

3D-Tool V13 Quick Reference: 3D-Mode

The Ribbon Menu in 3D-Mode

The ribbon menu is divided into several sections:

- Open/Export files:** File, 3D-Mode, 2D-Mode, Options
- Mode:** 3D, 2D
- Zoom:** Zoom All
- Display:** Change render mode and display settings
- Orientation:** Align, Change the orientation of the model in the display
- Tools:** Cross Section, Measure Markup, Painter, Explode, Cross Section, Measure Markup, Painter and Explode Tool
- Toolbox:** Placement, Tooling Analysis, Model Info, Model Compare, Wall Thickness Analysis, More Tools, Toolbox for Placement Analyses, Model Compare and Repair
- Presentation:** Animation, Full Screen, Custom View Show, Play Animation, Create, play animations and present in full screen mode
- Model Tree:** Hide menu, Commands and functions for the models, assemblies and parts on the Model Tree

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
- 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
- Show All
- Hide All
- Search 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*.

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

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

Other Callouts:

- Double the width of the info panel
- Hide and show the info panel
- Change width

Cross Section

Move the section in small steps
Move the section in big steps

Enter position
0.000

Move the section in small steps
Move the section in big steps

Enter angle
0.000

Select the side to be shown
Side 1
Side 2
Section

Close

Select the section plane
Pick position/orientation on the model
Move the section position
Rotate the section plane
Show only the section
Cross Section options

Cross section options
 Show all parts sectioned
 Export cross section as DXF
 Show cross section controls
 Fill section
 Section line

* To display a part uncut right-click the part and choose Cross section on/off.

Measure / Markup

Add dimensions, markups, and pictures.

Measure and Markup

Distance/Angle
Distance
Distance in x-direction
Distance in y-direction
Distance in z-direction
Dist./Angle to xy-plane
Dist./Angle to xz-plane
Dist./Angle to yz-plane
Edge length
Box
Wall thickness
Clearance

Reference selection filter
Plane Edge Vertex Circle
Point Circle

Select Annotation

Decimal 0.123
Text height 14

Radius
Diameter

Note
Model info note
Part info note
Cross section info note

Edge point
Point on surface
Center of a circle

Background image/text

Distance: 4.00
Pre-selected reference
Selected dimension
Radius: 1.50
New Radius
Info text

Painter

Change the color of models, parts, and planes.

Painter

Auto color
Models

Parts Surfaces

One model All models

Manual color
Color

Single object select

Marquee select

Manual color

Pick color from the palette
Pick color from the model

Directly coloring by single selection

Surfaces, curves, and PMI
Single triangles
Plane surface
Connected triangles
Of same color

Coloring by marquee selection

Triangles
Curves
PMI
Color selection
Reset selection

Auto color

Models Assign different colors to all models.

Parts Assign different colors to all parts.

Surfaces Assign different colors to all surfaces.

Explode

Create an exploded view of the model.

Assembly Explode

Selection mode
Mouse Model Tree

Move direction
X Y Z

0.00 0.00 0.00
x y z
Move

Assembly Explode

Auto explode all

Assembly only
X Y Z
Include subassemblies

Move/Reset selection
-X +X -Y +Y -Z +Z
To center To origin

Manual explosion

Selection mode
Select parts in the 3D-View or in the Model Tree

Move parts
Rotate parts
Copy position from another part
Reset position

Auto explosion

Auto explode all or selected assembly only

Explosion directions:
X
Y
Z
-X +X
-Y +Y
-Z +Z

Move parts outside parent assembly
Reset parts to common explosion center or to original position

3D-Tool V13 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
- Play animations and present in full screen mode

2D Functions and Tools

View only

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

Measure

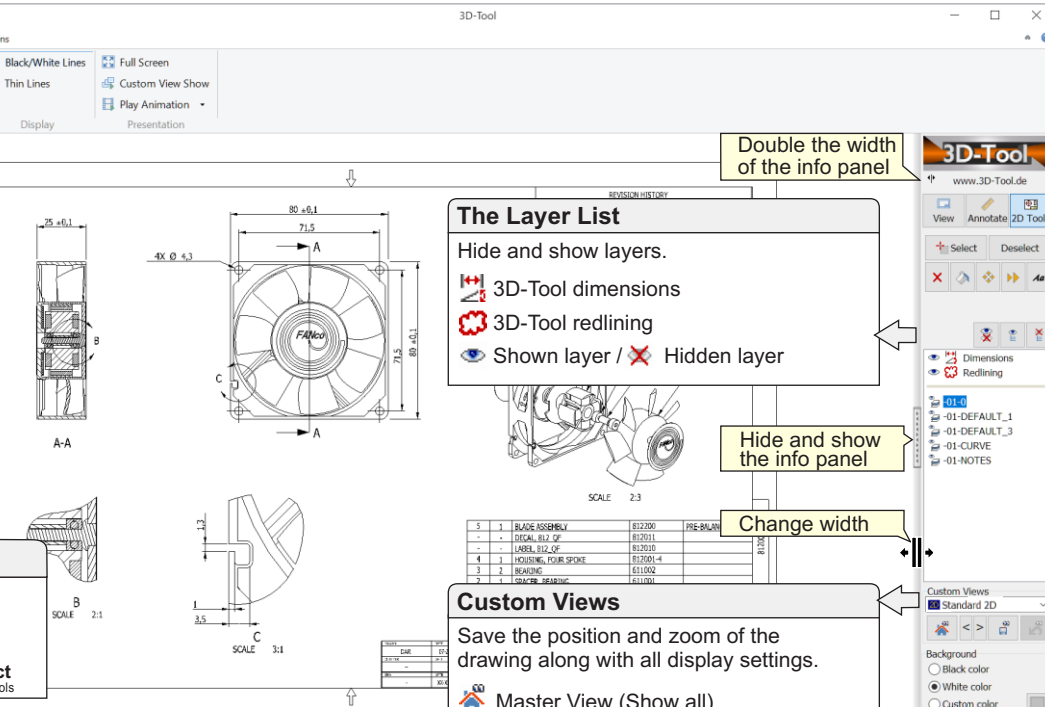
- Annotate
 - Distance
 - Angle
 - Radius
 - Diameter
 - X-Distance
 - Angle
 - Y-Distance
 - Angle by 4 points
 - Line length

Mark

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

The Quick Access Toolbar

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The Layer List

Hide and show layers.

- 3D-Tool dimensions
- 3D-Tool redlining
- Shown layer / Hidden layer

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

2D Tools

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

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

3D-Tool V13 Quick Reference: 3D-NativeCAD Converter

Supported 3D-Conversions

CATIA, Pro/E, Creo, Inventor, SolidWorks, SolidEdge
 UG/NX, X_T, X_B, JT, STEP, IGES, VDA, SAT

↓

CATIA V4/V5, X_T, STEP, IGES, VDA, SAT, SAB, STL

Model Tree Functions

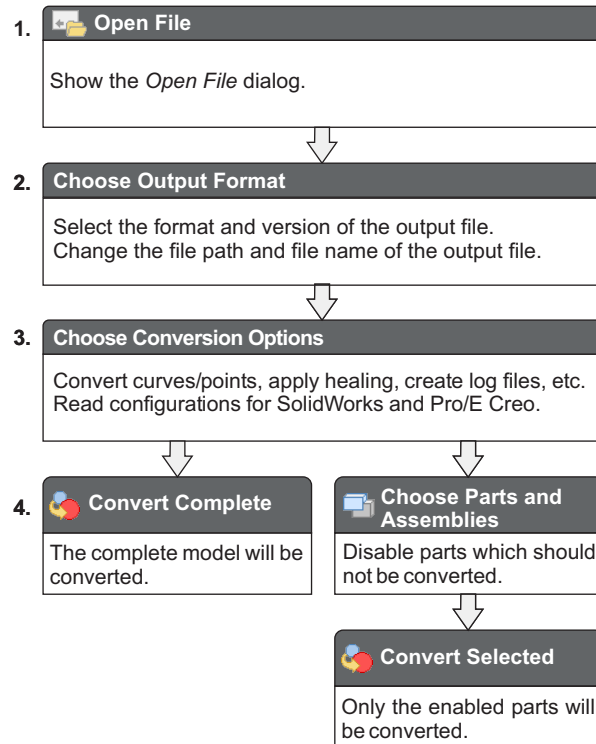
Functions that apply to all assemblies and parts on the Model Tree.

- 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 application window. The main interface includes:

- File to convert:** C:\3D-Tool\oem-825-8888_K0002.stp
- Output file:** C:\3D-Tool\oem-825-8888_K0002.CATProduct
- Format:** CATIA V5
- Version:** V5-6R2012
- Format specific options:** CATIAV5: Use Hybrid Bodies
- Options:**
 - Output units: mm, inch
 - Convert hidden entities
 - Healing
 - Create log file
 - Convert curves
 - Convert points
- Buttons:** Open file, Output format, Read configurations and simplified representatons for SolidWorks + Pro/E Creo, Conversion options, Convert Complete, Choose Parts and Assemblies, Convert Selected.
- Model Tree:** A tree view on the right showing a hierarchy of parts and assemblies. Some parts are disabled (indicated by a red 'X' icon).

Callouts in the image provide additional context:

- "File path and file name of the output file" points to the Output file field.
- "Output version for CATIA V5, SAT, SAB and X_T" points to the Version dropdown.
- "Read configurations and simplified representatons for SolidWorks + Pro/E Creo" points to the Read Configurations button.
- "Conversion options" points to the Options section.
- "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 red 'X' icon in the Model Tree toolbar.
- "Convert the enabled parts and assemblies" points to the Convert Selected button.