

Bly3D Viewer 4.4.0.1 User Manual

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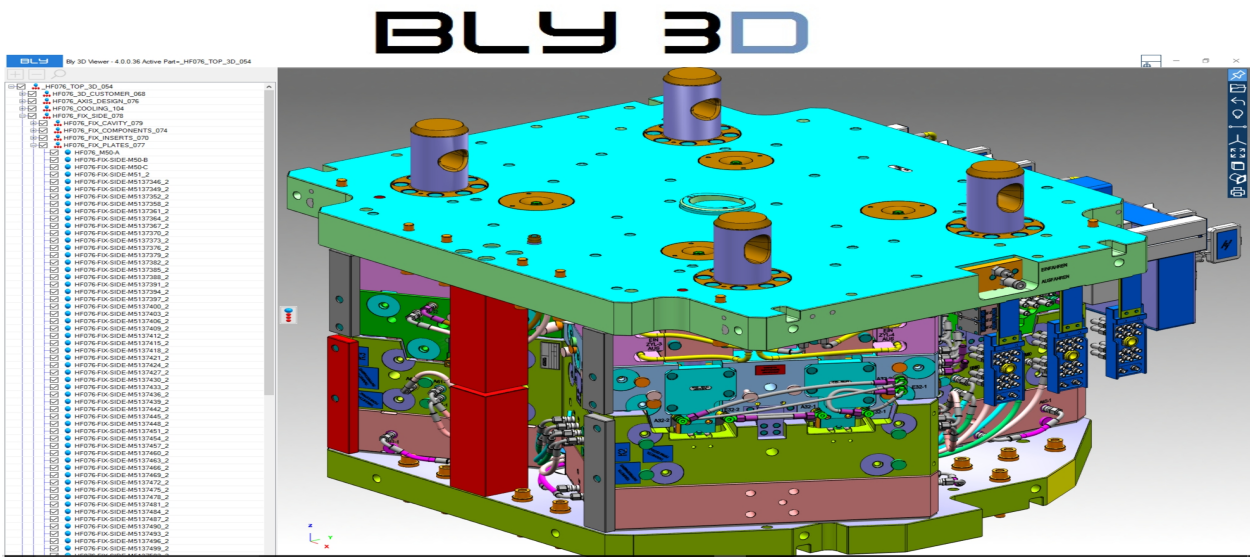
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Mesa 3-D graphics library (<http://glew.sourceforge.net/mesa.txt>)
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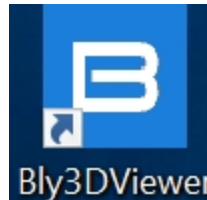
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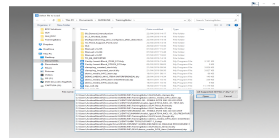
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Starting a Bly3D Viewer Session

Starting a Bly3D Viewer session



Opening the 3D model



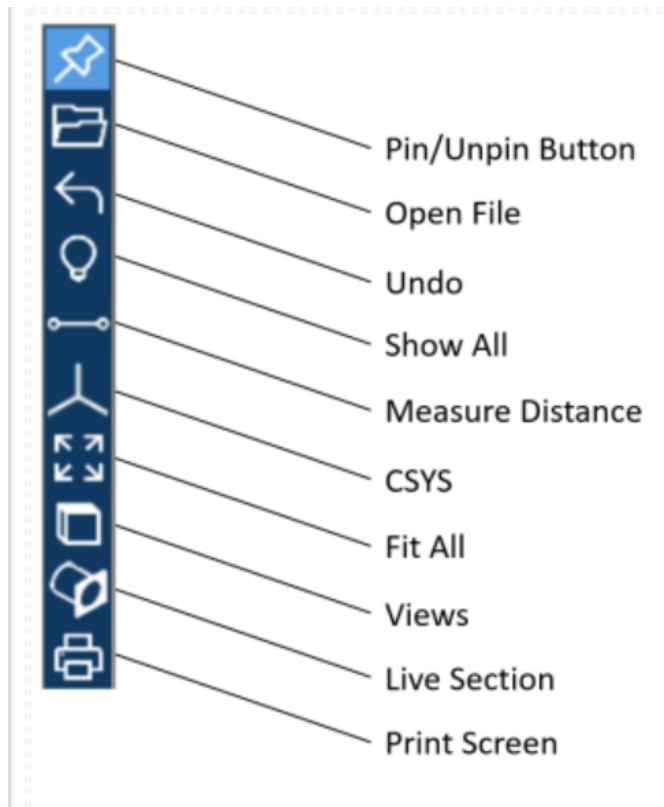
Supported file format



3D models can also be opened by drag&drop them on Bly3D Viewer 4.0 desktop icon or in the graphic area

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BASIC COMMANDS



Pin/Unpin button



Hovering this button, the following horizontal toolbar will appear:



Related functions are described [here](#)

Open file



Hovering this button, the following horizontal toolbar will appear:



Related functions are described [here](#)

Undo/Redo



Hovering this button, the following horizontal toolbar will appear:



You can Undo/Redo last operation.

Show all



Hovering this button, the following horizontal toolbar will appear:



Related functions are described [here](#)

Measure distance



Hovering this button, the following horizontal toolbar will appear:



Related

functions are
described [here](#)

CSYS

Hovering this
button, the
following
horizontal
toolbar will
appear:



Related
functions are
described [here](#)

Fit All

Hovering this
button, the
following
horizontal
toolbar will
appear:



Related
functions are
described [here](#)

Orientation



Hovering this
button, the
following
horizontal
toolbar will
appear:



Related
functions are
described [here](#)

Live Section



Clicking on this button you can work on the live section of the model, as described [here](#)

Print screen



Hovering this button, the following horizontal toolbar will appear:



Related functions are described [here](#)

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Basic commands (Pin/Unpin buttons)



Pin/Unpin Buttons



The button pins or unpins the main toolbar to the screen

Advanced Settings



Choosing this option you will see this window that let you setup the environment according to your needs. Detailed description of the options can be found [here](#)

TeamViewer Session



Launches a TeamViewer client session for remote on-line support. For more details check the following [link](#)

License Settings



This Command accesses the Bly 3D Activation window. Detailed description of the options can be found [here](#)

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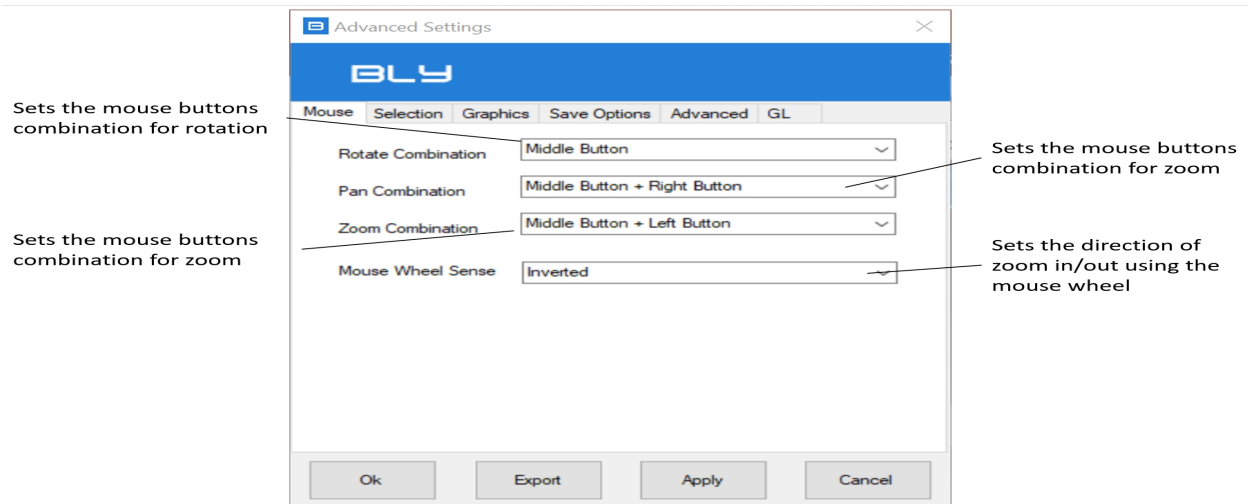
ADVANCED SETTINGS

In this section you can set up Bly's environment basing on your needs



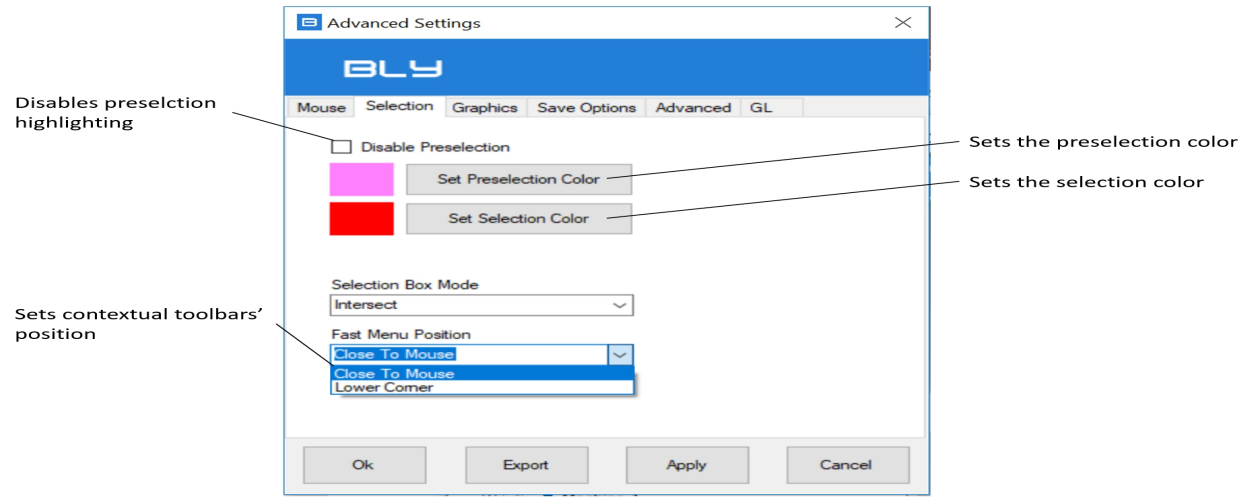
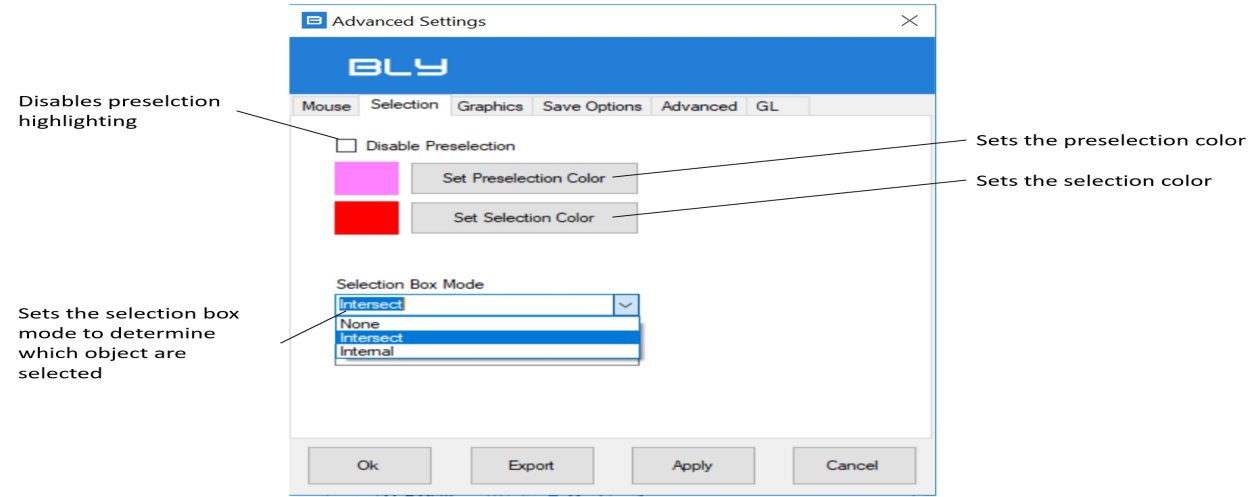
[« Go back](#)

Advanced settings: Mouse



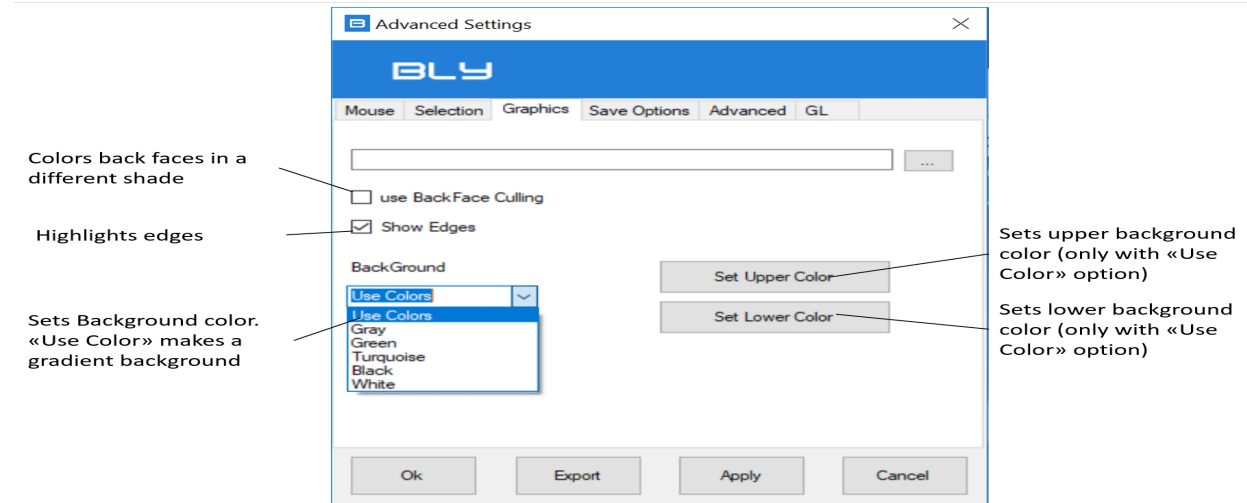
« Go back

Advanced settings: Selection



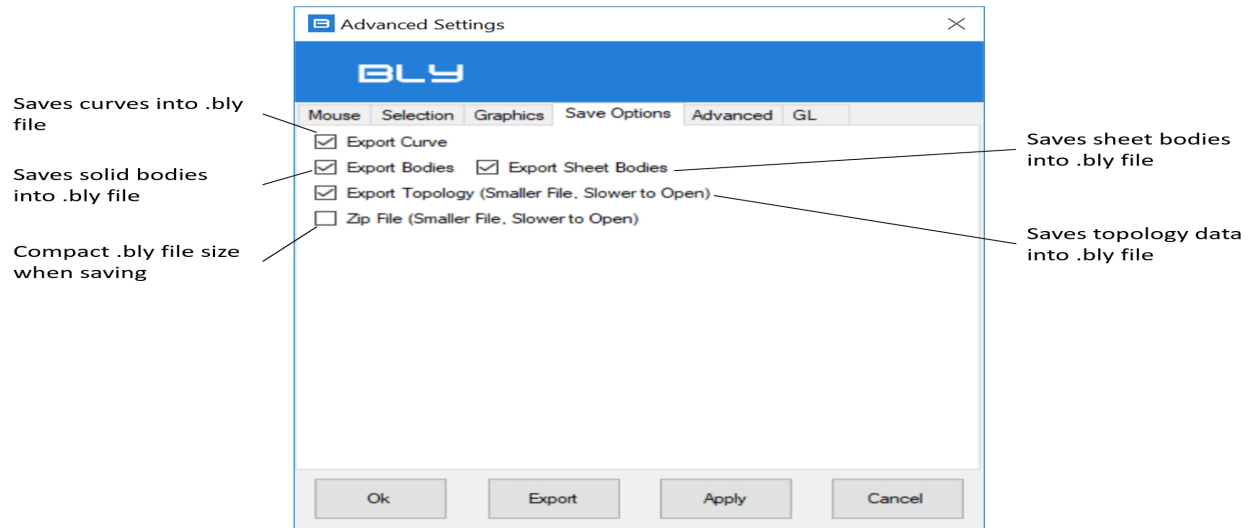
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Advanced settings: Graphics



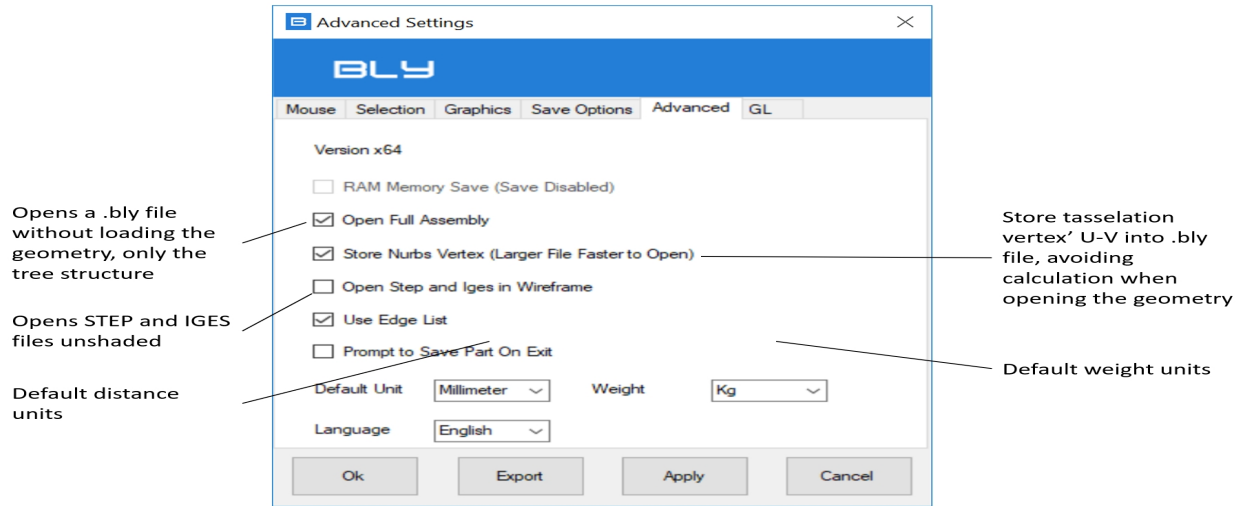
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Advanced settings: Save Options



« Go back

Advanced settings: Advanced

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Export user's settings

Once set, options are automatically stored into local installation, so the sw will keep them at every restart.

It is also possible to export them into a text file: the file can then be copied and pasted into any Bly3D Viewer/Guideline 4.0 installation and the sw will apply them at the first restart. The text file's name is "Bly3DSettings.txt" and is generated by pressing "Export" button at the bottom of the Advanced Settings window: it must be saved under installation directory (by default C:\BCK Solutions\GuideLine V4).

Should the text file be placed into the application server, clients will read and copy it locally and then apply the settings: after that, each user can make further modifications, which will be effective locally only.

Every subsequent update on "Bly3DSettings.txt" on the server will cause the local settings to be overwritten accordingly.

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TeamViewer Session



Launches a TeamViewer client session for remote on-line support.
Pressing this button will open the window below (language may vary base on regions):



Please, communicate ID when required by BCK Solutions' personnel to allow remote PC control (useful for debugging, support and training purposes).

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License Settings



This Command accesses the Bly 3D Activation window

Bly 3D Activation

BLY

Current License info | Activate License

Module Name: Bly3D

Type: NODE LOCKED

Expire On: 2018-03-22

Cancel

Module name

License type (NODE LOCKED, FLOATING)

Expiration date

Bly 3D Activation

BLY

Current License info | Activate License

Your MAC Address: F45C89BF0398

Copy to Clipboard

Please enter your Activation Code.

Request Code via e-Mail

Open License File

Server IP

Server Port

Add

Server List

BCK_7:8080

Remove

Activate

Cancel

PC's MAC Address

Enter the Port of the license server

Enter IP Address of the license server

Activates the license

This button copies MAC Address to Clipboard

This button opens your email editor with a pre-filled request for a license file to BCK Solutions

Select license file

Add the specified License Server to the list

Removes the specified License Server to the list

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Basic commands (Open file)



Bly can manage both single models or assemblies.

Open File

Bly supports the following graphical format: Bly3D (.bly), STEP (.stp, .step), NX (.prt), IGES (.igs, .iges), VRML (.wrl, .vrml), Object (.obj), Stereolithography (.stl)

Save Bly File

Clicking on the Save Bly File button you can save the content of the graphic area in a file with .bly extension that you can reopen for future use.

Load Full Assembly

Manages assembly's components opening. More details can be found [here](#)

Close Assembly

Closes the model or assembly, including its components

Add Component

Requires you to select a .bly or STEP file and add it as a component to the working model/assembly (see [Assembly Functions](#))

Add Empty Part

Adds an empty component to the working model/assembly

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Load Full Assembly



While opening the assembly, you can choose if you want to load it entirely with its components or only the structure by checking the box

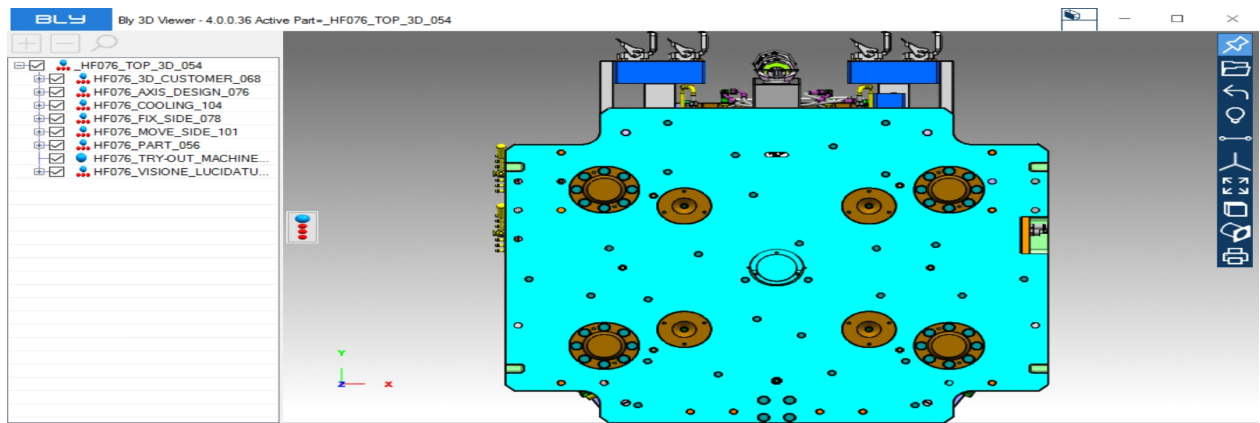
If you load only structure, Bly displays the empty structure of the assembly in the navigator, without loading its components (faster loading).



You can then open single components and sub-assemblies by clicking the related box in the tree



Unthicking the option will open the assembly in full, including its components:



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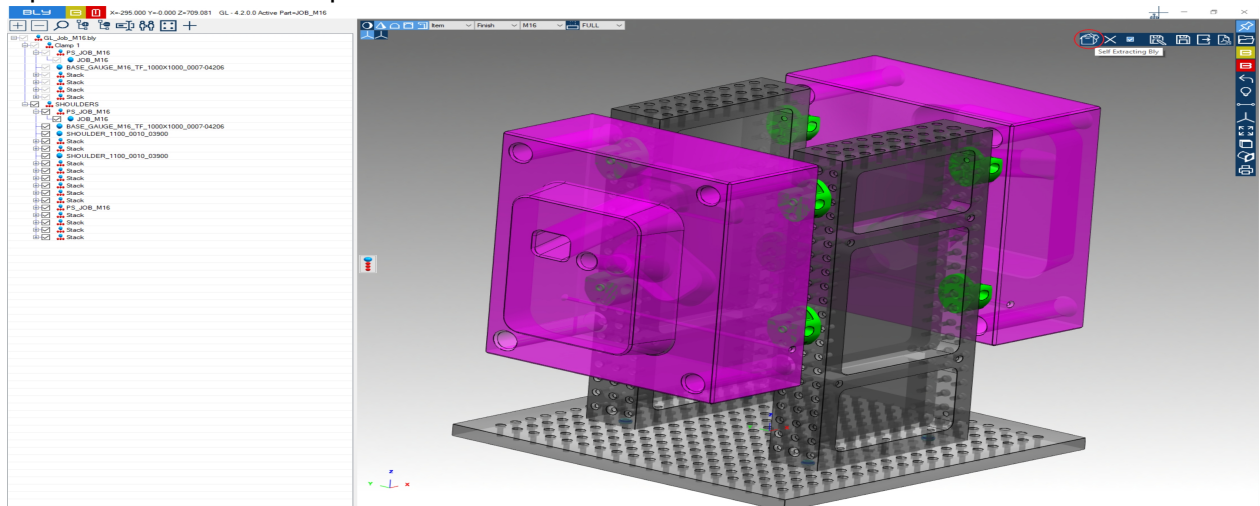
Self-Extracting Bly



This function generates a self-extracting bly file (extension .exe) that can be distributed and open without a Bly3D Viewer installation.

See an example in this [VIDEO](#)

To generate it, open the interested .bly and press "Self Extracting Bly" icon from the Open File toolbar (see picture:)



After specifying the save path, Bly3D Viewer begins to generate it and displays an advancement toolbar on the screen.

The result is an executable file that can be distributed and used by whoever doesn't have a Bly3D Viewer license available (i.e. a customer or a supplier): running it installs a self-sufficient viewer's subset that will open and work with that specific .bly file only. The instance is fully-functional Bly3D Viewer and works with any .bly file (including large assemblies and Guideline 4.0 generated clamps).

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Basic commands (Show all)



Show all



Shows all the objects loaded (do not open closed components), including hidden geometry.

Invert Show



Inverts the display situation, hiding visible objects and showing hidden ones.

Hide Curves

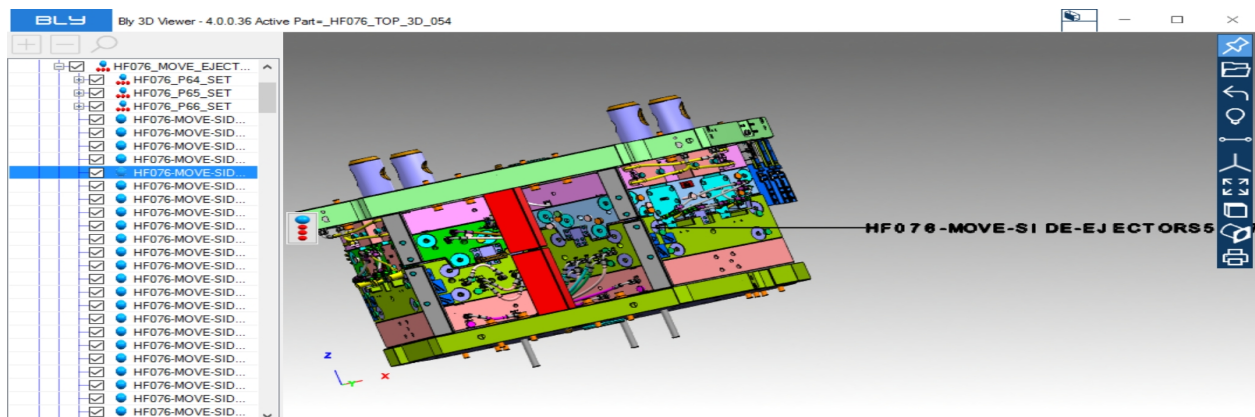


Hides curves in the model.

Show Component Name on Screen



Shows the name of a selected component in the graphic area.



Advanced Selection



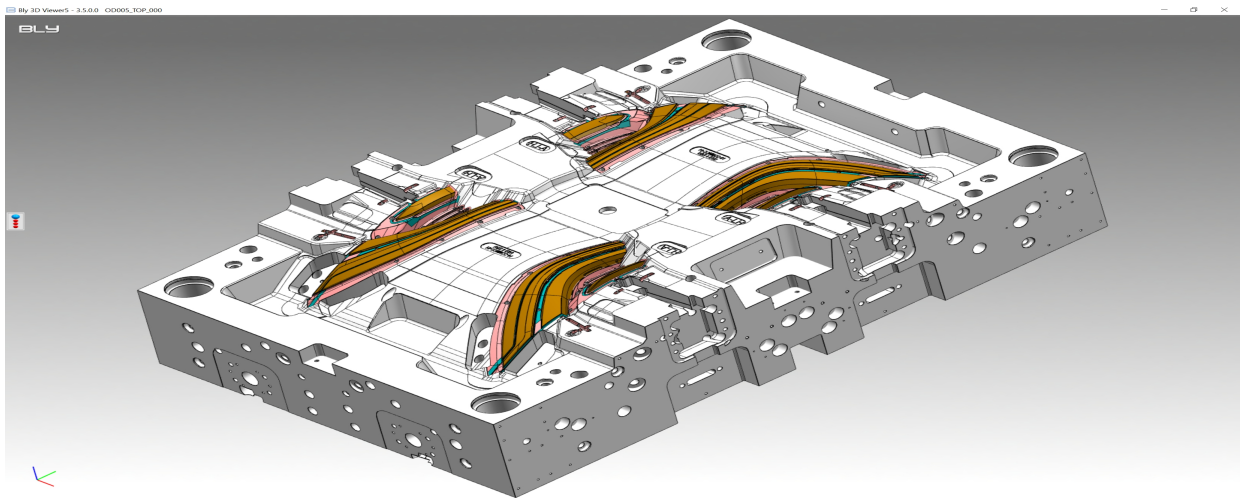
This command opens a dedicated window to help you filter the object selection based on two criteria: colors and layers. More details can be found [here](#)

Show/hide Edges

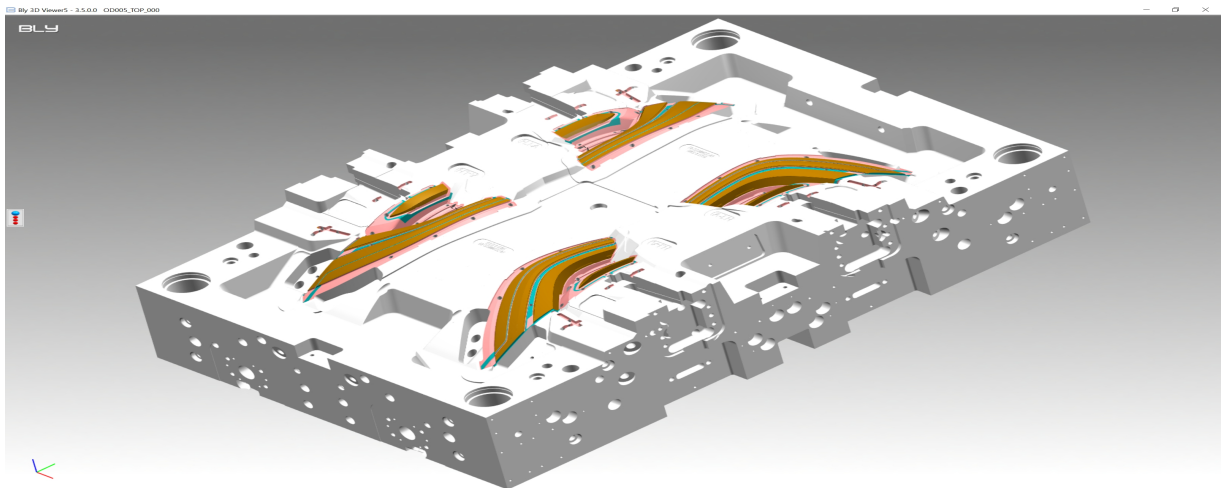


Hides or shows the edges. It has a significant impact on the visualisation effect and performance.

Show edges:



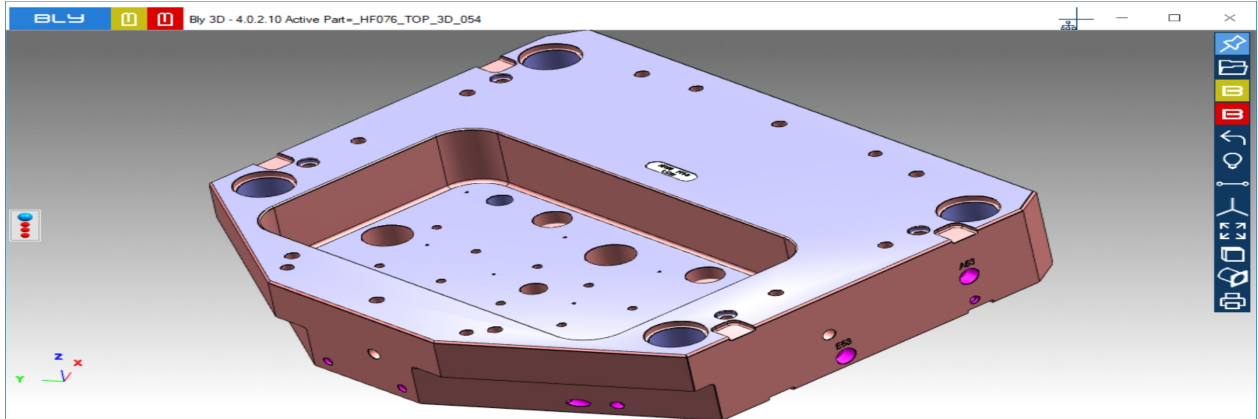
Hide edges:





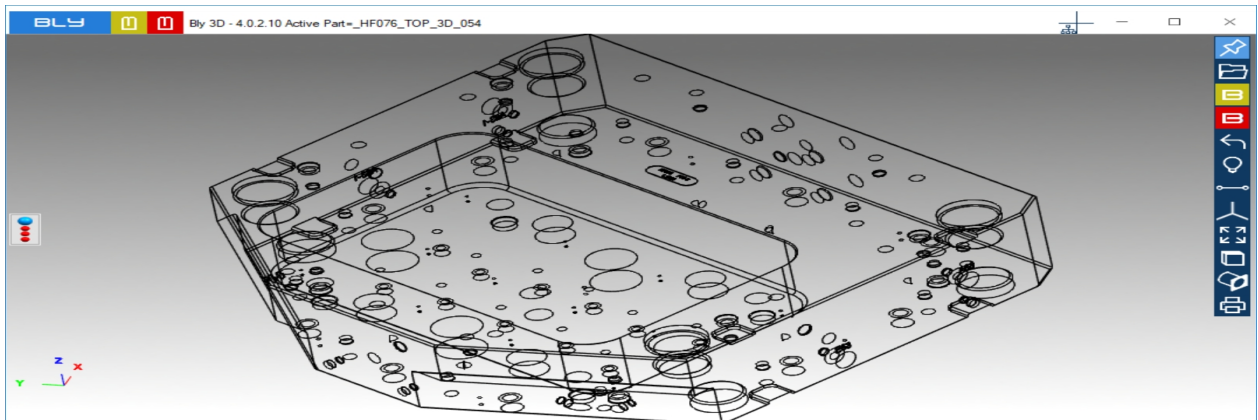
Isolate Components

If the model open is an assembly, this feature sets the selected component as the only one visible, hiding the others.



Wireframe display

It converts model's visualisation into wireframe



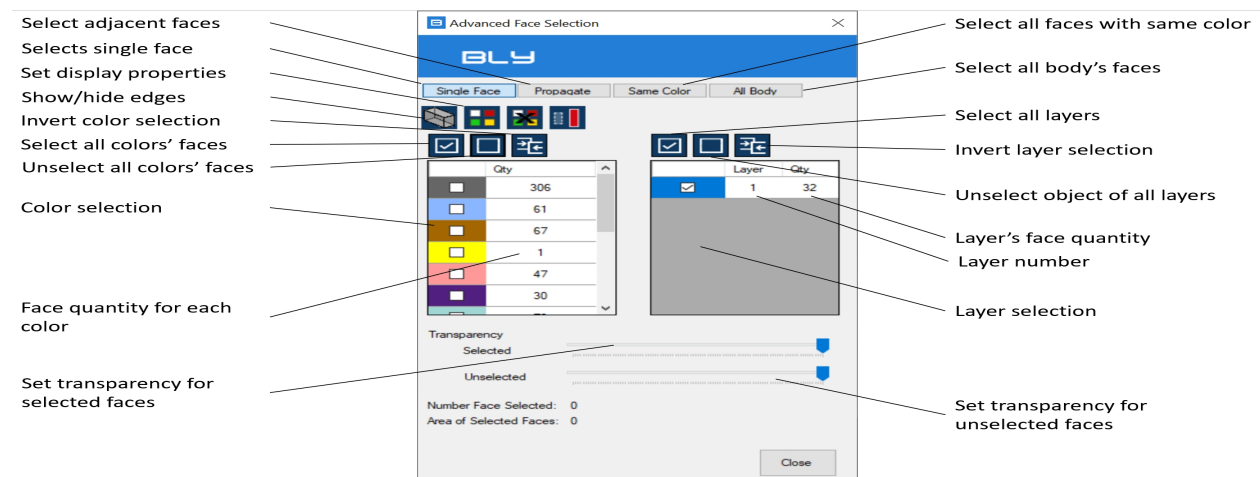
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Advanced Face Selection



Watch a tutorial in this [VIDEO](#)

This command opens a dedicated window to help you filter the face selection based on two criteria: colors and layers. Both properties are imported from the original 3D file (NX, STEP) and available in Bly to be used. Once the faces are selected, further actions may be accomplished (blank, isolate, change color etc.)



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Basic commands (Measure distance)



Measure Distance



It measures the distance between two objects. More details can be found [here](#)

Measure Angle



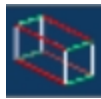
The command measures the angle between 2 axis. More details can be found [here](#)

Point Information



Choose this option if you want to get coordinates of a point on the model. More details can be found [here](#)

Show Bounding Box



Calculates displayed component's Bounding Box. More details can be found [here](#)

Curvature Analysis



Curvature Analysis measures two properties of a face/surface: curvature and deviation of face's normal from the absolute Z+ axis. More details can be found [here](#)

Sphere Selection



It selects the components touched by a sphere centered in a selected point. More details can be found [here](#)

Compare Geometry



The command creates an assembly to compare two or more components. More details can be found [here](#)

Show Label Panel



This feature assigns a label to selected object(s). More details can be found [here](#)

Show Quotes Panel



Opens a panel to manage quotes and labels. More details can be found [here](#)

Show Face Info Panel



Activates the panel reporting info on a selected face or point.

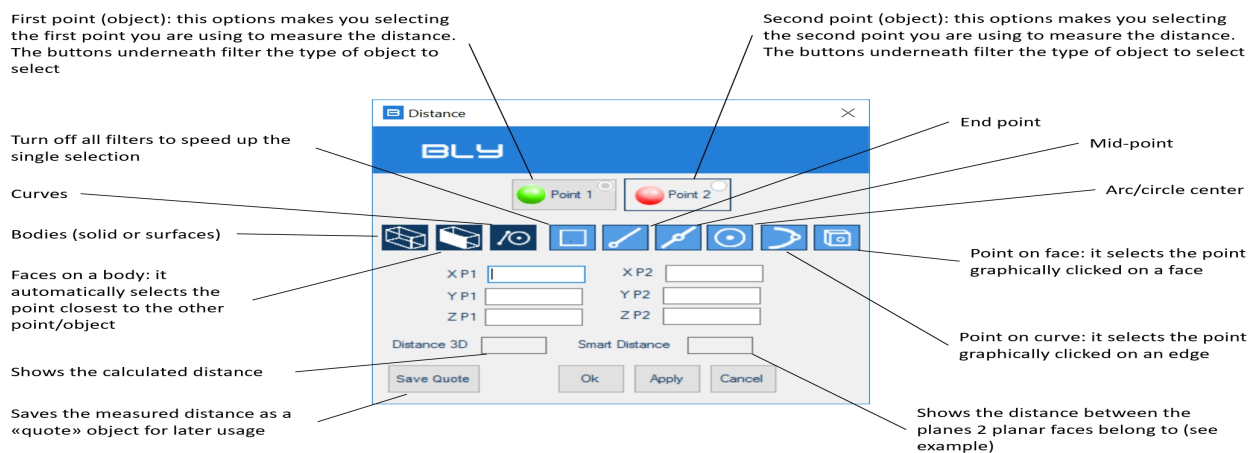
« [Go back](#)

Measure Distance



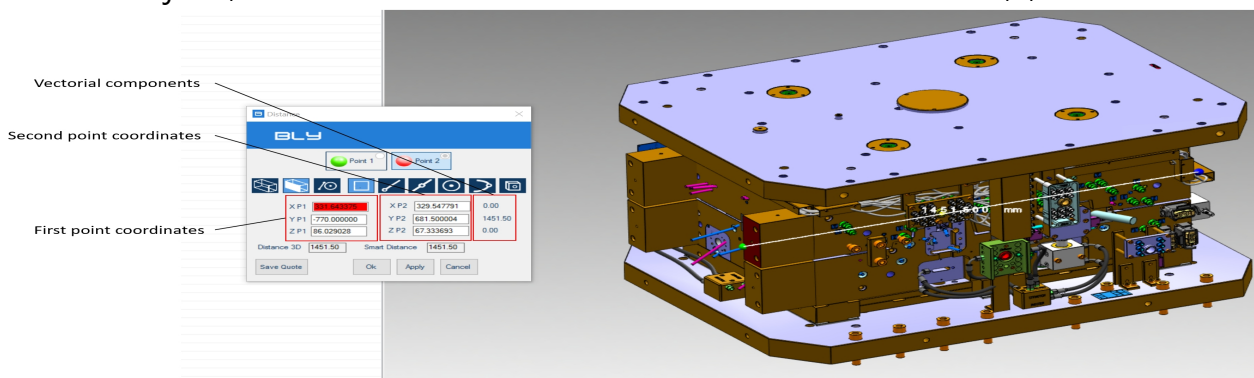
It measures the distance between two objects. Allows selecting points, faces, surfaces and solid bodies as object to measure the distance between. Other than points, the sw measures the minimum distance between the objects, calculating automatically the closest points.

Once pressed the button, the Distance panel appears:

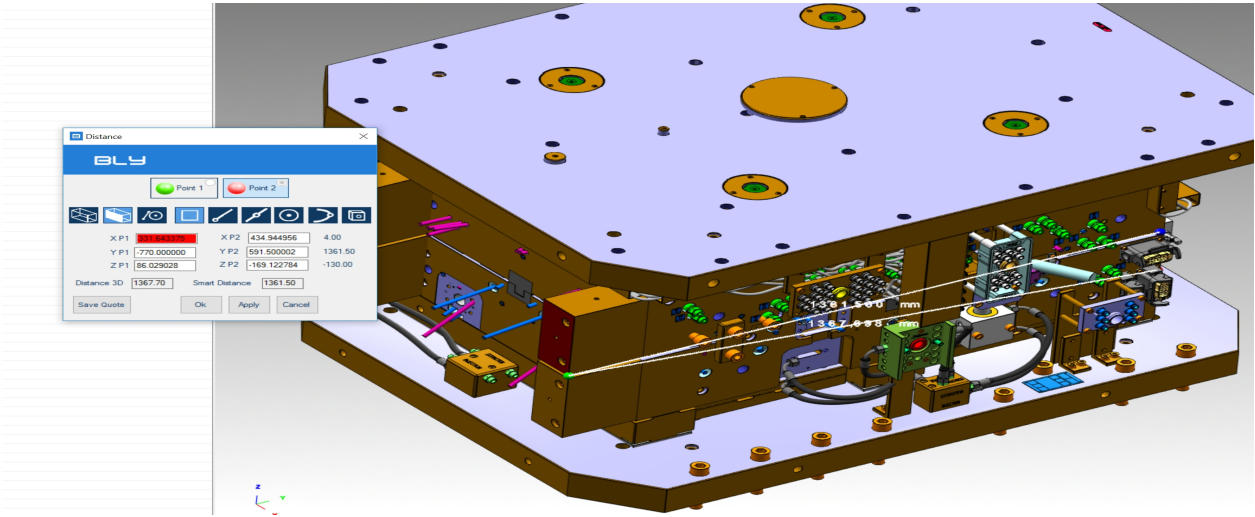


By default Bly asks you to select the Point 1 (green dot) first, but you can decide freely which object to select by pressing the objects' buttons.


Once the two objects are selected, the window will show the coordinates of the selected objects, the measured distance and its vectorial elements in X,Y, and Z axis.

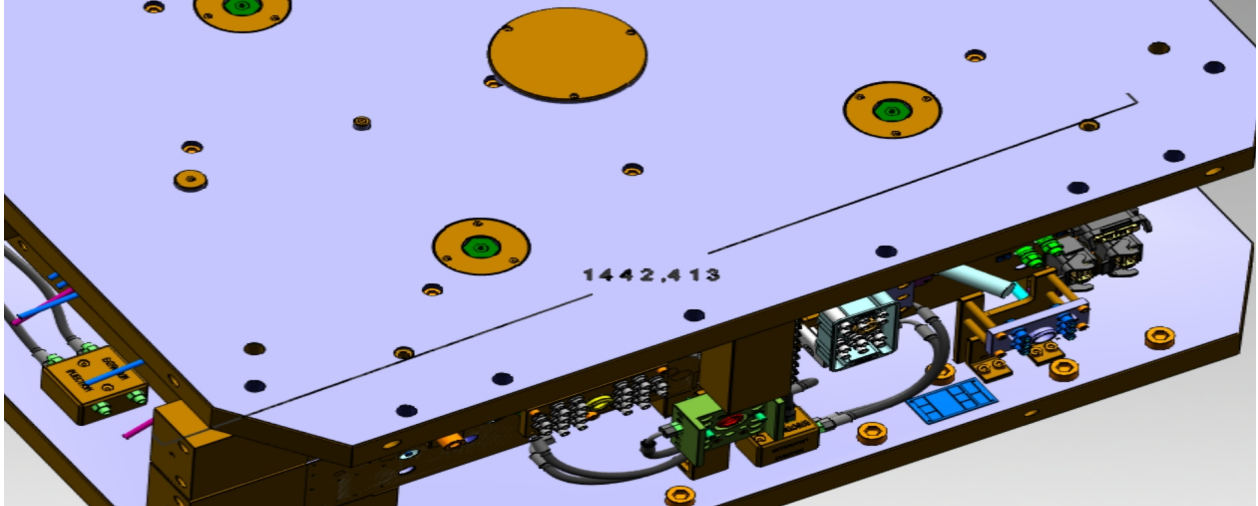


In case of parallel planar objects, Bly calculates both the real minimum distance and the theoretical projected shorter distance, called Smart Distance (see example below)



Save Quote button creates an object that remains visible after Mesuring Distance is

closed and can be managed using Quote Form  command (see later in this chapter)



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Measure Angle



The command measures the angle between 2 axis. Axis can be defined using straight edges or vector associated to point onto faces or surfaces. Pressing the button will show the Angle window:

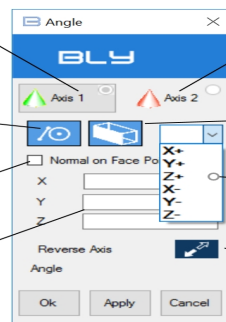
First Axis (object): this options makes you selecting the first point you are using to measure the distance. The buttons underneath filter the type of object to select

Second Axis (object): this options makes you selecting the second point you are using to measure the distance. The buttons underneath filter the type of object to select

Curves\Edges selection filter

Normal on face point: this option selects axis normal to a face/surface on a point clicked on it

Axis' vectorial components

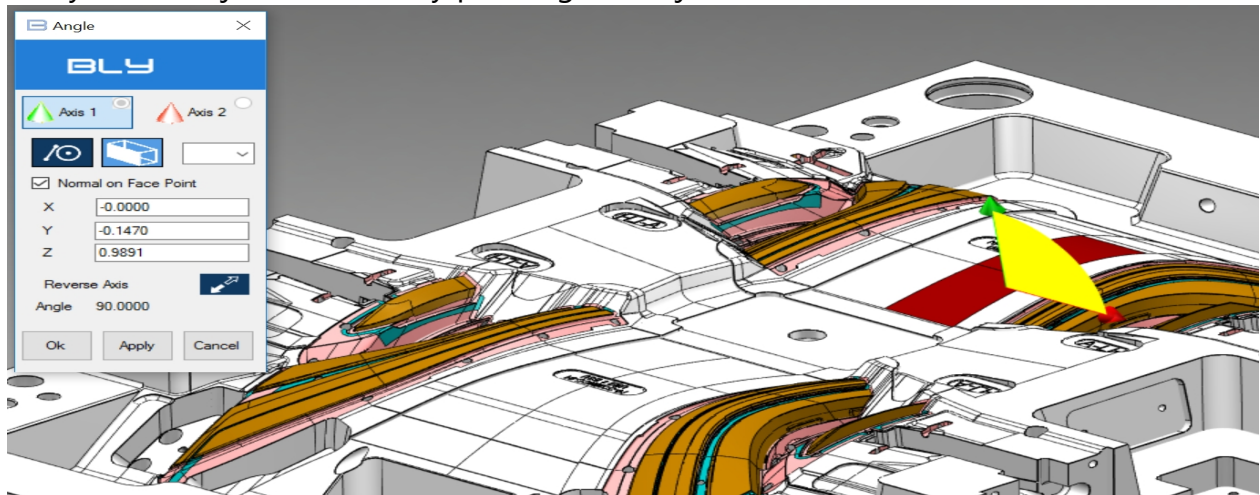


Faces selection filter: it selects the axis linked to a point graphically clicked on a face

Absolute axis selection

Reverse axis: flips the axis defined

By default Bly asks you to select the Axis 1 (green arrow) first, but you can decide freely which object to select by pressing the objects' buttons.

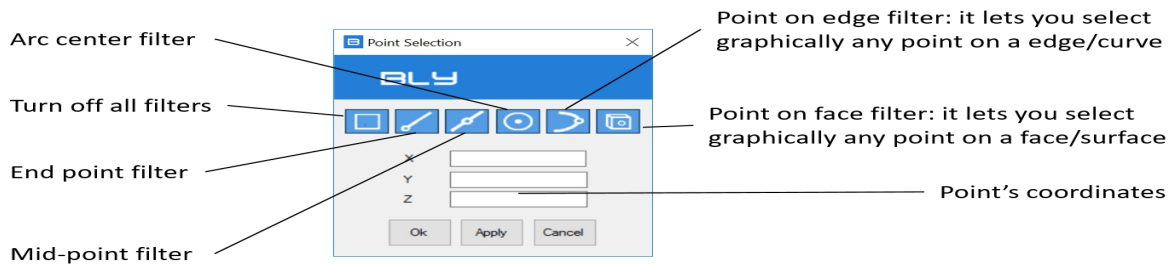


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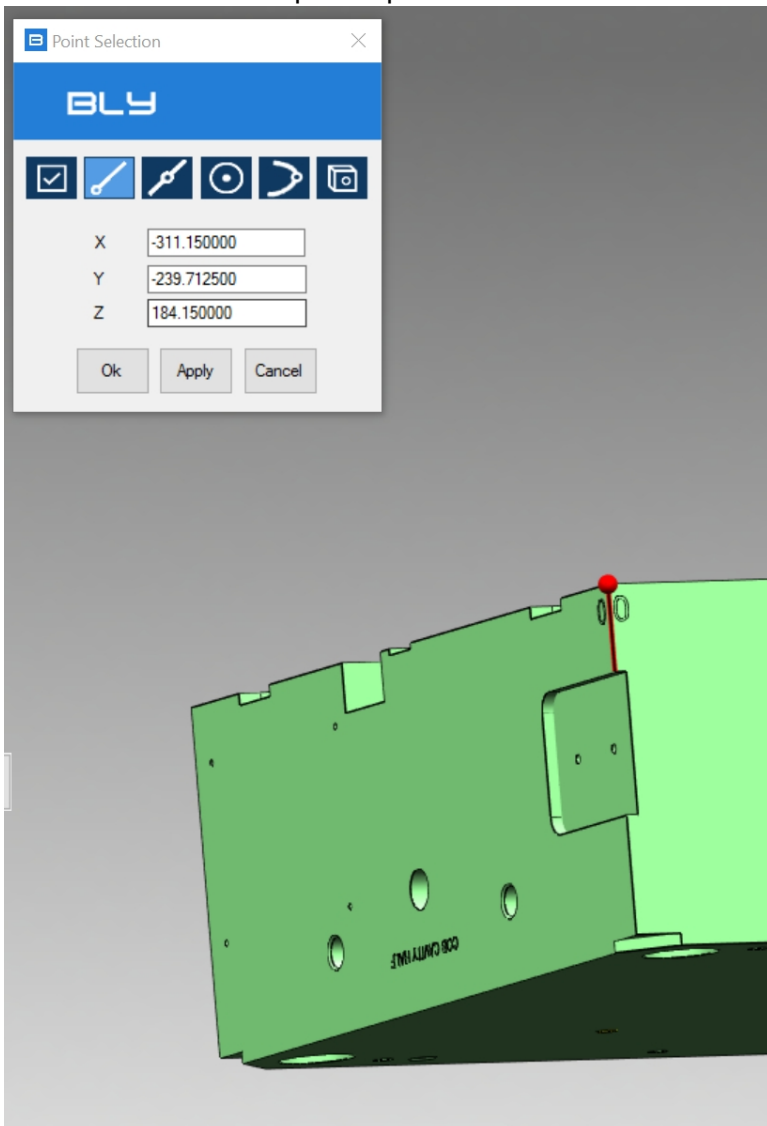
Point Information



Choose this option if you want to get coordinates of a point on the model. After clicking on it, a Point Selection window will be displayed.

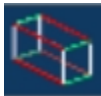


Here below an example of point selected:

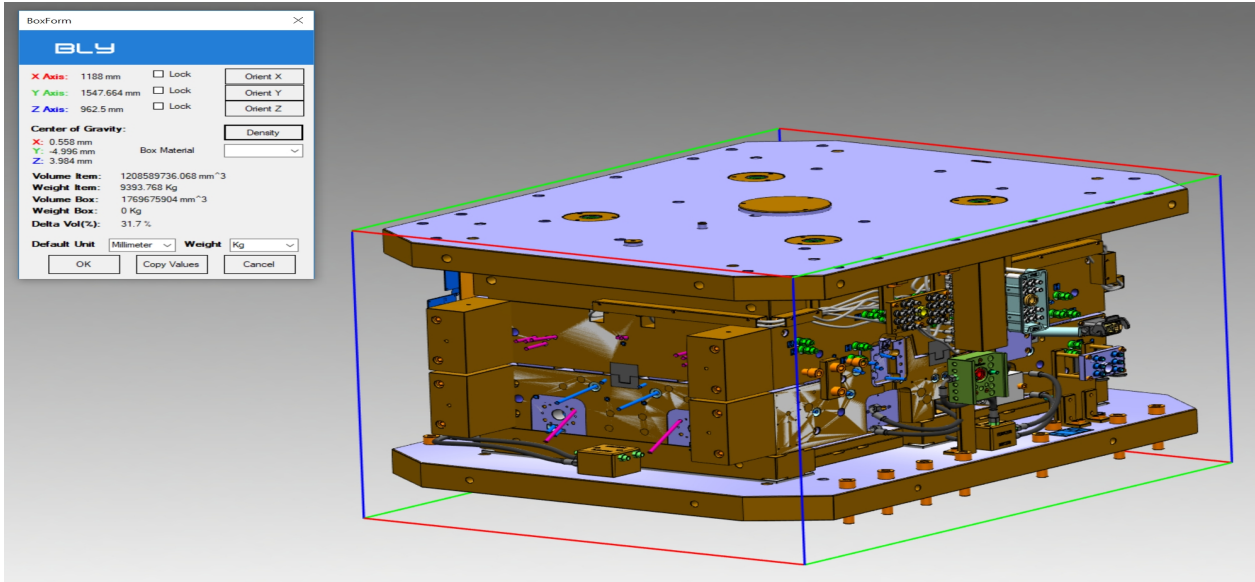


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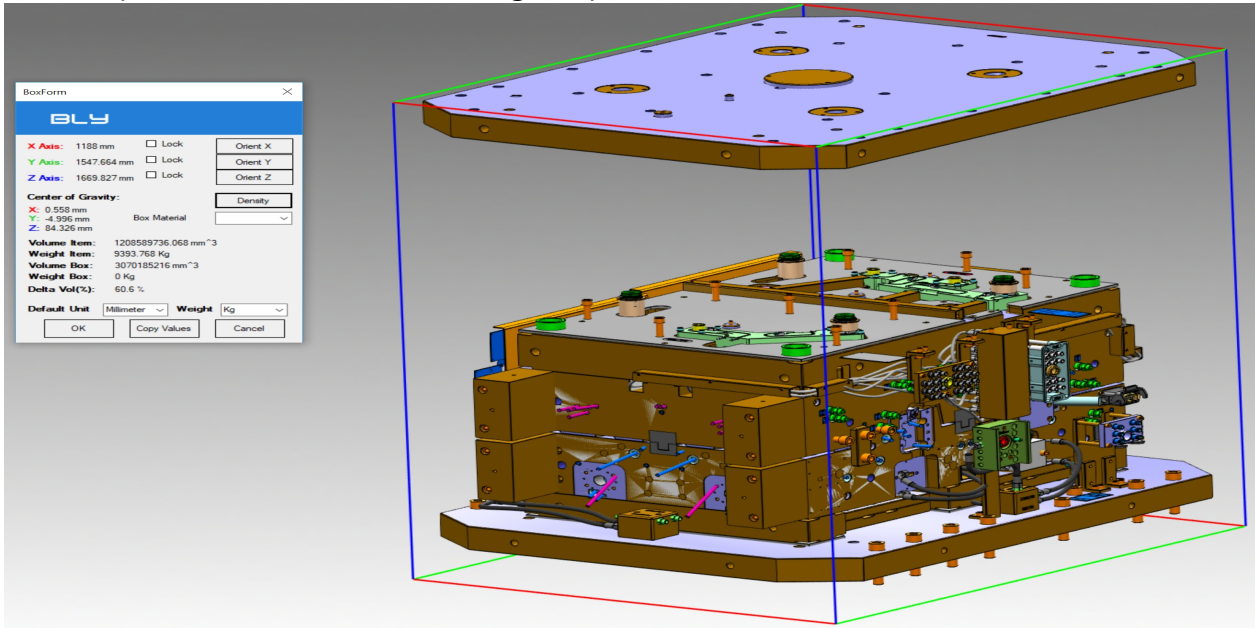
Show Bounding Box



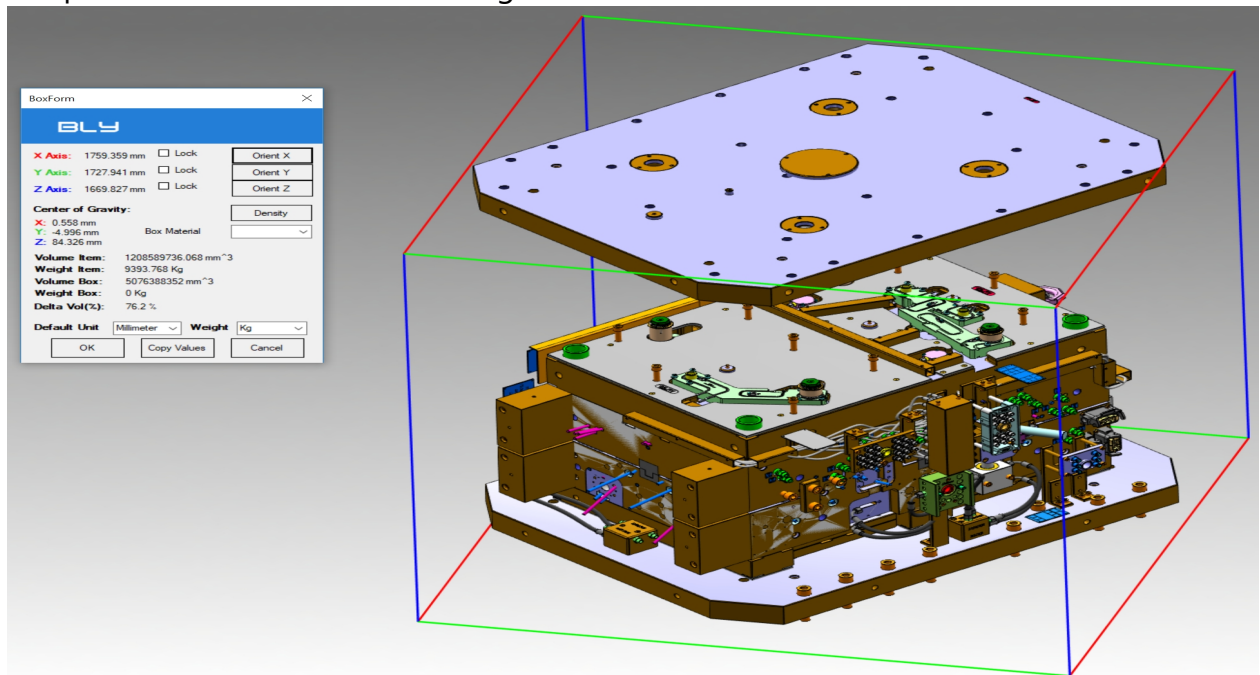
Bly calculates for displayed components' Bounding Box, which is defined as the smallest parallelepiped including all objects in the components.



The bounding box is calculated on the actual assembly configuration, i.e. considering the component moved from the original position (see below).



It is possible to orient the box using Orient X, Orient Y or Orient Z buttons:



Copy Values

This button copies bounding box' dimensions and mass properties to clipboard. The values can then be pasted into an Excel or text file for further usage.

See an example on this [video](#)

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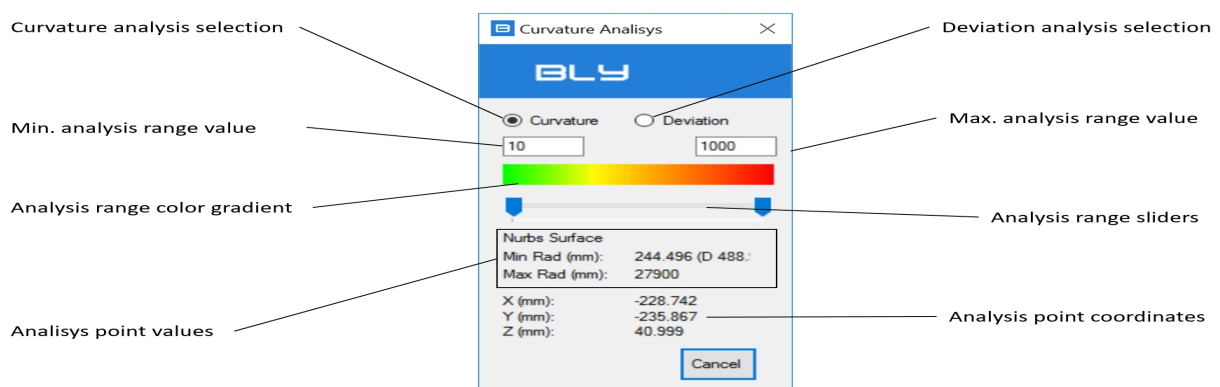
Curvature Analysis



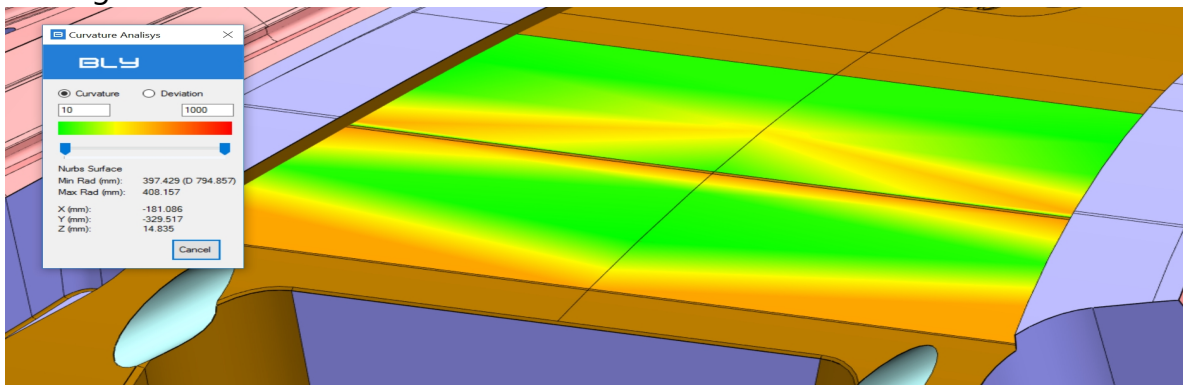
Curvature Analysis measures two properties of a face/surface: curvature and deviation of face's normal from the absolute Z+ axis.

Curvature measurement

The measurement of the curvature is active selecting the appropriate radio button (see picture).



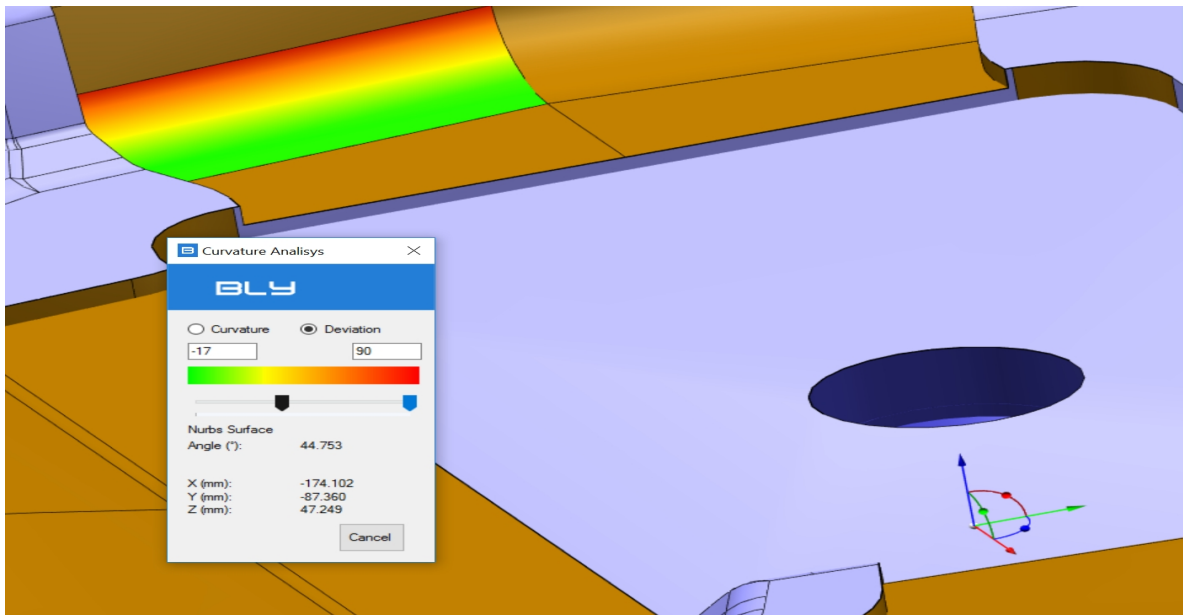
It measures and graphically represents the radius of curvature of surface(s) selected. Range of color gradient shown can be limited either typing values in the fields or moving the sliders



The bottom section of the window reports the minimum and maximum radius in the point overed with the mouse and its coordinates. Face doesn't need to be selected and can be not included in the gradient analysis.

Deviation measurement

Deviation measurement requires to orient the Z+ as you need (i.e. parallel to the direction of mold extraction): once selected, a manipulator showing the axis is displayed.



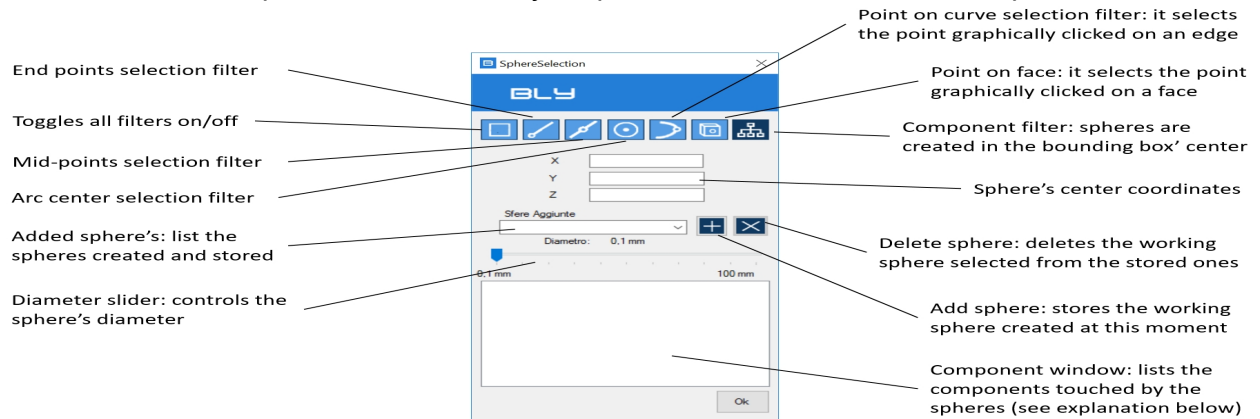
As per the curvature measurement, the window has an upper section for the color gradient and a bottom section for the point overed with the mouse.

« [Go back](#)

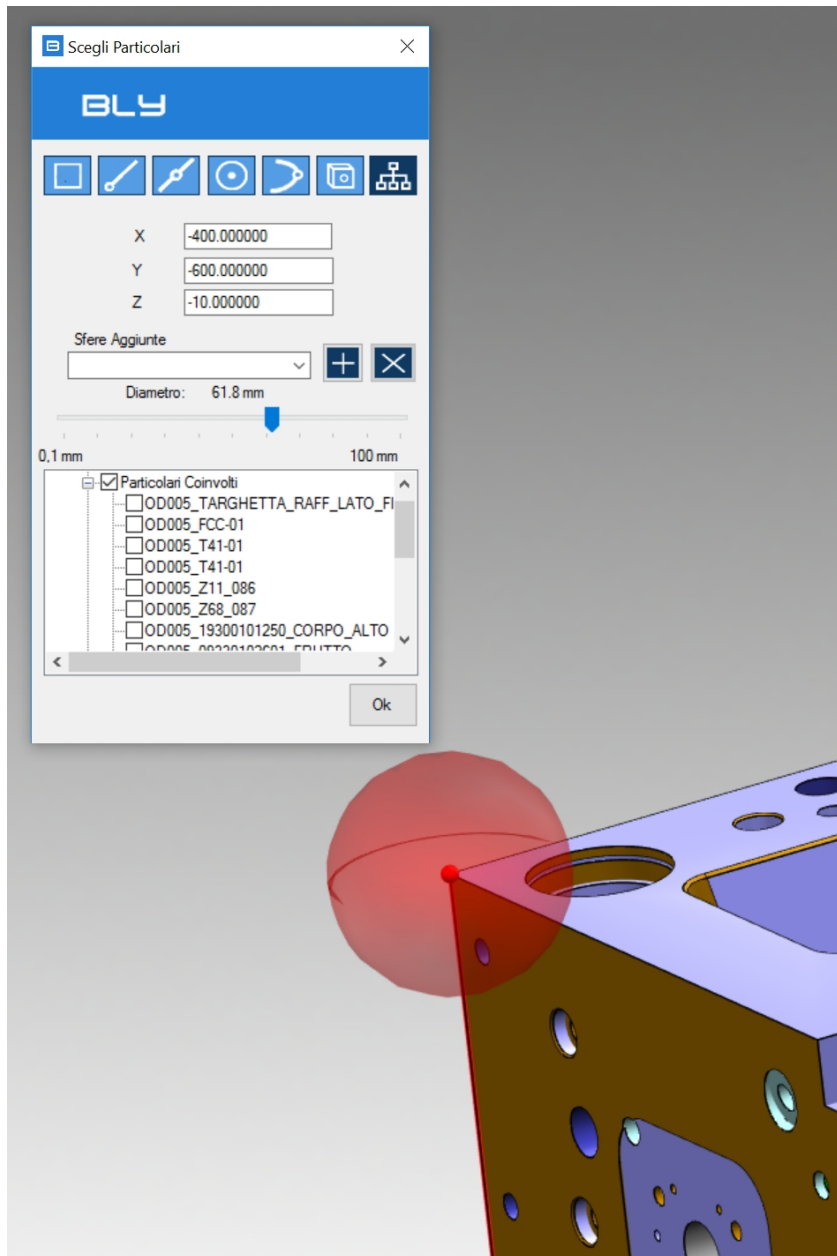
Sphere Selection



It selects the components touched by a sphere centered in a selected point.

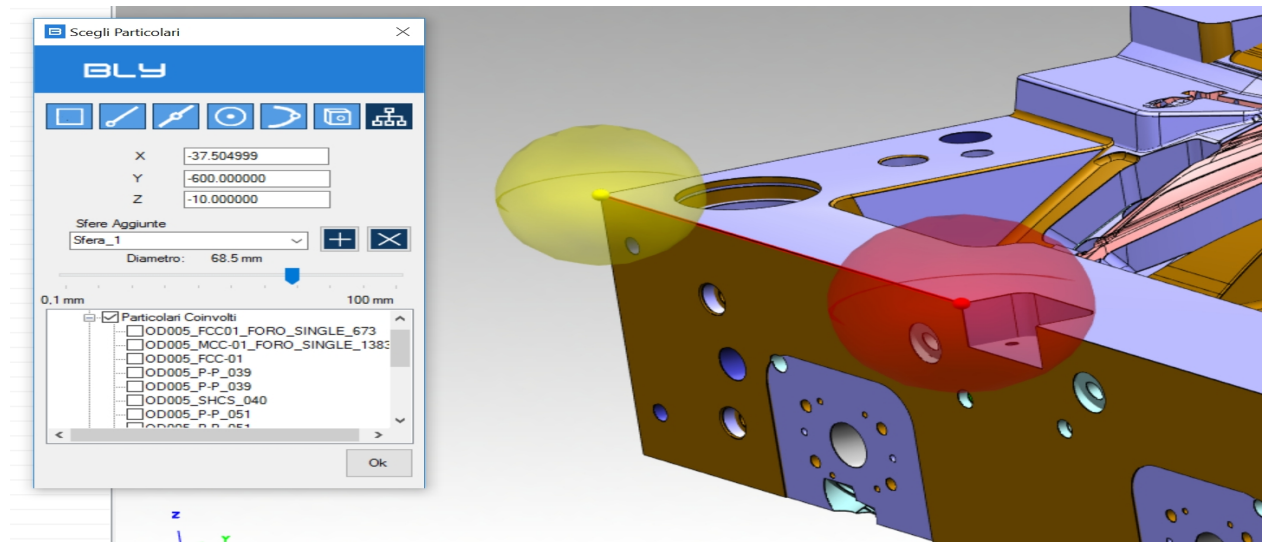


After selecting the point, a sphere is displayed: its diameter can be controlled by the Diameter slider and the components touched are listed in the Component window:



Component window can list, other than components physical touched by the sphere, their mirrored and similar components, if any. After selection, components can be loaded/displayed by thickening them in the list.

It is possible to save the spheres for further usage and selecting components from multiple locations:



« Go back

Compare Geometry

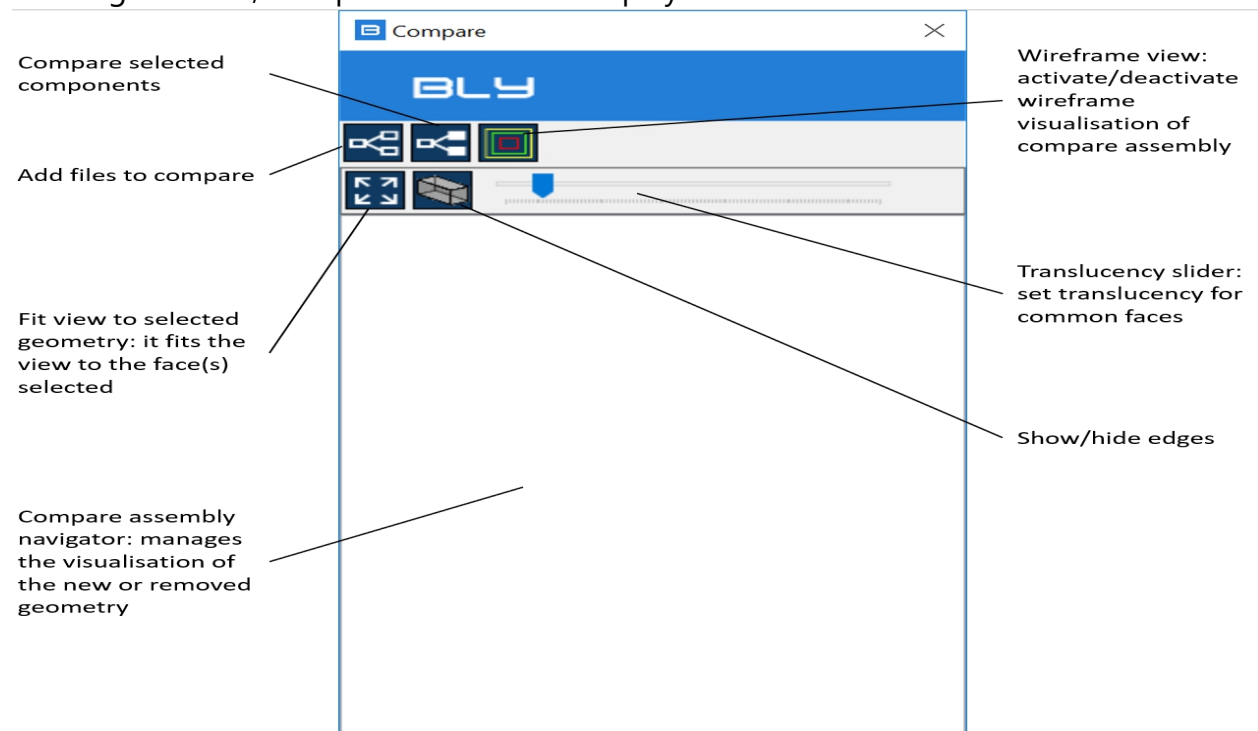


The command creates an assembly to compare two or more components. It is designed to detect geometrical differences between different versions of the same part, sometimes difficult to identify visually.

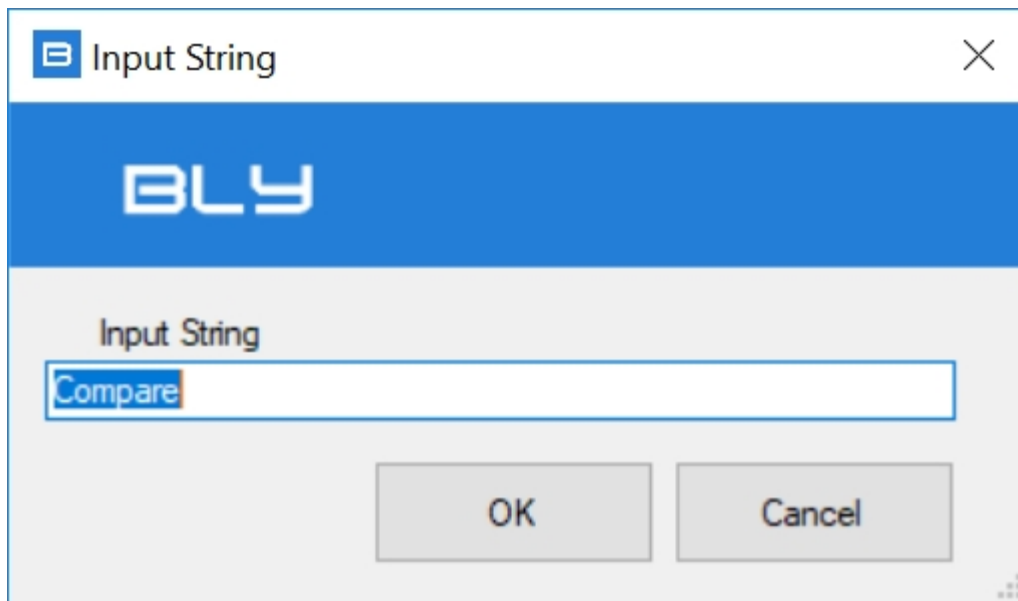
The command can be activated with or without open model(s):

No parts loaded

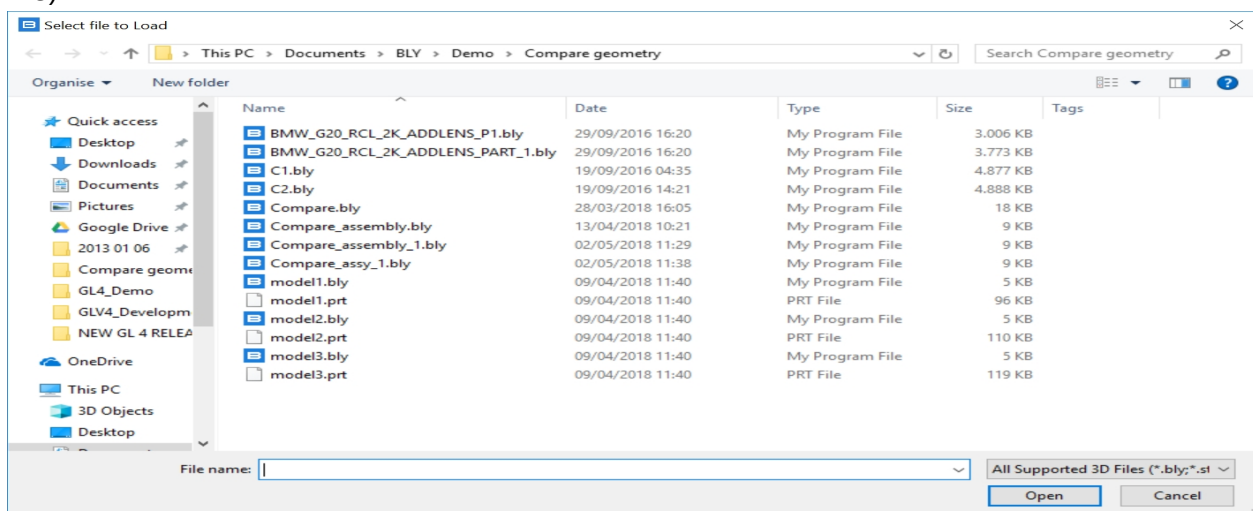
Pressing the icon, Compare window will display



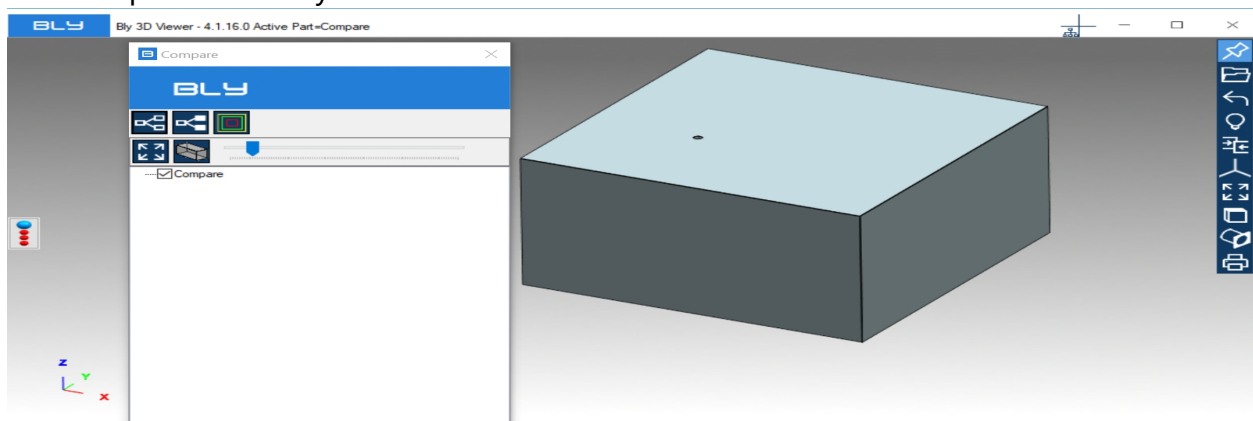
Pressing "Add files to compare", Guideline 4.0 will ask for the name of the compare assembly, which can be freely input by the user



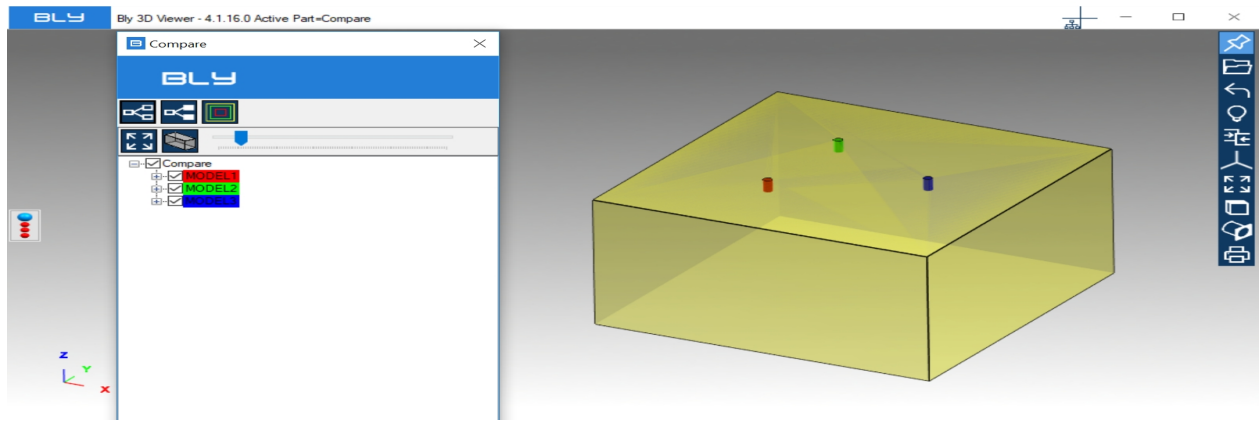
It will be then possible to select the first component from the file system, which can be any supported 3D model (.bly, .stp, .iges or, if Siemens NX is available on the PC, a .prt file)



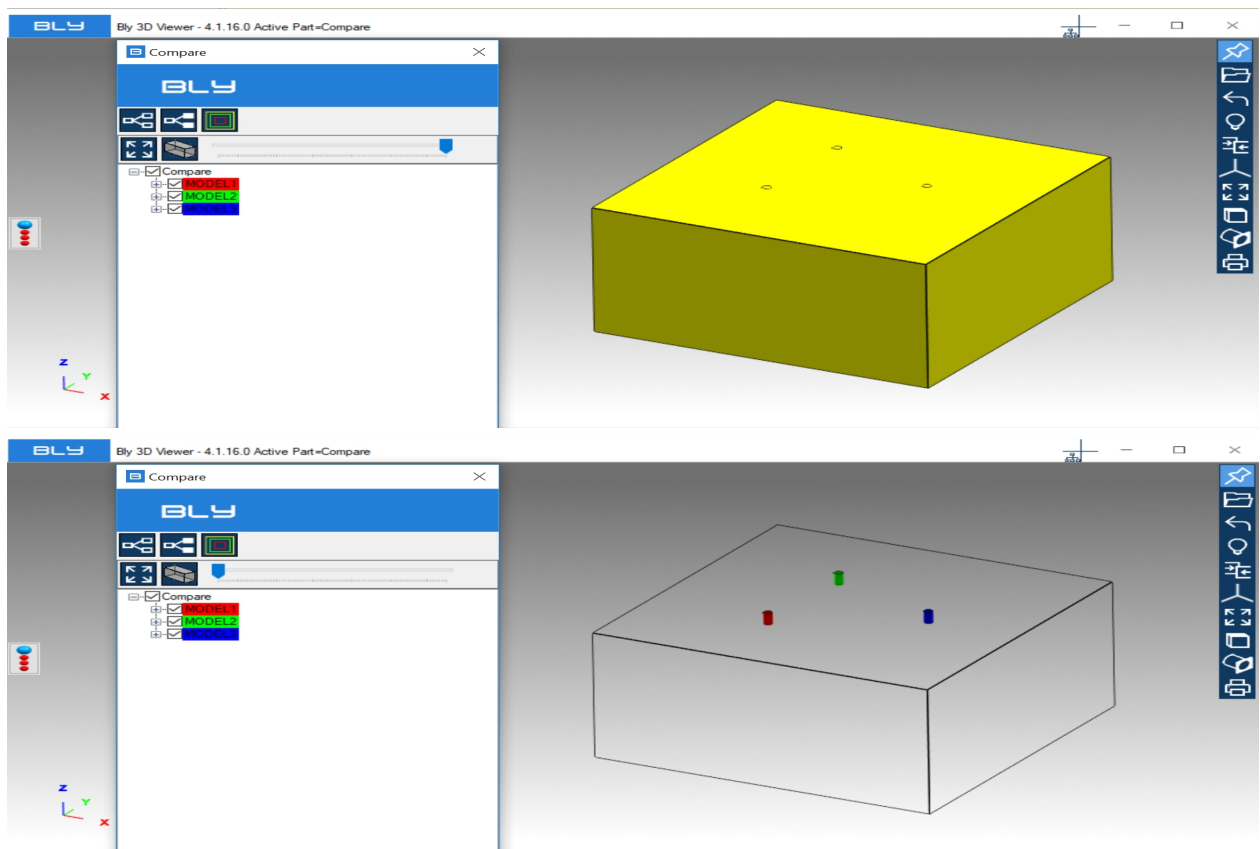
The compare assembly starts to build



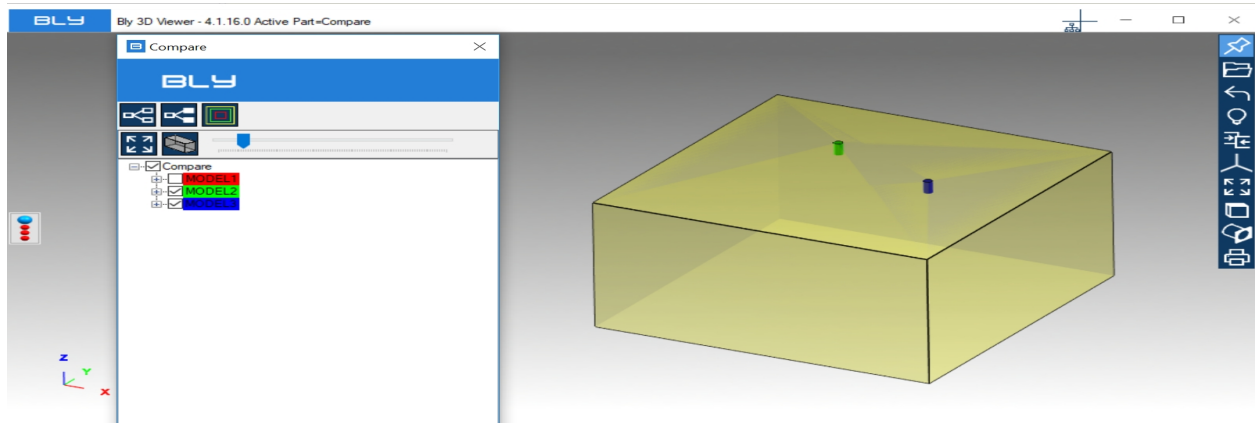
It is then possible to repeat the sequence as many time as the number of the components to be compared: after every addition, compare assembly will update



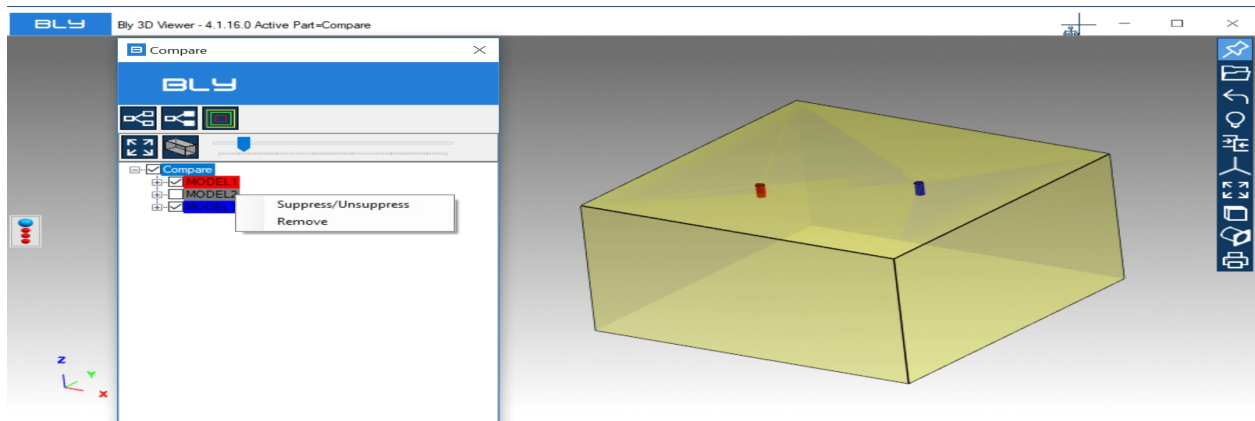
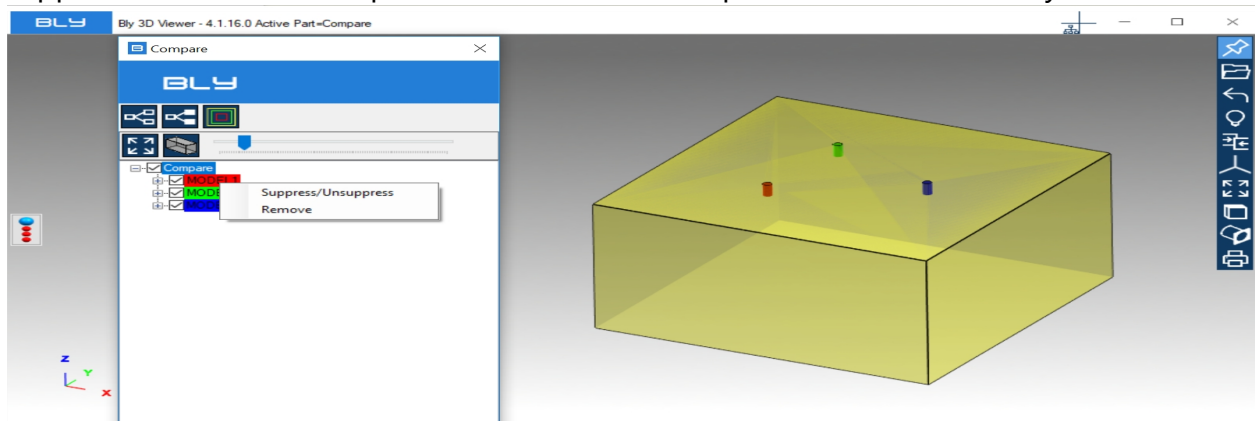
Transparency slider can show or hide the unchanged model, which may be useful to better understand the modifications.



Component(s) can be turned off/on unthicking/thicking them on the Compare tree



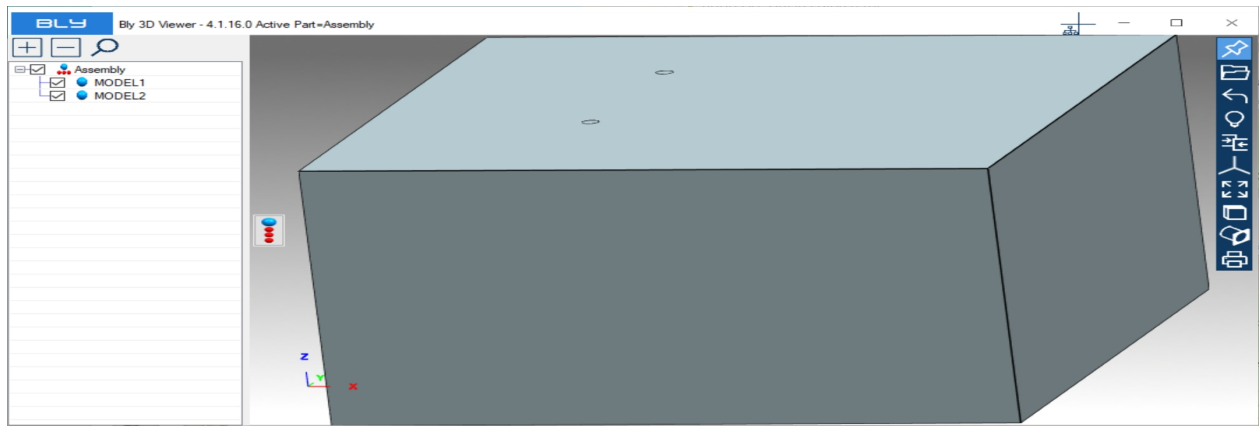
Right-click on the component from Compare tree will allow to Suppress/Unsuppress it: suppression makes a component inactive, but still present in the assembly



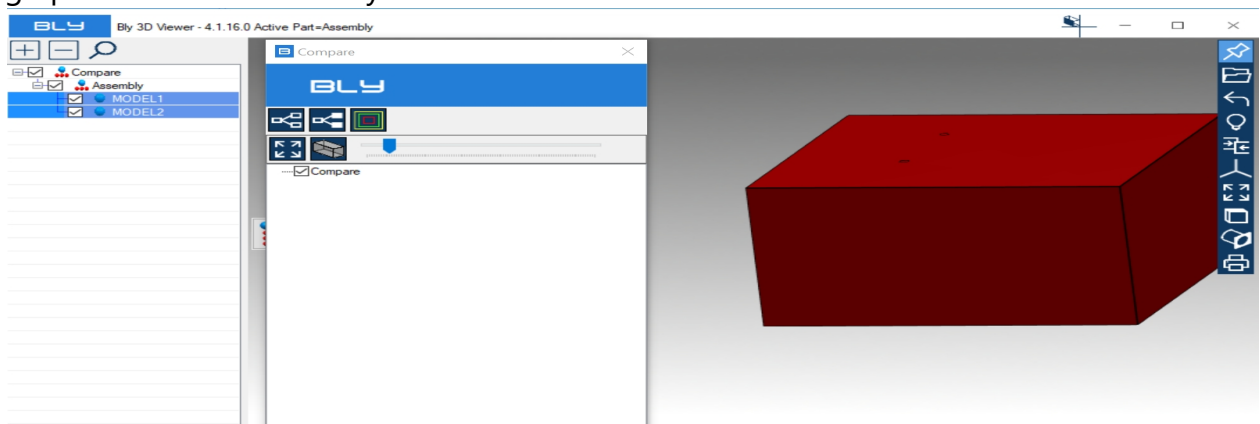
"Remove" will permanently remove the component from the assembly. After exiting the Compare, the assembly will remain displayed and it will be possible to save it.

Parts/assemblies loaded

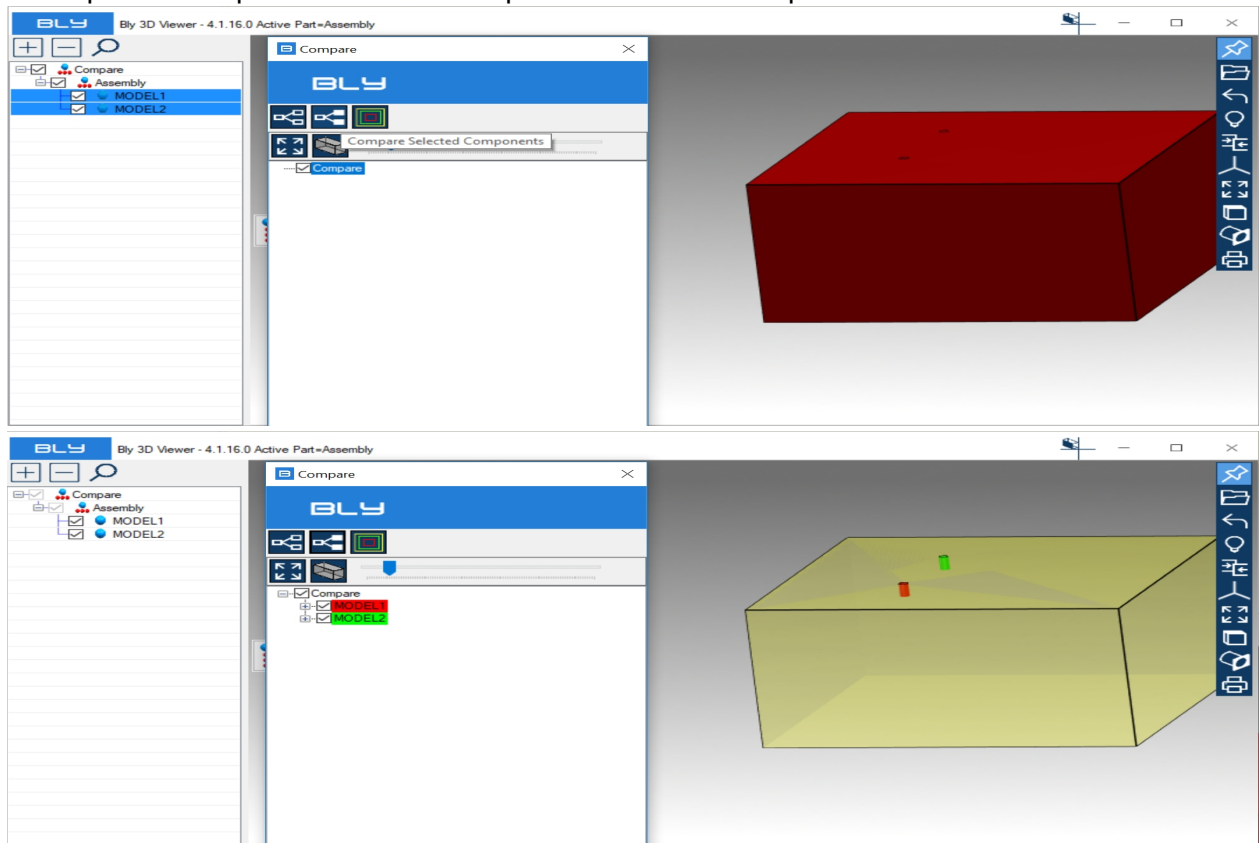
Compare Geometry is applicable to geometry open already:



First, launch Compare Geometry and select the components to compare, either from graphical area or assembly tree



Then press Compare Selected Component to start comparison



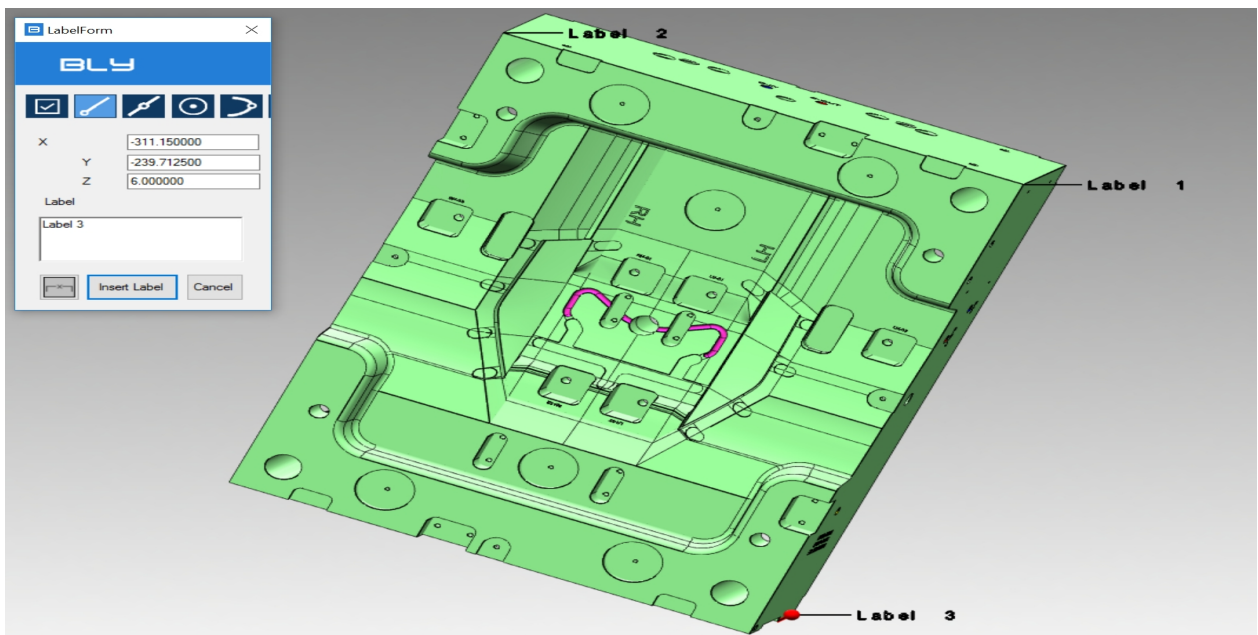
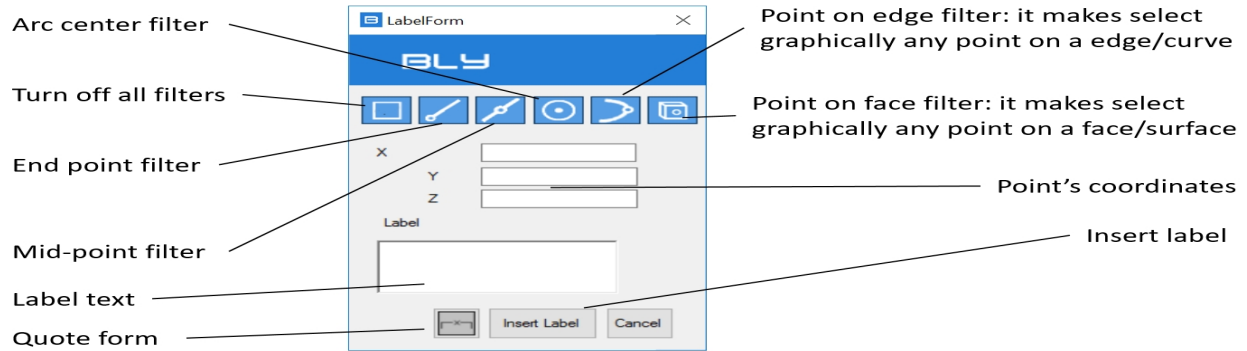
Please, see also the related [video](#)

« [Go back](#)

Show Label Panel



This feature assigns a label to selected object(s).



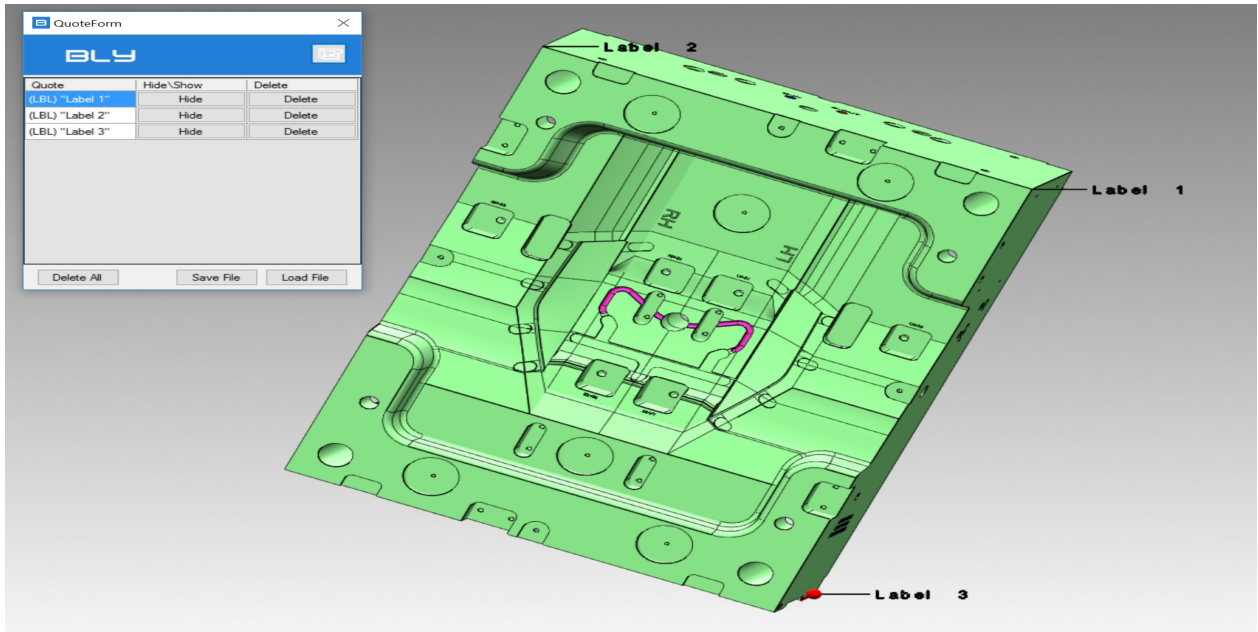
"Quote form" button let you access Quote Form to manage quotes and label (see following chapter)

« [Go back](#)

Show Quotes Panel



After the creation of quotes and labels, you can manage them accessing Show Quotes Panel: it opens a panel listing the notes present in the model and allows you to hide or delete them.

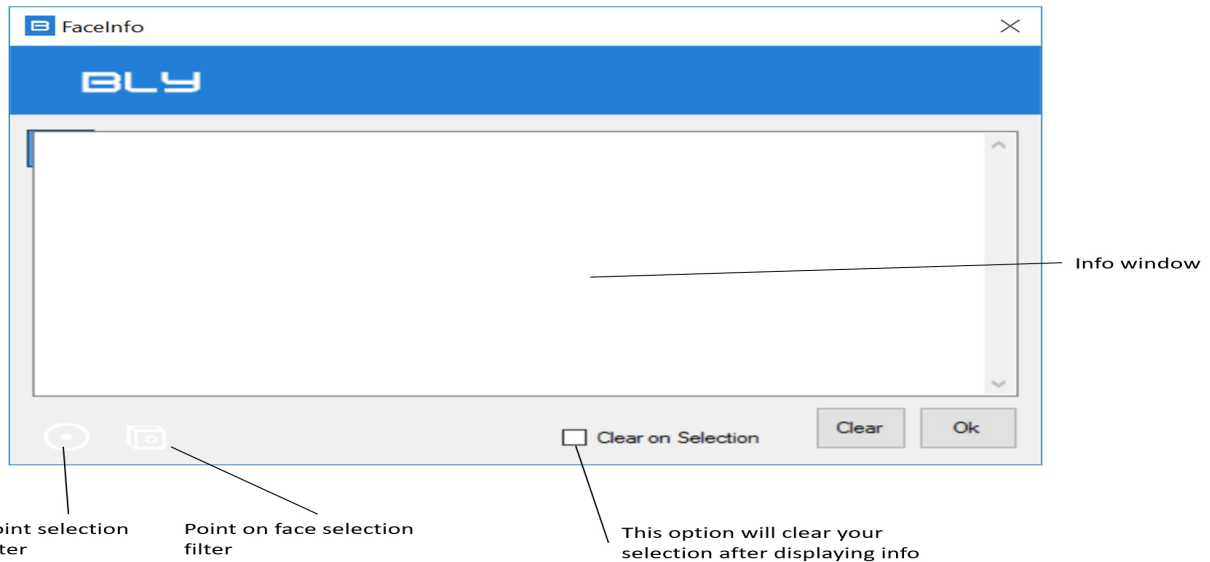


"Save File" button exports the list in a .xml file, which can be reimported in new model/assembly's version using "Load File" button.

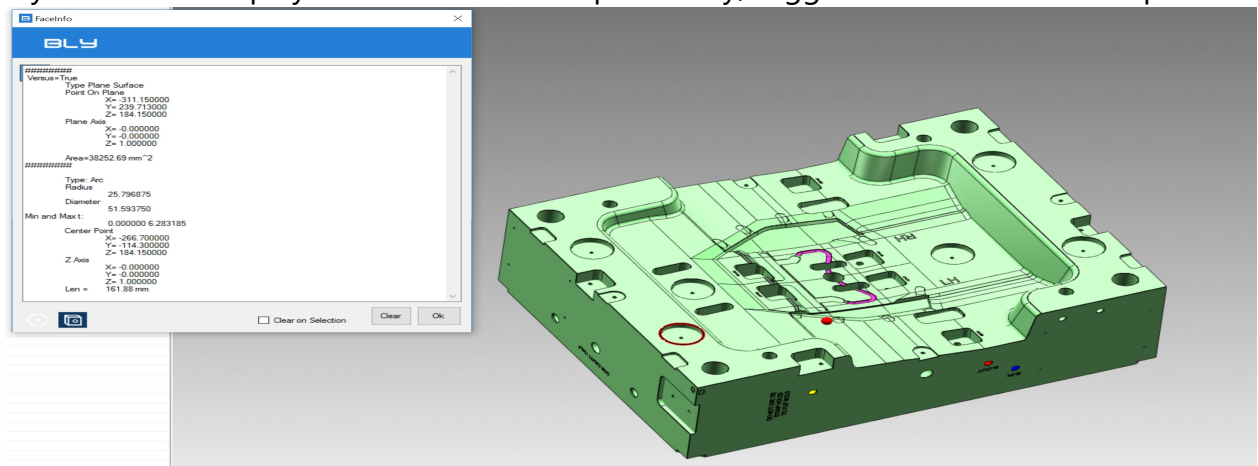
Show Face Info Panel



Activates the panel reporting info on a selected face or point.



The command lists the info and store the selection, so, after having selected the first object, info window, will display info and keep them while you make further selections. If you want to display info related to one point only, toggle Clear on Selection option.



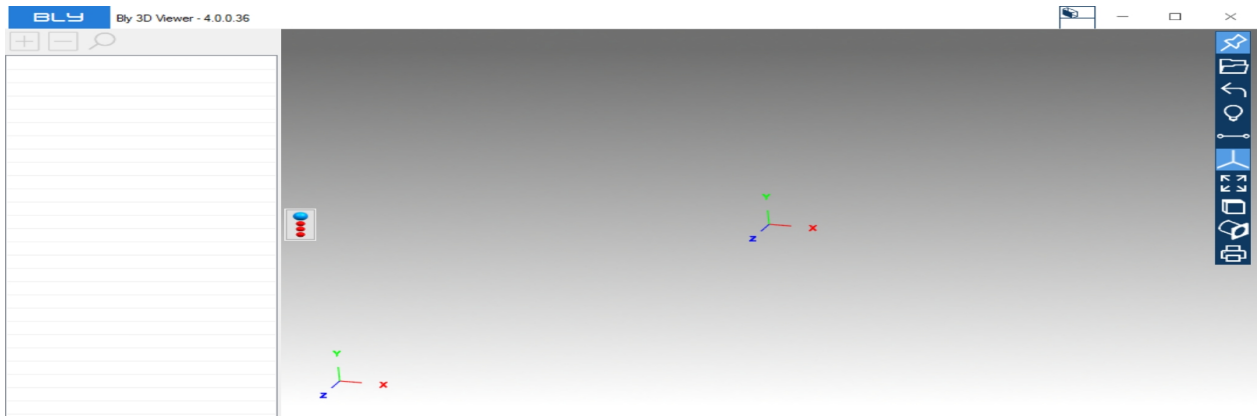
Basic commands (CSYS)



Show CSYS



It displays the absolute coordinate system of the .bly file. In case of 3D models imported from STEP or IGES, the absolute coordinate system is coincident with the one defined in those files.



Save Axis

The command saves the orientation of the view as displayed. This view can be recalled later with "Load Axis" command (see below)

Load Axis

The command recalls the orientation of the view as previously saved with "Save Axis".

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Basic commands (Fit All)

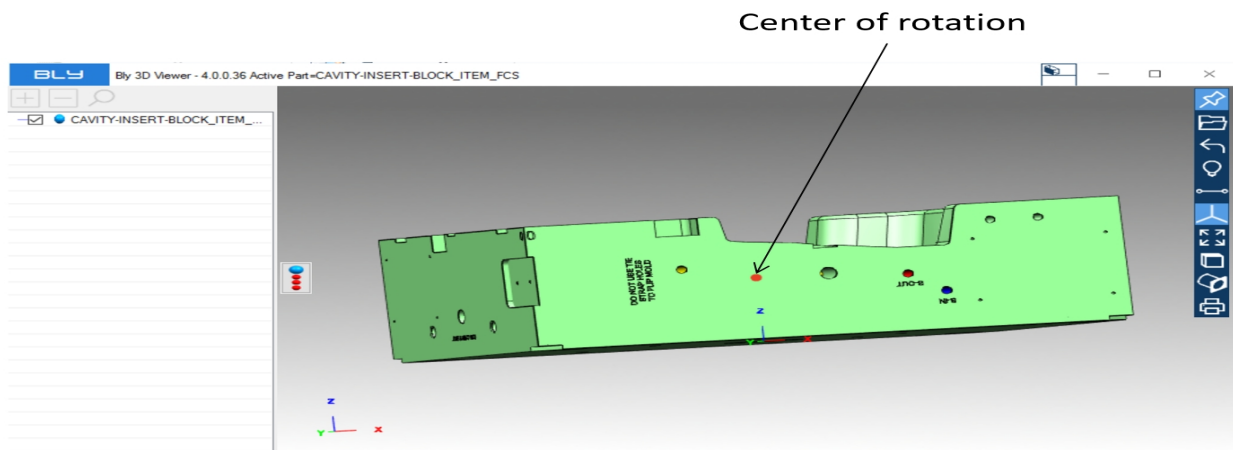


Fit All

This option adjust the zoom fitting the model view to the window, maintaining the orientation.

Set Rotation Point

This function let you set the new view rotation point of the current model. Rotation point is displayed in the graphical window using a red dot when pressing the central mouse button



Zoom Window

Zooms the content of a selection window drawn on the screen.

Zoom

It lets zoom in/out by selecting the desired point of reference, clicking with left mouse button and dragging up and down. To de-activate the function press ESC key.

Rotate

The command lets rotate the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

Pan

The command lets you to pan the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

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Basic commands (Orientation)



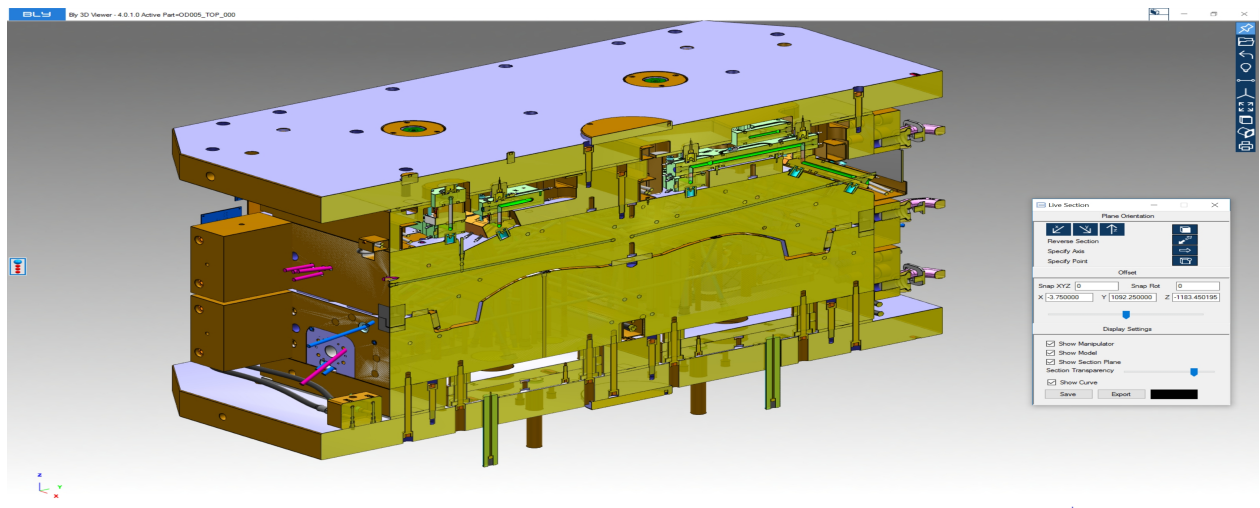
This self-explaining toolbar orients the model in the graphical area to the main working views (Top, Bottom, Left, Rear, Right, Front, Trimetric, Isometric).

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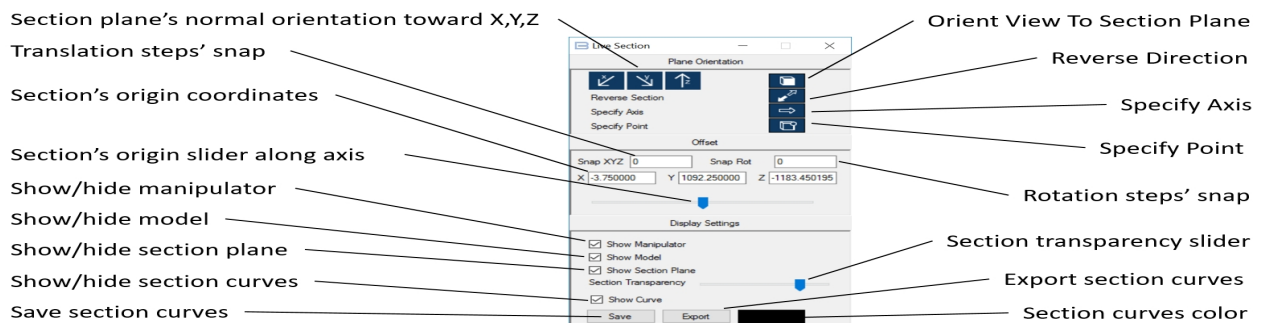
Basic commands (Live section)



The command activates the Section functionality: this is a powerful tool to see, evaluate and measure the models open in Bly.



Here below you find the panel's functions description.

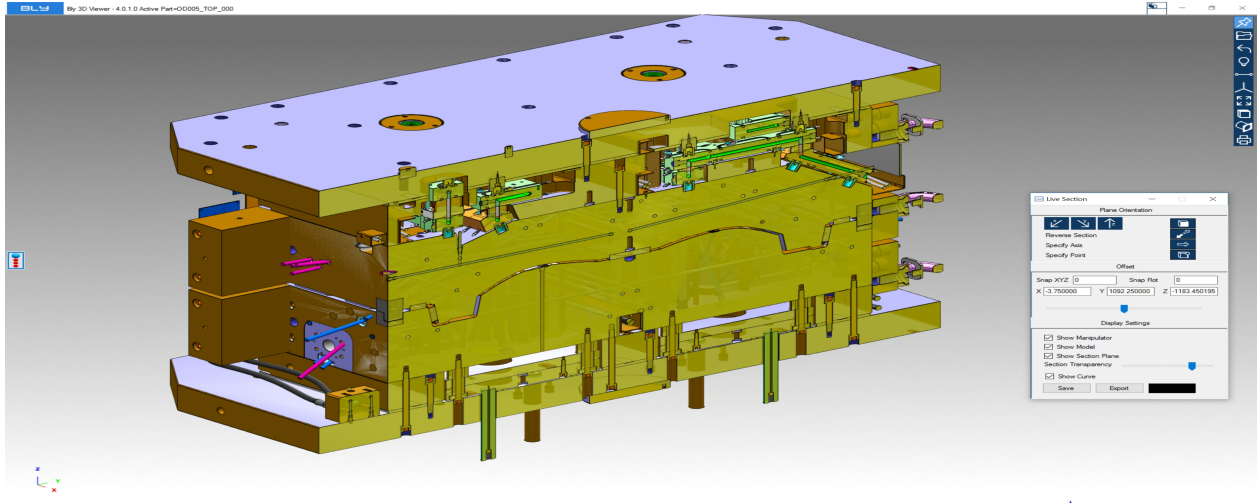


Reverse direction

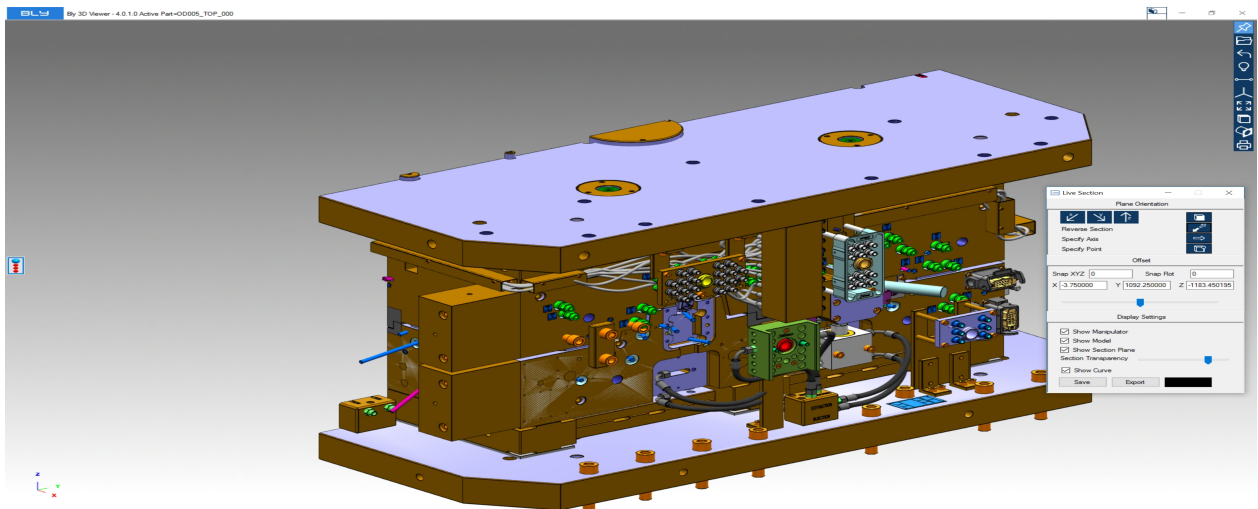


It flips the section's plane normal (axis), reversing the section's side.

Original section



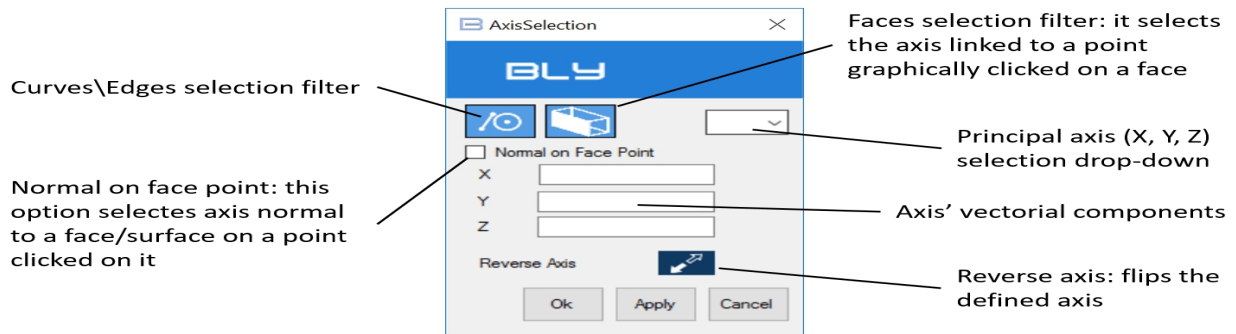
Reverse section



Specify section's normal (axis)



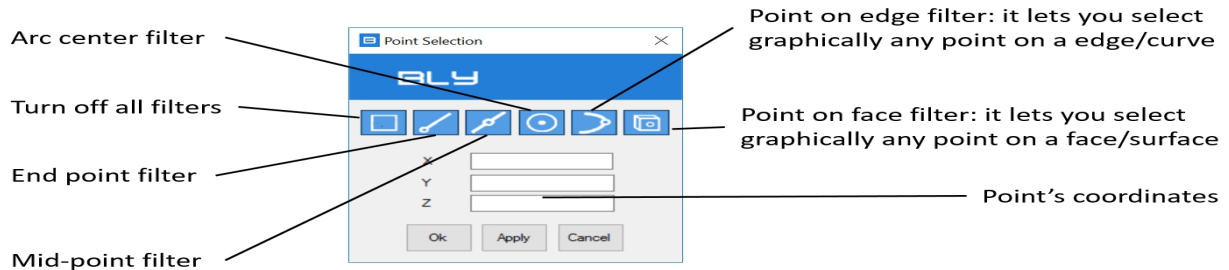
This option specifies a section axis via AxisSelection panel

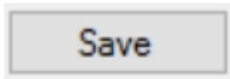


Specify section's origin (point)

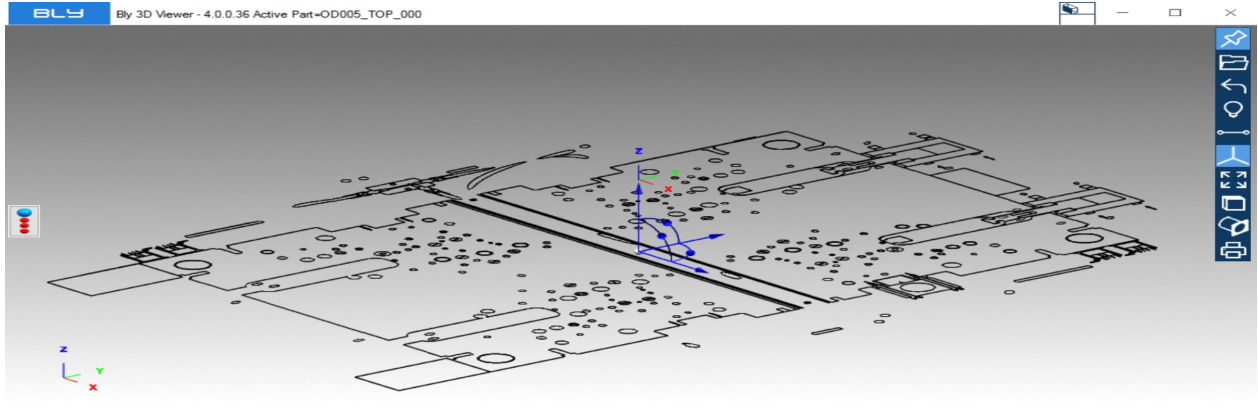
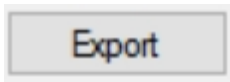


This option lets you select a point the section plane pass through.



Save

It creates curves retracing section edges. Curves are objects that remain visible if the model is blank (see picture) and can be then exported (see below)

**Export**

This option exports section curves previously created in a bly file that can be reopened afterwards.

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Basic commands (Print screen)



Print Screen



You can click on this button to print the content of the graphic area

Copy Image



It copies the content of the graphic area to the clipboard.

Save As



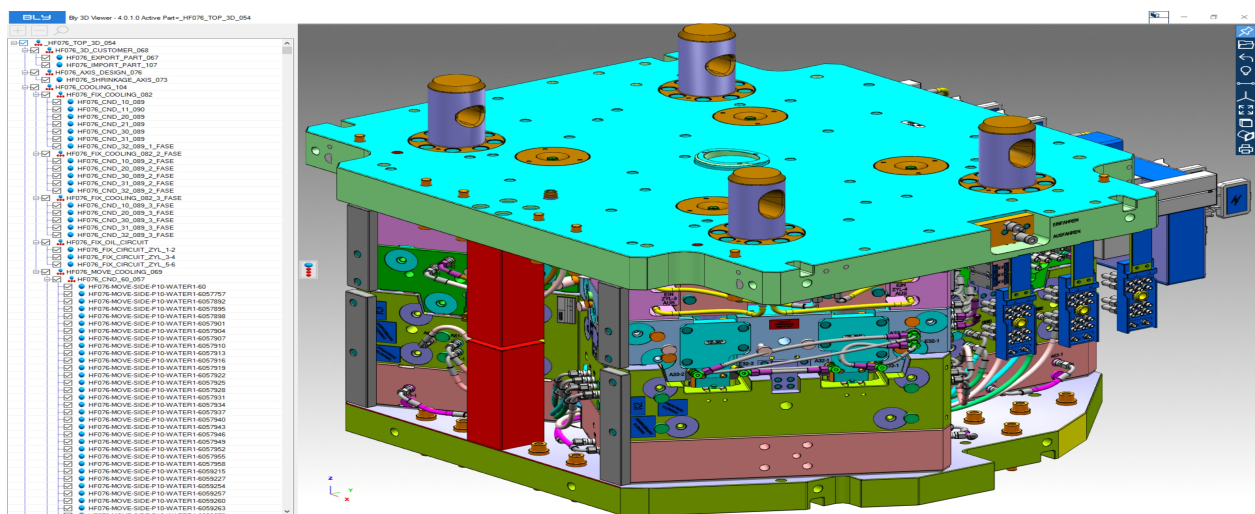
It saves the content of graphic area to an image file.

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ASSEMBLIES

Bly supports the visualization of files containing assembly structure, where assembly is defined as an object (father) having other objects physically connected to each other (children) which all together form the final independent unit.

STEP files, as well as .bly files, may have an assembly structure in it: please note that this doesn't mean that they have relationship with external file, all the components are included into the father's file (see picture)



On the left you can see the assembly tree (see chapter [Assembly Navigator](#)), that shows the assembly structure and its children

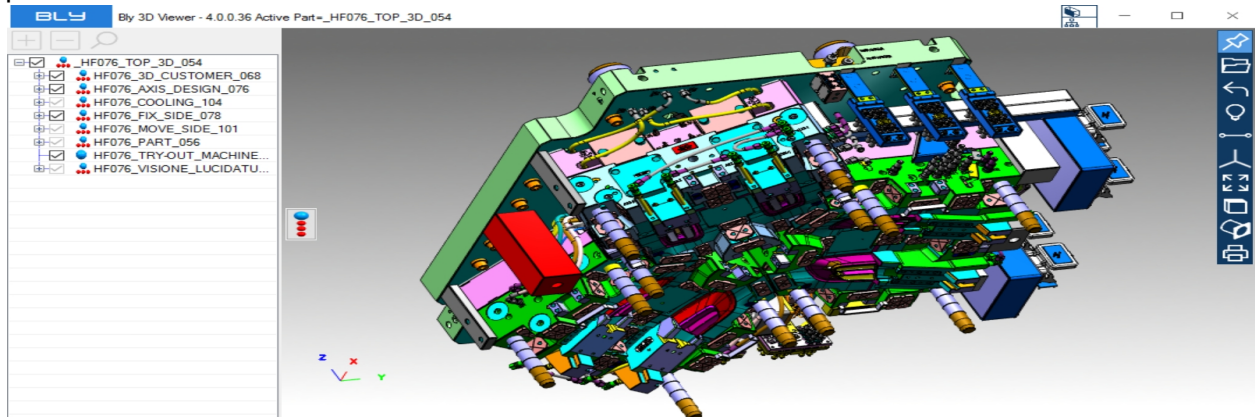
« [Go back](#)



Assembly Navigator

To expand the Assembly Navigator press the button

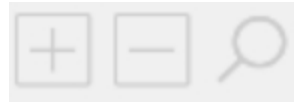


It is possible to hide or display parts by unchecking and checking the boxes near the part name



Pressing the  symbol, the tree expands the structure view, showing the children. As opposite, the  symbol compacts the structure view, hiding the levels below

Assembly Navigator Toolbar

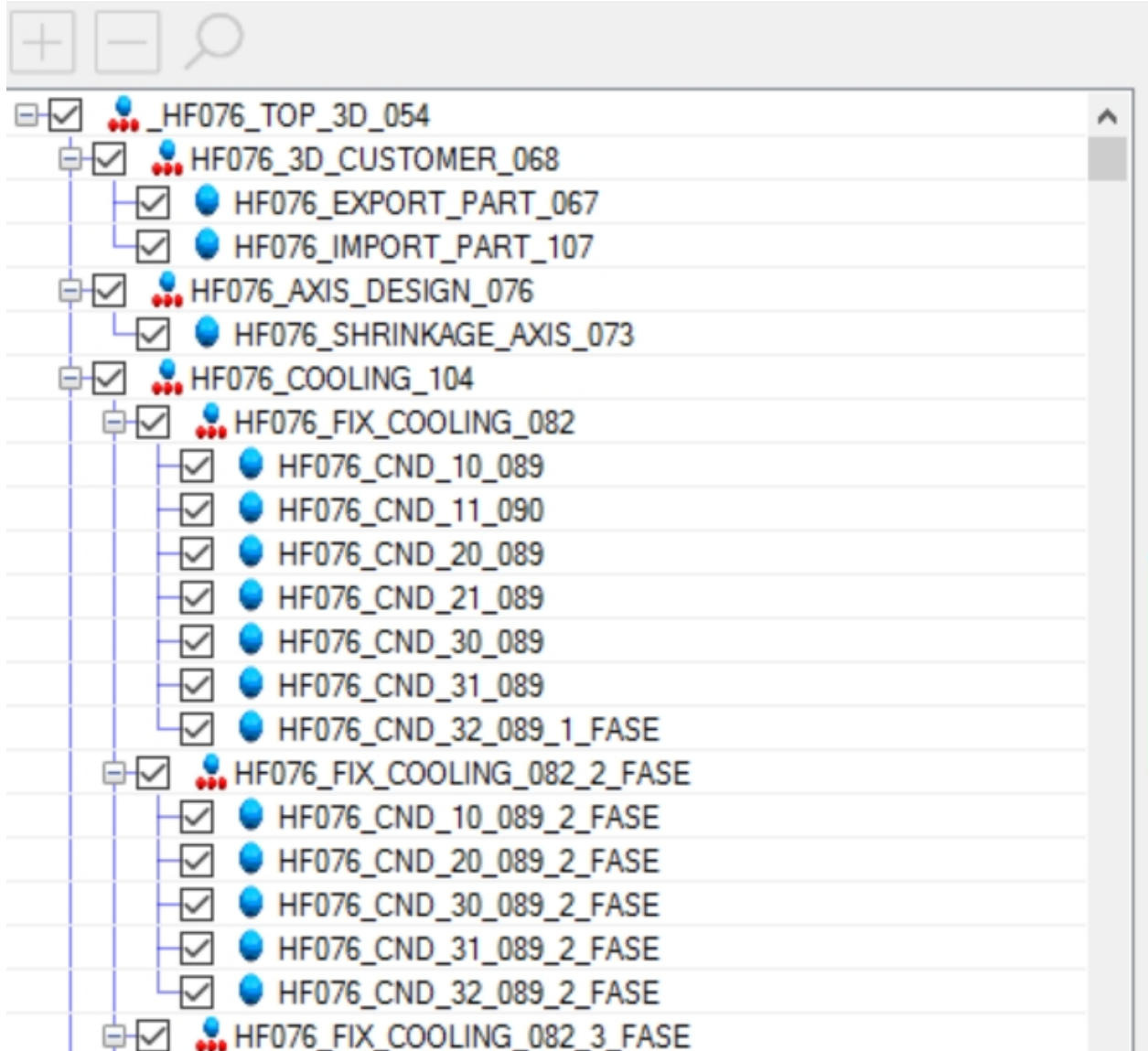


Assembly toolbar includes the following commands:

Expand all



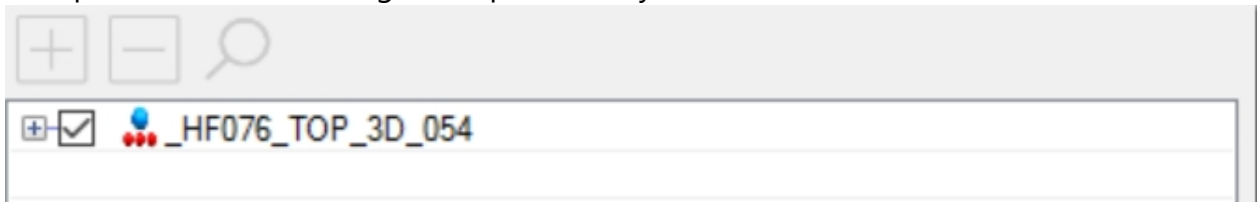
Expands all nodes to all subsequent levels, showing the full assembly structure



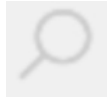
Collapse all



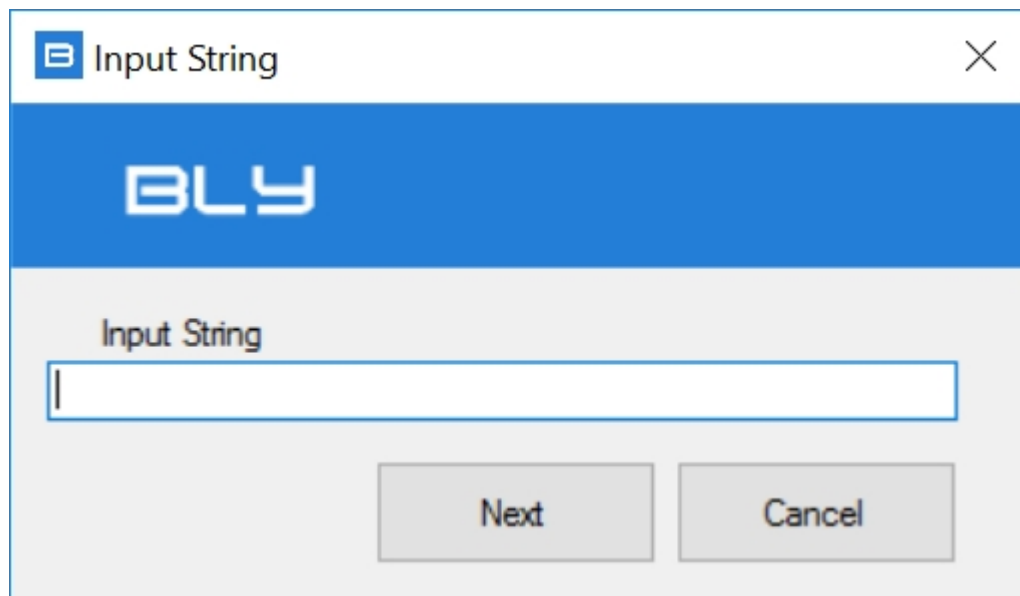
Collapse all nodes, showing the top level only



Find Component



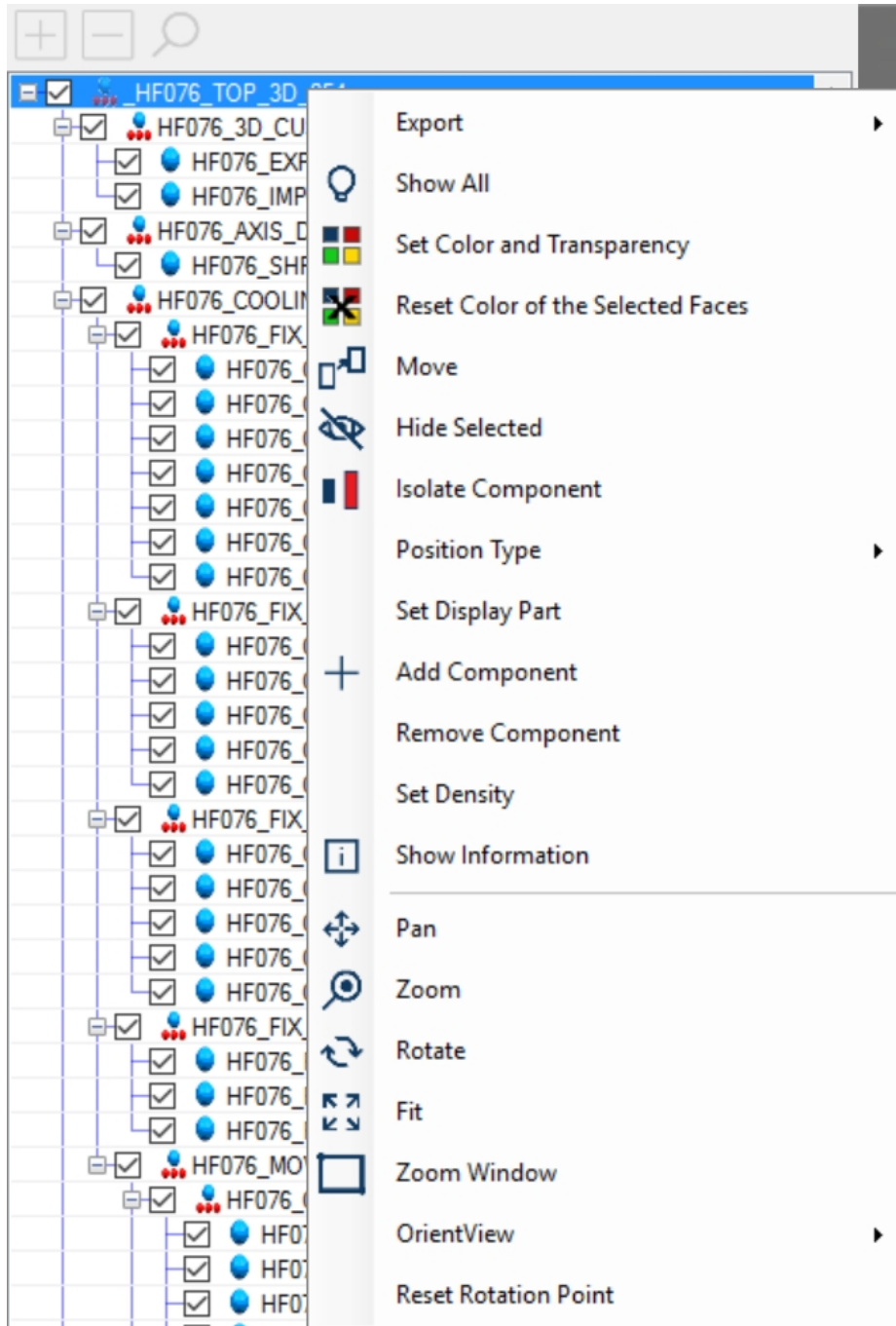
Collapse all nodes, showing the top level only



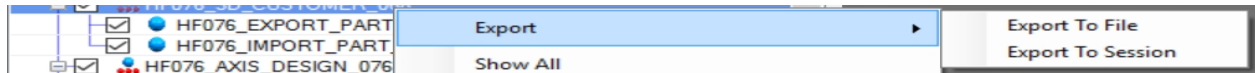
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Assembly Functions

Assembly Navigator gives access to several functionalities related to assemblies' management, all accessible right-clicking onto a tree node



- **Export**



The command exports the selected component either a .bly file or a new session of Bly

- **Show All**

The command brings to view all the geometry in the model, including hidden elements and unthicked components

- **Resets Color of the Selected Faces**

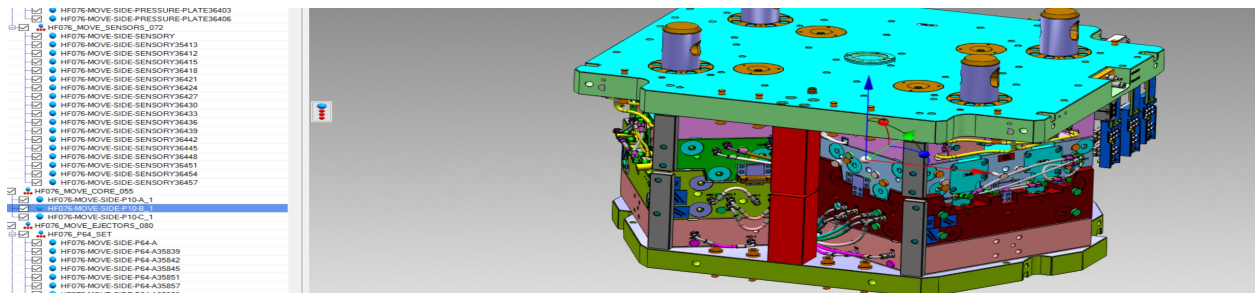
It reset to original colors all the geometry of the selected component(s)

- **Set Color and Transparency**

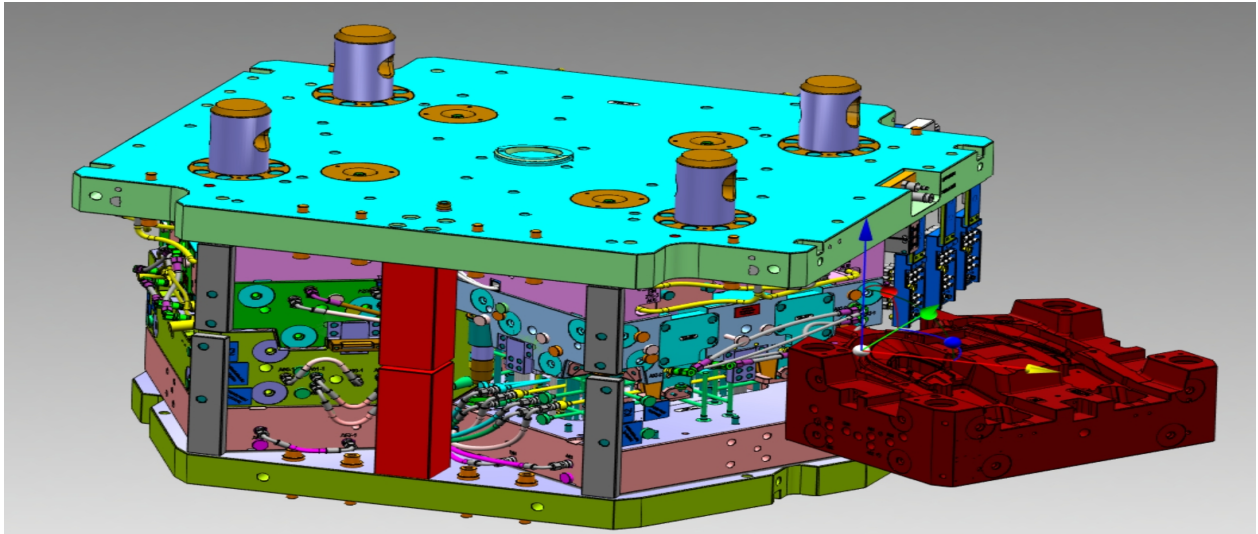
Gives the possibility of changing color and transparency of the selected component(s)

- **Move**

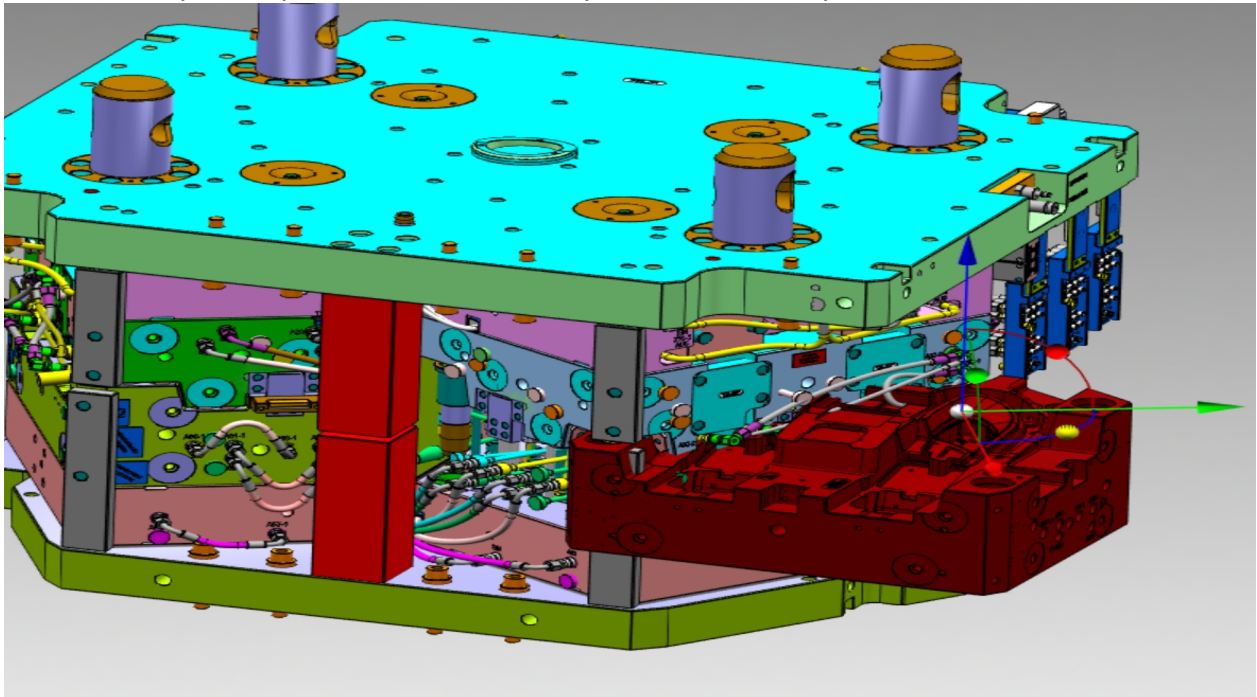
It gives the possibility to reposition the component in the assembly. When selected, the manipulator is displayed on the highlighted component:



The component can be then dragged along the axis by clicking and holding left mouse button on the related arrow:



Similarly, it can be rotated around an axis by clicking and holding left mouse button on the related sphere (please, note that the pivot is the manipulator's center):



Clicking left mouse button on one arrow will display the contextual option panel:

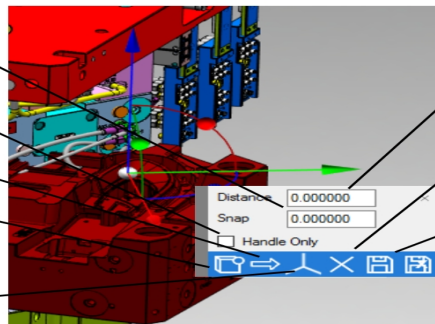
Set the snap value for translation

Translates the handle only

Selects object to orient axis

New triad's origin

Orients handle like the absolute assembly's CSYS, not moving the component



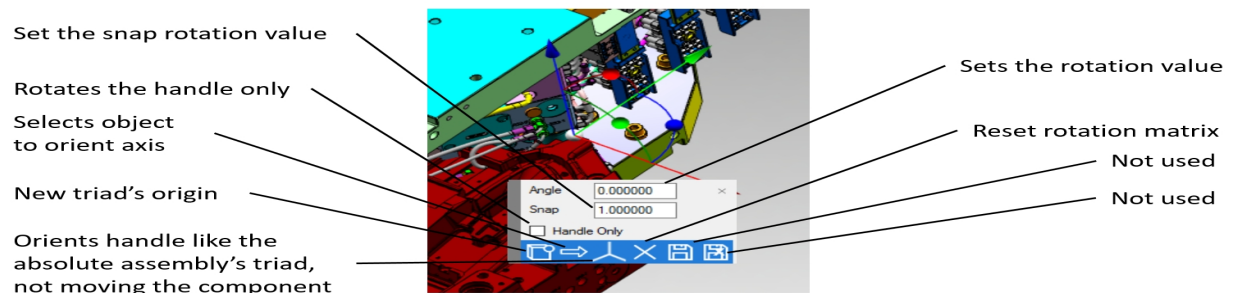
Sets the translation distance

Reset translation matrix

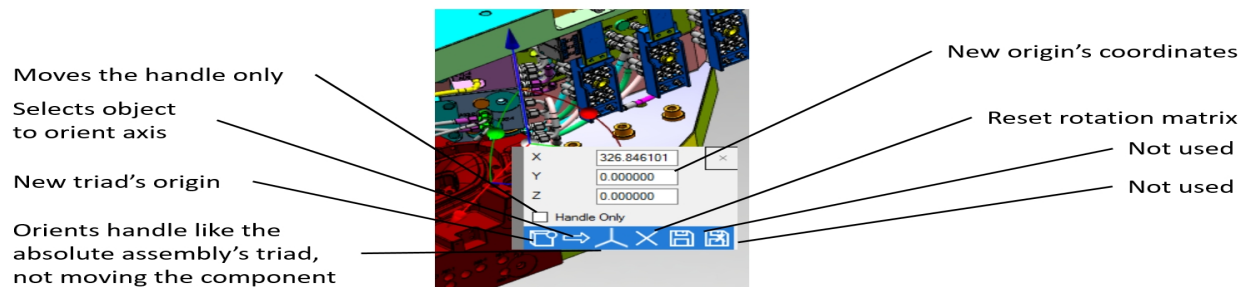
Not used

Not used

Clicking left mouse button on one sphere will display another contextual option panel:



Clicking and releasing left mouse button on handle's origin will display its specific contextual option panel:



- **Hide selected**

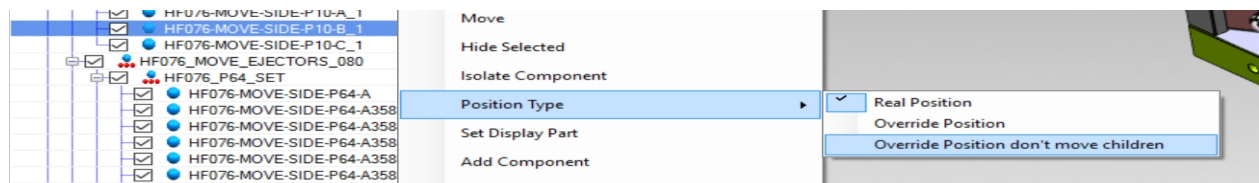
Hides the selected component

- **Isolate component**

Hides all assembly's components but the one selected

- **Position Type**

In an assembly, a component can be added several times in different positions (i.e.: screws): those additions are called "instances". That aspect requires a precise definition to the actual component position, which can be one of the following:



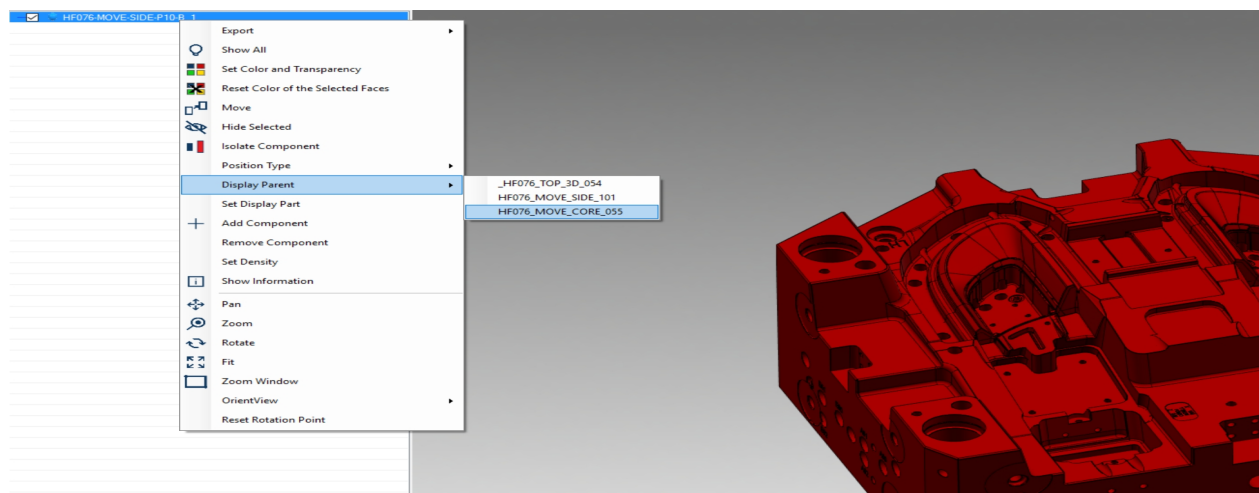
- Real position: consider the actual position of the components. As a consequence, it will Move (see above) all component's instances in the assembly at once;
- Override Position: moves only the component's instance selected;
- Override Position don't move children: moves only the component's instance selected excluding children.

- **Set Display Part**

Sets the selected component as the only displayed AND working part, so it will be like it is the only one open.

- **Display Parent**

After having set the display part, from the assembly navigator it is possible to display back the component's parents

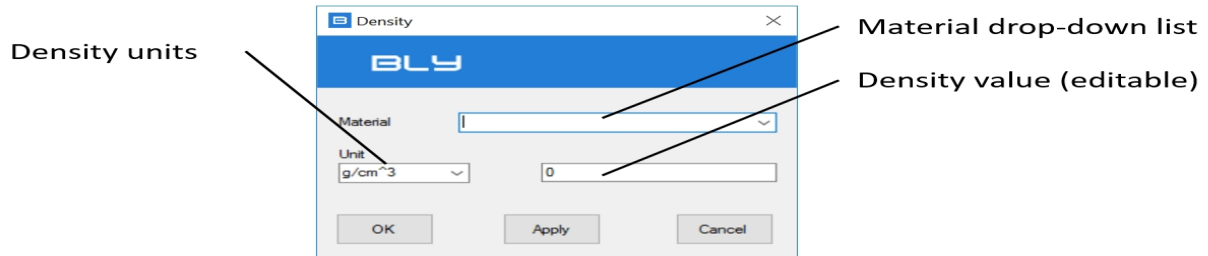


- **Add/Remove component**

Bly offers you the capability of build or modify the assemblies via adding/removing existing components (other bly files).

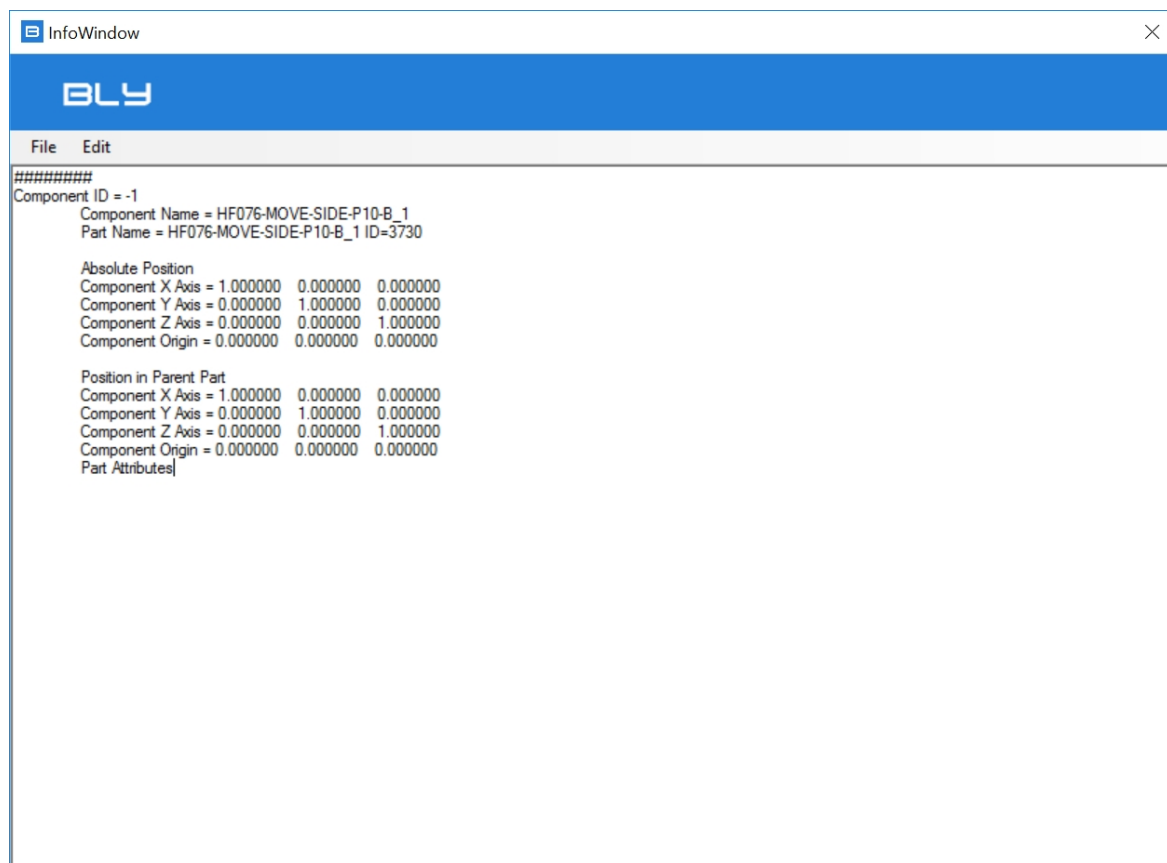
- **Set Density**

This command let you set/override the density in a component.



- **Show Information**

With this command, the information window below is displayed:



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CONTEXTUAL TOOLBARS

In addition to the lateral toolbar, Bly offers the duplication of some of the commands in specific utilization contexts, with the aim of speed up the access to functionalities useful in that situations.


The duplicates are collected into toolbars, which are activated clicking the left mouse button, and pop-ups panel, called by the right mouse button.

In this section, we will have a look at the toolbars: as said, toolbars are context specific, so let's see what "context" mean in Bly.

Contexts can be defined as:

Nothing selected

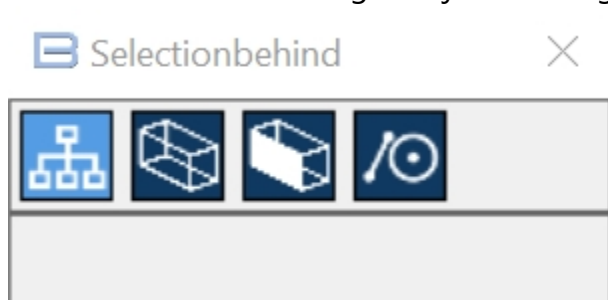
When nothing is selected, clicking the left mouse button in the graphical area shows




this toolbar 


Selection Behind



It's a filter to select the right object in the graphical area. It calls out the toolbar below:





- Component selection : selected by default, allows you to select assembly's components;
- Body selection:  if selected allows you to select assembly's components;
- Face selection:  if selected allows you to select body's faces;


- Edge/Curve selection:  if selected allows you to select eedges and curves;

Once a filter is set, the first icon changes reflecting this setting:

- Component selection: 

- Body selection: 

- Face selection: 

- Edge/Curve selection: 

When more than a filter is active, the icon shows all the active ones (see examples)



If more than an object of each kind could be selected (meaning that they are difficult to distinguish or are in a tricky position), a series of icons becomes available under Selection Behind to finally pick the desired object. Pressing the icons one by one, the pre-selected object will be highlighted.



Advanced Selection

Activate Advanced Selection function (see [Basic commands \(Show all\)](#))

Live Section

Activate Live Section function (see [Basic commands \(Live section\)](#))

Assembly's Component Selected

When an Assembly's Component is selected, clicking the left mouse button in the graphical area shows this toolbar



A description of command and functionalities can be found [here](#).

Body Selected

When a body is selected, clicking the left mouse button in the graphical area shows



A description of command and functionalities can be found [here](#).

Face Selected

When a body's face is selected, clicking the left mouse button in the graphical area



A description of command and functionalities can be found [here](#).

Edge/Curve Selected

If a curve or a body' edge is selected, clicking the left mouse button in the graphical



A description of command and functionalities can be found [here](#).

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Contextual Toolbars: Component Selected



Selection Behind



It's a filter to select the right object in the graphical area. It calls out the toolbar below:



If more than an object of each kind could be selected (meaning that they are difficult to distinguish or are in a tricky position), a series of icons becomes available under Selection Behind to finally pick the desired object. Pressing the icons one by one, the pre-selected object will be highlighted.



Advanced Selection



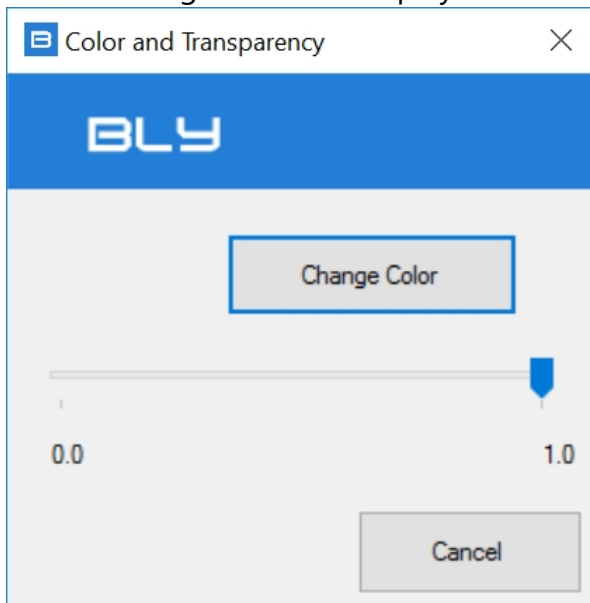
Activate Advanced Selection function (see [Basic commands \(Show all\)](#))

Box and Weight

Bly calculates for each model and assembly its Bounding Box, which is defined as the smallest parallelepiped including the model. This command is a duplicate of "Show Bounding Box", more info can be found [here](#).

Change Color and Transparency

Gives the possibility to change color and transparency of the selected component(s). The following window is displayed:



Reset Color and Transparency

Restores the previously set color and transparency of the selected component(s).

Isolate

Hides all assembly's components but the one selected.

Hide

Hides the selected component

Live Section

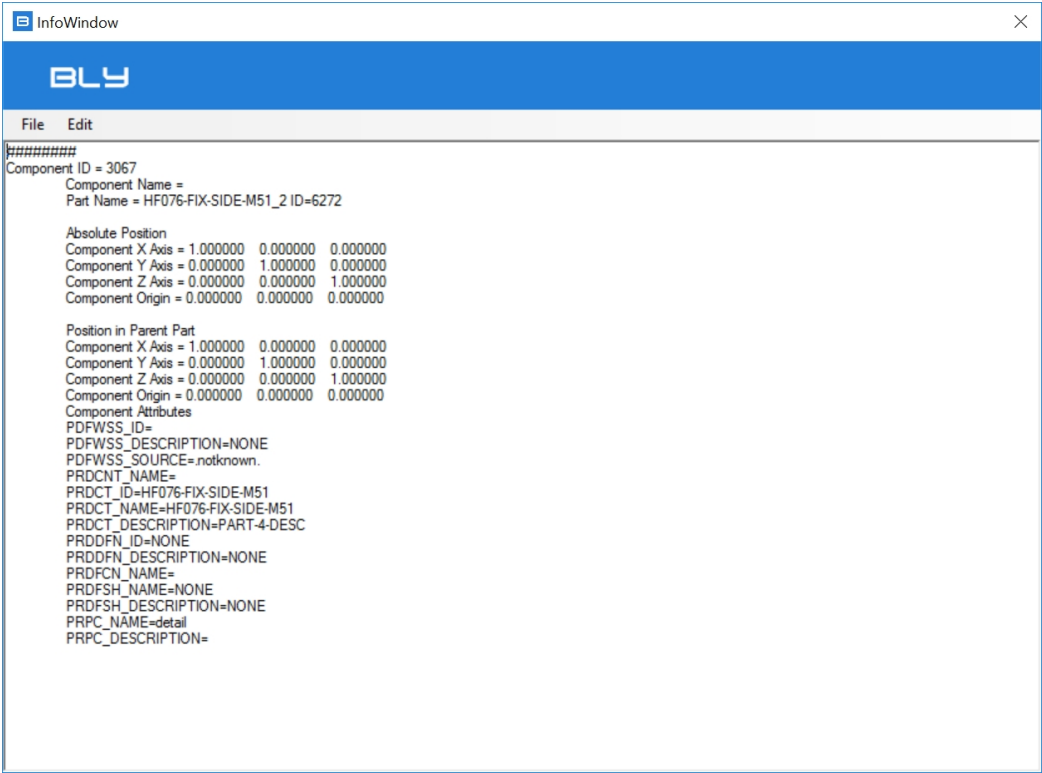
Activate Live Section function (see [Basic commands \(Live section\)](#))

Move

It gives the possibility to reposition the component in the assembly. It is a duplicate of command Move (see [Assembly Functions](#), chapter "Move")

Show Information

With this command, the information window below is displayed:



« Go back

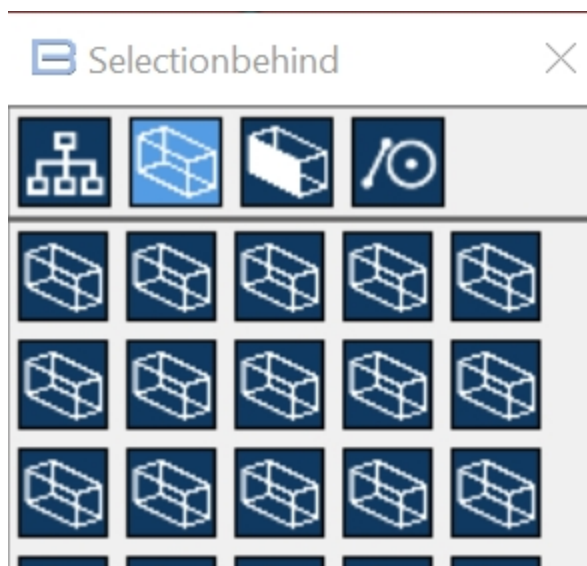
Contextual Toolbars: Body Selected



Selection Behind



If more than an object of each kind could be selected (meaning that they are difficult to distinguish or are in a tricky position), a series of icons becomes available under Selection Behind to finally pick the desired object. Pressing the icons one by one, the pre-selected object will be highlighted.

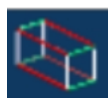


Advanced Selection



Activate Advanced Selection function (see [Basic commands \(Show all\)](#))

Box and Weight

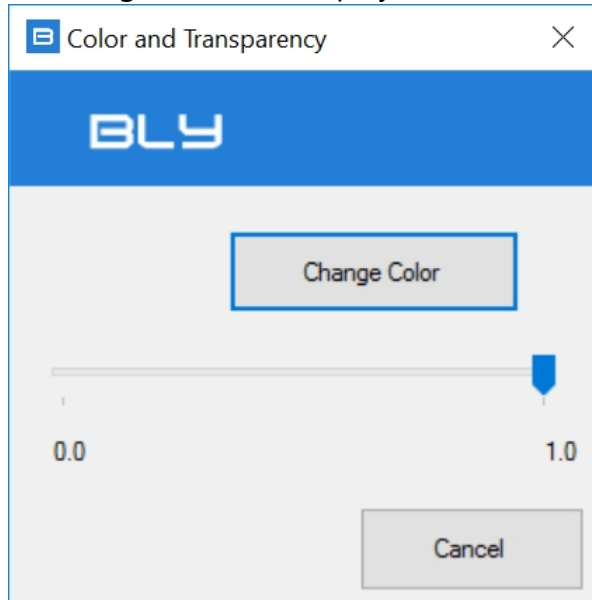


Bly calculates for each model and assembly its Bounding Box, which is defined as the smallest parallelepiped including the model. This command is a duplicate of "Show Bounding Box", more info can be found [here](#).



Change Color and Transparency

Gives the possibility of changing color and transparency of the selected body(ies). The following window is displayed:



Reset Color and Transparency

Restores the previously set color and transparency of the selected body(ies).



Isolate

Hides everything but the body(ies) selected



Hide

Hides the selected component(s)



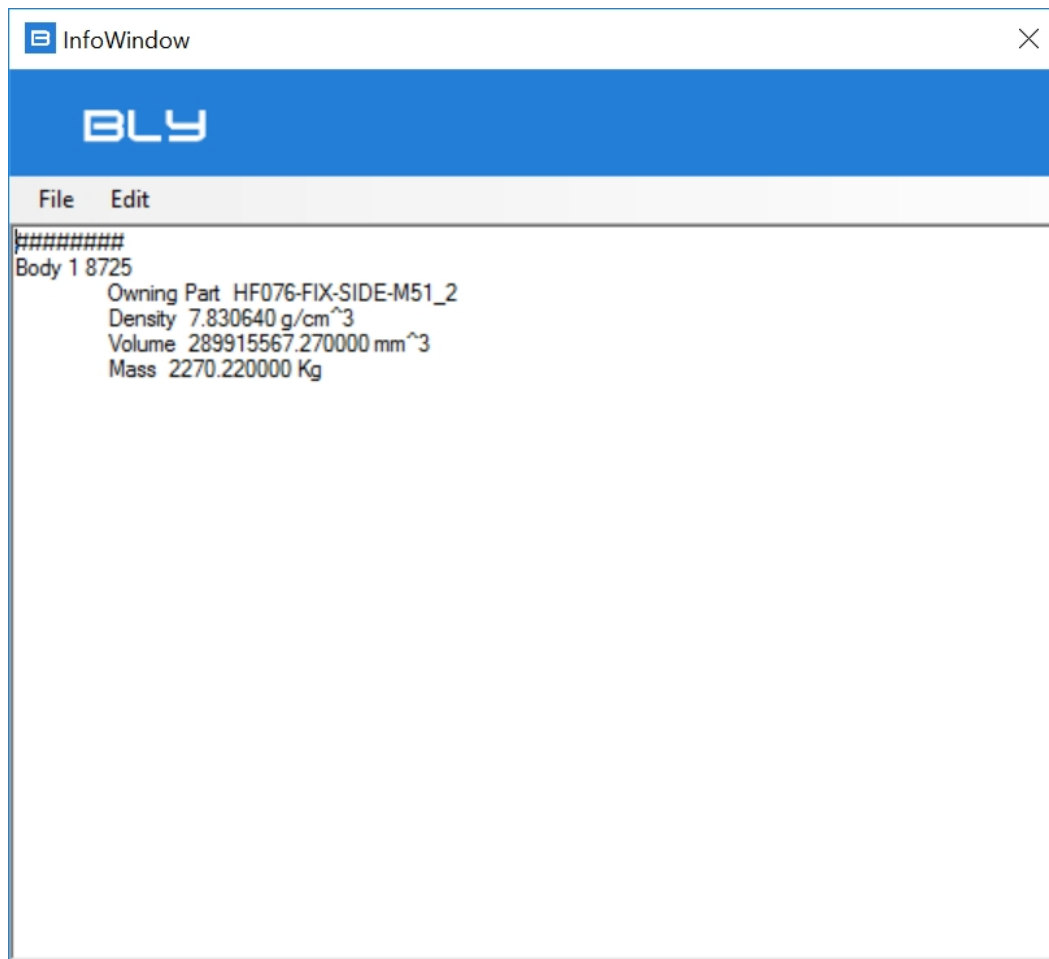
Live Section

Activate Live Section function (see [Basic commands \(Live section\)](#))



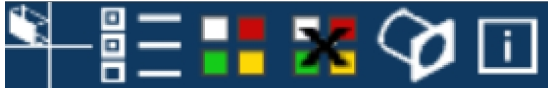
Show Information

With this command, the information window below is displayed:



« Go back

Contextual Toolbars: Face Selected



Selection Behind



If more than an object of each kind could be selected (meaning that they are difficult to distinguish or are in a tricky position), a series of icons becomes available under Selection Behind to finally pick the desired object. Pressing the icons one by one, the pre-selected object will be highlighted.

Selectionbehind X



Advanced Selection

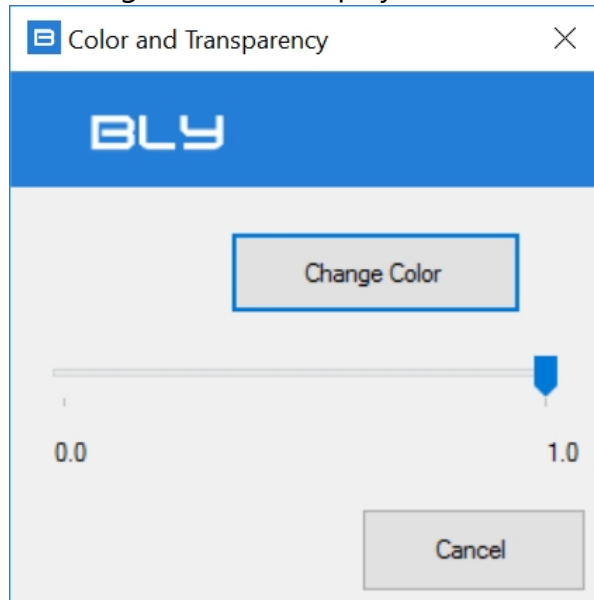


Activate Advanced Selection function (see [Basic commands \(Show all\)](#))



Change Color and Transparency

Gives the possibility of changing color and transparency of the selected face(s). The following window is displayed:



Reset Color and Transparency



Restores the previously set color and transparency of the selected component(s).

Live Section

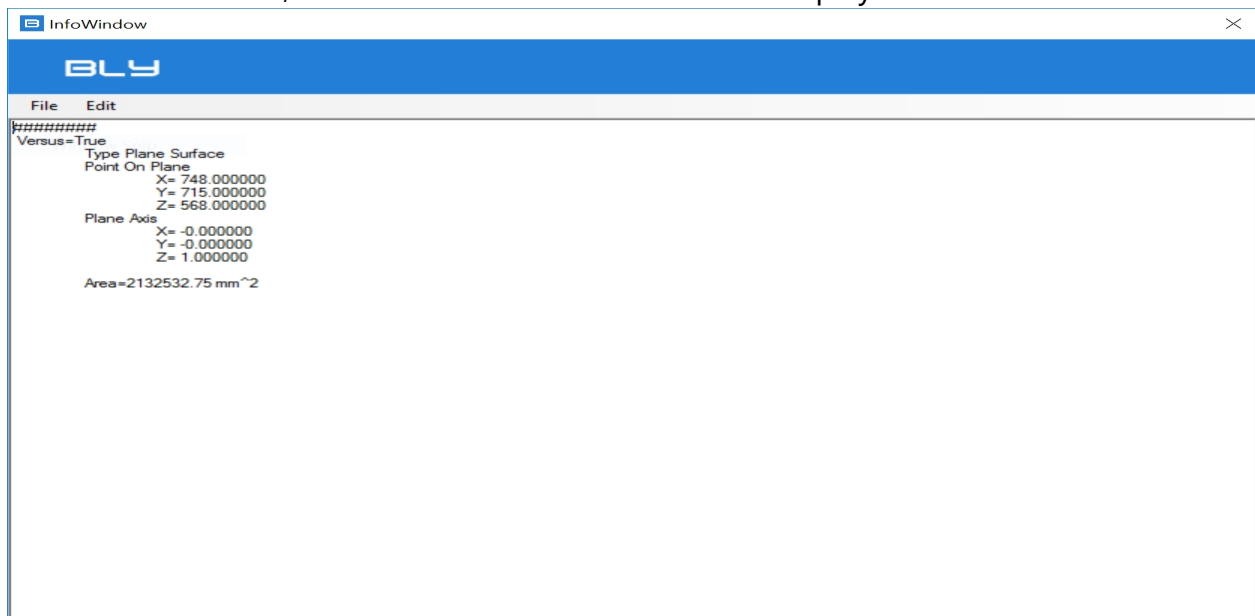


Activate Live Section function (see [Basic commands \(Live section\)](#))

Show Information



With this command, the information window below is displayed:



« Go back

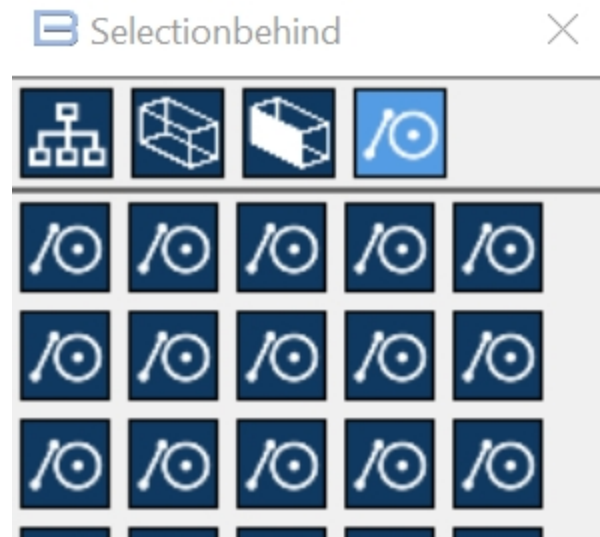
Contextual Toolbars: Edge/Curve Selected



Selection Behind



If more than an object of each kind could be selected (meaning that they are difficult to distinguish or are in a tricky position), a series of icons becomes available under Selection Behind to finally pick the desired object. Pressing the icons one by one, the pre-selected object will be highlighted.



Advanced Selection



Activate Advanced Selection function (see [Basic commands \(Show all\)](#))

Live Section

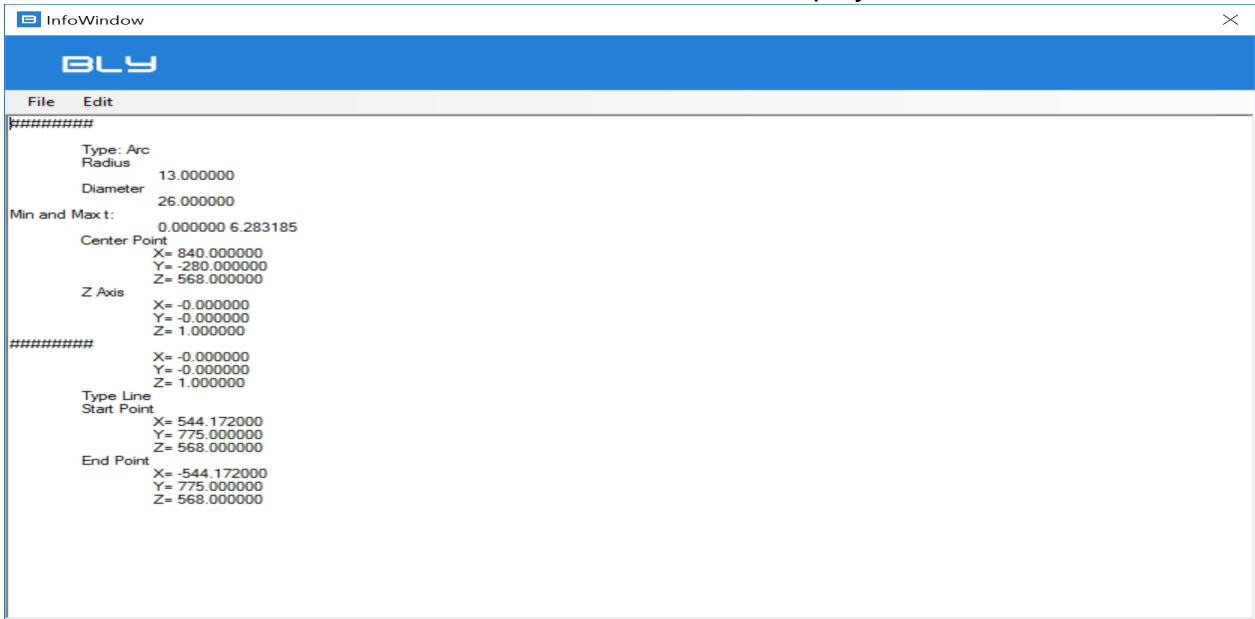


Activate Live Section function (see [Basic commands \(Live section\)](#))

Show Information



With this command, the information window below is displayed:



« Go back

CONTEXTUAL PANELS

In addition to the lateral toolbar, Bly offers the duplication of some of the commands in specific utilization contexts, with the aim of speed up the access to functionalities useful in that situations.

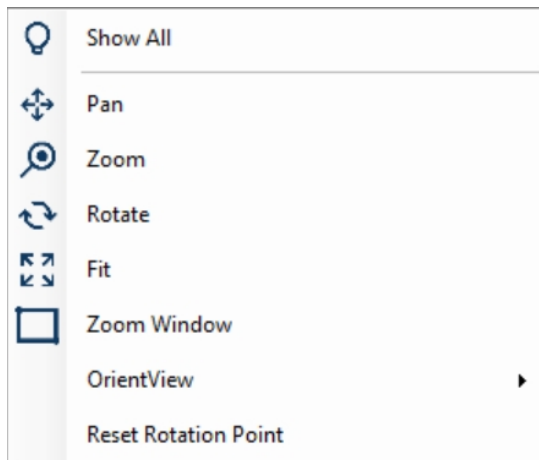
The duplicates are collected into toolbars, which are activated clicking the left mouse button, and pop-ups panel, called by the right mouse button.

In this section, we will have a look at the panels: as said, toolbars are context specific, so let's see what "context" mean in Bly.

Contexts can be defined as:

Nothing selected

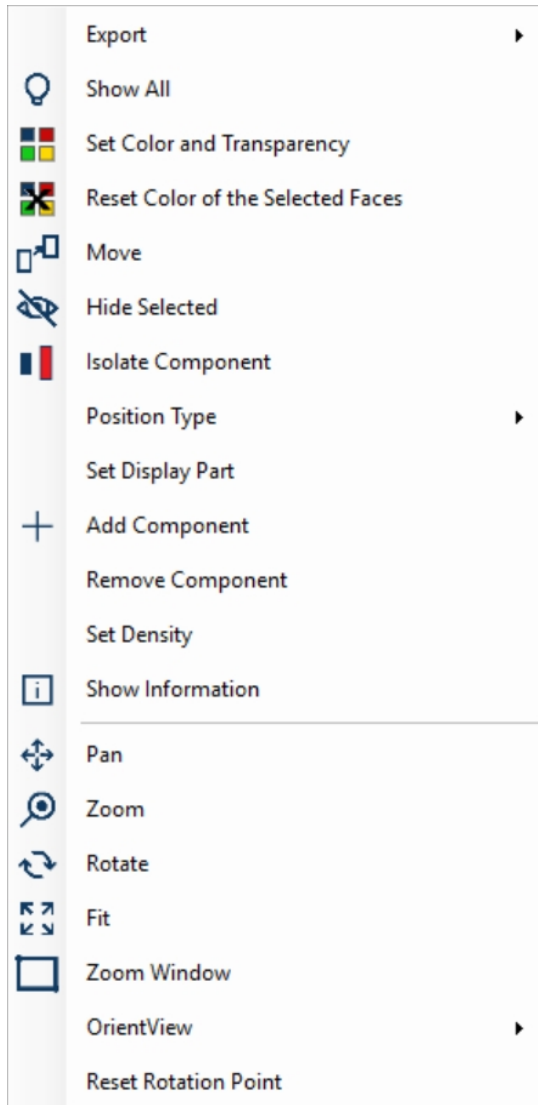
When nothing is selected, clicking the right mouse button in the graphical area shows this panel



A description of command and functionalities can be found [here](#).

Component Selected

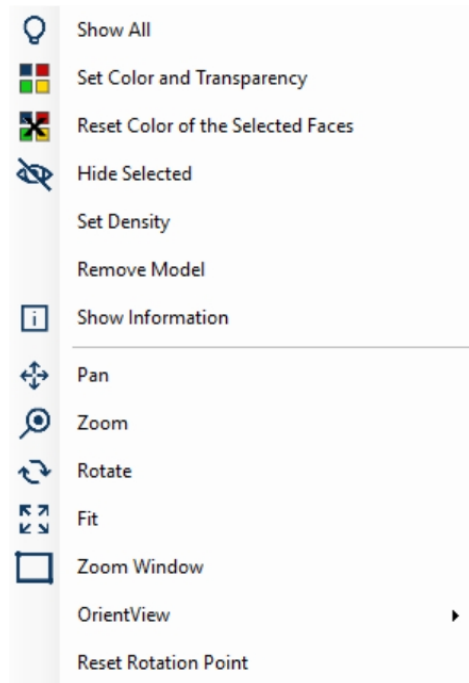
If an Assembly Component is selected, clicking the right mouse button in the graphical area shows this panel:



A description of commands and functionalities can be found [here](#).

Body Selected

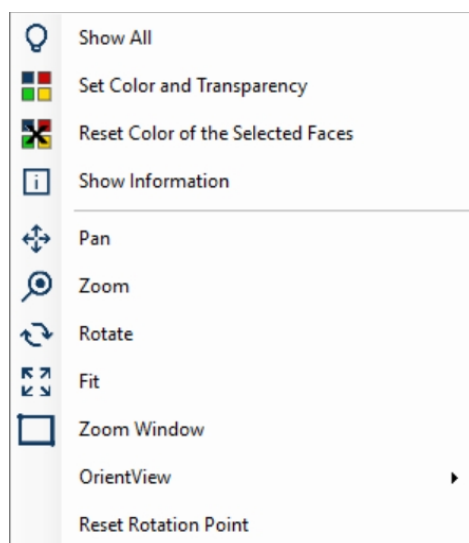
If a body is selected, clicking the right mouse button in the graphical area shows this panel:



A description of commands and functionalities can be found [here](#).

Face Selected

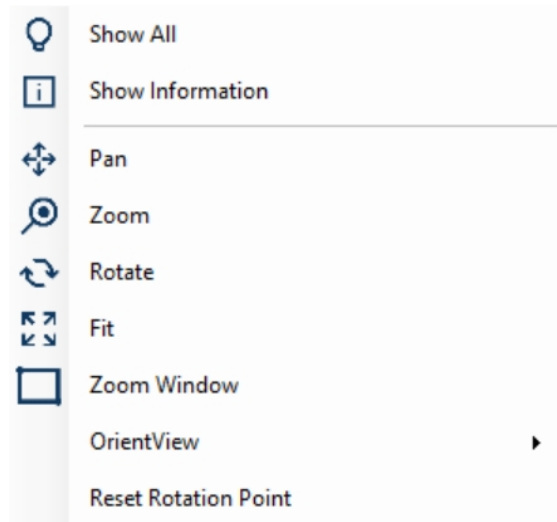
If a body's face is selected, clicking the right mouse button in the graphical area shows this panel:



A description of commands and functionalities can be found [here](#).

Edge/Curve Selected

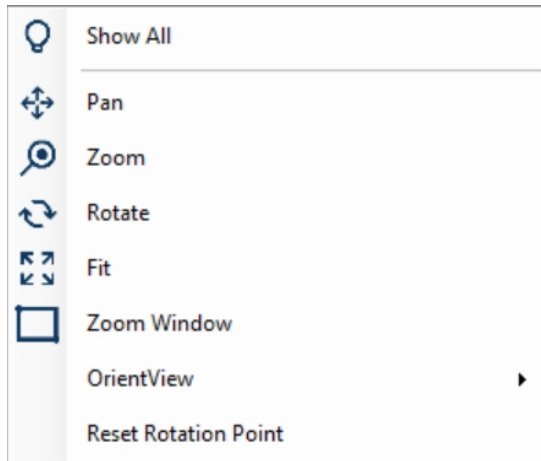
If a curve's or a body's edge is selected, clicking the left mouse button in the graphical area shows this panel:



A description of commands and functionalities can be found [here](#).

« [Go back](#)

Contextual Panels: Nothing Selected



Show all



That's a duplicate of the command Show All: it displays all the hidden objects.

Pan



That's a duplicate of the command Pan: it lets you pan the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

Zoom



That's a duplicate of the command Zoom: it zooms in a window you draw on the screen.

Rotate



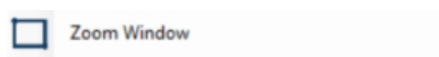
That's a duplicate of the command Rotate: it lets you rotate the model in the graphic area by holding the left mouse button and moving it. To de-activate the function presse ESC key.

Fit



That's a duplicate of the command Fit all: it adjust the zoom fitting the model view to the window, maintaining the orientation.

Zoom Window

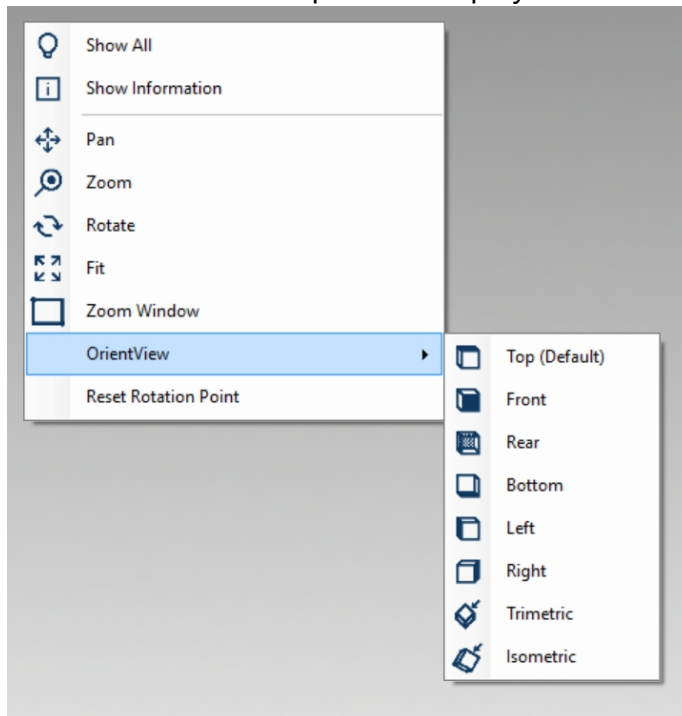


That's a duplicate of the command Zoom window: it adjust the zoom fitting the model

view to the window, maintaining the orientation.

OrientView

Once selected, a sub-panel is displayed:



That duplicates the OrientView toolbar to orient the model in the graphical area to the main working views (Top, Bottom, Left, Rear, Right, Front, Trimetric, Isometric)

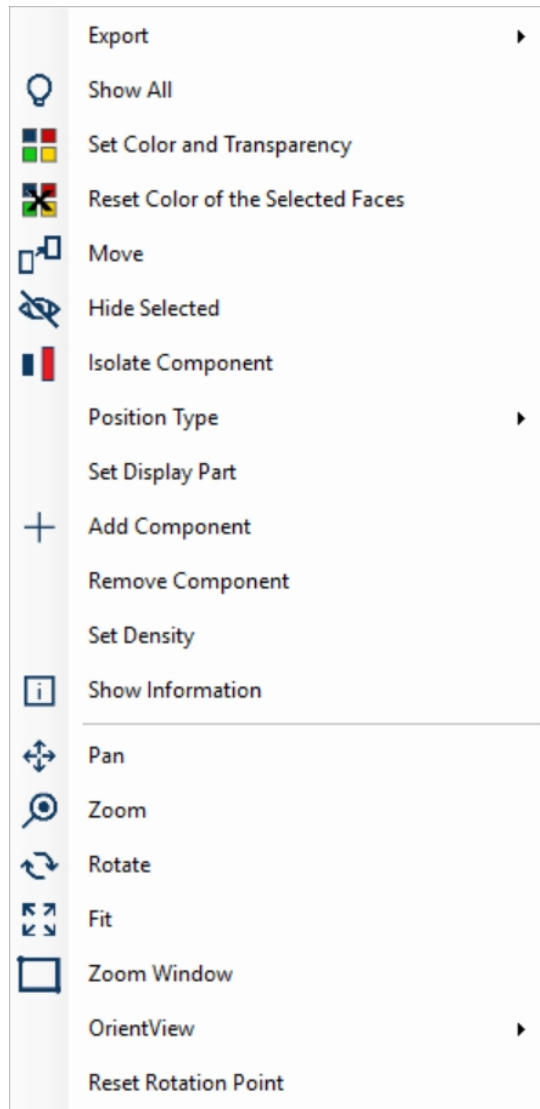
Reset Rotation Point

Reset Rotation Point

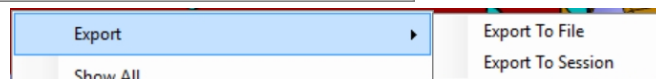
That's a duplicate of the command Reset Rotation Point: it lets you set the new view rotation point of the current model.

« [Go back](#)

Contextual Panels: Component Selected

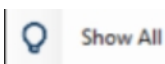


Export



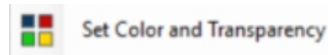
That's a duplicate of the command Export: it exports the selected component either a .bly file or a new session of Bly

Show All



That's a duplicate of the command Show All: it displays all the hidden objects.

Set Color of the Selected Faces



Set Color and Transparency

That's a duplicate of the command Set Color and Transparency: it gives the possibility of changing color and transparency of the selected component(s).

Reset Color of the Selected Faces



Reset Color of the Selected Faces

That's a duplicate of the command Reset Color and Transparency: it restores the previously set color and transparency of the selected component(s).

Move



Move

It gives the possibility to reposition the component in the assembly. It is a duplicate of command Move (see Assembly Functions, chapter "Move")

Hide Selected



Hide Selected

It hides the component selected. It is a duplicate of command Hide selected (see Assembly Functions, chapter "Hide selected")

Isolate Component

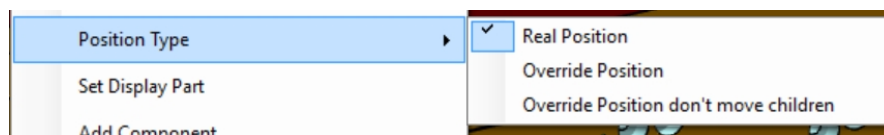


Isolate Component

It hides the component selected. It is a duplicate of command Isolate Component (see Assembly Functions, chapter "Isolate Component")

Position Type

In an assembly, a component can be added several times in different positions (i.e.: screws): those additions are called "instances". That aspect requires a precise definition to the actual component position, which can be one of the following:



- Real position: consider the actual position of the components. As a consequence, it will Move (see above) all component's instances in the assembly at once;
- Override Position: moves only the component's instance selected;
- Override Position don't move children: moves only the component's instance selected excluding children.

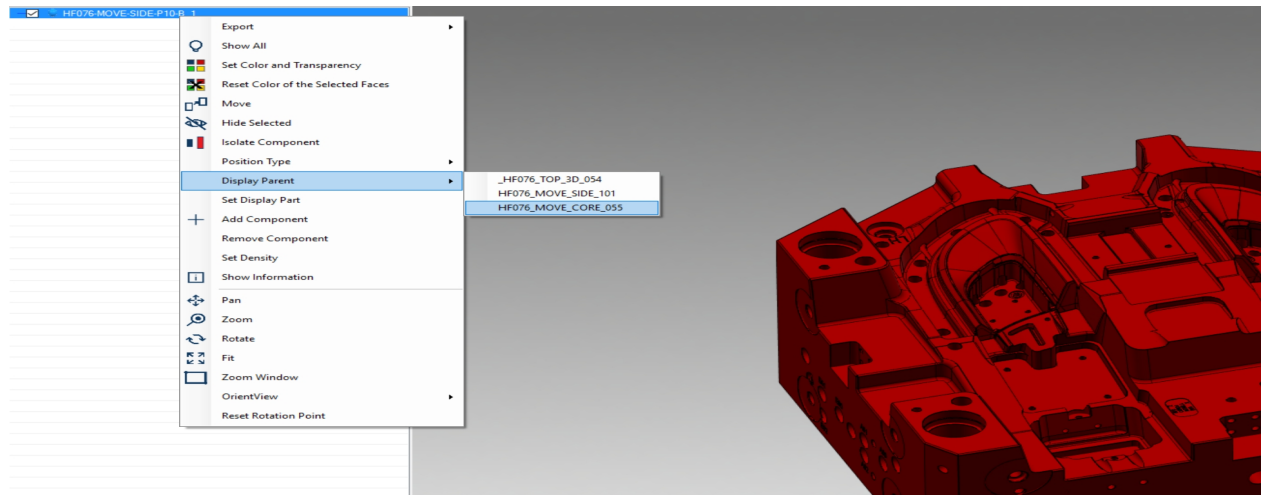
It is a duplicate of command Position Type (see Assembly Functions, chapter "Position Type").

Set Display Part

Set Display Part

Sets the selected component as the only displayed AND working part, so it will be like it is the only one open.

After having set the display part, from the assembly navigator it is possible to display back the component's parents



It is a duplicate of command Hide selected (see [Assembly Functions](#), chapter "Set Display Part")

Add/Remove Component

+ Add Component
Remove Component

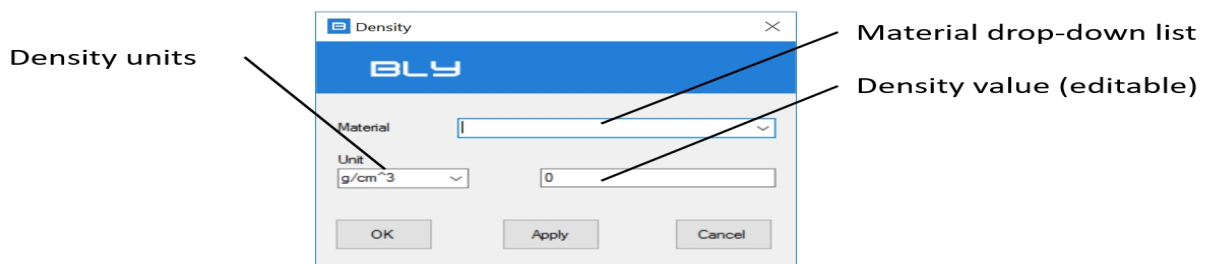
Bly offers you the capability of build or modify the assemblies via adding/removing existing components (other bly files).

Those are duplicates of commands Add/Remove Component (see [Assembly Functions](#), chapter "Add/Remove Component")

Set Density

Set Density

It sets/overrides the density in a component.



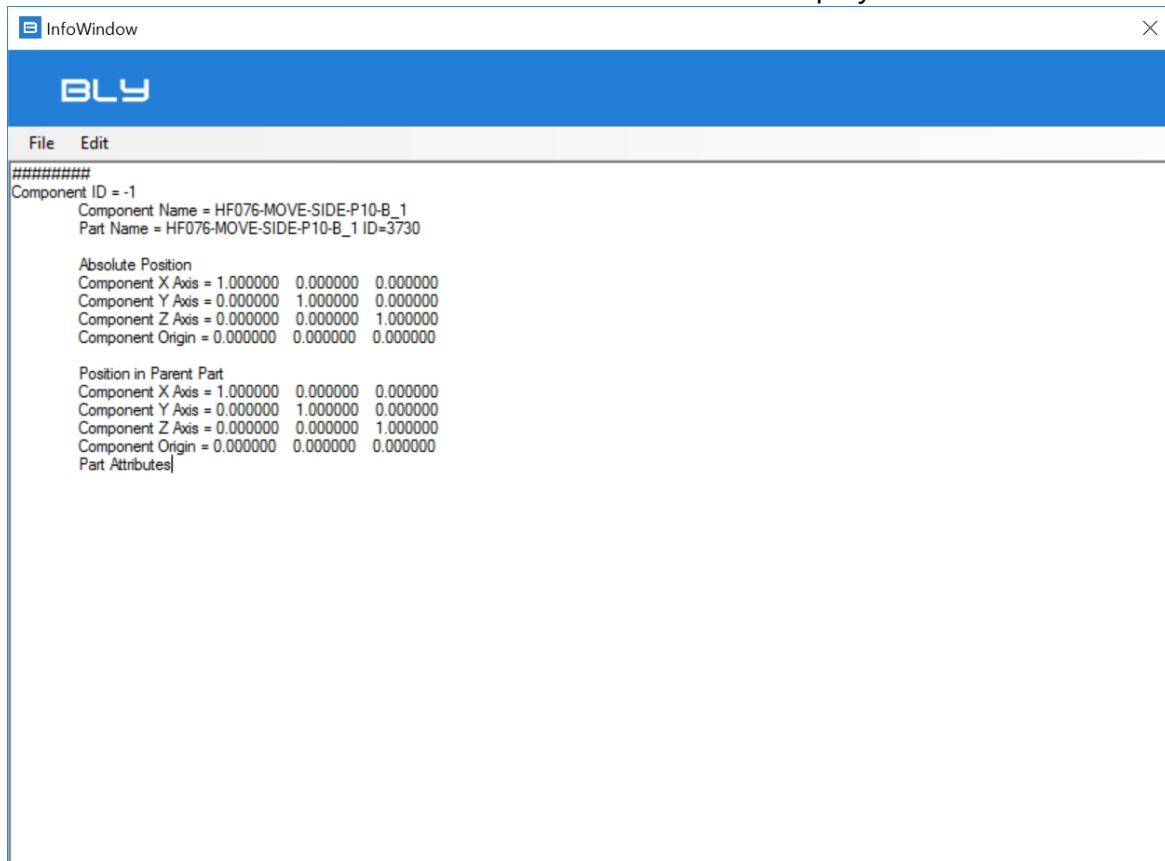
It is a duplicate of command Set Density (see [Assembly Functions](#), chapter "Set Density")

Show Information



Show Information

With this command, the information window below is displayed:



It is a duplicate of command Show Information (see [Assembly Functions](#), chapter "Show Information")

Pan Pan

That's a duplicate of the command Pan: it lets you pan the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

Zoom Zoom

That's a duplicate of the command Zoom: it zooms in a window you draw on the screen.

Rotate Rotate

That's a duplicate of the command Rotate: it lets you rotate the model in the graphic area by holding the left mouse button and moving it. To de-activate the function presse ESC key.

Fit Fit

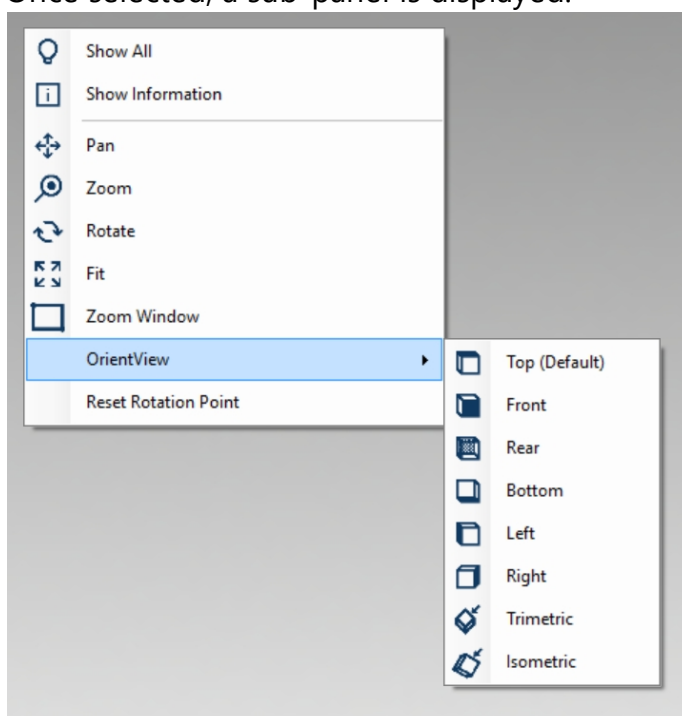
That's a duplicate of the command Fit all: it adjust the zoom fitting the model view to the window, maintaining the orientation.

Zoom Window Zoom Window

That's a duplicate of the command Zoom window: it adjust the zoom fitting the model view to the window, maintaining the orientation.


OrientView OrientView

Once selected, a sub-panel is displayed:



That duplicates the Orientation toolbar to orient the model in the graphical area to the main working views (Top, Bottom, Left, Rear, Right, Front, Trimetric, Isometric)

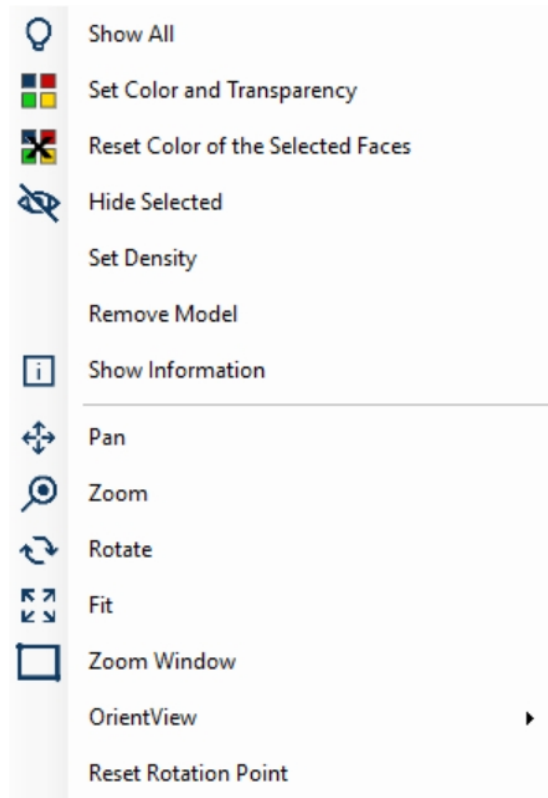
Reset Rotation Point

A screenshot of a software interface showing a button labeled "Reset Rotation Point". The button is rectangular with a light gray background and a thin black border. The text "Reset Rotation Point" is centered on the button in a small, dark font.

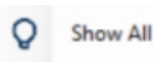
That's a duplicate of the command Reset Rotation Point: it lets you set the new view rotation point of the current model.

[« Go back](#)

Contextual Panels: Body Selected



Show All



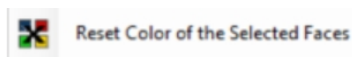
That's a duplicate of the command [Show All](#): it displays all the hidden objects.

Set Color of the Selected Faces



That's a duplicate of the command [Set Color and Transparency](#): it gives the possibility of changing color and transparency of the selected component(s).

Reset Color of the Selected Faces



That's a duplicate of the command [Reset Color and Transparency](#): it restores the previously set color and transparency of the selected component(s).

Hide Selected

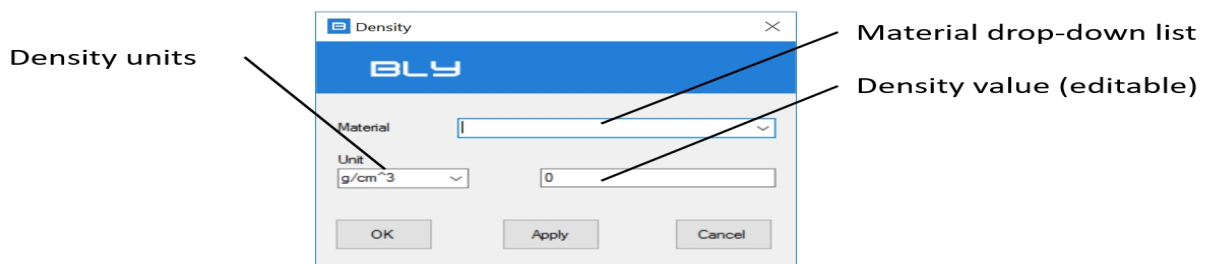


It hides the component selected. It is a duplicate of command Hide selected (see [Assembly Functions](#), chapter "Hide selected")

Set Density

Set Density

It sets/overrides the density in a component.



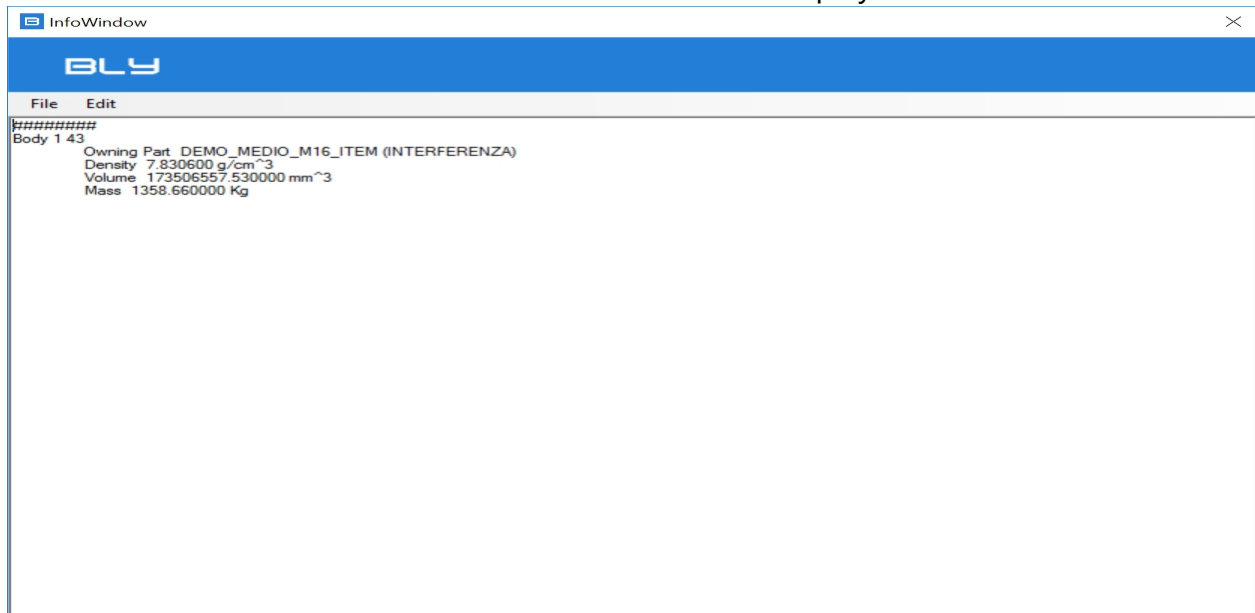
It is a duplicate of command Set Density (see [Assembly Functions](#), chapter "Set Density")

Show Information



Show Information

With this command, the information window below is displayed:



It is a duplicate of command Show Information (see [Assembly Functions](#), chapter "Show Information")

Pan Pan

That's a duplicate of the command Pan: it lets you pan the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

Zoom Zoom

That's a duplicate of the command Zoom: it zooms in a window you draw on the screen.

Rotate Rotate

That's a duplicate of the command Rotate: it lets you rotate the model in the graphic area by holding the left mouse button and moving it. To de-activate the function presse ESC key.

Fit Fit

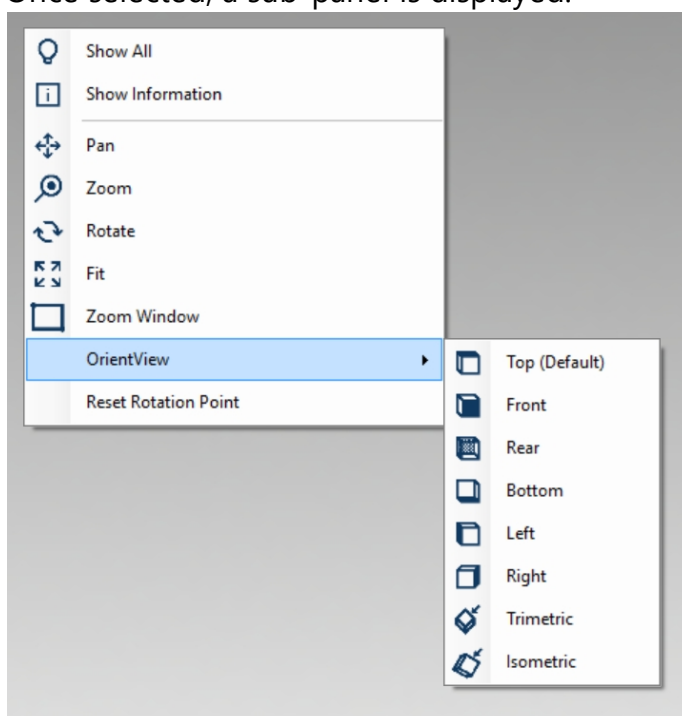
That's a duplicate of the command Fit all: it adjust the zoom fitting the model view to the window, maintaining the orientation.

Zoom Window Zoom Window

That's a duplicate of the command Zoom window: it adjust the zoom fitting the model view to the window, maintaining the orientation.


OrientView OrientView

Once selected, a sub-panel is displayed:



That duplicates the Orientation toolbar to orient the model in the graphical area to the main working views (Top, Bottom, Left, Rear, Right, Front, Trimetric, Isometric)

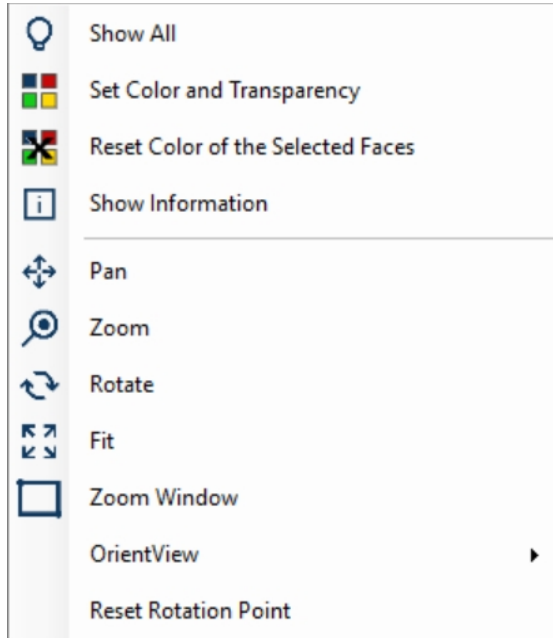
Reset Rotation Point

A screenshot of a software interface showing a button labeled "Reset Rotation Point". The button is light gray with a thin black border and is positioned to the right of the section header.

That's a duplicate of the command Reset Rotation Point: it lets you set the new view rotation point of the current model.

[« Go back](#)

Contextual Panels: Face Selected



Show All



Show All

That's a duplicate of the command Show All: it displays all the hidden objects.

Set Color of the Selected Faces



Set Color and Transparency

That's a duplicate of the command Set Color and Transparency: it gives the possibility of changing color and transparency of the selected component(s).

Reset Color of the Selected Faces



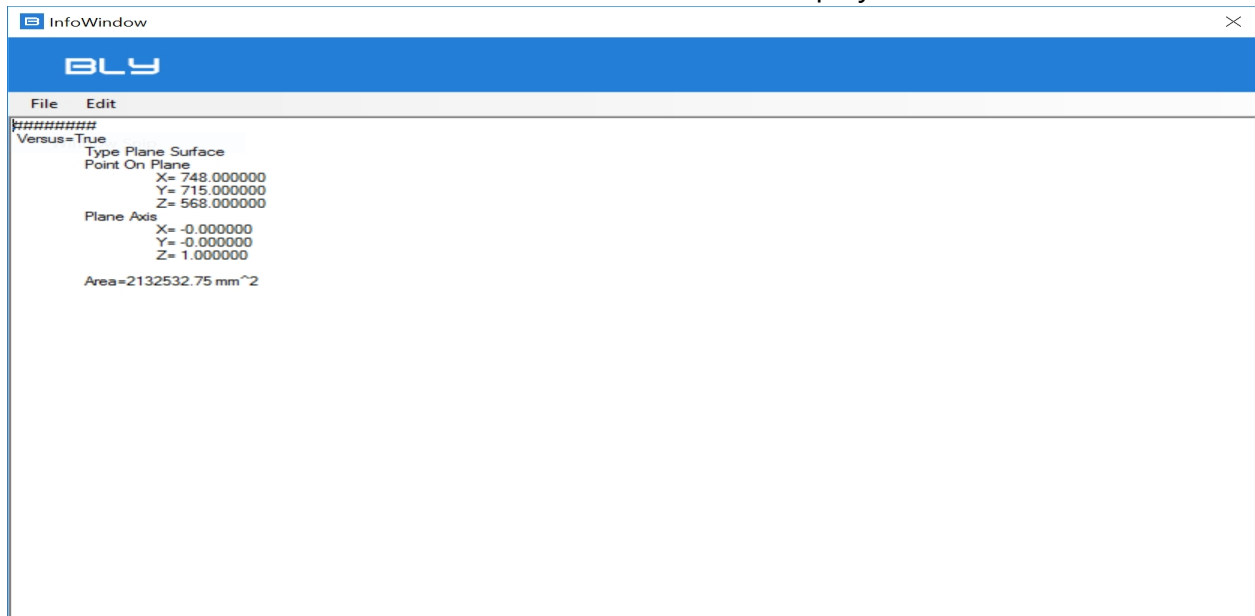
Reset Color of the Selected Faces

That's a duplicate of the command Reset Color and Transparency: it restores the previously set color and transparency of the selected component(s).

Show Information

**Show Information**

With this command, the information window below is displayed:



It is a duplicate of command Show Information (see [Assembly Functions](#), chapter "Show Information")

Pan Pan

That's a duplicate of the command Pan: it lets you pan the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

Zoom Zoom

That's a duplicate of the command Zoom: it zooms in a window you draw on the screen.

Rotate Rotate

That's a duplicate of the command Rotate: it lets you rotate the model in the graphic area by holding the left mouse button and moving it. To de-activate the function presse ESC key.

Fit Fit

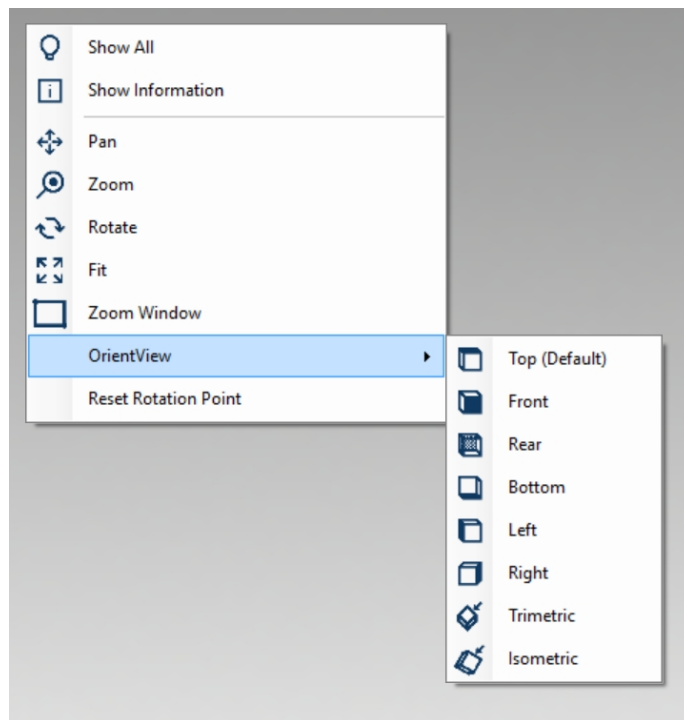
That's a duplicate of the command Fit all: it adjust the zoom fitting the model view to the window, maintaining the orientation.

Zoom Window Zoom Window

That's a duplicate of the command Zoom window: it adjust the zoom fitting the model view to the window, maintaining the orientation.


OrientView OrientView

Once selected, a sub-panel is displayed:



That duplicates the Orientation toolbar to orient the model in the graphical area to the main working views (Top, Bottom, Left, Rear, Right, Front, Trimetric, Isometric)

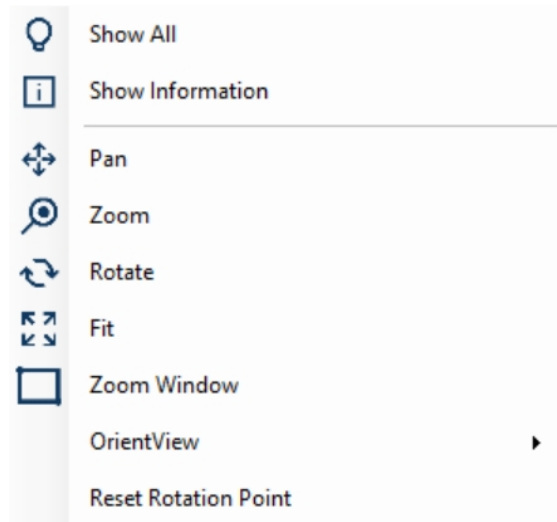
Reset Rotation Point

A screenshot of a software interface showing a button labeled "Reset Rotation Point". The button is rectangular with a light gray background and a thin black border. The text "Reset Rotation Point" is centered on the button in a small, dark font.

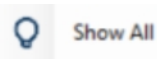
That's a duplicate of the command Reset Rotation Point: it lets you set the new view rotation point of the current model.

[« Go back](#)

Contextual Panels: Edge/Curve Selected

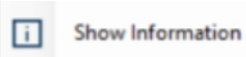


Show All

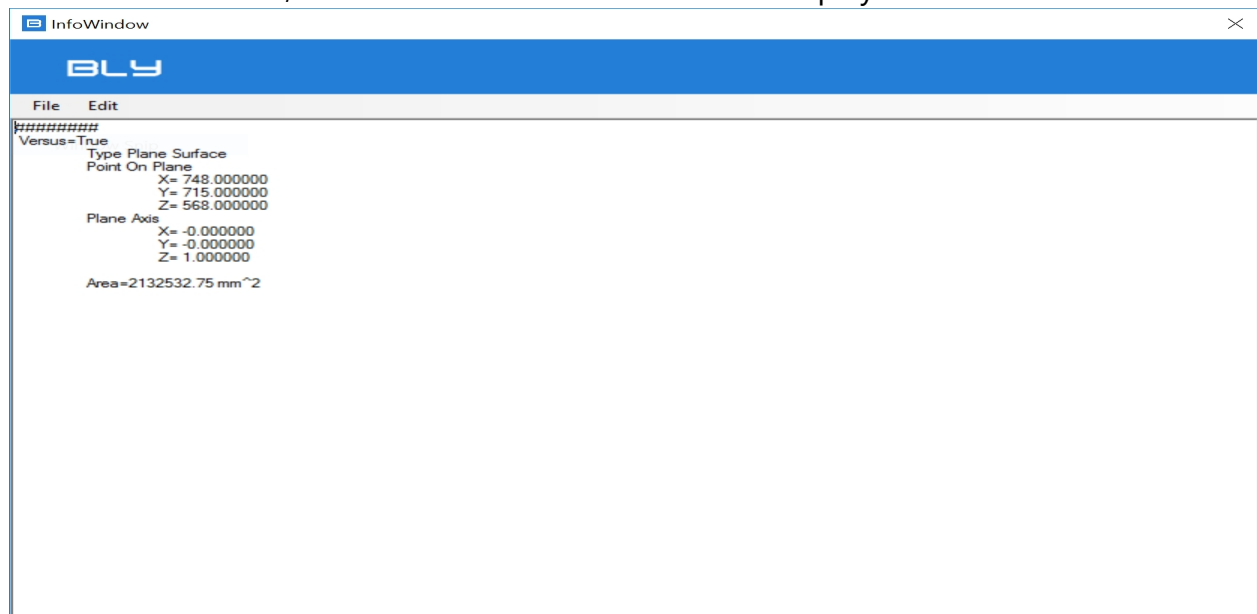


That's a duplicate of the command Show All: it displays all the hidden objects.

Show Information



With this command, the information window below is displayed:



It is a duplicate of command Show Information (see [Assembly Functions](#), chapter "Show Information")

Pan Pan

That's a duplicate of the command Pan: it lets you pan the model in the graphic area by holding the left mouse button and moving it. To de-activate the function press ESC key.

Zoom Zoom

That's a duplicate of the command Zoom: it zooms in a window you draw on the screen.

Rotate Rotate

That's a duplicate of the command Rotate: it lets you rotate the model in the graphic area by holding the left mouse button and moving it. To de-activate the function presse ESC key.

Fit Fit

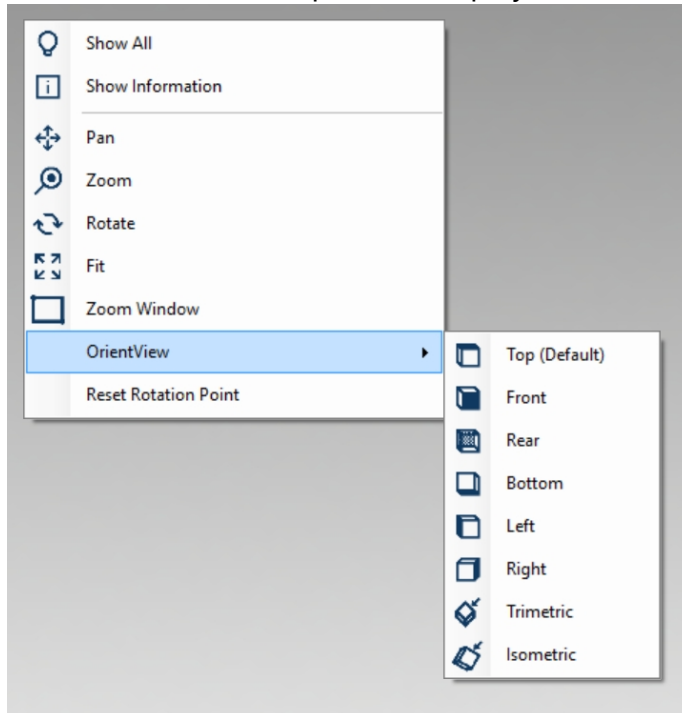
That's a duplicate of the command Fit all: it adjust the zoom fitting the model view to the window, maintaining the orientation.

Zoom Window

That's a duplicate of the command Zoom window: it adjust the zoom fitting the model view to the window, maintaining the orientation.

OrientView

Once selected, a sub-panel is displayed:



That duplicates the Orientation toolbar to orient the model in the graphical area to the main working views (Top, Bottom, Left, Rear, Right, Front, Trimetric, Isometric)

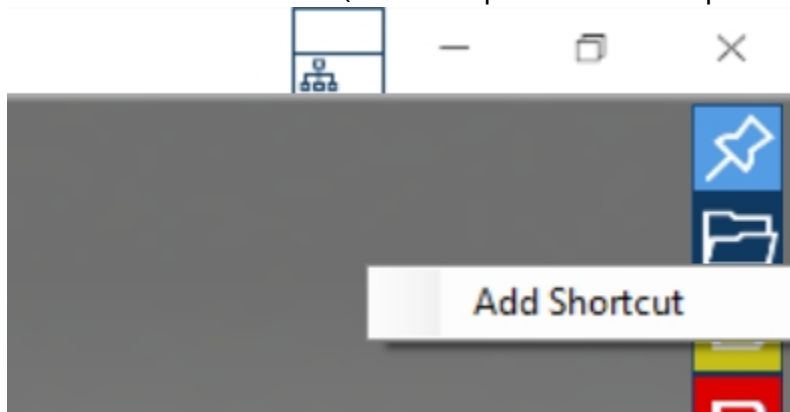
Reset Rotation Point

That's a duplicate of the command Reset Rotation Point: it lets you set the new view rotation point of the current model.

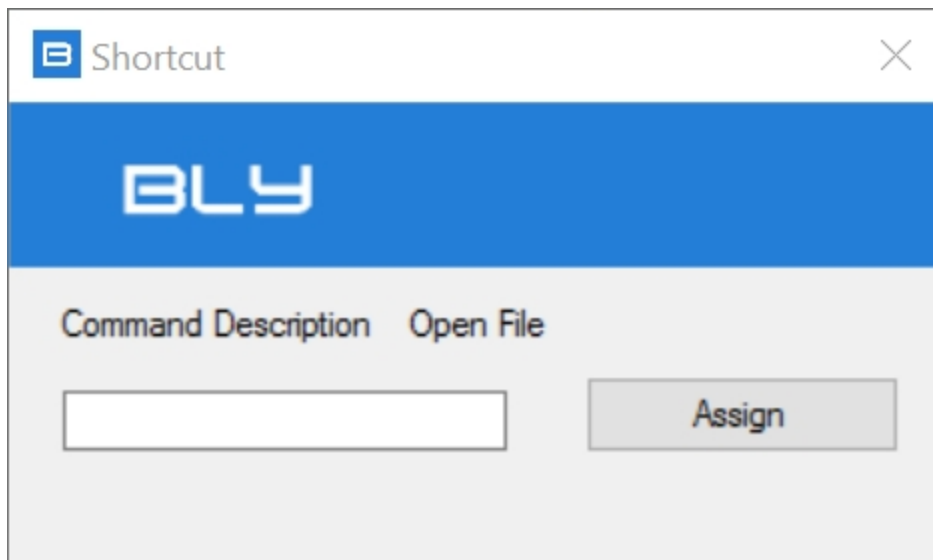
« [Go back](#)

SHORTCUTS ASSIGNMENT

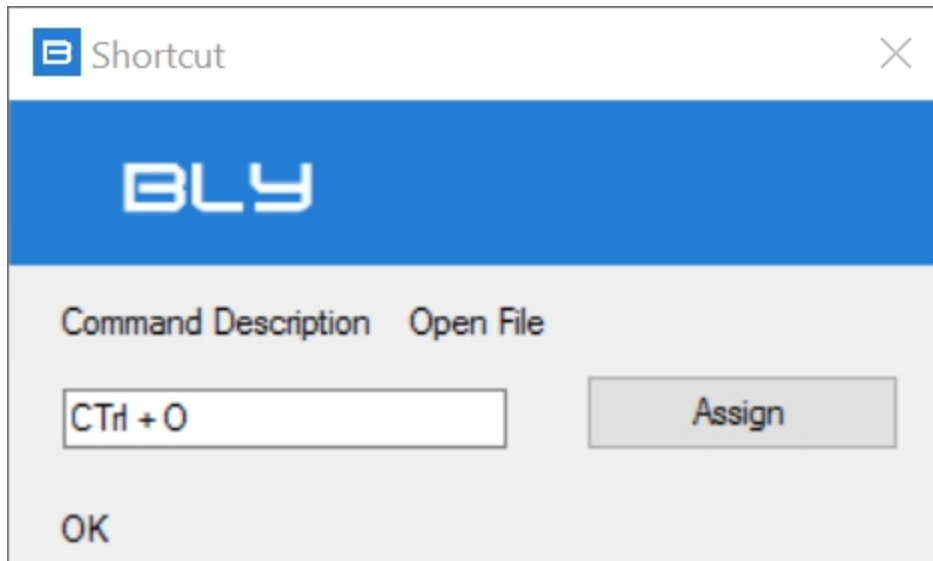
It is possible to assign shortcuts to all Bly/Guideline functions to faster access them. A shortcut is a combination of or more keyboard's buttons: to assign a shortcut, right click on the icon related (see example below for Open File) and press "Add Shortcut"



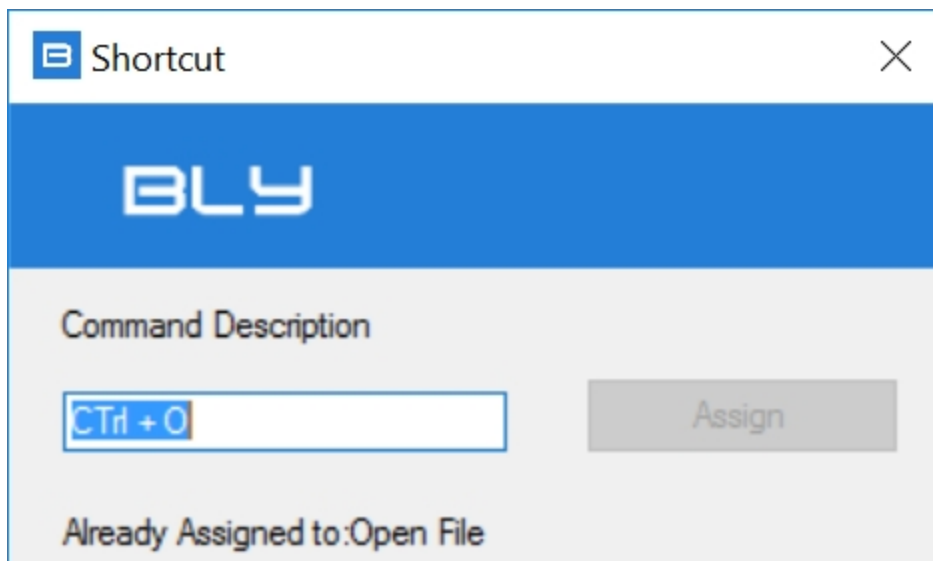
A Shortcut window will open



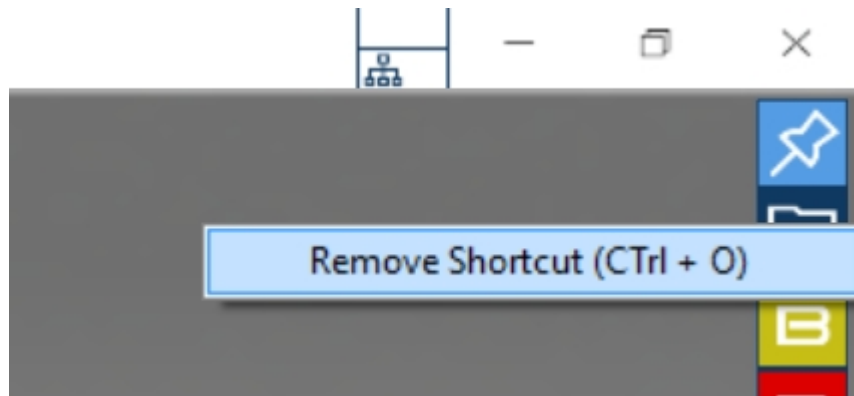
The desired shortcut can be entered into the blank record and confirmed by "Assign" button.



Guideline checks also the validity of the shortcut and if it is assigned to other commands already.



Once assigned, a shortcut can be removed by right-clicking on the command



[« Go back](#)

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