Local Historian for KEPServerEX®

Local historians are powerful tools for capturing high-resolution data that needs to be accessible and configurable by engineers for troubleshooting, fine-tuning, and trending equipment conditions. This data may have millisecond resolution from multiple variables or tags that spans hours, days, or months. A local historian can easily capture and store data for quick analysis, enabling engineers to improve production quality, reduce waste, increase safety, perform predictive maintenance, and more.

A tactical engineering tool for automation environments, the **Local Historian for KEPServerEX®** moves data collection, storage, and access closer to the data source–preventing data loss and improving operational efficiency. It can be installed on a technician's computer or on a computer next to the process. It stores and provides access to time series data via OPC Historical Data Access (HDA), an open standard for transferring historical data between client and server applications. Good candidates for Local Historians include the following:

- Remote facilities that need a back-up for central historians and local access to historical data
- Small manufacturers with limited SCADA that cannot justify the cost of a Plant or Enterprise Historian

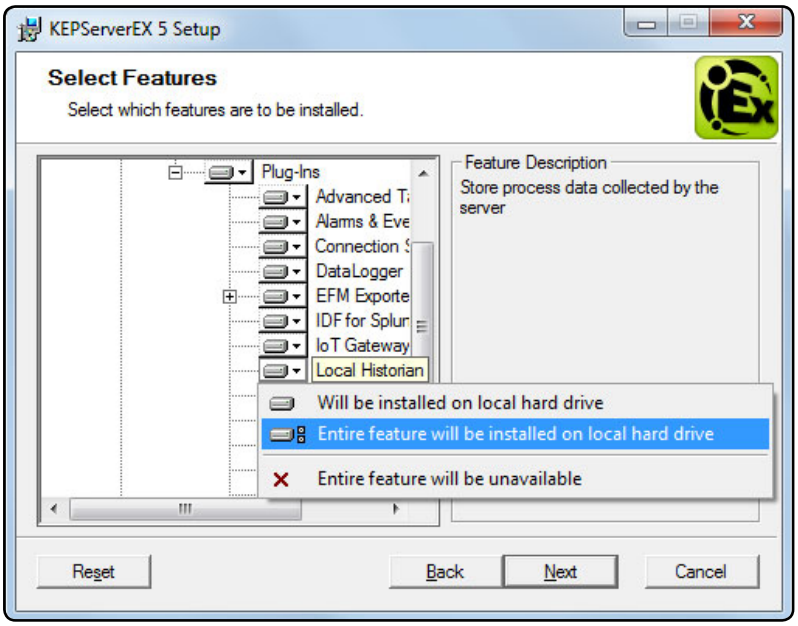
Follow the steps below to configure a historical datastore in the Local Historian for KEPServerEX in under five minutes.

Follow the Steps

Step 1:

Install the Local Historian

The Local Historian is installed as a plug-in for the KEPServerEX communications platform. During the KEPServerEX installation, expand the **Plug-Ins** option to locate the **Local Historian** in the **Select Features** dialog. Then, select **Entire feature will be installed on local hard drive** and complete the install.

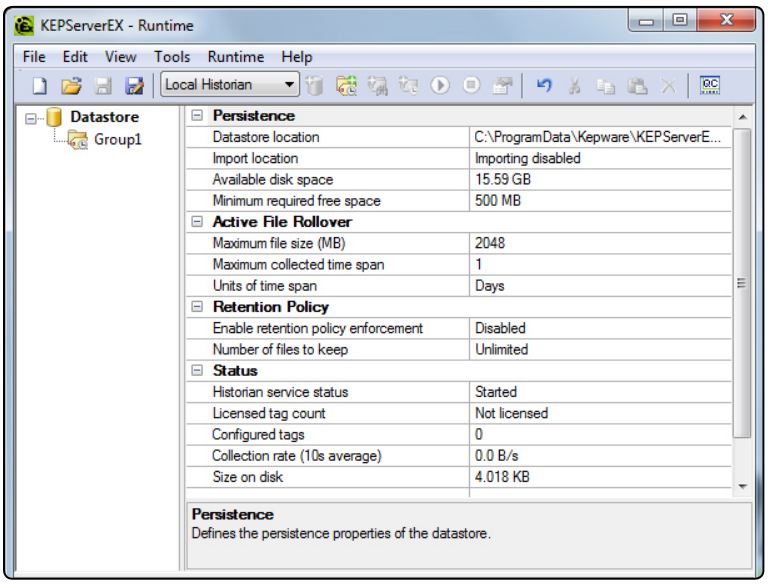


Step 2:

Create a datastore, choose a disk location, and set retention policies

In the KEPServerEX Configuration window, use the drop-down menu located in the toolbar to select the Local Historian. Once in the Local Historian view, choose **Click here to create a new datastore…** to launch the wizard. Feel free to keep all the default options: the historian capabilities work with the default settings, which can be edited later if needed.

Right-click on the datastore icon in the left-hand pane at any time to modify its properties (such as designating a retention policy to control how long the historical data is kept; any data older than this policy will be purged).

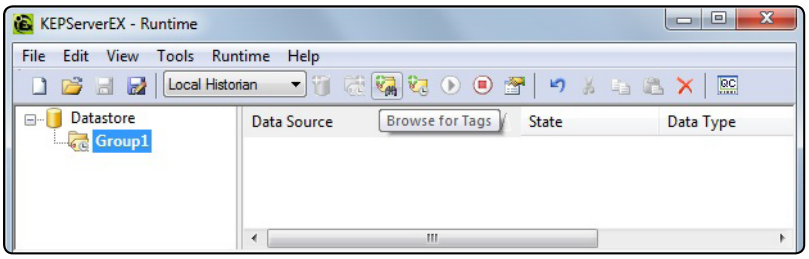


Note: By default, the datastore will be located in the Program Data file path on the C drive. The Local Historian does not support data storage on network drives. There is a limit of one datastore per KEPServerEX project.

Step 3:

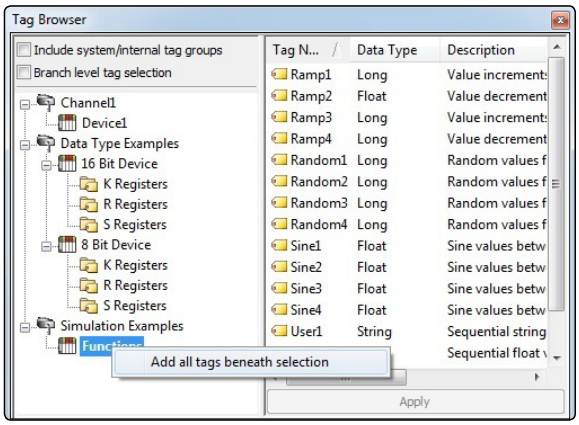
Choose items to store

To add tags to a datastore for historization, click on the **Group1** object and use the toolbar icons to add tag items. You can browse the server for Static Tags or add Dynamic Tags manually.

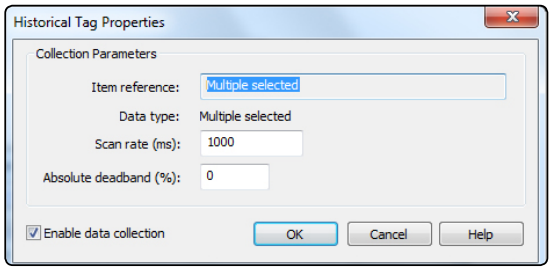


If browsing for multiple tags, choose the **Browse for Tags** option to navigate through the existing project configuration and add multiple tags from different devices.

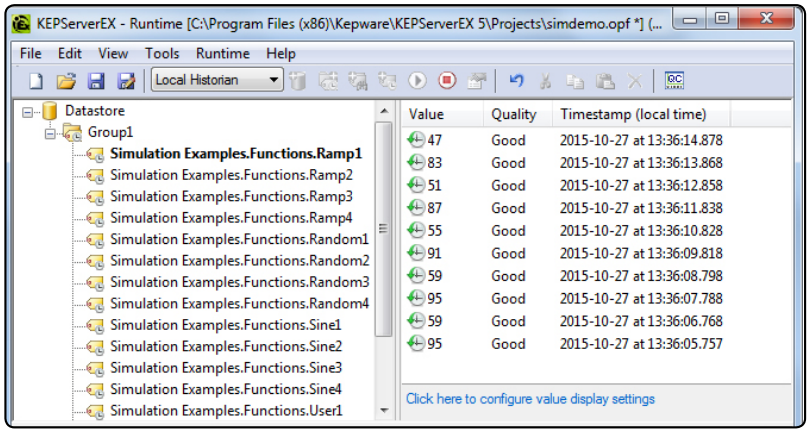
In the **Tag Browser**, right-click on a device in the project configuration to capture historical data for the connected controller. Then, choose **Add all tags beneath selection** to log the data for every tag item for that device. Alternatively, you can multi-select items using the **Shift** or **Ctrl** keys in the right-hand pane.



The scan rate, deadband, and enabled state are configurable for a tag group or individual tags, and can be bulk edited in real-time. For example, it's easy to increase a tag group's scan rate in order to troubleshoot a problem with more granular data.



Once tags are added, you can click on any tag item to see a log of its history.



You can return to the project and add more tag items for historizing at any time.

Step 4:

Choose a tool to help visualize the data

The data that the historian is archiving can be viewed, trended, and aggregated by a wide array of applications. Use any of the software below to visualize and analyze the historical data as needed.

Please note that this is not an exhaustive list of OPC HDA-compatible software; there are many other vendors support this open specification.

- Advanced Mathematical Analytics
  - MATLAB by MathWorks
  - OPCcalc by EXELE Information Systems
- Reporting
  - Dream Report by Ocean Data Systems
  - XLReporter by SyTech
- Trending/Visualization
  - Glance by ECG
  - Oxalis by Bee Computing
  - rapidVision by Automsoft
  - SapphireTrend by Jemmac Software
  - TrendLink by Canary Labs

Learn More

For detailed technical information, read the Local Historian product manual. To explore the Local Historian's different customer implementations, watch the webinar in our Video Collection.