

FACTORY AUTOMATION

for Machine Tool Builder

NUMERICAL CONTROL (CNC) REMOTE SERVICE

iQCare

Remote4U



Supporting manufacturing sites with IoT.

Mitsubishi Electric e-F@ctory supports implementation of your machine remote service*1*2

*1. For information about the availability of remote service in your country, contact your local Mitsubishi Electric CNC service provider.
*2. Mitsubishi Electric numerical control (CNC) Remote Service function is different from Mitsubishi Electric's EDM and Laser processing machines.



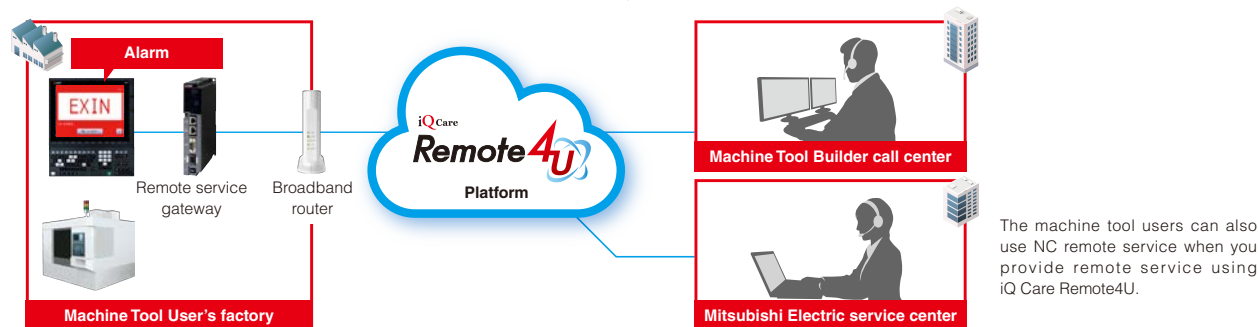
iQ Care Remote4U platform

You can easily implement your machine remote service using iQ Care Remote4U platform

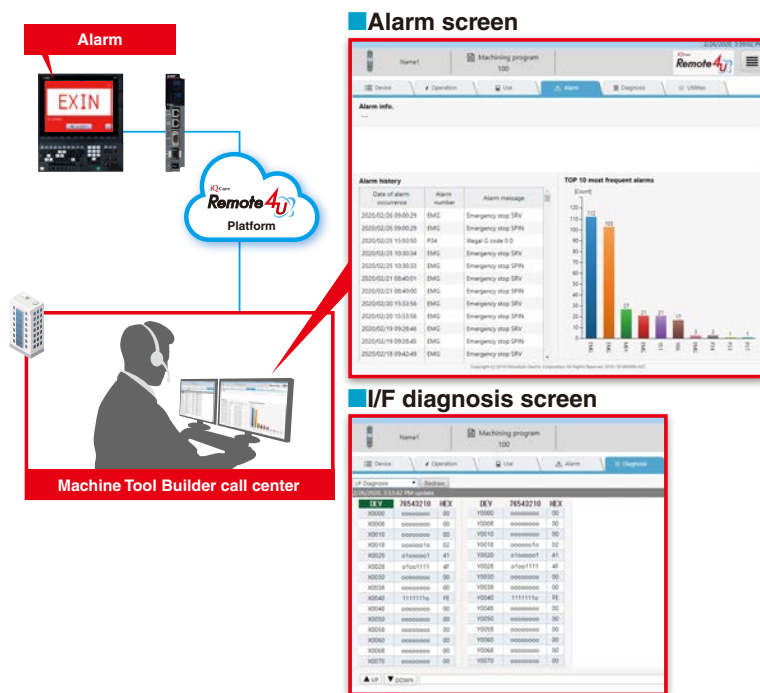
You can provide remote service of your machine tools equipped with Mitsubishi Electric CNCs simply by purchasing platform license.

You can save on the implementation and maintenance costs of remote service by using the cloud server provided by Mitsubishi Electric.

You can also streamline your service work by implementing remote service.



Efficient machine service



Your service center can directly connect to the machine tool user's machine tools via iQ Care Remote4U platform.

You can remotely check the alarm occurring on the machine tool user's machines and alarm history. You can also view the status of each device on the I/F diagnosis screen, and diagnose the failure of peripherals such as sensors and switches.

This allows you to get accurate information on the status of machine tool user site when a trouble occurs, leading to reduction in time your call center spend handling the issue. It also allows your service personnel to select correct maintenance parts before a service visit, reducing the time for troubleshooting.

The number of revisits can also be reduced. iQ Care Remote4U streamlines your service work and helps reduce the down time of machine tool users' machines.

Dashboard function*3*4

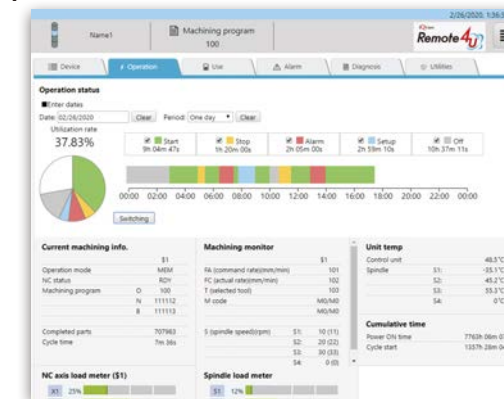
The machine tool user can view the real-time operation data of the machines

The machine tool user can view the real-time operation data of the machines equipped with Mitsubishi Electric CNCs. This is useful for the end user to improve production process and reduce running costs.

*3. The specifications are different from the dashboard function for Mitsubishi Electric EDM and laser processing system.
*4. Dashboard function is only available for machine tool users. Operating status is not disclosed to the machine tool builders.

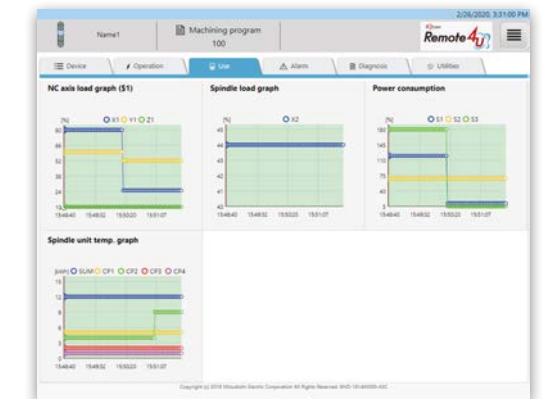


Operation screen



The utilization rate and operation data of each machine are displayed. Visualization and analysis helps the end user improve production process.

Use screen



The selected machine's load, power consumption and spindle unit temperature are displayed in graphs. The end user can use the data in analysis to improve machining quality and reduce running costs.

Security function

iQ Care Remote4U provides secure data protection system

- Data transfer is only available for dedicated devices (remote service gateway) to ensure secure communication
- Encrypted communication (HTTPS) is used to protect data from eavesdropping and manipulation during communication

Remote service gateway
Dedicated device that cyclically collects data from NC and communicates with the cloud

Basic specifications	Ethernet	2 ch
	Power supply voltage	DC24V

NC file data/Auto backup setup

- ▶ **Current NC environment data can be backed up from Dashboard screen**
- ▶ **Auto backup setup allows data to be stored in the cloud on a regular basis**

Parameters, PLC programs and NC data (common variable, tool information and workpiece offset) can be downloaded to the local device. Auto backup setup accumulates various types of data at any cycles (by minute, day, week or month) to facilitate comparisons with past data in the event of an anomaly. (Online storage and Auto backup are only available for machine tool users.)

NC file data

Save to USB.

Online storage/automatic backup settings

Specify the files to be backed up and the backup interval (e.g., daily, every minute) on the screen

Files are automatically backed up to the cloud based on predefined conditions (Max. 100 MB. Old files are deleted from the oldest.)

* Customer's machining programs are not backed up
* Supported models: M800V/M80V series

NC File Data >

File Name	Last Update
Auto_0100	2015/08/20 02:00:13
Auto_0100	2015/08/20 02:00:14
Auto_0100	2015/08/20 02:00:15
Auto_0100	2015/08/20 02:00:16
Auto_0100	2015/08/20 02:00:17
Auto_0100	2015/08/20 02:00:18
Auto_0100	2015/08/20 02:00:19
Auto_0100	2015/08/20 02:00:20
Auto_0100	2015/08/20 02:00:21
Auto_0100	2015/08/20 02:00:22

The backup files can be downloaded to a PC

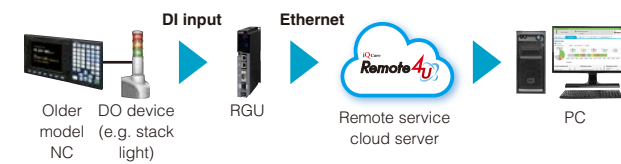
Connection with older models

- ▶ **Available for M7 and older models eligible for service**

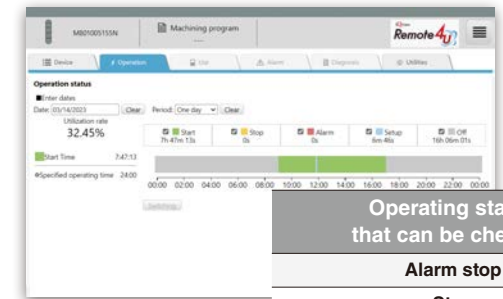
You can check the operating status of DI connected models by using the RGU (Remote service gateway unit). This makes it possible to view the operating status of M7 and older models.

Operating status of DI-input device can be checked.

The actual terminal block of the DO device connected to the RGU varies with the device.



The following operating status can be checked on the operation screen of dashboard.



Operating status that can be checked
Alarm stop
Stop
Run
Wait
Power off

* Refers to the following models, which requires a DI connection with a remote service gateway unit (RGU). (Some functionality is not available.)
C70, MELDAS 60/60S Series, MELDAS 600 Series, EZMotion-NC E60/E68 Series, MELDAS C6/C64, MELDASMAGIC64, MELDAS 500 Series, MELDAS 50 Series, MELDAS C5, MELDAS 300 Series, MELDAS M3/L3, MELDAS C3/C3S, Mitsubishi Electric EDMs (Electrical Discharge Machines) (Whether Mitsubishi Electric EDMs can be connected depends on the machine specifications. Contact a Mitsubishi Electric distributor.)

Operation status acquisition/History data acquisition

- ▶ **Machine operating status, alarm history, etc. can be downloaded in CSV file format**

Various history data can be downloaded in CSV file format by day/month. The downloaded CSV data can be used to create your own reports and analyze the data. (History data acquisition is only available for machine tool users.)

Customers can freely process and analyze data.

Example: Monthly operating status report

Example: Alarm diagnosis report

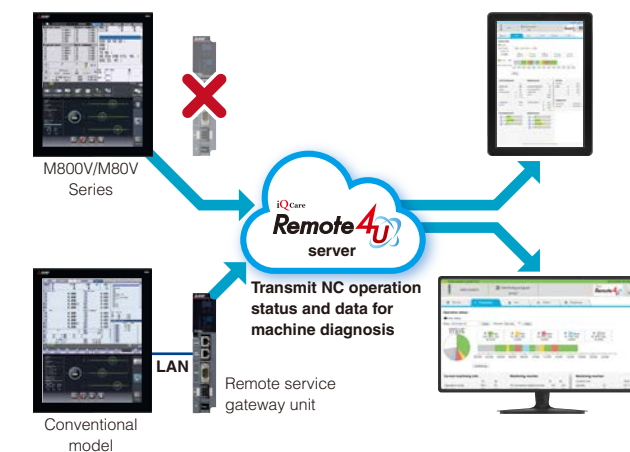
Customers can create their own original reports using the CSV file.

Export the data to be used as a CSV file.

M800V/M80V have built-in remote service gateway

- ▶ **Remote gateway unit is not required for 800V/M80V Series**

For the Mitsubishi Electric numerical control (CNC) M800V/M80V Series, the functionality of a remote service gateway unit required for the "iQ Care Remote4U" remote service is built into the NC control unit.*1*2 This results in less wiring.



*1. For regular data retrieval, different interval applies to the built-in capability (Remote gateway unit, one second; built-in capability in NC control unit, 30 seconds). If the data needs to be retrieved at a one-second interval, use the remote gateway unit like the earlier models.

*2. The remote service can be used when NC direct connection is used in the configuration where there are 3 or less part systems and the total number of axes of the NC is 12 or less. If there are more part systems or axes, use the RGU.

Features

Function	Main functions	User classification	
		Machine tool users	Machine tool builder (MTB)
Devices	Listing device information, specifying detailed display object	○	○
Operation	Graph display of operation rate, machining program name, ONB No.	○	—
Use	Servo axis load graph, spindle load graph, power consumption amount	○	—
Alarm	Current alarm, alarm history, total display	○	○
Diagnosis	S/W configuration, H/W configuration, I/F diagnosis, parameter reference, self diagnosis, key operation history, sampling chart	○	○
Utility	Operation status acquisition, alarm diagnosis*1, email notification settings*1	○	—
	History data acquisition	○	○
Others	NC file data, online storage, auto backup setup	○	○*2
	Service call*1	○	—

*1. This function may be unavailable depending on the license type. Unavailable functions are unavailable to all users.
 *2. Online storage and auto backup setup are unavailable.
 *3. Only graph display of operation rate and operation status acquisition are available for DI connection models.

iQ Care Remote4U Main specifications

System requirements (laptop/desktop computer)	
OS	Windows 8.1/Windows 10 64 bit
Browser	Microsoft Edge/Google Chrome
System requirements (smartphone and tablet)	
OS	iOS
Browser	Safari
Languages	English/Japanese
Supported CNCs	M800V/M80V/M800/M80/E80/C80/M700V/M70V/M700/M70/E70 Series/DI connection models*4

*4. Refers to the following models, which requires a DI connection with a remote service gateway unit (RGU). (Some functionality is not available.)
 C70, MELDAS 60/60S Series, MELDAS 600 Series, EZMotion-NC E60/E68 Series, MELDAS C6/C64, MELDASMAGIC64, MELDAS 500 Series, MELDAS 50 Series, MELDAS C5, MELDAS 300 Series, MELDAS M3/L3, MELDAS C3/C3S, Mitsubishi Electric EDMs (Electrical Discharge Machines) (Whether Mitsubishi Electric EDMs can be connected depends on the machine specifications. Contact a Mitsubishi Electric distributor.)
 *5. For specification details including countries where the service is available, contact a Mitsubishi Electric distributor.

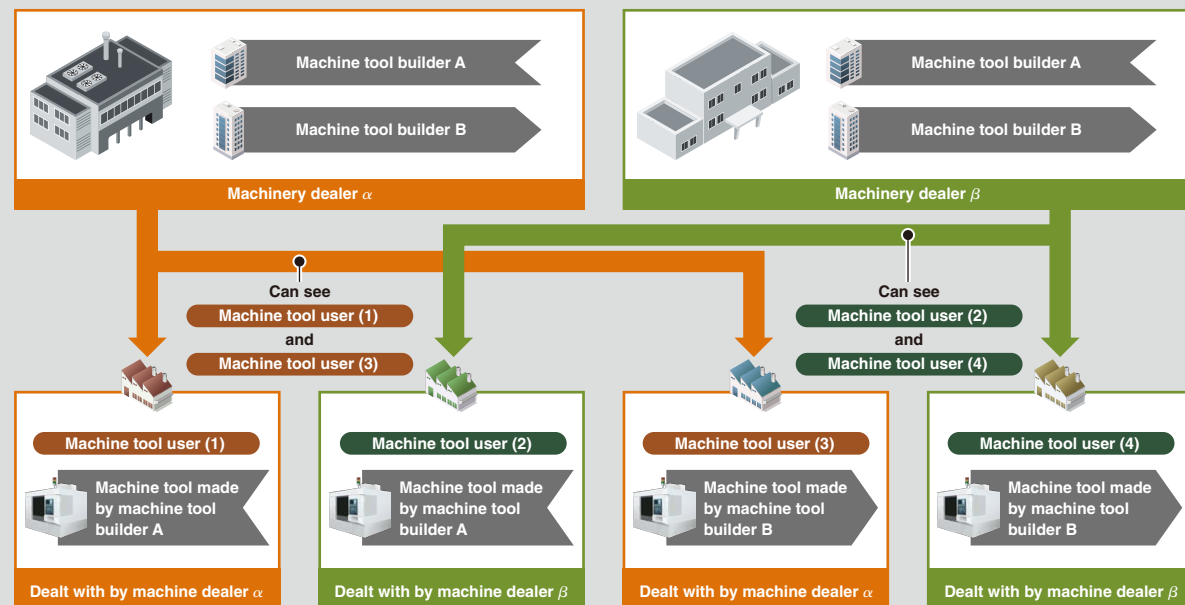
Creating Solutions Together.



Dealer account

Machinery dealers can also implement Remote service



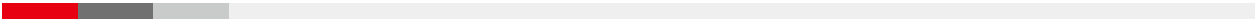
Dealers sell and provide service for machines of multiple MTBs. In response to requests from dealers for using remote service to provide service for multiple MTBs' machines they sold, we added the dealer account function. If you log in remote service using a dealer account, you can view the diagnostic data for only those units that are dealt with by the dealer.



Mitsubishi Electric's product lineup, from various controllers and drives to energy-saving devices and processing machines, all help you to automate your world. They are underpinned by software, innovative data monitoring, and modelling systems supported by advanced industrial networking and Edgecross IT/OT connectivity. Together with a worldwide partner ecosystem, Mitsubishi Electric factory automation (FA) has everything to make IoT and Digital Manufacturing a reality.





With a complete portfolio and comprehensive capabilities that combine synergies with diverse business units, Mitsubishi Electric provides a one-stop approach to how companies can tackle the shift to clean energy and energy conservation, carbon neutrality and sustainability, which are now a universal requirement of factories, buildings, and social infrastructure.

We at Mitsubishi Electric FA are your solution partners waiting to work with you as you take a step toward the realization of sustainable manufacturing and society through the application of automation. Let's automate the world together!




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 **Safety Warning**

To ensure proper use of the products listed in this catalog, please be sure to read the instruction manual prior to use.

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