



What's new in CADfix 12/SP2

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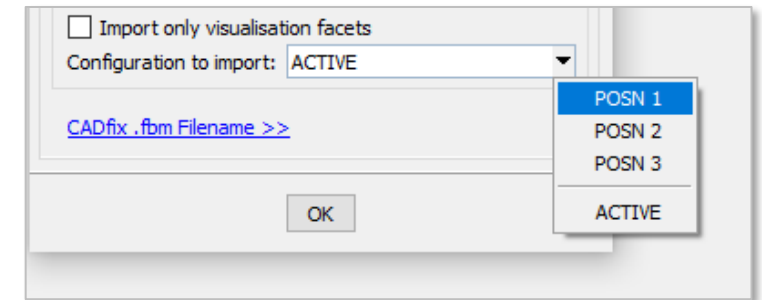
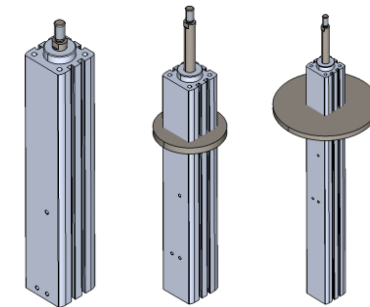
CADfix DX 12/SP2 Summary

- Import/Export
 - CAD version updates (NX, CATIA, etc...)
 - New glTF import and export
 - New DGN import (beta)
 - New direct export to CONVERGE CFD
 - Improved IFC, OBJ import
 - Improved FBX import/export
- Wizard
 - Facet quality checks for batch export
- Assemblies
 - Auto-build from duplicate parts
- Model tree
 - Performance
 - Transparency control
- Mass-properties
 - New HTML mass-properties report with user defined pass/fail thresholds
- Defeature
 - Improved hole removal (split exits)
 - Improved protrusion removal (split base)
 - Holes-with-protrusions (lettering)
 - Faster, more successful face joins
- Diagnostics
 - New Fix for self-intersecting shells
- GUI
 - Significant figure rounding to improve numerical readability
- Licensing
 - FlexNET version updated to 11.16.4

CADfix DX 12/SP2 – Import/Export

- CAD Version updates
 - Updated version support for CAD formats
 - glTF import and export
 - New DGN import (beta)
 - New direct export to CONVERGE CFD
 - Improved IFC, OBJ import
 - Improved FBX import/export
- Import SOLIDWORKS configurations
 - Scan and select configurations
- More robust STL export – fewer faceting failures

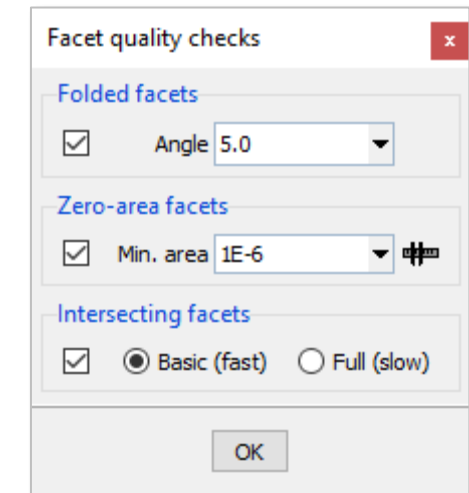
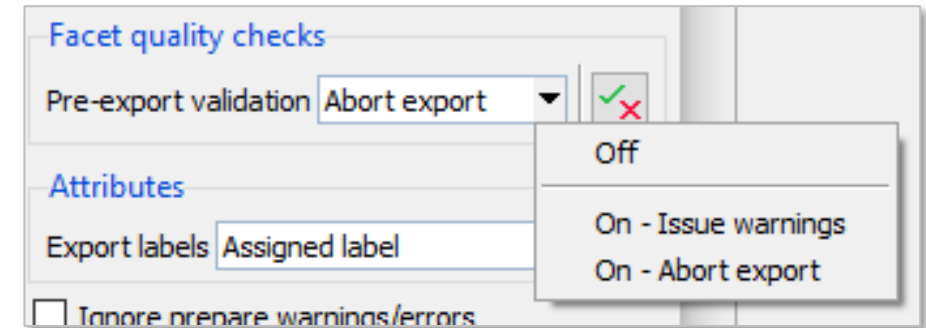
[Download Product Availability.pdf](#)



CADfix DX 12/SP2 – Wizard

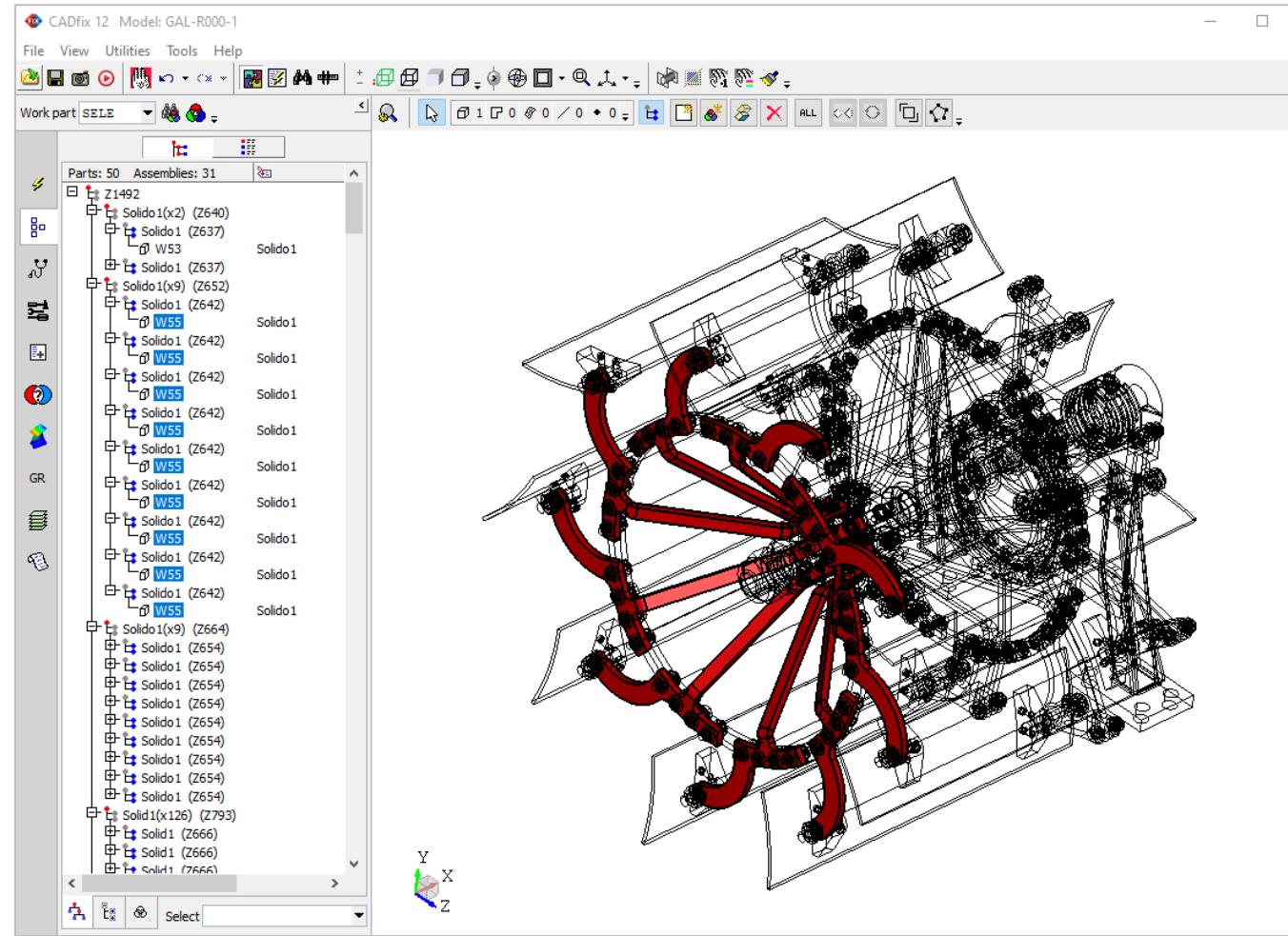
- Batch facet quality checks for STL/OBJ/CONVERGE CHT:

- Facet quality checks now supported in batch export
- Options to ignore, issue warning or abort export
- Checks for folded, zero-area



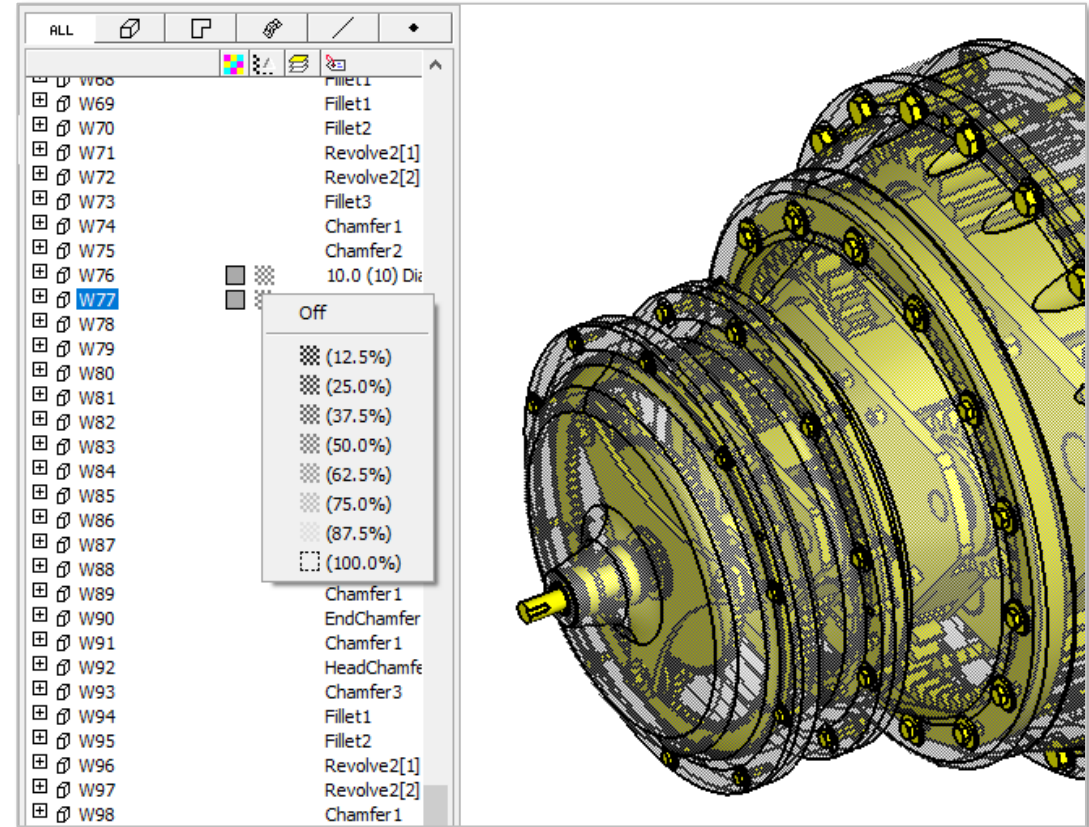
CADfix DX 12/SP2 – Assemblies

- Build assembly structures:
 - Build flat assembly structures, automatically
 - Instantiating bodies with matching geometry/topology



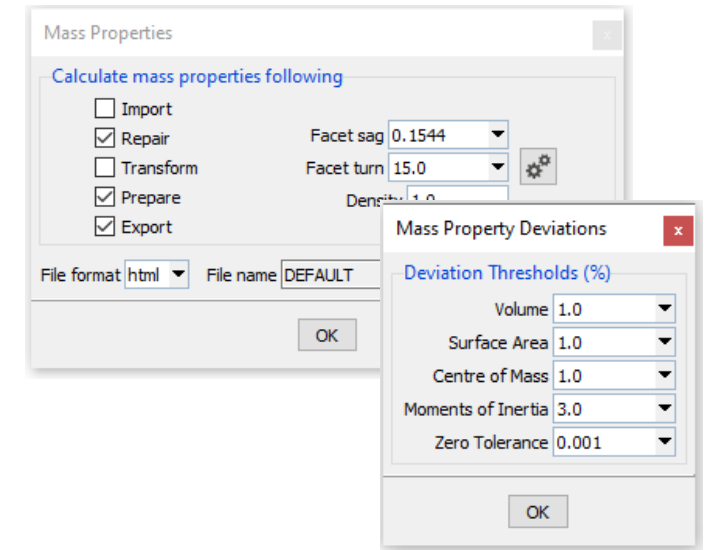
CADfix DX 12/SP2 – Model tree

- Model properties
 - Transparency attribute added to the model tree
- Performance
 - Faster opening of nodes in the tree
 - Faster restoration of a selection when switching between the Model tree and Assembly tree tabs



CADfix DX 12/SP2 – Mass-properties

- New HTML/csv mass-properties report:
 - Monitor changes to a component's mass-properties.
 - Define pass/fail thresholds to identify cases where deviation in the mass-properties is inappropriate
 - Mass-property deviation reported at each wizard stage
 - Checks for volume, surface area, centre of mass, moments of inertia, and zero tolerance



Conversion Summary

Source File C:/Users/es/Desktop/Support QA/Slots/Slot_a.fbm
 Destination File C:/Users/es/Desktop/Support QA/Slots/Slot_a_cf.stp
 Start Time 10 Jun 2021 14:36
 Results **SUCCESS**

Property	Volume	Area	C of M	M of I		
Tolerance	1.0%	1.0%	1.0	3.0%		
Body - W1						
Property	Dev. Threshold	REPAIR	PREPARE	EXPORT	Units	Deviation
Volume	1.0%	6258.191	6258.181	6258.181	mm ³	0.0%
Area total	1.0%	5617.347	5617.346	5617.346	mm ²	0.0%
Area wetted	1.0%	5617.347	5617.346	5617.346	mm ²	0.0%
Centre of mass - X		-1.774E-08	2.690E-03	2.690E-03		
Centre of mass - Y	1.0	-3.259E-01	-3.259E-01	-3.259E-01	mm	0.0
Centre of mass - Z		15.000	15.000	15.000		
Moment of Inertia - XX	3.0%	1044845.03	1044842.52	1044842.52	-	0.0%
Moment of Inertia - YY	3.0%	1073402.85	1073401.7	1073401.7	-	0.0%
Moment of Inertia - ZZ	3.0%	1179519.28	1179517.1	1179517.1	-	0.0%

Baseline values not computed on import. Physical property deviations determined with respect to repaired values.
 Centre of mass deviations derived from magnitude of components.

Conversion Summary

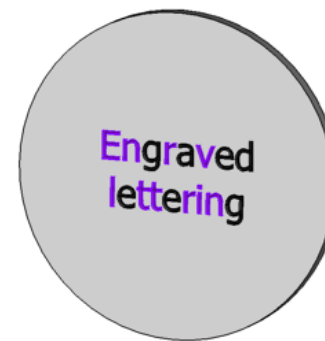
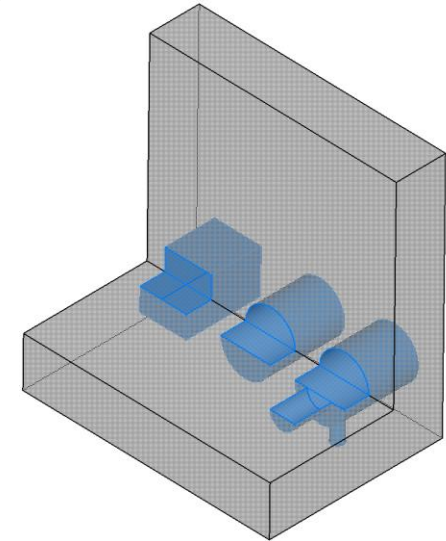
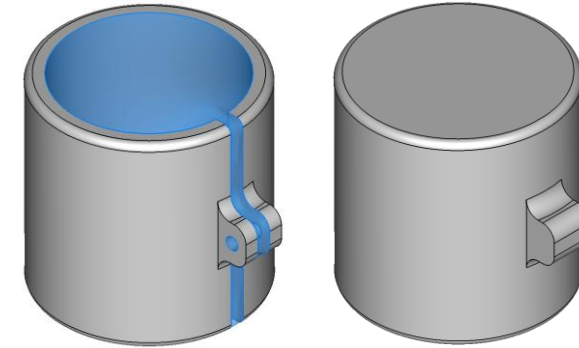
Source File C:/Users/es/Desktop/Support QA/Atomic test data/through10.sat
 Destination File C:/Users/es/Desktop/Support QA/Atomic test data/through10_cf.stp
 Start Time 10 Jun 2021 14:51
 Results **FAIL**

Property	Volume	Area	C of M	M of I		
Tolerance	1.0%	1.0%	1.0	3.0%		
Body - W1						
Property	Dev. Threshold	REPAIR	PREPARE	EXPORT	Units	Deviation
Volume	1.0%	14291.632	21056.586	21056.586	mm ³	47.3%
Area total	1.0%	7573.213	4226.224	4226.224	mm ²	44.2%
Area wetted	1.0%	7573.213	4226.224	4226.224	mm ²	44.2%
Centre of mass - X		-3.061E-02	-2.698E-08	-2.698E-08		
Centre of mass - Y	1.0	1.242E-09	-1.449E-02	-1.449E-02	mm	0.0
Centre of mass - Z		15.000	15.000	15.000		
Moment of Inertia - XX	3.0%	2167279.56	2755366.85	2755366.85	-	27.1%
Moment of Inertia - YY	3.0%	2157422.44	2755371.27	2755371.27	-	27.7%
Moment of Inertia - ZZ	3.0%	1836402.42	2352250.23	2352250.23	-	28.1%

Baseline values not computed on import. Physical property deviations determined with respect to repaired values.
 Centre of mass deviations derived from magnitude of components.
Some values deviated beyond their allowable threshold.

CADfix DX 12/SP2 – Defeature

- Improved holes/protrusions removal:
 - Removal of holes/protrusions with complex caps
 - Removal of holes containing protrusions such as engraved text



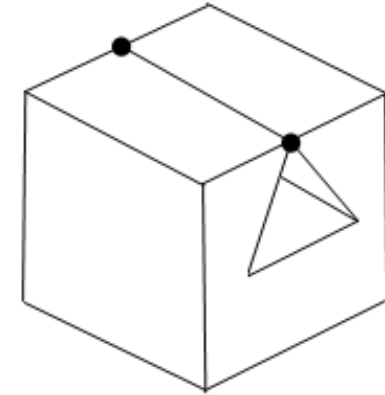
12 SP1.1



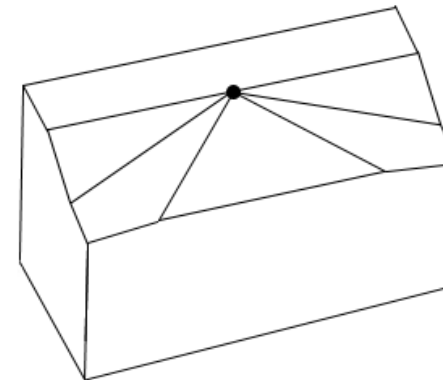
12 SP2

CADfix DX 12/SP2 – Diagnostics

- New Fix for self-intersecting shells
 - Diagnostic help updated
 - New repair stage for identification and handling of



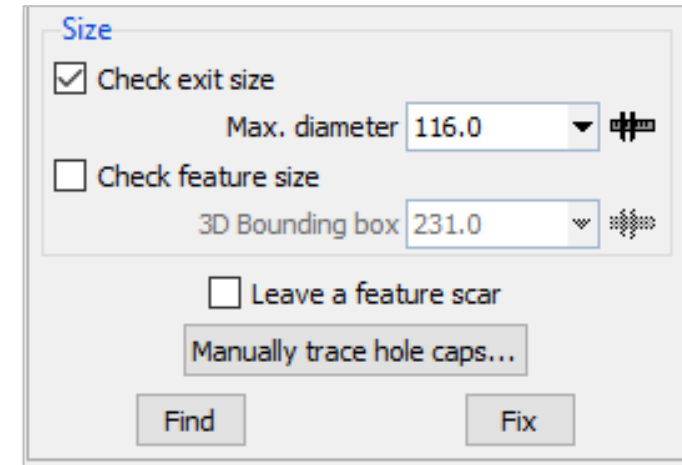
Non-manifold shell



Over-used vertex

CADfix DX 12/SP2 – GUI

- Significant figure rounding
 - Model dependent tolerances rounded to 3 s.f.
 - Eliminates excessively long values to improve readability



CADfix DX 12/SP2 – Licensing

- Updated FlexNET license components
 - Updated from 11.16.1 to 11.16.4
 - Provides enhanced communications security
 - See FlexNET support for further help

- 11.16.4 remains fully compatible with 11.16.1 license services.
- Updating the FlexNET license service is optional.
- Contact CADfix support for further information.

