SARTORIUS

Wonderware Historian SimApi User Guide

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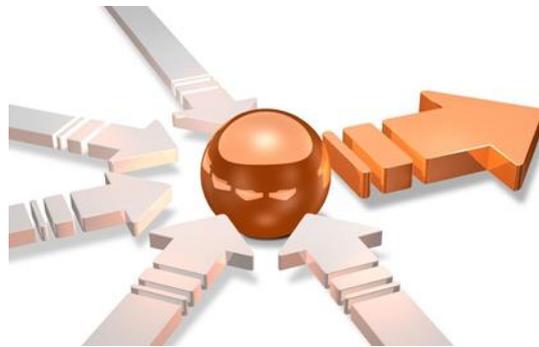
Contents

1 Introduction

This document is the user guide for the Wonderware Historian SimApi from Sartorius Stedim.

This SimApi connects to a **Wonderware Historian** data source.

This SimApi can be used by Easy Analytics, SIMCA, or SIMCA-online.

For a detailed list of changes in different versions of this SimApi, see the Version Info.txt file that comes with the installation.

For more information on SimApis, see www.umetrics.com/simapi

1.1 Features

The SimApi implements the following features;

- Connect to a Wonderware Historian database with support for numerical (analog or discrete) and text values.
- Current data
- Historical continuous data
- Write back – continuous data
- Multiple instances of the SimApi can be run on the same SIMCA-online server
- Connection resiliency – the SimApi reestablishes the connection to the data source automatically after being disconnected

For more information about each feature see http://umetrics.com/downloads/simapi#FeatureMatrix.

2 Prerequisites

Wonderware Historian uses Microsoft SQL server to store its data. The SimApi connects to this database using ODBC. For the SimApi to work the ODBC drivers for SQL Server needs to be installed on the computer where the SimApi is used.

Most computer already have the ODBC drivers named 'SQL Server' which can be used, or you can use the client drivers for the SQL Server version used by the Wonderware Historian (refer to its documentation).

2.1 Configure an ODBC data source

The data source should be configured as a System DSN in the ODBC Data Sources control panel in Windows. Note that there are two versions of this tool on 64-bit Windows: one for 32-bit applications and one for 64-bit[1].

Click **Add** to add a new System Data Source, and give it a name. You'll point to this name later when you configure the SimApi in SIMCA or SIMCA-online.

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[1] In Windows 8 and later you simply use Start search to find both the 32- and 64-bit ODBC Data Sources tools. On 64-bit Windows 7 the start menu only lists the 64-bit version, but you can start the 32-bit ODBC Data Sources program by launching it manually from the SysWow64-folder, typically C:\Windows\SysWOW64
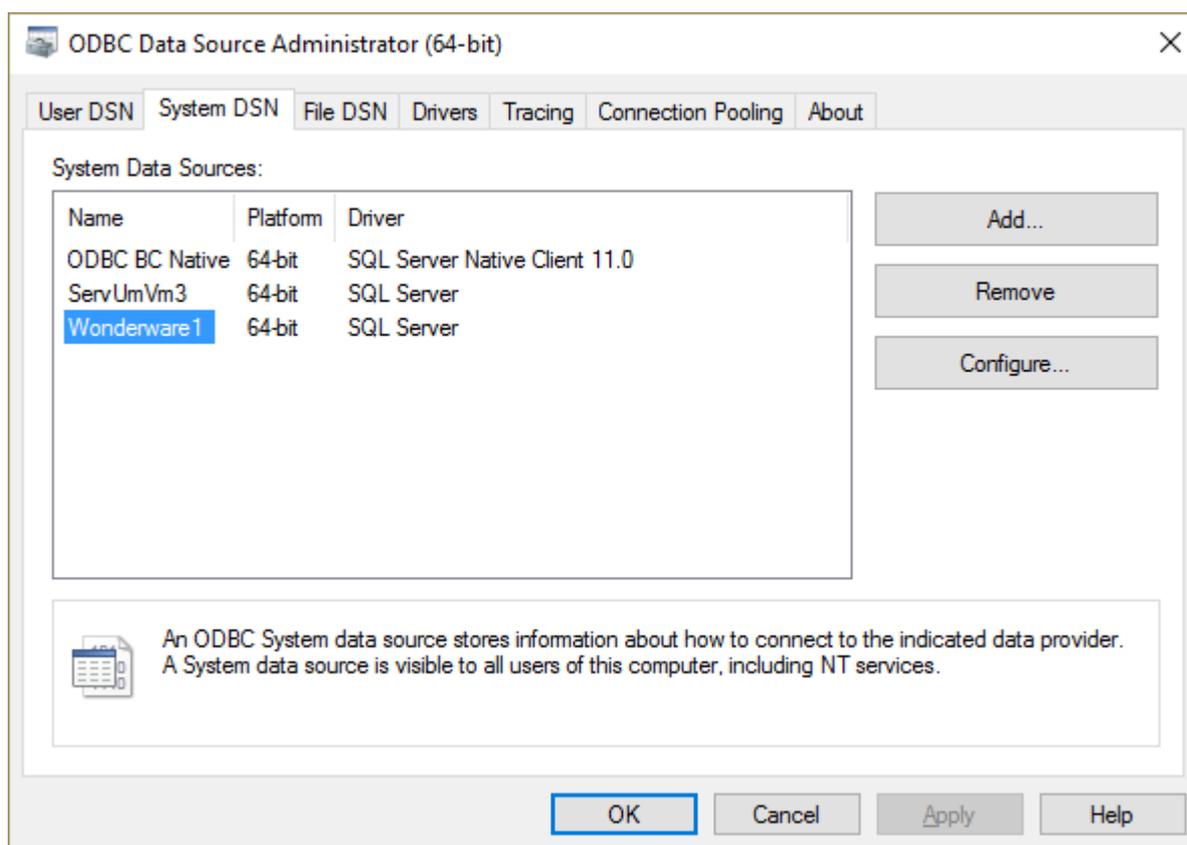
In the ODBC configuration wizard for SQL Server you can select how to authenticate users (log in):

- **SQL Server Authentication** which means that the database is authenticating users using a user name and password. This username and password can be given in the ODBC wizard, or in the configuration file by filling in the credentials dialog as part of the configuration (see below).
- **Windows authentication**. Windows authentication means that the user account (typically in Active Directory) of the program using the SimApi is used to connect to the database. This user account or a group it is a member of needs to have appropriate rights in SQL Server.

Windows authentication with a SIMCA-online server means that the service account of the SIMCA-online Server service is used (LocalSystem by default, but can be changed to a specific account by the administrator, see the SIMCA-online Technical Guide for more information).

Windows authentication with SIMCA means the user account of the person that is running SIMCA will be used.

Verify the connection to the database with the Test Data Source button at the end of the ODBC configuration wizard. As noted above, for Window Authentication, this tests with your own user account, and not necessarily with the SIMCA-online service account.

3 Installation and setup

Refer to the **SimApi Guide** located at <u>umetrics.com/simapi</u> for how to install and setup this SimApi.

3.1 Configuration XML file settings

Use a text editor, such as Notepad, and open the file WonderwareHistorianSimApi.xml file, located in %programdata%\Umetrics\SimApi. See SimApi Guide (link above) for details.

The only settings that is required is a value for the **DSN** setting pointing to your ODBC Data Source Name.

The following settings are available in the XML-file

Settings	Explanation
DSN	The Data Source Name you set up in the Windows *ODBC Administrator* control panel as described above.
Credentials	Stored the ODBC user name and password in an encrypted form. Use the Configure button to specify the user name and password.
QueryTimeout	The time before a query or connection to the database will time out and fail. If your queries take a long time, you might have to increase this timeout.
LogFileSize	The maximum allowed size of the log file before the file is truncated and restarted.
LogLevel	The higher the value the more information is printed to the log file. Maximum value is 4 and minimum value is 0. (0=Critical, 1=Error, 2=Warning, 3=Information, 4=Debug).

4 Support

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