

SF GEOCHECK

MECHANICAL DESIGN AUTOMATION



Geometric data quality analysis for Creo models

SF GEOCHECK for PTC Creo Parametric is the tool for checking, analyzing and improving the geometric data quality of your CAD models.

Detect and fix geometric issues of CAD models early and easily

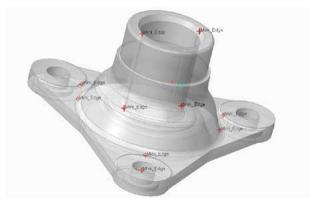
Even with modern high-end CAD systems like Creo Parametric, sufficient geometric data quality is not something that is always guaranteed. Especially when using data sharing features, freeform surfaces or complex rounds, geometric issues like gaps between surfaces or tiny edges commonly occur. These issues often cause difficulties in the downstream process such as regeneration failures after modification, data-exchange errors and manufacturing problems.



- Fully integrated into Creo Parametric
- No special training required to run the checks
- Configuration checks for different use cases can be provided.
 The end user does not have to deal with configuration details.
- Interactive visualization module. The user can browse through the results and visualize them directly in the 3D view.



- Check criteria for analyzing all common geometric issues:
 - Curves
 - Tiny curve, duplicate curve, continuity (C0, GC1, GC2)
 - Surfaces
 - Patch continuity, polynomial degree, curvature, patch number
 - Faces (bound surfaces):
 - Tiny face, tiny edge, duplicate face, edge continuity (C0, GC1, GC2), unused patch, contour self-intersection
 - Quilts: Uniform normal orientation, quilt continuity



Tiny Edge analysed Creo Parametric model

- Other: Duplicate points, datum without child, child of round or chamfer
- Check configurations for different model types can be stored and retrieved.
- Report generation for documentation and statistical analysis
- Compliance with VDA and ODETTE recommendations for geometric data quality
- Optional batch mode

Benefits

- Save time and money by enabling the designer to fix geometric issues early in the product development process
- Automated routine checks monitor data quality to find and address problem areas
- Ensure company standards
- Provide certified data quality for customers
- Avoid manufacturing failures

S Summary

• **SF** GEOCHECK is an add-on PTC Creo Parametric that enables you to check, analyze and improve the geometric data quality of CAD models. This will minimize the risk for a wide range of issues in the downstream processes.



