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

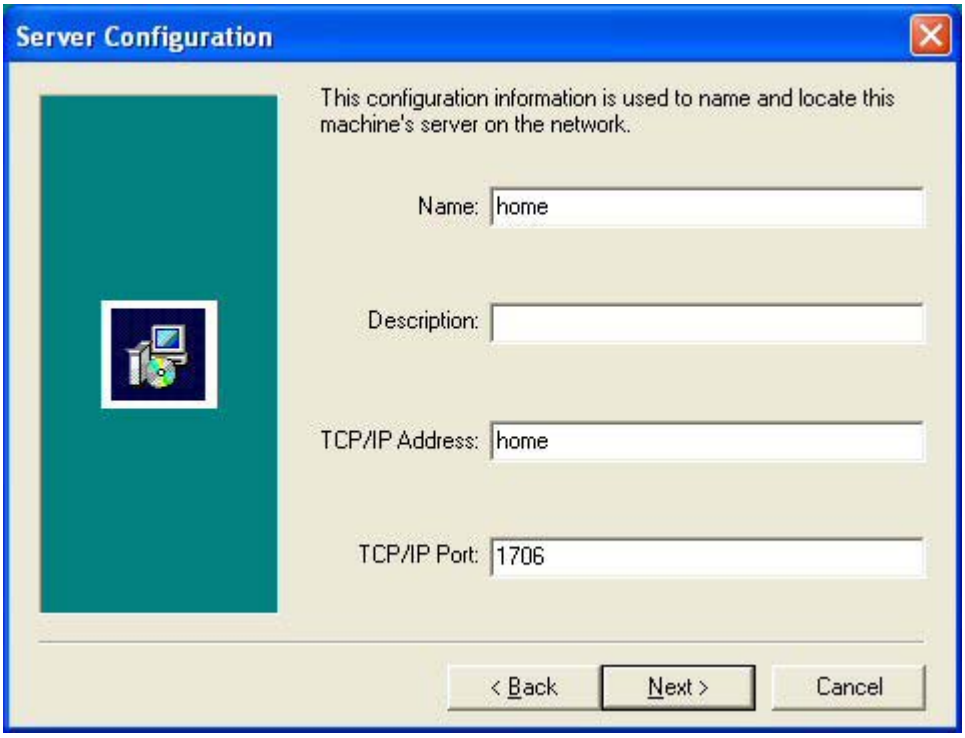
Time Zone Settings
If you are using ReportBuilder™ on a distributed ("networked") system, ensure that all of the machines have the same Windows Time Zone settings. Otherwise, Histdata will return erroneous results.

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.

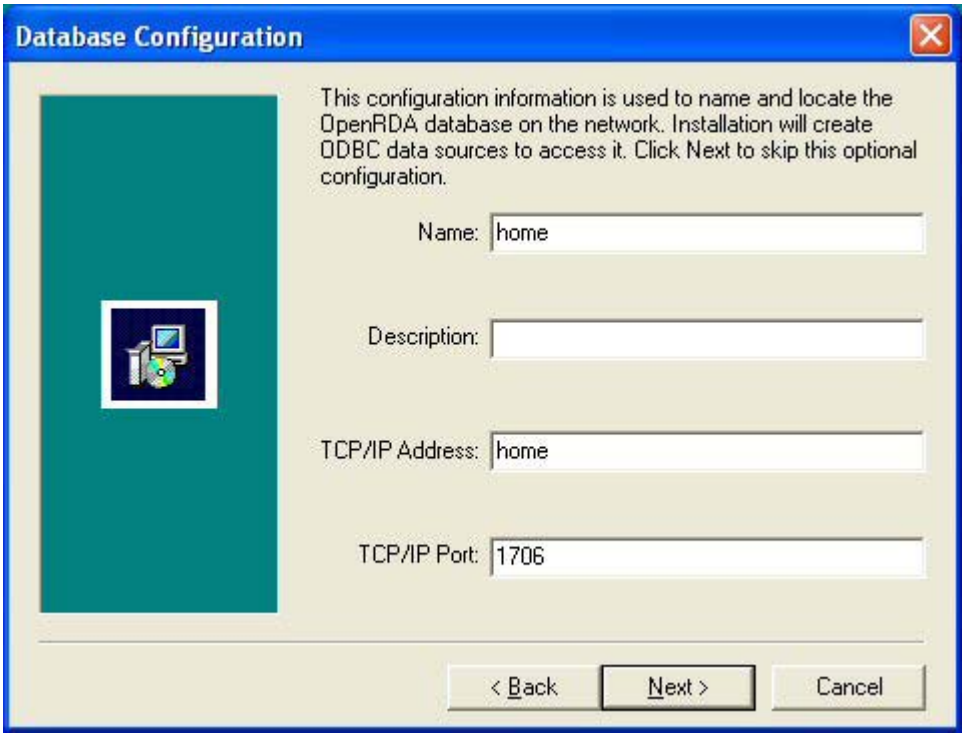


Name: The default value is the Windows Computer Name for this machine (“home” in this example)
Description: Enter a Description for this machine, if desired
TCP/IP Address: The default value is the Windows Computer Name for this machine (“home” in this example)
TCP/IP Port: Leave at the default value (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.

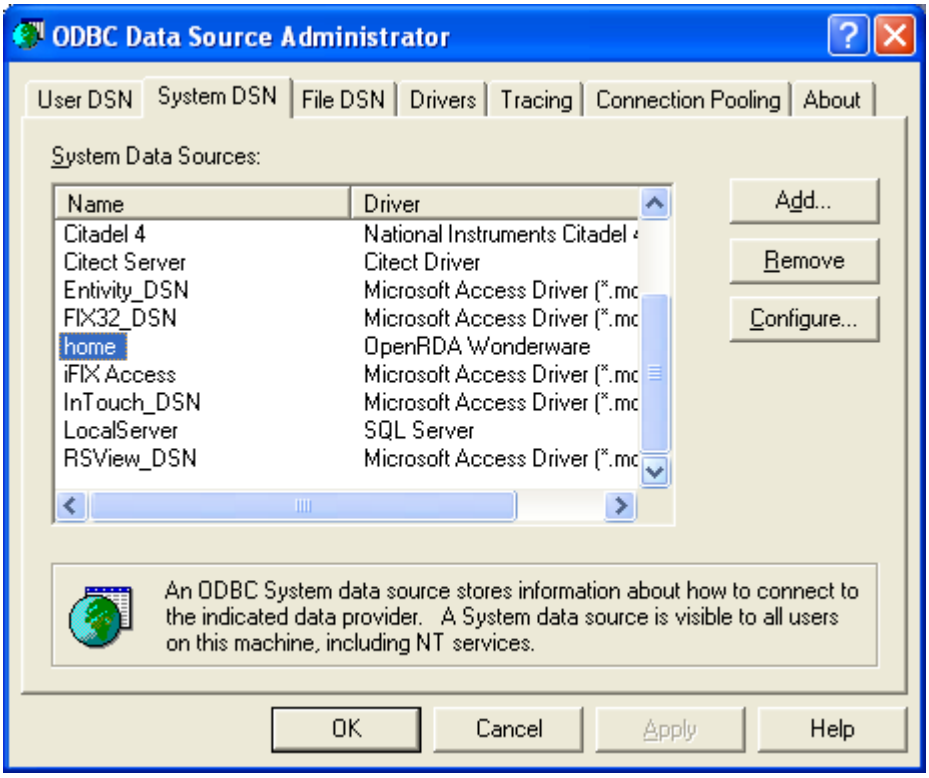


Use the same values entered during the Server Installation. The **Name** field will be the name of the DSN (data source name) that is automatically created during this installation.

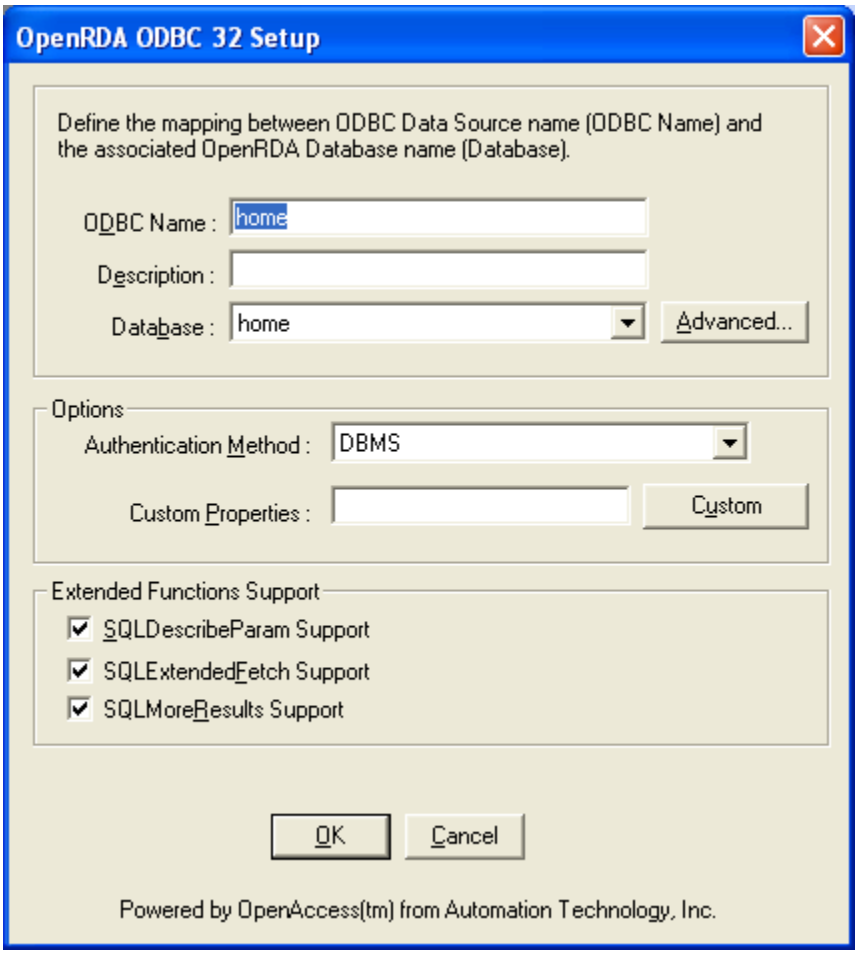
Enter the License Key Information when prompted. Continue the client installation by accepting all default values.

DSN Configuration

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

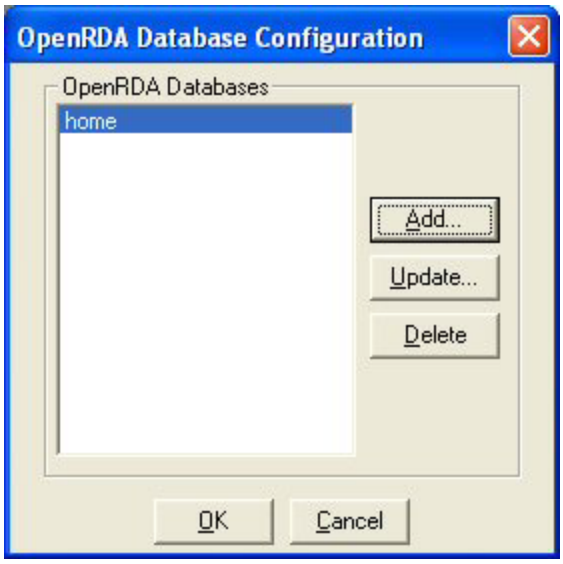


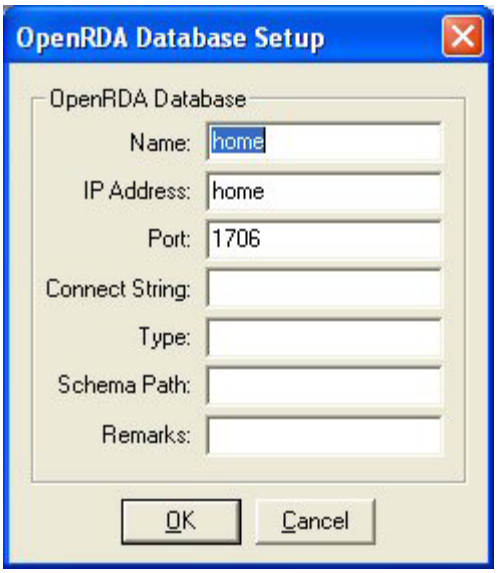
If desired, you may click **Configure** and verify the DSN configuration



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™

Start the ReportBuilder™ Server application (Start | Programs | WorkSmart Automation ReportBuilder | ReportBuilder Server).

Create a new ReportBuilder™ Project

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

1. From the File menu, Click **New Project…**
2. From the Create New ReportBuilder Project Dialog, enter a valid path and filename for the project file and Click **Save**. A new ReportBuilder™ project will be created.

Database Configuration

1. In the left-hand pane, select Databases. Click **New**. Enter the following information into the Database Dictionary Window:

   Database Name: Enter a Name for this database *(This is an arbitrary name chosen by you.)*
   Description: Enter a description for this database *(optional)*
   Connection String: Click **Build**. The Microsoft Data Link Properties window will appear.

2. From the **Provider** tab, highlight **Microsoft OLE DB Provider for ODBC Drivers** then click **Next**. The Connection tab will appear.

3. From the **Connection** tab,
   a. 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.

4. Click **OK** when finished; you will return to the ReportBuilder™ Database Dictionary window. Click **Save and Close** to save this database definition.

Table Configuration

To configure a ReportBuilder™ Table, perform these steps:

1. In the left-hand pane, select Tables. Click **New**. Enter the following information into the Table Dictionary Window:

   Database: Select the InTouch Database Name from the drop down list
   Table Name: Type **ARCHIVE** or select from the drop down list
   Function Pack: Select **Datapoint Summary Logging Functions** from the drop down list
   DateTime Column Name: Select or enter **TIME** from the Date/Time Column tab
   Tagname Column Name: Select or enter **TAG** from the Tagname Column tab
   Summary Column Name: Select or enter **DATA_INTERVAL** from the Summary Column and List tab

2. Assign the InTouch ODBC Timer Time format to the table.
   a. Click **More...** from the Date/Time Column tab. The Format Time tab will appear.
   b. Click **Select...** to see a list of available SQL Time Formats
   c. Select **InTouch ODBC Time Format** and then Click **Close**.
   d. Click Less. The Time Format tab will disappear.

   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.

3. Assign the InTouch Data Intervals Summary Value List to the table.
   a. Click **Summary Value Lists** from the Summary Column and List tab. The Summary Value Lists window will appear.
   b. Select **InTouch Data Intervals** and then Click **Close**.

   Click **Save and Close** to save this table definition.

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.)

Tag Group Definition

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

1. In the left-hand pane, select Tag Groups. Click **New**.

   Group Name: Enter a Name for the new Tag Group *(This is an arbitrary name chosen by you.)*
   Description: Enter a Description for the new Tag Group *(Optional.)*
   Menu Order: Enter a numeric value for the Menu Sort Order *(0=Top of the List)*

Tag Definition

To configure a ReportBuilder™ Tag, perform these steps:

1. In the left-hand pane, select Tags. Click **New**.

   Tag Name: Enter the name of the tag exactly as it appears in the InTouch Tagname dictionary
   Description: Enter a Description for the new Tag
   Eng Units: Enter the Engineering Units for the new Tag
   Group Name: Select the desired Tag Group from the drop down list
   Database /Table: Select the Database and Table to which the tag belongs
   Column: Enter the text **Value** in this field
   Data Type: For sorting purposes only

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