Plant Applications 8.2

Licensing

We want to hear from you. If you have any comments, questions, or suggestions about our documentation, send them to the following email address:

doc@ge.com

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Licenses and Installation

The Plant Applications 6.1 release supports two models for licensing:

- The Functional License model, offered starting with Plant Applications 5.0, is now the model for all new Plant Applications customers. The model supports Client Access Licenses (CALs), Server Functional Licenses (SFLs), and non-Proficy historian connectors. Each hardware key is programmed with the licenses and functions as ordered.

- The Server Module/Component model remains available to existing customers for adding licenses and is the recommended path. However, existing customers can choose to migrate to the Functional License model to take advantage of value based on functions and users. This model is described in Plant Applications documentation for Release 4.4.1 or 5.0.

With your purchase of Plant Applications 6.1, you will receive an M4 hardware key, either for a USB port or for a parallel port, for each server that runs Plant Applications. The key plugs into the computer where the Proficy Plant Applications Server software is installed.

If Proficy Plant Applications services are installed on one server and the Plant Applications database on another, the hardware key must be plugged into the server where the Proficy Plant Applications Server services are installed.

Refer to the *Getting Started Guide* for additional information.

License Documentation

This help system provides basic information about licensing, including reporting of available licenses, license limit messages, license expiration, and a description of how server functions are counted.

Information about Proficy Common Licensing and troubleshooting is available in online help format after installing Plant Applications. This information also describes how to use the License Viewer ("New Licenses" in the Contents tab). Access this help information from the Windows Start menu in the Proficy Common folder under All Programs. The License Viewer is also accessed from this location.

Refer to the *Getting Started Guide* to order, upgrade, and install licensing.

License information is also available in the article KB14101, which is posted at https://digitalsupport.ge.com in the Knowledgebase.

Refer to Plant Applications 4.4.1 or 5.0 documentation for information about the Server Module/Component Model.

Functional License Model

CAL License

Each CAL license permits one user to use any or all of the following features:

- Plant Applications SDK

- Any Plant Applications, ActiveX, or Dynamo display

- Any Plant Applications report, Web parts, or Excel add-in

SFL License

Each SFL license permits one production unit (PU) in the plant model to use any one of the following 11 functions:

- Downtime

- Waste

- Time interval data logging

- Lot/serial numbering and data logging

- Specification limits and conformance (a few variables free for OEE)

- SPC/SQC alarms (as many as needed on one production unit)

- Genealogy (how many "children units" are consuming from other units)

- Process order (If process order is tracked on that unit, then it counts)

- Bill of Material (BOM)

- eSignature

- User-defined event (Each subtype configured)

One SFL is required for each function running on a PU. SFLs in Plant Applications are universal, meaning an SFL provides access to any one of the functions. You just need an adequate number of SFL licenses to cover the number of functions you are using across all the production units in the Plant Applications Plant Model. For example, tracking downtime on a production unit would count as one server functional unit or applying e-signature to a variable would count as one server functional unit. For example, you might choose to use 10 SFLs in one of the following ways:

- Track downtime on 10 production units.

- Track downtime and waste (two functions) on five production units.

- Track downtime on three production units, waste on five production units, and production events on two production units.

The following table provides more detail about each server function and how it is counted.

Function	Table To Query and Count Rule	Server Module Model
Product ID / Product Change	Product changes are not counted	Product
Downtime	Timed_Event_Details Unique Master PU_ids	Efficiency
Waste	Waste_Event_details Unique PU_Ids	Efficiency
Production Event	Events Unique PU_Ids	Quality
Time Interval data logging	Tests Unique Master PU_Id (from VarId)	Efficiency or Quality
User Defined Event (Each subtype configured)	User_Defined_Events Unique PU_Ids+ Event_subtype	Efficiency
Spec Management and Conformance	Var_Specs Unique Master PU_Ids with effective specs (NULL or future end time)	Product
SPC/SQC Alarms (as many as you	Alarms Unique source_PU_id	Quality

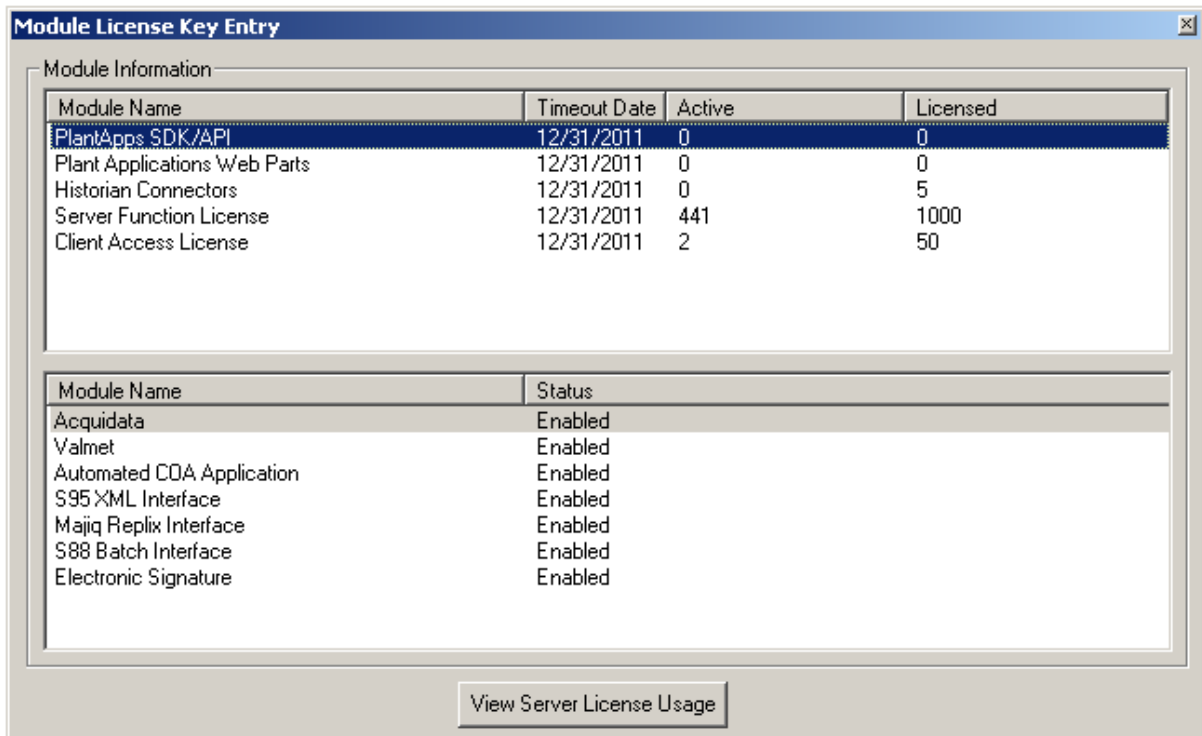|		
need per production unit)		
BOMs	Production_Plan Unique PP_ids with a non-NULL BOM_formulation_Id	Product
Genealogy	Event_Components Unique PU_Ids on the child events	Production Management
Process Order	Production_plan_starts Unique pu_ids on the production counting units	Production Management
eSignature	Products, Variables, Event_Configuration Unique Master PU_Ids on these tables (unique PU_Id across all 3 tables)	Esig

Non-Proficy Historian Connector

A connector license is required for the Plant Applications server to connect to a data system other than Proficy Historian such as OSI-PI, Aspen, IP21, OPC, Industrial SQL, or DIY-SQL. The license gives rights for any number of the same type of connection to the Plant Applications server. For example, one SQL "historian" connector provides access to multiple SQL "historians."
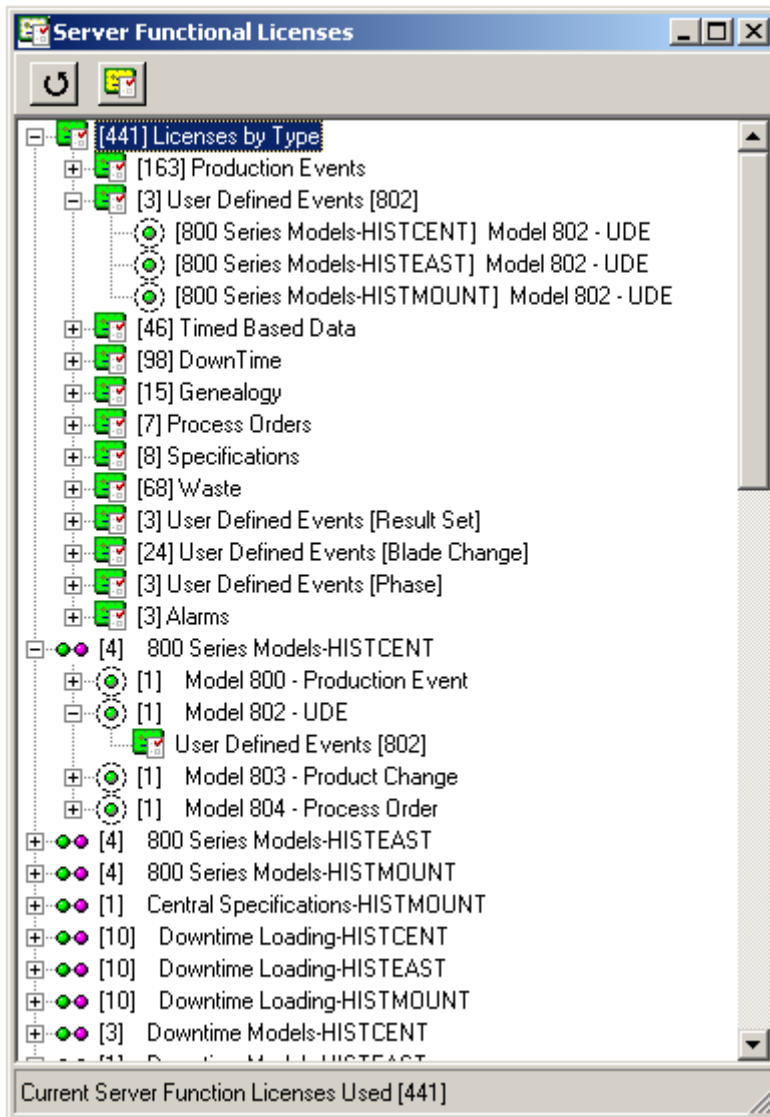
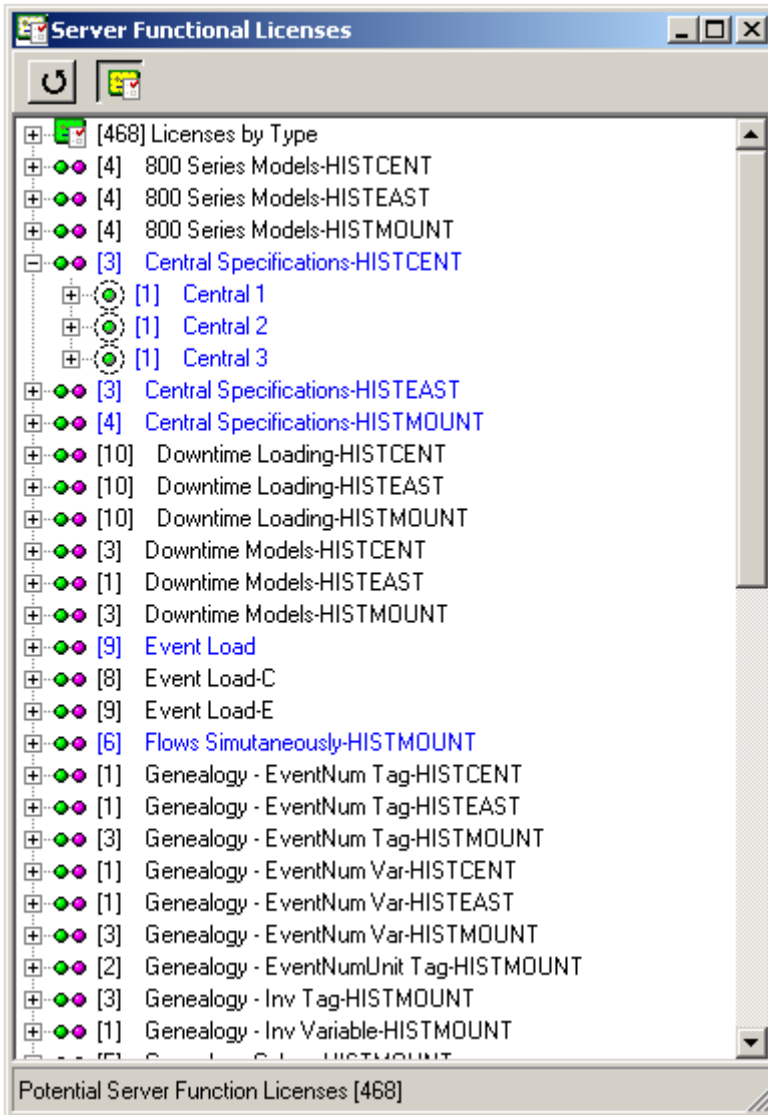# License Administration

Viewing License Information

You can right-click or double-click Administer Licensing to view the Module License Key Entry dialog box. The Module License Key Entry dialog box provides information about what functions and special features you are currently licensed for, the number of server functional licenses (SFLs) available and the number of SFLs used.

Click the **View Server License Usage** button to display a detailed list of the SFLs in use.

Licensing

Click to see functions that may consume a license. Activity that is detected on a production unit that may consume a license is highlighted in blue.

SFL License Limits

The Plant Applications Server Functional License (SFL) reports messages to inform you about license usage when various limits are reached.

Definitions

Effective Usage. Counts usage only if it occurred within a recent time frame and exceeded minimal amounts. For example, production events count on a unit only if there have been at least five events in the last 60 days.

Actual Usage. Counts all usage in the last 7 days.

License Limit. Purchased SFL count on the license key, equal to 100%.

Info Limit. Equals 80% of the License Limit.

Warning Limit. Equals a limit halfway between the License limit and the High Limit.

High Limit. Equals 120% of the License Limit, not exceeding a maxim allowance of 20 SFLs and a minimum allowance of two SFLs. (Refer to the example below.)

License Checking

Licensing

The Plant Applications License Manager periodically checks the Effective Usage and Actual Usage counts and takes the appropriate action based on the following rules (">" means greater than):

- Effective Usage > High Limit (120%)

   Hourly error message recorded in the log file and possible e-mail sent

   License requests are denied after a Grace period of 10 days is passed.

- Effective Usage > Warning Limit (Calculated mid-point between the License and High limit)

   Daily warning message recorded in the log file and possible e-mail sent

- Effective Usage > License Limit (100%)

   Daily informational message recorded in the log file and possible e-mail sent

- Actual Usage > Info Limit (80%)

   Monthly informational message recorded in the log file and possible e-mail sent

- Effective Usage > Info Limit (80%)

   Monthly informational message recorded in the log file and possible e-mail sent

An example of limits follows:

License Limit	Info Limit	Warning Limit	High Limit
5	4	(7 + 5) / 2 = 6	5 + 2 (minimum allowance) = 7 *Note: The minimum allowance is greater than taking 120%.*
200	180	(220 + 200) / 2= 210	200 + 40 - 20 (maximum allowance) = 220

MESCore SP Health Monitor Events

Licensing events are available for subscriptions using Proficy SOA event subscriptions. Event severity levels correspond to the messages outlined above.

Monitoring License Usage

You can quickly monitor your license usage by the color of the icon.

A green icon indicates the Info Limit has not been reached, which means you are using 80% or less of your server functional licenses.

A yellow icon indicates the **Info Limit** has been reached, which means that you are using more than 80% but less than 100% of your server functional licenses.

A red and white icon indicates the **Warning Limit** has been reached, which means you are halfway between the License limit and High Limit of your server functional licenses. Frequent informational messages are displayed as a warning.

A red icon indicates the **High Limit** has been reached, which means you are using more than 110% of your server functional licenses. You will receive hourly messages. License requests are denied after a Grace period of 10 days. At this point, you will not be able to use the Administrator.

You can view detailed information about license usage by function or by unit.