

IMSverify™

CNC Verification/Simulation



Overview

Complex machining operations and multi-axis machines increase the risk for programming errors which can result in incorrect or incomplete material removal, interference between machine components and fixtures, and damage to the part and/or the machine.

Verify G-code, not APT

IMSverify provides a unique NC verification solution for checking the postprocessed code that will run on the machine – not simply the APT or CL file verified within the CAM system.

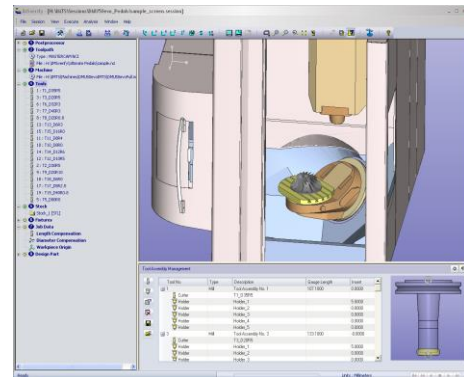
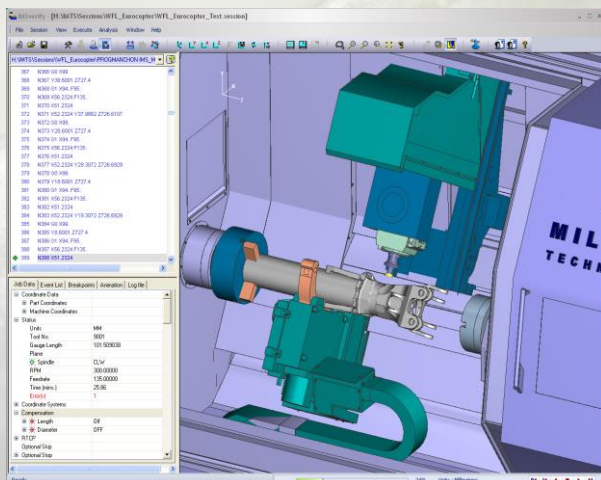
Verification of the actual G-code that will run on the machine provides you with complete confidence that the part will be cut correctly.

Solids-Based Material Removal

True solids-based simulation provides for the most accurate verification of material removal. Import stock and fixture information as solids from your CAM system, and save the resulting parts from the simulation as solids as in-process stock, or for comparison to the original design data.

Optional Integration with IMSpost

If you're also using IMSpost simultaneously view the CAM system data (APT), G-code from the postprocessor, material removal and machine simulation in a single, intuitive interface.



CNC Verification and Machine Simulation

IMSverify is a unique analysis tool for testing and analyzing every facet of your CNC code. Step through the process and see exactly what's happening, and precisely how to address any issues using:

- Breakpoints (at specific blocks, tool changes, user-defined conditions)
- Dynamic rotation, pan & zoom while cutting
- Synchronized APT, G-code and material removal
- Full multiaxis support, including RTCP and working planes
- Detailed representation of tool, tool holder, stock, clamps and fixtures
- Solids-based material removal with advanced visualization, including realistic shading and user control of color, transparency and error highlighting
- Full machine simulation including clash detection
- Complete mill-turn support including synchronization of multi-channel controls

Plus, the same postprocessor development technology used in IMSpost allows for complete customization of the controller emulator in IMSverify, to support every feature of your CNC control.

IMSverify provides machine simulation with collision detection for all types of machine configurations – milling, turning and mill/turn.

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Virtual CNC Controller

The virtual CNC controller pioneered in IMSpost is at the heart of IMSverify. Complete analysis of the machine code provides a true picture of the tool motion.

IMSverify includes support for all controller functions, including:

- Cutter compensation (2D & 3D)
- Tool length compensation
- Rotary axis pivot points
- Controller subroutines
- Controller variables and expressions
- Canned cycles
- Working planes

The virtual controller provides support for NC controls from all major manufacturers, including:

A-B	K&T
BOSCH	MAZAK
CINCINNATI	NUM
EVOLUTION	OKUMA
FADAL	SELCA
FANUC	SHARNOA
FIDIA	SIEMENS
GE	TOSHIBA
G&L	YASNAC
HEIDENHAIN	<i>and others</i>

Compatibility

IMSverify™ is compatible with all major CAD/CAM systems:

ADRA	Houtzel APT
AUTON	I-DEAS
BihlerCAT	INTERCIM
CADDS	INTERGRAPH
CAMAX	MASTERCAM
CATIA/DELMIA	MetalCAM
(V4/V5/V6)	Pro/ENGINEER
CIMATRON	SURFCAM
DELCAM	UNIGRAPHICS
DUCT	VX
EDGECAM	WORKNC
EUCLID	<i>and others</i>
GibbsCAM	

An Architecture Optimized for CNC



Supported Platforms

- Intel/AMD 64-bit computers with Windows 7/8/10

Related Products

IMSpost™

IMSpost™, the worlds most advanced postprocessing software, transforms CAD/CAM cutter location (Clfiles) into the specific machine codes (G/M codes) required by NC machines. IMSpost works seamlessly with all major CAD/CAM systems, hardware platforms, and NC machines, in one easy to use interface.

IMSce™ for V5/V6

Controller emulation capability for CNC verification and simulation integrated within CATIA/DELMIA V5/V6.



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