

CutPro Advanced Machining Software allows you to achieve the highest possible material removal rates, long tool & spindle life, and to manufacture parts correctly at the very first trial with reduced production costs.

For more than two decades, CutPro's unique algorithms have helped MAL Inc. customers in releasing untapped productivity opportunities within their existing equipment, tooling and machining processes.

#### **CutPro Applications:**

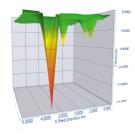
High Speed Machining of Soft Materials Low Speed Machining of Hard Materials Milling, Boring, Turning, Drilling 3 - 5 Axis Machining

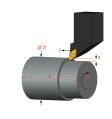


Software Modules Application: Process Simulation Tap Testing Data Acquisition Modal Analysis Curve Fitting Tool Tuning Spindle Design & Analysis 5-Axis CNC System Design

# **PROCESS SIMULATIONS:** MILLING, DRILLING, **BORING/TURNING PROCESSES**

CutPro Process Simulation modules are highly accurate and the most comprehensive software for optimum planning and trouble shooting of different cutting processes.

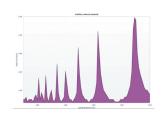




# Milling Module

predicts and optimizes milling operations with any cutter and insert geometry for higher removal rates.

## Boring/Turning Module predicts torque. power, force, and chatter vibration free spindle speeds and depth of cuts.



making process.

# **Drilling Module** allows simulation of cutting forces, torque. power, and tool deflection during the hole-

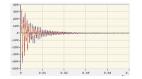
unique advanced engineering module for optimization and virtual testing of spindles at the design stgage.

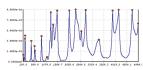
> Module includes two submodules: **Expert Spindle Design System** Spindle Analysis Module

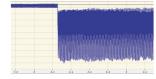
> > SpindlePro is available as a part of the package and a standalone license.

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# TAP TESTING, DATA ACQUISITION, **MODAL ANALYSIS**







## MALTF Module

allows tap testing the machine and fixtures in a few minutes. It is a versatile transfer function measurement program.

# Modal Analysis Module

determines the dynamic characteristics of a machine tool system and mode shapes from FRF.

#### MALDAQ Module

is an easy to use PCbased multi-channel data acquisition software with built-in signal analysis features.

Virtual CNC Module allows the rapid prototyping, performance analysis and real time control of multi-axis CNC systems.

This Module is a powerful program which provides a comprehensive simulation environment to simulate a wide range of performance-related properties of the CNC machine tools before the actual machining process.

