Introduction

ReportBuilder™ can access GE Proficy Historian Data via the ReportBuilder™ **Proficy Historian Logging Functions** FunctionPack. This document describes the steps for configuring this FunctionPack.

Overview

The **Proficy Historian Logging Functions** FunctionPack allows ReportBuilder™ to access data logged to Proficy Historian. This FunctionPack queries the Proficy Historian via the iHistorian OLE DB Provider (provided by GE Faunc). By default, the OLE DB provider is installed when you install Proficy Historian.

Installation Notes

ReportBuilder™ Server and Client Location
The ReportBuilder™ Server application can exist anywhere on the network. Install a ReportBuilder™ Client on each machine that you want to build and run reports.

iHistorian OLE DB Provider Location
Install the iHistorian OLE DB Provider (provided with Proficy Historian) on each machine that you install a ReportBuilder™ Client.

Configure a new ReportBuilder™ Server Project

Before proceeding, verify the following:

- You have successfully installed the iHistorian OLE DB Provider (supplied by GE). The OLE DB provider allows third-party applications to access Proficy Historian data.

- You have successfully installed the WorkSmart Automation ReportBuilder™ Server and ReportBuilder™ Client components.

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. **Proficy Historian** *(this is an arbitrary name chosen by you.)*

    STEP 2: Enter a Description (optional):
    Enter a description for this database, e.g. **Proficy Historian Data**

    STEP 3: Build a Connection String:
    Click **Build …**. The Microsoft Data Link Properties window appears.

    a. From the **Provider** tab, highlight **iHistorian OLE DB Provider** then click the **Next** button.

    b. From the **Connection** tab, leave all fields at their default values.

    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 **Proficy Historian** 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 **ihRawData**.

    STEP 3: Select a FunctionPack for this Table:
    Select **Proficy Historian 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 **TimeStamp** for this field.

    a) Click **…** to see a list of available columns.
    b) Select the **TimeStamp** 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 **Proficy Historian Time Format** and then click **Close**.

> Note: If the Proficy Historian Time Format is not configured on your system, build a new one that will format the time as: **' mm/dd/yyyy hh:mm:ss'**. The result should look like this: '08/07/2004 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 **Tagname** for this field.

   a) Click **…** to see a list of available columns.
   b) Select the **Tagname** 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 text **IntervalMilliseconds** for this field.

   a) Click **…** to see a list of available columns.
   b) Select **IntervalMilliseconds** for this field then click **OK**.

Click the **Summary Value Lists …** button to see available lists. Select the **Proficy Historian Summary List** and then click **Close**.

> Note: If the Proficy Historian Summary 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 | 1440m |
> | | |
>
> *(You may add more time intervals as desired, following the format shown above.)*

STEP 5: Assign a Column List to this Table (optional):

Click the **Column Lists …** button to see available lists. Select the **Proficy Historian Column List** and then click **Close**.

> Note: If the Proficy Historian Column List is not configured on your system, build a new one with the following entries:
>
> | DISPLAY NAME | COLUMN NAME |
> |---|---|
> | Interval | intervalmilliseconds |
> | Sample Count | NumberOfSamples |
> | | |

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)*

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

Configure a ReportBuilder™ Server Tag Definition

You should skip this step if you have multiple tags in your Proficy Historian and move ahead to the next section titled Importing Tags with Tag Import Wizard.

To configure a single 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 Proficy Historian collector (for example, iFIX collector tagnames follow the format NODE.TAGNAME.FIELD)

   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, (e.g., Proficy Historian:ihRawData)

   STEP 6: Select or Enter the Column:
   Select or enter the name of the column where the data values are logged in this table for this tag. Enter the text **Value** in this field.

   a) Click **…** to see a list of available columns.
   b) Select **Value** for this field then click **OK**.

   STEP 7: Enter a Data Type (optional):
   For sorting purposes only. You may enter anything you wish here.

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

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

Importing Tags with Tag Import Wizard

To import tags from Proficy Historian to a ReportBuilder™ Project, perform these steps:

1. From ReportBuilder™ Server, perform the following configuration as a minimum:
    a. ReportBuilder™ Database definition.
    b. ReportBuilder™ Table definition for **ihRawData**.
    c. ReportBuilder™ Tag Group definition.

2. From the Tools menu, Click **Import / Export - Import Tags from SCADA Data Source…** The Tag Import Wizard appears.

3. Follow the steps as requested by the Tag Import Wizard by clicking **Next** until finished:
    a. For the ReportBuilder Database Connection step, select the name you called your ReportBuilder™ Server Database definition that connects to your Proficy Historian Database *(from Step 1 under the Database Configuration section)*
    b. For Data Source Table step, select or enter **ihTags**. *(The ihTags table contains information about each tag being logged to Proficy Historian.)*
    c. For the Matching Fields step, select or enter the following in each field:
        i. Tagname: **TagName**

        Note: The following fields require that you place a check mark in the checkbox next to the field. Un-checked fields are not imported.

        ii. Description (optional): **Description**
        iii. Eng Units (optional): **EngUnits**
        iv. Column: Enter **'Value'** *(Text inside of single quotes is imported implicitly, type the word* **Value** *surrounded by single quotes.)*
        v. Data Type (optional): **DataType**

4. For the ReportBuilder™ Database and Table step, select the name of the Proficy Historian database followed by the name of the table e.g., Proficy Historian:ihRawData.

5. For the ReportBuilder™ Tag Group step, select the name of the group that you would like these tags to be imported to. *(This can be changed later using the ReportBuilder™ Import/Export via Excel feature.)*

6. For the Existing Tags step, choose whether to overwrite or skip existing tags in your ReportBuilder™ Project. Check the **Overwrite existing tags** checkbox to overwrite tags. Un-check to skip existing tags.

7. Click **Finish** to begin the import.