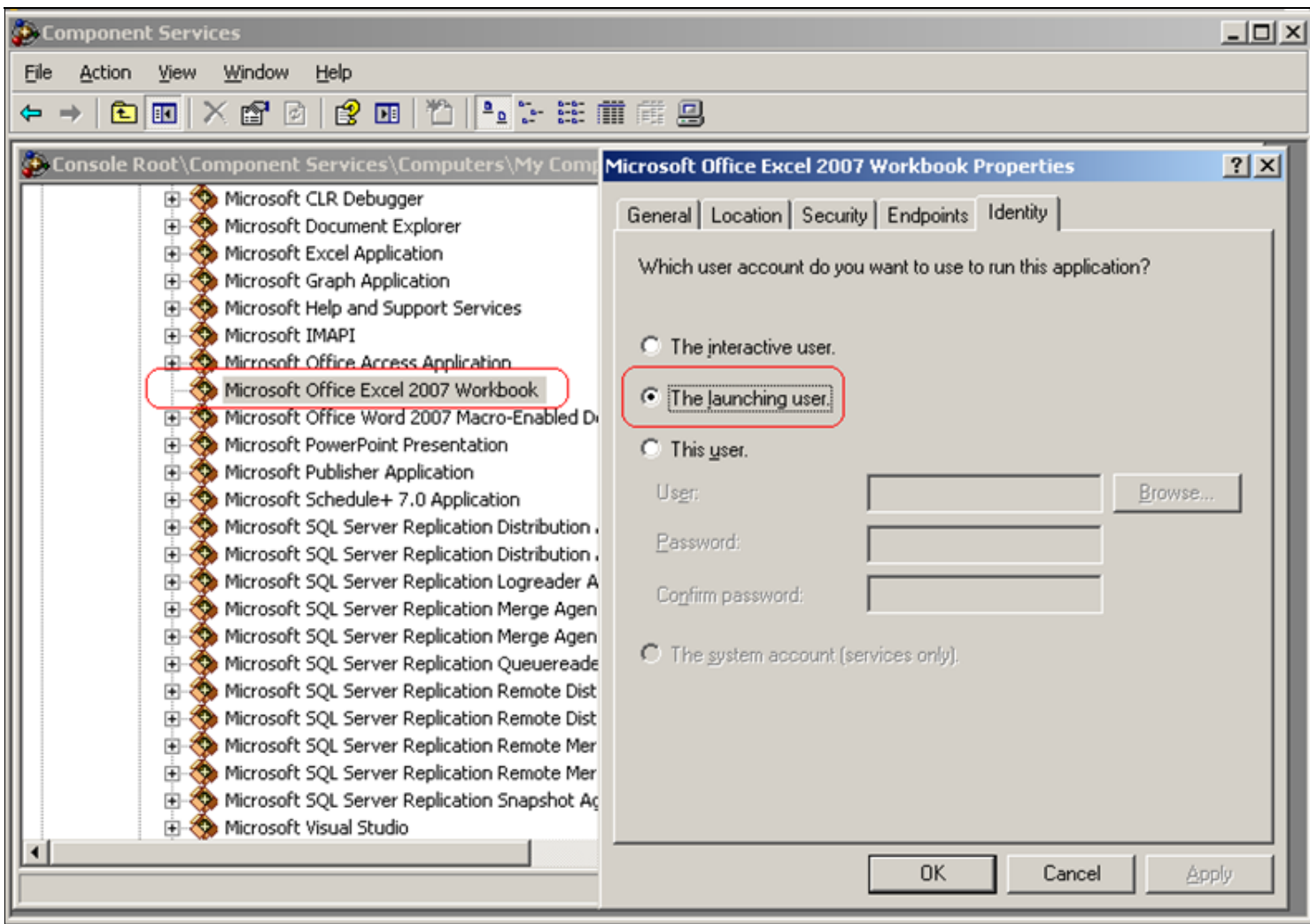
FIGURE 3: CONFIGURE MICROSOFT TO USE THE LAUNCHING USER

Note: The Component Services list can display the GUID **{00020812-0000-0000-C000-000000000046}** instead of the application name for MS Office Excel (Figure 3 above).

Enable Anonymous Access for AFWeb

1. Open the Internet Information Services (IIS) Manager,

2. Browse to **Web Site/Default Web Site**.

3. Right-click **AFWeb** and click **Properties**.

4. Select the **Directory Security** tab and click the **Edit** button in the Authentication and Access Control section. The **Authentication Methods** dialog box appears, allowing you to enable the anonymous access.

- Anonymous access allows users to establish an anonymous connection. The user logs on to IIS with an anonymous or guest account.

FIGURE 4: ENABLING ANONYMOUS ACCESS FOR AFWEB

Verify aaHistClienReportService Configuration

1. Open Control Panel/Administrative Tools/Services.

2. Check that the **aaHistClientReportService** is configured for **Automatic** and **Local System**.

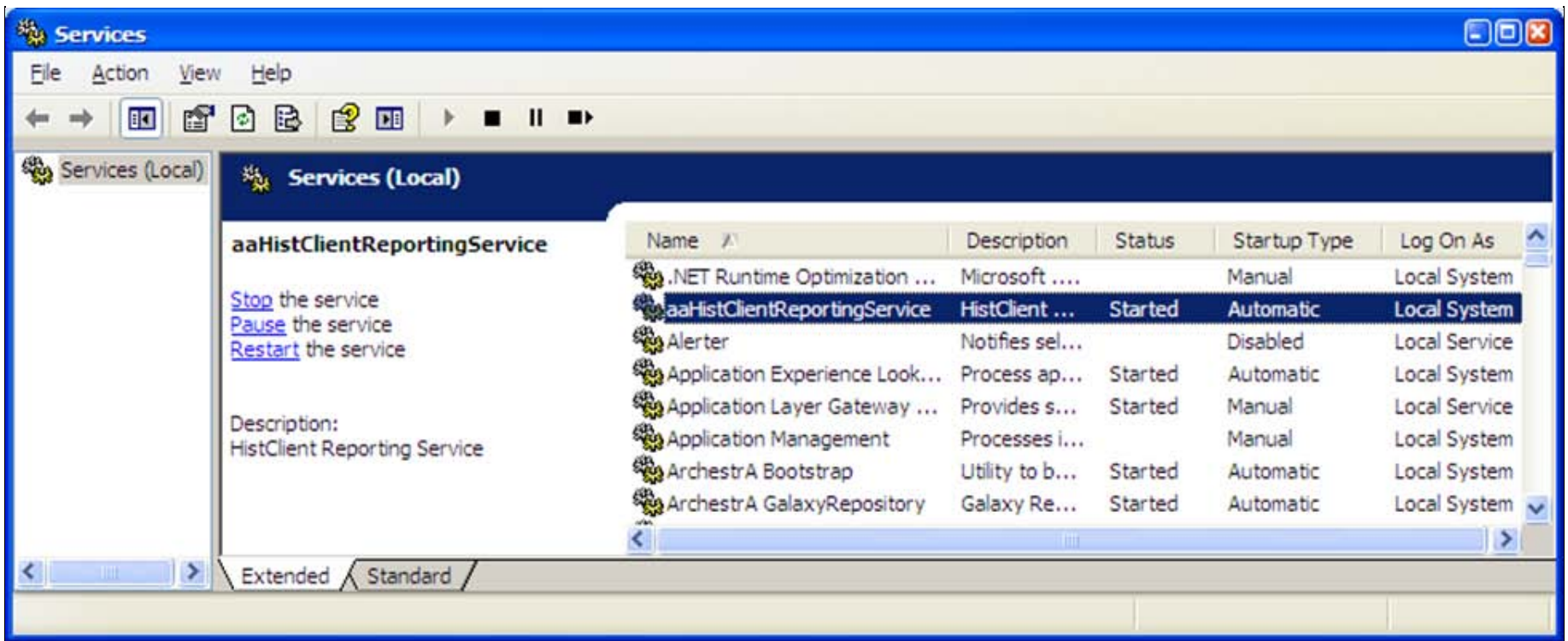3. Restart this service after a report has been published.

FIGURE 5: aaHistClientReportService

Check Event Logs

Check the Windows Application, System, and Security Event Viewer logs for any related messages. If the report failed to be published to the AFWeb site, you will see messages about the failure. These messages can be very useful and you can use the message text to research solutions.

Verify the Report Exists

Check if the report exists in the aaHistClientReport table (Figure 6 below).

1. On the Historian Server machine, open the SQL Server Management Studio.

2. Expand Databases/Runtime/Tables.

3. Right-click **dbo.aaHistClientReport** and click **Open table**.

   If the report's name does not appear in the **FileName** column, make sure the aaHistClientReportService is started and DCOM has been configured correctly as shown in the **previous steps**.

   Also, check the Windows EventViewer Application log for any related message.

4. Check the value of the **Published** column for the **aaHistClientReport** table to see if the value is **1**, which indicates that the report has been published successfully (Figure 6 below).
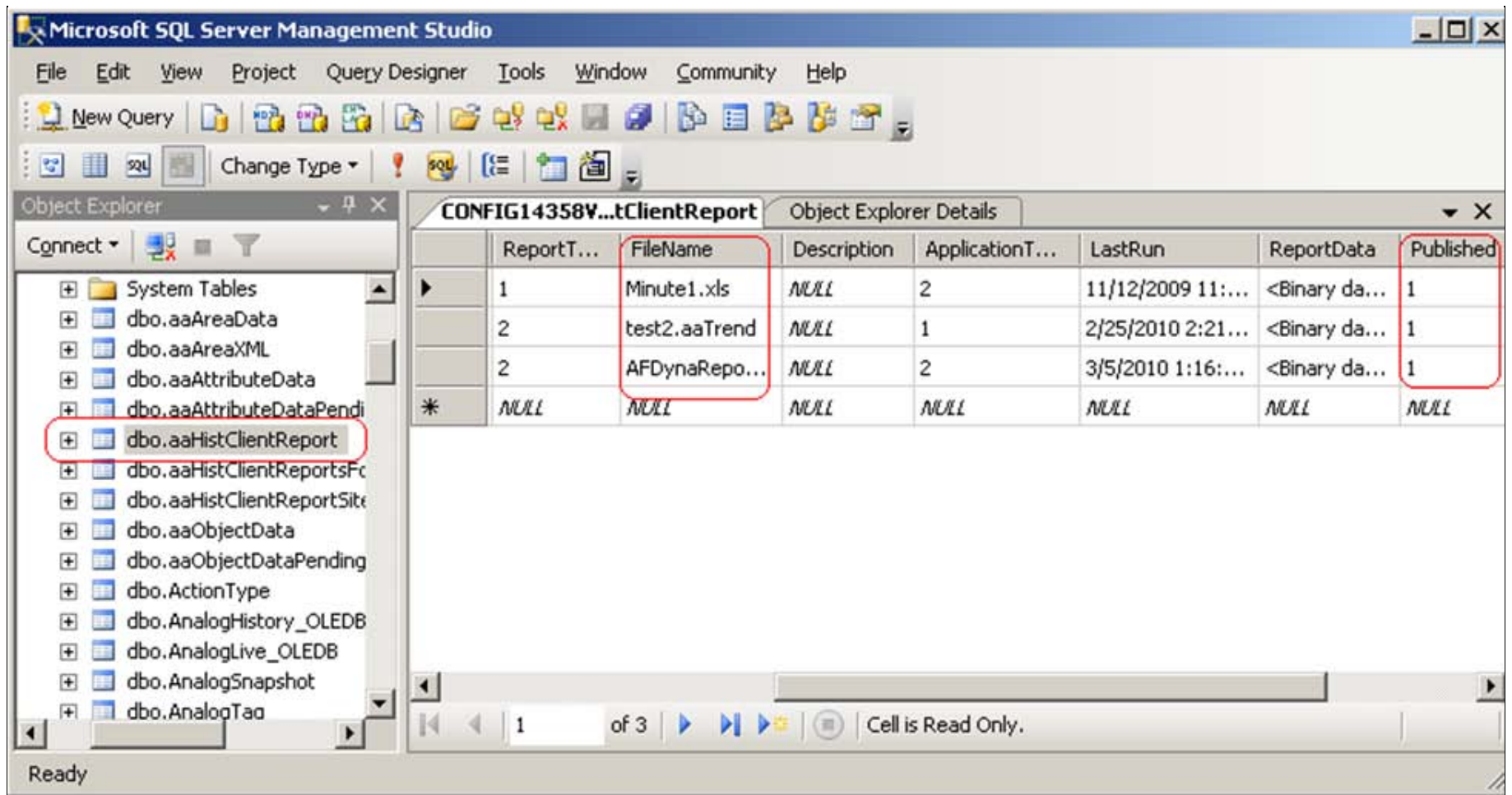
FIGURE 6: aaHistClientReport

5. If the value of the Published column for the report is **0**, verify that the Historian data source from WIS is configured correctly.

Verify WIS Configuration

1. Start up the Wonderware Information Server.

2. From the Launch Pad panel, expand **Administrator** and click **Data Source Manager**.

3. Click the **Historian's Data Source** name which has data source type of Historian to go to the Modified Shared Data Source dialog box as shown in the following figure.
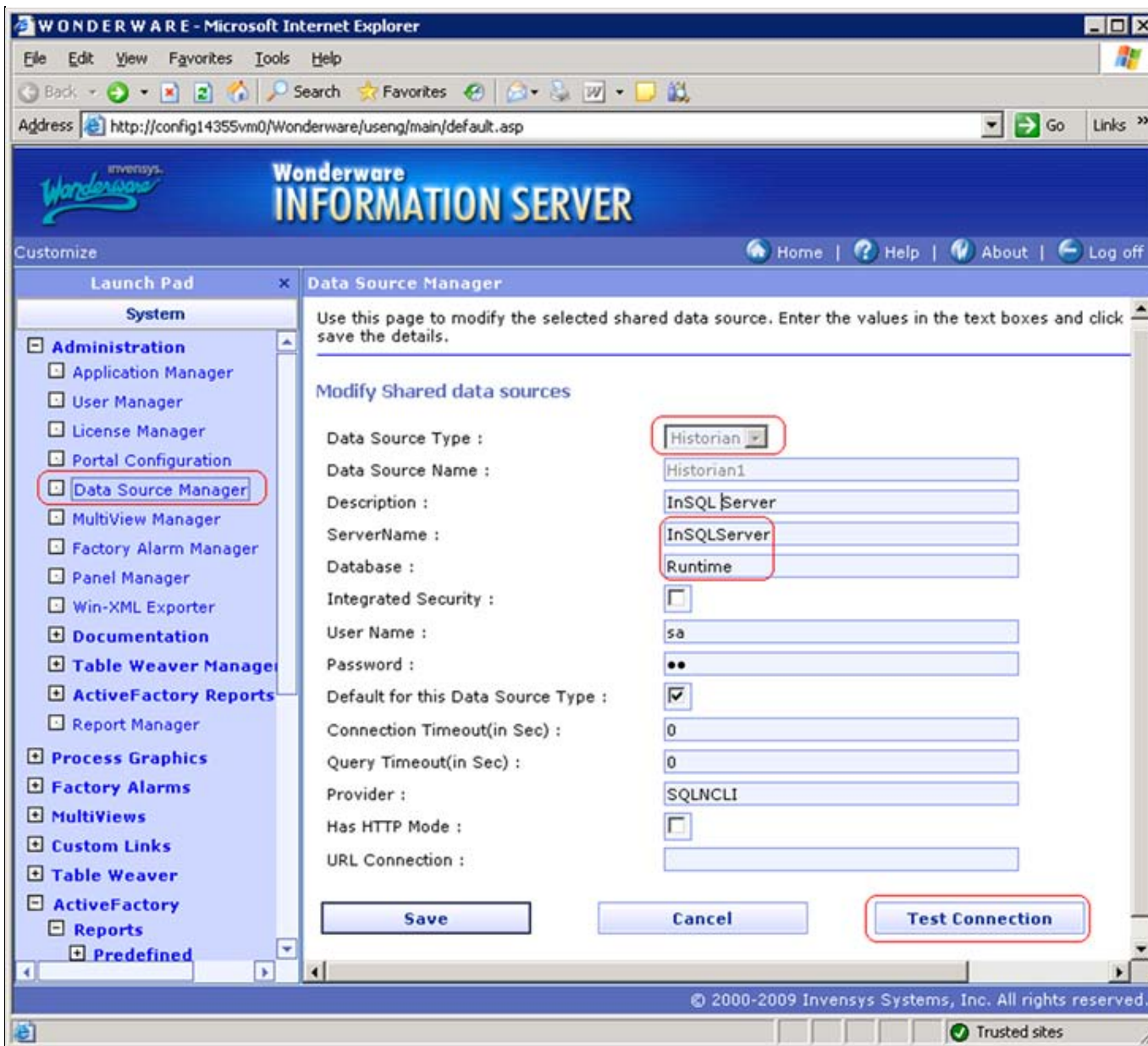
FIGURE 7: HISTORIAN'S DATA SOURCE MANAGER

4. Click the **Test Connection** button at the bottom of the panel to check if everything is entered correctly and the Information Server can connect to the Historian Server.

Match SITEID and ReportSiteKey Values

The **SITEID** value is found in **Configuration.config** and it must mateh **ReportSitekey** value in the aaHistClientReportSite table.

1. Use Notepad to open the Configuration.config. The location is **C:\inetpub\wwwroot\AFWeb**.

2. Search (Ctrl + F) for SITEID. In this example, the SITEID is **1**, and is the same as the **ReportSiteKey** value of (Figure 8 below):

3. <SITEID Description="The ID of this site in the Runtime database's aaHistClientReportSite table. This should be set automatically by the installation.">1</SITEID>
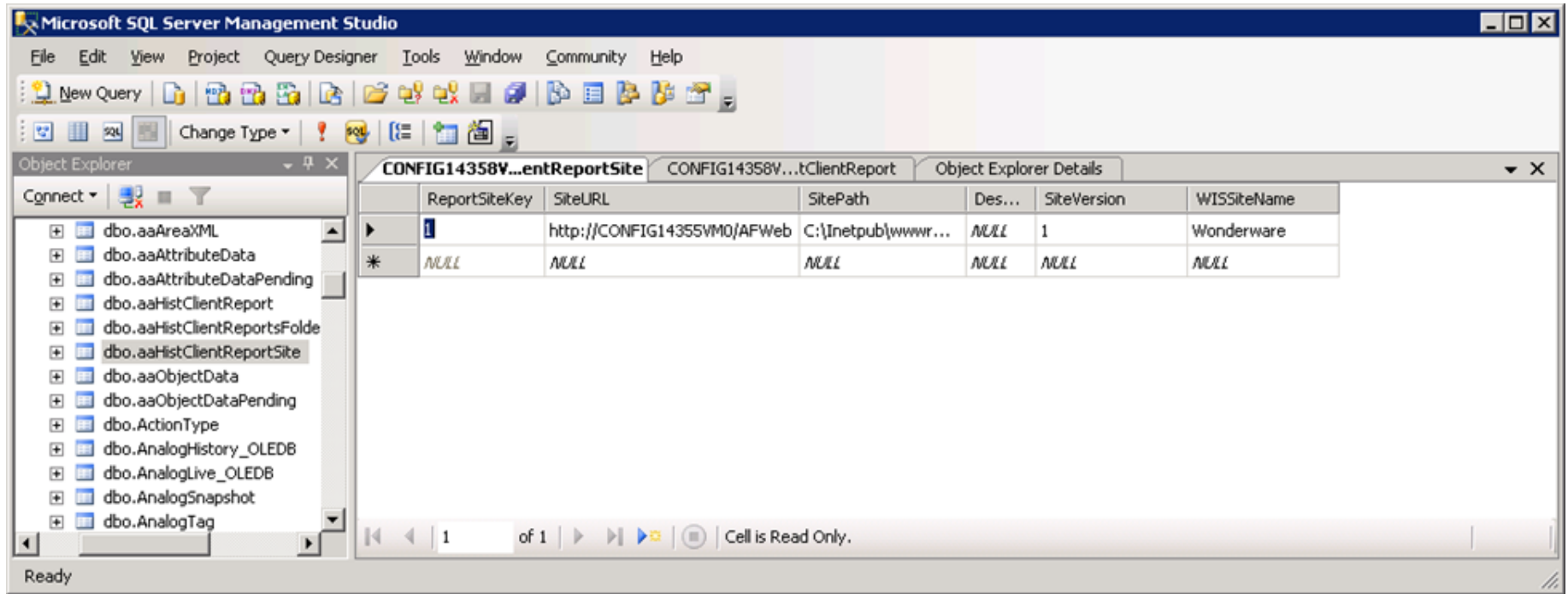

FIGURE 8: AAHISTCLIENTREPORTSITE

4. Confirm the SiteURL value in the aaHistClientReportSite table is correct.

5. Similarly, verify that the **ReportSiteKey** in the aaHistClientReportSite table matches with that in the aaHistClientReport for the report in question.

Verify the Output Source Folder Contains the Matching Excel File

- For **OnDemand** reports, go to **C:\inetpub\wwwroot\AfWeb\OnDemand\Source**.

- For **Scheduled** reports, go to **C:\inetpub\wwwroot\AfWeb\Scheduled\Source**.

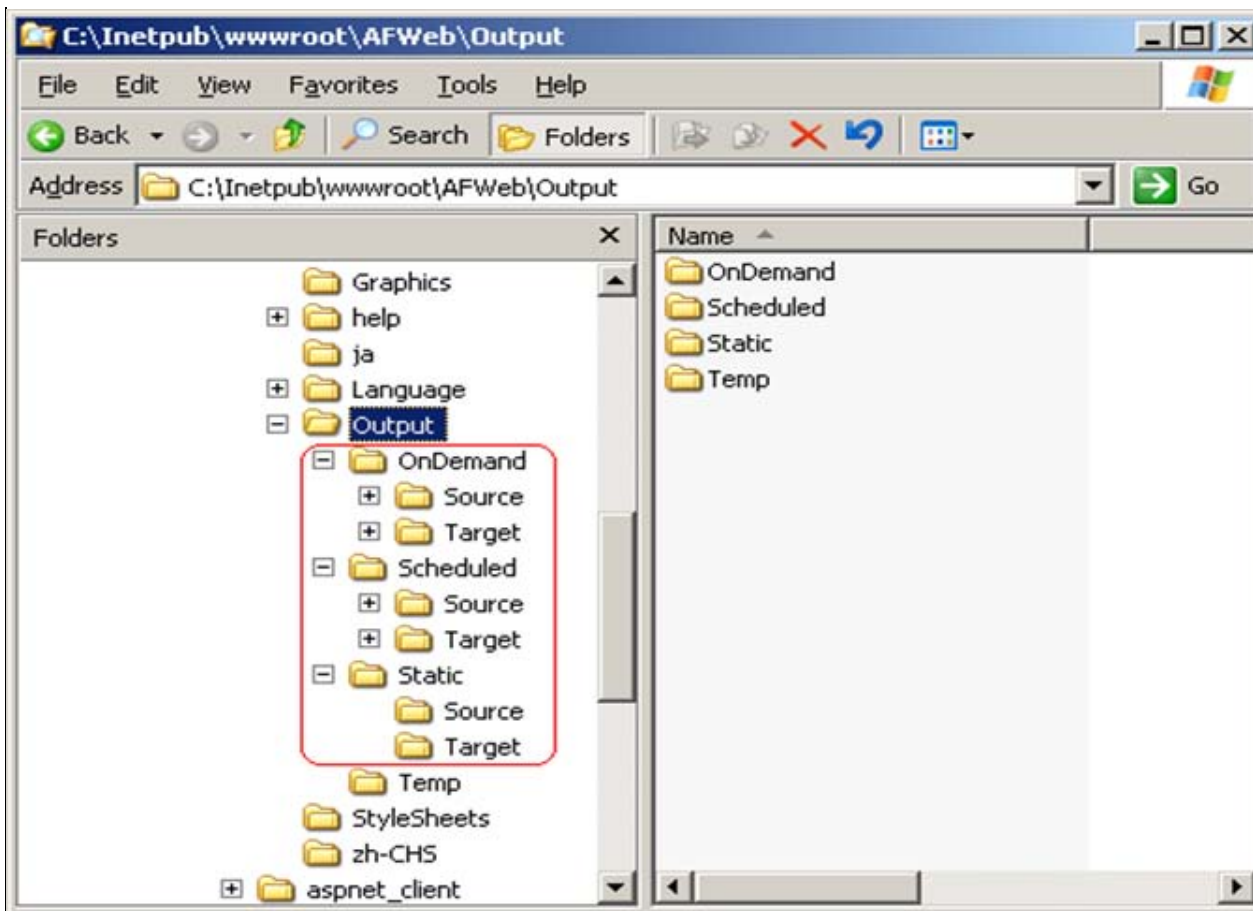- For **Static** reports, go to **C:\inetpub\wwwroot\AfWeb\Static\Source**.

FIGURE 9: AFWEB OUTPUT FOLDERS

- Double-click the report in the Source folder to open the file there. Any issue or any popup message preventing the file from opening should be resolved before the report can be published to the web site.

Note: Multiple instances of Excel.exe processes can be started on the computer running the ActiveFactory Workbook report. If this is the case, close the Workbook and end all Excel.exe processes from the Windows Task Manager, then run the test again.

Verify the **Target** Folders Contain Reports

- Verify that the corresponding Target folder contains the HTML file generated by the Reporting Service (aaHistClientReportService) before publishing the report. If the HTML file is not there in the folder, make sure that the aaHistClientReportService is started and **DCOM has been enabled for Excel (above)**.

- For a Scheduled report, go to **C:\inetpub\wwwroot\AfWeb\Output\Scheduled\Target**.
  For a Static report, go to **C:\inetpub\wwwroot\AfWeb\Output\Static\Target**.

- For the **OnDemand** report, the report is generated only after the user clicks on the report in the **WIS Published Reports/OnDemand Reports** tree. The Reporting Service converts the Excel file in the **Source** folder into an HTML file, names it as **tmpXX.html**, where **XX** is a number the **aaHistClientReportService** assigns to the temporary file. The Service then puts the file into the **C:\inetpub\wwwroot\AfWeb\Output\Temp** location.

Verify the Report Name Exists

The **Reportparameters.xml** file is in **C:\inetpub\wwwroot\AfWeb**. If the report is not there, make sure the following folders are configured for **Everyone** with **Full Control**.

- **C:\inetpub\wwwroot\AfWeb\Language**

- **C:\inetpub\wwwroot\AfWeb\Language\en**

- **C:\inetpub\wwwroot\AfWeb\Language\en-us**

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For technical support questions, send an e-mail to **support@wonderware.com**.

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