

WorkstationST* HMI Configuration User Guide

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1 Overview

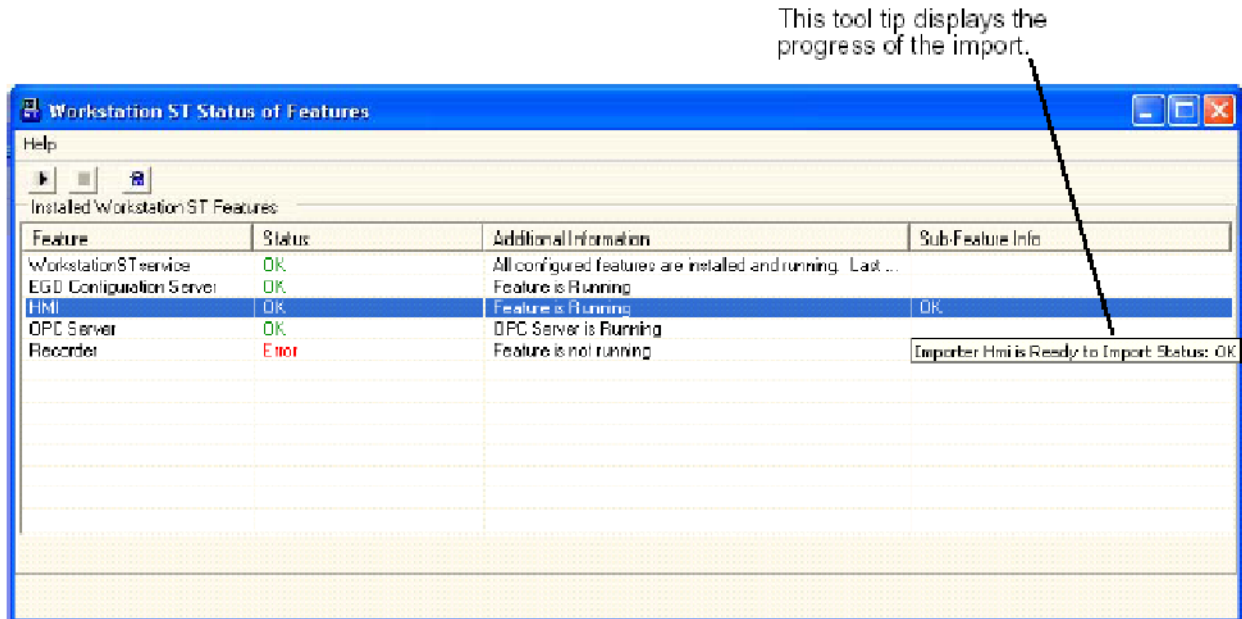
The WorkstationST* application includes a Human-Machine Interface (HMI) Config feature and an HMI File Utility feature. These features are edited from the HMI Config tab in the ToolboxST* application. The HMI Config feature is used to run the Importer, which allows you to import device, variable, and other data into a CIMPLICITY* database. It is started from the WorkstationST Status Monitor by selecting the HMI feature and the subfeature Importer. The HMI File Utility feature is used to control the download mode of the HMI screen file maintenance function. It is controlled from the WorkstationST Status Monitor by selecting the HMI File Utility and the sub-feature Auto Download.

For further details, refer to the *ToolboxST Guide for Mark* Controls Platform* (GEH-6700 or GEH-6703).

2 HMI Configuration

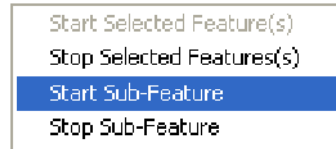
The Status Monitor is configured to run at startup, with an icon that displays in the notification area. When a warning or an error exists with the WorkstationST Service or any feature, a warning or error icon displays.

From the Status Monitor, double-click the icon to display the HMI feature, or right-click and select the Open Detail Status menu item. The WorkstationST Status of Features window displays with the HMI feature selected.



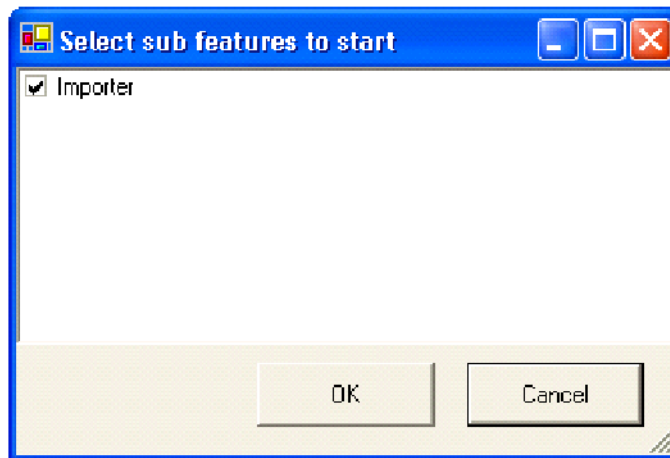
➤ **To start an import**

1. From the **Status of Features** window, right-click on **HMI**, then select **Start Sub-Feature**.



Note The Sub-Feature Importer can be stopped before an import is finished by selecting the Stop Sub-Feature option from the shortcut menu. Features (such as HMI or OPC DA Server), can also be started and stopped with the Start and Stop buttons on the toolbar.

2. From the **Select sub-features to start** dialog box, select **Importer**, then click **OK**.



Note When the WorkstationST Service is started, it attempts to start all configured features, and keep them running. If a feature is stopped from the Status Monitor, WorkstationST Service will not attempt to restart it. The feature is restarted from the Status Monitor or when WorkstationST Service is restarted. (Stopping and starting the HMI feature will not, by itself, restart the Importer.)

Note The HMI Importer sub-feature is started automatically whenever the Workstation is downloaded.

2.1 Imported Data

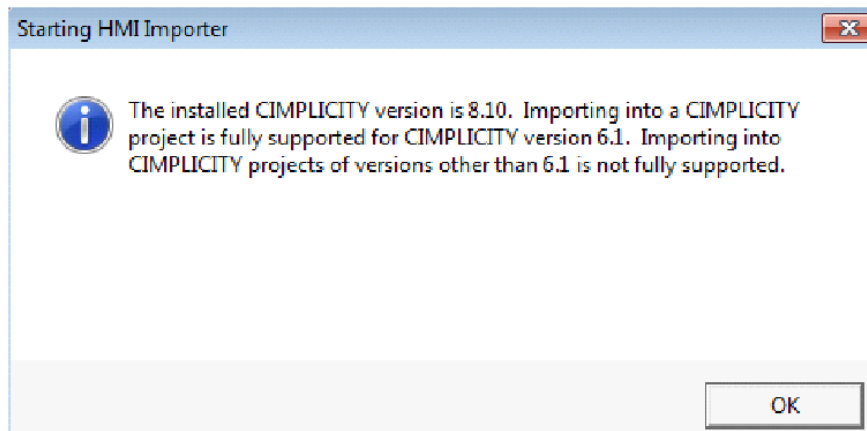
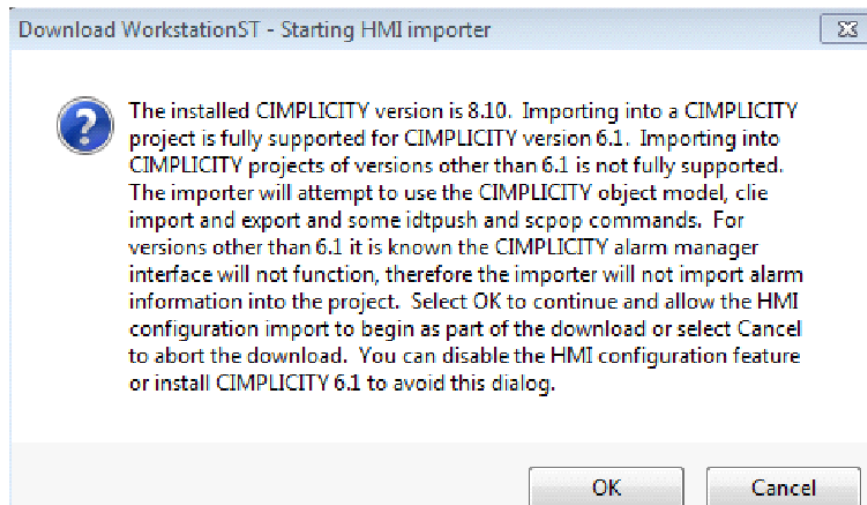
The WorkstationST application runs on a specific computer in a system. In the case of a CIMPLICITY HMI, the workstation is configured for that HMI. One of the configuration items for a workstation is the list of Consumed devices. These devices define the Ethernet Global Data (EGD) exchanges from which the CIMPLICITY system will read data. Additional data collected by the HMI Importer for the CIMPLICITY database includes:

- Device variables (all variables on each produced exchange for all Consumed devices)
- Device ports
- Devices (CIMPLICITY)
- Resources
- Enumerations
- Measurement units (format specifications)
- Alarms, SOEs, Holds, and Events
- Alarm classes

HMI Importer with CIMPLICITY Versions Higher than V6.1

Importing into a CIMPLICITY project is fully supported for CIMPLICITY V6.1. Importing into CIMPLICITY projects of versions other than 6.1 is not fully supported. For versions other than 6.1, it is known the CIMPLICITY Alarm Manager interface will not function; therefore, the importer will not import alarm information into the project.

The following message is displayed during the workstation download, or HMI sub-feature import, to notify the user of this limitation.



3 HMI Importer Error and Log Files

Common errors associated with the WorkstationST HMI Importer include the following:

- The CIMPLICITY software is not installed.
- The CIMPLICITY version is not V6.1 or greater.
- The WorkstationST HMI was not configured through the ToolboxST application.
- The CIMPLICITY project name is misspelled or in the wrong location (defined in the HMI Config tab).
- The WorkstationST application has not been downloaded, or was downloaded incorrectly.

➤ To display errors

The HMI Importer also writes a log file, called GeCssHmiServer.txt. It is located in the application data location for WorkstationST features (for Windows XP - C:\Documents and Settings\All Users\Application Data\GE Energy\WorkstationST and for Windows 7 - C:\ProgramData\GE Energy\WorkstationST). The most recent messages are at the bottom of the file.

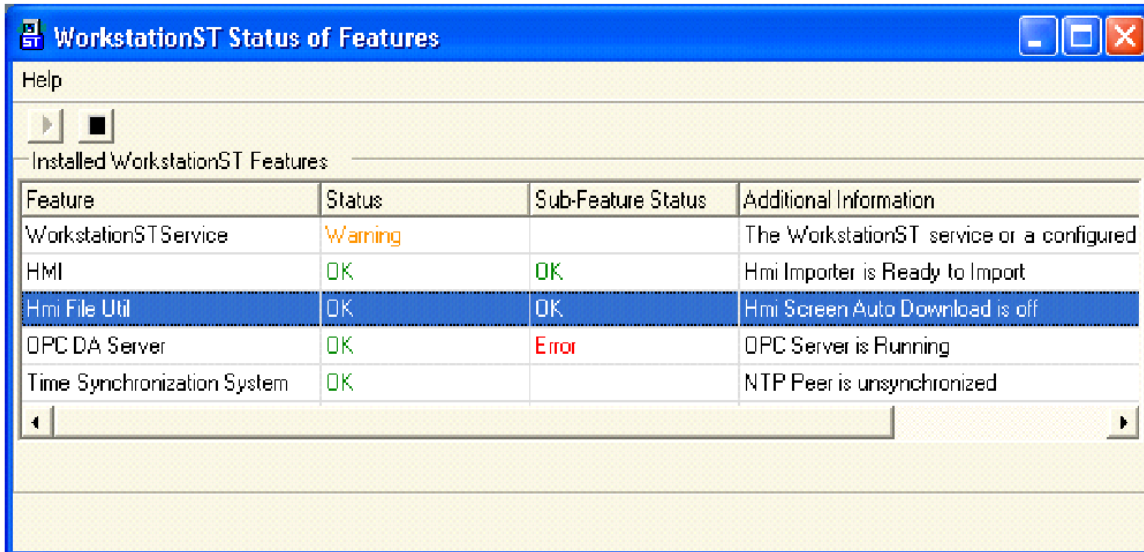
4 Hmi File Util

The Hmi File Util is a program that runs on the WorkstationST application. The program is used to automatically (or manually) copy HMI Screen Files from a master location to the local HMI directory, where they are used by the HMI user screen display system (for CIMPLICITY, this is CIMView). The Hmi File Util program is also used to obtain file status information from the local HMI location and the master location to show the status of screen files to the user via the ToolboxST.

The primary functionality of the HMI Screen File Maintenance feature is performed from the ToolboxST application (Refer to the *ToolboxST Guide for Mark* Controls Platform*(GEH-6700)). However, if it becomes necessary to turn the HMI Screen File Auto Download on or off without downloading the WorkstationST application, this can be accomplished from the WorkstationST Status Monitor.

The Status Monitor is configured to run at startup, with an icon that displays in the notification area. When a warning or an error exists with the WorkstationST Service or any feature, a warning or error icon displays.

From the Status Monitor, double-click the icon to display the Hmi File Util, or right-click and select the Open Detail Status menu item. The WorkstationST Status of Features window displays which includes the Hmi File Util feature.



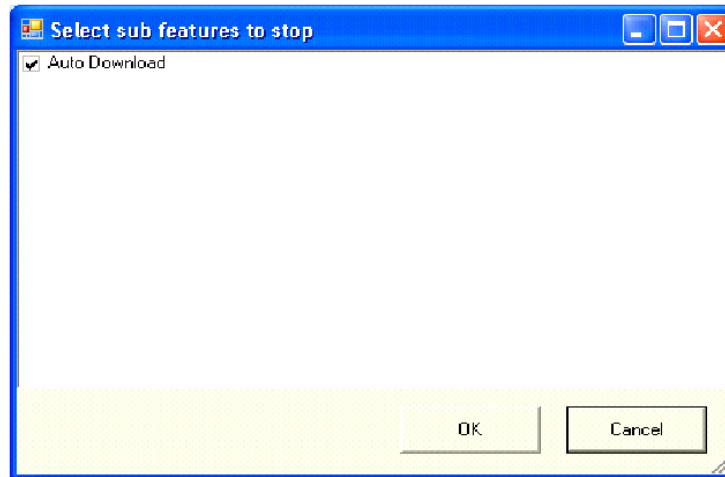
Feature	Status	Sub-Feature Status	Additional Information
WorkstationST Service	Warning		The WorkstationST service or a configured
HMI	OK	OK	Hmi Importer is Ready to Import
Hmi File Util	OK	OK	Hmi Screen Auto Download is off
OPC DA Server	OK	Error	OPC Server is Running
Time Synchronization System	OK		NTP Peer is unsynchronized

➤ **To disable Auto-Download**

1. From the **Status of Features** window, right-click on **Hmi File Util**, then select **Stop Sub-Feature**.

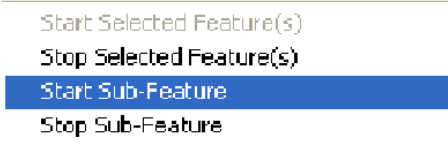


2. From the **Select sub-features to stop** dialog box, select **Auto Download**, then click **OK**.

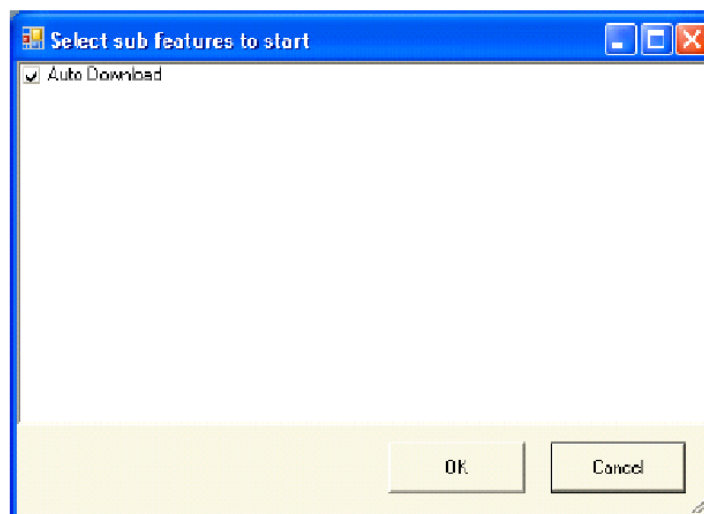


➤ **To enable Auto-Download**

1. From the **WorkstationST Status of Features** window, right-click on **Hmi File Util**, then select **Start Sub-Feature**.

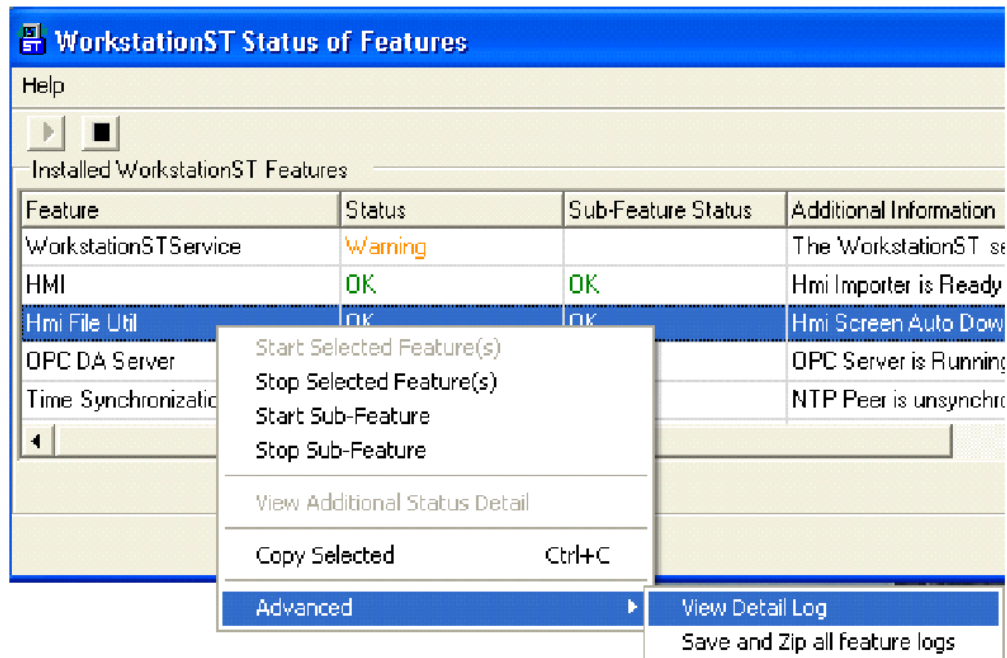


2. From the **Select sub-features to start** dialog box, select **Auto Download**, then click **OK**.



5 Hmi File Util Log File

- To display the Hmi File Util log file



Hmi File Util feature writes the log file called GeCssHmiFileUtil.txt, to the application data location for WorkstationST features (for Windows 7 - C:\ProgramData\GE Energy\WorkstationST). The most recent messages are at the bottom of the file.

6 *Glossary of Terms*

Bind - To establish the correspondence between the data in an exchange and variables in a device.

Bind/Build - To bind the configuration for each consumed exchange and create/update the configuration for any produced exchange.

Collection - More formally, an EGD Collection. A group of devices that constitutes a formal subset of the devices participating in a particular EGD installation. This arbitrary grouping allows users to subdivide the system to make some tasks easier.

Consume - To receive an EGD data message (exchange).

Consumer - An EGD node configured to receive an EGD data message.

EGD - A mechanism that provides access to global data between nodes supporting the EGD protocol.

Exchange - An EGD data message consisting of a header and a body of data. The header contains the producer ID and the exchange ID that uniquely identifies the message. The body of data is a block of bytes in a format agreed upon by the producer and all consumers.

Feature - An element of the WorkstationST runtime system, which can be optionally enabled through the ToolboxST application. Examples include OPC Server, Recorder, and Alarm Viewer.

Global Data - A concept in which multiple controllers on a network can share information by exchanging portions of their local memory with peer controllers.

OPC (OLE for Process Control) - A standard for data exchange in the industrial environment (OLE is Microsoft's Object Language Embedding). The OPC foundation provides specifications for various OPC standards such as OPC DA (Data Access) and OPC AE (Alarm and Event).

Produce - To send an EGD data message (exchange).

Producer - The EGD node configured to send data messages. The source of the data samples for an exchange.

Refresh - To bind the configuration for each consumed exchange for a particular consumed device.

Runtime - Software stored in the controller's Flash memory that converts application code (pcode) to executable code.

Unbound Variables - Variables required by a consumer that were not found in the producer configuration during the bind.

