

# PTC Creo® Intelligent Fastener Extension

Improve design productivity with customizable fastener libraries and automated validation

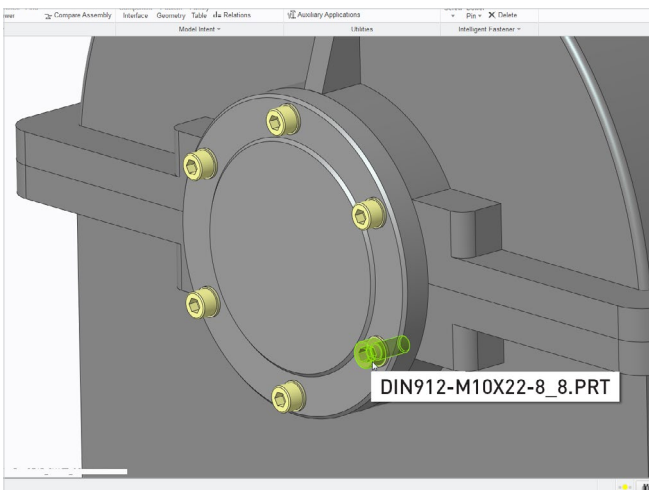
The PTC Creo Intelligent Fastener Extension (IFX) expands on the hardware fastener functionality in PTC Creo Parametric™. PTC Creo IFX introduces the ability to customize hardware libraries, adds greater flexibility of placements, and provides dedicated validation tools to users.

Assembling fasteners such as screws, bolts, nuts, washers, and dowels can be a labor intensive task. The user must ensure that holes align on mating parts, are the correct diameter, and that they assemble the correct hardware. PTC Creo Parametric automates this process, including access to comprehensive catalogs (ANSI, DIN, and JIS), enabling users to reduce the time to place and assemble fasteners by up to 90 percent.

PTC IFX builds on this functionality. With a fully customizable library, the ability to assemble fasteners without generating assembly references, more placement options, and design validation tools, PTC Creo IFX increases user productivity, eliminates errors, and reduces part proliferation.

## Key benefits

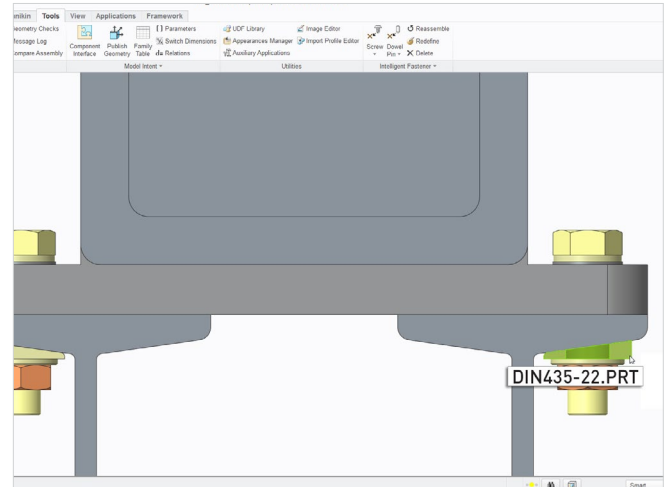
- Increase productivity
  - Automate repetitive tasks
- Reduce part proliferation
  - Customize the comprehensive library of fasteners to include company or project specific hardware
  - Drive standardization



Assemble fasteners on all instances

## Key benefits (continued)

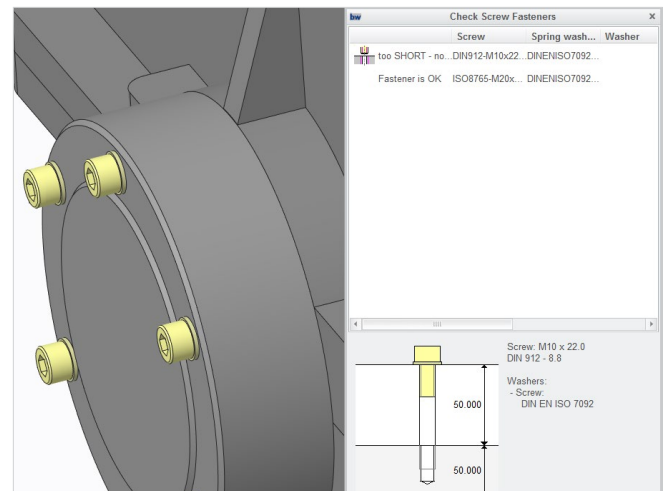
- Improved design workflows
  - Automatic creation of holes without assembly references
  - Removes requirement to manually align fastener holes which do not have assembly references
- Improved design accuracy
  - Validation tools to ensure fasteners are the correct length
  - Fully aligned mounting holes



Automatically orientate wedge washers during placement

## Capabilities and specifications

- Extended library with dowels
- Customizable library
- Support fastener orientation
- Assemble fasteners using Patterned References in a single workflow
- Place multiple fasteners in one step without creating external references
- Automated validation checking



Automated Validation

	Description	PTC Creo Parametric	PTC Creo Intelligent Fastener Extension
Library	<b>Screws mm &amp; Inch</b> DIN EN ISO 1207, 2009, 1580, 4762, 10642 DIN 84, 85, 580, 912, 921, 931, 933, 960, 961, 963, 6912, 7990, 7984, 7991 ISO 4014, 4017, 6914, 8765, 8676, EN 24017, EN ISO 1207	√	√
	Washers mm & Inch Plain – wide & narrow Lock – regular & heavy	√	√
	Nuts, mm & Inch ISO 4032, 7040 Din 439, 934, 982, 1587	√	√
	Dowels mm & Inch ISO 2388, 8734, 8735		√
	Customization		√
	Screw configurations		√
	Support multiple fasteners of the same size but with differing sub information		√
Placement	Automatic hole creation	√	√
	Counterbores	√	√
	Automated length selection	√	√
	Automated thread diameter selection	√	√
	Pattern fastener during placement	√	√
	Assemble fastener on all points/axis		√
	Create holes without external references		√
	Alignment of fastener on beams with sloped inner surfaces		√
	Assembling nuts to subassemblies (encapsulated/welded nuts)		√
Validation	Updating hole position and alignment with fasteners		√
	Determine correct fastener lengths		√

## Language support

English, German, French, Italian, Spanish, Russian, Japanese, Chinese (Simplified and Traditional), and Korean.

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J3518-PTC Creo Intelligent Fastener Extension EN-0514