

History Data Access for 800xA

- long term history at your fingertips

Many companies use enterprise products such as OSIsoft PI and Aspentech InfoPlus 21 for long term storage of process data. Now you can use History Data Access for 800xA to present that long term history data in 800xA trend displays.

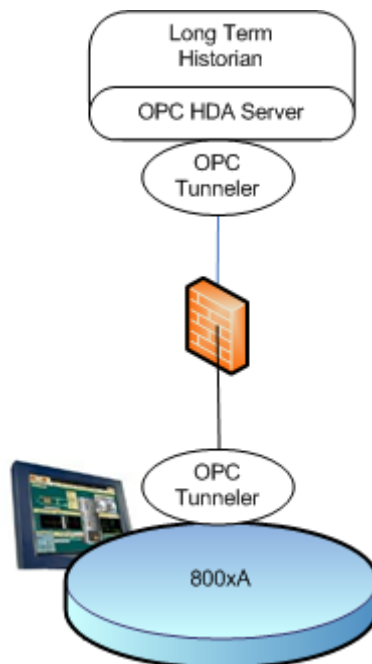
History Data Access for 800xA (from now HDA for 800xA) is a system extension to 800xA. It provides access to history logs from all software systems that support the OPC HDA Interface version 1.2 or later.

Install it, make the necessary configurations (decide which logs you want to access and from where) and present the long term historical data in 800xA trend displays.

Features

- All history logs, local 800xA logs as well as long term history logs from other systems, are presented through one common view: the 800xA trend display, the view the 800xA users are most familiar with.
- The best possible integration into the 800xA operator interface.
- Using the OPC HDA standard secures the solution for the future and minimizes maintenance and cost for future upgrades.

- Possible to expand for history data collected from other control systems.
- Bulk configuration for OSIsoft PI history logs, more products supported on demand.



Connecting 800xA and the historian

Since the 800xA software and the long term historian execute on different servers, separated by a firewall, an OPC HDA Tunneler is required. Sogeti recommends the OPC Tunneler 3.0 or later from Matrikon. (Using DCOM is also an alternative).

Software Requirements

- 800xA version 4.x and 5.x
- OPC HDA Interface 1.2 or later (Provided by the long term historian)
- Matrikon OPC Tunneler 3.0 or later

Industrial IT Certification

The History Data Access for 800xA has been granted the ABB Industrial IT Certification. This is an approval from ABB that HDA for 800xA fulfills the quality standards and in all respects behaves as an 800xA function.

Licensing

History Data Access for 800xA requires an 800xA license. The license file is delivered from Sogeti as part of the delivery of History Data Access for 800xA.

Configuration

The configuration of the History Tags in the 800xA environment can be performed either manually or automatically.

- Manual configuration is always possible if you want to add or modify the configuration of that particular history tag. Simply follow the installation and configuration guide.
- Automatic configuration uses the uploader aspect included in the

HDA for 800xA delivery. To use the upload function you need to create a tag list from the history system following the instructions in the installation and configuration guide. During upload, each tag in the list will be matched against their corresponding 800xA object. Pre-configured aspects required for a functioning history access (Log Configuration and a Trend Display aspect) will automatically be created.

- The automatic configuration is pre-configured for OSIsoft PI. This behavior can however be easily adjusted to handle other history systems than PI.

History Data Access for 800xA deliverables

The HDA for 800xA product package includes:

- An installation and configuration guide
- An installation package (800xA System Extension) HDA for 800xA connection software
- Log aspect template and Trend aspect template for HDA for 800xA
- Uploader aspect (Performs the automatic configuration)
- 800xA License file for HDA for 800xA

Performance calculation

Data from a history system to the presentation clients is collected using the OPC HDA standard which is optimized for access to and transport of historical data. Some additional

communication overhead exists, assumed to be ~30%.

Calculation formula:

$$\text{NetworkOverhead} * \text{NoOfTraces} * \text{NoOfPoints} * \text{ExchangeRate}$$

- Network overhead: Communication overhead, estimated to 30%.
- NoOfTraces: Average number of traces per trend client.
- NoOfPoints: Average number of data points displayed in one trace.
- ExchangeRate: Average Trend display exchange rate per second.

Assumptions for a peak bandwidth calculation:

- Network overhead = 1.3
- NoOfTraces = 4
- NoOfPoints = 400 data points * 28 bytes * 8 bits = 89600 bits/trace
- Exchange Rate = ten operators request one trend display each from ten different operator stations, each trend display with an average of four traces and 400 data points for each trace.

The required peak bandwidth is:

$$\text{Peak Bandwidth} = 1,3 * 4 * 89600 * 10 = 4,66 \text{ Mbit/second}$$

Use this formula on the specific conditions that exist for each history installation to create a theoretical calculation of the bandwidth requirements. Please note that it is theoretical. To obtain an exact estimate, this formula must be complemented with empiric data.

Contact

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For further information:

www.sogeti.se/HDAfor800xA