

Productivity+[™] Active Editor Pro probe software for machine tools

Enabling

enables intelligent machining and 'green button' production processes



Flexible

for a wide range of probing applications



Dynamic a faster way to add process control

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Toolsetting: Tool_1_Length_Check	× × 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
- J. Toolsetting: Tool_2_Length_Diameter_Check	Design Visualisation
" G-Lode Block: Initial Machine Program	
Inspection Cycle: Cycle1 Measured Point: Point1	1 and
Measured Line: Line1	
Inspection Cycle: Cucle 2	
Measured Line Line 2	
E II: Point1.Position ZIT 0	
E Then:	
Ko Machine Update: Update1 Else:	
- FO Grade Plant o	
+ G G-Code Block: Second_Machine_Program	
7º GLode Block End to the	
Inspection Cycle: Cycle4	
E Feature De	
Measurement 2 Point	
Point 1 (P1) .350	
Point 2 (P2) .350	
Probing Direc Positive X	
Use stock al. No	
S Toolpath	
Inspection D5	
Line direction Start at P1	
Number of Po 6 Toolpath	
Toshull a	
Point 1	
Point 2 class	
Macro Mo	
Output pointe M	
E Tolerance	
Angle Error in << Default >>	
Angle Error in << Default >>	
Angle Francis	
Angle Error in << Default >> Position T_at.	
Position Tole << Default True Position >>	

Take probing beyond the program, into the process

Update

The 'update' operation forms the foundation of the power and flexibility of Productivity+.

Measurements are all made with a purpose in mind; controlling the machining process as it happens.

WCS creation, tool diameter setting and machine variable updates all help to influence the final outcome of a machining process.



 WCS and tool dimension updates · Multi-axis measurement

 Basic and constructed feature measures

Adapt

Intelligent processes aid manufacture and assure product conformity. Productivity+ lets your process adapt by using If...Then logic, flow control, and advanced functions such as custom macros.

Once programs are post processed, Productivity+ programs run entirely on the controller, avoiding comms problems and eliminating the need for operator intervention.



· Condition builder -(If...Then, Else If, Else)

 Intelligent processes Logical flow control

Inform

k: Final_Machine_Program

Informative quality data is essential to fully understand the robustness of your process. Productivity+ produces a simple, consistent report format for all CNC types, suitable for analysis using a variety of standard software packages.

Productivity+ reporting includes details of process decisions as well as feature dimensions, providing a comprehensive set of data which can be used to explore a wide range of variables.



· Report on features and Export for external updates analysis Include tolerances

Key features, functionality and applications

Functionality

and dialogs

machine tools

calculations

Features

Select directly from a solid model or manually program via dialogs to inspect:

- 3D surfaces (using multiple point features)
- 2D line
- Circle/arc
- 2D plane
- 2D corner
- 3D corner
- Web/pocket

Use positional data from previously inspected features to create additional 'virtual' features:

- Constructed point
- Constructed line
- Constructed circle
- Constructed plane

On-screen simulation of finished probe routines incorporating collision detection

program Feature parameter reporting including Pass/Fail tolerance check

Supported model formats, controllers and languages

Solid model formats

- Standard
- IGES
- Parasolid
- STEP Optional
- ACIS
- AutoDesk Inventor
- CATIA
- Pro/ENGINEER
- SolidWorks
- Unigraphics/NX

Brother: 32B

Controller types

- Fanuc: 10-15i; 16-21i; 30-32i; 0M; 6M; 15M; 16-21M
- Haas
 - Heidenhain: i530; 426/430
 - Makino: Prof5
 - Mazak: M32; M Plus; Matrix; Fusion 640M
 - Mitsubishi Meldas: M3: M310: M320: M335: M60/M500/M600/M700 series
 - Mori Seiki: MSC-500; MSC-800
 - Okuma: OSP200
 - Siemens: 810D/840D

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New session wizard, including solid model and G-code import options Dynamic help, instructional wizards

- Probe calibration routines
- Integrate tool setting cycles
- Support for a range of multi-axis
- · Embed macro programs and custom
- Perform automated WCS, rotation
- and tool update operations
- Logic statements for automatic
 - control and adaptation of a cutting
- Database of Renishaw probes;
- custom probe/stylus combination tool

Applications

- Part identification
- Intelligent program selection
- Part presence checking
- Job set-up
- Tool setting
- Tool identification
- Determine machine capability
- Clearance check
- · Variable based programming
- Path optimisation
- Cutter parameter update
- Dynamic re-machining
- Thermal correction (machine drift and workpiece expansion)
- Tool condition monitoring
- In-process datum setting
- Process reporting
- Critical feature reporting

Available languages

- English
- Czech
- French
- German
- Italian
- Japanese
- Korean
- · Simplified Chinese
- Spanish
- Traditional Chinese

The Productivity+[™] Active Editor Pro programming cycle



- Generate report files containing measurement results



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About Renishaw

Renishaw is an established world leader in engineering technologies, with a strong history of innovation in product development and manufacturing. Since its formation in 1973, the company has supplied leading-edge products that increase process productivity, improve product guality and deliver cost-effective automation solutions.

A worldwide network of subsidiary companies and distributors provides exceptional service and support for its customers.

Products include:

- · Additive manufacturing and vacuum casting technologies for design, prototyping, and production applications
- · Dental CAD/CAM scanning systems and supply of dental structures
- · Encoder systems for high-accuracy linear, angle and rotary position feedback
- · Fixturing for CMMs (co-ordinate measuring machines) and gauging systems
- · Gauging systems for comparative measurement of machined parts
- · High-speed laser measurement and surveying systems for use in extreme environments
- · Laser and ballbar systems for performance measurement and calibration of machines
- · Medical devices for neurosurgical applications
- · Probe systems and software for job set-up, tool setting and inspection on CNC machine tools
- · Raman spectroscopy systems for non-destructive material analysis
- · Sensor systems and software for measurement on CMMs
- · Styli for CMM and machine tool probe applications

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