

KUBOTEK®

**KEYCREATOR®**  
MfgCAD

What's New  
KeyCreator Pro 2021

# Table of Contents

• <b>Benefits</b>	<b>3</b>
• <b>Productivity</b>	<b>4 - 8</b>
o Extensive Enhancements to Use Materials/RGB for Workflow	
o New Filter on Materials	
o Read STEP AP242	
o New Auxiliary Projected View Capability	
o Dynamic Cutting Plane Sections From Part References	
• <b>Performance</b>	<b>9 - 10</b>
o Selection Control	
o DXF/DWG Last Export File Type Remembered	
o Feature Holes Remember Last "Key-In" Values	
o Detailing Style Editor Time to Reopen Dramatically Decreased	
• <b>Interoperability</b>	<b>11</b>
o Read & Write Compressed STEP Files (.STPZ)	
o IFC Assemblies import	
• <b>Updated Translators</b>	<b>12</b>
• <b>UI</b>	<b>12</b>
o Selectable Axis Indicators	

## Benefits

The KeyCreator 2021 release productivity benefits were based on data collected from KeyCreator users focused on reusing CAD data and productivity without interrupting established workflows. Enhancements were made in Materials, RGB colors and Face Tools for Model Based Definition (MBD) workflows used by mold and tooling industries. The significant change is that the Materials/RGB are saved within the .CKD part file allowing the easier exchange of files and materials between coworkers. The import process now automatically populates the Materials list with materials/RGB colors used in the 3D imported model capturing manufacturing intent. These upgrades allow for new filtering by materials allowing users to select faces based on a material/RGB color.

New import support for STEP AP242 continues addressing MBD and Product Manufacturing Information (PMI) used in the industry.

KeyCreator 2021 productivity addresses the elimination of the extra steps in functions, dialogs, and Layouts. These include:

- Remembers the last setting used for DXF/DXF export file type
- Recalls last used Feature Holes "Key-In" values.
- Project perpendicular views for those difficult/odd view projections required for clarity in layouts
- Allowing Part References for Dynamic Cutting Plane sections

Performance improvements include:

- Reopening time for Detailing Style Editor has been drastically reduced, 9 times faster
- Highlighting during window selection can be toggled off for face heavy models

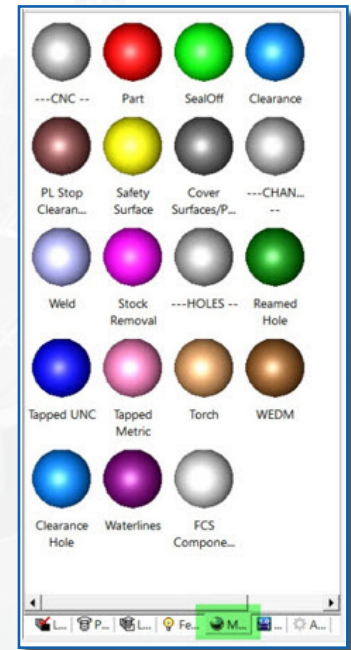
Related to interoperability is the ability to Import/Export of STEP compressed file format. The Import of IFC assembly files reads in as a Level Managed Assembly for easier useability. Ten other translators were updated to their latest versions.

The User Interface (UI) has continued to be cleaned up and made more consistent, allowing users to learn and navigate KeyCreator quickly. For example:

- Selectable axis gnomons allow for quick selection for origin & directional vector
- Standard workspace menus updated to include missing items
- Various context menus were simplified

## Extensive Enhancements to Use Materials/RGB Colors for Workflow

Splitter Window Materials are saved within the .CKD part file allowing model-based definition and compact communication of critical manufacturing information. You benefit from the flexibility to easily match the color schemes used by different shops and store them in the KeyCreator files as a template.

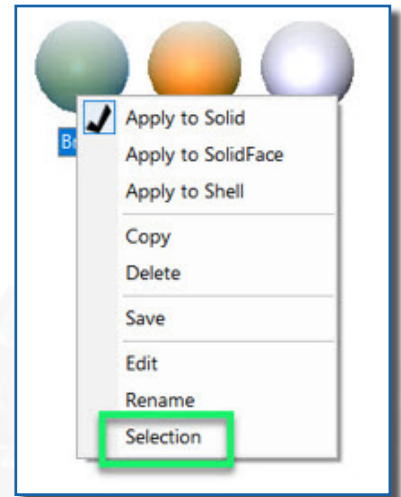


Easier to manage Materials Icons:

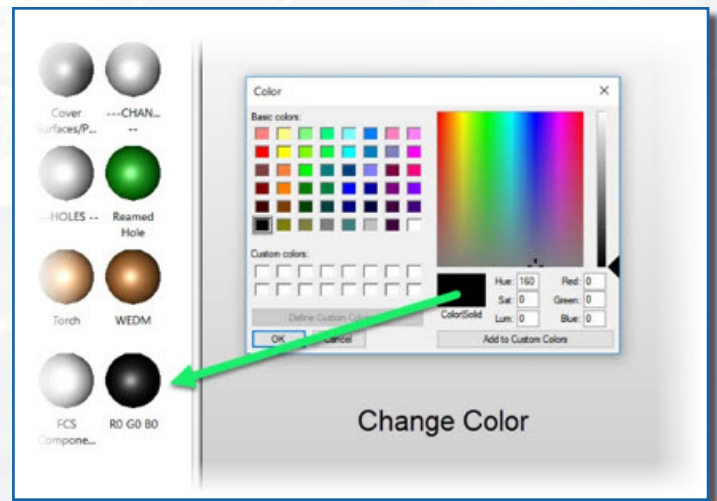
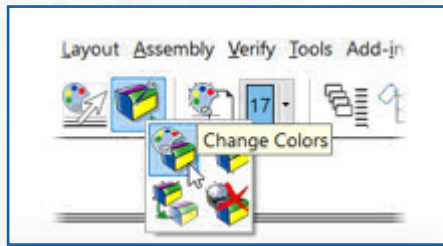
- Re-order
- Multiple columns
- Select multiple icons



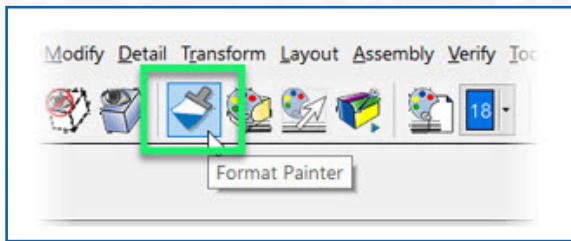
The icon context menus items were made available, plus a new Selection option added that opens the Universal Selection Menu to allow all standard selection methods.



Face Tools interact with enhanced Materials. Both Change Color and Change Material automatically populate the list allowing reuse and filter enhancement.



Format Painter has been enhanced to support faces so that users can now quickly copy the Materials from one face to another.

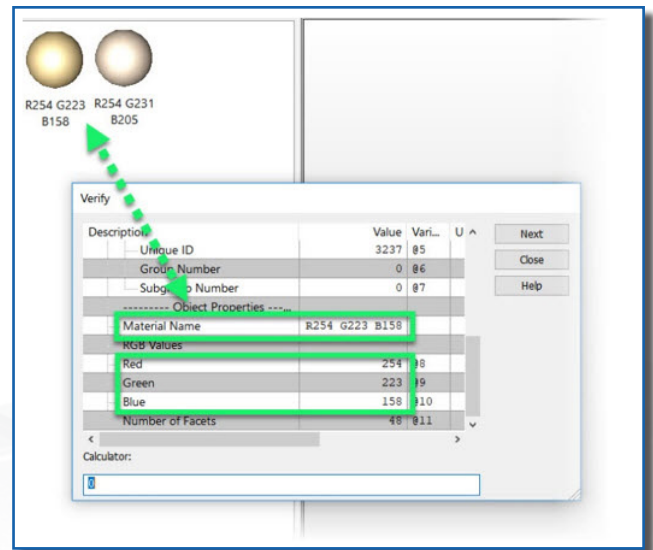


Description	Value	Vari...	U...
Group Number	0	@6	
Subgroup Number	0	@7	
----- Object Properties -----			
Material Name	Clearance		
RGB Values			
Red	0	@8	
Green	128	@9	
Blue	255	@10	

Import & opening older version KeyCreator files will:

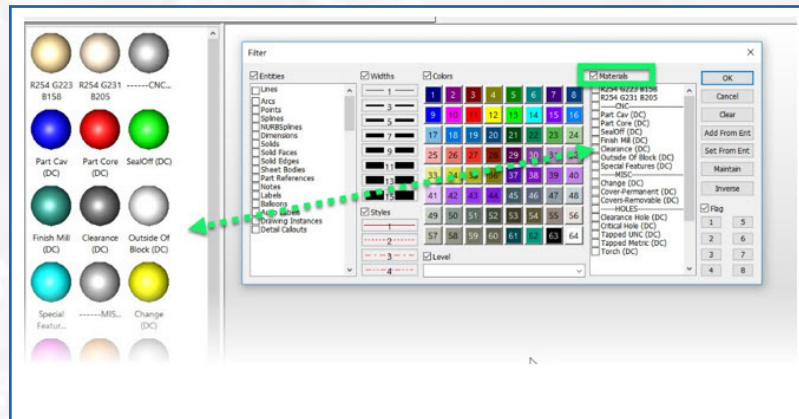
- Automatically discover material & populate the list
- Assign the materials to the appropriate faces
- No duplicates materials created

Users benefit by easily matching the color schemes used by different shops.



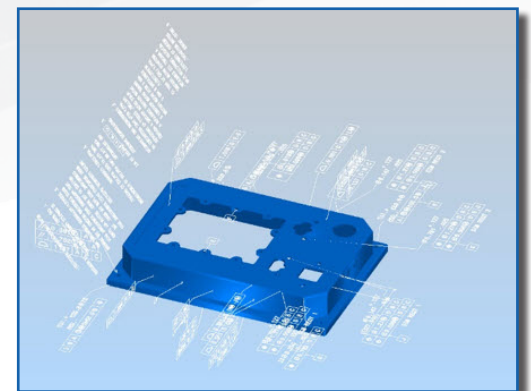
Because of the upgrades to Face Tools, Materials discovery during Imports and assigning materials name to the imported faces allowed the addition of Materials filtering tool. All filtering dialogs now display the Materials filtering. These improvements allow:

- Selection by customer RGB attribute color schemes
- Selection by any material properties
- Selecting all faces from an existing entity with a material attribute



## Import STEP AP242

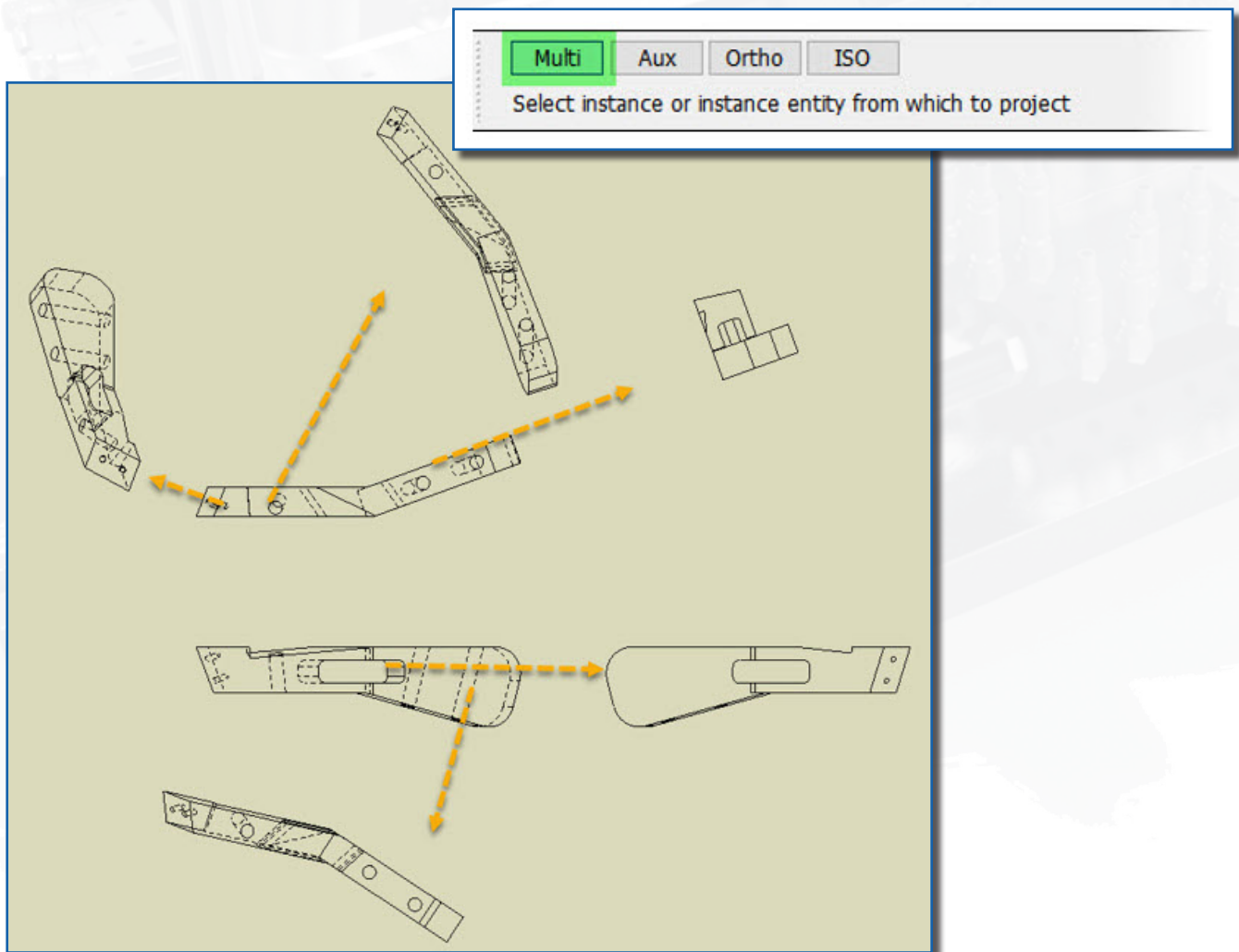
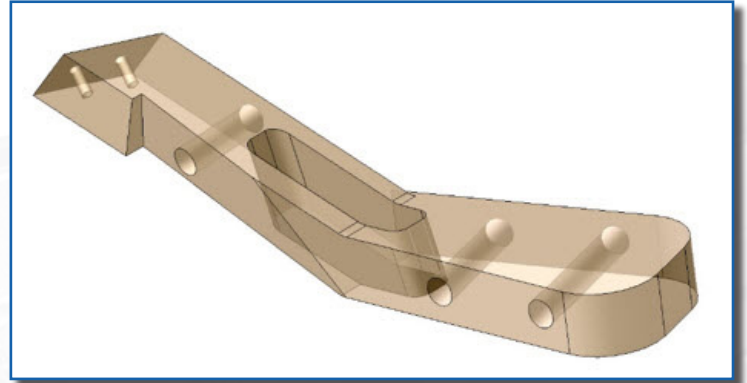
The STEP AP 242 is the convergence of AP203 and AP214. This format includes the Model Based Definition (MBD) support; defines critical manufacturing attributes & annotations, including Geometric Dimensioning and Tolerancing (GD&T) and their relationship to the 3D model faces.



## New Auxiliary Projected View Capability

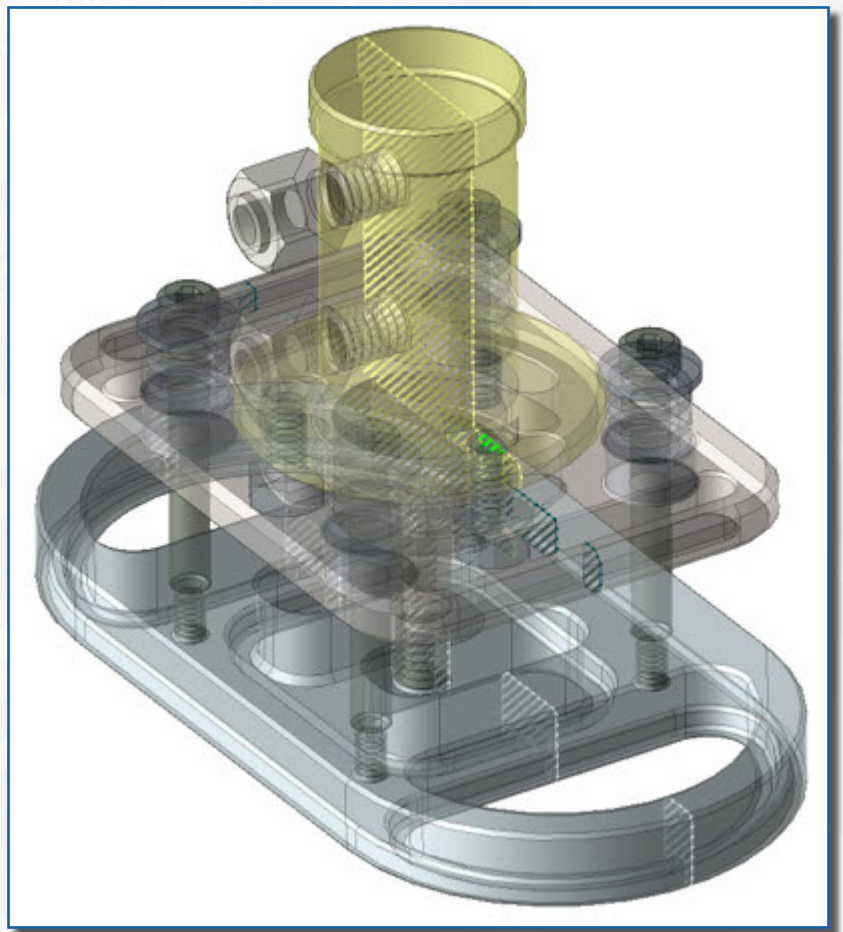
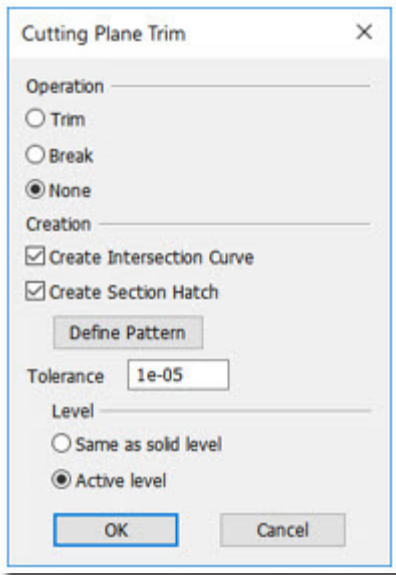
For solids with angled features and holes at compound angles, as often found in the fixture designs, a new option in the Projected Instance function to project "perpendicular to the line" was created to get required views. The benefits are:

- Allows defining those hard to get instances and straight on views when other layout instance creation does not give the desired results
- Eliminates extra steps to create and save the desired view in the model to use in the layout
- There is no loss of dimension associativity because of previous toggling to wireframe to get access to view definitions geometry



## Dynamic Cutting Plane Section

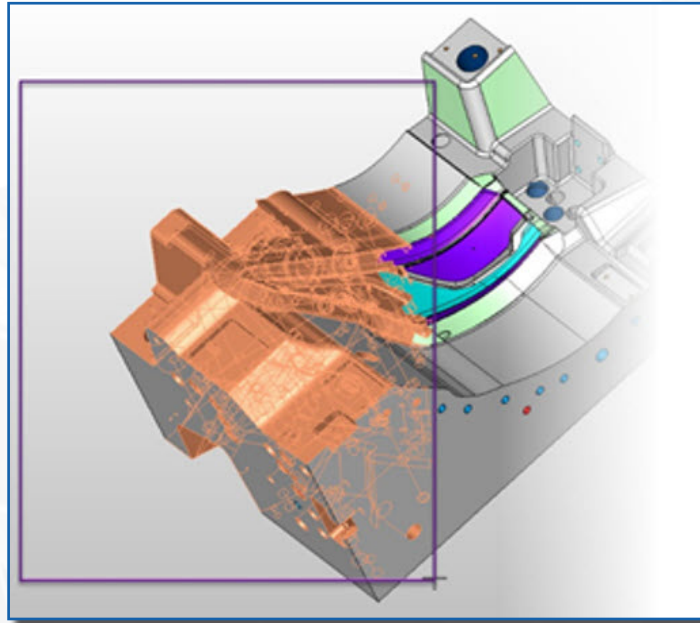
The Dynamic Cutting Plane accepts part reference for the section creation. This improvement eliminates the workaround for creating copies & bursting of the part references to get desired model sections.



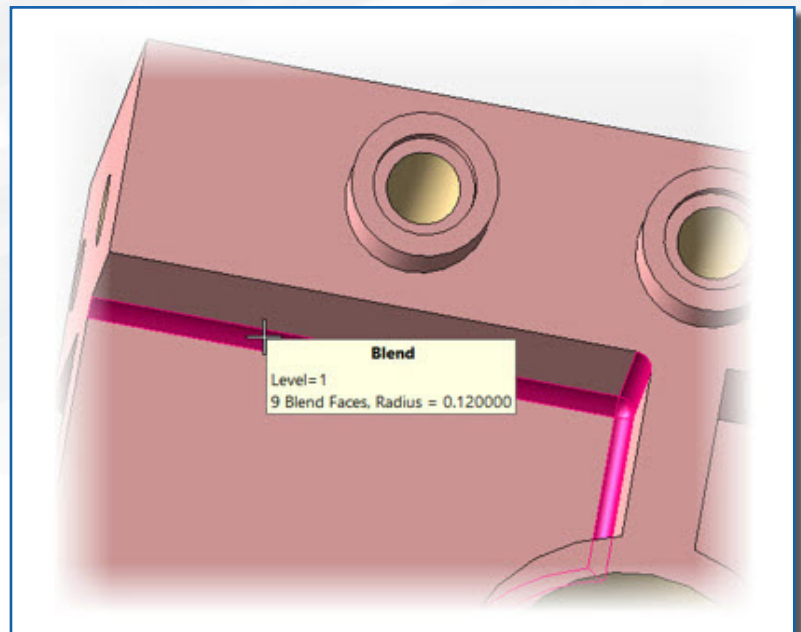
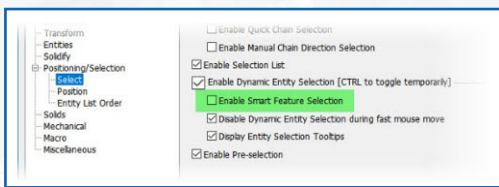


## Selection Control

The user can disable the dynamic highlighting during Window selection by holding the <Ctrl> key toggle. This toggle improves the selection performance on files with a substantial quantity of faces. The highlighting is displayed all at once when window selection is completed.

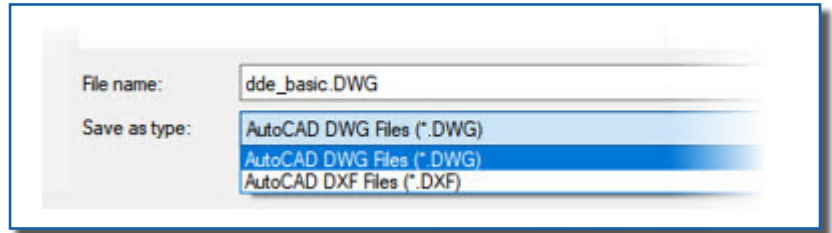


Smart Feature Selection of holes & blends can be turned off when it gets in the way of workflow or part complexity.

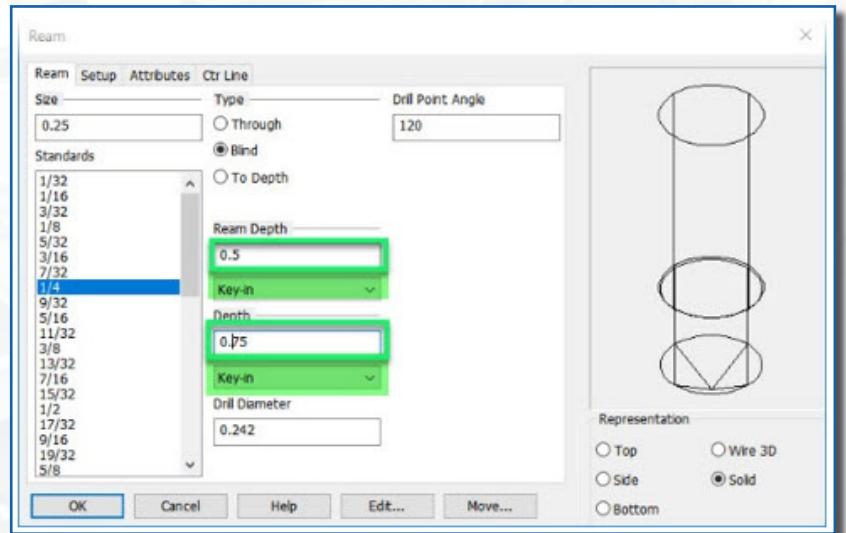


## Repetitive Entries & Selections

The repetitive selection has been eliminated for the AutoCAD export File Types by recalling the last setting.

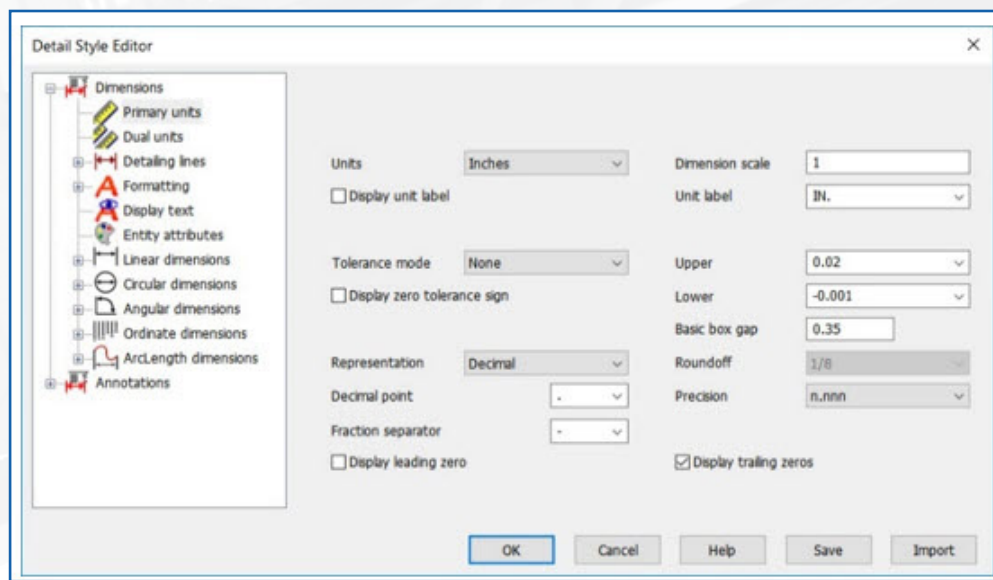


Feature Holes remember the last Key-In values for each hole type saving user time and reducing potential retyping errors.



## Detailing Style Editor

Reopening the Detail Style Editor in a KeyCreator session is 9 times faster.



## Interoperability

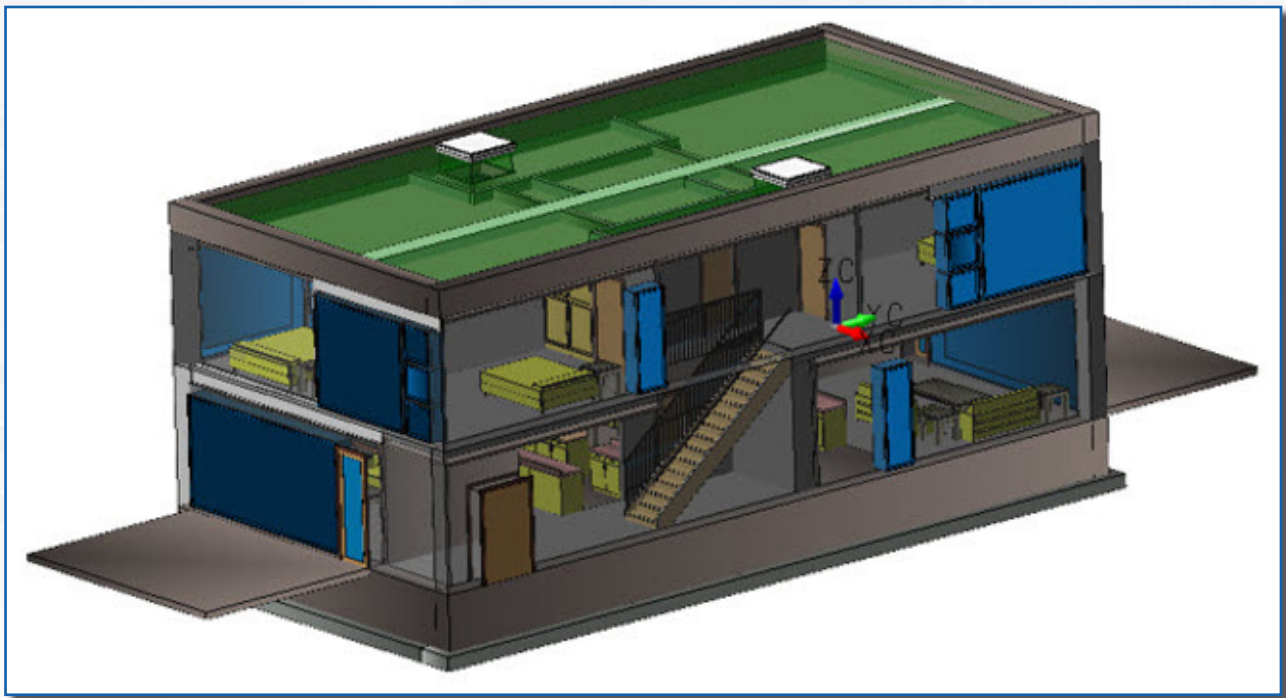
### Import/Export Compressed STEP files (.STPZ)

The STEP standard now includes an automatically compressed file. The compressed STEP files (.STPZ ) are around 20% of uncompressed STEP files sizes, improving internet transfer of large data sets.

Point Cloud Files (\*.CSV;\*.PRN)  
Solid Edge Part Files (\*.PAR;\*.ASM;\*.PSM)  
SolidWorks Files (\*.SLDPRT;\*.SLDASM;\*.SLDDRW)  
STEP Files (\*.STP;\*.STEP;\*.STPZ)  
Stereo Lithography Files (\*.STL)  
Siemens NX (UG) Files (\*.PRT)

### IFC Assemblies

The IFC translator now imports architectural and plant design assemblies into a single file as level managed. It is the preferred method for working with the industry because they are easier to edit. If later desired, solids can easily be converted to Part references and organized for user's requirements.



## Updated Formats

File imports into KeyCreator 2021 SP0 have updated to support the latest versions.

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

Read extended to R2020

### **Dassault CATIA V5**

Read & write geometry extended to R30  
Read drawings extended to R30  
Read PMI extended to R30

### **Dassault CATIA V6**

Read extended to R2020x

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

Read geometry extended to V7.0  
Read PMI extended to V7.0  
Read drawings extended to V7.0

### **Autodesk Inventor**

Read extended to 2021

### **JT**

Read extended to 10.5

### **Siemens NX**

Read geometry extended to 1899  
Read PMI to 1899  
Read drawings extended to NX1919

### **Siemens Parasolid**

Read & write extended to 32.0

### **Dassault SolidWorks**

Read geometry extended to 2020  
Read drawings extended to 2020  
Read PMI extended to 2020

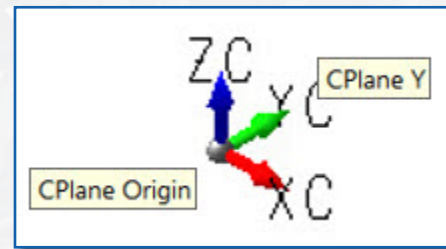
### **Siemens Solid Edge**

Read extended to 2020

## UI

### Selectable Axis Indicators

All axis gnomons are selectable for convenient access to World/Cplane origin & vector directions.



#### **Kubotek3D**

2 Mount Royal Ave. Suite 500, Marlborough, MA 01752

Phone: 800-372-3872

[www.kubotek3d.com](http://www.kubotek3d.com)

[sales@kubotek3d.com](mailto:sales@kubotek3d.com)