

xPC TargetBox[®] 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 2.

Software Version (Release)	New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Latest Software Version V3.1 (R2006b)	No	No	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation
V3.0 (R2006a+)	Yes Details	No	Bug Reports Includes fixes	No
V2.9 (R2006a)	Yes Details	No	Bug Reports Includes fixes	No
V2.8 (R14SP3)	Yes Details	No	Bug Reports Includes fixes	No
V2.7.2 (R14SP2)	Yes Details	No	Bug Reports Includes fixes	No
V2.7 (R14SP1+)	Yes Details	No	No	No
V2.6.1 (R14SP1)	Yes Details	Yes Summary	No	No
V2.6 (R14+)	Yes Details	No	No	No
V2.5 (R14)	Yes Details	No	No	No
V2.0.3 (R13SP2)	Yes Details	No	No	Printable Release Notes: PDF V2.0.3 product documentation

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 known 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 compatibility impact, see the “Compatibility Summary for xPC TargetBox” on page 17.

Compatibility issues that become known 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.

The Bug Reports database was introduced for R14SP2 and does not include information for prior releases. You can access a list of bug fixes made in prior versions via the links in the summary table.

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.

Software Version 3.1 (R2006b) xPC TargetBox

This table summarizes what's new in software Version 3.1 (R2006b). Note that 3.1 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
No	No	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation

Software Version 3.0 (R2006a+) xPC TargetBox

This table summarizes what's new in software Version 3.0 (R2006a+). Note that 3.0 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	Bug Reports Includes fixes	Printable Release Notes: PDF Current product documentation

New features and changes introduced in this version are

- “IO 309” on page 5

IO 309

This release introduces support for the IO 309 option. This option is based on the MPL PATI (PowerPC controlled Analog and Timing I/O Intelligence). See “xPC TargetBox IO 309” in the xPC TargetBox user’s guide documentation for details.

Software Version 2.9 (R2006a) xPC TargetBox

This table summarizes what's new in software V2.9 (R2006a). Note that 2.9 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	Bug Reports Includes fixes	No

New features and changes introduced in this version are

- “xPC Target Explorer” on page 6

xPC Target Explorer

xPC Target Explorer has the following enhancements:

- The ability to save an xPC Target application session, including scope and target PC settings, to a standard MATLAB® MAT-file on the host PC (see “Saving and Reloading xPC Target Application Sessions”) in the xPC Target user’s guide documentation
- The ability to copy (with drag and drop) a signal from one scope to another
- The ability to remember resized and relocated xPC Target Explorer windows
- Enhanced file system support manipulation

Software Version 2.8 (R14SP3) xPC TargetBox

This table summarizes what's new in software Version 2.8 (R14SP3). Note that 2.8 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	Bug Reports Includes fixes	No

New features and changes introduced in this version are

- “xPC Target Explorer” on page 7

xPC Target Explorer

The xPC Target Explorer has the following enhancements:

- **Apply** and **Revert** buttons have been added to the bottom of many panes.
 - **Apply** — Click this button to apply changes.
 - **Revert** — Use the **Revert** button to retrieve old values.
- Target PC nodes now have a PCI Devices node. This lists all PCI devices detected on the target PC.

Software Version 2.7.2 (R14SP2) xPC TargetBox

This table summarizes what's new in software Version 2.7.2 (R14SP2). Note that 2.7.2 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	Bug Reports Includes fixes	No

New features and changes introduced in this version are

- “xPC Target Explorer” on page 8

xPC Target Explorer

xPC Target Explorer has been enhanced and now fully supports the following:

- Inlined parameters
- Monitoring of test-pointed Stateflow® states.

Software Version 2.7 (R14SP1+ xPC TargetBox)

This table summarizes what's new in software Version 2.7 (R14SP1+). Note that 2.7 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	No	No

New features and changes introduced in this version are

- “xPC Target Explorer” on page 9

xPC Target Explorer

xPC Target Explorer has been enhanced and now fully supports the following:

- Scopes of type file
- Access to target PC file systems
- Ability to export and import target PC environments
- Designating a default target PC
- Ability to view PCI device information

See the Getting Started with xPC Target and User's Guide documentation for details.

Software Version 2.6.1 (R14SP1) xPC TargetBox

This table summarizes what's new in software Version 2.6.1 (R14SP1). Note that 2.6.1 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	Yes Summary	No	No

New features and changes introduced in this version are

- “xPC Target Explorer” on page 10
- “Changed Source Block Behavior” on page 11

xPC Target Explorer

This release includes the first officially supported version of the xPC Target Explorer. It is a graphical user interface for xPC Target. It provides a single point of contact for almost all xPC Target interactions, including

- Configure the host PC for xPC Target
- Add and configure xPC TargetBox for xPC Target
- Create boot disks for a particular xPC TargetBox
- Connect the xPC TargetBox for your xPC Target system to the host PC
- Download a prebuilt target application, .d1m, to the xPC TargetBox
- Build a target application for the xPC TargetBox
- Start and stop the application that has been downloaded to the xPC TargetBox
- Add scopes of type host, target, and file to the downloaded target application
- Monitor signals

- Add and remove signals to the xPC Target scopes
- Start and stop scopes
- Adjust parameter values for the signals while the target application is running

The xPC Target Explorer GUI runs on your xPC Target host machine.

Use xPC Target Explorer or your usual xPC Target interfaces to perform xPC Target activities. This tool encompasses the functionality of `xpcsetup`, `xpcrcctool`, `xpcscope`, and `xpctgscope`. Note that in a future release, `xpcrcctool`, `xpcscope`, and `xpctgscope` will become obsoleted.

See the Getting Started with xPC Target and xPC Target User's Guide documentation for details on xPC Target Explorer.

Changed Source Block Behavior

The behavior of source block dialog boxes has changed.

Compatibility Considerations

The behavior of source block dialog boxes has changed as follows:

- Opening a dialog box for a source block causes Simulink® to pause. While Simulink is paused, you can edit the parameter values. You must close the dialog box to have the changes take effect and allow Simulink to continue.

In particular, hardware input blocks in the xPC TargetBox library (blocks that acquire data from hardware) are affected by this change.

- The xPC Target Explorer no longer supports changing tunable source block parameters while a simulation is running. You will find all such parameter fields disabled while a simulation is running.

Software Version 2.6 (R14+) xPC TargetBox

This table summarizes what's new in software Version 2.6 (R14+). Note that 2.6 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	No	No

New features and changes introduced in this version are

- “xPC Target Explorer (Beta)” on page 12
- “I/O Device Driver Support” on page 13

xPC Target Explorer (Beta)

This release includes a Beta version of the xPC Target Explorer. It is a graphical user interface for xPC Target. It provides a single point of contact for almost all xPC Target interactions, including

- Configure the host PC for xPC Target
- Add and configure xPC TargetBox for xPC Target
- Create boot disks for a particular xPC TargetBox
- Connect the xPC TargetBox for your xPC Target system to the host PC
- Download a prebuilt target application, .d1m, to the xPC TargetBox
- Build a target application for the xPC TargetBox
- Start and stop the application that has been downloaded to the xPC TargetBox
- Add scopes of type host, target, and file to the downloaded target application
- Add and remove signals to the xPC Target scopes
- Start and stop scopes

- Adjust parameter values for the signals while the target application is running

The xPC Target Explorer GUI runs on your xPC Target host machine.

You can use xPC Target Explorer or your usual xPC Target interfaces to perform xPC Target activities. This is the Beta release of the xPC Target Explorer. The MathWorks encourages you to use this new interface and provide feedback.

See the Getting Started with xPC Target and xPC Target User's Guide documentation for details on xPC Target Explorer.

I/O Device Driver Support

The new driver xPC TargetBox IO 301: Diamond Diamond-32-AT Frame A/D has been added to the xPC TargetBox library.

Software Version 2.5 (R14) xPC TargetBox

This table summarizes what's new in software Version 2.5 (R14). Note that 2.5 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	No	No

New features and changes introduced in this version are

- “I/O Device Driver Support” on page 14
- “C and COM API” on page 14
- “xPC TargetBox Help Documentation” on page 15

I/O Device Driver Support

xPC TargetBox 2.5 has a new driver block in xPC TargetBox IO 301: Diamond Diamond-32-AT Frame A/D. To access this driver block, use the xPC Target library. Type

```
xpclib
```

This driver block will be added to the TargetBox library in the next release.

C and COM API

You no longer need to purchase xPC Target Embedded Option to create stand-alone GUI applications with the xPC Target C or COM API. However, to deploy a GUI application to other host PC systems that do not have your licensed copy of xPC Target, you do need the xPC Target Embedded Option. If you do not have the xPC Target Embedded Option and would like to deploy your GUI application, contact your MathWorks representative.

xPC TargetBox Help Documentation

In xPC TargetBox 2.5, the Help documentation is now installed when you install xPC Target.

Software Version 2.0.3 (R13SP2) xPC TargetBox

This table summarizes what's new in software Version 2.0.3 (R13SP2). Note that 2.0.3 refers to the xPC Target software version. The hardware version of xPC TargetBox is 1.

New Features and Changes	Version Compatibility Considerations	Fixed Bugs and Known Problems	Related Documentation at Web Site
Yes Details below	No	No	Printable Release Notes: PDF V2.0.3 product documentation

New features and changes introduced in this version are

- “DOSLoader and StandAlone Boot Modes” on page 16
- “Test Application Board Base Address” on page 16

DOSLoader and StandAlone Boot Modes

xPC Target now includes, for xPC TargetBox only, the additional boot modes from the Embedded Option. See “Regular Use” in the xPC TargetBox User’s Guide for further details.

Test Application Board Base Address

When you run the self-test preinstalled on the xPC TargetBox flash disk, the monitor now displays the base address for the board for which the test application was created. See “Running the Self-Test Without a Monitor” in the “Initial Loopback Test” chapter of the xPC TargetBox user’s guide documentation for further details.

Compatibility Summary for xPC TargetBox

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
V2.6.1 (R14SP1)	See the Compatibility Considerations subheading for this new feature or change: <ul style="list-style-type: none">• “Changed Source Block Behavior” on page 11