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KEYCREATOR®
Unconstrained CAD/CAM

What's New in 2020 SP0
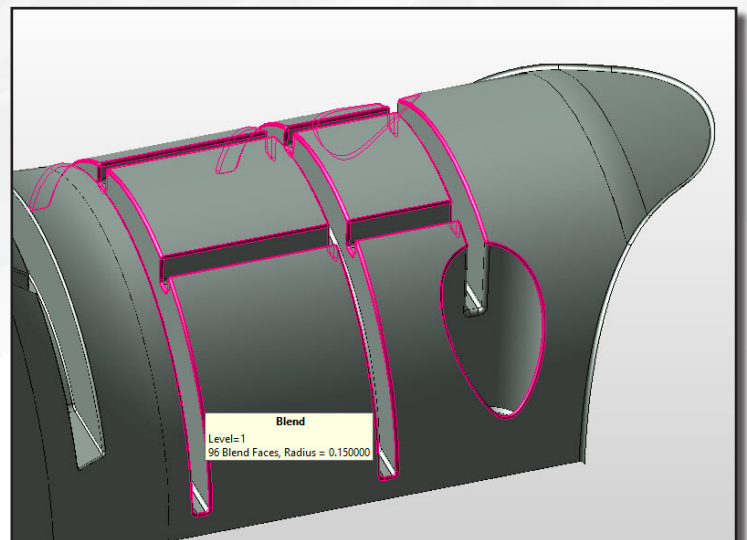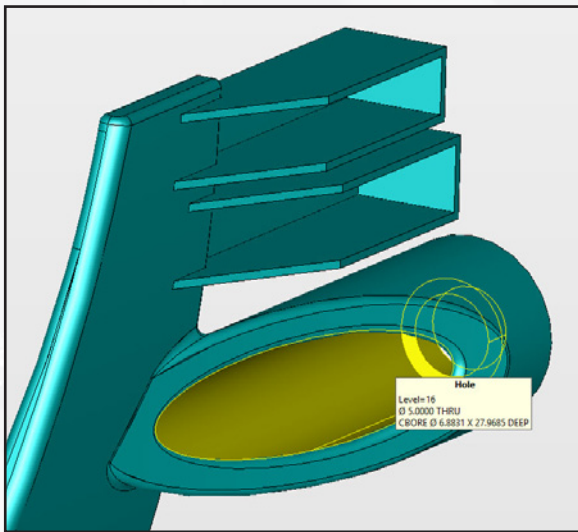
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Benefits

In order to maximize productivity benefits of the KeyCreator 2020 release most of the improvements were focused on functions which ranked in the topmost frequently used in the anonymous usage data collected from KeyCreator users. Additional focus has been placed on enhancing usability and productivity without interrupting established workflows. Dynamics were added to import functions thereby reducing the need for secondary commands to place and orient customer geometry. In addition, the primitives & new box move also added DynaHandles for quicker creation & editing. Selecting geometry is faster by eliminating extras mouse clicks in commonly used tools. Realtime visual feedback reduces selection and creation mistakes and the need for a user to rerun a function. Where face color codes are used in your workflow, face color migration has been improved and new utility macros added. The User Interface (UI) has been cleaned up and updated to modern CAD terminology to enable new users to quickly learn and navigate KeyCreator 2020. For continued interoperability, support for new format has been added for building and construction data and most other readers updated to the latest versions. These new functions, improved visualization and new smart selection capabilities will make it easier and faster for the users to perform their job and stay agile.

Smart Feature Selection

Automatically highlights and quickly identifies entire hole and blend features by simply hovering over the geometry
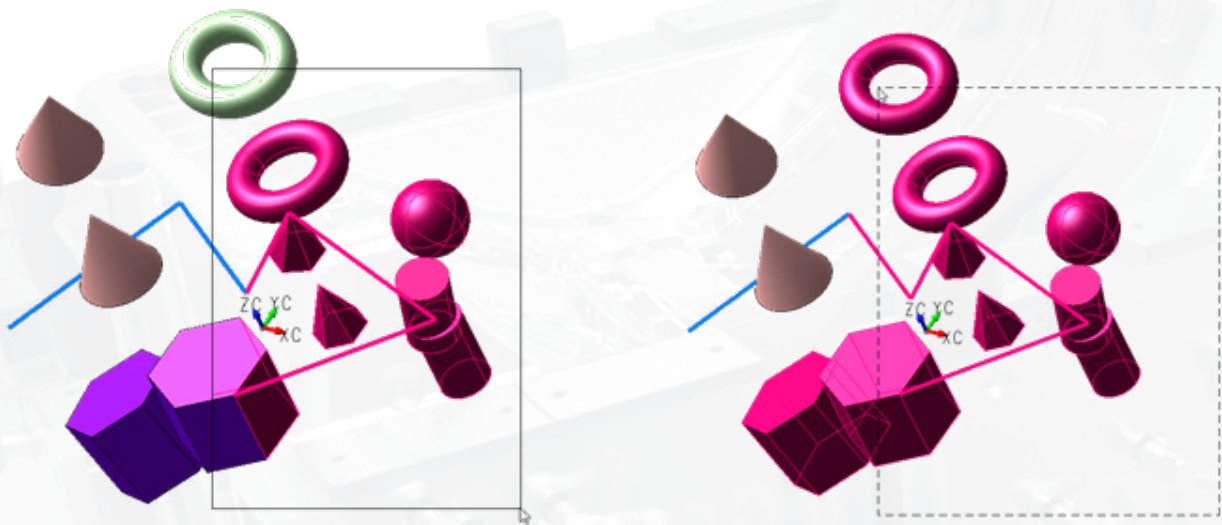
- Tool Tips immediately display feature type and size information
- Enables quick selection of entire hole and blend geometries

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Smart Window Selection

Window selection enhanced with dynamic feedback and cross-selection eliminating the extra clicks to define type of selection

- The direction of window dragging automatically determines selection mode as ALL IN or PART IN (cross-selection).
- The line style of the dynamic window border (solid vs dashed) also indicates selection mode.
- Visual feedback highlighting during selection makes it easier & more intuitive for user
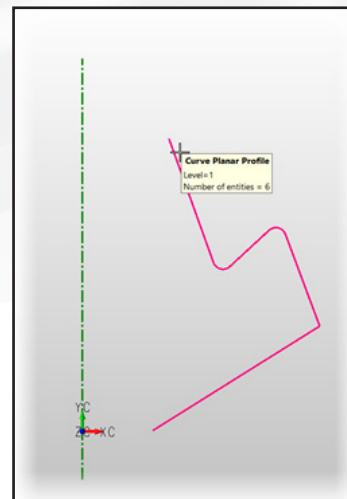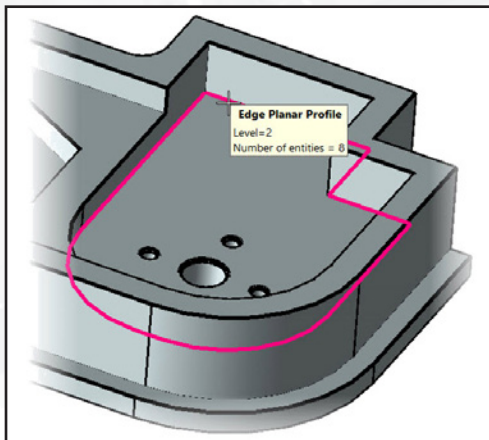
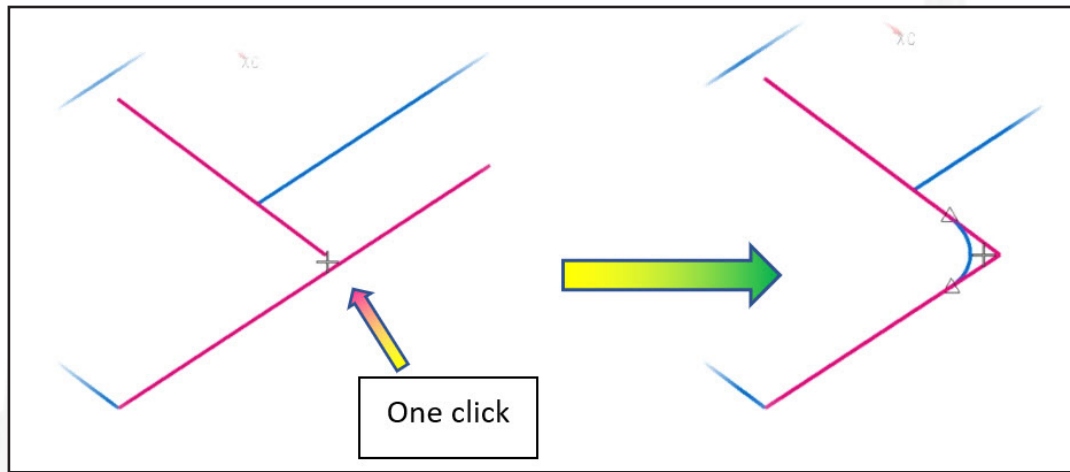Left > Right   All in   Right > Left   Part In

Smart Selection

Faster selection for most common extrude, sweep, modify> trim/break and fillet operations by eliminating unnecessary selection clicks

- Planar profiles parallel to the construction plane are automatically highlighted for selection.
- Tool Tips provide feedback to what was selected
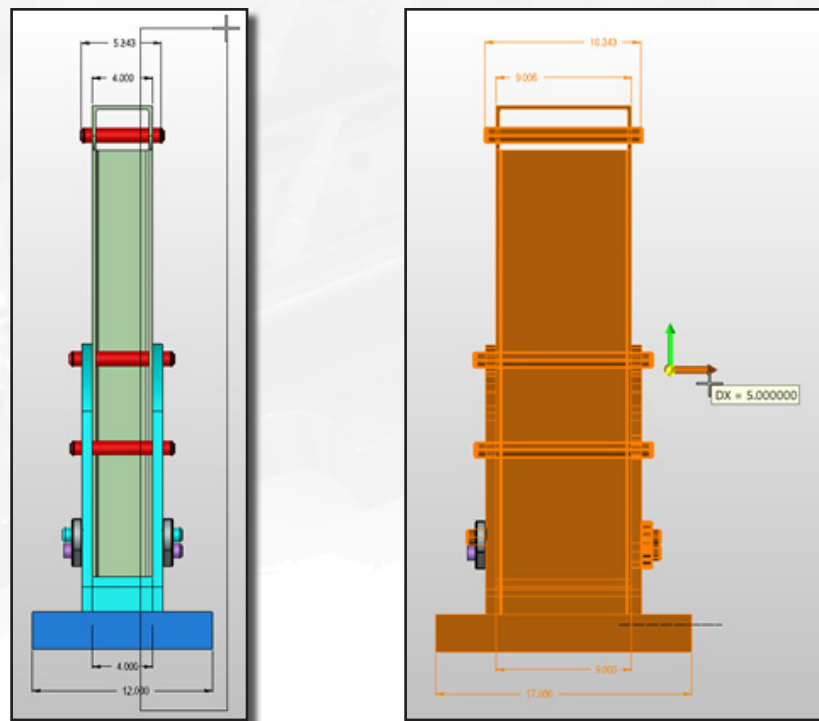
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- Often used trim and fillet operations eliminates an extra click when two entities meet or nearly meet. If entities to be trimmed don't meet the user simply selects the two entities as before (without needing to toggle the Quick Trim system setting).

One click

Stretch Box Move

Unique to KeyCreator, the popular and powerful box move, which allows the moving and stretching of multiple geometries, dimensions and complex groups of solids, has been enhanced with a DynaHandle to create Stretch Box Move.
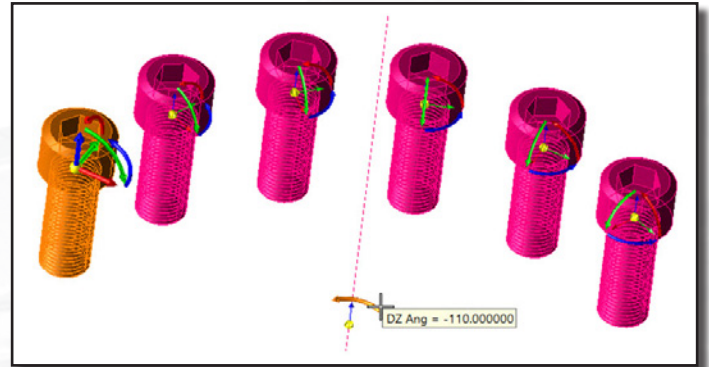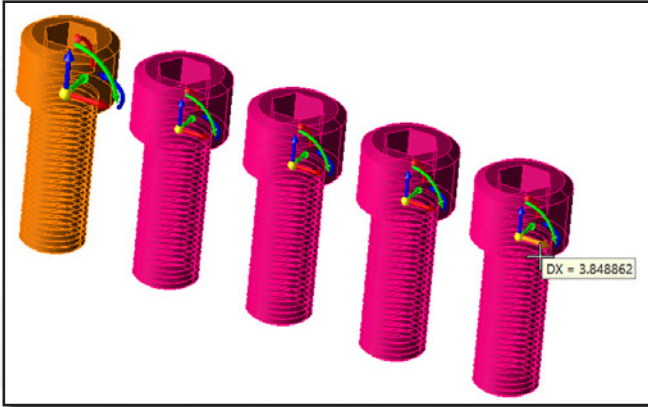
- Easily stretch geometry with the DynaHandle by snapping to locations and eliminating typing
- Real time feedback as you move the DynaHandle
- Users can reposition the base point dynamically for greater freedom
- Direct distance input can be done by selecting one of the DynaHandle handles

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Dynamic Move

Dynamic move has been enhanced with an array option (CopyN), eliminating need for selecting secondary function. Move and Copy all in one function.
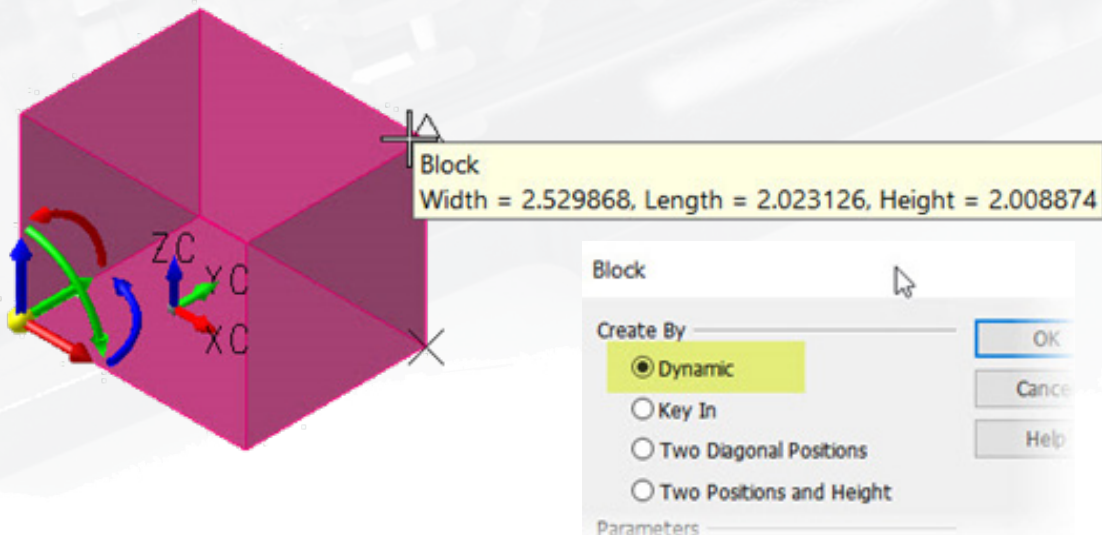
- Ability to make 1 copy or multiple copies at one time
- Linear or radial array options

Dynamics for All Primitives

All the primitive creation tools now have dynamic option which uses the powerful DynaHandle capabilities for faster creation.
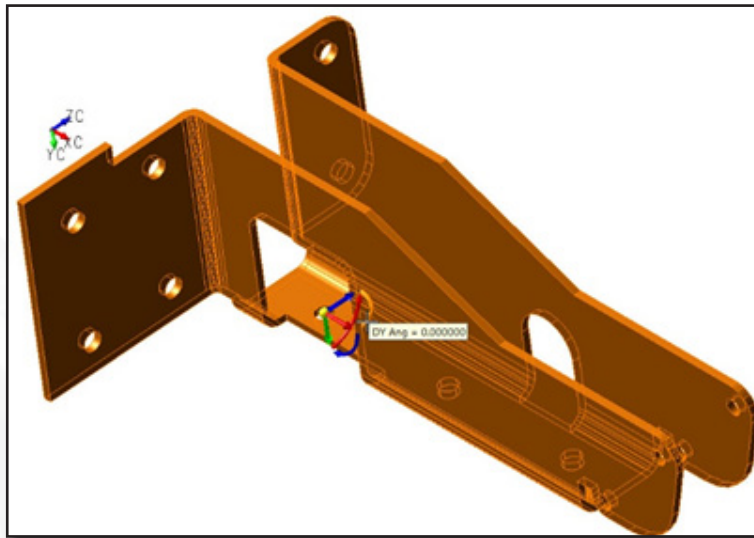
- During dynamic construction primitives are consistently drawn in temporary color. The solid is added to the database and changed to system color once the minimum required positions are specified.
- The new workflow of dynamic creation better matches traditional functions like Line Endpoints.
- After creation, the primitive remains in edit mode so that users can dynamically drag in the X, Y & Z directions for greater freedom
- Direct input can be done by selecting one of the DynaHandle handles

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Dynamics on Imports

Added DynaHandle for all geometric Import, Copy/Paste & Insert Part Reference functions eliminating running secondary move functions
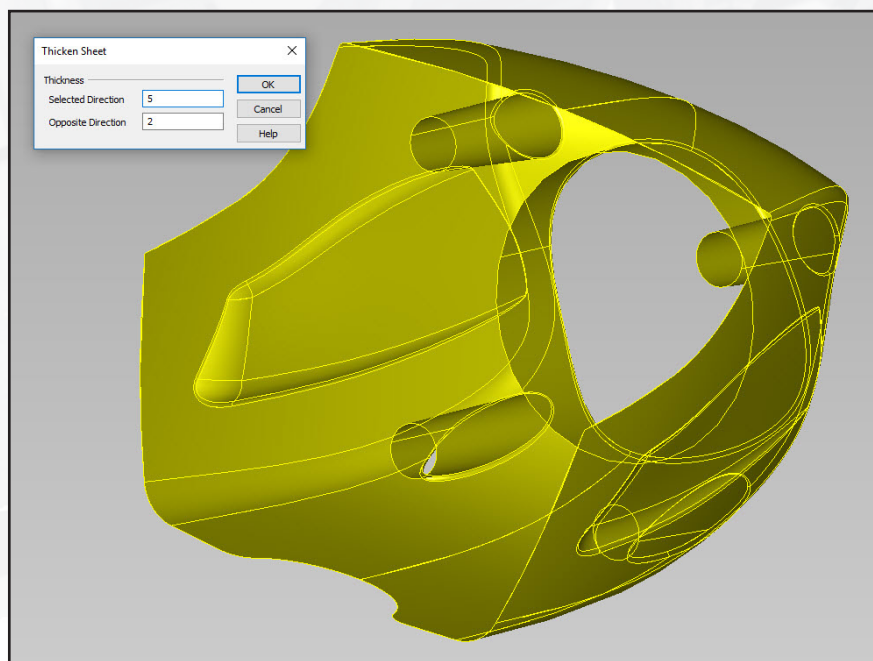
- Allows positioning & alignment after initial placement within the same function

Thicken Sheet

Thicken sheet has added a second value for different thickening in opposite direction eliminating the need to execute thicken twice.
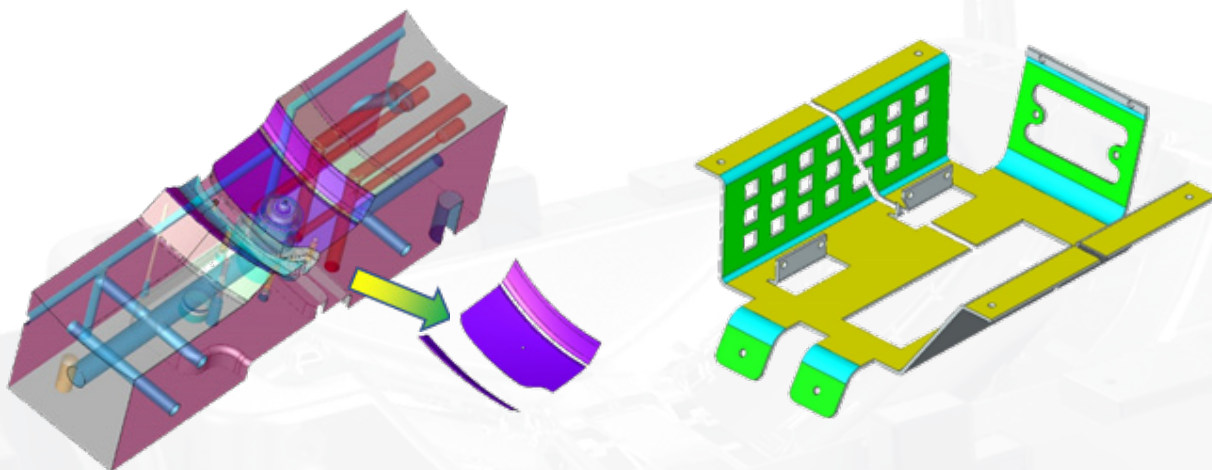
- User can enter different values for either the selected side and/or the opposite direction

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Face Color Migration

Face color coding for workflow & downstream applications remain on Unstitch and Split> Trim/ Break functions.
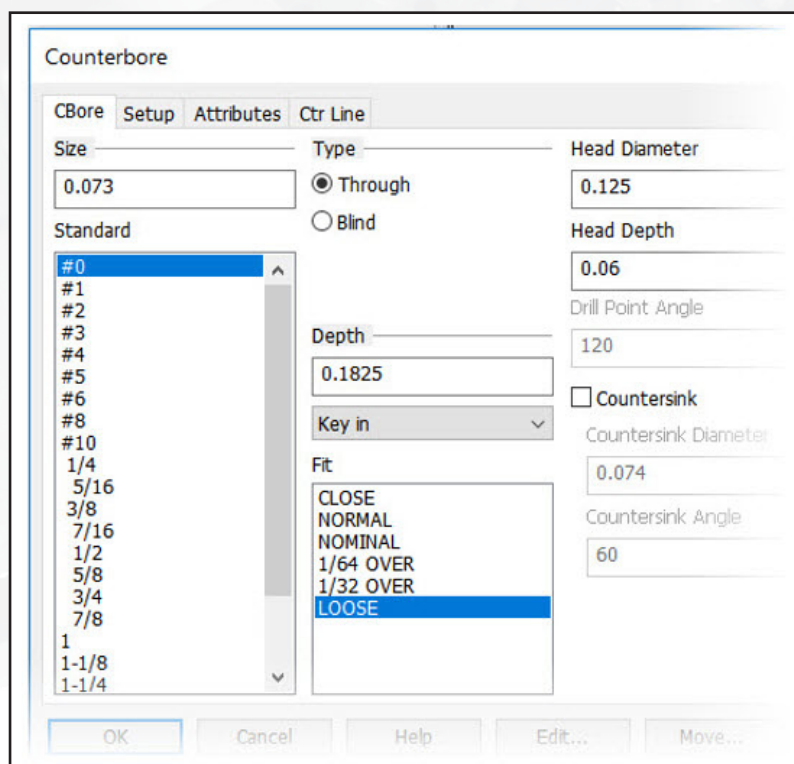
- Functions follow the Application Options that are set to use entity attributes

Hole Feature Data Files

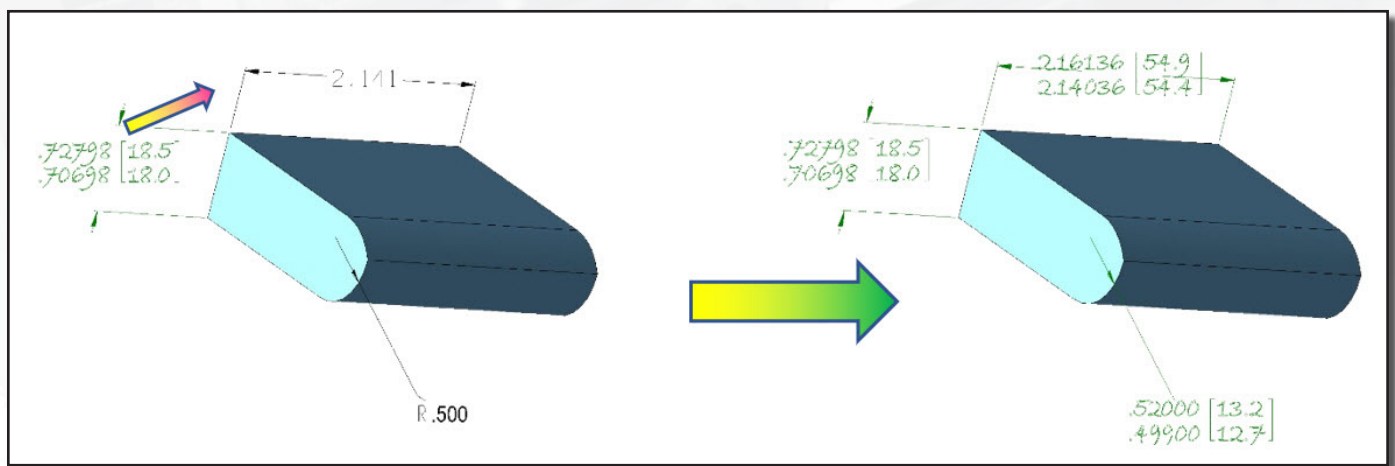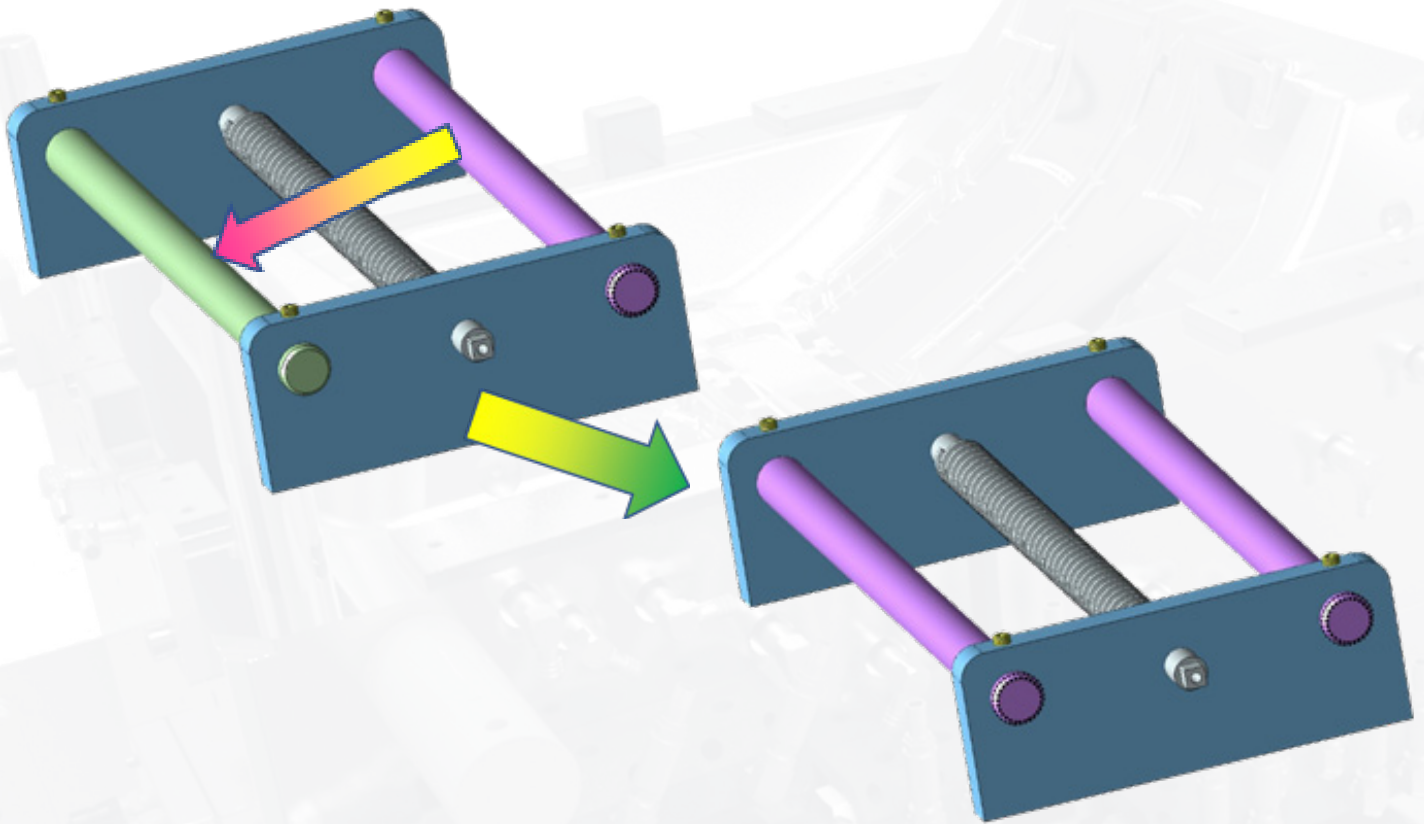Updated the Hole feature data files to more industry standards

- Includes new Loose fits for counterbores.

Format Painter

A new Format Painter function has been added, that behaves similarly to Office Format Painter, to quickly copy attributes to another entity.

- Copy geometry attributes & styles form one entity to another.
- Quickly change text and dimension to match another's color, text format & dimension settings
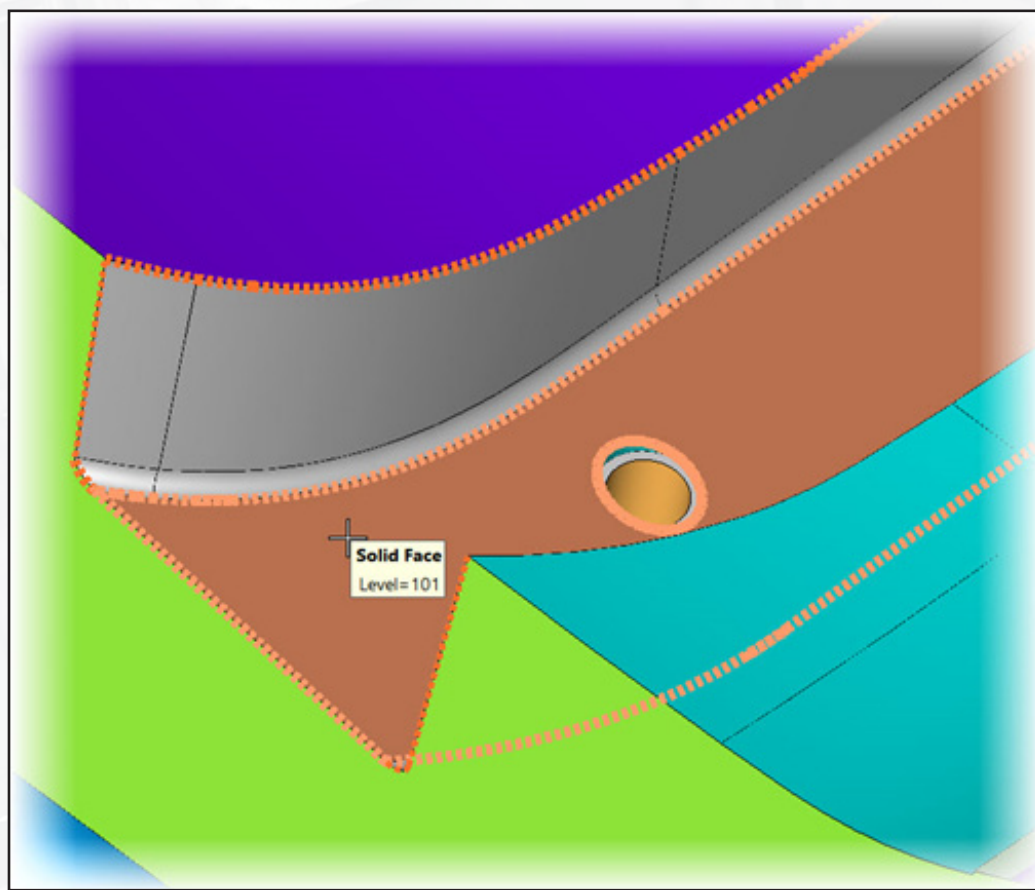
New Utility Macros

Three new KXL macros have been added to the Utilities folder to help users deal with large quantities of imported named data & selection of faces by RGB colors

- **RenameLevelAsSolidName.kxl** - has been added allowing users to rename a level by the name of the body residing on it.
- **UnstitchFacesByColor.kxl** - has been added allowing users unstitch faces selected by RGB color from a body
- **CopyFacesByColor.kxl** - has been added allowing users copy faces selected by RGB color from a body

Edge Display

Improved visualization of body edges reduces the need to rotate/zoom to get a good view of what is about to be selected as well as better identifying what has been selected and thus reducing the number of times a function needs to be re-done because of a wrong selection.
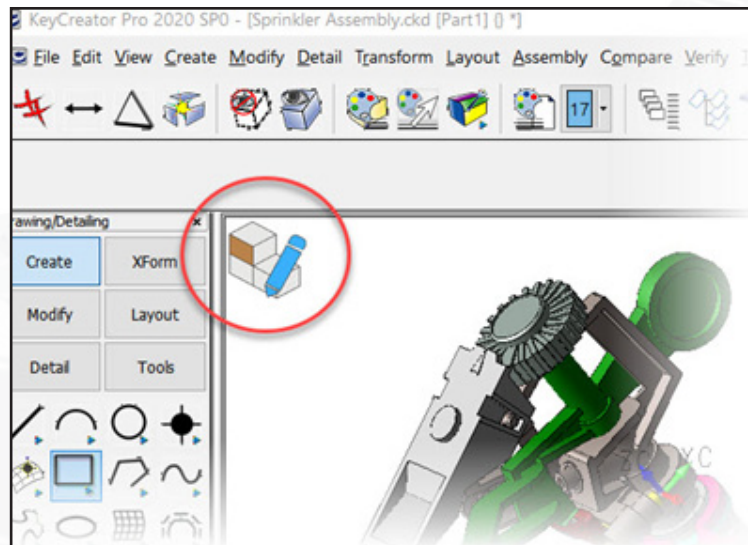
- New option to display thicker highlighted edges on a body
- User defined attributes

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Edit-In-Context

Visual queue notification of the current edit mode and prevents confusion for users as they work on assemblies.

- Visual marker displayed when editing assembly references in context
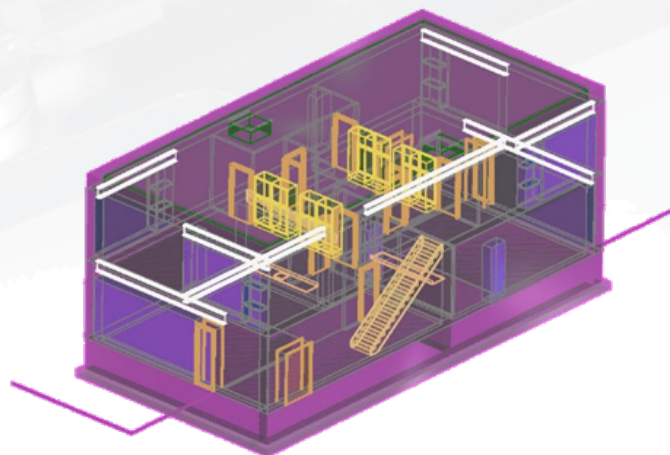- Marker disappears when Edit-in-Context is closed

Sorted Entity List

Setting a selection filter based on entity type has been made easier by arranging the default order for the list of entity types based on the most used entity types at the top of the list. The specific order in the list remains customizable by the user.

New .IFC Format

Support added for reading Neutral Industry Foundation Classes (.IFC) open format supported for building and construction data. The .IFC file types are often exported from Revit & other building & construction packages.

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File read in KeyCreator 2020 has been extended to support the latest updated versions.

ACIS
Read extended to R2019

CATIA V5
Read & write geometry extended to R29
Read PMI extended to R29
Read drawings extended to R29

CATIA V6
Read extended to R2019x

CREO, Pro/E
Read geometry extended to V6.0
Read PMI extended to V6.0
Read drawings extended to V6.0

Inventor
Read extended to 2020

NX
Read geometry extended to 1847
Read PMI to 1847
Read drawings extended to 1884

Parasolid
Read extended to 31

Solidworks
Read extended to 2019

Solid Edge
Read extended to ST11

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