



International TechneGroup

CADfix PPS 5

“What’s new”

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CADfix Product Manager

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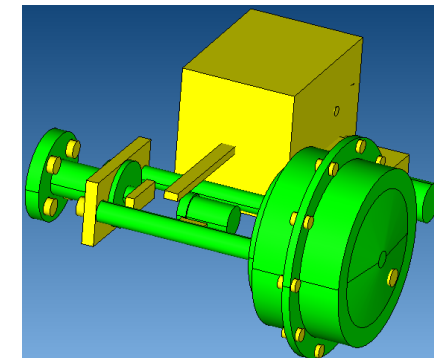
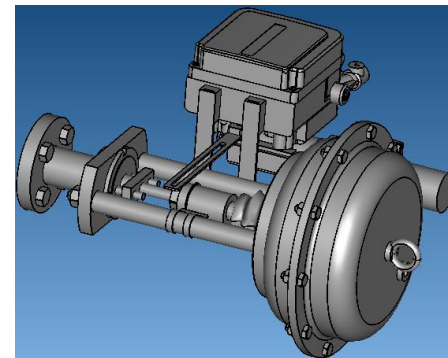
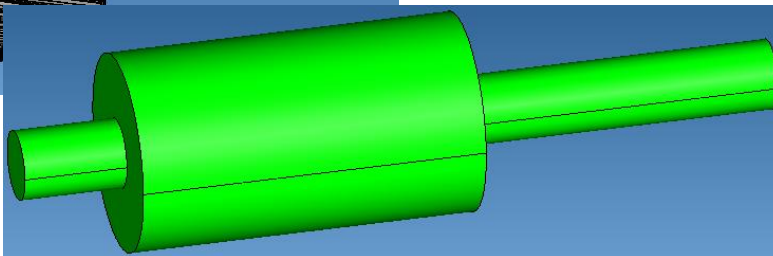
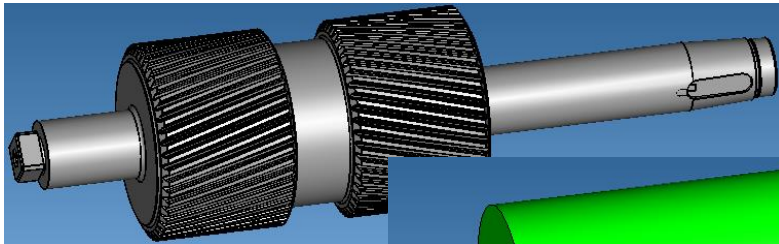
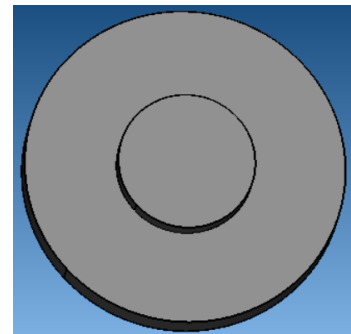
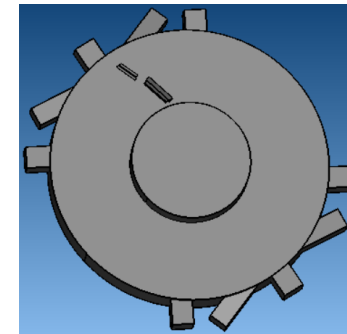
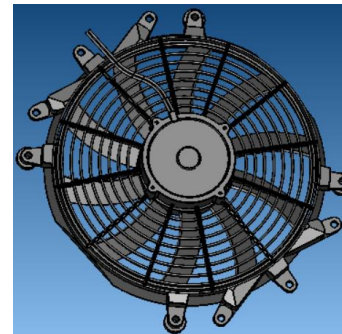
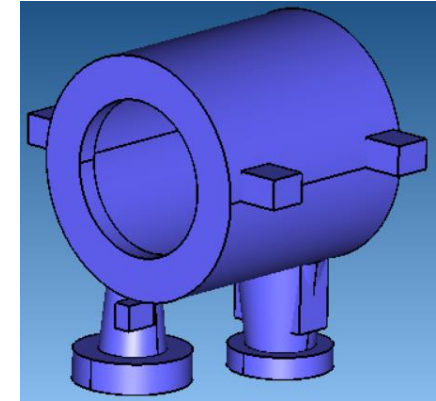
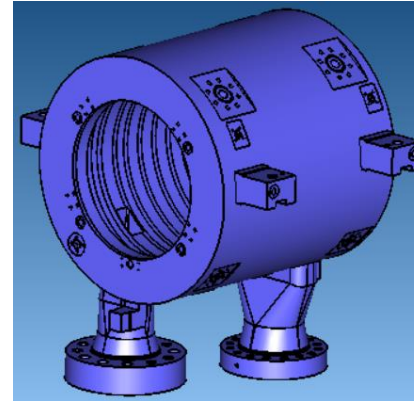


CADfix PPS 5 Summary

- Auto-simplification
 - Smarter and faster***
 - New revolved simplification
 - New extrusion simplification
 - New thread recognition & removal
 - New fastener recognition
 - New “floor grill” simplification
 - New external connector preservation
 - New open-shell simplification
 - New auto-deletion of enclosed parts
 - New centreline network technology
 - Significantly faster, 2x-5x or higher
 - Significantly higher % size reduction
- Import/Export
 - Latest CAD versions
 - Improved IFC import
- Manual tools
 - New revolved simplification tool
 - Improved extrusion simplification tool
 - More complex hole/protrusion removal
 - Significantly improved internal detail removal
- Model tree
 - Significantly faster load and browse
 - Selective exploding of part instances
- GUI
 - New before/after compare tool
 - New body size histogram tool
 - New model size in status bar
 - Improved model size reduction counter
 - Visual feedback on body sizes
 - Default cwc as user preference
 - New German language version

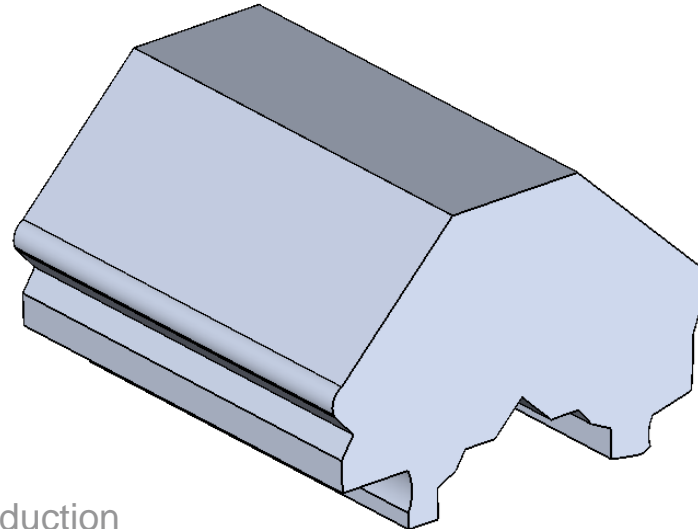
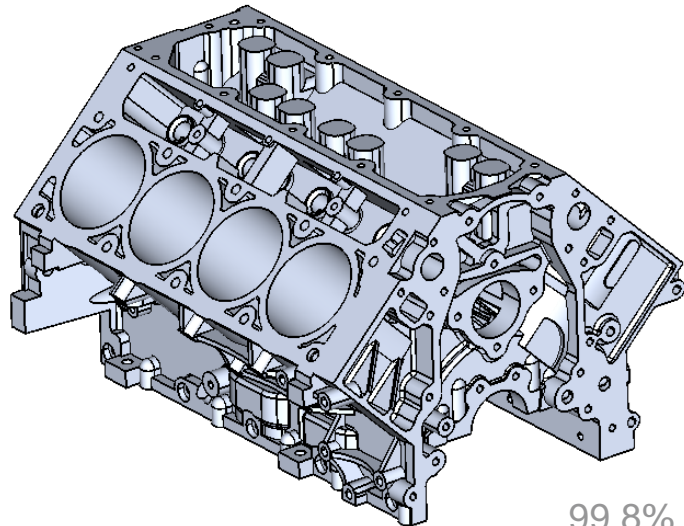
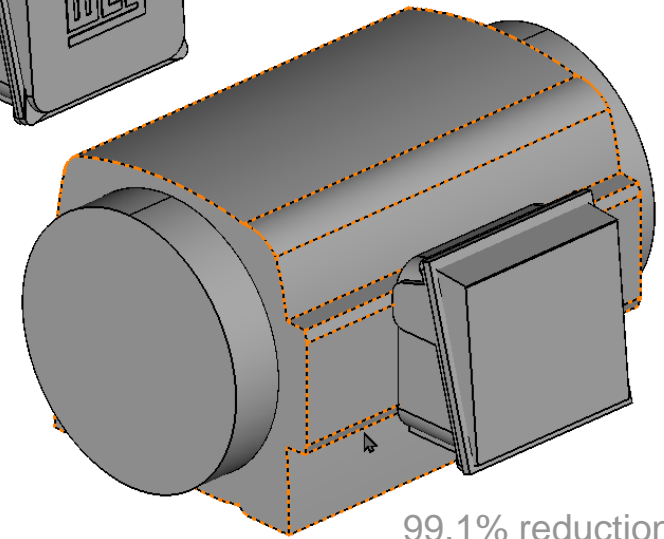
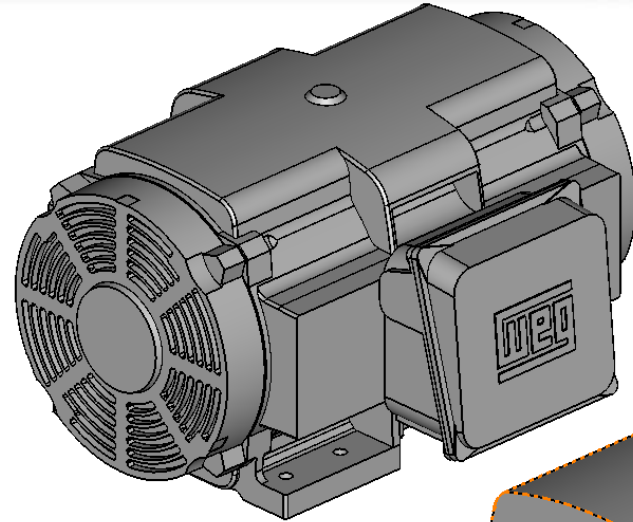
PPS5: Auto-simplification

- New Revolve Simplification
 - Smart revolved profile detection
 - Extracts multiple revolved sections
 - Variable detail reduction
 - Better outlier simplification
 - Higher % reduction with better shape capture



PPS5: Auto-simplification

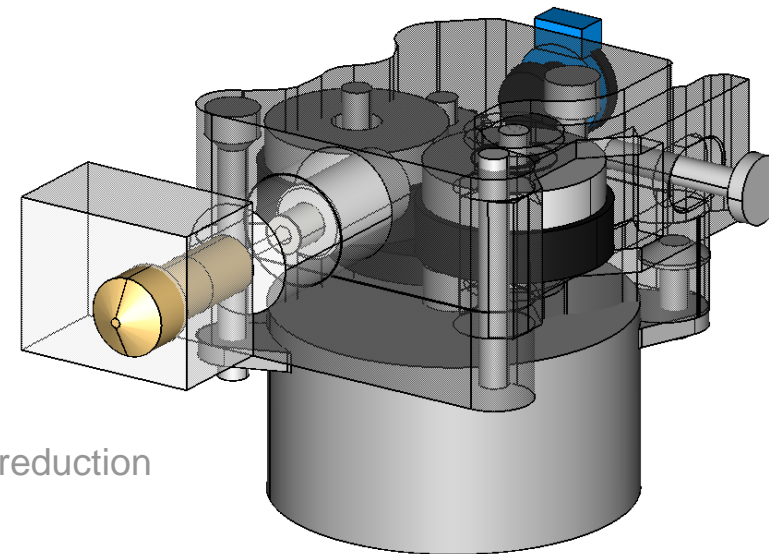
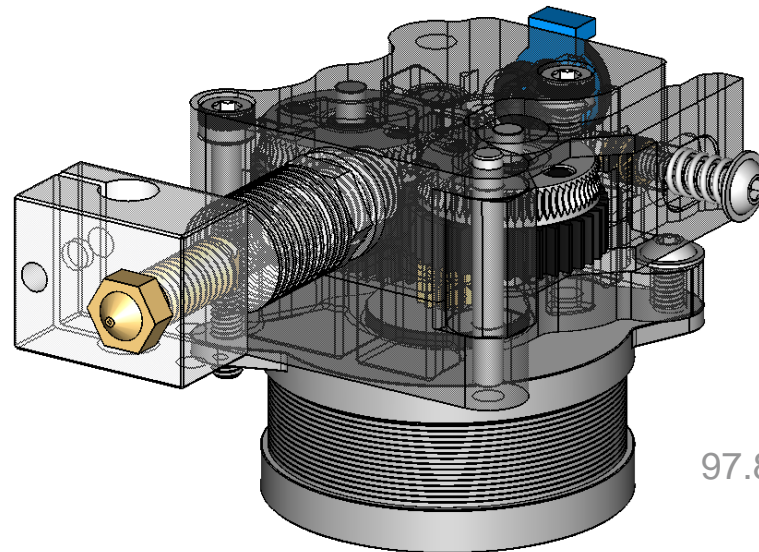
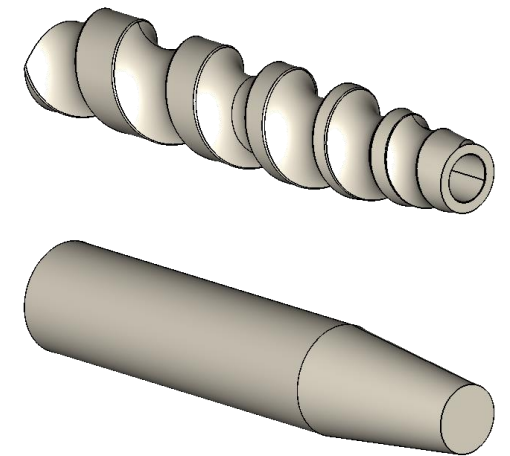
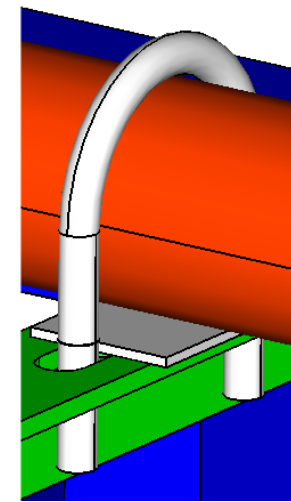
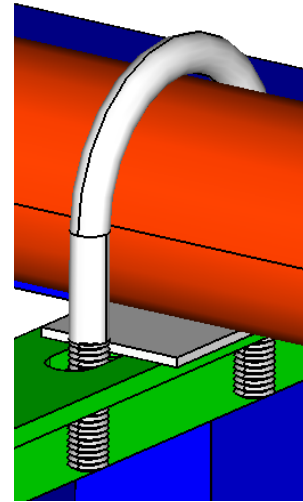
- New Extrude Simplification
 - Intelligent detection finds a best-fit extrusion for complex solids
 - Extrusion profile auto-defeatured
 - Model extents better preserved
 - Achieves high % reductions



PPS5: Auto-simplification

- New Thread Simplification

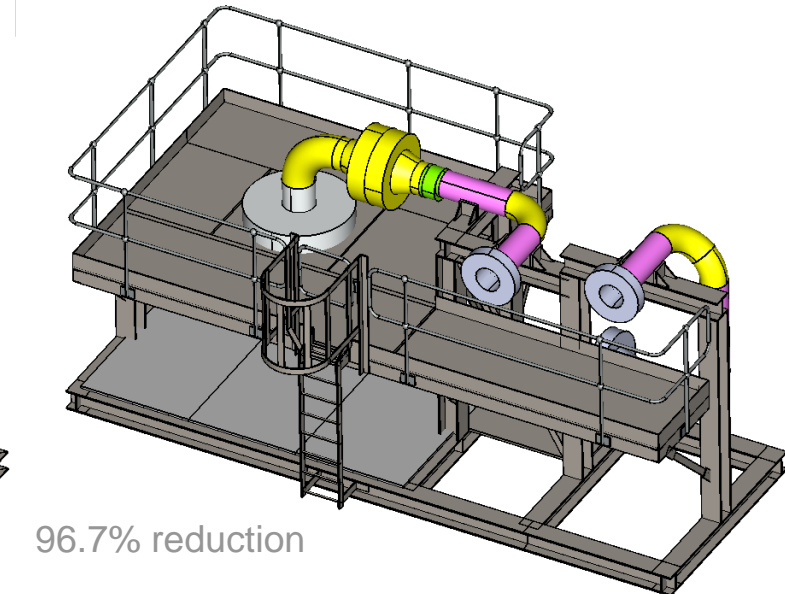
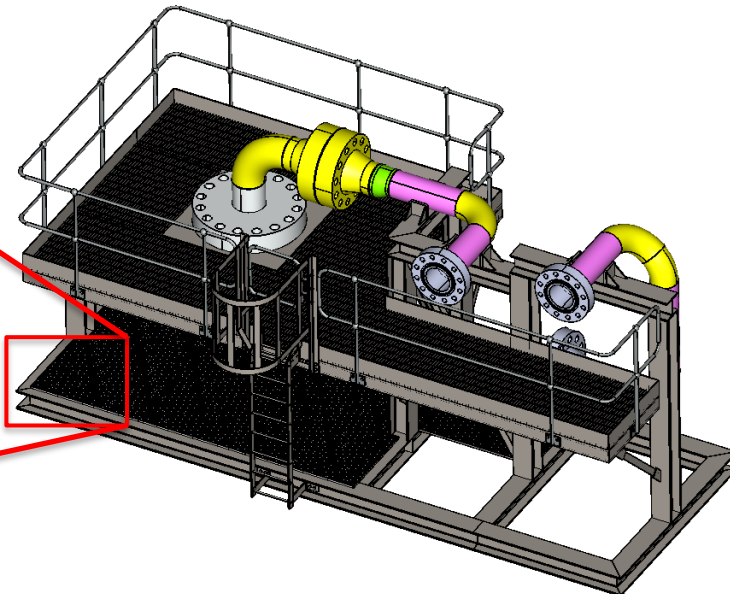
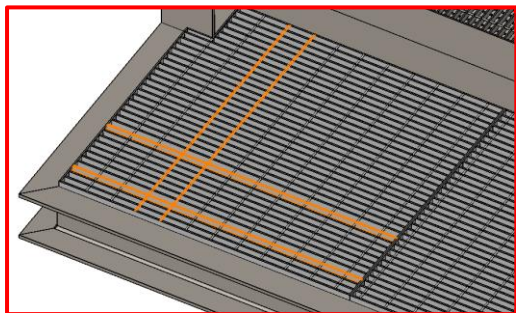
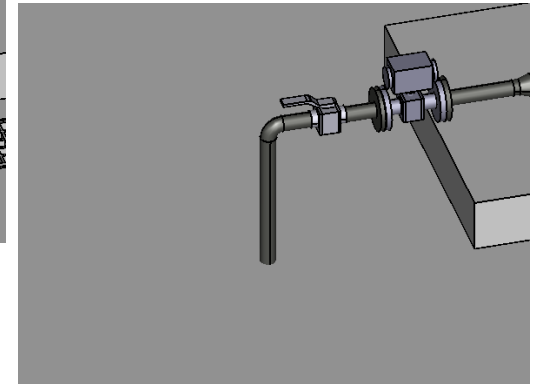
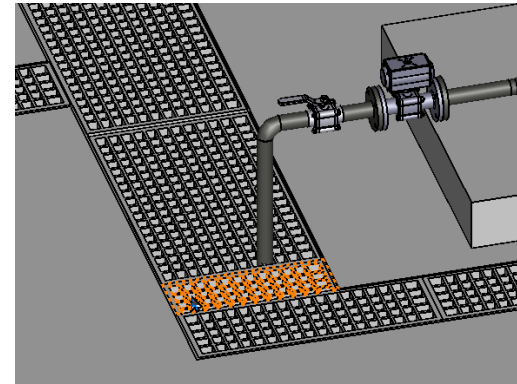
- Robust identification
- Finds simple and helical
- Internal and external
- Cylindrical/conical replacement
- High % reduction



97.8% reduction

PPS5: Auto-simplification

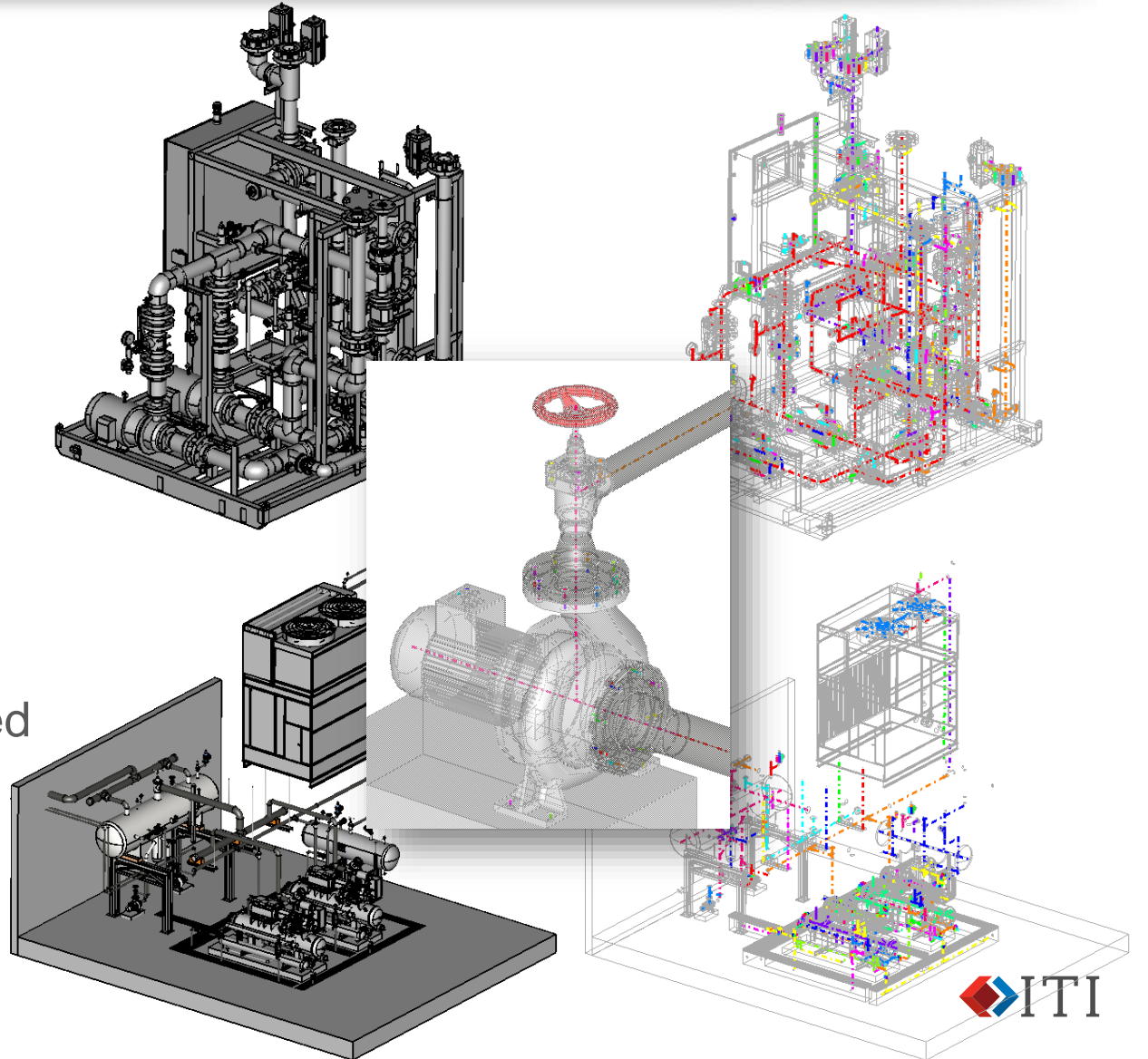
- New Floor Grill Simplification
 - Robust recognition via new smart pattern detection
 - Single body grills or multi-body assembly component grills
 - Regular or irregular patterns



96.7% reduction

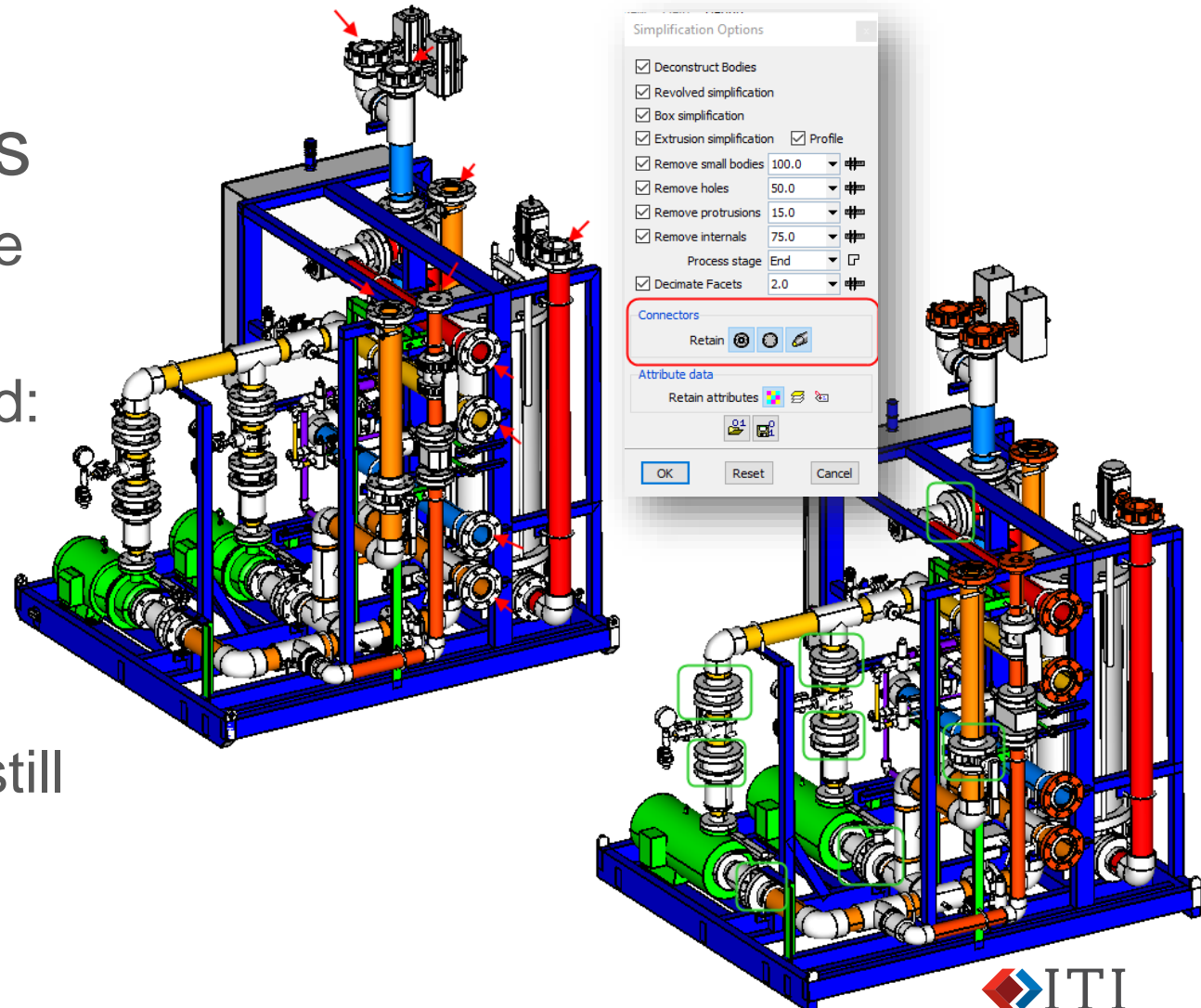
PPS5: Auto-simplification

- Centreline Network Identification
 - Trace and connect centrelines between bodies
 - Assemblies supported
 - Enables:
 - Smarter pipe-run identification
 - New revolved simplification
 - Connectors/terminators identified and preserved
 - Threads and fasteners robustly identified



PPS5: Connector Preservation

- Automatic selective preservation of connectors
 - Termination points of centreline network identify connectors
 - Three types of connector found:
 - Open flange
 - Closed flange
 - Simple connector
 - Only terminating connectors preserved, internal instances still simplified



PPS5: Auto-simplification



Processing time

- Testing shows average speed-up between 3x–5x or higher
- Average processing times reduced by between 65% to 90%



Size reduction

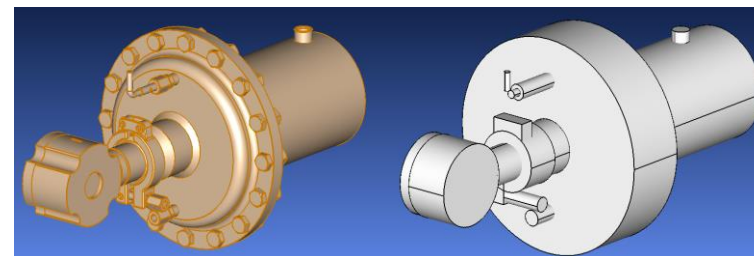
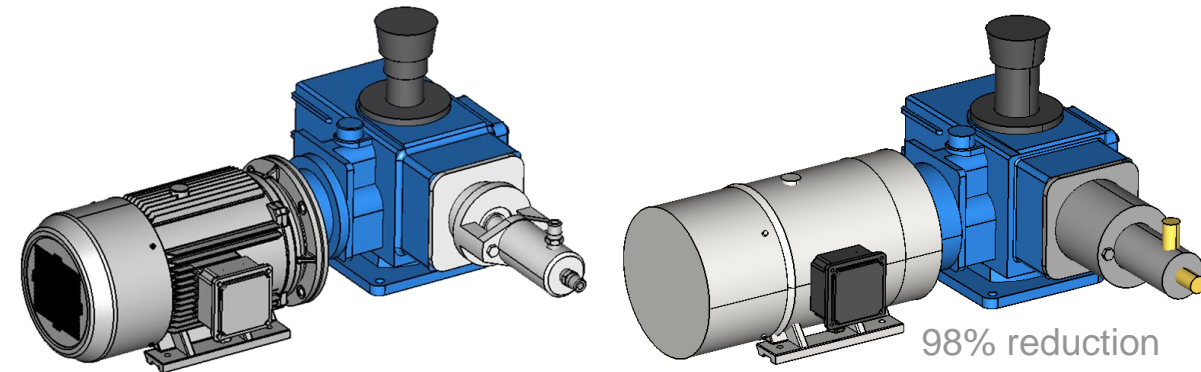
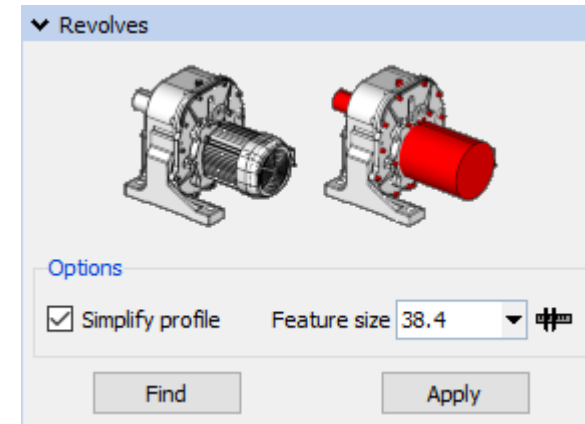
- Higher reduction % from new revolved and extruded simplification
- Complex solids previously untouched now simplified

Import/Export: Updated versions

- CAD system:
 - Catia V5-6 R2024
 - Creo 10
 - NX 2312
 - Inventor 2024
 - SolidEdge 2024
 - SolidWorks 2024
- Neutral formats
 - ACIS R2024 1.0
 - Parasolid 36
- Updates
 - Improved IFC import

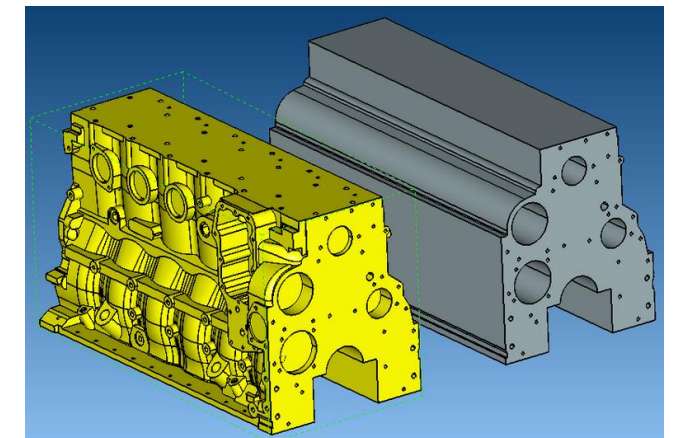
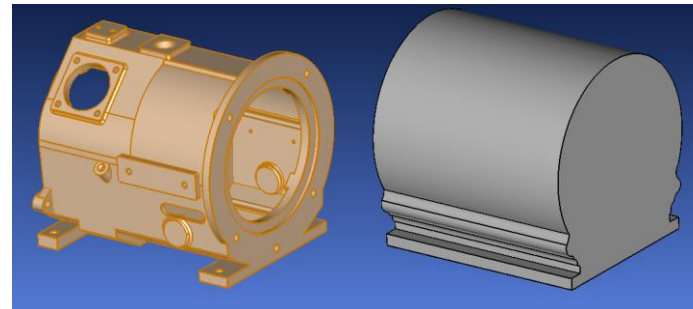
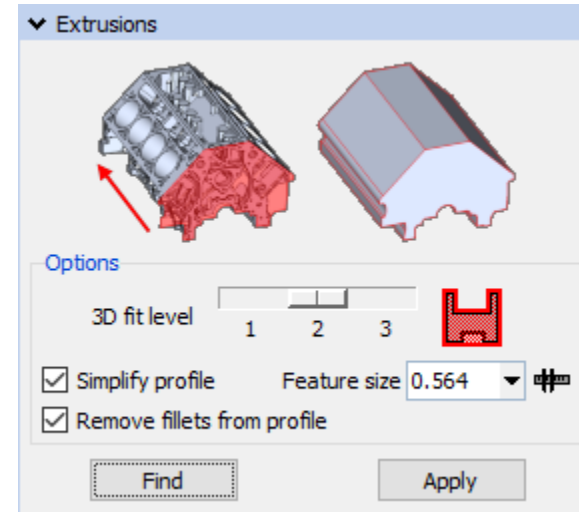
PPS5 Manual Tools: Revolves

- New multi-axis revolve simplification tool
- Identifies, isolates and simplifies revolved sections
- Non-revolved sections preserved for further simplification
- Profile simplification options



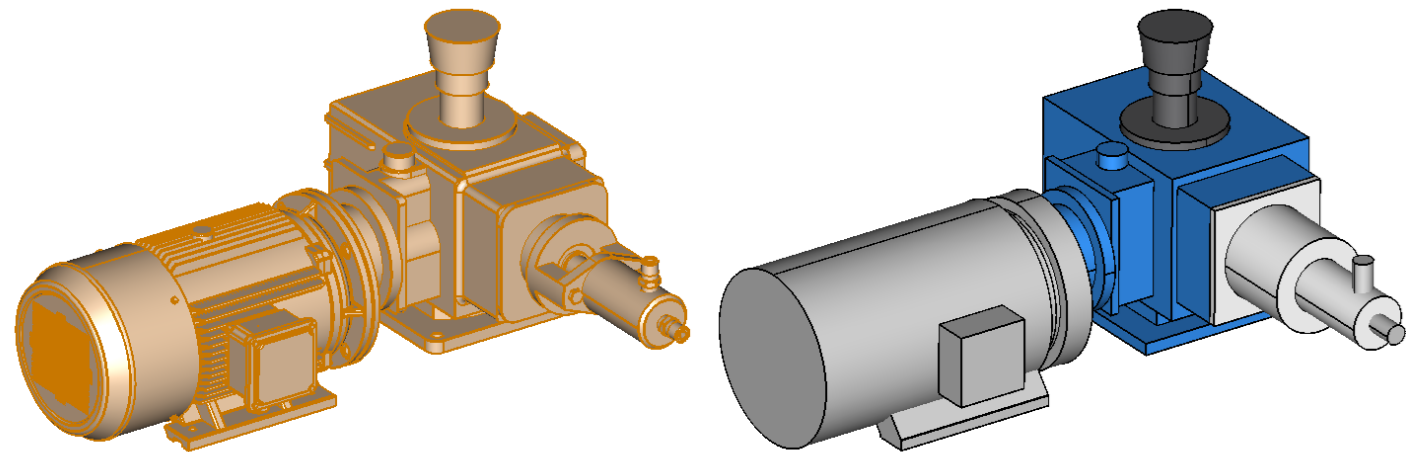
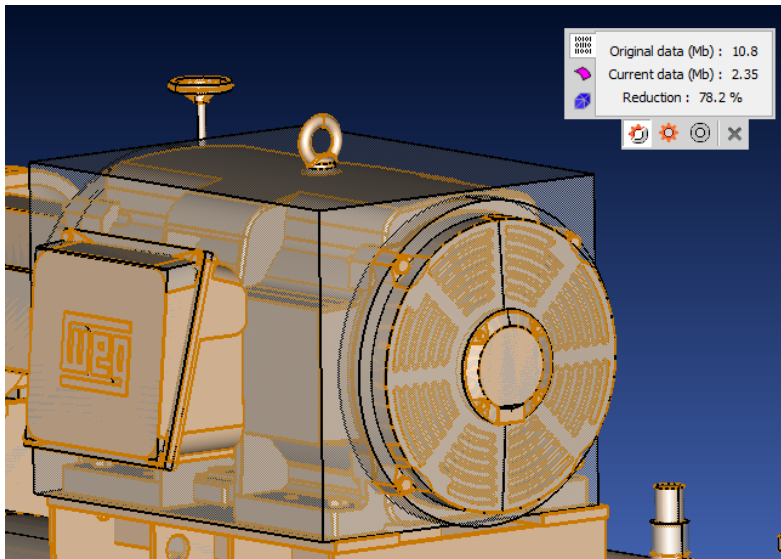
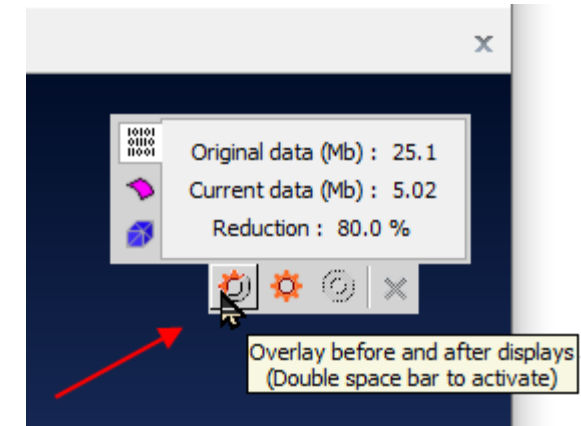
PPS5 Manual Tools: Extrusions

- New powerful “best-fit” extrusion detection
- Arbitrarily complex solids now handled
- Produces high % reductions while keeping bulk shape
- Profile simplification options



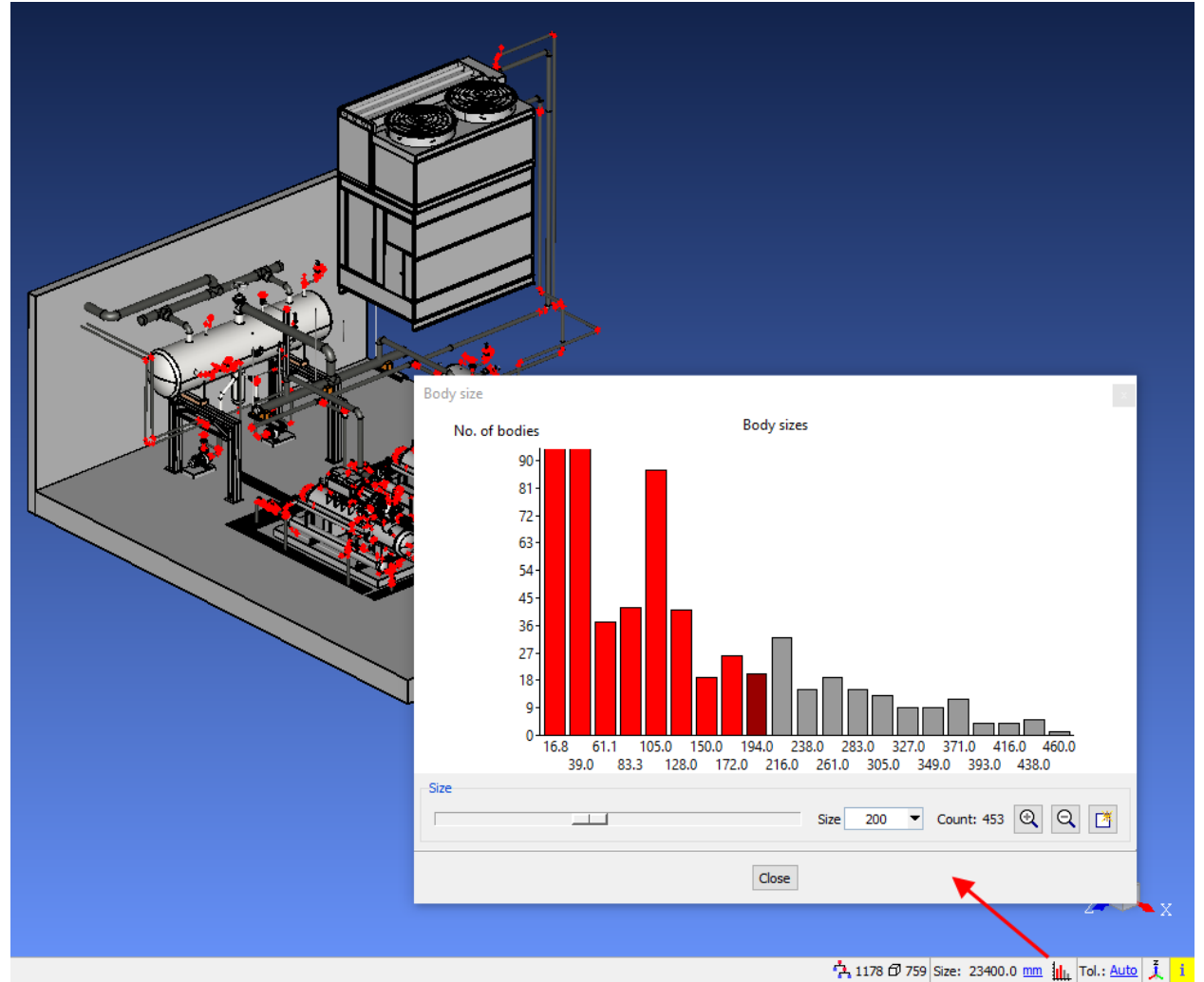
PPS5 GUI: Before/After Compare

- New comparison tool
- Visually compare before and after
- Overlay or toggle between views



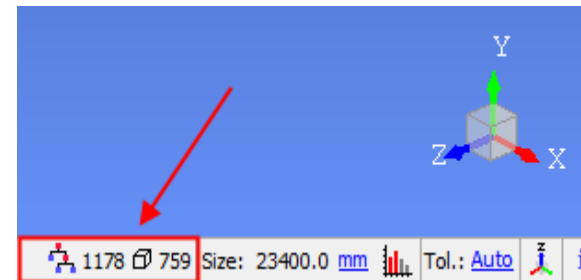
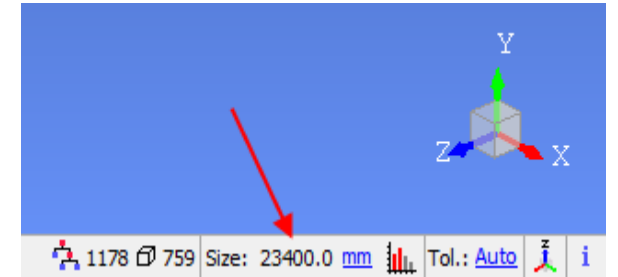
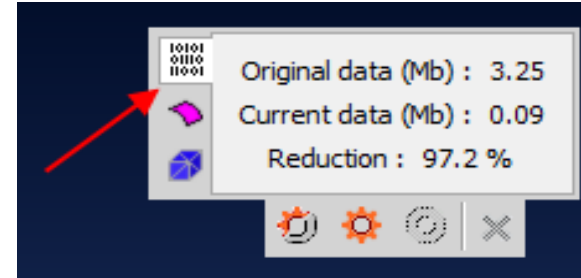
PPS5 GUI: Body Size Histogram

- New utility for assessing the range of body sizes in a large model
- Useful for selecting appropriate values for auto-simplification
- Dynamic feedback as user threshold adjusted



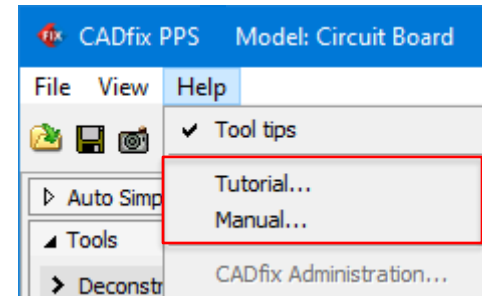
PPS5 GUI: Model Statistics

- New measure of model size reduction
 - More accurate as based on total data size
- New global model size
 - Status bar shows overall model diameter size
- New entity counters
 - Status bar shows assembly, body and facet counters
- New “Up” axis control
 - Quickly flip view “up” axis



Documentation

- Help on PPS5 tools:
 - Help → Manual
- PPS5 specific self-training:
 - Help → Manual
- Installation and release information:
 - ITI-Global.com/cadfix-support
- Other training, advice, and queries
 - Americas: works_supp@iti-global.com
 - Europe, Asia-Pacific, Middle East, Africa: eusupport@iti-global.com





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