

MapInfo Pro

Version 16.0

Release Notes

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Introduction

This document provides information about resolved issues and known issues that are important to MapInfo® Pro users.

System Requirements

This product is tested on the following Microsoft Windows Desktop Operating Systems:

- Windows 10 64-bit
- Windows 8.1 64-bit
- Windows 7 Ultimate 64-bit SP1
- Windows 2012 Server R2 64-bit SP1
- Windows 2012 Server R2 64-bit with XenApp 7.5
- Windows 2008 Server R2 64-bit SP1
- Windows 2008 Server R2 64-bit SP1 with XenApp 6.0

Dependencies and Prerequisites

We recommend ensuring that your machine has the latest updates before installing Pro.

The install wizard checks for the following and prompts you if not already on your system; you can choose to have the install wizard install these requirements, or cancel the installation if you do not want to proceed.

- Microsoft Office Access database engine 2010 (x64)

This does not install when the 32-bit office 2010 driver is installed.

- Microsoft .NET Framework 4.6.1

Windows 8.1 and Windows Server 2012 R2 must have KB2919355 installed before installing Microsoft .NET Framework 4.6.1.

- Microsoft Visual C++ 2015 Update 2 redistributable
- Windows fixes and updates:

Operating System	Required Update
Windows 7 and Server 2008 R2	Hotfix KB3154529
Windows 8 and Server 2012	Hotfix KB3154527
Windows 8.1 and Server 2012 R2	Hotfix KB3154528
Windows 10 *	Cumulative Update KB3156387

* On Windows 10, the install wizard does not install the Cumulative Update. Ensure this update is installed before installing this release.

Note: If installing to an unsupported operating system, check the Microsoft website for the minimum requirements for these redistributables and updates.

Windows 8.1 and Server 2012 R2

A Windows 8, 8.1, Server 2012, or Server 2012 R2 system must have Microsoft Update 1 (KB2919355) installed before installing MapInfo Pro. To obtain this update, go to <https://support.microsoft.com/en-us/kb/2919355>. This update may require that you restart the machine.

Installing 32-bit and 64-bit Microsoft Office Drivers

MapInfo Pro is a 64-bit application that can access spreadsheets and tables from 64-bit editions of Microsoft Excel and Access. To use data from Excel and Access in MapInfo Pro, you must use the Microsoft Office 64-bit edition.

As part of the MapInfo Pro installation process, the 64-bit Microsoft Access Database Engine 2010 Redistributable for Office is installed.

If you require the 32-bit edition of Microsoft Office on the same system with MapInfo Pro, the following procedure shows you how to install both versions of Office drivers.

Note: Microsoft does not support both drivers installed on the same computer citing incompatibility between the product editions or their components, see <http://support.microsoft.com/kb/2269468>.

To install Microsoft Office 32- and 64-bit drivers on the same system:

1. Download the Microsoft Office drivers from <http://www.microsoft.com/en-ca/download/details.aspx?id=13255>.

The 32-bit version is `AccessDatabaseEngine.exe`. The 64-bit version is `AccessDatabaseEngine_x64.exe`.

2. Uninstall the 64-bit Office driver, if installed, and reboot the system. You will already have it installed if you have installed MapInfo Pro 64-bit.
 3. Install the 32-bit Office 2010 driver.
 4. In the System folder (for example `C:\Windows\System32`), right-click on `cmd.exe` and select **Run as administrator**.
 5. At the command prompt navigate to the folder where the 64-bit Office 2010 driver is located.
 6. Type the command and press enter: `AccessDatabaseEngine_x64.exe /passive`
- Both drivers are now installed on your system.

Opening Office 2013 32-bit Excel and Access Files

There is a potential issue when both 32-bit and 64-bit versions of MapInfo Pro are installed on the same machine along with the 32-bit version of Microsoft Office 2013. The 32-bit version of MapInfo Pro can close unexpectedly when opening tables generated in the 32-bit version of Excel 2013 or Access 2013.

The section *Installing 32-bit and 64-bit Microsoft Office Drivers* in the *MapInfo Pro Install Guide* describes how to install the Microsoft Office 32- and 64-bit drivers on the same system. If after following these steps your 32-bit version of MapInfo Pro closes unexpectedly when opening Excel 2013 and Access 2013 tables, then follow the steps outlined below.

1. Uninstall both of the Microsoft Access database engine 2010 drivers.
 - a) From the **Start** menu, select **Control Panel**.
 - b) On the **Control Panel**, select **Programs and Features**.
 - c) Scroll through the list to locate and select **Microsoft Access database engine 2010**. There will be two instances of this application in the list.
 - d) Select **Uninstall** and follow the instructions that the uninstall procedure provides.
 - e) Select the second **Microsoft Access database engine 2010** and uninstall it.
2. Download and install the 32-bit version of Microsoft Access Runtime 2013 (called `AccessRuntime_x86_en-us.exe`) from <https://www.microsoft.com/en-us/download/details.aspx?id=39358>.
3. Download the 64-bit version of Microsoft Access Database Engine 2010 (called `AccessDatabaseEngine_x64.exe`) from <https://www.microsoft.com/en-us/download/details.aspx?id=13255>. Make note of the download location, such as `C:\Users\myname\Downloads`.

Caution: Do not run (install) from your internet browser window, download it first.

4. Install the 64-bit version of Microsoft Access Database Engine 2010 (called `AccessDatabaseEngine_x64.exe`).
 - a) Open a command prompt window with Administrator privileges. In the system folder `C:\Windows\System32`, right-click on `cmd.exe` and select **Run as Administrator**.
 - b) At the command prompt, change directories to the `AccessDatabaseEngine_x64.exe` file (type `cd C:\Users\myname\Downloads` and press **Enter**).
 - c) At the command prompt, type `AccessDatabaseEngine_x64.exe /passive` and press **Enter**.
5. If you have a 32-bit version of Microsoft Office 2007, 2010, 2013, or 2016 installed, then delete or rename its `mso.dll` registry key.
 - a) Open the **Registry Editor** window. On the Microsoft **Start** menu, type `regedit` in the **Search** field, and then click **regedit.exe**.
 - b) In the **Registry Editor** window, navigate to `HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Office\14.0\Common\FilePaths`.
 - c) If there is a `mso.dll` value, either delete it or rename it.
If you do not delete or rename the file, then may see a reconfigure message when you open a Microsoft Office application.

Both 32-bit and 64-bit drivers are now installed on your system, and you can open Access 2013 and Excel 2013 files in both 32-bit and 64-bit versions of MapInfo Pro.

MapInfo Pro Database Connectivity and Support

MapInfo Pro supports the following spatial database servers:

- Microsoft SQL Server 2016 (also called SQL Server Spatial)
- Microsoft SQL Server 2014 (also called SQL Server Spatial)
- Microsoft SQL Server 2012 (also called SQL Server Spatial)
- PostgreSQL 9.5.3 with PostGIS 2.2.2
- PostgreSQL 9.4.2 with PostGIS 2.1.7
- PostgreSQL 9.2.2 with PostGIS 2.0.1
- SQLite 3.8
- Oracle Spatial 12c R1
- Oracle Spatial 11g R2

In order for MapInfo Pro to access a remote database, you must install a client or driver. The following are ODBC drivers that MapInfo Pro supports:

- Microsoft Access ODBC
- Microsoft SQL Server Native Client 11.0
- PostgreSQL Unicode ODBC driver 9.05.03

- FDO toolkit 3.8 (used by SQLite and installed with MapInfo Pro)
- Oracle Instant Client 12.1.0.2.0

You can also open tables of data from the following and make them mappable, but only for point data:

- Microsoft Access 2010, 2013, and 2016

For more about working with remote database information, see *Accessing Remote Data* and *Setting your Database Connection Preferences* in the *Help System*.

Microsoft Office Support

MapInfo Pro supports Microsoft Excel (*.xls, *.xlsx) and Microsoft Access (*.mdb, *.accdb) formats for versions 1997 to 2016.

MapInfo Pro Web Server Support

MapInfo Pro supports the following web servers:

- GML (Geospatial data in XML format) 2.1.2. The Universal Translator (FME Quick Translator) supports versions up to 3.2.
- Web Feature Service (WFS) 1.0, 1.1, and 2.0
- Web Feature Service with transactions (WFS-T) using WFS 1.0
- Web Map Service (WMS) 1.3
- Web Map Tile Service (WMTS) 1.0

MapInfo Pro also supports the mapping tile servers:

- Google Enterprise tile server
- MapXtreme.NET 8.0 tile server
- Microsoft Bing tile server
- OpenStreetMap tile server
- Spectrum Spatial Server 11.x

Upgrading MapInfo Pro

The MapInfo Pro installer checks the operating system directory location

`C:\Users\username\AppData\Roaming\MapInfo\MapInfo` for the following files:

- `MapInfoPro.WOR`
- `STARTUP.WOR`
- `MapInfoPro.wox`
- `MapInfoPro.pref`

If these files exist, then MapInfo Pro uses them at startup. If these files do not exist in the location, then MapInfo Pro creates them all except for the `STARTUP.WOR`.

Application data (AppData) files are the non-executable data files that MapInfo Pro uses during operation.

We recommend you to make sure of the following before starting the process to upgrade:

- You must have Administrator rights to run the Installer.
- The Installer requires that your `TEMP` variable be set to a valid directory.
- You must exit from all Windows programs before beginning the installation process.
- If you have the beta version of MapInfo Pro 16.0 installed in your system, you must uninstall before upgrading.

For instructions on installing MapInfo Pro, see the *MapInfo Pro Install Guide*. To access the *MapInfo Pro Install Guide* and other documents, launch the MapInfo Pro DVD autostart presentation by double clicking the `autostart.exe` in the root folder of the DVD and then clicking **Online Reference** and **MapInfo Pro Install Guide**.

How to Uninstall the MapInfo Pro 16.0 Beta Release

This section is for users who participated in the 16.0 Beta Pre-Release program and have a Beta release of MapInfo Pro installed on their machine. You will need to uninstall the Beta release before you can install this 16.0 release of MapInfo Pro.

You will need to:

1. Uninstall the MapInfo Pro Beta using **Programs and Features** in the **Control Panel** and
2. Manually remove MapInfo Pro Beta files that are left behind.

To manually remove the MapInfo Pro Beta files left behind after uninstalling:

1. Locate the MapInfo Pro Beta files by searching for a folder called `1600` on your computer's C drive.

For example on **Windows 7**, `C:\Users\user
name\AppData\Roaming\MapInfo\MapInfo\Professional\1600`

2. Delete the 1600 folder and all of its contents.
3. Delete the MapInfo Pro preferences file, called `MapInfoPro.pref`, located two folders above the 1600 folder.

For example on **Windows 7**, `C:\Users\user
name\AppData\Roaming\MapInfo\MapInfo\MapInfoPro.pref`

You are now ready to install MapInfo Pro 16.0 to your computer.

Windows 8.1 and Windows Server R2 users: If you have a previous version of MapInfo Pro 16.0 installed (a Beta version), then you must reboot your machine after uninstalling the previous version and installing the latest release. Rebooting correctly registers fonts on your machine, so that MapInfo Pro can locate and apply style types. If you do not reboot, the fonts are not registered and MapInfo Pro closes unexpectedly when using the fonts.

License Server Utility

If you have a previous version of the License Server Utility (LSU) installed to manage distributable licenses, then you must upgrade to the latest License Server Utility version 4.7. Using a previous version of the License Server Utility with MapInfo Pro 16.0 will cause MapInfo Pro to become unresponsive.

Using an incompatible version of the License Server Utility might result in the following issues while fetching licenses for MapInfo Pro:

- MapInfo Pro is unable to borrow a license.
- MapInfo Pro is unable to activate a distributed license from the License Server.

If this occurs, contact your License Server administrator and have them upgrade the latest License Server version.

After successfully borrowing or activating a license, if you again roll back to an older version of License Server Utility, you cannot transfer the borrowed/activated license back to License Server Utility. You will not see an error message as the operation simply hangs.

Repairing MapInfo Pro from the .MSI file

The repair process fails using the .msi file when the Microsoft User Account Control (UAC) is turned on. Depending on the installation conditions the repair stops with the following error message:

You have MapInfo Pro running, please close it and run setup again.

To work around this issue, do one of the following three things:

- Shut off the UAC (User Account Control), this requires System Administrative privileges, reboot the machine, and rerun the repair.
- Run the original `setup.exe` file and then run the repair from maintenance mode.
- Run the installed copy of the MapInfo Pro 16.0 .msi file as an administrator. Go to `C:\Windows\Installer` and search for the MapInfo Pro 16.0 .msi file. It will have a name similar to `8e95f1.msi`, where the name is different for each machine. Go to `C:\Windows\System32` and find the `cmd.exe` file. Right click this file and select **Run as Administrator** (this may require an administrator password). Run the command `C:\Windows\Installer\nameofMiPro16.0.msi` and select **Repair** from maintenance mode.

Disabling User Account Control (UAC) on Windows 7 or Server 2008 R2

To disable UAC on Windows 7 or Server 2008 R2:

1. Launch **MSCONFIG** by from the **Run** menu.
2. In the **System Configuration** dialog box, click the **Tools** tab.
3. Click **Change UAC Settings**.
4. Click **Launch**.
5. Move the slider to **Never Notify**.
6. Click **OK** to close the dialog box.
7. Reboot the machine to have this change take effect.

Disabling User Account Control (UAC) on Windows 8.1 or Windows Server 2012 R2

To disable UAC on Windows 8.1 or Windows Server 2012 R2:

1. • On Windows 8.1, go to the **Search Charm** and type `Change User Account Control settings`.
 - On Windows 2012 R2, on the **Control Panel**, select **User Accounts**, and click on **Change User Account Control Settings**.
2. In the **User Account Control Settings** console, move the slider to **Never Notify**.
3. Click **OK**.

You may see a prompt to confirm your selection or to enter an administrator password.

4. Reboot the machine to have this change take effect.

If the .NET Framework 4.6.1 or the Update for the .NET Framework 4.6.1 fails to install, then see [Correcting a MapInfo Pro Startup Issue on Windows 8.1 and Server 2012 R2](#).

Disabling User Account Control (UAC) on Windows 10

To disable UAC on Windows 10:

1. On the **Control Panel**, select **User Accounts**, and click on **Change User Account Control Settings**.
2. In the **User Account Control Settings** console, move the slider to **Never Notify**.
3. Click **OK**.

Support Notices

SQL Server 2012

If connecting to a SQL 2012 server with Windows 7 or higher, use the SQL Server Native Client 2012 (also known as SQL Server Native Client 11.0).

Bing Maps Expiration Date

Bing Maps has a limited license period, which is specific to each version of MapInfo Pro. Bing Maps and the **Add Bing Roads to Map** and the **Move Map to** features cease working after this date:

- MapInfo Pro 16.0 on January 1st 2018
- MapInfo Pro 15.0 and 15.2 on January 1st 2017

Customers with a current maintenance package who would like to continue to use earlier version of MapInfo Pro (11.0.x, 11.5.x, 12.0.x, or 12.5.x), are entitled to use Bing services. For details, contact your account representative.

Downloading Tools and Applications

The following web sites give access to MapInfo Pro documents, trials, and supporting materials:

- The MapInfo Pro page:
www.pitneybowes.com/us/location-intelligence/geographic-information-systems/mapinfo-pro.html
- The MapInfo Pro support page:
www.pitneybowes.com/us/support/products/mapinfo-pro-support.html

The following are applications that support working with MapInfo Pro:

MapInfo MapBasic

www.pitneybowes.com/us/support/products/mapbasic-support.html

The MapBasic development environment is a complete, BASIC-like programming language used to create custom applications for use with MapInfo Pro or special MapInfo runtimes. MapBasic allows you to customize the geographic functionality of MapInfo Pro, automate repetitive operations and integrate MapInfo Pro with other applications.

MapInfo EasyLoader

www.mapinfo.com/easyloader

EasyLoader lets you to upload MapInfo .tab files to a remote database, such as Oracle, SQL Server, Microsoft Access, and PostgreSQL / PostGIS.

MapInfo License Server

www.pbinsight.com/support/product-downloads/item/mapinfo-license-server-utility-v4.7

The License Server handles requests for Pitney Bowes product licenses for MapInfo Pro. This is for distributable, concurrent, or borrowed licenses.

To install these downloads, unzip the download file to a temporary folder, navigate to the folder and then launch the `setup.exe`. An install wizard guides you through the installation process.

Locating Your Documentation

MapInfo Pro documentation, in the form of PDF files, installs with MapInfo Pro in to the `Documentation` sub folder (for example, `C:\Program Files\MapInfo\Professional\Documentation`). You must have the Adobe Acrobat reader installed to view PDF files. To download a free copy of the Adobe Acrobat Reader, go to <http://www.adobe.com>.

For instructions on installing MapInfo Pro, see the *MapInfo Pro Install Guide*. To access the *MapInfo Pro Install Guide* and other documents, launch the MapInfo Pro DVD autostart presentation by double clicking the `autostart.exe` in the root folder of the DVD and clicking **Online Reference** and **MapInfo Pro Install Guide**.

Documentation is also available on our website at www.mapinfo.com/miprodocs.

Installation Instructions are Available in the Install Guide

For system requirements, installation instructions, and System Administrator notes for performing a work group installation, see the *MapInfo Pro Install Guide*. From the software installer, click **Online Reference** and then **MapInfo Pro Install Guide**.

Instructions for Activating your License are in the Install Guide

Instructions for activating your MapInfo Pro license are in the *MapInfo Pro Install Guide*. The same information is also in the *Activating Your Product*. From the software installer, click **Online Reference** and then **MapInfo Pro Install Guide** or **Activating Your Product**.

The MapInfo Pro Data Directory Document

MapInfo Pro's sample data comes with the *MapInfo Pro Data Directory* document, which describes the sample data. From the software installer, click **Online Reference** and then **MapInfo Pro Data Directory**.

Sample Data Enhancements



To help you get started, Pitney Bowes Software Inc. provides you with some United States-based and world-wide maps you can use as a background to your data. To install the free data provided with MapInfo Pro see the section titled *Installing Data* in the *MapInfo Pro Install Guide*. For a description of the sample data supplied with this product, see the *MapInfo Pro Data Directory* document.



Notes about this Release

New User Interface Features

Improved Thematics








These new map theme capabilities give you more control over how your maps display.

Command	Icon	Description
Theme Bin Control In Layer Control		Ranged themes display within the Layer Control. You can selectively turn bins on or off to easily highlight only the data that you want to draw attention to.
Ribbon Controls		Theme manipulation is now done on a new THEME ribbon (tab). This makes many theme editing tasks much easier and in most cases eliminates the need to use dialogs.

Command	Icon	Description
ColorBrewer®		We have added ColorBrewer palettes for Ranged and Individual value themes. Ranged themes supports Sequential and Diverging color schemes. Individual themes support Qualitative color schemes. For details about ColorBrewer, see http://colorbrewer2.org .
Dynamic Themes		Now change aspects of a theme as you go to try different settings until you get the one you want. For single variable themes, you can change the theme field without having to recreate the theme.

Data and Web Services








We have added support for more data sources and made improvements on how you work with data.




Command	Icon	Description
WMTS 1.0		MapInfo Pro now reads tile sets from WMTS 1.0 servers. The Web Services Preferences dialog box has a new tab called WMTS to set preferences for working with WMTS servers.
WFS 2.0		MapInfo Pro now supports WFS 1.0, 1.1, and 2.0.
FME 2016		An update to the Universal Data Import for FME 2016 includes bug fixes and enhancements. The new FME supports following additional formats: OS MasterMap Database, OS VectorMap District, and OS VectorMap Local.
Geocoding		You can sign up for an account to receive 1000 credits per month to use with the online Global Geocoder in the Pitney Bowes Commerce Cloud. Our Premium Services customers receive 2000 credits per month. On the PRO tab, select Geocoding , and then click Sign Up Now .
Geopackage		MapInfo Pro supports reading, editing, and creating GeoPackage feature tables. GeoPackage is an open, OGC standards-based, and platform-independent format for transferring geospatial information based on SQLite database.
Packing Tables		In most cases, tables can now be packed as you go without disruption to the existing workspace.
MapInfo EasyLoader		MapInfo EasyLoader is now a 64-bit application that uses the same drives and connections as 64-bit MapInfo Pro. It includes these improvements: <ul style="list-style-type: none"> • Selectively create, replace, or append individual files in a batch • Display status of each file upload operation

Command	Icon	Description
		<ul style="list-style-type: none"> • Show progress bar for each file and overall progress • Append multiple tables together

Raster

We have included more features for working with raster layers. For a full description of these features, see the *MapInfo Pro Advanced Help* available from the **RASTER** tab.

Command	Icon	Description
Legend		Adds legends for MapInfo Advanced raster layers for both continuous and classified grid types. For best results, choose one of the Legend Mapping modes in the Raster Display preferences. On the MAP tab, in the Content group, click Add To Map and then Legend .
Create Raster		Has new options, Nearest Neighbor and Natural Neighbor. Improvements and fixes have been made to the existing gridding options: Data Conditioning, Clipping, Interpolating Polylines, and Grid Origin and Extent.
Raster Quality		Improves a raster's appearance when the map is zoomed in beyond the maximum resolution of a raster layer. Several options reduce pixelation depending on the data and individual preference.
Interactive Line of Sight		Extracts cell values interactively along a line, or checks visibility from a given point to a target point.
Volume		The volume tool is used to calculate volume of a surface above or below a constant (horizontal) plane at a specific elevation. It can compute the volume between two rasters, or between one raster and a constant Z value. Computes the volume of raster between: <ul style="list-style-type: none"> • A constant plane • Two raster layers
Export		Ability to export an input raster into a MapInfo TAB file format.
Create Raster Multifile		If you want to use a large number of files for interpolation, you can use Create Raster Multifile from the Create Raster tool.

Command	Icon	Description
Filter		<p>Added new filters:</p> <ul style="list-style-type: none"> • Focal filter which is an image enhancement techniques that enables you to process an image to improve its appearance. • Classified Filter which reclassifies the small isolated areas of cells (regions) in a classified raster. It allows you to specify a minimum region size, all region smaller than the specified size will be merged with the largest neighboring class in the output file.
Data conditioning		<p>This allows you to filter your input data before executing the interpolation. Data Filtering enables you to clean the input data by removing invalid data from input dataset. This is useful if you have huge dataset but you wish to perform interpolation for selected data only.</p>
Favorite Template		<p>The complex display settings that you apply to a continuous or imagery type raster can be saved as a template. You can use the template to apply your display settings. The template enables you to:</p> <ul style="list-style-type: none"> • Save display settings as template for RGB and Pseudo mode • Apply the complex settings saved in the template to any dataset that has compatible field/band structure • The template can be shared with other users for reuse • Apply a single display setting template to multiple rasters in a single operation <p>When you select a template, the settings from the template is applied to the raster and the map view is updated.</p>

Product Improvements

We are always working to improve existing product features and capabilities.

Command	Description
Ribbon	The commands on the HOME , MAP and LAYOUT ribbons are reorganized to make it easier to locate and work with the features on these tabs.
Labeling	It is now possible to remove labels from partial objects while the Auto Position Label Within Region is in use.
Layout Grid/Snap Settings	MapInfo Pro now stores grid and map settings in the workspace to preserve them across sessions.

Command	Description
Layout window	Text objects support more styles, such as underline, expand, all capitals, and background color. You can apply these styles to a Workspaces that uses the older Layout window. Pressing the ESC key cancels the selection of a Layout window tool and returns the cursor to the Select tool. Right-click on text in a text box to use Cut , Copy , and Paste commands.
Coordinate Systems and Projections	There are coordinate system additions or enhancements, new datum, and new EPSG and PRJ codes listed in the <i>MapInfo Pro Help System</i> .
MapCAD	MapCAD now creates reusable features for drawing and editing called Cells.
MapInfo Enhanced (NativeX) Tables	The MapInfo Extended file format (NativeX TAB File) can now have as many as 1000 columns in a table.
Workspace Preferences	The Workspace Preferences dialog box has a new check box called Prompt to Save . On the PRO tab, select Options , and then click Workspace .

Coming Soon

We are constantly striving to bring you improvements. Look for these new features in a MapInfo Pro 16.x maintenance release:

Feature	Description
Layout Undo	A new Undo feature for the Layout window will be available after this release. This feature reverses layout operations, such as add, delete, move, and resizing layout objects (maps, images, text). You can see a preview of this feature in the current release. It is hidden, because it is still in development, but you can turn it on by following the instructions under Preview of Layout Undo .
Uploader	A new version of the Uploader tool will be available after this release. It will give you a better experience creating named maps, tables, and layers for working with Spectrum Spatial or Spatial Analyst.

Format Change for Floating Point Numbers

This release uses a newer version of Microsoft libraries, which changes the formatting of floating-point numbers. You will see the following changes in MapInfo Pro, MapInfo tables, and workspaces:

- There is an increase in precision for floating-point numbers from 10 decimal places to 12.
Old: 7184685.2829744602
New: 7184685.282974460162
- The exponent for floating-point numbers is written using two digits instead of three.
Old: 1.000e+009
New: 1.000e+09

Preview of Layout Undo

We are working on a new feature for the **Layout** window that lets you undo and redo your last action. This feature is still in development, but a preview is available in this release.

To activate this feature, which is hidden by default, you can either run MapInfo Pro from the command line with a flag to activate Undo for the session or edit the `MapInfoPro.exe.config`. Configuration settings apply every time you launch MapInfo Pro, because it reads the configuration file on start up.

To run MapInfo Pro from the command line with the Layout Undo feature turned on:

1. On the Windows **Start** menu type `cmd` in the search field. This opens the command line window.
2. In the command line window, change directories (`cd`) to the folder that has the `MapInfoPro.exe` file in it.
3. Type `MapInfoPro.exe -LayoutUndo` to launch MapInfo Pro and activate the Layout Undo feature.

To edit the MapInfo configuration file and activate the Layout Undo feature in MapInfo Pro:

1. Open the `MapInfoPro.exe.config` file in a text editor. This file is in the directory where MapInfo Pro is installed (as an example, `C:\Program Files\MapInfo\Professional`)
2. Under the `appSettings` section, remove the comment tags from the following line, `<add key="LayoutUndo" value="true"/>`. Changing `true` to `false` deactivates this feature (or add comment tags to the line).

How to Perform an Undo or Redo

The Undo and Redo functions are available as ribbon commands on the **LAYOUT** tab in the **Clipboard** group. You can also perform an undo by pressing **Ctrl+Z**.

When deleting a frame that does not support the Undo feature, a **Confirm Frame Removal** dialog displays. If you choose **Yes** to continue, MapInfo Pro removes the frame (or frames) and clears the Undo history. This dialog does not display when using a MapBasic statement to remove one or more frames (such as for the Remove Designer Frame statement).

What You can Undo and Redo

The Undo feature is still in development, so not all actions can be undone.

You can Undo and Redo after creating or deleting text objects, images, shapes (line, polyline, ellipse, rectangle, rounded rectangle, polygon) and symbols.

You cannot use Undo and Redo when creating a map, browser, legend, or custom frames (including the scale bar frame). If you delete one of these frames, a prompt displays as described in the previous section.

You can Undo and Redo after resizing or moving items on the layout, including the frames mentioned above. This also applies when using the MapBasic statement **Alter Designer Frame**.

Known Issues

Legends: MapInfo Pro does not support legends for a raster that use RGB display mode.

Raster: The **Volume** command gives an incorrect result when you choose not to create an output file. The result is correct when the **Create File Output** check box is checked. To locate this command and check box, on the **RASTER** tab, in the **Operations** group, click **Raster Operations**, and then click **Volume**.

MapCAD Cell Library: There is an issue when the Cell Library table is open in MapInfo Pro and there is a selection from the table. This can cause MapCAD to stop running. The problem only occurs when there is a selection on the table, it does not occur when the Cell Library table is open without selections.

Support for EPSG codes in Oracle: When MapInfo Pro uploads data to Oracle it tries to find a Spatial Reference System Identifier (SRID). If the SRID does not exist, then MapInfo Pro uses the EPSG code for the coordinate system if it exists. MapInfo Pro also uses EPSG codes when making a table mappable.

WMTS Layers: When using tiles from a WMTS layer, MapInfo Pro automatically detects and sets transparency for the fetched tiles. But, there is an issue with MapInfo Pro when 32-bit image tiles are fetched from any WMTS server. The black pixels in these tiles may inadvertently get set to transparent. Some tiles contain data that looks like labels, and this may cause the "labels" to display poorly. In this case, we recommend you to turn off the transparency for the layer.

Documentation: The English copy of the *MapInfo Pro 16.0 Install Guide* has an incomplete list of:

- Databases that MapInfo Pro supports, see [MapInfo Pro Database Connectivity and Support](#) in this document.
- Supported web servers, see [MapInfo Pro Web Server Support](#) in this document.
- System requirements, see [System Requirements](#) in this document.

Documentation: The English copy of the *License Server User Guide* has an incomplete list of supported operating systems. It supports the following operating systems and it supports these operating systems on VMware Workstation 10.0 and VMware ESXi 5.5.

- Windows 10 64-bit
- Windows 8.1 32-bit
- Windows 8.1 64-bit
- Windows 7 32-bit SP1
- Windows 7 64-bit SP1 with 32-bit compatibility mode
- Windows 2012 Server R2 64-bit
- Windows 2012 Server R2 64-bit with XenApp 7.5
- Windows 2008 Server R2 64-bit SP1
- Windows 2008 Server R2 64-bit SP1 with XenApp 6.0

Correcting a Microsoft .NET Framework 4.6.1 Installation Failure

MapInfo Pro installs .NET Framework 4.6.1. It displays the following error message when the .NET Framework is in a pending install state that requires an action before MapInfo Pro can finish installing.

The installation of Microsoft .NET Framework 4.6.1 Full has failed.
Setup will now exit.

This issue may be due to one or more of the following, all of which require a computer restart:

- The .NET Framework install may include an update, such as KB3102467, that requires you restart the computer and then rerun the MapInfo Pro install.
- On Windows 8.1 and Server 2012 R2, Microsoft .NET Framework 4.6.1 has a dependency on KB2919355 (April 2014). Install KB2919355 by downloading and installing it, or use Windows Update. Restart the computer and then rerun the MapInfo Pro install.
- A pending reboot on the computer blocks the .Net Framework 4.6.1 install. Restart the computer and then rerun the MapInfo Pro install.

Correcting a Hotfix KB3154527/KB3154528/KB3154529 Installation Failure

MapInfo Pro installs the hotfix KB3154527, KB3154528, and/or KB3154529. If a pending reboot on the computer blocks the hotfix installation, then MapInfo Pro displays the following message. Restart the computer and then rerun the MapInfo Pro install.

The installation of ... Hotfix for Microsoft .NET Framework 4.6.1 appears to have failed. Do you want to continue the installation?

Correcting a MapInfo Pro Startup Issue

Installing the Microsoft Visual C++ 2015 Update 2 redistributable also installs KB2999226. If KB2999226 is not installed, then MapInfo Pro may close unexpectedly when you start it. To correct this, uninstall Microsoft Visual C++ 2015 Update 2, reboot the computer, and then reinstall Microsoft Visual C++ 2015 Update 2 redistributable.

Before taking action, Windows 8.1 or Server 2012 R2 users should also read the next section to determine which update is missing.

Correcting a MapInfo Pro Startup Issue on Windows 8.1 and Server 2012 R2

If MapInfo Pro has difficulty starting on Windows 8.1 or Server 2012 R2, then you may be missing one or more of these updates:

- KB2919355 (required to install .Net Framework 4.6.1)
- KB2999266 (installs with Visual C++ 2015 Update 2)
- KB3012467 (installs with .Net Framework 4.6.1)

To check your machine for an update, on the **Start** menu select **Control Panel**. In the Control Panel window, select **Programs and Features** and then **View Installed Updates**. Search the list for the update, such as KB2919355.

If you do not have an update, then either use Windows Update to install it or search for it at <https://support.microsoft.com/en-us> and download it. Restart the computer and then rerun the MapInfo Pro install.

Progress and Resolution of Outstanding Issues

MapInfo Pro

Issue Number	Description and Resolution
MIPRO-71854	Opening maps with certain projections (such as EPSG:3880) from a WMS server displays a blank Map window. Resolution: Fixed.

Issue Number	Description and Resolution
MIPRO-79116	<p>MapInfo Pro displays an error while opening a Digital Globe layer from a WMS server.</p> <p>Resolution: Fixed.</p>
MIPRO-79965	<p>A complex object warning displays when snapping objects on the map and there is no way to continue with the process. The warning message is, "The found object is very complex." and the message states that processing the object could take a long time.</p> <p>Resolution: Fixed. The MapCAD warning now includes an Ignore warning for this session and continue check box. If you select the check box, MapCAD does not show this warning message again in this session and continues processing.</p>
MIPRO-80626	<p>MapInfo Pro crashes while saving a workspace.</p> <p>Resolution: Fixed.</p>
MIPRO-81322	<p>There are issues aligning text from Graduated thematic maps in the Legend Designer window.</p> <p>Resolution: Fixed.</p>
MIPRO-81681	<p>There are performance issues when printing to the MapBasic window from C# code.</p> <p>Resolution: Fixed.</p>
MIPRO-82299	<p>Unable to use Unicode fonts with MapInfo Pro.</p> <p>Resolution: Fixed.</p>
MIPRO-82415	<p>On Windows Server 2012, executing the MapBasic Run Menu Command 801 opens the Layer control window and the window size grows until the controls are off screen.</p> <p>Resolution: Fixed.</p>
MIPRO-84176	<p>Map rendering is four times slower in version 15.2 compared to 12.5.</p> <p>An issue was introduced in version 15.2 that affects performance when labeling layers with line geometries as well as region and/or point geometries.</p> <p>Resolution: Fixed in all versions of 16.0 except for English. Fixed for English in the next maintenance release 16.0.1.</p>

MapInfo Pro Advanced

MapInfo Pro Advanced is an extension that installs with MapInfo Pro to work with raster files that contain grid-based spatial information.

Issue Number	Description and Resolution
MIRAST-10287	<p>Why can I not have cell size in meters, when creating a raster?</p> <p>Resolution: Fixed. You can now select whether distances are in number of cells or in distance. To do this, on the RASTER tab, click Create Raster, and make a selection. Under the Method Type section, select the type of distance unit to use from the Parameter Unit drop-down list.</p>
MIRCS-1	<p>An issue occurs when re-sampling a GeoTIFF file.</p> <p>Resolution: Fixed.</p>
MIRCS-6	<p>Opening a raster preference generates the following message:</p> <p style="padding-left: 40px;">The type initializer for "MapInfo.RasterEngine.UI.Preferences.PreferencesManager" threw an exception.</p> <p>Resolution: Fixed.</p>
MIRCS-8	<p>An issue occurs when opening a generic ASCII file and then creating a grid.</p> <p>Resolution: Fixed. You can now open any ASCII file and create a raster. Use the Create Raster Multifile command on the RASTER tab and select the CSV file from the Select Input File list.</p>
MIRCS-12	<p>MapInfo Pro Advanced stops responding when the TIF driver has BIT1, BIT2, and BIT4 data types as an image palette colour index field.</p> <p>Resolution: Fixed.</p>
MIRCS-15	<p>A projection issue occurs for *.mxx files. MapInfo Advanced does not obtain the projection information from the TAB file when the file does not include geographical information.</p> <p>Resolution: Fixed.</p>
MIRCS-16	<p>The Merge function is not well documented.</p> <p>Resolution: Fixed. There is now more information about the Merge function and about merging multiple raster files.</p>
MIRCS-17	<p>More information is needed about raster color templates.</p> <p>Resolution: Fixed. A new Favorite Template tool provides information about color templates.</p>
MIRCS-26	<p>See MIRCS-6</p> <p>Resolution: Fixed.</p>

Issue Number	Description and Resolution
MIRCS-40	An issue occurs when displaying a legend for the raster in a layout frame. Resolution: Fixed.
MIRCS-44	The Region Inspection tool returns incorrect values for Vertical Mapper * .GRD files. Resolution: Fixed.
MIRCS-45	An issue occurs when using the RasterAnalysis.GetPointCellValues() function. Resolution: Fixed.
MIRCS-48	MapInfo Pro stops responding when opening the reference file in the Calculator using the Load button. Resolution: Fixed.
MIRCS-51	When using the Contour command, manual contour levels generate an error. Resolution: Fixed.
MIRCS-56	An issue occurs when rendering a Quickbird * .tjp image. Resolution: Fixed.
MIRCS-57	The Suggest button in the Create Raster dialog only enables when the input data source is in MapInfo Native (TAB) file format. Resolution: Fixed.
MIRCS-58	There is a geo-referencing issue after using the Convert or Reproject commands with * .TIFF input. Resolution: Fixed. The GeoTIFF handler was expecting you to register the upper-left and lower-right corners. Now, you can register any two corners.
MIRCS-59	An issue occurs using the Contour tool when creating a polygon when the raster has null cells. Resolution: Fixed.
MIRCS-62	Some GeoTIFF images do not render properly when viewing the entire layer. Resolution: Fixed.

Issue Number	Description and Resolution
MIRCS-68	See MIRCS-16 Resolution: Fixed.
MIRCS-72	An issue occurs when creating legends with raster data. Resolution: Fixed.
MIRCS-74	The Region Inspection tool returns incorrect values for *.BIL raster files. Resolution: Fixed.
MIRCS-76	There are differences in the format of ASCII files after exporting them. Resolution: Fixed. When using the Convert tool in MapInfo Pro Advanced, the registration coordinate now defaults to the lower-left cell corner instead of the cell center.

MapBasic

MapBasic is the programming language that lets you customize and automate MapInfo Pro.

Issue Number	Description and Resolution
MIPRO-80602	There are performance issues with MapCAD SplitToLines. Resolution: Fixed. The MapBasic Set Table statement has a new Redraw clause that suspends redrawing the map when there are changes to a table, such as for insert, update, or delete operations. This significantly improves processing time depending on the complexity of the map and the table update action.



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