

# 3Design V12.000

## Main changes:

- Rendering has been improved, with the addition of a better optimized and more realistic graphics engine.
- Right click menu is now a 360° menu.
- 3Design is now natively compatible with ARM based chips on macOS.
- Image and material database have been improved.

## Detailed features:

- Rendering:
  - Rendering received a major overhaul, so it can display more realistic objects more efficiently.
  - Preferences are available in the 3D viewer settings dialog.
  - A simplified rendering is available to reduce the models to basic materials. It is available in the View menu.
- Iris menu:
  - Right click menu is now a 360° menu.
  - Right click menu now proposes a favorite action at its center. It is based on the last favorite action added.
  - Size, animation delay and tooltip delay can be customized in Options menu.
  - Some icons in right click menu have been reworked to be more explicit.
- Material and image database:
  - Material database has been improved to support the new rendering engine.
  - Preview of materials is now performed using new rendering engine.
  - Size of the preview can be modified when picking materials or images.
  - Database can now be opened directly from the picking field.
  - Materials can now be replaced by other materials.
  - Cut/paste and move up/down a resource options have been added.
  - Textures can be duplicated to increase the resolution.
  - Images can now be added directly from 3Design, rather than adding them in user folder.
  - Cubemaps handling has been improved to be easier to use. It is now possible to add different kind of cubemaps.

- More models are available as preview.
- Each Precious metal material has been enhanced with other aspects (like Brushed or Sandblast).
- A search bar is now available in both material and image database.
- **3Shaper:**
  - Weld in 3Shaper Mirror item is now active by default.
  - Color dialog in 3Shaper now displays selection information.
  - Add split iteration to Split and pull item.
  - Automatic switch in properties on 3Shaper.
- **Construction tree:**
  - Tree can now be reordered by drag and drop.
  - Folders can now be created in the tree.
  - Transparency can now be disabled on the tree.
- **Modify curves:**
  - It is now possible to choose distance from start/end for the trim positions.
  - It is now possible to choose a negative distance.
- **Zoom window:**
  - An action has been added in the View menu to toggle on/off a zoom window, that provides a focused viewpoint.
  - An option was added to automatically display zoom window when a curve is being created or edited in sketch.
  - Zoom window size or zoom factor can be changed in Options menu.
- **Variable channel:**
  - Close curve starting point can now be changed in Variable channel.
  - Middle curve is now displayed in variable channel.
- **Miscellaneous:**
  - Add a dialog to record the 3D view with many options (resolution, framerate, duration, animation of objects, etc).
  - Lists can now be expanded/reduced. Maintaining Ctrl/Cmd pressed while expanding/reducing will affect only the height of the list, while pressing Shift will affect only the width.
  - Offset curve in Modify curve can now be previewed.
  - Initial Top value of Multiple cutter has been increased to 200%.
  - Create a single surface option in sweeping wizards is now active by default.
  - Each 3Design major version will now be installed in its own directory.
  - Size of VTF files has been reduced by default.
  - Multi-selection tools now have a visual indication that selection is active.



- Tree can now be reordered through drag & drop. Objects can be moved from one part to another through drag & drop as well.
- Seam of symmetric NURBS closed curves can now be set on the curve on the symmetry axis.
- Offset curve now performs better offsets, that are less likely to display holes.
- Extracted curve precision now depends on the preference in options menu.
- Default maximum number of multicopy objects has been increased.
- Part button is now disabled when Sketch module is active.
- Default parameters for Baguette item have been modified.
- Timer is automatically paused if no activity on the software has been detected. The detection time can be defined in preferences.
- In between item has been improved to better handle discontinuities.
- A new UV generation technique has been added.
- Manipulators in Bezel settings are now closer to the object to modify.
- An option to control the display of the tree has been added in F12 menu.
- Topology display performances have been improved. Result is also more consistent, and takes into account duplicated objects.

## Bug fixes:

- **Advanced pavé:**
  - Fix frontiers display in pavé with some models.
  - Fix slowness of advanced pavé with hundreds of stones.
  - Fix appearance of diameter display with some models.
  - Fix stone position text leaving the bounds of the circle.
  - Fix stone position creation when diameter is displayed.
- **Topology display:**
  - Fix slowness of topology display.
  - Fix display of new objects when topology display is enabled.
  - Fix size of the topology display icon in progress bar.
- **Sketch:**
  - Fix removal of points with backspace in Polycurve.
  - Fix issue with point drag manipulator when using tab to change plane orientation.
  - Fix display of auxiliary line in revolved curve.
  - Fix incorrect name of Revolved curve.

- Fix 3Design being in a corrupted mode when performing point manipulation in sketch.
- **Variable channel:**
  - Fix issue with "Symmetric from the middle" strategy with closed curve.
  - Fix "Fill all curve" option.
  - Fix stones that could sometimes be upside down.
  - Fix channel that stops halfway through the last stone.
- **Baguettes:**
  - Fix Baguette that didn't follow the curves.
  - Fix Baguette display.
  - Fix inconsistent orientation for stones with angles.
  - Fix manipulator not being displayed.
  - Fix rail manipulator incorrect position with some models.
- **Twin copy of:**
  - Fix incorrect initial values of Cut and delete twin copy.
  - Fix incorrect initial values of Curve sweeping twin copy.
  - Fix twin copy handling of angles with Move/Rotate/Scale.
- **Modify curve:**
  - Fix incorrect boolean operations in Modify curves.
  - Fix Boolean curves that sometimes failed.
  - Fix impossibility to validate link to support in modify curve.
- **Miscellaneous:**
  - Fix stone center reset when validating Custom stone creation.
  - Fix japanese characters display in technical drawing.
  - Fix issues where items couldn't be restored after deletion in some occasions.
  - Fix multiple viewports display on macOS.
  - Fix Parallel projection and Zoom to cursor preferences.
  - Fix display of volumic cost in material report.
  - Fix unwrap crash with some surfaces.
  - Fix rendering issues due to tessellation.
  - Fix the opening of some .3dm files.
  - Fix overlap with text in About page on macOS.
  - Fix missing icon in Helix/Spiral item.
  - Fix space mouse recognition on Ventura and Sonoma.
  - Fix corruption when a file is opened in multiple versions of 3Design.
  - Fix Rotation icons and text appearance in quick action toolbar.
  - Fix technical drawing incorrect validation with some files.
  - Fix display of preview in In between 3D.