

**Description:** Guide to creating a basic Hyper Historian configuration

**OS Requirement:** Windows Server 2003 x64/Vista x64/ Server 2008 x64/Windows 7 x64/ Server 2008 R2 x64

**General Requirement:** General understanding of logging data and databases; installation of Hyper Historian

## Introduction

Hyper Historian is a powerful, 64-bit, high performance plant historian. It includes a high-compression advanced Swinging Door algorithm to decrease database size. Although it takes advantage of 64-bit hardware and software architectures, which allow it to access more CPU power and memory than traditional 32-bit-based historians, it still leaves a very small memory footprint compared to the TrendWorX64 Logger, and provides higher performance.

Key features include:

- OPC-UA, OPC-DA and OPC-HDA compliance
- Optimistic concurrent multi-user configuration
- Web-based configuration and administration
- Integrated redundancy

## How to Configure Hyper Historian

Hyper Historian is configured using the Workbench, a centralized project management application for GENESIS64. After installation, Hyper Historian can work “out of the box” without any further configuration.

Let’s take a look at the configuration.

1. Open the Workbench by going to **Start → Programs → ICONICS → Workbench**.
2. Once you are in the Workbench, select Hyper Historian in the Project Explorer.

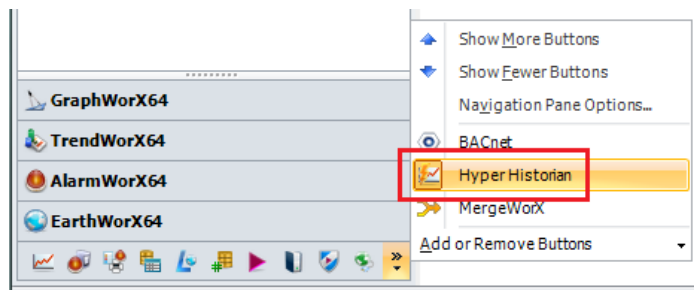


Figure 1 - Hyper Historian in the Project Explorer

3. Once you select the application, the Project Explorer will show the configuration tree as shown in Figure 2.

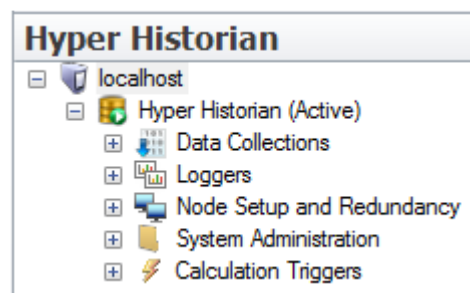


Figure 2 - Hyper Historian Configuration Tree

**NOTE:** If you see nothing in the explorer after selecting Hyper Historian, it is possible that your security level blocked it. In this case, click the Workbench button, and select Log in/Log out to bring up the security login dialog to log in as a user with the appropriate permissions.

4. Expand the Loggers tree. By default, there are a few loggers already configured; most are memory persistent loggers and one is a File Based Logger. A memory persistent logger keeps most of the information in RAM and only logs data to file when certain events occur. A File Based logger, on the other hand, always logs data to a file.
5. Since Hyper Historian works out of the box, you do not need to change anything. But be aware that the logger configurator is where you need to go to set up how long to keep data in a single file and when to archive data.
6. Next, take a look at the Data Collections section. Again, default logging groups are preconfigured in the sample configuration database.
7. Double-click Logging Group to open it on the current tab, making sure that you have applied the settings if you made any changes.  
In the Logging Group, you can pick your associated logger and specify a condition for starting data collection. If no condition is specified, data collection begins when you start the Hyper Historian Logger. Again, you do not have to change anything here.
8. Expand Logging Group. Here are two collector groups (called “Collecting data group” and “OPC UA Collecting”) and an aggregation group (called “Aggregation”). This document concentrates on collector groups; for information on the aggregate group, please refer to the help files.
9. Double-click the OPC UA collector group to open it. Here, you can select the collector to which this collector group belongs, as well as the data collection rate (sampling rate) and the calculation period (used for tag aggregates that you can add to this group’s tags).
10. If there is a different rate at which you would like to collect data samples feel free to change the Data collection rate.

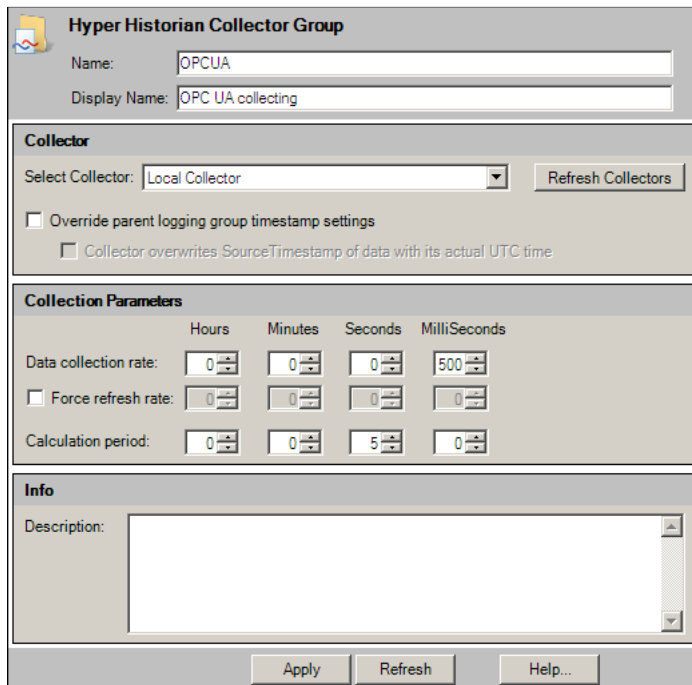


Figure 3 - Hyper Historian Collector Group

11. You can add pens to the group or add a folder to organize your tags. Expand the OPC UA collecting group and you should see a few tags already added to the group, as well as a folder. Feel free to delete these tags and folder or leave them as examples.
12. Right-click on the OPC UA collecting group and select the + Tag option.

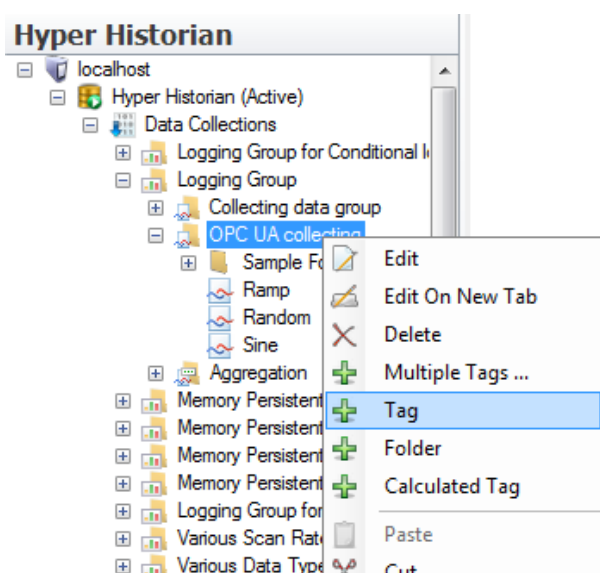


Figure 4 - Adding a Tag

13. Enter a name for the new Hyper Historian Tag.
14. In the Properties field, enter a Signal Name or click on the Signal Name field's ellipsis button [...] to select an OPC tag from the Data Browser.
15. Next, enter the desired Engineering Units using the text entry field or by clicking the ellipses button [...] to select them through the Data Browser.
16. If you want the ability to add comments to the Hyper Historian tag while viewing it in the Trend Viewer, check the option to Support Operator Annotations.
17. You can leave the rest of the settings as default, or change them as desired.
18. Once you are done with the pen configuration, click Apply to save the settings.
19. Repeat steps 12-17 to add more tags, or you can try the + Multiple Tags option to add many OPC tags at once.
20. When you are done configuring your tags, start the service by clicking on the traffic light in the Service section of the Home ribbon so that it becomes green.

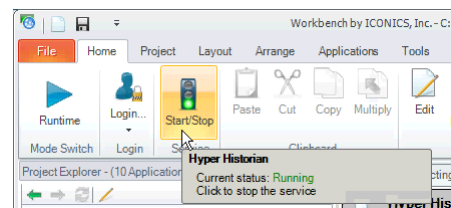


Figure 5 - Hyper Historian Running

Congratulations. At this point you are done configuring Hyper Historian and you have started logging data.

## Viewing Hyper Historian Data

1. While you are in the Workbench, click on TrendWorX64 in the Project Explorer. Your ribbon should look something like Figure 6.

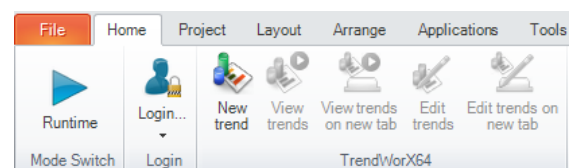


Figure 6 - Ribbon with TrendWorX64 Selected

2. Click the "New Trend" button in the TrendWorX64 section to open a new TrendWorX64 display.
3. Click the Configure button in the upper-left corner of the ribbon to bring up the Configure Your Control dialog.
4. Right-click on Chart and select Add → Plot.
5. Right-click on Plot and select Add → Pen.

6. Select the New Pen object on the left and click on the ellipsis [...] button next to the Data Source field on the right.

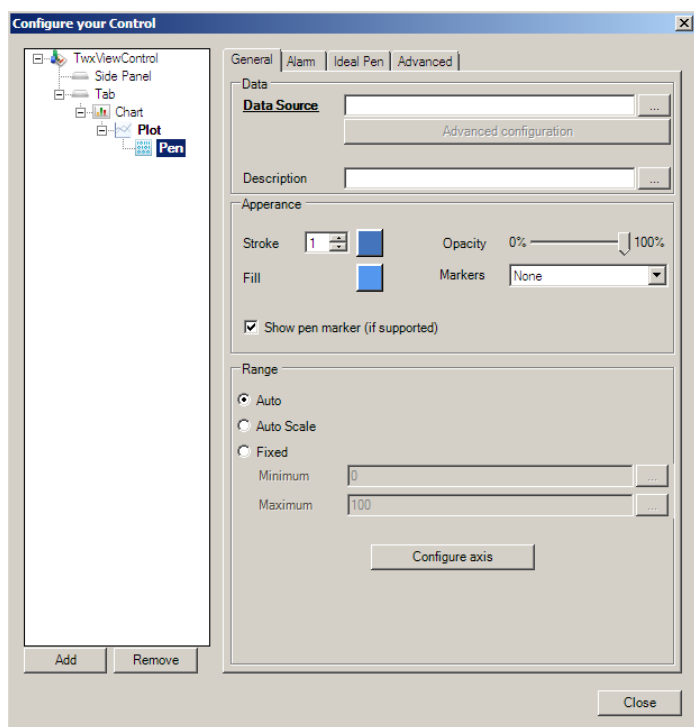


Figure 7 - New Pen Configuration

7. In the data browser, double-click Historical Data, then Hyper Historian.

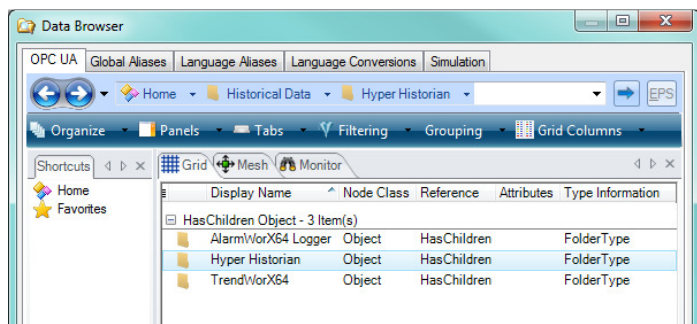


Figure 8 - Hyper Historian in the Data Browser

8. Double-click the Logging Group, the Data Collector Group (OPC UA collecting), and the folders as they appear, until you see the Hyper Historian tags you have configured.

9. Click the tag you want to see and click OK in the Data Browser.
10. In the Configure Your Control dialog, you should see your tag path in the data item. It should look something like the example in Figure 9.

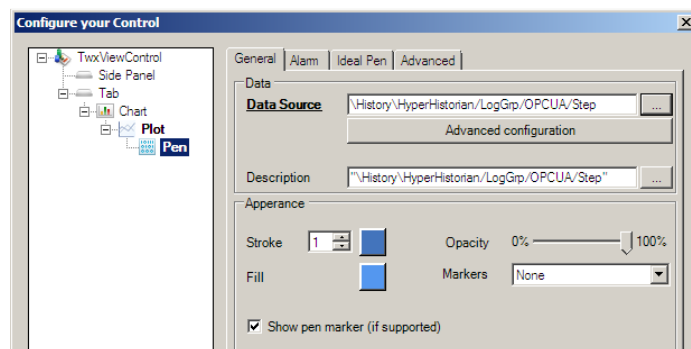


Figure 9 - Tag Path Format

11. Click Close to close the dialog.

**NOTE:** Feel free to add more tags if you wish before you exit the Configure Your Control dialog.

12. Click Runtime in the viewer to see your data.

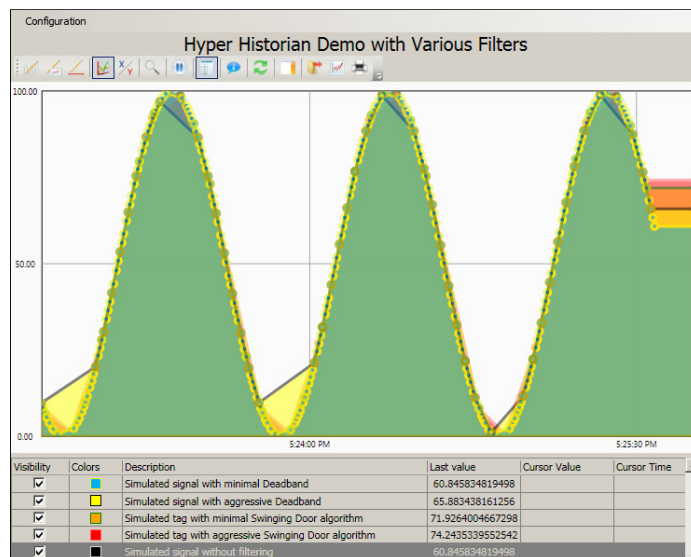


Figure 10 - Sample Hyper Historian Data