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Mathcad® Prime® 2.0 M010

Important Installation and Usage Information

Directory of Online Information

Platform Support	http://www.ptc.com/partners/hardware/current/support.htm
Mathcad Support Center	http://www.ptc.com/support/mathcad.htm
Knowledge Base	http://www.ptc.com/appserver/cs/search/search.jsp
Reference Documents	http://www.ptc.com/appserver/cs/doc/refdoc.jsp

PTC® Introduces Mathcad Prime 2.0 M010

PTC is pleased to present Mathcad Prime 2.0 M010. In addition to building on features introduced in Mathcad Prime 2.0, this maintenance release offers substantial enhancements:

- Provides general performance improvements
- Adds support for triad license configuration (See the Licensing section.)
- Introduces a free version of the product, Mathcad Express (Mathcad Express Prime 2.0 M010)

For complete details of the features and capabilities introduced in Mathcad Prime 2.0, see the What's New product release notes for more information:
<http://www.ptc.com/appserver/cs/doc/refdoc.jsp>.

If you are a user of Mathcad 15.0 or earlier, see the *Mathcad Prime 2.0 Migration Guide*. The Migration Guide provides information on the differences between Mathcad 15.0 and Mathcad Prime 2.0 and procedures for converting your worksheets from earlier versions of Mathcad to Mathcad Prime.

Mathcad Express is a free version of Mathcad that enables selected features of Mathcad Prime 2.0 M010 for an unlimited time. Although it lacks the more powerful features of Mathcad Prime 2.0 M010, Mathcad Express is a strong analysis tool for many engineering problems, and it is just as easy to learn and use.

With Mathcad Express, after installation you can explore the full capabilities of Mathcad Prime 2.0 M010 for 30 days for free. After that 30-day period, you can continue to use the limited functionality of Mathcad Express indefinitely. You will see messages with information on selected features, training, tips and tricks, and easy ways to purchase the full commercial product. A specific "Mathcad Express" watermark will appear in the footer of the worksheets. If you decide to upgrade to the full product, you will receive the full breadth of Mathcad capabilities without the advertising and watermarks.

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Installation

For the most up-to-date installation information, see the *Mathcad Prime 2.0 M010 Installation and Administration Guide*. In PTC.Setup, click **Help > Installation Guide**, or browse for it on the Reference Documents page at <http://www.ptc.com/appserver/cs/doc/refdoc.jsp>.

Mathcad Prime 2.0 M010 can be installed side-by-side with any previous versions of Mathcad, with the exception of Mathcad Prime 2.0. For installing Mathcad Prime 2.0 side-by-side with Mathcad Prime 1.0, the following limitations apply:

- Mathcad Prime 2.0 comes in 32-bit and 64-bit versions. Install the version that matches your computer for maximum performance. Within the PTC Installation Assistant click **Customize**. You cannot install both versions on the same computer.
- You cannot run both Mathcad Prime 2.0 and Mathcad Prime 2.0 M010 on the same computer.
- You must install the products in an ascending order (Mathcad Prime 1.0, and then Mathcad Prime 2.0 M010) to maintain the worksheet file associativity with the latest release.
- If you have installed both Mathcad Prime 1.0 and Mathcad Prime 2.0 M010 as described previously, by default Mathcad files open with the latest release. If you want files to open in Mathcad Prime 1.0 instead, you must set file association manually. In Windows Explorer, right-click a file, select **Open with**, and then click the desired program from the shortcut menu.
- After you install Mathcad Prime 2.0 M010, integrations with Windchill® Workgroup Manager, Windchill Product Point, Pro/ENGINEER®, Creo™ Elements/Pro™, and Creo Parametric will no longer work with previous versions of Mathcad Prime.
- If you previously registered a prior version of Mathcad Prime with Windchill Workgroup Manager (using the Application Management utility), you must repeat the procedure and register Mathcad Prime 2.0 M010.
- If you have more than one version of Mathcad Prime installed on your computer and you would like to remove one or both, you should uninstall them in descending order, and then reinstall them in ascending order.
- After installing Mathcad Prime 2.0 M010, you can only use the Mathcad Prime 2.0 XMCD, MCD Converter to convert legacy Mathcad worksheets into Mathcad Prime 2.0 M010.

Operating System Support

Operating System	Version
Microsoft Windows XP x32	Windows XP Professional x32 Edition SP3 and Windows XP Home Edition SP3, Internet Explorer 6.0 SP1 or later
Microsoft Windows XP x64	Windows XP Professional x64 Edition SP2, Internet Explorer 6.0 SP1 or later

Operating System	Version
Microsoft Windows Vista	Windows Vista Ultimate, Windows Vista Business, and Vista Enterprise, Base OS (x32 and x64 editions) and SP1, Internet Explorer 7.0
Windows 7*	Windows 7 Home Premium Edition, Windows 7 Professional Edition, and Windows 7 Ultimate Edition, Base OS (x32 or x64 editions), Internet Explorer 7.0 SP1 or later

* Mathcad Prime 2.0 M010 requires Microsoft .NET Framework 4.0 or later. On Windows 7 client computers, Microsoft .NET Framework 4.0 is enabled by default. On Windows 7 servers, this feature is disabled and you must enable it through **Control Panel > Programs > Turn Windows features on or off**.

System Requirements and Hardware Certification Information

Visit the **Platform Support** page for Mathcad Prime 2.0 M010 for updated system requirements and certified hardware configurations:

<http://www.ptc.com/partners/hardware/current/support.htm>

Licensing

Full product licensing options include floating, locked, or registered-user volume licenses, all of which must be renewed on an annual basis.

- A 30-day, full functionality license can be used by any workstations on your network and expires after 30 days.
- Floating licenses can be used by any workstation on your network.
- Locked licenses can only be used on specified workstations.
- Registered-user licenses are administered from a license server. They are always allocated to a particular workstation, regardless of whether the workstation is running Mathcad at the time.

Note: For floating licenses, in addition to use of a single license server, Mathcad Prime 2.0 M010 now supports the triad license server configuration.

For more information on Mathcad Prime 2.0 M010 licensing, see the *Mathcad Prime 2.0 M010 Installation and Administration Guide*.

Language Support

The Mathcad Prime 2.0 M010 user interface and documentation are translated into French, German, Italian, Spanish, Japanese, Korean, Simplified Chinese, Traditional Chinese, and Russian. During installation, the PTC Installation Assistant installs the product based on the language and locale settings of your computer. By clicking **Customize** button, you can select whether to install the Help according to the locale settings of your computer or in all languages. Within the Help, you can choose to change the Help language.

To run the application in a language different from your operating system locale (e.g. to run German on a Belgian system), follow these directions.

1. Click the Windows Start button and then click Run. The Run dialog box opens.
2. In the Open box, type "C:\Program Files\Mathcad\Mathcad Prime 2.0\MathcadPrime.exe" /culture:en-US. In this example, C is the drive where Mathcad Prime 2.0 M010 is installed, and *en-US* is the desired language and locale. You can use the following abbreviations for other languages:

Language	Command Argument
English	en-US
French	fr-FR
German	de-DE
Italian	it-IT
Japanese	ja-JP
Korean	ko-KR
Russian	ru-RU
Spanish	es-ES
Simplified Chinese	zh-CN
Traditional Chinese	zh-TW

To view system error messages in a language other than English, you must download and install the .NET Framework language pack that matches the language you are using for Mathcad Prime 2.0 M010. You can find these language packs at <http://www.microsoft.com/download/en/details.aspx?id=3324>.

Using Function Names and Keyboard Shortcuts in Supported Languages

For Mathcad Prime 2.0 M010, function names remain in English for all languages.

In some locales keyboard shortcuts for certain commands may not work on non-English keyboards in Mathcad Prime 2.0 M010. You can access those operators and commands from the Ribbon.

You can access the list of all keyboard shortcuts from the **Getting Started** tab in the Ribbon and from the Books folder in the Help Center.

PTC Product Interoperability

PTC Product	Interoperability with Mathcad Prime 2.0 M010
Creo Parametric	Leverage Mathcad calculations within Creo geometry features by designating variables in Mathcad to be used by Creo Parametric input and output parameters. Asynchronously map Creo Parametric parameters and

PTC Product	Interoperability with Mathcad Prime 2.0 M010
	dimensions to Mathcad variables from within the Mathcad Prime Analysis Feature interface within Creo Parametric. Within Mathcad, click Assign Input or Assign Output from the Integration group on the Input/Output tab to designate the target variables.
Windchill Workgroup Manager (Windchill PDMLink®, Pro/INTRALINK®, Windchill ProjectLink™)	Work directly from Mathcad with these products or via the Workgroup Manager. You can check in and check out worksheets from Windchill, and you can open, save, and reference your Windchill files from Mathcad.

Mathcad Prime 2.0 Help Center—Help and Books

Help and books for Mathcad Prime 2.0 M010 are on the CD-ROM. You can access the Help Center by clicking the question mark icon on the right end of the Ribbon or by pressing F1. The following items are in Help Center:

- Searchable, context-sensitive Help for Mathcad Prime 2.0
- Mathcad Prime 2.0 M010 Installation and Administration Guide
- Mathcad Prime 2.0 Migration Guide
- Mathcad Prime 2.0 Keyboard Shortcuts
- Getting Started Tutorial
- Programming Tutorial
- Solving Tutorial
- Reference Tables (Available only in English)

Mathcad Prime 2.0 M010 provides direct access to these resources. You can access these resources and a variety of online resources from the **Getting Started** tab on the Ribbon.

To access PTC documentation from the Web, you must have, or register for, a PTC account at <http://www.ptc.com/appserver/common/account/basic.jsp>.

Firewall and Internet Access

In a few cases, Mathcad Prime 2.0 M010 may access the Internet:

- **Help Center:** Mathcad Prime 2.0 M010 uses HTTP to access the Help Center. If an active firewall on your computer warns that Mathcad Prime 2.0 M010 or the Help Center is attempting to access the Internet, you must allow this access. Mathcad Prime 2.0 M010 does not access the Internet, but it opens an HTTP connection to the Help Center on the local host. If local Help is installed, the Help Center runs as an HTTP server on the first available port. Configure your firewall to allow this access. If your company policies do not allow the Help Center to run on your local system, consider setting up a shared remote Help Center.
- **News and Information:** Mathcad Prime 2.0 M010 uses an RSS feed to display current news and information about Mathcad within the Mathcad Prime 2.0 M010 application window. This reporting feature can be disabled when using a full license. When using

either the 30-day, full functionality license or Mathcad Express (no license), this panel cannot be disabled, but it can be turned off after startup.

- **Quality Agent data reporting:** Mathcad Prime 2.0 M010 performance and usage data is collected and transmitted to PTC servers by this Quality Agent via SSL. Again, this reporting feature can be disabled when using a full license. When using either the 30-day, full functionality license or Mathcad Express (no license), this functionality cannot be disabled.

Converting Files from Previous Versions of Mathcad

For Mathcad Prime 2.0 M010 to use worksheets created in Mathcad 15.0 and earlier, you must have Mathcad 15.0 M010 to convert those worksheets to Mathcad Prime 2.0 M010. You cannot open such Mathcad worksheets directly. You must convert them using the **Mathcad Prime 2.0 XMCD, MCD Converter** button on the **Input/Output** tab. You can also access the XMCD, MCD Converter from the Windows Start menu. For more information on file conversion, see the Mathcad Prime 2.0 Migration Guide.

Compatibility between Versions of Mathcad Prime

Mathcad Prime 2.0 M010 can open worksheets last saved in Mathcad Prime 1.0 and 2.0. Mathcad Prime 2.0 can also open worksheets last saved in Mathcad Prime 2.0 M010. However, it is not guaranteed that Mathcad Prime 1.0 will open worksheets last saved in either version of Mathcad Prime 2.0.

Installing Mathcad 15.0 M010

The installation of Mathcad 15.0 M010 is a separate installation from Mathcad Prime 2.0 M010. Mathcad 15.0 M010 will uninstall Mathcad 14.0 and Mathcad 15.0 F000 if you have them installed. Mathcad 15.0 M010 is a full working version of Mathcad 15.0. You can download Mathcad 15.0 M010 from <http://www.ptc.com/support/mathcad.htm>.

Microsoft Hotfix

Microsoft has provided a hotfix to improve performance issues with .Net 4.0 that affects fonts in Mathcad Prime 2.0 M010. Download the hotfix from <http://support.microsoft.com/kb/2652531> and install it on your computer.

Microsoft Hotfix for Windows XP and Vista

Microsoft has provided a hotfix to improve performance issues in Mathcad Prime 2.0 M010 on XP and Vista computers. Without the hotfix, you may see corrupted regions and other memory and performance issues. Download the hotfix from <http://support.microsoft.com/kb/2588096> and install it on your computer.

Notable Fixes for Mathcad Prime 2.0 M010

Specific customer-reported issues that were fixed with Mathcad Prime 2.0 M010 follow:

SPR Number	Description
2056507	Fixes the issue that Mathcad Prime 2.0 cannot be configured to support a triad license server configuration
2121360	Fixes a crash that occurs on startup of Mathcad Prime 2.0 on specific Windows 64-bit operating systems
2134070	Fixes an issue where a solve block in Mathcad Prime 2.0 returns incorrect results when constraints are created by copying their definitions
2118368	Addresses an incorrect result when evaluating <code>rref</code> function numerically for a specific nonsquare matrix
2129207	Fixes an issue where specific Mathcad Prime 1.0 worksheets cannot be opened in Prime 2.0
2121602	Fixes an issue where conversion of an older worksheet cannot be started because of a previous version of Mathcad on the system
2122661	Fixes an issue where use of specific Excel components prevents a Mathcad Prime 2.0 worksheet from being saved
2124483	Fixes the error message <code>This value must be a positive integer</code> that occurs while using the <code>gcd</code> function
2142422	Fixes an issue with <code>polyfitc</code> , which was improperly treating negative T-values when calculating the p-value for coefficients
2142424	Fixes an issue where Mathcad Prime 2.0 takes a long time to overwrite very large Excel files using <code>WRITEEXCEL</code>
2129758	Addresses a slow performance issue when using <code>READFILE</code> to read delimited text data files
2121360	Fixes an issue that Mathcad Prime 2.0 did not launch on specific computers
2122254	Fixes an issue of missing trace segments in an x-y plot
2122661	Fixes an issue with included worksheets with Excel component not being saved
2122735	Fixes an issue with the multithreading option not being saved
2112709	Fixes an issue of limits providing an inaccurate result
2146332	Fixes an issue with slow startup of Mathcad Prime 2.0
2146334	Fixes an issue with very large image files not being saved in a worksheet
2146335	Fixes an issue with adding and deleting space being too slow in large

	worksheets
2146336	Fixes an issue where Mathcad Prime 2.0 holds CPU memory, when you are working in another application
2146337	Fixes the formatting of literal subscripts
2146338	Fixes an issue with very large image files not being able to be read into a worksheet

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