

CST CAD NAVIGATOR USER GUIDE

by CADSOFTTOOLS

CST CAD Navigator is the CAD application compatible with Windows, macOS, and Linux. Under its user-friendly interface, there is a powerful kernel enabling quick viewing of 2D drawings and 3D models. The software makes it easy to import and export files, get dimensions, and create section views.

CONTENT

(click to proceed to a topic)

What file formats are supported?

How to open a file?

How to navigate around a file?

What are the export formats?

How to convert PDF to DWG/DXF?

How to measure a 2D file?

How to get dimensions of a 3D model?

How to change the measuring units?

How to get the distance between two points?

How to create a section view of a model?

How to adjust a section plane's position?

How to see the structure of a file?

How to see properties of an entity?

How to print a file?

How to configure settings?

WHAT FILE FORMATS ARE SUPPORTED?



CST CAD Navigator supports both 2D and 3D file formats. It enables to open:

CAD FORMATS

DWG (up to Autodesk AutoCAD® 2023), DXF.

VECTOR FORMATS

PDF, SVG, CGM, PLT, HPGL, HGL, HG, HPG, PLO, HP, HP1, HP2, HP3, HPGL2, HPP, GL, GL2, PRN, SPL, RTL, PCL.

3D FORMATS

IGES, IGS, STEP, STP, STL, X_T, X_B, SLDPRT, SAT, FSAT, SAB, OBJ, BREP, SMT, IPT.

RASTER FORMATS

PNG, BMP, JPG, JPEG, TIF, TIFF, GIF.

HOW TO OPEN A FILE?



When you run CST CAD Navigator for the first time, click **Browse**, select your file and then click **Open**. On subsequent run of the application, your recent files are displayed. To view one of them, double-click on it or select it and click **Import**.

The screenshot shows the 'Import' dialog box in CST CAD Navigator. The dialog has a dark blue sidebar on the left with several icons. The main area displays a list of files with 3D preview images. Callout boxes provide instructions:

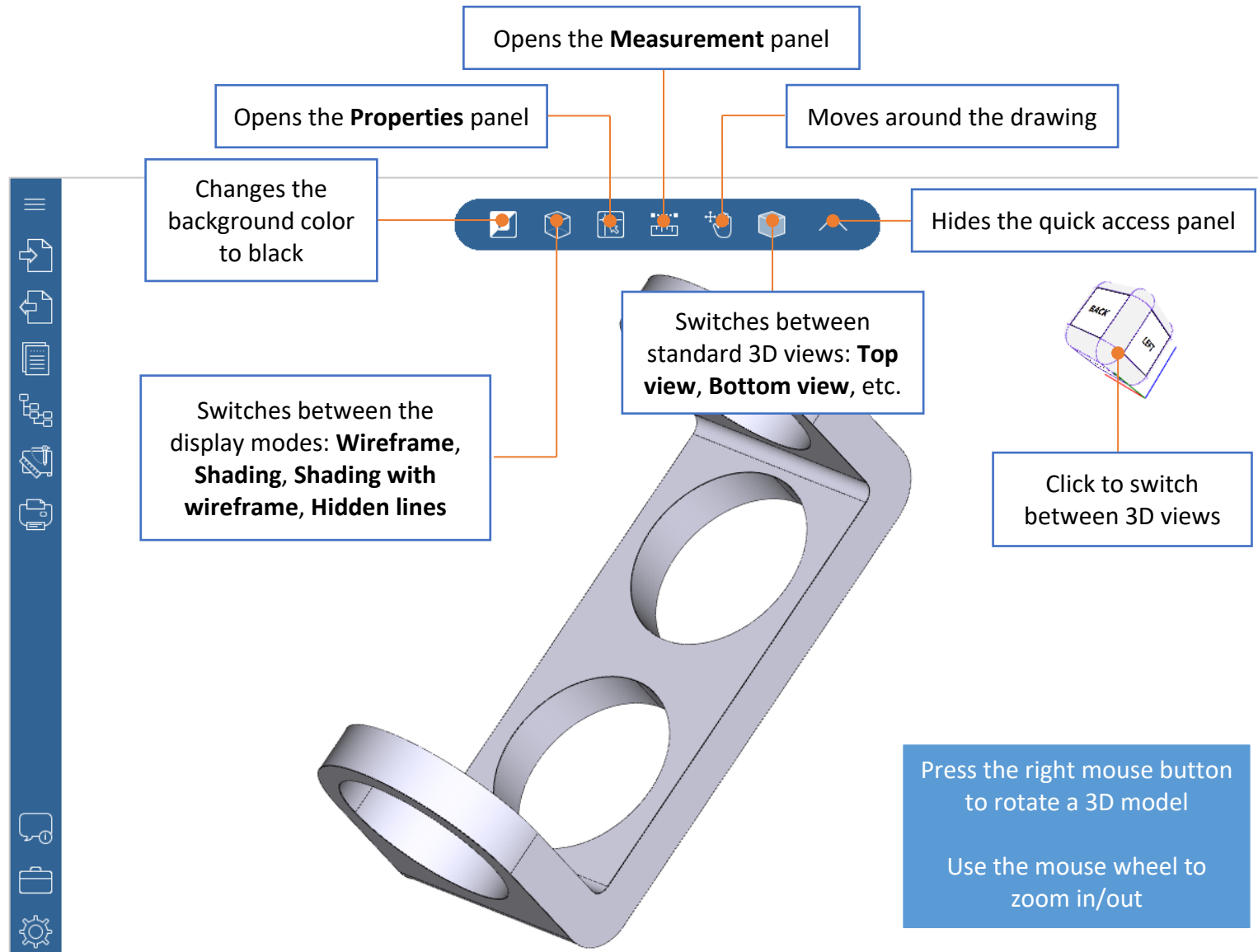
- Open the Import panel:** Points to the top-left icon in the sidebar.
- Click the Browse button:** Points to the 'Browse' button at the bottom right of the dialog.
- Select a file:** Points to the file list area.
- Click the Import button:** Points to the 'Import' button at the bottom center of the dialog.
- Double-click on a file preview image:** Points to the preview image of the file '3.72.051.sat'.

File Name	Path
3.72.051.sat	C:\Users\softgold01\Documents\CADSoft Tools\cstCadNavigator 1\Samples\3.72.051.sat
3.55.020.sat	C:\Users\softgold01\Documents\CADSoft Tools\cstCadNavigator 1\Samples\3.55.020.sat
gimbal.sat	C:\Users\softgold01\Documents\CADSoft Tools\cstCadNavigator 1\Samples\gimbal.sat

HOW TO NAVIGATE AROUND A FILE?



CST CAD Navigator enables to quickly navigate around your 2D drawing or 3D model.



WHAT ARE THE EXPORT FORMATS?



CST CAD Navigator enables to save files to the following formats:

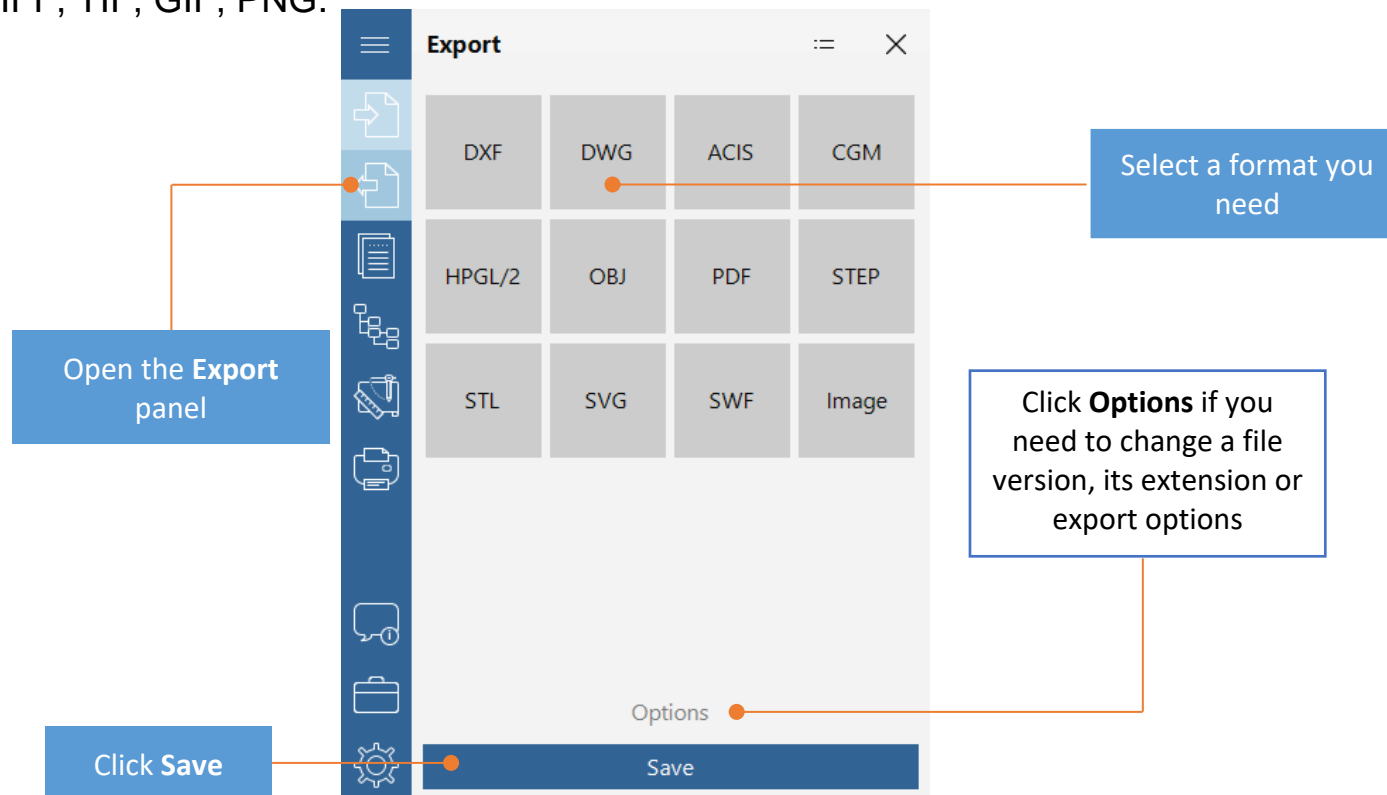
CAD FORMATS: DWG (versions 2000, 2004, 2010), DXF.

VECTOR FORMATS: PDF, CGM, SVG, SWF, HPGL/2.

3D FORMATS: IGES, STEP, STL, OBJ, ACIS.

RASTER FORMATS:

JPG, JPEG, BMP, TIFF, TIF, GIF, PNG.



HOW TO CONVERT PDF TO DWG/DXF?



Using CST CAD Navigator, it is possible to convert PDF files to editable DWG or DXF files. To change the conversion settings, go to the [Settings panel](#).

The image shows two panels from the CST CAD Navigator software interface. The left panel is the **Tools** panel, and the right panel is the **Export** panel. Annotations with blue boxes and orange lines point to specific elements in both panels.

Tools Panel:

- Open the Tools panel** (points to the Tools panel icon in the sidebar)
- Click PDF Conversion** (this tool is also available at the starting page of the application and on the **Import** panel) (points to the PDF Conversion icon)

Export Panel:

- When conversion is complete, open the Export panel** (points to the Export panel icon in the sidebar)
- Select a file format you need** (points to the DWG and DXF options in the list)
- Click Save** (points to the Save button at the bottom of the panel)

Format	Description
DXF	AutoCAD™ DXF
DWG	AutoCAD™ DWG
ACIS	Spatial files
CGM	Computer Graphics Metafile
HPGL...	HPGL files
OBJ	Wave Front model file

HOW TO MEASURE A 2D FILE?



CST CAD Navigator provides two measuring tools to measure 2D files: **Distance** and **Polyline Length**.

Using the **Distance** tool, you can get the distance between two points.

Using the **Polyline Length** tool, you can get the length of a polyline part, its total length, or area.

The image shows a screenshot of the CST CAD Navigator software interface. On the left, the **Tools** panel is open, showing icons for Sectioning, Measurement, and View. A callout box labeled "Open the Tools panel" points to the Tools icon in the sidebar. Another callout box labeled "Click Measurement" points to the Measurement icon in the Tools panel. On the right, the **Measurement** panel is open, showing icons for Distance and Polyline Length. Callout boxes labeled "Distance" and "Polyline Length" point to their respective icons. Below these icons, the Measurement settings are displayed, including "Displayed units" (Centimeters), "Original units" (Millimeters), and "Precision" (0.0000). A callout box labeled "Open the Snap panel to turn on/off different types of snaps" points to the Snap section, which is expanded to show options for Line, First point, Second point, and Delta. The current distance is shown as 9,5094, and there is a [X] Delete button.

HOW TO GET DIMENSIONS OF A 3D MODEL?

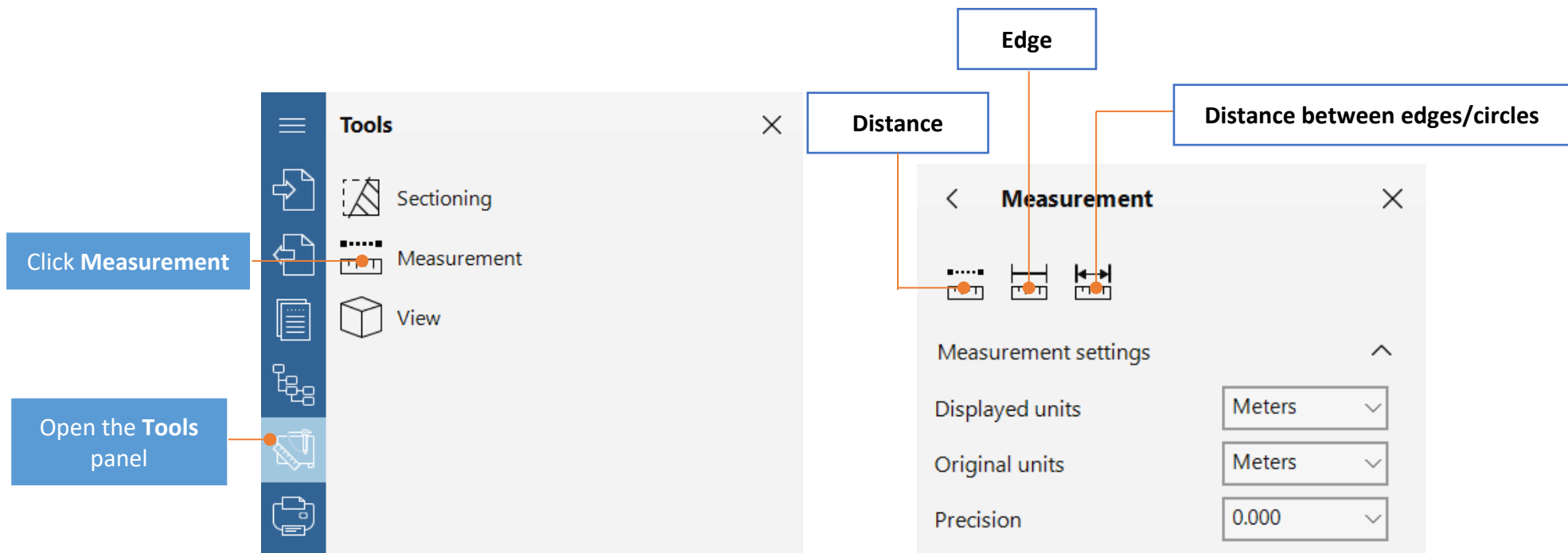


CST CAD Navigator provides three measuring tools to get dimensions of 3D models: **Distance**, **Edge**, and **Distance between edges/circles**.

Using the **Distance** tool, you can get the distance between two points, between a point and surface, between two parallel surfaces.

Using the **Edge** tool, you can get the length of an edge and the radius of a circle or a circular arc.

Using the **Distance between edges/circles** tool, you can get the distance between two parallel edges or between two circle centers.

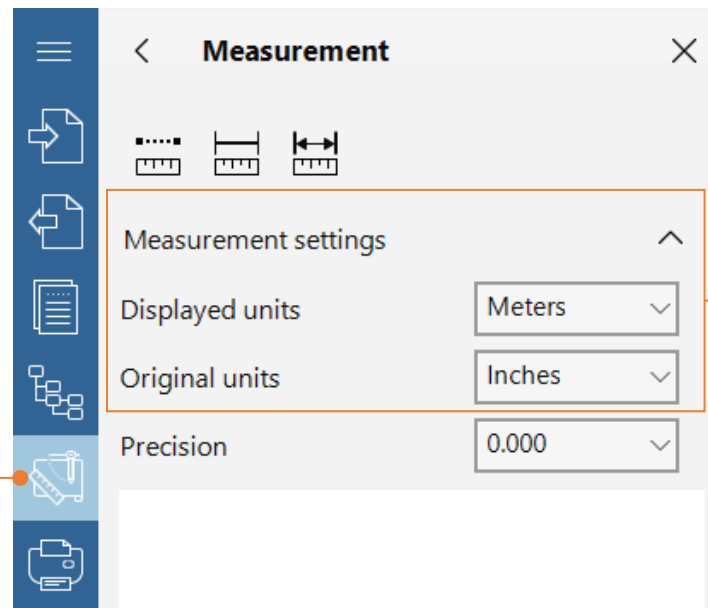


HOW TO CHANGE THE MEASURING UNITS?



You can change the measuring units in the **Measurement settings** section. Set the original units of a drawing/3D model (units in which it was created) and the units in which you want the measurement results to be displayed.

Open the **Tools** panel and click **Measurement**

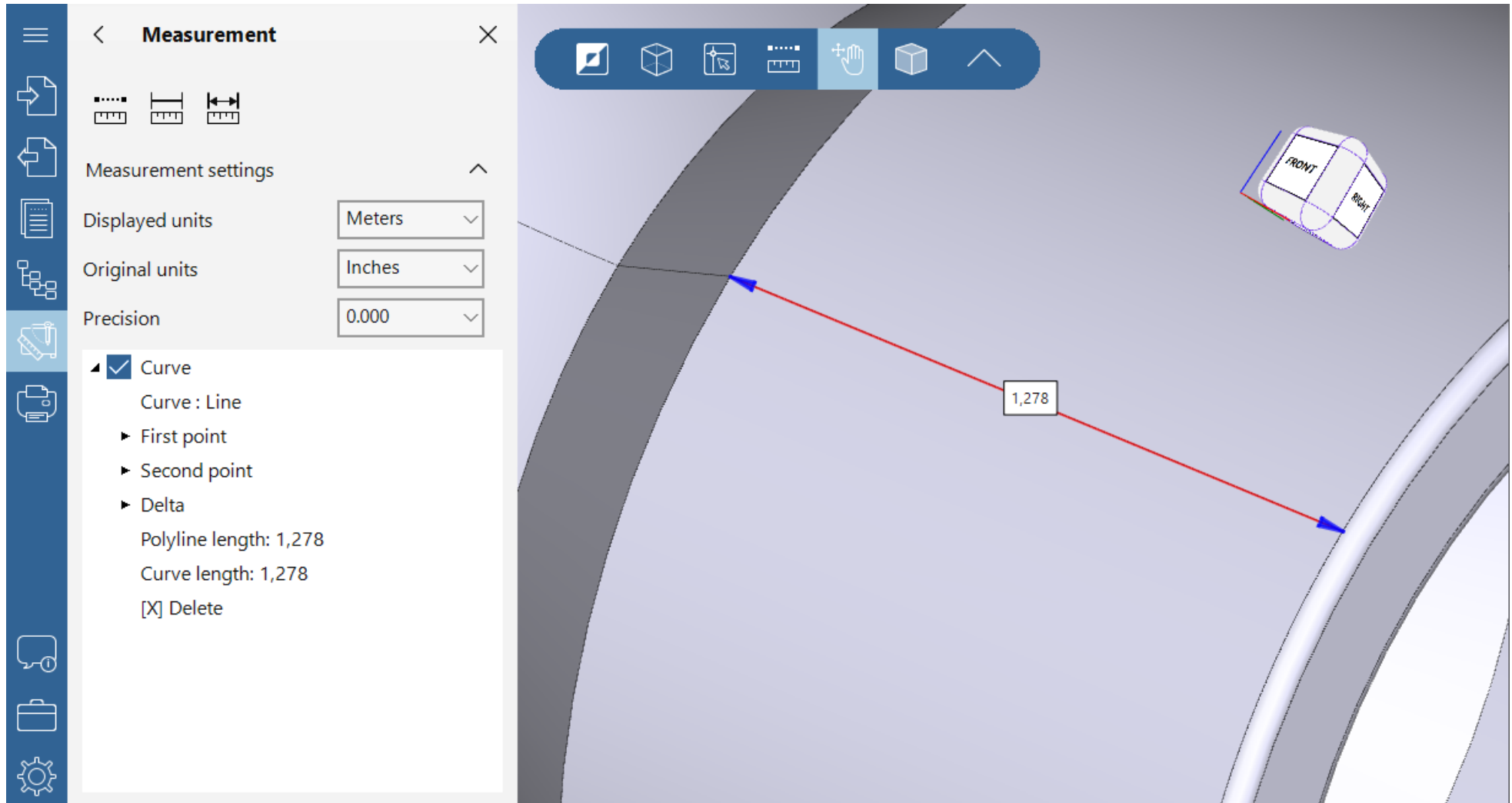


Set the units in the **Measurement settings** section

HOW TO GET THE DISTANCE BETWEEN TWO POINTS?



Activate the **Distance** tool, then click to specify the first and the second points on a 3D model. The result will be shown in **Measurement** panel on the left and on a 3D model itself.



HOW TO CREATE A SECTION VIEW OF A MODEL?



CST CAD Navigator has a dynamic section tool. With its help, you may create a section view of a 3D model and see its hidden elements. Sections do not modify geometry and are fully customizable.

Open the Tools panel

Click Sectioning

Click the Add plane button

Creates a section in one of the default planes: YZ, XZ, XY

Deletes a plane

Displays all the added section planes

Tools

- Sectioning
- Measurement
- View

Sectioning

Planes

- 0
- 1
- 2

Position

X 0

Y 0

Z 0

Parameters

Distance 0

Azimuth 90

Inclination 0

HOW TO ADJUST A SECTION PLANE'S POSITION?



To adjust a section plane's position, move the sliders or specify the coordinates of the central point in the X, Y, Z fields.

The screenshot shows the 'Sectioning' tool interface. It features a vertical toolbar on the left with various icons. The main panel is divided into several sections:

- Planes:** A list containing '0', '1', and '2'. Plane '2' is currently selected and highlighted in blue.
- Position:** A section containing three input fields for X, Y, and Z coordinates, all of which are set to '0'. A callout box points to these fields with the text: "Specify the coordinates of the central point".
- Parameters:** A section containing three sliders and their corresponding numerical values:
 - Distance:** A slider set to 0.
 - Azimuth:** A slider set to 90.
 - Inclination:** A slider set to 0.A callout box points to these sliders with the text: "Change the parameter values of the section by moving the sliders or entering the value".
- Control Icons:** At the top right of the main panel, there are two icons: a globe and a square with a dot. A callout box points to the globe icon with the text: "Reverses the direction of the selected plane". Another callout box points to the square-with-dot icon with the text: "Displays the 3D model parts that were cut".

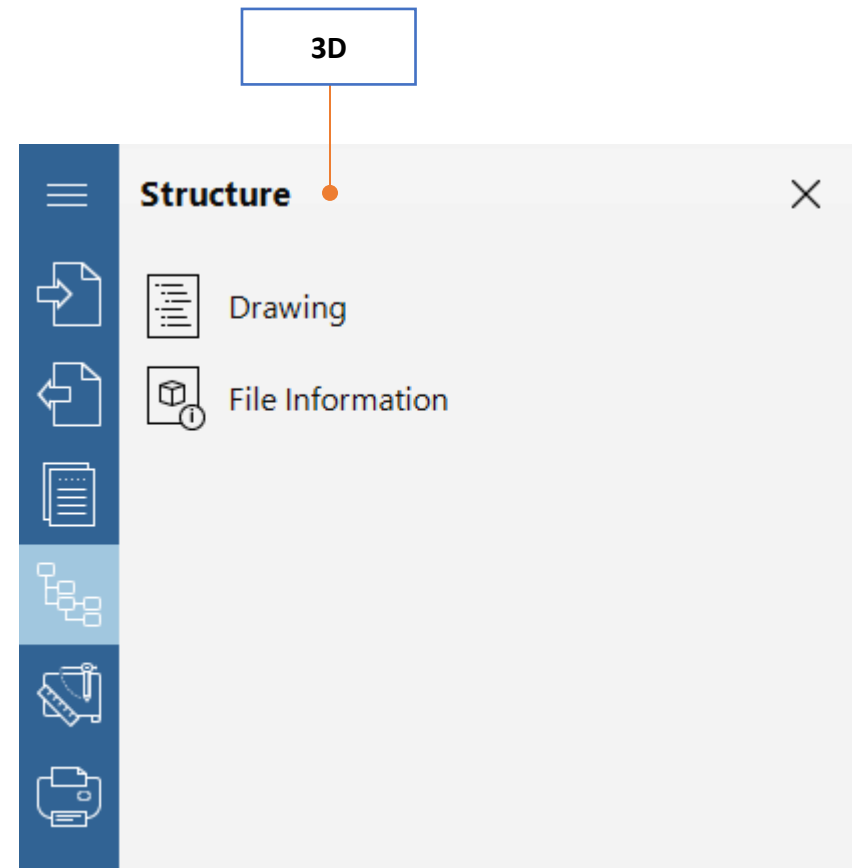
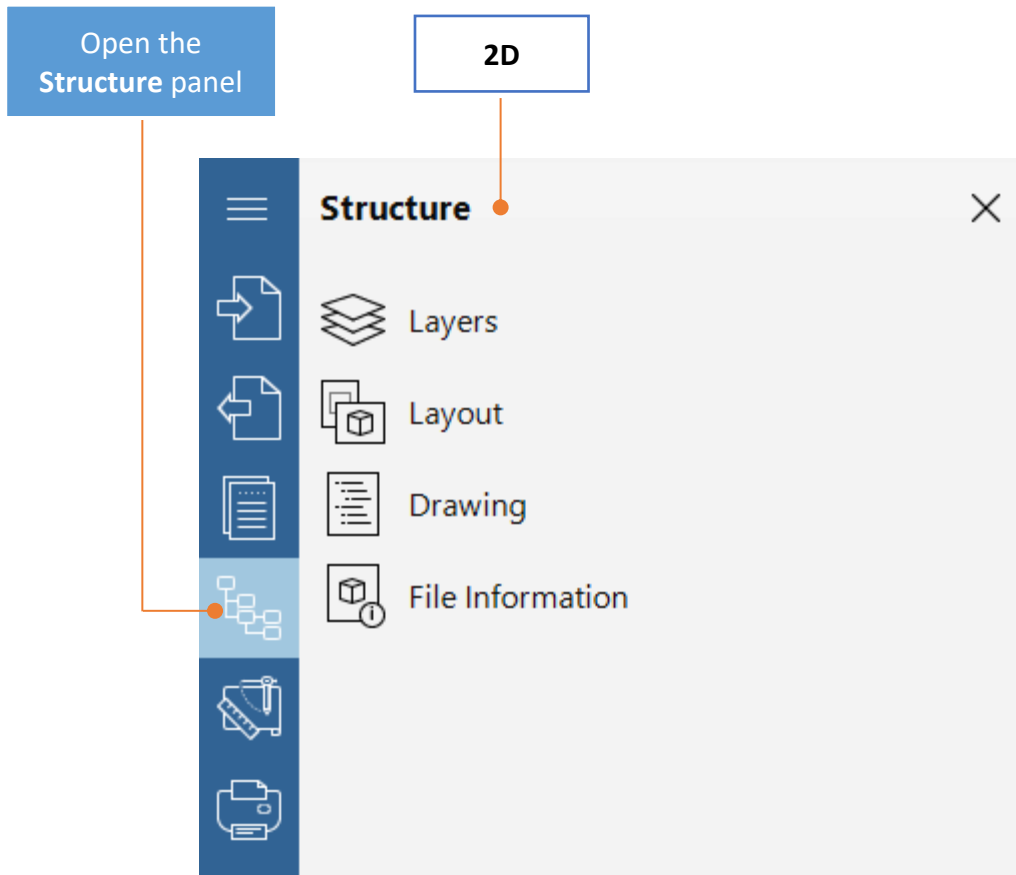
HOW TO SEE THE STRUCTURE OF A FILE?



The **Structure** panel includes the following sections:

2D: **Layers, Layout, Drawing, File Information.**

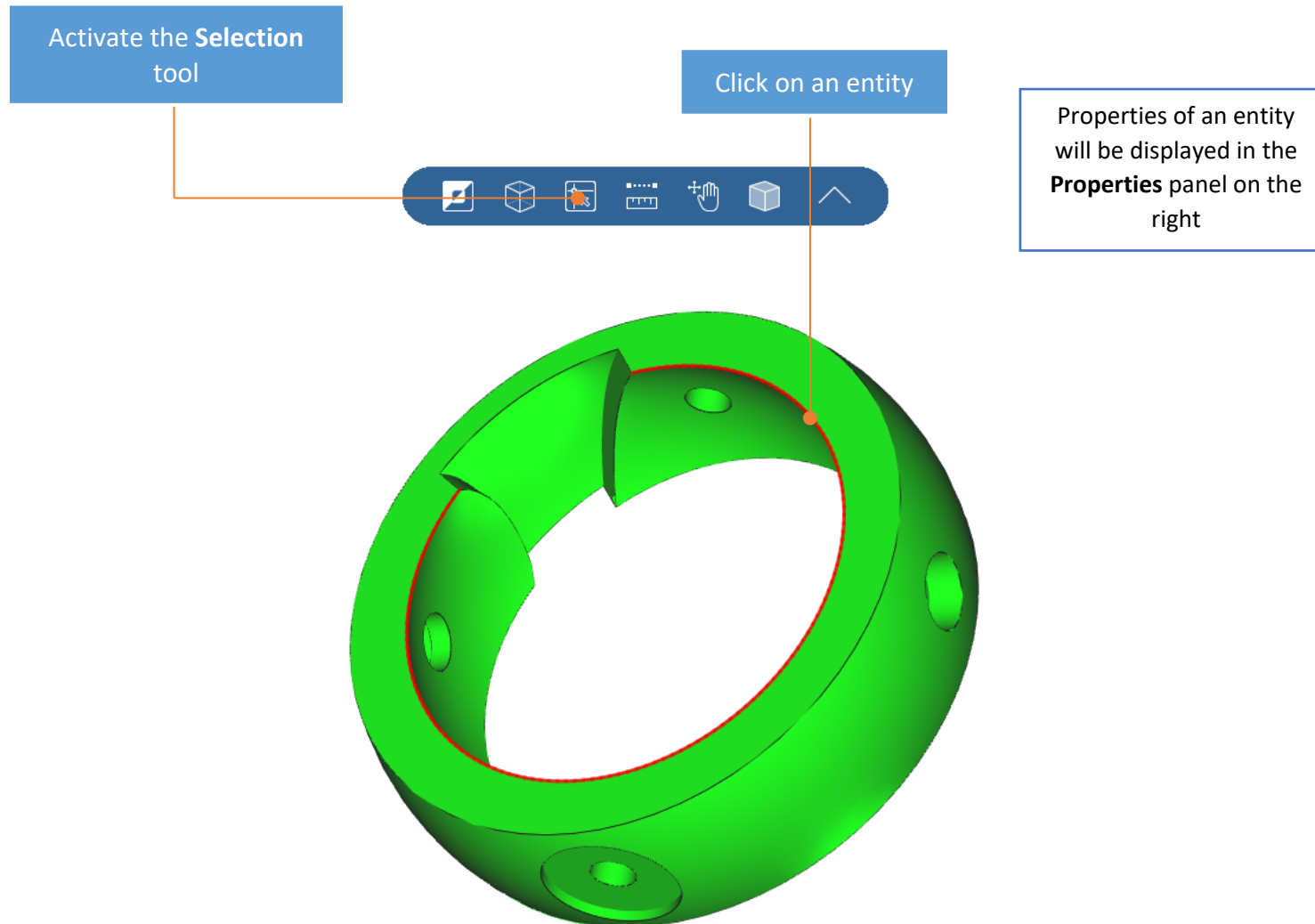
3D: **Drawing, File Information.**



HOW TO SEE PROPERTIES OF AN ENTITY?



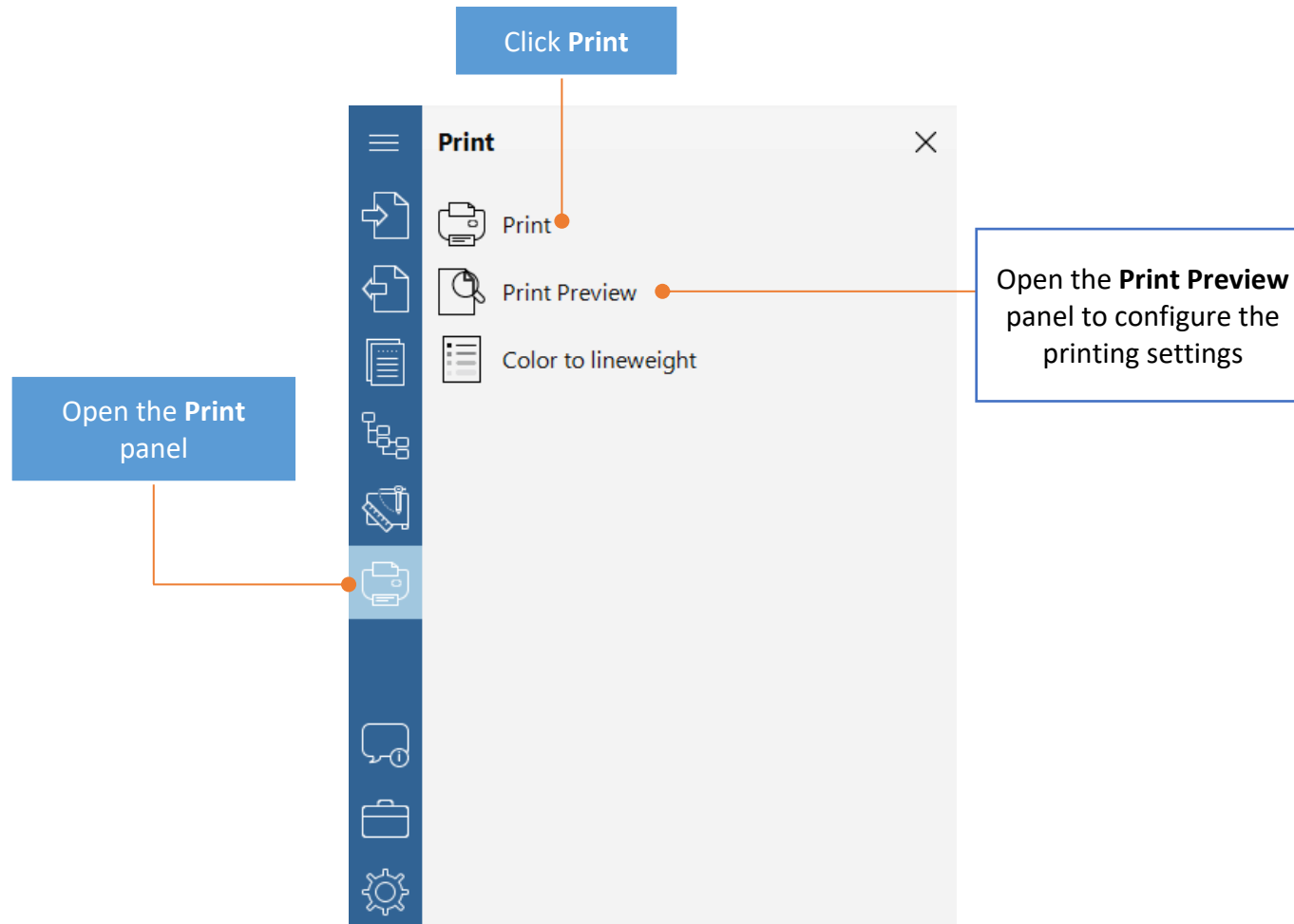
To see properties of an object, use the **Selection** tool from the quick access toolbar.



HOW TO PRINT A FILE?



CST CAD Navigator enables to configure the printing settings and print files.



HOW TO CONFIGURE SETTINGS?



You can customize CST CAD Navigator to make it better fit your needs.

Open the **Settings** panel

Select a group of settings you need

Settings

- Common
- Import settings
- Export settings
- PDF conversion settings
- Visualization
- Measurement
- Snap
- Fonts
- Associations
- Proxy server