

 **3D Sprint[®]**

What's New 2.13

Release Date: 2020.05

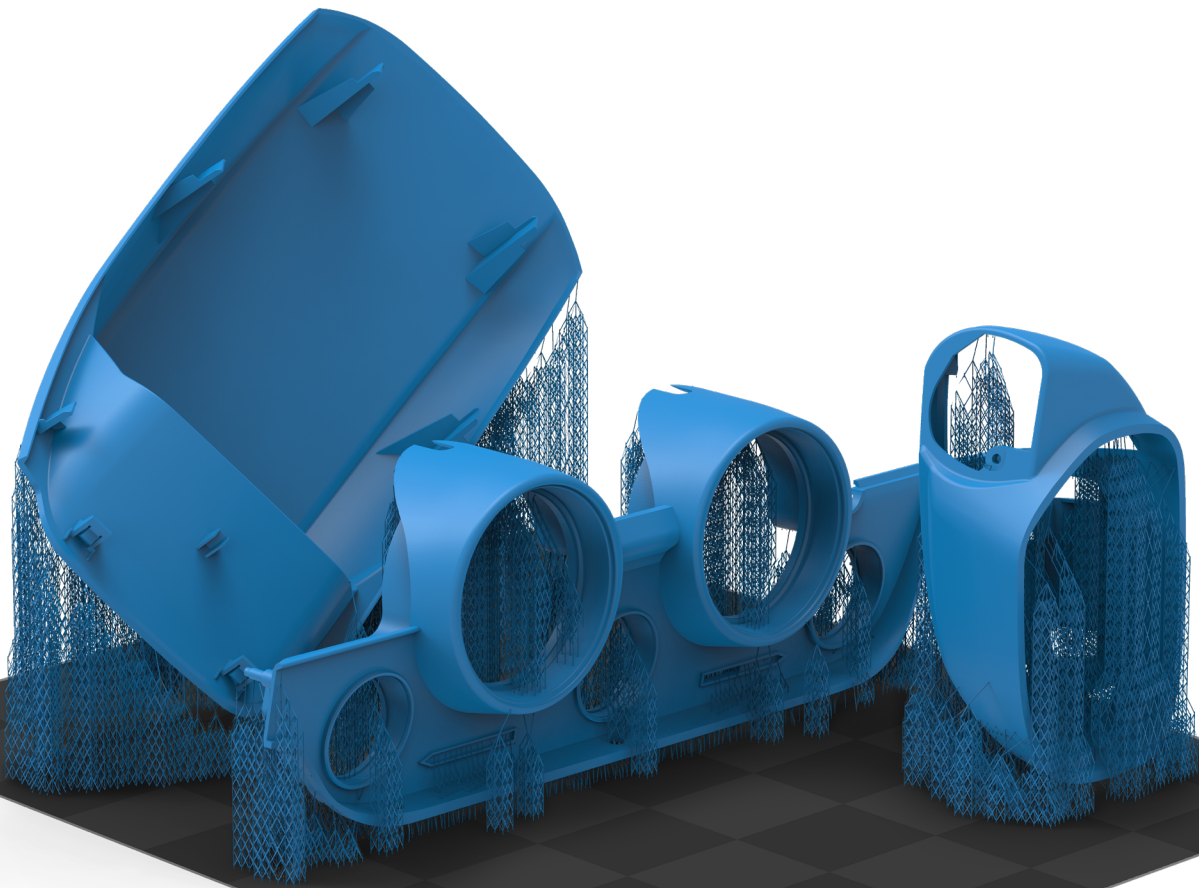


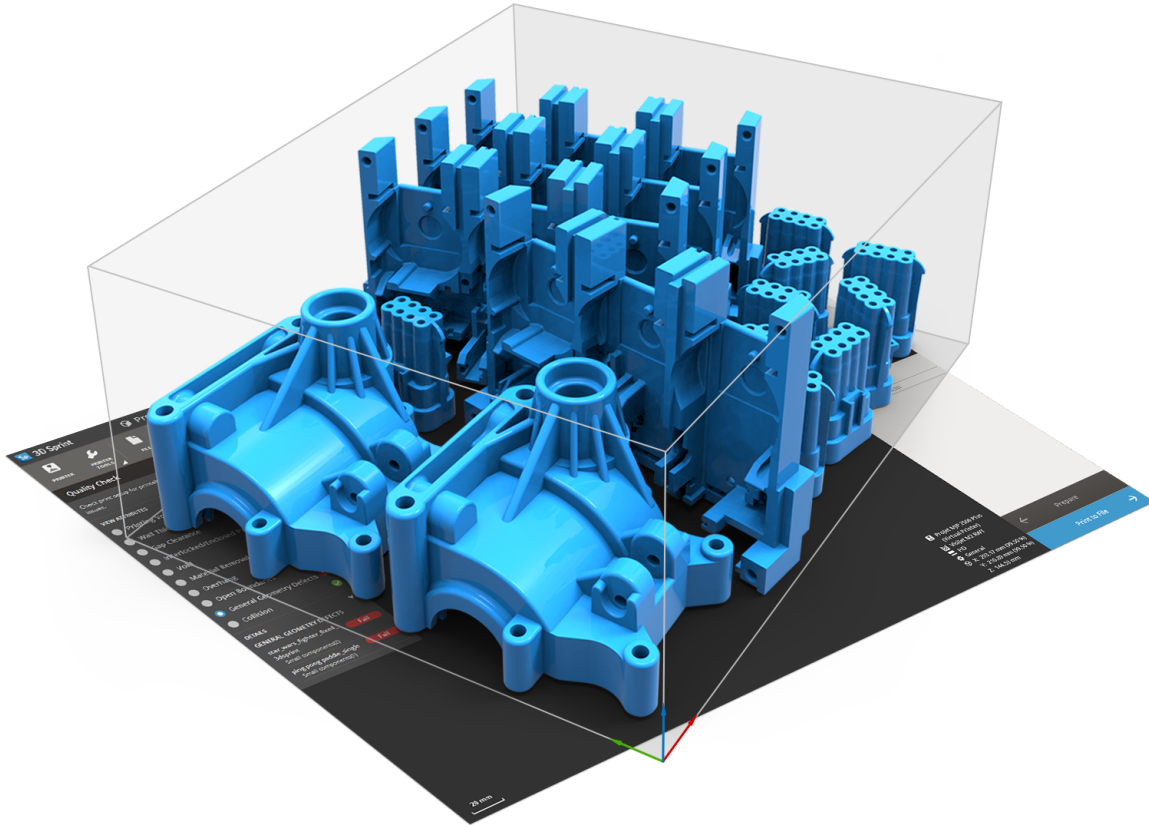
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Introducing 3D Sprint 2.13

Setting the New Standard in 3D Printing

Experience true productivity with exclusive additive manufacturing software for 3D Systems Plastic Printers.



3D Sprint® is 3D Systems' exclusive software for preparing and optimizing CAD & polygon data and managing the additive manufacturing process on its plastic 3D printers. Shipping with each supported 3D Systems printer, 3D Sprint delivers tools that allow you to 3D print better parts.

3D Sprint enables you to:

- **Increase Productivity for 3D Systems Plastic Printer** - Prepare and optimize CAD data and then manage the additive manufacturing process on your 3D Systems' plastic 3D printers.
- **Go from CAD to Print** - 3D Sprint delivers all the tools you need to go from design to 3D print, offering an unparalleled user experience across 3D Systems plastic printers.
- **Print Better Parts** - Eliminate geometry processing artifacts with smarter geometry processing and powerful slicing technology.
- **Streamline Time to Finished Parts** - Save on material and post-processing time without compromising on part quality.
- **Increase Productivity with Optimized Data Management** - Estimate print time and optimize material levels and usage both before and during the print operation.

3D Sprint 2.13 includes key new features and enhancements that bring new value to these objectives with a special focus on capabilities that are required to move from rapid prototyping to serial production.

System Requirements

For the latest system requirements information and to learn about specific qualified system configurations, go to the [System Requirements](#) page. Some users have had success running system configurations that deviate from the supported listed on our website. 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 website for the latest system requirement information and specific qualified systems.

NOTE: Starting with 3D Sprint 2.13, the support of Microsoft Windows 7 is terminated. Microsoft Windows 10 Operating System is recommended. The product may still function on some Windows 7 systems, but any issues encountered will not be investigated.

Download and Install Software

You can download and install 3D Sprint from the [getting started](#) page.

In addition, automatic software updates are available if you set the Check for updates on launch option to True in Preferences and a valid activation 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.

You can also visit support.3dsystems.com, select your printer, then download 3D Sprint for the Software Downloads section on your printer's site.

WARNING: BECAUSE OF THE KNOWN ISSUE GW-22946, PROJET 1200 USERS SHOULD NOT UPGRADE TO 3D SPRINT 2.13. SEE THE KNOWN ISSUES SECTION FOR MORE INFORMATION.

Activate License

3D Sprint requires license activation to run the application on your PC. You can choose to use an evaluation license for a 30-day period or activate a permanent license by using an activation code.

After you start your application, the License Utility window opens. The License Utility allows you to activate and use the 3D Sprint software.

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

To register for permanent activation codes please use the 3D Sprint registration landing page here:

https://support.3dsystems.com/s/get-3d-sprint?language=en_US *

*This request will go into a system, and we will produce activation codes within 24 hours (excluding weekends).

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 the Licensing section on the [getting-started](#) page.

Requirement Notice

Please note that printers must be running the required printer firmware version to be able to submit print jobs with 3D Sprint 2.13. For the latest firmware version please consult the [3D Sprint - Minimum Firmware Guide](#).

Digital Manufacturing With Figure 4 Technology

Integrated Solution to Address Jewelry-Specific Production Workflows



New Printer - Figure 4 Jewelry

ULTRA-FAST AND AFFORDABLE 3D PRINTING SOLUTION FOR JEWELRY DESIGN

3D Sprint 2.13 now supports the latest addition to the 3D Systems Figure 4 series printers, the Figure 4 Jewelry.

Figure 4 Jewelry is an affordable solution optimized for jewelry design and manufacturing workflows, delivering unparalleled speed, productivity, ultra-fine detail and smooth surface finish.

The Figure 4 Jewelry uses 3D Sprint for file preparation and production with jewelry optimized build styles. Using a workflow that is similar to our existing SLA and Figure 4 workflows, with access to existing tools like Estimate, Quality Check and Fix commands, along with the Print Queue functionality to manage your print jobs on connected printers.

Build Styles

An easy parameter control for setting up the build style parameters that apply to the entire building process.

Accuracy Wizard

Take the input data from measured test prints to calculate the scales and offsets variables automatically using the Accuracy Wizard from the Build Style command.

Smart Supports

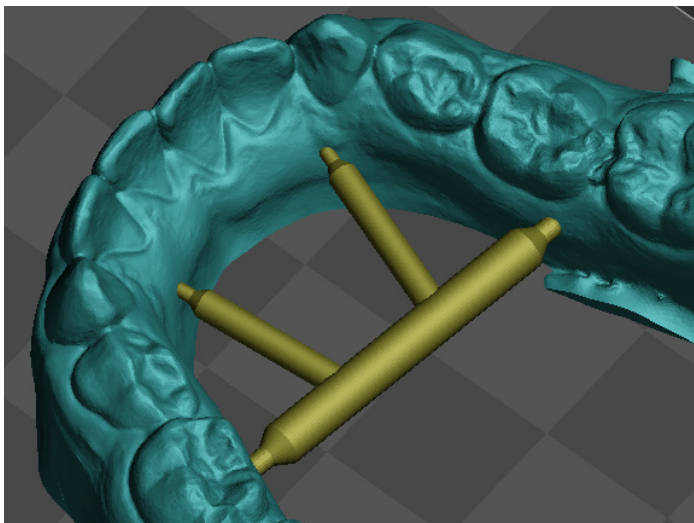
Similar to our SLA and Figure 4 printers, the Figure 4 Jewelry has access to the Smart Supports command to generate Gate supporting structures to support your parts during the build process.

Print Management

3D Sprint's management and monitoring tools allow you to accurately estimate print time and optimize material levels and usage both before and during the print operation. Manage print queues, job priorities, and monitor printers with immediate knowledge if a technical issue is causing a problem across your local network.

Key New Features

NextDent 5100



Enforcement Bars

Strengthen Your Model and Reduce Deformation

The **Create Bars** tool generates an enforcement bar between two points on the part through a few simple clicks.

Challenge : Some part geometries tend to deform during printing and post cure due to material shrinkage. Adding this bar to horseshoe models or denture bases can help to control this shrinkage resulting in more accurate parts.

Solution : A new **Create Bars** tool has been added, which allows you to quickly create enforcement bar features that strengthen your model and reduce deformation by just clicking the start and end points on it. Added control over the bar diameter and tip diameter lets you reduce post processing time while removing the enforcement bar.

Stacked Arches

One-Click Solution for Optimized Vertical Stacking

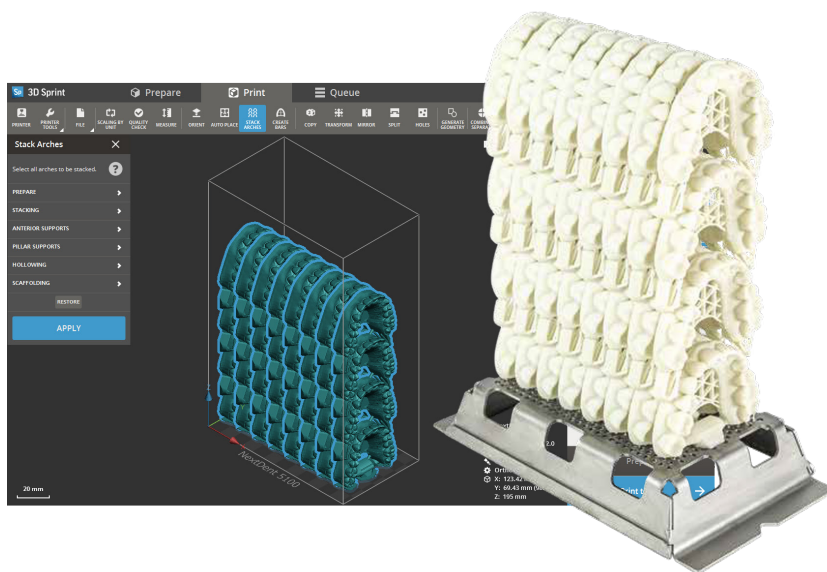
The dilemma of choosing Volume vs Accuracy has been resolved by 3D Sprint. Featuring Stacked Printing for high efficiency and speed along with 3X profitability in time and labor. Printing vertically allows for maintaining accuracy while increasing throughput.

Challenge : When printing large volumes, manually prepping, nesting, and post processing a layer of print at a time can be time consuming and inefficient. It becomes a limitation for a growing business.

Solution : The **Stack Arches** tool is a one-click solution for automated preparation & placement of parts, creating value by saving on material cost and delivering precision with high speed. It also includes a customized smart support feature which not only saves on material use but also generates supports only in locations where needed for stability, successful print and easy break off for separation and finishing.

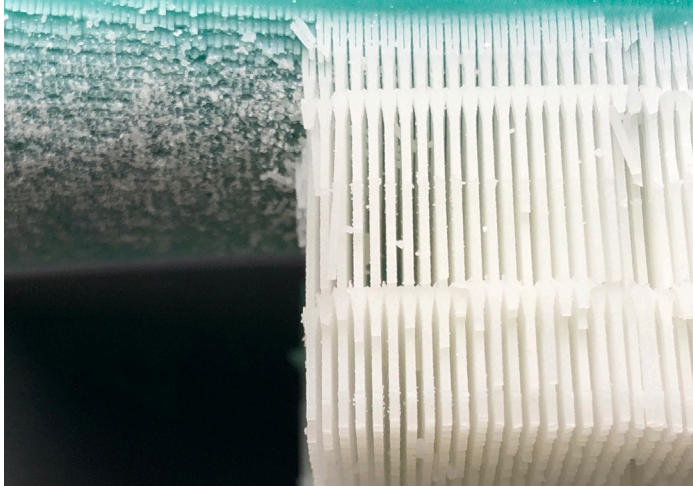
This optimized workflow is especially designed for volume manufacturing applications such as aligner production. It enables printing 30 models in under 2 hours with the new **Ortho Stacked** build style.

The **Stack Arches** tool is available only for White shade of Model 2.0 material for now and it will be supported for more materials in the future.



Auto Update Mechanism for New or Updated Materials

Material patch will be delivered via auto-update notification in 3D Sprint. This will update 3D Sprint database and firmware for MJP printers.



HDF Mode

A New HDF Build Mode for ProJet MJP Printers

This **HDF** mode offered on 2500 IC machines introduces a build mode that creates a special support material pattern to enhance Support Material brush away structure to reduce post-processing time and cleaning material usage.

Challenge : Provide a method that uses less support material and reduce post-processing while maintaining structural integrity of the build part.

Solution : A new **HDF** mode has been added for all ProJet MJP 2500 IC printers. This mode will be available in 3D Sprint only if the printer supports it. It employs a support pattern for brush-away support.

Auto-Lane Alternation

The **Auto Lane Alternation** is used to reduce wear and tear of the planarizer roller by placing parts (single and two lane jobs) in lanes with lowest usage.

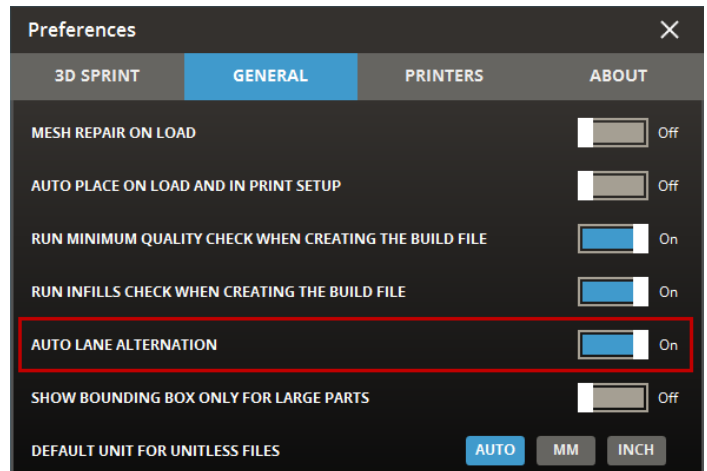
Challenge : Extend Planarizer roller life.

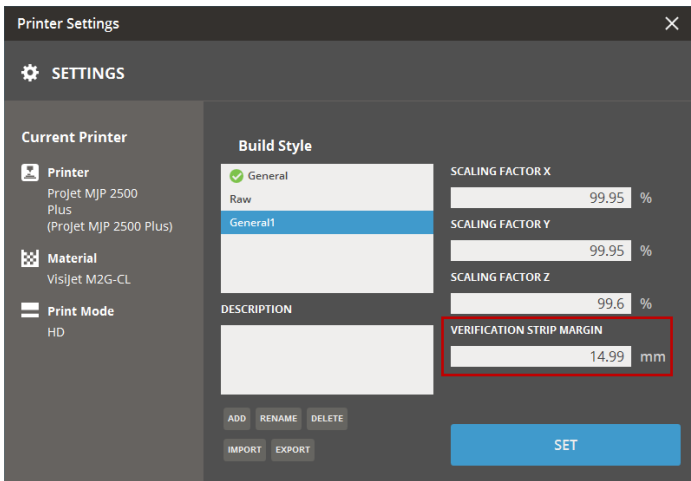
Solution : The **Auto Lane Alternation** option is now available in Preferences in 3D Sprint for ProJet MJP 2500 printers.

This option optimizes part positioning in the lane with the lowest usage during auto-placement, copy and import, and corresponds with the option to optimize part placement on a real printer.

This option will be effective when the user:

- Runs auto-placement
- Imports a new part and if the **Auto Place on Load and in Print Setup** option is set to “On” in Preferences.
- Copies parts on the platform
- Adds a part from the **Prepare** tab to the **Print** tab and if the **Auto Place on Load and in Print Setup** option is set to “On” in Preferences.





Verification Strip Margin

The **Verification Strip Margin** feature enhances jetting robustness when printing with the Visijet M2G-CL material.

Challenge : Improve jetting reliability.

Solution : Added **Verification Strip Margin** only for Visijet® M2G-CL material used with Projet 2500 Plus printer, positioning from the left bound of the current 5.59mm margin with 15mm as the default value. Additionally, with a new **Check Recommended Printing Volume** option added to the Preferences, you can prevent a part from being positioned in the non-recommended area while using the Transform command.

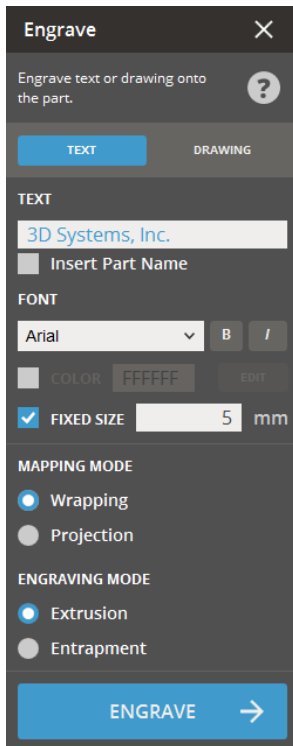
FabPro 1000, NextDent 5100, and all Figure 4 printers

Auto Update Mechanism for New or Updated Materials

Material patch will be delivered via auto-update notification in 3D Sprint. This will update 3D Sprint database with updated materials.

Key Improvements

Common

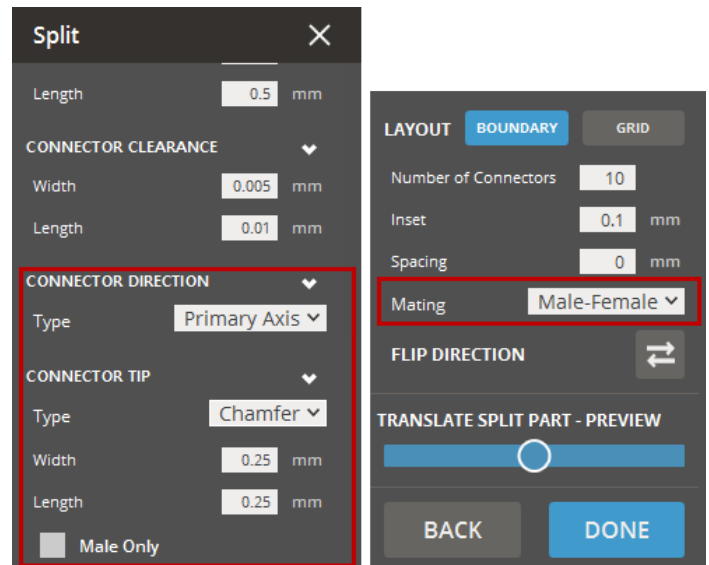


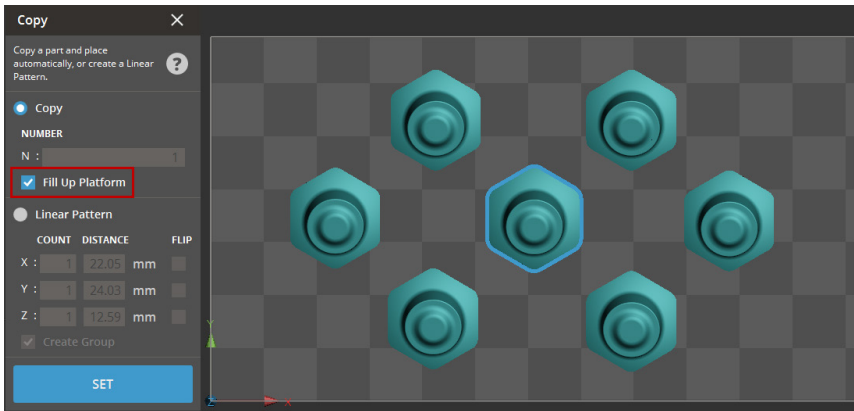
Engraving Improvements

The options in the **Engraving** command are now persistent for repeatable process. A .DXF file that contains spline entities can now be imported. Additionally, a new **Fixed Font** option has been added, allowing to fix the size of text or drawing data.

Improvements to Split Command

Various new methods for specifying direction or tip type of connectors have been added to the **Split** command. You can also define the mating type of the connectors.





Copying Parts

Added new options to the Copy command for management of copied and patterned parts.

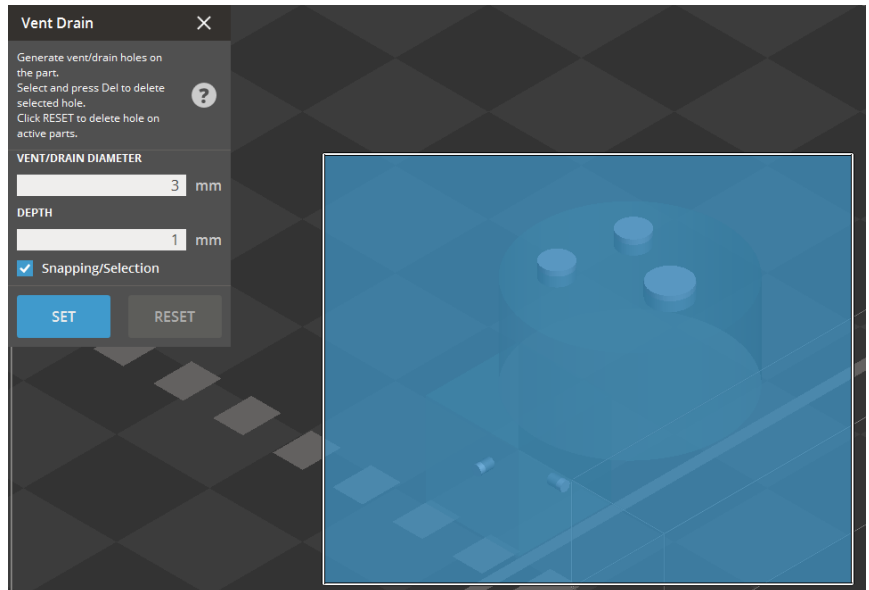
- **Fill Up Platform** - Allows to duplicate selected part(s) until the platform is fully utilized.
- **Create Group** - The Create Group option is now selectable. By selecting the Create Group, you can group patterned parts in the parts list so as to retain the pattern when moving or running the Auto Place command.

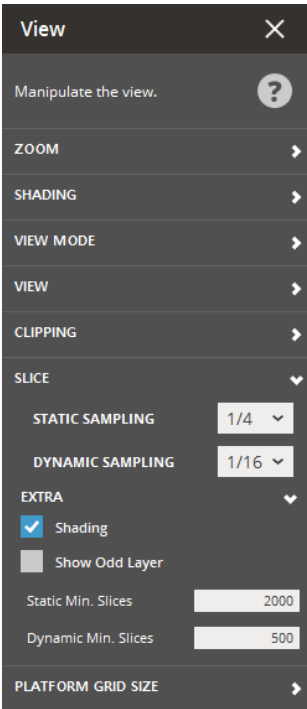
MJP and SLA

Improvements to Vent/Drain Command

The following updates were made to the **Vent/Drain** command.

- Readjusted the default values. This change is only for SLA printers
- The parameter values in the dialog are now updated as per the selected vent / drain.
- Vent and Drain holes are now multi-selectable by dragging a box or by holding the CTRL or SHIFT key.
- The last used parameters are now remembered for later use.
- Vent and Drain holes can now be dragged to reposition even if they are not along the Z axis.
- A warning will now be shown if users try to close the command without applying changes.

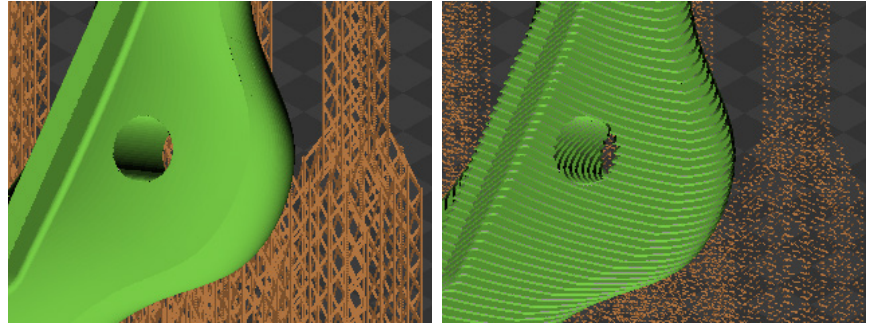




Slice View Sampling

Added a new Slice option to the View dialog for better viewing experience.

The **Slice** options allow the user to view sampled slices when viewing them on the graphics and when rotating or zooming the view. This also allows to set the display sampling threshold for both static view and dynamic view.



1/1 (Full Display)

1/16 (Sampled Display)

Support Structure Improvements

The following improvements were made to reliability of supports for SLA:

- Supports adapt for Z-compensation and beam line-width compensation values.
- Implemented tip clipping routine, so tips do not over-penetrate thin wall.
- Added ability to specify Z-compensation per region.
- Guaranteed that clipped tips do not miss the Z-compensated part.
- Fixed anchor points inconsistency for some cases.
- Fixed issues with part-support intersection.

Figure 4

Build Style Updates for Figure 4 and NextDent 5100

Build-Style Improvements were made to 3D Sprint 2.13.

- **NextDentC&B MFH** - Minor Build-Style improvements for improved robustness across a broad set of geometries.
- **NextDentCast** - 50µm Print Mode added to the Standard Build Style, which improves build time while maintaining great quality.
- **NextDent® Denture 3D+** - Translucent Pink shade is now available.
- **NextDent® Model 2.0 (Shade - Peach)** - a new Premium build style added, which gives higher surface quality with a moderate build rate. This style also supports solid horseshoe models.
- **NextDent SG** - New Fine Tip support style, which makes support removal easier.

SLA and Figure 4

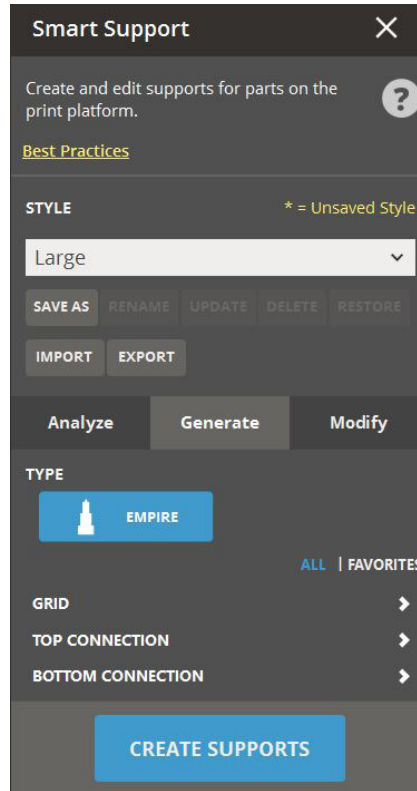
Optimized Smart Support Command

The Smart Support command allows the generation of a supporting structure to support parts during a build. The structures support the construction of parts and should be removed after the print is complete.

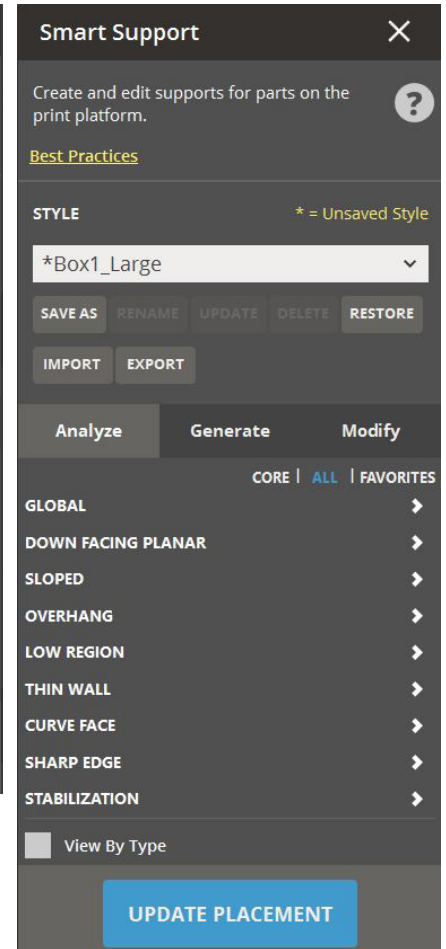
Challenge : Enhance the presentation of the current supporting ecosystem by giving better information to the users.

Solution : The Smart Support has been highly improved for the following subjects:

- **User-Friendly Parameters**
 - Reorganized parameters into coherent functionality areas.
- **More efficient and effective supports editing**
 - Added full styles persistence and allowed to save them to a .3dprint file.
 - Generate tab is now consistent with the Analyze tab.
 - Smart Supports Presets widget is now available at the global part of dialog.
 - Disabled support transparency when hovering over a part.
- **Feedback about supports and anchor points**
 - Added ability to see supports generated by a support point while hovering over it.
 - Added a warning message that appears when navigating away from edits of anchor points.
 - Added a warning message that appears when the Z-compensation value of a part is changed.
 - The user will be warned if supports may be removed by rotation or translation in the Z axis.
 - Anchor points are retained even if a part is translated in the Z axis.



Basic



Pro

Miscellaneous Enhancements

Common

Easy access to keyboard shortcuts - A new button for Keyboard shortcuts has been added to the top-right corner of the application, that makes users easy to access the Keyboard Shortcuts topic in the Help.

Minimum Offset Distance - The minimum offset distance in the Offset command has been changed to 0.025mm.

Horizontal Scroll Bar in the Parts List - In the parts list, the horizontal scroll bar has been added, that allows the user to scroll over to view the entire name of parts.

View Dialog - Added new options to the View dialog for better viewing experience.

- **Silhouette For Problem Parts** - Ability to turn on/off the visibility of silhouette edge for problem parts.
- **Dynamic Rotation Center** - Allows to set the center of rotation of the view dynamically by right-clicking on the graphics canvas.

Fix Minimum Z Option - A new **Fix Minimum Z** option has been added to the Transform, that keeps the current minimum Z-height as the lowest position of parts. While the option is selected, the lowest point of the parts is always kept on the current minimum Z-height even if the parts are moved under or above this height.

Offset Command - The **Offset** command is now separated into three commands: **Offset**, **Hollow**, and **Thicken**. Each of these commands is intended for a unique result.

Crease Selection Tool - A new **Crease** selection tool has been added to Manual Fix, that allows to select faces dynamically by growing selections. After selecting a face on the part, you can control the sensitivity of the selection by moving the mouse pointer upward or downward.

Run Minimum Quality Check - The **Run Minimum Quality Check When Creating The Build File** option in the Preferences is now set to On by default.

SLA

Build Style File Import - The mismatch of printer type can be checked when importing the file. If the printer or type in the sty or rcs file is not the same as the current printer or type, a warning will be shown.

Build Style - The parameters of the Z-compensation can now be specified per region under the Edit Build Style Parameters. The specified parameters can be propagated across styles, database, and into build file. Additionally, if the Z-compensation is changed, a warning will be shown to avoid the non-contacting support tip situation.

Visibility of Down Face - The visibility of the **Down Face** angle view filter is now toggled with the "D" shortcut key and its settings can be adjusted with the "D + Arrow" Keys. Hold the CTRL or SHIFT key to step in larger increments.

Visibility of Supports - The visibility of supports can now be toggled. This enhancements affect SLA and Figure 4 Printers.

Keep Supports after Transform - If supports exist, with a new Keep Supports option, you can keep supports along the movement of a part. This enhancements affect SLA and Figure 4 Printers. Additionally, the rules of the preservation of Anchor Points have been changed based on the movement of supports as follows:

Anchor Points will be:

- Kept while supports are translated in the X, Y, or Z axis
- Kept while supports are rotated around the Z axis
- Discarded while supports are rotated around the X or Y axis
- Discarded while supports are scaling

Figure 4

Build File - Consider the Z scale factor when creating the build file.

MJP

Verification Strip - Updated the verification strip for Visijet® M2G-CL for improved jetting reliability.

SLS

Hole - The **Hole** command is now available for SLS printers.

Move to Origin - The **“Move to Origin”** button now moves the bounding box of selected parts to the printer origin. (i.e., the center of the platform)

3D Sprint 2.13

Common

- **GW-21021:** The color of parts was not maintained after opening a .3d print file that includes parts engraved with a color.
- **GW-20219:** The preview was not updated even if the engraving direction was changed.
- **GW-21742:** The “Set Base” button became dimmed after it was applied.
- **GW-21186:** 3D Sprint crashed when using the Combine / Separate command.
- **GW-21479:** A moved part was overlapped with an existing part after Autoplace was run.
- **GW-19819:** The error message that appeared when the firmware auto-update was not allowed has been revised for better understanding.
- **GW-19726:** 3D Sprint crashed after undoing for engraving.
- **GW-19296:** The Offset was applied not only for the selected parts but also all other copied instances of the part.
- **GW-19253:** The UI wouldn't update to be reflected according to the autoplace priority in the style.
- **GW-21312:** A .zbd file would not imported.
- **GW-20653:** Many of unused 3D Sprint app icons would display in the Windows System Tray.
- **GW-20243,** The Cancel(X) button wouldn't work or 3D Sprint got hung up while autoplacing parts with the “Repeat part
GW-18523: until filling.”
- **GW-19954** The color of parts would lose when adjusting brightness.
- **GW-22302** The splash screen would block the user from working until 3D Sprint starts.

SLA

- **GW-19276:** The build style of SLA printers was not updated with the common parameters.
- **GW-15523:** Vent and drain holes were still visible even after the part visibility was changed to hidden.
- **GW-21072:** Undoing after translating a part in Z axis shifted supports.
- **GW-15263:** Supports would not persist after rotating a part that contains measurements. The supports are now persisted only when a part is rotated around a Z axis.
- **GW-21020,** The compensation would result in non-intersected support tips for the case of very thin wall.
GW-20139:
- **GW-21393:** Selection was unconstrained by the selection option under the Modify tab in the Smart Support command.
- **GW-20433:** 3D Sprint crashed when switching tabs while the Recoat Style dialog was open.
- **GW-15917:** There were some cases of supports-part intersections.
- **GW-16100:** Anchor points were missing along edges.
- **GW-17847:** There were some inconsistent cases of anchor points.
- **GW-21138:** Upper region down-face would not be supported if different Z correct layer values were set for difference regions.

Figure 4

- **GW-21293:** 3D Sprint crashed after deleting and regenerating supports.
- **GW-20714:** The material name didn't display in the Printer Queue list.
- **GW-15818:** Modification of supports would not be saved even if the operation was done.

MJP

- **GW-21537:** Auto-placement did not work properly in some cases for MJP printers.
- **GW-19867:** 3D Sprint crashed when adding a job to the Printer Queue.

SLS

- **GW-21102:** The Z-height of sPro 230 has been changed to 750mm.
- **GW-20061:** Added the slow feed roller and piston heater temp ramp down settings to the Advanced configuration of EX NAT.

5 KNOWN ISSUES

3D Sprint 2.13

Figure 4

- **GW-22702:** Check for Updates would try to transfer a .ddd file rather than downloading if there was an existing upgrade file on user's system. The workaround is to delete the .ddd file and then retry the update.
- **GW-22963:** Name of the log file saved from the Print tab and Queue tab is different from each other.
- **GW-22962:** Cannot switch tabs when the user hits Cancel on the 'Save Log' dialog. Switching tabs works fine if the user hits OK on this dialog to save the log file. Workaround is to invoke another dialog and close it in order to be able to switch tabs.

SLA

- **GW-22821,** Issues with managing presets when a part build style or recoat style is imported for the support build style or **GW-22822,** recoat style and vice-versa.
GW-22925:

Projet 1200

- **GW-22946:** Crash when adding a job to the queue using 'Add to Queue' in Print tab. Workaround is to save the build file using 'Print to File' and add it to the queue using 'Add Job From File' in the Queue tab.



Find out more at: <https://www.3dsystems.com/software/3d-sprint>

3D Systems provides comprehensive 3D products and services, including 3D printers, print materials, on-demand parts services and digital design tools. Its ecosystem supports advanced applications from the product design shop to the factory floor to the operating room. As the originator of 3D printing and a shaper of future 3D solutions, 3D Systems has spent its 30 year history enabling professionals and companies to optimize their designs, transform their workflows, bring innovative products to market and drive new business models. Specifications subject to change without notice. 3D Systems, the 3D Systems Logo, 3D Sprint and the 3D Sprint logo are trademarks of 3D Systems, Inc. All other trademarks are the property of their respective owners.

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