

PolySpace™ Release Notes

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Summary by Version

This table provides quick access to what's new in each version. For clarification, see “About Release Notes” on page 1.

Version (Release)	New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Latest Version V5.1 (R2008a)	Yes Details	Yes Summary	PolySpace Client for C/C++ Bug Reports PolySpace Server for C/C++ Bug Reports PolySpace Server for Ada Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation
Previous Versions			PolySpace Client for C/C++ Bug Reports PolySpace Server for C/C++ Bug Reports PolySpace Server for Ada Bug Reports Includes fixes	No

About Release Notes

Use release notes when upgrading to a newer version to learn about new features and changes, and the potential impact on your existing files and practices. Release notes are also beneficial if you use or support multiple versions.

If you are not upgrading from the most recent previous version, review release notes for all interim versions, not just for the version you are installing. For example, when upgrading from V1.0 to V1.2, review the New Features and Changes, Version Compatibility Considerations, and Bug Reports for V1.1 and V1.2.

New Features and Changes

These include

- New functionality
- Changes to existing functionality
- Changes to system requirements (complete system requirements for the current version are at the MathWorks Web site)
- Any version compatibility considerations associated with each new feature or change

Version Compatibility Considerations

When a new feature or change introduces a reported incompatibility between versions, its description includes a **Compatibility Considerations** subsection that details the impact. For a list of all new features and changes that have reported compatibility impact, see the “Compatibility Summary for PolySpace™ Software” on page 15.

Compatibility issues that are reported after the product has been released are added to Bug Reports at the MathWorks Web site. Because bug fixes can sometimes result in incompatibilities, also review fixed bugs in Bug Reports for any compatibility impact.

Fixed Bugs and Known Problems

MathWorks Bug Reports is a user-searchable database of known problems, workarounds, and fixes. The MathWorks updates the Bug Reports database as new problems and resolutions become known, so check it as needed for the latest information.

Access Bug Reports at the MathWorks Web site using your MathWorks Account. If you are not logged in to your MathWorks Account when you link

to Bug Reports, you are prompted to log in or create an account. You then can view bug fixes and known problems for R14SP2 and more recent releases.

Related Documentation at Web Site

Printable Release Notes (PDF). You can print release notes from the PDF version, located at the MathWorks Web site. The PDF version does not support links to other documents or to the Web site, such as to Bug Reports. Use the browser-based version of release notes for access to all information.

Product Documentation. At the MathWorks Web site, you can access complete product documentation for the current version and some previous versions, as noted in the summary table.

Version 5.1 (R2008a) PolySpace™ Software

This table summarizes what's new in V5.1 (R2008a):

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	Yes—Details labeled as Compatibility Considerations , below. See also Summary.	PolySpace Client for C/C++ Bug Reports PolySpace Server for C/C++ Bug Reports PolySpace Server for Ada Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation

New features and changes introduced in this version are organized by product:

- “PolySpace™ Client™ for Ada Product” on page 4
- “PolySpace™ Server™ for Ada Server Product” on page 6
- “PolySpace™ Client™ for C/C++ Product” on page 8
- “PolySpace™ Server™ for C/C++ Product” on page 11
- “PolySpace™ Model Link™ SL Product” on page 12
- “PolySpace™ Model Link™ TL Product” on page 13
- “PolySpace™ UML Link™ RH Product” on page 14

PolySpace™ Client™ for Ada Product

Removed Cygwin™ Software Dependency for Windows® Platforms

Previous versions of PolySpace™ products used Cygwin™ emulation to run UNIX® commands on Windows® systems.

In version 5.1, the Cygwin software dependency has been removed. Removing Cygwin simplifies the PolySpace product installation process while improving the performance and robustness of the PolySpace Verification process.

Compatibility Considerations. Due to the Cygwin changes, PolySpace™ Client™ for Ada Version 5.1 is not compatible with previous versions of PolySpace products on Windows platforms. To avoid compatibility problems on Windows platforms, you must upgrade all your PolySpace client and server products at the same time.

If your PolySpace server is running on a Windows platform, the binary files used for batch commands in previous releases will not work without Cygwin software installed. In version 5.1, the software provides new .exe files for these batch commands. However, these files are now located in a different location.

Command	Previous Location	New Location
Standard	<i>PolySpaceInstallDir</i> \verifier\bin\	<i>PolySpaceInstallDir</i> \verifier\wbin\
Remote Launcher	<i>PolySpace_Common</i> \RemoteLauncher\bin\	<i>PolySpace_Common</i> \RemoteLauncher\wbin\
Viewer	<i>PolySpace_Common</i> \Viewer\bin\	<i>PolySpace_Common</i> \Viewer\wbin\

If you wrote scripts using batch commands in previous releases, you must modify the scripts to use the new commands.

In addition, if you used Cygwin shell scripts for postprocessing or target compilation, those scripts will no longer run on version 5.1. To support scripting, the PolySpace software now includes Perl. You can access Perl in:

PolySpaceInstallDir\verifier\tools\perl\

Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

Viewer Improvements

Enhanced exploring capability in the viewer to provide more focused information.

Unnecessary information has been eliminated from the Procedural Entities (RTE) View and Call Tree View to improve usability.

Enhanced Compilation Checks

Enhanced compilation checks to stop verification only when a pointer to a task is initiated or used, rather than when it is declared.

One-Click Enhancements

Enhanced PolySpace-In-One-Click options, to allow switching between multiple projects using a browse history.

Operating System Support

Added support for the following operating systems:

- Solaris™ 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

PolySpace™ Server™ for Ada Server Product

Removed Cygwin™ Software Dependency for Windows® Platforms

Previous versions of PolySpace products used Cygwin emulation to run UNIX commands on Windows systems.

In version 5.1, the Cygwin software dependency has been removed. Removing Cygwin simplifies the PolySpace product installation process while improving the performance and robustness of the PolySpace Verification process.

Compatibility Considerations. Due to the Cygwin changes, PolySpace™ Server™ for Ada Version 5.1 is not compatible with previous versions of PolySpace products on Windows platforms. To avoid compatibility problems on Windows platforms, you must upgrade all your PolySpace client and server products at the same time.

If your PolySpace server is running on a Windows platform, the binary files used for batch commands in previous releases will not work without Cygwin software installed. In version 5.1, the software provides new .exe files for these batch commands. However, these files are now located in a different location.

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Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

Operating System Support

Added support for the following operating systems:

- Solaris 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

PolySpace™ Client™ for C/C++ Product

Removed Cygwin™ Software Dependency for Windows® Platforms

Previous versions of PolySpace products used Cygwin emulation to run UNIX commands on Windows systems.

In version 5.1, the Cygwin software dependency has been removed. Removing Cygwin simplifies the PolySpace product installation process while improving the performance and robustness of the PolySpace Verification process.

Compatibility Considerations. Due to the Cygwin changes, PolySpace Client for C/C++ Version 5.1 is not compatible with previous versions of PolySpace products on Windows platforms. To avoid compatibility problems on Windows platforms, you must upgrade all your PolySpace client and server products at the same time.

If your PolySpace server is running on a Windows platform, the binary files used for batch commands in previous releases will not work without Cygwin software installed. In version 5.1, the software provides new .exe files for these batch commands. However, these files are now located in a different location.

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In addition, if you used Cygwin shell scripts for postprocessing or target compilation, those scripts will no longer run on version 5.1. To support scripting, the PolySpace software now includes Perl. You can access Perl in:

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PolySpaceInstallDir\verifier\tools\perl\
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Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

Viewer Improvements

Enhanced exploring capability in the viewer to provide more precise locations for C++ checks.

The source code view of the PolySpace viewer now displays the location of C++ checks more accurately.

One-Click Enhancements

Enhanced PolySpace-In-One-Click options, to allow switching between multiple projects using a browse history.

For more information, see “PolySpace Software Day to Day Usage” in the *PolySpace Client/Server for C User Guide*.

Generic Target Option for C++

New Generic Target option for C++, to allow custom target processors. The Generic Target option for C++ is similar to the previous Generic Target for C.

For more information, see “Targets/Compilers” in the *PolySpace Client/Server for C++ User Guide*.

Class Analyzer Enhancements for C++

Enhanced class analyzer now calls all private constructors and destructors.

Previously, the sources analyzed were generally non-inherited public or protected methods of the class. In version 5.1, the functions that are analyzed include all non-inherited constructors and destructors, and all non-inherited public or protected methods of the class.

For more information, see “Step 2: Class Analyzer” in the *PolySpace Client/Server for C++ User Guide*.

GNU® Compiler Support for C++

New support for the GNU® compiler (GCC 3.4) for C++.

The new GNU dialect option supports variable length arrays, anonymous structures, and other constructions allowed by GCC.

For more information, see “Dialect Issues” in the *PolySpace Client/Server for C++ User Guide*.

PolySpace™ C++ Add-in for Visual Studio®

Simplified user interface for PolySpace C++ add-in for Microsoft® Visual Studio®.

The PolySpace Browser tab has been eliminated from the Visual Studio® window. To perform an analysis of a file in Visual Studio, you now simply right-click on the file and select **Start PolySpace**.

For more information, see “PolySpace C++ add-in for Visual Studio” in the *PolySpace Client/Server for C++ User Guide*.

Operating System Support

Added support for the following operating systems:

- Solaris 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

PolySpace™ Server™ for C/C++ Product

Removed Cygwin™ Software Dependency for Windows® Platforms

Previous versions of PolySpace products used Cygwin emulation to run UNIX commands on Windows systems.

In version 5.1, the Cygwin software dependency has been removed. Removing Cygwin simplifies the PolySpace product installation process while improving the performance and robustness of the PolySpace Verification process.

Compatibility Considerations. Due to the Cygwin changes, PolySpace Server for C/C++ Version 5.1 is not compatible with previous versions of PolySpace products on Windows platforms. To avoid compatibility problems on Windows platforms, you must upgrade all your PolySpace client and server products at the same time.

If your PolySpace server is running on a Windows platform, the binary files used for batch commands in previous releases will not work without Cygwin software installed. In version 5.1, the software provides new .exe files for these batch commands. However, these files are now located in a different location.

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If you wrote scripts using batch commands in previous releases, you must modify the scripts to use the new commands.

In addition, if you used Cygwin shell scripts for postprocessing or target compilation, those scripts will no longer run on version 5.1. To support scripting, the PolySpace software now includes Perl. You can access Perl in:

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PolySpaceInstallDir\verifier\tools\perl\
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Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

GNU® Compiler Support for C++

New support for the GNU compiler (GCC 3.4) for C++.

The new GNU dialect option supports variable length arrays, anonymous structures, and other constructions allowed by GCC.

For more information, see “Dialect Issues” in the *PolySpace Client/Server for C++ User Guide*.

Operating System Support

Added support for the following operating systems:

- Solaris 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

PolySpace™ Model Link™ SL Product

Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

Simulink® Software Support

Added support for Simulink® Version 7.1 (R2008a).

Operating System Support

Added support for the following operating systems:

- Solaris 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

PolySpace™ Model Link™ TL Product

Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

Operating System Support

Added support for the following operating systems:

- Solaris 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

PolySpace™ UML Link™ RH Product

Enhanced Installer

Version 5.1 includes an enhanced and simplified installer for all PolySpace products. The installation process is now faster and easier to complete than in previous releases.

For more information, see the *PolySpace Installation Guide*.

Rhapsody® Support

Added support for Telelogic® Rhapsody® Version 7.1.

C Language Support

Added support for C language in Rhapsody software.

For more information, see “PolySpace UML Link™ RH Product” in the *PolySpace Client/Server for C++ User Guide*.

Operating System Support

Added support for the following operating systems:

- Solaris 2.10
- Windows XP x64 (32-bit mode)

For more information, see the *PolySpace Installation Guide*.

Compatibility Summary for PolySpace™ Software

This table summarizes new features and changes that might cause incompatibilities when you upgrade from an earlier version, or when you use files on multiple versions. Details are provided in the description of the new feature or change.

Version (Release)	New Features and Changes with Version Compatibility Impact
Latest Version V5.1 (R2008a)	See the Compatibility Considerations subheading for this new feature or change: <ul style="list-style-type: none">• “Removed Cygwin™ Software Dependency for Windows® Platforms” on page 4