

# 3D-Tool V15 Quick Reference: 3D-Mode

## The Ribbon Menu in 3D-Mode

The ribbon menu is divided into several sections:

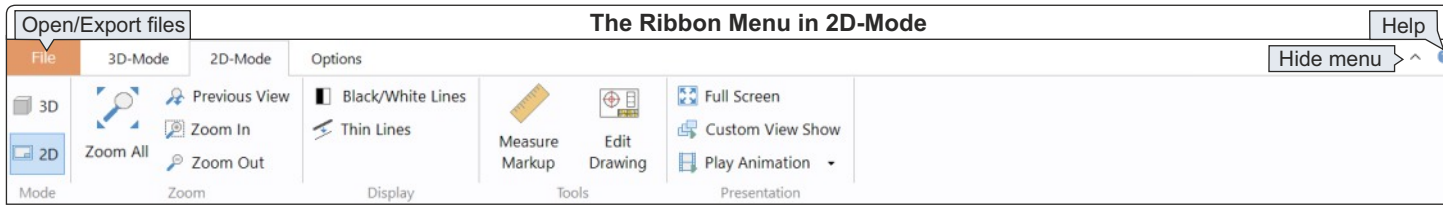
- File:** Open/Export files
- Mode:** Switch between 3D and 2D
- Zoom:** Zoom in and out of the model in the display
- Display:** Change render mode and display settings
- Orientation:** Change the orientation of the model in the display
- Tools:** Cross Section, Measure/Markup, Painter and Explode Tool
- Toolbox:** Toolbox for Placement Analyses, Model Compare and Repair
- Presentation:** Create, play animations and present in full screen mode
- Model Tree:** Commands and functions for the models, assemblies and parts on the Model Tree

The interface includes several key components:

- The Quick Access Toolbar:**
  - Open file
  - Close scene
  - Save
  - Publish Viewer (\*.exe)
  - Publish 3D-PDF file (\*.pdf)
  - Print
  - Create PNG Picture (\*.png)
  - Capture to Clipboard
- The Model Tree:**
  - Hide and show assemblies and parts and select them for further actions.
  - Active model / inactive
  - Filtered model / inactive
  - Expand assembly / collapse
  - Shown assembly / hidden
  - Shown part / hidden
- Change Selected Parts:**
  - Hide/Show the parts and assemblies selected in the Model Tree and change their display mode.
  - Show Parts
  - Hide Parts
  - Show Selection Only
  - Undo Show/Hide
  - Search in Model Tree
  - Filter Model Tree
  - Select in Model Tree
  - Change Color of Parts
  - Shaded Parts
  - Shaded Parts with Edges
  - Wire Frame Parts
  - Reset Part Display
  - Part Transparency On
  - Part Transparency Off
- Lighting / Background:**
  - Change the lighting direction to improve the contrasts.
  - Switch the color of the background between *White* and *Normal*.
- Mouse Actions:**
  - Rotate
  - Move
  - Zoom
  - Context menu
  - Select Parts / Selection in tools
  - Multi-Select
- Touch Gestures:**
  - Rotate
  - Move
  - Zoom
  - Context menu
  - Select Part
- 3D Mouse:**
  - Button function: Fit View
- Custom Views:**
  - Save the position and orientation of the model along with all display settings.
  - Master View (Show all)
  - < Previous Custom View
  - > Next Custom View
  - Save Custom View
  - Previous view



# 3D-Tool V15 Quick Reference: 2D-Mode



- Switch between 3D and 2D
- Zoom in on and out of the drawing in the display
- Change the display of line
- Add dimensions and markups and edit elements of the drawing
- Play animations and present in full screen mode

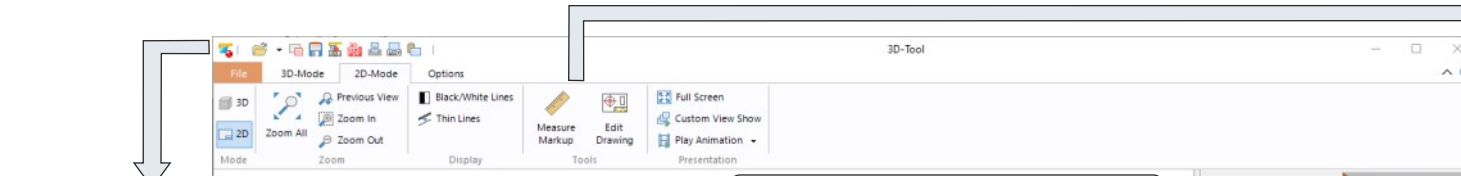
### Tools

**Measure**

- Distance
- Angle
- Radius
- Diameter
- X-Distance
- Y-Distance
- Line length
- Angle by 4 points

**Markup**

- Arrow
- Sketch
- Circle
- Rectangle
- Oval
- Cloud
- Add text
- Add picture



### The Quick Access Toolbar

- Open file
- Close scene
- Save
- Publish Viewer (\*.exe)
- Publish 3D-PDF file (\*.pdf)
- Print
- Create PNG Picture (\*.png)
- Capture to Clipboard

### Layer Functions

- Hide/Show layer
- Show all layers
- Hide all layers

### Edit Drawing

- Delete the selected elements
- Change the color of the selected elements
- Move the selected elements
- Scale the selected elements
- Change text element

### Layer Functions

- Hide and show layers.
- 3D-Tool dimensions
- 3D-Tool redlining
- Shown layer / Hidden layer

### Background

Change the background of the 2D-drawing. Black color, White color or Custom color.

To choose the custom color click the button.

### Mouse Actions

- Move
- Zoom
- Select in 2D tools

### Touch Gestures

- Move
- Zoom
- Select in 2D tools

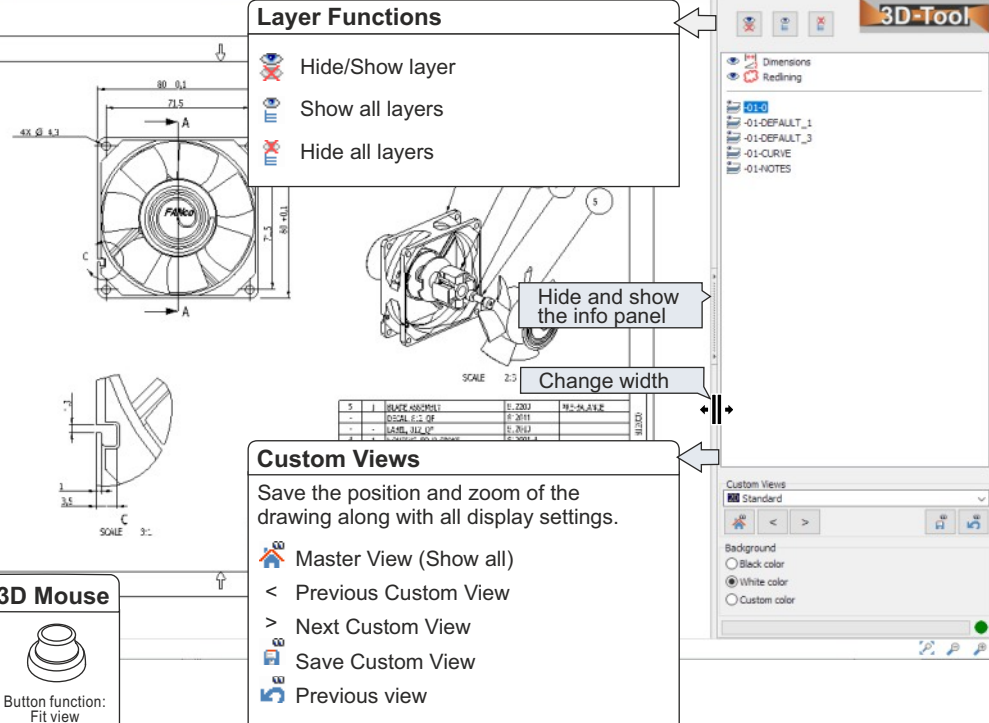
### 3D Mouse

Button function: Fit view

### Custom Views

Save the position and zoom of the drawing along with all display settings.

- Master View (Show all)
- < Previous Custom View
- > Next Custom View
- Save Custom View
- Previous view



# 3D-Tool V15 Quick Reference: 3D-NativeCAD Converter

**Supported 3D-Conversions**

CATIA, Pro/E, Creo, Inventor, SolidWorks, SolidEdge  
 UG/Siemens NX, X\_T, X\_B, JT, Rhino  
 STEP, IGES, VDA, SAT, DWG, DXF

↓

CATIA V4/V5, X\_T, STEP, IGES, VDA, SAT, SAB, STL

**Model Tree Functions**

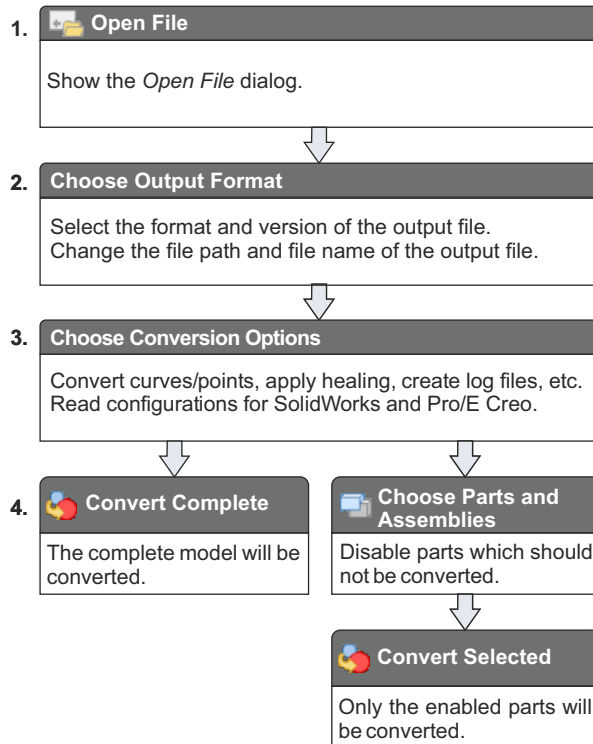
Functions that apply to all assemblies and parts on the Model Tree.

- Expand all assemblies
- Collapse all assemblies
- Enable all parts
- Disable all parts

**The Model Tree**

Disable and enable assemblies and parts by clicking on their icons:

- Enabled assembly
- Disabled assembly
- Enabled part
- Disabled part

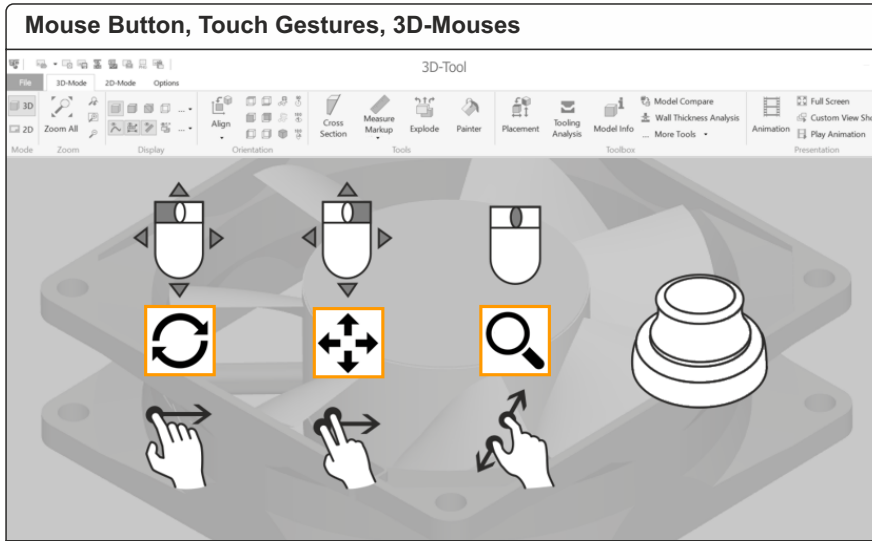


The screenshot shows the 3D-NativeCAD Converter interface with the following callouts:

- Open file:** Points to the file selection icon.
- File path and file name of the output file:** Points to the output file text field.
- Output format:** Points to the format dropdown menu.
- Output version for CATIA V5, SAT, SAB und X\_T:** Points to the version dropdown menu.
- Conversion options:** Points to the options section with checkboxes for healing, log files, and units.
- Read configurations and simplified representations:** Points to the 'Read Configurations' button.
- Convert all assemblies and parts of the file:** Points to the 'Convert Complete' button.
- Read the assembly structure and choose parts and assemblies which should be converted:** Points to the 'Choose Parts and Assemblies' button.
- Cancel the selection:** Points to the 'X' icon in the model tree selection dialog.
- Convert the enabled parts and assemblies:** Points to the 'Convert Selected' button.

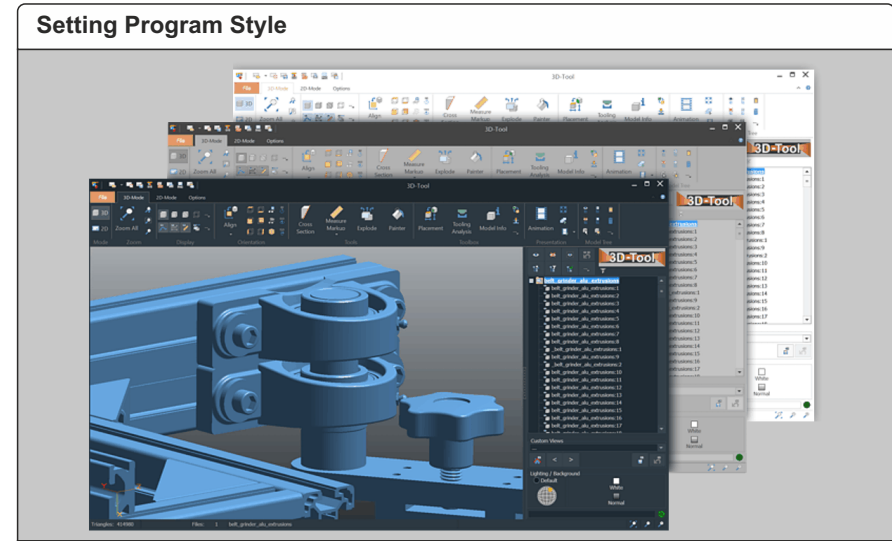
# 3D-Tool V15 Quick Reference: Tips

### Mouse Button, Touch Gestures, 3D-Mouses



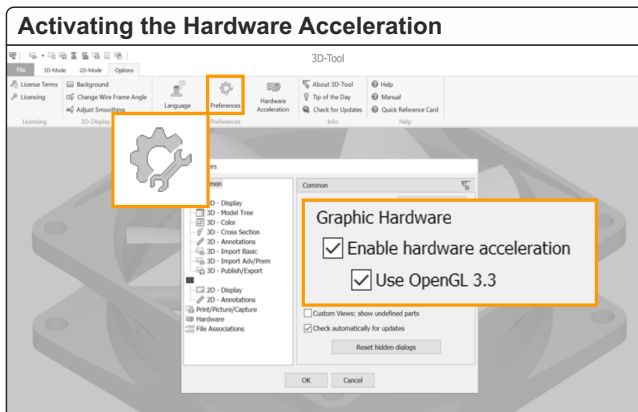
Use the **left mouse button** to rotate and the **right mouse button** to move the view. Use the **mouse wheel** to zoom in and out. 3D-Tool also supports 3Dconnexion **3D-mouses** and **touch gestures**.

### Setting Program Style



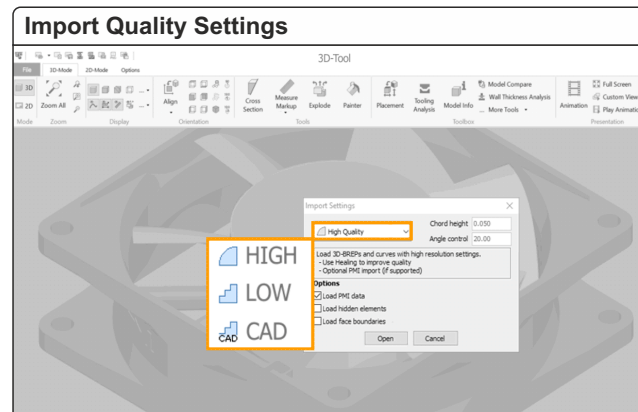
Use the **Setting Program Style** to select one of the 5 color styles for the 3D-Tool program interface. For the Free Viewer and 3D-Tool EXE files only the Windows10 Style is available.

### Activating the Hardware Acceleration



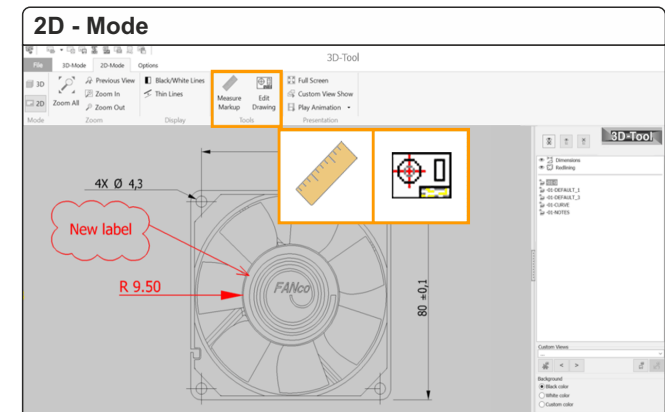
Optimize the 3D-performance by activating the **Hardware Acceleration** and the OpenGL 3.3 support in the 3D-Tool Preferences.

### Import Quality Settings



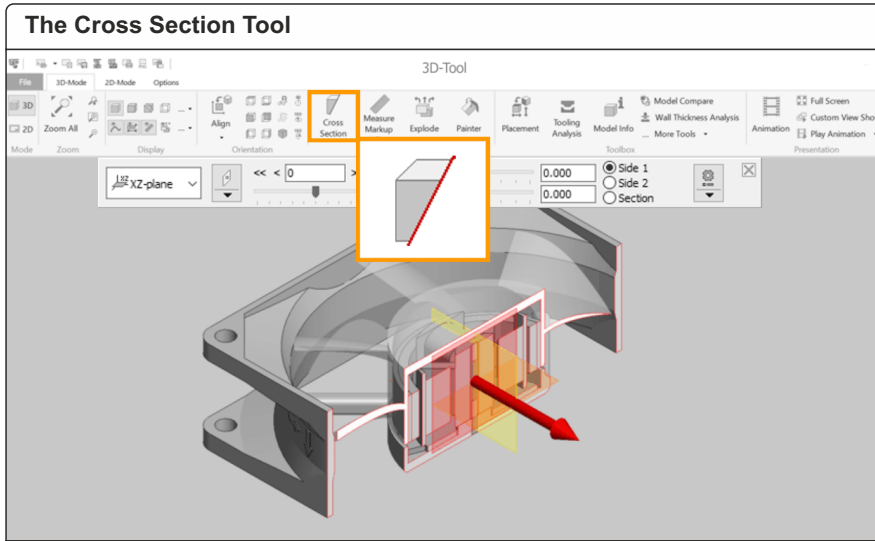
For a smooth display of big models Advanced and Premium users can reduce the **import quality**. Additionally, the Premium version allows a fast import of graphical CAD data from native CAD models.

### 2D - Mode



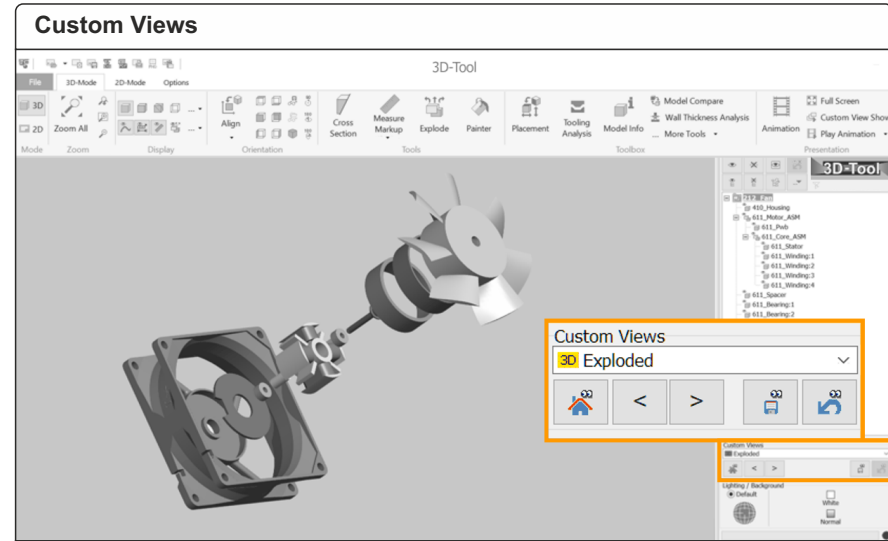
In **2D-Mode** use the **Measure Markup** tool to add dimensions, markups and pictures. Use the **Edit Drawing** tool to edit and delete elements of the drawing.

### The Cross Section Tool



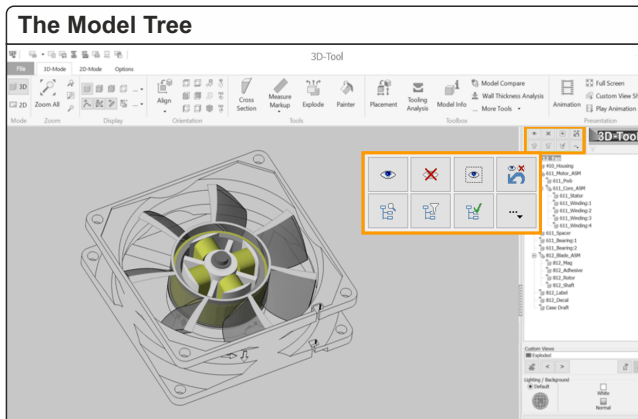
Use the **Cross Section** tool to access the internal parts of a model. The cross section controls offer multiple functions to align the cross section.

### Custom Views



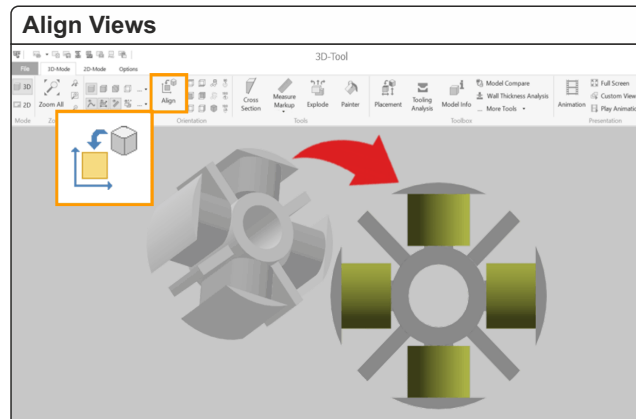
Use **Custom Views** to store the state of the display including exploded parts and cross sections. This allows to quickly switch between views and is useful for printing and creating pictures.

### The Model Tree



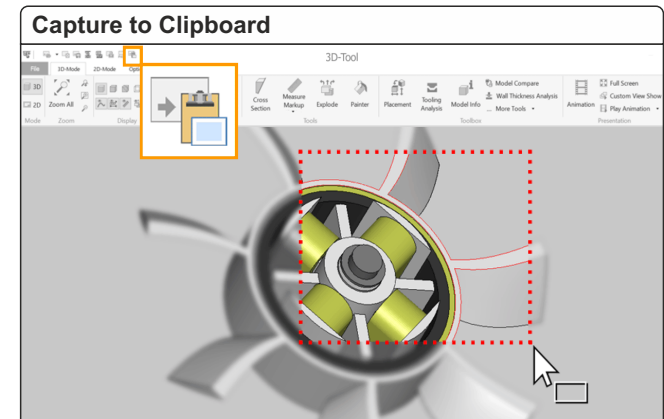
In the **Model Tree**, search and filter functions help in the selection of parts and assemblies, e.g. to change their visibility, color, transparency and shading.

### Align Views



Use **Align View** to quickly rotate the view into the next matching default view. The views from left, right, top, bottom, back and front are also directly selectable.

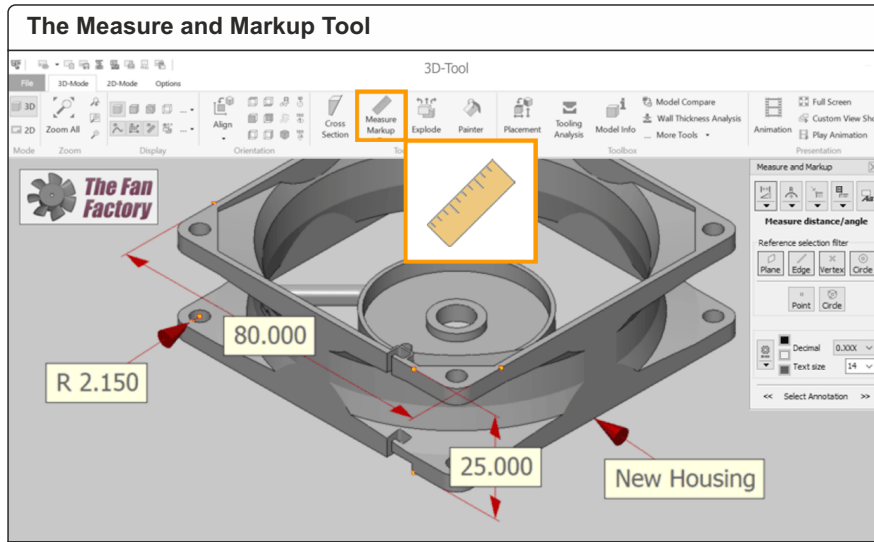
### Capture to Clipboard



Use **Capture to Clipboard** to copy a detail of the view to the Clipboard. A single click instead of the marquee select will copy the complete view.

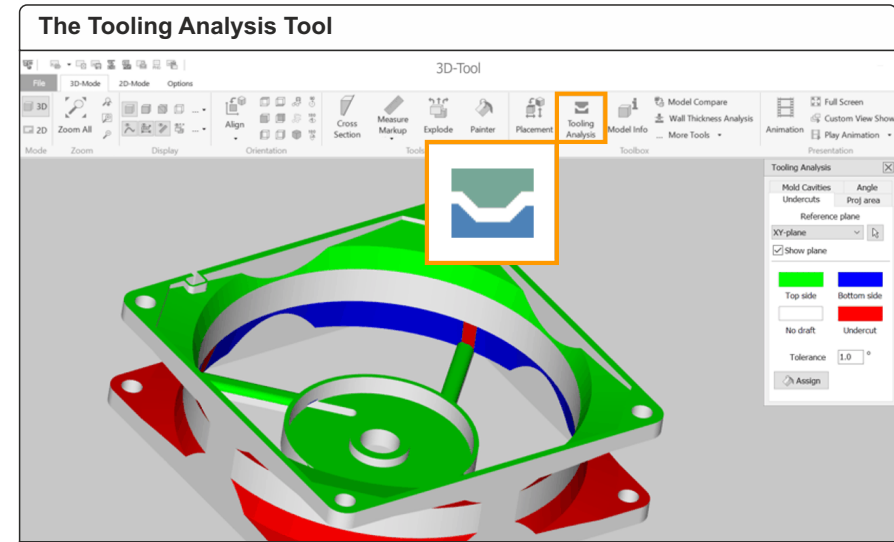
# 3D-Tool V15 Quick Reference: Tips

### The Measure and Markup Tool



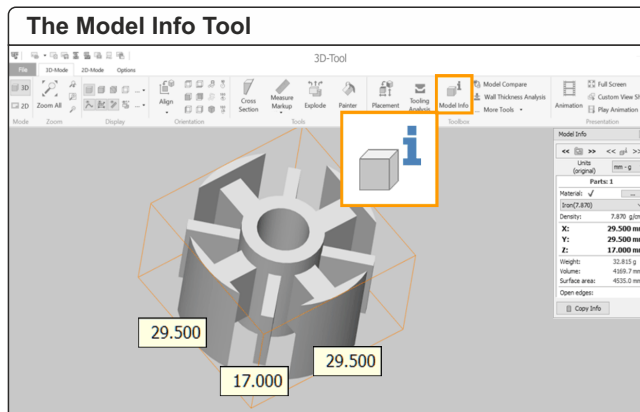
Use the **Measure and Markup** tool not only to add 3D dimensions and 3D notes. You may also add a background text or image, for example a company logo.

### The Tooling Analysis Tool



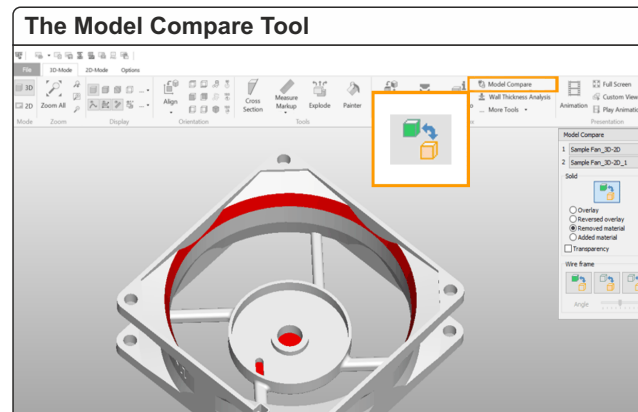
Use the **Tooling Analysis** tool to display drafts and their angles in different colors, to check for undercuts, and to calculate the projected area of the model.

### The Model Info Tool



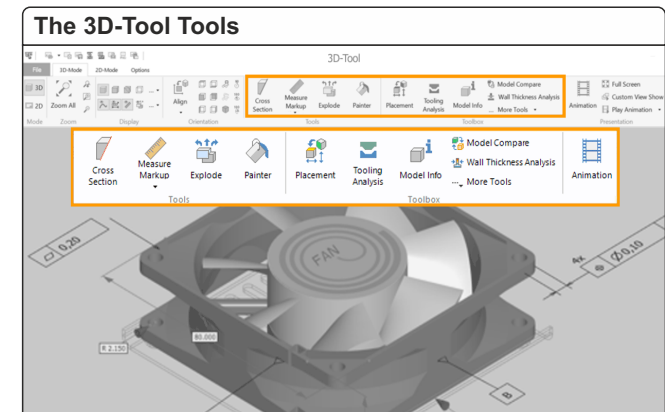
Use the **Model Info** tool to display the volume, surface area, dimensions and weight of parts and assemblies. All information can be copied to the Clipboard.

### The Model Compare Tool



Use the **Model Compare** to identify differences between two models, as they are highlighted in color.

### The 3D-Tool Tools



3D-Tool offers **practical tools** for a detailed validation of 3D-models: besides measure and analyzing tools also a Model Compare and tools such as Painter, Explode and Animation.