

What's new in EVOLVE SmartProfile 6.0?



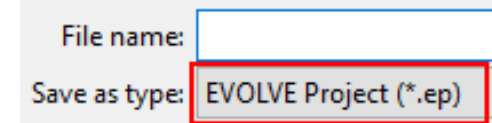
What's new in EVOLVE SmartProfile 6.0?



The sixth generation of popular SmartProfile®, the heart of the EVOLVE Suite, offers many new and powerful features, expanding EVOLVE's mission of providing reliable part tolerancing for all users in today's manufacturing enterprises.

New generic file format for the whole EVOLVE Suite:

.EP (Evolve Project)



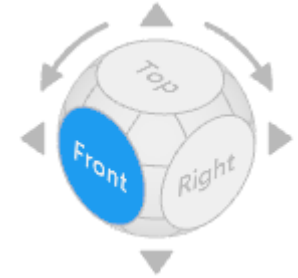
Free ResultViewer can open all .EP files regardless of the source product.



What's new in EVOLVE SmartProfile 6.0?



- Quick and easy view manipulation in 3D (NaviCube)



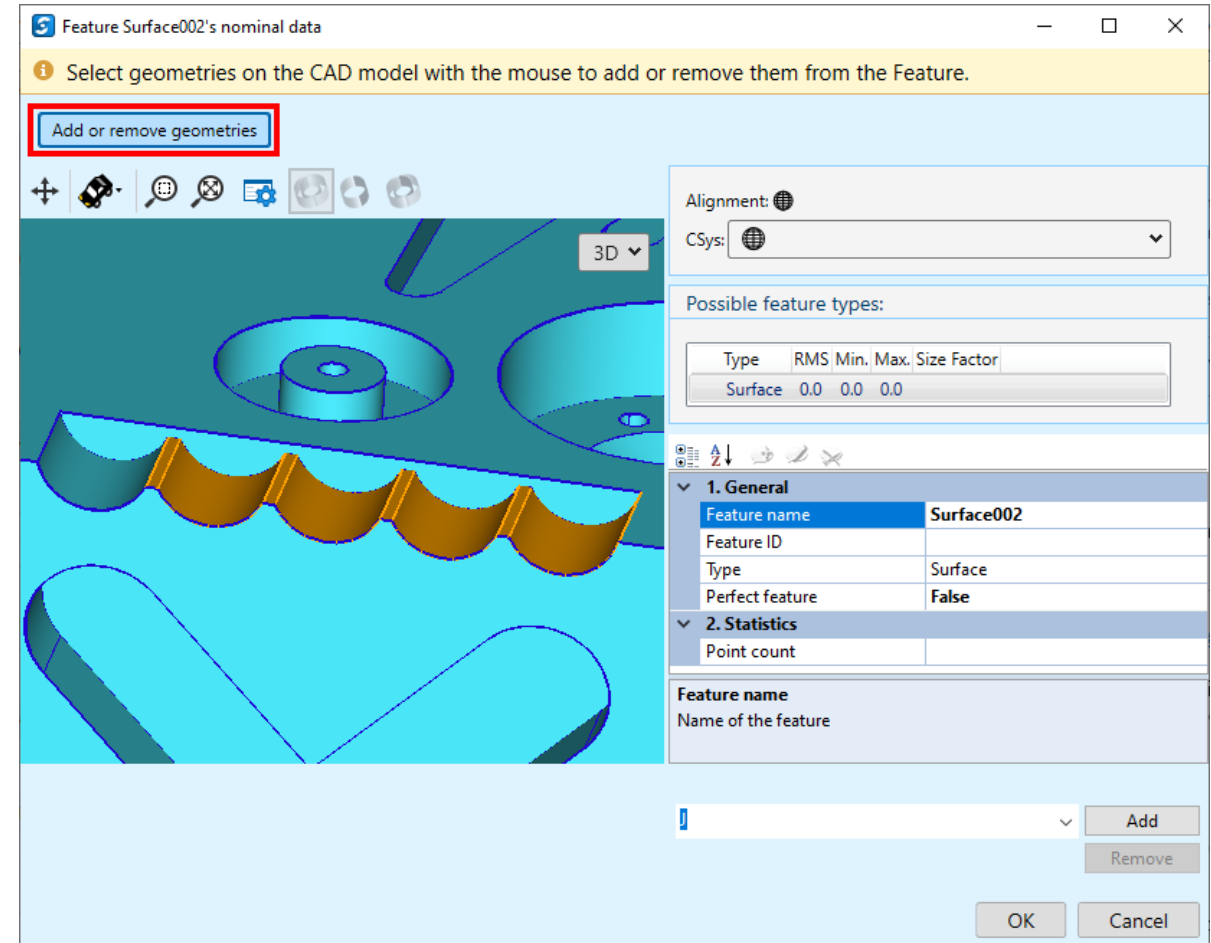
- Enhanced 'Dark UI Theme' for all products
- Improved language support
- Advanced installer and licensing for all products
- New and updated product videos: <https://vimeo.com/kotem/>





Feature manipulation

The existing features can be edited by adding or removing CAD geometries.

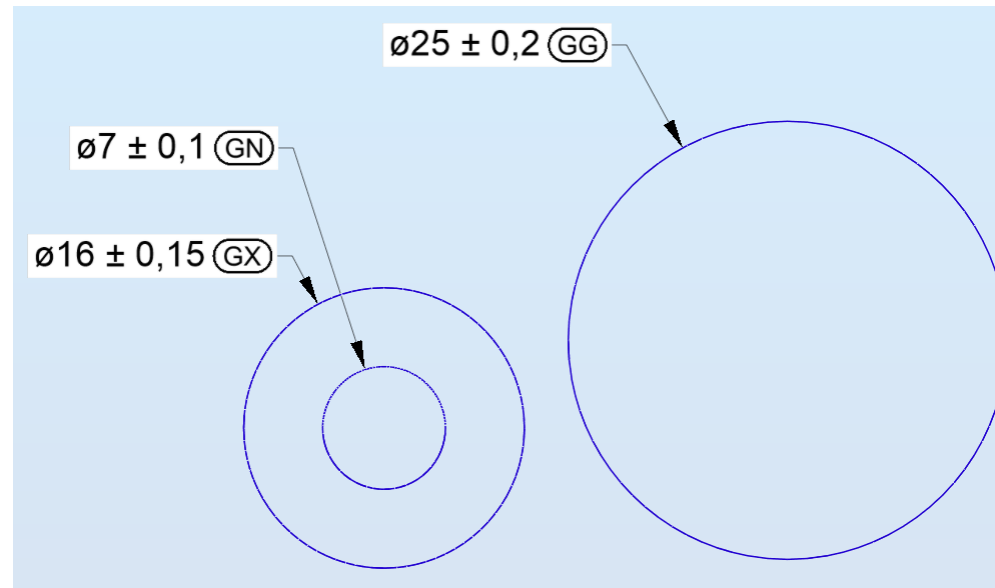


ISO 1101 improvements



Supporting ISO association symbols for size tolerances:

- \textcircled{GG} - **Least-squares** association criterion
- \textcircled{GX} - **Maximum inscribed** association criterion
- \textcircled{GN} - **Minimum circumscribed** association criterion



General tolerancing



Ability to easily define general tolerances over the non-toleranced CAD geometries.



General size tolerance:

- Common size tolerance for every non-toleranced size feature regardless of nominal size
- Applying a tolerance table:
 - Tolerance value depends on the nominal size
 - Using default tables of ISO 2768

Type:

Size tolerance:

Minimum:

Maximum:

Size tolerance for selected size features

Type:

$0,5 < S \leq 3$	$3 < S \leq 6$	$6 < S \leq 30$	$30 < S \leq 120$	$120 < S \leq 400$	$400 < S \leq 1000$	$1000 < S \leq 2000$	$2000 < S \leq 4000$
0,1	0,1	0,2	0,3	0,5	0,8	1,2	2

General GD&T/GPS tolerance:

General profile tolerance can be defined to all of the non-toleranced geometries

General GPS tolerance





JEITA General tolerance



Add JEITA General Tolerances
JEITA GGT

ISO 1101 with JEITA ET-5102 standard is available in v6.0.

JEITA (Japan Electronics and Information Technology Industries Association) ET-5102 is a general tolerancing standard.

Project Settings

- Switch to ASME Y14.5M-1994 standard
- Switch to ASME Y14.5-2009 standard
- Switch to ISO 1101 standard
- Switch to ISO 1101 with JEITA ET-5102 standard**
- Switch to Least Squares (perpendicular point projection)
- Switch to Least Squares (closest point projection)

It allows to define general tolerances over the non-toleranced CAD geometries based on the selected grade.

JEITA GGT Editor

Click Done on the ribbon to add JEITA General Tolerances

Select surfaces on Model or

Datum system:

Grade:

Ignore items based on size

Grade	L ≤ 6	6 < L ≤ 30	30 < L ≤ 120	120 < L ≤ 400	400 < L ≤ 1000	1000 < L ≤ 2000
GGTG 1	0,1	0,2	0,3	0,4	0,6	1
GGTG 2	0,2	0,4	0,6	1	1,6	2,4
GGTG 3	0,4	0,8	1,2	2	3	4
GGTG 4	1	1,4	2,4	4	6	8





New Constructed features

Version 6 supports the construction of

➤ **Midplane** of slots and widths



➤ **Axis Line** of slots

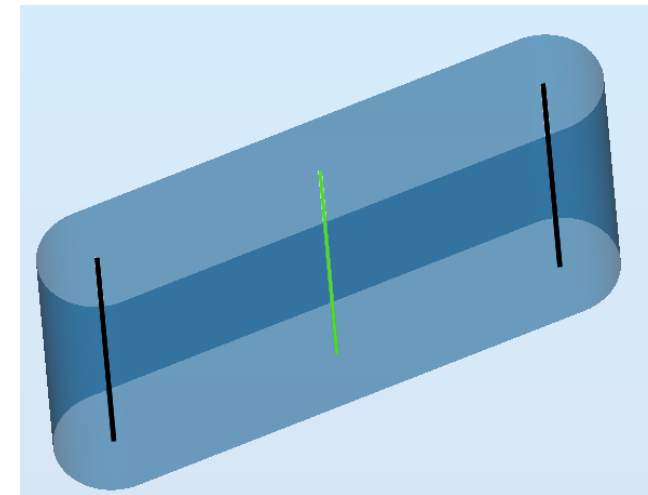
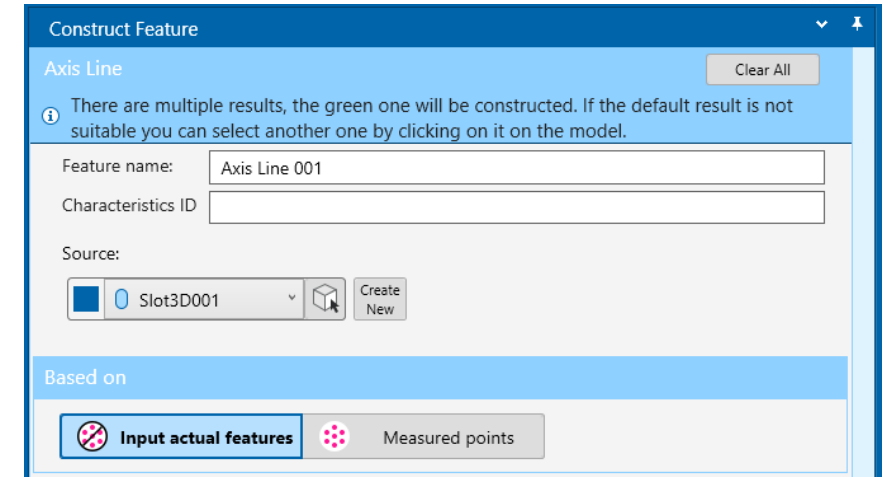


➤ **Tangent cylinder** to

- two cylinders
- a cylinder and a plane
- two planes



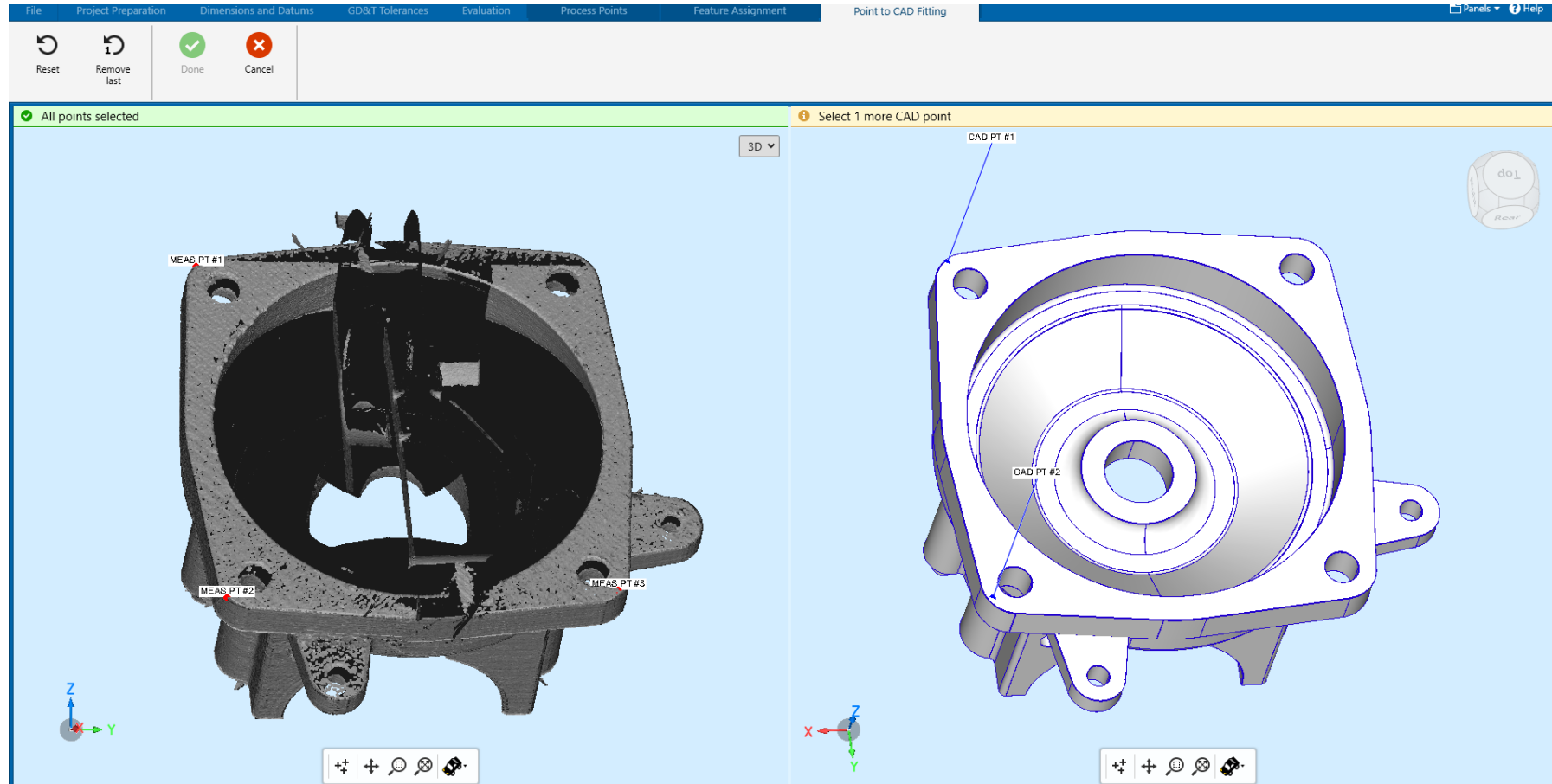
➤ **Tangent sphere** to cones





Point to CAD fitting

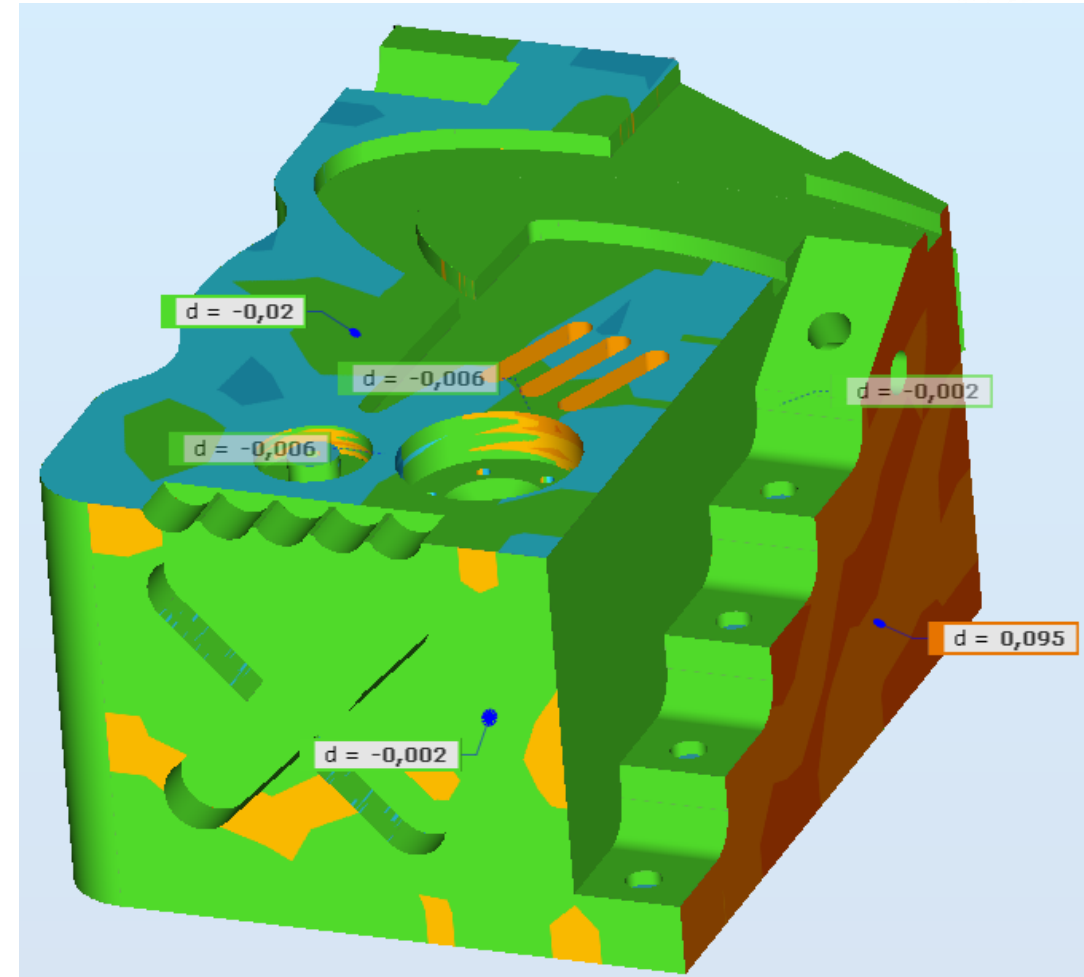
Separate views for points and CAD makes the selection easier





Deviation label visualization

Deviation labels belonging to hidden points are transparent in the graphics view.



Further enhancements



- Faster loading of the project files (performance improvement)
- Enhanced QIF v3.0 PMI import and export
- CMM points with tip radius are supported by all point filters
- Global alignment deviation values can be exported into Text report
- Updated Evolve Capture utility for scanning with new ShapeGrabber sensors

