3DXpert™ for SOLIDWORKS®

Part Design

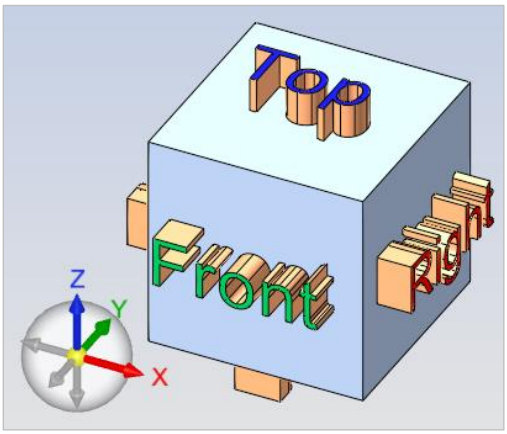
Dynamic UCS, ZPR, Views

14,0200,1599,1024(SP2)

3D SYSTEMS

In this exercise, we will learn the foundation of display function: **Dynamic UCS, ZPR operations, Views**.

Dynamic UCS



At the bottom left corner of the screen there is a display commands area. **Dynamic UCS** is ball with 6 arrows which we use to get 6 frontal views by using ***pick*** or ***click***.
The view direction will be from the ***pick***ed or ***click***ed arrow.
When the ***pick*** is used on one of the arrows the view rotates in the shortest way to that direction and there is no change in zoom.
When the ***click*** is used on one of the arrows the view rotates to a Standard view and the zoom changes to **Zoom All** (fit all).

When the ***pick*** or ***click*** is used anywhere on the **"White Ball"** the view turns to **"ISO View"** like in the picture on the right, same rolls for ***pick*** or ***click***.

When ***pick***ing on the "Yellow Ball" it means **Zoom All** (Fit All).

Display commands area

This area come to life when hovering over the area with the mouse.

Rotate To Plane

Zoom To Selection

Center Of Rotation

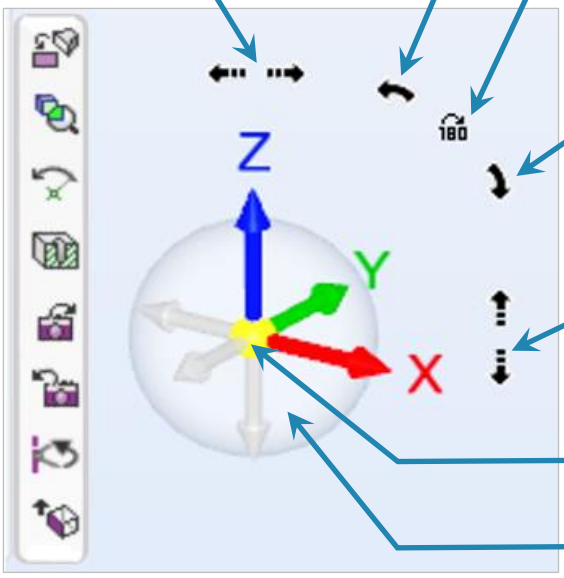
Dynamic Section

Next View

Previous View

Rotate By Angel

+Z/-Z ISO View



Pan Left/Right

Rotate 90° CCW

Rotate 180° Vertically

Rotate 90° CW

Pan Up/Down

Zoom All (Yellow Ball)

ISO View (White Ball)

! Notice/ Remember		Left mouse button name is ***"pick"***
		Middle mouse button name is ***"Exit"***
		Right mouse button name is ***"Click"***

In brief:

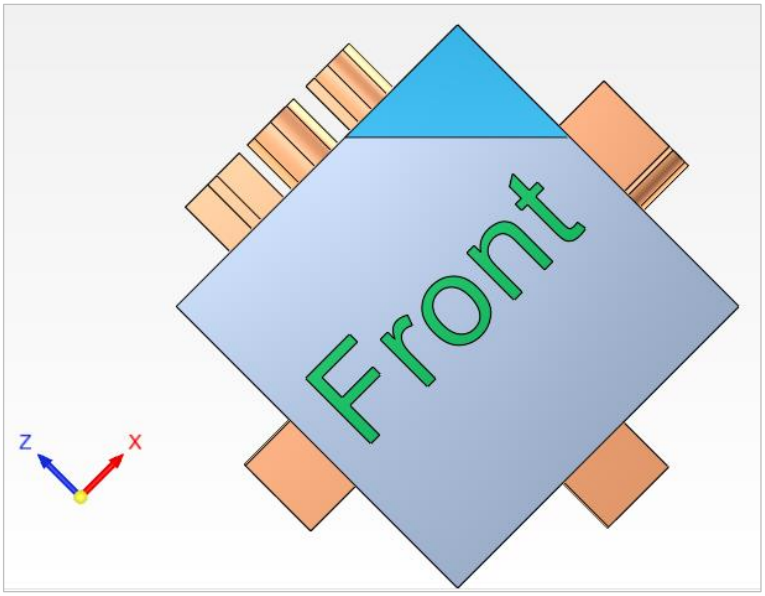
	Rotate to Plane	***Pick*** a plan and ***pick*** this command to get the plan parallel to screen.
	Zoom To Selection	***Pick*** entity/es and ***pick*** this command to get **"Zoom All"** on them.
	Center Of Rotation	***Pick*** a point as the **Center Of Rotation**.
	Dynamic Section	***Pick*** this command and then ***pick*** a plan or point to a display section.
	Next View	***Pick*** this command to see **Next Views** (after using Previous Views).
	Previous View	***Pick*** this command to see **Previous Views**
	Rotate By Angel	***Pick***ing this command opens a dialog box to rotate display around 3 axes.
	+Z/-Z Iso View	***Pick***ing this command set the **"ISO View"** either the Z axis point up or down. This will be kept until next changing of this command.

Display with Mouse

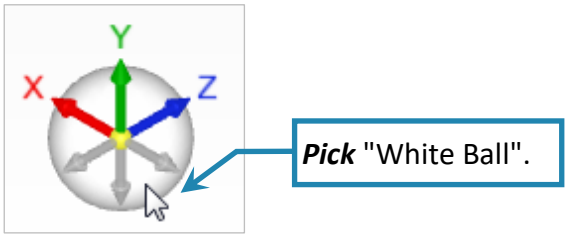
Most common use of mouse is to **Zoom**, **Pan** and **Rotate** (**ZPR**) the model. For that use the following:

Zoom		<Shift> + MMB	Press *Shift* key and Middle Mouse Button, move mouse up or down.
Pan		<Ctrl> + MMB	Press *Ctrl* key and Middle Mouse Button, move mouse to any direction.
Rotate		MMB	Press Middle Mouse Button, move any to any direction.
Dynamic Zoom			Scrolling Middle Mouse Button, zoom center is at cursor position.

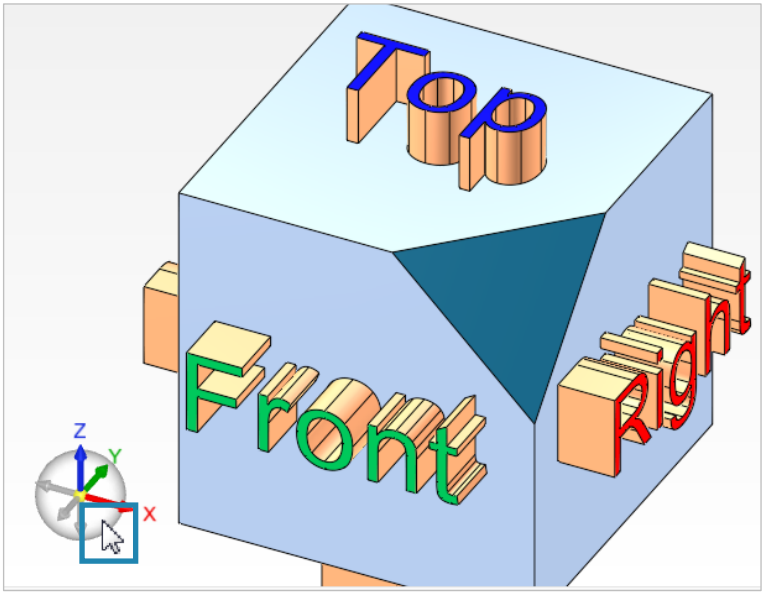
1. Use the **3DXpert for Solidworks Explorer**, browse to the folder where the file Exercise **Views-TB-LR-FB_3DX -Ex.elt** is located and ***pick*** to open it.
   The display of the opened file will look as shown in the picture.



2. Move mouse to Display Commands Area (bottom left) and ***pick*** anywhere on the "White Ball".

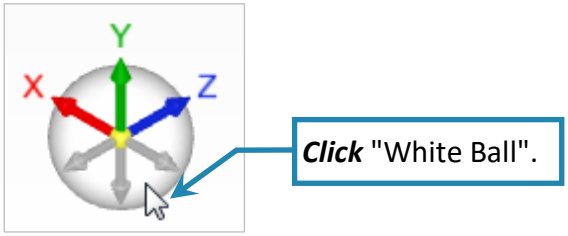


   The display rotate as shown in the picture to **+ISO View** – no change in zoom.

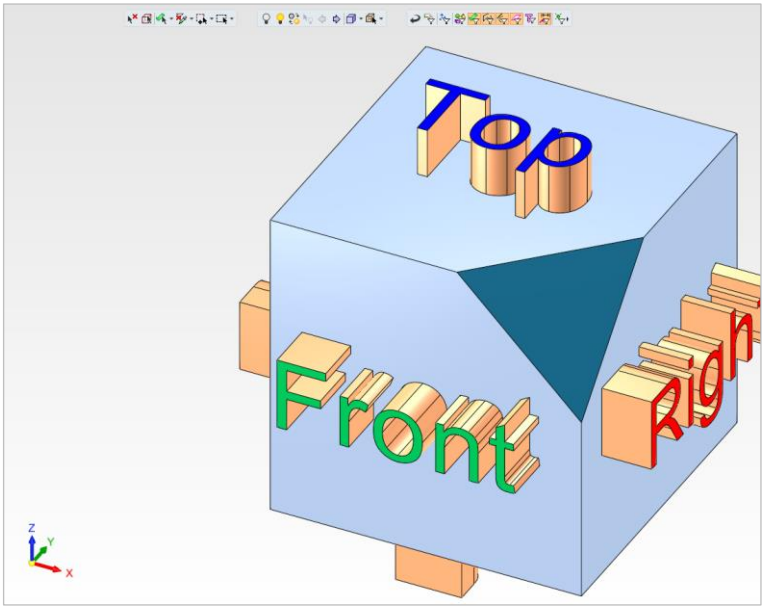


3. ***Pick*** the Previous Views command  to go back to previous view.

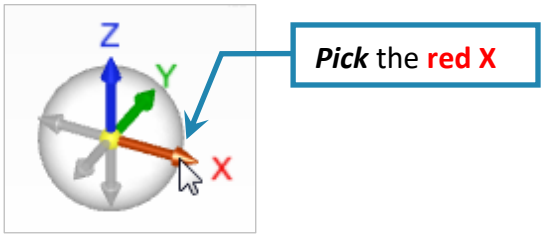
4. Move mouse to Display Commands Area (bottom left) and ***Click*** anywhere on the "White Ball".



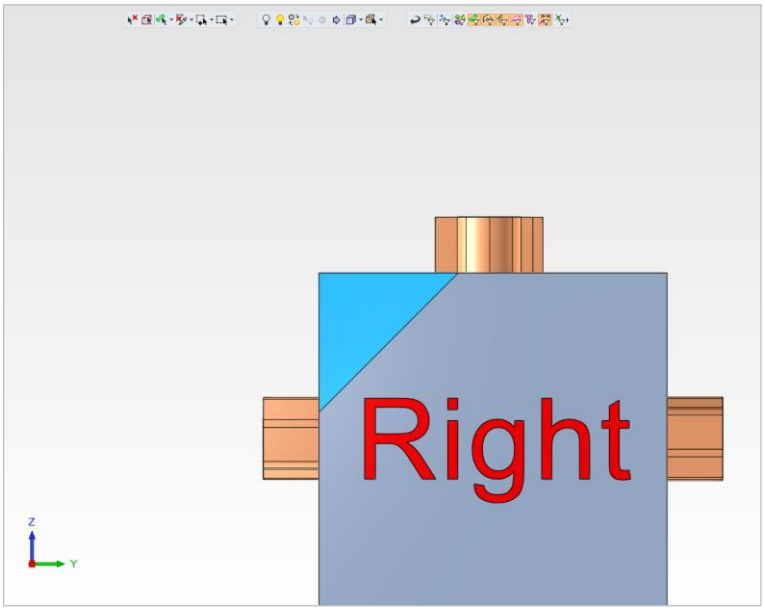
   The display rotate as shown in the picture to **+ISO View** - zoom changes to **Zoom All** (fit all).



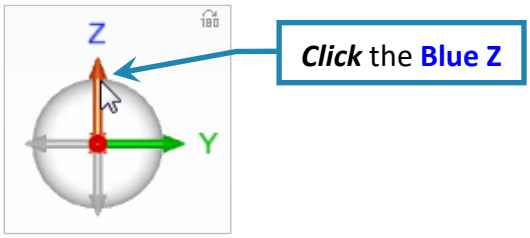
5. ***Pick*** the **red X** arrow to get a Right view.
   Notice that when the axis is ready to ***pick*** it change his the color to brown.



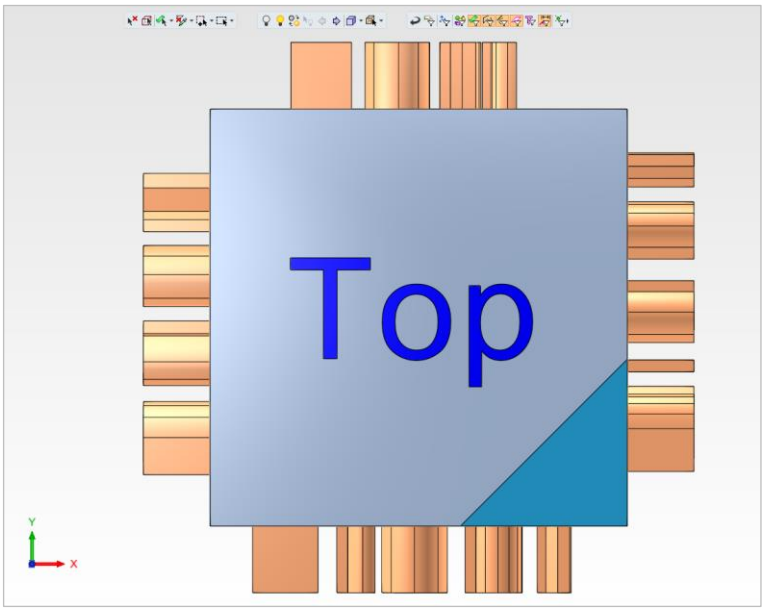
The display rotate – no change in zoom.



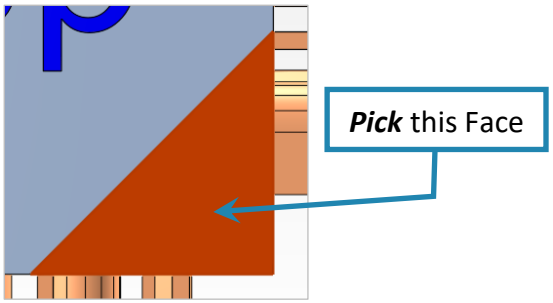
6. ***Click*** the **Blue Z** arrow to get a Top view.



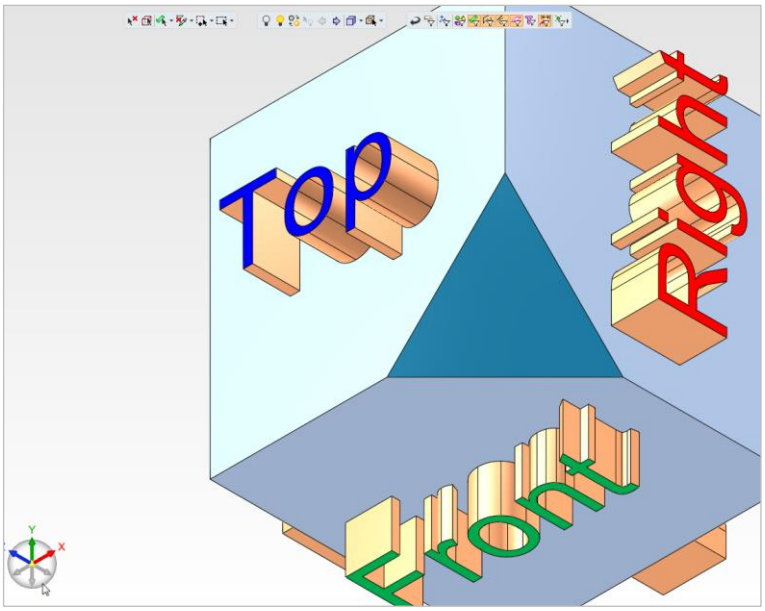
The display rotate as shown in the picture to **Top View** - zoom changes to **Zoom All** (fit all).



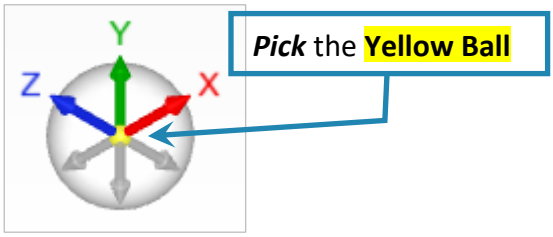
7. ***Pick*** the triangle face, and

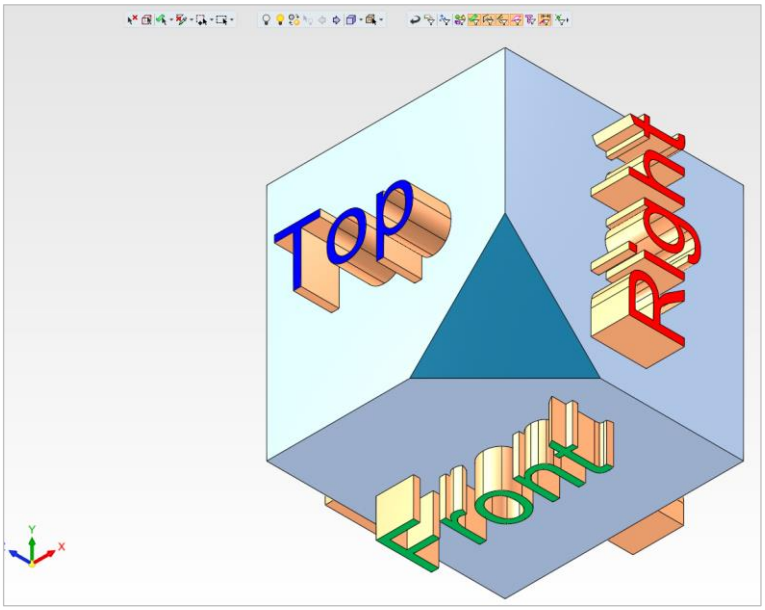


Pick the Rotate to Plane command  arrow to get a Right view.
Notice that the ***pick***ed face is now parallel to screen**.**

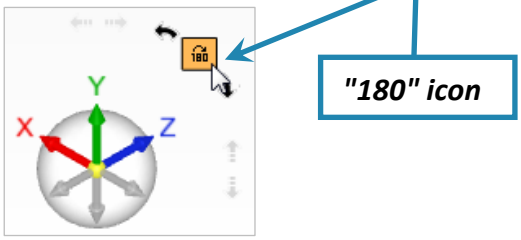


8. ***Pick*** the **Yellow Ball** to **Zoom All** (Fit All).

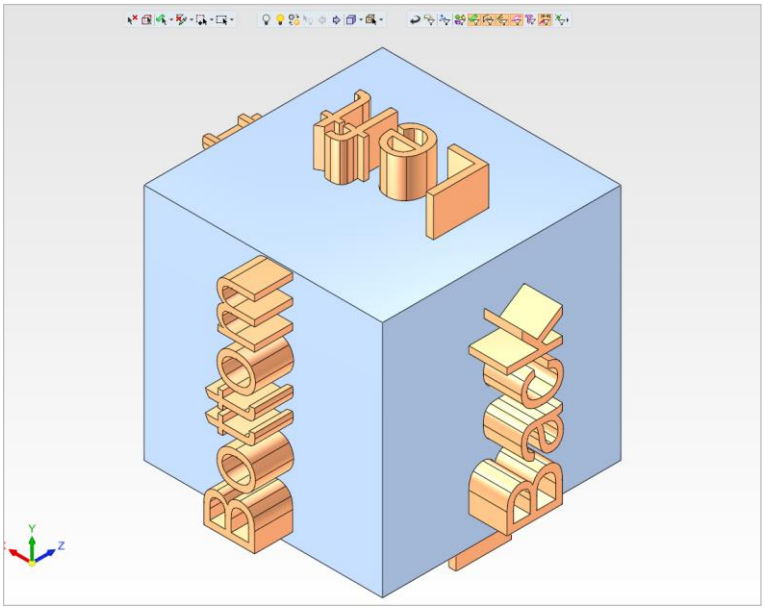




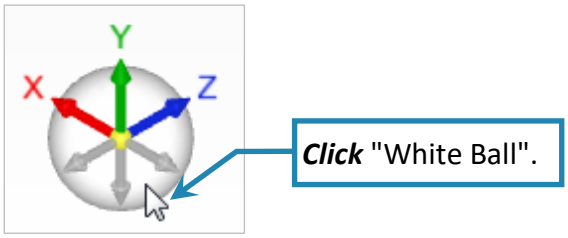
9. ***Pick*** the **"180"** icon.



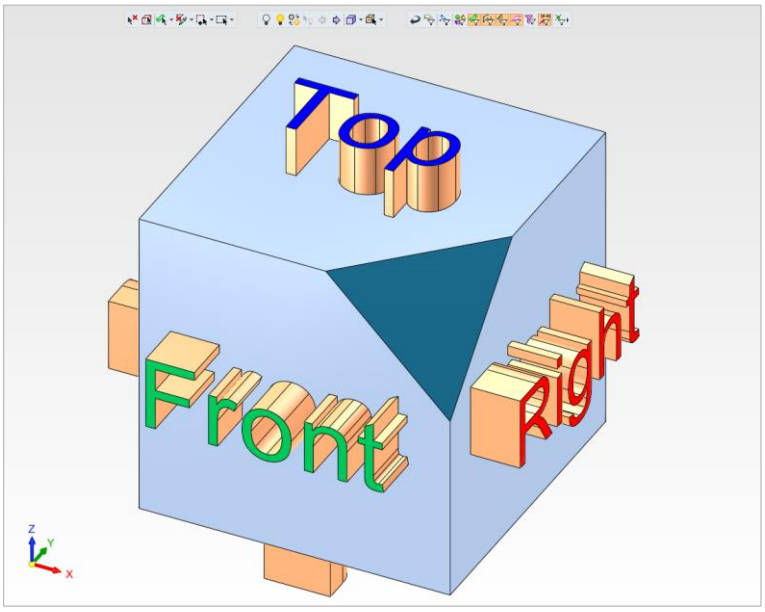
The display rotates 180° around virtual vertical axis in the center of screen.



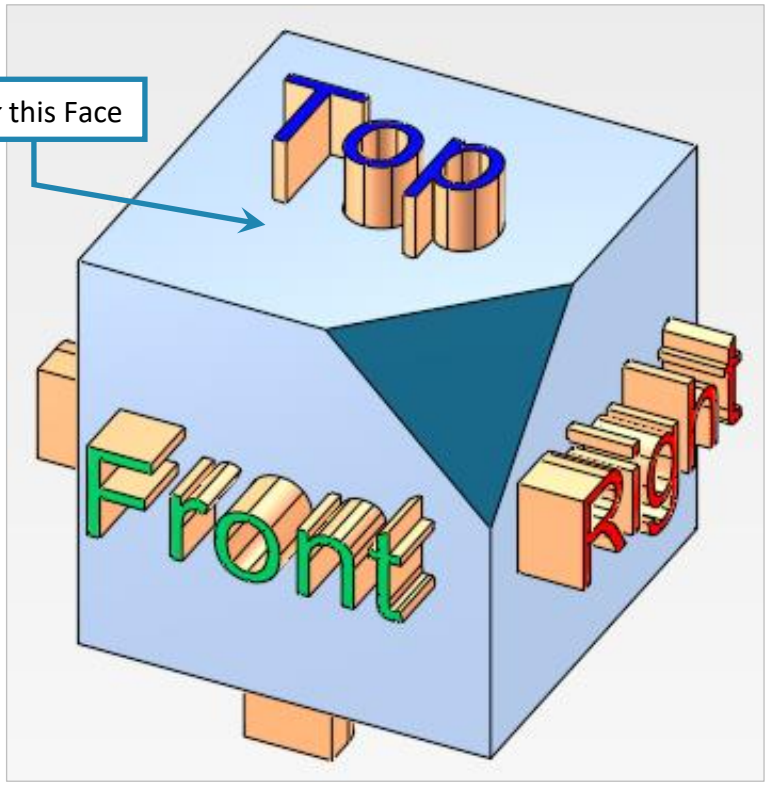
10. ***Click*** anywhere on the "White Ball".



The display return as shown in the picture to **+ISO View** and **Zoom All** (fit all).



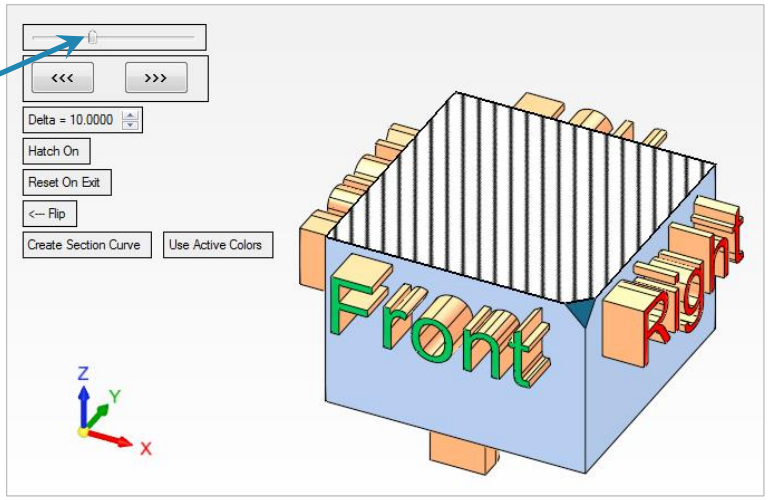
11. ***Pick*** the top face and ***pick*** the **Dynamic Section** command  .

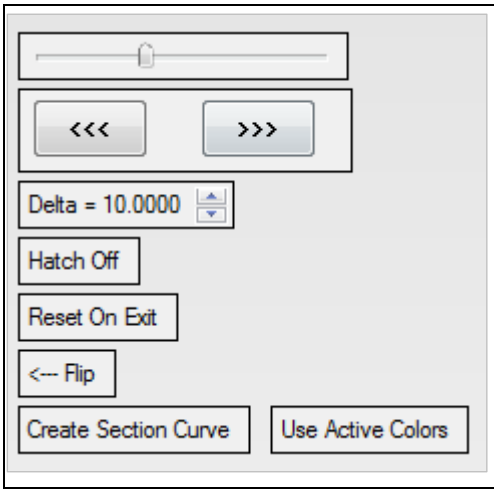


Move the bar to the right (or left) to see a display section of the part.

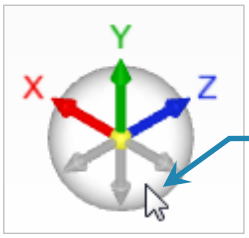
Move this bar

Pick any other planar face and to move the bar to any side.



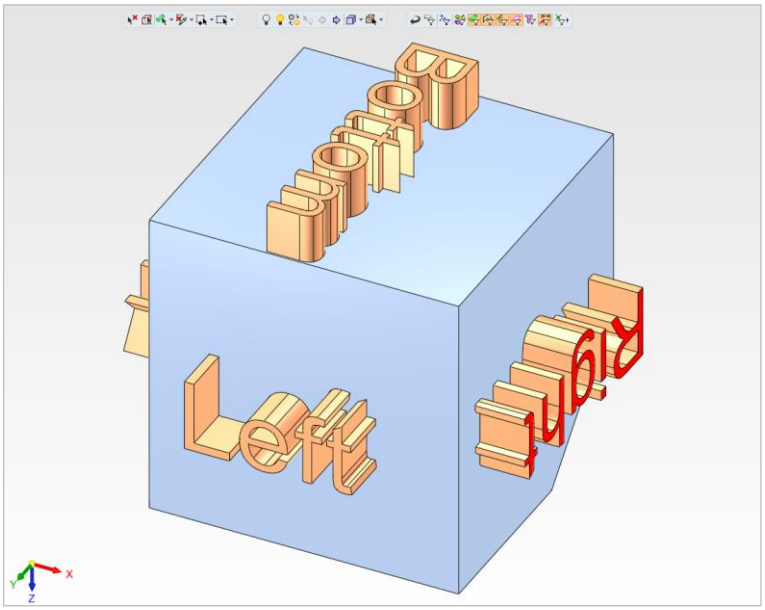
	Movable bar to the sides to walk in to any display section.
	Move the section by predefined delta.
	Predefined delta.
	Hatch On or Hatch Off.
	Enable to exit from the function while keeping the model in a display cut – to reset, enter the command again and exit.
	Flip the direction of section.
	Create a contour at the section plan.

12. Pick on the **-Z ISO View *Click*** and  anywhere on the **"White Ball".**



Click "White Ball"

The display turn as shown in the picture, this time to **-ISO View** and **Zoom All** (fit all).



!	Please notice: The **+ISO View** and **-ISO View** are kept until next change of this command state. Each state have its own icon  for +**ISO View** and  for **-ISO View**.

End of Exercise.