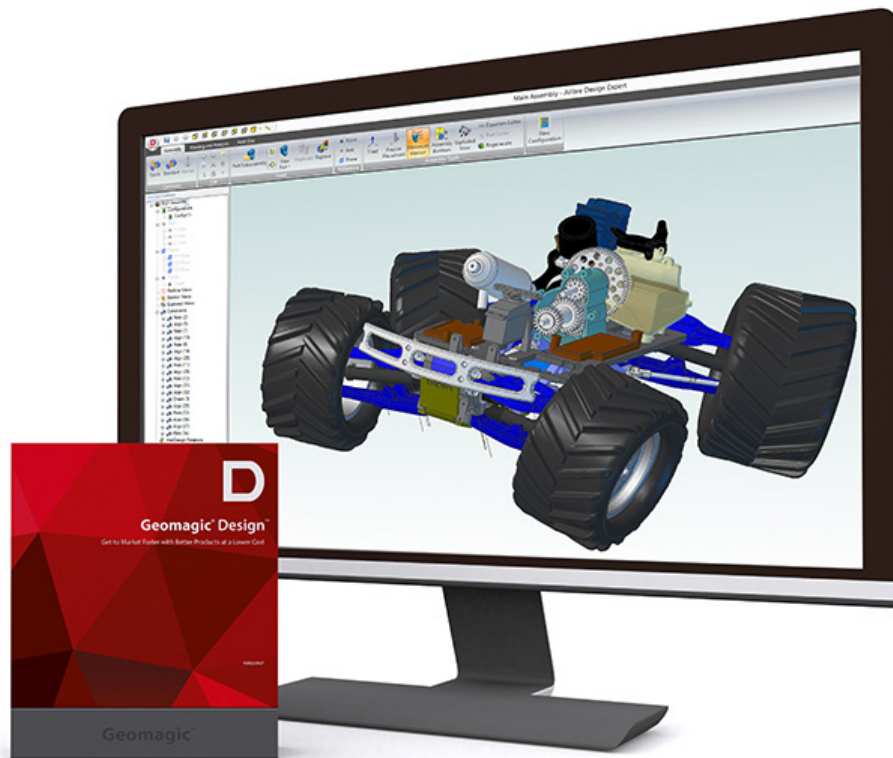


Geomagic® Design™

Get to Market Faster with Better Products at a Lower Cost



Release Notes

V17

TABLE OF CONTENTS

| | | |
|---|---|----|
| 1 | INTRODUCTION..... | 1 |
| | COPYRIGHT..... | 1 |
| 2 | INSTALLATION..... | 2 |
| | SOFTWARE IDENTIFICATION..... | 2 |
| | UPGRADING TO GEOMAGIC DESIGN..... | 2 |
| | LICENSING..... | 2 |
| | SYSTEM REQUIREMENTS..... | 2 |
| | TECHNICAL SUPPORT..... | 3 |
| 3 | NEW FEATURES AND ENHANCEMENTS..... | 4 |
| | INSTALLER..... | 4 |
| | Windows OS Support..... | 4 |
| | API Help Documentation..... | 4 |
| | Translate Add-on..... | 4 |
| | ASSEMBLY WORKSPACES..... | 4 |
| | Assembly Features..... | 4 |
| | Mesh Movement Indication..... | 4 |
| | GLOBAL PARAMETERS..... | 5 |
| | API ENHANCEMENTS..... | 5 |
| | Facets..... | 5 |
| | Trimmed Curves of a Face..... | 5 |
| | PART WORKSPACES..... | 6 |
| | Mesh Movement Indication..... | 6 |
| | DRAWINGS..... | 6 |
| | Additional Field Options..... | 6 |
| | Changing Sheet Scale Properties..... | 6 |
| | Section Views of Broken Views..... | 6 |
| | Notes..... | 6 |
| | Creating Drawings of Parts Affected by Assembly Features..... | 7 |
| | TEAMPLATFORM..... | 7 |
| | DIMENSIONING AND REFERENCE GEOMETRIES..... | 8 |
| | Fit Tolerances..... | 8 |
| | Updated Creation and Modification of Reference Geometry..... | 8 |
| | Reference Geometry Labels..... | 8 |
| | BOMS..... | 9 |
| | Summary BOMs..... | 9 |
| | Border Colors..... | 9 |
| 4 | BUG FIXES..... | 10 |

1 INTRODUCTION

Thank you for purchasing the Geomagic Design. Geomagic Design is a easy to use program to get ideas to production quickly and efficiently.

COPYRIGHT

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SOFTWARE IDENTIFICATION

After installation, the update can be verified by running Geomagic Design and the version can be checked by pressing the **Alt** key and navigating to **Help > About Geomagic Design**.

UPGRADING TO GEOMAGIC DESIGN

The table below shows the current availability of 32bit and 64bit add-ons when upgrading to Geomagic Design.

| Add-on | 32-Bit | 64-Bit | Website |
|-------------------------------|-----------|--------------------|--|
| Geomagic Design Part Library | Available | Web Interface Only | |
| Keyshot for CAD | Available | Available | www.keyshot.com |
| Geomagic Design Vault | Available | Available | www.m-files.com |
| Dynamics for Geomagic Design | Available | Available | support.geomagic.com |
| Simulate for Geomagic Design | Available | Available | support.geomagic.com |
| VisualCam for Geomagic Design | Available | Available | www.mecsoft.com |

Note: None of the addons listed before are included with your Geomagic Design licenses, unless otherwise stated at time of original purchase.

LICENSING

For more information regarding Licensing for Geomagic Design, please click the Help link in the **License Utility** or navigate to the file manually by going to the installation folder and finding the appropriate language version in the **Program > GSLicense > Language** path.

SYSTEM REQUIREMENTS

Operating Systems

- Operating Systems: Geomagic Design runs on 32 and 64-bit operating systems
 - Windows 7
 - Windows 8
- Graphics Card with DirectX 9.0c or above and OpenGL 2.1 or above and 32 bit true color
NOTE: Geomagic Design can be run on a Mac by using emulation software such as Parallels or Bootcamp. However, Geomagic does not test any setups based on a Mac and cannot offer support for such setups.
- Software Requirements:
 - Microsoft .NET Framework 4.0 or 4.5
 - Microsoft Windows Installer 3.0
 - Internet Explorer 8.x or later
 - Adobe Reader 8.x or higher
- Minimum Hardware Requirements: These are sufficient for basic part creation. For complex assemblies performance will likely be insufficient.
 - Processor: Multi-core processor, 2GHz or faster per core
 - System RAM: 4GB or more, 16GB recommended
 - Screen Resolution: 1280 x 1024 or higher
 - Video Card RAM: 256MB, or 512MB if using Windows 7 or Windows 8
 - Video Card Framework: Must support DirectX 9.0c or above and OpenGL 2.1 or above (almost all recent cards do)

- 30GB or greater HDD, 256GB or great SDD or 10,000rpm HDD recommended as well as a seperate HDD for caching data
- 3 button mouse with scrolling capabilities
- Sound Card
- Keyboard
- Network card

TECHNICAL SUPPORT

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| Websites | | Email Addresses | |
|--------------------|---|-------------------|--|
| Geomagic Solutions | http://www.geomagic.com | Technical Support | geomagic.support.americas@3dsystems.com |
| Technical Support | http://support.geomagic.com | Sales | geomagic.orders@3dsystems.com |
| Getting Started | http://gettingstarted.geomagic.com | Licensing | 3dsystems@flexnetoperations.com |

3 NEW FEATURES AND ENHANCEMENTS

INSTALLER

Windows OS Support

The installer has been changed. Geomagic Design cannot be installed on **Windows XP** as it is no longer a supported OS. While **Windows Vista** is now officially not supported, Geomagic Design can still be installed and used. Please keep this in mind when attempting to install v17 of **Geomagic Design**.

API Help Documentation

The **API Help** documentation has been moved. It can now be found in the installation folder at **/3D Systems/Geomagic Design/Geomagic Design API Help/GeomagicAPIHelp.chm**.

Translate Add-on

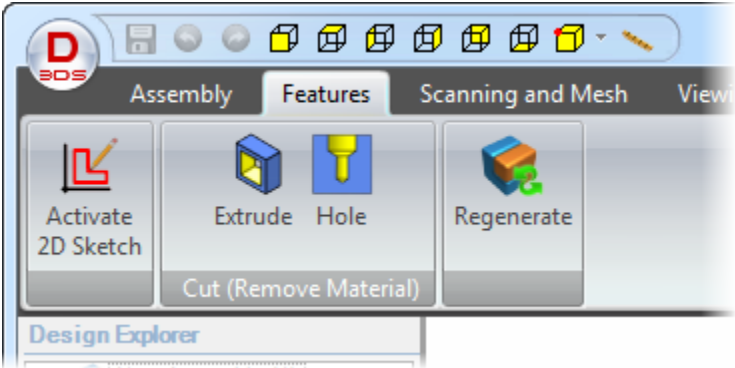
The **Translate** add-on has been updated to now support the importing of **Inventor 2015** files for parts and assemblies.

ASSEMBLY WORKSPACES

Assembly Features

NOTE: This functionality is only available in Geomagic Design and is not available in Geomagic Design Elements

Cut Extrusions and Hole features can now be created in an **Assembly Workspace**. This is useful for keeping the design intent of an assembly intact while enabling the creation of cut extrusions and holes.

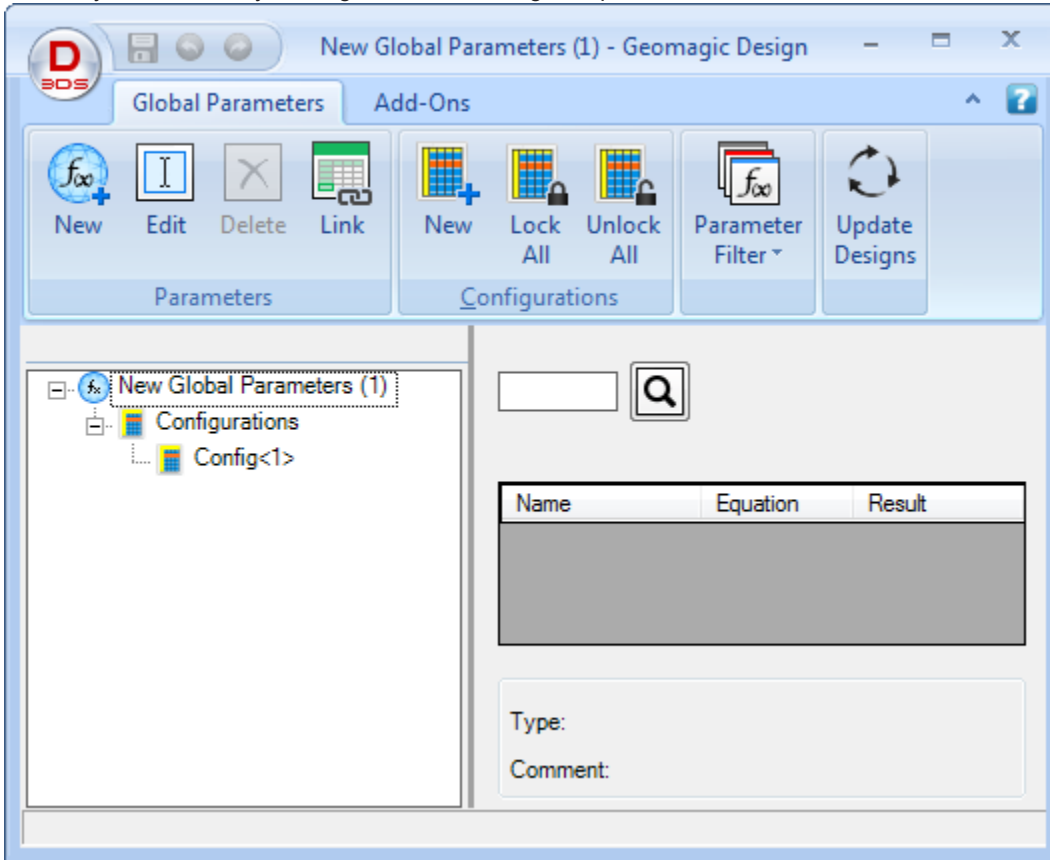


Mesh Movement Indication

The name of the **Triad** option has been changed to **Free Drag / Use Triad**.

GLOBAL PARAMETERS

Parameter values can now be created and saved to a file using the new **Global Parameters Workspace**. It can be used globally for part, sheet metal and assembly workspaces. **Global Parameters** can be created using other global parameters and used in local parameter equations. Once created, **Global Parameters** can be shared among various parts. Multiple parts and sub-assemblies of an assembly can be built by sharing the same set of global parameters.



API ENHANCEMENTS

Facets

The generation of facets when creating a **Face** has been improved by calculating three parameters.

Trimmed Curves of a Face

The trimmed curves of a closed surface are now returned to avoid issues with five-axis machining in CAM applications.

PART WORKSPACES

Mesh Movement Indication

The name of the **Triad** option has been changed to **Free Drag / Use Triad**.

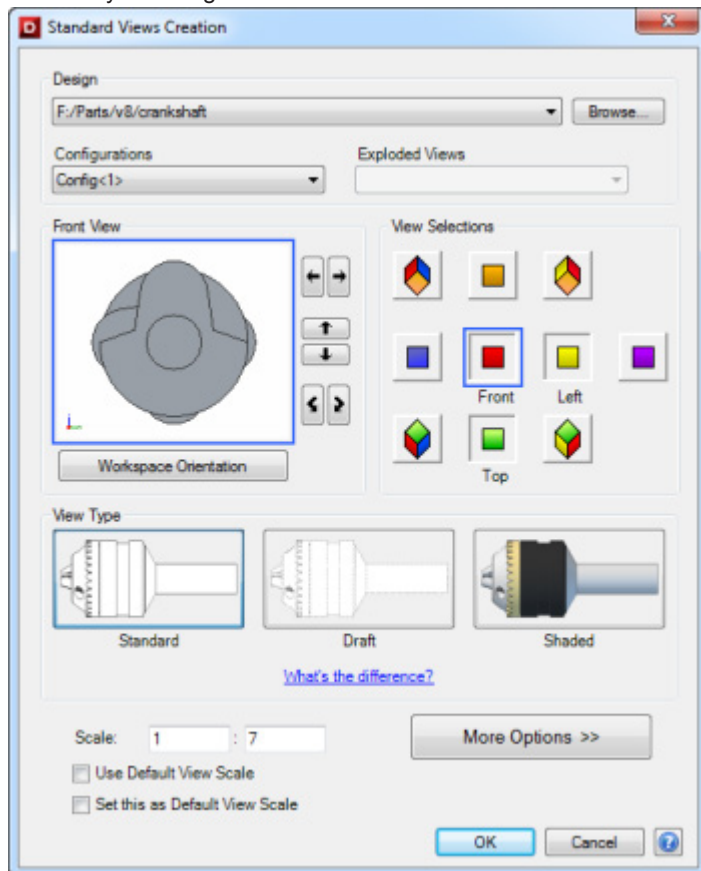
DRAWINGS

Additional Field Options

The **Sheet Scale** and **Sheet Number** fields have been added to system templates when creating a new drawing.

Changing Sheet Scale Properties

The ability to change the **Default View Scale** of a sheet has been added.



Section Views of Broken Views

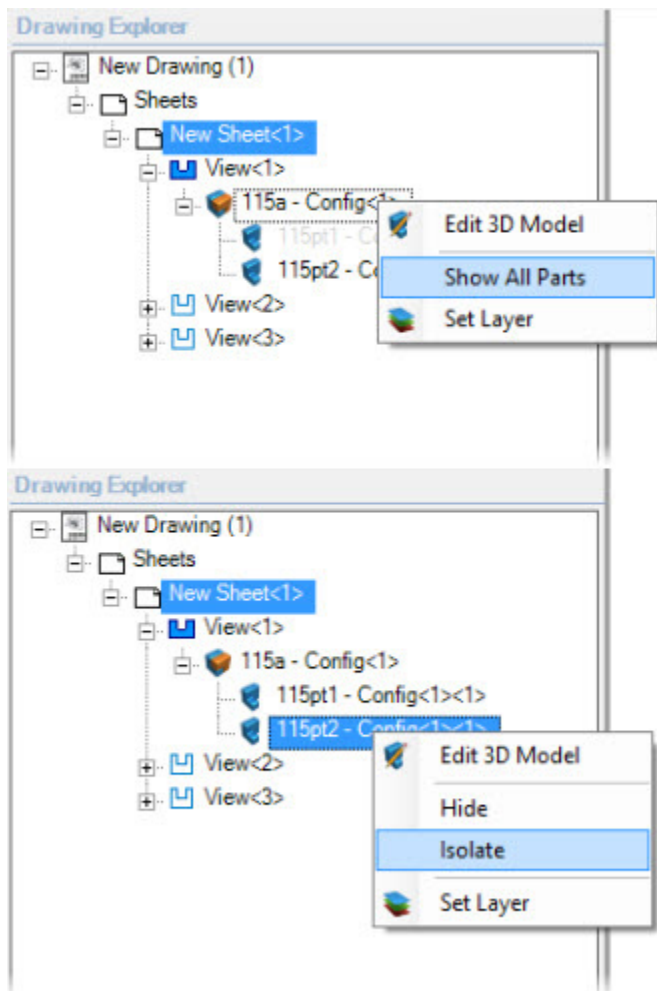
The ability to create a **Section View** of a **Broken View** has been added and can be used for all types of section views.

Notes

When aligning text in a note, the text would sometimes behave unexpectedly due to an invisible anchor point that would affect text either to the left of the point or right of the point. To remedy this confusion the anchor point is now visible. As well, custom fonts can be used for **Notes** and other issues relating to **Notes** have been fixed.

Creating Drawings of Parts Affected by Assembly Features

The **Isolate** command has been added to design instances in the Drawing Explorer. It is used to isolate a design instance in a drawing view, especially ones that are affected by an assembly feature. As well, the **Show All Parts** command has been added that shows all parts of a root design of a view in order to revert it back to its original state.



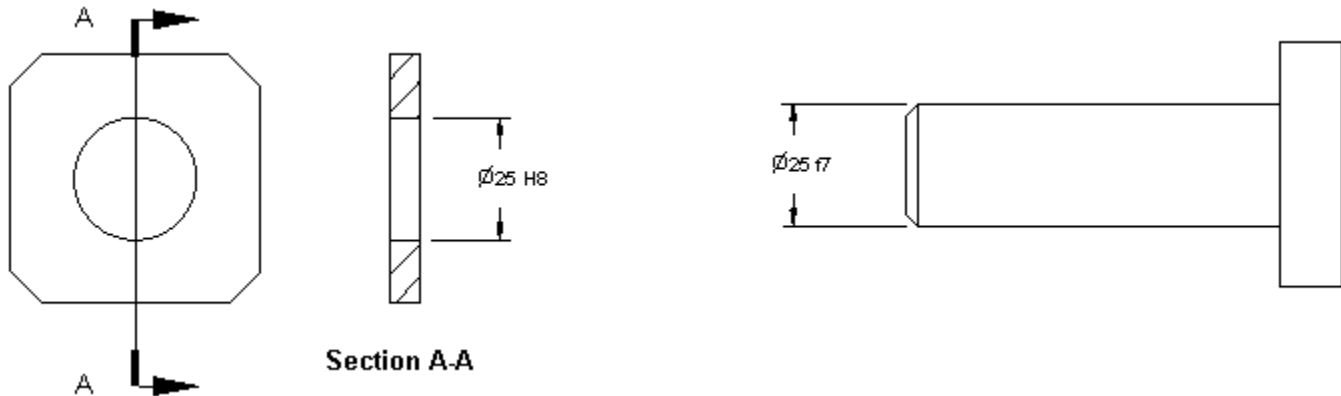
TEAMPLATFORM

The latest version of **TeamPlatform** has been integrated into Geomagic Design. This integration prevents the overwriting of locked files in TeamPlatform from Geomagic Design.

DIMENSIONING AND REFERENCE GEOMETRIES

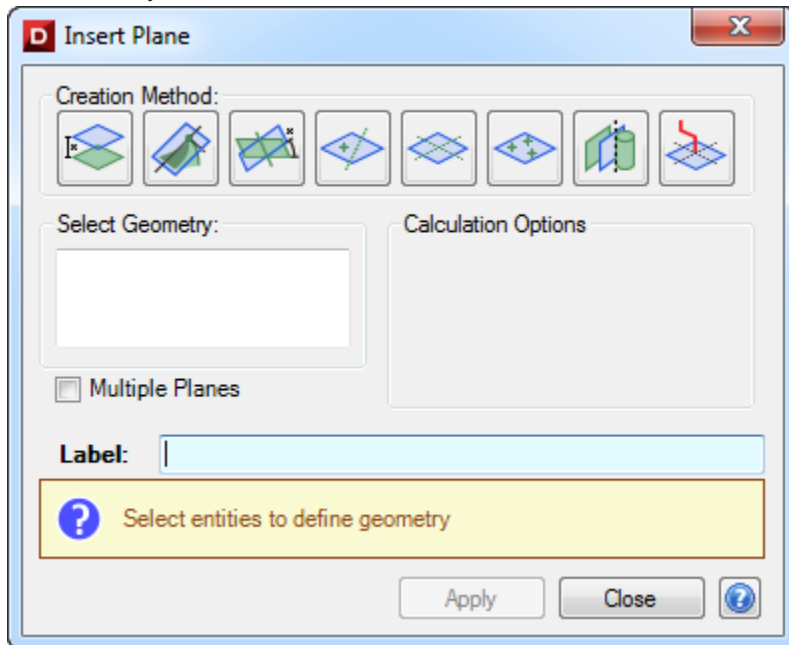
Fit Tolerances

Standard fundamental deviations and International Tolerance (IT) grades can be selected to create **Fit Tolerances** on a hole and shaft, which will determine the type of fit.



Updated Creation and Modification of Reference Geometry

The dialog boxes for creating **Reference Geometry** have been updated to more intuitively show how reference geometry is created and to visually assist users on the various creation methods that can be used in different reference geometry creation situations.



Reference Geometry Labels

Reference Geometry can now be labeled.

BOMS

Summary BOMs

A **Summary BOM** can be created from an assembly. It can be used to override the Treat as part in BOM when used as a subassembly option. This is useful for quickly creating a BOM that shows all parts in subassemblies if multiple subassemblies have been set to be treated as a part.

Border Colors

Border Colors can now be changed when creating a BOM in a 2D drawing workspace.

4 BUG FIXES

Below is a list of bugs fixed in the application.

- Some dialog boxes would have issues for 150DPI displays.
- The Print dialog box as well as other dialog boxes could not be localized.
- Editing a plane in an assembly would not update any constraints.
- Part instances would not become highlighted when rolled over in the Explorer if an assembly had a 3D section view.
- Sometimes parts with diacritical text could not be opened.
- The Reverse option when using the Precise Placement tool for locating meshes would not translate properly along an axis.
- After a mesh has been inserted and the Precise Placement tool is used, all shells of the inserted mesh file were automatically shown populated in the selection dialog, however the canvas and design explorer would not reflect that the meshes were actually selected.
- Parts would not open when iCloud was installed on non-English operating systems.
- When a note was moved and the Undo command was used to attempt to undo the move, the text note was removed.
- Default scale of drawing views for parts was not set for some legacy drawing templates.
- When the auto regeneration functionality was disabled in an assembly, reference geometry was not properly displayed.
- Locked parameters in an assembly or part configuration would not function as expected if a new configuration was set as the active configuration.
- When a sketch was dependent on itself or when a sketch(A) was dependent on a sketch(B) that was dependent on the first sketch(A), a cyclic dependency was created which would cause a file saved with this situation to be unable to be opened after it was saved.
- Left-clicking a sheet in a drawing that contained multiple sheet would disable the Activate 2D Sketch command. It would only be enabled after a second left-click.
- When a component was replaced in an assembly the new component would not get updated correctly if edited in an exploded view.
- On rare occasions an Assembly would have a hidden reference to parts that would cause errant behavior.
- When multiple configurations were present in an assembly, editing pattern sizes would sometimes produce incorrect results.
- Elements of a component pattern would get incorrectly suppressed after a parameter update.
- Component patterns in an assembly would not reposition correctly unless the assembly was regenerated.
- The faceting API in the application would sometimes not honor tolerance settings, creating facets in a tool path.
- Some users experienced an issue where they had to input their activation code into the license utility the first time the software was opened each day.
- Sometimes a detailed view or an auxiliary view could not be created from a sketch and would create errors.
- A default material for a new part would not properly transfer to an M-Files Vault.
- If inter-design constraints were deleted in a root assembly or sub-assembly that contained both configurations and inter-design constraints, FHL views could not be placed although that functionality should have been possible.
- Some characters were not properly supported in text sketches and would create an error.
- Some dialog boxes would not accept the creation of line breaks by using the Enter key on the keyboard.
- When a file was saved to the M-Files Vault that had material properties applied to it, a duplicate of the material would be created in the Values list for materials within M-Files.
- When a part was rotated 180 degrees using the Precise Placement tool and the Undo Last or Reset tools were used then the part was rotated again, components within the Selected Components field would be removed.
- Legacy users using V15 of the application who created custom tool bars and upgraded to V16 could not add the Mesh tool bar.
- Some circles in sketches would not interact with a spline during a Trim operation.
- For some Assembly files, when the assembly was placed in a drawing and a section view was created, the program would issue an error or do nothing.

- For some Assembly files, when the assembly was placed in a drawing and a section view was created, the program would issue an error or do nothing.
- If the length of a thread was in a unit besides centimeters, it would display incorrectly in a 2D drawing.
- When attempting to print a part the Ribbon and tool bar areas would have an error that would display a large red x across the entire tool area.
- Sometimes an image placed in the title block of a 2D drawing template would not be displayed when it should have been.
- Colors for previously invalid equation colors would not update until the equation was edited using the Edit dialog box.
- Newly created BOMs would not properly call out material types if the material was set as the default part property.
- The alignment of upper and lower texts in custom 2D drawing dimensions would not justify left properly.



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