

# V5

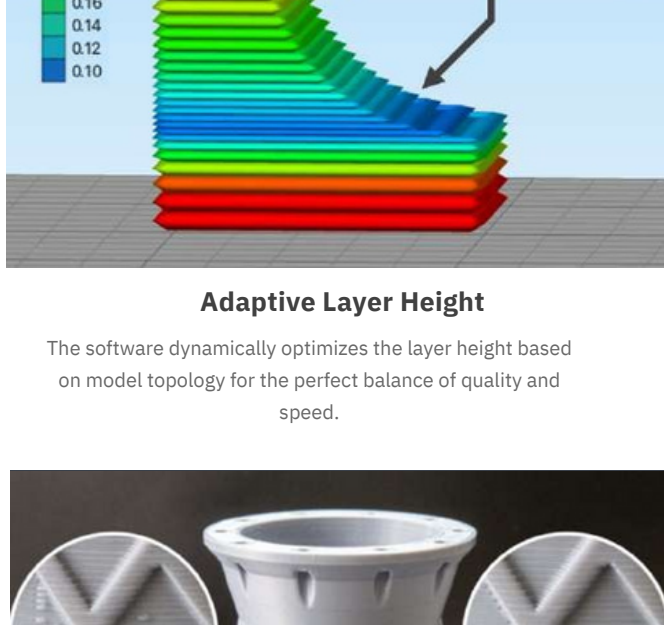
## REBUILT FROM THE GROUND UP

- 120 New Features and Improvements
- 3.0x Faster Slicing Performance
- 90 New Supported Printers
- Years of R&D Innovation



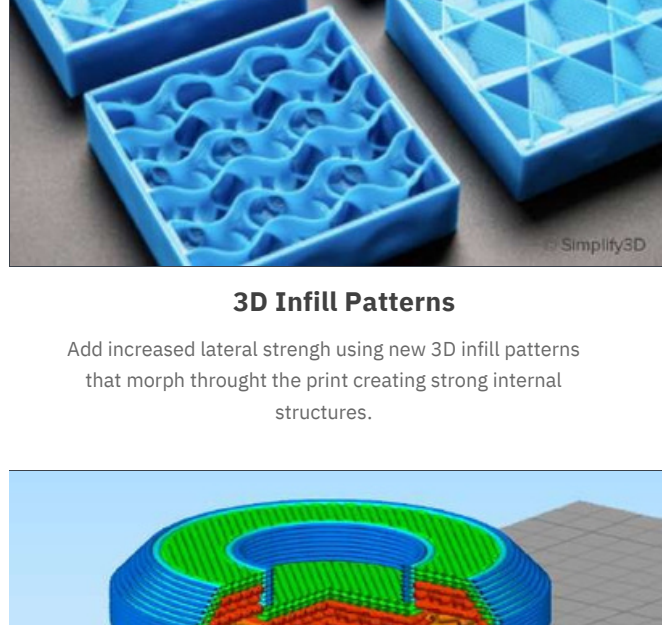
## POWERFUL SLICING INTELLIGENCE

Our next generation slicing engine in Version 5.1.1 performs intelligent optimizations behind-the-scenes to produce stronger, faster, and less expensive prints automatically! We've taken decades of additive manufacturing experience and embedded it into the software so customers can unlock improved prints with a single click.



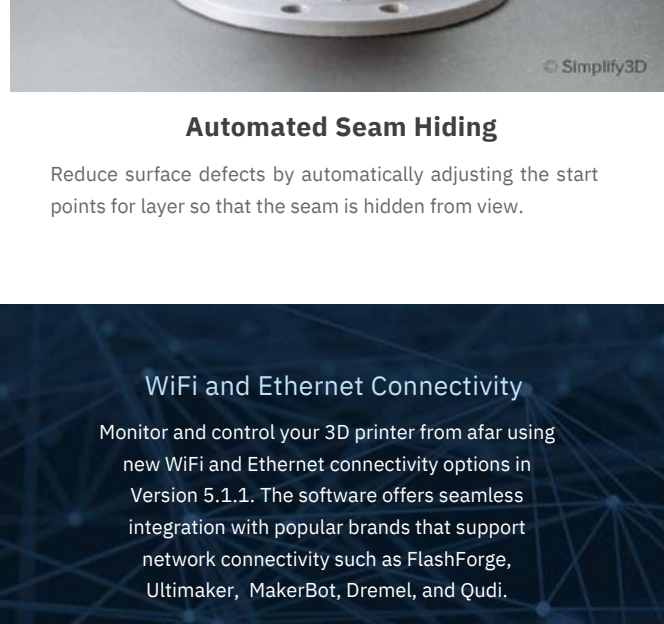
### Adaptive Layer Height

The software dynamically optimizes the layer height based on model topology for the perfect balance of quality and speed.



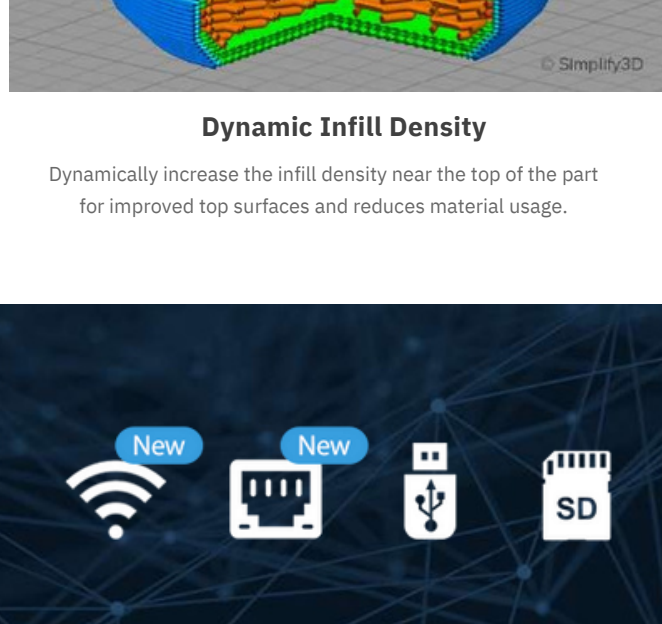
### 3D Infill Patterns

Add increased lateral strength using new 3D infill patterns that morph through the print creating strong internal structures.



### Automated Seam Hiding

Reduce surface defects by automatically adjusting the start points for layer so that the seam is hidden from view.

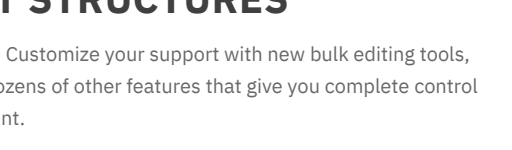


### Dynamic Infill Density

Dynamically increase the infill density near the top of the part for improved top surfaces and reduces material usage.

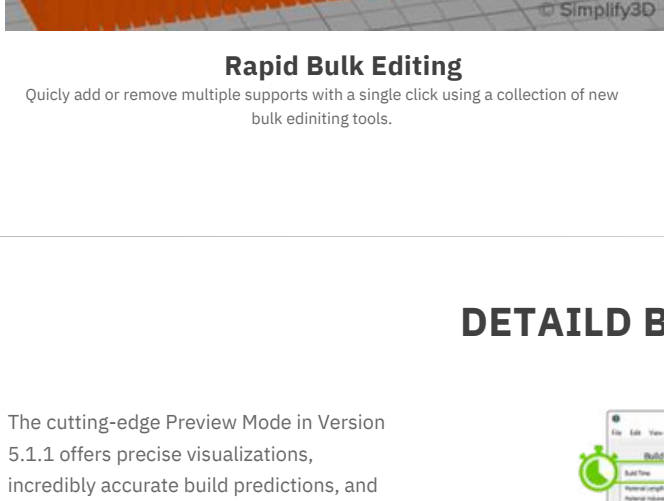
## WiFi and Ethernet Connectivity

Monitor and control your 3D printer from afar using new WiFi and Ethernet connectivity options in Version 5.1.1. The software offers seamless integration with popular brands that support network connectivity such as FlashForge, Ultimaker, MakerBot, Dremel, and Quid.



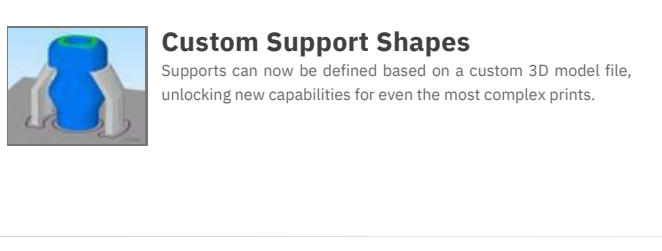
## SUPERCHARGED SUPPORT STRUCTURES

Simplify3D's industry-leading structures are even more advanced in Version 5.1.1. Customize your support with new bulk editing tools, add strength with support infill patterns, or achieve extensive customization with dozens of other features that give you complete control over this critical aspect of the print.



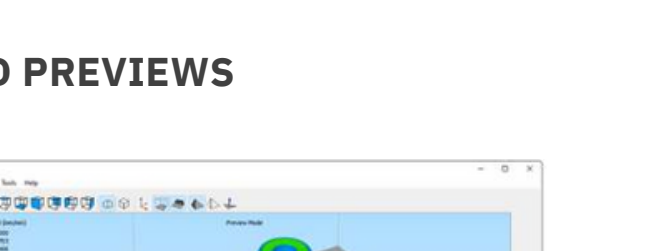
### Rapid Bulk Editing

Quickly add or remove multiple supports with a single click using a collection of new bulk editing tools.



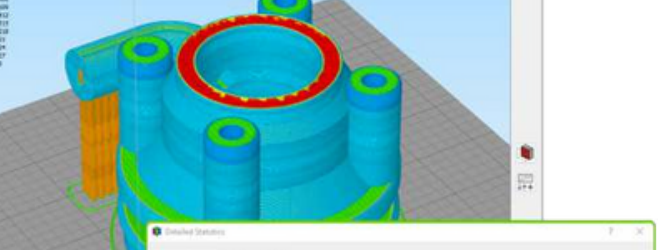
### Support Infill Patterns

Choose from a variety of new support infill patterns that create stronger supports for improved stability with tall or challenging prints.



### Detailed Customization

Gain more control over support structures with new customization options for dense supports, printing speeds, wicking, and sequences.



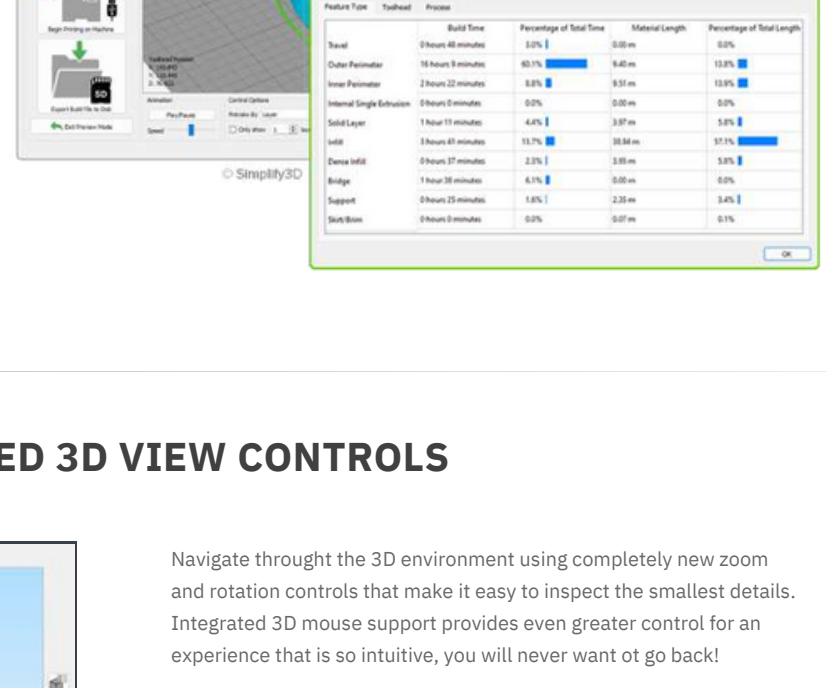
### Custom Support Shapes

Supports can now be defined based on a custom 3D model file, unlocking new capabilities for even the most complex prints.

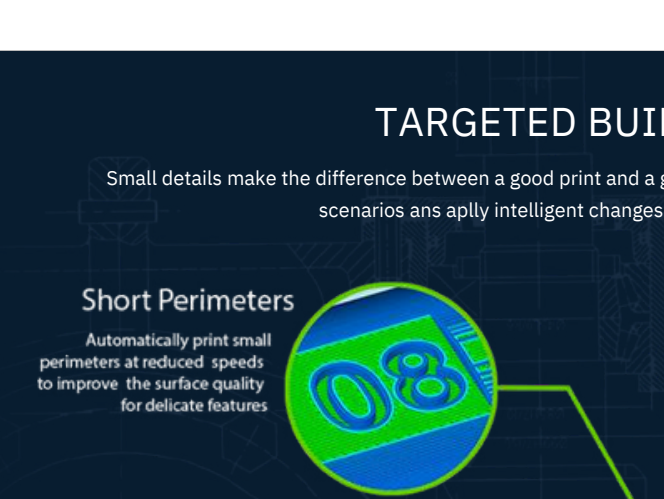
## DETAILED BUILD PREVIEWS

The cutting-edge Preview Mode in Version 5.1.1 offers precise visualizations, incredibly accurate build predictions, and insightful metrics that provide valuable insights into the printing process.

- Accurate Time Estimates** - New algorithms provide highly accurate time predictions with customizable parameters for fine-tuning.
- New Coloring Modes** - New layer height and flow rate coloring modes give improves ways to visualize and validate the printing process.
- Detailed Preview Statistics** - Review tabulated data with the exact time and material usage for each feature type tool, and process.



## UPGRADED 3D VIEW CONTROLS



Navigate through the 3D environment using completely new zoom and rotation controls that make it easy to inspect the smallest details. Integrated 3D mouse support provides even greater control for an experience that is so intuitive, you will never want to go back!

- 3D Mouse Support
- Precision Zooming
- Dynamic Rotation
- New Camera Models



## TARGETED BUILD CUSTOMIZATIONS

Small details make the difference between a good print and a great print. Version 5.1.1 gives you new ways to target fine-grained scenarios apply intelligent changes for increased strength, speed, and quality.

### Short Perimeters

Automatically print small perimeters at reduced speeds to improve the surface quality for delicate features.

### Small Feature Reinforcement

Automatically print small islands with reinforced solid fill to improve part strength for fragile regions of the print.

### Hole Size Compensation

Customize the offset for interior holes separate from the rest of the model for fine-tuned tolerances that create a perfect fit.

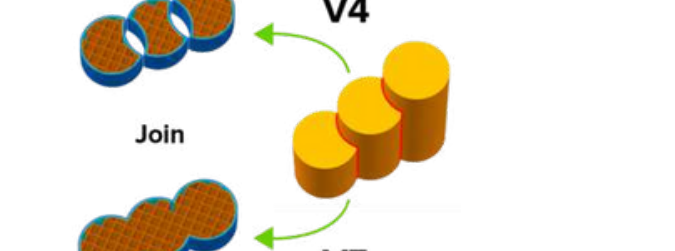
### Flow Rate Control

Maximize your print speed based on the flow rate capabilities of the extruder reducing print times without the risk of clogs.

## SEAMLESS CAD INTEGRATION

New features strive to create a seamless experience with your favourite CAD or 3D modeling software. Match the 3D control schemes between applications and automatically keep edits to your model geometry in sync.

	Rotate	Pan
Fusion 360	Shift + [Icon]	[Icon]
SolidWorks	Ctrl + [Icon]	[Icon]
Blender	[Icon]	Shift + [Icon]
OnShape	[Icon]	[Icon]



### Customizable Control Schemes

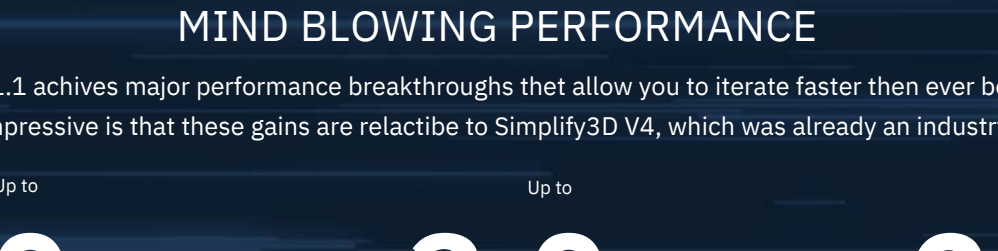
Mouse and keyboard control schemes used to navigate the 3D view can now be matched to popular CAD and 3D modeling programs, making it easy to switch between applications.

### Live Tracking of Model Geometry

Modification to your 3D geometry will be automatically synced with Simplify3D, allowing you to make quick edits to the CAD design without losing any prior build setup details.

## AUTOMATIC MESH REPAIR

Major improvements to mesh processing allow many common mesh to be automatically repaired in real-time during slicing. The gives customers the power to print a wider variety of models without having to slow down to manually fix the mesh in advance.



### Zero Thickness Surface

Many real-world models have zero thickness surface that define a shape, but don't create a valid 3D solid. New algorithms can automatically thicken these surface to create printable geometry on the fly.

### Overlapping Self-Intersecting Bodies

Self-intersection can create any problem for geometry processing tools, but new software logic automatically heals overlapping bodies to create a successful print without any extra rework.

## MIND BLOWING PERFORMANCE

Version 5.1.1 achieves major performance breakthroughs that allow you to iterate faster than ever before, even more impressive is that these gains are relative to Simplify3D V4, which was already an industry leader!

Up to

# 2.0x

Faster Geometry Importing  
Compared to V4

Up to

# 3.0x

Faster Slicing Performance  
Compared to V4

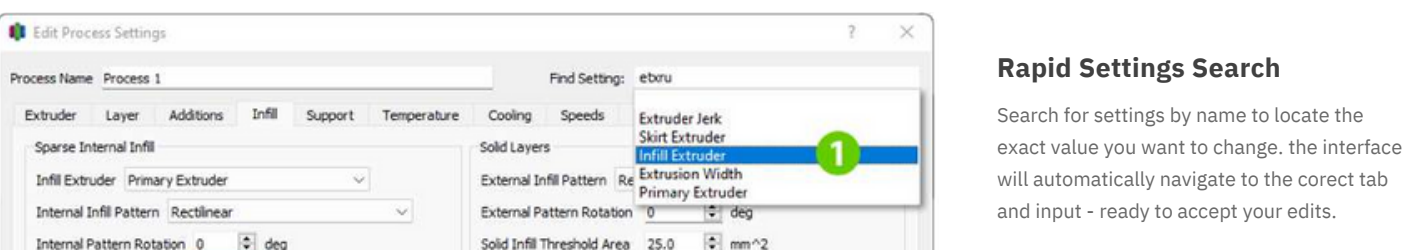
Up to

# 2.0x

Faster Print Preview Loading  
Compared to V4

## UNMATCHED HARDWARE SUPPORT

Version 5.1.1 is ready for the latest generation of 3D printing hardware, with new features that make it easier to support color mixing or many-to-one extrusion setups, independent extruder\_IDEX motion systems, and much more!



### Diverse Extruder Setups

New customization options support mixing and 3-in-3 extruders, along with IDEX and tool changer systems.

### Multi-Extrusion Simplicity

Easily create sophisticated prints with the new Multi-Extrusion Wizard and automatic idle cooldown functionality.

### Efficient Printing

Automatically shield the prime pillar and ooze shield after the last tool change to save time and material.

### Pre-Calibrate Setup

Version 5.1.1 includes support for over 90 new 3D printers with settings that were carefully tested and verified in our labs.

## INTUITIVE SETTINGS MANAGEMENT

The Process Settings system in Version 5.1.1 provides more control, deeper insights, and faster automatization for common changes. Profiles can be deeply customized to meet your exact specification using a variety of new visual editing tools.

### Automate Common Changes

If you find yourself adjusting the same settings every time you print a specific type of part, you can now automate these changes by defining custom categories that adjust multiple settings with a single click.

### Visual Settings Assignment

Choose which automation category will control each setting with a new visual editor. Customize which values are changed by the material selection, quality level, or invert on entirely new category that matches your workflow.

### Rapid Settings Search

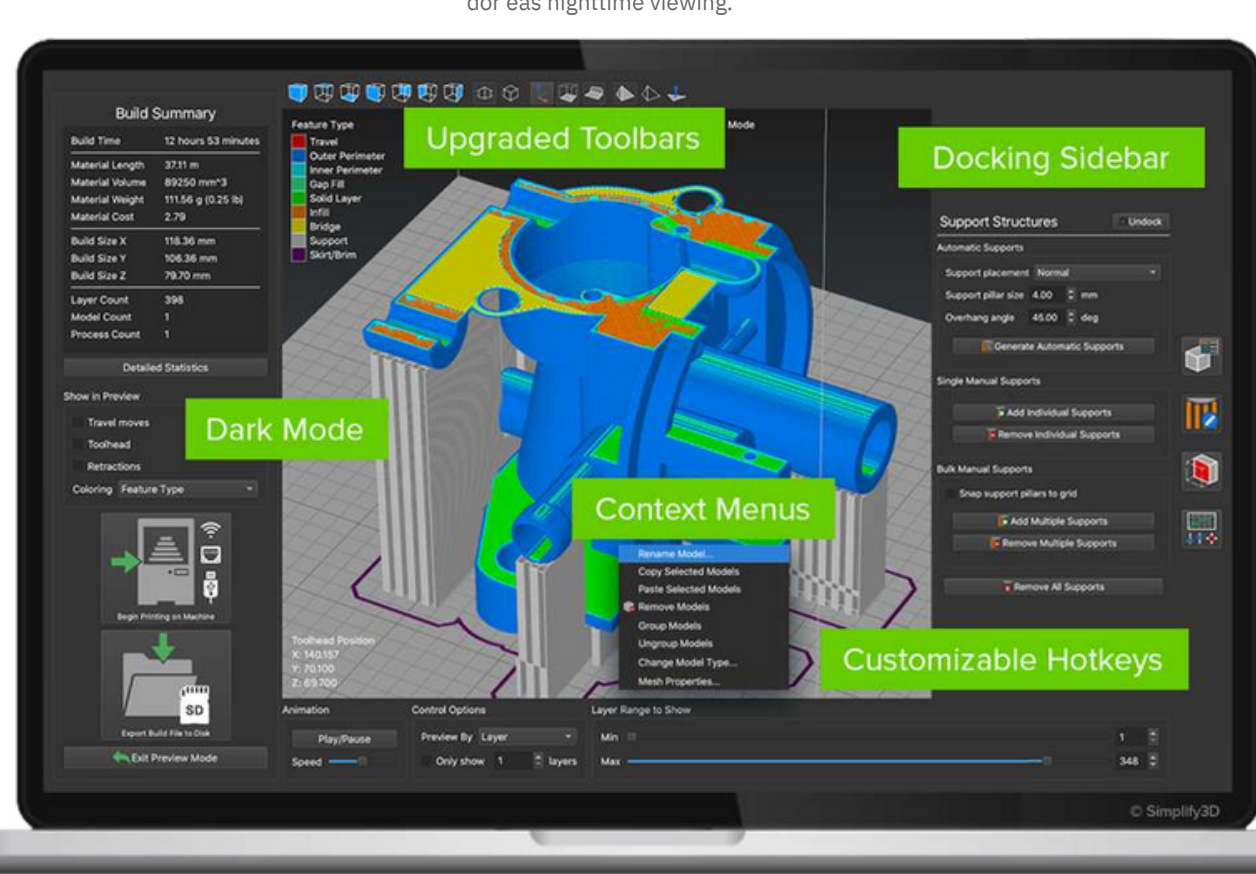
Search for settings by name to locate the exact value you want to change. The interface will automatically navigate to the correct tab and input - ready to accept your edits.

### Visual Settings Search

Highly modified settings for quick verification or compare the settings between different profiles to isolate the most important differences.

## EMPOWERING USER INTERFACE

The user interface in Version 5.1.1 was overhauled with a focus on efficiency. Customizable keyboard shortcuts, new utility toolbars, and quick access right-click menus place the most common controls easily within reach. A new docking sidebar improves access to important dialogs while maximizing available screen real estate. Other notable changes include new model transform tools, visual process zone verification, additional configuration wizards, and an alternate dark mode theme for easy nighttime viewing.



## GET STARTED TODAY!