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Data Management

FactoryTalk® Historian ME



VERSION 2.1
QUICK START GUIDE

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 Allen-Bradley • Rockwell Software

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FactoryTalk Historian Machine Edition Overview

FactoryTalk® Historian Machine Edition (ME) provides a completely contained system for data storage and data collection. The FactoryTalk Historian ME Module is inserted into a chassis with one or more ControlLogix® controllers. The FactoryTalk Historian ME Module collects data across the backplane from the ControlLogix controllers in the local chassis and stores it in a local archive. System and data information can be viewed through the FactoryTalk Historian ME web pages and standard Historian clients.

The Factory Talk Historian ME Module can be integrated with the following Rockwell Automation applications:

FactoryTalk VantagePoint: By integrating FactoryTalk Historian ME with FactoryTalk VantagePoint and FactoryTalk VantagePoint EMI, you can view your process data from the FactoryTalk Historian ME in VantagePointExcel reports, dashboards, and portals, and integrate the FactoryTalk Historian ME data into the VantagePoint model. This allows you to correlate the data with various other data sources.

FactoryTalk Historian ProcessBook: By integrating FactoryTalk Historian ME with FactoryTalk Historian ProcessBook, you can view your process data from FactoryTalk Historian ME as well as in FactoryTalk Historian ProcessBook. This allows you to visualize the data in trends and other graphical components.

FactoryTalk Historian DataLink: By integrating FactoryTalk Historian ME with the Excel add-in FactoryTalk Historian DataLink, you can develop Excel reports based on the data in FactoryTalk Historian ME.

FactoryTalk Services Platform: By integrating FactoryTalk Historian ME with FactoryTalk Security, all users and groups can be maintained from a central location.

Note: FactoryTalk Historian ME can be integrated with FactoryTalk Services Platform CPR9 SR2. If you are using FactoryTalk Services Platform CPR9 SR1, you must upgrade to FactoryTalk Services Platform CPR9 SR2 by installing the FactoryTalk Services Platform CPR9 SR2 provided on the FactoryTalk Historian ME Client Tools CD that was shipped with your FactoryTalk Historian ME Module. You must use the

custom install and select the web services (for details, refer to the FactoryTalk Services Platform release notes . You must also have Internet Integration Services (IIS) installed.

FactoryTalk Historian SE: By integrating FactoryTalk Historian ME with FactoryTalk Historian SE, you can transfer the data logged by FactoryTalk Historian ME to FactoryTalk Historian SE for long term storage and analysis.

Note: FactoryTalk Historian ME can be integrated with FactoryTalk Historian SE 2.1 and above. A patch must be installed on FactoryTalk Historian SE systems in your network that will be used with FactoryTalk Historian ME. See page 9 for more information.

FactoryTalk View SE: You can use the FactoryTalk View SE Trending object to trend data logged in FactoryTalk Historian ME.

Note: FactoryTalk Historian ME can be integrated with FactoryTalk View SE Trending 5.0 and above.

This document describes:

- “FactoryTalk Historian ME System Requirements”
- “Setting up Your ControlLogix Environment”
- “Installing the FactoryTalk Historian ME Module”
- “Installing FactoryTalk Historian ME Components”
- “Installing the FactoryTalk Historian SE Patch”
- “Logging into FactoryTalk Historian ME”
- “Setting Time in FactoryTalk Historian ME”
- “Naming the FactoryTalk Historian ME Module”
- “Collecting Data”
- “Viewing Data”
- “Transferring Data”

FactoryTalk Historian ME System Requirements

Before installing FactoryTalk Historian ME, determine your platform requirements and configuration environment. The following information offers some guidelines as you begin planning.

System Requirements

The hardware and software requirements for FactoryTalk Historian ME depend on the demands an application places on the system. The greater the demand, the more powerful a system must be to support this demand. For large or complex applications, use computers with faster CPUs and more RAM. In addition to this, there should always be sufficient disk space to provide virtual memory that is at least twice the size of the physical RAM.

Software Requirements

- Windows Vista SP1 or Windows XP SP2 or SP3
- Microsoft Excel 2003 or newer for FactoryTalk Historian DataLink

Note: Windows Vista is only supported for the FactoryTalk Historian ME web browser and FactoryTalk Historian ME VantagePoint. It is not supported for DataLink and ProcessBook.

- Windows Server 2003 SP2
- Microsoft Internet Explorer (IE) 6.0 or 7.0. There are no specific requirements for IE 7.0. For IE 6.0, the requirements are as follows:

Windows XP SP2

If the \windows\system32\mshtml.dll file has a version that is less than or equal to 6.0.2900.2180 or a date that is before or equal to 08/03/2004, apply this patch:

KB974455 (10/12/09) <http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=8101625d-ee93-46e5-aec2-3bdf2d86472>.

After the patch has been applied, the \windows\system32\mshtml.dll file will have a version of 6.0.2900.3627 and a date of 09/24/2009.

Windows XP SP3

If the \windows\system32\mshtml.dll file has a version that is less than 6.0.2900.5512 or a date that is before 04/14/2008, apply this patch: KB974455 (10/12/09) <http://www.microsoft.com/downloads/>

details.aspx?displaylang=en&FamilyID=8101625d-ee93-46e5-aec2-3bdf2d86472.

After the patch has been applied, the `\windows\system32\mshtml.dll` file will have a version of 6.0.2900.5880 and a date 09/24/2009.

Windows Server 2003 SP2

The minimum supported version is 6.0.3790.3959.

If the IE 6.0 version is less than the minimum supported version, apply the following patch: KB974455 SP2 (10/12/09) <http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=8101625d-ee93-46e5-aec2-3bdf2d86472>.

Internet Options

The location of your Internet Option settings for IE 6 and IE 7 may vary according to which operating system you are using. However, in general, you should:

- Disable any popub blocks to view online help.
- Select the Local Intranet icon (generally located under Security settings), and click [Sites] to use the default setting, “Automatically detect internet network”.
- Use the default Security level for this zone. In general, the settings should remain at the default level and the setting should not be changed. Use the medium-low default setting.
- Enable the following settings
 - Binary and script behaviors
 - Run ActiveX controls and plug-ins
 - Script ActiveX controls marked safe for scripting

Hardware Requirements

ControlLogix Chassis Requirements

- 1756-HIST1G Module or 1756-HIST2G Module

- ControlLogix 55xx (1756-Lxx) version 13 or higher
- RSLogix 5000
- ENBT/EN2T Module
- Chassis

Client Computer Requirements

- Power supply
- Intel Penium III, 600MHz, 512MB RAM (minimum) or Intel Celeron, 3 GHz or higher, (recommended), 1GB of RAM or more
- Mouse or compatible pointing device

Client Tool Software (CD)

- FactoryTalk Services Platform CPR9 SR2
- FactoryTalk Historian ME Management CRP9 SR2 (Admin Console)
- FactoryTalk Historian ME Rule Editor
- FactoryTalk Historian ME RSLogix 5000 Module Profile

Setting up Your ControlLogix Environment

Perform the following steps to set up your ControlLogix environment before installing FactoryTalk Historian ME.

1. Set up the ControlLogix chassis.
2. Insert the ControlLogix controller(s) into the chassis.
3. Power on the system.
4. Configure the ControlLogix device(s).



Refer to your ControlLogix Chassis and ControlLogix Controller documentation for more detailed information.

Installing the FactoryTalk Historian ME Module

FactoryTalk Historian ME has two part numbers:

- 1756-HIST1G
- 1756-HIST2G

The 1G or 2G in the part number indicates how much data storage is associated with the FactoryTalk Historian ME Module.

Unpack the FactoryTalk Historian ME Module and insert it into the chassis.



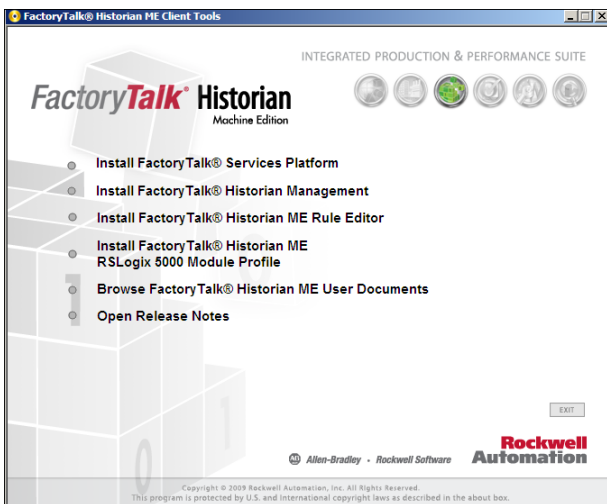
Refer to your FactoryTalk Historian ME Installation Instructions for more detailed information.

Installing FactoryTalk Historian ME Components



If you plan to use FactoryTalk Historian ME Client Tools, such as the FactoryTalk Historian ME Rule Editor, FactoryTalk Directory, and/or FactoryTalk Security, then these components must be installed before you continue. If you do not plan to use FactoryTalk Historian Client Tools, then skip to “Logging into FactoryTalk Historian ME” on page 9.

After you have selected the platform that best suits your needs and have installed the FactoryTalk Historian ME Module into the chassis, you must determine the configuration environment for the FactoryTalk Historian ME components. These components, or FactoryTalk Historian Client Tools, can be found on the CD that was shipped with the FactoryTalk Historian ME Module.



Insert the CD into your computer’s CD drive. If autoplay is turned on, the FactoryTalk Historian ME installation screen will automatically launch and display the FactoryTalk Historian ME installation options. If the screen does not automatically launch, click Start > Run and type D:\setup, where D is the letter of your CD drive.

The FactoryTalk Historian ME installation screen allows you to perform the following tasks:

- “Installing FactoryTalk Services Platform”
- “Installing FactoryTalk Historian ME Management”
- “Installing FactoryTalk Historian ME Rule Editor”
- “Installing FactoryTalk Historian ME RSLogix5000 Module Profile”

In addition to these FactoryTalk Historian ME components, the FactoryTalk Historian ME release notes and user documentation are available on the CD.

Installing FactoryTalk Services Platform

This option installs FactoryTalk Services Platform (FTSP) CPR9 (Service Release 2). FTSP is an underlying architecture and set of common services that Rockwell Automation products build upon. FTSP must be installed on the computer that hosts the FactoryTalk Directory Server and all computers that are part of the FactoryTalk directory, including the FactoryTalk Historian SE server and all clients. FTSP is also required if you plan to use FactoryTalk Security. However, it is optional if you plan to use native security.

The following components and services are installed as part of the platform:

- **FactoryTalk Directory** organizes project information from multiple FactoryTalk products across multiple computers on a network. It allows products to share a common address book, which finds and provides access to plant-floor resources, such as data tags and graphic displays. FactoryTalk Historian ME supports a **network directory** only.
- **FactoryTalk Security** can be used to secure your FactoryTalk network after installing FTSP. Select the “custom” option to install the FTSP Web Services component. Internet Information Services (IIS) must be installed and configured before you install FTSP. Please refer to the FactoryTalk Services Platform online help for more information. This must be installed on the computer that hosts the FactoryTalk Directory Server and on the secondary server configured for the FactoryTalk Historian SE module. Please refer to the FTSP online help for more information.

Installing FactoryTalk Historian ME Management

The Management option installs the **FactoryTalk Administration Console** add-on. It provides a method of configuring, managing, and securing applications.

Installing FactoryTalk Historian ME Rule Editor

The Rule Editor allows you to create and edit user-defined rules for the point discovery process. The selections you make in the dialog



box are automatically written to this file. The data points matching these rules are found and added to the FactoryTalk Historian ME module. You can upload the Rule File to the FactoryTalk Historian ME Module using the FactoryTalk Historian ME Upload Manager feature.

See *Using the FactoryTalk Historian ME Rule Editor* in the *FactoryTalk Historian ME User's Guide* for more information.

Installing FactoryTalk Historian ME RSLogix5000 Module Profile

Please refer to the *FactoryTalk Historian ME User's Guide* for information on installing the FactoryTalk Historian AOP component.

Installing the FactoryTalk Historian SE Patch

FactoryTalk Historian ME can be integrated with FactoryTalk Historian SE 2.1 after you have installed the FactoryTalk Historian SE patch. Once installed, FactoryTalk Historian ME can work with FactoryTalk Historian SE to collect, store, analyze, and visualize data using reporting tools such as time-series trends, bar charts, pie charts, pareto, and tabular trends.

The FactoryTalk Historian SE patch must be installed on all machines in your network with FactoryTalk Historian SE 2.1 that will be used with FactoryTalk Historian ME.

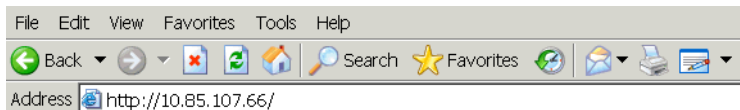
You can download the FactoryTalk Historian SE patch from <http://www.support.rockwellautomation.com>, KnowledgeBase answer ID 63530.

Logging into FactoryTalk Historian ME

Access the FactoryTalk Historian ME module through Microsoft Internet Explorer.

1. Start Internet Explorer.

2. Enter the IP address of the FactoryTalk Historian ME Module in the *Address* field. The IP address scrolls across the LED display on the front panel of the FactoryTalk Historian ME Module.



3. Click [Go] to the right of the *Address* field, or click [Enter]. This opens the login page.



4. Enter the default user name “piadmin” and leave the password field blank.
5. Click [Login]. The FactoryTalk Historian ME home page appears.

After logging in, it is highly recommended that you change the password for the default “piadmin” user. See the *FactoryTalk Historian ME User’s Guide* or *online help* for more information.



*If you are using FactoryTalk Security in your network environment, see the *FactoryTalk Historian ME User’s Guide* for information on setting up FactoryTalk Security before continuing.*



To prevent against unauthorized access, click Logout before closing the browser. If you just close the browser without clicking Logout, then another user can access FactoryTalk Historian ME if the cookie has not expired. The credential times out after twenty minutes of inactivity. Do not have multiple users accessing FactoryTalk Historian ME from the same client computer.

Setting Time in FactoryTalk Historian ME



It is very important that all components are set to a synchronized time. Depending on your environment, you may need to synchronize the following components:

- FactoryTalk Historian SE server computer
- FactoryTalk Historian client computers
- FactoryTalk Historian ME modules
- Logix controller

Before you begin collecting data with FactoryTalk Historian ME, it is important that you set the correct time. Follow these steps to set the time in FactoryTalk Historian ME.

1. Click on *Advanced* in the top navigation bar.
2. Click on *Time Management* in the left-hand navigation bar.

The *Module's Current Time* field displays the FactoryTalk Historian ME Module's current time when you opened the page. To update the time, click [Refresh] on your browser's toolbar.



The FactoryTalk Historian ME Module's current time cannot be edited in the Module's Current Time field. To edit the FactoryTalk Historian ME Module's current time, select the Manual Set option and enter a date and time in the data field. When you click [Save], the Module's Current time field is updated.

3. Select one of the following time settings:

Time Source	Description
Controller Time	Click the radio button next to <i>Controller Time</i> and select a controller from the drop-down menu.
NTP Server	Click the radio button next to <i>NTP Server</i> and enter the IP address or host name of the NTP Server. If you choose this option, FactoryTalk Historian ME will periodically check the NTP Server to synchronize the time setting.

Time Source	Description
FactoryTalk Historian SE	Click the radio button next to <i>Historian SE</i> to synchronize the FactoryTalk Historian ME Module time with the FactoryTalk Historian SE Server time. FactoryTalk Historian SE must be configured as an NTP server for this to work.
Manual Set	Click the radio button next to <i>Manual Set</i> to set the date and time of the FactoryTalk Historian ME Module manually. By default, the current date and time of the browser client is displayed in the data field. <i>Note: Manual Set does not synchronize with another time source.</i>

4. Set the time zone by choosing a region and city from the drop-down menu.
5. Click [Save] to set the entered time data.

Note: You will see a dialog to notify you that the module will be rebooted automatically. Click [OK].

Naming the FactoryTalk Historian ME Module

The default module name is prepended to the FactoryTalk Historian ME module serial number. This guarantees a unique name. This is especially important when performing data transfer to a FactoryTalk Historian SE server. The FactoryTalk Historian ME module name is prepended to the FactoryTalk Historian ME tag name to create the FactoryTalk Historian SE tag name. This provides uniqueness and context to the tag. The module name is also used as the DNS host name of the module and should be unique on the network.

1. Click on *Advanced* in the top navigation bar.

2. Click on *System Settings* in the left-hand navigation bar.
3. Enter a name in the *Module Name* field. The name should be descriptive enough to make it easily identifiable. This is especially useful when transferring data to a FactoryTalk Historian SE Server. The module name is limited by the following:
 - Maximum of 64 alpha numeric characters in the name.
 - No special characters (e.g., !, @, #, \$, %, ^, &, *) are allowed.
 - Must be unique in relation to other FactoryTalk Historian ME Modules on the same network.
4. After entering a new FactoryTalk Historian ME Module name, click [Save]. FactoryTalk Historian ME will automatically reboot and generate a new login page after it completes the reboot cycle.

Collecting Data

FactoryTalk Historian ME is integrated with the FactoryTalk suite of products and ControlLogix devices. The integration with ControlLogix hardware and software provides easy and secure access to resources (data, status, and configuration) within the ControlLogix processors.

Before the FactoryTalk Historian ME module can collect data from the ControlLogix processors, points must first be created in the FactoryTalk Historian ME module. The *Add Points Wizard* allows you to create points in FactoryTalk Historian ME corresponding to tags in the ControlLogix processors. It displays the results of this search in a table contained within the *Create Points* page.

Manage Points with the Add Points Wizard

The *Add Points Wizard* guides you through the process of discovering tags in ControlLogix processors and using these tags to create corresponding points in FactoryTalk Historian ME. There are three main steps involved in the *Add Points Wizard* process:

Main Steps	Description
1. Discover Tags	In this step you set the parameters for discovering tags.
2. Create Points	In this step you decide which tags you want to use to create points.
3. Review Results	In this step you review the number of points created, the number of points not created, and the total number of points in FactoryTalk Historian ME.

To open the *Add Points Wizard*, click on **Manage Points** in the top navigation bar. The *Add Points Wizard* opens automatically.

Add Points Wizard

1 Discover Tags

2 Create Points

3 Review Result

Rule File [🔗](#)

Tag File [🔗](#)

Scan Rate (Sec)

Start Search In FTHDemo_1_0 (slot 0)

Discover Tags

The *Add Points Wizard* feature searches the ControlLogix processors for tag information.

Follow these steps to set the search parameters for the *Add Points Wizard* and begin searching for tags.

1. Select a Rule File.

This file determines which points will be discovered by the *Add Points Wizard*. You can view the Rule File by clicking the icon to the right of the *Rule File* data field. Rule Files are managed through the Discovery Rule Editor (one of several optional tools available on the Client Tools CD that was shipped with your FactoryTalk Historian ME Module). Use the Discovery Rule Editor to create and edit Rule Files that you can upload to the module. See *Discovery Rule Editor* in the *FactoryTalk Historian ME User's Guide* for more information.

2. Select a Tag File.

This file determines the attributes of the points to be created. You can view the tag attributes by clicking the icon to the right of the file name. Tag attribute files are managed through the Rule Editor. Use the Rule Editor to create and edit tag attribute files. See *Discovery Rule Editor* in the *FactoryTalk Historian ME User's Guide* for more information.

Note: If you are using the custom Tag file, select Default so that the scan rate is pulled from the Tag file and is not overwritten by this setting.

3. Set the Scan Rate.

This is the rate (in seconds) at which the data will be collected. See *Scan Class* in the *FactoryTalk Historian ME User's Guide* for more information.

4. Choose which processors to search. To include a ControlLogix processor in the tag search, click the checkbox next to its name.

Under *Start Search In*, all online ControlLogix processors are displayed. FactoryTalk Historian ME supports data collection from a maximum of four ControlLogix processors.

5. Click [Show Tags] to search for tags in the selected processor(s).

Add Points Wizard

1 Discover Tags 2 **Create Points** 3 Review Result

Name * Slot: Standard1000_s1_1_1 Type *

Select	Name	Type	Rate(sec)	Path
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]dinttag318	Int32	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]dinttag284	Int32	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]realitag49	Float	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]realitag106	Float	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]dinttag269	Int32	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]sinttag259	Int8	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]realitag342	Float	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]sinttag127	Int8	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]sinttag383	Int8	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]dinttag380	Int32	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]realitag178	Float	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]sinttag130	Int8	1	Standard1000_s1_1_1
<input checked="" type="checkbox"/>	[Standard1000_s1_1_1]sinttag25	Int8	1	Standard1000_s1_1_1

25 Page 1 of 48 Displaying 1 to 25 of 1200 items

All/None Change Scan Rate 1

Note: If a large amount of data is being transferred from the Controller to the module when the module is going through an initial bootup, please wait about five to ten minutes before trying to access the FactoryTalk Historian ME web interface.

Create Points

After the *Add Points Wizard* searches the ControlLogix processors and successfully retrieves the matching tags based on the criteria set in the *Discover Tags* operation, you can then use the generated tags to create the corresponding points in FactoryTalk Historian ME.

The Search Results table contains the following information.

Column Name	Column Description
Select	This column displays checkboxes that allow you to select or clear tags. Click the <i>All/None</i> checkbox below the table to select or clear all tags.

Column Name	Column Description
Name	This column displays the name of the tag found in the ControlLogix Controller. The tag name is a combination of the ControlLogix project name added as the prefix to the controller tag name.
Type	This column displays the ControlLogix datatypes for the tags. See <i>Datatypes</i> in the <i>FactoryTalk Historian ME User's Guide</i> for more information.
Rate (sec)	This column displays the current scan rate in seconds for each tag. To change the scan rate, click the <i>Select</i> checkbox next to the tag(s). The <i>Change Scan Rate</i> button at the bottom of the page becomes active. Choose a new scan rate from the drop-down menu located next to the <i>Change Scan Rate</i> button. All selected tags will change to the new scan rate.
Path	This column displays the path to each tag in the device. The path is a combination of the ControlLogix Project name and its slot location (CIP path).

Note: You can create a maximum of 2500 data points per FactoryTalk Historian ME Module. If you exceed 2500 data points, the Create button will automatically become deactivated. The Create button will automatically become reactivated when the point count is less than 2500 data points.

Follow these steps to create points in FactoryTalk Historian ME:

1. Select the tags from which you want to create points.
 Select the tags you want to create by checking the box next to the tag name. To select all tags in the list, Check the *All/None* checkbox.
2. Click [Create].

Review Results

After point creation is complete, the *Review Results* page opens. The information here allows you to quickly see the success (or failure) of the *Create Points* operation.

The *Review Results* page displays the following information:

Result	Result Description
Number of Points Created	This is the number of points created based on the points selected in the <i>Create Points</i> operation. Only points that do not yet exist are created.
Number of Points Not Created	This is the number of selected points that were not created in the <i>Create Points</i> operation. Either the points already exist in the archive and do not need to be created, or an error occurred in FactoryTalk Historian ME. See the <i>System Log</i> for error details. (Click on <i>Advanced</i> in the top navigation bar. The System Log page is displayed. Use default settings or enter time parameters in the data fields and click [Search].)
Total Number of Points in Module	This is the total number of points in the FactoryTalk Historian ME Module, including the newly created points.
Data Collection Status	This is the status of the Data Collection process. If Data Collection is running, then <i>Running</i> will appear next to [Stop Data Collection]. If data collection is stopped, then <i>Stopped</i> will appear next to [Start Data Collection].

Starting and Stopping Data Collection

You must have administrator privileges to start or stop data collection in the FactoryTalk Historian ME module. To start the Data Collection interface, perform the following steps:

1. Click *Configure Historian* in the top navigation pane. The Data Collection page opens.
2. Click [Start]. Data collection begins.

To stop the Data Collection interface, perform the following steps:

1. Click *Configure Historian* in the top navigation pane. The Data Collection page opens.
2. Click [Stop]. Data collection stops.

Viewing Data

The *View Data* page allows you to view data trends, archive data, and current data collected by FactoryTalk Historian ME. These features are located under *View Data* in the top navigation bar.

Current Data

Click on *Current Data* in the left-hand navigation bar to view the name, value, timestamp, and type of data being collected by FactoryTalk Historian ME.

Use the following parameters to search or export data:

Property Name	Property Description
Point Name	Enter a point name or use an asterisk (*) to search data with all point names.
Point Source	Enter a point source or use an asterisk (*) to search data with all point sources.
Point Type	Select a point type from the drop-down menu or use an asterisk (*) to search data with all point types.
Scan Rate	Select a scan rate from the drop-down menu or use an asterisk (*) to search data with all scan rates.

Property Name	Property Description
Archiving	Select <i>On</i> or <i>Off</i> from the drop-down menu or use an asterisk (*) to search data with archiving set to <i>On</i> and <i>Off</i> .
Scan	Select <i>On</i> or <i>Off</i> from the drop-down menu or use an asterisk (*) to search data with scan set to <i>On</i> and <i>Off</i> .

Click [Search]. The search results are displayed with the name, value, timestamp, and type of data being collected listed in table format.

Click [Export] to export the current data.

Archive Data

Click on *Archive Data* in the left-hand navigation bar to view the name, value, timestamp, and type of archived data stored in FactoryTalk Historian ME.

Use the parameters described in “Current Data” to search archived data. Click [Search]. The search results are displayed with the name, value, timestamp, and type of archived data listed in table format.

To view archived data for a specified time period:

1. Click on a row in the generated *Archive Data* table.
2. Enter a start time and end time to view a specified time period for the selected archived data.
3. Click [View].

The value and timestamp of the specified archived data is displayed.

Trends

Trends can be used to view data graphically for selected points over a specified time period.

Click on *Trends* in the left-hand navigation bar to search and select points for a trend chart.

Use the parameters described in “Current Data” to search for points. Click [Search]. The search results are displayed with the name, value, timestamp, and type of data listed in table format.

To create a trend of points for a specified time period:

1. In the generated *Points* table, check the *Select* box for each point you want to include in the trend chart.
2. In the *Trend Chart* portion of the window, enter a start time and end time to specify a time period for the selected points.

*Note: If you want to enable auto refresh, you must set the end time to “**”.*

3. Check the *Show Points* box to display the selected points in the trend chart. The points will show as small circles attached to the end points of colored vertical bars. Each bar corresponds with a data point contained in a list below the trend chart.
4. Click the *Show Vertical Bar* box to display a moveable vertical bar that you can click on and drag across the trend chart to capture values for a specified time period.
5. Click on the green arrow to create a trend for the selected points within the specified time period.
6. Click the red square to stop the trend. The [Reset] button becomes active. Click [Reset] to reset the trend.

Transferring Data

The Data Transfer subsystem works with the Data Storage and Data Collection subsystems to transfer historical data to a FactoryTalk Historian SE server. The Data Transfer subsystem can only transfer data to one FactoryTalk Historian SE server.

Before you set up data transfer in the FactoryTalk Historian ME module, you must connect the FactoryTalk Historian ME module to the FactoryTalk Historian SE server through the System Management Tools (SMT) and configure trusts within the FactoryTalk Historian SE server. You must also assign FactoryTalk Activation licenses to support the FTMS point source.

Starting and Stopping Data Transfer

The Data Transfer service status is either started or stopped. Click on the appropriate button on the Data Transfer page to either start or stop Data Transfer. Clicking the Enable Auto Transfer checkbox provides immediate data transfer. Clicking [Save] is not required.

Data Transfer Parameters

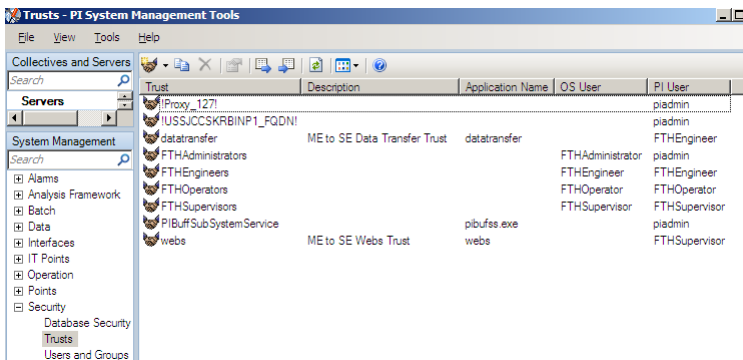
Status	Stopped	Start
		Stop
Maximum Events Per Transfer	<input type="text" value="50000"/>	(Range 5000-150000)
<input checked="" type="checkbox"/> Enable Auto Transfer		

Adding Trusts to Your FactoryTalk Historian SE

In order to successfully transfer data between FactoryTalk Historian ME and FactoryTalk Historian SE, you must create two trusts on the FactoryTalk Historian SE server: datatransfer and webs. Use the SMT and the following steps to add trusts to your FactoryTalk Historian SE:

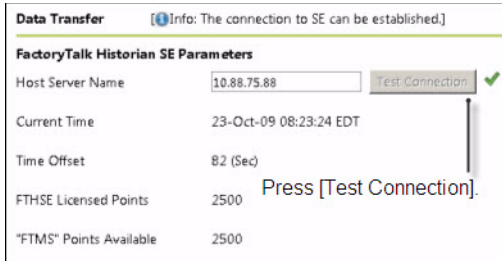
1. From the FactoryTalk Historian SE server, run the SMT application by selecting it from the list of FactoryTalk Historian SE applications.
2. After SMT launches, click [+] next to the [Security] item in the System Management Plug-Ins pane.
3. From the list of Security plug-ins, click on the [Trusts] option.
4. In the main window, select the drop-down menu next to the [New] option on the Trust menu bar.
5. Select the Wizard option. The Add Trust Wizard window is launched.
6. Select your SE server from the drop-down menu.
7. Create two trusts: one for Data Transfer and one for webs by entering “datatransfer” or “webs” for the trust name. The trust description is optional.

8. Click [Next].
9. Select “PI-API application” as the type of trust to be added.
10. Click [Next].
11. Specify the application name (enter either “datatransfer” or “webs”).
12. Specify client connection information such as the network path, IP address, and subnet mask for “datatransfer” or “webs”.
13. Click [Next].
14. Select a PI user from the dropdown menu.
15. Click [Finish]. The trust will display in the list of trusts as shown in the following image. Note that you must assign activation licenses for the FactoryTalk Historian SE server before you can do this.



16. Go to Configure Historian > Data Transfer in the FactoryTalk Historian ME module web interface.
17. Enter the IP address of the SE server.
18. Click [Test Connection]. Enter the host name or IP address of the FactoryTalk Historian SE server. You should receive an informational message that states “The connection to the SE can be established.” This indicates that the FactoryTalk

Historian ME Module is connected to the FactoryTalk Historian SE server.



Assigning FT Activation Licenses to Support the FTMS Point Source

Before adding trusts to FactoryTalk Historian SE, you must assign activation licenses to support the FTMS point source in order to successfully transfer data between FactoryTalk Historian ME and FactoryTalk Historian SE. Activation licenses are assigned for FactoryTalk Historian SE in the FactoryTalk Administration Console (on the Client Tools CD shipped with your FactoryTalk Historian ME module).

Time Synchronization

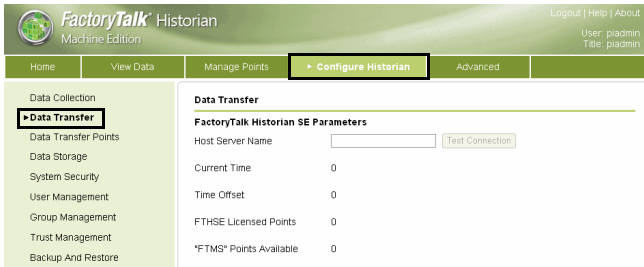
The FactoryTalk Historian ME and FactoryTalk Historian SE systems must be synchronized prior to transferring data. In the FactoryTalk Historian ME Web, click on the *Advanced* tab and select *Time Management* from the left-hand column of the FactoryTalk Historian ME Web. Time Synchronization options include Controller Time, NTP Server, Historian SE and manual Set. To set time, please see “Setting Time in FactoryTalk Historian ME” on page 11

Transferring Data

Follow these steps to set up Data Transfer.

1. Click on *Configure Historian* in the top navigation bar.

- Click on *Data Transfer* in the left-hand navigation bar. This opens the Data Transfer page.



- Under *FactoryTalk Historian SE Parameters*, enter the host name or IP address of the FactoryTalk Historian SE Server in the *Host Server Name* data field.
- Click [Test Connection] to confirm that the specified host server can be accessed.

If the connection is successful, the following information is returned:

Property Name	Property Description
Current Time	This is the current time of the FactoryTalk Historian SE Server. It is a read-only property.
Time Offset	This is the time difference between the FactoryTalk Historian SE Server and the time setting on FactoryTalk Historian ME.
FTHSE Licensed Points	This is the total number of points that have been granted based on the currently active license for FactoryTalk Historian SE. See <i>Licensing in the FactoryTalk Historian ME User's Guide</i> for more information.

Property Name	Property Description
“FTMS” Points Available	This represents the total number of points granted by the license minus the number of points that are already being transferred to the FactoryTalk Historian SE Server.

Under *Data Transfer Parameters*, the *Status* field displays the current Data Transfer status (started or stopped). If necessary, click [Start] or [Stopped] to start or stop Data Transfer.

- Set the following Data Transfer properties:

Property Name	Property Description
Maximum Events Per Transfer	This is the maximum number of events that can be transferred to FactoryTalk Historian SE per transfer session. The range is 5,000 to 150,000. The default setting is 50,000.

Check the *Enable Auto Transfer* box if you want to have FactoryTalk Historian ME transfer data automatically for newly created points.

- Click [Save].

The Data Transfer process records performance statistics that determine the connection reliability. These statistics can be used to refine the settings in the configuration subsystem. The *Data Transfer Statistics* section of the *Data Transfer* page contains the following information:

Property Name	Property Description
Transfer Rate	This is the total number of retrieved events sent to FactoryTalk Historian SE, divided by the time spent retrieving events sent to FactoryTalk Historian SE (in events per minute).

Property Name	Property Description
Successful Attempt Rate	This is the number of successful data transfers from FactoryTalk Historian ME to FactoryTalk Historian SE per hour.

Data Transfer Points

After you have set up the connection to FactoryTalk Historian SE, you must specify which points you want to transfer.

The *Data Transfer Points* page allows you to search for points in the FactoryTalk Historian ME database and assign them for transfer to the selected FactoryTalk Historian SE Server.

To open the *Data Transfer Points* page, click on *Configure Historian* in the top navigation bar, and then click on *Data Transfer Points* in the left-hand navigation bar.

Selecting Points to Transfer

Follow these steps to select points to transfer:

1. Enter search criteria in the data fields using the following information:

Property Name	Property Description
Point Name	Enter a point name or use an asterisk (*) to search data with all point names.
Point Source	Select a point source from the drop-down menu or use an asterisk (*) to search data with all point sources.
Point Type	Select a point type from the drop-down menu or use an asterisk (*) to search data with all point types.
Scan Rate	Select a scan rate from the drop-down menu or use an asterisk (*) to search data with all scan rates.

Property Name	Property Description
Transferred	Indicates whether or not data has been transferred from FactoryTalk Historian ME to FactoryTalk Historian SE. Select <i>Yes</i> from the drop-down menu to search for data points that have already been transferred or select <i>No</i> to search for data points that have not been transferred. Use an asterisk (*) to search for all data points.

2. Click [Search].

The following FactoryTalk Historian SE Information is displayed:

Property Name	Property Description
FTHSE Licensed Points	This is the total number of points that have been granted based on the currently active license for FactoryTalk Historian SE. See <i>Licensing in the FactoryTalk Historian ME User's Guide</i> for more information.
"FTMS" Points Available	This represents the total number of points granted by the license minus the number of points that are already being transferred to the FactoryTalk Historian SE Server.

Note: It takes approximately fifteen minutes to update the FactoryTalk Historian SE Server, so the "FTMS" Points Available value may not update immediately.

The following FactoryTalk Historian ME Information is displayed:

Property Name	Property Description
Point Selected	This represents the total number of points already created in the FactoryTalk Historian SE Server.

Property Name	Property Description
Auto Transfer Mode	This displays whether Auto Transfer is on or off. If Auto Transfer in “On”, then FactoryTalk Historian ME is set to automatically transfer data based on the settings on the <i>Data Transfer</i> page.
Newly Added Points	This represents the total number of points recently selected for transfer to FactoryTalk Historian SE.

In addition to *FactoryTalk Historian SE and ME Information*, the file information for the searched data points is displayed in table format. The table lists all data points that fit the search criteria. If the point has been created in the FactoryTalk Historian SE Server, then this is indicated in the table. All “checked” points are tagged for transfer to the FactoryTalk Historian SE Server.

File information includes the following fields:

Column Name	Column Description
Selected	This indicates whether or not the point has been added to Data Transfer. Check the box under <i>Selected</i> to add the point to data transfer.
Name	This is the name of the data point in FactoryTalk Historian ME.
Type	This is the data type of the point. See <i>Data Types</i> in the <i>FactoryTalk Historian ME User’s Guide</i> or <i>online help</i> for a detailed description of the data types.
Source	This indicates which ControlLogix processor the data point is coming from.

Column Name	Column Description
Created in SE	This indicates whether or not the point has already been matched to the FactoryTalk Historian SE Server. If the point has already been matched, then this is indicated by a “Y” in the <i>Created in SE</i> column. If not, then this is indicated by an “N.”

3. Check the box for each point under *Selected* to add it to Data Transfer.
4. Click [Save].
5. To confirm the points have been mapped to FactoryTalk Historian SE, click [Search]. The points you selected for mapping should have a “Y” in the *Created in SE* column.

Note: You can also run a search in FactoryTalk Historian SE to verify the points have been mapped to FactoryTalk Historian SE. See the FactoryTalk Historian SE User’s Guide for more information.

