

SmartPlant License Manager Installation and User's Guide



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Contents

Introduction.....	7
What's New in SmartPlant License Manager.....	10
Internationalization.....	11
Terms.....	12
Setup Options.....	13
License Example.....	13
License Requests and Installation	15
Upgrades and License Keys.....	15
Software Version Compatibility.....	16
License Key Requests for the License Machine.....	16
License Key Requests.....	17
eLicense and Generating SmartPlant License Manager Keys.....	18
Software Installation that Requires Licensing.....	18
Installation of SmartPlant License Manager.....	19
Quick Installation Workflow.....	21
Installation Checklist.....	22
PDS and SmartPlant License Manager Installation.....	22
SmartSketch and SmartPlant License Manager Installation.....	22
SmartPlant Products and SmartPlant License Manager Installation.....	23
Software Installation Using the Web.....	23
Laptops and SmartPlant License Manager Installation.....	24
Silent Mode and SmartPlant License Manager Installation.....	25
Upgrades for SmartPlant License Manager.....	26
Upgrading to SmartPlant License Manager 2012.....	27
About SmartPlant License Manager.....	30
Starting SmartPlant License Manager.....	30
Functions of SmartPlant License Manager: License Machine	33
Install and Remove Options.....	33
Install a License Key.....	34
Install and Start the Licensing Service.....	36
Stop and Remove the Licensing Service.....	37
Configure and Test Options.....	38
Select a License Machine for a Client.....	39
Remove License Machine for a Client.....	40
Display and Modify License Usage.....	41
Test Seat Reservation.....	42
Test Seat Release.....	44
Select License Machine for Client (Current User).....	45
Remove License Machine for Client (Current User).....	46
Test Seat Reservation (Current User).....	47
Test Seat Release (Current User).....	49
Scavenge Options.....	49
Scavenge for Keys.....	50

Contents

Display and Modify Scavenging Options	51
Display Options	52
Generate an Audit Code	53
Show Key Status	53
Display the Status of Active Daily Licenses	54
Display the Status of Reserved Licenses	54
Display the Status of Expired and Unexpired Keys	54
Display License Machine for Client - All Users	55
Display the License Machine for a Client - Current User Only	56
Log Product Usage	56
SmartPlant License Information Dialog Box	59
Remove SmartPlant License Manager	60
Functions of SmartPlant License Manager: Client	60
Installing and Removing Options	61
Install and Start Licensing Service	61
Stop and Remove Licensing Service	63
Configuring and Testing Options	64
Select License Machine	65
Remove License Machine	66
Test for Seat Reservation	66
Test for Seat Release	68
Select License Machine for Client - Current User	69
Remove License Machine - Current User	70
Test Seat Reservation - Current User	70
Test Seat Release - Current User	72
Display Options Commands	73
Display the License Machine for Client - All Users	74
Display the License Machine for Client - Current User Only	74
Frequently Asked Questions (FAQ)	75
Purchasing Licenses FAQ	75
General Topics FAQ	76
PDS, FrameWorks Plus, and ISOGEN FAQ	77
SmartSketch and SmartPlant Products FAQ	79
SmartPlant 3D and SmartPlant Layout FAQ	79
SmartPlant Reference Data and SmartPlant Materials FAQ	80
License Key Request Forms	87
Key-in Commands Overview	89
Alphabetical List of Key-in Commands	89
Functional List of Key-in Commands	92
Appendix A: Using the SmartPlant License Checkout Utility	94
Install SmartPlant License Checkout Utility	95
Appendix B: Citrix and SmartPlant Software	97
Supported Platforms	99
Configure a License Machine for Current User	100

Appendix C: Installing SmartPlant License Manager on a Standalone System	103
Step 1: Installing Microsoft Loopback Adapter	103
Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter	104
Step 3: Configuring Advanced Settings for the Loopback Adapter	105
Step 4: Installing SmartPlant License Manager and Generating a Machine ID	105
Step 5: Adding pdlice.exe to Firewall Exception List	106
Step 6: Selecting a License Machine and Reserving a Seat	107
Appendix D: SmartPlant License Manager Reporting Utility	109
Appendix E: Microsoft Windows Firewall and SmartPlant License Manager.....	111
Appendix F: Configure SmartPlant License Manager and VMware.....	113
VM Settings (Host Only)	113
VM Settings (Option 2: NAT (Network Address Translation).....	115
VM Settings (Option 3: Bridged)	117
Appendix G: Troubleshooting and Error Messages.....	119
Troubleshooting	119
Error Messages.....	120
Appendix H: SPLM Client on Windows 7, Windows Server 2008 R2, and Windows Vista	129
Appendix I: Defining a Scheduled Job to Install a License Key	133
Index	135

SECTION 1

Introduction

Intergraph® SmartPlant License Manager allows you to accurately track how many users are concurrently accessing plant design software. It also helps you comply with your Software Licensing Agreement.

SmartPlant License Manager (SPLM) is client/licensing machine-based software. One or more central licensing machines can be used to maintain licensing information for all plant design software on a network. The licensing information can be on a single licensing machine, but the licenses float so any computer on the network can use them. Both the client computer and the licensing computer must have SmartPlant License Manager installed. Because licensing has little impact on computer performance, any computer can be a license machine. However, systems with a high volume of network traffic may negatively impact licensing performance.

SmartPlant License Manager supports the following products and license types:

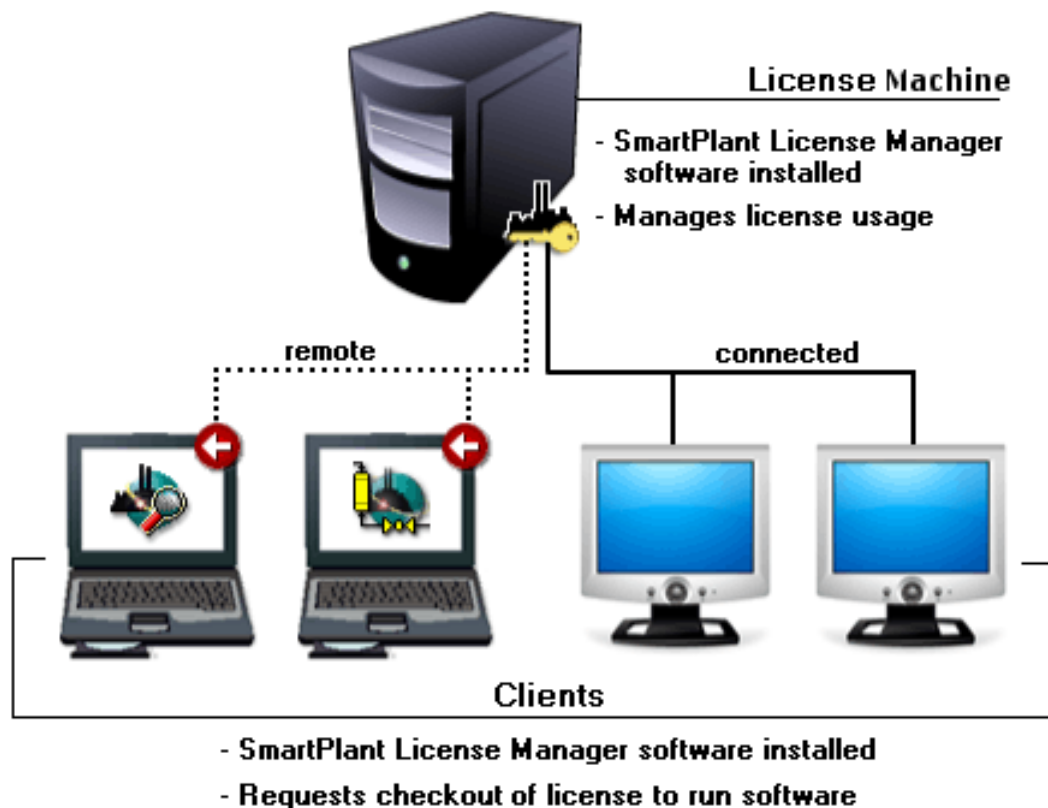
- CAESAR II
- CADWork
- FrameWorks® Plus
- ISOGEN™ (Batch ISOGEN and Interactive ISOGEN)
- PDS®: PDS 3D, PDS 2D, PDS IDM, PDS 2D PID
- PV Elite
- PV Fabricator
- SDNF Import
- Smart 3D to PDMS Exporter
- SmartMarine™ 3D
- SmartMarine 3D Hull
- SmartMarine 3D Layout
- SmartMarine 3D Outfitting
- SmartMarine 3D Tribon
- SmartPlant Construction
- SmartPlant® Electrical Basic (formally SmartPlant Electrical)
- SmartPlant Electrical Detailed Engineering (formally sigraph.CAE)
- SmartPlant Instrumentation (formerly INtools®)
- SmartPlant Isometrics (formerly I-Sketch)
- SmartPlant Materials
- SmartPlant Materials Material Life Cycle Library
- SmartPlant Materials Engineering and Procurement Integration Module
- SmartPlant Materials Material Supply Chain Management Module
- SmartPlant Materials Site Management Module
- SmartPlant Materials Integrator Module
- SmartPlant Materials Supplier Module
- SmartPlant P&ID
- SmartPlant P&ID Design Validation Tool
- SmartPlant P&ID Engineering
- SmartPlant Plant Engineering Solution Bundle

- SmartPlant 3D
- SmartPlant 3D Bundle (Support bundle licensing in SmartPlant 3D, SmartMarine 3D, and SmartPlant 3D Materials Handling Edition)
- SmartPlant 3D Import commands
- SmartPlant 3D Materials Handling Edition
- SmartPlant Layout
- SmartPlant Reference Data
- SmartPlant Review
- SmartPlant Review Publisher
- SmartPlant Spoolgen® (formerly SPOOLGEN)
- SmartSketch®
- SmartSketch Drawing Editor
- SupportModeler™ for PDS
- SupportManager™ for PDS
- TANK

NOTES

- For detailed information about using SmartPlant License Manager with SmartPlant Materials, refer to the *SmartPlant Materials and SmartPlant Reference Data License Handling* document.
- Interference checking commands will use a license each time an interference detection service is processed.
- Some SmartSketch installations do not require licensing. Ask your system administrator or contact Intergraph Support Services if you have a question about SmartSketch licensing requirements.
- This guide includes information and request forms for both SmartPlant Instrumentation versions 7 and higher, which use SmartPlant License Manager, and the earlier versions 6 and lower, which were known as INtools and used their own internal licensing software.

- Refer to the *General Topics FAQ* (on page 76) for answers to licensing setup and configuration questions.



Intergraph software is purchased or leased by the license. For example, if you purchased 30 licenses, you are licensed for 30 processes to concurrently access the various software applications. SmartPlant License Manager keeps a running inventory of how many licenses are in use and how many are available for use.

When an application is started, the application sends a request to one or more SmartPlant License Manager license machines to obtain a license to run the software. If a license of the requested type is available, SmartPlant License Manager grants the license and the application starts. If all licenses of the requested type are in use when you begin an interactive session, the software does not start. If all licenses are in use when a batch job requests a license, the batch job waits until a license is released when a user logs out or another batch job completes.

SmartPlant License Manager requires users to have administrator privileges to change the license usage options (**Display and Modify License Usage**).

The **Print** option on the SmartPlant License Manager Information dialog box saves displayed output to a file and/or prints the output to a selected printer.

SmartPlant Enterprise Product Compatibility Matrix

Additional information about integrated authoring tools and the databases they support is available in the *SmartPlant Enterprise Product Compatibility Matrix* on the Intergraph Process, Power & Marine eCustomer Web site. To view this matrix, browse to the following Web address, and type your eCustomer user name and password:

https://crmweb.intergraph.com/ecustomer_enu. Click **Download Software Updates > Products**, and then click the **PPM Compatibility Matrices** link.

See Also

License Key Request Forms (on page 87)

Quick Installation Workflow (on page 21)

Installation Checklist (on page 22)

Upgrades and License Keys (on page 15)

SmartPlant License Manager Functions (see "*Functions of SmartPlant License Manager: License Machine*" on page 33)

General Topics FAQ (on page 76)

What's New in SmartPlant License Manager

The following changes have been made to SmartPlant License Manager.

Version 2012

- SmartPlant License Manager now supports and includes the following product tags.
 - CADWorx
 - CAESAR II
 - PV Elite
 - PV Fabricator
 - Smart 3D to PDMS Exporter
 - SmartPlant 3D Bundle (Support bundle licensing in SP3D, SM3D and SmartPlant3D Materials Handling Edition)
 - SmartPlant Construction
 - SmartPlant Electrical Detailed Engineering (formally sigraph.CAE)
 - SmartPlant P&ID Engineering
 - SmartPlant Plant Engineering Solution Bundle (support bundle licensing in SPPID, SPI , SPEL Basic and SPEL Detailed)
 - SmartPlant3D Materials Handling Edition
 - Tank
- Smart 3D Bundle (Support bundle licensing in SP3D, SM3D and SmartPlant3D Materials Handling Edition)
- SmartPlant License Manager now supports a new counted type seat for the license key.
- SmartPlant License Manager now supports Microsoft Windows 7 and Microsoft Windows Server 2008 R2

Internationalization

Supporting internationalization in a homogeneous environment is one of the enhancements available in SmartPlant Enterprise. A homogeneous environment uses elements from only a single locale. For example, a German customer running on a German operating system using only German characters and German cultural conventions is a fully supported homogeneous environment configuration.

Homogeneous Environments

When starting a new project, use extra care during installation and configuration to ensure the proper creation and maintenance of homogeneous environments:

- All the computers (servers and clients) within an integrated SmartPlant Enterprise implementation must have the same regional settings, and no one should change the regional settings after the project has started.
- Do **not** cross the decimal locale boundary. This is the most common cause of numeric data corruption and calculation errors. Having users with different regional settings (like with a period versus a comma for the decimal point) causes the software to interpret values unpredictably. For example, a pipe run with a pressure of 35.3 psi can be read by the software as 353 psi to the user with different regional settings. A cable length defined as 39 ft 11,21 inches has been interpreted as 121718910971323 meters when published to an XML file. These incorrect interpretations may be used in internal software calculations and can be impossible to backtrack or correct. Do not change the decimal point character to try to solve an issue. Doing so will only corrupt values in the database or in text files.
- Do **not** cross the character-set locale boundary. For example, the character set boundary between Western (Latin-based) and Eastern Europe (Cyrillic-based), or between Eastern Europe and Japan.
- Create Oracle databases using AL32UTF8 for the database character set and AL16UTF16 for the NLS character set.
- Never modify the NLS_LANG registry entry on an Oracle client. Doing so causes the character data not to convert to Unicode.
- Create Microsoft SQL Server databases with locale-specific collation settings and ensure that all databases have the **same** setting.

Heterogeneous Environments

In contrast, a heterogeneous environment using elements from different, or even multiple locales, **is not supported**. Many customers are currently operating in unsupported heterogeneous environments and are often not aware of that fact. Examples of heterogeneous environments:

- Entering or viewing Japanese data on an US/English operating system
- Using German Regional Settings (where the decimal point is a comma) on a US/English operating system
- Using databases with different character encodings such as CL8MSWIN1251 or JA16SJIS
- Using multiple languages in a project, **especially** when crossing language-group boundaries
- Using an English server with different local language clients

International / Bi-lingual Projects

International bi-lingual projects are possible; however, great care must be used when configuring these environments. Limitations exist and must be properly understood:

- Oracle and MS SQL Server databases can reside on any language operating system, as long as the databases have been created and configured with proper Unicode and collation settings.
- All Microsoft operating systems (Japanese, Russian, German, and so forth) can enter English characters. The reverse, however, is not true in most cases.
- Keyboard-locale can be changed as long as a character-set and code-page boundary is not crossed. For example, English, German, French, and Spanish characters can all be used in the same project because the same Windows® code-page (1252) is used. However, Russian characters (code-page 1251) cannot be used in a US/English environment.
- You must decide which language operating system will be the master for bi-lingual projects.

The following is an example of a Russian-based project:

Companies in the United States and the United Kingdom are working a project with a Russian company and the deliverables (drawings, reports, and so forth) must ultimately be provided in Russian. The companies in the U.S. and the U.K. are working the project using the "master" Russian operating systems (possibly using virtual Russian operating systems running on VMware Workstation). The U.S. and U.K. companies can install and use English Microsoft Office products on the Russian operating system because Office products are globally enabled. If a Russian interface exists for the SmartPlant Enterprise application, then Russian users can use the Russian interface while the English-speaking users would continue to use the US/English interface. English-speaking engineers can enter English characters. Russian-speaking engineers can enter Russian characters.

However, because the Russian locale uses different decimal and character-set locales, everyone (English and Russian engineers) **must** use the Russian decimal symbol which is a comma. For customization purposes, databases can be modified to accommodate new Russian-specific requirements (fields, properties, and so forth.) Using filters, display sets, and other software features, bi-lingual projects can be further customized. Graphic data, reports, and so forth can be created in either or both languages.

CAUTION Do not change regional settings to reflect a U.S. environment in order to resolve problems in a non-US/English homogeneous configuration. Doing this creates a heterogeneous configuration that **will** cause other possibly hidden problems that cannot be corrected. Everyone working on a project must use the same regional settings and character set throughout the life of the project.

Questions and Assistance

Please contact your support representative for assistance and answers to your questions: Intergraph Customer Support (<http://support.intergraph.com> (<http://support.intergraph.com>)).

Terms

License Key – An alphanumeric code entered on a licensing machine that activates a license. The encrypted code tells the licensing machine how many licenses and type(s) that have been leased or purchased and, therefore, how many it can issue. A key can be from 256 to 264 characters long.

License – A contractual right to run a copy of the software. A license key activates a license.

Remote License Mode / Checkout – Running SmartPlant Review and SmartSketch without a network connection to the license machine. You must install and run the SmartPlant License Checkout Utility to use this mode. For more information, refer to Appendix A of this document or refer to the SmartPlant License Checkout Utility User's Guide delivered with SmartPlant Review and SmartSketch.

Site LAN – The Local Area Network (LAN) at a physical site that is associated with a site license machine.

Site – The fixed geographic area surrounding the site license machine.

Site License Machine – The computer where the key is loaded. The key contains a code that tells the license machine how many licenses of each type it can issue. The license machine can be a server or a standard computer.

Setup Options

There are several options for setting up SmartPlant License Manager license machines and clients. Because licensing has little impact on computer performance, any computer can be licensed.

Please contact Intergraph support if you need assistance setting up your license configuration.

See Also

Upgrades and License Keys (on page 15)

Configure and Test Options (on page 38)

General Topics FAQ (on page 76)

License Example

In connected license mode, a SmartPlant License Manager site license machine is configured to manage the SmartPlant License Manager licenses.

For example, XYZ Engineering Ltd. purchases one license key that contains four SmartPlant Review licenses and three licenses of each of its seven modules.

To manage these licenses, the site administrator configures a networked machine to be the SmartPlant License Manager licensing machine, then installs and configures both SmartPlant Review and SmartPlant License Manager on the workstations within the company.

When a user starts SmartPlant Review on an individual workstation, one license for the core SPR product and one license for each installed module is automatically obtained from the SmartPlant License Manager license machine. This means that if this particular workstation has all seven modules installed, then eight (one core and seven module) licenses are used by this workstation. When the SmartPlant Review session ends, the licenses are automatically returned to the SmartPlant License Manager license machine. Those licenses are now available for use by another SmartPlant Review session on a networked workstation.

To continue this example, up to three SmartPlant Review sessions using seven modules each can be running concurrently. A fourth SmartPlant Review session can also run concurrently since there is one remaining core SPR license. However, this fourth session cannot run any modules because all of the module licenses are in use. If this fourth SPR session has modules installed, SmartPlant Review attempts to find licenses for the installed modules then displays a "no licenses available" message and closes the session. To run this fourth session without attempting to obtain licenses for the installed modules, use the SmartPlant Review Select Modules Utility to specify which installed modules you want to license.

See Also

Upgrades and License Keys (on page 15)

Configure and Test Options (on page 38)

General Topics FAQ (on page 76)

SECTION 2

License Requests and Installation

This section provides detailed information about installing SmartPlant License Manager, requesting and installing upgrades, and requesting and installing license keys.

NOTES

- SmartPlant License Manager installation will stop if another instance of SmartPlant License Manager or PD_Lice is currently installed. The following error message displays, **Another version of this product is already installed. Installation of this version cannot continue. To configure or remove the existing version of this product, use Add/Remove Programs on the Control Panel.**
- The SmartPlant License Manager license machine supports NTFS on the root drive only.
- The SmartPlant License Manager license machine will not work if a virtual private network (VPN) is installed. VPN is not a supported configuration for SmartPlant License Manager.
- The SmartPlant License Manager license machine does not support multiple network devices, such as a network interconnect controller (NIC) team, on a single system.
- In a networked configuration where the user's workstations are accessing one or more engineering application machines, install SmartPlant License Manager on a separate node. Do not install SmartPlant License Manager on the application machine. SmartPlant License Manager is not supported when configured on a machine running Windows Terminal Server and/or products such as Citrix Server.

See Also

Installation of SmartPlant License Manager (on page 19)

Upgrades and License Keys (on page 15)

Software Installation that Requires Licensing (on page 18)

Upgrades and License Keys

The SmartPlant License Manager License Request form does not issue an upgrade of the product that requires licensing. An upgrade is not required unless it is needed for work or production purposes.

See Also

License Key Requests for the License Machine (on page 16)

Software Version Compatibility (on page 16)

Configure and Test Options (on page 38)

General Topics FAQ (on page 76)

Software Version Compatibility

For the most current compatibility matrix, refer to the eCustomer Web site (https://crmweb.intergraph.com/ecustomer_enu).

See Also

License Key Requests for the License Machine (on page 16)

License Key Requests for the License Machine

SmartPlant License Manager uses the **Generate Machine ID** command to uniquely identify the license machine where the license will be installed. You must generate a Machine ID on the license machine and send the resulting code to Intergraph before you can obtain a new or updated license key. When you run **Start > Programs > Intergraph SmartPlant License Manager > Generate Machine ID**, a file is created that contains the code needed to send to Intergraph.

IMPORTANT If you upgrade to SmartPlant License Manager version 2010, any previously installed key will not work. You must generate a new machine ID and request a SmartPlant License Manager version 2010 key.

NOTES

- The SmartPlant License Manager license machine is not fully functional when communicating across any network device that obscures the client's IP address. This includes, but is not limited to, NAT routers and VPN solutions. VPN solutions are not supported by SmartPlant License Manager.
- Your generated machine ID will contain your SmartPlant License Manager version number.
- Your generated machine ID will contain the TCP/IP address for the machine used to create the machine ID.
- For SmartPlant License Manager 2010, the machine ID value begins with a value of 6.
- There is a minimum and maximum value for a machine ID. It must be between 128 and 136 characters.
- There is a maximum of 32,767 total seats per license key.

The following describes installing SmartPlant License Manager.

If the license machine does not contain SmartPlant License Manager

1. Install SmartPlant License Manager using the Installation media or download the SmartPlant License Manager product from the eCustomer Web site (https://crmweb.intergraph.com/ecustomer_enu).
2. On your designated license machine, click **Start > Programs > Intergraph SmartPlant License Manager > Generate Machine ID**.
3. Select **Browse** on the **Generate Machine ID** dialog box and define a path and file name for the Machine ID. This file will be a text file.

NOTE If no path is defined, the location of the created Machine ID file defaults to the executable location (for example, C:\Win32App\INGR\SPLM\Bin).

See Also

Software Version Compatibility (on page 16)

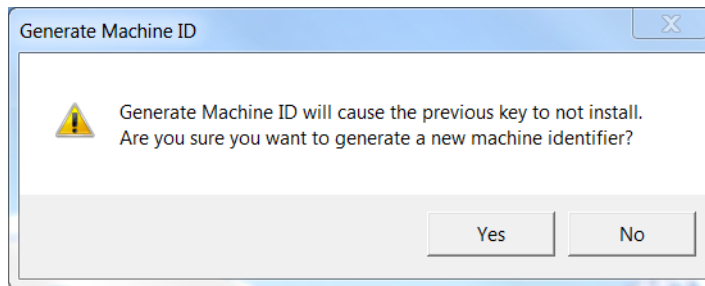
License Key Requests

After generating the Machine ID for the license machine, send the text file and the completed License Key Request form in an e-mail message to Intergraph using this address: ppmserv@intergraph.com. An Intergraph Software Delivery representative will e-mail your key to you within 48 hours of receipt of your request.

You can also call Intergraph Process, Power & Marine (PPM) Support. In the United States, call 1-800-766-7701 for the Global Order Desk. (Follow Support and Sales phone links.)

CAUTIONS

- When you remove and re-install SmartPlant License Manager, you must generate a new machine ID and request a new license key. You cannot reuse the previously generated machine ID.
- If you remove SmartPlant License Manager or remove the existing key after generating and sending the Machine ID to Intergraph, the new license key you receive from Intergraph from the previous SmartPlant License Manager installation will not install.
- If you re-run the **Generate Machine ID** command, it will invalidate the existing Machine ID. The following warning displays when you re-run the **Generate Machine ID** command. Note that this warning message displays when you use the command from the Start menu but not from the Command Prompt (when entering *splmGenMachineID.exe*).



If you have already sent the Machine ID in an e-mail message to Intergraph but not yet received your license key, select **No** to not generate a new Machine ID. Otherwise, the key you receive from Intergraph will not install.

If you generate a new Machine ID after installing the license key, the license machine will continue to work. However, you will have to submit this new Machine ID to Intergraph when requesting a new or updated license key.

The number of licenses covered by a license key is the same as the total number of licenses that you purchased or leased for each LAN ID listed for that license machine. Intergraph records are used to determine the correct number of licenses for the key.

In cases where the system will not be connected to a network, such as running a laptop, the SmartPlant License Manager license machine and the client are the same machine. For example, a laptop would be supported as a license client. The *Select a License Machine for a Client* (on page 39) section explains how to specify the laptop name as the SmartPlant License Manager license machine. A separate license key is required unless you are using SmartPlant Review or SmartSketch and check out a license for use on your laptop.

eLicense and Generating SmartPlant License Manager Keys

Customers using the eLicense web site to manage their licenses receive them immediately by e-mail. If you do not have access to the eLicense web site, please contact your Purchasing Agent or Engineering Manager to request read and/or write privileges.

1. Log onto eLicense (<https://ppmapps.intergraph.com/ELICENSE/> (<https://ppmapps.intergraph.com/elicense/>)).
2. Select your lease (**OrderID**) using the search option. You can apply filters to your search to select the lease.
3. Click the **Show Results** button.
4. You are now on the **Order Summary** screen. Click the **Edit Server** button.
5. The **Server** screen displays. In the **Server Type** column, select the drop-down list and select **MachineID**. To generate SmartPlant License Manager keys, select **MachineID**.
6. Copy the Machine ID from the email and paste it into the **MachineID** column on the **Server** screen.

The ServerType determines the key that will be generated. The product determines which ServerType is selected.

DiskSerialNbr = SPF

DomainName = XPDA

Machine ID = SPLM keys

HostName = SPF, Marian, INtools 6.0 or earlier

7. Using the scroll bar at the bottom of the **Server** screen, scroll to the right to show the **Change Seat Count** button.
8. You are now ready to generate the SmartPlant License Manager key. Click the **Generate Key** button.
9. On the **Generate Keys** screen, select **SPLM** in the **Key Type** column.
10. If the export restrictions are accepted, click **Next**.
11. Select your country from the **Country** drop-down list.
12. Click the **Key Generate** button. The key has now been generated.

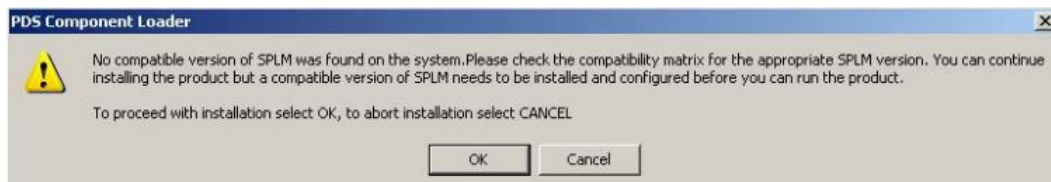
See Also

Key-in Commands Overview (on page 89)

Alphabetical List of Key-in Commands (on page 89)

Software Installation that Requires Licensing

Install SmartPlant License Manager on every machine before installing any of the licensed products. During setup, products automatically search for SmartPlant License Manager on the machine. If it is not installed, a message box displays as shown in the following example.



See Also

Software Installation Using the Web (on page 23)

SECTION 3

Installation of SmartPlant License Manager

Before beginning the product installation, refer to the delivered SmartPlant License Manager readme file for the latest product installation updates. The readme file is delivered in the top level product folder of the product media. Be sure you have the latest version of the SmartPlant License Manager software before beginning the installation. If you do not have the latest version of the software, you can install it using <http://ppmapps.intergraph.com/elicense> (<http://ppmapps.intergraph.com/elicense>).

NOTE SmartPlant License Manager 2010 (v11) can be upgraded to SmartPlant License Manager 2012 (v12). Any existing license key will be invalidated after the upgrade to SmartPlant License Manager 2012 (v12). You will also need to generate a new computer ID and request a new key. If you upgrade the SmartPlant License Manager 2010 (v11) license computer to a SmartPlant License Manager 2012 (v12) client by mistake, you will have to un-install the SmartPlant License Manager client and reinstall SmartPlant License Manager 2012 (v12) license computer.

Hardware Configurations

The SmartPlant License Manager licensing computer software should be installed on a stable, single node, hardware configuration (such as a simple PC), with a static IP address, because license key installation and license seat usage authentication depends on the information gathered from the physical hardware. Any automated changes that cause the hardware information not to match with the information used to generate the license key will result in a failure of the authentication process.

Virtual (including VMware®), shadowed, mirrored, dynamic, or distributed hardware configurations cannot be used as a SmartPlant License Manager licensing computer. This includes terminal (application) servers, networked and distributed storage management systems, and so forth. When these specialized systems occur in the user's network, the SmartPlant License Manager Server licensing computer should be installed on a separate dedicated hardware configuration system. The SmartPlant License Manager licensing computer should be situated on the user's network where it can be accessed by all systems that are running application software that relies on the SmartPlant License Manager licensing computer for license management.

Multiple SmartPlant License Manager licensing computers can be used in the user's network as long as each system is a unique hardware system/installation. If SmartPlant License Manager licensing computers are cloned after the license key has been installed, then the license management will fail on the cloned system. Each SmartPlant License Manager licensing computer requires its own unique license key.

NOTES

- RAID (redundant array of independent disks) and SAN (storage area networks) are not supported on a SmartPlant License Manager license computer.
- The license computer must have the same version (or later) of SmartPlant License Manager installed as any client computers. In other words, you cannot use a newer version on a client computer to retrieve a license from an older version of SmartPlant License Manager on the

Installation of SmartPlant License Manager

licensing computer. The license computer must have the same version (or a newer version) installed than the clients.

IMPORTANT You must log in as Administrator to install this software.

1. Insert the Intergraph SmartPlant License Manager media. If the media does not start automatically, double-click **Setup.exe** in the root folder of the media.
NOTE During SmartPlant License Manger installation automatically turns on a product usage log file in C:\Win32App\Ingr\SPLM\bin\loggingfileV12.txt. You can change this location and name of this file as it can grow to be a large file. If you stop and restart logging, you need to define the output location.
This file can grow very large and users can redefine the location and name of this file.
2. Select **SmartPlant License Manager Installation**.
3. Click **Next** on the **Welcome to the InstallShield Wizard for SmartPlant License Manager** page.
4. Enter your name and company name in the **User Name** and **Company Name** fields on the **Customer Information** page. Click **Next**.
5. On the **Software License Agreement** page, select your country from the list and click **Display** to view the license agreement.
NOTE The license agreement is delivered as a PDF file.
6. Carefully read the license agreement. Close the PDF document, and click **Yes** on the **License Agreement** page to accept the terms.
7. Select either **License Client** or **License Machine**.
8. On the **Choose Destination Location** page, click **Next** to install SmartPlant License Manager in the default location. If you want to install the software in another location, click **Change** and select the new location.
NOTE It is recommended that you install SmartPlant License Manager using a path that contains no spaces, such as c:\win32app\Ingr (the default path).
9. Click **Install** on the **Ready to Install the Program** page. A status bar displays the progress of the installation on the **Status Setup** page.
10. Click **Finish** on the **InstallShield Wizard Complete** page to complete installation of SmartPlant License Manager.
NOTE Do not delete any files that are created during installation or as a result of using SmartPlant License Manager. Removal of any files causes the license system to fail and can require install, repair, or possibly removal and re-install of SmartPlant License Manager.
11. Add `pdlice.exe` to both the license computer and the client computer after installing of SPLM. You may need to remove `pdlice.exe` and re-add it if you uninstall and reinstall SPLM to upgrade SPLM from previous version to a current version. Otherwise, you may receive a **Connection timed out** error message when you start your application. You may also see the same error in your scavenging log file.

See Also

Software Installation Using the Web (on page 23)

Silent Mode and SmartPlant License Manager Installation (on page 25)

Quick Installation Workflow

Use this workflow for all products that require SmartPlant License Manager concurrent licensing. The System Administrator completes or gives guidance about most of these steps. Administrator rights are required to install and setup SmartPlant License Manager. If you need more information, follow the detailed procedures in the other sections. For more information, refer to *Frequently Asked Questions (FAQ)* (on page 75), *Functions of SmartPlant License Manager* (see "*Functions of SmartPlant License Manager: License Machine*" on page 33), and *Troubleshooting and Error Messages* (see "*Appendix G: Troubleshooting and Error Messages*" on page 119).

NOTE Please refer to the delivered SmartPlant License Manager Readme for all the latest product installation updates.

1. Designate a computer as the SmartPlant License Manager license computer. This computer must be on the network and have a name with no spaces and a static IP address.
2. Install SmartPlant License Manager on the license computer and generate a computer ID.
3. Request a license key from the Intergraph Order Desk or generate a license key using eLicense.
4. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager**.
5. Click **Install and Remove** and **Install License Key** commands.
6. Click **License Machine** and enter the license key you received. If the license key installs correctly, SmartPlant License Manager software automatically closes.
7. Next, install SmartPlant License Manager on each client computer.
8. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager**.
9. Click **Configure and Test** and **Select License Machine for Client**.
10. Enter the SmartPlant License Manager computer name. Exit SmartPlant License Manager.
11. Install the software that requires licensing. For example, SmartPlant Review, PDS or SmartPlant P&ID. Use that product's installation and configuration guides to install each product.
12. Use the **Test Seat Reservation** and **Test Seat Release** commands to ensure that communication is working between the license computer and the client. Successful messages show appropriate communication.
13. Click **Test Seat Reservation**. Select the license computer name and **Batch** or **Interactive** mode. Note the seat number in the SmartPlant License Manager Information dialog box to enter.
14. Click **Test Seat Release** and enter the seat designated in the SmartPlant License Manager Information dialog box.
15. Start the software product that requires SmartPlant License Manager licensing.
16. For information about firewalls, please refer to *Appendix E: Microsoft Windows Firewall and SmartPlant License Manager* (on page 111).

See Also

Upgrades and License Keys (on page 15)
Configure and Test Options (on page 38)
General Topics FAQ (on page 76)

Installation Checklist

For the recommended installation workflow, refer to the installation checklist named *SPLMInstall_Checklist.xls*. The file is available on the product media in the CDSetup\Help folder. A file named *SPLMInstall_Checklist.pdf* is also available in the same folder.

See Also

Upgrades and License Keys (on page 15)

Configure and Test Options (on page 38)

General Topics FAQ (on page 76)

PDS and SmartPlant License Manager Installation

Follow this procedure for PDS only. For all other products, follow the procedures in *SmartSketch and SmartPlant License Manager Installation* (on page 22) or *SmartPlant Products and SmartPlant License Manager Installation* (on page 23).

1. Insert the PDS media into the drive.
2. Navigate to the SmartPlant License Manager directory on the media.
3. Double-click setup.exe. The **SmartPlant License Manager Installation Welcome** dialog box appears.
4. Click **Continue**. The Software License Agreement appears.
5. Read the license agreement and click **I Agree**. The Intergraph **SmartPlant License Manager Setup** dialog box appears.
6. Select either **License Client** or **License Machine**.
7. Select a folder and click **Continue**.

The Intergraph SmartPlant License Manager software is now installed. You are ready to run SmartPlant License Manager on the client machines to point them to a license on the license machine.

NOTE When you start the PD_XPDA product, a PDS 3D license is used.

SmartSketch and SmartPlant License Manager Installation

Follow this procedure for SmartSketch only. Refer to *PDS and SmartPlant License Manager Installation* (on page 22) or *SmartPlant Products and SmartPlant License Manager Installation* (on page 23) for installation details about other SmartPlant products.

NOTES

- SmartSketch Standalone does not require SmartPlant License Manager to be installed.
- If you currently have SmartPlant License Manager installed, you must remove the existing product before you install the product again. If you re-install SmartPlant License Manager, you must request new keys from Intergraph for the license machine.

SmartPlant Licensing Manager must be installed on every machine running the products it licenses. If it is not installed, the products will not operate. A message box asking to install SmartPlant License Manager appears at the end of a product's Setup if SmartPlant Licensing Manager is not on the machine. Click **Yes** to install SmartPlant Licensing Manager from the product media or (for some products) from the Intergraph eCustomer Web site.

1. Insert the SmartPlant License Manager media into the drive.
2. In the /SmartPlant License Manager folder, double-click setup.exe. The SmartPlant License Manager Installation Welcome dialog box appears.
3. Click **Continue**. The Software License Agreement appears.
4. Read the license agreement and click **I Agree**. The **Intergraph SmartPlant License Manager Setup** dialog box appears.
5. Select either **License Client** or **License Machine**.
6. Select a folder and click **Continue**. The SmartPlant License Manager software is now installed. You are ready to run SmartPlant License Manager on the client machines to point them to a license on the license machine.

SmartPlant Products and SmartPlant License Manager Installation

Follow this procedure for SmartPlant products that require SmartPlant License Manager. Refer to *PDS and SmartPlant License Manager Installation* (on page 22) or *SmartSketch and SmartPlant License Manager Installation* (on page 22) for installation details for other products.

NOTE If you currently have SmartPlant License Manager installed, you must remove the existing product before you install the product again. If you re-install SmartPlant License Manager, you must request new keys from Intergraph for the license machine.

SmartPlant Licensing Manager must be installed on every machine running the products it licenses. If it is not installed, the products will not operate. A message box asking to install SmartPlant License Manager appears at the end of a product's Setup if SmartPlant Licensing Manager is not on the machine. Click **Yes** to install SmartPlant Licensing Manager from the product media or (for some products) from the Intergraph eCustomer Web site.

1. Insert the SmartPlant License Manager media into the drive.
2. In the /SmartPlant License Manager folder, double-click setup.exe. The SmartPlant License Manager Installation Welcome dialog box appears.
3. Click **Continue**. The Software License Agreement appears.
4. Read the license agreement and click **I Agree**. The **Intergraph SmartPlant License Manager Setup** dialog box appears.
5. Select either **License Client** or **License Machine**.
6. Select a folder and click **Continue**. The SmartPlant License Manager software is now installed. You are ready to run SmartPlant License Manager on the client machines to point them to a license on the license machine.

Software Installation Using the Web

In addition to installing from CDs, some products can be installed from the Intergraph eCustomer Web site. This example uses SmartPlant License Manager, but all products are available on the Products List. Check to see if your product can be installed from the Web site.

1. Log in as Administrator.
2. Go to the eCustomer web site: https://crmweb.intergraph.com/ecustomer_enu
3. Enter your user name and password.

NOTE If you are a new customer or do not have a user name and password, click the **I'm a New User** link to obtain your user name and password.

4. Select the **Service** tab.

Installation of SmartPlant License Manager

5. Click **Download Software Updates**.
6. Click **Products**.
7. Select SmartPlant License Manager.
8. Click **Save** to download the SmartPlant License Manager Zip file to your computer.
9. Open the SmartPlant License Manager Zip file and double-click setup.exe.
10. After the files are extracted to your computer, click **Continue** to install SmartPlant License Manager.
11. Read the Software License Agreement carefully, and if you agree to the specified terms, click **I Agree**.
12. Select either **License Client** or **License Machine**.
13. Specify the location where you want SmartPlant License Manager installed and click **Continue**.
14. When the installation process is complete, click **OK**.
15. Follow the instructions in the *Running SmartPlant License Manager* to configure SmartPlant License Manager.

See Also

Software Installation that Requires Licensing (on page 18)

Upgrades and License Keys (on page 15)

Laptops and SmartPlant License Manager Installation

1. Download the latest SmartPlant License Manager software from the eCustomer Web Site.
(<https://crmweb.intergraph.com/ecustomer>
(https://crmweb.intergraph.com/ecustomer_enu/start.swe?SWECmd=Start&SWEHo=crmweb.intergraph.com))
2. Install SmartPlant License Manager in the default folder.
3. Disable all the network connections, except for the Loopback Adapter, before generating the Machine ID.
4. Select Generate Machine ID from the Intergraph SmartPlant License Manager program group.
NOTE Do not attempt to generate the Machine ID more than once.
5. Send the Machine ID output to Intergraph to request a license key.

NOTE If all the previous steps described in this section are performed correctly, SmartPlant License Manager works with or without a network connection. No extra step is required when the laptop is connected to a network.

See Also

Appendix C: Installing SmartPlant License Manager on a Standalone System (on page 103)

Appendix E: Microsoft Windows Firewall and SmartPlant License Manager (on page 111)

Silent Mode and SmartPlant License Manager Installation

To silently install SmartPlant License Manager Client, use the following steps.

NOTE If UAC is on, you must have administrative privileges in the Command Prompt window to successfully complete a silent install or silent uninstall. Select **Start > Programs > Accessories**. Select and right-click **Command Prompt**. Click **Run as administrator**. If you do not have administrative privileges, the silent install or silent uninstall will fail. You will not receive an error message in the **Command Prompt** window.

1. Open a **Command Prompt** window from the **Start** menu. You must have administrative privileges to complete the following steps.
2. At the command prompt, type:

```
<path>\SPLM\setup.exe /s /v"SLAACCEPT=Yes SPLMSETUPTYPE=Client /qn"
```

To silently install SmartPlant License Manager License Machine, use the following steps.

1. Open a **Command Prompt** window using the **Start** menu.
2. At the command prompt, type:

```
<path>\SPLM\setup.exe /s /v"SLAACCEPT=Yes  
SPLMSETUPTYPE=LicenseMachine /qn"
```

For example, \\machinename\SmartPlant License
Manager\SPLM2012\SPLM\Setup.exe /s /v"SLAACCEPT=Yes
SPLMSETUPTYPE=LicenseMachine /qn"

To silently uninstall, enter the following command.

```
<path>\SPLM\setup.exe /s /x /v /qn
```

NOTES

- If `SLAACCEPT=Yes` is not included on the command line, an error log will be created in the TEMP folder. You can find an example file named `MSI63ffd.LOG` in the TEMP folder. It contains an error similar to the following: "The software license agreement has not been accepted. *** Logging stopped: 8/19/2009 13:12:12 ***"
- If the `SPLMSETUPTYPE=` property is not used on the command line, the client will be installed by default.

Upgrades for SmartPlant License Manager

An upgrade from SmartPlant License Manager 2010 (v11) to SmartPlant License Manager 2012 (v12) is available. Changes to SmartPlant License Manager 2012 will have little to no effect on how users operate on a daily basis.

You do not need to upgrade to SmartPlant License Manager 2012 unless an application is requiring SmartPlant License Manager 2012. SmartPlant License Manager 2012 on the license machine supports all current and previous versions of SmartPlant License Manager on client machines.

New features for SmartPlant License Manager 2012 include the following.

- A new counted type seat for the license key is now available for use by some products.
- Supports more than 100 product tags.
- Certified on Microsoft Windows 7 and Windows Server 2008 R2.
- Added options for **Test Seat Reservation** and **Test Seat Release** using the Current User registry settings to obtain the list of license machines.
- More products are now supported by SmartPlant License Manager. Please check the *SPLM PPM Compatibility Matrix* on eCustomer for the latest SPLM supported products.

Before Upgrading to SmartPlant License Manager 2012 (v12)

IMPORTANT You must complete the following before you can upgrade SmartPlant License Manager.

- If you currently have SmartPlant License Manager 2010 (v11.00.17.00) installed on your license machine, you can upgrade to SmartPlant License Manager 2012 (v12) directly, but you must generate a new Machine ID and request a new key after the upgrade.
- If you currently have SmartPlant License Manager 2008 (v10) or previous version installed on your license machine, you must uninstall existing SmartPlant License Manager version prior to installing SmartPlant License Manager 2012 (v12). You must generate a new Machine ID and request a new license key after the upgrade.
- To minimize downtime during the upgrade, you can pre-request a SmartPlant License Manager 2012 license key for your SmartPlant License Manager v11 or older version of License Machine. Please refer to the detailed instructions in this document.
- SmartPlant License Manager 2012 v12 License Machine supports all previous versions of SmartPlant License Manager on Client Machines.
- SmartPlant applications may experience seat releasing errors while the SmartPlant License Manager license machine is being upgraded. This is normal and should not happen after a SmartPlant License Manager 2012 (v12) key is installed on the upgraded license machine.

Upgrading to SmartPlant License Manager 2012

Upgrading to SmartPlant License Manager 2012 License Machine

This section describes three scenarios when upgrading to SmartPlant License Manager 2012 (v12) on your license machine. Please read these scenarios thoroughly before proceeding.

Scenario 1: New Install - If you have not installed SmartPlant License Manager on your License Machine yet

1. Run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps.
2. Choose to install SmartPlant License Manager License Machine.
3. After you have installed SmartPlant License Manager, click Start > All Programs > Intergraph SmartPlant License Manager > Generate Machine ID.
4. Select **Browse (...)** button and define the path and filename for the Machine ID.
5. Send your Machine ID file to ppmserv@intergraph.com or your regional office and request a SmartPlant License Manager license key.

NOTE If you have access to eLicense you can generate SmartPlant License Manager key yourself <https://ppmapps.intergraph.com/ELICENSE/Logon.aspx>

6. Open SmartPlant License Manager on your license machine and install your license key.

Scenario 2: Upgrade before a new SmartPlant License Manager 2012 Key is Requested

If you are not concerned waiting for a SmartPlant License Manager 2012 key, or if you have eLicense site access to cut your own SmartPlant License Manager keys, you can follow the instructions below.

If you have SmartPlant License Manager 2010 (v11) installed on your license machine, use the following steps.

1. Run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps.
2. The setup will perform the upgrade.
3. After you have upgraded SmartPlant License Manager, click Start > All Programs > Intergraph SmartPlant License Manager > Generate Machine ID.
4. Select **Browse (...)** button and define the path and filename for the Machine ID.
5. Send your Machine ID file to ppmserv@intergraph.com or your regional office and request a SmartPlant License Manager license key.

NOTE If you have access to eLicense you can generate SmartPlant License Manager key yourself <https://ppmapps.intergraph.com/ELICENSE/Logon.aspx>

6. Open SmartPlant License Manager on your license machine and install your license key.

If you are running SmartPlant License Manager 2008 (v10) or older version on your license machine.

1. Uninstall existing SmartPlant License Manager on your license machine
2. Run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps.
3. Choose to install SmartPlant License Manager License Machine.

Installation of SmartPlant License Manager

4. After you have installed SmartPlant License Manager, click **Start > All Programs > Intergraph SmartPlant License Manager > Generate Machine ID**.
5. Send your Machine ID file to ppmserv@intergraph.com or your regional office and request a SmartPlant License Manager license key.
NOTE If you have access to eLicense you can cut a key yourself. Use the following link.
<https://ppmapps.intergraph.com/ELICENSE/Logon.aspx>
6. Open SmartPlant License Manager on your license machine and install your license key.

Scenario 3: Pre-request a new SmartPlant License Manager 2012 Key before the Upgrade

You can pre-request SmartPlant License Manager 2012 (v12) license key before upgrading your current SmartPlant License Manager v11 (or older versions) to SmartPlant License Manager 2012 to keep your downtime at a minimum.

1. Download SmartPlant License Manager 2012 Generate Machine ID executable (splmGenMachineID_2012.exe) from the eCustomer web site (link to <http://crmweb.intergraph.com> and select Service > Download Software Updates > Products > SPLM) or from the eLicense web site.
2. Copy the splmGenMachineID_2012.exe to a temporary folder on your current SmartPlant License Manager license machine (e.g. c:\temp)
3. Open Command Prompt, go to the directory where you saved the splmGenMachineID_2012.exe (for example, c:\temp folder), then run the executable with the output file as an argument. For example,
splmGenMachineID_2012.exe c:\temp\v12machineID.txt
NOTE If you are running Microsoft Windows 7 or Windows Server 2008, you must right-click on Command Prompt, and then choose **Run as administrator** option to open it.
4. The Machine ID file should be created in your specified output location. Send the machine ID file to ppmserv@intergraph.com or to your regional office to request SPLM v12 key.
NOTE If you have access to eLicense you can also cut a key yourself
<https://ppmapps.intergraph.com/ELICENSE/Logon.aspx>
5. Do *NOT* run the **Generate Machine ID** utility.
6. After you have received your SmartPlant License Manager 2012 license key, upgrade your SmartPlant License Manager License machine:
 - If your license machine is currently running SPLM 2010 (v11), you need to over-install SmartPlant License Manager 2012 (v12). You can run setup.exe from your SmartPlant License Manager 2012 installation media and follow the upgrade steps.
 - If your License Machine is currently running SmartPlant License Manager 2008 (v10) or older version, you must uninstall the existing SmartPlant License Manager first, then run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps to install SmartPlant License Manager 2012.
7. Do *NOT* run the **Generate Machine ID** utility.
8. Open SmartPlant License Manager on your license machine and install your license key.

Upgrading to SmartPlant License Machine 2012 Client

This section describes two scenarios when upgrading to SmartPlant License Manager 2012 (v12) on your client machine. Please read these scenarios thoroughly before proceeding.

Scenario #1: New SmartPlant License Manager Installation - If you have not installed SmartPlant License Manager Client

1. Run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps.
2. Choose to install SmartPlant License Manager Client.
3. After you have installed SmartPlant License Manager Client, right-click on SmartPlant License Manager then open with **Run as administrator** option.
4. Select **Configure and Test** then click **Select**.
5. Click **Select License machine for Client** then click **Select**.
6. Type in your SmartPlant License Manager 2012 License Machine node name or IP.
7. Click OK, and then click Close to exit out SmartPlant License Manager.

Scenario #2: Upgrade an existing SmartPlant License Manager Client

If you are running SmartPlant License Manager 2010 (v11) on your Client machine, use the following steps.

1. Run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps
2. The setup will perform the upgrade.
3. After you have upgraded SmartPlant License Manager Client, right-click on SmartPlant License Manager then open with **Run as administrator** option.
4. Select **Configure and Test** then click **Select**.
5. Click **Select License machine for Client** then click **Select**.
6. Type in your SmartPlant License Manager 2012 License Machine node name or IP.
7. Click **OK**, and then click **Close** to exit out SmartPlant License Manager.

If you are running SmartPlant License Manager 2008 (v10) or older version on your Client machine, use the following steps.

1. Uninstall existing SmartPlant License Manager on your client machine
2. Run setup.exe from your SmartPlant License Manager 2012 installation media and follow the steps.
3. Choose to install SmartPlant License Manager Client.
4. After you have installed SmartPlant License Manager Client, right-click on SmartPlant License Manager then open with **Run as administrator** option.
5. Select **Configure and Test** then click **Select**.
6. Click **Select License machine for Client** then click **Select**.
7. Type in your SmartPlant License Manager 2012 License Machine node name or IP.
8. Click OK, and then click Close to exit out SPLM.

Recommendations

The following information is provided for use when upgrading to SmartPlant License Manager 2012 (v12).

- SmartPlant applications may experience seat releasing errors while the SmartPlant License Manager License machine is being upgraded. This is normal and should not happen after a SmartPlant License Manager 2012 (v12) key is installed on the upgraded license machine.
- Error messages may be displayed indicating failure to return the seats to the upgraded license machine. These errors can be ignored.
- Do not run the Generate Machine ID command again after you submitted your machine ID file to request a SmartPlant License Manager license key. Running generate machine ID again will invalidate the machine ID file you submitted and you will not be able to install the key generated based on that machine ID file.
- If you have further questions please contact 1-800-766-7701 or open a service request via the eCustomer Web site: <http://crmweb.intergraph.com/> <http://crmweb.intergraph.com/>.

About SmartPlant License Manager

After you have installed SmartPlant License Manager, you can easily find the installation date, version number, release date, the user name, and node name.

1. On the main SmartPlant License Manager dialog, click **Help > About SmartPlant License Manager** to display the **About SmartPlant License Manager** information dialog box.

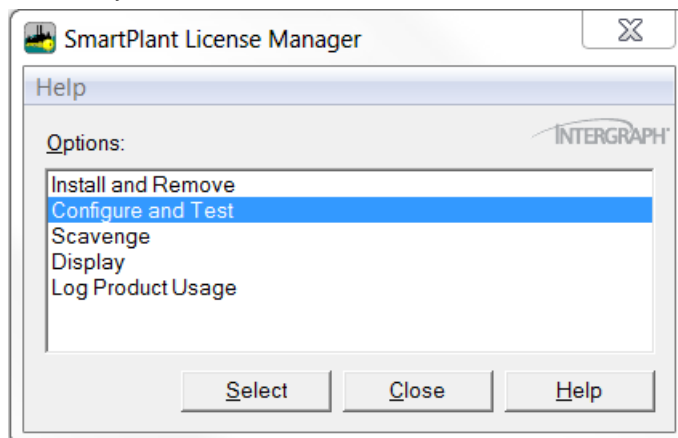
See Also

Starting SmartPlant License Manager (on page 30)

Starting SmartPlant License Manager

The **Start > Programs > Intergraph SmartPlant License Manager** command contains the **Generate Machine ID** and **SmartPlant License Manager** icons.

1. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager** to begin using SmartPlant License Manager. The **SmartPlant License Manager** dialog box appears. Intergraph recommends reading the Readme file included with every release.



See Also

Select a License Machine for a Client (on page 39)

Install a License Key (on page 34)

SECTION 4

Functions of SmartPlant License Manager: License Machine

The following sections describe administrative tasks for the license machine including configuring and testing licenses, monitoring license usage, returning unused licenses, and so forth. For information about client options, refer to *Functions of SmartPlant License Manager: Client* (on page 60).

See Also

Scavenge Options (on page 49)

Configure and Test Options (on page 38)

Display Options (on page 52)

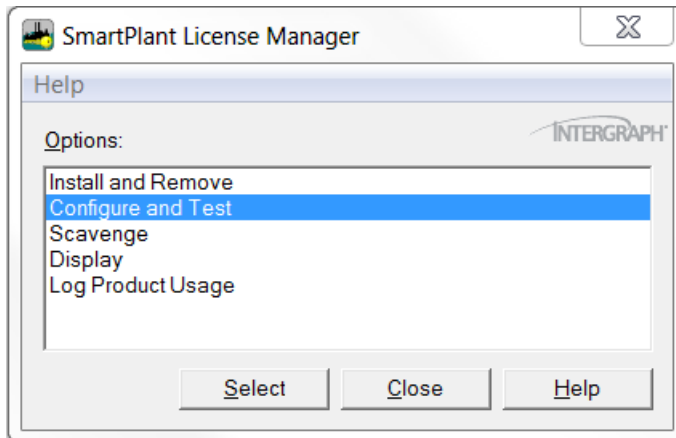
Install and Remove Options

When the SmartPlant License Manager is successfully installed, you can install a license key or stop and restart your licensing service. This section covers installing a license key, installing and starting or stopping and removing Licensing Service.

NOTE If a machine has been used as a SmartPlant License Manager client, and then it is decided to use the machine as a SmartPlant License Manager license machine, the SmartPlant License Manager software must be removed first.

Use the following procedure to access the **Install and Remove Options** dialog box.

- Click **Install and Remove** on the **SmartPlant License Manager** dialog box. The **Install and Remove Options** dialog box displays.



See Also

Install a License Key (on page 34)

Install and Start the Licensing Service (on page 36)

Stop and Remove the Licensing Service (on page 37)

Install a License Key

After SmartPlant License Manager is installed and you have received your license key from Intergraph, you are ready to install the license key on the license machine. The key can be installed any time during the 72-hour period that begins with the installation date you provide. For example, if you request 01-July-2008 as the installation date, the key can be installed on 01-July, 02-July, or 03-July.

This command requires administrator privileges on the license machine.

NOTES

- For SmartPlant License Manager 2010, the license key will begin with a value of 2.
- License machines with a high volume of network traffic, including seat requests and seat returns, should split the licenses onto multiple machines for better licensing performance.
- In a Command Prompt window, you can type *pdlice -a license_key*, where *license_key* is the series of alphanumeric characters that make up the license key.
- Do not remove an existing license key if you are using SmartPlant License Manager 8.0 or later. If you have already requested a new license key by sending your Machine ID, you should not remove the existing license key. Otherwise, the new license key obtained from Intergraph will not install and you need to re-generate the machine ID and request another license key.
- You will not be able to install a license key while scavenging is running. The following error message displays: **The license key could not be installed while scavenge is running. Please try again.**

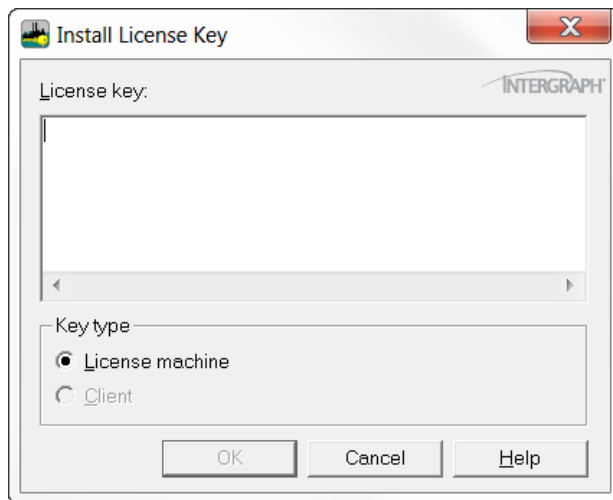
The number of characters in a license key is determined by the number of product tags actually in the license key. For example, a license key could look similar to the following.

```
0yeibppymfahfqhqrmeedsn7r6fqmfnfdaalwnowjnodrdh3wbvkkmn7r8jde6dfnfwnd7  
jenm7dbf79sdiqn43jmcjwl7c3bj53ifq8hsfdcth5t9ragaqrbg9v9silorjmvbsgclfi3  
tjdpbbp9njcinp88n5i85udv8qn8vpjjlledpm8nbc39flnlkc6doktcd47enofaqfdps85  
cbmhriijdfy95nkh55h7j3egopledffcldhpm85ycf58vfl8cjf9f1pjdgbobltdt1
```

Use the following procedure to install your license key.

1. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager** to start SmartPlant License Manager. The SmartPlant License Manager dialog box appears.
2. Click **Install and Remove** on the **SmartPlant License Manager** dialog box.

3. Click **Install License Key**. The **Install License Key** dialog box appears.



4. Enter your license key in the **License key** field. The **OK** button activates when you enter a valid license key.

NOTES

- You can copy and paste the license key into the **License Key** field. You must select the license key, copy the selected key, and paste the key into the **License Key** field. You cannot double-click the license key to select it.
 - The SmartPlant License Manager software will not display your key once it is successfully installed. Please keep the license key e-mail message from Intergraph (in case you need to refer to your license key at a later date).
5. The type of key is automatically defined as **License machine**.
- NOTE** After a machine ID is generated successfully, all license machine options will be available. Also, if you use the `pdlice -c` command, some of the license machine options are no longer available. When you use the **Generate Machine ID** command, all license machine options are again available.
6. Click **OK**. If the key installs correctly, SmartPlant License Manager automatically closes.
 7. Open SmartPlant License Manager again and verify that the key installed correctly. Click **Show Key Status** on the **Display Options** dialog box. For more information, refer to *Show Key Status* (on page 53).
 8. Be sure to close the application prior to reserving a license.

After SmartPlant License Manager verifies the license key, the license database is installed. Then you can begin setting up the client computers that will be reserving licenses.

For information about setting up client computers, refer to *Configure and Test Options* (on page 38).

See Also

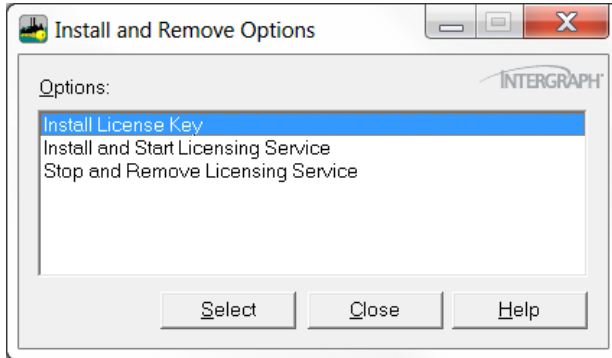
Select a License Machine for a Client (on page 39)

Install and Start the Licensing Service

Use the following procedure to install and start your license service.

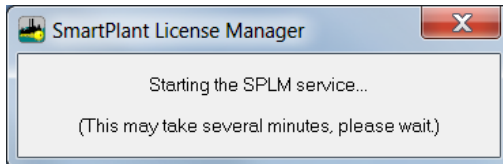
NOTES

- This command adds the service. To remove the service, refer to *Stop and Remove the Licensing Service* (on page 37).
 - If you install SmartPlant License Machine client on Windows Vista, Windows 7, Windows Server 2008, or Windows Server 2008 R2 and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
1. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager** to start SmartPlant License Manager. The **SmartPlant Licensing Manager** dialog box appears.
 2. Click **Install and Remove** on the **SmartPlant License Manager** dialog box. The **Install and Remove Options** dialog box appears.

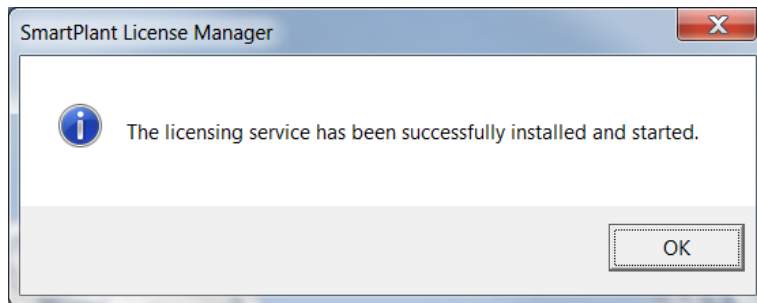


3. Click **Install and Start Licensing Service**.
4. Click **Select**.

The system displays a message box indicating that the SmartPlant License Manager service is starting.



The system displays a message box indicating that the license service is successfully installed and started.



5. Click **OK** to dismiss the information dialog box.

See Also

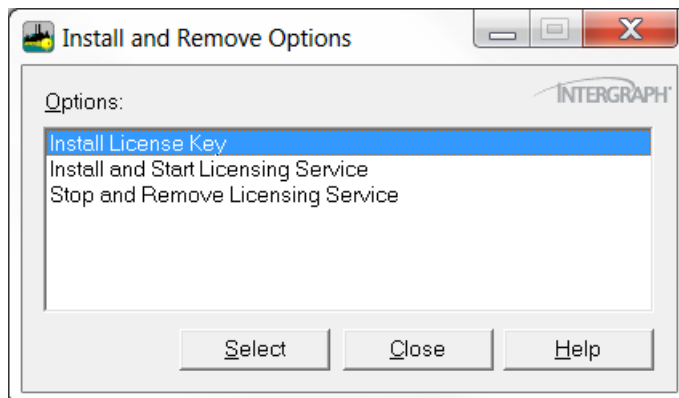
Install a License Key (on page 34)

Stop and Remove the Licensing Service

Use the following procedure to stop and remove your license service. The command stops the software without leaving any process active.

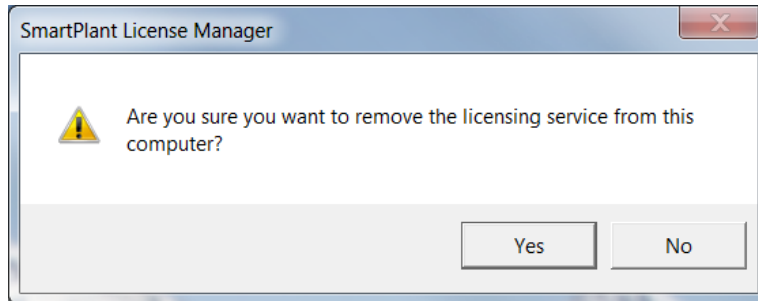
NOTES

- Using this command removes the service. To add the service, refer to *Install and Start the Licensing Service* (on page 36).
 - If you install SmartPlant License Machine client on Windows Vista, Windows 7, Windows Server 2008, or Windows Server 2008 R2, and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
1. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager** to start SmartPlant License Manager. The **SmartPlant Licensing Manager** dialog box appears.
 2. Click **Stop and Remove Options** on the **SmartPlant License Manager** dialog box. The **Install and Remove Options** dialog box appears.

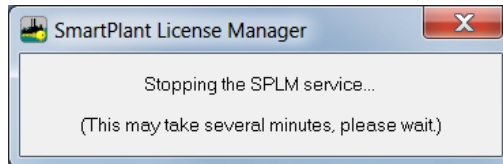


3. Click **Stop and Remove Licensing Service**.
4. Click **Select**.

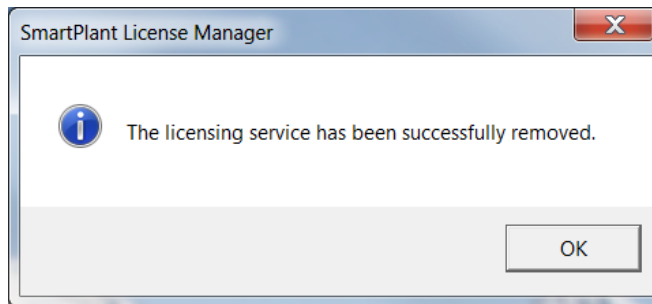
The system displays a message box indicating that the license service is successfully removed.



5. Click **Yes** to stop and remove the licensing service.



6. Click **OK** to dismiss the message box indicating that the licensing service has been successfully stopped and removed.



See Also

Install and Start the Licensing Service (on page 36)

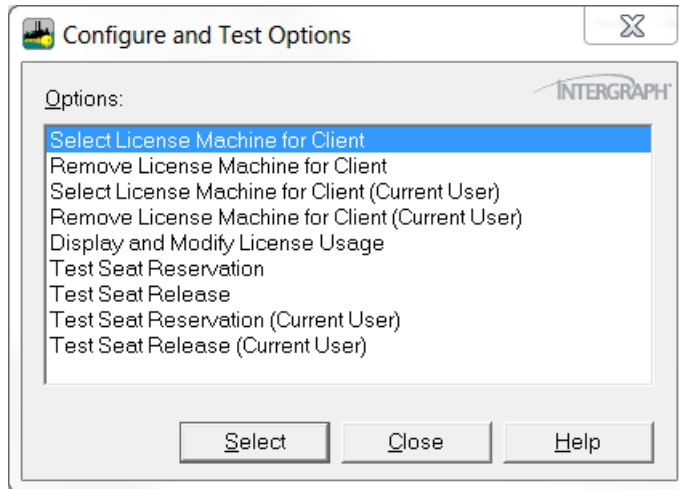
Install a License Key (on page 34)

Configure and Test Options

When the SmartPlant License Manager key is successfully installed, you can configure and test your client computers. This section covers selecting a license machine for a client, removing a client from the license machine, displaying and modifying the license usage, and reserving and unreserving a seat.

Use the following procedure to access the Configure and Testing Options dialog box.

1. Click **Configure and Test** on the **SmartPlant License Manager** dialog box. The **Configure and Test Options** dialog box appears.



See Also

- Select a License Machine for a Client* (on page 39)
- Remove License Machine for a Client* (on page 40)
- Test Seat Reservation* (on page 42)
- Test Seat Release* (on page 44)
- Log Product Usage* (on page 56)

Select a License Machine for a Client

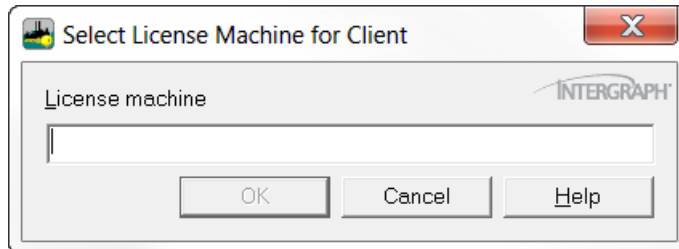
Use the following procedure to select a license machine for a client. You can also add more than one license machine at a time by defining the license machine names separated by a space. For example, `licensemachine1 licensemachine2 licensemachine3`.

NOTES

- If you install SmartPlant License Machine client on Windows Vista or Windows Server 2008, and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
- You must have administrative privileges to use this command.
- The maximum number of allowed license machines is 25.
- No spaces are allowed in the actual license machine name.
- SmartPlant License Manager client searches available licenses on the licensing machines in the order they were added. If you would like the client to locate a license from a particular licensing machine first, then that machine needs to be on the top of the list. You can use *Display License Machine for Client - All Users* (on page 55) option to check the order of licensing machines.
- If you are working in a heterogeneous environment, you need to use the license machine's IP address instead of the actual name (**Machine name**).
- To verify that the computer correctly points to the license machine, refer to *Display the License Machine for a Client - Current User Only* (on page 56).
- To test checking out (reserving) a license on the client computer, refer to *Test Seat Reservation* (on page 42).

Functions of SmartPlant License Manager: License Machine

- To release the license you just reserved, refer to *Test Seat Release* (on page 44).
1. Log onto each computer that will reserve a license (including, possibly, the license machine itself), and make sure SmartPlant License Manager is installed.
 2. On the **Configuration and Testing** dialog box, click **Select License Machine For Client**. (Or, type `pdlice -j` in a Command Prompt window.) The **Select License Machine For Client** dialog box appears.



3. Type the computer name(s) of your license machine in the **Machine name** field. The license machine name can be a maximum length of 29 characters and can contain no spaces.
4. Click **OK**. If you want to add another license machine name, repeat step 2.

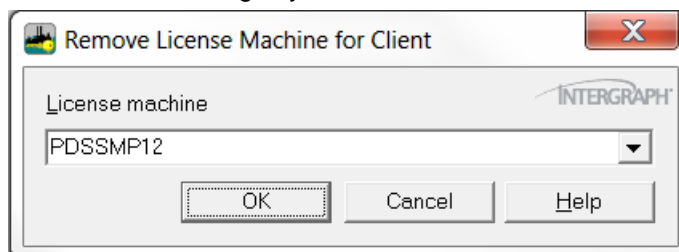
See Also

Install a License Key (on page 34)

Remove License Machine for a Client

Use the following procedure to remove a license machine from the client's license machine list.

- **NOTE** The SmartPlant License Manager license machine value displayed when **Select License Machine for Client - Current User** is selected is stored in `HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines` registry. If there is no SmartPlant License Manager license machine defined for the current user when you click **Remove License Machine for Client - Current User**, the following message displays: **There are no license machines to display for this user under HKCU**.
1. Click **Remove License Machine for Client** on the **Configure and Test** dialog box. (Or, type `pdlice -k` in a Command Prompt window.) The **Remove License Machine for Client** dialog box appears. This option removes the license machine name and the internet address from the registry.



2. Type the name of the license machine you want to remove in the **Machine name** field. If you selected your license machine using the **Select License Machine For Client** option, the license machine name automatically appears in the **Machine name** field or you can select it from the list.
3. Click **OK**. The **SmartPlant License Manager Information** box appears.

See Also

Configure and Test Options (on page 38)

Display and Modify License Usage (on page 41)

Log Product Usage (on page 56)

Display and Modify License Usage

Users can specify whether daily keys can be used by interactive users only, interactive and batch users, batch users only, or neither. By default, a daily key cannot be activated without selecting this option. This command requires administrator privileges. These options are available only on the license machine.

Daily seats, once activated, expire in 12 hours, regardless of how much actual processing time has been used. When a process that uses a daily license seat completes and the 12-hour period for that daily license seat has not expired, that daily license seat becomes available for use by other processes regardless of which job started the daily seat. For example, if you only have **Allow interactive jobs to start new daily seats** option selected, once the interactive job finishes and the daily seat has not expired, Batch job can also use that daily seat.

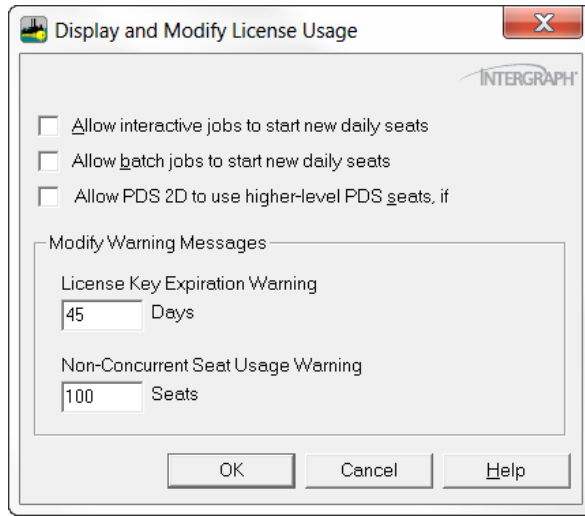
If a job is running at the end of the 12-hour period, the job is allowed to complete processing. When the processing is complete, the daily license key then expires. To display the status of the daily license keys, refer to *Displaying the Status of Active PDS Daily Licenses*.

NOTES

- If a daily license is activated and in use on a SmartPlant Manager License Manager server that has daily seat ONLY key installed, a new key will not install until the reserved daily seat is returned. There is no warning message. However, a blank install key window displays. To resolve this, close the SmartPlant License Manager application, verify that all in use daily licenses are returned, and then install a new license key.
- If you cannot access your PDS PID Standalone or Frameworks Plus licenses, check to be sure that you used the correct serial number when either product was installed
- By default, SmartPlant License Manager assigns a regular seat. If none are available, a daily seat is assigned. You must select **Allow interactive jobs to start new daily seats** to enable daily seat selection.
- These options are available only for the SmartPlant License Manager license machine.

Use the following procedure to activate daily keys in PDS.

1. Click **Display and Modify License Usage**. (Or, type `pdlice -Q` in a Command Prompt window.) The **Display and Modify License Usage** dialog box appears.



2. Place a check mark beside the option you want to use.
 - Allow interactive jobs to start new daily seats** – Allows the product's daily license keys to be started by interactive users if checked. Daily licenses are active for one 12-hour period.
 - Allow batch jobs to start new daily seats** – Allows the product's daily license keys to be started by batch users if checked. Daily licenses are active for one 12-hour period.
 - Allow PDS 2D to use higher- level PDS seats, if available** – Allows PDS 2D license seats to use higher-level seats, if any are available. This option applies only to PDS P&ID, IDM, and PDS 2D seats. For example, if no 2D seats (licenses) are available this option allows use of a 3D seat (license).
3. Type the number of days you want a warning message to display prior to the license key expiration date in the **Days** field. The number of days must be greater than 0 (zero) and less than 768.
4. In the **Seats** field, type the total number of non-concurrent seats being used that will trigger a warning message. The number of remaining seats must be greater than 0 (zero).

See Also

Configure and Test Options (on page 38)
Log Product Usage (on page 56)

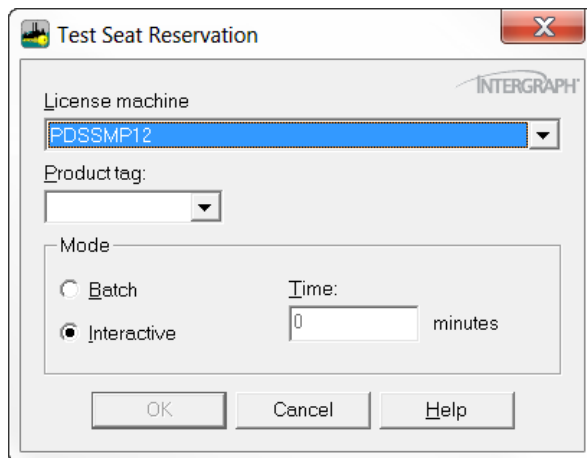
Test Seat Reservation

Use the following procedure to test whether a license can be reserved from the client. This is especially helpful in testing license machine and client communication after installation.

NOTES

- When running this command, if you have no license key installed or you have a version prior to SmartPlant License Manager 2012 selected, the message "There are no tags in the key on the license machine xxx." and a blank product tag list will display.
- If the IP address of the SmartPlant License Manager license machine is changed after you have installed a SmartPlant License Manager key, the **Product Tag** list in the **Test Seat Reservation** dialog box will be empty. When you install a new key using the updated IP address, the **Product Tag** list will display the correct tags.

- If a license request is not completed because the license machine is busy or scavenging, then SmartPlant License Manager automatically submits the request for a license again.
 - The default mode for testing a seat reservation is **Interactive**.
 - If you purchased a PDS PID license, only the PDS PID application is available to use. If you purchased PDS 2D, the PDS PID, IDM, and PFD applications are available to use.
 - A batch job will not display any warning about a lack of seats because the batch job will wait until it can retrieve the seat. Only interactive jobs will return a warning message when a seat is not available. For example, a PD_Model batch submission will wait until it can retrieve five seats. If five seats cannot be retrieved, the system waits until you successfully delete the job from the queue.
1. Click **Test Seat Reservation** on the **Configuration and Testing** dialog box. The **Test Seat Reservation** dialog box appears.



2. Set the applicable options.

License machine – Select the name of the license machine to define where the seat will be reserved.

Batch – Activates batch processing mode. If a license is not immediately available, the process tries to start the batch request again until it is successful. If the batch process has not started within 12 hours, then no more attempts are made to start the request.

Interactive – Activates interactive processing mode.

Time (Min) – Defines how long a client machine will wait to get a license seat in minutes (if there is not one available). The **Test Seat Reservation** dialog box remains open until the defined wait time is over or until there is a license seat available. The license machine you are requesting wait time on must have SmartPlant License Manager installed and a valid license key assigned.

Product Tag – Use the drop-down list to select the appropriate product, as detailed in the following table. Connect to the Intergraph eCustomer web site (<https://crmweb.intergraph.com>) to view the latest SmartPlant License Manager list of available product tags.

NOTES

- If you are using a SmartPlant License Manager 2012 (v12) license machine, the **Product Tag** list only display the licenses that are available from the SmartPlant License Manager 2012 (v12) license machine.
- A blank (or empty) product tag list may display after you select a license machine. This may occur if the selected SmartPlant License Manager version on the license machine is older than the SmartPlant License Manager version that is installed on the client

machine. This may also occur if the SmartPlant License Manager service is not running on the selected license machine, or if the selected license machine has a 0 (zero) key installed. Also, if pdlice.exe has not been added to the Exception List for Microsoft Windows Firewall on the SmartPlant License Manager license machine, a blank tag list can display.

- If you are using the PDS product, the domain name is not used when logging product usage.
3. Select your license machine name that automatically appears in the **License machine** field or select it from the drop-down list.
 4. Select **Batch** or **Interactive**. To execute this option as a batch process, click the **Batch** option. The **Time (Min)** and **Product Tag** fields activate. Type the wait time in minutes.
 5. Click the **Product tag** drop-down list and select the product tag.
 6. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears. If you are testing client-license machine communication, note the seat number in the dialog box. The seat number information will be used in the **Test Seat Release** command.

See Also

Configure and Test Options (on page 38)

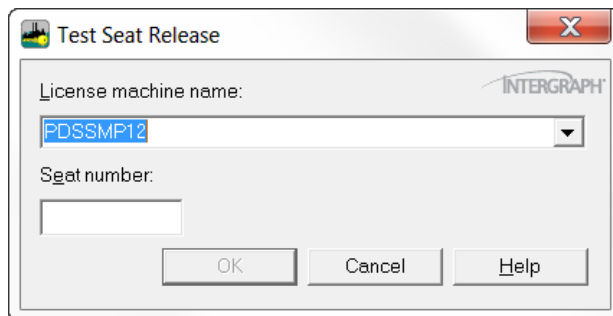
Display and Modify License Usage (on page 41)

Log Product Usage (on page 56)

Test Seat Release

Use the following procedure to ensure that a seat has been unreserved or released from the license machine.

1. Click **Test Seat Release** on the **Configuration and Testing** dialog box.



2. If the node name does not automatically appear in the **License machine name** field, select it from the list or type the node name in the **License machine name** field. Type the assigned number of the seat in the **Seat Number** field.
3. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears with confirmation or error information.

See Also

Configure and Test Options (on page 38)

Display and Modify License Usage (on page 41)

Log Product Usage (on page 56)

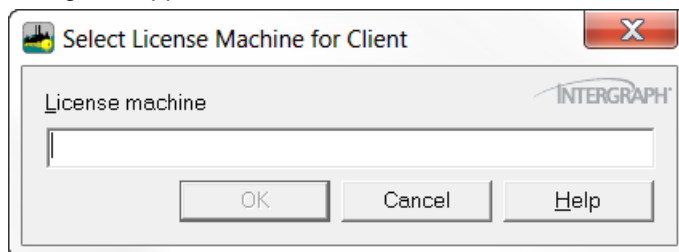
Select License Machine for Client (Current User)

NOTE Uninstalling SmartPlant License Manager does not remove the following registry entry.
 HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines

Use the following procedure to select a license machine for a client. You can also add more than one license machine at a time by defining the license machine names separated by a space. For example, licensemachine1 licensemachine2 licensemachine3.

NOTES

- If you install SmartPlant License Machine client on Windows Vista or Windows Server 2008, and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
 - You must have administrative privileges to use this command.
 - The maximum number of allowed license machines is 25.
 - No spaces are allowed in the actual license machine name.
 - SmartPlant License Manager client searches available licenses on the licensing machines in the order they were added. If you would like the client to locate a license from a particular licensing machine first, then that machine needs to be on the top of the list. You can use *Display License Machine for Client - All Users* (on page 55) option to check the order of licensing machines.
 - If you are working in a heterogeneous environment, you need to use the license machine's IP address instead of the actual name (**Machine name**).
 - To verify that the computer correctly points to the license machine, refer to *Display the License Machine for a Client - Current User Only* (on page 56).
 - To test checking out (reserving) a license on the client computer, refer to *Test Seat Reservation* (on page 42).
 - To release the license you just reserved, refer to *Test Seat Release* (on page 44).
1. Log onto each computer that will reserve a license (including, possibly, the license machine itself), and make sure SmartPlant License Manager is installed.
 2. On the **Configuration and Testing** dialog box, click **Select License Machine For Client**. (Or, type `pdlice -j` in a Command Prompt window.) The **Select License Machine For Client** dialog box appears.



3. Type the computer name(s) of your license machine in the **Machine name** field. The license machine name can be a maximum length of 29 characters and can contain no spaces. Click **OK**. If you want to add another license machine name, repeat step 2.

See Also

Select a License Machine for a Client (on page 39)

Remove License Machine for a Client (on page 40)

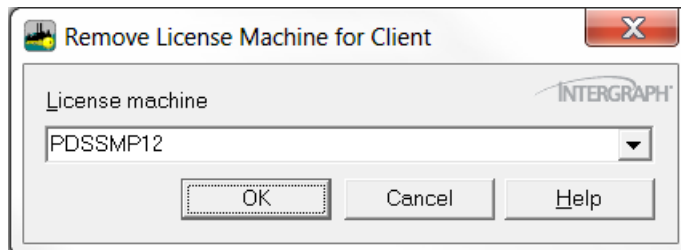
Display and Modify License Usage (on page 41)
Test Seat Reservation (on page 42)
Test Seat Release (on page 44)
Remove License Machine for Client (Current User) (on page 46)
Test Seat Reservation (Current User) (on page 47)
Test Seat Release (Current User) (on page 49)

Remove License Machine for Client (Current User)

NOTE If you remove a license machine for the current user, this also removes the license machine name stored in the registry. But, the HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines registry key is not removed.

Use the following procedure to remove a license machine from the client's license machine list.

- **NOTE** The SmartPlant License Manager license machine value displayed when **Select License Machine for Client - Current User** is selected is stored in HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines registry. If there is no SmartPlant License Manager license machine defined for the current user when you click **Remove License Machine for Client - Current User**, the following message displays: **There are no license machines to display for this user under HKCU.**
1. Click **Remove License Machine for Client** on the **Configure and Test** dialog box. (Or, type `pdlice -k` in a Command Prompt window.) The **Remove License Machine for Client** dialog box appears. This option removes the license machine name and the internet address from the registry.



2. Type the name of the license machine you want to remove in the **Machine name** field. If you selected your license machine using the **Select License Machine For Client** option, the license machine name automatically appears in the **Machine name** field or you can select it from the list.
3. Click **OK**. The **SmartPlant License Manager Information** box appears.

See Also

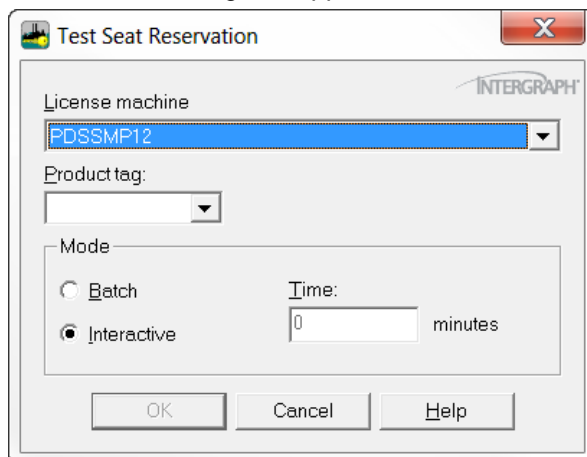
Select a License Machine for a Client (on page 39)
Remove License Machine for a Client (on page 40)
Display and Modify License Usage (on page 41)
Test Seat Reservation (on page 42)
Test Seat Release (on page 44)
Select License Machine for Client (Current User) (on page 45)
Test Seat Reservation (Current User) (on page 47)
Test Seat Release (Current User) (on page 49)

Test Seat Reservation (Current User)

Use the following procedure to test whether a license can be reserved from the client. This is especially helpful in testing license machine and client communication after installation.

NOTES

- When running this command, if you have no license key installed or you have a version prior to SmartPlant License Manager 2012 selected, the message "There are no tags in the key on the license machine xxx." and a blank product tag list will display.
 - If the IP address of the SmartPlant License Manager license machine is changed after you have installed a SmartPlant License Manager key, the **Product Tag** list in the **Test Seat Reservation** dialog box will be empty. When you install a new key using the updated IP address, the **Product Tag** list will display the correct tags.
 - If a license request is not completed because the license machine is busy or scavenging, then SmartPlant License Manager automatically submits the request for a license again.
 - The default mode for testing a seat reservation is **Interactive**.
 - If you purchased a PDS PID license, only the PDS PID application is available to use. If you purchased PDS 2D, the PDS PID, IDM, and PFD applications are available to use.
 - A batch job will not display any warning about a lack of seats because the batch job will wait until it can retrieve the seat. Only interactive jobs will return a warning message when a seat is not available. For example, a PD_Model batch submission will wait until it can retrieve five seats. If five seats cannot be retrieved, the system waits until you successfully delete the job from the queue.
1. Click **Test Seat Reservation** on the **Configuration and Testing** dialog box. The **Test Seat Reservation** dialog box appears.



2. Set the applicable options.

License machine – Select the name of the license machine to define where the seat will be reserved.

Batch – Activates batch processing mode. If a license is not immediately available, the process tries to start the batch request again until it is successful. If the batch process has not started within 12 hours, then no more attempts are made to start the request.

Interactive – Activates interactive processing mode.

Time (Min) – Defines how long a client machine will wait to get a license seat in minutes (if there is not one available). The **Test Seat Reservation** dialog box remains open until the defined wait time is over or until there is a license seat available. The license machine you

are requesting wait time on must have SmartPlant License Manager installed and a valid license key assigned.

Product Tag – Use the drop-down list to select the appropriate product, as detailed in the following table. Connect to the Intergraph eCustomer web site (<https://crmweb.intergraph.com>) to view the latest SmartPlant License Manager list of available product tags.

NOTES

- If you are using a SmartPlant License Manager 2012 (v12) license machine, the **Product Tag** list only display the licenses that are available from the SmartPlant License Manager 2012 (v12) license machine.
 - A blank (or empty) product tag list may display after you select a license machine. This may occur if the selected SmartPlant License Manager version on the license machine is older than the SmartPlant License Manager version that is installed on the client machine. This may also occur if the SmartPlant License Manager service is not running on the selected license machine, or if the selected license machine has a 0 (zero) key installed. Also, if pdlice.exe has not been added to the Exception List for Microsoft Windows Firewall on the SmartPlant License Manager license machine, a blank tag list can display.
 - If you are using the PDS product, the domain name is not used when logging product usage.
3. Select your license machine name that automatically appears in the **License machine** field or select it from the drop-down list.
 4. Select **Batch** or **Interactive**. To execute this option as a batch process, click the **Batch** option. The **Time (Min)** and **Product Tag** fields activate. Type the wait time in minutes.
 5. Click the **Product tag** drop-down list and select the product tag.
 6. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears. If you are testing client-license machine communication, note the seat number in the dialog box. The seat number information will be used in the **Test Seat Release** command.

See Also

Select a License Machine for a Client (on page 39)

Remove License Machine for a Client (on page 40)

Display and Modify License Usage (on page 41)

Test Seat Reservation (on page 42)

Test Seat Release (on page 44)

Select License Machine for Client (Current User) (on page 45)

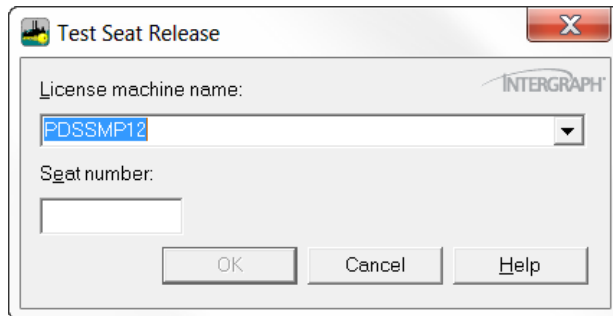
Remove License Machine for Client (Current User) (on page 46)

Test Seat Release (Current User) (on page 49)

Test Seat Release (Current User)

Use the following procedure to ensure that a seat has been unreserved or released from the license machine.

1. Click **Test Seat Release** on the **Configuration and Testing** dialog box.



2. If the node name does not automatically appear in the **License machine name** field, select it from the list or type the node name in the **License machine name** field. Type the assigned number of the seat in the **Seat Number** field.
3. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears with confirmation or error information.

See Also

Select a License Machine for a Client (on page 39)

Remove License Machine for a Client (on page 40)

Display and Modify License Usage (on page 41)

Test Seat Reservation (on page 42)

Test Seat Release (on page 44)

Select License Machine for Client (Current User) (on page 45)

Remove License Machine for Client (Current User) (on page 46)

Test Seat Reservation (Current User) (on page 47)

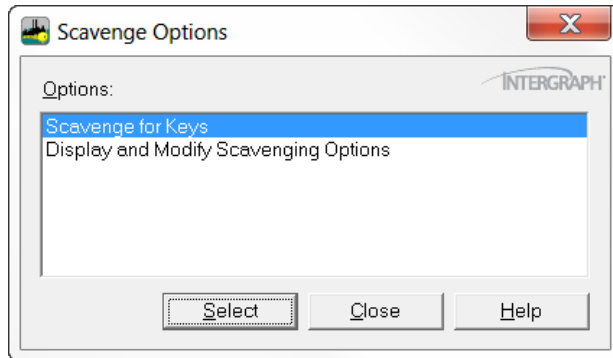
Scavenge Options

SmartPlant License Manager enables you to control license usage from the license machine and to find (scavenge) and return unused licenses.

Use the following procedure to access the **Scavenge Options** dialog box.

1. Log onto the license machine. (This option is available only on the license machine.)

2. Click **Scavenge** on the main **SmartPlant License Manager** dialog box. The **Scavenge Options** dialog box appears.



See Also

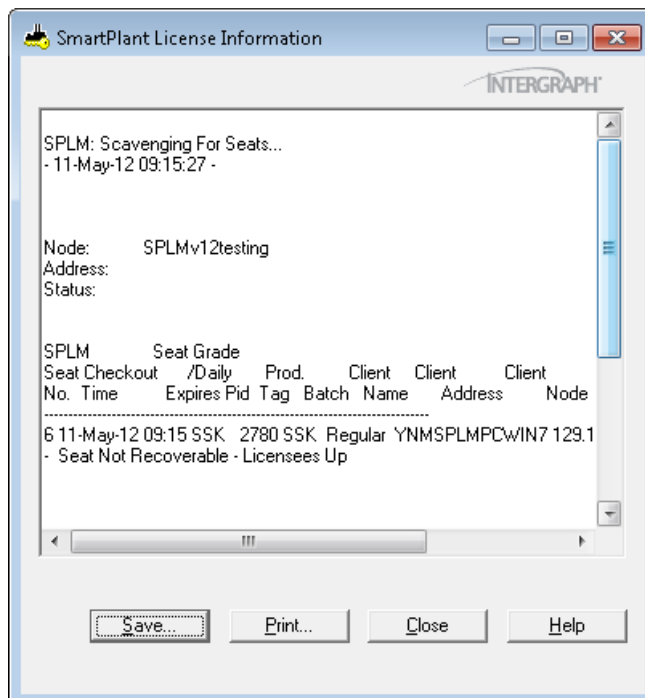
Scavenge for Keys (on page 50)

Display and Modify Scavenging Options (on page 51)

Scavenge for Keys

Scavenging for license keys finds licenses that have been reserved. This situation can happen when a computer fails while a license is reserved or an unexpected termination occurs.

1. Click **Scavenge for Keys** on the **Scavenging Options** dialog box. (Or, type `pdlice -n` in a Command Prompt window.) The **SmartPlant License Information** dialog box appears. The start and stop times for the scavenge process are included in the displayed information. The start time displays at the beginning of the details and the stop time displays at the end.



If a license remains reserved when you think it should have been returned, check to be sure the process identified with the process ID is legitimate. This may involve asking the user who is

using the client node and checking to make sure that the process is still running by monitoring how much CPU time it is using.

If obtaining an available license is a higher priority than preserving an active process, you can kill the process using Task Manager so the license it is using is made available. Use this drastic measure only when other options to get the license returned have failed. You must be absolutely certain that the process in question is no longer needed.

See Also

Display and Modify Scavenging Options (on page 51)

Scavenge Options (on page 49)

Display and Modify Scavenging Options

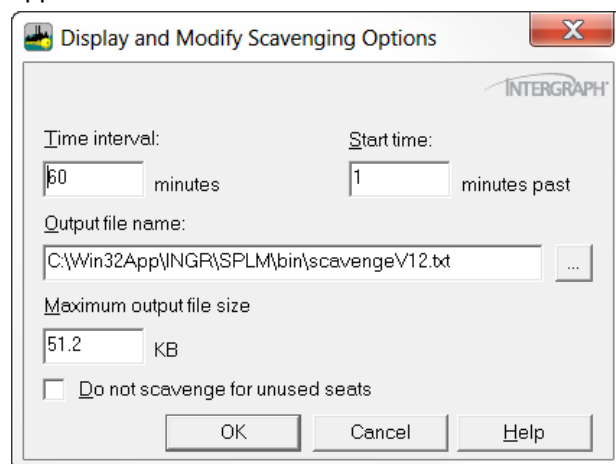
Scavenging is automatically enabled for one minute past the hour.

NOTE

- If you want the modified settings to take effect immediately, you must stop and restart the SPLM - SmartPlant Licensing Manager service. Otherwise, the modified settings will take effect at the next scheduled scavenge cycle.
- When SmartPlant License Manager is installed, the scavenging log file is automatically enabled. By default, the output log file is in C:\Win32App\INGR\SPLM\bin\scavengeV12.txt. This file is only created after you install the license key on the SmartPlant License Manager license machine. You can define a new location if needed using the **Output file name** option below.

If the scavenging functionality is turned off and then back on, you will need to redefine the output location. This file will not be removed when SmartPlant License Manager is uninstalled. If SmartPlant License Manager is reinstalled, it will append information to the existing file and output the scavenging result to the default file location.

1. Click **Display and Modify Scavenging Options** on the **Scavenge Options** dialog box. (Or, type `pdlice -N` in a Command Prompt window.) This command requires system administrator privileges. The **Display and Modify Scavenging Options** dialog box appears.



2. Set the applicable options.

Time interval (minutes) – Modifies/sets scavenging time in minutes.

NOTE Sixty (60) minutes is the recommended scavenging time interval.

Start time (Minutes past) – Sets a scavenging time to begin at any specified minute past the hour. Valid values are 0-59 minutes. For example, if you set **Time interval** to 15

minutes and **Start time** to 1 minute, at 9:50 scavenge would run at 10:01, 10:16, 10:31, 10:46, and so forth. Or, if you set **Time interval** to 15 minutes and **Start time** to 5 minutes, at 10:15 scavenge would run at 10:20, 10:35, 10:50, 11:05, and so forth.

Output file name – Defines an output file name that contains your scavenging information. If you are defining the output file to a shared folder located on a different machine, write permissions must exist for the domain user and the SmartPlant License Manager machine. By default (as delivered), the output log file is in `C:\Win32App\INGR\SPLM\bin\scavengeV12.txt`.

NOTE The output file name must be located on a local drive on the SmartPlant License Manager license machine.

Maximum output file size – Defines the maximum size of your output file. If the scavenging data content size exceeds this defined output file size, the file is still created so that no scavenging record is excluded.

Do not scavenge for unused seats – Click to place a check mark in the check box if you do not want the system to scavenge for unused seats.

3. Click **OK**.

See Also

Scavenge for Keys (on page 50)

Scavenge Options (on page 49)

Display Options

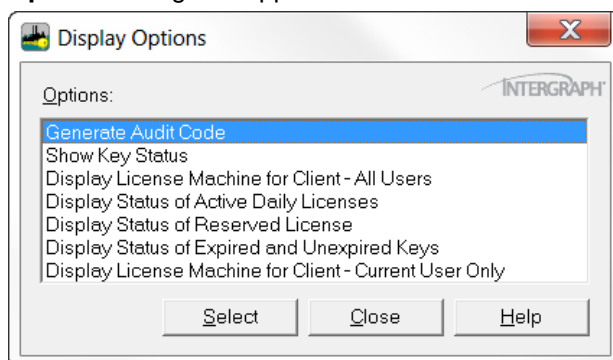
The **Display Options** commands display information in the **SmartPlant License Information** dialog box. In some fields on that dialog box, product abbreviations are used instead of the full product names. Connect to the Intergraph eCustomer web site (<https://crmweb.intergraph.com>) to view the latest SmartPlant License Manager list of available product tags.

NOTE

- License machines with a high volume of network traffic, including seat requests and seat returns, should split the licenses onto multiple machines for better licensing performance.
- If you are using the PDS product, the domain name is not used when logging product usage.

Use the following procedure to access the SmartPlant License Manager monitoring functions.

1. Click **Display** on the main **SmartPlant License Manager** dialog box. The **Display Options** dialog box appears.



See Also

Generate an Audit Code (on page 53)

Display the Status of Active Daily Licenses (on page 54)

- Display the Status of Reserved Licenses* (on page 54)
- Display the Status of Expired and Unexpired Keys* (on page 54)
- Display License Machine for Client - All Users* (on page 55)
- Display the License Machine for a Client - Current User Only* (on page 56)

Generate an Audit Code

Intergraph Support Services uses the audit code from a customer's system for monitoring and troubleshooting customer system issues. For example, Intergraph can help determine proper licensing involving new license machines and moving software. There is no need to generate an audit code unless Intergraph Support Services requests it.

This audit code includes how many daily seats and counted seats (non-concurrent license) remain on a key.

NOTE Beginning with SmartPlant License Manager 2012, the letter C is the first character in the audit code.

1. Click **Generate Auditing Code** on the **Display Options** dialog box. (Or, type pdlice -e in a Command Prompt window.) The **SmartPlant License Manager Information** dialog box appears with the audit code.
2. Click **Save** to save the audit code information to a text file. Send the text file to Intergraph.

See Also

- Display Options* (on page 52)
- Display the Status of Active Daily Licenses* (on page 54)
- Display the Status of Reserved Licenses* (on page 54)
- Display the Status of Expired and Unexpired Keys* (on page 54)

Show Key Status

Use the following procedure to verify the correct installation of a license key or to check the status of the currently installed license key.

1. Click **Show Key Status** on the **Display Options** dialog box. (Or, type pdlice -f in a Command Prompt window.)

The **SmartPlant License Information** dialog box appears with the following information: node, address, key type, installation date, number of licenses, expiration date, and daily licenses (if purchased). You can save this displayed information to a file, print the information, review on-line Help, or close the dialog box.

NOTE SmartPlant License Manager version 2008 and earlier use BISO and IISO for Batch Isogen and Interactive Isogen in the **Show Key Status** dialog box. BISO and IISO have been changed to 4D and 5D.

See Also

- Display Options* (on page 52)
- Display the Status of Active Daily Licenses* (on page 54)
- Display the Status of Reserved Licenses* (on page 54)
- Display the Status of Expired and Unexpired Keys* (on page 54)

Display the Status of Active Daily Licenses

Monitoring the use of daily licenses includes information about daily licenses currently reserved, licenses currently active, and daily licenses available for future use.

NOTE

- PD_Model does not use a daily seat.
- If a daily license is activated and in use on a SmartPlant Manager License Manager server that has daily seat ONLY key installed, a new key will not install until the reserved daily seat is returned. There is no warning message. However, a blank install key window displays. To resolve this, close the SmartPlant License Manager application, verify that all in use daily licenses are returned, and then install a new license key.

Use the following procedure to display the status of the daily keys.

1. Click **Display Status of Active Daily Licenses** on the **Display Options** dialog box. (Or, type `pdlice -M` in a Command Prompt window.)
The **SmartPlant License Information** dialog box displays.

See Also

Display Options (on page 52)

Display the Status of Reserved Licenses (on page 54)

Display the Status of Expired and Unexpired Keys (on page 54)

Display the Status of Reserved Licenses

Use the following procedure to display the status of the reserved licenses.

1. Click **Display Status of Reserved Licenses** on the **Display Options** dialog box. (Or, type `pdlice -m` in a Command Prompt window.)
The **SmartPlant License Information** dialog box displays.

See Also

Display Options (on page 52)

Display the Status of Active Daily Licenses (on page 54)

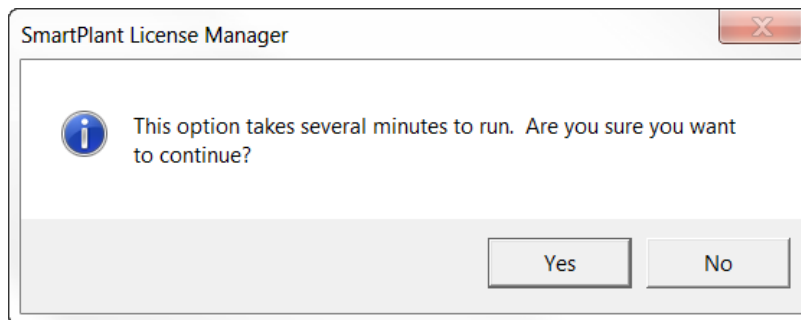
Display the Status of Expired and Unexpired Keys (on page 54)

Display the Status of Expired and Unexpired Keys

Use the following procedure to list information about other license machines on your LAN. The displayed information includes the license expiration date, total licenses and available licenses, computer IP address, and computer name.

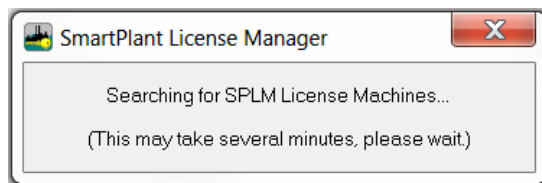
1. Click **Display Status of Expired and Unexpired Keys** on the **Display Options** dialog box. (Or, type `pdlice -B` in a Command Prompt window.)
2. Click **Select**.

A three-minute timer runs while SmartPlant License Manager waits for replies. It is possible that some computers may not reply during this three-minute period. A message box appears, reminding you that this option takes time to run.



3. Click **Yes** to continue.

The system displays a message indicating that a search is being run for license machines.



When the search completes, the **SmartPlant License Manager Information** dialog box appears. It contains data about all license machines on your LAN. You can save its displayed information to a file, print the information, review on-line Help, or close the dialog box.

See Also

Display Options (on page 52)

Display the Status of Active Daily Licenses (on page 54)

Display the Status of Reserved Licenses (on page 54)

Display License Machine for Client - All Users

Use the following procedure to display the list of license machines for a client and includes all users.

1. Click **Display License Machine for Client - All Users** on the **Display Options** dialog box.
The **SmartPlant License Information** dialog box appears.

See Also

Display Options (on page 52)

Display the Status of Active Daily Licenses (on page 54)

Display the Status of Reserved Licenses (on page 54)

Display the Status of Expired and Unexpired Keys (on page 54)

Display the License Machine for a Client - Current User Only

Use the following procedure to display the list of license machines for a client including only current users.

NOTE

- A license machine that is defined in the HK_Current_User does not roll over to a license machine defined using the SmartPlant License Manager interface (saved in HKLM_Current_User).
- SmartPlant License Manager allows setting the license machine for each user account. Using the local administrator's login, this can be defined at the registry key for the current user. For example, [HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines].
- The SmartPlant License Manager license machine value displayed when **Select License Machine for Client - Current User** is selected is stored in HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines registry. If there is no SmartPlant License Manager license machine defined for the current user when you click **Remove License Machine for Client - Current User**, the following message displays:

There are no license machines to display for this user under HKCU.

When the SmartPlant License Manager client software finds a license machine listed in the correct registry location for the current user, the license machine listed will silently take precedence over the **Selected License Machine for Client** configured in the SmartPlant License Manager software.

To determine if a custom license machine has been configured for a given client, login as that client and select **Display > Display License Machine for Client - Current User Only**.

1. Click **Display License Machine for Client - Current User Only** on the **Display Options** dialog box.

The **SmartPlant License Information** dialog box appears.

See Also

Configure a License Machine for Current User (on page 100)

Display Options (on page 52)

Display the Status of Active Daily Licenses (on page 54)

Display the Status of Reserved Licenses (on page 54)

Display the Status of Expired and Unexpired Keys (on page 54)

Log Product Usage

Use the following procedure to track product usage. If enabled, the **Log Product Usage** command tracks all licenses requested by a client. For example, when SmartPlant P&ID is opened on a client machine, a record is written to the log file. The log file also records closing SmartPlant P&ID on the client machine.

You can also enter pdlice -L in a Command Prompt window. Options include:

pdlice -L	Displays current settings for usage logging. Options include:
pdlice -L 0	Disables usage logging.
pdlice -L 1	Enables usage logging and sets a default file path. The default path is C:\Documents and Settings\ <username>\logging.txt</username>
pdlice -L 1 path\filename)	Enables usage logging and you can define a specified path for the log file. For example, pdlice -L 1 C:\Temp\logging.txt

NOTES

- The log file cannot be routed to a different machine. The log file must be generated on the license machine.
- If the logging report cannot be written to the provided output file, then by default, the report is written to your c:\temp directory. Be sure that any provided output file name has the correct permissions so it can be created.
- When a non-concurrent seat is reserved using the SmartPlant License Manager interface or from the Command Prompt, **-999** is used as a seat number in the **Log Product Usage** log file. The non-concurrent seat is not actually taken from SmartPlant License Manager license machine. This is only used to confirm that the communications between SmartPlant License Manager license machine and the client is working.

Product Log File Options

Operator - Displays the assigned number for the user.

SeatNo - Displays the seat number assigned to the user.

Time - Displays the time that the seat was assigned.

TimeString - Displays the time in hh:mm:ss format.

Daily - Displays if the seat assigned is a daily license.

ProcessID - Displays the identification of the process using the assigned seat. A concurrent license reserved in SmartPlant License Manager displays a **ProcessID = -1**. A non-concurrent license reserved in SmartPlant License Manager displays a **ProcessID = -999**.

ProdTag - Displays the product tag for assigned seat.

NOTES

- A **ProdTag** value of 3D9 indicates a daily seat is unavailable.
- The Product Tag recorded in the log file is truncated and can contain up to 3 characters. For example, for the SmartPlant P&ID application, the product tag is SPPD. This is recorded as SPP in the log file.

Operator Operator value

1	Get license
2	Return license
11	No license available when requested
12	License returned by scavenge
31	Reserve license using SmartPlant License Checkout Utility
32	Return a checked out license using SmartPlant License Checkout Utility

- 41 Reserve a non-concurrent license
- 42 Non-concurrent seat request failure

Batch/Interactive - Displays if the work is a batch job or is being worked interactively.

TCPIP - Displays the TCP/IP address of the computer for the assigned seat.

NOTE In a Citrix environment, this IP address will be the Citrix application server's IP address (where SmartPlant License Manager client was installed, not the remote client machine's IP address).

nodeName - Displays the name of the computer for the assigned seat.

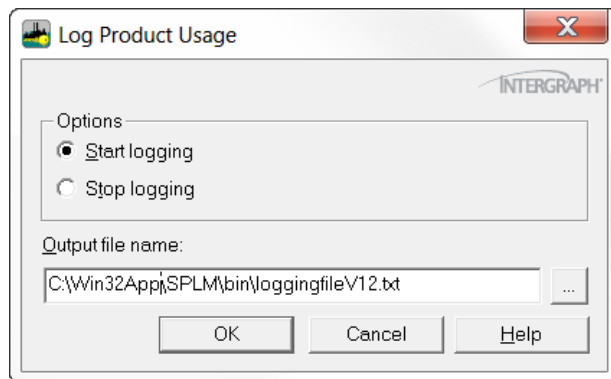
UserName - Displays the name of the user for the assigned seat.


DomainName - Displays the current domain name.

NOTE If you are using the PDS product, the **DomainName** field is not used.

ProjectName - Displays the name of the current project.

1. Select **Log Product Usage** on the SmartPlant License Manager main window and click **Select**. The **Log Product Usage** dialog box appears.



2. If you want to record product usage, click the **Start logging** option. To stop recording product usage, click **Stop logging**.
3. Click in the **Output file name** field and enter the path and a file name for the output file that will contain the logging information. You can also click the **Browse**  button and select an existing file. Logging information is appended to an existing file. You must have permission to write to this folder. If a UNC path is used, the domain user and the SmartPlant License Manager machine must have write permission to the defined folder.

If the log file cannot be written to, the software attempts to write the record into a file in the /temp directory. The file is assigned the prefix SPLMLogData<number>. The record will not be recorded if the file cannot be written. If you are using the record's contents for another process, you must copy the record's contents while the file is open.

4. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears with confirmation or error information.

The following is an example of the text log file content.

```
Operator, SeatNo, Time, TimeString, Daily, ProcessID, ProdTag,
BatchInteractive, tcpip, nodeName, UserName, DomainName, ProjectName
1, 143, 1209555000, 29-Apr-08 05:53:25, 0, 3954, 3D, 0, 129.100.000.00x,
PDSnodeName1, pdsuser1, domainname.com, project1
```

```
2, 142, 1209555001, 29-Apr-08 05:53:28, 0, 3954, 3D, 0, 129.100.000.00x,
PDSNodeName12, pdsuser2, domainname.com, project1
1, 141, 1209555003, 29-Apr-08 05:53:41, 0, 3754, 3D, 0, 129.100.000.00x,
PDSNodeName12, pdsuser1, domainname.com, project1
2, 144, 1209555002, 29-Apr-08 05:53:47, 0, 3754, 3D, 0, 129.100.000.00x,
PDSNodeName12, pdsuser3, domainname.com, project1
12, 1721, 1209555000, 29-Apr-08 06:44:50, 0, 3342, SRP, 1, 129.100.000.00x,
SP3DNodeName1, domainname.com, project1
12, 1722, 1209555001, 29-Apr-08 06:44:50, 0, 636, SRP, 1, 129.100.000.00x,
SP3DNodeName1, domainname.com, project1
1, 1082, 1209555007, 29-Apr-08 06:45:17, 0, 3764, S3D, 0, 129.100.000.00x,
SPRNodeName1, domainname.com, project1
```

See Also

Configure and Test Options (on page 38)

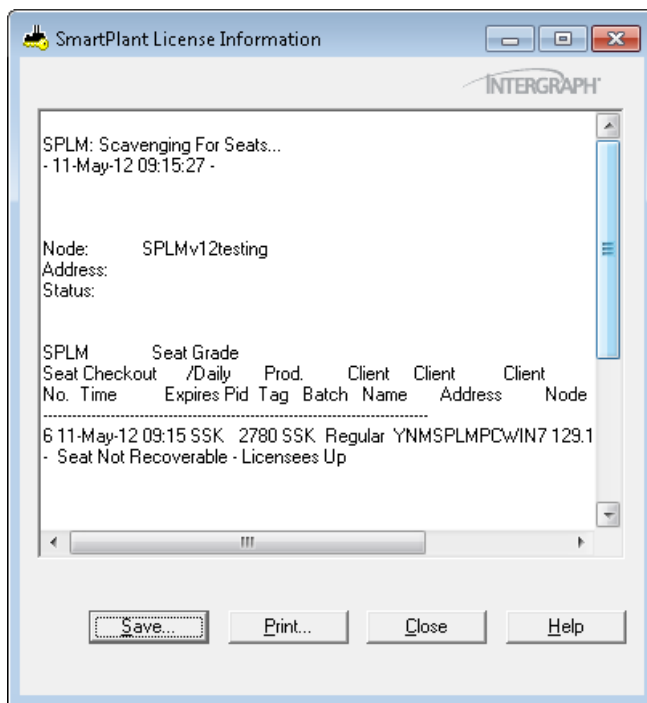
Display and Modify License Usage (on page 41)

SmartPlant License Information Dialog Box

The **SmartPlant License Manager Information** dialog box displays requested information about SmartPlant License Manager. You can save its displayed information to a file, print the information, review on-line Help, or close the dialog box.

NOTE The SmartPlant License Manager Information dialog box can be resized so that all the available information can be viewed.

The following **SmartPlant License Manager Information** dialog box shows that the license machine has been successfully added to the SmartPlant License Manager License Machine List.



See Also

Select a License Machine for a Client (on page 39)

Install a License Key (on page 34)

Remove SmartPlant License Manager

Use this procedure with caution and only when you want to remove the complete SmartPlant License Manager product from your computer.

NOTES

- If you are removing SmartPlant License Manager on a license machine where there are still licenses in use, the **Could not return the license to SmartPlant License Manager. SPLM Failed: Failed to release seat** error message could display when users exit the client application. This is normal. You must exit the client application and open the client application again after the new key is installed.
 - Removing SmartPlant License Manager does not remove the *SPLM* and *journal* folders from the installation location. You must manually remove the *SPLM* and *journal* folder.
 - When you remove SmartPlant License Manager, you must generate a new machine ID and request a new license key. You cannot reuse the previously generated machine ID.
1. Click **Start > Control Panel**. The **Control Panel** window displays.
 2. Click **Add or Remove Programs**.
 3. Select SmartPlant License Manager.
 4. Click **Remove**.

See Also

SmartPlant License Manager Functions (see "Functions of SmartPlant License Manager: License Machine" on page 33)

Functions of SmartPlant License Manager: Client

The following sections describe tasks for the SmartPlant License Manager client including configuring and testing licenses, monitoring license usage, returning unused licenses, and so forth. For information about license machine options, refer to *Functions of SmartPlant License Manager: License Machine* (on page 33).

See Also

Installing and Removing Options (on page 61)

Configuring and Testing Options (on page 64)

Display Options Commands (on page 73)

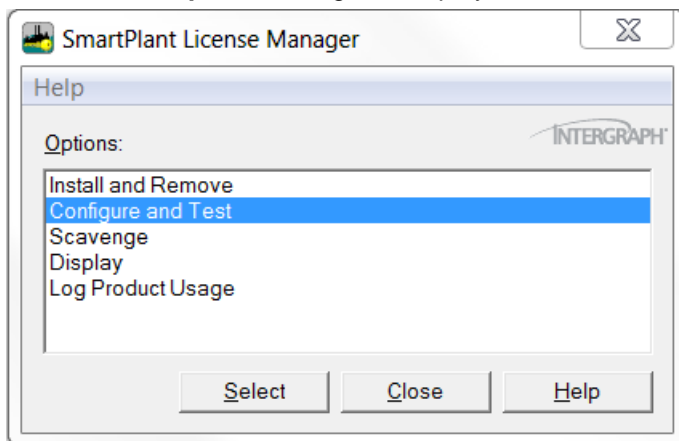
Installing and Removing Options

When the SmartPlant License Manager is successfully installed, you can install a license key or stop and restart your licensing service. This section covers installing a license key, installing and starting or stopping and removing Licensing Service.

NOTE If a machine has been used as a SmartPlant License Manager client, and then it is decided to use the machine as a SmartPlant License Manager license machine, the SmartPlant License Manager software must be removed first.

Use the following procedure to access the **Install and Remove Options** dialog box.

- Click **Install and Remove** on the **SmartPlant License Manager** dialog box. The **Install and Remove Options** dialog box displays.



See Also

Install and Start Licensing Service (on page 61)

Stop and Remove Licensing Service (on page 63)

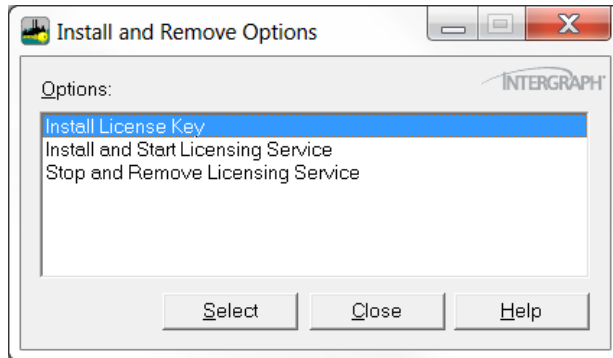
Install and Start Licensing Service

Use the following procedure to install and start your license service.

NOTES

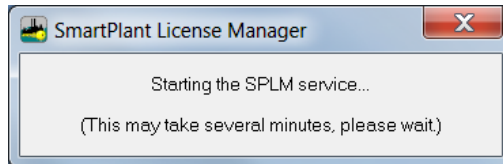
- This command adds the service. To remove the service, refer to *Stop and Remove the Licensing Service* (on page 37).
 - If you install SmartPlant License Machine client on Windows Vista, Windows 7, Windows Server 2008, or Windows Server 2008 R2 and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
- Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager** to start SmartPlant License Manager. The **SmartPlant Licensing Manager** dialog box appears.

2. Click **Install and Remove** on the **SmartPlant License Manager** dialog box. The **Install and Remove Options** dialog box appears.

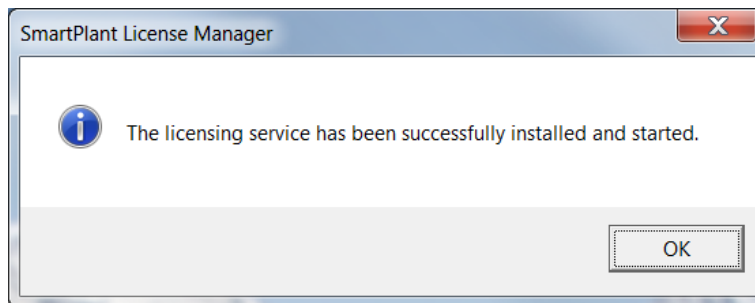


3. Click **Install and Start Licensing Service**.
4. Click **Select**.

The system displays a message box indicating that the SmartPlant License Manager service is starting.



The system displays a message box indicating that the license service is successfully installed and started.



Click **OK** to dismiss the information dialog box.

See Also

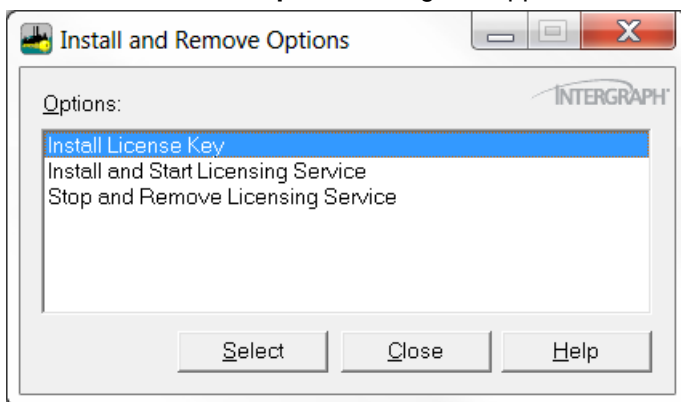
Install a License Key (on page 34)

Stop and Remove Licensing Service

Use the following procedure to stop and remove your license service. The command stops the software without leaving any process active.

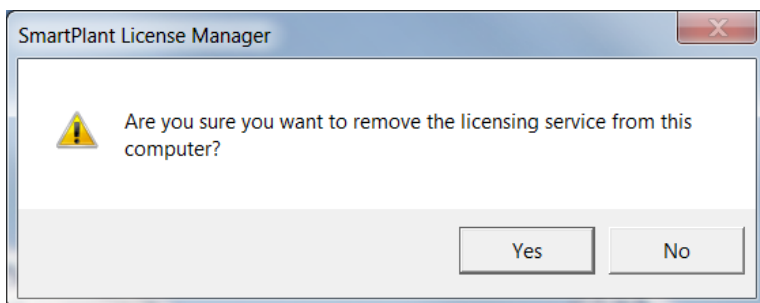
NOTES

- Using this command removes the service. To add the service, refer to *Install and Start the Licensing Service* (on page 36).
 - If you install SmartPlant License Machine client on Windows Vista, Windows 7, Windows Server 2008, or Windows Server 2008 R2, and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
1. Click **Start > Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager** to start SmartPlant License Manager. The **SmartPlant Licensing Manager** dialog box appears.
 2. Click **Stop and Remove Options** on the **SmartPlant License Manager** dialog box. The **Install and Remove Options** dialog box appears.

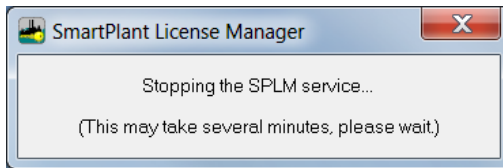


3. Click **Stop and Remove Licensing Service**.
4. Click **Select**.

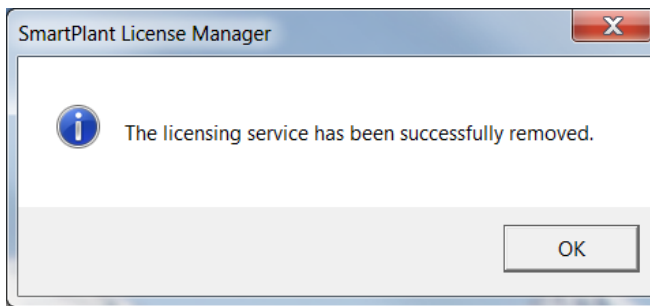
The system displays a message box indicating that the license service is successfully removed.



5. Click **Yes** to stop and remove the licensing service.



6. Click **OK** to dismiss the message box indicating that the licensing service has been successfully stopped and removed.



See Also

Install and Start the Licensing Service (on page 36)

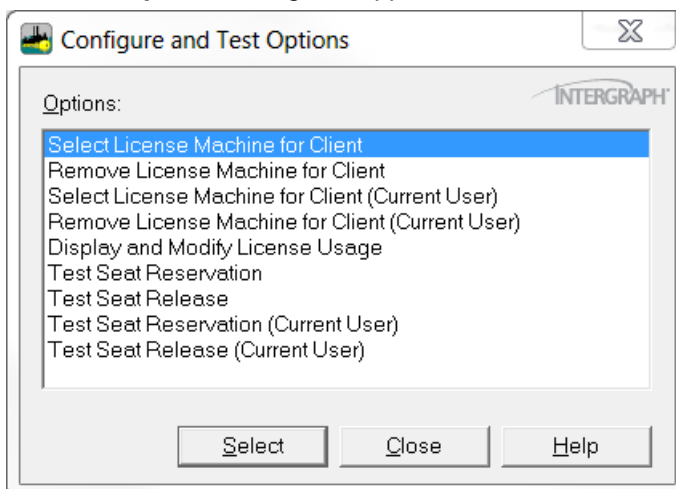
Install a License Key (on page 34)

Configuring and Testing Options

When the SmartPlant License Manager key is successfully installed, you can configure and test your client computers. This section covers selecting a license machine for a client, removing a client from the license machine, displaying and modifying the license usage, and reserving and unreserving a seat.

Use the following procedure to access the Configure and Testing Options dialog box.

1. Click **Configure and Test** on the **SmartPlant License Manager** dialog box. The **Configure and Test Options** dialog box appears.



See Also

Select a License Machine for a Client (on page 39)

Remove License Machine for a Client (on page 40)

Test Seat Reservation (on page 42)

Test Seat Release (on page 44)

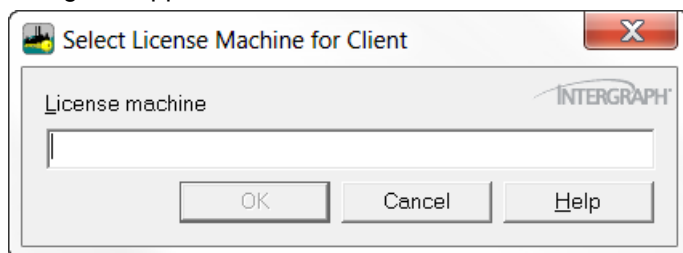
Log Product Usage (on page 56)

Select License Machine

Use the following procedure to select a license machine for a client. You can also add more than one license machine at a time by defining the license machine names separated by a space. For example, licensemachine1 licensemachine2 licensemachine3.

NOTES

- If you install SmartPlant License Machine client on Windows Vista or Windows Server 2008, and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
 - You must have administrative privileges to use this command.
 - The maximum number of allowed license machines is 25.
 - No spaces are allowed in the actual license machine name.
 - SmartPlant License Manager client searches available licenses on the licensing machines in the order they were added. If you would like the client to locate a license from a particular licensing machine first, then that machine needs to be on the top of the list. You can use *Display License Machine for Client - All Users* (on page 55) option to check the order of licensing machines.
 - If you are working in a heterogeneous environment, you need to use the license machine's IP address instead of the actual name (**Machine name**).
 - To verify that the computer correctly points to the license machine, refer to *Display the License Machine for a Client - Current User Only* (on page 56).
 - To test checking out (reserving) a license on the client computer, refer to *Test Seat Reservation* (on page 42).
 - To release the license you just reserved, refer to *Test Seat Release* (on page 44).
1. Log onto each computer that will reserve a license (including, possibly, the license machine itself), and make sure SmartPlant License Manager is installed.
 2. On the **Configuration and Testing** dialog box, click **Select License Machine For Client**. (Or, type `pdlice -j` in a Command Prompt window.) The **Select License Machine For Client** dialog box appears.



3. Type the computer name(s) of your license machine in the **Machine name** field. The license machine name can be a maximum length of 29 characters and can contain no spaces.

Click **OK**. If you want to add another license machine name, repeat step 2.

See Also

Remove License Machine (on page 66)

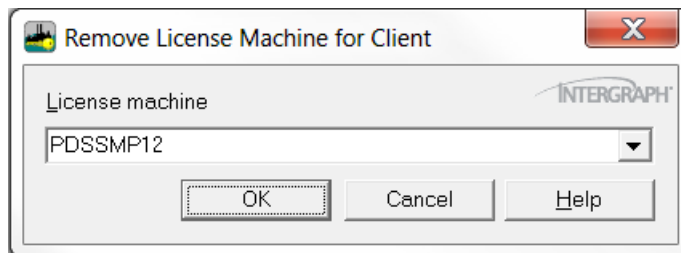
Test for Seat Reservation (on page 66)

Test for Seat Release (on page 68)

Remove License Machine

Use the following procedure to remove a license machine from the client's license machine list.

- **NOTE** The SmartPlant License Manager license machine value displayed when **Select License Machine for Client - Current User** is selected is stored in HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines registry. If there is no SmartPlant License Manager license machine defined for the current user when you click **Remove License Machine for Client - Current User**, the following message displays: **There are no license machines to display for this user under HKCU.**
- 1. Click **Remove License Machine for Client** on the **Configure and Test** dialog box. (Or, type pdlice -k in a Command Prompt window.) The **Remove License Machine for Client** dialog box appears. This option removes the license machine name and the internet address from the registry.



2. Type the name of the license machine you want to remove in the **Machine name** field. If you selected your license machine using the **Select License Machine For Client** option, the license machine name automatically appears in the **Machine name** field or you can select it from the list.
3. Click **OK**. The **SmartPlant License Manager Information** box appears.

See Also

Select License Machine (on page 65)

Test for Seat Reservation (on page 66)

Test for Seat Release (on page 68)

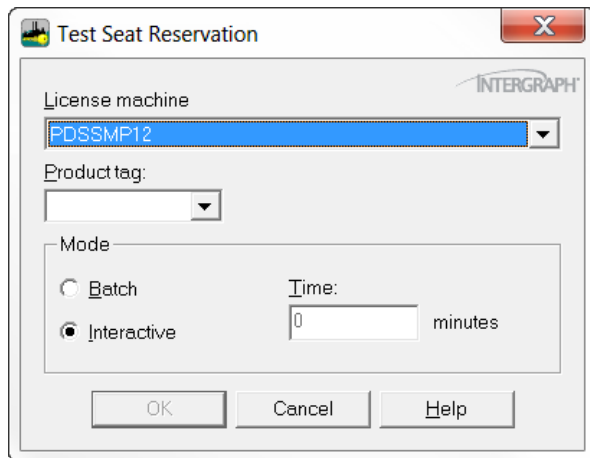
Test for Seat Reservation

Use the following procedure to test whether a license can be reserved from the client. This is especially helpful in testing license machine and client communication after installation.

NOTES

- When running this command, if you have no license key installed or you have a version prior to SmartPlant License Manager 2012 selected, the message "There are no tags in the key on the license machine xxx." and a blank product tag list will display.
- If the IP address of the SmartPlant License Manager license machine is changed after you have installed a SmartPlant License Manager key, the **Product Tag** list in the **Test Seat Reservation** dialog box will be empty. When you install a new key using the updated IP address, the **Product Tag** list will display the correct tags.
- If a license request is not completed because the license machine is busy or scavenging, then SmartPlant License Manager automatically submits the request for a license again.

- The default mode for testing a seat reservation is **Interactive**.
 - If you purchased a PDS PID license, only the PDS PID application is available to use. If you purchased PDS 2D, the PDS PID, IDM, and PFD applications are available to use.
 - A batch job will not display any warning about a lack of seats because the batch job will wait until it can retrieve the seat. Only interactive jobs will return a warning message when a seat is not available. For example, a PD_Model batch submission will wait until it can retrieve five seats. If five seats cannot be retrieved, the system waits until you successfully delete the job from the queue.
1. Click **Test Seat Reservation** on the **Configuration and Testing** dialog box. The **Test Seat Reservation** dialog box appears.



2. Set the applicable options.

License machine – Select the name of the license machine to define where the seat will be reserved.

Batch – Activates batch processing mode. If a license is not immediately available, the process tries to start the batch request again until it is successful. If the batch process has not started within 12 hours, then no more attempts are made to start the request.

Interactive – Activates interactive processing mode.

Time (Min) – Defines how long a client machine will wait to get a license seat in minutes (if there is not one available). The **Test Seat Reservation** dialog box remains open until the defined wait time is over or until there is a license seat available. The license machine you are requesting wait time on must have SmartPlant License Manager installed and a valid license key assigned.

Product Tag – Use the drop-down list to select the appropriate product, as detailed in the following table. Connect to the Intergraph eCustomer web site (<https://crmweb.intergraph.com>) to view the latest SmartPlant License Manager list of available product tags.

NOTES

- If you are using a SmartPlant License Manager 2012 (v12) license machine, the **Product Tag** list only display the licenses that are available from the SmartPlant License Manager 2012 (v12) license machine.
- A blank (or empty) product tag list may display after you select a license machine. This may occur if the selected SmartPlant License Manager version on the license machine is older than the SmartPlant License Manager version that is installed on the client machine. This may also occur if the SmartPlant License Manager service is not running on the selected license machine, or if the selected license machine has a 0

(zero) key installed. Also, if pdlice.exe has not been added to the Exception List for Microsoft Windows Firewall on the SmartPlant License Manager license machine, a blank tag list can display.

- If you are using the PDS product, the domain name is not used when logging product usage.
3. Select your license machine name that automatically appears in the **License machine** field or select it from the drop-down list.
 4. Select **Batch** or **Interactive**. To execute this option as a batch process, click the **Batch** option. The **Time (Min)** and **Product Tag** fields activate. Type the wait time in minutes.
 5. Click the **Product tag** drop-down list and select the product tag.
 6. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears. If you are testing client-license machine communication, note the seat number in the dialog box. The seat number information will be used in the **Test Seat Release** command.

See Also

Configure and Test Options (on page 38)

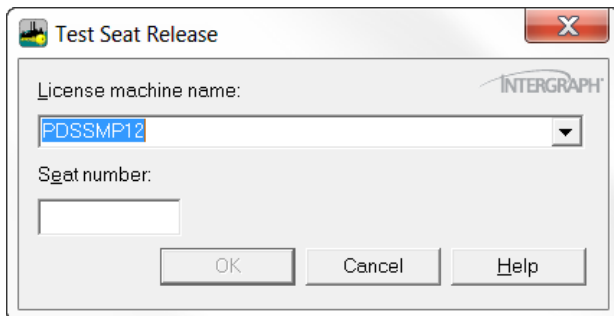
Display and Modify License Usage (on page 41)

Log Product Usage (on page 56)

Test for Seat Release

Use the following procedure to ensure that a seat has been unreserved or released from the license machine.

1. Click **Test Seat Release** on the **Configuration and Testing** dialog box.



2. If the node name does not automatically appear in the **License machine name** field, select it from the list or type the node name in the **License machine name** field. Type the assigned number of the seat in the **Seat Number** field.
3. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears with confirmation or error information.

See Also

Configure and Test Options (on page 38)

Display and Modify License Usage (on page 41)

Log Product Usage (on page 56)

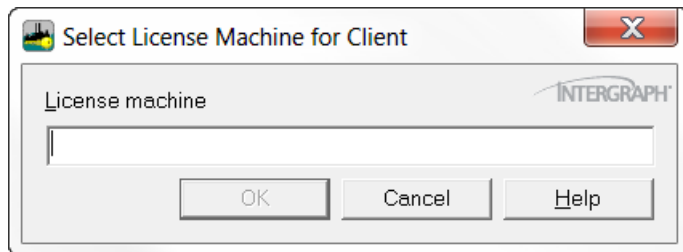
Select License Machine for Client - Current User

NOTE Uninstalling SmartPlant License Manager does not remove the following registry entry.
 HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines

Use the following procedure to select a license machine for a client. You can also add more than one license machine at a time by defining the license machine names separated by a space. For example, licensemachine1 licensemachine2 licensemachine3.

NOTES

- If you install SmartPlant License Machine client on Windows Vista or Windows Server 2008, and you have UAC turned on, and if your login belongs to local administrator's group, you need to right-click and start **SmartPlant License Manager** or a DOS window using the **Run as administrator** option. Or, you can go to `License.exe`, right-click and go to **Properties**, turn on **Run this program as an administrator** option in **Compatibility**. Otherwise, you receive an **Access denied** error message.
 - You must have administrative privileges to use this command.
 - The maximum number of allowed license machines is 25.
 - No spaces are allowed in the actual license machine name.
 - SmartPlant License Manager client searches available licenses on the licensing machines in the order they were added. If you would like the client to locate a license from a particular licensing machine first, then that machine needs to be on the top of the list. You can use *Display License Machine for Client - All Users* (on page 55) option to check the order of licensing machines.
 - If you are working in a heterogeneous environment, you need to use the license machine's IP address instead of the actual name (**Machine name**).
 - To verify that the computer correctly points to the license machine, refer to *Display the License Machine for a Client - Current User Only* (on page 56).
 - To test checking out (reserving) a license on the client computer, refer to *Test Seat Reservation* (on page 42).
 - To release the license you just reserved, refer to *Test Seat Release* (on page 44).
1. Log onto each computer that will reserve a license (including, possibly, the license machine itself), and make sure SmartPlant License Manager is installed.
 2. On the **Configuration and Testing** dialog box, click **Select License Machine For Client**. (Or, type `pdlice -j` in a Command Prompt window.) The **Select License Machine For Client** dialog box appears.



3. Type the computer name(s) of your license machine in the **Machine name** field. The license machine name can be a maximum length of 29 characters and can contain no spaces.
4. Click **OK**. If you want to add another license machine name, repeat step 2.

See Also

Select a License Machine for a Client (on page 39)

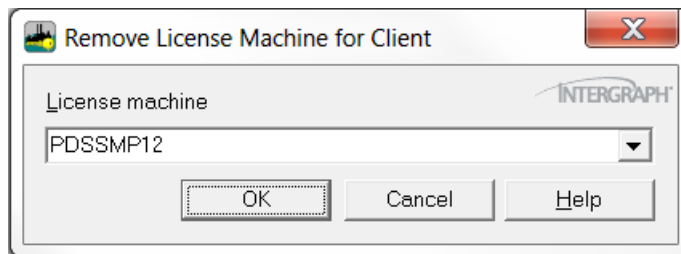
Remove License Machine for a Client (on page 40)

- Display and Modify License Usage* (on page 41)
- Test Seat Reservation* (on page 42)
- Test Seat Release* (on page 44)
- Remove License Machine for Client (Current User)* (on page 46)
- Test Seat Reservation (Current User)* (on page 47)
- Test Seat Release (Current User)* (on page 49)

Remove License Machine - Current User

Use the following procedure to remove a license machine from the client's license machine list.

- **NOTE** The SmartPlant License Manager license machine value displayed when **Select License Machine for Client - Current User** is selected is stored in HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines registry. If there is no SmartPlant License Manager license machine defined for the current user when you click **Remove License Machine for Client - Current User**, the following message displays: **There are no license machines to display for this user under HKCU.**
1. Click **Remove License Machine for Client** on the **Configure and Test** dialog box. (Or, type pdlice -k in a Command Prompt window.) The **Remove License Machine for Client** dialog box appears. This option removes the license machine name and the internet address from the registry.



2. Type the name of the license machine you want to remove in the **Machine name** field. If you selected your license machine using the **Select License Machine For Client** option, the license machine name automatically appears in the **Machine name** field or you can select it from the list.
3. Click **OK**. The **SmartPlant License Manager Information** box appears.

See Also

- Select a License Machine for a Client* (on page 39)
- Remove License Machine for a Client* (on page 40)
- Display and Modify License Usage* (on page 41)
- Test Seat Reservation* (on page 42)

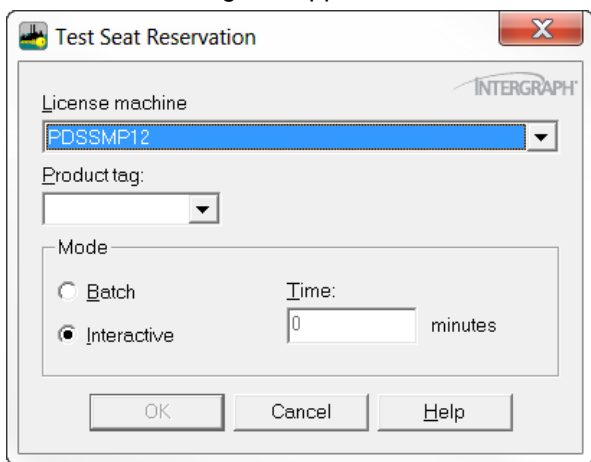
Test Seat Reservation - Current User

Use the following procedure to test whether a license can be reserved from the client. This is especially helpful in testing license machine and client communication after installation.

NOTES

- When running this command, if you have no license key installed or you have a version prior to SmartPlant License Manager 2012 selected, the message "There are no tags in the key on the license machine xxx." and a blank product tag list will display.
- If the IP address of the SmartPlant License Manager license machine is changed after you have installed a SmartPlant License Manager key, the **Product Tag** list in the **Test Seat Reservation** dialog box will be empty. When you install a new key using the updated IP address, the **Product Tag** list will display the correct tags.

- If a license request is not completed because the license machine is busy or scavenging, then SmartPlant License Manager automatically submits the request for a license again.
 - The default mode for testing a seat reservation is **Interactive**.
 - If you purchased a PDS PID license, only the PDS PID application is available to use. If you purchased PDS 2D, the PDS PID, IDM, and PFD applications are available to use.
 - A batch job will not display any warning about a lack of seats because the batch job will wait until it can retrieve the seat. Only interactive jobs will return a warning message when a seat is not available. For example, a PD_Model batch submission will wait until it can retrieve five seats. If five seats cannot be retrieved, the system waits until you successfully delete the job from the queue.
1. Click **Test Seat Reservation** on the **Configuration and Testing** dialog box. The **Test Seat Reservation** dialog box appears.



2. Set the applicable options.

License machine – Select the name of the license machine to define where the seat will be reserved.

Batch – Activates batch processing mode. If a license is not immediately available, the process tries to start the batch request again until it is successful. If the batch process has not started within 12 hours, then no more attempts are made to start the request.

Interactive – Activates interactive processing mode.

Time (Min) – Defines how long a client machine will wait to get a license seat in minutes (if there is not one available). The **Test Seat Reservation** dialog box remains open until the defined wait time is over or until there is a license seat available. The license machine you are requesting wait time on must have SmartPlant License Manager installed and a valid license key assigned.

Product Tag – Use the drop-down list to select the appropriate product, as detailed in the following table. Connect to the Intergraph eCustomer web site (<https://crmweb.intergraph.com>) to view the latest SmartPlant License Manager list of available product tags.

NOTES

- If you are using a SmartPlant License Manager 2012 (v12) license machine, the **Product Tag** list only display the licenses that are available from the SmartPlant License Manager 2012 (v12) license machine.
- A blank (or empty) product tag list may display after you select a license machine. This may occur if the selected SmartPlant License Manager version on the license machine is older than the SmartPlant License Manager version that is installed on the client

machine. This may also occur if the SmartPlant License Manager service is not running on the selected license machine, or if the selected license machine has a 0 (zero) key installed. Also, if pdlice.exe has not been added to the Exception List for Microsoft Windows Firewall on the SmartPlant License Manager license machine, a blank tag list can display.

- If you are using the PDS product, the domain name is not used when logging product usage.
3. Select your license machine name that automatically appears in the **License machine** field or select it from the drop-down list.
 4. Select **Batch** or **Interactive**. To execute this option as a batch process, click the **Batch** option. The **Time (Min)** and **Product Tag** fields activate. Type the wait time in minutes.
 5. Click the **Product tag** drop-down list and select the product tag.
 6. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears. If you are testing client-license machine communication, note the seat number in the dialog box. The seat number information will be used in the **Test Seat Release** command.

See Also

Select a License Machine for a Client (on page 39)

Remove License Machine for a Client (on page 40)

Display and Modify License Usage (on page 41)

Test Seat Reservation (on page 42)

Test Seat Release (on page 44)

Select License Machine for Client (Current User) (on page 45)

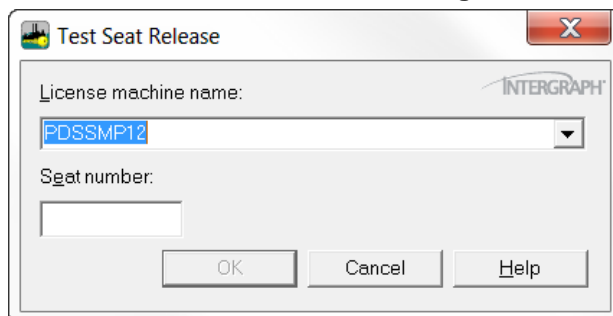
Remove License Machine for Client (Current User) (on page 46)

Test Seat Release (Current User) (on page 49)

Test Seat Release - Current User

Use the following procedure to ensure that a seat has been unreserved or released from the license machine.

1. Click **Test Seat Release** on the **Configuration and Testing** dialog box.



2. If the node name does not automatically appear in the **License machine name** field, select it from the list or type the node name in the **License machine name** field. Type the assigned number of the seat in the **Seat Number** field.
3. Click **OK**.

The **SmartPlant License Manager Information** dialog box appears with confirmation or error information.

See Also

Select a License Machine for a Client (on page 39)

- Remove License Machine for a Client* (on page 40)
- Display and Modify License Usage* (on page 41)
- Test Seat Reservation* (on page 42)
- Test Seat Release* (on page 44)
- Select License Machine for Client (Current User)* (on page 45)
- Remove License Machine for Client (Current User)* (on page 46)
- Test Seat Reservation (Current User)* (on page 47)

Display Options Commands

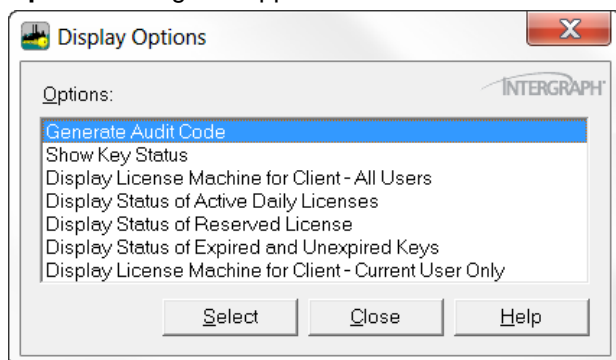
The **Display Options** commands display information in the **SmartPlant License Information** dialog box. In some fields on that dialog box, product abbreviations are used instead of the full product names. Connect to the Intergraph eCustomer web site (<https://crmweb.intergraph.com>) to view the latest SmartPlant License Manager list of available product tags.

NOTE

- License machines with a high volume of network traffic, including seat requests and seat returns, should split the licenses onto multiple machines for better licensing performance.
- If you are using the PDS product, the domain name is not used when logging product usage.

Use the following procedure to access the SmartPlant License Manager monitoring functions.

- Click **Display** on the main **SmartPlant License Manager** dialog box. The **Display Options** dialog box appears.



See Also

- Generate an Audit Code* (on page 53)
- Display the Status of Active Daily Licenses* (on page 54)
- Display the Status of Reserved Licenses* (on page 54)
- Display the Status of Expired and Unexpired Keys* (on page 54)

Display the License Machine for Client - All Users

Use the following procedure to display the list of license machines for a client and includes all users.

1. Click **Display License Machine for Client - All Users** on the **Display Options** dialog box. The **SmartPlant License Information** dialog box appears.

See Also

Display Options (on page 52)

Display the Status of Active Daily Licenses (on page 54)

Display the Status of Reserved Licenses (on page 54)

Display the Status of Expired and Unexpired Keys (on page 54)

Display the License Machine for Client - Current User Only

Use the following procedure to display the list of license machines for a client including only current users.

NOTE

- A license machine that is defined in the HK_Current_User does not roll over to a license machine defined using the SmartPlant License Manager interface (saved in HKLM_Current_User).
- SmartPlant License Manager allows setting the license machine for each user account. Using the local administrator's login, this can be defined at the registry key for the current user. For example, [HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines].
- The SmartPlant License Manager license machine value displayed when **Select License Machine for Client - Current User** is selected is stored in HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines registry. If there is no SmartPlant License Manager license machine defined for the current user when you click **Remove License Machine for Client - Current User**, the following message displays:

There are no license machines to display for this user under HKCU.

When the SmartPlant License Manager client software finds a license machine listed in the correct registry location for the current user, the license machine listed will silently take precedence over the **Selected License Machine for Client** configured in the SmartPlant License Manager software.

To determine if a custom license machine has been configured for a given client, login as that client and select **Display > Display License Machine for Client - Current User Only**.

1. Click **Display License Machine for Client - Current User Only** on the **Display Options** dialog box.

The **SmartPlant License Information** dialog box appears.

See Also

Configure a License Machine for Current User (on page 100)

Display Options (on page 52)

Display the Status of Active Daily Licenses (on page 54)

Display the Status of Reserved Licenses (on page 54)

Display the Status of Expired and Unexpired Keys (on page 54)

SECTION 5

Frequently Asked Questions (FAQ)

Refer to the SmartPlant License Manager FAQ on the Web in the eCustomer system for the most current FAQ. It is continually updated. Click https://crmweb.intergraph.com/ecustomer_enu and select **Services > Download Software Updates > Products > SPLM**.

Will providing the Machine ID make my computer less secure?

No. The Machine ID allows the license manager to uniquely identify your computer from a collection of hardware and software identifiers without explicitly publishing your computer's TCPIP address. Because the computer identifier cannot be used like a TCPIP address, it is actually more secure than publishing your computer's TCPIP address.

Where can I find SmartPlant License Manager and other products to download?

SmartPlant License Manager is available from the following web page:

<https://crmweb.intergraph.com>

Select **Services > Download Software Updates > Products > SPLM**.

You do not need a serial number to install SmartPlant License Manager.

Can I divide the licenses for one LAN into several license computers for the purpose of managing project access, for example, or as coverage in the event that my license computer goes down?

Yes, you can divide the licenses.

What happens if I install the new license key prior to expiration of the old license key?

The new license will overwrite the existing key independent of the expiration date.

Is my existing key still running if I regenerate the Machine ID?

Yes, but you will not be able to reinstall the old key. You will need to request a new key for the new machine identifier.

See Also

Purchasing Licenses FAQ (on page 75)

General Topics FAQ (on page 76)

PDS, FrameWorks Plus, and ISOGEN FAQ (on page 77)

Purchasing Licenses FAQ

Do I have to request a software upgrade from my local office before requesting a license?

No, you can request licenses without upgrading the software. If you are upgrading software, you must request the upgrade before you request licenses. A license request does not include a software upgrade and a software upgrade does not include a license request.

See Also

Frequently Asked Questions (FAQ) (on page 75)

General Topics FAQ (on page 76)

PDS, FrameWorks Plus, and ISOGEN FAQ (on page 77)

General Topics FAQ

What is a license machine?

The license machine is the computer where the license key is loaded; it can be a standard computer or a server. The license key tells the license machine how many licenses it can issue. Clients of a license machine are computers where SmartPlant License Manager is installed and pointing to the license machine. The computer where you start the software (for example, PDS or SmartPlant P&ID) asks the license machine for a license. If a license is available, the license machine provides it. If all licenses are in use, the client is not granted a license.

How can I tell what version of SPLM was used in the Machine ID or license key file?

Please check the starting number in your Machine ID or license key. See the table below.

Version	Machine ID starts with	License key starts with
2012 (v12)	5	3
2010 (v11)	6	2
2008 (v10)	7	1

Do I have to have one license computer for each LAN?

No, your configuration is entirely up to you. A persistent network connection is required if you want to connect to a license server that belongs to a different LAN.

Can I make an educated guess at my installation date?

Yes. Intergraph provides a key within 48 hours of receipt of your request (via mail or phone). Please ensure that the date you request is the actual date that you install the key, making sure that all necessary software is available and loaded before that date. We request that you notify us as early as possible.

What happens if my license machine goes down?

You are unable to check out licenses from this machine until it is back in use. Processes that already have licenses checked out are not affected by the fact that the license computer is unavailable.

It is possible in critical situations to request emergency licenses from Intergraph. They are installed on the client computer rather than a licensing machine. Contact Intergraph Support at 1-800-766-7701 or your local Intergraph office for more information.

What happens if the license machine is rebooted in the middle of my design session?

Nothing. Licensing does not depend on maintaining a continuous communication link to the license computer.

What happens if my local computer goes down after I've obtained a license?

If the scavenger cannot contact the client computer during scavenging, the license is marked for a 16-hour hold before it is released. The scavenger periodically advances this 16-hour timer for each license. It is important to schedule the scavenger to run regularly, at least every hour or two. If the client is in contact sooner, the hold is voided and normal scavenging takes over.

I am running out of licenses earlier than I believe I should be. How can I troubleshoot to understand what is happening?

Have your users click **Scavenge for Keys** on the **Scavenge Options** dialog box or you can type `pdlice -n` in a Command Prompt window.

If you think that client nodes are improperly holding onto licenses, examine the results of the `pdlice -M` command. This shows you which client nodes have licenses checked out. If a client computer has no plant design-related activity and it is still holding licenses, rebooting that client and then scavenging from the license computer may free some licenses.

If possible, find out what was processing when the job stopped. This information can help you and/or Intergraph determine the underlying cause of the termination. Save the output of any scavenging process that returns a license. This information provides the reasons why the license was returned. The output of the scavenger includes the following information: nodename, product tag, batch mode (Yes/No), process ID, and checkout time.

What do I type to see the number of licenses?

Click **Show Key Status** from the **Display Options** dialog box to show the status of your keys.

How can I tell who is using a license?

Click **Display Status of Reserved License** on the **Display Options** dialog box or in the license log file.

We installed a key for three licenses, but we can operate only two licenses at the same time. Why?

There can be several reasons.

Click **Display Status of Reserved License** on the **Display Options** dialog box to determine the number of licenses that your key contains.

Click **Scavenge for Keys** on the **Scavenge Options** dialog box to scavenge for the third license that you are unable to use.

Verify that clients and servers can telnet to each other. Look for anomalies such as two nodes on the network with the same name or the reuse of an old name for a new computer, but with some traces of the old computer still existing in files on the network.

When an application is on a computer that is disconnected from the network without exiting the product, how long is the license held?

16 hours.

How long would a daily license last?

Daily license expires after 12 hours.

See Also

Frequently Asked Questions (FAQ) (on page 75)

Purchasing Licenses FAQ (on page 75)

PDS, FrameWorks Plus, and ISOGEN FAQ (on page 77)

PDS, FrameWorks Plus, and ISOGEN FAQ

How many licenses are recommended as a minimum for each operator (user) to work interactively as well as to start batch processes such as isometrics, reports, model creations, and so forth?

There is no standard recommendation. If you are working in interactive mode only, then you only need one license. If you often run batch jobs while also working interactively, then you need two or more (although batch jobs can be scheduled to occur during off hours). Look closely at the site workflow to determine whether different formulas may be required within a customer site for different departments. For example, in a piping department where designers only are considered, the workflow requires four licenses for every three people.

How are ISOGEN licenses handled?

SmartPlant License Manager requires the use of a license to run ISOGEN, a third-party product. Interactive isometric generation uses one Interactive ISOGEN license, while batch isometric generation uses one Batch ISOGEN license and one PDS 3D license.

How are batch jobs handled?

Batch jobs request one or more licenses at the time they are scheduled to run. If a license is not immediately available, the jobs wait until a license is available, and then the jobs start.

Will an ISOGEN batch job take an interactive license?

No. The batch job will not take an interactive license and an interactive job will not take a batch license.

What is required to extract an Isometric drawing?

Extracting an isometric drawing requires either an SBISO or SIISO license in addition to a 3D license. The 3D license is required for the batch job. That is in addition to the Interactive 3D seat required if the form is not returned to PD_Shell.

What do I type to see the number of remaining PDS daily keys?

Click **Display Status of Active Daily Licenses** on the **Display Options** dialog box to show the number of your remaining daily keys.

How can I save a weekly record of PDS daily keys?

You can save the output from the auditing process.

Click **Display Status of Active Daily Licenses** on the **Display Options** dialog box to show the number of your remaining PDS daily keys. Click **Save** to display the **Save File** dialog box. Select a folder and file name to save the information to a file that you can use for later reference. Click OK to save the file.

I expect PD_ISO to release a license as soon as the .idf file is generated, but this does not seem to be the case. Why not?

Batch isometric generation uses a PDS license from the time the batch job first starts pdsidf until the project database has been updated for the last line in a batch job. PDS is working until the last line has been processed. In addition, a batch isometric generation uses a Batch ISOGEN license.

Refer to the *PDS ISOGEN Reference Guide* for a basic description of the processes involved during a batch isometric run.

I purchased PDS, but I am not on maintenance and need to move my key to a new TCP/IP address. Since I cannot access the eCustomer Web site, how do I get the SmartPlant License Manager software?

Call Intergraph Support at 1-800-766-7701 or the local Intergraph office. For U.S. customers, Huntsville Support will provide the software via e-mail or the Intergraph external ftp site. For international customers, the local Intergraph office can download SmartPlant License Manager from eCustomer Web site and provide it to customers.

My company purchased copies of FrameWorks Plus Standalone in addition to the PDS licenses that we purchased. When I enter FrameWorks Plus through PD_Shell, a PDS license is used. Why?

When you access any module or product through PD_Shell, you are using it as a PDS module and thus a PDS license is used.

Working interactively in ISOGEN requires one license. Is it possible to start batch processes for a single workstation with one license?

You can schedule batch processes to run when the interactive license is not being used.

Is it possible to have purchased and leased licenses served from only one license machine?

Yes. The licensing software does not differentiate between leased or purchased licenses. It only considers what is executing on the LAN.

My PDS PID Standalone licenses are never used. Why?

Verify that your PDS PID Standalone product was installed using your PDS PID Standalone serial number.

Do you support a PDS Batch job on a Citrix machine with SPLM client installed?

No, we don't support running a PDS batch job on Citrix machine. It could result in a SPLM failed error.

See Also

Frequently Asked Questions (FAQ) (on page 75)

Purchasing Licenses FAQ (on page 75)

General Topics FAQ (on page 76)

SmartSketch and SmartPlant Products FAQ

What is the first release of SmartSketch that requires SmartPlant License Manager?

Some installations of SmartSketch 5.0/SP1 require SmartPlant Licensing Manager, but not all of them. Check with your System Administrator or contact Intergraph if you are not sure about installation.

Which versions of SmartPlant Electrical and SmartPlant Instrumentation (formerly INtools) use SmartPlant License Manager?

All versions of SmartPlant Electrical and SmartPlant Instrumentation versions 7 and higher use the SmartPlant License manager. Use the SmartPlant license request form to request license keys for SmartPlant Instrumentation versions 7 and higher, not the INtools license request form.

Can SmartPlant Review 5.0 or later still be used on a laptop with SmartPlant License Manager? Can SmartSketch 5.0?

Yes. Install SmartPlant License Manager on the laptop and use the laptop as the license machine. You must request a license key for the laptop.

When SmartPlant Instrumentation or INtools is on a machine that is disconnected from the network without exiting the product, how long is the license held?

16 hours.

SmartPlant 3D and SmartPlant Layout FAQ

What functions take a SmartPlant 3D seat?

Each SmartPlant 3D tasks (each instance of the S3Dhost.exe process) take one SmartPlant 3D seat. Note that when doing a Paste/Restore operation, you open two SmartPlant 3D processes, and therefore this operation takes two SmartPlant 3D seats. In addition, three functions take a separate additional seat: SmartPlant 3D Interference Detection Service (Interference Checking), Batch Server, and Global Workshare Duplication and Synchronization service.

For SmartPlant 3D version 2009.1 and later, Global Workshare DuSS service no longer requires its own SmartPlant 3D seat. Additionally, the Remote IFC Process (Interference

Frequently Asked Questions (FAQ)

Checking) no longer requires a seat for each model within a site. Only one seat is pulled for the IFC service for the site.

What about SmartPlant Layout?

To use SmartPlant Layout, you must start SmartPlant 3D first. This takes one SmartPlant 3D seat and one SmartPlant Layout seat. This matches what you get when you purchase one license of SmartPlant Layout, you get one seat of SmartPlant 3D and one seat of SmartPlant Layout.

Are there other activities in SmartPlant 3D seat that require a special seat?

The only other activity that requires a different seat is importing XML files (that came from PDS export, or from other systems) into SmartPlant 3D. This requires a SP3D Import seat.

Can SmartPlant 3D and SmartPlant Layout work with any version of SPLM?

No. Both products only work with version 9.0 (and future versions) of SPLM.

If all my SmartPlant 3D seats are already in use, can a new instance of SP3D use another type of seat?

No. SmartPlant 3D only works with a SP3D seat.

See Also

Frequently Asked Questions (FAQ) (on page 75)

Purchasing Licenses FAQ (on page 75)

General Topics FAQ (on page 76)

PDS, FrameWorks Plus, and ISOGEN FAQ (on page 77)

SmartPlant Reference Data and SmartPlant Materials FAQ

Which SmartPlant License Manager License modules of SmartPlant Reference Data/SmartPlant Materials are supported?

Current supported SmartPlant License Manager license modules are SmartPlant Reference Data and SmartPlant Materials. Support for smaller SmartPlant Reference Data/SmartPlant Materials parts like SmartPlant Materials Material Supply Chain Management, SmartPlant Materials Supplier Module, and so forth is planned for future implementation.

Does SmartPlant Reference Data/SmartPlant Materials requires a permanent online connection with SmartPlant License Manager license machine?

SmartPlant Reference Data/SmartPlant Materials is using the Checkout Utility which will be used to install a license key into the SmartPlant Reference Data/SmartPlant Materials database. After this installation, SmartPlant Reference Data/SmartPlant Materials can be operated without an online connection to SmartPlant License Manager license machine.

Does SmartPlant Reference Data/SmartPlant Materials support SmartPlant License Manager?

Yes

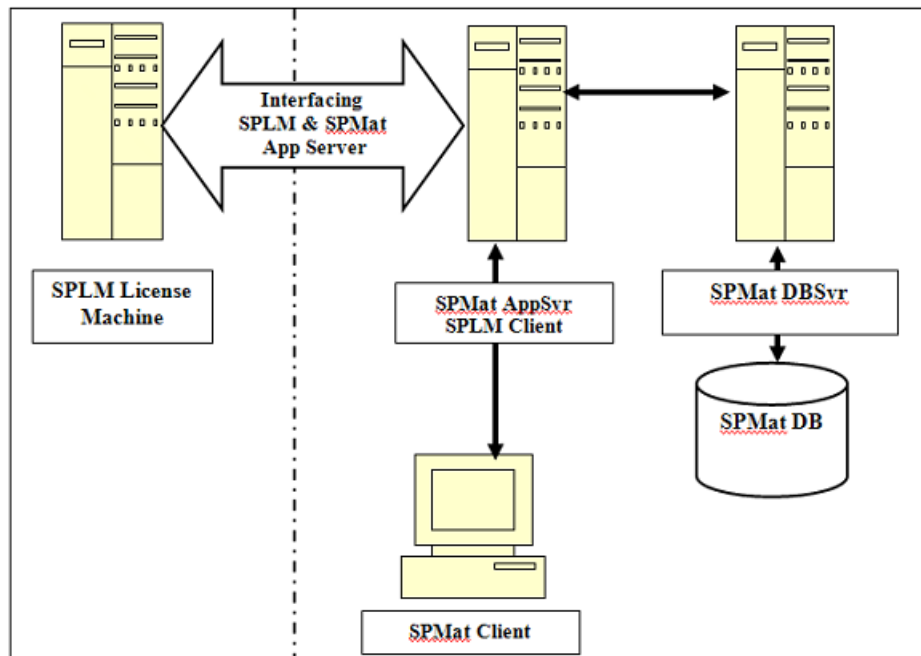
SmartPlant Materials and SmartPlant Reference Data License Handling with SPLM

SmartPlant License Manager (SPLM) provides license control for SmartPlant Materials (SPMat) and SmartPlant Reference Data (SPRD). This section explains the architecture and process for using SmartPlant License Manager.

Architecture

The following graphic displays how the SmartPlant License Manager license machine and SmartPlant Materials servers are configured and installed.

To the left of the dotted line, you can see the typical deployment of SmartPlant License Manager. On right hand side of the dotted line, you can see the deployment of SmartPlant Materials. (This could be SmartPlant Materials or SmartPlant Reference Data or both).



Here are some important points to remember:

- The SmartPlant License Manager license machine interfaces with the SmartPlant Materials/SmartPlant Reference Data web application server, which connects to the database server.
- The SmartPlant License Manager client is installed on the SmartPlant Materials/SmartPlant Reference Data web application server.
- The existing mechanism for license management in SmartPlant Materials/SmartPlant Reference Data is used in this architecture.

Prerequisites

- The application server, database server, and SmartPlant License Manager license machine must be nodes within the same network domain.
- SmartPlant Materials version 7.0.x is tested for SmartPlant License Manager version 10 and 11.
- Check if the installation of SmartPlant Materials hotfix JTS# TR-MA11323 is needed. For more information, see the Technical Users Forum at <http://userforums.intergraph.com/materialstuf/>.

Installation of SPLM

- For information about SmartPlant License Manager installation, please refer to *Installation of SmartPlant License Manager and License Key Requests for the License Machine* in this *SmartPlant License Manager Installation and User's Guide*.

Process

Using the SmartPlant License Manager functionality, you (an administrator) get and install the license for SmartPlant Materials/SmartPlant Reference Data. You can then work in the SmartPlant Materials/SmartPlant Reference Data software.

When the license is no longer needed, you can return the license to SmartPlant License Manager.

Frequently Asked Questions (FAQ)

User Interface

On the **A.60.81 License** screen (**Install Through SPLM** tab), fill in the fields. All fields are mandatory; this data is used to create the license.

Customer Number: Enter 90001.

Start Date (via LOV F9): License start date including all modules.

End Date (via LOV F9): License end date (expiration date).

Options: License installation option; depends upon how the database is configured.

DEF means default; that is, the database is on a single database node.

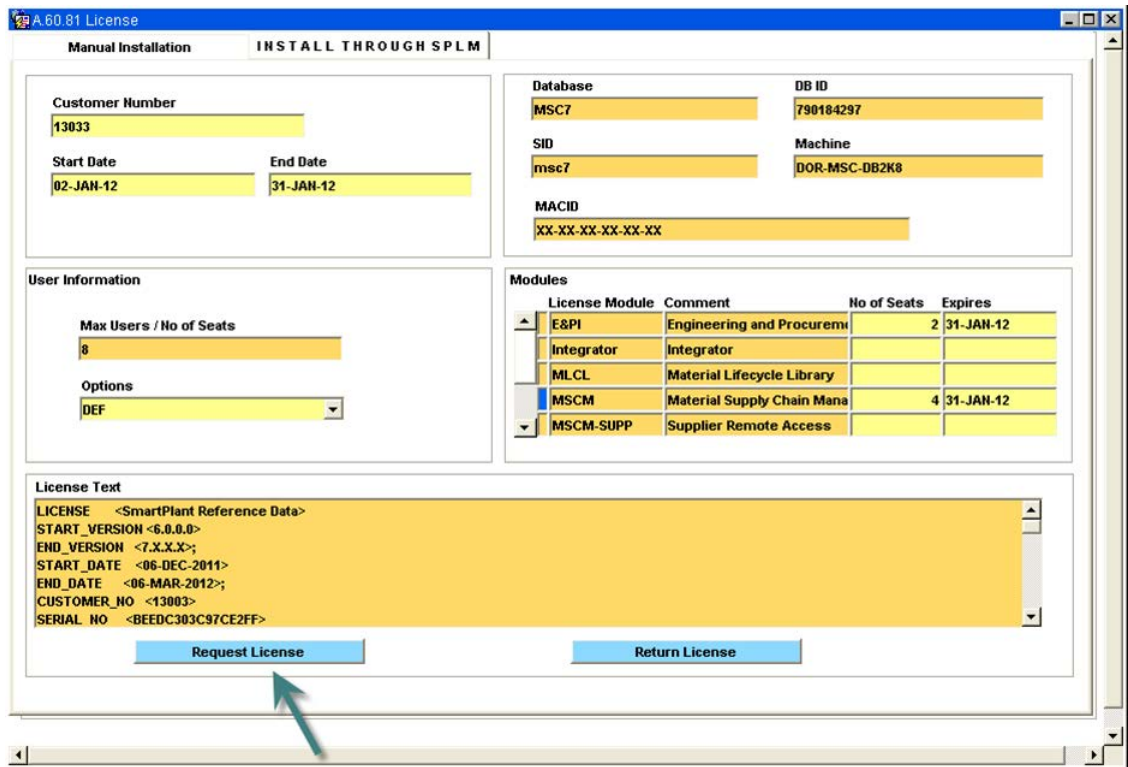
NOTE Cluster options are not yet implemented (FS - Fail Safe, RAC - Real Application Cluster, DG - Data Guard).

In the **Modules** block, enter the number of seats in the **No of Seats** field, and select the expiration date from the LOV in the **Expires** field for each relevant module. The available modules are listed below.

SmartPlant Materials Module	SmartPlant License Manager (SPLM) Tag	Description
SPMAT	MAT	Complete SmartPlant Materials
E&PI	MEP	Engineering & Procurement Interface BOM and Requisition
Integrator	MIM	Integrator
MLCL	MLC	Material Life Cycle Library (Standardization)

MSCM	MSC	Material Supply Chain Management (Procurement)
SITE	MSM	Site (Construction)
MSCM-SUPP	MSU	E-Supplier module
SPRD	RD	Complete SmartPlant Reference Data

After filling out the fields, click the **Request License** button at the bottom.

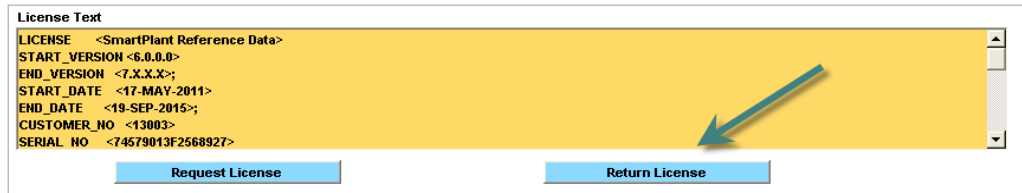


The following algorithm is used to install the license utilizing the SmartPlant License Manager license machine.

- If a license is already installed, the software warns the user.
- The software validates the input. This process validates that all required fields are supplied and additionally:
 - Total number of seats is greater than or equal to the sum of the seats mentioned for individual modules.
 - License start date cannot be previous date, and license end date is later than or the same as the start date.
 - The expiration date of each individual module is within the range of the license start date and end date.
 - At least one of the modules is checked for license generation.
- The software installs the license: This step follows all the existing required procedures for license text generation and installation up to feedback generation and installing the confirmation code.
- The software displays the internal license information in the **License Text** box.

Frequently Asked Questions (FAQ)

Return License: Returns all the seats booked for all the modules back to the SmartPlant License Manager license machine for future usage.



FAQ

Question: If licenses that are currently checked out to SmartPlant Materials are due to expire in the next few days, can you have a new license key on the SmartPlant License Manager license machine while all current licenses are with SmartPlant Materials? Is it necessary for SmartPlant Materials to release back all checked out licenses (that are due to expire in the next few days) to the SmartPlant License Manager license machine for the SmartPlant License Manager license machine to have a new license/key (increased or decreased count)?

Answer: From the SmartPlant Materials point of view – since the license is already checked out, it does not care what happens on the SmartPlant License Manager license machine. So you can change the SmartPlant License Manager key without affecting SmartPlant Materials. Then, in a few days, when the SmartPlant Materials license expires, simply check out a new license from the currently existing SmartPlant License Manager.

So yes, you can have a new SmartPlant License Manager key installed on the SmartPlant License Manager license machine, and it is not required for SmartPlant Materials to release back all checked out licenses to the SmartPlant License Manager license machine for the SmartPlant License Manager license machine to have a new key installed.

If you have un-returned seats and it's not expired yet from the old key, and you have a new key installed, you will not be able to use the new seat until the old checked out seat expires.

Question: Does it matter if the new key being installed on the SmartPlant License Manager license machine has more or less seats when SmartPlant Materials is using currently checked out licenses?

Answer: SmartPlant Materials does not care if the new key has more or less seat counts on the SmartPlant License Manager license machine.

(This is different with PDS and all other SmartPlant products in which the SmartPlant License Manager license machine does care if less counts are in the new key while the old key has users using seats when you are installing it).

Troubleshooting

In case of failure during license installation, check the following:

All servers are configured and installed and are available in the same domain as described in the Architecture section of this document.

Check that the SmartPlant License Manager client can connect to the SmartPlant License Manager license machine.

If license installation fails, search for the files `splm_req_results.log` and `splm_ret_results.log` on the SmartPlant Materials application server and send them to MSC for further support.

MAR-10301: SPLM Interface is not available

This error means that the OLE component that integrates SmartPlant Materials with SmartPlant License Manager is either not installed or not registered on the machine acting as application server for SmartPlant Materials. Go to the home directory of SmartPlant Materials on the application server and check the following path: `\bin\SPLM`. You must find `MarianSplmInte.exe`

in this folder. If it is not there, then it is an installation problem and installation has to be carried out properly again. If it is there, then probably it is not registered and you need to register this with the system registry.

MAR-10302: Failed while preparing argument list for SPLM interface

Normally this error will not come up. If this occurs, this is an environment-related problem and development will have to debug it in that case.

MAR-10303: Failed while requesting for license to SPLM interface

If installation of SmartPlant License Manager and SmartPlant Materials is done completely as mentioned earlier in this document, this problem will not come up. This error means that the call to the SmartPlant License Manager library functions failed. Check for pdliceo.lib in the system.

MAR-10304: Failed while receiving GUID from SPLM interface

There is a problem with the license installed. The SmartPlant License Manager client and license machine are not installed properly.

MAR-10305: Failed while receiving seat identification from SPLM interface

SmartPlant License Manager did not return a seat identifier in response to the request to reserve the seat. This could mean either no seats allocated for the module in the license text or all seats are in use and reserved. Please check your license text and license usage on the SmartPlant License Manager license machine.

MAR-10306: Failed while receiving response from SPLM interface

Normally this error will not occur. If it does occur, it means that SmartPlant License Manager is not returning any message text in response to the request to reserve the seat. Basically, this failure will happen while retrieving message text coming back in response to a request made to the SmartPlant License Manager license machine.

MAR-10115: SPLM is not configured for module <RD/MAT> or no seats available

This will occur when there is no seat available for the module shown in the message text.

SECTION 6

License Key Request Forms

Use the following forms for all software, including SmartPlant Instrumentation 7.0 and later. For INtools 6.0 and older, use the INtools 6.0 (and older) License Key Request form. The request forms are available on the following product Web pages.

FrameWorks Plus, SDNF Import	http://www.intergraph.com/products/ppm/structural/additional_information.aspx http://www.intergraph.com/products/ppm/structural/additional_information.aspx
PDS 3D, PDS 2D, ISOGEN	http://www.intergraph.com/products/ppm/pds/additional_information.aspx http://www.intergraph.com/products/ppm/pds/additional_information.aspx
SmartMarine 3D	http://www.intergraph.com/products/ppm/sm3d/additional_information.aspx http://www.intergraph.com/products/ppm/sm3d/additional_information.aspx
SmartPlant 3D	http://www.intergraph.com/products/ppm/smartplant/3d/Additional_Information.aspx http://www.intergraph.com/products/ppm/smartplant/3d/Additional_Information.aspx
SmartPlant Electrical	http://www.intergraph.com/products/ppm/smartplant/electrical/Additional_Information.aspx http://www.intergraph.com/products/ppm/smartplant/electrical/Additional_Information.aspx
SmartPlant Instrumentation (formerly INtools)	http://www.intergraph.com/products/ppm/smartplant/instrumentation/Additional_Information.aspx http://www.intergraph.com/products/ppm/smartplant/instrumentation/Additional_Information.aspx
SmartPlant Isometrics	http://www.intergraph.com/products/ppm/smartplant/isometrics/Additional-Information.aspx
SmartPlant P&ID	http://www.intergraph.com/products/ppm/smartplant/pid/Additional_Information.aspx http://www.intergraph.com/products/ppm/smartplant/pid/Additional_Information.aspx
SmartPlant Review	http://www.intergraph.com/products/ppm/smartplant/review/Additional_Information.aspx http://www.intergraph.com/products/ppm/smartplant/review/Additional_Information.aspx
SmartPlant Spoolgen	http://www.intergraph.com/products/ppm/smartplant/spoolgen/Additional_Information.aspx
SmartSketch	http://www.intergraph.com/products/ppm/smartsketch/Additional_Information.aspx http://www.intergraph.com/products/ppm/smartsketch/Additional_Information.aspx
SupportModeler	http://www.intergraph.com/products/ppm/pds/supportmodeler/additional_information.aspx http://www.intergraph.com/products/ppm/pds/supportmodeler/additional_information.aspx

See Also

License Key Requests for the License Machine (on page 16)

Upgrades and License Keys (on page 15)

Software Version Compatibility (on page 16)

SECTION 7

Key-in Commands Overview

Use the key-in commands to run SmartPlant License Manager in a Command Prompt window.

See Also

Alphabetical List of Key-in Commands (on page 89)

Functional List of Key-in Commands (on page 92)

Alphabetical List of Key-in Commands

The following is an alphabetical list of commands that you can use in a **Command Prompt** window.

NOTE

- If you are using Microsoft Windows 7, Windows Server 2008 R2, Windows Server 2008, or Windows Vista, you must use administrative privileges in the Command Prompt window to run any of the following commands. Select **Start > Programs > Accessories**. Select and right-click **Command Prompt**. Click **Run as administrator**.
- If UAC is turned on, you must use administrative privileges in the Command Prompt window to run any of the following commands. Select **Start > Programs > Accessories**. Select and right-click **Command Prompt**. Click **Run as administrator**. This applies to both the SPLM client and server computers. If you do not use administrative privileges, an **Access is denied** message displays.

Command	Alphabetical List Description
pdlice -a	Installs the SmartPlant License Manager license machine key. For example, type <code>pdlice -a 12AABBBCCCEDEFHKIPQRS</code> . You must have administrative privileges to use this command.
pdlice -A	Displays the SmartPlant License Manager version number. This command is available with SmartPlant License Manager 2012 (v12) or later.
pdlice -B	Displays the status of expired and unexpired license keys. Administrative privileges are required to use this command.
pdlice -c	Removes the current license machine key. You must have administrative privileges to use this command. License machine options are no longer available after using this command. When you use the Generate Machine ID command, license machine options are again available.
pdlice -e	Generates an auditing code. Administrative privileges are required to use this command.
pdlice -f	Displays the current status of the license key. Administrative privileges are required to use this command.
pdlice -h	Displays an alphabetical list of available commands for SmartPlant License Manager.

Command	Alphabetical List Description
pdlice -H	Displays an alphabetical list of available commands for SmartPlant License Manager.
pdlice -I	Install and start the SmartPlant License Manager service.
pdlice -I C	Displays a list of available license machines contained in HKEY_Current_User.
pdlice -j	Adds license machines and their addresses to the server_names file. For example, type pdlice -j server1 server2.
pdlice -k	Deletes license machines from the server_names file. For example, type pdlice -k server1 server2 ...
pdlice -l	Displays the server_names file.
pdlice -L	Displays current settings for usage logging. Options include:
pdlice -L 0 <zero>	Disables usage logging.
pdlice -L 1	Enables usage logging and sets a default file path. The default path is C:\Documents and Settings\ <username>\logging.txt< td=""></username>\logging.txt<>
pdlice -L 1 path\filename)	Enables usage logging and you can define a specified path for the log file. For example, pdlice -L 1 C:\Temp\logging.txt
pdlice -m	Displays the current status of any reserved license. Administrative privileges are required to use this command.
pdlice -M	Displays the current status of active PDS daily license. Administrative privileges are required to use this command.
pdlice -n	Scavenges or searches for licenses. Administrative privileges are required to use this command.
pdlice -N	Defines scavenging time intervals, scavenging output file name, and maximum output file size. Setting 0 <zero> as the time interval disables scavenging. Setting 1 as the time interval enables scavenging.
pdlice -Q	Displays and allows you to modify the current license usage options. You must have administrative privileges to use this command.

Command	Alphabetical List Description
pdlice -r	<p>Reserves a license. For example, pdlice -r A B C server_name where: A = Use i for interactive, b for batch, and n for non-concurrent license. B = Wait time in minutes when A is set to b (batch mode). If there are no seats available for batch, SmartPlant License Manager waits the specified time and then tries again. When A is set to i (interactive mode), any value will work. When A is set to n (counted seat for non-concurrent license), the value must be set to 0 (zero). C = Product Tag. For example, 3D. Example key-in: pdlice -r i 1 3D server1 pdlice -r n 0 FDY SPLMserver</p> <p>The server_name argument is optional. If no server name(s) is supplied, SmartPlant License Manager searches the server_names file. -1 for the third argument allows for a default waiting time to be used. The default waiting time is currently 12 hours for batch jobs if all licenses have been taken.</p> <p>The pdlice -r n 0 non-concurrent-tag splm-server command is available with SmartPlant License Manager 2012 (v12) or later.</p>
pdlice -R	Stop and remove the SmartPlant License Manager service.
pdlice -u	<p>Unreserves a license. For example, pdlice -u Seat_number license_server Example key-in: pdlice -u 8 server1</p>
pdlice -Z	<p>Provides a list of available product tags for the SmartPlant License Manager license machine (in other words, available product tags that are found in the license key). For example, pdlice -Z LicenseMachineName</p> <p>This command is available with SmartPlant License Manager 2012 (v12) or later.</p>
pdlice -?	Displays an alphabetical list of available commands for SmartPlant License Manager.

See Also

Key-in Commands Overview (on page 89)

Functional List of Key-in Commands (on page 92)

Functional List of Key-in Commands

The following is a list of commands that you can use in a **Command Prompt** window.

NOTE

- If you are using Windows 7, Windows Server 2008 R2, Windows Server 2008, or Windows Vista, you must use administrative privileges in the Command Prompt window to run any of the following commands. Select **Start > Programs > Accessories**. Select and right-click **Command Prompt**. Click **Run as administrator**.
- If UAC is turned on, you must use administrative privileges in the Command Prompt window to run any of the following commands. Select **Start > Programs > Accessories**. Select and right-click **Command Prompt**. Click **Run as administrator**. This applies to both the SPLM client and server computers. If you do not use administrative privileges, an **Access is denied** message displays.

Functional List Description	Command
Generates an auditing code. Administrative privileges are required to use this command.	pdlice -e
Displays an alphabetical list of available commands for SmartPlant License Manager.	pdlice -? pdlice -h pdlice -H
Install and start the SmartPlant License Manager service.	pdlice -I
Displays a list of available license machines contained in HKEY_Current_User.	pdlice -I C
Displays the current status of the license key. Administrative privileges are required to use this command.	pdlice -f
Displays the SmartPlant License Manager version number. This command is available with SmartPlant License Manager 2012 (v12) or later.	pdlice -A
Provides a list of available product tags for the SmartPlant License Manager license machine (in other words, available product tags that are found in the license key). For example, pdlice -Z LicenseMachineName This command is available with SmartPlant License Manager 2012 (v12) or later.	pdlice -Z
Displays and allows you to modify the current license usage options. You must have administrative privileges to use this command.	pdlice -Q
Stops and remove the SmartPlant License Manager service.	pdlice -R
Provides a list of available product tags for the SmartPlant License Manager license machine. For example, pdlice -Z LicenseMachineName	pdlice -Z

Reserves a license. For example, pdlice -r A B C server_name where: A = Use i for interactive, b for batch, and n for non-concurrent license. B = Wait time in minutes when A is set to b (batch mode). If there are no seats available for batch, SmartPlant License Manager waits the specified time and then tries again. When A is set to i (interactive mode), any value will work. When A is set to n (counted seat for non-concurrent license), the value must be set to 0 (zero). C = Product Tag. For example, 3D. Example key-in: pdlice -r i 1 3D server1 pdlice -r n 0 FDY SPLMserver	pdlice -r
The server_name argument is optional. If no server name(s) is supplied, SmartPlant License Manager searches the server_names file. -1 for the third argument allows for a default waiting time to be used. The default waiting time is currently 12 hours for batch jobs if all licenses have been taken. The pdlice -r n 0 non-concurrent-tag splm-server command is available with SmartPlant License Manager 2012 (v12) or later.	
Scavenges or searches for licenses. Administrative privileges are required to use this command.	pdlice -n
Defines scavenging time intervals, scavenging output file name, and maximum output file size. Setting 0 <zero> as the time interval disables scavenging. Setting 1 as the time interval enables scavenging.	pdlice -N
Displays current settings for usage logging. Options include:	pdlice -L
Disables usage logging.	pdlice -L 0
Enables usage logging and sets a default file path. The default path is C:\Documents and Settings\ <username>\logging.txt</username>	pdlice -L 1
Enables usage logging and you can define a specified path for the log file. For example, pdlice -L 1 C:\Temp\logging.txt	pdlice -L 1 path\filename)
Installs the SmartPlant License Manager license machine key. For example, type pdlice -a 12AABBBCCCEDEFHKIPQRS. You must have administrative privileges to use this command.	pdlice -a
Removes the current license machine key. You must have administrative privileges to use this command. License machine options are no longer available after using this command. When you use the Generate Machine ID command, license machine options are again available.	pdlice -c
Displays the Server_names file.	pdlice -l
Adds license machines and their addresses to the server_names file. For example, type pdlice -j server1 server2.	pdlice -j

Deletes license machines from the server_names file. For example, type <code>pdlice -k server1 server2</code> .	<code>pdlice -k</code>
Displays the status of active PDS daily licenses. Administrative privileges are required to use this command.	<code>pdlice -M</code>
Displays the status of all license keys (expired and unexpired). Administrative privileges are required to use this command.	<code>pdlice -B</code>
Displays the status of reserved licenses. Administrative privileges are required to use this command.	<code>pdlice -m</code>
Unreserves a license. For example, <code>pdlice -u Seat_number license_server</code> Example key-in: <code>pdlice -u 8 server1</code>	<code>pdlice -u</code>

See Also

Key-in Commands Overview (on page 89)

Alphabetical List of Key-in Commands (on page 89)

Appendix A: Using the SmartPlant License Checkout Utility

The SmartPlant License Checkout utility (License Checkout Utility.exe) allows you to obtain licenses for SmartPlant products for use on a non-networked computer (for example, a remote laptop). Using this utility allows you to run SmartPlant products without a network connection to the license machine. Each user on a server can check out a license on that machine.

When you check out a license, the license and expiration information are stored on your local machine, separate from other license and expiration information. Each time you start the product during the checkout period, a message displays the expiration date for the checked out license.

When the checkout period for the license expires, the SmartPlant product attempts to request a license using SmartPlant License Manager the next time you start the product. For example, after the license expires at 11:59 PM on the expiration date, the next time you start the product, it attempts to access the SmartPlant License Manager license machine for base and module licenses prior to running.

NOTES

- You must install and configure SmartPlant License Manager before checking out a license.
- You must have administrator privileges to check out a license or to run the product using a checked out license.

Install SmartPlant License Checkout Utility

IMPORTANT Do not uninstall the version of the SmartPlant License Checkout Utility that is currently on your system if you (a) are installing a new product that includes SmartPlant License Checkout Utility v11, or (b) have other applications such as SmartPlant Review or SmartSketch loaded on your machine.

The older version of the SmartPlant License Checkout Utility is needed to work with your currently-loaded application(s). See the **Compatibility** chart for information on application versions and their required version of the SmartPlant License Checkout Utility.

Compatibility

The table below lists the applications that require the SmartPlant License Checkout Utility as well as their corresponding required versions.

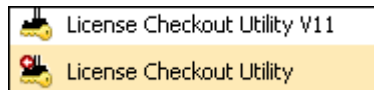
Application Version	SmartPlant License Checkout Utility Version
SmartSketch 2009.1_06.01.00.31	SPLMCU v04.02.01.1200
SmartSketch 2009SP1_06.00.01.0008	SPLMCU v04.02.00.1100
SmartPlant Review 2008.2_07.00.00.30	SPLMCU v04.02.00.1073
SmartPlant Review 2008.1_07.00.00.23	SPLMCU v04.02.00.1053
SmartPlant Review 2008_07.00.00.22	
SmartPlant Review 2007.4_06.02.00.40	SPLMCU v04.01.03.1124
SmartPlant Review 2007.3_06.02.00.34	
SmartPlant Review 2007.2_06.02.00.27	
SmartPlant Review 2007.1_06.02.00.23	SPLMCU v04.01.03.1035
SmartPlant Review 06.02.00.11	
SmartPlant Review 06.01.00.18	SPLMCU v04.01.02.9000
SmartPlant Review 06.01.00.15	
SmartPlant Review 06.01.00.07	

Install the Utility

1. Insert the product disc. If the installation does not start automatically, double-click **setup.exe** in the main folder.
2. Click **SmartPlant License Checkout Utility**.
3. Type your name and company name.
4. Verify your name and company name, and then click **Next**.
5. Click **Display** to read and accept the license agreement, and then click **Yes**.
NOTE You must have a PDF reader to view the license agreement.
6. Specify the destination folder.
7. Review your settings, and then click **Next**.
8. Click **Install** to start the installation process.
9. Click **Finish**.

NOTES

- You can uninstall the License Checkout utility at any time, even if you are currently running a product in remote license mode.
- If you installed the latest version of the SmartPlant License Checkout Utility (v11), it is installed along with the older version you have:



Appendix B: Citrix and SmartPlant Software

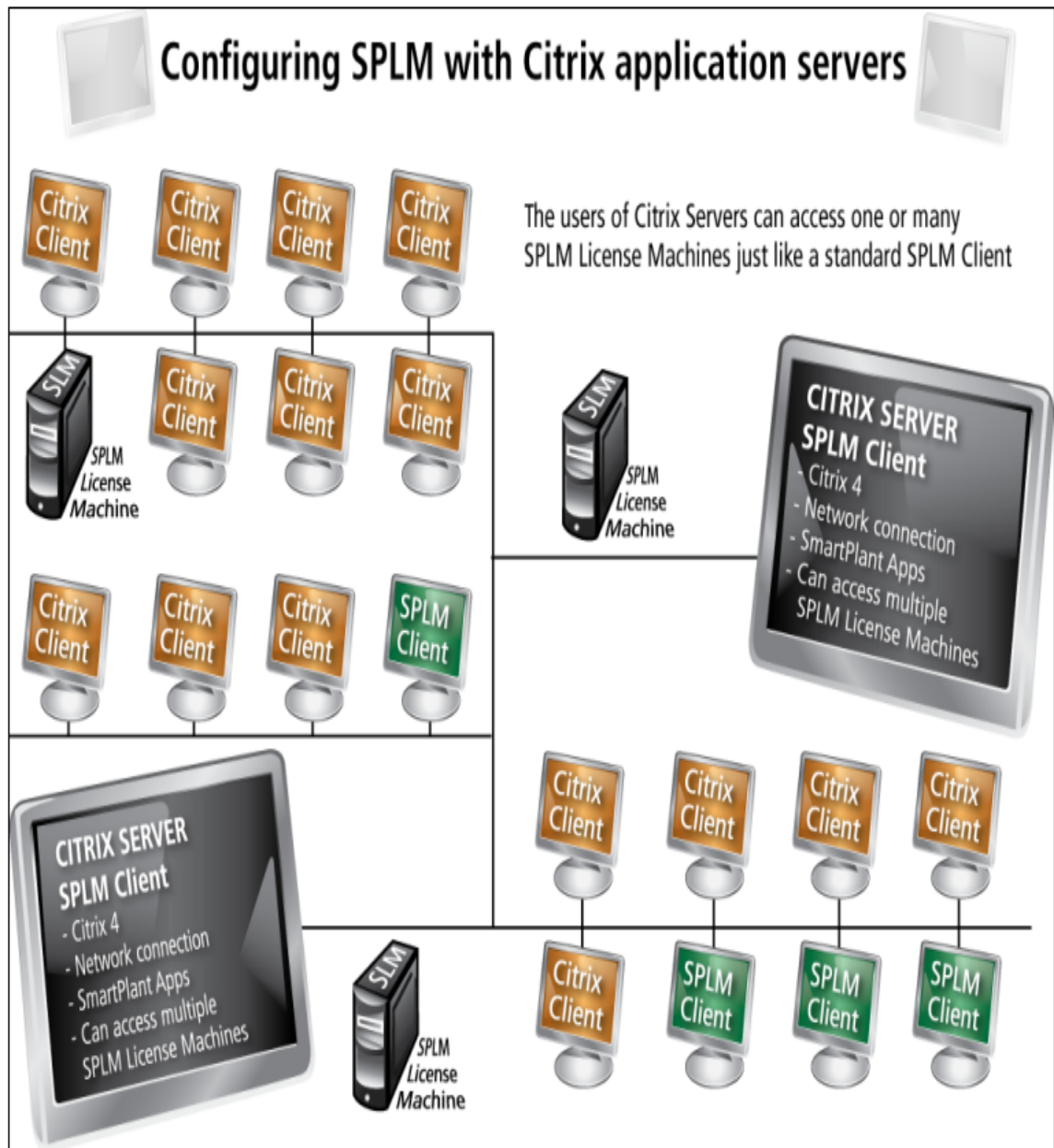
Before you install any SmartPlant Enterprise software on a Citrix server, you must install and configure the Citrix software and the corresponding prerequisites on the server. Please refer to your Citrix documentation for more information about any prerequisites.

To run SmartPlant software on a Citrix server, you must install the same prerequisite software that is required for the product to run on a desktop client system. Make sure that any patches or prerequisite software installations are matched to the operating system. For example, a 64-bit operating system may require that some patches or products are also 64-bit. All patches or products should be in accordance with administrative guidance. For more information about software prerequisites for SmartPlant Enterprise products, see the documentation delivered with the product.

NOTES

- Only SmartPlant License Manager client is supported on a Citrix machine.
- The SmartPlant License Manager license machine does not support a NAT configuration on a Citrix machine.
- Running batch jobs on the Citrix XENAPP 6 server is not supported.
- If you are using Citrix, and crossing multiple time zones, the error message **SPLM Failed: Server/Client Timers Mismatch by 6+ Hours - <license server>** can display. To correct the error, adjust the Citrix server's Time Zone Redirection configuration to prevent it from using the client's local time zone for the Citrix session. For more information, refer to the Citrix's Knowledge Base article *Troubleshooting Client Time Zone Issues* (<http://support.citrix.com/article/CTX303498>).
- If you have the license machine defined under HK_Current_User for SmartPlant License Manager, you cannot use **Test Seat Reservation** and **Test Seat Release** (commands in the SmartPlant License Manager product) to test the licensing machines. Those test options are used to test for the licensing machine configured in the SmartPlant License Manager's registry key (value from HK_Local_Machine in Registry).

- A license machine that is defined in the HK_Current_User does not roll over to a license machine defined using the SmartPlant License Manager interface (saved in HKLM_Current_User).



Additional information about certified Citrix versions is available on the SmartPlant Enterprise Product Compatibility Matrix on the Intergraph Process, Power & Marine eCustomer Web site. To view this matrix, browse to the following Web address, and type your eCustomer user name and password: <https://crmweb.intergraph.com>. Click **Download Software Updates > Products**, and then click the **PPM Compatibility Matrices** link in the middle of the page.

IMPORTANT To install software on a Citrix server, you must log on with an account that has administrator access. Use the Change User Mode Option to set the Terminal Server in the "Installation" mode.

Hardware Requirements

Refer to your Citrix documentation for system hardware requirements for the Citrix server. SmartPlant License Manager has no special hardware requirements beyond those recommended for Windows.

Configure the SmartPlant License Manager Client on Citrix Server

SmartPlant License Manager listens for license requests on TCP port 807 (the port must be open), and returns seat information over a randomly selected port. For more information, refer to *Appendix E: Microsoft Windows Firewall and SmartPlant License Manager* (on page 111).

Installing and Configuring the Product

Refer to *Installation of SmartPlant License Manager* (on page 19) for information about installing and configuring SmartPlant License Manager. There are no special requirements for installing SmartPlant License Manager for use with Citrix. Configuring and installing SmartPlant License Manager as a license machine on Citrix is not supported.

Publishing SmartPlant Applications

SmartPlant License Manager does not require any components to be published for user access. Administrative access to the SmartPlant License software can be accomplished by publishing the SmartPlant License Manager application in accordance with standard Citrix practices. Use the provided **Start > Intergraph SmartPlant License Manager** menu for SmartPlant License Manager as a guide for publishing the individual SmartPlant License Manager applications.

Known Issues

Configuring SmartPlant License Manager as a license machine on Citrix is not supported.

See Also

Configure a License Machine for Current User (on page 100)

Supported Platforms

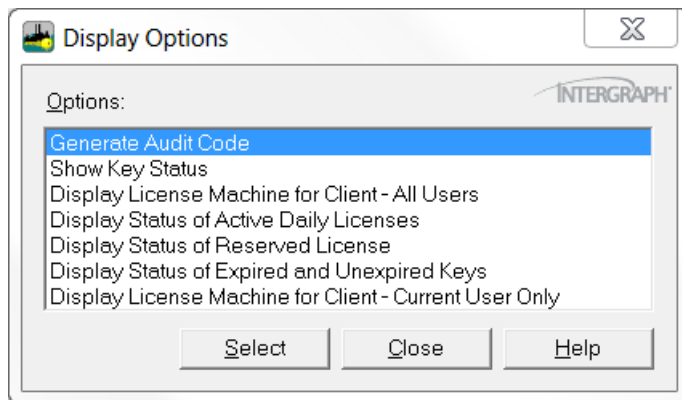
- SmartPlant License Manager Version 11 or greater
- SmartPlant License Manager Version 10
- Citrix Presentation Server 4.5.1 64bit Enterprise Edition
- Citrix Presentation Server 4.5.1 32bit Enterprise Edition
- Citrix Presentation Server 4.5.1 64bit Advanced Edition
- Citrix Presentation Server 4.5.1 32bit Advanced Edition
- Citrix XENAPP 6 on Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2003 Standard Edition
- Microsoft Windows Server 2003 R2 Standard Edition
- Microsoft Windows Server 2003 R2 Standard Edition Service Pack 2
- Microsoft Windows Server 2003 Standard X64 Edition Service Pack 2
- Microsoft Windows Server 2003 R2 Enterprise X64 Edition Service
- Microsoft Windows Server 2008 R2 Enterprise X64 Edition

Configure a License Machine for Current User

SmartPlant License Manager allows a specific SPLM License Machine to be assigned for a specific user.

Using the SmartPlant License Manager **Display the License Machine for a Client - Current User Only** command, a license machine can be defined in the registry key for a current user. When the SmartPlant License Manager client software finds a license machine listed in the correct registry location for the current user, the license machine listed will silently take precedence over the "Selected License Machine" configured in the SmartPlant License Manager client interface.

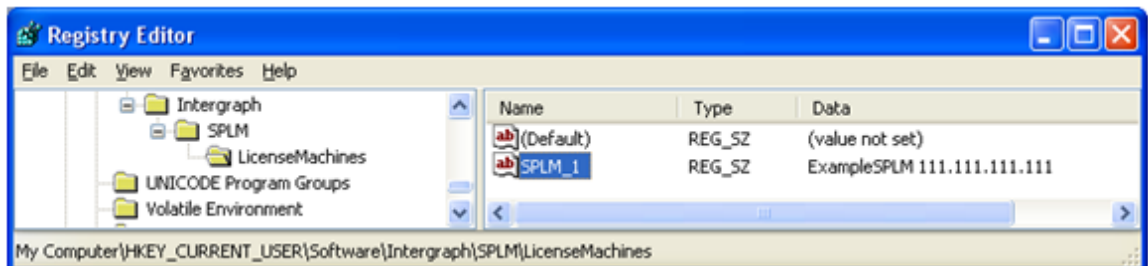
To determine if the license machine has been configured for a given client, login as that client. With SmartPlant License Manager open, select **Display > Display License Machine for Client - Current User Only**.



Registry Entry Information

The following registry information is required.

- SPLM License Machine defined for current user is stored in [HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines]
NOTE A local administrator's login is needed to define a license machine for the current user.
- Under the registry key HKCU\Software\Intergraph\SPLM\LicenseMachines, SmartPlant License Manager license machines are listed as "String Value" registry entries. Each registry entry represents a SmartPlant License Manager license machine.
- In order to enforce a given search order, the Name for License Machine must be created alphanumerically in the intended search order.

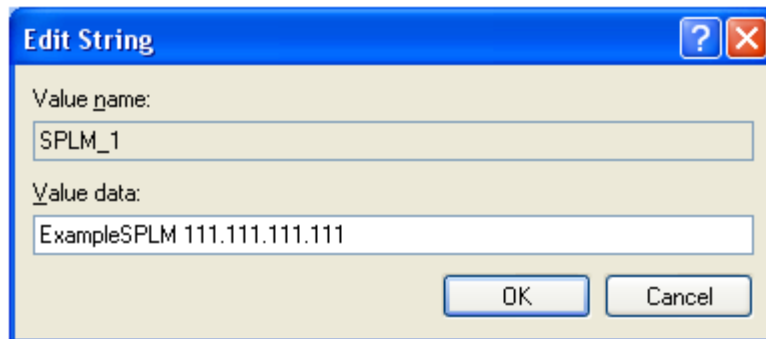


The Data component must be created as a "String Value". The content of each SmartPlant License Manager registry entry is composed of two parts, the DNS name of the SmartPlant

License Manager license machine, and the SmartPlant License Manager license machines IP address. These two values must be separated by a single space.

Value name - This is any arbitrary name you choose (windows will place these in alphanumeric order, so choose accordingly).

Value data - This is the SmartPlant License Manager license machines Hostname and IP-address (separated by a space).



Configure SPLM License Machine for Current User on Citrix Machine

SmartPlant License Manager license machines can be defined per user account by making the prescribed registry entries for each user account.

NOTES

- Only SPLM client is supported on Citrix machine.
- SPLM client v11 needs to point to a SPLM v11 license machine.

See Also

Appendix B: Citrix and SmartPlant Software (on page 97)

Appendix C: Installing SmartPlant License Manager on a Standalone System

SmartPlant License Manager requires a static IP Address in the license machine. In order for a standalone system (such as a laptop) to be used as a SmartPlant License Manager license machine, you need to install and configure a Microsoft Loopback Adapter. The following steps use Microsoft Windows 7 as an example and explain how to configure Microsoft Loopback Adapter and SmartPlant License Manager on a laptop.

See Also

Step 1: Installing Microsoft Loopback Adapter (on page 103)

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter (on page 104)

Step 3: Configuring Advanced Settings for the Loopback Adapter (on page 105)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID (on page 105)

Step 5: Adding pdlice.exe to Firewall Exception List (on page 106)

Step 6: Selecting a License Machine and Reserving a Seat (on page 107)

Step 1: Installing Microsoft Loopback Adapter

Installing Microsoft Loopback Adapter using Microsoft Windows 7

1. Login in to your computer as Administrator.
2. Click **Start > Computer**.
3. Right-click and select **Manage**.
4. Click **Device Manager**. You can also open **Device Manager** from the **Control Panel**.
5. Click **Action** (on the menu bar).
6. Select **Add legacy hardware** and then click **Next**.
7. Select **Install the hardware that I manually select from a list (Advanced)** option.
8. Click **Next**.
9. Select **Network adapters** from the list of **Common hardware types** list.
10. Click **Next**.
11. Select **Microsoft** and **Microsoft Loopback Adapter** on the **Select Network Adapter** window.
12. Click **Next**.
13. Click **Next** on the wizard is ready to install your hardware window.
14. Click **Finish** when the wizard completes the installation.

For more information refer to the Microsoft Web site (<http://support.microsoft.com/> (http://support.microsoft.com)). You can search for the following articles: *How to install the*

Microsoft Loopback Adapter in Windows XP and How To Install Microsoft Loopback Adapter in Windows 2000.

NOTE It is recommended that you now rename this adapter making it easier to recognize in the future. Click **Control Panel > Network Connections**. Then, right-click on the name of the adapter you created and select **Rename**. Enter a name that is easy for you to recognize, for example, `SPLM License LoopBack`, or a similarly unique name.

See Also

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter (on page 104)

Step 3: Configuring Advanced Settings for the Loopback Adapter (on page 105)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID (on page 105)

Step 5: Adding pdlice.exe to Firewall Exception List (on page 106)

Step 6: Selecting a License Server and Reserving a Seat (see "*Step 6: Selecting a License Machine and Reserving a Seat*" on page 107)

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter

1. Log onto the computer using the Administrator account.
2. Click **Start > Control Panel**.
3. Open **Network and Sharing Center**.
4. Click **Change Adapter Settings**.
5. Right-click on the installed loopback adapter and select **Properties**.
6. Select **Internet Protocol Version 4 (TCP/IPv4)**.
7. Select **Properties**. The **Internet Protocol Version 4 (TCP/IPv4) Properties** dialog box appears.
8. Click **Use the following IP address**.
9. Type in the loopback adapter's **IP address** (for example, 192.168.0.10).
10. Type in the **Subnet mask** (for example, 255.255.255.0).
11. Click **OK** to dismiss the **Internet Protocol Version 4 Properties** dialog box.
12. Click **OK** to dismiss **Loopback Adapter Properties**.

See Also

Step 1: Installing Microsoft Loopback Adapter (on page 103)

Step 3: Configuring Advanced Settings for the Loopback Adapter (on page 105)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID (on page 105)

Step 5: Adding pdlice.exe to Firewall Exception List (on page 106)

Step 6: Selecting a License Server and Reserving a Seat (see "*Step 6: Selecting a License Machine and Reserving a Seat*" on page 107)

Step 3: Configuring Advanced Settings for the Loopback Adapter

This section explains how to move the Microsoft Loopback Adapter to the top of the list of network connections so the Machine Identifier will gather the information from the Loopback Adapter to generate the code.

1. Click **Start > Control Panel**.
2. Double-click **Network Connections**. The **Network Connections** window displays.
3. Select **Advanced > Advanced Settings**. The **Advanced Settings** dialog box displays. The **Adapters and Bindings** setting displays a list of connections. These connections are listed in the order they are accessed by network services.
4. Click to highlight the previously created **Loopback Adapter**.
5. Click the up arrow to move the loopback adapter to the top of the list.
6. Click **OK** to dismiss the **Advanced Settings** dialog box.

See Also

Step 1: Installing Microsoft Loopback Adapter (on page 103)

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter (on page 104)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID (on page 105)

Step 5: Adding pdlice.exe to Firewall Exception List (on page 106)

Step 6: Selecting a License Server and Reserving a Seat (see "Step 6: Selecting a License Machine and Reserving a Seat" on page 107)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID

The following describes installing SmartPlant License Manager software and then generating a machine ID for a standalone system.

1. Log onto the computer using the Administrator account.
2. Install SmartPlant License Manager from your SmartPlant License Manager installation media. Choose to install SmartPlant License Manager License Machine.
3. After SmartPlant License Manager license machine is installed, click Start > Computer and right-click.
4. Select **Manage**.
5. Open **Device Manager**.
6. Click **View > Show Hidden Devices** on the menu bar.
7. Right click and disable all the network adapters EXCEPT **Microsoft Loopback Adapter** in the list.
8. Select **Start > All Programs > Intergraph SmartPlant License Manager > Generate Machine ID**.
9. Save your Machine ID as a text file on your laptop. For example, c:/MachineID.txt.
10. After your Machine ID is created, you can enable your network adapters in **Device Manager** list.
11. Email the Machine ID text file to Intergraph (PPMSERV@INTERGRAPH.COM) or your regional office to request a SPLM key.

12. Do NOT re-run the **Generate Machine ID** command after you have sent your machine ID to Intergraph.
13. After you receive a license key from Intergraph, click **Start > All Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager**.
14. Select **Install and Remove > Install License Key**.
15. Copy and paste your key.
16. If you receive a **Mismatching** error from SmartPlant License Manger when starting your software or when testing seat reservation, you can open a DOS window on your laptop and enter `pdlice -c`, then follow all the steps from 3 above to start it over.

See Also

Step 1: Installing Microsoft Loopback Adapter (on page 103)

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter (on page 104)

Step 3: Configuring Advanced Settings for the Loopback Adapter (on page 105)

Step 5: Adding pdlice.exe to Firewall Exception List (on page 106)

Step 6: Selecting a License Server and Reserving a Seat (see "Step 6: Selecting a License Machine and Reserving a Seat" on page 107)

Step 5: Adding pdlice.exe to Firewall Exception List

In order for SmartPlant License Manager to work properly, pdlice.exe MUST be added on the Windows Firewall allowed programs list. Otherwise, you may not be able to get a license and you may see **[Connecting Socket] Connection Time Out** error message in your scavenging log file.

NOTE After a new installation or upgrade of SmartPlant License Manager, you must remove pdlice.exe from your Firewall Exception list if it is there from a previous SmartPlant License Manager installation, and re-add it to the Exception list. This will ensure the correct version of pdlice is selected. Otherwise, you may see the [Connecting Socket] Connection Time Out error message in your Scavenging log file.

1. Click **Start > Control Panel > Windows Firewall**.
2. Click on **Allow a program or feature through Windows Firewall**.
3. Click **Change Settings**.
4. Click **Allow Another Program**.
5. Click **Browse** to find pdlice.exe (by default it is in `c:\Win32app\ingr\splm\bin`).
6. Select **pdlice.exe** and then click **Open**.
7. Click **Add**.
8. Select **SmartPlant License Manager** on the **Programs** list.
9. Select **Domain, Home and Public** options.
10. Click **OK**.

See Also

Step 1: Installing Microsoft Loopback Adapter (on page 103)

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter (on page 104)

Step 3: Configuring Advanced Settings for the Loopback Adapter (on page 105)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID (on page 105)

Step 6: Selecting a License Server and Reserving a Seat (see "Step 6: Selecting a License Machine and Reserving a Seat" on page 107)

Step 6: Selecting a License Machine and Reserving a Seat

Use the following to select a license machine and then test to be sure a seat can be reserved and released.

NOTE If the IP address for the loopback adapter is changed after you have installed a SmartPlant License Manager key, the key will no longer be valid and the **Product Tag** list in the **Test Seat Reservation** dialog box will be empty. You need to generate a new machine ID and install a new key.

1. Select **Start > All Programs > Intergraph SmartPlant License Manager > SmartPlant License Manager**.
2. Select **Configure and Test**, then click **Select**.
3. Click **Select License Machine for Client**, then click **Select**.
4. Enter your machine's node name or loopback adapter's IP address in the **License machine** field.
5. Click **OK**.
6. Select **Test Seat Reservation**, and then click **Select**.
7. Select your license machine from the **License machine** drop-down list box.
8. On the **Test Seat Reservation** dialog box, select either **Interactive** or **Batch** as a **Mode** option.
9. Select your product tag from the **Product tag** drop-down list box, and then click **OK**.
10. Make a note of the seat number reserved, and then click **Close**.
11. Click **Test Seat Release**, and then click **Select**.
12. Select your license machine in the **License machine name** field.
13. In the **Seat number** field, enter the seat number.
14. Click **OK**. The software releases your seat successfully.
15. Now, you should be able to start your SmartPlant application.

See Also

Step 1: Installing Microsoft Loopback Adapter (on page 103)

Step 2: Configuring Static IP Address for the Microsoft Loopback Adapter (on page 104)

Step 3: Configuring Advanced Settings for the Loopback Adapter (on page 105)

Step 4: Installing SmartPlant License Manager and Generating a Machine ID (on page 105)

Step 5: Adding pdlice.exe to Firewall Exception List (on page 106)

Appendix D: SmartPlant License Manager Reporting Utility

The SmartPlant License Manager Reporting Utility (SPLMRU) creates license reports using the license transaction data maintained in journal files. The reports display using Microsoft Access. This utility contains all the tools necessary to collect needed journal files and create a database that is used for reporting. This database is then opened using Microsoft Access. You can then work with the data and create the delivered (default) license usage reports and charts. You can also create customized reports.

The following is a list of some of the delivered charts and reports.

- Use by Product and User
- Use by Product group by Month
- Use by User by Product group by Quarter
- Use by User by Product group by Month
- Use by User by Product group by Month Matrix

NOTE Only SmartPlant License Manager 2008 and later versions can be used to create license usage reports.

For more information, refer to the *SmartPlant License Manager Reporting Utility User's Guide* delivered on the SmartPlant License Manager product CD-ROM.

Appendix E: Microsoft Windows Firewall and SmartPlant License Manager

SmartPlant License Manager utilizes Transmission Control Protocol (TCP) ports to pass license seats from the SmartPlant License Manager license machine(s) to the workstation(s). TCP port 807 is required to be open and is utilized by the SmartPlant License Manager license machine to 'listen' for requests from the workstation(s) for a license seat. If a request is made, a random TCP port is utilized to pass the seat from license machine to client.

Since a firewall is used to prevent unauthorized port access, SmartPlant License Manager has problems working properly with a firewall. Most firewall programs allow an Administrator to open ports to prevent the firewall from interfering with a programs execution. Because SmartPlant License Manager utilizes random ports, there is not a good way to do this unless the firewall program also allows programs to be added to a program list to open ports required by the program.

If the user exits the application properly, the license used by the workstation is released back to the pool of licenses available. Sometimes, when an application process is exited abnormally, the license seat is not returned to the license manager. This is where the SmartPlant License Manager license machine can help. A scavenge routine can be setup to run that will scavenge the network for seats that are reserved. If one is found, the seat can be returned to the pool if it is no longer in use. The firewall prevents the license machine from retrieving the seat and returns a timed out error message.

NOTE In order to run commands using the Command Prompt window, pdlice.exe needs to be added to the Exception List for the Windows Firewall on both the license machine and the client machine (if it is turned on). This includes all Windows operating system (for example, Microsoft Windows 7, Windows Server 2008 R2, Windows Server 2003, Windows XP, and so forth). The following steps provide an example of how to add the appropriate SmartPlant License Manager program to the Exception List for Microsoft Windows 7 (allowing for proper scavenging and access to the license machine).

1. Select **Start > Control Panel > Windows Firewall** to display the Windows Firewall options.
2. Click to select **Allow a program or feature through Windows Firewall**.
3. Click **Change settings**.
4. Click **Allow another program**.
5. Click **Browse** on the **Add a Program** dialog box.
6. Browse for the pdlice.exe program (by default it is installed in c:\win32app\ingr\splm\bin).
7. Click to select pdlice.exe and click **Open**.
8. Click **Add** on the **Add a Program** dialog box. SmartPlant License Manager now displays in the **Allowed programs and features** list.
9. Click **OK** to dismiss the **Windows Firewall** options.

NOTE **[Connecting Socket] Connection Time Out** is the error message you receive if pdlice.exe is not defined in the Windows Firewall exception list.

Appendix F: Configure SmartPlant License Manager and VMware

The following explains how to configure SmartPlant License Manager client using VMware. Only SmartPlant License Manager client is supported when using VMware. Also included are instructions for pointing to the host machine (if it is configured as a license machine) or any other license machines on the network. These procedures use the VMware session in a Workgroup environment and not joined to any domain.

VM Settings (Host Only)

Using this option, the VMware session cannot access your network. You will need to set up your VMware host machine as the license machine (your VMware session can only pull a license from your host).

Use the following steps to set up you host as a SmartPlant License Manager license machine.

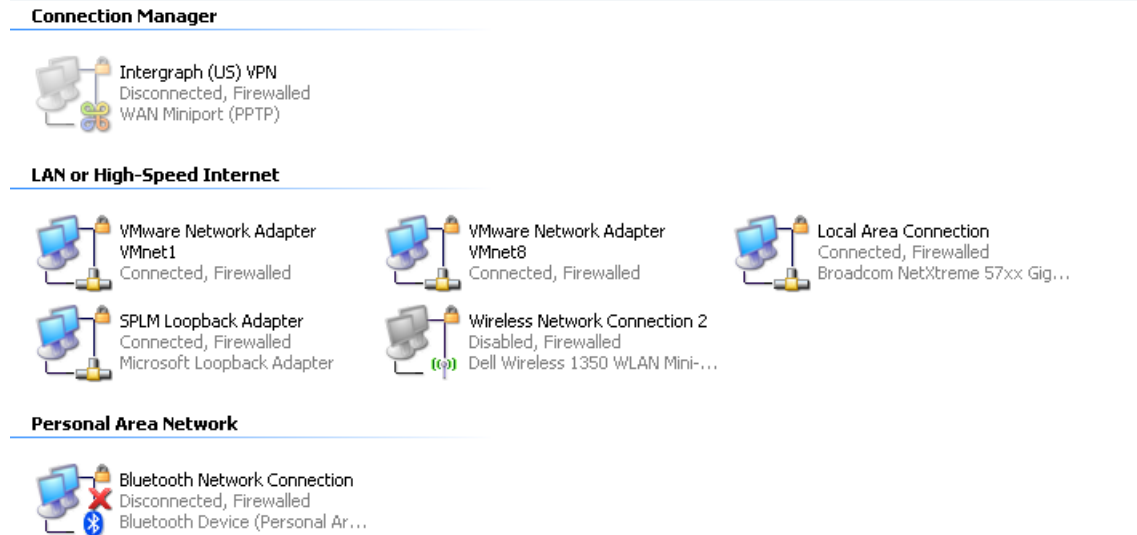
1. Install SPLM software on the host machine.
2. Define a fixed IP address or install and setup Microsoft Loopback adapter if you are running on a laptop.
3. Generate the Machine ID.
4. Request a new license key (ppmserv@intergraph.com).
5. Install the license key. Refer to the SmartPlant License Manager document, *Configuring SPLM on a Laptop*, on eCustomer or the SmartPlant License Manager Help file topic *Appendix C: Installing SmartPlant License Manager on a Standalone System* for more details.

On your host machine, use the following steps to verify your VM network adapters.

1. Open **Network Connections** on your host.
2. VMware adapters (VMnet1 and VMnet8, by default) must be enabled.
3. The loopback adapter must be enabled if it is used to generate the license key. If it is not enabled, a "TCP Mismatch ..." error messages will display in SmartPlant License Manager.

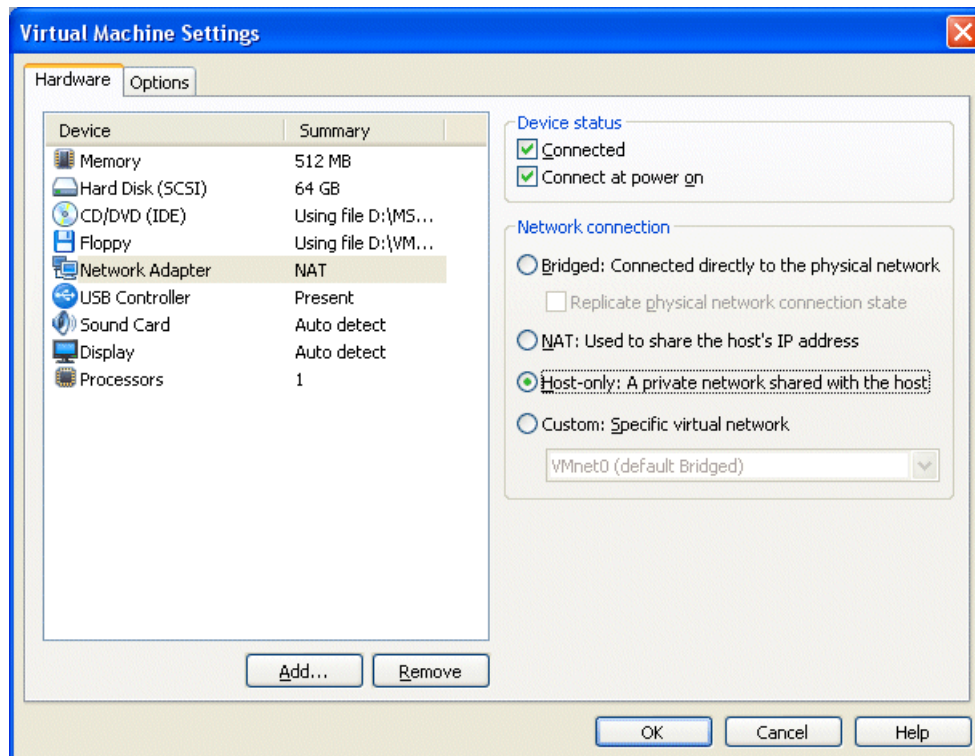
Appendix F: Configure SmartPlant License Manager and VMware

4. You must enable these adapters or reboot the host machine.



Use the following steps to set your VM as Host-Only.

1. Start your VMware session.
2. Click VM menu > Settings.
3. Highlight Network Adapter and change network connection to Host-Only.
4. Exit out your VMware session.
5. Reboot your host machine.



6. Restart your VMware session.

Use the following steps to install SmartPlant License Manager and retrieve a license.

1. Install SmartPlant License Manager in the VMware session.
2. Select SmartPlant License Manager > Configure and Test > Select License Machine for Client.
3. Enter your host's name and click OK.
4. Select Test Seat Reservation and select your host's name.
5. If you can successfully reserve a license from your host, you can start your application in your VMware session.

NOTE If your VMware Network Adapter (VMnet1) is set for Host-Only in Virtual Network Editor, you will see the VMnet1 IP address when you add your host as license machine.

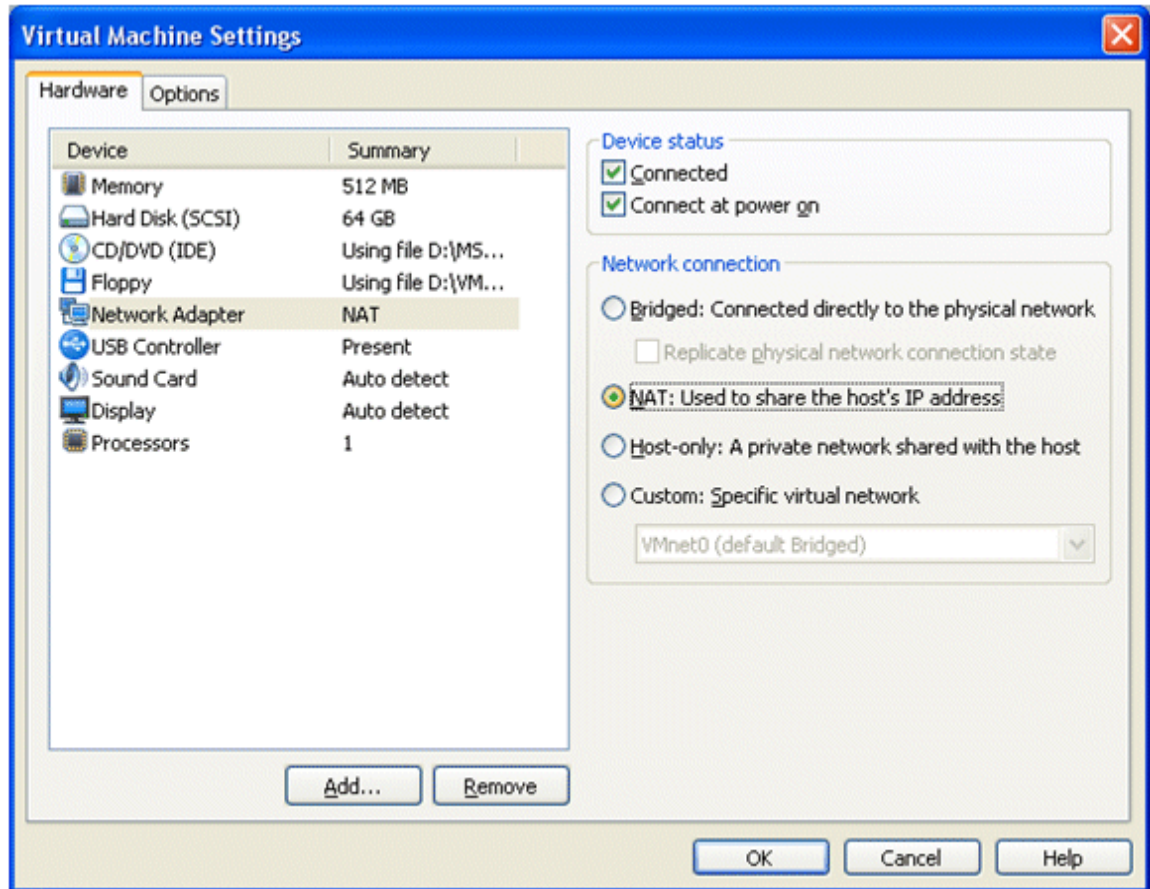
VM Settings (Option 2: NAT (Network Address Translation))

Using this option, your VMware session can access your network resources and it can retrieve licenses from either the host machine (connected or disconnected with a network) or other license machines on the network.

1. Setup you host as a SmartPlant License Machine (optional)
 - See instructions above in option 1.
 - You may skip this step if you do not need to retrieve a license from your host machine.
2. Check to confirm that your host is connected to the network.
3. Check to confirm your network adapters are running on your host machine.
 - Open Network Connections on your host,
 - VMware adapters (VMnet1 and VMnet8 by default) must be enabled.
 - Loopback adapter should be enabled if it's used to generate license key and you need to add it as a license machine.
 - If not, you need to enable them or reboot the host machine.
4. Set VM setting to NAT.
 - Start your VMware session.
 - Click VM menu > Settings.
 - Network Adapter > NAT.
 - Exit out your VMware session.

Appendix F: Configure SmartPlant License Manager and VMware

- Reboot your host machine then restart your VMware session.



5. Install SPLM software in the VMware session.
6. Select licensing machine to get license:
 - Open SPLM > Configure and Test > Select License Server for Client,
 - Type in the node name of your licensing machine (your host or other licensing machine on your network) and click OK.
 - Test Seat Reservation
 - If you can successfully reserve a license from your licensing machine, you can now start your application in your VMware session.

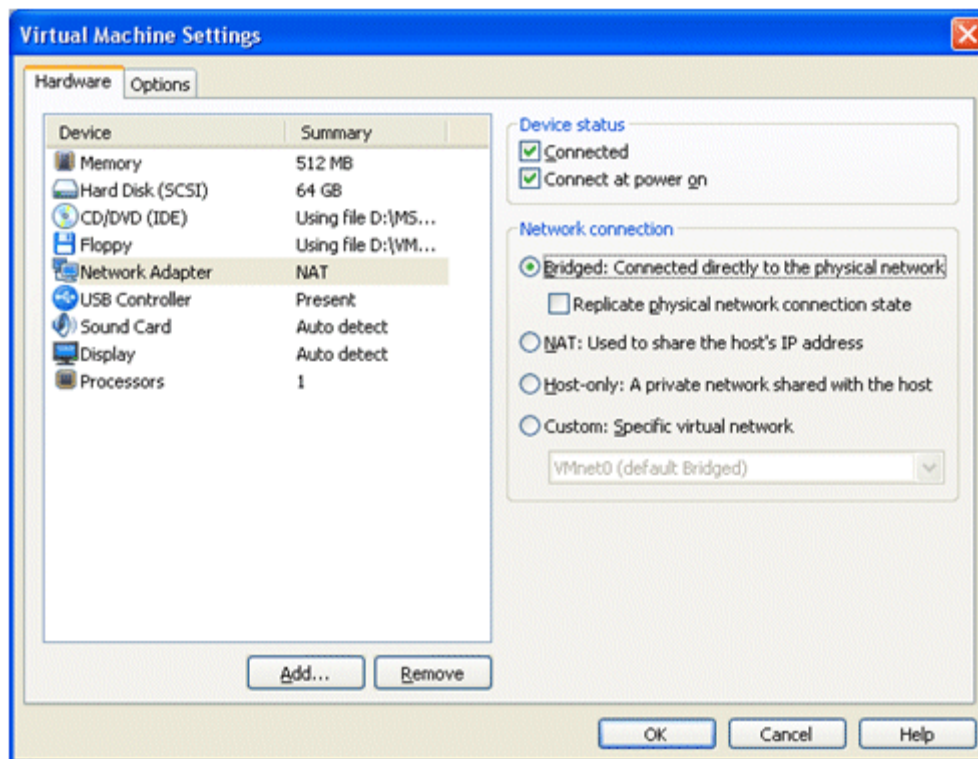
NOTE

- If you are connected to your network, the 1st network adapter's IP in your host's network connection list (Advanced Settings) would be showing when you add your host machine as license machine.
- If you are disconnected from your network, adding your host machine as license machine will pull the loopback adaptor's IP.
- You cannot add other license machines on the network if you are disconnected.

VM Settings (Option 3: Bridged)

Using this option, you can have only one VMware session running on the network at the same time. You can add your host or other license machines on your network.

1. Make sure your host is connected to the network.
2. Make sure your network adapters are running on your host machine.
 - Your physical network adapter needs to be enabled
 - Loopback adapter needs to be enabled if it's used to generate license key and you need to add it as license machine.
 - If not, you need to enable them or reboot the host machine.
3. Change VM settings to Bridged.
 - Start your VMware session.
 - Click VM menu, select Settings.
 - Network Adapter > Bridged.
 - Exit out your VMware session.
 - Reboot your host machine then restart your VMware session.



4. Make sure your VM has network connection.

Note: You may need to reconfigure VMnet0 from "Bridged to an automatically chosen adapter" to your physical adapter in Virtual Network Editor, if your VM has no or limited network connection.
5. Install SmartPlant License Manager software in the VMware session.
6. Select license machine to get license.

Appendix F: Configure SmartPlant License Manager and VMware

- Open SPLM > Configure and Test > Select License Machine for Client.
- Type in the node name of your license machine (your host or other license machine on your network) and click Ok.
- Test Seat Reservation.
- If you can successfully reserve a license from your license machine, you can now start your application in your VMware session.

NOTE Your host's network IP will be used if you add your host as license machine.

Appendix G: Troubleshooting and Error Messages

The following provides a list of SmartPlant License Manager error messages with an explanation of each error. Also, the Troubleshooting topic provides solutions to issues than can occur.

See Also

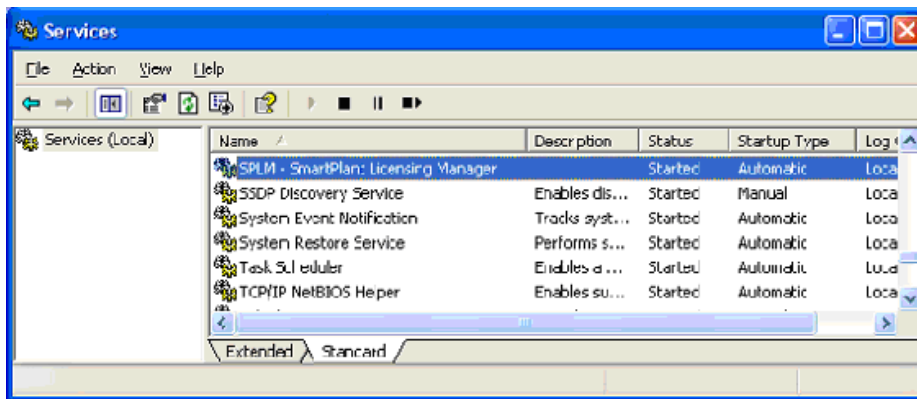
Error Messages (on page 120)

Troubleshooting (on page 119)

Troubleshooting

Verify that the SmartPlant License Manager service is started

1. Click **Start > Settings > Control Panel > Administrative Tools > Services**.
2. In the **Services** dialog box, scroll down the list and verify that the SPLM - SmartPlant License Manager service has a status of **Started** and that Startup is set to **Automatic**.



Installing and Starting the SmartPlant License Manager Service

SmartPlant License Manager installs and starts the SmartPlant License Manager service during installation, so Administrators will not normally need to use this command.

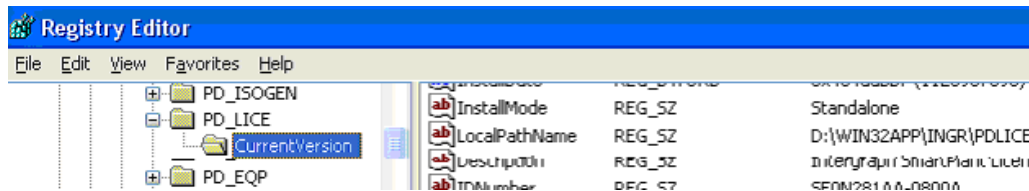
Use the following procedure to install and start the SmartPlant License Manager service. This command requires system administrator privileges.

1. On the **Install and Remove Options** dialog box, click **Install and Start Licensing Service**. (Or, type `pdlice -I` in a Command Prompt window.) A message box confirms that the service has been installed and started.

Verify that the registry keys have been created

1. In a Command Prompt window, type `regedt32`. Several Registry windows appear.

2. Select the HKEY_LOCAL_MACHINE window.



3. Expand the SOFTWARE\Intergraph\PD_LICE\Current Version folder to display information about the current version of SmartPlant License Manager.
4. Expand the SOFTWARE\Intergraph\Pdlice_etc folder. You should have a Server_names file. You may also have a pdlice_key_S file if it is a license machine.

Stopping the SmartPlant License Manager Service

In the rare instance when the SmartPlant License Manager executable stops running, you can restart it by stopping and restarting the SmartPlant License Manager service. Use the following procedure to stop the SmartPlant License Manager service. This command requires system administrator privileges.

1. On the **Install and Remove Options** dialog box, click **Stop and Remove Licensing Service**. (Or, type `pdlice -R` in a Command Prompt window.) A message box appears to ensure that you want to remove the service.
2. Click **Yes** to stop the licensing service on this computer. Click **No** to dismiss this dialog box and keep the licensing service running on the computer. If you click **Yes**, a message confirms that the licensing service is stopped.
3. Restart the SmartPlant License Manager service as explained in *Install and Start the Licensing Service* (on page 36).

License Timer is Newer Than License Machine System Clock

This error indicates that SmartPlant License Manager will not work until the system clock time catches up to or passes the timestamp on the license file. In other words, the system clock time has been moved forward in time. When the system clock is returned to the correct time, SmartPlant License Manager stops and this error message displays. To fix the error, you need to remove the license key. Then, generate a new machine ID and request and install a new license key.

See Also

Error Messages (on page 120)

Error Messages

A problem has occurred with the machine identifier and a key cannot be generated.
Error code = 1.

A machine ID must be generated to get a new license key for use with SmartPlant License Manager Version 2010.

A valid license key cannot be located on this machine

This message displays when you try to reserve a license from a machine that has not been setup as a SmartPlant License Manager licensing computer.

A valid license server cannot be located for this client

This message displays when a client machine is pointing to another client machine as a license machine. A valid license machine must be defined.

An invalid version of the machine identifier was entered. Please generate a machine identifier for SPLM 2010.

Indicates that a machine ID has been generated using SmartPlant License Manager 2008 or earlier release. You need to install the latest version of SmartPlant License Manager.

Another version of this product is already installed. Installation of this version cannot continue. To configure or remove the existing version of this product, use Add/Remove Programs on the Control Panel.

SmartPlant License Manager installation will stop if another instance of SmartPlant License Manager or PD_Lice is currently installed. Remove the currently installed version to continue.

Cannot Receive Full Packet, Bad Network Packet; Check PDLICE (CI/Srv) versions

This message indicates a mismatch of SmartPlant License Manager versions. To check your current version of SmartPlant License Manager, click **Help > About SmartPlant License Manager** on the main dialog box.

[Connection Socket] Cannot assign requested address

This error indicates that SmartPlant License Manager client, while using VM, cannot find the license machine. For example, when you have a bridged VM setting and you try to retrieve a license from the license machine on the network, but you are not connected to the network. This error could also indicate that you connected to your network and successfully retrieving licenses, but your VM setting is Host-only.

To fix the error in the first example, you need to successfully connect to your network. To fix the error in the second example, you need to change your VM setting to bridged and reboot the VM client operating system.

[Connecting Socket] Connection Refused

Reserving licenses on clients or the license machine fails. The SmartPlant License Information message box displays the Connection refused message. Restarting the service on the license machine will solve the error.

[Connecting Socket] Connection Time Out

- The message displays if the pdlice.exe is not defined in the Windows Firewall exception list. To resolve the error, add pdlice.exe in the Windows Firewall's exception list in the client and the license machine if the OS is Windows XP SP2 or Windows 2003 SP1.
- A SmartPlant License Manager client machine must have licensing service running on the machine for the license machine to scavenge for licenses. If the license service is not running on the client machine, the license machine will not be able to scavenge seats. This error displays in the Scavenge log file.
- A slow network connection could also cause this error message to display.
- If the license machine is not on or rebooting, this error message displays.
- If the SmartPlant License Manager client machine is testing for reserving a seat, this message displays.
- If a computer is added incorrectly to the license machine list, this message displays.

Connection Reset by Peer

Any of the following can cause **Connection Reset by Peer** error message to display.

- This message displays if you have Panda Antipodes software installed on the machine.
- Disable IMON module or uninstall NOD32 Antivirus if installed. Select **NOD32 Control Center > IMON > Quit > Reboot**.

- Remove Acceleration module if Cingular or ATT Communication Manager is installed (**Tools > Settings > Acceleration tab > Client: Uninstall** and remove the software. Reboot the licensing machine.).
- Remove EMBASSY® Trust Suite if installed.
- Remove Vodafone™ Mobile Connect software if installed.

Could not return the license to SmartPlant License Manager. SPLM Failed: Failed to release seat

If you are removing SmartPlant License Manager on a license machine where there are still licenses in use, this error message could display when users exit the client application. This is normal and the error should not occur once a new key is installed on the license machine.

Could not set install date

This message appears during the installation of SmartPlant License Manager. This problem has been reported on machines with German Microsoft Windows XP (SP2) and Microsoft Windows 2003 (SP1). To resolve the problem, reinstall the operating system's Service Pack.

Error in OpenService for SPLM - SmartPlant License Manager. This operation completed successfully.

This error occurs when SmartPlant License Manager service is not installed and running. To install and start SmartPlant License Manager license service, start SmartPlant License Manager. Click **Install and Remove > Install and Start Licensing Service**. After you install and start the license service, you can then change the scavenging options.

ftp server failing (looping), service terminated

The inetd process is refusing your connection attempts. This indicates that the inetd daemon has too many connection requests. Requests are refused for 10 minutes. This can happen during scavenging or if too many clients are simultaneously requesting access.

On the computer that is refusing the connection, stop the SmartPlant License Manager service. To stop the service, click Stop and Remove Licensing Service on the Install and Remove Options dialog box. To restart the licensing service, click Install and Start Licensing Service on the Install and Remove Options dialog box.

Invalid Option for SPLM client.

You need to select and run the **Generate machine ID** command first in order to run **pdlice** commands for the license machine options.

Key request for file XXX contains more than 32766 seats. Key cannot be generated for file XXXX.

Indicates that the seat count has exceeded the maximum limit of 32,766.

License File Time is newer than License Server System Clock

SmartPlant License Manager will not work until the system clock time equals or passes the timestamp on the license file. The changing of time zones will not have any impact on the way the software functions. If you set the time back to the correct time and receive an error message, you will need to remove the key and generate a new machine ID. Then, you must request and install a new key.

License database locked by another user

Exit the SmartPlant License Manager software after installing the license key. This error message can also display if scavenging interferes with a new license request.

[Opening File] - No such file or directory - /etc/file_name

A license has not been installed or a license machine(s) is not known. Be sure the file name appears in one of these files:

```
/etc/pdlice/pdlice_key_S  
/etc/pdlice/pdlice_cfg_S  
/etc/pdlice/server_names
```

OpenServiceControl Manager, the operation completed successfully.

If you are using Windows 7, Windows Server 2008 R2, Windows Server 2008 or Windows Vista with UAC turned on, you may encounter this error when you are trying to stop or start SPLM licensing service or trying to use `pdlice -I` or `pdlice -R`. When you get this error, the SPLM licensing service was actually not stopped or started. You must log onto your machine with administrative privilege. To do this, right-click SmartPlant License Manager and click **Run As Administrator** to open SmartPlant License Manager. Or, right-click on Command Prompt and click **Run As Administrator** to open DOS window.

PDLICE_PUT_SEAT error

The license machine was booting or otherwise not responsive. Possibly, another process, for example scavenger, kept the licensing files locked at that instant. The scavenging process should free the license shortly.

If you want to free the license sooner, type `pdlice -n` on the license machine.

If you see this message while running PD_SHELL, exit PD_SHELL completely. If you do not exit and you execute another task, there will be two seats assigned to the same PD_SHELL process (new seat + old seat that is not released yet).

To free the license sooner using a Microsoft Windows computer, click **Scavenge for Keys** on the **Scavenge Options** dialog box.

<Product Tag Name> product tag is not part of new key and there are seats currently reserved.

This message occurs when you are installing a new license key which does not have a valid product tag name seat but your existing license key does have valid product tag name seats being used. Ask users to exit the product and then install your new license key. An example message is **INS product tag is not part of new key and there are seats currently reserved.**

Product usage logs must be saved to a local drive

The log file cannot be routed to a different machine. The log file must be generated on the license machine.

Run-time error '53':File not found

The license machine has been upgraded and no new machine ID has been generated or a SPLM 2008 key has not been installed. You must generate a new machine ID. Then, request and install a SPLM 2008 key.

Seat count is too low to transfer current reserved seats to new key

Indicates the new key you are installing has fewer seats than the current key. You can exit the application (possibly resulting in loss of seat usage) or create a batch command to install the new key at a later time. Batch jobs can execute at night when the current key expires and everyone has exited the software.

Server Key File Mismatch (?) - Remove & Reinstall

The key files for the license machine are corrupt. You must re-install the key. Any corrupt code appears in parentheses. Call Intergraph Support (1-800-766-7701) to receive help with the corrupt code. You can still run all the Windows Display Options commands.

SetupDLL\SetupDLL.cpp (391), pAPP:, pVENDOR:, PGUID:, \$11.0.0.28844, @Windows XP Service Pack 2 (2600) IE6.0.2900.2180

This error message displays during installation of SmartPlant License Manager if you do not have full registry permission on `HKEY_LOCAL_MACHINE\SOFTWARE\Intergraph` key.

SmartPlant License Manager registry entry is not available. Processing terminated.

This message indicates that the SmartPlant License Manager registry entry `PD_LICE` has been deleted. You need to run SmartPlant License Manager `setup.exe` and select the **Repair** option to recreate `PD_LICE` registry.

SmartPlant License Manager Warning: License expires within [days] - 20

This message appears each time a license is allocated beginning 45 days before expiration. The example warning message used here indicates the license will expire in 20 days. Notify Intergraph to set an installation date for a new license.

SPLM: Adding License Machine(s) To server_names file...

SPLM License Machines List File (Client) -> server_names

[Opening File] Access is denied. - SOFTWARE\Intergraph\Pdlice_etc

SPLM License Machines:> Node: xxxxx Address: xxx.xxx.xxx.x

Indicates that a user without administrative privileges tries to select a license machine. You must have administrative rights to use the **Select License Machine for Client** command.

SPLM: Adding License Machine(s) To server_names File...

SPLM License Machines List File (Client) -> server_names

SPLM Error: [Opening File] Access is denied.

- SOFTWARE\Intergraph\Pdlice_etc

If you are using Microsoft Windows 7, Windows Server 2008 R2, Windows Server 2008 or Windows Vista, you may encounter this error when you are trying to select a license machine or to use `pdlice -j`. You must log onto your machine with administrative privilege. To do this, right-click SmartPlant License Manager then choose **Run As Administrator** to open SmartPlant License Manager. Or, you can right-click Command Prompt then choose **Run As Administrator** to open DOS window.

SPLM: Adding Server(s) To server_names File...

SPLM Servers List File (Client) -> server_names

Node: in-sp3dcert13.ingr.c

Address: 0.0.0.0

Status: [In gethostbyname] No error

Invalid Server Name. License Server list was not modified.

Displays when an incorrect server name is entered. To resolve the error, type a valid server name.

SPLM Error: There are no license machines to display under HKLM for this current user.

If there is no SmartPlant License Manager license machine selected, running `pdlice -l` displays this message. You need to select a license machine for your client machine.

SPLM: Displaying Seats In Use This is no key installed on this machine

Indicates that no key has been installed on the machine. You need to install a valid key.

SPLM: Displaying SPLM Machines For This Current User...

Displays the SPLM computers for the current licensed user.

SPLM Error: Another Scavenger Already Active; Retry

Displays in the scavenging log file and indicates that you need to reset the scavenging time interval to a longer time. This message may also display while manually running a

scavenge (if a scheduled scavenge is already in progress.) Two scavenge processes can not run at the same time (manual or scheduled).

SPLM Failed: A valid license file cannot be located on this machine

You have not selected a licensing machine or defined an SPLM client machine. Or, you have not installed a license key on the machine pointed to by the SPLM client.

SPLM Failed: [Creating/Starting] Parameter incorrect

Indicates that the program.exe is to Windows XP compatibility. Remove the setting regardless of operating system being used.

SPLM Failed: No grade-level seat available - (product tag)

Indicates that the license machine is out of the product seat(s) you are requesting (or does not have the license you are requesting). Check your license machine seat usage.

SPLM Failed: [Read Pipe] Garbled Data From SPLM (Client)

The incorrect versions of software are installed. You must install the required versions of your product and SmartPlant License Manager. For example, you have installed PDS 8.0.1 and SmartPlant License Manager 8.0 client (or earlier version). You must install the latest version of SmartPlant License Manager on the client.

SPLM Failed: Invalid Key. Mismatching parameters.

The physical network adapter is disabled. Enable your network adapter to correct the error. This error can also occur on a standalone system, such as a laptop used for a license machine. To fix this, enable only the loopback adapter and disable all adapters, including VPN. VPN is not a supported configuration for SmartPlant License Manager. You can disable all adapters from **Control Panel > Network Connections**, or you can disable it from the Device Manager. Then run `pdlice -c`, generate a new machine ID, and request a new key.

SPLM Failed: Invalid Network Request - <license server>

The incorrect versions of software are installed. You must install the required versions of your product and SmartPlant License Manager. example, you have installed PDS 8.0.1 and SmartPlant License Manager 8.0 (or earlier version). You must install the latest version of SmartPlant License Manager on the license machine.

SPLM Failed: LicenseMachineName

If you have SmartPlant License Manger 2012 (v12) client installed and you are trying to get a license from SmartPlant License Manger 2008 (v10) license machine, this error displays. You need to remove the SmartPlant License Machine 2008 (v10) license machine and select a SmartPlant License Machine 2012 (v12) license machine.

SPLM Failed: License Machine Tcp Address Zero In Server_names File

Occurs when you have SPLM_1 key defined in the `HKEY_CURRENT_USER\Software\Intergraph\SPLM\LicenseMachines` registry entry, but no license machine name and IP is defined in the SPLM_1 key (no string value). You need to either add data in the string value SPLM_1 or delete SPLM_1. Otherwise, you will not able to start your application.

SPLM Failed: License server is not defined for this client

Indicates that the license machine is not defined on the client. You need to define a license machine for the client. Refer to *Selecting a License Machine for a Client* for more information.

SPLM Failed: [reading socket] connection reset by peer

Indicates AT&T Communication Manager is installed on the SmartPlant License Manager licensing machine and displays when SmartPlant software is started or an attempt is made to reserve a seat.

To resolve the error, select **AT&T Communication Manager > Tools > Settings > Acceleration tab > Client: Uninstall** and remove the software. Then, reboot the licensing machine. You can install the Acceleration client in the AT&T Communication Manager if the machine is not the licensing machine.

SPLM Failed: [reading socket] Software caused connection abort.

This message appears when you release a seat or close PDS when SmartPlant License Manager was removed at the license machine after you get a seat.

SPLM Failed: Seat No. has not been reserved: 54

Indicates that a client machine has reserved a seat and then changed IP addresses while SmartPlant License Manager is running. This message is seen when exiting the software.

SPLM Failed: Server/Client Timers Mismatch by 6+ Hours - <license server>

Indicates that the license machine times are not synchronized. You must match the client clock time to be within a 6-hour range of the SmartPlant License Manager license machine clock time.

If you are using Citrix, and crossing multiple time zones, this error can display. To correct the error, adjust the Citrix server's Time Zone Redirection configuration to prevent it from using the client's local time zone for the Citrix session. For more information, refer to the Citrix's Knowledge Base article *Troubleshooting Client Time Zone Issues* (<http://support.citrix.com/article/CTX303498>).

SPLM Failed: SPLM Client must be updated to the latest version.

The SmartPlant License Manager client must be updated to SmartPlant License Manager version 11 or later.

SPLM Failed: SPLM Server must be updated to the latest version - (server name)

Indicates you have SmartPlant License Manager 2010 (v11) client installed but are pointing to an older version of SmartPlant License Manager licensing machine. The client version requires SmartPlant License Manager 2010 (v11) on the licensing machine.

SPLM Failed: Unable to read the license file on the server. try again. - (server name)

This error appears on the SmartPlant License Manager client machine if the licensing machine has been upgraded to version 2008 but has not generated new machine ID and has not installed a new version 2008 license key. To resolve the error, generate new machine ID and install a version 2008 key.

SPLM Failed: [Verify Netw Reply] Bad Network Packet; Check SPLM (Cl/Srv) versions

Indicates a mismatch of SmartPlant License Manager versions. For example, the client machine has a newer version of SmartPlant License Manager installed than the license machine does.

TCPIP mismatch host 192.xxx.x.xxx Key 172.xx.xx.x

Displays when installing a new license key and indicates the IP address used to generate the machine ID does not match the host IP address. You need to generate the machine ID using the new IP address and request a new key.

The key is invalid and cannot be evaluated. Please enter the correct key.

This message occurs if you are trying to install a key that is not within a valid installation period.

The license key could not be installed while scavenge is running. Please try again.

Indicates that you tried to install a license key, and at the same time, a scavenging process was running. Click OK to dismiss the error message. Try to install the license key after the scavenging process ends.

The license file on this server is not correct. Please run Generate machine ID, request a new key, and install it

The SPLM license machine has been upgraded and no new machine ID has been generated or a SPLM 2008 key has not been installed. You will also receive **Run-time error '53': File not found** error. Click **OK** to dismiss the error message. You must generate a new machine ID. Then, request and install a SPLM 2008 key.

There are no license servers to display for this current user

This message appears when you click **Display License Server for Client - Current User Only** and there are no defined licensed machines for your use.

There are no tags in the key on the license machine xxx.

When running this command, if you have no license key installed or if you have a version prior to SmartPlant License Manager 2012 selected, this message displays and a blank product tag list also displays.

There is no key installed on this machine - <servername>

The license key on your license machine has expired. You need to request a new license key.

Unable to create file path\filename for machine ID

This message appears when you run the Machine ID command in the Command Prompt window and the path (a folder) does not exist. To correct the error, create the path (or folder) where you want the Machine ID file to be created.

Unable to read the license file on the server. Try again.

If you upgrade to SmartPlant License Manager 2010 on your license machine, but you do not generate a new machine ID or a SmartPlant License Manager version 2010 license key is not installed, this error displays when using the **Test Seat Reservation** command or when using PDS. Generating a new SmartPlant License Manager version 2010 machine ID and installing a SmartPlant License Manager version 2010 license key resolves the error.

[Verify Netw Reply] Bad Network Packet; Check SPLM (Cl/Srv) versions

This message displays if your SmartPlant License Manager license machine has an older version installed than your SmartPlant License Manager client. You need to either upgrade your SmartPlant License Manager license machine, or select a SmartPlant License Manager license machine that has the same or the latest SmartPlant License Manager version installed.

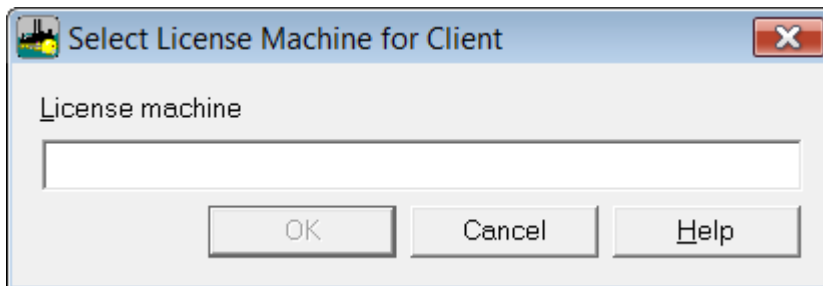
Appendix H: SPLM Client on Windows 7, Windows Server 2008 R2, and Windows Vista

Using SmartPlant License Manager Client with UAC On

If SmartPlant License Manager client machine has UAC turned on and your login belongs to a local administrator's group, the following SmartPlant License Manager client options need to be elevated local administrator's right, and you need to run the commands using the **Run as administrator** option.

NOTE This does not apply to the SmartPlant License Manager options on a SmartPlant License Manager license machine. The SmartPlant License Manager license machine automatically elevates to local administrator's login.

1. Log onto the SmartPlant License Manager client machine as the local administrator.
2. To select a license machine for a client, click **Start > All Programs > Intergraph SmartPlant License Manager**.
3. Right-click **SmartPlant License Manager**.
4. Select **Run as administrator**.
5. Click **Configure and Test > Select License Machine for Client**.
6. Type in your SmartPlant License Manager license machine node name or IP address.



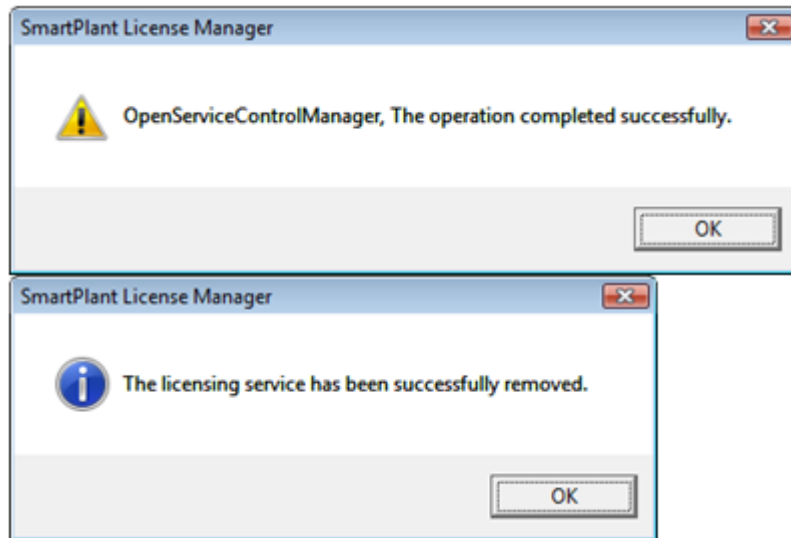
7. Click **OK**.

NOTES

- You must use these option as the local administrator. If you did not start SmartPlant License Manager using the right-click option and then the **Run as administrator** option, SmartPlant License Manager may return an **Access is denied** error message.
 - You need to right-click and start the Command Prompt using the **Run as administrator** option if you need to select a license machine using the `pdlice -j` option.
8. To stop and remove licensing service (if the SmartPlant License Manager service was installed and started), click **Start > All Programs > Intergraph SmartPlant License Manager**.
 9. Right-click **SmartPlant License Manager**.
 10. Select **Run as administrator**.

11. Click **Install and Remove > Stop and Remove Licensing Service.**

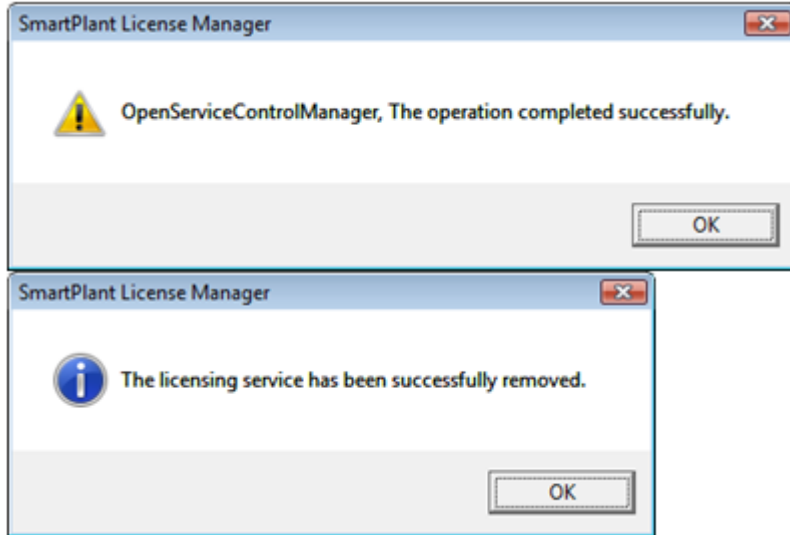
NOTE You need to be an administrator on the machine to use this option. If you did not start SmartPlant License Manager using a right-click and the **Run as administrator** option, SmartPlant License Manager may return the following messages. Also, the SmartPlant License Manager service is not actually stopped and removed in Windows Services:



NOTE You need to right-click and start Command Prompt with Run as administrator option if you need to stop and remove licensing service with pdlice -R command.

12. To install and start the license service (if SmartPlant License Manager service was stopped and removed), click **Start > All Programs > Intergraph SmartPlant License Manager.**
13. Right-click **SmartPlant License Manager.**
14. Select **Run as administrator.**
15. Click **Install and Remove > Install and Start Licensing Service.**

NOTE This option needs elevated administrator's privilege. If you did not start SmartPlant License Manager with right-click and Run as administrator option, SmartPlant License Manager may return following messages, and SmartPlant License Manager service is not actually installed and started in Windows Services (same with **pdlice -I** command):



NOTE You need to right-click and start Command Prompt with **Run as administrator** option if you need to install and start licensing service using the **pdlice -I** command.

Appendix I: Defining a Scheduled Job to Install a License Key

The Administrator can create and schedule a job that automatically installs a new license key. This is known as *license stacking*. The time of installation for the new license key can be defined to install at the time when the current key expires. The Administrator must create a .bat file and schedule the batch file as required. There is no need to remove the existing key

For example, you can request a key install date to be July 1 and schedule the batch job to run at 12:01 A.M. on July 1. A valid path for the specified output file must exist.

NOTE If you are using Microsoft Windows 7, Microsoft Windows Server 2008 or Microsoft Windows Vista operating system, and you have UAC enabled, you must run this command as Administrator. Users can also run this command but they must belong to the local administrator's group and have the **Run with highest privileges** option enabled in the Task Scheduler. Or, you can disable the UAC option.

Creating the .bat file

Include the following in your .bat file. In the following example, the key you receive from Intergraph replaces *mykeyxxxx*.

```
run cmd
cd c:\temp\
pdlice -a mykeyxxxx >>c:\temp\installog.txt
```

Scheduling the .bat file

1. Select **Start > Control Panel**.
2. Double-click **Scheduled Tasks**.
3. Double-click **Add Scheduled Task**.
4. Use the **Scheduled Task Wizard** to browse to your .bat file and define when to perform the task.
5. Click **Finish**.

NOTE Be sure to check any log files for errors.

Index

A

- About SmartPlant License Manager • 30
- Alphabetical List of Key-in Commands • 89
- Appendix A
 - Using the SmartPlant License Checkout Utility • 94
- Appendix B
 - Citrix and SmartPlant Software • 97
- Appendix C
 - Installing SmartPlant License Manager on a Standalone System • 103
- Appendix D
 - SmartPlant License Manager Reporting Utility • 109
- Appendix E
 - Microsoft Windows Firewall and SmartPlant License Manager • 111
- Appendix F
 - Configure SmartPlant License Manager and VMware • 113
- Appendix G
 - Troubleshooting and Error Messages • 119
- Appendix H
 - SPLM Client on Windows 7, Windows Server 2008 R2, and Windows Vista • 129
- Appendix I
 - Defining a Scheduled Job to Install a License Key • 133

C

- Configure a License Machine for Current User • 100
- Configure and Test Options • 38
- Configuring and Testing Options • 64

D

- Display and Modify License Usage • 41
- Display and Modify Scavenging Options • 51
- Display License Machine for Client - All Users • 55
- Display Options • 52
- Display Options Commands • 73

- Display the License Machine for a Client - Current User Only • 56
- Display the License Machine for Client - All Users • 74
- Display the License Machine for Client - Current User Only • 74
- Display the Status of Active Daily Licenses • 54
- Display the Status of Expired and Unexpired Keys • 54
- Display the Status of Reserved Licenses • 54

E

- eLicense and Generating SmartPlant License Manager Keys • 18
- Error Messages • 120

F

- Frequently Asked Questions (FAQ) • 75
- Functional List of Key-in Commands • 92
- Functions of SmartPlant License Manager Client • 60
- License Machine • 33

G

- General Topics FAQ • 76
- Generate an Audit Code • 53

I

- Install a License Key • 34
- Install and Remove Options • 33
- Install and Start Licensing Service • 61
- Install and Start the Licensing Service • 36
- Install SmartPlant License Checkout Utility • 95
- Installation Checklist • 22
- Installation of SmartPlant License Manager • 19
- Installing and Removing Options • 61
- Internationalization • 11
- Introduction • 7

K

- Key-in Commands Overview • 89

L

- Laptops and SmartPlant License Manager Installation • 24
- License Example • 13
- License Key Request Forms • 87
- License Key Requests • 17
- License Key Requests for the License Machine • 16
- License Requests and Installation • 15
- Log Product Usage • 56

P

- PDS and SmartPlant License Manager Installation • 22
- PDS, FrameWorks Plus, and ISOGEN FAQ • 77
- Purchasing Licenses FAQ • 75

Q

- Quick Installation Workflow • 21

R

- Recommendations • 30
- Remove License Machine • 66
- Remove License Machine - Current User • 70
- Remove License Machine for a Client • 40
- Remove License Machine for Client (Current User) • 46
- Remove SmartPlant License Manager • 60

S

- Scavenge for Keys • 50
- Scavenge Options • 49
- Select a License Machine for a Client • 39
- Select License Machine • 65
- Select License Machine for Client - Current User • 69
- Select License Machine for Client (Current User) • 45
- Setup Options • 13
- Show Key Status • 53
- Silent Mode and SmartPlant License Manager Installation • 25
- SmartPlant 3D and SmartPlant Layout FAQ • 79
- SmartPlant License Information Dialog Box • 59
- SmartPlant Products and SmartPlant License Manager Installation • 23

- SmartPlant Reference Data and SmartPlant Materials FAQ • 80
- SmartSketch and SmartPlant License Manager Installation • 22
- SmartSketch and SmartPlant Products FAQ • 79
- Software Installation that Requires Licensing • 18
- Software Installation Using the Web • 23
- Software Version Compatibility • 16
- Starting SmartPlant License Manager • 30
- Step 1
 - Installing Microsoft Loopback Adapter • 103
- Step 2
 - Configuring Static IP Address for the Microsoft Loopback Adapter • 104
- Step 3
 - Configuring Advanced Settings for the Loopback Adapter • 105
- Step 4
 - Installing SmartPlant License Manager and Generating a Machine ID • 105
- Step 5
 - Adding pdlice.exe to Firewall Exception List • 106
- Step 6
 - Selecting a License Machine and Reserving a Seat • 107
- Stop and Remove Licensing Service • 63
- Stop and Remove the Licensing Service • 37
- Supported Platforms • 99

T

- Terms • 12
- Test for Seat Release • 68
- Test for Seat Reservation • 66
- Test Seat Release • 44
- Test Seat Release - Current User • 72
- Test Seat Release (Current User) • 49
- Test Seat Reservation • 42
- Test Seat Reservation - Current User • 70
- Test Seat Reservation (Current User) • 47
- Troubleshooting • 119

U

- Upgrades and License Keys • 15
- Upgrades for SmartPlant License Manager • 26
- Upgrading to SmartPlant License Machine 2012 Client • 29

Upgrading to SmartPlant License Manager
2012 • 27
Upgrading to SmartPlant License Manager
2012 License Machine • 27

W

What's New in SmartPlant License Manager
• 10