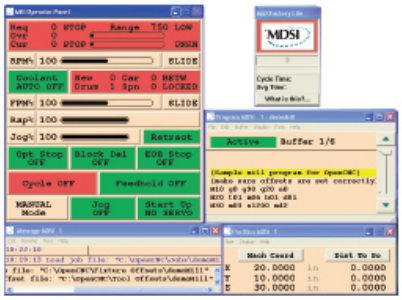
Manufacturing Data Systems, Inc.

CNC machine controller, HMI OpenCNC

Features

OpenCNC® software is a production-proven, unbundled, software CNC that has logged millions of hours since 1993.
Unlike traditional CNC controls, OpenCNC® software requires no proprietary hardware or motion control cards. Combining a soft CNC, soft PLC and HMI in one application, OpenCNC's open, modular, all-software architecture provides robust CNC control, connectivity to MAXIMUM Factory and easy integration of thirdparty software. MDSI customers have increased productivity, streamlined manufacturing processes, reduced machine tool control costs, and extended the productive life of their machine tools.



OpenCNC

Specifications

Item	Specifications
Control method	MECHATROLINK-Ⅰ or -Ⅱ (Position, Velocity, Torque)
Number of control axis	up to 8 axes
Control Servo Drivers	MECHATROLINK-Ⅰ ; SGD-□□□N series, SGDB-□□AN series, SGDS series, SGDH series +JUSP-NS115 or JUSP-NS110, MECHATROLINK-Ⅱ ; SGDS series, SGDH series +JUSP-NS115
Unit (minimum control unit)	0.00001, 0.000001, 0.0001(unit: mm,inch,deg)
Maximum command value	−2147483648 to 2147483647pulse (32bit with sign) unlimited feed also possible
Motion program functions	Positioning, Liner Interpolation, Circular Interpolation, Zero point search, Interruption feed, Time constance positioning, Traverse function, Electric CAM, Synchronous electric CAM, Line action, Electric gear, Following synchronization, Velocity command, Torque command
Rapid traverse feed rate	1 to 2147483647 [command unit/min]
Interpolation traverse feed rate	1 to 2147483647 [command unit/min]
Override	0.00 to 327.67% (command unit: 0.01%, possible to set by axis or task)
Accel/Decel control	Accel, Decel tim: Maximum 60.000ms (trapezoid or S curve), S curve Constance: Maximum 30.000ms

MECHATROLINK specifications

		M-Ⅰ	M-Ⅱ	
		17-byte	17-byte	32-byte
Command	Servo	×	×	-
	Stepping Motor Drivers	-	-	-
	Intelligent I/O	-	-	-
	Simple I/O	-	-	-
	Inverter	-	-	-
Transmission cycle		2ms	1ms to 2ms	

Contact Information

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