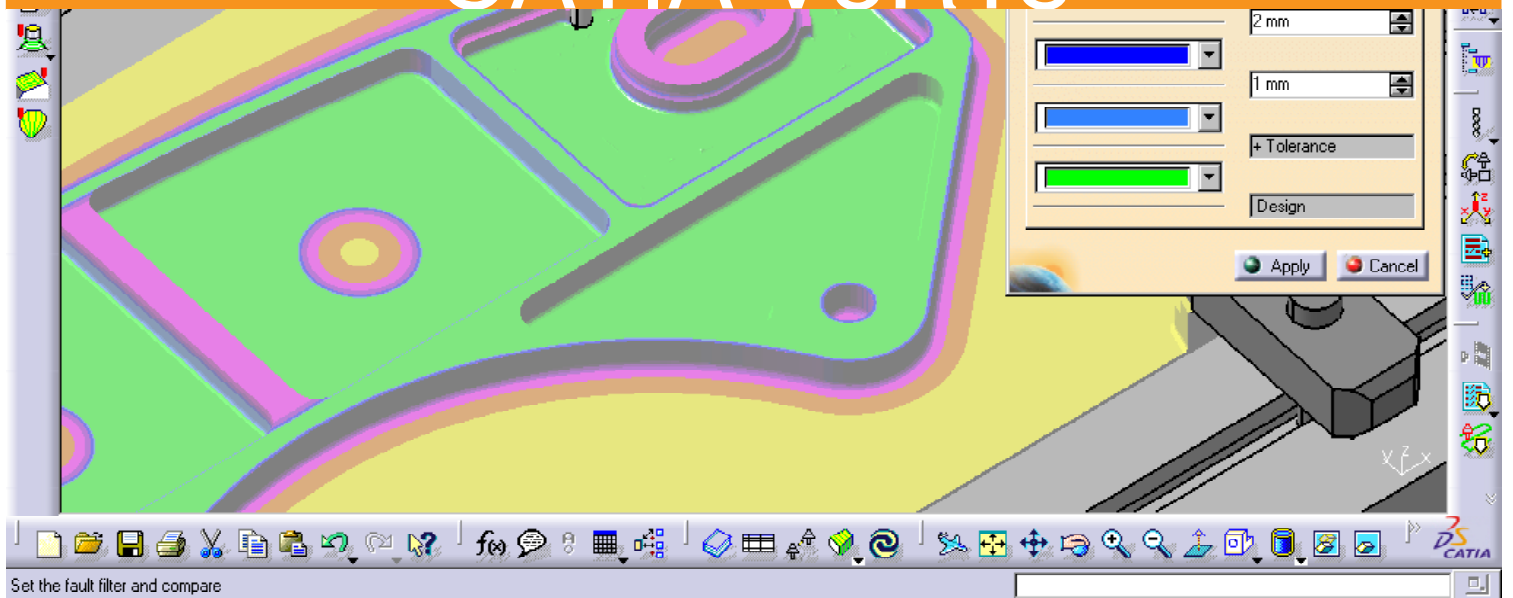


Machining

CATIA - NC Manufacturing Verification 2 (NVG)

CATIA V5R18





Machining

CATIA - NC Manufacturing Verification

Easily validate machining processes and analyze the accuracy of machined parts.

Product overview

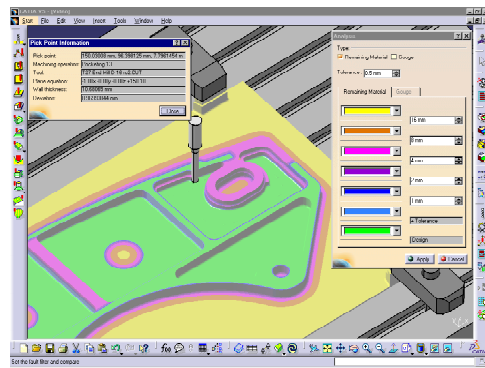
CATIA - NC Manufacturing Verification 2 (NVG) offers advanced tool path verification capabilities for multi-axis positioning as well as for multi-axis machining. It is a complementary product to CATIA - NC Manufacturing Review 2 (NCG). The accuracy of machined parts can be analyzed either by detection and display gouges and remaining material, by pick point analysis or by measuring. Collisions between the tool or tool holder and part or fixtures are detected and graphically visualized. The results of a material removal simulation can be stored in a reporting file.

Product Highlights

- Advanced verification capabilities for 5-axis positioning and machining
- Graphical comparison of machined part and design part
- Graphical visualization of clashes between tool/tool holder/shank and part or fixtures
- Measurement of machined parts, including pick-point analysis
- Generation of reports containing information on machining times and details

Product Key Customers Benefits

Advanced Tool Path Verification... CATIA - NC Manufacturing Verification 2 (NVG) is a



complementary product to CATIA - NC Manufacturing Review 2 (NCG) offering advanced verification capabilities for multi-axis positioning as well as for multi-axis machining in VIDEO mode.

Graphical Part Comparison... By comparing the machined part with the design part, CATIA - NC Manufacturing Verification 2 displays gouges and remaining material. The display is color coded based on user-defined tolerance bands and allows an easy evaluation of the results.

Advanced Collision Detection... Collisions between tool or tool holder and part or fixtures are detected. Several display options are available such as the collision point, tool or tool holder sweep for the cut which caused the clash or the tool position at the start and end of the cut which caused the collision. The collision list can also be filtered based on collision type, for easy analysis.

Pick Point Analysis... Any point on the machined stock can be analyzed. For the picked point coordinates, name of machining

operation, tool name, plane information and normal deviation to design part will be displayed, this allowing a detailed analysis of the machined part. Center and radius information will be displayed for circular entities.

Comprehensive Geometric Analysis... The user can perform a geometric analysis of the machined part. NVG allows to measure i.e. linear distances on the machined part, angles between edges and surfaces, center and radius of arcs and center to center distance.

Summary Report Generation... The results a material removal simulation can be stored in a external file. Details on tools and machining operations, machining times per operation and details about clashes like solids in collision, collision points and start and end point of cut will be reported in an ASCII file format.

Max Feed-rate Error Detection... A maximum feed-rate value can be defined by the user for a Part Operation and for every tool change. All moves which exceed this set value are flagged as errors.

Error Cross Reference... "Error information" generated during material removal simulation can be used to highlight the corresponding tool path segments in the NC programming context. This aids the user to take necessary corrective action seamlessly.

ABOUT CATIA V5R18

CATIA is Dassault Systemes' PLM solution for digital product definition and simulation.

plm.3ds.com/CATIA

