

KUBOTEK®



KEYCREATOR®  
PRO

What's New  
KeyCreator Pro 2022

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## Benefits

The KeyCreator Pro 2022 release productivity and performance benefits were based on data collected from KeyCreator users focused on reusing CAD data and productivity without interrupting established workflows. Continuation of industry requested improvements to Materials/RGB color for more efficient use in complying with downstream workflow requirements. In Layouts, Projected Instance improvements make creating 2D projections more reliable and quickly from edges, silhouettes, and lines. Additional KeyCreator 2022 productivity addresses eliminating the extra steps in functions, dialogs, and various workflows. These include:

- Boolean Subtract applies materials/RGB colors from subtracted solids
- New Selection Toolbar for faster access of selection behavior and toggling
- New Foreground and Profile Selection toggles
- New SDK/KXL functions

For those who use part referenced assemblies, Kubotek3D made a significant performance improvement in reading assemblies with a large number of part references. Findings from internal tests & beta customers show that large assemblies with external part references open 40-50% faster, and assemblies with internal part references open up to 80% more quickly. Other performance improvements include:

- Automatically suppressing dynamic highlighting during window selection for heavy models.
- Allowing Part Reference geometry selection for Chain Offset, Un-Stitch, and Copy options follow Application Options setting

KeyCreator 2022 continues improving interoperability by adding STEP AP242 export option, reading of native Solid Edge drawing files. Eleven other translators were updated to their latest versions.

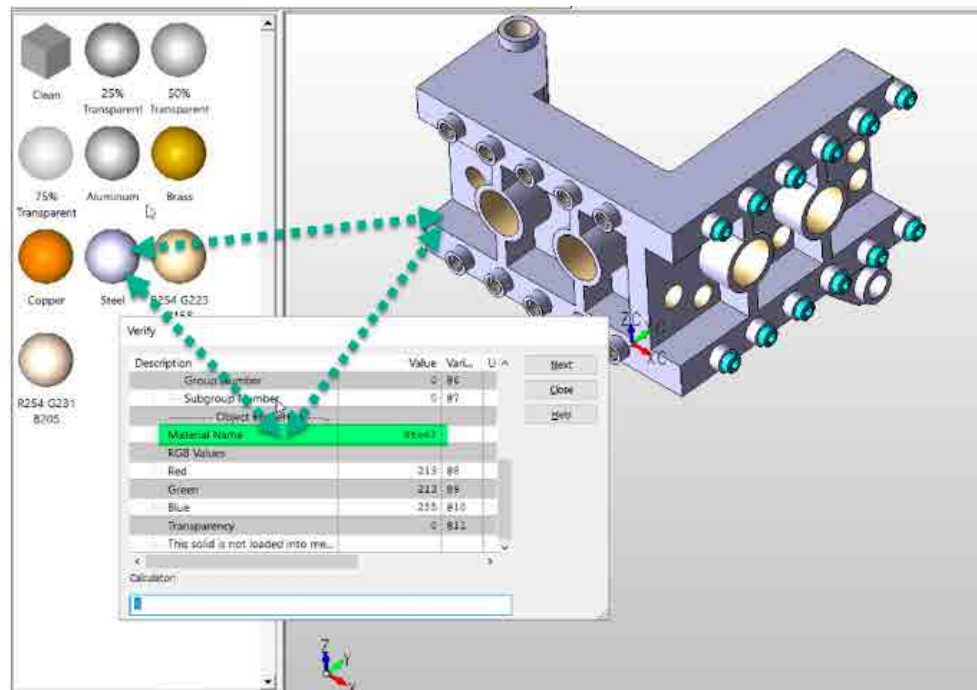
The improved Visualization in Dynamic Cutting Plane to include transparency. KeyCreator 2022 SP0 also addresses a potential vulnerability in previous versions related to opening malicious CAD files. This specifically relates to our 3rd part used for IFC & 2D drawing files only.

## Improved Link Between Materials/RGB Colors And Faces

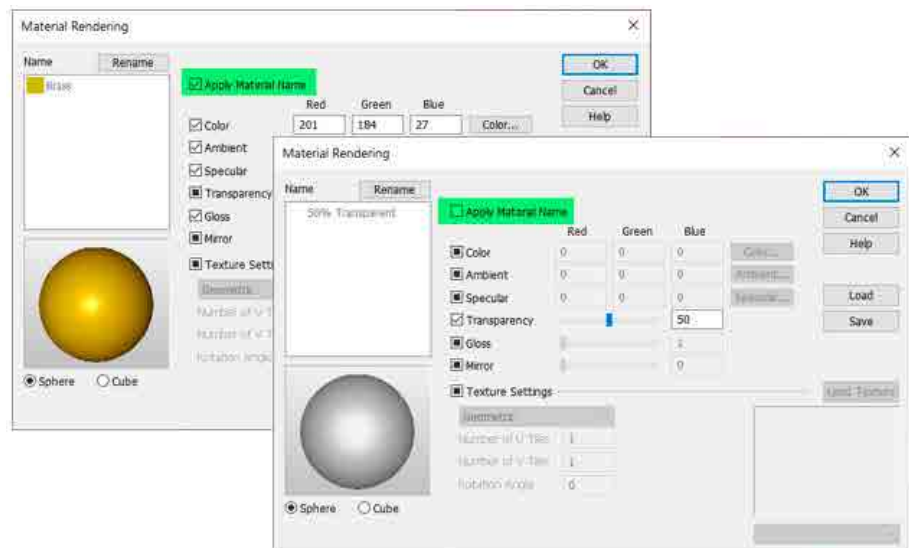
The improved link between the geometry & its associated Material means editing a Material in the Part Splitter will also update all faces/solids/Shells assigned with that Material.

- The user has the choice to update geometry using edited Materials.
- Deleting a Material allows the user to Unset the geometry of deleted Material.

This is a critical improvement for tooling and mold design industries where material/color have specific meanings in design & workflows for downstream applications.

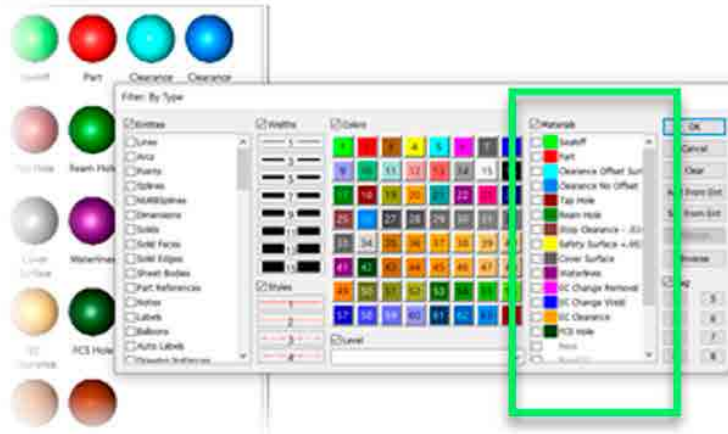


Material creation/editing allows user the choice to apply material name. This allows keeping the face Material Name & using transparency together on materials.



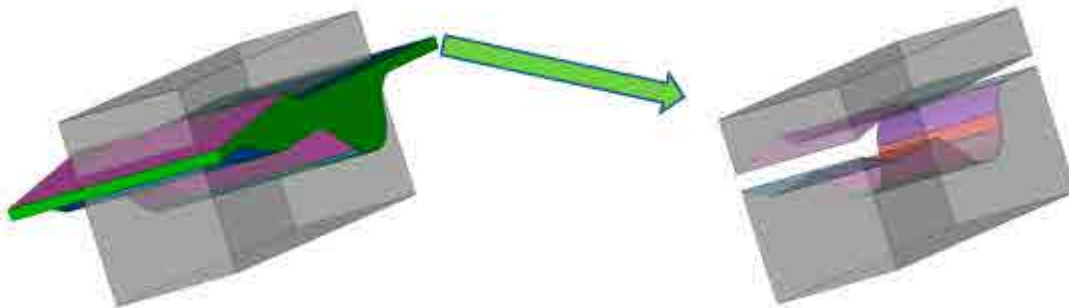
## Materials Preview in Dialogs

All dialogs with Materials show a color/material preview in material lists, are resizable & use a scrolling list. Users get a quick visual clue and can enlarge dialog to to better see a large number of materials for their specific design & workflow.

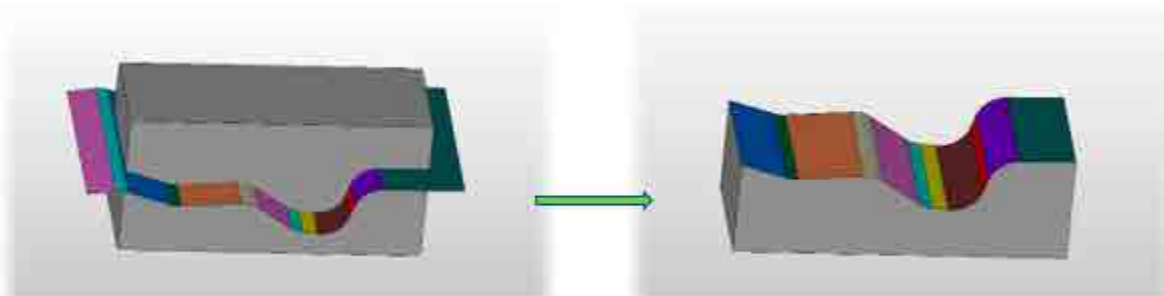


## Materials And Boolean Subtract

Boolean Subtract now applies Material/RGB colors from the subtracting solid. This color migration does not apply to the standard 1- 64 color pallet used on geometry.



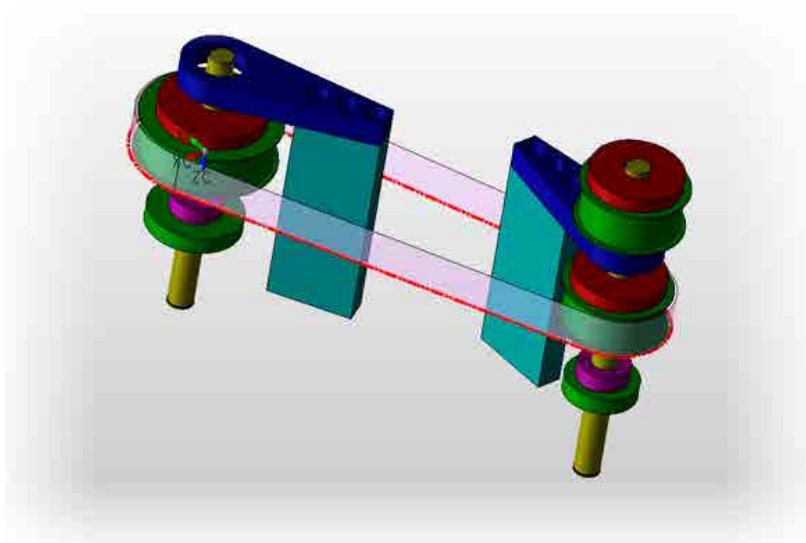
A sheetbody can also be used for subtracting from a solid.



# New and Improved Selection Functions

## Improve Part Reference Geometry Selection

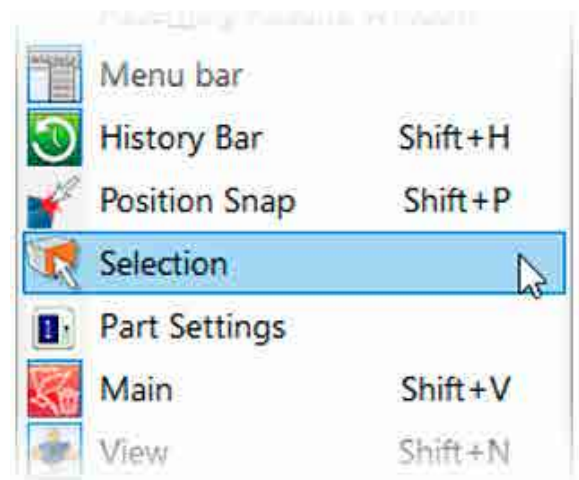
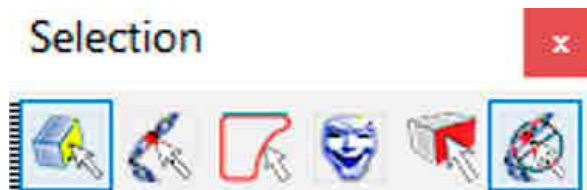
Additional access to part reference's geometry improves the quickness & agility of in-context modeling. Both Modify> Topology> Unstitch copies and Transform> Chain Offset are available to create and edit solid models in the parent file.



## New Selection Toolbar

A new Selection toolbar, similar to Position Snap, is available for user quick access, reducing the previous number of menu clicks, to toggling behavior for:

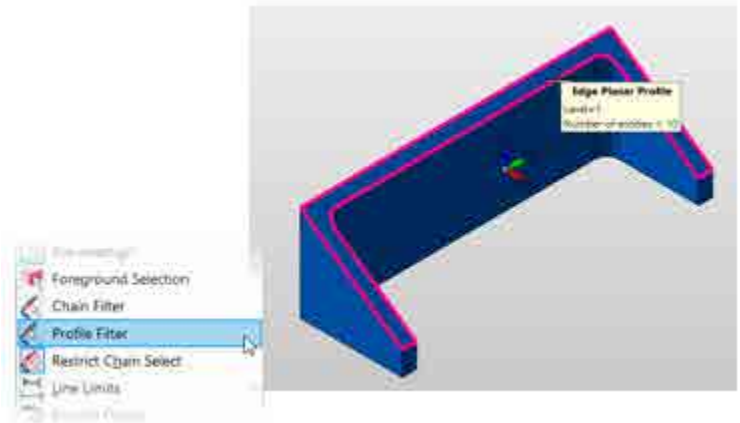
- Dynamic Selection
- Chain
- Profile
- Set Mask
- Foreground
- Restrict Chain



You also have access to these icons via Tools> Customize Commands Selection category.

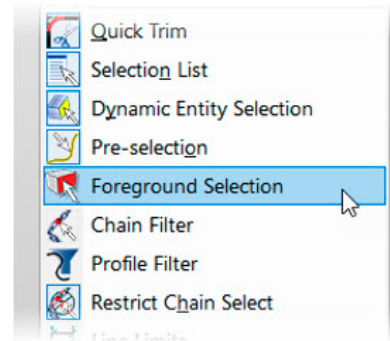
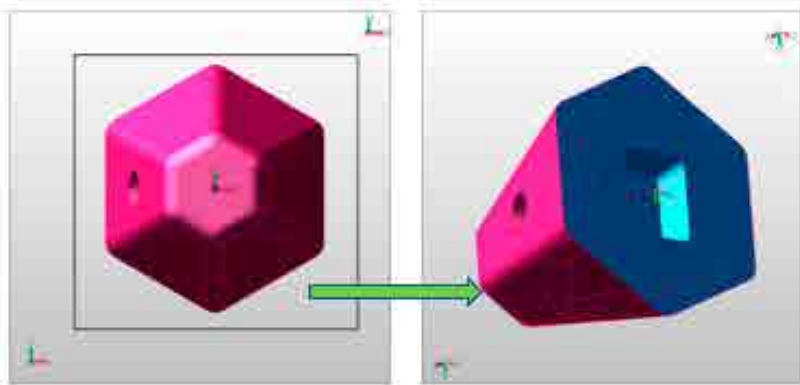
## New Profile Filter Toggle

New Profile Filter to quickly select and pre-select closed planar profiles and a toggle added to Edit> System Settings for quick access when needed. Users who often use Extrude & Sweep functions will benefit with the quick selection toggle.



## New Foreground Selection Toggle

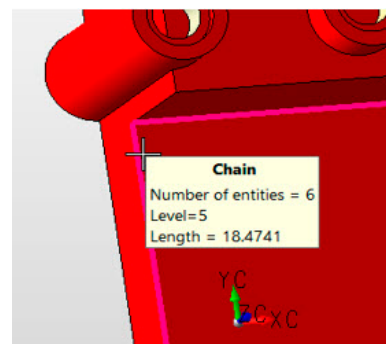
The Foreground Selection toggle limits the model mode cursor & window selections to only foreground entities in all renderings including wireframe. Prevents selecting through face geometry and accidentally picking unwanted entities and easier core/cavity geometry selection.



## Improved Dynamic Chain Tooltips

Updated dynamic chain ToolTip to inform the user of what they selected & not only what is under the cursor. It includes:

- Number of entities in the highlighted chain
- Level number if all on the same level
- Perimeter/length of the entire chain

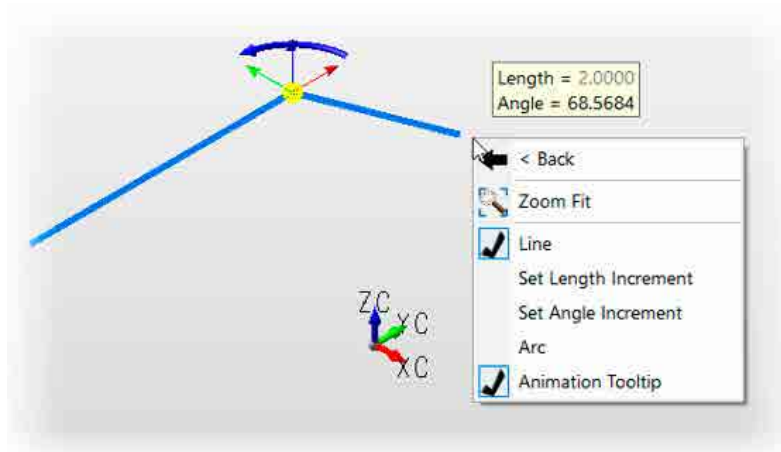


## Improved Sketch Function Usability

Sketch context menu includes Back and Zoom Fit for user convenience.

Added compatibility with Position Snap and Position Menu options.

Use the TAB key to access & toggle through tooltip fields for Length & Angle inputs. Lighter text value indicates locked/edited value for Sketch inputs



## New SDK/KXL Functions

Functions added to give more capabilities to users and partners for customizing and working with KeyCreator

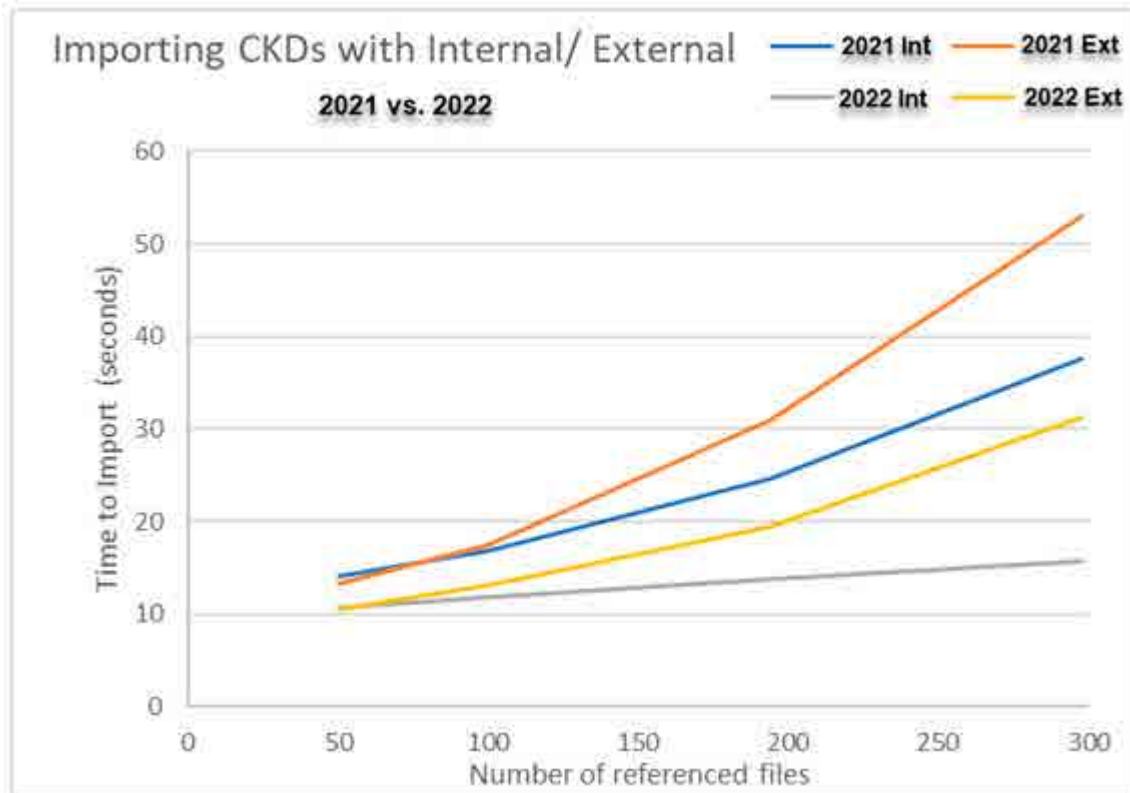
- Access to printer configurations
- Selection by ID number
- Show if the database is locked
- Get units of certain file types
- DynaHandle callback
- Access to pre-selected entities
- Handles to part reference



## Opening Assemblies

Our QA tests and Beta sites show that external part references open 40-50% faster, and assemblies with internal part references open up to 80% more quickly.

The more part references in an assembly file, the more significant the time improvement in opening the assembly file.



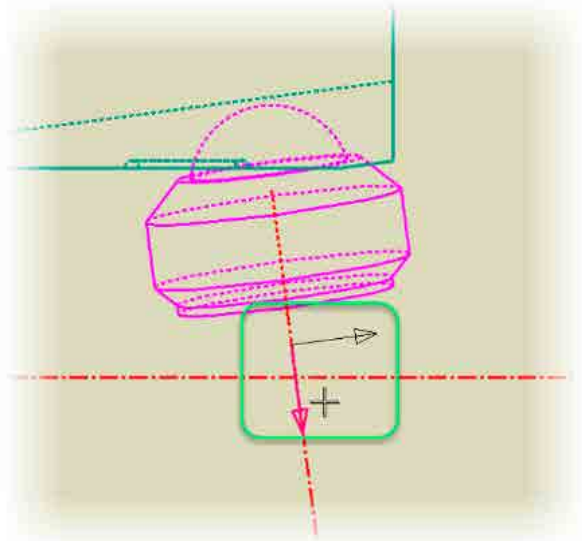
## Improved Dynamic Window Selection

Window selection response has been improved by automatically disabling highlighting when selection is slow or heavy with entities.

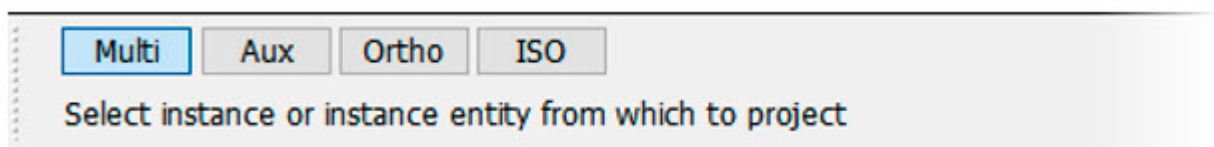
## Layout, Instances & Detailing

### New Auxiliary Projected View Capability

Various improvements have been implemented to Project Instance. Both the Precise Hidden Line (PHL) and Advanced Precise Hidden Line (APHL) renderings project the same way. The MULTI option allows projecting either along or perpendicular, via selecting displayed directional arrows, to a tagged line, edge, silhouette line or 3D line. All these projections will be true flat 2D.

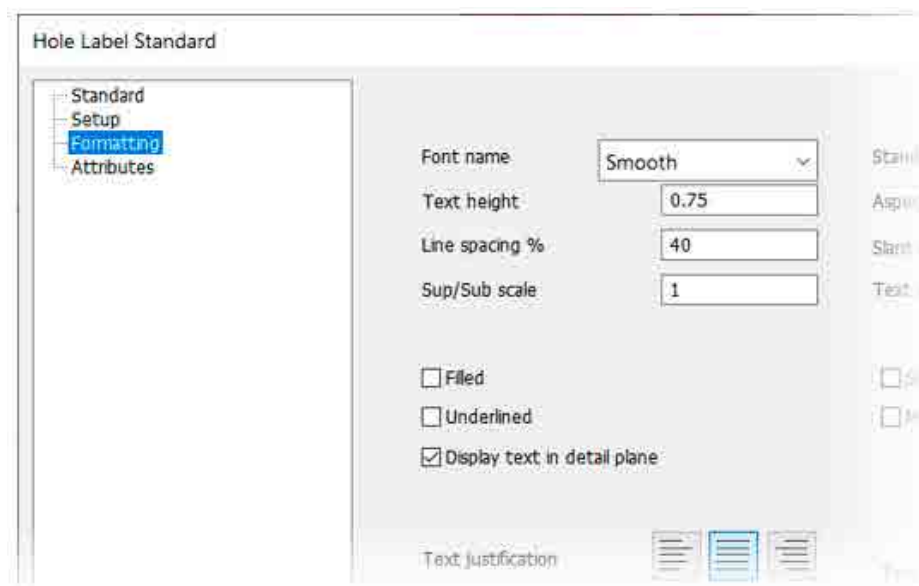


The ZFREE/ZLOCK is always set to ZLOCK in Layout mode so all Layout line, arc & curve creation is 2D



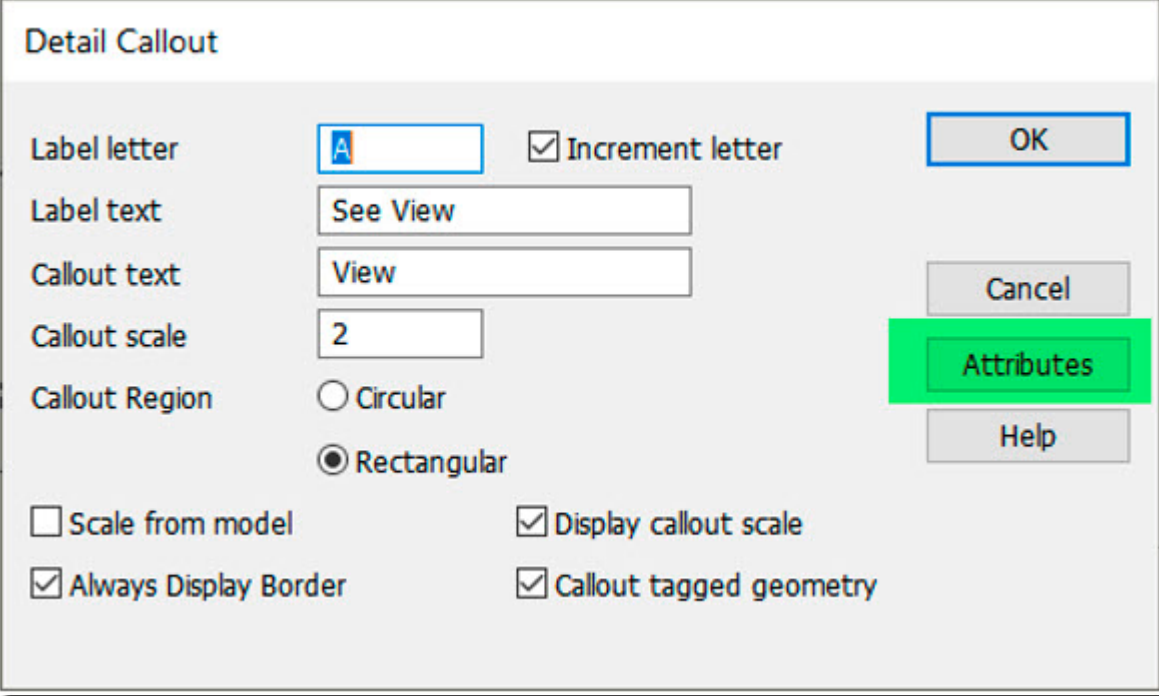
### Text Formatting Auto Labels

You can now quickly adjust the text formats for hole Auto Labels via Generic Edit



## Detail Callout Attributes

This addition of an Attributes button to Detail Callout creation eliminates the extra editing steps required to change attributes to callouts.



The image shows a 'Detail Callout' dialog box with the following fields and options:

- Label letter:   Increment letter
- Label text:
- Callout text:
- Callout scale:
- Callout Region:  Circular  Rectangular
- Scale from model  Display callout scale
- Always Display Border  Callout tagged geometry

Buttons on the right: OK, Cancel, **Attributes** (highlighted in green), Help.

## Pre-Selection in Instances

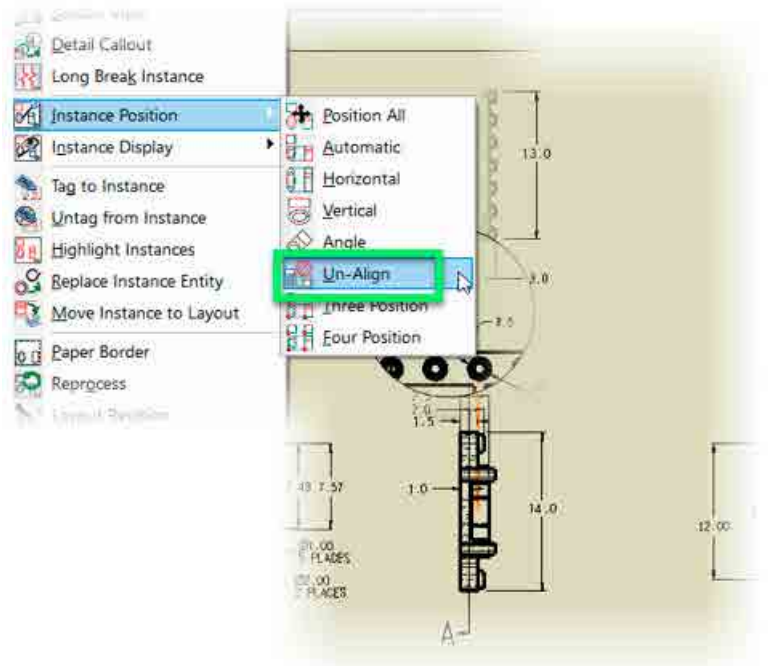
Improved pre-selection support in layout for:

- Layout> Instance Display> Hide Edges
- Format Entity/Change Attributes
- Layout> Replace Instance Entity

This is important for users who prefer or are used to pre-selecting. Instance selection is not required if all edges/entities belong to the same instance.

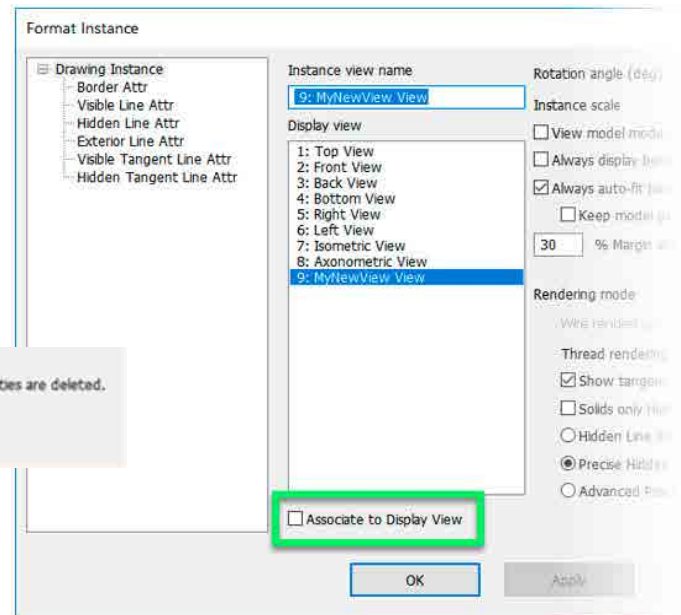
## Instance Alignment

A new Instance Un-Align function allows users to break the alignment associativity to more easily move instances. An Alignment indicator appears before completing un-alignment, and for Generic Move.



## Instances Defined From Associated Views

If an Instance was created from a user defined associative view, you now have the option to keep the link live between the Instance and 3D associative view. Associated Views are created when using 3D entities/snap positions to define view plane.



## *Interoperability*

### **Export STEP AP 242**

A new KeyCreator STEP export option as AP242 which supports:

- Assemblies
- Solids and Sheet Bodies
- Wires and Points
- Shells
- Colors
- Layers

### **Step and IGES Assembly Names**

The Part Reference names exported are consistent with other CAD system naming conventions

## *New Native Formats*

KeyCreator 2022 supports reading of Solid Edge drawing files (.DFT) as part of the Max product level

## Updated Formats

File imports into KeyCreator 2022 SP0 have updated to support the latest versions.

### **Spatial ACIS (SAT)**

Read extended to R2021

### **AutoCAD DXF/DWG**

Read & write extended to 2021

### **Dassault CATIA V5**

Read & write geometry extended to R31

Read drawings extended to R31

Read PMI extended to R31

### **Dassault CATIA V6**

Read extended to R2021x

### **PTC Creo, Pro/E**

Read geometry extended to V8.0

Read PMI extended to V8.0

Read drawings extended to V8.0

### **Autodesk Inventor**

Read extended to 2022

### **IFC**

Read extended to 4

### **Siemens NX**

Read geometry extended to 1980

Read PMI to 1980

Read drawings extended to NX1919

### **Siemens Parasolid (X\_T)**

Read & write extended to 33.0

### **Dassault SolidWorks**

Read geometry extended to 2021

Read drawings extended to 2021

Read PMI extended to 2021

### **Siemens Solid Edge**

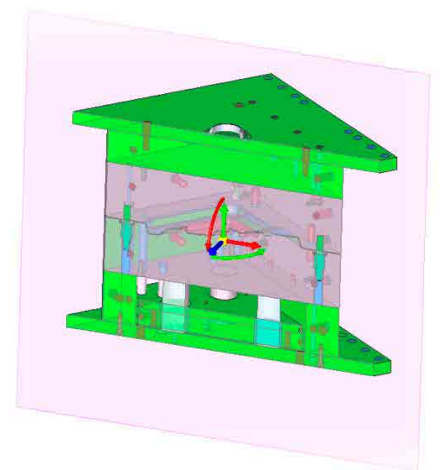
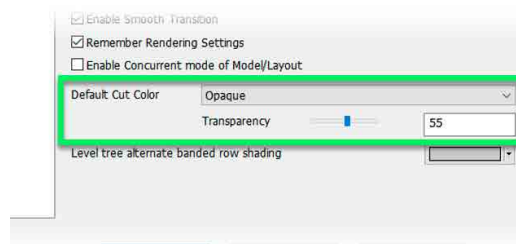
Read extended to 2021

Read drawings extended to 2021

## Visualization

### **Dynamic Cutting Plane Transparency**

A new Dynamic Cutting Plane option was added to set the default transparency percentage based on user requests. This option vastly improves understanding and visualization of machine and tool designs during a review process.



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