

Geomagic® Freeform® & Freeform® Plus

Design Without Limits
Manufacture With Success



Release Notes

Geomagic® Freeform® and Freeform® Plus v2015.0 HF3

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1 INTRODUCTION

Thank you for installing Freeform or Freeform Plus version 2015.0 HF3.

We are pleased to announce the availability of the new version of Geomagic Freeform and Geomagic Freeform Plus. Geomagic Freeform and Freeform Plus are a multi-representation, multi-purpose digital modeling and CAD system for producing manufacturable, objects that are highly-detailed or organically shaped, such as toys, figurines, medical implants, fine art or other sculptural objects.

This document outlines important information about this release. For information on what is new and improved in this version of Freeform and Freeform Plus, see [New Features and Enhancements](#).

For more information about Freeform and Freeform Plus, please visit www.geomagic.com.

Check out the [Customer Support website](#).

Customer Support can be reached via e-mail at Geomagic.Support.Americas@3DSystems.com.

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2 INSTALLATION

SYSTEM REQUIREMENTS



IMPORTANT: This will be the last release that 3D Systems will support the 32-bit installer of Geomagic Freeform and freeform plus. For future releases, please upgrade to a 64-bit OS and switch to the 64-bit installer for Geomagic freeform AND freeform plus.

For the latest system requirements information and to learn about specific qualified system configurations, go to the [Freeform Getting Started section](#) of the Support website, then scroll to the bottom. Some users have had success running system configurations that deviate from the supported list. In such cases, these configurations are not officially supported by 3D Systems, Inc.

Additionally, we test a variety of hardware platforms in combination with the graphics subsystems. While we make every attempt to be as thorough as possible, hardware manufacturers change their products frequently and may be shipping newer products or have discontinued active support for others. Check the support section of the Web site for the latest system requirement information and specific qualified systems.

Supported Graphics Cards

For the most current list of graphics cards for use with the Freeform or Freeform Plus system, go to the [Freeform Getting Started section](#) of the Support website, then scroll to the bottom.

DOWNLOAD AND INSTALL SOFTWARE

You can download and install the software from [gettingstarted.geomagic.com](#), select the Freeform or Freeform Plus product, select to download Freeform or Freeform Plus.

In addition, automatic software updates are available if you selected **Check for updated versions of the software** in the **Tools>Options>General>Updates dialog**, a valid maintenance code is activated, and your computer is connected to the Internet. The application will check if a newer version is available and will download it automatically for installation.

If you have a Touch device attached and the Geomagic Touch Device Driver (GTDD) is installed, this option will also prompt you if there is an updated GTDD available to download. Deselect if you do not want to be informed that updated versions of the software are available.

ACTIVATE LICENSE

The Geomagic Freeform or Freeform Plus product requires license activation to run the application on your PC. You can choose to use an evaluation license for a 15-day period or activate a permanent license by using a virtual or physical dongle.

After you start your application, the License Utility window opens. The License Utility allows you to activate and use the Freeform or Freeform Plus software.



NOTE: When you launch the License Utility, you can click the Help button to read the Licensing Guide.

You should have received an email from 3D Systems with your activation code. If you have not received an email from 3D systems, contact them at Geomagic.Support.Americas@3DSystems.com.

If you are an existing user and have already activated the license on your PC with the previous version of the application, you can run the newer version of the application without re-activating the license.

For more information, go to [gettingstarted.geomagic.com](#), select the Freeform or Freeform Plus product, then click Licensing.

LICENSING AGREEMENT

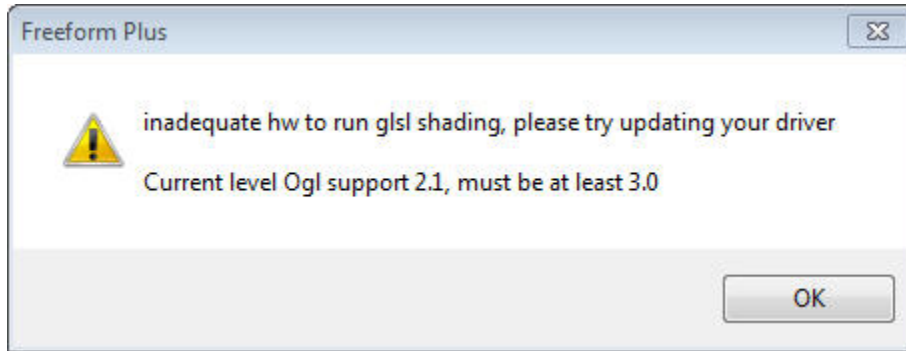
Please see the End User License Agreement (EULA) located in the <Installation Directory>\Licenses for complete terms and conditions of the license.

GEOMAGIC TOUCH DEVICE DRIVERS (GTDD)

This software is optimized to run with the latest version of the Geomagic Touch Device Driver v2014. Please download and install this GTDD. Go to [support.geomagic.com](#), from Products select Scanners and Hardware, then select the Touch device and Downloads. Or, go to [gettingstarted.geomagic.com](#), select the Freeform product, select to download Freeform and then select the most up-to-date device driver executable.

REQUIRED HARDWARE

Freeform v2015.0 requires a graphics card with OpenGL 3.0 support. You may receive a warning when you launch the product informing you that either your card does not support OpenGL 3.0 or newer drivers are required. If you receive this warning, go to the manufacturer's website and download the most recent driver.



Drivers that support OpenGL 3.0 are currently required to take advantage of transparency and real-time rendering options that were implemented in version 10. While the product may still run without these updated drivers, you will not experience all of the new capabilities.



NOTE: Some older graphics cards may not have OpenGL 3.0 compatible drivers available. See your manufacturer's options.

Go to the [Freeform Getting Started](#) section of the Support website, then scroll to the bottom for the latest Graphics Card information.

BACKWARDS COMPATIBILITY

Old Files - This version will open models that were created in older versions of Freeform or Freeform Plus, however, models created in this version may not be compatible with previous versions. When a file is opened in Freeform, it is automatically converted to the current format. Once converted and saved, the model may lose compatibility with older versions. We strongly recommend that you save backup copies of all Freeform files from previous versions before opening them in a newer version.

INSTALLING MULTIPLE COPIES OF FREEFORM SOFTWARE

The Freeform v2015.0 installer allows for up to two side-by-side installations of the same major version or point release. For example, you can have one version of v2014.X and the other version of v2015.0.

3 NEW FEATURES AND ENHANCEMENTS

The following is a summary of new features and enhancements in FreeForm v2015.0 For a more comprehensive look at the new features and enhancements in the v2015.0 release see the online Help topic titled “What’s New?” You can access the help from within the FreeForm application by pressing F1 or from the Help Menu.



NOTE: The ‡ symbol indicates features that are only available in Freeform Plus.

KEYSHOT

Keyshot for 3D Systems

For rendering projects, use the application [KeyShot for 3D Systems](#) (rendering is a process which allows you to depict a clay model in a way that will seem natural and realistic using material, lighting, and background). Now available to download and install.

You can download and install KeyShot for 3D Systems from the [KeyShot for 3D Systems Getting Started page](#). For more information about KeyShot for 3D Systems, see the *KeyShot for 3D Systems What’s New* from the webpage. From within the KeyShot application, use the Help menu to open the KeyShot manual and tutorials.

For Freeform Plus users: Our application Rendering tools have been removed and replaced with KeyShot for 3D Systems.

Send to KeyShot - (Beta Feature)

From the Utility palette a new [Send to KeyShot](#) tool has been added. If you have manually downloaded and installed the KeyShot for 3D Systems application, click [Utility > Send to KeyShot](#) to launch the KeyShot for 3D application. See “Send to KeyShot” in the Freeform Help for information on how to use the tool from within Freeform.



NOTE: If you attempt to launch KeyShot using the Send to KeyShot tool and you receive an error message that says Live Linking may be turned off for KeyShot, do the following: open KeyShot as a stand-alone application, from Edit>Preferences>Advanced, make sure “Enabled Live Linking” is selected under Live Linking.

Export to KeyShot (.bip)

Added support to capture model units when using Export to KeyShot format (.bip).

OBJECT LIST CONTEXT MENU

Clay Utilities

Added an option [Clay to Selection](#) to use the chosen inactive piece to select an area of the active clay piece. See Object List Context Menu>Clay Utilities in the Freeform Help for more information.

SubD Utilities

Added the option [Activate/Select new](#) to the Convert dialog box. Select this option to make the newly converted piece active once it is created and hide the original SubD piece. See Object List Context Menu>SubD Utilities>Copy To in the Freeform Help for more information.

AutoSurfacing for Freeform

Now added to Freeform, use the [AutoSurfacer](#), available through the Object List Context Menu to create NURBS surfaces that will cover your model and allow the export as .iges or .step. See “AutoSurfacer” in the Freeform Help for more information.

Duplicate Piece

Improved to support paint color transfer for clay and mesh pieces when selecting [Duplicate](#) from the Object List Context Menu.

FILE MENU

Importing .IGES and .STEP Files as Mesh, Clay, or Buck (Freeform)

You can now import .iges, .igs, .step, and .stp file formats as mesh, clay, or buck. See “Importing a Model” in the Freeform Help.

Importing .IGES Curves (Freeform)

You can now import curves. See “Importing a Model” in the Freeform Help.

OPTIONS DIALOG

Options dialog reorganization

The Tools>Options dialog has been reorganized to include two new subheadings: [Interface](#) and [Objects](#). See “Tools Options Dialog” in the Freeform Help.

Mouse Control

The buttons on your mouse can change the view of your model. When a haptic device is not attached, you can choose between two modes of mouse button behavior depending on your preferences. To select these options, see Tools>Options>View>Mouse Control. For more information, see “Changing the View of a Model” in the Freeform Help.

Auto Backup

Improved the frequency and triggers for the Auto Backup feature, which specifically addresses situations where you stay in the same tool for a long period.

MOLD PALETTE

Shell dynabar ‡

[Select Only](#), a new option on the Shell dynabar was added to select the interior clay region instead of removing it. See “Shelling a Solid Model” in the Freeform Help for more information.

DEFORM PALETTE

Bend & Twist

Improvements were made to preserve the paint color while twisting the clay piece. See “Bend & Twist” in the Freeform Help for more information.

CONSTRUCT CLAY PALETTE

Pattern Piece

Improved to support paint color transfer for patterned pieces. See “Pattern Piece” in the Freeform Help for more information.

Paint Improvements

Improvements were made to preserve the paint color depth and edge quality when scaling clay or changing clay coarseness.

SUBD SURFACES PALETTE

SubD Pattern Piece

Improve speed and appearance by merging separate bodies instead of combining as single fused cage when outputting a single piece, with an option to Combine (Fuse) the cage if needed.

HELP MENU

Release Notes

The ReadMe file has been renamed to “Release Notes.” You can now open the Freeform Release Notes from the Help menu. From within the application, select Help>Release Notes.

4 BUG FIXES

This section lists issues that have been resolved since v2014.3:



NOTE: Customer-reported issues that have been resolved are noted with an *.



NOTE: The ‡ symbol indicates features that are only specific in Freeform Plus.

- **GF-3240***: SubD: Edits on non-promoted cages - All non-level 1 edits are lost on “Save File.”
- **GF-3168***: Reduce for Export: Edit Dialog - File Type options are missing [* .zpr] format option, and lists old [* .zcp] option, though no longer supported.
- **GF-3350**: Reposition Piece: SubD - Undo does not work after applying Boolean operation.
- **GF-3349**: Edit SubD: Face does not highlight when cage level set to 5.
- **GF-3139**: Fill Voids Function: Voids near the surface cause function to generate voxel noise on the surface of the part.
- **GF-3342**: Import: Importing OBJ with associated textures as mesh will Crash in import after File>New.
- **GF-3341**: Visual Rendering: Case where toggling See Through isn’t working.
- **GF-3303**: SubD: OBJ Export of a non-radial symmetric spun SubD crashes.
- **GF-3290***: App Launch Crash: Drag-n-Drop of PLY file over FF launch icon - Incorrect file extension pop-up thrown first, then launch crashes.
- **GF-2877**: Reduce for Export: Win 8.1 - Consumes all system memory if you do multiple reduces to PLY in a single session of the tool.
- **GF-3283**: Reduce for export hangs on second pass in Win 8.1.
- **GF-3104**: Boolean: SubD-to-SubD - Intersect mode works, but replaces active SubD instead of creating a new piece and hiding originals for intersection.
- **GF-3097**: (Freeform only) Autosurface - Haptic device temporarily disabled on file/new, unable to select message box with device.
- **GF-2970***: Import STL with “Center origin” on: origins are off with pieces in different clay coarseness.
- **GF-2931**: Ridge: Fence Select does not work after undo deleted curve.
- **GF-3049**: Reduce for Export: Unable to reduce clay piece after Convert SubD to clay piece.
- **GF-3048**: Basic Shapes: Duplicate message on exit/FF when active piece is SubD.
- **GF-3038**: Add warning if attempting to launch app when the GTDD 2015 Setup or Diagnostic windows for the haptic device are open and blocking the servo thread.
- **GF-3004***: Sketch trim - trimming circles to tangent lines often fails.
- **GF-3059**: File/Open: Mesh Pieces - Crash on open file in FFv14 for mesh pieces saved in builds after FFv14.
- **GF-3348***: PLY import: Crash in import if file has only a point cloud and no triangles.
- **GF-3213***: ‡ Project Patch to Clay feature (mold blocks etc): Extrude as Solid - leaks at the sides of undercut clay where the bounds are fixed by the patch.
- **GF-1940**: ‡ Curvature Plot: Delete curve - Center of Curvature & Parameter Point remains in scene.
- **GF-3010**: Draw Curve: Undo not behaving properly and leads to a crash for replace curve segment and split on create.
- **GF-2856**: Haptic Devices becomes temporarily disabled when using Import Model>Import as New or File>Open. (Unable to click on message box to finalize import.
- **GF-3345**: Edit SubD: Extrude Edge or Face - Button disabled but is depressed on dynabar after undo promote.
- **GF-1828**: Spin SubD: Error selecting profile after switching command.
- **GF-2314**: Paint SubD: Face mode - button disabled but depressed in pattern mode.
- **GF-3022**: Curve Network to Clay/Solid: Feature does not work after applying fit curve in Emboss Along Curve.
- **GF-2908**: Sketch: Device stuck when trying to sketch on second attempt after skewing view, regression.
- **GF-2905**: View: Pull Direction - When Undercut Colors are “ON,” they are being additionally rendered on all inactive SubD pieces (no other geometries have the problem).
- **GF-2858**: Haptic Devices becomes temporarily disabled when using Mesh Divide utility in the OL - Unable to select message box with device.

- **GF-2723***: PDF/U3D Export - Add a “Do not Show this message again” checkbox to the “Exporting large models..” pop-up.
- **GF-2385**: Sketch: Arc - Missing arc preview after placing first point (regression).
- **GF-2830**: Emboss with Image: Rotate Only does not disable properly when switching to Flatten Image Onto a Plane mode.
- **GF-3537**: Upgrade to integrate with Sense 2.0 or Sense 2.1
- **GF-3439**: Local origins created in Basic Shapes tool are not kept relative to part. Rotations get zeroed out on Apply.
- **GF-3639**: Improved usability with the Color Picker
- **GF-3552**: ‡ Wirecut Solid – Fails with specific file
- **GF-3720***: ‡ Project Patch to Clay not using Plane as the secondary limiter
- **GF-3554**: Sketch – Trim Curve can fail for intersections with circles if exactly horizontal or vertical
- **GF-3949**: Sketch – Trim Curve can fail if directly attempted after Offsetting loop to inside
- **GF-3914***: Doc: Training Guide is locked out from printing

5 KNOWN ISSUES

The following issues with features new to v2015.0 have been reported and regrettably could not be resolved prior to the release:

- Recent window update may delete the nVidia presets, which can lead to occasional app hangs. Must reinstall the app or run the Display Utility.
- **GF-3394**: Autosurfacers: Intermittent Crashes noted when using Mechanical mode.
- **GF-3234**: (Freeform only) Autosurfacers: After adding a new piece, Selecting to Autosurface selects Folder instead.
- **GF-3176**: Edit SubD: Unable to drag face when planar added to face.
- **GF-3170**: Fill Holes in Mesh tool: Bridging function – Curvature based modes not working.
- **GF-1552**: Spin Clay/Solid Tools (Revolve): Some profiles with fillets may flip the arcs on apply.



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