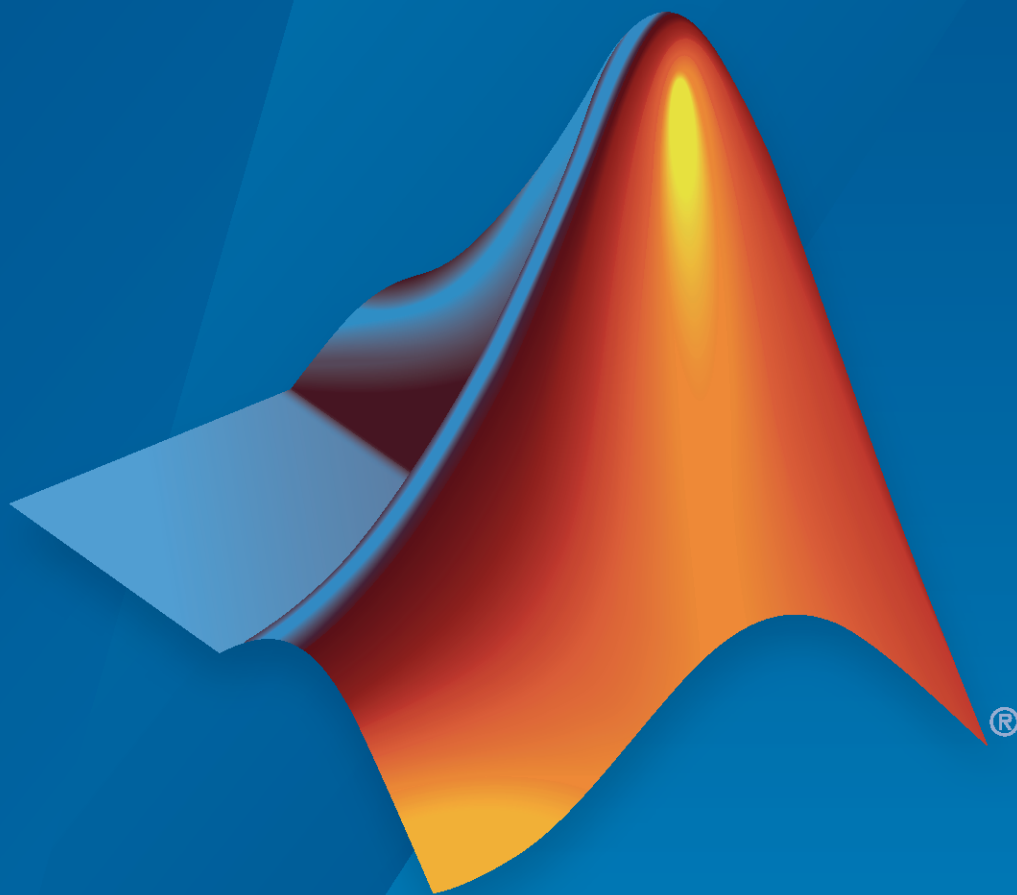# Polyspace® Products for Ada

Installation Guide

MathWorks®

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Before You Begin

- "Hardware and Software Requirements" on page 1-2
- "DVD Contents" on page 1-4
- "Polyspace Installation Options" on page 1-5
- "Polyspace Software Installation Folders" on page 1-7

Hardware and Software Requirements

In this section...

Before you install Polyspace Client™ for Ada or Polyspace Server™ for Ada, your hardware and software must meet the following requirements.

Note To install Polyspace software on a 64-bit Linux machine, you must have installed the 32-bit libraries. The Polyspace installer uses 32-bit binary files, which require these libraries.

Component	**Supported Specifications**
RAM	4 GB
Operating system (Only 64-bit)	**Linux:**[a] • Debian 8.x • Red Hat Enterprise Linux 6.x and 7x • Ubuntu 14.04 LTS **Windows:** • Windows® 7 Service Pack 1 • Windows 8 and 8.1 • Windows 10 • Windows Server® 2012 • Windows Server 2016
Disk space for installed software	2 GB minimum (4 GB recommended)
Multicore support	Polyspace verification benefits from using multicore processors. The minimum hardware required for a Polyspace Server is four core processors, with 2 GB of RAM per core (4 GB of RAM per core recommended).

a   The listed distributions are the Linux® distributions that MathWorks® products have been validated against. It is likely that other distributions with kernel version 2.6 or later and glibc version 2.11 or later can successfully run MathWorks products, but MathWorks is in a limited position to provide technical support for those distributions.

Polyspace Plugin Requirements

Before you install Polyspace link products or plugins, your hardware and software must meet the following requirements.

Product	**Release**
Polyspace plugin for Eclipse IDE[a]	4.4, 4.5, 4.6

Product	Release
Network license manager	See the FlexNet® Version on this page.

a   The Eclipse plugin requires Java 7.

Polyspace Software License Requirements

Polyspace software provides two licensing options that, when combined with the supported installation types, provide flexibility in redeploying product licenses to different users.

Polyspace software provides the following license options.

License Option	Protection	Description
Designated Computer (DC)	MAC address or serial disk number of the designated computer	DC licenses are for only Polyspace client software. DC licenses are for users who want to install and administer the client software themselves. A DC license is provided in a text file.
Concurrent	MAC address or serial disk number of the network license manager server	Concurrent licenses are for both Polyspace client and server software. Concurrent licenses are for organizations that use license keys to control software access. Concurrent licenses require a network license manager.

Linux Installation Requirements

Access Rights

You must have read and execution access rights for Polyspace software installation.

Configuration

Verify that the `/tmp` folder contains at least 10 MB of free space.

Environment Settings

- User path must include *Polyspace_Install*/`bin` (to start the product without using the absolute path).
- Place the Polyspace license file in *Polyspace_Install*/`licenses/license.dat`.

For more information, see "Polyspace Software Installation Folders" on page 1-7.

DVD Contents

Depending on the products that you purchase, from the Polyspace DVD (or downloaded installer file), you can install one or both of the following Polyspace products:

- **Polyspace Client for Ada** — Verify and review Ada83 and Ada95 source code.
- **Polyspace Server for Ada** — Verify Ada83 and Ada95 source code on a dedicated server.

Note The difference between Polyspace Server and Polyspace Client products is described in "Polyspace Installation Options" on page 1-5.

The DVD (or downloaded installer file) contains folders and program files.

Important folders and programs are:

- `setup.exe` — Runs the graphical installation wizard on a Windows platform.
- `install.sh` — Runs the shell script installation wizard on a Linux platform.
  The `-console` option enables you to execute the command in a console mode.
  The `-h` option provides command options.
- `version.txt` — Text file with the complete version number of the Polyspace product that is stored on the DVD.
- `Docs` — Folder with Polyspace installation guide, in PDF format.
- `Data` — Folder that contains Polyspace data.
- `Installer32bits` — Folder with installer for 32-bit version of Polyspace product.
- `Installer64bits` — Folder with installer for 64-bit version of Polyspace product.

Note After installation, the *Polyspace_Install*\polyspace\examples*Language* folder contains subfolders with sample projects and verification results generated by Polyspace software.

Polyspace Installation Options

You can install the following products from the Polyspace installation DVD:

- Polyspace Client for Ada
- Polyspace Server for Ada

A *client* installation allows you to perform local verification, review previously completed code verifications, and send new verification requests to a dedicated server. You can use this option for developer machines. The installation requires approximately 2 GB of disk space (3–4 GB is recommended). You must have local administrator rights and access to the registry to complete the installation.

A *server* installation allows a machine to receive verifications from clients. This option is for machines dedicated to Polyspace software. The installation requires approximately 2 GB of disk space (3–4 GB is recommended). You must use a local user login with local administrator rights to complete the installation.

A Polyspace Server can receive Polyspace verification requests from any number of Polyspace Clients.
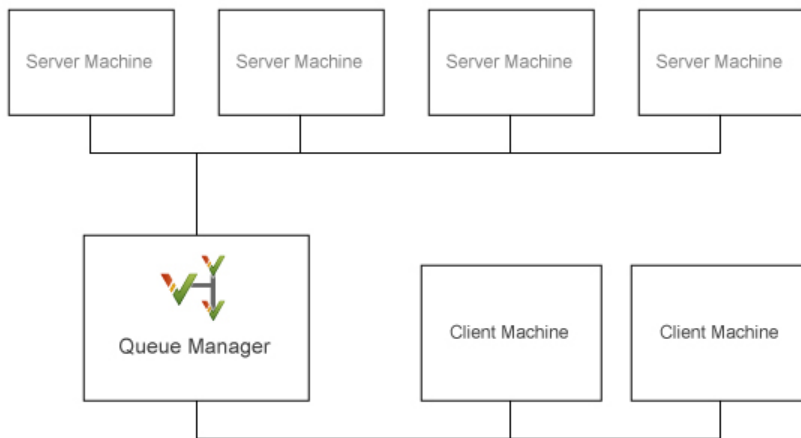
Polyspace Client/Server Architecture

The following table describes some Polyspace terms.

Term	Description
Polyspace Client	Developer machine that requests Polyspace code verifications to be performed on servers. You can install any number of client systems.
Polyspace Server	Computer that manages code verifications from a number of clients. You can configure a server as either a Queue Manager or a CPU.
Queue Manager	A Polyspace Server that manages code verifications from a number of clients. The Queue Manager can run verifications, or dispatch verification jobs to other CPUs. Typically, there is only one Queue Manager.
CPU	A Polyspace Server that is dedicated to running code verifications. A CPU receives verification jobs from the Queue Manager and runs verifications. You can install any number of CPUs.

You can specify Polyspace client and server architectures that use combinations of Windows and Linux machines. For example, you can install:

- Polyspace Clients on Windows machines and Polyspace Servers on Linux machines
- Polyspace Clients on Linux machines and Polyspace Servers on Windows machines
- The Polyspace Queue Manager on a Linux machine and Polyspace Servers on Windows machines

Polyspace Software Installation Folders

Polyspace software is installed in the *Polyspace_Install* and *PolyspaceRLDatas* folders.

The *Polyspace_Install* folder, which contains the kernel of the Polyspace release, is located as follows:

- On a Windows system, *Polyspace_Install* is C:\Program Files\Polyspace \PolyspaceForADA_*Release*. *Release* is the product version.
- On a Linux system, *Polyspace_Install* is /usr/local/Polyspace/ PolyspaceForADA_*Release*.

The *Polyspace_RLDatas* folder, which stores data from server verifications, is located as follows:

- On a Windows system with a previous release installed, the existing *PolyspaceRLDatas* is used. For example:

  C:\Polyspace\Polyspace_RLDatas

  If a previous release is not installed, the environment variable APPDATA specifies the location of *PolyspaceRLDatas*.
- On a Linux system, the *PolyspaceRLDatas* folder is /var/Polyspace.

The Polyspace Server configuration file polyspace.conf is located as follows:

- On a Windows system, in the folder *PolyspaceRLDatas*.
- On a Linux system, in the folder /etc/Polyspace.

Install Polyspace Software

Polyspace Products You Can Install

In this section...
"Polyspace Client Software" on page 2-2
"Polyspace Server Software" on page 2-2

Polyspace Client Software

Polyspace Client software is the management and visualization tool of Polyspace products. Use it to submit jobs for execution by Polyspace Server, and to review verification results. The Polyspace Client software includes the following features:

- Polyspace verification environment
- Data Range Specification (DRS)
- Report Generator

Install the Polyspace Client software on developer machines that will send verification jobs to the Polyspace Server.

Polyspace Server Software

Polyspace Server software is the computational engine of Polyspace products. Use it to run jobs posted by Polyspace Clients, and to manage multiple servers and queues. The Polyspace Server software includes the following features:

- Remote verification launcher
- Polyspace Job Monitor
- Report Generator
- HTML Generator

Install the Polyspace Server software on machines (the Queue Manager and CPUs) that are dedicated to receiving verifications from clients.

Install Polyspace Products for Ada

In this section...
"Before Starting the Installation" on page 2-3
"Install the Software" on page 2-3
"Polyspace Software Icon" on page 2-6
"Configure the Polyspace Server" on page 2-7

Before Starting the Installation

Before starting the installation process, check that you have the following:

- The Polyspace DVD (or downloaded installer file).
- Your email address and password for your MathWorks account.
- A local user login with **administrator** rights.
- At least 2 GB of free disk space (3–4 GB is recommended).

Install the Software

Polyspace Products for Ada software provides a graphical installation wizard that guides you through the installation process. This wizard is available on Windows or Linux platforms.

To install the Polyspace Client and Server software on a Windows computer:

1   Insert the Polyspace DVD into your DVD drive, or navigate to the installer file that you downloaded from the MathWorks Web site.
2   Run `setup.exe`. (For a Linux system, run `install.sh`).
3   The Polyspace products installation wizard opens, displaying the Introduction page. Click **Next**.
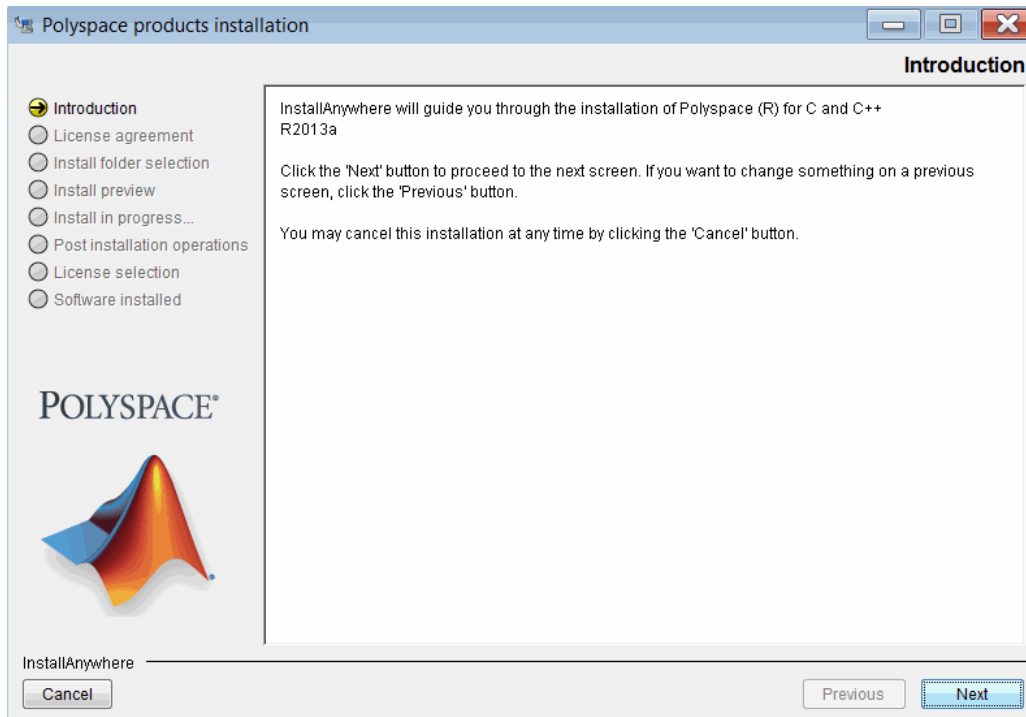
4   On the License agreement page, select **I accept the terms of the License Agreement**. Then click **Next**.

5   On the Install folder selection page, specify the folder in which you want to install the Polyspace software.

    The default folder for the product software is `C:\Polyspace\PolyspaceForADA`.
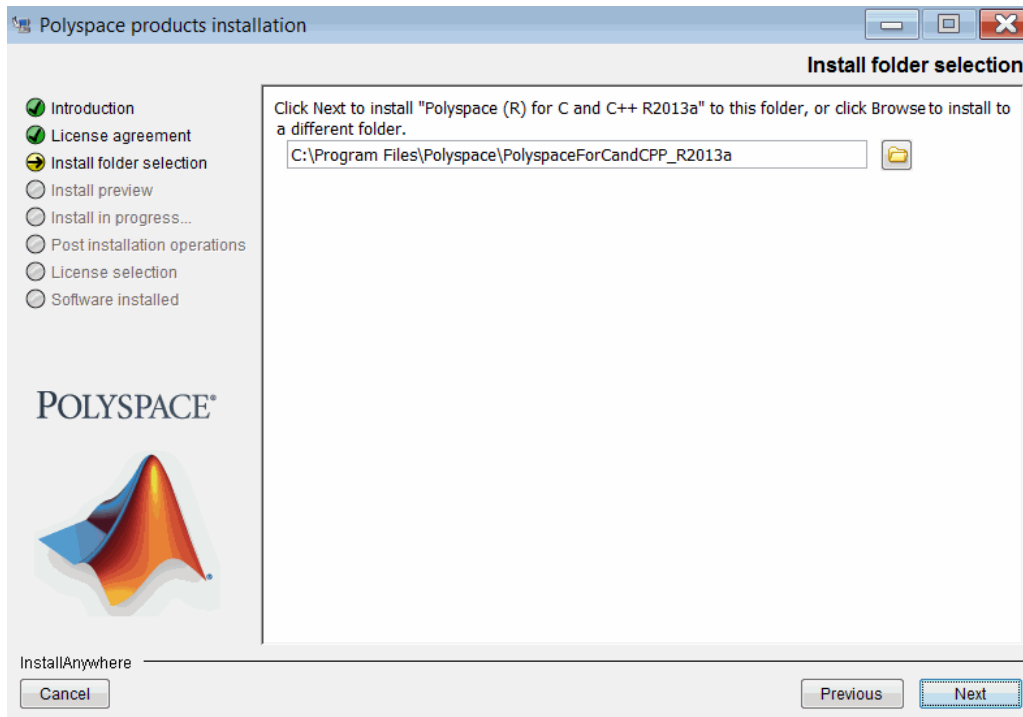
6 Click **Next**.

7 On the Install preview page, click **Install**.
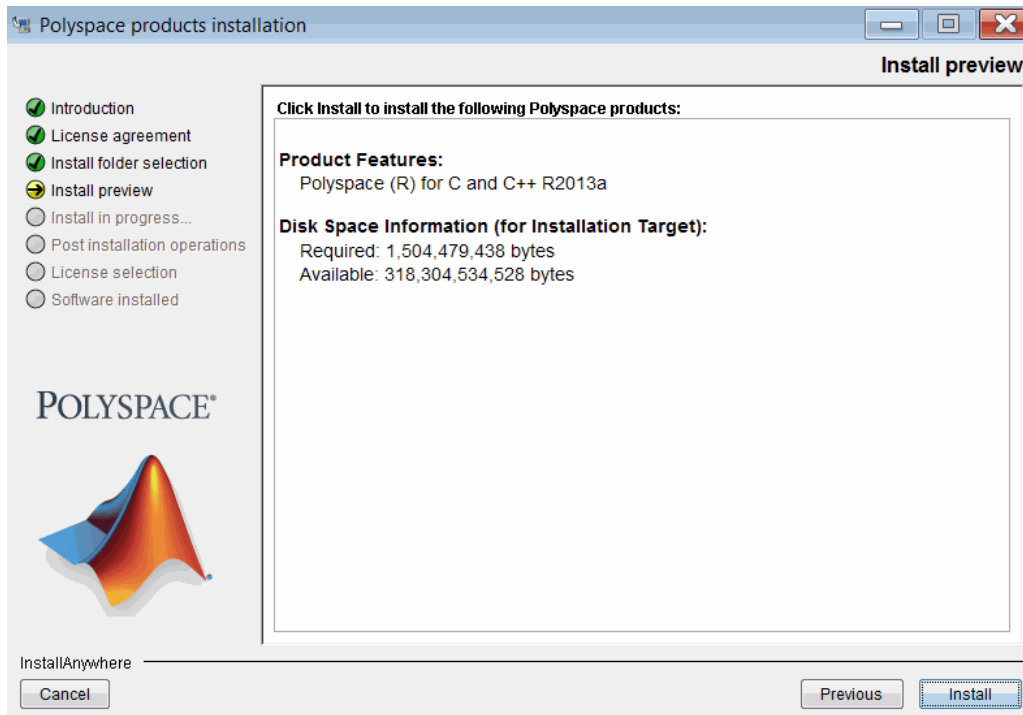
8 The installation takes a few minutes, after which the Software installed page opens. Click **Done**.
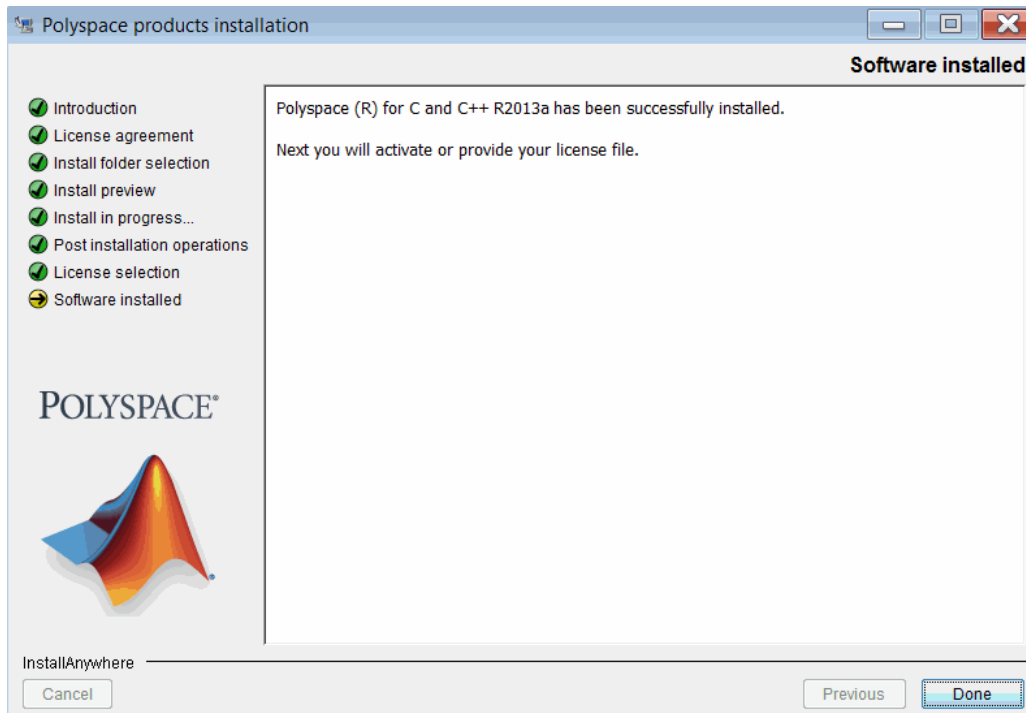
9 The Polyspace Software Activation wizard opens.
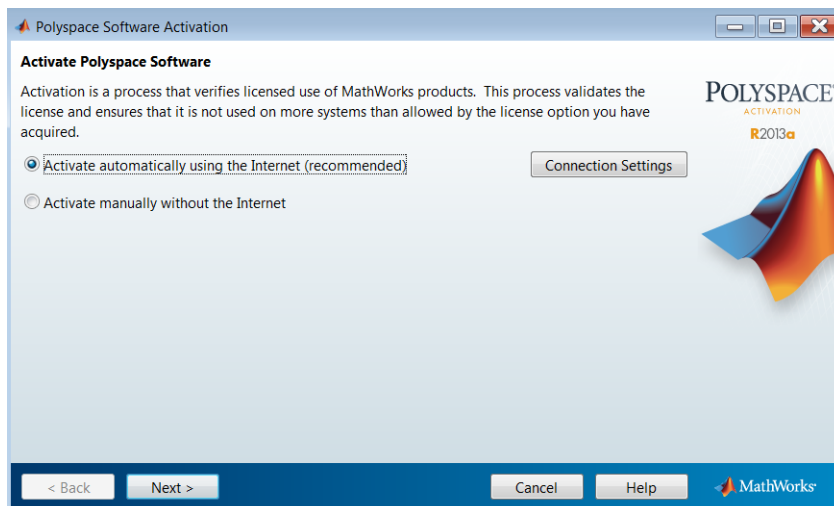
Before you can use the Polyspace product, you must activate the software.

If you do not want to activate the software now, click **Cancel**. You can start the activation process after installation by selecting **Start > All Programs > Polyspace > Activate Polyspace**.

For information about activation steps, see "Activate Polyspace Software" on page 2-11.

Polyspace Software Icon

When installation is complete, the following icon appears on your desktop:
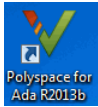
Click this icon to open the Polyspace verification environment, from which you set up projects, start verifications, and review verification results.

Configure the Polyspace Server

After installing the Polyspace software, use the Remote Analysis Server Settings dialog box to configure the Polyspace Server.

1   Open the Polyspace verification environment. From your desktop, click the Polyspace icon.
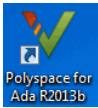
> **Note** In Windows 7, run Polyspace as an administrator. Right-click the Polyspace icon. From the context menu, select **Run as administrator**.

2   Select **Tools > Remote Analysis Server Setting**.
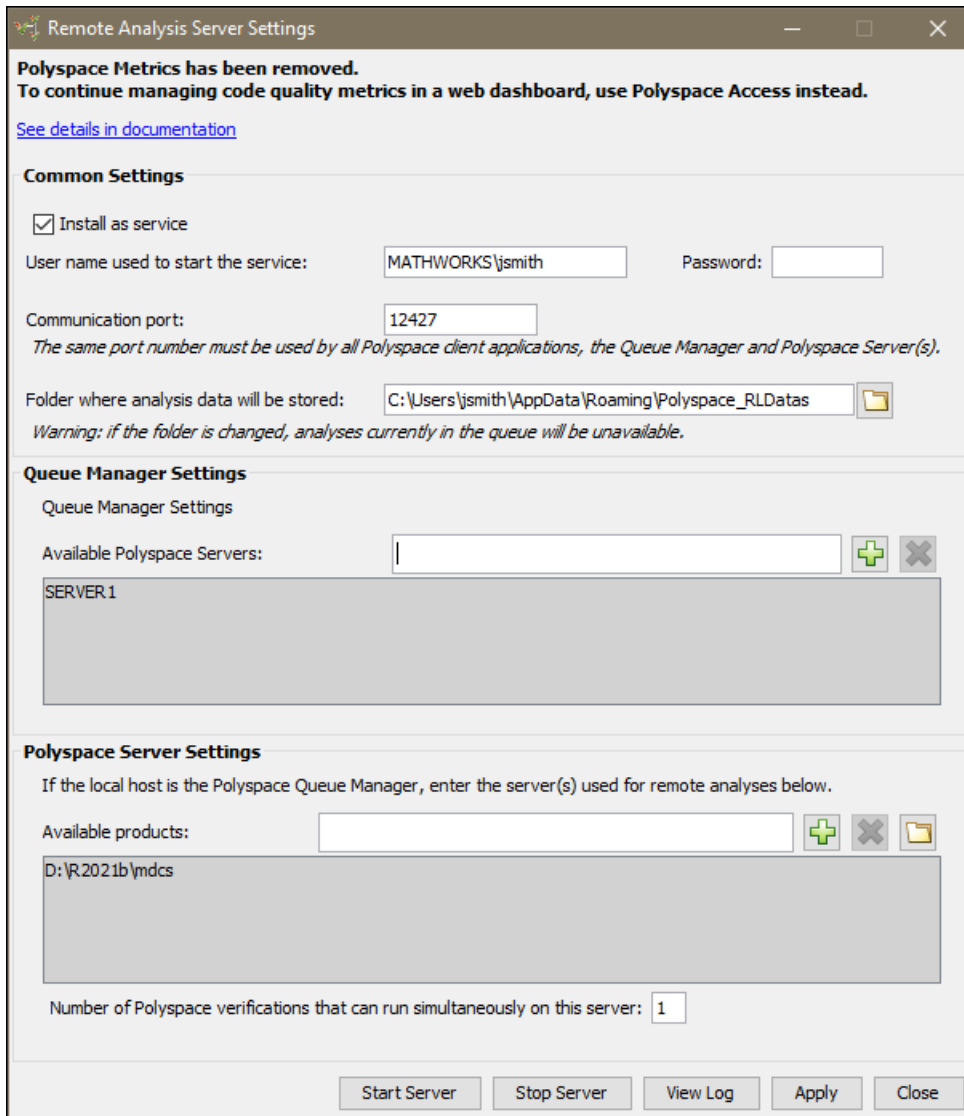
To configure the server:

1 Specify the port through which the server communicates with clients. The default port number is 12427. The port number must be the same as the port number for all Polyspace Clients.

2 By default, the server is specified as a service on a Windows machine or a daemon on a Linux machine

On a Linux machine, if you do not select the **Install as service** check box, you must configure the server manually after installation. See "Manual Configuration of the Polyspace Server" on page 2-19.

3 Enter your user name and password. A password is not required on a Linux machine.

4 In the **Polyspace Server Settings** section, specify the software versions that you want the server to support. Use one of the following approaches:

- Click the folder button 📁. Then use the Select a Polyspace product dialog box to specify *Polyspace_Install* folders for the required software versions.

- In the **Available products** field, enter the *Polyspace_Install* path for a software version that you require. Then click the **+** button.

To remove an item from the list of supported software versions, select the item. Then click the **–** button.

5 If you have purchased more than one license for your server, set the **Number of Polyspace verifications that can run simultaneously on this server** to the number of licenses you plan to activate for this machine.

6 Click **Start Server**. The software checks product paths, licenses, and the creation and start up of the service (daemon). When the configuration check is complete, you see the message Start of the daemon has succeeded.
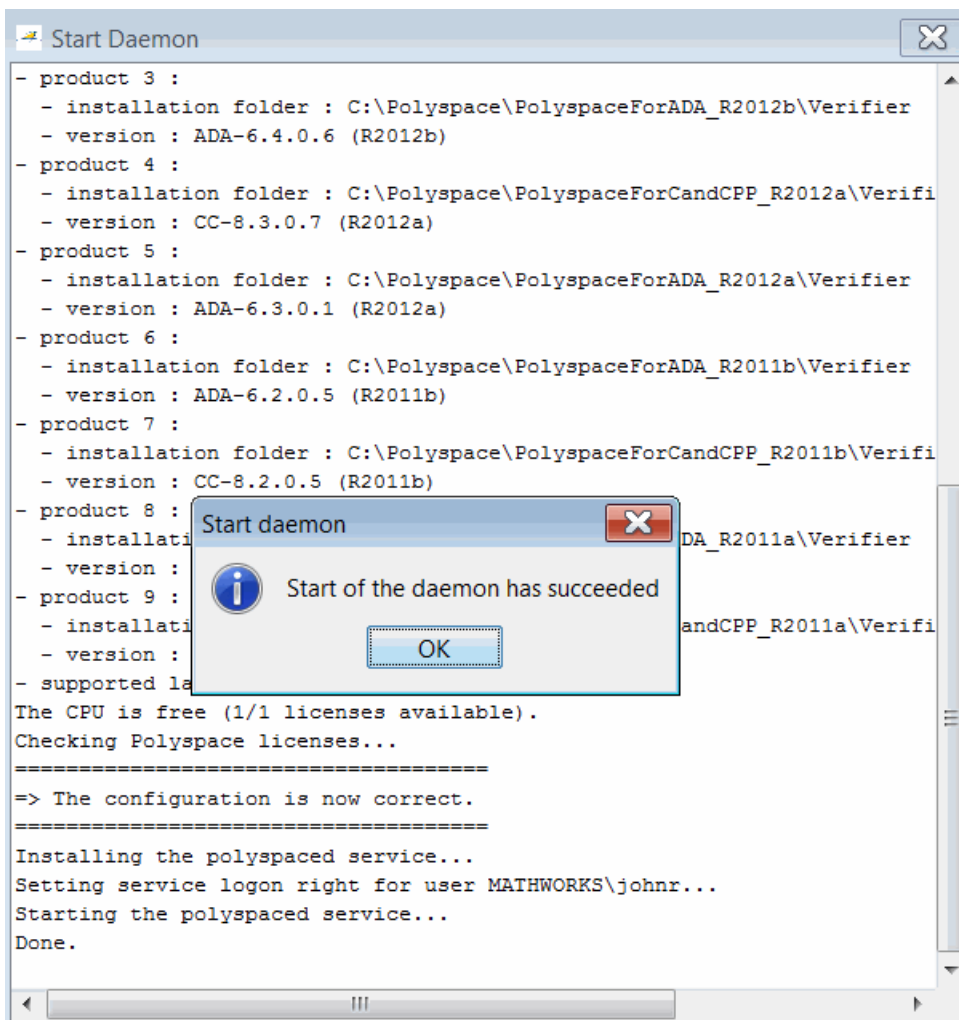
Note If a problem occurs, you see an error message in the Start Server window. See "Troubleshoot Common Errors" on page 2-23.

7 Click **OK**.

8 Click **Close**. By default, the server becomes the Queue Manager and first CPU of the architecture.

Activate Polyspace Software

After installation on page 2-3, before you can use the Polyspace product, you must activate the software.

Activation is a process that verifies licensed use of MathWorks products. The process validates your product licenses and makes sure that your licenses are used correctly. Before you can use Polyspace software, you must complete the activation process.

After you have completed the steps for installing the Polyspace software, the Polyspace Software Activation wizard opens.
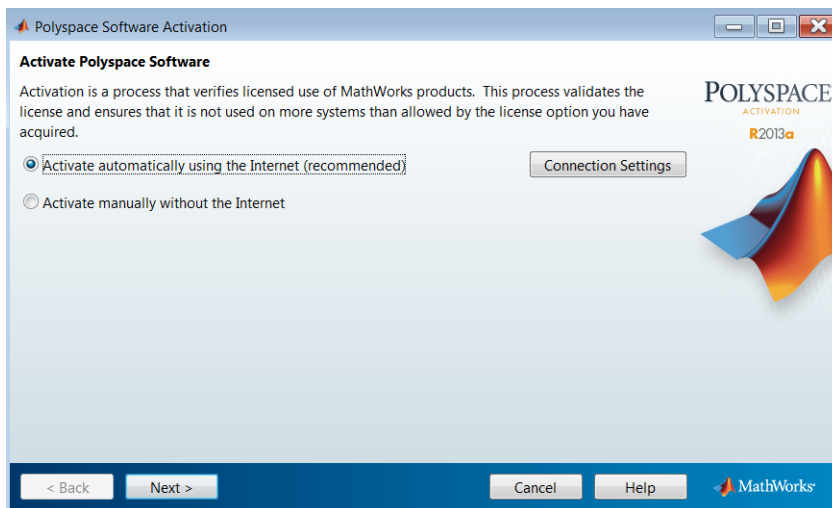
After activation, you can use Polyspace locally. To run Polyspace on a server, see "Configure the Polyspace Server" on page 2-7.

If you are using Designated Computer (Individual) licenses, you must activate the license for each Polyspace system individually. However, if you are using Concurrent licenses for multiple Polyspace systems, you do not need to activate each Polyspace system. You activate the license once (for the network license manager server), then provide license files for each Polyspace system.

To complete the activation process, refer to the following sections:

- "Activate With Existing License File" on page 2-11
- "Activate Automatically (With Internet Connection)" on page 2-12
- "Activate Manually (Without Internet Connection)" on page 2-14

If you cancel the activation process, you can activate the software later by selecting **Start** > **Programs** > **Polyspace** > **Activate Polyspace**.

Activate With Existing License File

If you have an existing license file for the software that you are installing, you can provide a path to the license file to complete the activation process. You do not need to access the MathWorks License Center.

For example, if you use concurrent licenses for Polyspace software, your license manager provides a license file for each Polyspace system. You do not activate the software on each system, you just provide a path to this license file.

Note With concurrent licenses, a network license manager manages licensing of individual systems. You manually activate the concurrent license once (using the License Center at the MathWorks Web site), and then provide license files for each Polyspace system. For more information, see "Configure Concurrent Licenses" on page 4-11.

To activate Polyspace software with an existing license file:

1 On the Polyspace Software Activation page, select **Activate automatically using the Internet**. Then click **Next**.

2 On the Log In or Provide License File page, click **Enter the full path to your license file, including the file name**.

3 Enter the path to your license file. Then click **Next**.

4 On the Activation Complete page, select **Finish**.

Activate Automatically (With Internet Connection)

If your Polyspace system is connected to the Internet, you can activate your software automatically after installation. This process involves logging in to your MathWorks Account, and selecting the license that you want to activate.
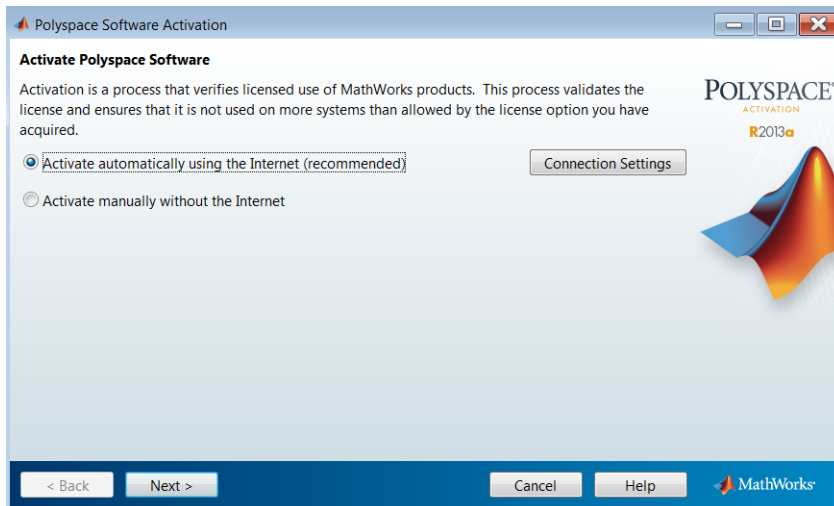
To activate your software automatically:

1 On the Polyspace Software Activation page, select **Activate automatically using the Internet**. Then click **Next**.
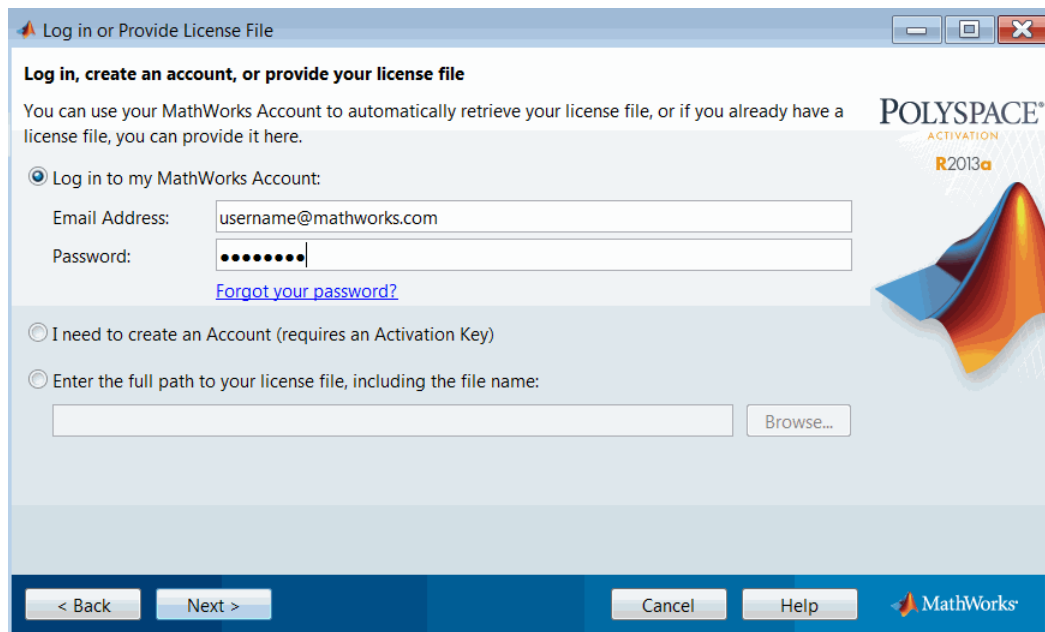
2 On the Log in or Provide License File page, enter the login information for your MathWorks Account. Then click **Next**.

Note If you do not have a MathWorks Account, click **I need to create an Account**, and follow the instructions to create one.

3 On the License Selection page, select the license that you want to activate.
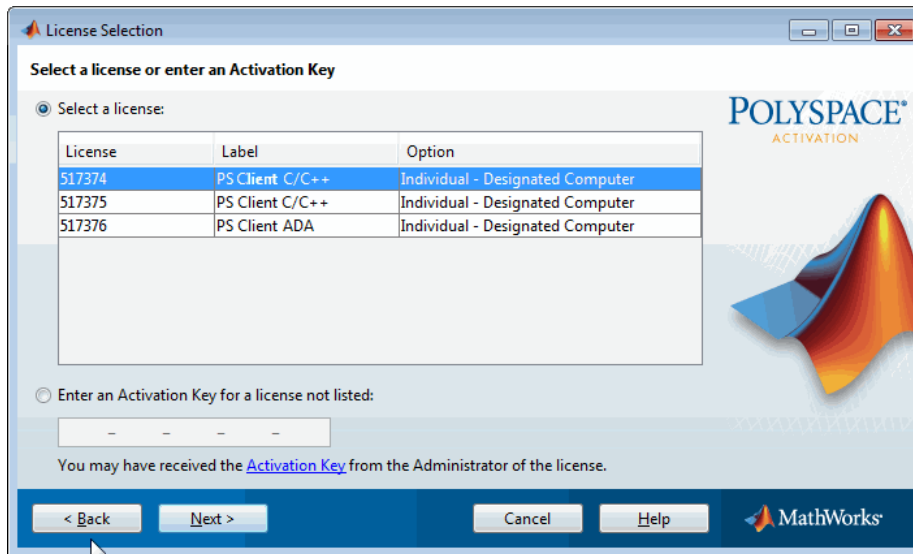
Then click **Next**.

4   On the Confirmation page, click **Activate**.

Your license file is automatically copied to the Polyspace system.

5   On the Activation Complete page, click **Finish**.

Activate Manually (Without Internet Connection)

If your Polyspace system does not have an Internet connection, you must activate your software manually. This process involves accessing the MathWorks License Center from another computer, then manually copying your license file to the Polyspace system.
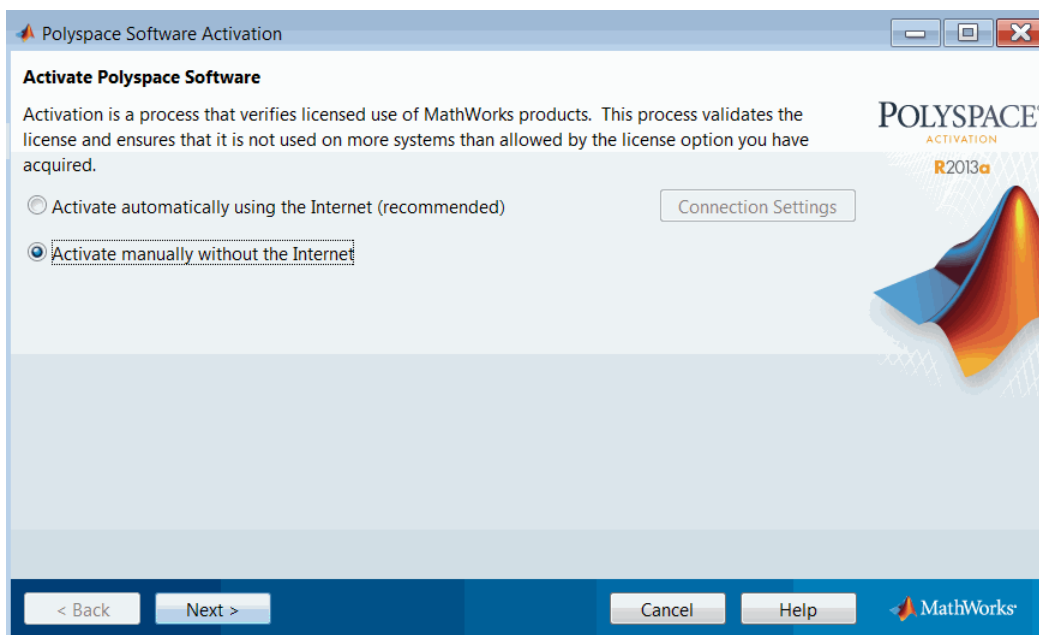
To activate your software manually:

1   On the Polyspace Software Activation page, select **Activate manually without the Internet**. Then click **Next**.

2   On the Offline Activation page, select **I do not have a license file**.
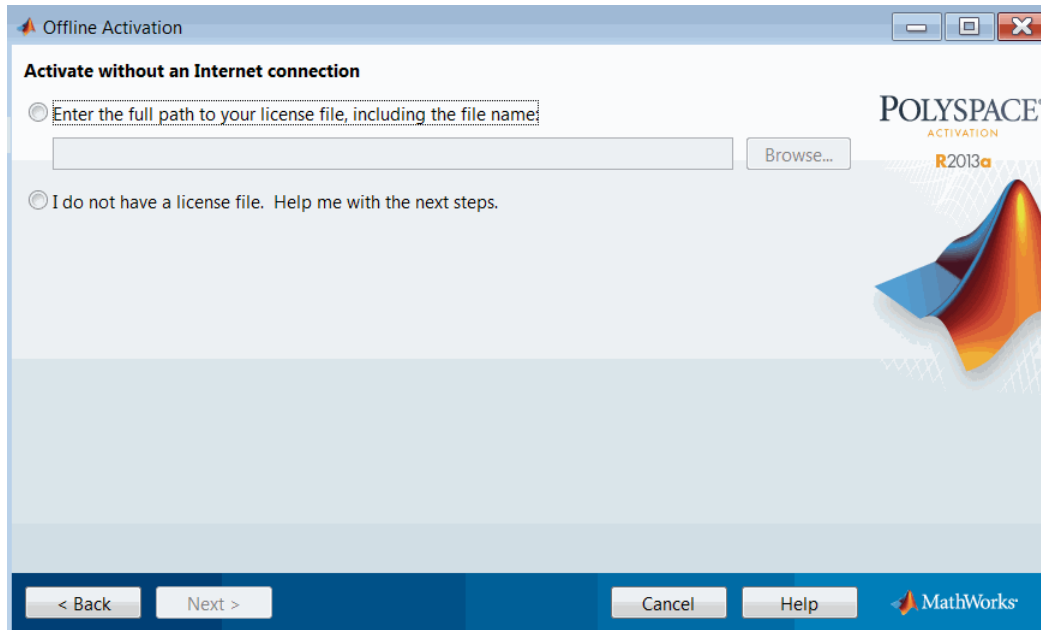
Then click **Next**.

3   The License File Retrieval page displays the information that you need to activate your software.

Save the information displayed on the page. For example, you can print a copy by clicking **Print**.

4   From a computer with an Internet connection, go to the License Center at the MathWorks Web site: https://www.mathworks.com/licensecenter.

5   Activate your license. Then download your license file.

For more information, refer to the License Center Help.

6   Copy your license file to the Polyspace folder.

7   Return to the Offline Activation page. Select **Enter the full path to your license file, including the file name**. In the corresponding field, enter the path to your license file. Then click **Next**.

Note   If you closed the Polyspace Software Activation wizard, select **Start > Programs > Polyspace > Activate Polyspace** to reopen the wizard.

8   On the Activation Complete page, click **Finish**.

Start Installation from Command Line

In this section...
"Install Software on a Linux Platform" on page 2-16
"Install Software in Silent Mode" on page 2-16

Install Software on a Linux Platform

To install Polyspace products on a Linux system, in a terminal window, execute the following command:

DVD/install.sh

This script opens the installation wizard. To complete the installation, refer to "Install Polyspace Products for Ada" on page 2-3.

Install Software in Silent Mode

By default, -silent mode performs a Polyspace software installation using default parameters (auto server mode and 12427 for the port).

After installing the software, you must configure the Polyspace server settings. For more information, see "Modify Polyspace Server Configuration" on page 2-18

Linux Platforms

To install the software on a Linux system using silent mode, in a terminal window, run the following command:

DVD/install.sh -silent -install-dir *Polyspace_Install*

where *Polyspace_Install* represents the installation folder.

Windows Platforms

To install the software on a Windows system using silent mode, in a DOS command window, run the following command:

DVD\setup.exe -silent -install-dir *Polyspace_Install*

Polyspace_Install represents the installation folder.

Modify Polyspace Client Configuration

Initial Configuration

By default, the Polyspace Client is configured to automatically detect a Polyspace Server on the network using port 12427.

Configure Polyspace Client Manually

By default, the Polyspace Client automatically detects available Polyspace Server configured as a Queue Manager on the network. However:

- If the Client finds more than one Polyspace Server, the Client displays an error message listing the names of detected servers. Carefully note the names and close the error dialog box.

- If a Polyspace Server is not available, you see the `No QueueManager server found` error message when you start a verification or execute a Polyspace command.

In these cases, to fix the error, you can specify a specific Queue Manager server associated with a specific port number.

To manually configure the remote server:

1 In the Polyspace verification environment, select **Tools > Preferences**.

2 In the Polyspace Preferences dialog box, click the **Server configuration** tab.
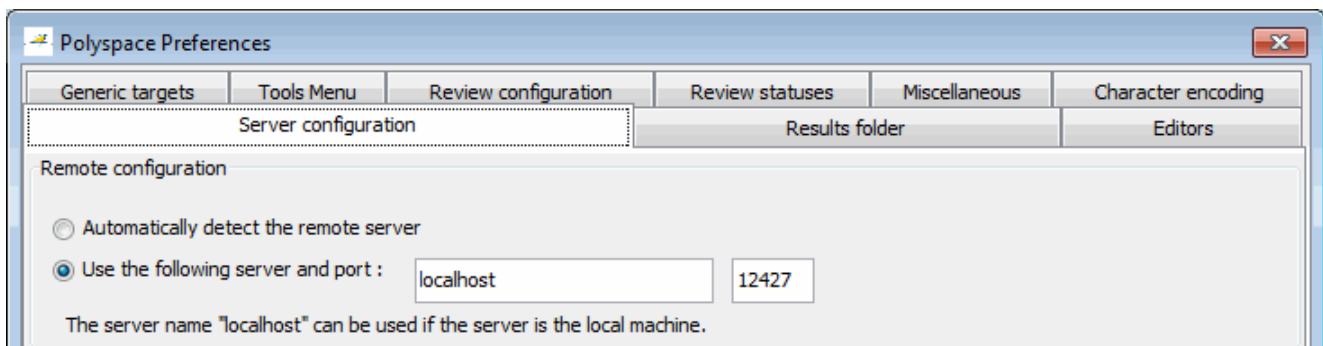
3 In the Remote configuration section, click **Use the following server and port**.

4 Enter an IP address (or server name) and the associated port number (default `12427`) for the Polyspace Server. You must use the same port number for the clients, the Queue Manager, and the servers.

5 Click **OK**.

The preferences are stored in the `polyspace.prf` preferences file in `%AppData%\Polyspace` (`C:\Users\`*username*`\AppData\Roaming\Polyspace\polyspace.prf` on a Windows system).

Note Do not modify this file with an ASCII editor. Use the Remote Analysis Server Settings dialog box to modify values in this file.

Modify Polyspace Server Configuration

In this section...
"Update Polyspace Server for Ada Configuration" on page 2-18
"Manual Configuration of the Polyspace Server" on page 2-19
"Configuration Files on Windows Platform" on page 2-20
"Adding a New CPU" on page 2-21
"Configuration Files on Linux Platform" on page 2-21

This topic describes how to modify the Polyspace Server for Ada configuration. To configure the Polyspace Bug Finder™ Server or Polyspace Code Prover™ Server products, see:

- "Set Up Bug Finder Analysis on Servers During Continuous Integration" (Polyspace Bug Finder).
- "Set Up Code Prover Analysis on Servers During Continuous Integration" (Polyspace Code Prover).

Update Polyspace Server for Ada Configuration

The default Polyspace Server for Ada configuration specifies that the server is both the Queue Manager and a CPU. However, after installing the software, you can update the configuration through the Remote Analysis Server Settings dialog box.

To update your server configuration (`polyspace.conf`):

1 Open the Polyspace verification environment. From your desktop, double-click the Polyspace icon.
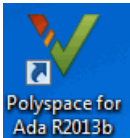
> **Note** In Windows 7, run Polyspace as an administrator. Right-click the Polyspace icon. From the context menu, select **Run as administrator**.

2 Select **Tools > Remote Analysis Server Settings**.

> **Note** You can also run the command *Polyspace_Install*/polyspace/bin/polyspace-server-settings.exe.

3 Stop the current Queue Manager. Click **Stop Server**. You must stop the current Queue Manager before you can change parameters.

4 Under **Common Settings**, specify:

- **Communication port** — Port number that is used by the clients, the Queue Manager, and the servers.
- **Folder where analysis data will be stored** — Location for data from server verifications.

5 If you want the host machine to be the Queue Manager, under **Queue Manager Settings**, specify the Queue Manager and CPUs.

To specify the Queue Manager or a CPU, in the **Available Polyspace Servers** field, enter *Machine_name_or_IP_address*[:*port_number*]. For example, SERVER1 or

012.123.4.56:12427. Then click .

6   If you do not want the host machine to be a Queue Manager, under **Queue Manager Settings**, remove entries from the displayed list.

For example, to remove a CPU from the specified list, select the CPU. Then click .

7   Under **Available products**, specify the location of Polyspace products installed on the server.

8   In the **Number of Polyspace verifications that can run simultaneously on this server** field, specify the number of licenses you have activated for the machine.

9   Click **Apply**.

10   Click **Start Server**.

The file *Polyspace_RLDatas*/polyspaced.log (/var/Polyspace/polyspaced.log) contains the information that the software displays when you click **Start Server** or **Stop Server** .

Manual Configuration of the Polyspace Server

The polyspace.conf file specifies the configuration of the Polyspace Server.

You can manually create or modify the configuration file with the command *Polyspace_Install*/polyspace/bin/setup-remote-launcher. For information about options, run *Polyspace_Install*/polyspace/bin/setup-remote-launcher -h.

The configuration file contains fields that define the Queue Manager and CPU architecture. By default, the Polyspace Server is both the Queue Manager and a CPU.

Specify the Polyspace Server configuration through the following fields:

- product= — Installation folder *Polyspace_Install* for Polyspace software. One per language.
- lang= — Verification language, which specifies the supported language declaration (CPU only). Values can be Ada83, ADA83, Ada95 and ADA95.
- username= — User name used to run the daemon process. On a Linux system, if the daemon is started as root, the daemon automatically changes its user ID to run as the user.
- datadir= — Name of the folder where data from remote verifications are stored. Default is *PolyspaceRLDatas*.
- locksdir= — Name of the folder where the locks are stored. If not specified, *datadir*/locks is used.
- port= — Number of the port for which the daemon listens. Default value is 12427. The number can be between 10000 and 15000. This range depends on the operating system requirements.
- cpu= — Machine name to specify Queue Manager, or IP address and port number to specify CPU.

Use the syntax *IP_Address_or_CPU_Name*[:*Port_Number*]. For example:

```
cpu=MYHOST
cpu=192.168.2.79:12428
```

The first line specifies the machine for the Queue Manager. The second line specifies a CPU to which the Queue Manager sends verification jobs.

- `results_repository_dir=` — Results repository folder. The default is *datadir*/`results-repository`.
- `process_automation=` — Flag that specifies whether automatic verification is activated (`yes`). The default is `no`. If automatic verification is activated, then Polyspace verifies your code according to the configuration that you provide in the file *results_repository_dir*/`Projects.psproj`.

To make changes to the configuration file, you must stop the associated daemon (service). Run the command:

Polyspace_Install/polyspace/bin/setup-remote-launcher -stop-service

To start or restart the daemon (service), run the command:

Polyspace_Install/polyspace/bin/setup-remote-launcher -start-service

On a Linux machine, if you have not specified the Queue Manager as a daemon, run the following command to install the daemon:

Polyspace_Install/Polyspace/bin/setup-remote-launcher -install-service

To start the Queue Manager daemon, run:

Polyspace_Install/polyspace/bin/polyspaced

To stop the Queue Manager daemon, run:

Polyspace_Install/polyspace/bin/polyspaced -stop

Note You can manage the Polyspace daemon from the `/etc/init.d install` services folder.

Configuration Files on Windows Platform

The *Polyspace_RLDatas* folder contains the following:

- `polyspaced.log` — Log file that contains information generated by:

  - The installation process
  - Communication between the Queue Manager and clients for the life span of the Queue Manager.

- `queue_infos.txt` — File that contains verification job information from the Job Monitor, for example ID, Author, and Application.

- `locks` — Folder that contains the locks file for each verification.

- `polyspace.conf` — Configuration file. For example, the configuration for a Polyspace Server can contain the following:

```
product=C:\Program Files\Polyspace\PolyspaceForAda_Release
lang=Ada95
datadir=C:\Polyspace\Polyspace_RLDatas
username=auser
```

```
cpu=HOSTQM
cpu=192.168.2.79:12428
```

In this example, the products used are installed in:

```
C:\Program Files\Polyspace\PolyspaceForAda_Release
```

The machine `HOSTQM` is configured to be a Queue Manager and a CPU for `Ada95` code verifications. The port number is the default value `12427`. In addition, another CPU with IP address `192.168.2.79` is specified with port number `12428`.

On a Linux system, by default, the folder `locks` is located in `/var/Polyspace`.

Adding a New CPU

To add a new CPU to your existing Polyspace Client/Server architecture:

1 Install Polyspace software on the host machine for the new CPU. See "Install the Software" on page 2-3.

2 Using the Remote Analysis Server Settings dialog box, configure the new machine to be a Polyspace Server. See "Configure the Polyspace Server" on page 2-7.

To specify that this server is a CPU but not a Queue Manager, under **Queue Manager Settings**, remove entries from the Polyspace Servers list. Alternatively, manually remove `cpu= fields` from the configuration file `polyspace.conf`.

3 On the host machine for the Queue Manager, specify a new CPU in the configuration file `polyspace.conf`. Using a text editor, add the following line:

```
cpu=CPU_Name_or_IP_Address[:Port_Number]
```

For example:

```
product=C:\Program Files\Polyspace\PolyspaceForAda_Release
lang=Ada95
datadir=C:\Polyspace\Polyspace_RLDatas
username=auser
cpu=HOSTFORQM
cpu=192.168.2.79:12428
```

Configuration Files on Linux Platform

When you install the Polyspace daemon, the software creates the following:

- `/var/Polyspace` — Folder that contains, for example, subfolders `lock` and `analysisN`, and files `polyspaced.log` and `queue_infos.txt`.
- `/etc/Polyspace/polyspace.conf` — File that contains Polyspace configuration information.
- `/etc/init.d/polyspaced` — File that is used to start, stop, and restart the daemon.
- `/tmp/polyspace` — Folder to store temporary files.

Note If you do not have write access to these locations, you cannot install the daemon .

See Also

Related Examples

- "Modify Polyspace Client Configuration" on page 2-17

Troubleshoot Common Errors

This section contains information on troubleshooting the following common errors:

In this section...

Errors Concerning the polyspace.conf File

If you receive errors concerning the `polyspace.conf` file:

1 Stop the `polyspacedservice` (daemon).

2 Update the `polyspace.conf` file.

3 Restart the service (daemon).

The following errors concern the `polyspace.conf` file.

- `"Error: The data folder path should not contain white space.";`
- `"Error: At least one language should be supported by the CPU.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for product <version value>.";`
- `"<polyspace.conf>:<line_number>: Unknown language : <value>.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for language <value>.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for <queuemanager name>.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for <value>.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for username'.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for 'port'.";`
- `"<polyspace.conf>:<line_number>: Invalid port number : <value>";`
- `"<polyspace.conf>:<line_number>: Invalid CPU name.";`
- `"<polyspace.conf>:<line_number>: Duplicate entry for CPU <hostname> ";`
- `"<polyspace.conf>:<line_number>: Unknown key : <value> ";`
- `"<polyspace.conf>:<line_number>: Parse error.";`
- `"No Polyspace product found for language <value>.";`
- `"Warning: Invalid <lang> license for product <version> on host <hostname> ";`
- `"The Polyspace product <version> was not found.";`

Errors Concerning Problems with Write Access

If you see any of the following errors, check that the *username* declared in the `polyspace.conf` file has write access permission for the *folder*, *filename*, or *path* specified in the error message:

- "Fatal error: Directory *folder* is not accessible.";
- "Fatal error: Could not change the owner of *path* to *username* ";
- "Fatal error: Could not open file *filename* for reading.";
- "Fatal error: Could not set permissions on *path* "
- "Fatal error: Could not open file *filename* "

Without stopping the daemon (service), check that you have not changed anything linked to the `polyspaced` daemon (service).

If your `datadir` folder is not local, you must specify a local `locksdir` folder in the `polyspace.conf` file. For example:

```
...
# Remote Launcher configuration.
#

datadir=/nfs/nfsxxx/folder
locksdir=local_folder
cpu=...
...
```

Java Not Found Errors

When installing a Polyspace product on a 64-bit Linux machine, the installation program may end with the following error message:

```
exec: 2433: /tmp/install.dir.880/Linux/resource/jre/bin/java: not found
```

This error occurs because the Polyspace installer is itself a 32-bit binary file that uses 32-bit binary files. This use of 32-bit files can cause problems on a 64-bit machine.

To solve this problem, install the 32-bit libraries. For example, on an Ubuntu 64-bit Linux machine, install the package `ia32-libs` from your Linux distribution.

For more information on installing these libraries, refer to the documentation for your Linux distribution.

Other Errors

Other errors may concern operating system, network, and standard commands available (for example, `tar` and `gzip`).

Verify that these standard commands exist in your system. Error messages indicate which command has failed.

Configure Polyspace Server for Multiple Client Versions

You can upgrade your Polyspace Server, and configure it to process jobs from clients running previous versions of the software. This feature allows you to avoid updating the server and all client machines at the same time.

Note To configure your server to support two releases, you must install the older release first, and then install the newer release on top of it. If you install the newer release first, you must uninstall it before proceeding.

Windows Server Configuration

To configure a Windows server to support two software versions:

1 Install the older version of the Polyspace Server software.

2 Install the newer version of the Polyspace Server software.

When installation is complete, you have two `PolyspaceForProduct` folders, one for each release.

3 Open the Remote Analysis Server Settings dialog box.

The list of products currently supported by the server appears in the **Polyspace Server Settings** section.

4 In the **Polyspace Server Settings** section, click the folder button , and then select the folder for the Polyspace software version that you want to support.

5 Click **Apply** to save your changes.

6 Click **Start Server** to restart the daemon (service) with the changes.

The Polyspace server automatically chooses the product version, based on the software version of the client that submitted the job.

Linux Server Configuration

To configure a Linux server to support two software versions:

1 Install the older version of the Polyspace Server.

2 Install the newer version of the Polyspace Server. You must select the same Polyspace root folder.

When installation is complete, the Polyspace root folder (`/usr/local/Polyspace`) contains two `PolyspaceForProduct` folders, one for each release.

3 Open the file `/etc/polyspace/polyspace.conf`.

4 Find the `product=` line for the current software version.

5 Add a new `product=` line for the previous software version.

6 Restart the daemon by running the following root command:

```
/etc/init.d/polyspaced restart
```

Using the software version of the client that submitted the job, the Polyspace Server automatically chooses the required product version.

Uninstall Polyspace Products

- "Uninstall Polyspace on Windows Platforms" on page 3-2
- "Uninstall on Linux Platforms" on page 3-3

Uninstall Polyspace on Windows Platforms

In this section...
"Uninstalling Previous Releases on Windows" on page 3-2
"Uninstall Polyspace Software on Windows" on page 3-2

Uninstalling Previous Releases on Windows

If you are upgrading your existing Polyspace software to the latest release:

- If you currently run a release that is from the release range R2008a – R2012b, **do not** uninstall the release before installing the new release. The new server software can run verifications from both releases. However, before you install the new release, you must stop the Polyspace service (daemon). Use the Remote Launcher Manager to check whether the service is running, and, if required, stop the service. To open the Remote Launcher Manager, run the following command:

  `%POLYSPACE_COMMON%\RemoteLauncher\PSTRLManager.exe`

  After installing the new release, you can use the Remote Launcher Manager to restart the service.

- If you currently run release R2007a+ or earlier, **you must uninstall** the release before installing the new release. R2007a+ and earlier releases use the Cygwin API, which is incompatible with the new release.

Uninstall Polyspace Software on Windows

You can uninstall the Polyspace software through the standard interface available on a Windows PC.

To uninstall the Polyspace software:

1 From the Windows desktop, select **Start** > **Control Panel** > **Programs and Features**.
2 Select the Polyspace product that you want to uninstall.
3 On the toolbar, click **Uninstall**. Then follow the uninstallation instructions.

Note Some files and folders added after installation can remain after the uninstall process is complete. After restarting your machine, check the *Polyspace_Install* folder for files and subfolders. You can remove these remaining files manually.

Uninstall on Linux Platforms

In this section...
"Uninstalling Previous Releases on Linux" on page 3-3
"Uninstall Polyspace Software on Linux" on page 3-3

Uninstalling Previous Releases on Linux

If you are upgrading your existing Polyspace software to the latest release, you **do not** need to uninstall the existing software before installing the new release. The new server software can run verifications from both releases.

Before installing the new release, you must stop the `polyspaced` daemon. Using an administrator login, you can run the command `/etc/init.d/polyspaced stop` to stop the daemon. After installing, you can restart the daemon using the command `/etc/init.d/polyspaced start`.

Uninstall Polyspace Software on Linux

To uninstall components on a Linux system:

- Run *Polyspace_Install*/Uninstall/Uninstall .

  This script opens the graphical uninstall wizard.

4

Polyspace License Installation

Polyspace Licenses

In this section...
"Polyspace Licensing Options" on page 4-2
"Obtain a License File" on page 4-3

Polyspace Licensing Options

There are two licensing options:

- "Designated Computer (Individual) Licenses" on page 4-2
- "Concurrent (Floating) Licenses" on page 4-2

Designated Computer (Individual) Licenses

Designated Computer (DC) licenses are only for Polyspace client software. DC licenses are for users who want to install, operate, and administer the client software themselves. A DC license authorizes you to use your Polyspace client software on one computer system to which you have access. The system you choose can be a Microsoft® Windows or Linux computer.

With a DC license, you are the system administrator. In this role, you are responsible for:

- Installing and activating the Polyspace Client software on your computer.
- Verifying that you are the only person who runs the software on your computer.

To generate a DC license, you must activate your software using either the Polyspace Software Activation Client, or the License Center at the MathWorks Web site. To obtain a DC license, refer to "Check Installed Licenses" on page 4-14.

Note DC licenses do not use the network license manager.

Concurrent (Floating) Licenses

Concurrent licenses are for both Polyspace Client and Polyspace Server software. Concurrent licenses are for organizations that have standardized on the network license manager, or who want to impose limits on software use for accounting or license management purposes.

Concurrent licenses use license keys to control access. When users open a Polyspace product, they check out a license key. When all the keys for a particular product are checked out, the license manager denies further requests.

A Network Named User (NNU) configuration is an option for concurrent licensing that can be set up as a protective measure to restrict the usage of shared licenses.

The system administrator for concurrent licenses must set up an installation that optimizes accessibility to the products. Concurrent licenses allow you to install the software only in a Network Concurrent User installation type.
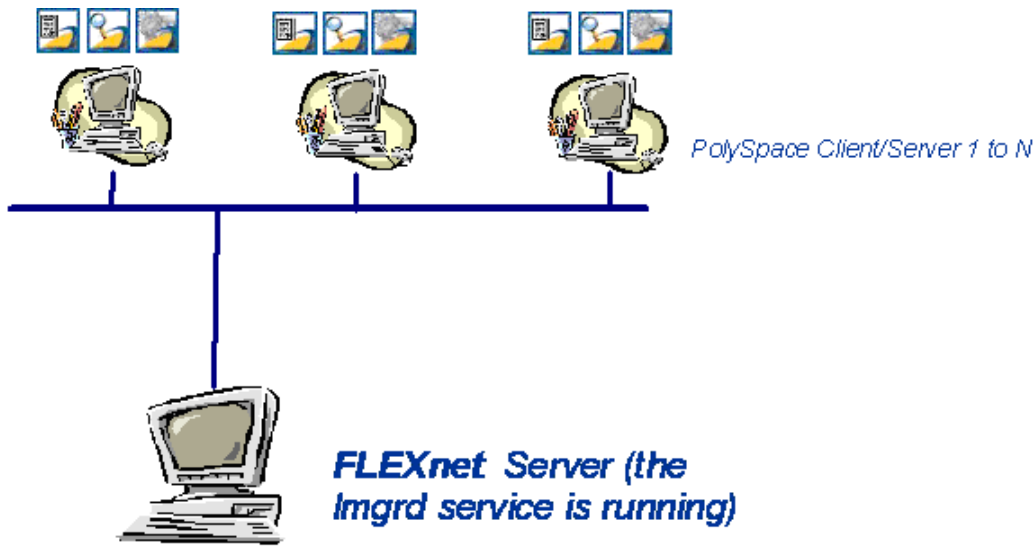
Polyspace Network License Manager Server Architecture

The previous figure shows how to use Polyspace products with a network license manager. With Polyspace products with a network license manager:

- Polyspace products can be used by any number of users. The Polyspace products can include both Client and Server products.
- Each Polyspace product requests licenses from the network license manager server.
- The network license manager can be installed on the same machine as a Polyspace product, as long as it is running a mutually supported operating system (see "Supported Machines and Versions" on page 4-8).

Note With concurrent licenses, you do not need to activate the software on each Polyspace system. You manually activate the concurrent license once (using the License Center at the MathWorks Web site), and then provide license files for each Polyspace system.

Obtain a License File

When you activate your software through the MathWorks Activation Client, you automatically receive a license file.

If you are using a concurrent license, or do not have access to the Activation Client, you must obtain a license file from MathWorks. You can obtain license files from the License Center at the MathWorks Web site: https://www.mathworks.com/licensecenter.

To obtain a concurrent license file, you need either the MAC address or serial disk number of your computer. Provide this number to MathWorks to obtain the license file.

Get License hostid on Linux Platforms

On a Linux machine, the `hostid` corresponds to the MAC address of the machine where the network license manager is running (using a concurrent license) or where the DC license is used.

You can display the `hostid` of a Linux machine using the `lmutil` utility, which is available on the Polyspace DVD at *DVD*`/Data/Unix/FLEXLM/glnxa64`.

Use the following command:

`./lmutil lmhostid`

The result in a shell window looks like the following:

```
lmutil - Copyright (c) 1989-2007 by Macrovision Corporation.
All rights reserved.

The FLEXlm host ID of this machine is "831da5d6"
```

To obtain the license file, send the alphanumeric string (in quotes) to MathWorks.

Get License hostid on Windows Platforms

On a Windows machine, hostid or *machine_hostid* corresponds to the serial disk number of the machine where the network license manager is running (using a concurrent license) or where the DC license is used.

You can display the hostid of a Windows machine using the `lmtools.exe` utility, which is available on the Polyspace DVD at *DVD*`\Data\Windows\FLEXLM\win64`.

To view the hostid:

1 From the *DVD*`\Data\Windows\FLEXLM\win64` folder, double-click `lmtools`.
2 In the LMTOOLS dialog box, click the **System Settings** tab.

The **Disk Volume Serial Number** field contains an alphanumeric string. To obtain the license file, send this string to MathWorks.

Alternatively, from the DOS command window, run the following:

DVD`\Data\Windows\FLEXLM\win64>lmutil.exe lmhostid -vsn`

The result looks like the following:

```
lmutil - Copyright (c) 1989-2007 by Macrovision Corporation.
All rights reserved

The FLEXlm host ID of this machine is "DISK_SERIAL_NUM=e855c07a"
```

Common Licensing Questions

In this section...
"Do I need a Network License Manager to Use an Individual License?" on page 4-5
"How Do I Identify Designated Computer and Concurrent Licenses?" on page 4-5
"What If I Have Other MathWorks Products Installed?" on page 4-5
"What If I Have an Old Polyspace Network License Manager Server?" on page 4-5

Do I need a Network License Manager to Use an Individual License?

Designated Computer (individual) licenses **do not** use the network license manager.

For more information, see "Configure Designated Computer Licenses" on page 4-6.

How Do I Identify Designated Computer and Concurrent Licenses?

DC license files have the word *uncounted* in the license line. This line is used directly in the license file. See the example in "DC License File Format" on page 4-6.

What If I Have Other MathWorks Products Installed?

Polyspace products use the same license mechanism as other MathWorks products.

If you receive a Designated Computer license for Polyspace products, refer to "Configure Designated Computer Licenses" on page 4-6.

If you receive a Concurrent License and you already use a network license manager for other MathWorks products, you must add all concurrent INCREMENT lines in the Polyspace license to the network license manager.

For license configuration information, refer to "Configure Licenses on a Polyspace Client or Polyspace Server System" on page 4-11.

What If I Have an Old Polyspace Network License Manager Server?

To use Polyspace products release R2007a+ or later, you must upgrade the network license manager (previously called FlexNet) to the version available on the Polyspace product DVD. The upgrade process involves uninstalling your old server and installing the new one.

For installation information, see "Install and Configure Network License Manager" on page 4-7.

For license configuration information, refer to "Configure Concurrent Licenses" on page 4-11 for licensing information.

Configure Designated Computer Licenses

In this section...
"Overview" on page 4-6
"Install License Files" on page 4-6
"DC License File Format" on page 4-6

Overview

This section describes how to install a Designated Computer (individual) license for Polyspace products, using a `license.dat` file. It also describes how to check license usage.

Designated Computer licenses are available only for Polyspace client software

Note When you activate your software through the MathWorks Activation Client, your license is configured automatically. You do not need to take additional steps.

Install License Files

To install a Designated Computer license, you must copy the `license.dat` file to the required location. The same `license.dat` file must be used for all Polyspace products and must be set up with the standard Polyspace subfolder localization (see format in "DC License File Format" on page 4-6).

Note Remove previous `license.dat` files from the `licenses` folder.

Place the license file in the *Polyspace_Install*/`licenses` folder, where *Polyspace_Install* is the Polyspace installation folder.

DC License File Format

The DC license is for an individual user and computer. It *does not* require a network license manager to be running. It has the following format:

```
INCREMENT Polyspace_Feature MLM passcode_version_number
date_of_license_end uncounted key HOSTID=machine_hostid
SN=serial_number
```

machine_hostid — `hostid` of the machine, usually the MAC address on a Linux system and the disk serial number on a Windows system. The *machine_hostid* is required to obtain a license file from MathWorks. For more information, see Getting the License hostid on page 4-3.

Example 4.1. Example

```
# MATLAB license passcode file.
# License No: 517786
INCREMENT Polyspace_Client_ADA MLM 19 3-jan-2008 uncounted \
    ABCDEF12345678A HOSTID=DISK_SERIAL_NUM=388ab914 SN=517786 TS_OK
```

Install and Configure Network License Manager

Introduction to Network License Manager

This topic discusses how to install and configure the network license manager as part of the Polyspace Products for Ada installation. For instructions on how to install and configure the network license manager as part of a Polyspace Access™ installation, see "Configure Polyspace Access License" (Polyspace Code Prover).

What Is Network License Manager?

A concurrent license requires a network license manager that controls the use of Polyspace software products.

The network license manager allows software licenses to be available anywhere on a network, instead of being tied to specific machines. Floating licensing benefits both users and license administrators. Users make more efficient use of fewer licenses by sharing them on the network. License managers control the users and machines that have access to the software managed by the network license manager.

Note The network license manager is not automatically installed as part of the Polyspace Products for Ada installation. For information about installing the network license manager, see "Install and Configure Network License Manager" on page 4-7 .

Network License Manager Components

Windows Platforms

On a Windows system, the following software components relate to the standard network license manager package.

Network License Manager Component	Description
license.dat	License file. If you do not have a license, contact MathWorks.
lmtools.exe	Allows you to manage the license.
MLM.exe	Vendor service that keeps track of the number of licenses checked out, and where they are.
lmgrd.exe	License service that handles the initial contact with Polyspace products, passing the connection on to MLM.exe. This service also starts and restarts MLM.exe.
lmutil.exe	Allows you to perform license server management and administration, for example, displaying the MAC address, IP address, disk serial number, and user name. Can be used from the command line.

Linux Platforms

On a Linux system, the following software components relate to the standard network license manager package.

Component	Description
MLM	Vendor service that keeps track of the number of licenses checked out, and where they are.
lmgrd	License daemon that handles the initial contact with Polyspace products, passing the connection on to MLM.exe. This service also starts and restarts MLM.exe.
lmutil	Allows you to manage the license server, for example, displaying the MAC address, IP address, disk serial number, and user name.

Note To install these components, copy them from the following DVD folder:

DVD/Data/Unix/FLEXLM/glnxa64.

Supported Machines and Versions

Supported Network License Manager Releases

Polyspace products support network license manager release 11.9.

Supported Machines

You can install the network license manager server on all platforms supported by Polyspace products.

Network Recommendations for Concurrent Licensing

You must have a good network configuration for the network license manager client to obtain good speed for your Polyspace verifications.

If the client machine knows the network license manager server in its hosts file, Polyspace verifications run quickly. However, if the client machine does not know the network license manager server (ping *server_name* does not work), the Polyspace verification takes more than twice the time.

Install Network License Manager on Windows Systems

The network license manager is not installed as part of the Polyspace software installation.

Software Location

The network license manager software components are located on the Polyspace Products DVD in:

DVD\Data\Windows\FLEXLM\win64.

Install the Network License Manager

Installation consists of a copy and paste:

1   Copy the *DVD*\Data\Windows\FLEXLM\win64 folder to a permanent folder on the machine.
2   Copy the license file (license.lic) to this permanent folder.

Configure the License Manager

Before setting up the network license manager server, you must update the `license.dat` file with the name of the server, or its IP address. For more information, see "Configure Concurrent Licenses" on page 4-11.

You must have Administrator privileges to configure a license server as a service.

To configure the license server as a service:

1   Run `lmtools.exe`, which opens The LMTOOLS dialog box.

2   On the **Service/License File** tab, click **Configuration using Services**.

3   Click the **Config Services** tab.

4   In the **Service Name** field, specify the name of the service that you want to define, for example, `Polyspace FLEXlm Server`.

5   In the **Path to the lmgrd.exe file** field, enter the required file path. Alternatively, click **Browse** and navigate to `lmgrd.exe`.

6   In the **Path to the license file** field, enter the required file path. Alternatively, click **Browse** and navigate to the license file, `license.lic`. When you buy a Polyspace product, the license file is provided.

> **Note** The server name or IP address must be updated in the license file (see "Configure Concurrent Licenses" on page 4-11).

7   In the **Path to the debug log file**" filed, enter the required file path. Alternatively, click **Browse** and navigate to the debug log file for this license server. You must have already created the file in a permanent folder.

8   Select the **Use Services** and **Start Server at Power Up** check boxes.

9   Click **Save Service** to save the new `Polyspace FLEXlm Server` service.

10 Click the **Start/Stop/Reread** tab.

11 Click **Start Server** to start the network license manager server .

> **Note** Modifications to `license.lic` require the server to reread the license file. To reread the license file, click **ReRead License File**.

12 Click the **Server Status** tab.

13 To verify the status of the server, click **Perform Status Enquiry**.

On the output window, a message provides the status of the server and of the license file (see format in "Concurrent License File Format" on page 4-12).

Install Network License Manager on Linux Systems

The network license manager is not installed as part of the Polyspace software installation.

Software Location

The network license manager software components are located on the Polyspace products DVD in:

DVD/Data/Unix/FLEXLM.

This folder contains a subfolder, `glnxa64`, that concerns Linux operating systems supported by Polyspace software.

Install the Network License Manager

Installation consists of a copy and paste:

1   Copy the *DVD*`/Data/Unix/FLEXLM/glnxa64` folder to a permanent folder on the machine.
2   Copy the license file `license.dat` to this permanent folder.

Configure the Network License Manager

Before setting up the network license manager, you must update the `license.dat` file with the name of the server, or its IP address. For more information, see "Configure Concurrent Licenses" on page 4-11.

To configure the license server on a Linux system, start the network license manager daemon:

LicenseManagerPath`/lmgrd -c` *license_lic_path* `-l` *filename*`.log &`

license_lic_path is the absolute location of the `license.dat` file. Starting the server with the option `-l` *filename*`.log` allows you to have a log file where accesses and exchanges are recorded in a file named *filename.log*.

In this example, the required files are in `/usr/local/Polyspace/FLEXnet`:

```
/usr/local/Polyspace/FLEXnet/lmgrd -c
/usr/local/Polyspace/FLEXnet/license.dat -l
/usr/local/Polyspace/FLEXnet/FLEXnet.log &
```

`./lmgrd -h` provides more information about available options of the program. In addition, the `FLEXnet.log` file provides a state of the network license manager server.

`./lmutil -h` provides more information about available options of the `lmutil` program.

See Also

Related Examples

*   "Configure Concurrent Licenses" on page 4-11

Configure Concurrent Licenses

A concurrent license requires a network license manager software. Before you configure your concurrent license, install the network license manager from the Polyspace DVD . For more information, see "Install and Configure Network License Manager" on page 4-7

To obtain a concurrent license, provide the MAC address of the machine where you want to install the network license manager. For more information, see "Obtain a License File" on page 4-3.

For example, if you provide this information:

- **MAC address** – `00123456abc1`
- **Hostname –** `MyFlexServer`

The license you receive looks similar to this example license.

```
BEGIN------cut here------CUT HERE-----BEGIN
# MATLAB license passcode file.
# LicenseNo: 517786 HostID: 00123456abc1
INCREMENT Polyspace_Server_ADA MLM 19 01-jan-0000 2 \
    A1B2C3D4E891011AB HOSTID=ID=517786 SN=517786
INCREMENT Polyspace_Client_ADA MLM 19 01-jan-0000 1 \
    A1B2C3D4E891011AB HOSTID=ID=517786 SN=517786
# END------cut here------CUT HERE-----END
```

This license file contains a line for a concurrent Polyspace Server for Ada license and a line for a Polyspace Client for Ada license.

Depending on whether you plan to use the license on the Polyspace client system, the Polyspace server system, or on the machine where you installed the network license manager, you must make some modifications to the file.

Configure Licenses on a Polyspace Client or Polyspace Server System

As the license mechanism is compatible with the environment variables `LM_LICENSE_FILE` and `MLM_LICENSE_FILE` on either a client or server system, you have two options:

- Set the environment variable `LM_LICENSE_FILE` by using the command:

  `set LM_LICENSE_FILE=27000@MyFlexServer`

  where `27000` is the port on which to reach the network license manager server on the host `MyFlexServer`.

- Create a `license.dat` file containing these two lines:

  ```
  SERVER MyFlexServer 00123456abc1 27000
  USE_SERVER
  ```

  Then, place the `license.dat` file in *Polyspace_Install*\licenses. If you do not specify a port number, the default value is `27000`.

Configure Licenses on the Network License Manager Server System

After copying the network license manager tools to a folder on the dedicated `MyFlexServer` host, update the license file by adding the following lines at the top of the `license.dat` file:

```
SERVER MyFlexServer 00123456abc1
VENDOR MLM
INCREMENT Polyspace_Server_ADA MLM 19 01-jan-0000 2 \
      A1B2C3D4E891011AB HOSTID=ID=517786 SN=517786
INCREMENT Polyspace_Client_ADA MLM 19 01-jan-0000 1 \
      A1BCD3EF12311078A HOSTID=ID=517786 SN=517786
```

If you use an IP address as your hostid, insert the keyword `INTERNET=` before the hostid. For example:

```
SERVER this_host INTERNET=10.94.78.128
```

The license file is now fully compatible with a standard network license manager mechanism. For more information, refer to the *FlexNet Licensing End User Guide* at https://www.revenera.com/.

If you want to add the features of the license file to an existing network license manager server, use the preceding procedure.

You can install the network license manager on a Polyspace Client machine, a Polyspace Server machine, or any other machine on the same network.

Concurrent License File Format

This license file requires a network license manager tool that is running. It has the following format:

```
SERVER server_name server_hostid
VENDOR MLM
INCREMENT Polyspace_Feature MLM passcode_version_number
date_of_license_end number_of_licenses key
HOSTID=internal_number DUP_GROUP=UH SN=a_serial_number
```

- *server_name* — Name of the network license manager server or IP address.

> **Note** When the location of the network license manager server changes, *server_name* is the only value that an administrator can edit by using an ASCII editor. Before setting up the network license manager server, the administrator can edit this file and change *server_name*. See "Configure the License Manager" on page 4-9 for Windows systems or "Configure the Network License Manager" on page 4-10 for Linux systems.

- *server_hostid* — *hostid* of the server, usually the MAC address on Linux systems and the disk serial number on Windows systems. The *server_hostid* is required to obtain a license file from MathWorks. See Getting the License hostid on page 4-3.
- MLM: Vendor daemon for Polyspace products licensing.
- *Polyspace_Feature* — Type of license.

Polyspace Feature	License Type
Polyspace_Client_Ada	Polyspace Client for Ada

Polyspace Feature	License Type
`Polyspace_Server_Ada`	Polyspace Server for Ada

- *passcode_version_number* and *date_of_license_end* — Available maintenance and end dates.

- *number_of_licenses* — Available licenses for a given license type.

Example 4.2. Example:

```
# MATLAB license passcode file.
# LicenseNo: 517786 HostID: 00123456abc1
SERVER dev13 831da5d6
VENDOR MLM
INCREMENT Polyspace_Client_ADA MLM 17 3-jan-2008 20 DF1FB89EB243
    HOSTID=ID=12345 DUP_GROUP=UH SN=12345
INCREMENT Polyspace_Server_ADA MLM 17 3-jan-2008 20 9BFB0453E70F
    HOSTID=ID=1234E DUP_GROUP=UH SN=1234E
```

Install Licenses on an Existing Network License Manager Server

If you are already using a network license manager tool, refer to the network license manager (previously FlexNet Manager) documentation for information on how to add licenses for your Polyspace software. You can access the documentation at https://www.flexera.com/.

The `lmgrd` or `lmgrd.exe` service and `lmutils` and `lmtools` must have the correct version number. Polyspace products support network license manager version 10.8.

Check Installed Licenses

You can check which Polyspace licenses are installed on your system using the `polyspace-ada -ver` command.

The `polyspace-ada -ver` command provides the following configuration information:

- Hardware configuration
- Operating system
- Polyspace licenses
- Specific version numbers for Polyspace products
- Installed Bug Report patches if any

To obtain your configuration information, run the following command:

- **UNIX/Linux** — *Polyspace_Install*/polyspace/bin/polyspace-ada -ver
- **Windows** — *Polyspace_Install*\polyspace\bin\polyspace-ada.exe -ver

---

Note In the Polyspace verification environment, you can obtain the same information by selecting **Help > About**.

License Error Messages

In this section...
"Overview" on page 4-15
"Error -15, the network license manager server is unreachable" on page 4-15
"Error -5, the Polyspace feature is not available" on page 4-15
"Error -21, license file does not support this version" on page 4-15
"Error -10, the license date has expired" on page 4-16

Overview

After a license check, most of the error messages are displayed in the log file.

However, because licensing is checked during code verification, a message can also be displayed in the associated Polyspace log file. An error generally stops the verification.

This section describes common licensing errors. For other errors, please refer to the *FlexNet Licensing End User Guide* available through https://www.revenera.com/.

Error -15, the network license manager server is unreachable

```
Checking license ...
Unable to checkout feature Polyspace_Client_ADA for version 17:
Cannot connect to license server system.
 The license server manager (lmgrd) has not been started yet,
 the wrong port@host or license file is being used, or the
 port or hostname in the license file has been changed.
Feature:        Polyspace_Client_ADA
Server name:    fitou
License path: /usr/local/attol/atu/v33a/sun4/sunOS5/bin/license.txt:
   /usr/local.rhone/pst/tmp/nnu.lic:/usr/local.rhone/pst/*.lic
Network License Manager Licensing error:-15,570.  System Error: 115 "Operation
now in progress"
For further information, refer to the FLEXnet Licensing
End User Guide, available at "www.flexerasoftware.com".
*** License error
*** Aborting.
```

Error -5, the Polyspace feature is not available

```
Checking license ...
Unable to checkout feature Polyspace_Client_ADA for version 17:
No such feature exists.
Feature:        Polyspace_Client_ADA
License path:  /usr/local/attol/atu/v33a/sun4/sunOS5/bin/license.txt:
   /usr/local.rhone/pst/tmp/nnu.lic:/usr/local.rhone/pst/*.lic
Network License Manager Licensing error:-5,357
For further information, refer to the FLEXnet Licensing
End User Guide, available at "www.flexerasoftware.com".
*** License error
*** Aborting.
```

Error -21, license file does not support this version

```
Checking license ...
Unable to checkout feature Polyspace_Client_ADA for version 17:
```

```
License file does not support this version.
Feature:        Polyspace_Client_ADA
Application version > License version: 17 > 16
License path:  /usr/local/attol/atu/v33a/sun4/sunOS5/bin/license.txt:
    /usr/local.rhone/pst/tmp/nnu.lic:/usr/local.rhone/pst/*.lic
Network License Manager Licensing error:-21,126
For further information, refer to the FLEXnet Licensing
End User Guide, available at "www.flexerasoftware.com".
*** License error
*** Aborting.
```

Error -10, the license date has expired

```
Checking license ...
Unable to checkout feature Polyspace_Client_ADA for version 17:
Feature has expired.
Feature:        Polyspace_Client_ADA
Expire date:   31-jan-2007
License path:  /usr/local/attol/atu/v33a/sun4/sunOS5/bin/license.txt:
    /usr/local.rhone/pst/tmp/nnu.lic:/usr/local.rhone/pst/*.lic
Network License Manager Licensing error:-10,32
For further information, refer to the FLEXnet Licensing
End User Guide, available at "www.flexerasoftware.com".
*** License error
*** Aborting.
```