CREO PARAMETRIC 4.0 PRODUCT UPDATE CORE MODELING

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CREO PARAMETRIC 4.0 PRODUCT UPDATE - CORE MODELING

- ❑ UI/UX
- ❑ Sketcher
- ❑ 3D Features
- ❑ Sheet Metal

IMPROVED UI & USER EXPERIENCE

IMPROVED USER EXPERIENCE IN CREO

Benefits

- Faster interaction with the design
- Increased selection and command access efficiency
- Less mouse travel
- Focus stays on design, not UI

NEW SELECTION PARADIGM

- Geometry based selection
- Optimized pre-highlighting (surfaces & edges only)

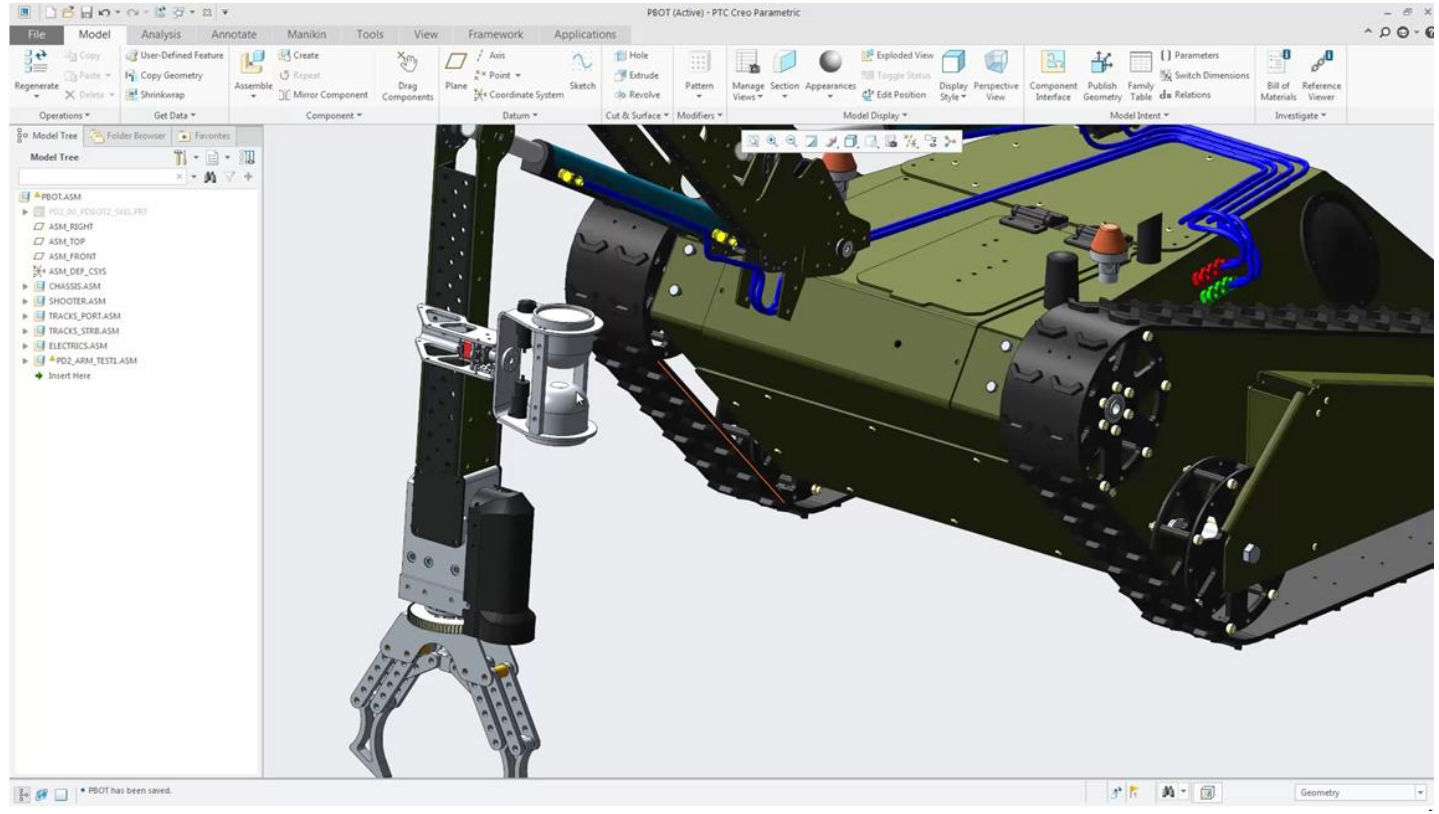
NEW MINI TOOLBAR

- Direct command access from mini toolbar
- Dual context support
- Fully WYSIWIG customization

NEW BOX SELECTION

- For Object/Action workflows

NEW FULL SCREEN UI



NEW AND ENHANCED UI CUSTOMIZATION

Benefits

- Configure your usage for optimal personal productivity
- Speed up your daily repetitive tasks

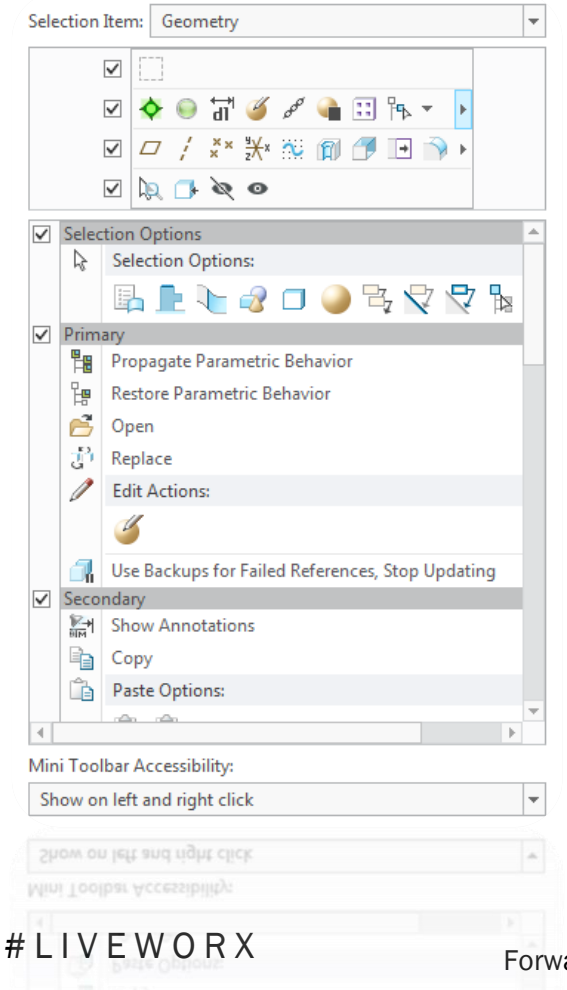
RIBBON

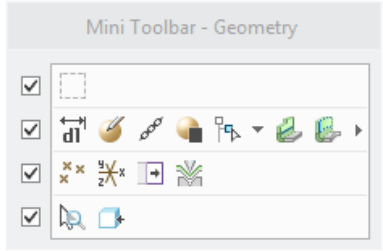
- Customize OOTB groups
- Propagate changes to different environments
- Common tab

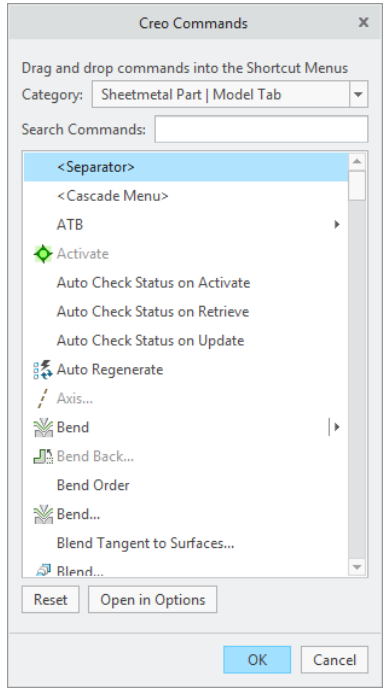
SHORTCUT MENUS

- RMB & mini toolbar customization
- In *Options* & in-graphics (WYSIWYG)

KEYBOARD SHORTCUTS (NEW)







Forward looking information subject to change without notice

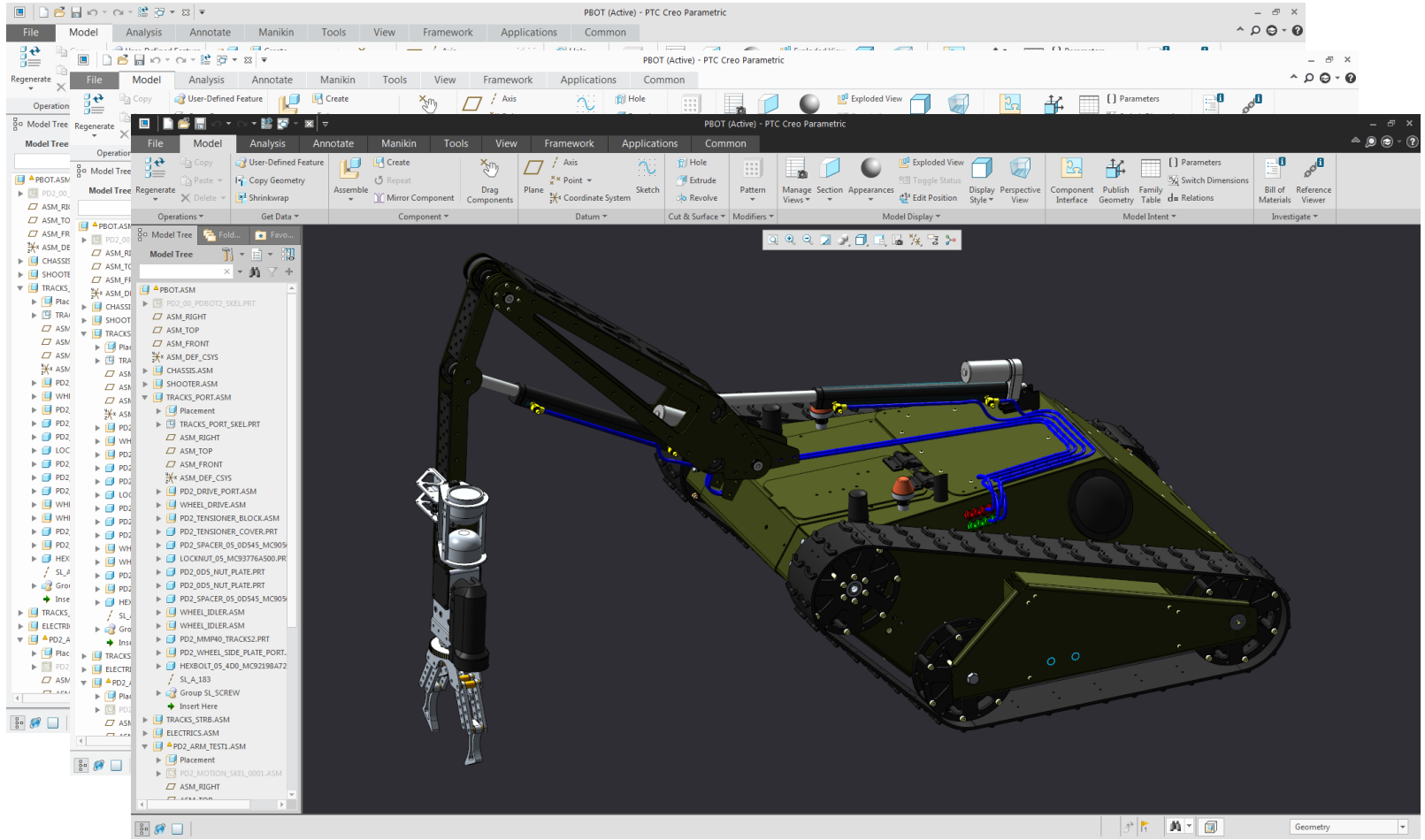
NEW INTERFACE COLOR THEMES

Benefits

- Choose the theme that works best for you and your environment

CHOOSE FROM 3 DIFFERENT INTERFACE THEMES (skin design and graphics area colors)

- Light Theme – similar to Creo 3.0
- Default Theme – Gray
- Dark Theme – Dark Gray



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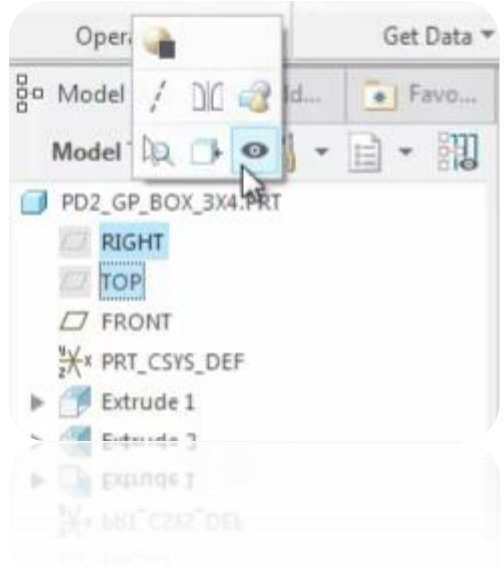
MISCELLANEOUS UX ENHANCEMENTS

Benefits

- More intuitive display of hidden items
- Better local language support
- More transparent configuration

ENHANCED VISIBILITY CONTROL

- Enhanced and more intuitive object visibility control in model tree
- Hidden items indicated for objects hidden
  - by hide/show
  - via layer controls

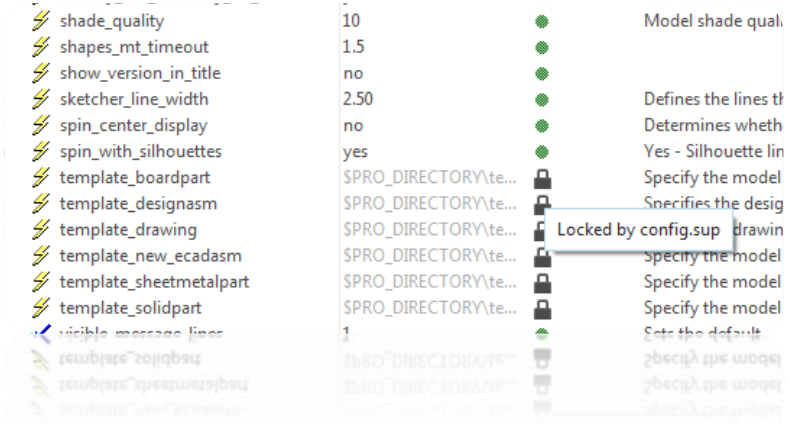


FILE NAMES

- Support for double-byte characters

INDICATION OF LOCKED OPTIONS IN THE UI

- Increased transparency of administrative settings made in config.sup



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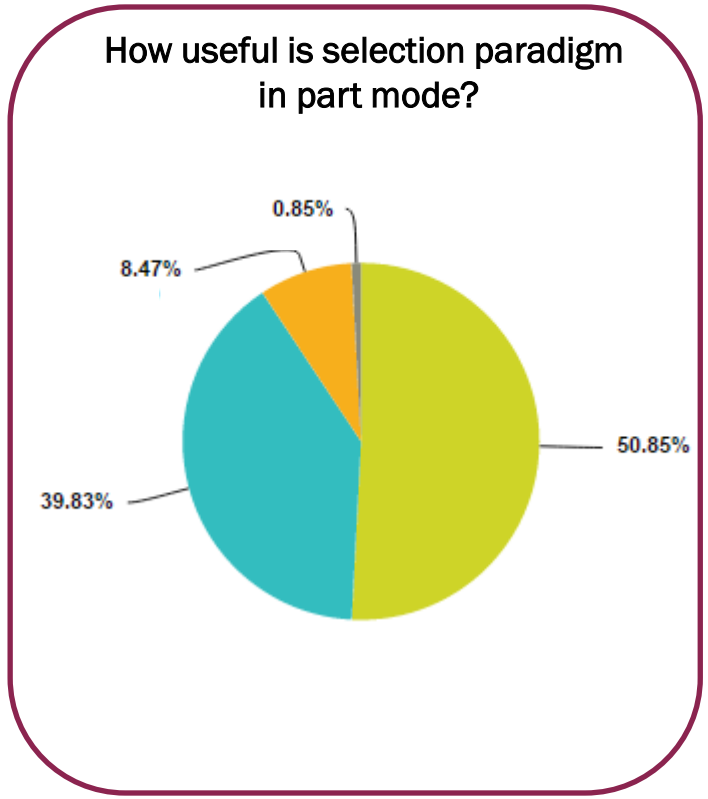
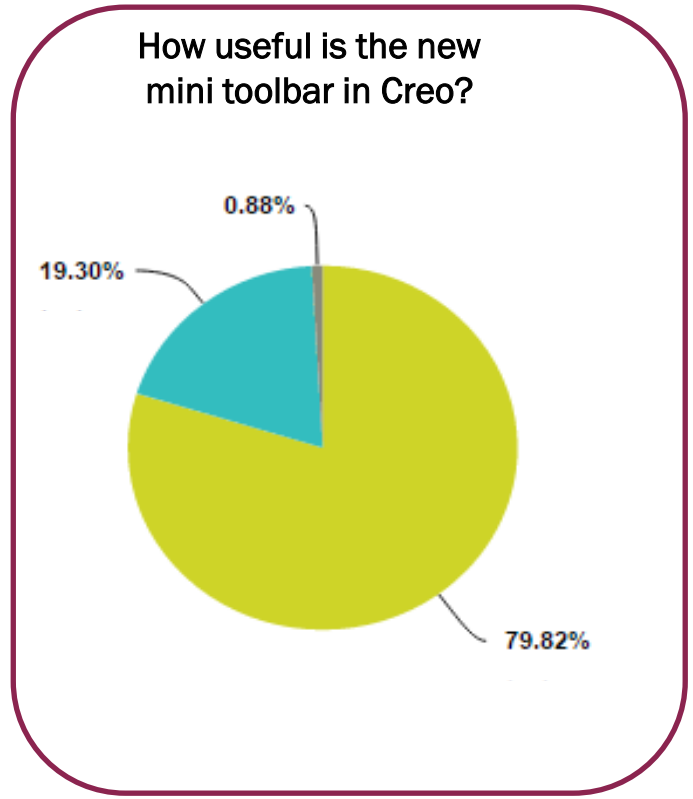
PRE-BETA RESULTS

CREO 4.0 USER EXPERIENCE TEST PRE-BETA EVENT

- March-April 2016
- ~600 registered users, ~400 tested, ~200 surveys





Very useful | Useful | Somewhat useful | Not useful at all

Participant feedback:
Well done, good improvements, very smooth beta test by running Creo in a browser

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ENHANCED SKETCHER

INTUITIVE SKETCHING

ENHANCED APPEARANCE

- Clipping at sketching plane
- Improved visual feedback of guides / snapping entities
- Customizable line thickness

IMPROVED USABILITY

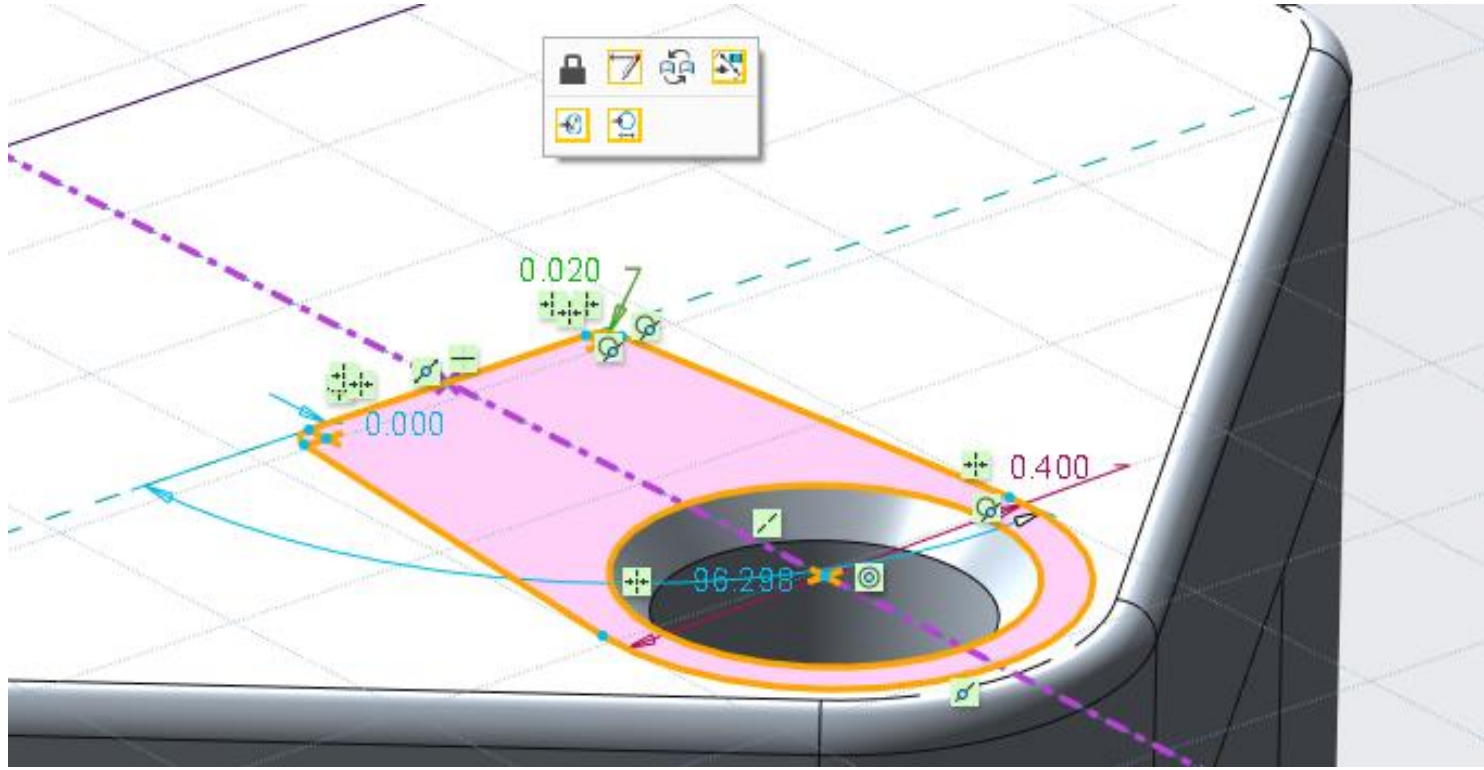
- New mini toolbar
- Snapping to model entities without explicit projection
- Consistent 2D box selection

BETTER TEXT TOOL

- Adjustable character spacing
- Drive font by parameter

IMPROVED B-SPLINE HANDLING

- Projection of B-spline remains a B-spline



Benefits

- Improved visibility of sketch and sketch entities
- Quicker interpretation of visual aids and guides
- Quicker access to commands
- Faster referencing of model entities

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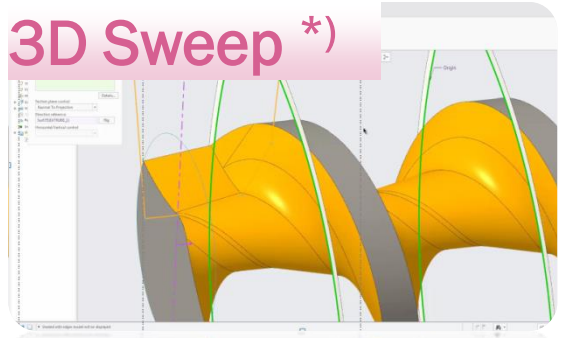
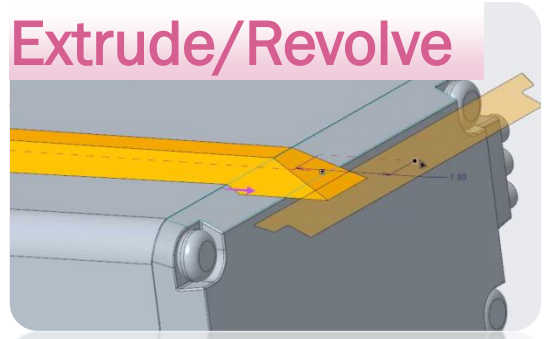
NEW & ENHANCED CORE MODELING FEATURES

CORE MODELING PRODUCTIVITY ENHANCEMENTS

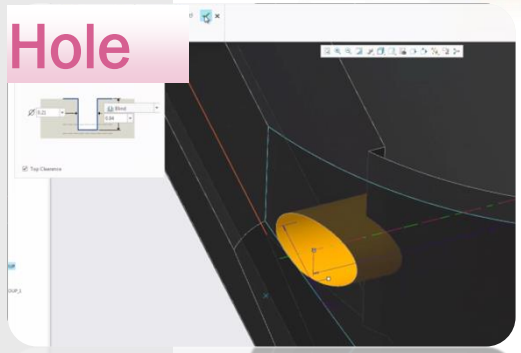
3D Sweep *)



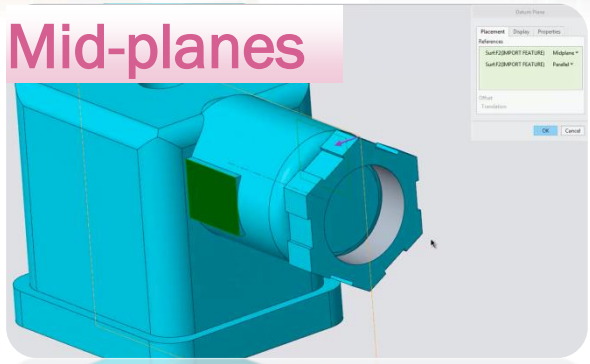
Extrude/Revolve



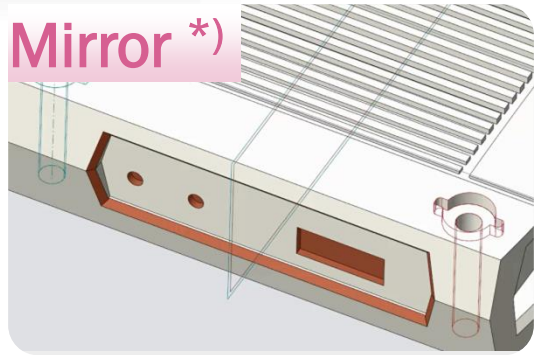
Hole



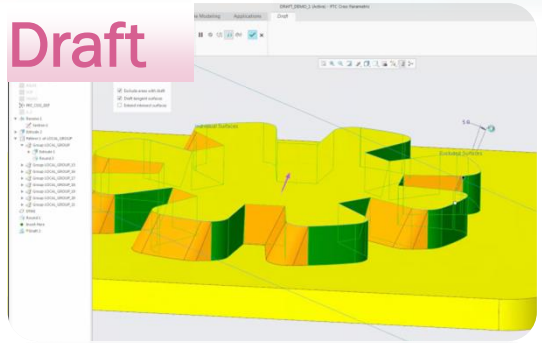
Mid-planes



Mirror *)



Draft



Groups

*) opportunistic, not in sneak-peek version

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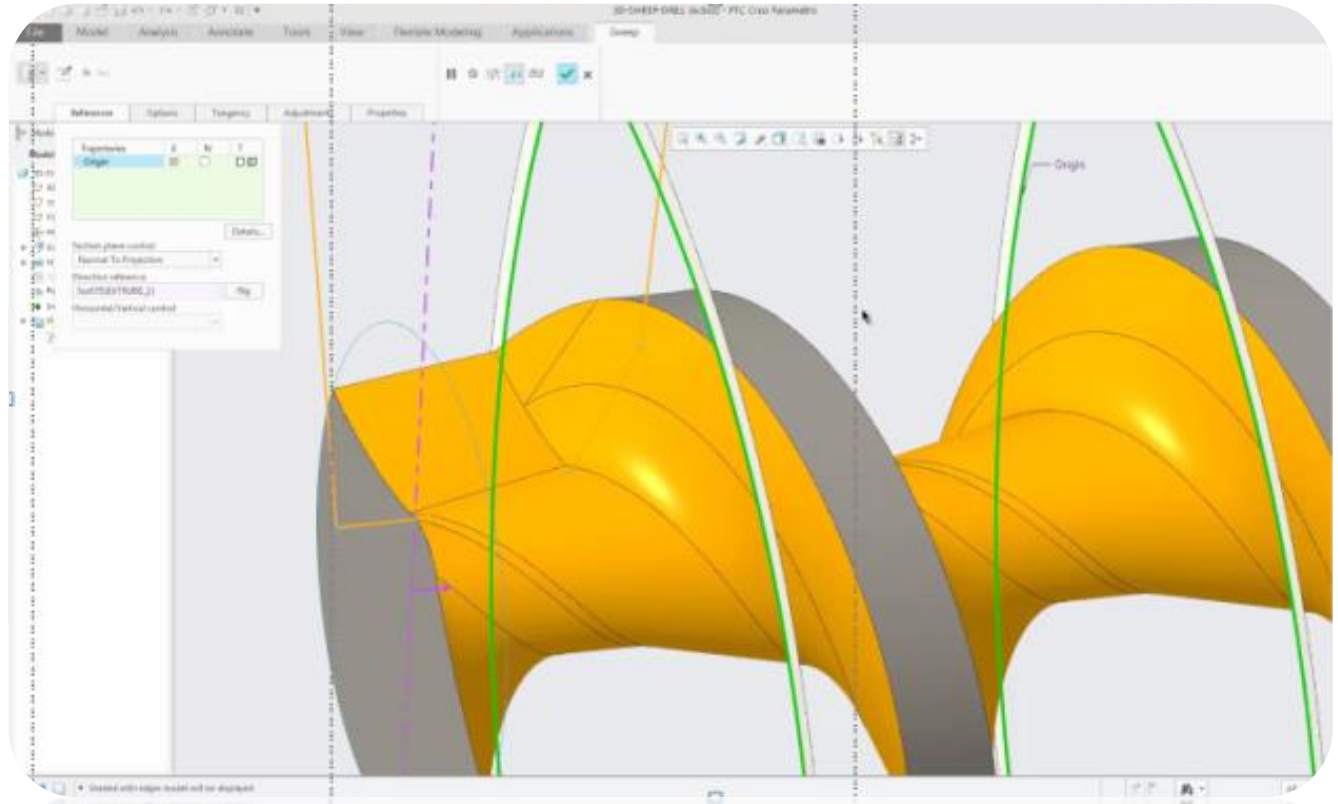
3D SWEEP

MILLING SCENARIO

- 3D sweep along a 3D curve
- Rotation axis of cutting tool stays constant with respect to any fixed plane

GRINDING WHEEL SCENARIO

- 3D sweep along a helix (helical sweep or curve from equation)
- Constant or variable helix pitch
- Rotation axis of cutting tool parallel to axis of helix



Benefits

- Create accurate 3D geometric representations for parts machined with cutting tools instead of 2D sweep approximations

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SKETCH BASED FEATURES

SIDE 2 ACCESS

- Enriched access to side 2 options in graphics

EXTRUDE W. OFFSET

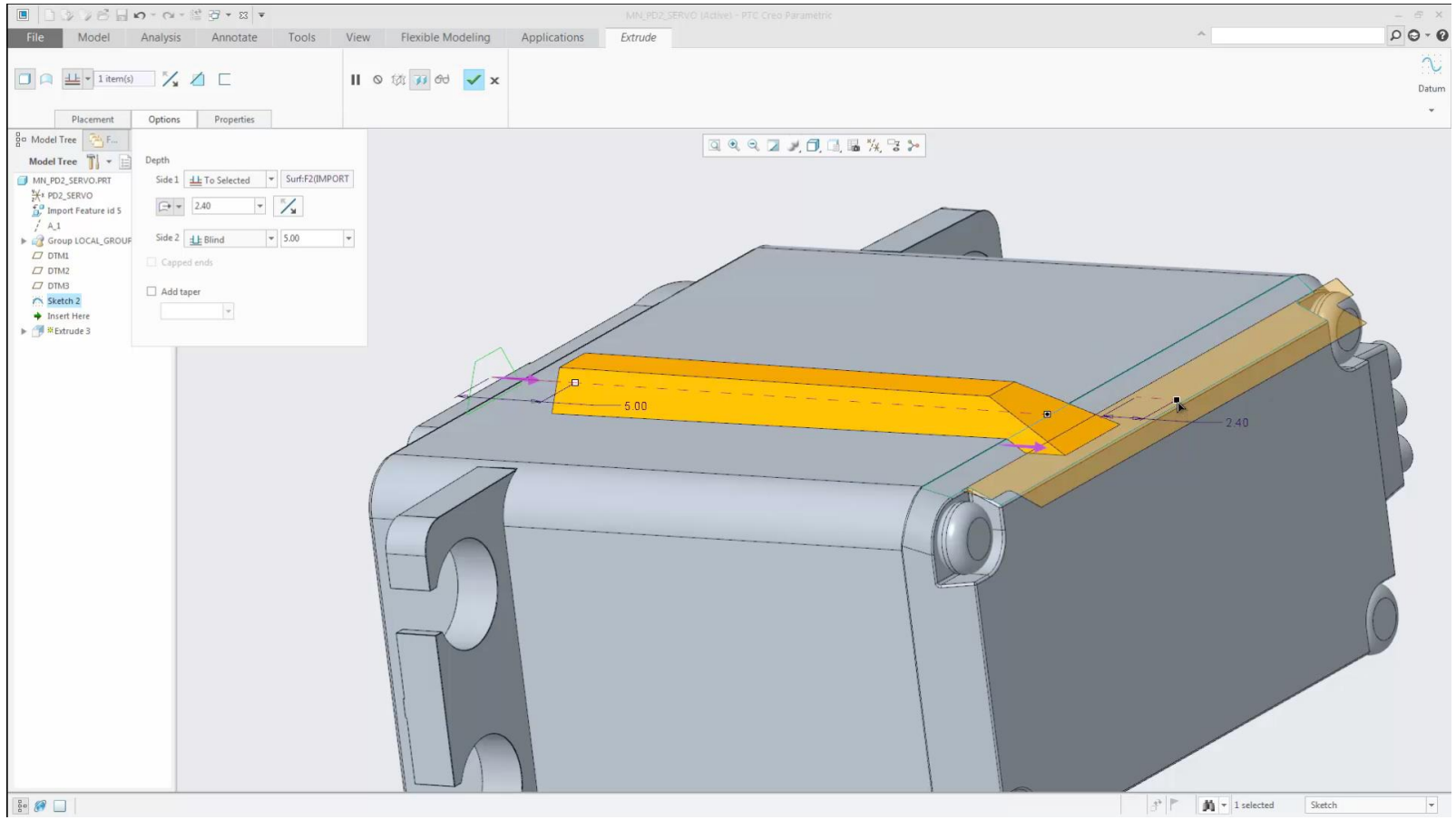
- Extrude To Selected with Offset / Transform

NEGATIVE DIRECTION

- Negative Extrude and Revolve

THIN FEATURES

- Addressed Ambiguity



Benefits

- Improved productivity and user experience
- Reduced number of needed features
- Increased design flexibility
- Greater control over geometry

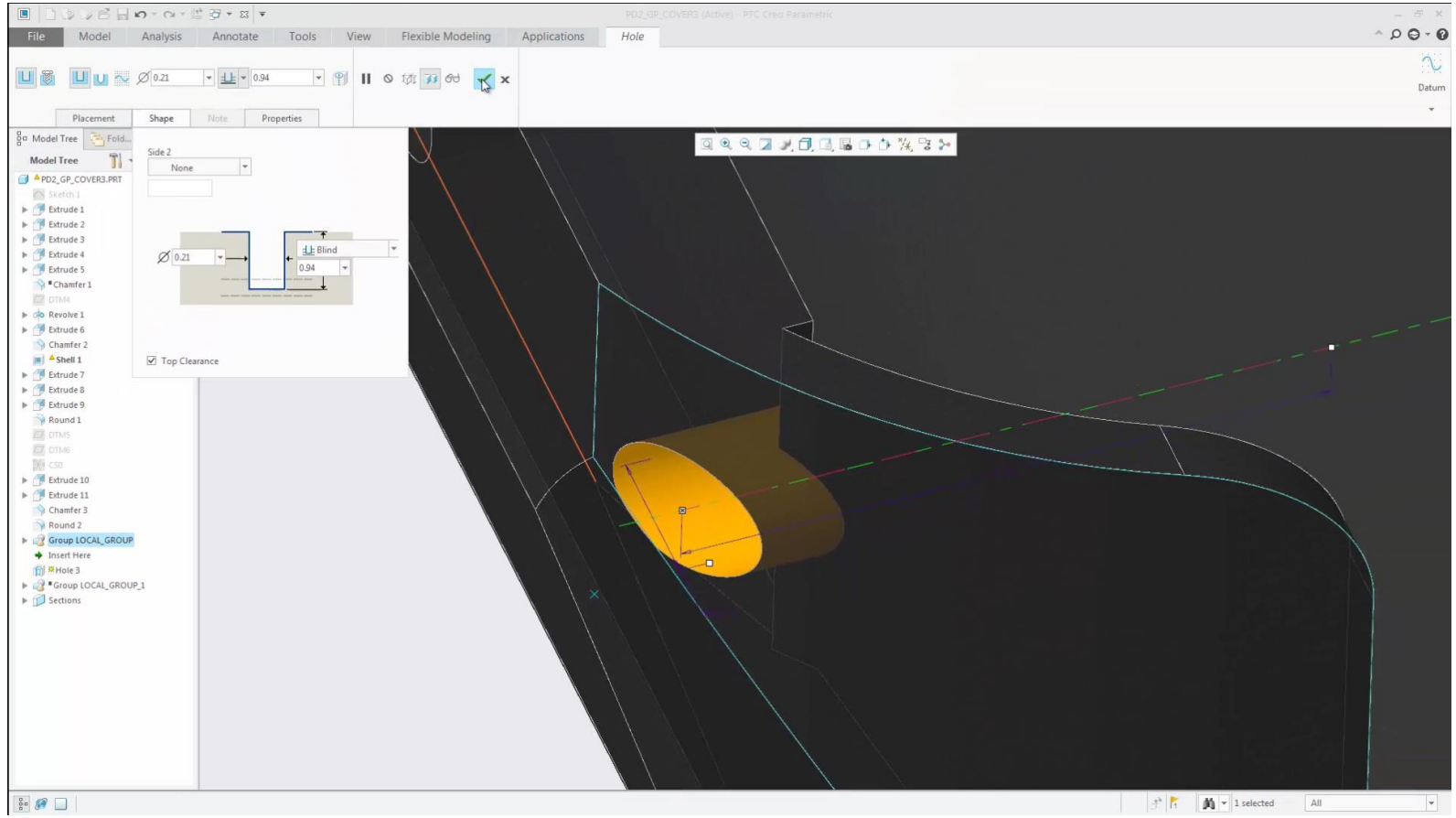
HOLE

Benefits

- Greater flexibility for hole placement, and orientation definition
- Improved geometric results for holes at an angle

HOLE FEATURE ENHANCEMENTS

- Additional Placement Types
- New user option to define drilling direction
- Automatic removal of overhang geometry at beginning of hole at an angle



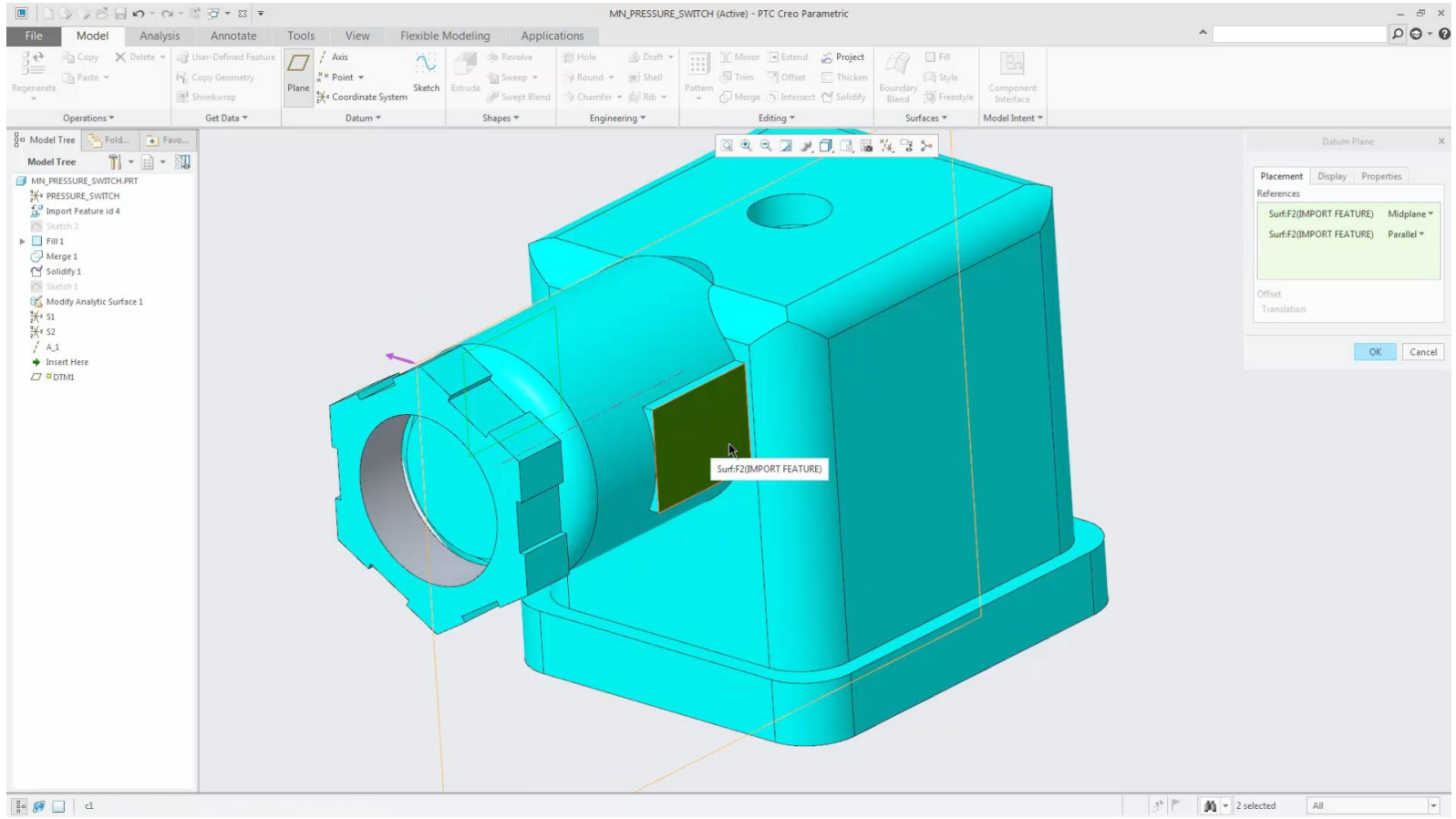
DATUM

Benefits

- Faster construction of mid-planes eliminating previously required construction steps
- More intuitive user interaction

DATUM FEATURE ENHANCEMENTS

- New Mid-plane tool
- Improved visibility to change constraint type



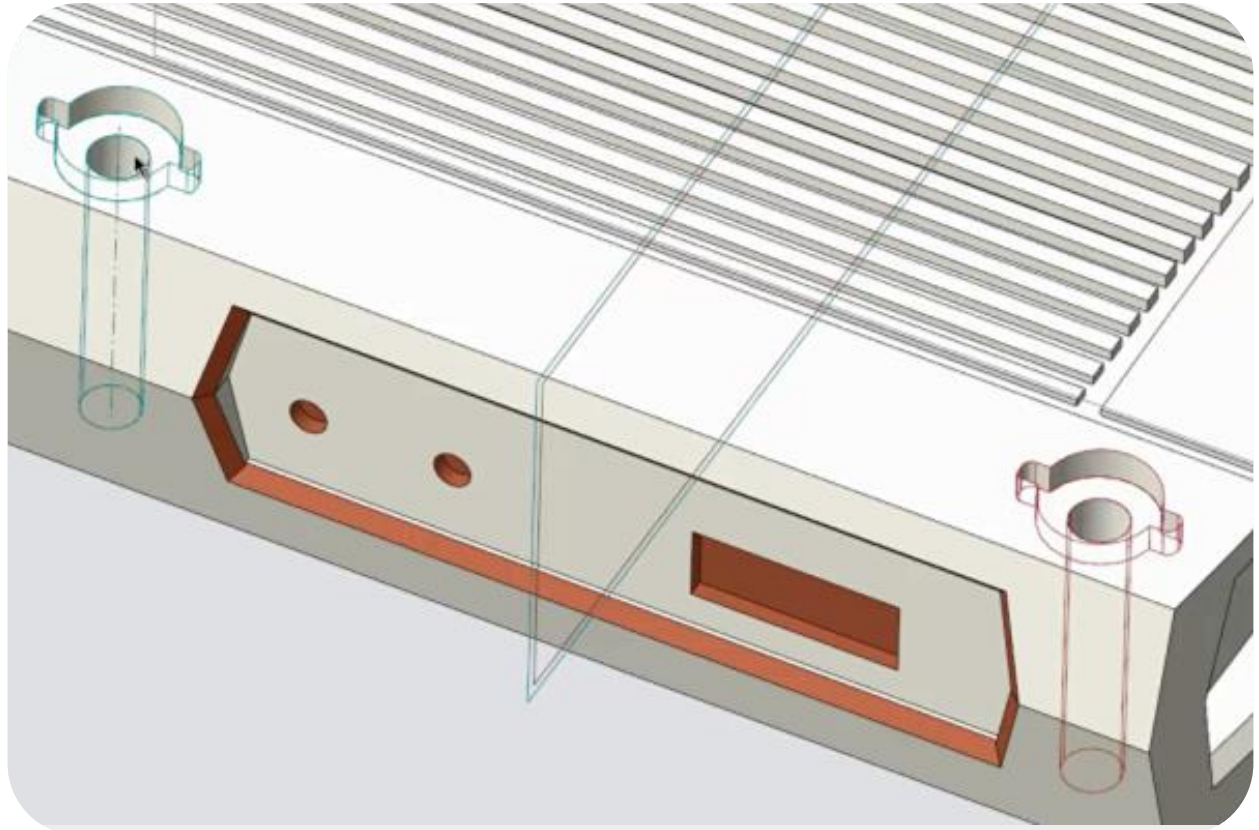
MIRROR

Benefits

- More intuitive and flexible interaction with mirror tool for faster definition and redefinition of feature

MIRROR FEATURE ENHANCEMENTS

- Geometry preview during feature definition
- Add features to a Mirror
- Remove features from a Mirror
- Better dependency control (opportunistic)



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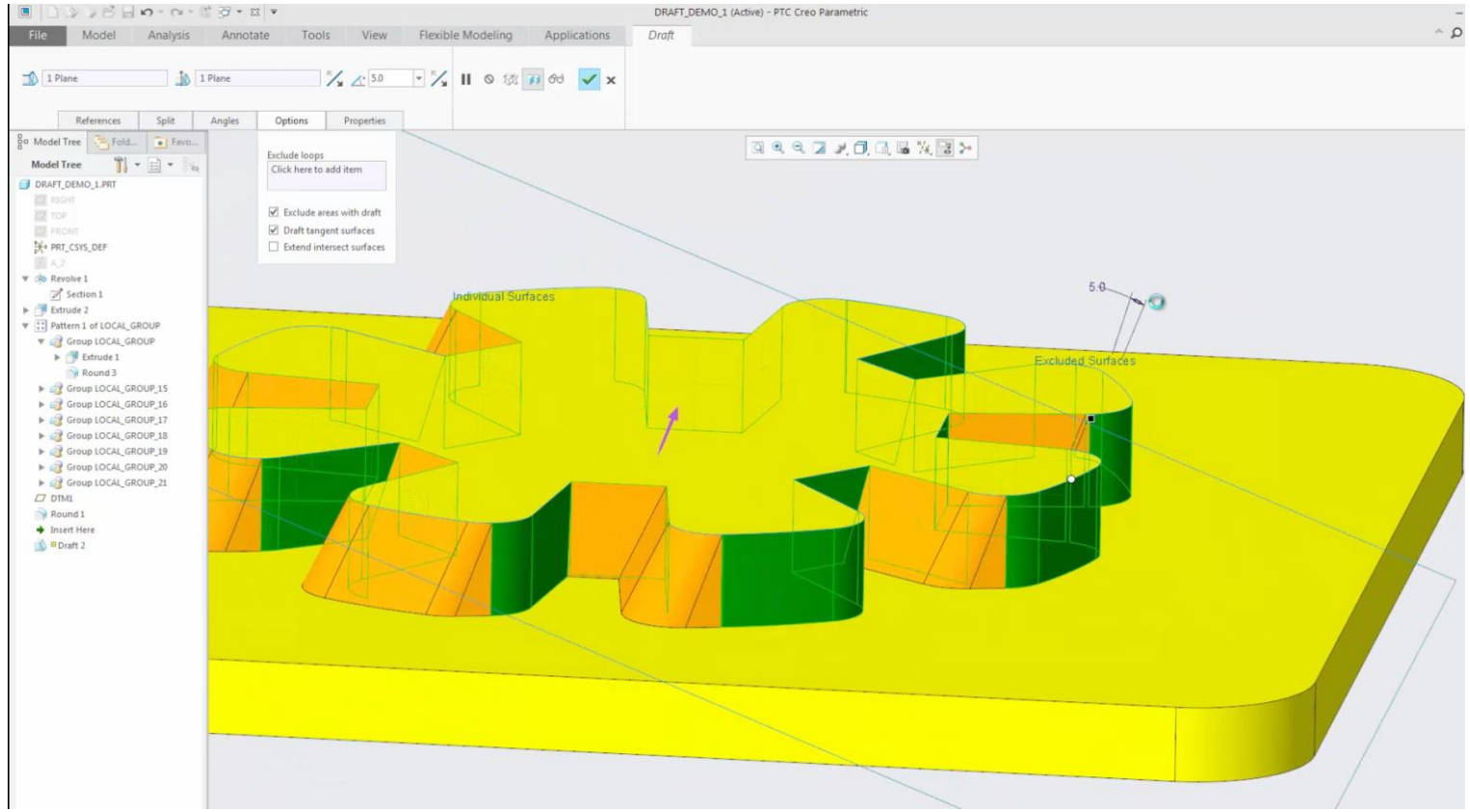
DRAFT

Benefits

- Better control over geometric result
- Geometric result better meets user expectations

DRAFT FEATURE ENHANCEMENTS

- Improved Draft of a boss at an angle
- New option to exclude areas that already meet the draft requirements



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BETTER FEATURE HANDLING WITH IMPROVED GROUPS

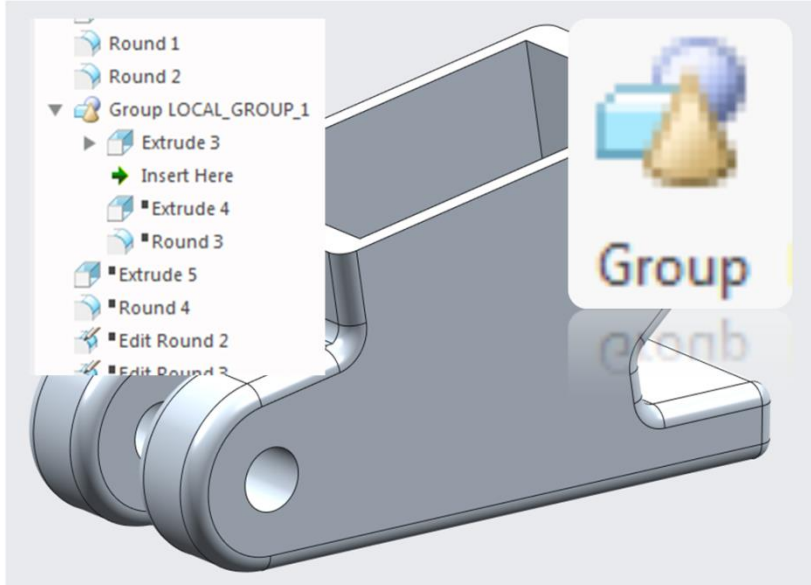
- Improved Reorder with Groups
- Insert Mode in Groups
- Removed Limitations
- Creo Direct changes grouped in Creo Parametric's Model Tree

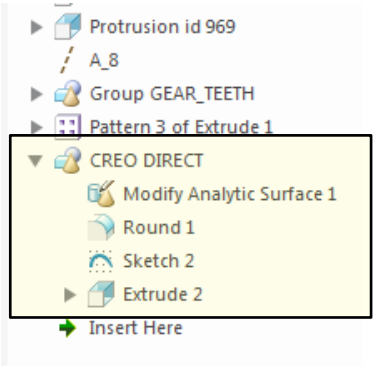
GROUPS

MORE FLEXIBILITY
REMOVED LIMITATIONS
GROUPS IN ROUND-TRIP

Benefits

- More intuitive and flexible interaction with groups make grouping concept much more broadly applicable





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SHEET METAL ENHANCEMENTS

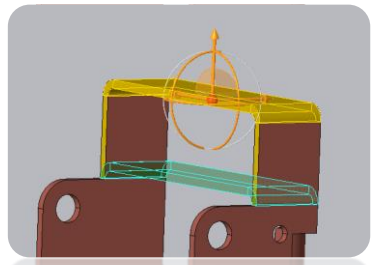
FLEXIBLE MODELING IN SHEET METAL

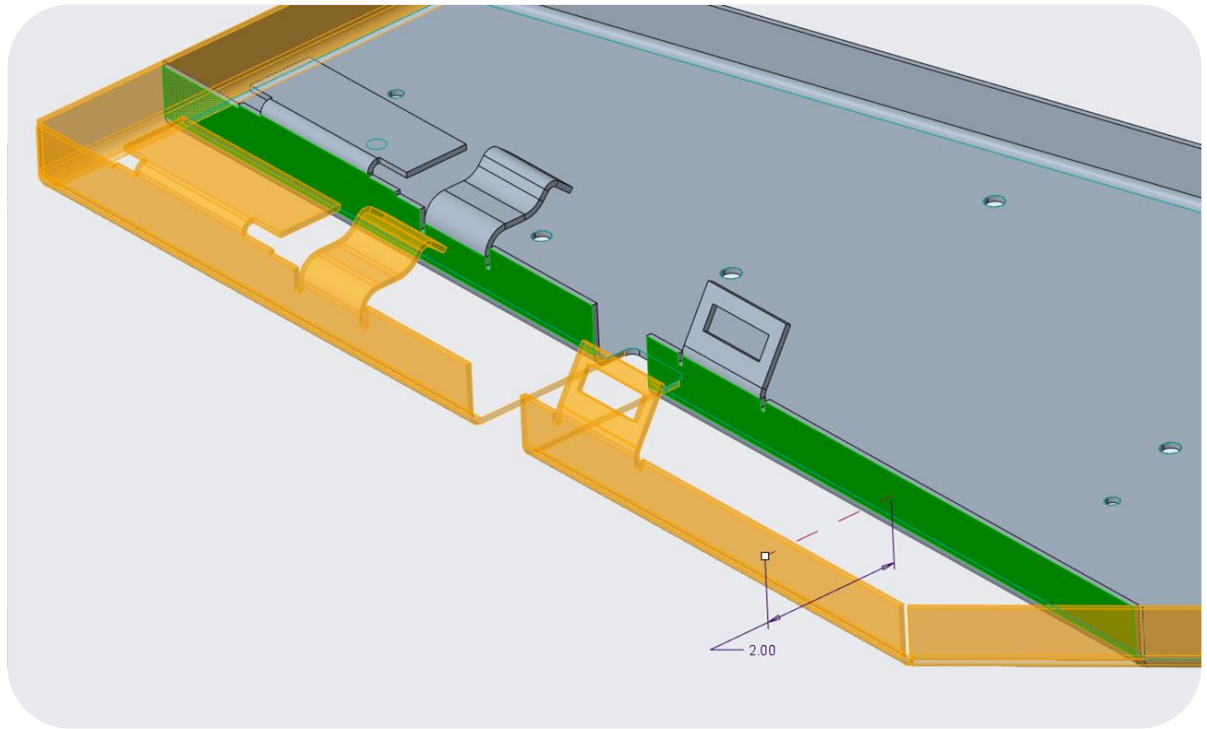
Easily

- Fine tune the model
- Improve efficiency and save design time by avoiding re-design efforts on native or imported sheet metal parts
- Quickly change design intent characteristics individually or globally

FLEXIBLE MODELING ENVIRONMENT FOR SHEET METAL PARTS

- Flexible Modeling tab
- Selection methods
- Flexible Modeling tools (subset exposed) with "Sheet Metal-Awareness"
- New modification tools for Sheet Metal Design Objects





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SHEET METAL

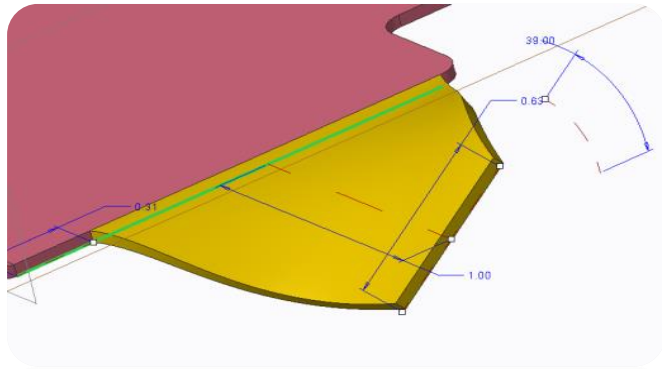
TWIST WALL
FORMS
EDGE BEND
EDGE TREATMENT
FLAT PATTERN

Benefits

- Easier, more user-friendly, and consistent user interaction
- Increased productivity through
  - Additional, more flexible controls
  - Richer set of feature creation options

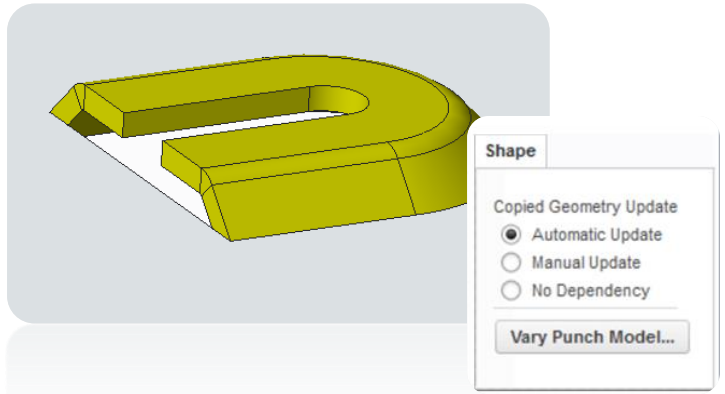
TWIST WALL ENHANCEMENTS

– New modernized UI for "Twist Wall"



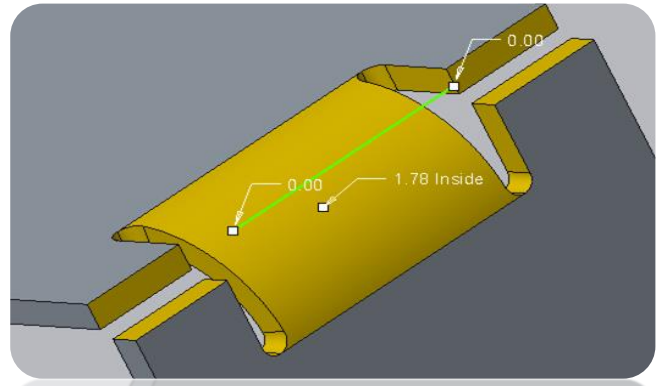
PUNCH & DIE FORM ENHANCEMENTS

– New and aligned dependency options/ control for inherited forms



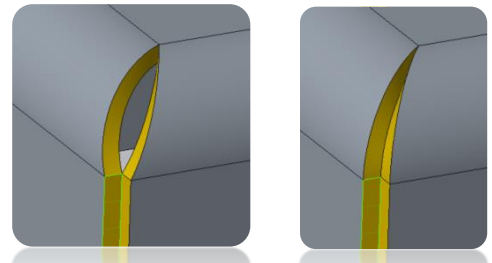
EDGE BEND ENHANCEMENTS

– Support of all relief types



EDGE TREATMENT IN FLANGE

– New "Close Corner" option



FLAT PATTERN

– Consistent, user-controllable flat pattern treatment of cuts or bends added to forms

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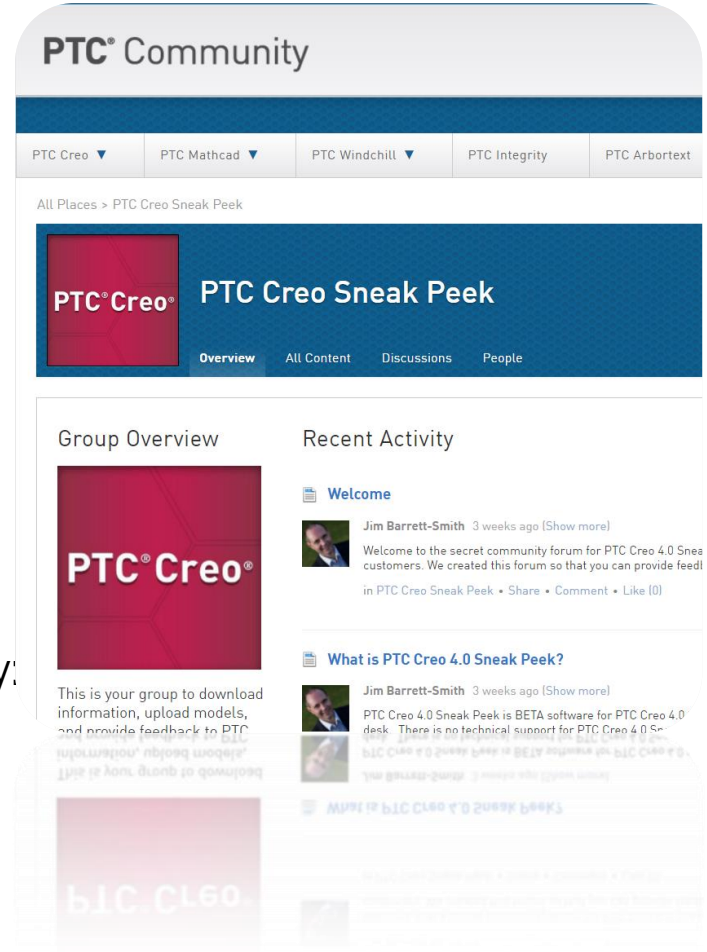
ROAD TO CREO 4.0

- Creo 4.0 Sneak Peek
  - Released June 6th
  - Sneak peek of Creo 4.0 for all customers
  - Embedded Timed License includes almost all of the new functionality
    - No requirement to update existing licenses
    - License expires 5 August 2016

- A great opportunity for you
  - Test Creo 4.0 Sneak Peek
  - Evaluate new paradigms
  - Evaluate modules you currently do not own

- Communicate and Share Feedback
  - Restricted access to PTC Community!
  - Request membership
    - Contact sneakpeek@ptc.com

- Planned Release Date of Creo 4.0:
  - End of 2016



www.ptcusercommunity.com/groups/ptc-creo-sneak-peek

The auto selection of reference edges in sketcher was very welcome. The color pallet in the graphic area and in the menu is much improved.

Just finally allowing better customization to help users increase productivity in ways that suits each individual person. This is great!

... WHY CAPS?! DON'T MISS THAT PRAISE!! custom hotkeys = yes yes yes.

Nice experience overall!

I like much of what I have seen, I look forward to the production version of the software.

The "Common"-tab is great!

QUOTES / FEEDBACK EXAMPLES - CREO 4.0 PRE-BETA

LIVE
WORX 16™
TAKE A FRESH LOOK AT THINGS
Thank you
liveworx.com