



Application Note 0002 Using ReportBuilder™ with Wonderware InTouch ODBC

Introduction

ReportBuilder™ can access InTouch historical data (.lgh files) via the OpenRDA InTouch ODBC driver. This document describes the steps for installing/configuring the ODBC driver and ReportBuilder™.

Components

A ReportBuilder™ / InTouch ODBC project configuration consists of the following components:

ReportBuilder™ Server

Used for editing your ReportBuilder™ configuration file. Enter your database locations, table names and tagnames here. This application can reside anywhere on the network.

ReportBuilder™ Client

This Microsoft Excel add-in allows you to build and run reports in Excel. When you open a report in Excel, the ReportBuilder™ configuration file is read. The list of available tags is then presented by the Client add-in. Install a ReportBuilder™ Client on each machine that you want to build and run reports.

OpenRDA Server

This application makes InTouch historical data (.lgh files) available to ReportBuilder™ via ODBC.

OpenRDA Client (ODBC Driver)

This driver allows you to configure an ODBC Data Source that references a connection to the OpenRDA Server. You must install an OpenRDA Client on each machine that has a ReportBuilder™ Client.

Installation Notes

Time Zone Settings

If you are using ReportBuilder™ on a distributed ("networked") system, ensure that all of the machines have the same Windows Time Zone settings. Otherwise, Histdata will return erroneous results.

OpenRDA Server Installation Location

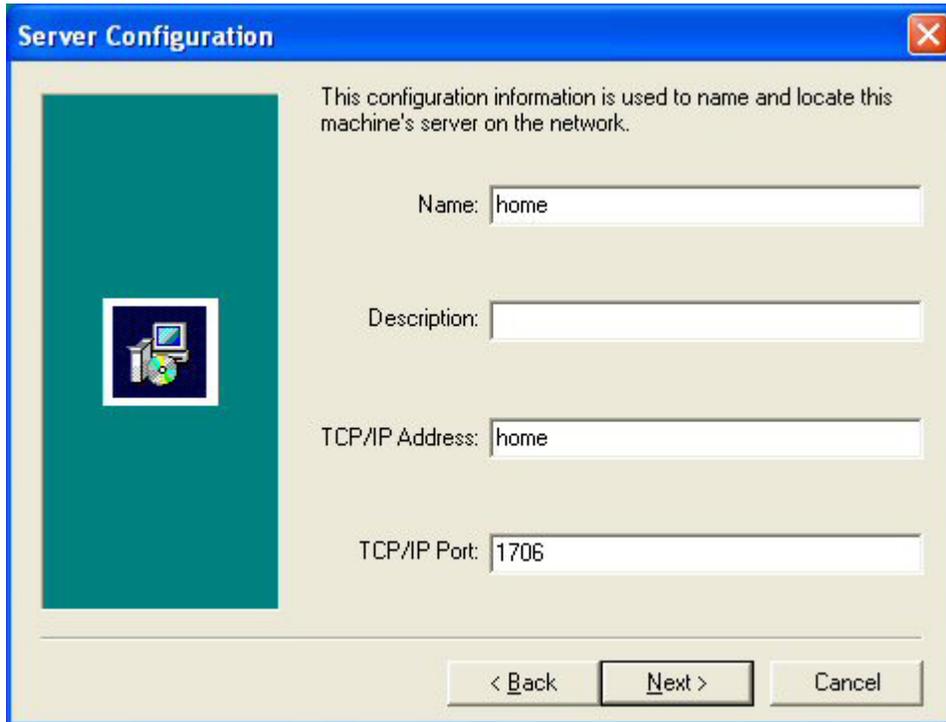
The OpenRDA Server application must be installed on the same machine as the Wonderware Histdata application. The OpenRDA Server must be installed on a node that has the Wonderware Histdata application installed. This node can be the same node containing the InTouch historical data (.lgh files) or another node on the network.

Histdata Operation

The Histdata application must be running in order for ReportBuilder™ to access the InTouch historical files. ReportBuilder™ monopolizes the connection to Histdata; therefore, you cannot use Histdata to export data to a .CSV file.

OpenRDA Server Installation

Run the OpenRDA Server Installation program.



The screenshot shows a Windows-style dialog box titled "Server Configuration". The dialog has a blue title bar with a close button (X) in the top right corner. The main area has a light beige background. On the left side, there is a vertical teal bar containing a small icon of a computer tower and a CD-ROM. To the right of this bar, the text reads: "This configuration information is used to name and locate this machine's server on the network." Below this text are four input fields: "Name:" with the value "home", "Description:" which is empty, "TCP/IP Address:" with the value "home", and "TCP/IP Port:" with the value "1706". At the bottom of the dialog, there are three buttons: "< Back", "Next >", and "Cancel".

Name: The default value is the Windows Computer Name for this machine ("home" in this example)

Description: Enter a Description for this machine, if desired

TCP/IP Address: The default value is the Windows Computer Name for this machine ("home" in this example)

TCP/IP Port: Leave at the default value (1706)

Enter the License Key Information when prompted. Continue the server installation by accepting all default values.

OpenRDA Client Installation

Run the OpenRDA Client Installation program.

Database Configuration

This configuration information is used to name and locate the OpenRDA database on the network. Installation will create ODBC data sources to access it. Click Next to skip this optional configuration.

Name:

Description:

TCP/IP Address:

TCP/IP Port:

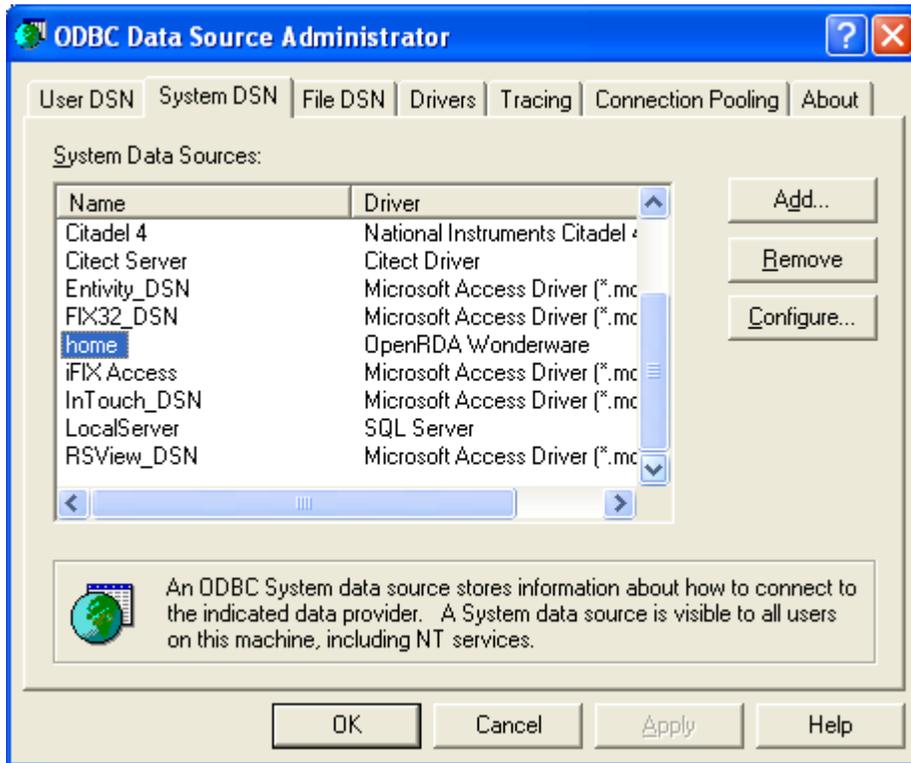
< Back Next > Cancel

Use the same values entered during the Server Installation. The **Name** field will be the name of the DSN (data source name) that is automatically created during this installation.

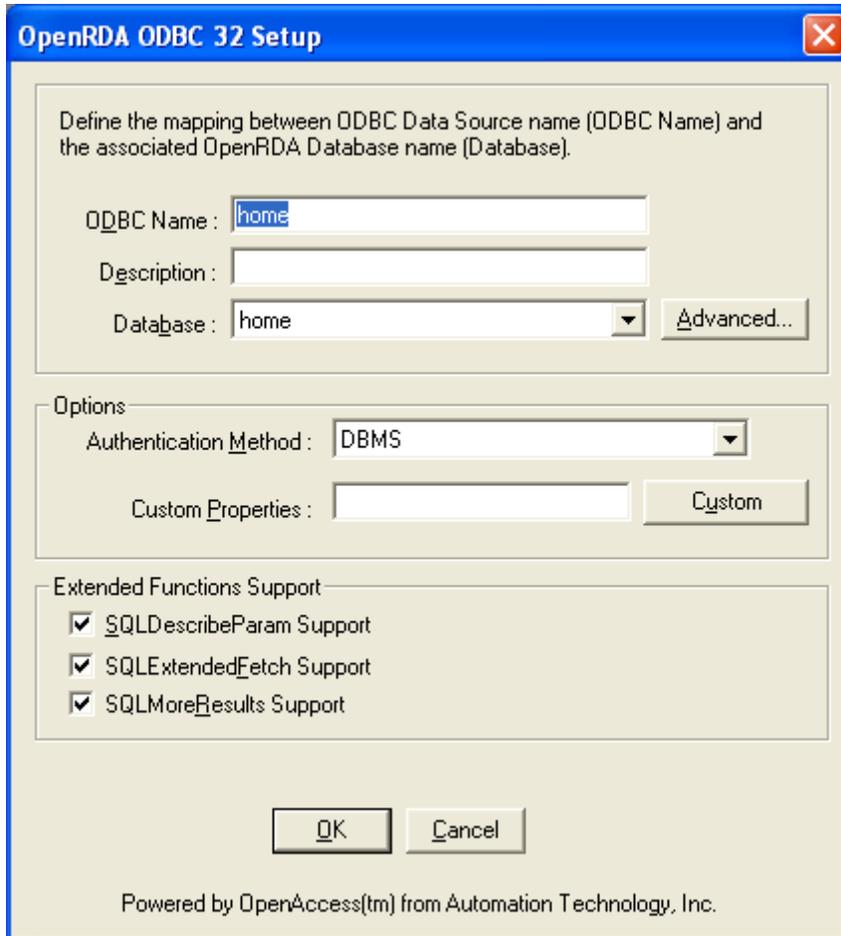
Enter the License Key Information when prompted. Continue the client installation by accepting all default values.

DSN Configuration

A Windows Data Source Name (DSN) is automatically created upon installation of the ODBC Client (refer to section titled **OpenRDA Client Installation**):

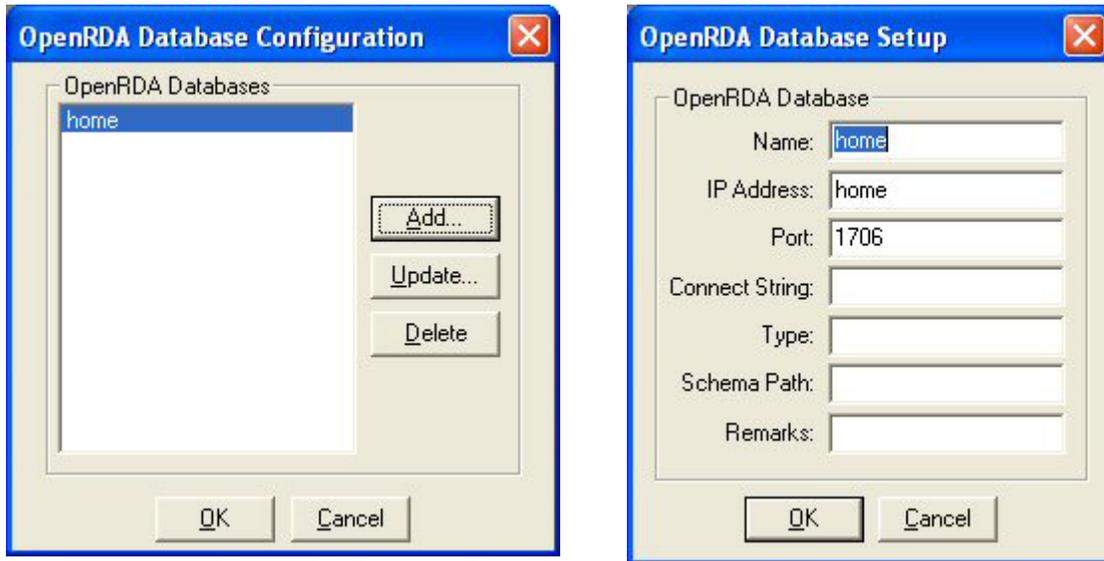


If desired, you may click **Configure** and verify the DSN configuration



Note that the **ODBC Name** and **Database** fields match the values entered earlier.

Click **Advanced**. Select the desired database and click **Update**.



Click **OK** when finished.

Configure the OpenRDA Server

Select Start | Programs | OpenRDA Server for Wonderware FactorySuite | Configuration File. This will open the configuration file in Notepad.

In the [Wonderware] section of this file, locate the DbDir and DataDir entries.

DataDir: This folder containing the InTouch Historical data (.lgh files)

DbDir: The folder containing the InTouch application

A local node example is shown here:

DataDir=C:\Program Files\FactorySuite\InTouch\AWWA\History

DbDir=C:\Program Files\FactorySuite\InTouch\AWWA

If the InTouch application and/or historical data (.lgh files) exist on a networked node, use Windows Explorer to map a network drive to the other machine.

A network node example is shown here:

DataDir=Y:\

DbDir=Z:\

Where Y:\ is mapped to the folder on another node that contains the .lgh files and Z:\ is mapped to the folder on another node that contains the InTouch application itself.

Configure ReportBuilder™

Create a new ReportBuilder™ Project

To create a new ReportBuilder™ Project, perform these steps:

1. Start the ReportBuilder™ Server application.
2. From the File menu, Click **New**.
3. From the **Save As** Dialog, enter a valid path and filename for the project XML file and Click **Save**. A new ReportBuilder™ Server application XML file will be created. (This should be saved in a folder that is shared out over your network to allow other ReportBuilder™ Client installations to connect to it.)

Configure a ReportBuilder™ Server Database Definition

To configure a ReportBuilder™ Database, perform these steps:

1. In the left-hand pane, select Databases then right-click in the right-hand pane. Click **New**.

STEP 1: Enter a Database Name:

Enter a Name for this database, e.g. **InTouch** (*This is an arbitrary name chosen by you.*)

STEP 2: Enter a Description (optional):

Enter a description for this database, e.g. **InTouch Data**

STEP 3: Build a Connection String:

Click **Build ...** The Microsoft Data Link Properties window appears.

- a. From the **Provider** tab, highlight **Microsoft OLE DB Provider for ODBC Drivers** then click **Next**. The Connection tab appears.
 - b. From the **Connection** tab, select the **Use data source name** radio button, then select the data source name from the drop down list box (**home** in the example above). This is the DSN that was created during installation of the OpenRDA Client.
 - c. Click **OK** when finished; you will return to the ReportBuilder™ Database Dictionary window.
2. Click **Save and Close** to save this Database definition.

Configure a ReportBuilder™ Server Table Definition

To configure a ReportBuilder™ Table, perform these steps:

1. In the left-hand pane, select Tables then right-click in the right-hand pane. Click **New**.

STEP 1: Select the Database for this Table:

Select the **InTouch** database Name from the drop down list

STEP 2: Select or Enter a Table Name:

Select from the drop down list or enter the table name **ARCHIVE**.

STEP 3: Select a FunctionPack for this Table:

Select **Datapoint Summary Logging Functions** from the drop down list.

STEP 4: Enter Columns required for this FunctionPack:

From the Date/Time Column tab, select or enter the name of the column where the date and time stamp is logged for this table. Enter or select the column name **TIME** for this field.

- a) Click ... to see a list of available columns.
- b) Select the **TIME** column for this field then click **OK**.

From the Format Time tab, assign the Proficy Historian Time Format to the table.

- a) Click Select... to see a list of available SQL Time Formats.
- b) Select **InTouch ODBC Time Format** and then click **Close**.

Note: If the InTouch ODBC Time Format is not configured on your system, build a new one that will format the time as: '**yyyy-mm-dd hh:mm:ss**'. The result should look like this: '2004-08-07 09:15:22' Note the entire date is surrounded with single quotes.

From the Tagname Column tab, select or enter the name of the column where the tag names are logged for this table. Enter or select the column name **TAG** for this field.

- a) Click ... to see a list of available columns.
- b) Select the **TAG** column for this field then click **OK**.

From the Summary Column and List tab, select or enter the name of the column where the summary values are logged for this table. Enter or select the column name **DATA_INTERVAL** for this field.

- a) Click ... to see a list of available columns.
- b) Select the **DATA_INTERVAL** column for this field then click **OK**.

Click the **Summary Value Lists ...** button to see available lists. Select the b. Select **InTouch Data Intervals** and then click **Close**.

Note: If the InTouch Data Intervals Summary Value List is not configured on your system, build a new one with the following entries:

DISPLAY NAME	COLUMN NAME
1 hour	1h
1 minute	1m
1 day	1d
1 second	1s

(You may add more time intervals as desired, following the format shown above.)

2. Click **Save and Close** to save this Table definition.
Configure a ReportBuilder™ Server Tag Group Definition

To configure a ReportBuilder™ Tag Group, perform these steps:

1. In the left-hand pane, select Tag Groups then right-click in the right-hand pane. Click **New**.

STEP 1: Enter a Group Name:

Enter a name for the new Tag Group *(This is an arbitrary name chosen by you.)*

STEP 2: Enter a Description (optional):

Enter a description for the new Tag Group.

STEP 3: Enter a Menu Order (0=top):

Enter a numeric value for the Menu Sort Order *(0=Top of the List)*

2. Click **Save and Close** to save this Tag Group definition.

Configure a ReportBuilder™ Server Tag Definition

To configure a ReportBuilder™ Tag, perform these steps:

1. In the left-hand pane, select Tags then right-click in the right-hand pane. Click **New**.

STEP 1: Enter a Tag Name:

Enter the name of the tag exactly as it appears in the InTouch Tagname dictionary.

STEP 2: Enter a Description (optional):

Enter a description for the new Tag.

STEP 3: Enter the Eng Units (optional):

Enter the engineering units for the new Tag.

STEP 4: Select a Group Name:

Select the desired Tag Group from the drop down list.

STEP 5: Select a Database:Table:

Select the Database and Table to which the tag belongs from the drop down list.

STEP 6: Select or Enter a Column:

Select or Enter the name of the column where the data values are logged in this table for this tag. Enter the column name **Value** in this field.

- a) Click ... to see a list of available columns.
- b) Select the **TAG** column for this field then click **OK**.

STEP 7: Enter a Data Type (optional):

For sorting purposes only. You may enter anything you wish here.

Note: You must add a tag definition to the ReportBuilder™ Tagname Dictionary for each tag that you wish to report on.

2. Click **Save and Close** to save this Tag definition.