

FACTORY AUTOMATION

for Machine Tool Users

NUMERICAL CONTROL (CNC) REMOTE SERVICE

iQCare
Remote4U



Supporting manufacturing sites with IoT.

Remote service that supports the maintenance of CNC through Mitsubishi Electric's e-F@ctory*1*2.

*1. Mitsubishi Electric EDM and laser processing systems are not in the scope of this remote service.
 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.



Dashboard function*3

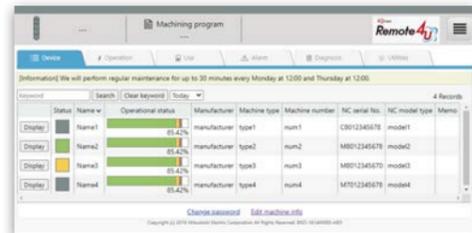
▶ Dashboard function helps you improve production process and reduce running costs

You can view real-time operation data of your machines equipped with Mitsubishi Electric CNCs.

*3. The specifications are different from the dashboard function for Mitsubishi Electric EDM and laser processing system.



■ Device screen



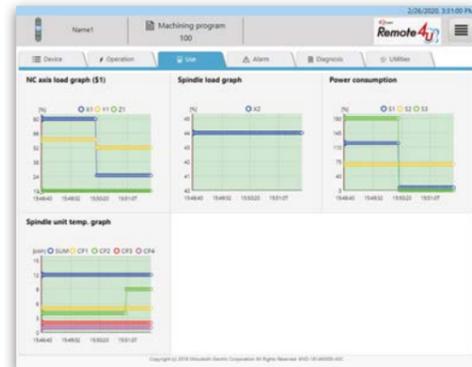
You can centrally manage the operating status of a number of machines.

■ Operation screen



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

■ Use screen

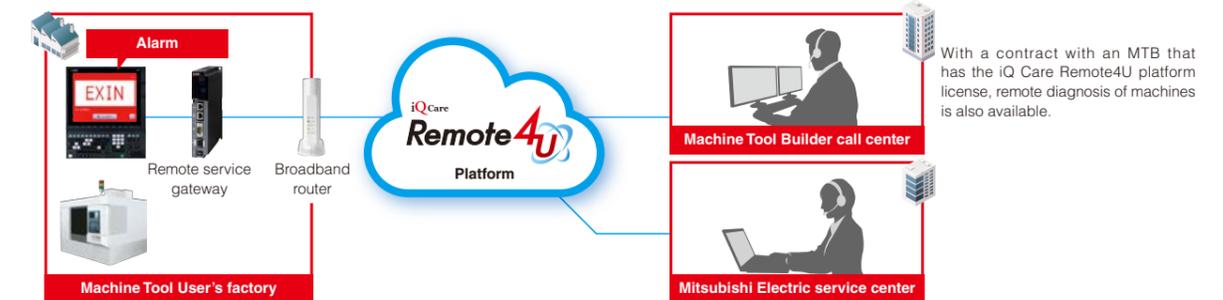


The selected machine's load, power consumption and spindle unit temperature are displayed in graphs. You can use the data in analysis to improve machining quality and reduce running costs.

Remote diagnostics

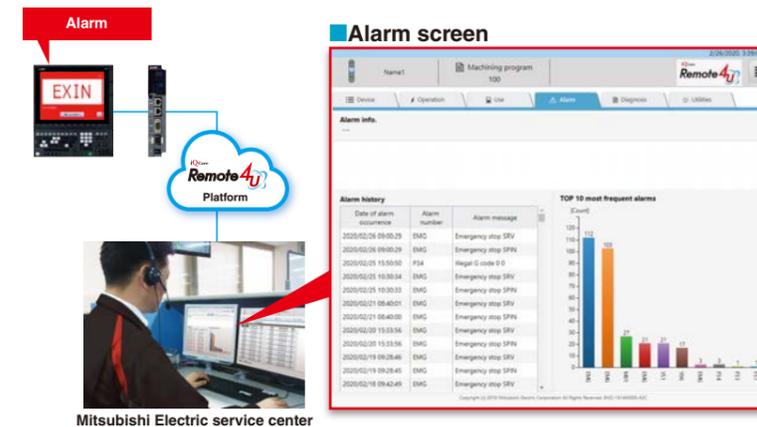
▶ Remote diagnostics improves maintainability

Mitsubishi Electric service center remotely supports the maintenance of Mitsubishi Electric CNCs on your machines.



With a contract with an MTB that has the iQ Care Remote4U platform license, remote diagnosis of machines is also available.

Accurate CNC service



We directly connect to your CNCs from the terminals in our service center. We remotely check the alarm occurring on your machine and alarm history. We can also view the current parameters settings. Based on the information, our service personnel remotely diagnoses the status of your CNCs and offers accurate support to the shop floor. It helps reduce machine down time.

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

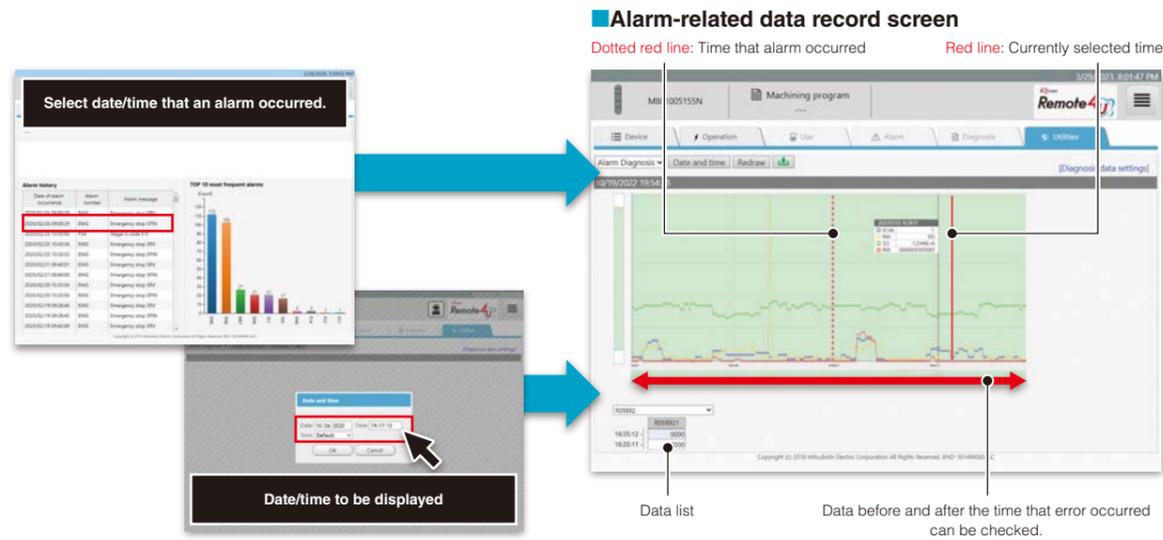
Remote service gateway
 Dedicated device that cyclically collects data from NC and communicates with the cloud

Basic specifications	Ethernet	2 ch
	Power supply voltage	DC24V

Alarm diagnosis

- ▶ When an alarm occurs or machine is stopped, the data before and after that time are displayed to help determine the cause

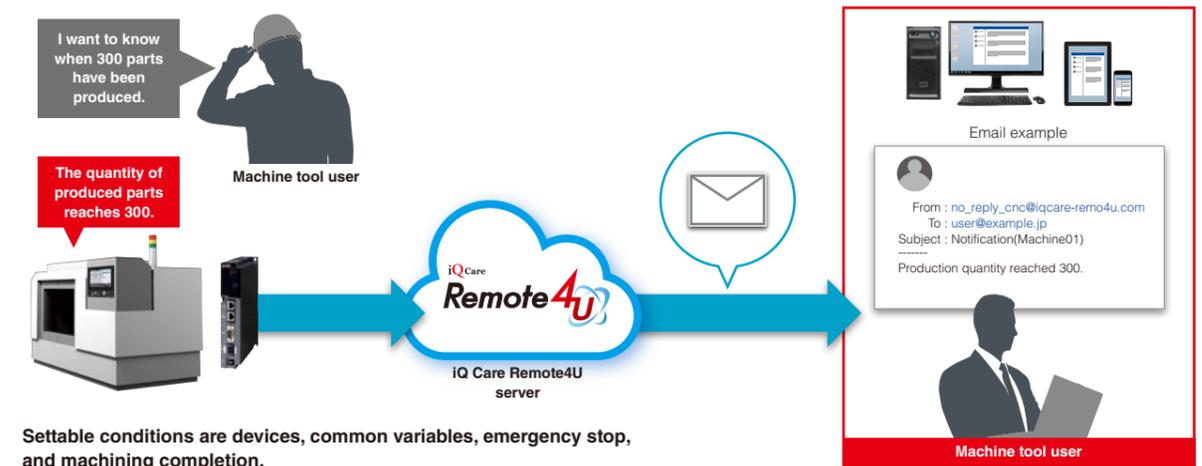
By registering signals and common variables that may be factors in advance, data before and after an alarm or machine stop can be checked like a driving recorder. Furthermore, specified data can be checked in chronological order to assist in investigating the cause of any problems that may occur.



Email notification settings

- ▶ Automatic email notification of information set by machine tool user

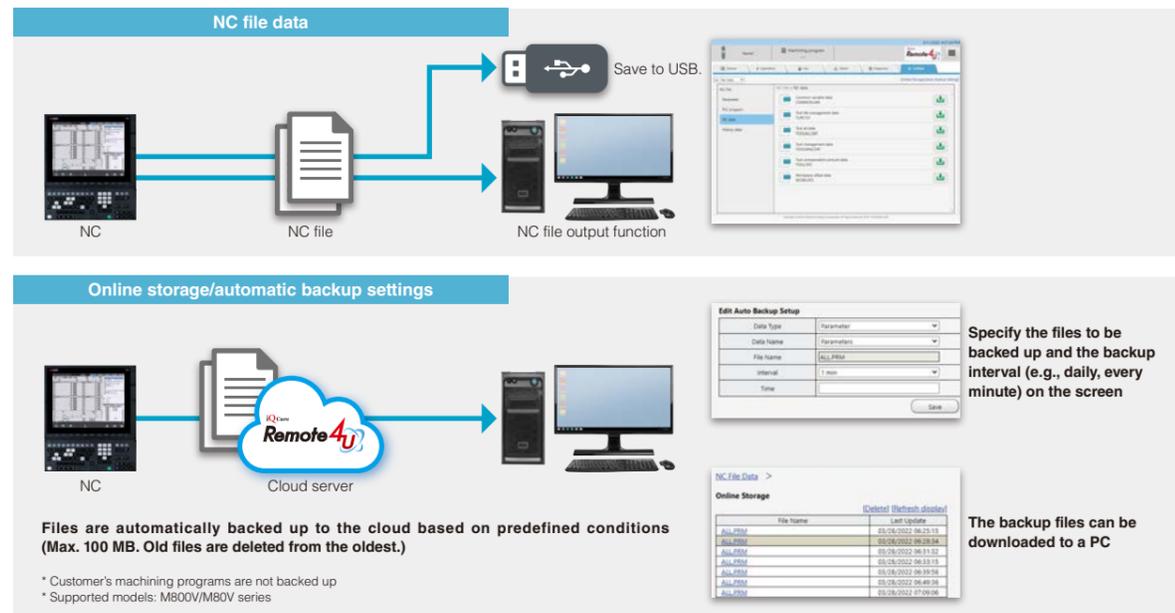
When conditions requiring email notification are detected, an email is automatically sent to the pre-registered addresses. For example, when a predetermined condition is detected, such as the production quantity reaching a certain value, an email notification is sent to a pre-registered email address. This allows operators to know the status of the NC even when they are not on site, as they are notified by email when machining is finished or a trouble occurs.



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

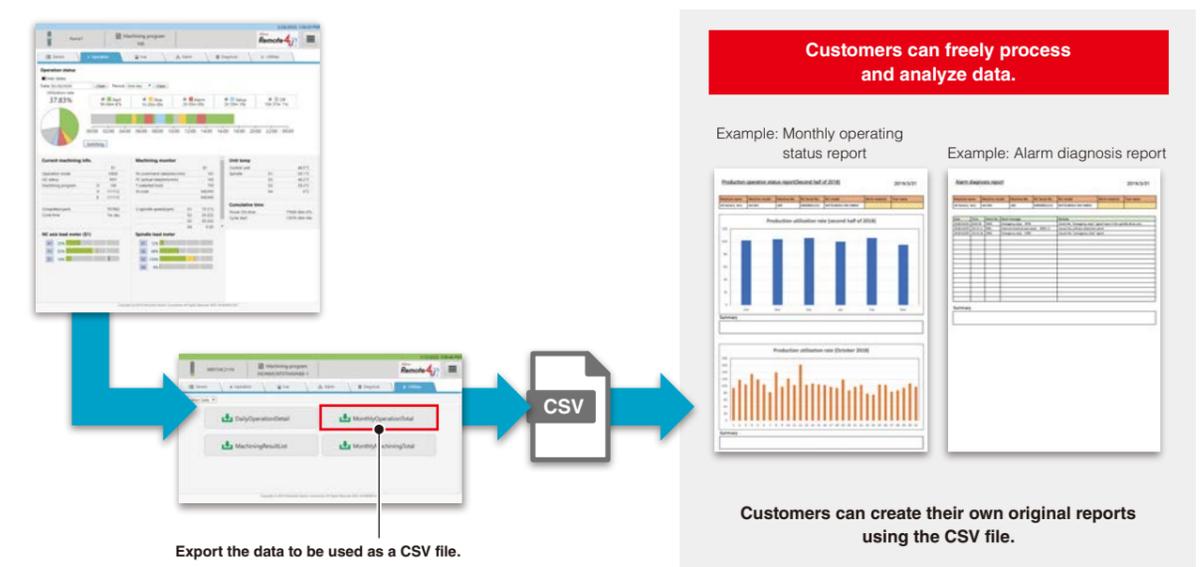
Parameters, PLC programs and NC data (common variable, tool information and workpiece offset) can be downloaded to the local device. Auto backup setup accumulates various types of data at any cycles (by minute, day, week or month) to facilitate comparisons with past data in the event of an anomaly. (Online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



Operation status acquisition/History data acquisition

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

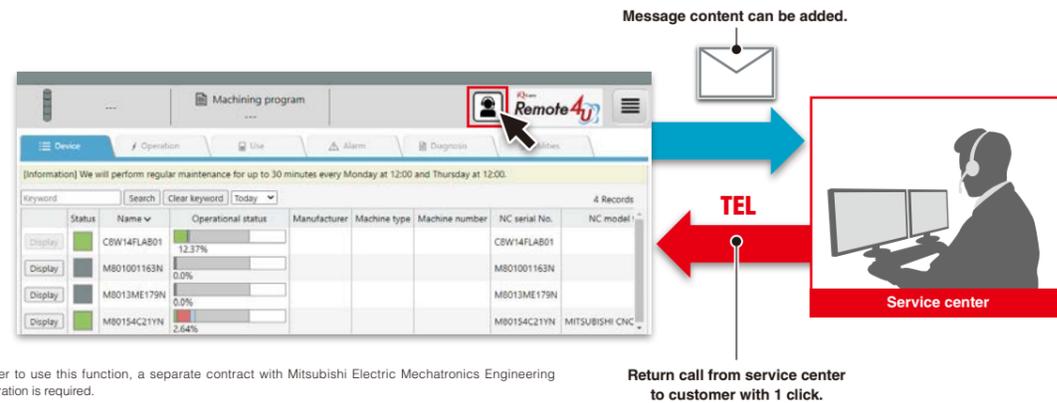
Various history data can be downloaded in CSV file format by day/month. The downloaded CSV data can be used to create your own reports and analyze the data. (History data acquisition is only available for machine tool users.)



Service call

▶ The service center can be called with 1 click

The service center can be called with 1 click when a problem occurs. Reduces the time and effort involved in making inquiries, such as explaining the situation, checking telephone numbers, etc. Also a message can be added when contacting the service center.



* In order to use this function, a separate contract with Mitsubishi Electric Mechatronics Engineering Corporation is required.

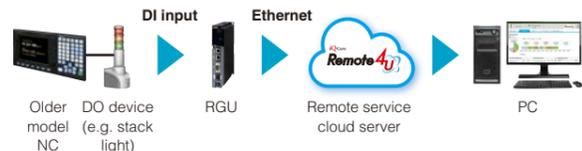
Connection with older models

▶ 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.

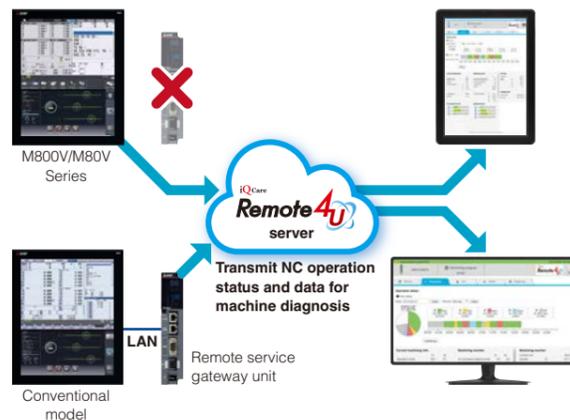


* Refers to the following models, which requires a DI connection with a remote service gateway unit (RGU). (Some functionality is not available.)
C70, MELDAS 60/60S Series, MELDAS 600 Series, EZMotion-NC E60/E68 Series, MELDAS C6/C64, MELDASMAGIC64, MELDAS 500 Series, MELDAS C5, MELDAS 300 Series, MELDAS 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.)

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	○	○
	NC file data, online storage, auto backup setup	○	○*2
Others	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 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.

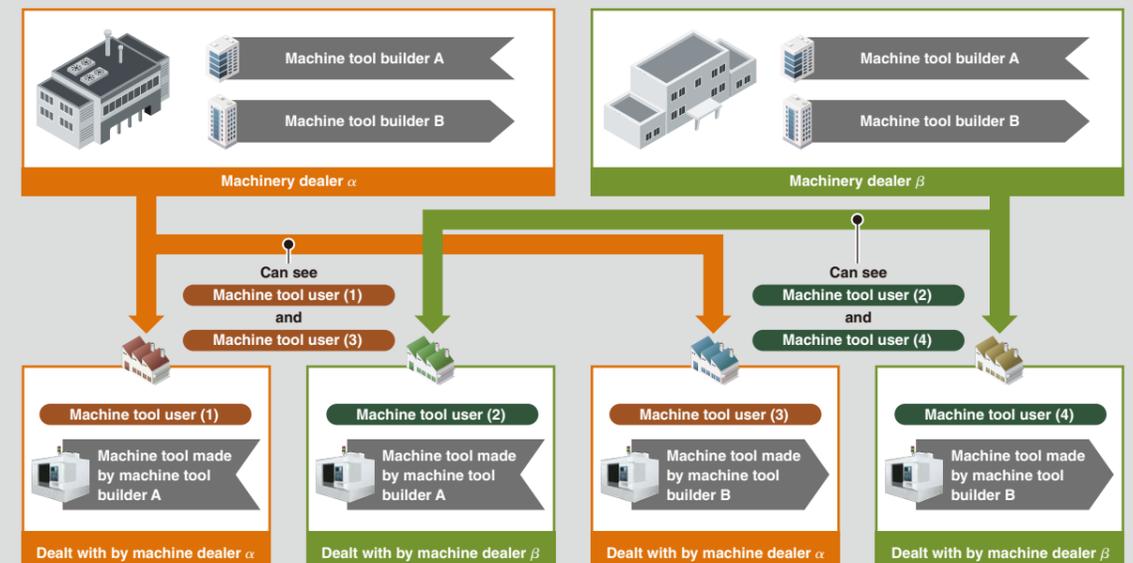
Dealer account

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.

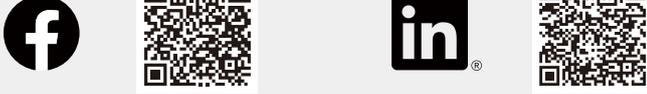
If you log in remote service using a dealer account, you can view the diagnostic data for only those units that are dealt with by the dealer.





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Official Mitsubishi Electric Mechatronics YouTube account
User support videos are available, including how to backup/restore data and replace batteries, and an introduction to our products and technologies.



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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.

MITSUBISHI ELECTRIC CORPORATION
HEAD OFFICE: TOKYO BLDG., 2-7-3, MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN