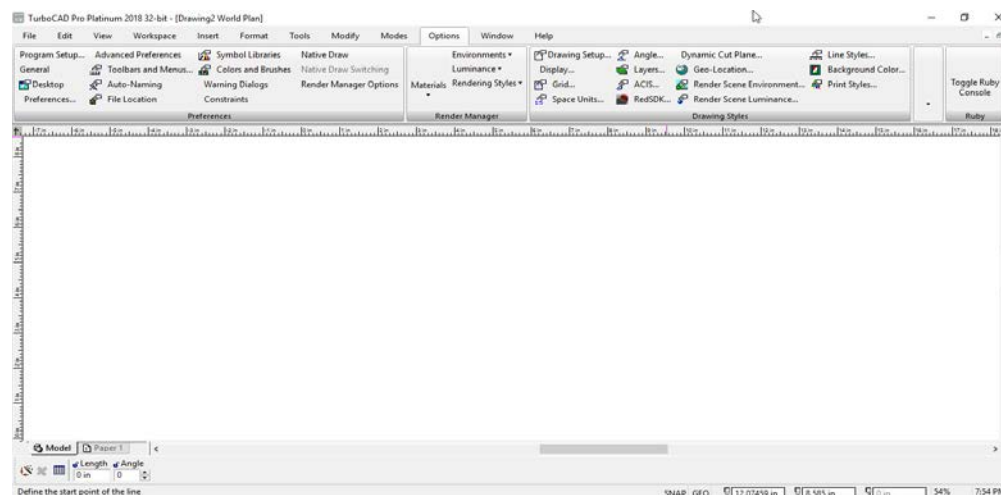
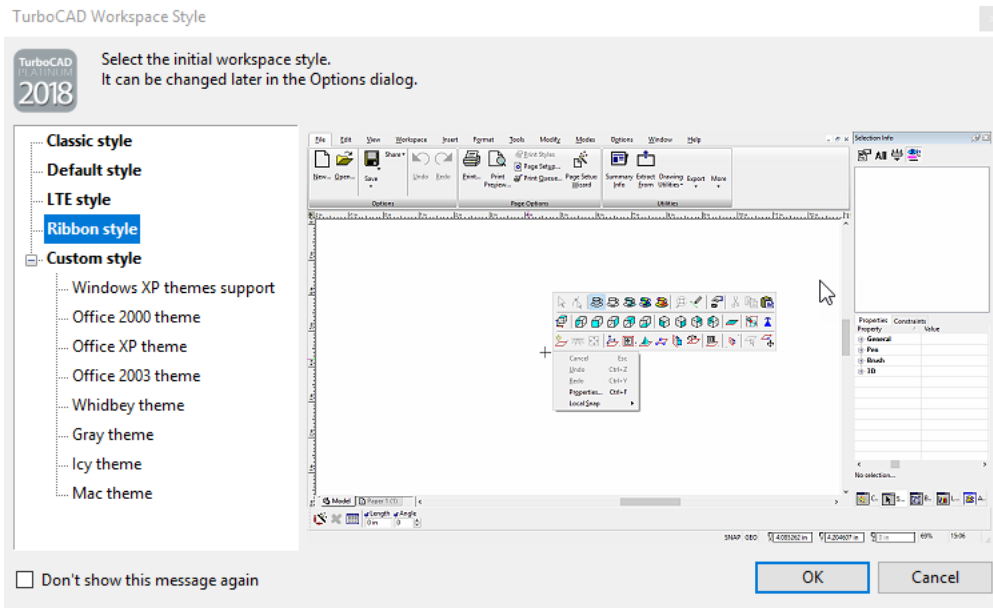


User Interface & Usability

1: Ribbon Interface:

TurboCAD 2018 (All versions)

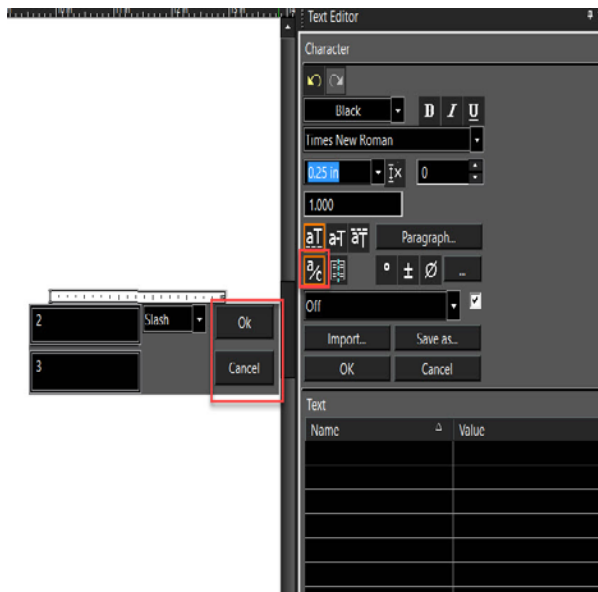
New Interface "**Ribbon**" is embedded now in TC 2018. Ribbon interface will be optional not default. There will be a Popup on startup of application, from where user will be asked to choose either Ribbon UI or Default UI and these settings can be changed any time.



2. OK and Cancel button added to Insert Fraction dialog box:

TurboCAD 2018 (All versions)

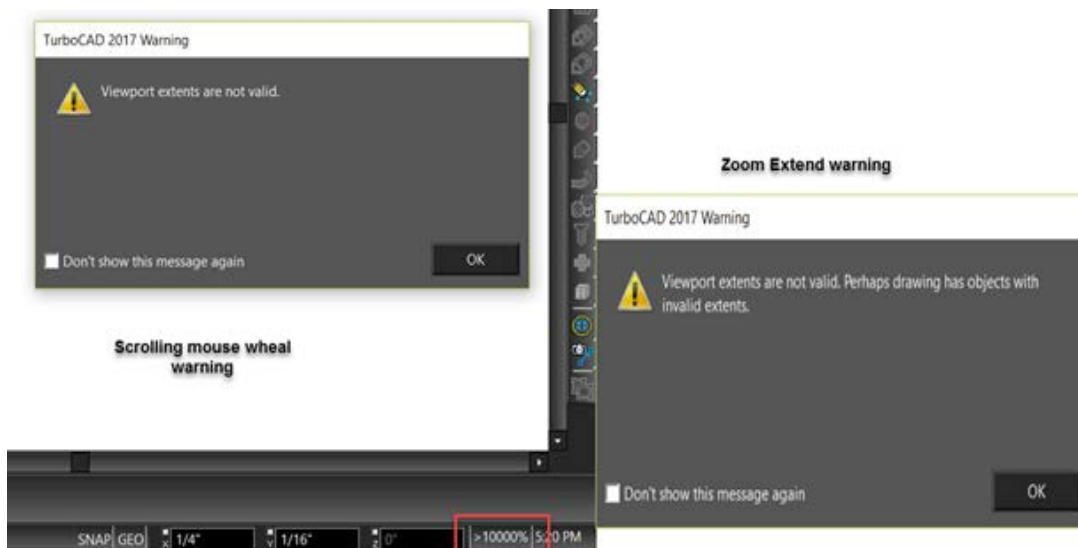
Improved usability by the addition of OK and Cancel button in the dialog box of the Insert Fraction in the Text Editor palette.



3. New Zoom diagnostic message:

TurboCAD 2018 (All versions)

A new message has been added. It appears when the user tries to zoom in or zoom out beyond the maximum zoom factor or limit.



4. Zoom in Print Preview

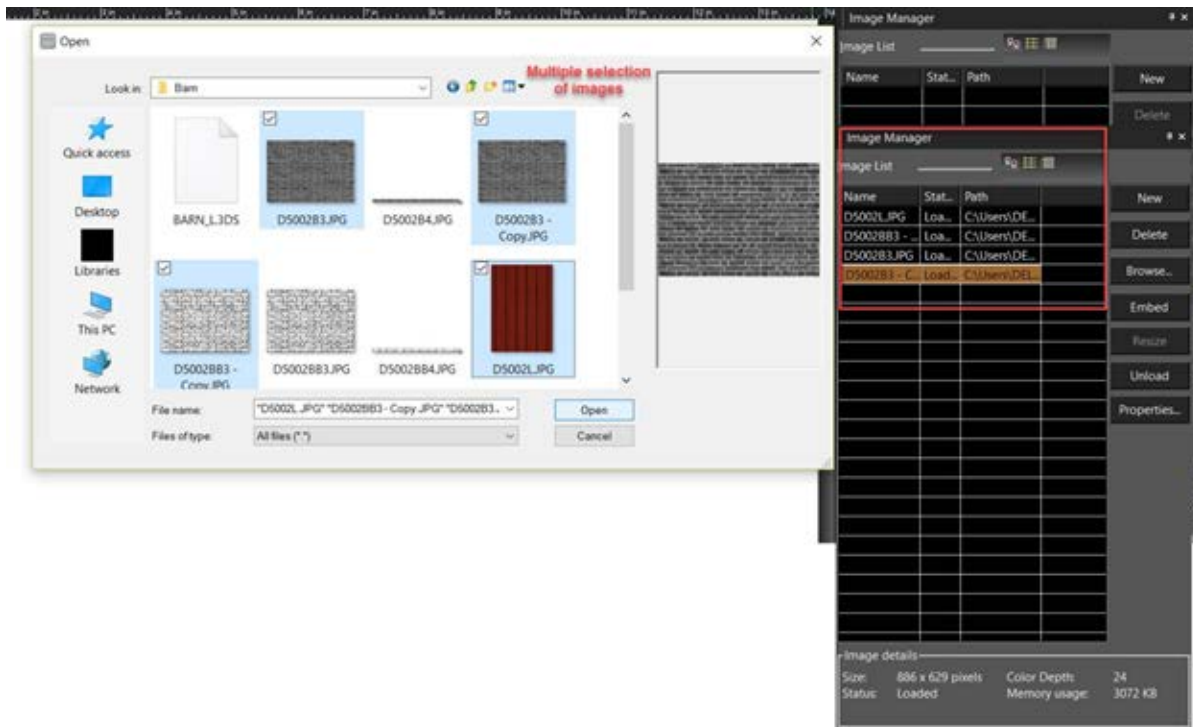
Previously, it was not possible to zoom in and out using the wheel mouse on the print preview. Now user is able to zoom in in Print Preview windows, prior to printing to be sure things are looking correct Such as line thickness etc.



5. Image Manager Improvement:

TurboCAD 2018 (Pro Platinum, Expert and Deluxe only)

You can now select Multiple files from Open Dialog box when importing pictures in the Image Manager palette.

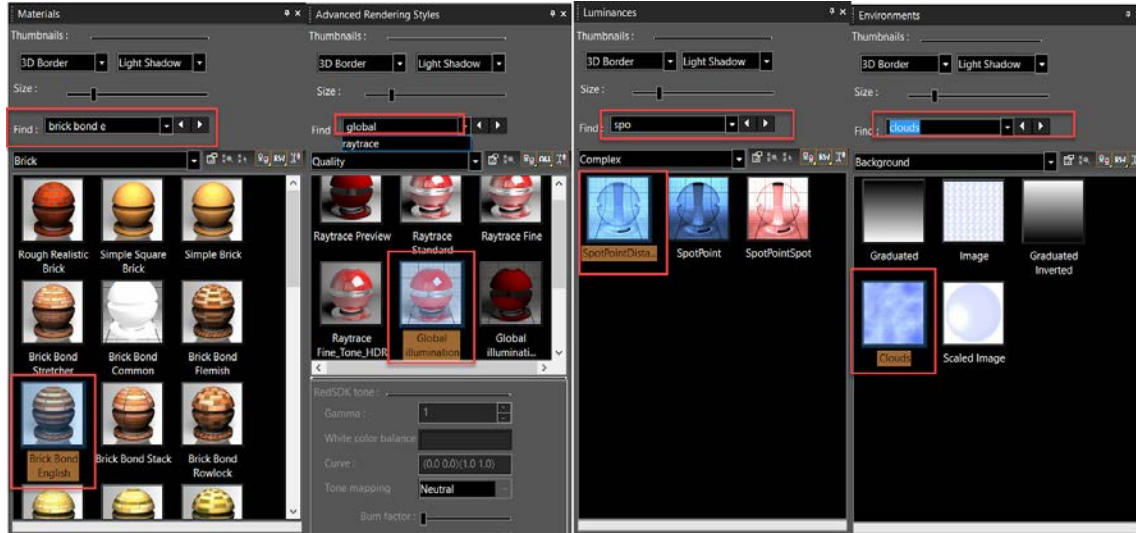


6. Search option for locating UI features:

TurboCAD 2018 (All versions)

Type a word to search to browse through the commands and materials. The first suitable item is highlighted. Buttons next to the input field highlight the previous or next suitable item. Successful search options are added to the list and saved between sessions.

The Find box is used in Materials, Luminance, Environment and Advance Rendering style palettes:



Find can also be used to search through the Toolbars and Menus under the Options menu

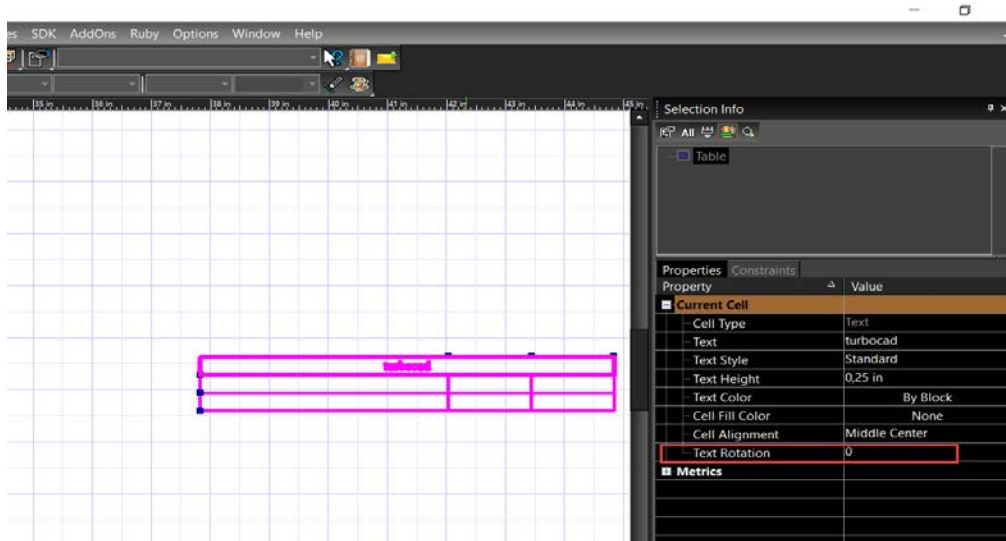
7.The TurboCAD table improvement: support the cell "Text rotation" property:

TurboCAD 2018 (Pro Platinum, Expert Only)

TurboCAD table now support the "Text rotation" property.

Now table cell has editable property - Text Rotation.

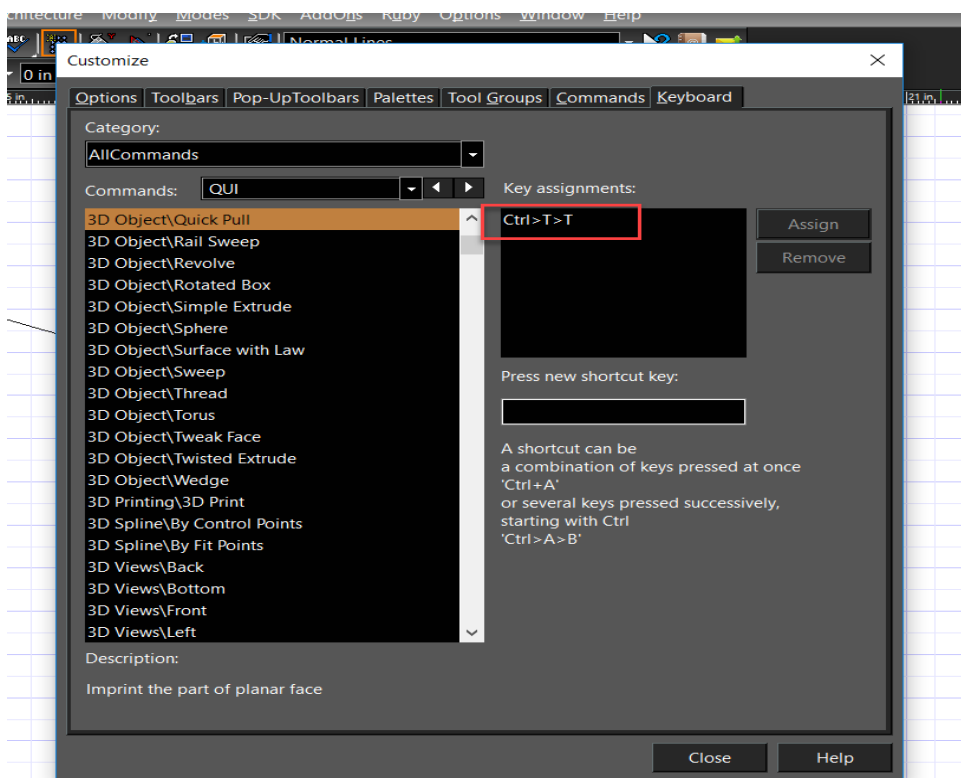
Also, cell editing has been improved. Now the cell selection is not lost after changing the properties of the cell using the "Selection information" palette.



8. Need to be able to create two or three key keyboard shortcuts

TurboCAD 2018 (All versions)

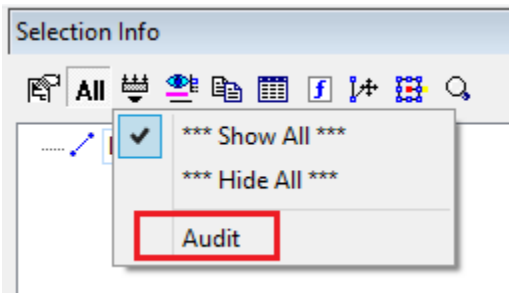
User is able to create multiple keyboard shortcuts. Such as pressing "aa" might invoke the double point arc or whatever command you want to assign to that key combination. this may or may not require a different mode in the customize dialog that will allow this functionality.



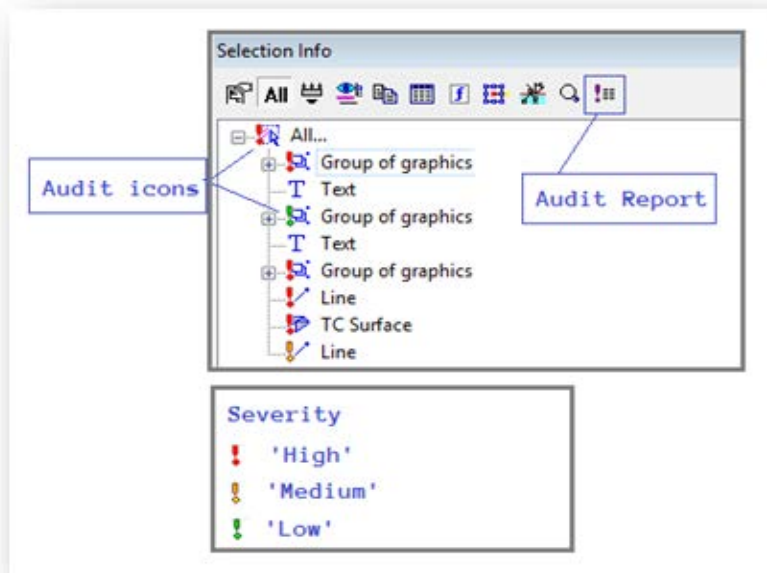
9.Audit System

TurboCAD 2018 (All versions)

Use the Audit System set of tools to detect a 'bad' object in drawing. A 'bad' object triggers at least one audit conditions.



- New item "Audit" was added to menu "Filters".



- The possibility to highlight 'bad' objects in Selection Info palette
 - The possibility to turn on/off audit conditions and changing their parameters
 - The possibility to generate audit report for one or more objects
 - The possibility to filter 'bad' objects in Selection Info palette
- The possibility to send notify (about a 'bad' object) to Event Viewer palette

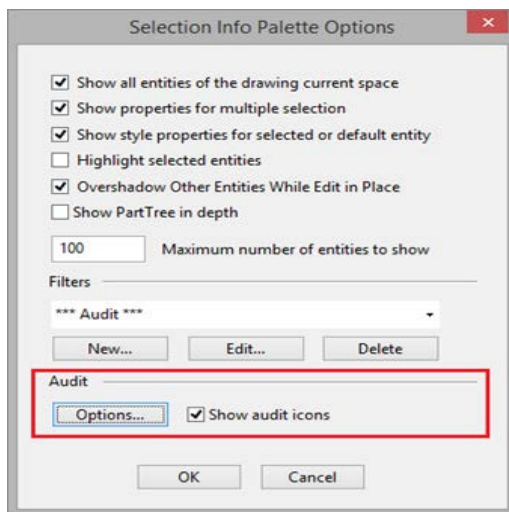
Audit Report

Priority	Condition	Actual parameter
High	Extents size is more than 1E+10	2.43101E+17

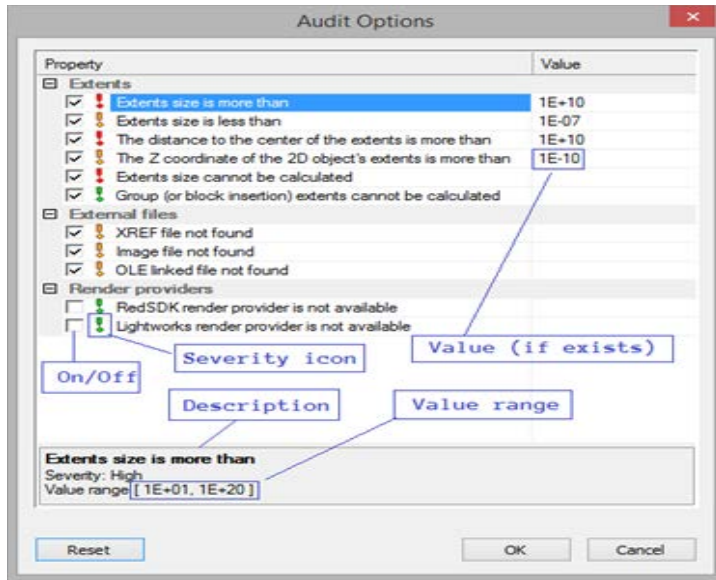
Properties

Name	Value
Layer	0
Print style	By Layer
Info	Group_1

"Audit" report (HTML page).

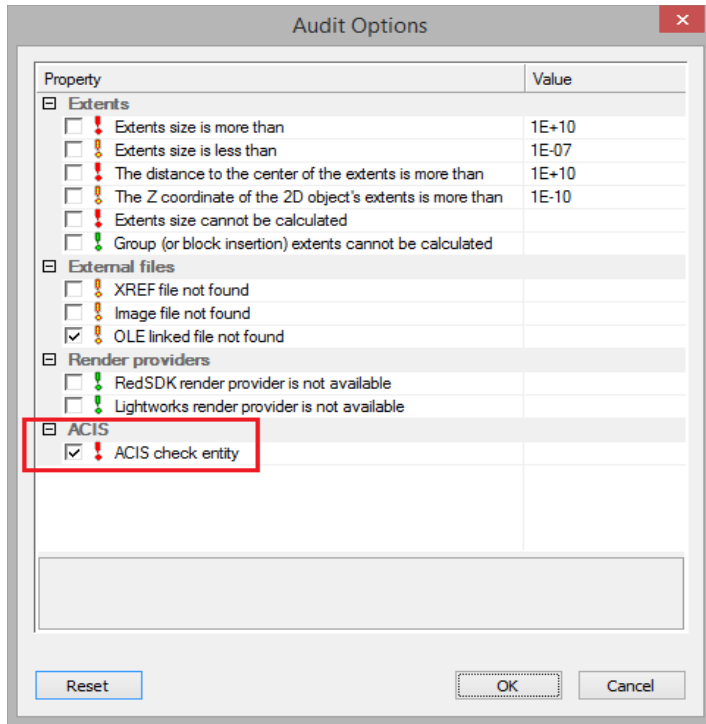


"Audit" section



“Audit Options” dialog.

New audit condition 'ACIS check entity' (Level = 70) was added. Switched 'Off' by default.

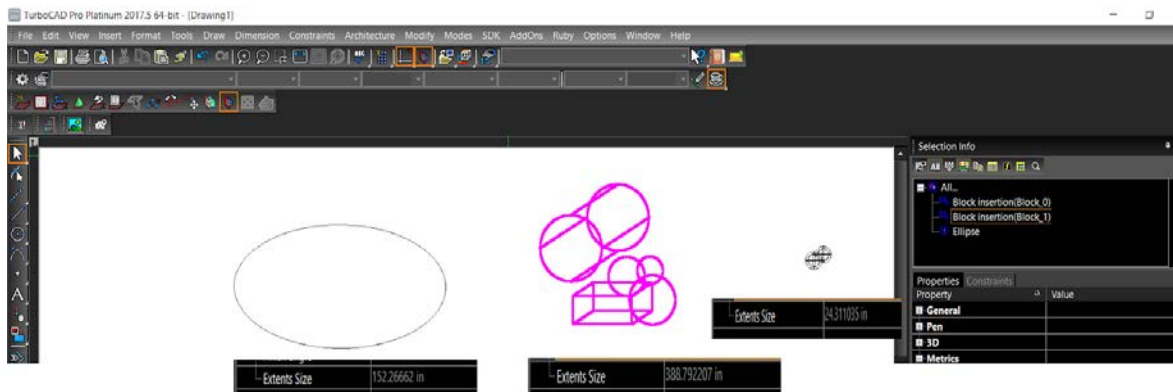


10. Extents Size property:

TurboCAD 2018 (All versions)

The Extents Size parameter has been added to the selection Info palette properties. Extents Size parameter works with groups, blocks and insertions. You can now use the 'Extents size' property to select entity according to size valuation. Select objects that you think are big or small, or object in any range you want.

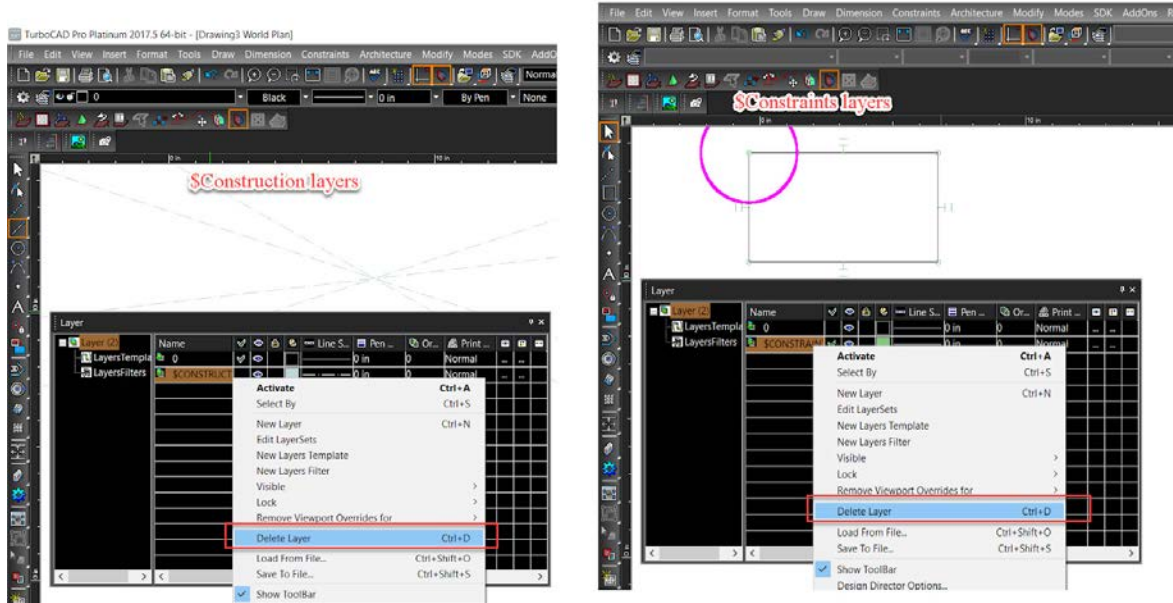
The Extents Size update provides you with additional flexibility so that you can use this parameter for various needs and for analyzing wrong entities.



11. Deletion of Construction and Constraints layer:

TurboCAD 2018 (All versions)

Construction objects are placed on layer "\$CONSTRUCTION". You can change construction geometry color and line styles via the layer manager. You can now also delete \$Construction layer and \$Constraints layer by selecting them in the Layer palette.



12. Isolate the object :

TurboCAD 2018 (All versions)

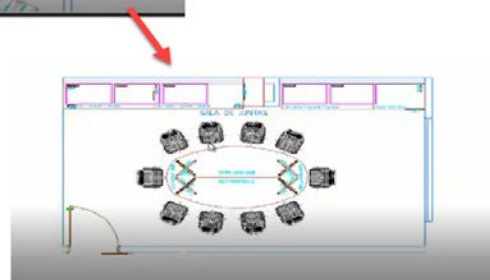
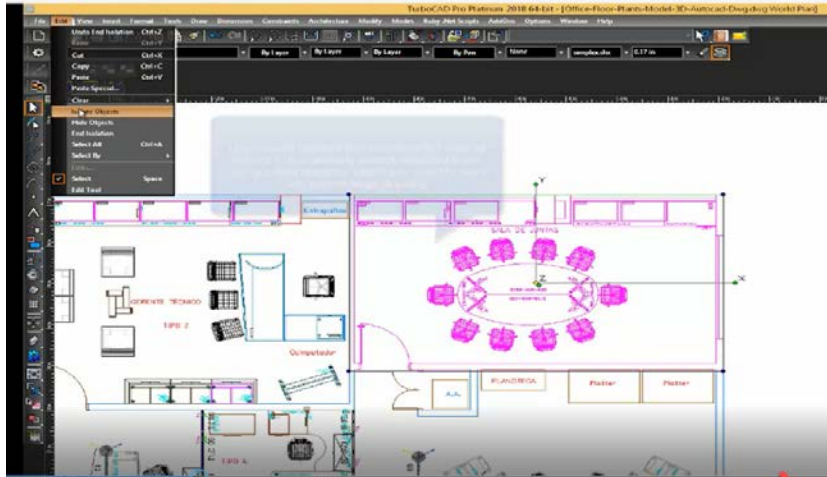
Now it is possible to select any number of entities in the drawing and to choose isolate objects. This led to work specifically on the selected entities without seeing or affecting other entities in the drawing.

This is particularly useful in a complicated drawing we are trying to work with a subset of the drawing. When you're done you right click and say "un-isolate objects" and the drawing returns back to how it used to be.

There are three options for isolation:

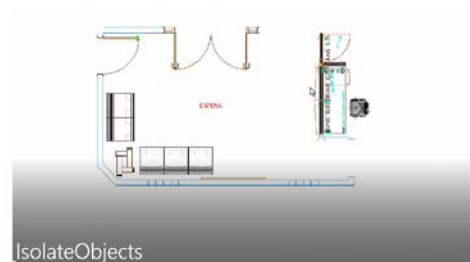
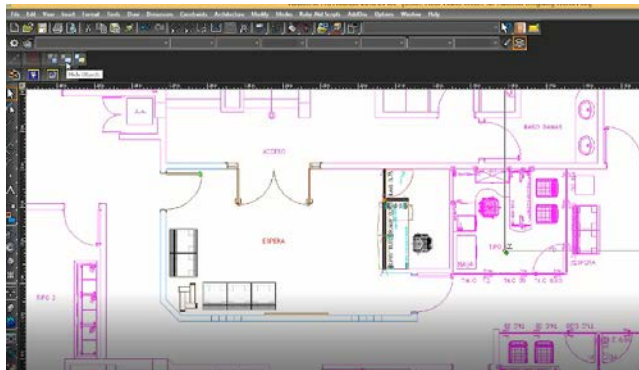
1. Isolate Objects:

“ Isolate object” hide all objects except selected object in the larger drawing temporarily.



2. Hide Objects:

“Hide Objects” Hide selected object in the drawing temporarily.



3. End Isolation:

Click End Isolation to show the all objects.

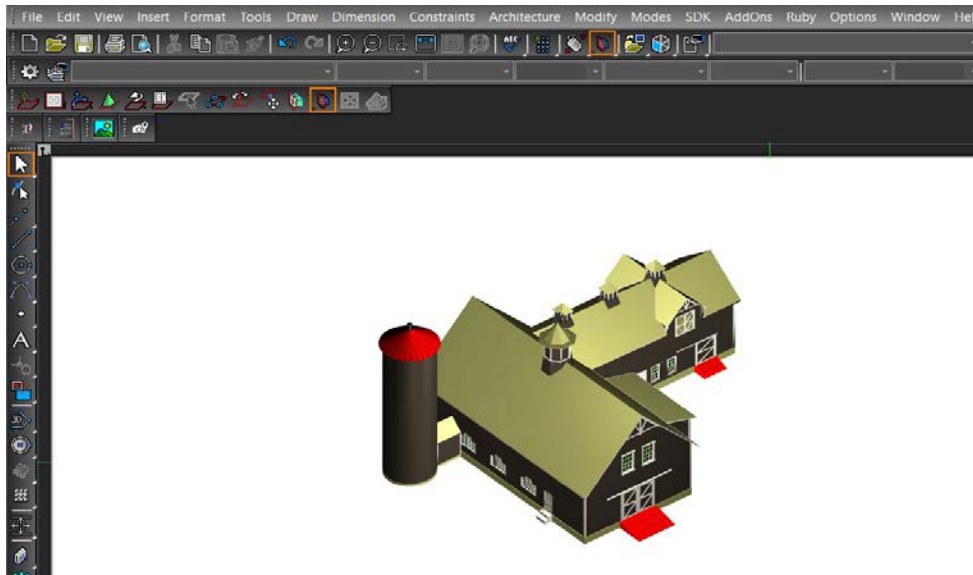
Interoperability:

1. 3DS Filter Improvements

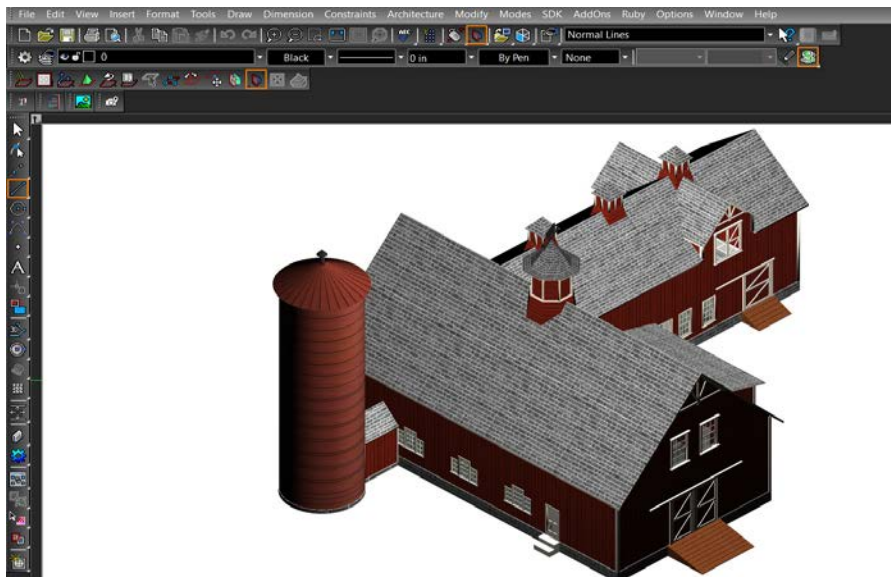
TurboCAD 2018 (Pro Platinum only)

- Additions made to import RedSDK materials.
- Issue with lost materials is now fixed.
- Issue with lost texture coordinates is now fixed.

Without texture



With Texture:

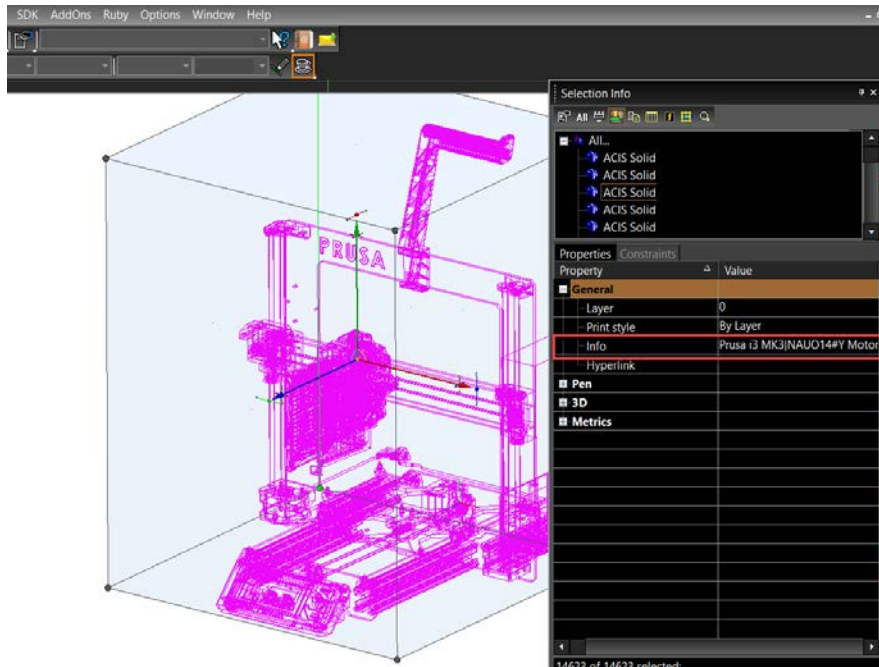


2.Import STEP format improvement: import text attributes from STEP file.

TurboCAD 2018 (Pro Platinum only)

User can now view the information about the object used in the file. The information will be displayed in 'info' field of "selection-info" palette.

Note : It supports .step,.stp and .sat files as well.



3. Support of Rhino 5 files (3DM) files.

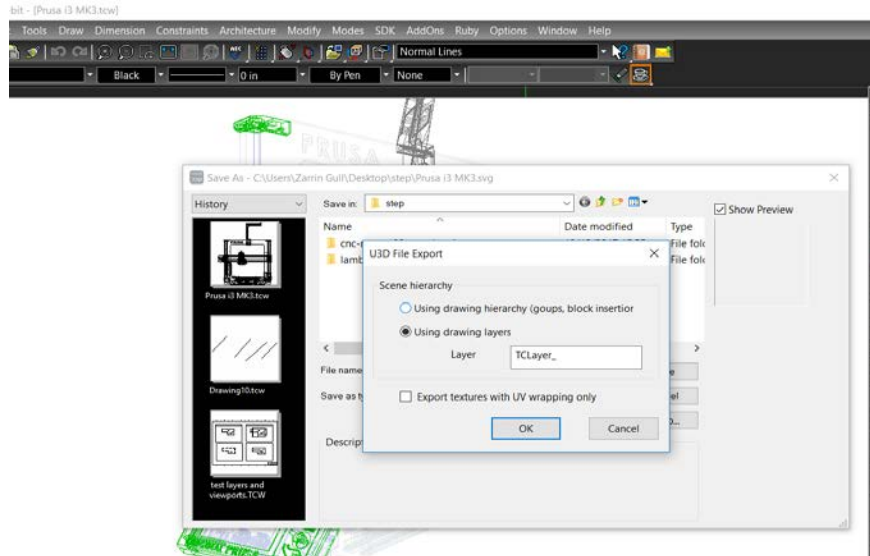
TurboCAD 2018 (Pro Platinum only)

The latest openNURBS toolkit is incorporated to TurboCAD 2018.

4. U3D-based PDF export improvement.

TurboCAD 2018 (Pro Platinum only)

Export named and standard views.



5. Import PDF Page as vector Page

TurboCAD 2018 (Pro Platinum only)

PDF file now imports as vector pages. Imports as object or group of graphics.

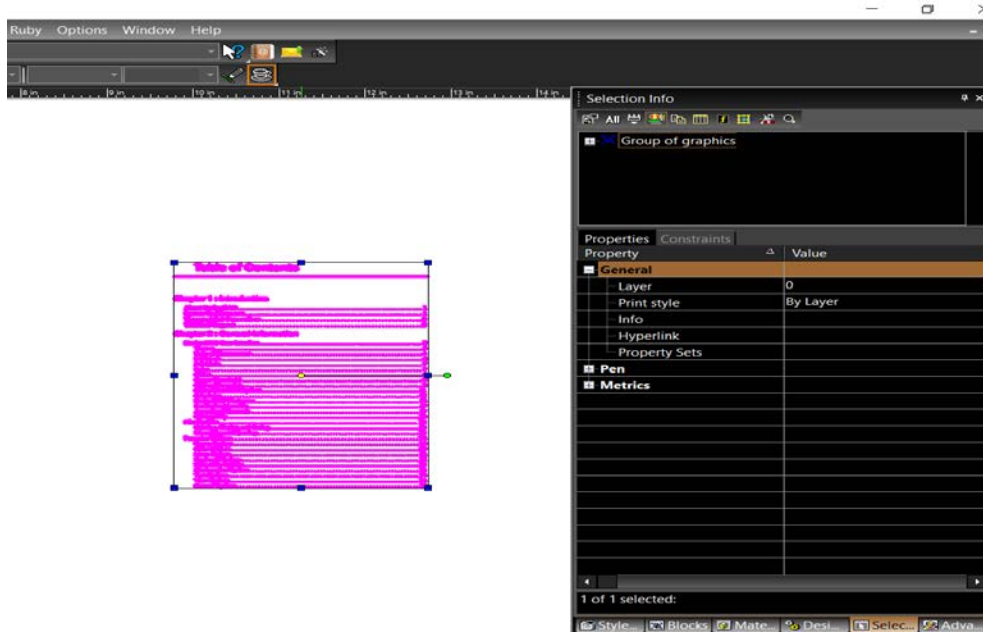
We cannot open PDF file using open file dialog because PDF file is a "book". It consists of a set of pages. TC drawing structure is not suitable to store entire PDF book

Usually, PDF with "drawing" contains other pages with text, images and 2D drawings(graphics) so user can always select appropriate page he needs.

So, the implemented tool consists of following steps:

1. User select PDF file and see all pages with preview.
2. User selects desired page.
3. Insert it in drawing with desired size.

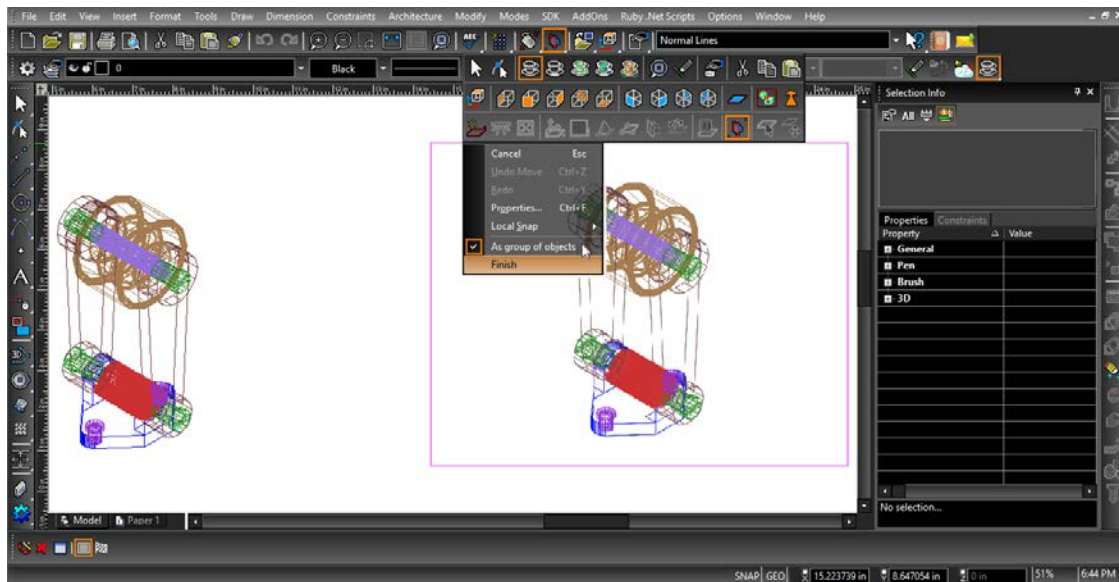
The same approach and UI is used to open PDF underlay.



6:PDF Underlay Improvement:

TurboCAD 2018 (Pro Platinum, Expert only)

A new tool "PDF underlay to objects" has been implemented. It gives the Ability to convert an Underlay into an editable object.

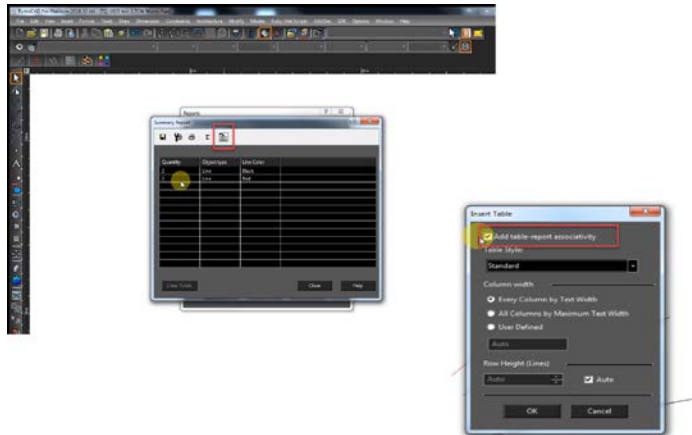


7: Database Table Improvement:

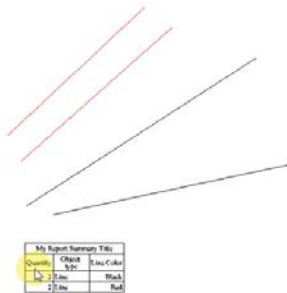
TurboCAD 2018 (Pro Platinum, Expert only)

The table generated by report now has the ability to update contents.

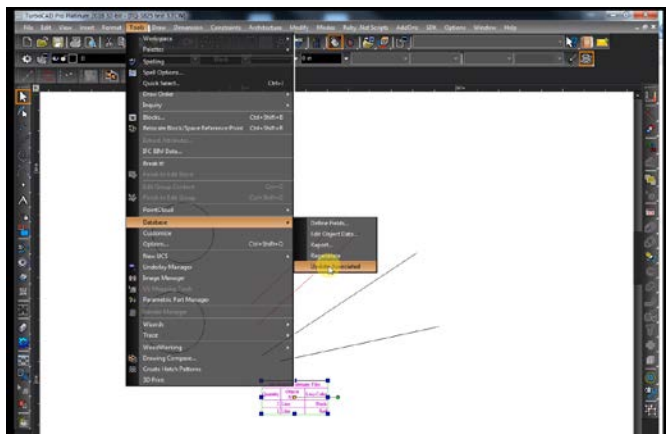
Create Table:



Insert Table in the drawing:



Update Association: To update the table with new entities. Select table and update the table using "Update association".



7. New IFC Object types now supported in TC2018.

Please find the list from the below link:

<https://docs.google.com/spreadsheets/d/14HbZ25DpZJcumg7IT0cfSbOF5xYwVQZQ5jEkhlofew/edit#gid=0>

8. IFC BIM Tool:

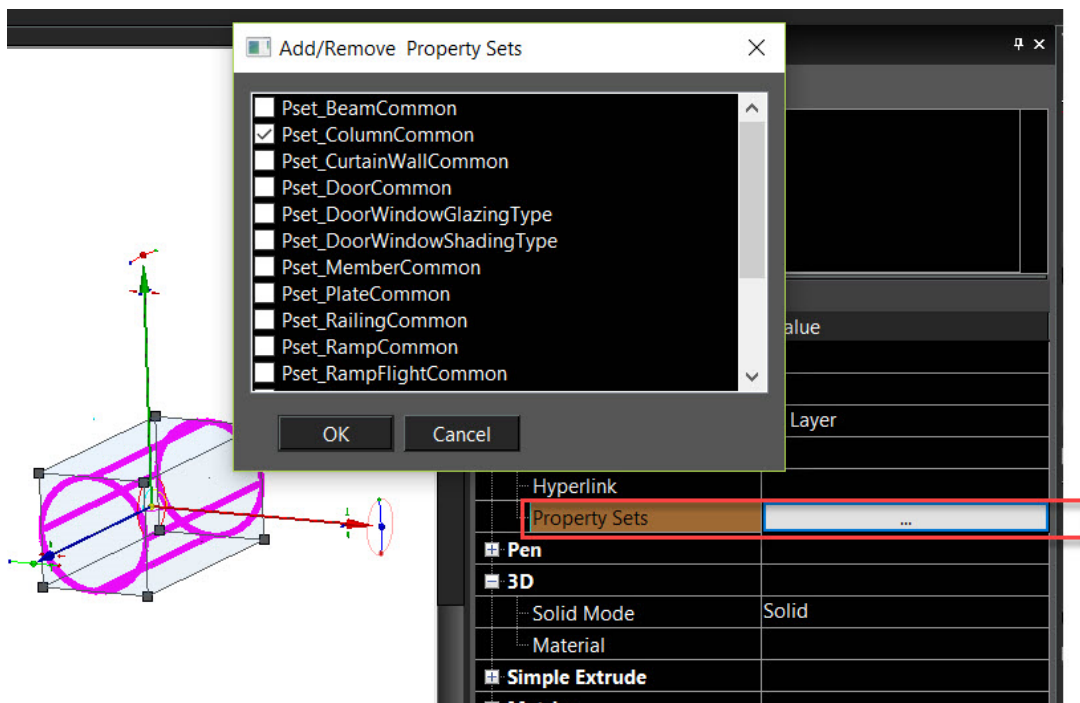
TurboCAD 2018 (Pro Platinum only)

BIM tool allows:

edit property sets attached to entities imported from IFC;
define any TC entity as the desired IFC entity and set for it appropriate property sets to export it to IFC.

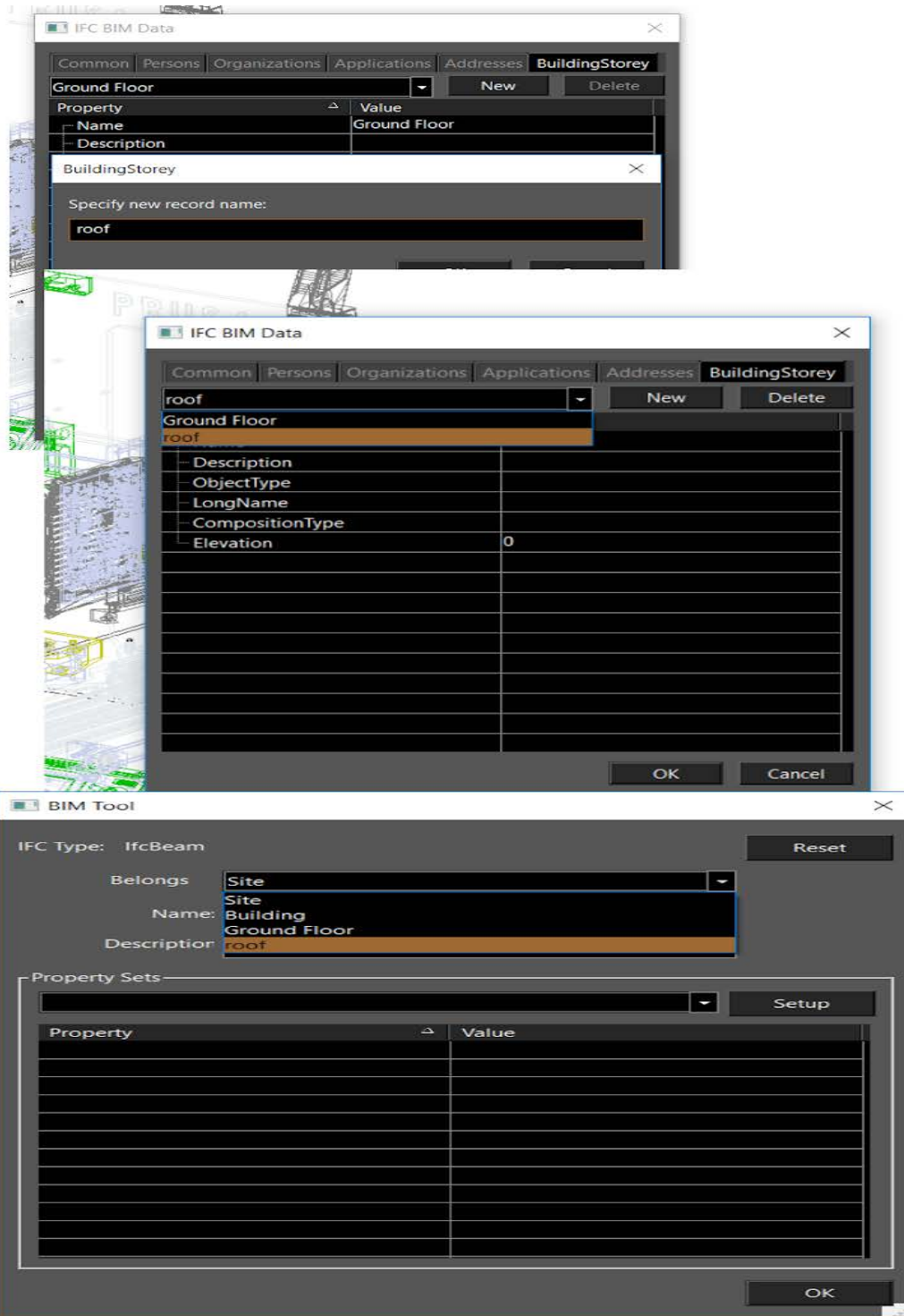
The IFC BIM Tool workflow (in short):

1. select any entity in TC drawing by the tool;
2. if the entity hasn't the defined IFC type: define the IFC type to the selected entity.
3. set and edit property sets that are appropriate for the selected IFC type.



BIM Tool allows specify spatial structure element to entity.

Import/Export relations between objects and spatial structure elements (site, building, building storey, space).



9. 3MF Export Support:

TurboCAD 2018 (Pro Platinum only)

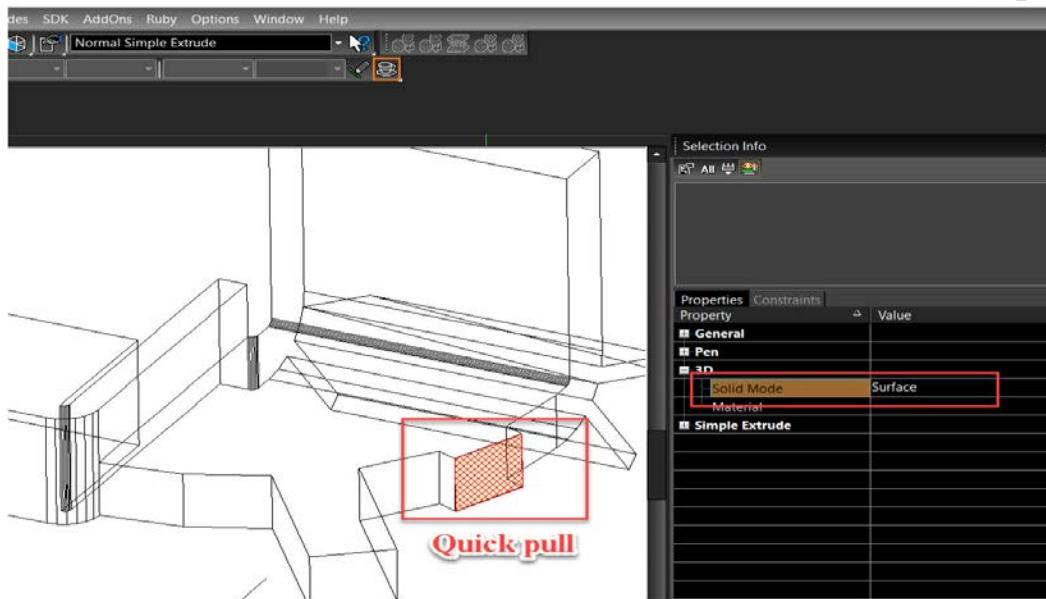
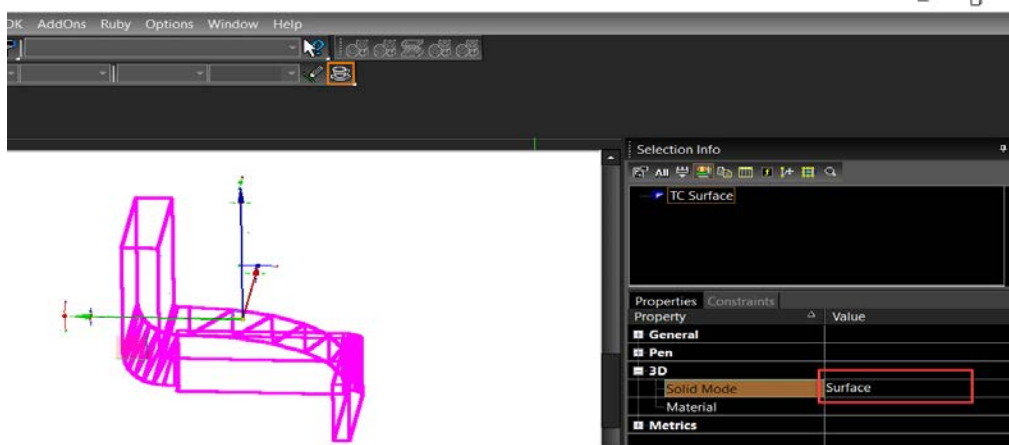
Now TurboCAD 2018 supports Export for the 3MF file type.

3D Design and Modelling

1. Quick Pull for surfaces:

TurboCAD 2018 (Pro Platinum, Expert, Deluxe only)

Use the Quick Pull tool to pull or push a closed 2D area of a 3D object (TC Surface) by extruding.



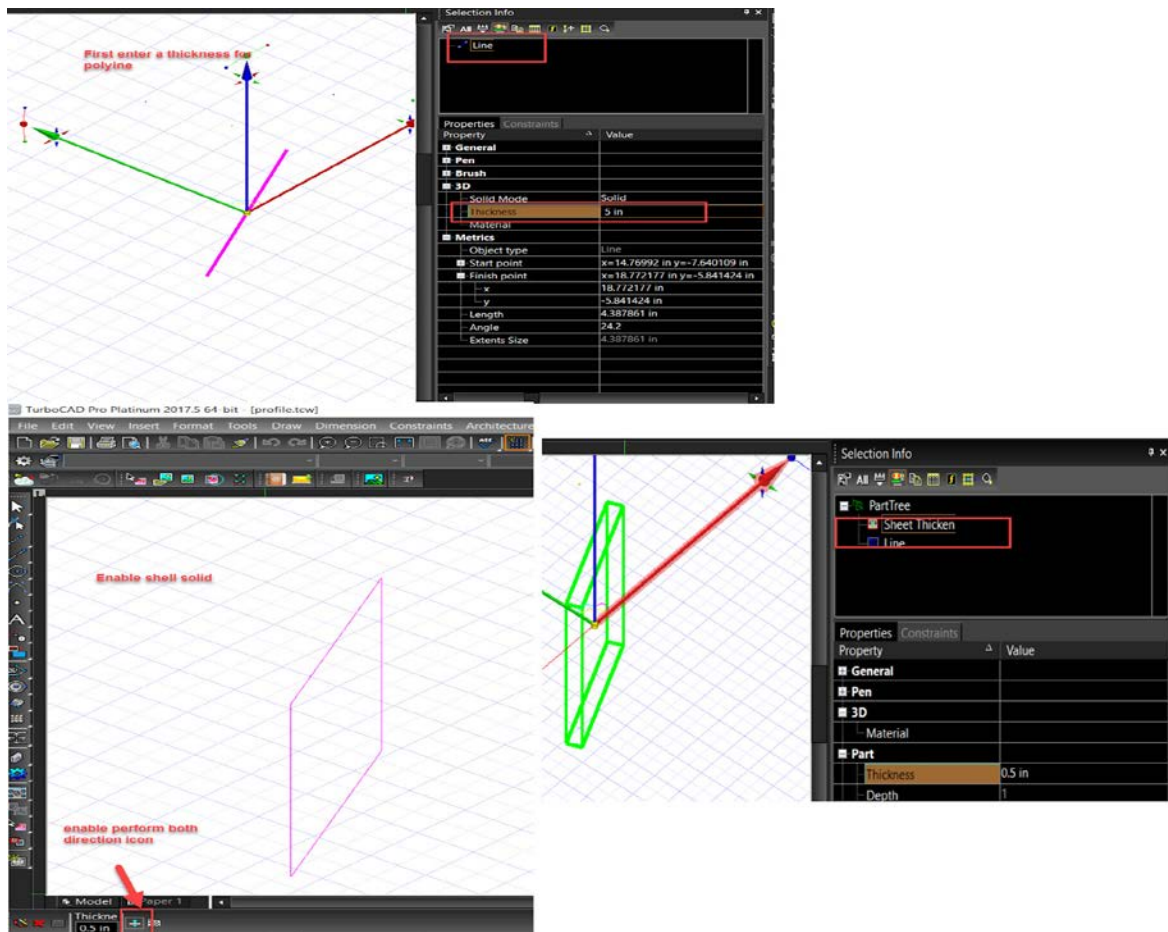
2. Sheet Thicken

TurboCAD 2018 (Pro Platinum only)

Apply the Sheet Thicken to Sheet ACIS® entities to obtain Sheet Thicken entities. Use the option 'Perform in both directions' to apply by Shell Solid.

- i) Apply thickness to a line or a 2D polyline/ spline.
- ii) Enable Shell Solid and select 'Perform in both directions' from the inspector bar.

Note: The selected object's Solid mode should be solid. You can set Solid mode in the selection info palette or Properties box in the 3D tab.



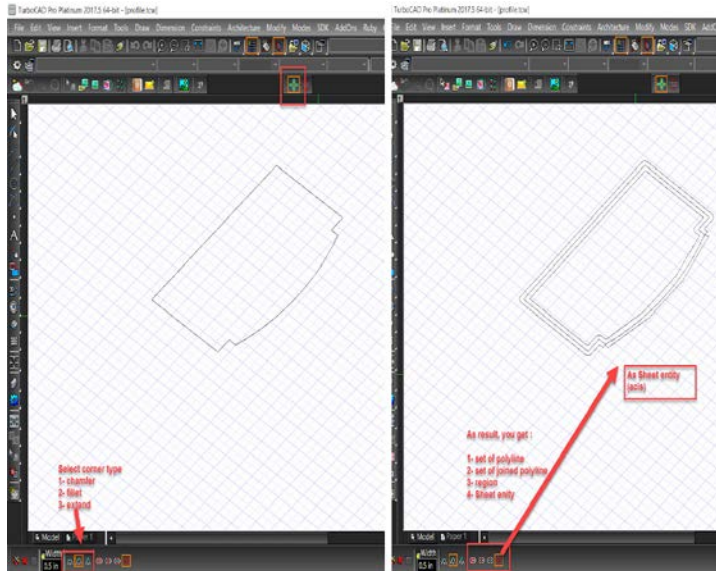
Sheet Thicken can also be performed on ACIS solid object.

- i) Draw any 2D object.
- ii) Apply surface from profile from solid/ surface toolbar.
- iii) Enable Shell Solid and select 'Perform in both directions' from the inspector bar.

3. Thick Profile tool

TurboCAD 2018 (Pro Platinum)

It is a another convenient way to create 2d profiles (closed objects with area) from polylines and curves.

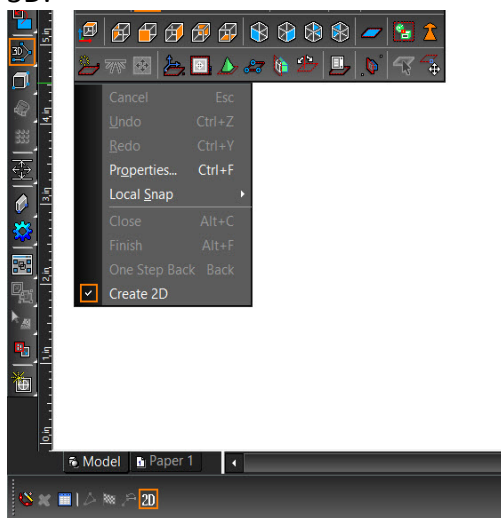


4. New 2D Create option for 3D polyline/Spline

TurboCAD 2018 (Pro Platinum, Expert, Deluxe only)

New option for "Create 2D" has been added for 3D polyline, 3D Spline tools.

When you switch on this option, and polyline(spline) is **flat** then tool create 2D object instead of 3D.

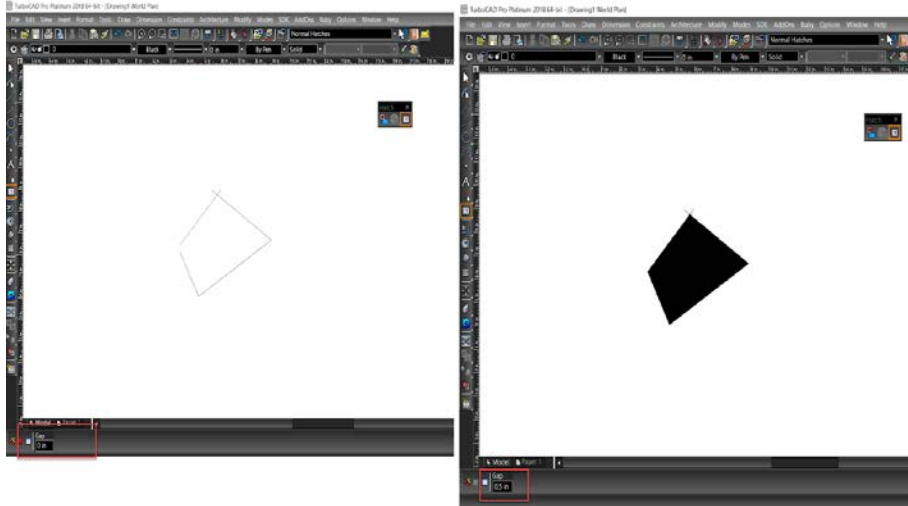


5. Pick point Hatch Improvement:

TurboCAD 2018 (All versions)

Pick point hatching is now working in internal areas. Pick point Hatch now also works when there are gaps between boundary areas.

New “Gaps” field is added in the Inspector Bar.

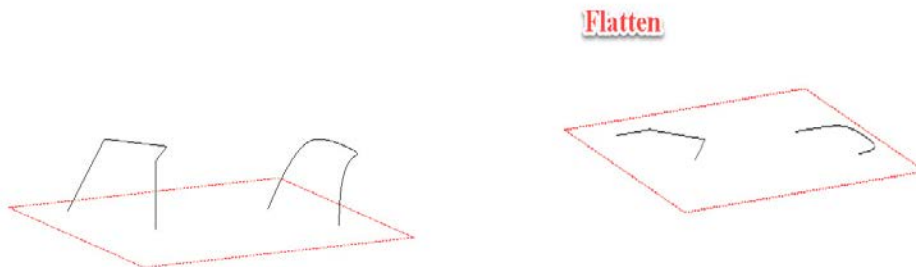


2D Drafting and Editing

1. Flatten Tool:

TurboCAD 2018 (Pro Platinum, Expert, Deluxe)

Use the Flatten tool for 3D polyline and spline to make them flat on the work plane.

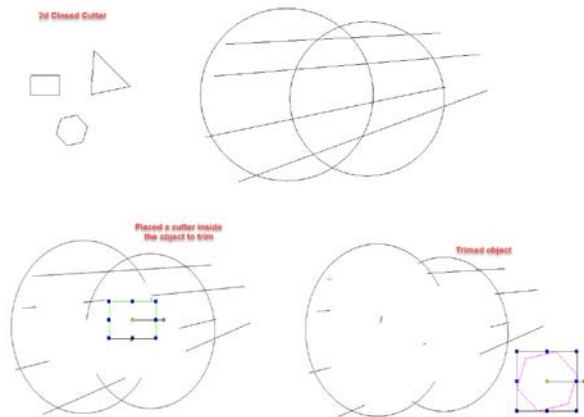


2. Trim by Entity

TurboCAD 2018 (All versions)

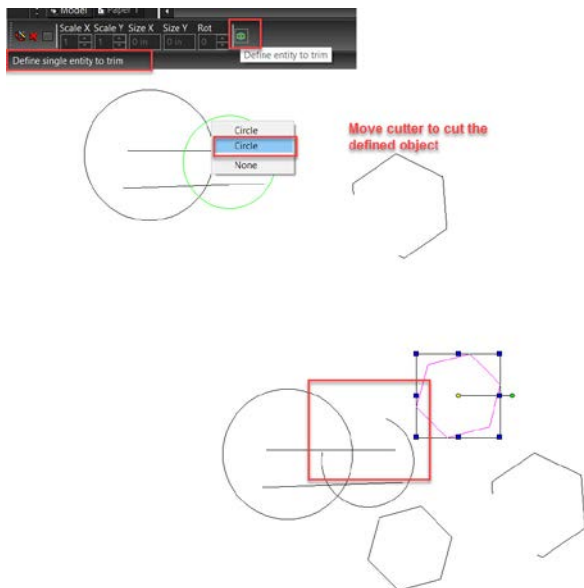
Select as closed 2D object to cut another object/ object placed inside it.

- i. Select a closed 2D object (cutter).
- ii. Transform/ move the selected cutter to cut the object inside it.



● Single Entity to trim:

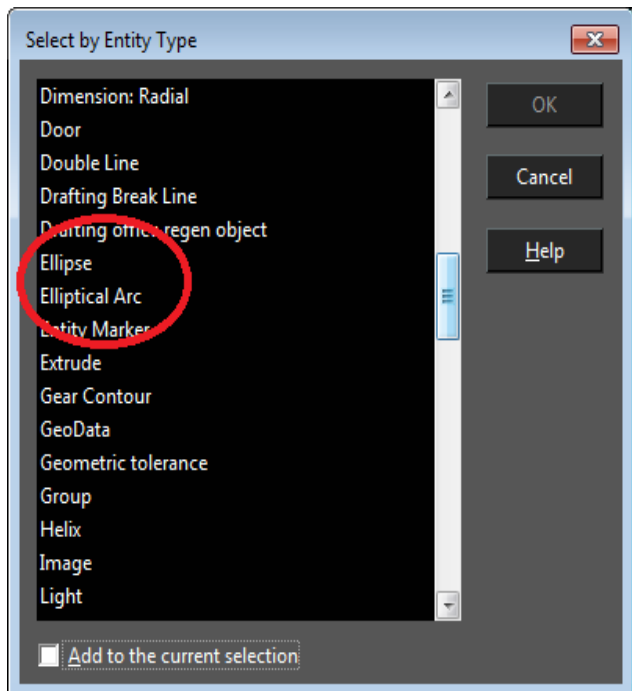
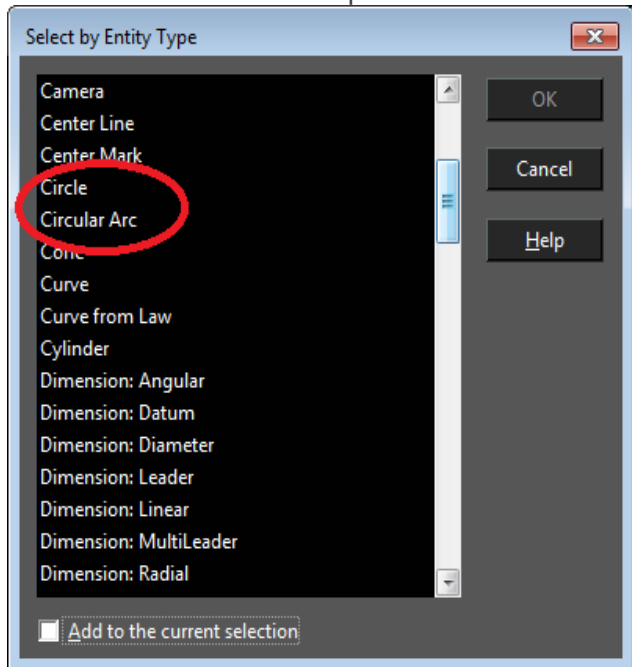
- i) Enable 'Define entity to trim' in the inspector bar.
- ii) Move the selected cutter to cut the defined object.



3. Select by Entity Type.

TurboCAD 2018 (All Versions)

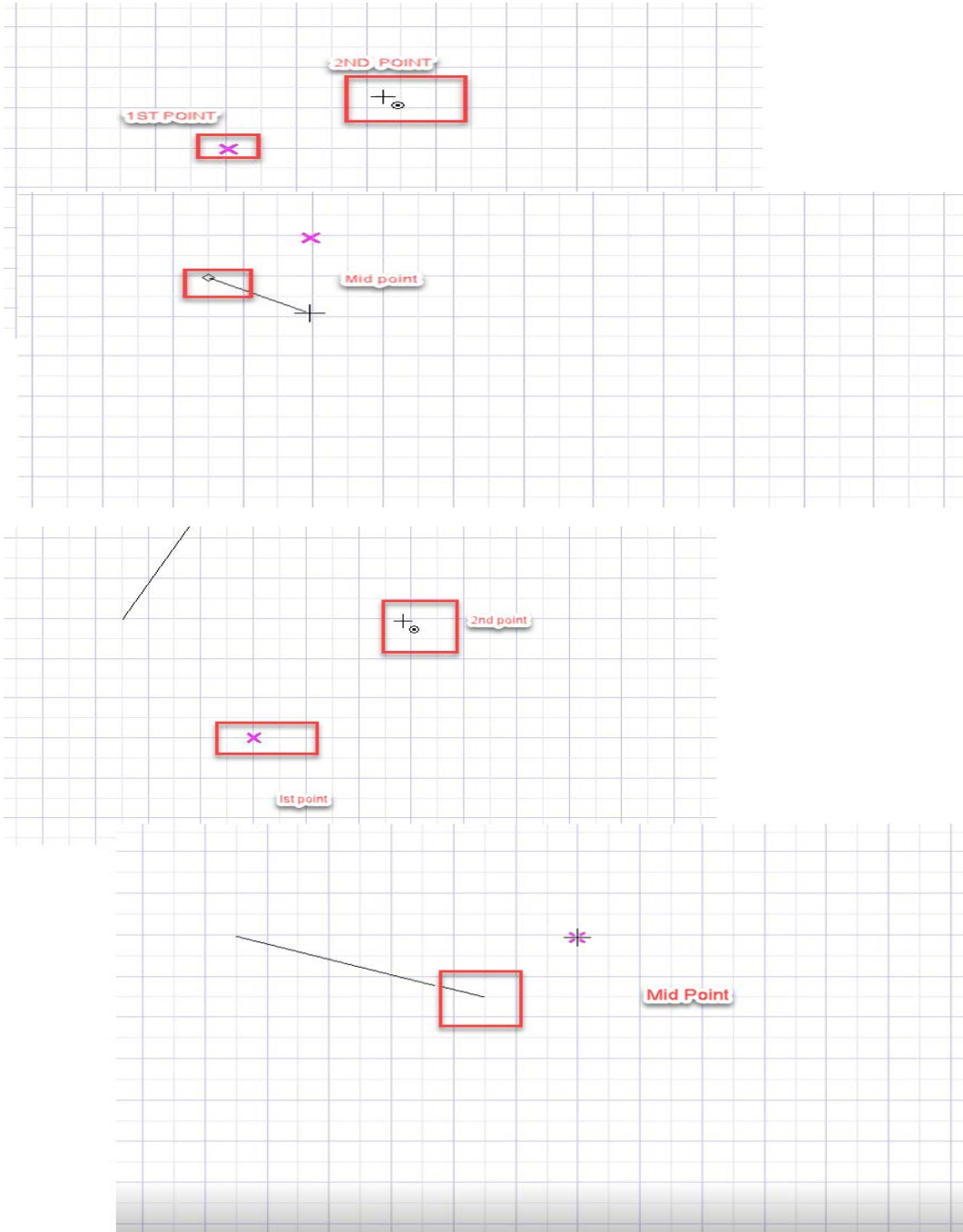
Now Circle/Ellipse item of previous TC versions is separated into two cases: Circle or Ellipse. The same is for Circular and Elliptical arcs. Previous versions could not select Circles or Arcs separately.



4. Snap between two points:

TurboCAD 2018 (All versions)

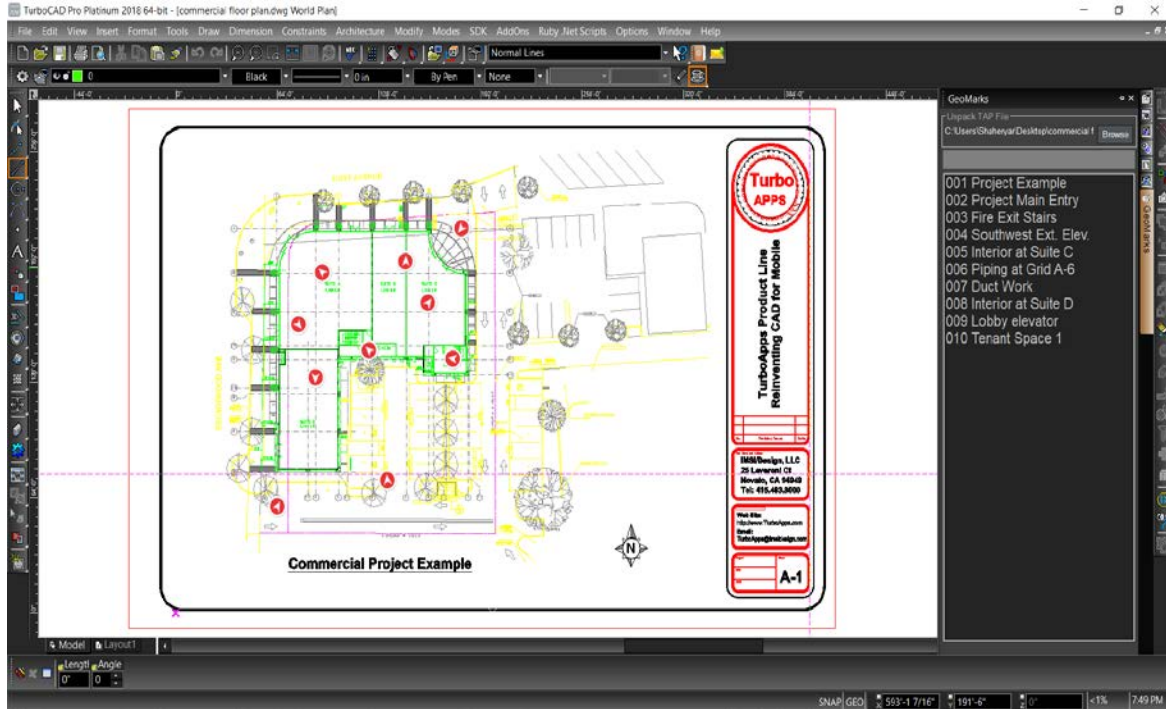
Snap between two points that once chosen allows you to have two subsequent snap points and will then snap to the middle of them.



5. TurboCAD Markup Support:

TurboCAD 2018 (Pro Platinum & Expert Only)

If a TAP file has been created in TurboApps with markups, then TurboCAD now has the ability to display these mark-ups when a TAP file is imported and opened into the program.



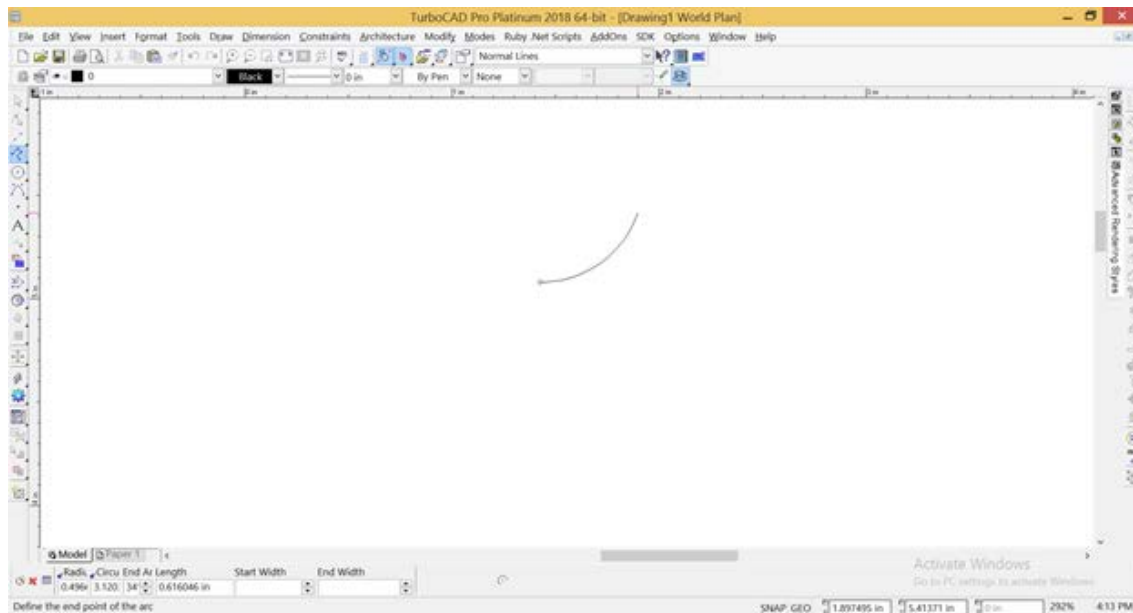
Architecture and Construction

1. Relative Angle fields for Wall and Polyline update:

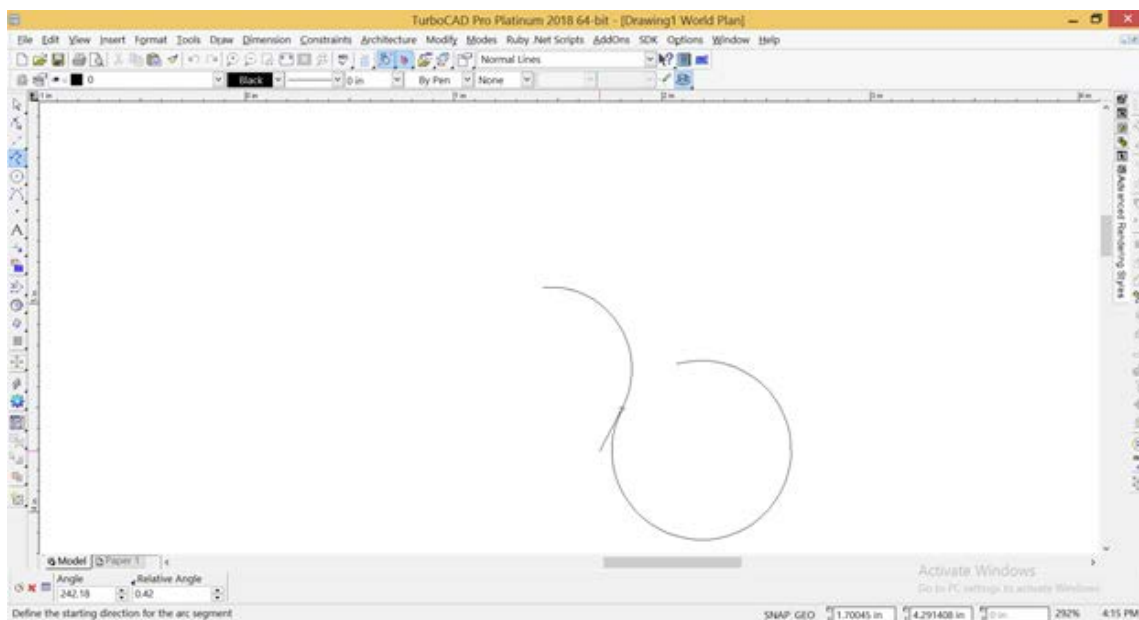
TurboCAD 2018 (Pro Platinum, Expert, Deluxe versions only)

You can now choose to enter an Angle (which is absolute in relation to the world coordinates) or a Relative Angle which is the angle from the immediately previous segment (arc or line).

- 1) Draw polyline
- 2) Switch on "Arc Segment" local menu item
- 3) There is now a Relative Angle edit field:



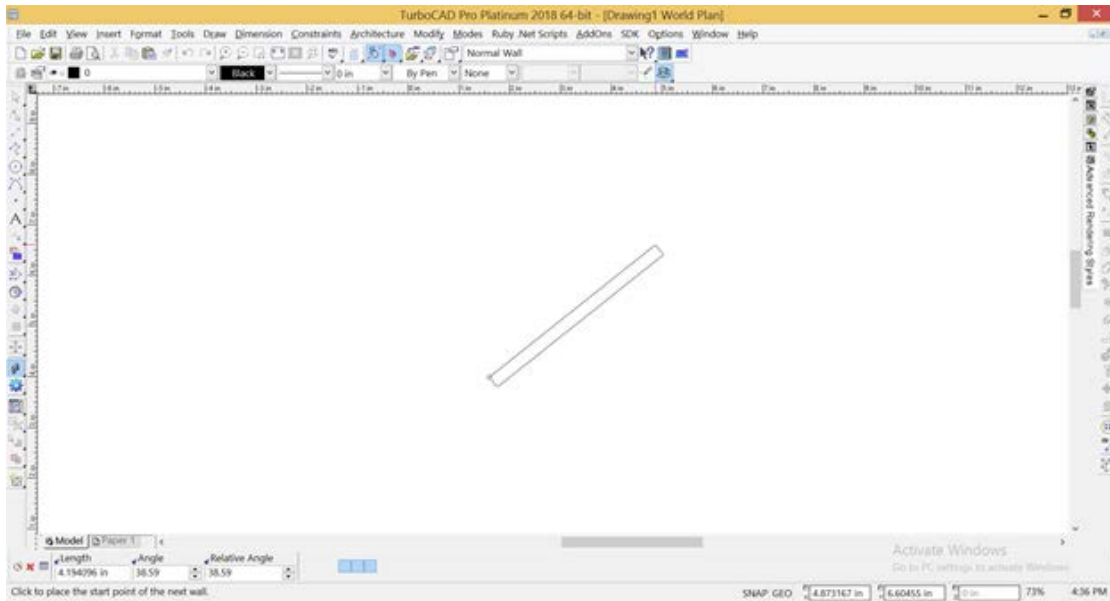
4) Switch on “Direction” from the local menu item



You can see Relative Angle input field

In this state you can change the Relative Angle between the previous and current arc segments by dragging the direction bar or inputting the desired angle value

For the Wall tool, the Relative Angle is always enabled. At the first state we draw a straight wall (the relative angle is enabled)

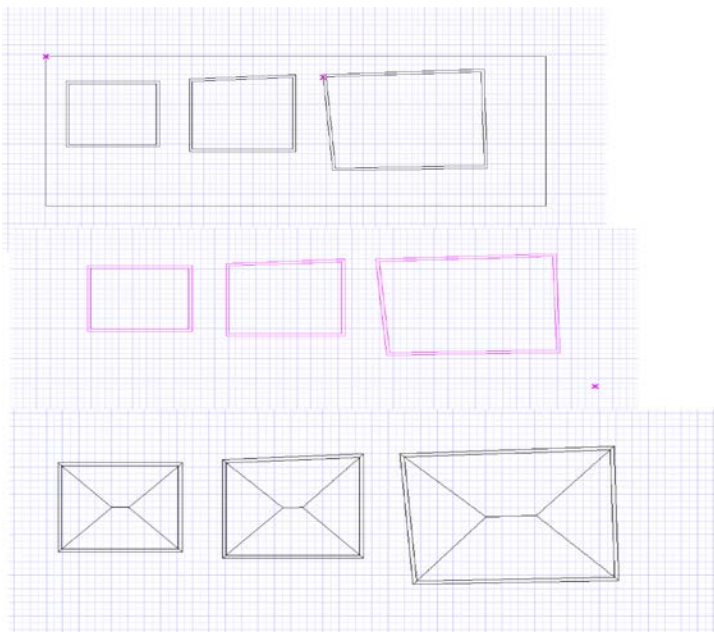


The Relative Angle is also enabled with Curved Walls.

2. Add Roof by Walls" tool improvement:

TurboCAD 2018 (Pro Platinum, Expert, Deluxe versions only)

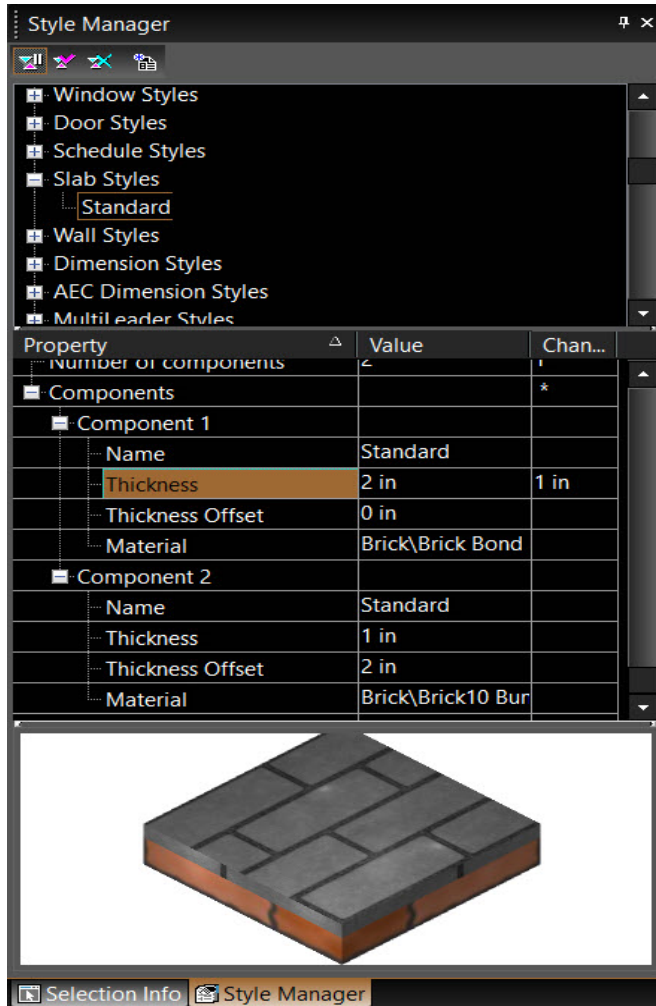
Previously, tool can create only one roof object. But in future we must add the possibility to create more than one roof.



3. Dynamic Preview of Slab Style

TurboCAD 2018 (Pro Platinum & Expert versions only)

You can now view the actual Slab setup including all the components and materials.



Rendering and Visualization

1. RedSDK 4.3 (New Version):

TurboCAD 2018 (Pro Platinum, Expert and Deluxe Only)

Note: RedSDK is now offered as only an optional plug-in to TurboCAD Deluxe, Expert and Pro Platinum. Enhancements described below are only found after the plug-in has been installed. LightWorks has been reintegrated into TurboCAD and will no longer be an optional plug-in

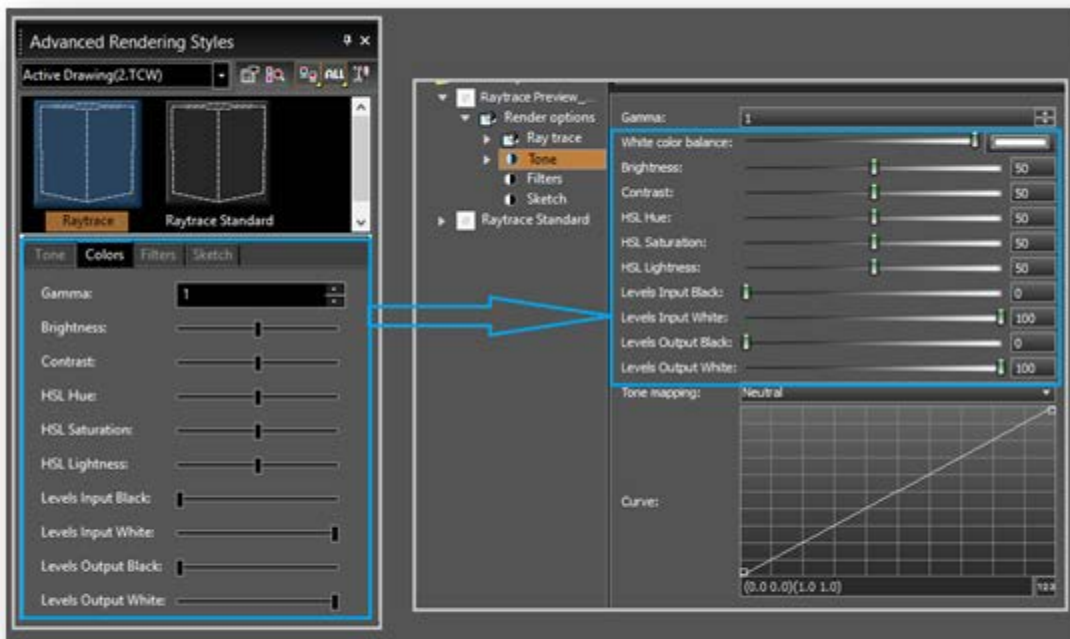
RedSDK Interactive Color adjustments, Filters and Sketch rendering

- Color adjustment
- Filters
- Sketch rendering

Color adjustment

The 'Colors' section was added to the palette 'Advanced Render Styles'. This section allows to edit the set of 'Color adjustment' parameters of the selected RedSDK render style.

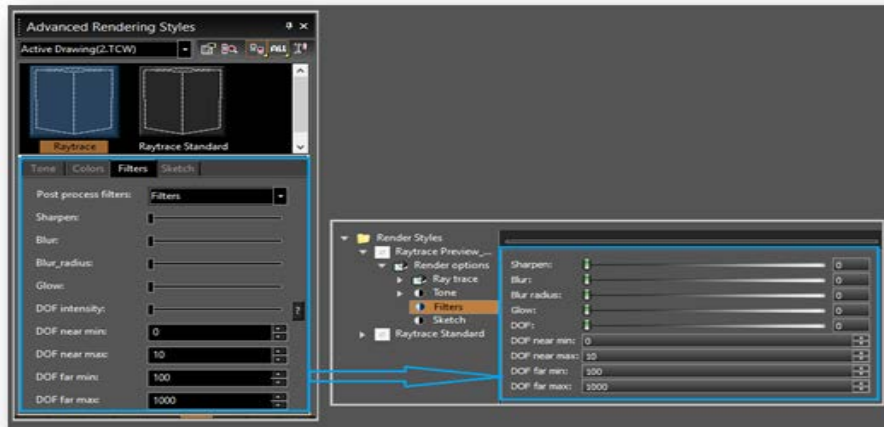
These parameters comply with the same parameters in the Render Manager:



Filters

The 'Filters' section was added to the palette 'Advanced Render Styles'. This section allows to edit the 'Filters' parameters of the selected RedSDK render style.

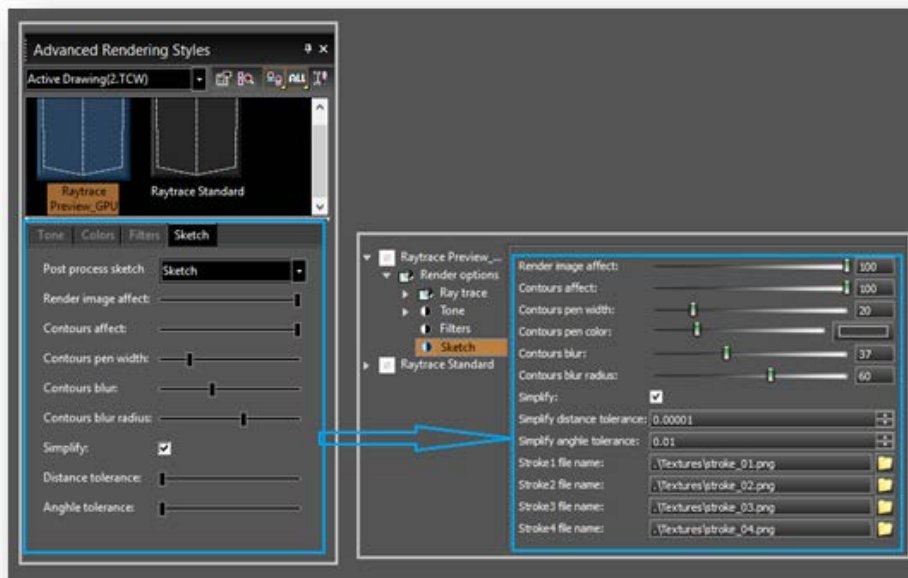
These parameters comply with the same parameters in the Render Manager:



Sketch rendering:

The 'Sketch' section was added to the palette 'Advanced Render Styles'. This section allows to edit the 'Sketch' parameters of the selected RedSDK render style.

These parameters comply with the same parameters in the Render Manager:



Limitations:

RedSDK Interactive post-processing is not available in the preview render in Render Manager. Note that if you change the tone mapping parameters of the rendering style in the Render Manager and press Ok, all windows with this style will render.

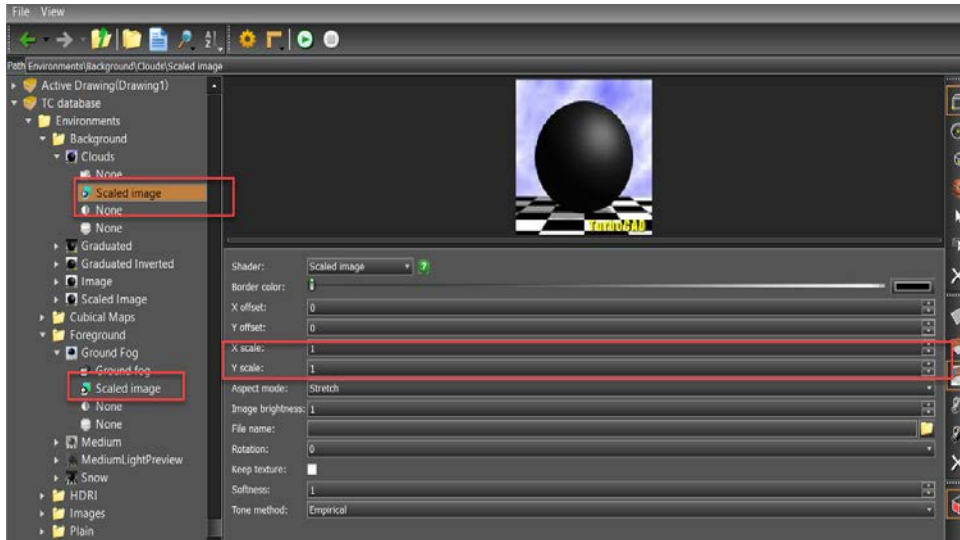
2. LightWorks 9.1 SP5

TurboCAD 2018 (Pro Platinum, Expert, Deluxe only)

The LightWorks rendering engine is now once again included in TurboCAD and will no longer be an optional plug-in. TurboCAD 2018 includes LightWorks 9.1 SP5, which includes the following improvements:

Environments

- Scaled Image (Foreground/ Background):



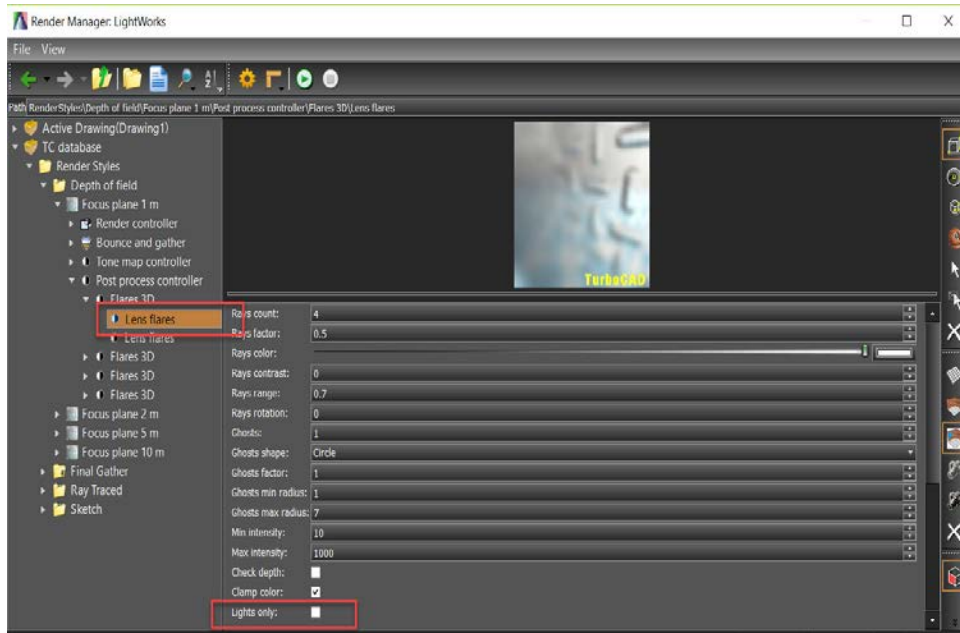
Sky

- Type: user-defined sky

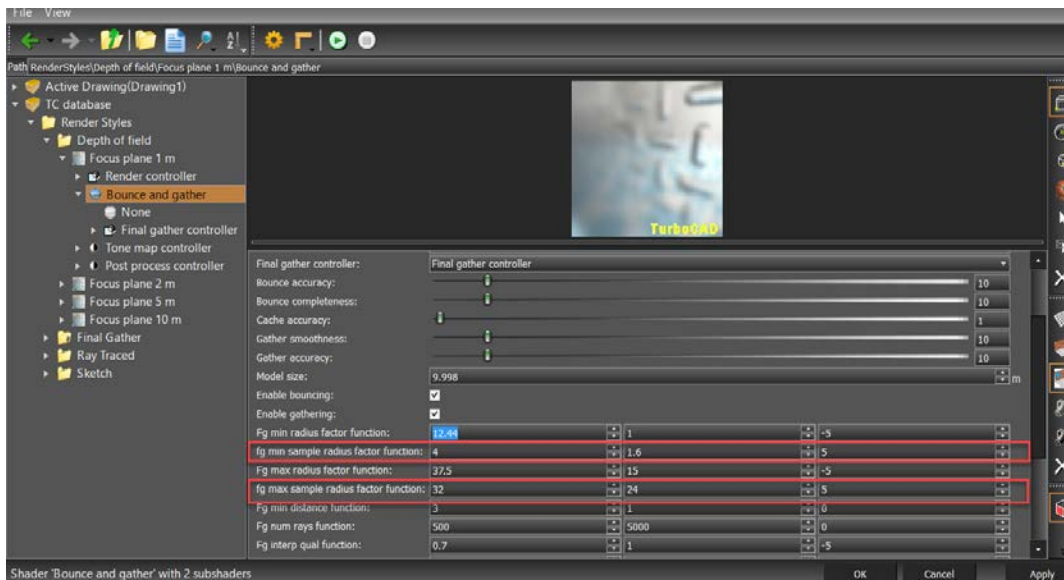


Render Styles

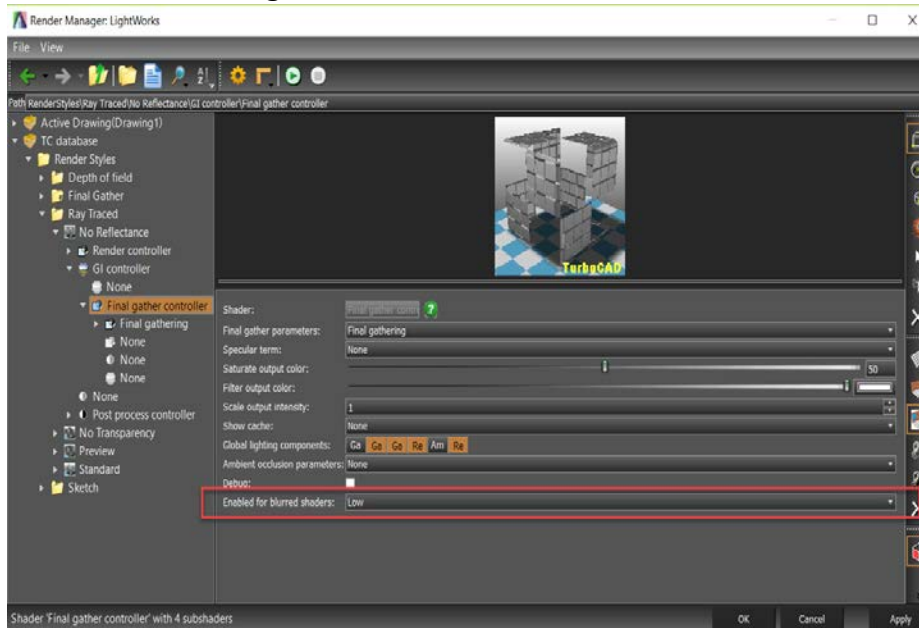
- Post process controller\ Lens flares: **Lights only**



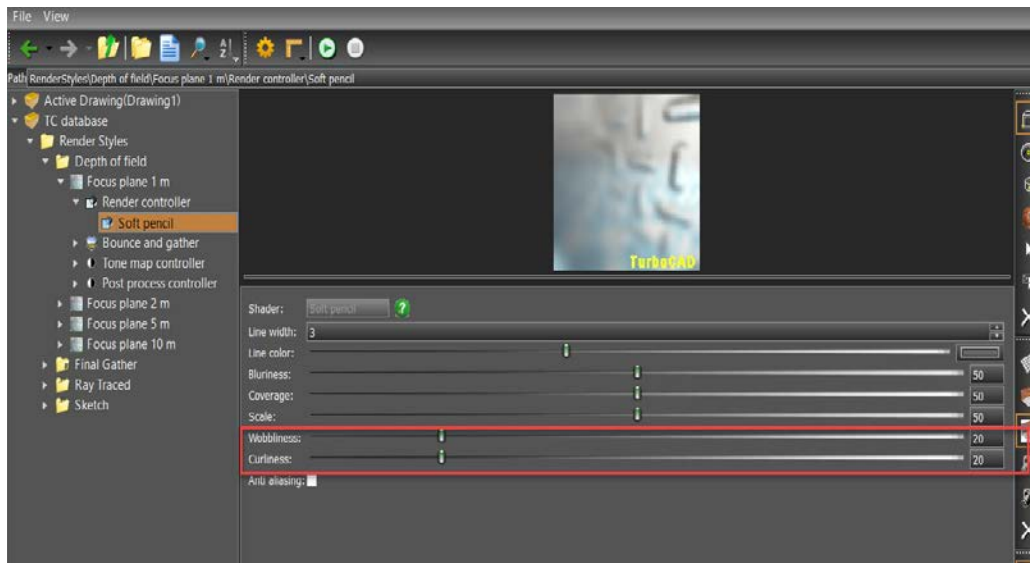
Bounce and gather: min\ max radius sample function



GI controller\ Final gather controller



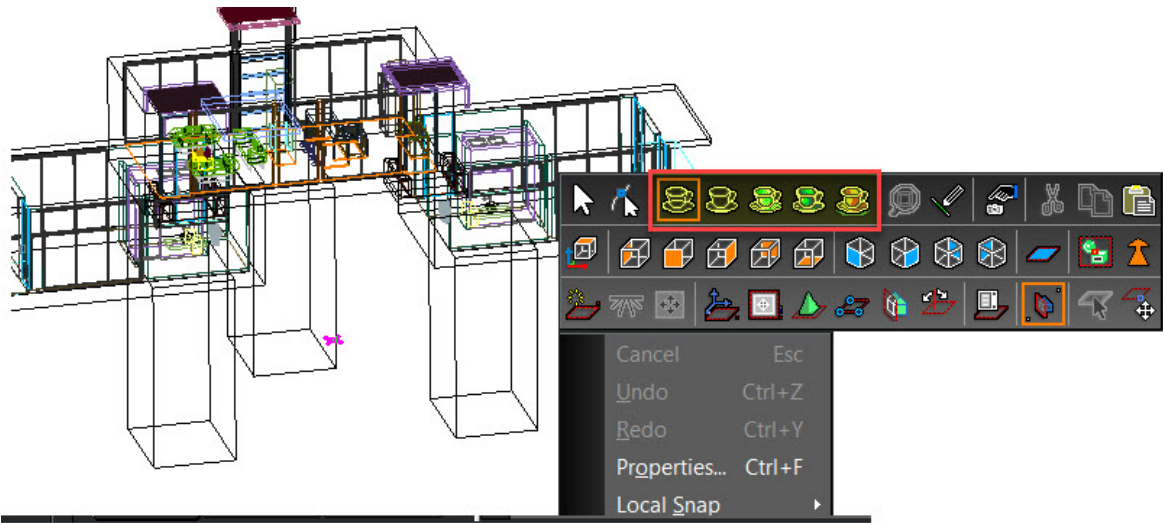
Render controller\Soft pencil



3. Status Bar Memory Display Update

TurboCAD 2018 (Pro Platinum, Expert, Deluxe only)

Once you initiate any **Rendering** mode for a selected object; the TurboCAD status bar now displays the respective memory usage along with the processing time.



Length: 0 in Angle: 0

Rendering was interrupted and will be continued. 3 s (threads: 4), 1 077 M