

Mitsubishi Electric CNC Operation Monitoring Software
NC Machine Tool Optimizer (Pro/Lite)

Are you looking for a solution for monitoring the operation of your machine tools and increasing productivity?



- I want to monitor the operation of the controllers of various manufacturers and models in our factory, all in one place.
- I want to analyze the operation of our equipment as well as visualizing the utilization.

NC Machine Tool Optimizer is here to help you!

Machine tools and FA equipment of a wide variety of manufacturers are supported.

Not only Mitsubishi Electric NC, but third-party NC and MTConnect/OPC UA-compatible controllers can also be connected.

IPC

- NC Machine Tool Optimizer (This product)
- NC Machine Tool Connector (Data collection software)
- MTConnect Agent
- MTConnect Adapter
- OPC UA server
- Database

Machine tool with Mitsubishi Electric NC, Machine tool with third-party NC, Machine tool with third-party NC

Communication methods: MTConnect communication, OPC UA communication, MQTT communication.

Legend: Blue box = Mitsubishi Electric products; Grey box = Obtained by customers*

Application screen

All plant monitoring window

Machine Type	Status	Utilization (%)	Running Program	Production Results
5-Face machining center	In alarm	33.5%	7799	456
Multitasking machine	Stopping	28.6%	191	8
Machining center	Power off	28.1%	ERROR	429
5-Face machining center	Running	26.2%	1030	0
Surface grinding machine	In standby	25.5%	9091	8
5-Face machining center	Running	24.5%	797	339

Operating status overview: Date range of aggregation, Past week, Past month, Custom, From: 2021/05/15, To: 2021/05/31, Period: 7Days, Availability, Aggregate.

PlantA: Utilization (%) by group (%), Group1, Machine1, Machine2, MSTRAINER, Group2, Group3.

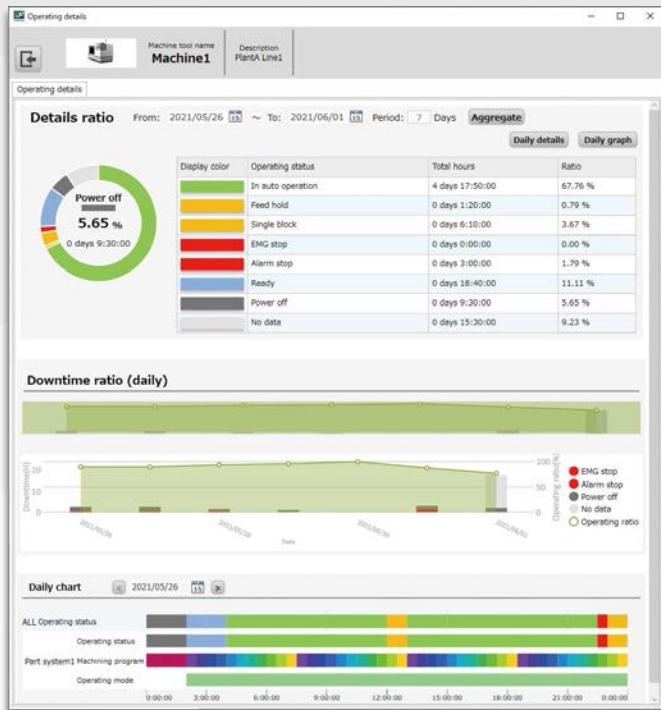
Machine12: Utilization (%) 92.63%, Today (%) 80.00%, Today (time series).

*For details, contact the manufacturer of each machine.

Easy downtime diagnostics and trend analysis!

Operation details window

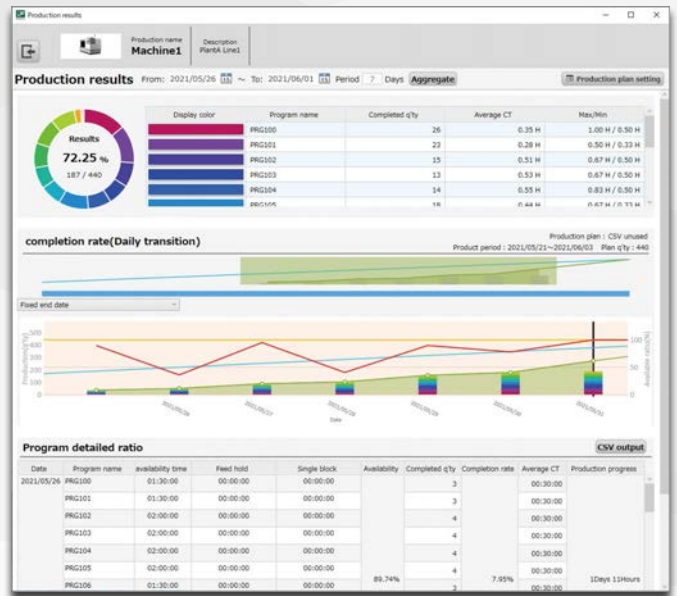
The occurrences of alarm stops and other events are presented in various charts, helping you to analyze the trends of the factors contributing to machine stops



Easy comparison and analysis of planned vs. actual production!

Production results window

The variance between the planned and actual production output (the number of finished goods and the percentage of completion for each machine) provides insights into productivity trends, enabling you to optimize your planning.



Key specifications

Item		Pro version	Lite version
Maximum number of devices that can be connected		210*1	10*1
Connection specifications	CNC	Mitsubishi Electric M800(V)/M80(V)/E80/C80/ M700(V)/M70(V)/E70 Series, etc. *2	
		Third-party MTConnect-compatible model	
Communication specifications	MTConnect	Supported version MTConnect Ver.1.3.1	
		Agent (reference) CppAgent (Ver1.3.0.17 or newer) issued by MTConnect Institute *3	
	OPC UA	Supported server OPC UA server products of other manufacturers (OPC UA Ver.1.03 or newer recommended)	
	MQTT	Supported version Protocol Ver.3.1.1	
	Broker Eclipse Mosquitto 1.3.5		
	Database PostgreSQL Ver.10.18 or newer/SQL99		
Supported language		Japanese, English, Traditional Chinese, Simplified Chinese, Korean	

*1. The number of devices per license of this product.

*2. For C70 Series and M60/M600 Series or earlier models, additional hardware is required.

*3. Any MTConnect-compatible agent, not limited to Cpp agent, can be used for connection.

System requirements

Item	Description
Processor	Intel® Core™-i3 2 cores or better 64-bit architecture
Memory	8 GB or more
Disk space	300 GB or more is recommended
External Interface	RJ-45 (Communication standard: Ethernet)
Display resolution	XGA (1024x768) or higher
OS	The 64-bit version of the following OS is supported. Windows® 10 Pro Windows® 10 Enterprise Windows® 10 IoT Enterprise
Library	.NET Framework 4.5



Official Mitsubishi Electric Mechatronics YouTube account

User support videos will be available, including how to backup/restore data and replace batteries as well as introduction to our products and technologies.



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