# **PolySpace™ 5** Installation Guide



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www.mathworks.comWebcomp.soft-sys.matlabNewsgroupwww.mathworks.com/contact\_TS.htmlTechnical Support

suggest@mathworks.com bugs@mathworks.com doc@mathworks.com service@mathworks.com info@mathworks.com Product enhancement suggestions Bug reports Documentation error reports Order status, license renewals, passcodes Sales, pricing, and general information



>

508-647-7001 (Fax)

508-647-7000 (Phone)

### The MathWorks, Inc. 3 Apple Hill Drive Natick, MA 01760-2098

For contact information about worldwide offices, see the MathWorks Web site.

 $PolySpace^{TM}$  Installation Guide

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# Before You Begin

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 $PolySpace^{TM}$  Software Installation Directories (p. 1-12)

Describes requirements to consider before beginning the installation

Describes how long it takes to perform the installation

Describes the contents of the installation CD

Describes the PolySpace<sup>TM</sup> Client/Server architecture and installation options

Describes the three directories created during installation

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## Hardware and Software Requirements

"PolySpace™ Product Requirements" on page 1-2

"PolySpace<sup>™</sup> Plug-in Requirements" on page 1-3

"PolySpace<sup>™</sup> Software License Requirements" on page 1-4

"UNIX<sup>®</sup>/Linux<sup>®</sup> Installation Requirements" on page 1-5

"PolySpace<sup>TM</sup> Documentation Requirements" on page 1-5

### **PolySpace™ Product Requirements**

Please check that the following requirements are met before installing  $PolySpace^{TM}$  software on a server or on a development workstation (Client usage).

	PolySpace Client	PolySpace Server	
Operating System	<ul> <li>Linux — RedHat Enterprise Linux<sup>®</sup> Workstation 3 (32 Bits release) or 4 (32/64 Bits), Suse Linux 10.0 (32 Bits) or 10.1 (32 Bits).</li> </ul>		
	• Windows — Windows <sup>®</sup> 2000 (SP4), or Windows XP (SP2–32/64 Bits).		
	• Solaris — Solaris <sup>™</sup> 2.8 or 2.10.		
RAM	Minimum: 400 MB Recommended: 512 MB	Minimum: 1.5 GB ECC Recommended: 2 GB ECC	
Processor	Minimum: 400 MHz Recommended: 1 GHz	Minimum: 1.5 GHz Recommended: 3 GHz	

Swap	Swap space should be at least twice the RAM size.		
Free hard drive space	Minimum: 2 GB	Minimum: 2 GB (SCSI recommended)	

Note The Mathworks recommends using a Linux PC.

## **PolySpace™ Plug-in Requirements**

Please check that the following requirements are met before installing PolySpace Model Link<sup>™</sup> SL, PolySpace Model Link TL, PolySpace UML Link<sup>™</sup> RH, and PolySpace C++ add-in for Visual Studio<sup>®</sup> software.

Product	Plug-in Software	Release	Operating System
PolySpace Model Link SL	MATLAB®	R13 (SP2), 2007a, and R2008a	Windows
	Real-Time Workshop <sup>®</sup> Embedded Coder™	4.2.1, R2007a, and R2008a	Windows
PolySpace Model Link TL	MATLAB	R13 (SP2), 2007a, and R2008a	Windows
	TargetLink <sup>®</sup> (dSPACE <sup>®</sup> )	2.1 and 2.2	Windows
PolySpace UML Link RH (C and C++ only)	Rhapsody <sup>®</sup> (Telelogic <sup>®</sup> )	7.0 and 7.1	Windows

PolySpace C++ addin for Visual	Microsoft <sup>®</sup> Visual Studio .NET 2003	7.1	Windows
Studio (C++ only)	Microsoft Visual Studio 2005	8.0	Windows

### **PolySpace™ Software License Requirements**

PolySpace software provides several licensing options, which when combined with the supported installation types, provide a wide range of asset mobility. Asset mobility, as used here, means the ease with which product licenses can be redeployed to different users.

License Option	Protection	Description
Individual	Designed computer (MAC address) or serial disk number.	You are an end user and you want to operate, install, and administer the software yourself. On a Desktop PC, an individual license is given in a text file.
Concurrent	Designed computer (MAC address) or serial disk number.	Your organization is standardized on the FLEXnet <sup>®</sup> licenses manager, or you need to impose strict limits on software use for accounting or license management purposes. This kind of license needs a FLEXnet manager.

PolySpace software provides the following license options:

**Note** See the PolySpace License guide. In particular, it describes the install of the FLEXnet licenses manager.

### UNIX<sup>®</sup>/Linux<sup>®</sup> Installation Requirements

### Configuration

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

### **Environment Settings**

- User's path must include *PolySpaceInstallDir*/bin (to launch the product without using the absolute path).
- The PolySpace license file needs to be placed in *PolySpaceInstallCommon/etc/license.dat*.
- PolySpace Graphical User Interfaces require **CDE** Window manager on Solaris Open Software environment and **Gnome** on Linux. Behavior on other Window managers is not guaranteed.

See "PolySpace<sup>™</sup> Software Installation Directories" on page 1-12 for an explanation of the PolySpace installation directories.

### **Access Rights**

Read and Execution access rights are required for all the PolySpace installation.

## PolySpace<sup>™</sup> Documentation Requirements

The PolySpace Documentation requires Adobe® Acrobat® Reader. If you do not have Acrobat Reader installed on your system, you can download it from www.acrobat.com.

**Note** The PolySpace Documentation requires  $Access^{TM}$  Reader release 5.0 or later.

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## **Timing Information**

The installation procedure lasts about 5 minutes (PolySpace<sup>TM</sup> install).

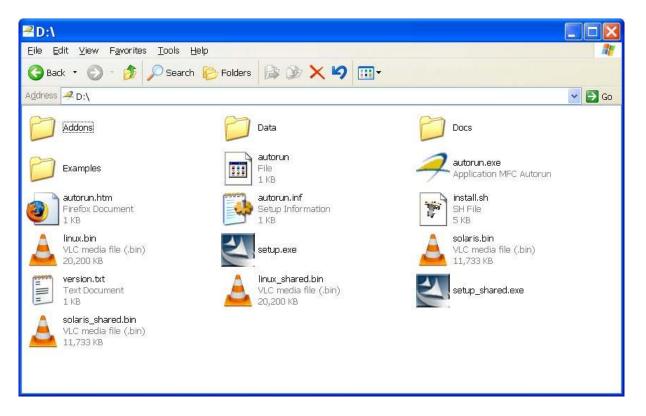
### **CD-ROM Contents**

Depending on the products you purchased, the PolySpace<sup>™</sup> CD-ROM allows you to install one or more of the available PolySpace products:

- **PolySpace<sup>™</sup> Client<sup>™</sup> for C/C++** Allows analyzing and reviewing C and C++ source code.
- **PolySpace<sup>™</sup> Server<sup>™</sup> for C/C++** Allows analyzing C and C++ source code on a dedicated server.
- **PolySpace Client for Ada** Allows analyzing and reviewing Ada83 and Ada95 source code.
- **PolySpace Server for Ada** Allows analyzing Ada83 and Ada95 source code on a dedicated server.
- **PolySpace Model Link<sup>™</sup> SL** Allows analyzing and review C source code generated using Real-Time Workshop<sup>®</sup> Embedded Coder<sup>™</sup>software from a Simulink<sup>®</sup> model.
- **PolySpace Model Link TL** Allows analyzing and review C source code generated using TargetLink<sup>®</sup> code generator from a Simulink model.
- **PolySpace UML Link™ RH** Allows analyzing and reviewing C and C++ source code generated from Rhapsody<sup>®</sup> suit.

**Note** The difference between PolySpace Server and PolySpace Client is described in "PolySpace<sup>™</sup> Installation Options" on page 1-10.

The CD-ROM contains 4 subfolders and program files, as shown in the figure below.



Important subfolders and programs are described below:

- Setup.exe and setup\_shared.exe run the Graphical Install Wizard on a Windows<sup>®</sup> platform. Shared install is dedicated to PolySpace shared components.
- install.sh runs the shell script Install Wizard on a UNIX<sup>®</sup> platform. The -console option enables you to execute the command in a console mode. Running install.sh -h gives option and usages.
- solaris.bin and solaris\_shared.bin runs the Graphical install Wizard on a Solaris<sup>™</sup> platform. Shared install is dedicated to PolySpace shared components.
- linux.bin and linux\_shared.bin run the Graphical install Wizard on a Linux<sup>®</sup> platform. Shared install is dedicated to PolySpace shared components.

- version.txt contains the complete version number of the PolySpace product that has been burnt on the CD-ROM.
- The Addons subfolder contains some useful free or under GPL license tools, available for Windows and / or UNIX platforms.
- The Docs subfolder contains all the documentation associated to PolySpace products, in HTML and PDF formats.

**Note** The PolySpace License Installation Guide is located in this subfolder. It describes installation and available license protection mechanisms.

- The Data subfolder contains PolySpace data.
- The Examples subfolder contains some results of verification made with PolySpace tools (using PolySpace Client, Server and Model Link for each language). These results can be displayed with The PolySpace Viewer available with any of the PolySpace products.

**Note** Please refer to the Getting Started Guide for a quick description of The PolySpace suit associated to a particular language.

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## **PolySpace™ Installation Options**

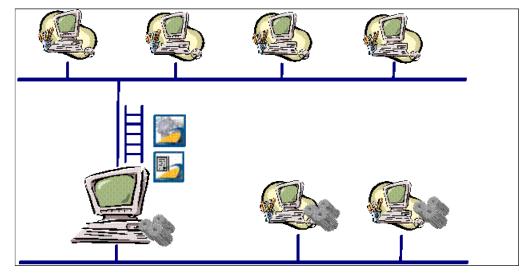
The PolySpace<sup>™</sup> Installation CD allows you to install one of the following products:

- PolySpace<sup>™</sup> Client<sup>™</sup> for C/C++ (or PolySpace Client for Ada)
- $PolySpace^{TM} Server^{TM}$  for C/C++ (or PolySpace Server for Ada)

A *Client* installation is recommended if you are on a client computer. It allows you to perform local verification, review previously completed analyses, and send new analyses to a dedicated server. This option is appropriate for developer workstations. The installation requires approximately 300 to 500 MB of disk space. You must have local administrator rights and have access to the registry in order to complete the installation.

A *Server* installation is recommended when the machine is dedicated to PolySpace software, and will receive verifications coming from Clients. This option is also recommended for CPUs. The installation requires approximately 300 to 500 MB of disk space. 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<sup>™</sup> Client/Server Architecture

Terminology:

- The PolySpace Clients are computers asking for PolySpace analyses to be performed on CPUs.
- A PolySpace Server which only analyses source code coming from N Clients is named a CPU.
- A PolySpace Server which manages the analyses coming from N clients is also named the Queue Manager (QM). Note that it can be configured to be only a dispatcher of analyses only
- The PolySpace Server sends verifications to N CPUs, the computers that run the analyses. It can also be configured as a CPU as well.

The PolySpace Client, The PolySpace Server, the queuing mechanism (Remote Launcher) and CPUs will refer to this architecture throughout this installation guide.

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## **PolySpace™ Software Installation Directories**

Three directories are required to install PolySpace<sup>™</sup> software:

- The principal directory contains the kernel of the installed PolySpace release. The default directory is C:\PolySpace\PolySpaceForlanguage, where language can be either CandCPP or Ada.
- A common components directory contains the shared components available for any language, such as the java run time library, the PolySpace Viewer, the Remote Launcher (RL), and any add-ins (such as the PolySpace C++ addin for Visual and the PolySpace In One Click Toolbar (POC)). The default directory is C:\PolySpace\PolySpace Common.
- A directory contains the Remote Launcher configuration file polyspace.conf. The directory is C:\PolySpace\PolySpace\_RLDatas.

In this document, these three directories are referred to as follows:

- PolySpaceInstallDir refers to C:\PolySpace\PolySpaceForLanguage (/usr/local/PolySpace/PolySpaceForLanguage for UNIX<sup>®</sup> systems),
- PolySpaceInstallCommon refers to C:\PolySpace\PolySpace\_Common (/usr/local/PolySpace/PolySpace\_Common for UNIX systems).
- *PolySpaceRLDatas* refers to C:\PolySpace\PolySpace\_RLDatas (/etc/PolySpace for UNIX systems).

# 2

# Installing PolySpace<sup>TM</sup> Software

Overview (p. 2-2)	Describes the PolySpace <sup>™</sup> Client and Server software
Installing the PolySpace <sup>™</sup> Software (p. 2-4)	Describes how to install the PolySpace client and server software
Launching the Installation Wizard in Batch Mode (p. 2-15)	Describes how to install the software using silent mode
Configuring PolySpace <sup>™</sup> Software (p. 2-17)	Describes how to configure the PolySpace software after installation

### **Overview**

### In this section...

"PolySpace Products" on page 2-2

"PolySpace™ Client Software" on page 2-2

"PolySpace<sup>TM</sup> Server Software" on page 2-2

### **PolySpace Products**

This chapter describes how to install and configure the following PolySpace products:

- PolySpace<sup>™</sup> Client<sup>™</sup> for Ada
- PolySpace<sup>™</sup> Server<sup>™</sup> for Ada
- PolySpace Client for C/C++
- PolySpace Server for C/C++

### **PolySpace™ Client Software**

PolySpace<sup>™</sup> Client software is the management and visualization tool of PolySpace products. You use it to submit jobs for execution by PolySpace Server, and to review verification results. The PolySpace Client software includes the Viewer, DRS/MISRA C<sup>®</sup> Checker, Report Generator, and Automatic Orange Tester features.

You should install the PolySpace Client software on developer workstations that will send verification jobs to the PolySpace Server.

The installation requires approximately 300 to 500 MB of disk space.

### **PolySpace™ Server Software**

PolySpace Server software is the computational engine of PolySpace products. You use it to run jobs posted by PolySpace Clients, and to manage multiple servers and queues. The PolySpace Server software includes the Remote Launcher, Report Generator, DRS/MISRA C Checker, and HTML Generator features. You should install the PolySpace Server software on machines dedicated to PolySpace software that will receive verifications coming from Clients, and on CPUs.

The installation requires approximately 300 to 500 MB of disk space.

## Installing the PolySpace<sup>™</sup> Software

### In this section ...

"Before Starting the Installation" on page 2-4

"Installing the Software" on page 2-4

"Configuring the PolySpace™ Server Software" on page 2-11

"PolySpace<sup>™</sup> Software Icons" on page 2-14

### **Before Starting the Installation**

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

- The PolySpace<sup>TM</sup> CD-ROM.
- A license.dat file accessible on the disk.
- A local user login with **administrator** rights.
- At least 500 MB of free disk space.

### Installing the Software

PolySpace software provides a Graphical Installation Wizard that guides you through the installation process. This Wizard is available on Solaris<sup>™</sup>, Linux<sup>®</sup> or Windows<sup>®</sup> platforms. This section describes only a complete Windows install.

To install the PolySpace software:

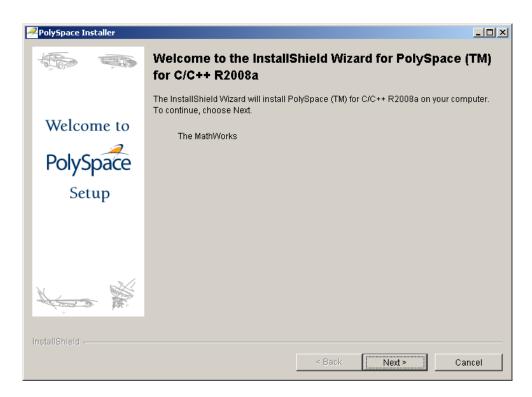
**1** Insert the PolySpace CD-ROM into your CD-ROM drive.

The PolySpace autorun starts. If no autorun starts after a couple of minutes, you can launch the setup.exe program which is located on the CD drive.

PolySpace Autorun -		
Gerefack → Next		
Ar O	PolySpace TECHNOLOGIES	1 1
	Welcome to PolySpace Installation Disk	
	Technical Documentation         ⇔Installation Guide       - pdf format         ⇔Release Note       - pdf format	
By By	Install PolySpace <sup>™</sup> for Windows	

### 2 Click Install PolySpace for Windows.

The InstallShield Wizard runs, preparing the Java<sup>TM</sup> Virtual Machine. This can take between 3 and 5 minutes depending on your computer.



**3** When the PolySpace Installer appears, click **Next**.

The Software License agreement appears

4 Select I accept the terms of the license agreement, then click Next.

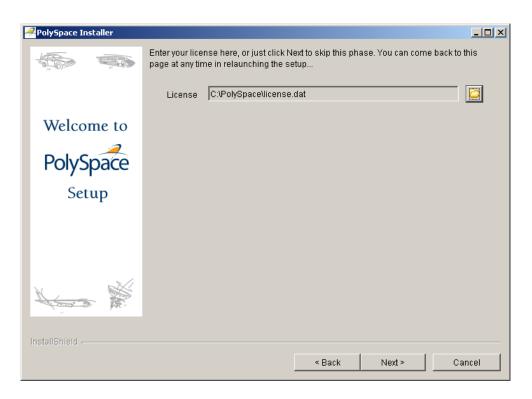
The directory selection screen appears.

PolySpace Installer		
\$\$	Click Next to install "PolySpace for C/C++ to this directory, or click Browse to install to a different directory.           C:\PolySpace\PolySpaceForCandCPP	
Welcome to	The PolySpace shared components will be installed in the default folder.	
PolySpace	Check this box to change the default location	
Setup	C:\PolySpace\PolySpace_Common	
InstallShield		
	< Back Next > Ca	ancel

5 Select the directories in which to install the PolySpace software and shared components, then click Next.

**Note** The default directory for the product software is C:\PolySpace\PolySpaceFor*language* where *language* can be either CandCPP or Ada. The default directory for shared components is C:\PolySpace\PolySpace\_Common.

The License window appears.



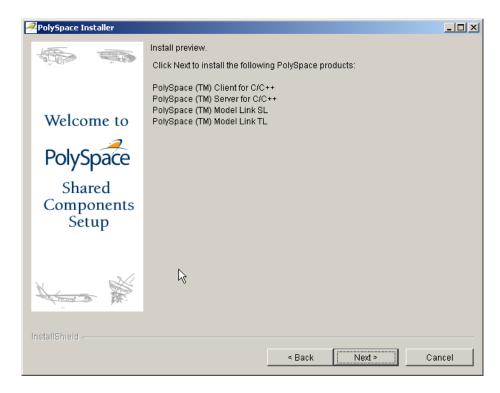
**6** Click **Browse**, then select your license.dat file. Refer to the *PolySpace License Installation Guide* for more information about licensing.

**Note** If you do not have your license file, you can click **Next** to skip this step without selecting a license file. You can then install the license file later.

On Windows, the license file location depends on the License mechanism. By default, It must be located in *PolySpaceInstallCommon*/etc.

### 7 Click Next.

The Shared Components Setup wizard (a second installShield) opens.

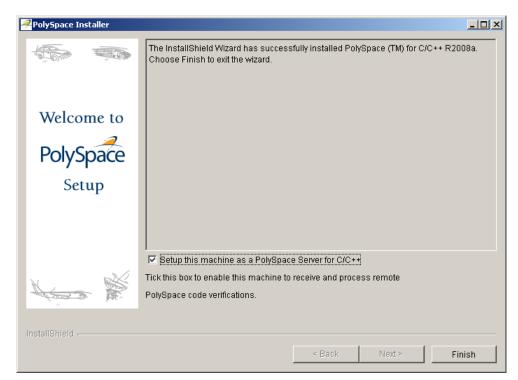


### 8 Click Next.

The following things occur:

- The shared components are installed (this may take a few minutes).
- When shared component installation is complete, the Shared Components Setup wizard closes, and the product software is installed (this may take a few minutes).
- When software installation is complete, the Post installation operations window appears.
- **9** Select any post-installation operations you want to complete:
  - Launch integrity check Checks the integrity of the software installation.
- 10 Click Next.

The selected post-installation operations run, and the final setup screen appears.



**11** If you are installing a PolySpace client, click **Finish**.

The PolySpace Client software installation is complete.

12 If you are installing a PolySpace server, select **Setup this machine as a PolySpace Server**, then click **Finish**.

The PolySpace Remote Launcher Manager dialog box appears. Go to the next section, "Configuring the PolySpace<sup>™</sup> Server Software" on page 2-11 for information on configuring the Remote Launcher.

### Configuring the PolySpace<sup>™</sup> Server Software

When you finish installing the PolySpace Server software, the PolySpace Remote Launcher Manager dialog box appears. You must configure the port number for the PolySpace Server to complete the installation. Configuring the port number allows communication with the PolySpace Server to be established.

📌 PolySpace Remote Launcher Ma	nager	
Common Settings		
Communication port :	12427	
The same port number must be used	by all PolySpace client applications, the Queue Manager a	and PolySpace Server(s).
_		
🔽 Install as service		_
Username used to start the service	: username Password: *******	t -
Folder where analysis data will be sto	red : C:\PolySpace/PolySpace_RLDatas	
Warning : if the folder is changed the	current analyses in the queue will be unavailable.	
Queue Manager Settings		
If the local host is the PolySpace Que	ue Manager enter below the server(s) used for remote ana	alyses.
Available PolySpace Servers :		
SERVER1		
012.123.4.56:12427		
P-1-0		
PolySpace Server Settings		
If the local host is a PolySpace Serve	r enter below the available PolySpace products.	
Available products :	🔹 🗕 😂	Available languages :
C:\PolySpace\PolySpaceForCandCPF		C C
		C++
		ADA83
		ADA95
	L	1 1 1
	Start Daemon Stop Daemon View Log	Apply Close

To complete the server installation:

**1** Specify the port number on which the server will communicate with Clients. The default port number is 12427.

**Note** The port number must be the same as the port specified for all PolySpace Clients.

**2** To install the server as a service on a Windows machine (or a daemon on a Linux or Solaris machine), select **Install server as service (daemon)**, then enter the username and password used to start the server as a service or daemon.

Note Password is not required on a Linux or Solaris machine.

**Note** If you do not select **Install server as service (daemon)**, you must configure the server manually after installation. See "Manual Configuration of the PolySpace<sup>™</sup> Server" on page 2-22.

### 3 Click Start Daemon.

A message appears informing you that the configuration has been saved.

- 4 Click Yes to start the Daemon.
- 5 Click Yes to save your settings.

The Start Daemon log window appears.

```
Start Daemon
                                                                              X
 Host : runs
User : MATHWORKS\srun
Checking files locations ...
- data directory (C:\PolySpace/PolySpace_RLDatas)
- locks directory (C:\PolySpace/PolySpace RLDatas/locks)

    upgrades directory (C:\PolySpace/PolySpace_RLDatas/upgrades)

    log file (C:\PolySpace/PolySpace RLDatas/polyspaced.log)

******************************
* Checking CPUs configuration ... *
*************************
Checking configuration for CPU runs ...
Processor : <unknown>
R.A.M. : 1023 Mb
0.S. : Microsoft Windows (MINGW32_XP-5.1)
User : MATHWORKS\srun
Checking files locations ...

    data directory (C:\PolySpace/PolySpace RLDatas)

    locks directory (C:\PolySpace/PolySpace_RLDatas/locks)

    log file (C:\PolySpace/PolySpace RLDatas/polyspaced.log)

- product 1 :
 - installation directory : C:\PolySpace\PolySpaceForCandCPP_INFRA.2008a\Verifier
 - version : INFRA 2008a

    supported languages : C CPP ADA95

The CPU is free.
Checking PolySpace licenses ...
Warning: An unexpected error occured while checking the ADA95 license for product I
=> The configuration is now correct.
_____
Installing the polyspaced service ...
Setting service logon right for user MATHWORKS\srun ...
Starting the polyspaced service ...
4
```

The Remote Launcher Manager checks product paths, licenses, and the creation and start up of the service (daemon). When the configuration check is complete, the message "Start of the daemon has succeeded." appears.

**Note** If a problem occurs, an error message appears at the bottom of the screen. If you get an error, see "Troubleshooting Common Errors" on page 2-26.

- 6 When the message "Start of the daemon has succeeded." appears, click OK.
- 7 Click Close to close the Remote Launcher Manager

The PolySpace Server installation is complete.

**Note** By default, the server becomes the first CPU of the architecture.

### **PolySpace™ Software Icons**

After Installation is complete, three new icons appear on your desktop:







- **PolySpace Launcher** Performs single file or multi-file verification of source code and gives the location and status of run-time errors in those files.
- **PolySpace Viewer** The graphical user interface to explore the results computed by PolySpace Client and PolySpace Server software.
- **PolySpace Spooler** The graphical user interface to manage verifications sent in remote using PolySpace Client software.

## Launching the Installation Wizard in Batch Mode

### In this section ...

"Installing Software on a UNIX<sup>®</sup> Platform" on page 2-15

"Installing Software in Silent Mode" on page 2-15

### Installing Software on a UNIX® Platform

To install PolySpace<sup>™</sup> products on a Linux<sup>®</sup> or UNIX<sup>®</sup> system, execute the following command in a terminal window:

CD-ROM/install.sh

This script launches a textual installation wizard. Refer to the "Installing the PolySpace<sup>™</sup> Software" on page 2-4 to complete the installation.

**Note** If you are using the **Gnome** window manager in Linux or **CDE** window manager in Solaris<sup>TM</sup>, you can click Linux.bin or Solaris.bin in the root of the CD-ROM path to use the graphical installation wizard.

### Installing Software in Silent Mode

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

### **UNIX®** Platforms

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

```
CD-ROM/install.sh -silent -install-dir PolySpaceInstallDir
```

where PolySpaceInstallDir represents the installation directory.

The common components are automatically installed at the same level as the installation directory you choose, or in the existing *PolySpace\_Common* directory, if it exists.

### Windows® Platforms

To install the software on a Windows<sup>®</sup> system using silent mode, execute the following .bat file in a command prompt shell:

CD-ROM\DATA\Windows\setup\_silent.bat PolySpaceInstallDir

The common components are automatically installed at the same level as the installation directory you choose, or in the existing *PolySpace\_Common* directory, if it exists.

## **Configuring PolySpace™ Software**

### In this section ...

"Configuring the PolySpace™ Client Software" on page 2-17

"Configuring the PolySpace™ Server Software" on page 2-19

### Configuring the PolySpace<sup>™</sup> Client Software

### **Initial Configuration**

By default, the PolySpace<sup>TM</sup> Client is configured to automatically detect a PolySpace Server on the network using port 12427.

### Manually Configuring the PolySpace™ Client

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

- If the client finds more than one PolySpace Server, it displays an error message listing the names of all detected servers. Carefully note all names and acknowledge the error dialog box.
- If no PolySpace Server is available, an error message appears when you launch an verification or execute any PolySpace command. The error message is the following: "No QueueManager server found".

In these cases, it is possible to specify a specific Queue Manager server associated to a specific port number.

To manually configure the remote server:

1 Double-click the **PolySpace Launcher** icon on your desktop.



**Note** On UNIX<sup>®</sup>, enter the command *InstallPolySpaceDir/bin/polyspace-launcher*.

**2** Select **Edit > Preferences**. The Preferences dialog box appears.

Preferences						
Tools Menu	Remote Launcher	Miscellaneous	Result directory	Default directo	ry	
	figuration ne remote analysis of natically detect the re		jects			
🖲 Use ti	he following server a	and port : 19	2.168.2.79		12427	
The serv	ver name "localhost"	can be used if t	he server is the lo	cal machine.		
			<u>о</u> к			Cancel

- **3** Select the **Remote Launcher** tab.
- 4 Select the Use the following server and port radio button.
- **5** Enter an IP address (or server name) and associated port number for the PolySpace Server.
- 6 Click OK.

The preferences are stored in the PolySpace-Launcher.prf preferences file in *user home directory*/.rte directory (C:\Documents and Settings\*user name*\.rte on a Windows<sup>®</sup> system).

**Note** You can modify the file with an ASCII editor, but you should always use the graphical user interface.

# Configuring the PolySpace™ Server Software

- "Initial Configuration" on page 2-19
- "Graphical Configuration of the PolySpace™ Server" on page 2-19
- "Manual Configuration of the PolySpace™ Server" on page 2-22
- "Configuration File and Directory" on page 2-24
- "Installing a New CPU" on page 2-26
- "Troubleshooting Common Errors" on page 2-26

#### **Initial Configuration**

You perform initial configuration of the PolySpace server software during installation (see "Configuring the PolySpace<sup>™</sup> Server Software" on page 2-11).

After installation, the PolySpace Server becomes the first CPU of the architecture by default.

**Note** All the information displayed in the Remote Launcher configuration window during installation is automatically saved as ASCII text in the file *PolySpaceInstallCommon/* 

../PolySpace\_RLDatas/polyspaced.log(/var/PolySpace/polyspaced.log file in UNIX).

#### Graphical Configuration of the PolySpace™ Server

A configuration of the Server, Queue Manager of the Client/Server architecture has been stored in a standard file. A default configuration is generated during the installation: the current machine is at the same time the Queue Manager, and the distant machine. The Queue Manager can be configured or updated graphically (on Windows systems) or using a shell command using a graphical user interface:

The "Remote Launcher Manager" command is accessible using the menu **Start > Programs > PolySpace** or the exe command *PolySpaceInstallCommon*/RemoteLauncher/PSTRLManager.exe allows to configure and update the Queue Manager and associated polyspace.conf file.

Common Settings Communication port: 12427 The same port number must be used by all PolySpace client applications, the Queue Manager and PolySpace Server(s).  Install as service Username used to start the service: username Password: ****** Folder where analysis data will be stored: C:PolySpacePolySpace_RLDatas Warning: if the folder is changed the current analyses in the queue will be unavailable.  Queue Manager Settings If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses. Available PolySpace Servers:  SERVENI D12.123.4.56:12427 If the local host is a PolySpace Server enter below the available PolySpace products.  Available products: Available PolySpace Server settings If the local host is a PolySpace Server enter below the available PolySpace products.  Available products: Available Inducts: Available PolySpace Products.  Available products: Available Inducts: Available PolySpacePolySpacePolySpacePolySpacePolySpacePolySpacePolySpaceForCandCPP_R2008a  For C:PolySpacePolySpacePorCandCPP_R2008a  For C:PolySpacePolySpacePorCandCPP_R2008a  For C:PolySpacePolySpacePorCandCPP_R2008a  For C:PolySpacePolySpacePorCandCPP_R2008a  For C:PolySpacePolySpacePorCandCPP_R2008a  For C:PolySpacePolySpacePorCandCPP_R2008a  For C:PolySpacePorCandCPP_R2008a  For C:PolySpacePorCandCPP_R	🐣 PolySpace Remote Launcher M	anager				_ 🗆 🗙
The same port number must be used by all PolySpace client applications, the Queue Manager and PolySpace Server(s).   Install as service   Username used to start the service :   username is early an analysis data will be stored :   C:PolySpacePolySpace_RLDatas   Warning : If the folder is changed the current analyses in the queue will be unavailable.   Oucue Manager Settings If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses. Available PolySpace Servers :   SERVERI   012.123.4.56:12427   Folder products :   Available products :   C:PolySpacePolySpaceForCandCPP_R2008a   If the local host is a PolySpaceForCandCPP_R2008a   If C:PolySpacePolySpaceForCandCPP_R2008a	Common Settings					
The same port number must be used by all PolySpace client applications, the Queue Manager and PolySpace Server(s).   Install as service   Username used to start the service :   username is early an analysis data will be stored :   C:PolySpacePolySpace_RLDatas   Warning : If the folder is changed the current analyses in the queue will be unavailable.   Oucue Manager Settings If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses. Available PolySpace Servers :   SERVERI   012.123.4.56:12427   Folder products :   Available products :   C:PolySpacePolySpaceForCandCPP_R2008a   If the local host is a PolySpaceForCandCPP_R2008a   If C:PolySpacePolySpaceForCandCPP_R2008a	Communication port :	12427				
Install as service         Username used to start the service :       username         Polder where analysis data will be stored :       C:PolySpace/PolySpace_RLDatas         Warning : if the folder is changed the current analyses in the queue will be unavailable.         Oucue Manager Settings         If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.         Available PolySpace Servers :         Servert         D12.123.4.56:12427         If the local host is a PolySpace Server enter below the available PolySpace products.         Available products :       Available PolySpace Server settings         If the local host is a PolySpace Server enter below the available PolySpace products.         Available products :       Available languages :         [:PolySpacePolySpaceForCandCPP_R2008a       If C :         If C :       C++         Image: Available languages :       Image: C :			ent applications, the	Queue Manager a	nd PolySpace	Server(s).
Username used to start the service :       username       Password : *******         Folder where analysis data will be stored :       C:PolySpace/PolySpace_RLDatas       Colored         Warning : if the folder is changed the current analyses in the queue will be unavailable.       Colored       Colored         Oucue Manager Settings       If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.       Available PolySpace Servers :       Image: Colored Colo		, an i dijop 200 on		gaoao managor a		001701(0).
Username used to start the service :       username       Password : *******         Folder where analysis data will be stored :       C:PolySpace/PolySpace_RLDatas       Colored         Warning : if the folder is changed the current analyses in the queue will be unavailable.       Colored       Colored         Oucue Manager Settings       If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.       Available PolySpace Servers :       Image: Colored Colo	V Install as service					
Folder where analysis data will be stored : C:PolySpace/PolySpace_RLDatas   Folder where analysis data will be stored : C:PolySpace PolySpace Receives in the queue will be unavailable.   Queue Manager Settings   If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.   Available PolySpace Servers :   SERVERI   D12.123.4.56:12427   FolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products. Available products :   Queue Manager Settings   If the local host is a PolySpace Server enter below the available PolySpace products.   Available products :   C:PolySpacePolySpaceForCandCPP_R2008a	_					
Warning : if the folder is changed the current analyses in the queue will be unavailable.  Queue Manager Settings If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.  Available PolySpace Servers :  SERVER1 D12.123.4.56:12427  PolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R2008a	Username used to start the servic	e: jusername	Passwi	ord: [********		
Warning : if the folder is changed the current analyses in the queue will be unavailable.  Queue Manager Settings If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.  Available PolySpace Servers :  SERVER1 D12.123.4.56:12427  PolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R2008a						
Queue Manager Settings         If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses.         Available PolySpace Servers :         Image: Setting Seting Seting Setting Setting Setting Setting Seting Set	Folder where analysis data will be st	ored : C:\PolySp	ace/PolySpace_RLDa	ntas		$\bigcirc$
If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses. Available PolySpace Servers :          SERVER1         D12.123.4.56:12427    PolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products.          Available products : <ul> <li>Available products :</li> <li>C:PolySpacePorCandCPP_R2008a</li> <li>C:PolySpacePorCandCPP_R2008a</li> <li>C++         <ul> <li>ADA83</li> </ul></li></ul>	Warning : if the folder is changed the	current analyses in	the queue will be una	vailable.		
If the local host is the PolySpace Queue Manager enter below the server(s) used for remote analyses. Available PolySpace Servers :          SERVER1         D12.123.4.56:12427    PolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products.          Available products : <ul> <li>Available products :</li> <li>C:PolySpacePorCandCPP_R2008a</li> <li>C:PolySpacePorCandCPP_R2008a</li> <li>C++         <ul> <li>ADA83</li> </ul></li></ul>	Queue Manager Settings					
Available PolySpace Servers :   SERVER1   012.123.4.56:12427   PolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products. Available products :   Available products :   C:\PolySpacePolySpaceForCandCPP_R2008a     If C:   If the local host is a PolySpaceForCandCPP_R2008a						
SERVER1         012.123.4.56:12427         PolySpace Server Settings         If the local host is a PolySpace Server enter below the available PolySpace products.         Available products :	If the local host is the PolySpace Qu	eue Manager enter be	elow the server(s) us	ed for remote ana	lyses.	
SERVER1         012.123.4.56:12427         PolySpace Server Settings         If the local host is a PolySpace Server enter below the available PolySpace products.         Available products :	Available PolySpace Servers :					<b>∔</b>
012.123.4.56:12427         PolySpace Server Settings         If the local host is a PolySpace Server enter below the available PolySpace products.         Available products :		J				
PolySpace Server Settings If the local host is a PolySpace Server enter below the available PolySpace products. Available products : C:VPolySpaceVPolySpaceForCandCPP_R2008a C:VPolySpaceV						
If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpaceVolySpaceForCandCPP_R2008a  Available languages :  Available languages	012.123.4.30.12427					
If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpaceVolySpaceForCandCPP_R2008a  Available languages :  Available languages						
If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R208A  C:PolySpacePolySpaceForCandCPP_R208A  C:PolySpacePolySpaceForCandC						
If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R208A  C:PolySpacePolySpaceForCandCPP_R208A  C:PolySpacePolySpaceForCandC	,					
If the local host is a PolySpace Server enter below the available PolySpace products.  Available products :  C:PolySpacePolySpaceForCandCPP_R2008a  C:PolySpacePolySpaceForCandCPP_R208A  C:PolySpacePolySpaceForCandCPP_R208A  C:PolySpacePolySpaceForCandC	PolySpace Server Settings					
Available products : <ul> <li></li></ul>						
C:\PolySpace\PolySpaceForCandCPP_R2008a	If the local host is a PolySpace Servi	er enter below the av	allable PolySpace pro	oducts.		
C:VPolySpaceVPolySpaceForCandCPP_R2008a	Available products :			🔹 🖕	Available la	nduades :
C++ □ ADA83	C:\PolySpace\PolySpaceForCandCB	P R20080				
ADA83	c. v oryspace v oryspacer or cander	F_1(2000a				
☐ ADA95						
					🗌 ADA96	5
	1					
Start Daemon Stop Daemon View Log Apply Close		Start Daemon	Stop Daemon	View Log	Apply	Close

The "Common Settings" dialog allows setting port and locations of the Queue Manager as a Windows service. Note that it is mandatory to stop the current Queue Manager before any change or update of the parameters. Please use first the "Stop Daemon" button. The "Queue Manager Settings" allows setting the address of the Queue Manager and all attached CPU of the Remote Launcher. The syntax "<describing name/IP address>[:<port number>]" attaches a CPU.

In the previous figure, "SERVER1" is the Queue Manager and "012.123.4.56:12427" represents a CPU with a specific port number.

The last sub-window "PolySpace Server Settings" allows setting PolySpace products locations and language.

**Note** All information displayed during the execution of commands like "Start Daemon", "Stop Daemon" are also written in the polyspaced.logfile in <PolySpaceInstallCommon>/../PolySpace\_RLDatas(/var/PolySpace under UNIX).

#### Manual Configuration of the PolySpace<sup>™</sup> Server

A configuration of the Server/Verifier, Queue Manager of the Client/Server architecture has been stored in a standard file. A default configuration is generated during the installation: the current machine is at the same time the Queue Manager, and the distant machine.

The batch command

PolySpaceInstallCommon/RemoteLauncher/bin/setup-remote-launcher can be used to create or destroy the configuration file. It is called polyspace.conf. It may be found:

- For administrator or user on a Windows OS system at: PolySpaceInstallCommon/../PolySpace\_RLDatas (c:\PolySpace\PolySpace\_RLDatas)
- For administrator or user on a UNIX OS system: /etc/PolySpace

The configuration file contains fields which set a Queue Manager and CPU architecture:

• product = — It determines the installation directories of PolySpace Verifier. It is possible to have one per language.

- lang= It determines the supported verification languages. The language variable specifies the supported language declaration (CPU only). The values may be: C, C++, CPP, Ada, Ada83, ADA, Ada95 and ADA95.
- username = . The username variable specifies the user name used to run the daemon process. If the daemon is started as root on UNIX, it will automatically change its user ID to run as the given user.
- datadir= The data directory name identifies the place where the data sent remotely are stored.
- locksdir= The locks directory identifies the place where the locks are stored. <datadir>/locks will be used by default without specified field.
- port= The port number on which the daemon is listening (default value is 12427). The available port can be specified between *10000* to *15000*. This range depends on the available OS requirements.
- cpu= The CPU name and port specifies available Queue Manager and CPUs. Syntax can be <address IP or name of CPU>[:port number]. If more than one cpu= is specified, others are CPUs where the Queue Manager can dispatch verifications.

Any change in the configuration file except for the cpu= field (for example, to add a new CPU, see next paragraph), the associated daemon/service manager need to be stopped and re started:

- PolySpaceInstallCommon/RemoteLauncher/bin/setup-remote-launcher -stop-service is used to stop the service. Note that any standard program on OS can stop the service or daemon.
- PolySpaceInstallCommon/RemoteLauncher/bin/setup-remote-launcher -start-service is used to start or restart the service. Note that any standard program associated to the OS can restart the service or daemon.

**Note** *PolySpaceInstallCommon*/RemoteLauncher/bin/setup-remote-launcher -h gives available options

If the Queue Manager has not been ticked to be a service (daemon) during installation, the following command allows to launch and stop the Queue Manager by hand:

• Use

*PolySpaceInstallCommon*/RemoteLauncher/bin/InstallPolySpaceService.bat to install the Queue manager service on a Windows platform.

**Note** The Windows service can also be managed like other services using the **My Computer > Manage > Services and Applications** menu.

• Use

*PolySpaceInstallCommon*/RemoteLauncher/bin/setup-remote-launcher -install-service to install the Queue manager daemon on a UNIX platform.

**Note** The PolySpace daemon can also be managed like other daemon in the /etc/init.d install services directory.

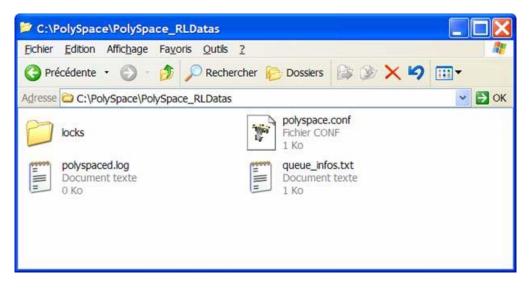
The polyspaced is the service (or daemon) launched using the previous commands:

- Use PolySpaceInstallCommon/RemoteLauncher/bin/polyspaced -stop to stop the Queue Manager.
- Use PolySpaceInstallCommon/RemoteLauncher/bin/polyspaced to start or restart the Queue Manager.

**Note** <PolySpaceInstallCommon>/RemoteLauncher/bin/polyspaced -h gives available options.

#### **Configuration File and Directory**

We can find in the <PolySpaceInstallCommon>/../PolySpace\_RLDatas directory the following files and directories:



- The polyspaced.log file contains installation log information as well as all communication between clients and the Queue Manager during the Queue Manager life.
- The queue\_infos.txt file contains information of the Queue Manager spooler.
- The locks directory contains the locks file for each verification.
- polyspace.conf is the configuration file. An example of a Server/Verifier polyspace.conf configuration file looks like this:

```
product=c:\PolySpace\PolySpaceForCandCPP
product=c:\PolySpace\PolySpaceForAda
lang=Ada95
lang=C
lang=CPP
datadir=c:\PolySpace\PolySpace_RLDatas
username=bard
cpu=BERGERON
cpu=192.168.2.79:12428
```

In this example, the BERGERON cpu has been configured to be a Queue Manager and a CPU of C, CPP and Ada95 analyses on default port 12427. The product

installed in c:\PolySpace\PolySPaceForCandCPP will be used. Moreover, another CPU of address IP 192.168.2.79 has been declared on port 12428.

On a UNIX system, the directory location containing locks and datadir by default is /var/PolySpace.

#### Installing a New CPU

Installing a new CPU is very simple: just follow the standard PolySpace Server installation. Then, edit the polyspace.conf of the CPU which has been chosen as Queue Manager, and add the new CPU using the field cpu=<describing name/IP address>[:<port number>]

See the following example where there are two declared CPUs.

```
product=c:\PolySpace\PolySpaceForCandCPP
product=c:\PolySpace\PolySpaceForAda
lang=Ada95
lang=C
lang=CPP
datadir=c:\PolySpace\PolySpace_RLDatas
username=bard
cpu=BERGERON
cpu=192.168.2.79:12428
```

**Note** On the new CPU, it is important to remove the field cpu= in the polyspace.conf file to avoid being also a "Queue Manager".

#### **Troubleshooting Common Errors**

This section contains information on troubleshooting the following common errors:

- "Errors Concerning the polyspace.conf File" on page 2-27
- "Errors Concerning Problems with Write Access" on page 2-28
- "Other Errors" on page 2-28

**Errors Concerning the polyspace.conf File.** If you receive any of the following errors:

- 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 directory 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>: 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 receive any of the following errors, check right accesses with username declared in the polyspace.conf file in the directory *<dir>, <file name>* or *<path>* (given in the error message).

Check also that you have not changed anything linked to "polyspaced" service (daemon) without stopping it.

- "Fatal error: Directory <dir> is not accessible.";
- "Fatal error: Could not change the owner of <path> to <username> ";
- "Fatal error: Could not open file <file name> for reading.";
- "Fatal error: Could not set <permission> permissions on <path> "
- "Fatal error: Could not open file <file name>

**Other Errors.** Other errors may concern OS system, network and standard command available (for example "tar", "gzip", etc.).

Double check that these standard commands exist in your system. Error messages are detailed enough to know which command has failed.

# 3

# Installing PolySpace<sup>TM</sup> Model Link Products

Installing PolySpace<sup>TM</sup> Model Link Products (p. 3-2)

Upgrading MATLAB® Software (p. 3-5)

Troubleshooting PolySpace<sup>TM</sup> Model Link<sup>TM</sup> SL Installation (p. 3-6)

Describes how to install PolySpace  $^{\rm TM}$  Model Link  $^{\rm TM}$  SL or PolySpace Model Link TL

Describes how to re-install PolySpace Model Link SL after upgrading MATLAB<sup>®</sup>

Describes alternative installation options if you have trouble with the standard installation

# Installing PolySpace<sup>™</sup> Model Link Products

The PolySpace<sup>TM</sup> Model Link<sup>TM</sup> SL and PolySpace Model Link TL provide automatic error detection for code generated from The The MathWorks<sup>TM</sup> Simulink<sup>®</sup> models.

PolySpace Model Link SL installation consists of two components:

- Simulink PolySpace library with associated blocks
- "Back to model" (HTML links in the code source) extension in the PolySpace Viewer that allows direct navigation from a run-time error in the auto-generated code to the corresponding block in the Simulink model.

To install PolySpace Model Link SL:

1 Install the PolySpace software as described earlier in this guide.

The PolySpace Installer automatically detects that MATLAB<sup>®</sup> and Simulink components are installed and displays the following window:

PolySpace Installer		
\$\$ \$	PolySpace (TM) Model Link installation.	
	Select the installations to use.	
	Release Install folder In	ò 🔤
Welcome to	7.6 C:\Program Files\MATLAB\R2008a	
2		
PolySpace		-
Shared		
Components		
Setup		
I.		
COB 2 MR.		
InstallShield		
	< Back Next >	Cancel
		anoor

**2** Select the one or more code generators.

The installer copies a PolySpace sub-directory into each version of MATLAB you select.

**Note** The original contents of the PolySpace sub-directory can be found in the *PolySpaceInstallCommon*\PolySpaceModelLink directory.

**Note** On Windows 64–bit systems, the MATLAB installation is not detected, so the Model Link software is not automatically installed. You must manually install the Model Link software by copying the following files from the CD:

- \Data\Windows\Addin\Mathworks\polyspace\\* to /PolySpace\_Common/PolySpaceModelLink
- \Data\Windows\Addin\Mathworks\startup\polyspacerc.m to matlabroot\toolbox\local\

Then, edit *matlabroot*\toolbox\local\matlabrc.m, and add a call to polyspacerc at the end of the file.

# **Upgrading MATLAB® Software**

If you upgrade your MATLAB<sup>®</sup> release, you must re-install PolySpace<sup>TM</sup> Model Link<sup>TM</sup> SL or PolySpace Model Link TL for that release.

You can re-install PolySpace Model Link SL without using the installation CD.

To reinstall:

1 Copy the file Polyspace\_Common\PolySpaceModelLink\startup\polyspacerc.m into your new MATLAB release matlabroot(new)\toolbox\local.

2 Enter edit matlabrc in the MATLAB command window.

**3** Go to the end of the file, and add the following lines:

%% POLYSPACE CONFIGURATION
polyspacerc;
%% END OF POLYSPACE CONFIGURATION

- **4** Run MATLAB in the "regserver" mode, to post-install your MATLAB release on the local machine.
- 5 Run the following command line: C:\matlabroot(new)>>\bin\matlab.bat /regserver /r quit.

# Troubleshooting PolySpace<sup>™</sup> Model Link<sup>™</sup> SL Installation

#### In this section...

"MATLAB<sup>®</sup> Software is Not Installed Locally" on page 3-6

"No Write Access to MATLAB® Product Root" on page 3-7

# MATLAB® Software is Not Installed Locally

If MATLAB<sup>®</sup> is not installed locally, the registry entries do not contain reference to MATLAB, which PolySpace<sup>™</sup> uses to detect installation folders. In this case, the PolySpace installer will not detect MATLAB, and will skip installation of the PolySpace Model Link tools. Therefore, you must perform a manual installation.

To perform a manual installation:

- 1 Insert the PolySpace CD in your CD drive.
- 2 Locate the corresponding windows drive (hereafter D:\), and copy the entire folder D:\Data\Windows\Addin\Mathworks\polyspace into *PolySpace\_Common*\PolySpaceModelLink.
- **3** Copy the file D:\Data\Windows\Addin\Mathworks\startup\polyspacerc into *matlabroot*\toolbox\local.
- 4 Edit matlabroot\toolbox\local\matlabrc, and add the following lines at the end of the file:

%% POLYSPACE CONFIGURATION polyspacerc; %% END OF POLYSPACE CONFIGURATION

- **5** Run MATLAB once in the "regserver" mode, to post-install your MATLAB release on the local machine.
- 6 Run the following command line: C:\matlabroot\bin\matlab.bat /regserver /r quit

# No Write Access to MATLAB® Product Root

If the installer detects that there is no write access to *matlabroot*, it asks you if you want to add a desktop shortcut to start MATLAB and configure the PolySpace Model Link software.

- If you select **Yes**, a shortcut is added to your desktop. Double-click the shortcut to execute matlabroot\bin\win32\matlab.exe /r polyspacerc. This command starts MATLAB and automatically configures the PolySpace Model Link software.
- If you select **No**, the installer will describe how to manually configure PolySpace Model Link software

# Installing PolySpace<sup>TM</sup> UML Link<sup>TM</sup> RH (C and C++ Only)

Installing PolySpace<sup>TM</sup> UML Link<sup>TM</sup> RH Product (p. 4-2) Describes how to install PolySpace<sup>TM</sup> UML Link<sup>TM</sup> RH

# Installing PolySpace<sup>™</sup> UML Link<sup>™</sup> RH Product

The PolySpace<sup>™</sup> UML Link<sup>™</sup> RH product provides an addin inside the Model-Driven development tool Rhapsody<sup>®</sup>. It concerns the installation of two components:

- PolySpace library
- "Back to model" extension (HTML link inside the code) in the PolySpace Viewer that allows direct navigation from a run-time error in the auto-generated code to the corresponding block in the UML model.

The PolySpace Installer automatically detects that Rhapsody components are installed and installs PolySpace UML Link RH during the "Shared components" installation.

If you install the Rhapsody software after installing PolySpace software, you can either re-install the PolySpace software or manually copy the plug-in files from the CD to /PolySpace\_Common/PolySpaceModelLink/.

By default, a *PolySpaceInstallCommon*/PolySpaceUMLLink is created where we can find all the components of PolySpace UML Link RH. Moreover, the PolySpace installer modifies two files associated with the Rhapsody usage:

• A line in the rhapsody.ini file located at the root of C:, or in C:\WINNT:

CopyVBA=PolySpaceInstallCommon\PolySpaceUMLLink\bin\PolySpace.vba

where *PolySpaceInstallCommon* represents the path to the PolySpace\_Common directory.

• Some lines are added to the *RhapsodyInstallDir*\Share\Properties\site.prp:

```
Subject General
Metaclass Model
Property HelpersFile String "PolySpaceInstallCommon\\
PolySpaceUMLLink\\etc\\PolySpace.hep"
End
```

# 5

# Upgrading PolySpace<sup>TM</sup> Software

Upgrading PolySpace<sup>TM</sup> Client Products (p. 5-2)

Upgrading PolySpace<sup>TM</sup> Server Products (p. 5-4)

Describes how to upgrade the PolySpace<sup>TM</sup> Client software

Describes how to upgrade to a new release on a PolySpace Server or a CPU

# Upgrading PolySpace<sup>™</sup> Client Products

When the remote launcher has been installed, The Queue Manager interface (or PolySpace<sup>™</sup> Spooler) is available to manage verifications sent by a PolySpace Client.

The **Menu Operations > Upgrade PolySpace Product** allows the upgrade of a PolySpace Client.

	CPU	Status	Date	Language	1
ESULTS\Ada	BERGERON	completed	28-Dec-2006, 12:24:56	ADA95	
SULTS\RES4.1	BERGERON	completed	28-Dec-2006, 12:39:32	C	
e:\tmp	BERGERON	completed	17 Jan 2007, 15:04:22	C	
		-			
L	-				
		I loose a	wada		-
	SULTS\RES4.1	ESULTS\Ada BERGERON SULTS\RES4.1 BERGERON	ESULTSVAda BERGERON completed SULTSVRES4.1 BERGERON completed e:\tmp BERGERON completed	ESULTS\Ada         BERGERON         completed         28 Dec 2006, 12:24:56           SULTS\RES4.1         BERGERON         completed         28 Dec 2006, 12:39:32	ESULTSVAda         BERGERON         completed         28-Dec-2006, 12:24:56         ADA95           SULTSVRES4.1         BERGERON         completed         28-Dec-2006, 12:33:32         C           e:\tmp         BERGERON         completed         17-Jan-2007, 15:04:22         C

#### On the Server side, in the

*PolySpaceInstallCommon*/../PolySpace\_RLDatas/upgrades directory (/var/PolySpace/upgrades on UNIX<sup>®</sup>) a new release of a product has been installed with the following format: <version>.tar or <version>.tar.gz. If such file in the upgrades directory exists, it is possible to upgrade the PolySpace client:

Upgrade PolySpace Product	×
Product version : 4113 V Use the default installation director	y ¥
Run the PolySpace Installer in silent mode	

**Note** The tar file needs to contain the setup.exe at his root.

After having chosen options (installation directory and silent modes), the "PolySpace Queue Manager Interface" downloads the complete setup package (approximately 600 Mb) and unpacks it. It could take several minutes to download and unpack (5 to 10), depending of network and Desktop PC performances. Then, a standard installation begins. Note that it is recommended to close all PolySpace Products, if they are open.

# **Upgrading PolySpace™ Server Products**

#### In this section ...

"Overview" on page 5-4

"Upgrading an Active Server" on page 5-4

"Upgrading an Inactive Server" on page 5-4

# Overview

When you are upgrading the PolySpace<sup>™</sup> software on a Server, you need to determine if the PolySpace Server daemon is active or not (whether a daemon is running and one or more verifications are queued and running on CPUs).

# **Upgrading an Active Server**

To upgrade an active server:

- Perform the Client upgrade procedure in "Upgrading PolySpace™ Client Products" on page 5-2.
- After the installation completes, open the PolySpace Remote Launcher Manager to configure the server. For more information, see "Configuring the PolySpace<sup>™</sup> Server Software" on page 2-19

# **Upgrading an Inactive Server**

On an inactive server (a machine without an installed daemon or without any verifications queued and running), you can choose the PolySpace **Server** installation. The field "product=" will be filled in an automatic way. You must only add the lang= if it does not already exist.

Do not forget to update the polyspace.conf of the PolySpace Server which serves as a Queue Manager, i.e. by adding a new entry cpu=.

**Note** You can install different releases of a same product language. The PolySpace Server will automatically lead verifications coming from different client releases to adequate CPU and associated PolySpace release product.

# 6

# Installing PolySpace<sup>TM</sup> C++ addin for Visual Studio<sup>®</sup>

Installing PolySpace<sup>TM</sup> C++ addin for Visual Studio<sup>®</sup> (p. 6-2)

Describes how to install PolySpace<sup>TM</sup> C++ addin for Visual Studio<sup>®</sup>

# Installing PolySpace<sup>™</sup> C++ addin for Visual Studio<sup>®</sup>

The PolySpace<sup>™</sup> installer automatically detects that Visual Studio<sup>®</sup> is installed and installs the addin during the "Shared Components" installation.

When a PolySpace<sup>™</sup> Client<sup>™</sup> for C/C++ is already installed before you install Visual Studio, you must reinstall the PolySpace software from the CD.

# Uninstalling PolySpace<sup>TM</sup> Products

Uninstalling on Windows <sup>®</sup> Platforms (p. 7-2)	Describes how to uninstall PolySpace <sup>™</sup> software on Windows <sup>®</sup> platforms
Uninstalling on Linux <sup>®</sup> or UNIX <sup>®</sup> Platforms (p. 7-4)	Describes how to uninstall PolySpace software on Linux <sup>®</sup> or UNIX <sup>®</sup> platforms

# Uninstalling on Windows® Platforms

#### In this section...

"Uninstalling the PolySpace™ Software" on page 7-2

"Uninstalling Shared Components" on page 7-2

# Uninstalling the PolySpace<sup>™</sup> Software

You can uninstall the PolySpace  $^{\rm TM}$  software through the standard interface available on a Windows  $^{\tiny (\! R \!)}$  PC.

To uninstall the PolySpace software:

- 1 From the Windows desktop, select Start > Settings > Control Panel > Add or Remove Programs.
- 2 Select the PolySpace product you want to uninstall.
- 3 Select Change/Remove.

The un-installation procedure goes through steps. Please follow the instructions and refer to paragraphs below for specifics components, if necessary.

**Note** Some files and folders added after installation can remain after the uninstall process is complete. After reboot, check the *PolySpaceInstallDir* and *PolySpaceInstallCommon* folders for remaining files and subfolders. You can remove these files by hand.

# **Uninstalling Shared Components**

You can also uninstall specific shared components.

To uninstall PolySpace shared components:

1 From the Windows desktop, select Start > Settings > Control Panel > Add or Remove Programs.

#### 2 Select PolySpace Shared Components.

#### **3** Select **Change/Remove**.

The shared components are removed.

# Uninstalling on Linux<sup>®</sup> or UNIX<sup>®</sup> Platforms

#### In this section ...

"Uninstalling the PolySpace  $^{\rm TM}$  Software" on page 7-4

"Uninstalling Shared Components" on page 7-4

# Uninstalling the PolySpace<sup>™</sup> Software

To un-install components under Linux<sup>®</sup> or UNIX<sup>®</sup> system:

• Enter PolySpaceInstallDir/\_uninst/uninstall.

This script launches the graphical uninstall wizard.

# **Uninstalling Shared Components**

You can also uninstall specific shared components.

To uninstall PolySpace<sup>™</sup> shared components:

I Enter PolySpaceInstallCommon/\_uninst/uninstall

The shared components are uninstalled.

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