MITSUBISHI ELECTRIC

Changes for the Better

Numerical Control (CNC)

User's Manual

Remote Service iQ Care Remote4U

IB-1501552(ENG)-N

Introduction

This manual is for understanding the specifications, procedures before operation, and troubleshooting required to use this product.
Before using this product, read this manual and related manuals thoroughly to understand the functions and performance of the product to use the product properly.

Precautions for Safety

(Be sure to read before using this product.)

When using this product, read this manual and the related manuals introduced in this manual thoroughly, and pay full attention to safety to handle this product correctly.
The precautions shown in this manual are for this product only. For the safety precautions of each machine, refer to the manual of each machine to be used.
This section "Precautions for Safety" ranks the safety precautions into: "⚠ DANGER", "⚠ WARNING", and "⚠ CAUTION".

⚠ DANGER **When the user may be subject to imminent fatalities or major injuries if handling is mistaken.**
⚠ WARNING **When the user may be subject to fatalities or major injuries if handling is mistaken.**
⚠ CAUTION **When the user may be subject to medium or minor injuries or when property damage may occur, if handling is mistaken.**

Note that even items ranked as "⚠CAUTION", may lead to major results depending on the situation.
In any case, important information that must always be observed is described.
Keep this manual in a safe place for future reference and be sure to deliver it to the end user.

The following signs indicate prohibition and compulsory.

	**This sign indicates prohibited behavior (must not do).** **For example, "Keep fire away" is indicated by .**
	**This sign indicates a thing that is compulsory (must do).** **For example, "must be grounded" is indicated by .**

The meaning of each pictorial sign is as follows.

 **General Caution**	 **Rotating Object Caution**	 **Hot Caution**	 **Electric Shock Caution**	 **Explosion Caution**
 General Prohibition	 **Disassembly Is Prohibited**	 **Keep Fire Away**	 **General Instruction**	 **Earth Ground**

⚠ DANGER

Not applicable in this manual.

⚠ WARNING

■Items related to design

⚠ To perform control (data change, operation status change, etc.) on an device and equipment (numerical controller, PLC, servo, robot, server, etc.) that is in operation from an industrial personal computer equipped with this product, configure an interlock circuit outside the device and equipment so that the entire system always works on the safe side. Read the manual thoroughly and make sure it is safe before proceeding. In particular, the above control for device and equipment from a remote location via a network may not be able to immediately deal with troubles on the device and equipment side due to abnormal data communication.

⚠ CAUTION

■Items related to design

⚠ To protect the availability, integrity and confidentiality of the NC system against cyber-attacks including unauthorized access, denial-of-service (DoS) (*1) attack, and computer virus from external sources via a network, take security measures such as firewall, VPN, and anti-virus software.

(*1) Denial-of-service (DoS) refers to a type of cyber-attack that disrupts services by overloading the system or by exploiting a vulnerability of the system.

⚠ Mitsubishi Electric assumes no responsibility for any problems caused to the NC system by any type of cyberattacks including DoS attack, unauthorized access and computer virus.

⚠ Do not use this service in EU member states.
Remote service gateway units and Remote Service iQ Care Remote4U are not supported in EU member states.

Application of This Software

Users must agree the following conditions for an unexpected software problem:
- Use the software in a way that the problem will not cause a serious accident.
- Functions for data backup and fail-safe need to be systematically implemented outside the device as preventive measures for the problem.

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1. Overview

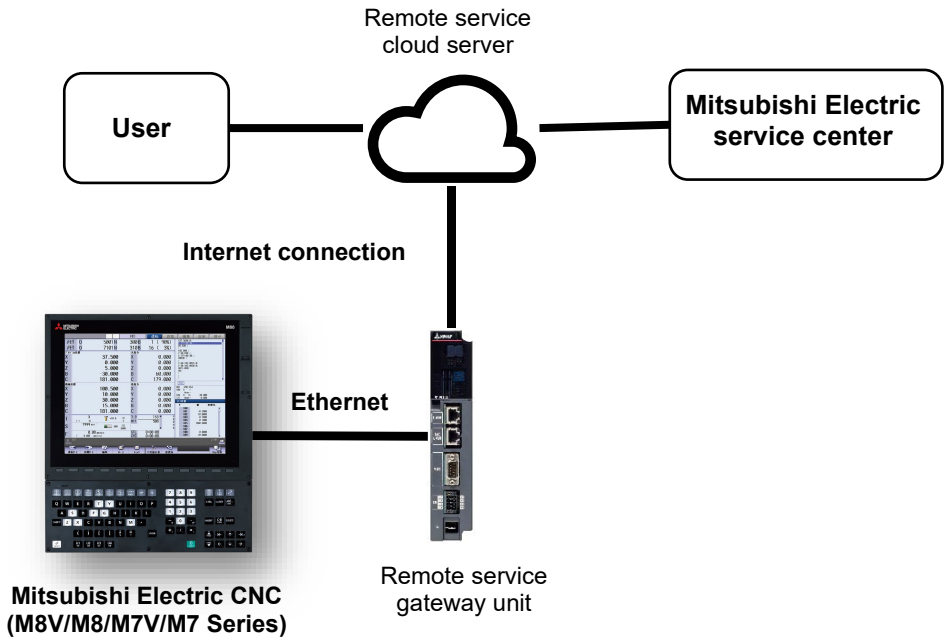
"iQ Care Remote4U" is an application that provides information effective for monitoring the machine status and operational status.

The following functions are provided.

- Monitoring the machine status (operation mode, operating program, load of NC axis/spindle, etc.)
- Displaying the machine operational status (work rate, work times, stop time, etc.)
- Displaying the machine alarm data (current alarm, alarm history, etc.)
- Customizing the screen

1.1 System Image

iQ Care Remote4U connects to NC machine tools via a remote service gateway unit (hereinafter RGU).



1.2 Operating Environment

The environments recommended for viewing the screen of iQ Care Remote4U in a web browser are as follows

Item	Contents
Device (*1)	PC, tablet, or smartphone
Browser	Microsoft Edge, Google Chrome, or Safari

(*1) List of recommended mobile device (*2) environments

Device	OS	Browser
Smartphone	iOS	Safari
	Android	Google Chrome
Tablet	iOS (*3)	Safari (*3)
	Android	Google Chrome

(*2) About mobile devices
In this manual, a mobile device refers to a smartphone or tablet. In addition, the mobile device is in the state with the setting to view desktop websites set to OFF in the browser settings.

(*3) When Safari is used on an iOS tablet, the website for mobile devices is displayed regardless of whether the setting to view desktop websites is ON or OFF.

1.3 Supported Models

The supported models are as follows. The following models are all Mitsubishi Electric NCs.
For supported models limited to a DI connection (hereinafter DI-connected models), a DI connection with an RGU is required and limitations apply to some functions because data cannot be acquired from the NC.

Supported models	Supported models limited to DI connection (DI-connected models)
M800V Series	C70
M80V Series	MELDAS 60/60S Series
M800 Series	MELDAS 600 Series
M80 Series	EZMotion-NC E60/E68 Series
E80 Series	MELDAS C6/C64
C80 Series	MELDASMAGIC 64
M700V Series	MELDAS 500 Series
M70V Series	MELDAS 50 Series
M700 Series	MELDAS C5
M70 Series	MELDAS 300 Series
E70 Series	MELDAS M3/L3
	MELDAS C3/C3S

2. Preparations Before Use

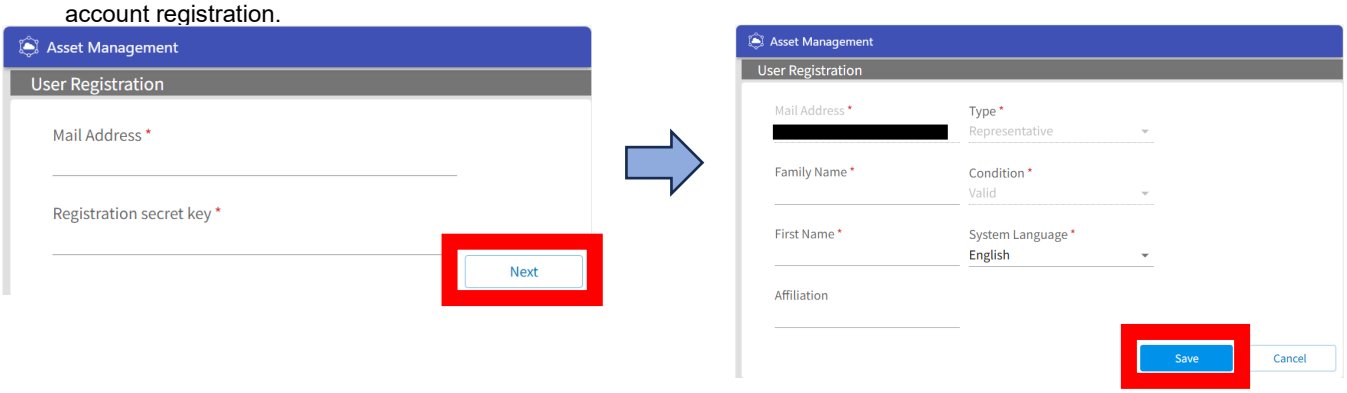
The following preparations are required to use iQ Care Remote4U.

2.1 Initial Account Registration

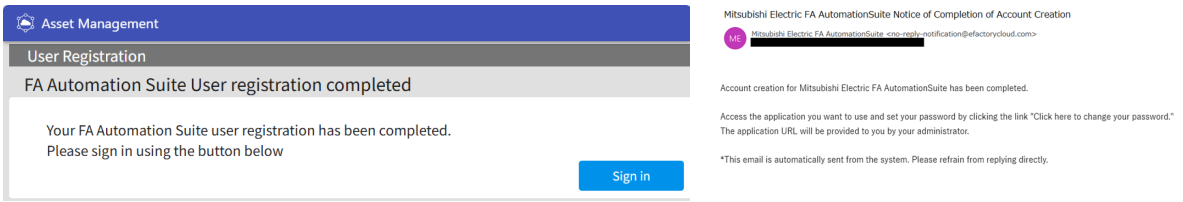
To perform the initial account registration, follow the steps below.

(1) Open the URL for the new account registration screen provided by the supplier.

(2) Enter the email address of the user and the registration secret key provided by the supplier, and then perform account registration.



When registration is completed, email is delivered to the registered email address.



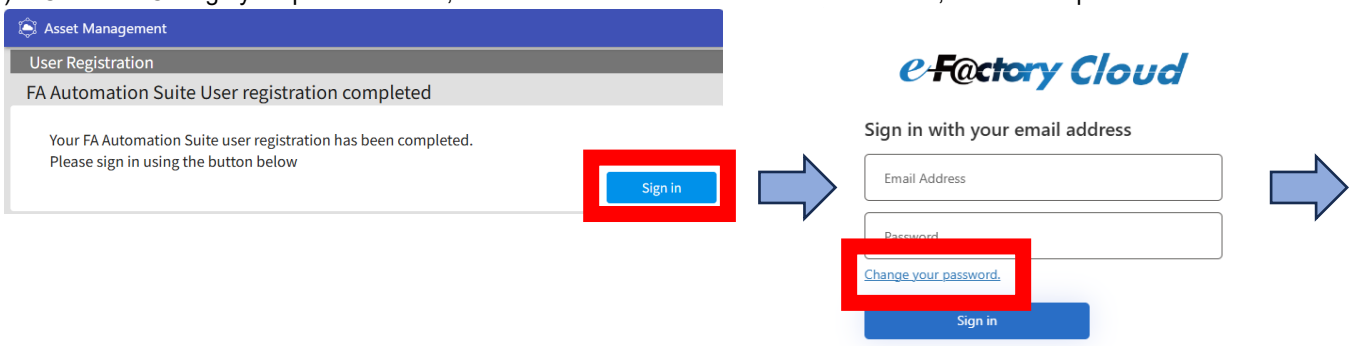
If the account registration completed email is not received, obtain another registration secret key and then perform the procedure again from the initial entering of the email address and registration secret key.

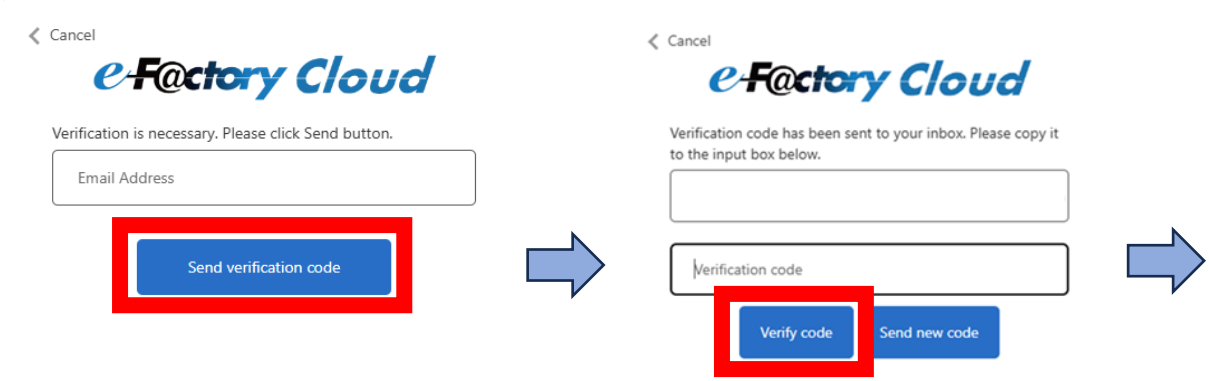
2.2 Initial Login

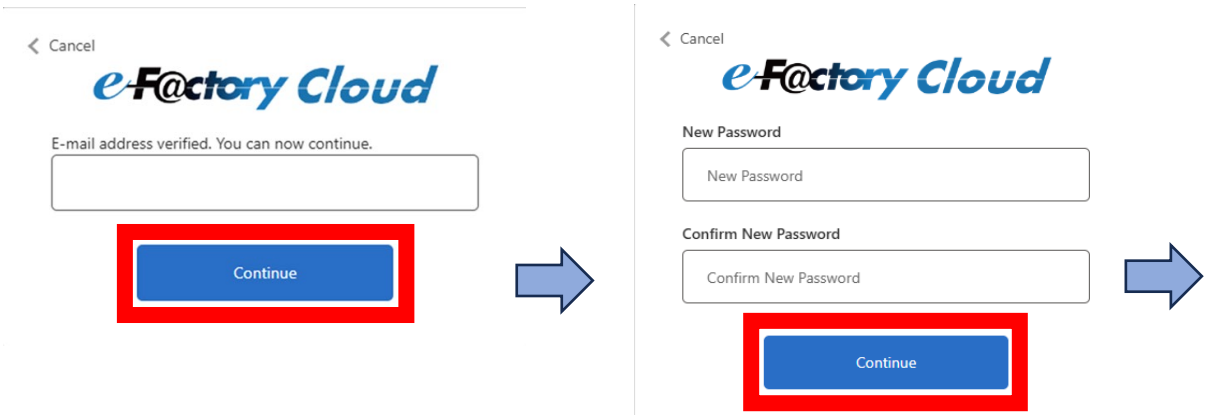
To perform the initial login, follow the steps below.

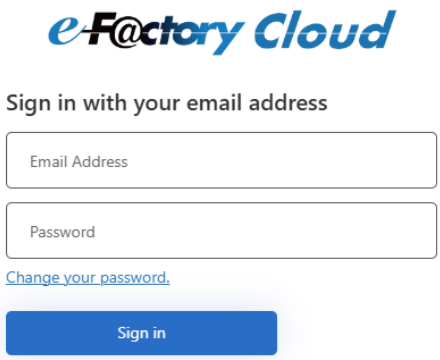
(1) Click the [Sign in] button on the user registration completed screen.

(2) Click the "Change your password" link, enter the email address and verification code, and set the password.

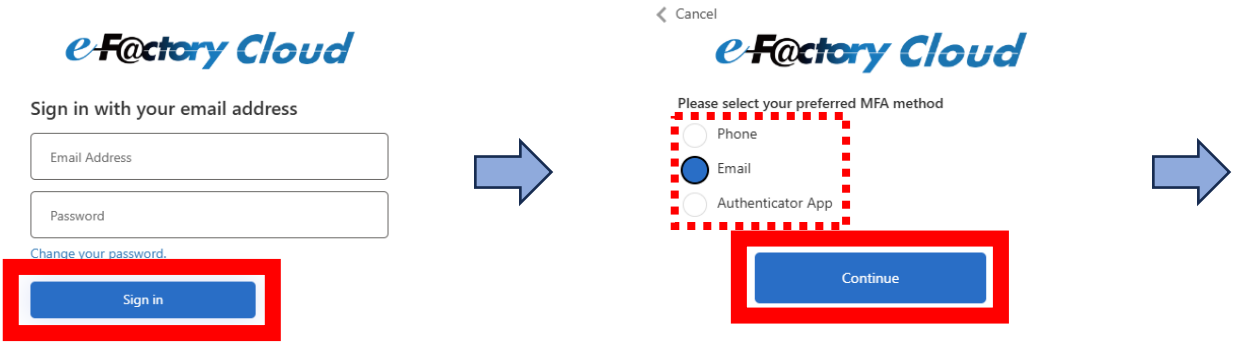




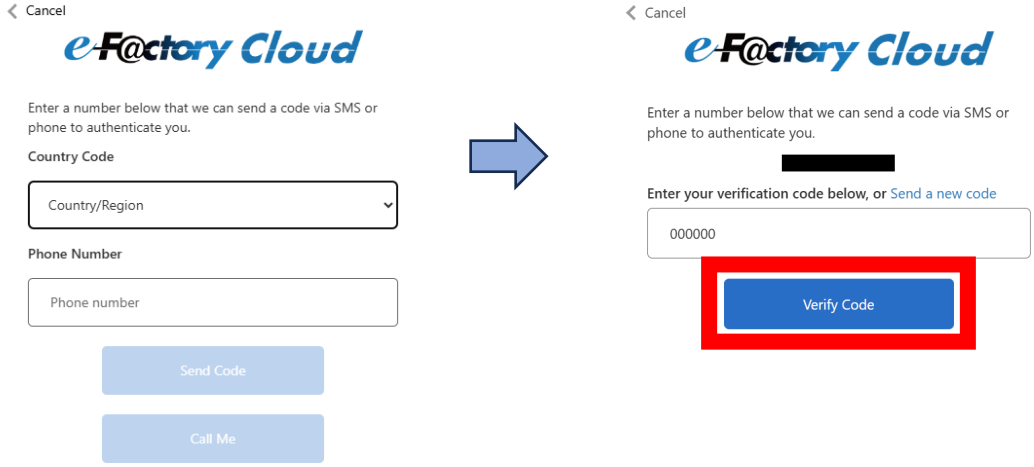




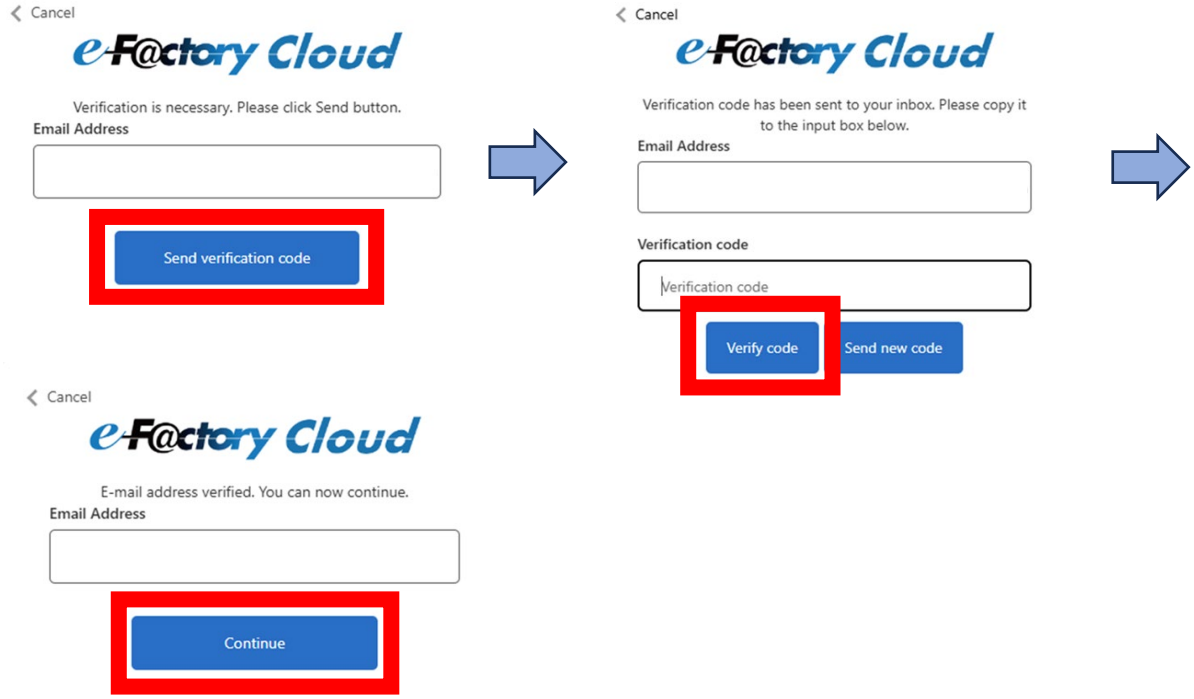
At initial login, a screen for selecting the multi-factor authentication method appears.
Select a method from phone, email, and authenticator app, and click [Continue].



■ Phone

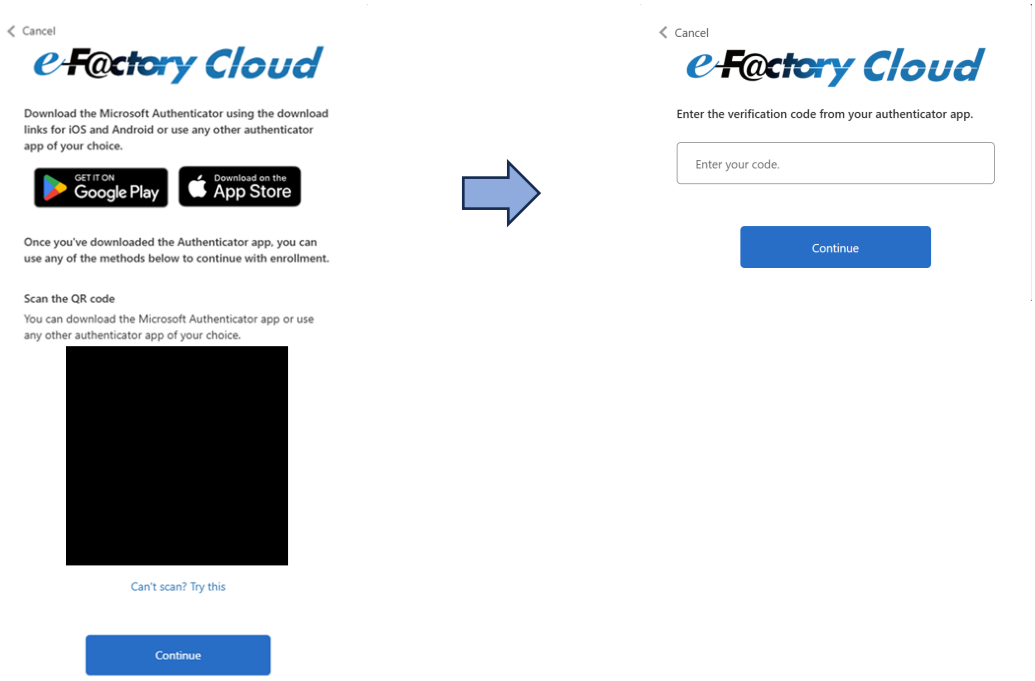


■ Email



■ **Authenticator app**

Enter the verification code according to the instructions in the screen/application.



Multi-factor authentication is requested at initial registration and after a certain period has elapsed.

(Note) Once the multi-factor authentication method is set, you cannot reset/change it yourself.
If you want to reset/change the multi-factor authentication method, contact Mitsubishi Electric.

2.3 Asset Management Screen

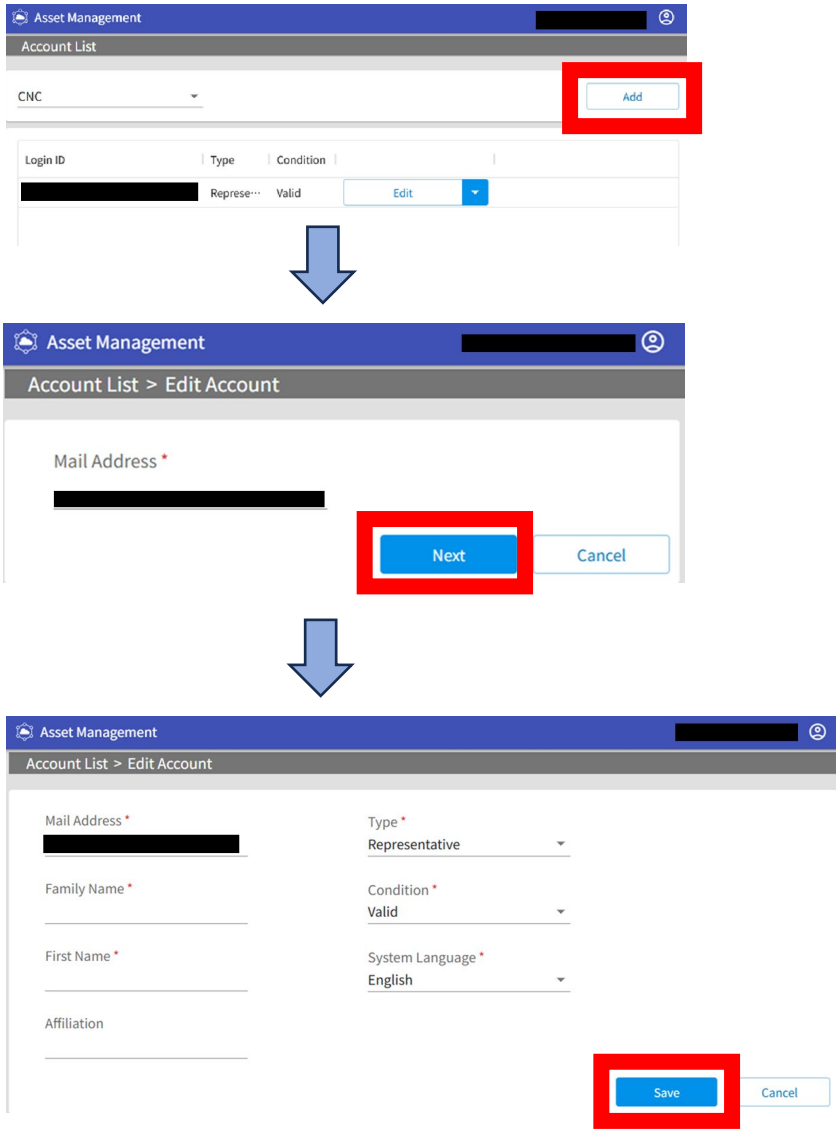
This screen allows you to add, edit, and delete the account information and the machines to display for users who log in to iQ Care Remote4U.
This is the screen displayed initially when you access the asset management function as the user representative.
It lists the accounts associated with the display target delivery destination.

2.3.1 Adding an Account

To add an account, follow the steps below.

(1) Click the [Add] button on the Account List screen.
(2) Enter an email address, and click the [Next] button.
(3) Enter the registration information, and click the [Save] button.

Up to ten accounts can be created per tenant (contract unit for corporations).
The account types are representative and general.
To change the type, first delete the account and then register a new account.

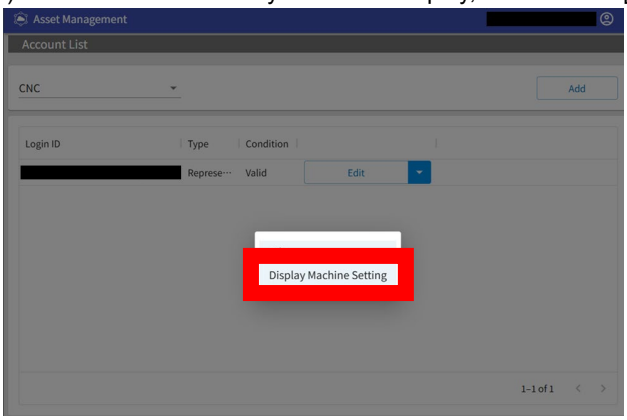


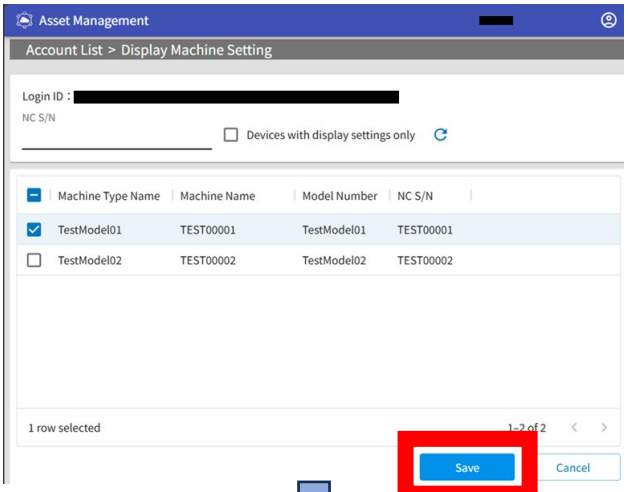
2.3.2 Selecting the Machines to Display

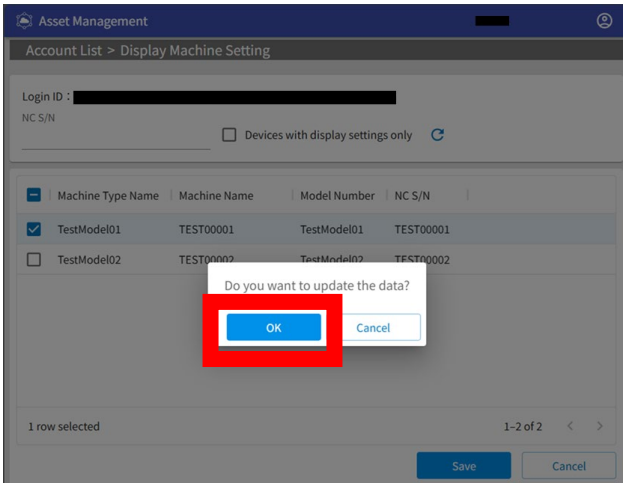
To select the machines to display, follow the steps below.

(1) Click "Display Machine Setting" in the "Edit" pull-down list of the account for which you want to select the machines to display.

(2) Select the machines you want to display, and click the [Save] button.



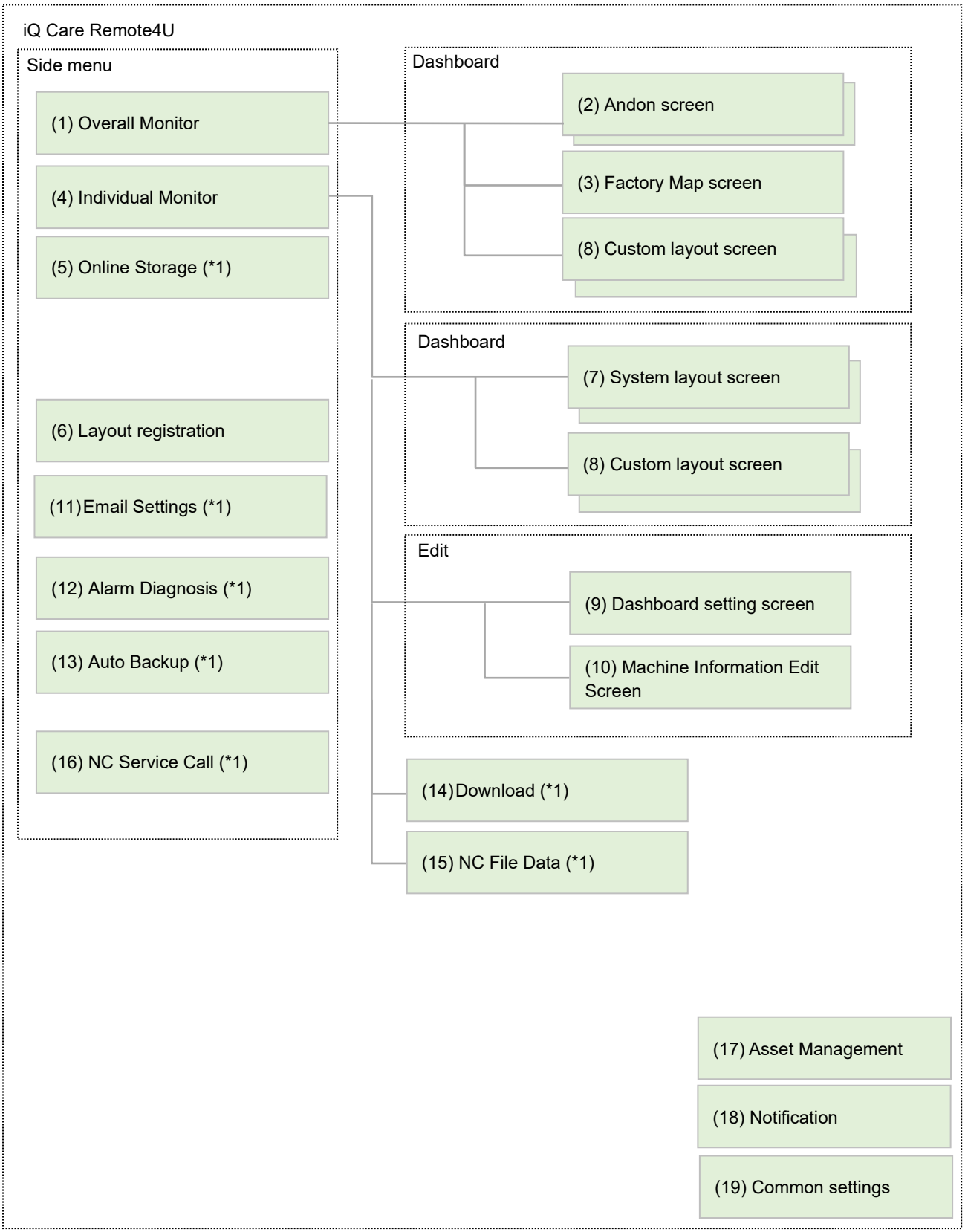




Refer to "2.2 Initial Login" for how to log in to iQ Care Remote4U.

3. iQ Care Remote4U Functions

The function (screen) configuration and function summary of iQ Care Remote4U are as follows.



(*1) The available functions differ depending on the model.

No.	Function name	Key features
(1)	Overall Monitor	Monitor the operational status of machines in the factory or at each base.
(2)	Andon screen	Check the operational status and production status of machines affiliated with a machine group.
(3)	Factory Map screen	Check the operational status and production status of machines in the same arrangement as the factory.
(4)	Individual Monitor	Displays a list of the operational statuses of connected machines. You can select a machine and go to the dashboard screen to monitor the machining information in more detail.
(5)	Online Storage	Displays a list of the files that are backed up to online storage, and allows you to download and delete them.
(6)	Layout registration	Edit and register the custom layout screen to be assigned to the dashboard.
(7)	System layout screen	This is the dashboard screen provided by Mitsubishi Electric. You can perform tasks such as monitoring the machining information of the machine tools and checking the alarm data.
(8)	Custom layout screen	This is the dashboard screen to be created by users. You can combine the screen parts (cards) provided by Mitsubishi Electric to create an original screen.
(9)	Dashboard setting screen	Assign the screens to be displayed on the dashboard.
(10)	Machine Information Edit Screen	Edit the machine names and note data.
(11)	Email Settings	If you set the conditions for notification by email, you can receive the NC status by email when the conditions match.
(12)	Alarm Diagnosis	Check the data before and after a specified date and time of alarm occurrence.
(13)	Auto Backup	Back up the files in the NC to online storage periodically based on a set execution schedule.
(14)	Download	Download the data of the daily operation detail, monthly operation detail, machining result list, and monthly machining result list.
(15)	NC File Data	Download the files (parameters, PLC programs, NC data, history data, etc.) in the NC selected on the Individual Monitor Screen.
(16)	NC Service Call	Send email containing the return contact information and trouble details to the Service Center in order to receive support from the Service Center. To use NC Service Call, you need to submit an application to Mitsubishi Electric.
(17)	Asset Management	Register, edit, and delete the account information and the machines to connect for users who log in to iQ Care Remote4U.
(18)	Notification	Click the bell icon at the top right of the screen to display the notification list.
(19)	Common settings	Click the settings icon at the top right of the screen to display the common setting menu.

3.1 Basic Operations

3.1.1 Setting the Language to Use

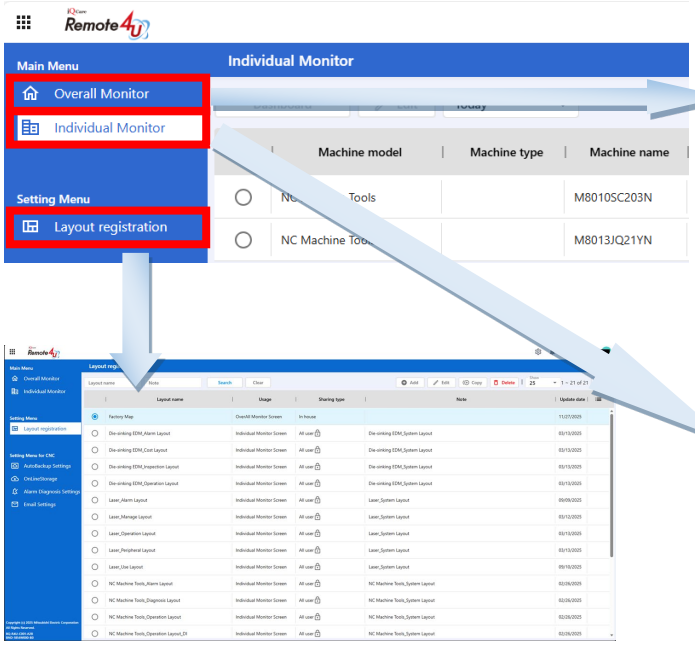
This application can be used in Japanese or English.

The language used is switched according to your browser's language setting. When the browser's language is not set to [Japanese], the site is displayed in English.

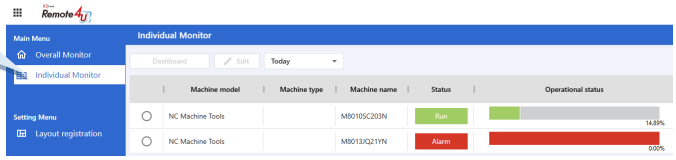
(*) For information on how to change the language setting, refer to the instructions for your browser.

3.1.2 Side Menu Selection

If you click an item in the side menu, the screen switches to the specified screen, such as the Overall Monitor Screen or Individual Monitor Screen.



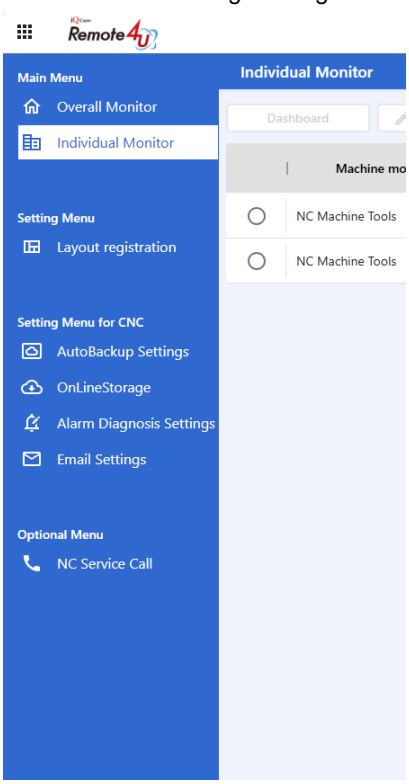
<Overall Monitor Screen>



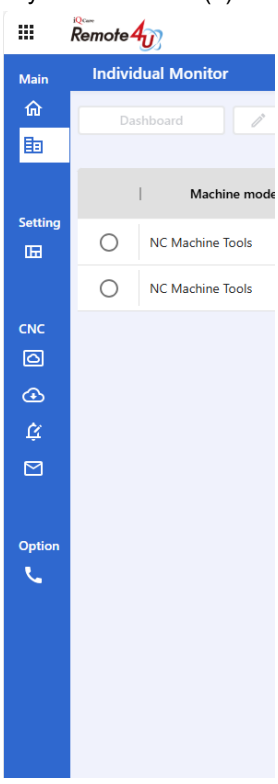
<Individual Monitor Screen>

<Layout registration screen>

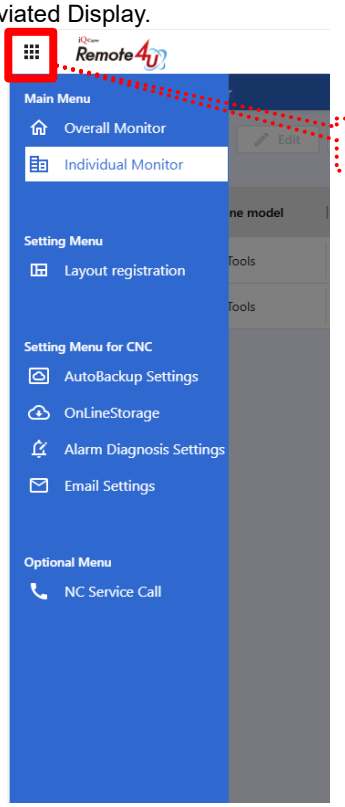
The display of the side menu varies depending on the browser window size.
The display will be as shown in (1) Normal Display when the browser window size is large enough, and as shown in (2) Abbreviated Display when it is not large enough. You can then switch the display by clicking the menu button at the top left.
However, the display will become as shown in (3) Expanded Display if the menu button is clicked while the browser window size is not large enough when display is as shown in (2) Abbreviated Display.



(1) Normal Display



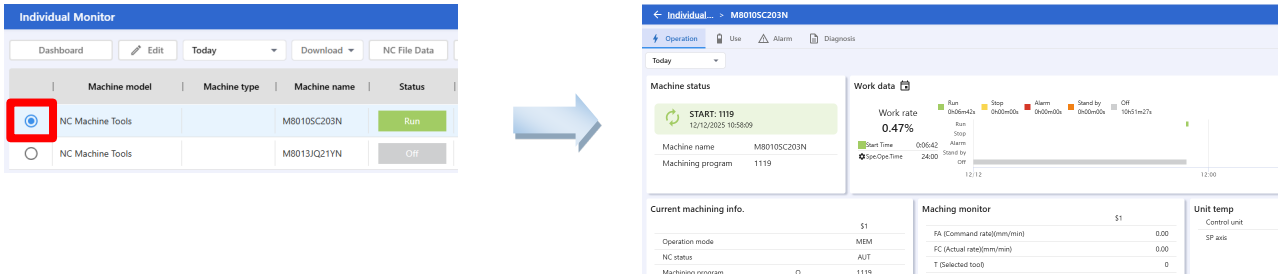
(2) Abbreviated Display



(3) Expanded Display

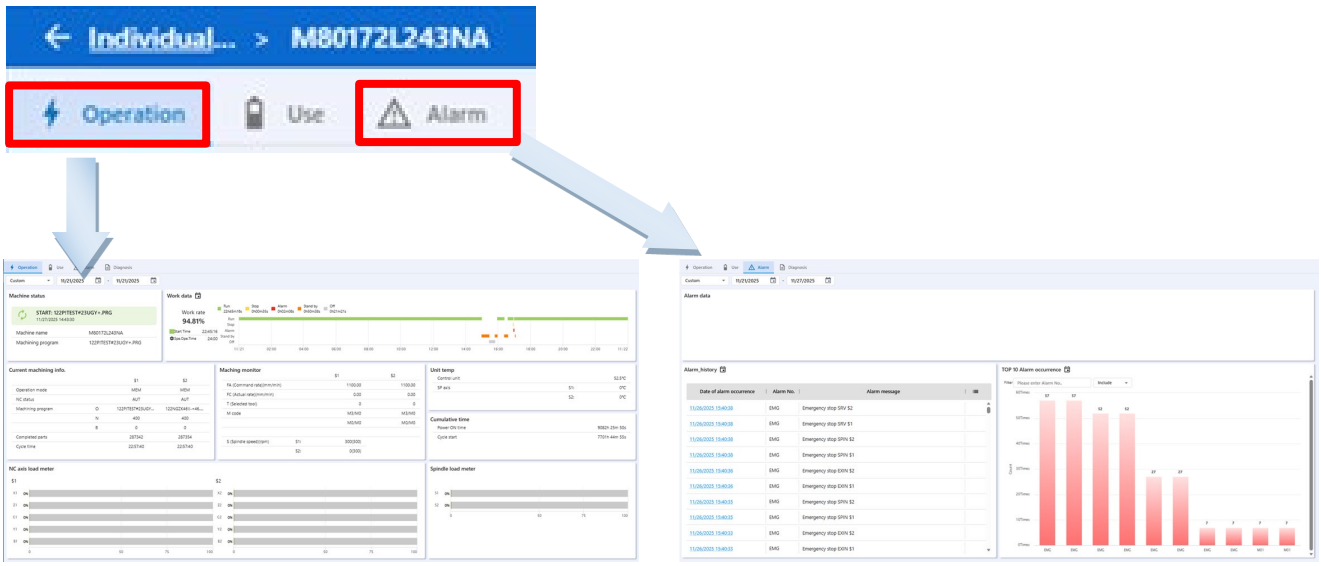
3.1.3 Selecting a Machine

If you select a machine on the Individual Monitor Screen and then click the [Dashboard] button, the screen switches to the dashboard screen.
Refer to "3.7.3 Dashboard Screen" for details on the dashboard screen.



3.1.4 Switching the Dashboard Tab

If you click a tab on the dashboard screen, the screen switches to a system layout screen or a custom layout screen created by a user.

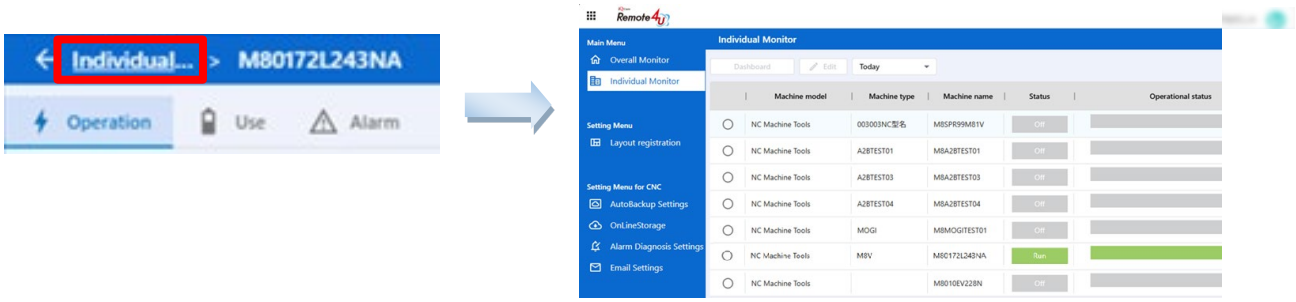


<System layout screen (Operation)>

<System layout screen (Alarm)>

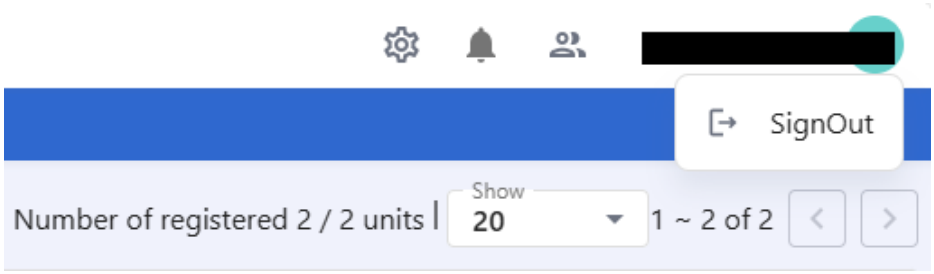
3.1.5 Screen Title (Breadcrumb List)

The screen title shows the names of the screens up until the current screen in a hierarchy.
Click a screen name in the hierarchy to go to that screen. (This function is called a breadcrumb list.)
The name of the currently displayed screen is only a label as no link is set.



3.1.6 Signing Out

Click the user name at the top right of the screen and then select [SignOut] to sign out from iQ Care Remote4U.
After you sign out, the Sign In screen appears.



3.2 Common Operations

3.2.1 Lists

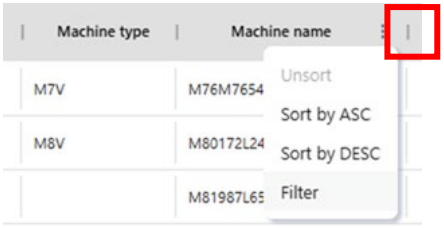
This section describes the specifications and operations of lists.

■ **Scrolling a list**

If the window width is not enough, a horizontal scroll bar appears at the bottom of the list.
If the number of items listed reaches or exceeds a certain level, a vertical scroll bar appears to the right of the list.

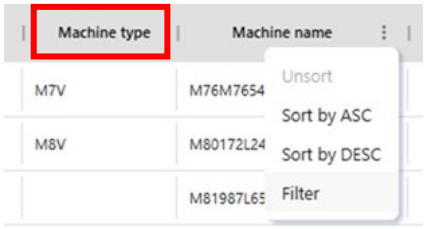
■ **Adjusting the column width**

You can change the display width of each item. You can change the horizontal width of each list item by dragging the vertical line to the right of the title line.
If the display width is insufficient, the display is abbreviated.



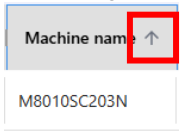
■ **Changing the order of columns**

You can change the order of the columns. Drag the item name and drop it on the destination.

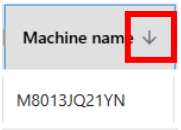


■ **Sorting a list**

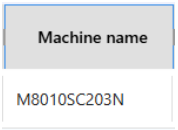
Click the item name in the title row to sort the list from ascending order to descending order to unsorted order. (Only single item can be sorted.)
An icon is displayed to the right of the title of the sorted item.



Ascending order

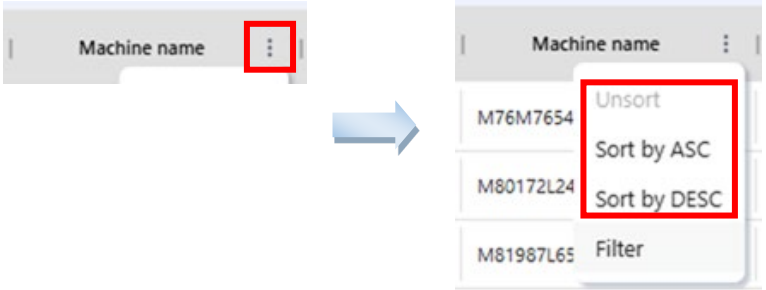


Descending order



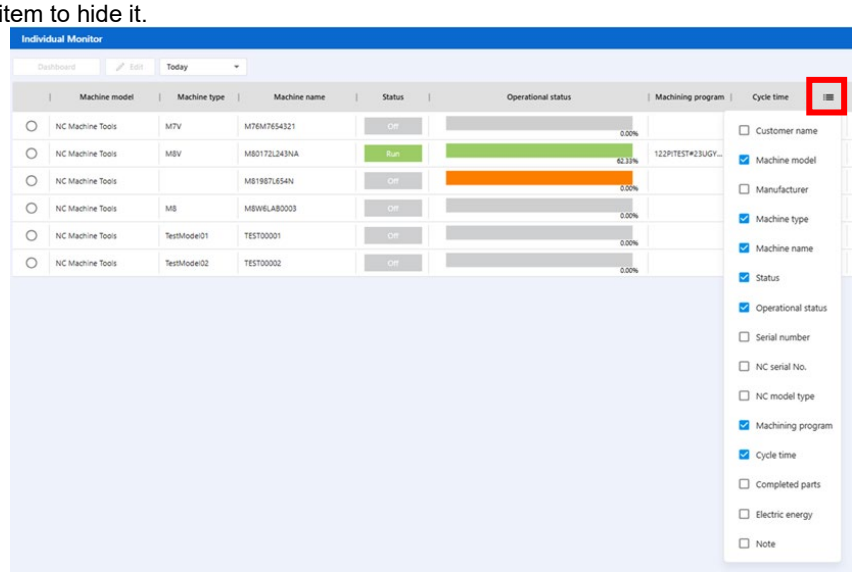
Unsorted order (Not sorted)

Click the icon to the right of the item name and select [Sort by ASC], [Sort by DESC] or [Unsort].



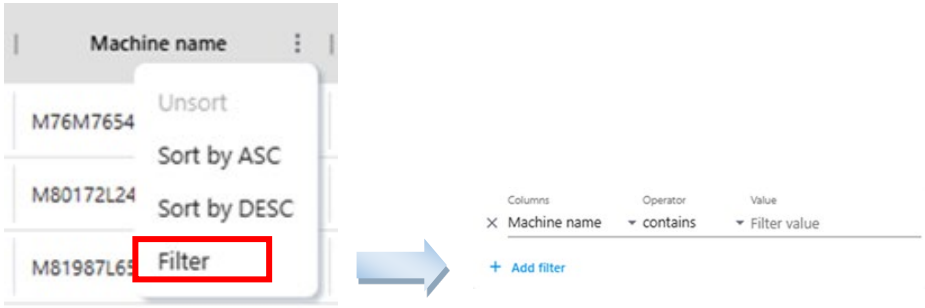
■ Showing/hiding the list items

Click the icon to the right of the title row to display the list for showing/hiding items.
Uncheck an item to hide it.

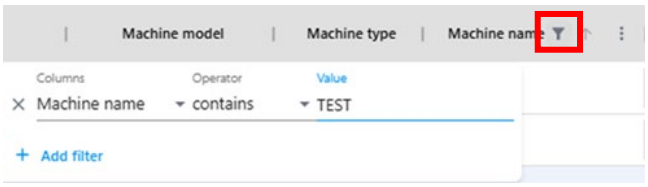


■ Filtering a list

You can set a filter to narrow down the list with the specified conditions.
Set "Operator" (filter condition) and "Value" (no input may be required depending on the operator selected).
To set multiple conditions, click [+ Add filter] to add the filter conditions.



A filter icon appears to the right of the item name to which you applied a filter.
You can change the set condition by clicking the filter icon.

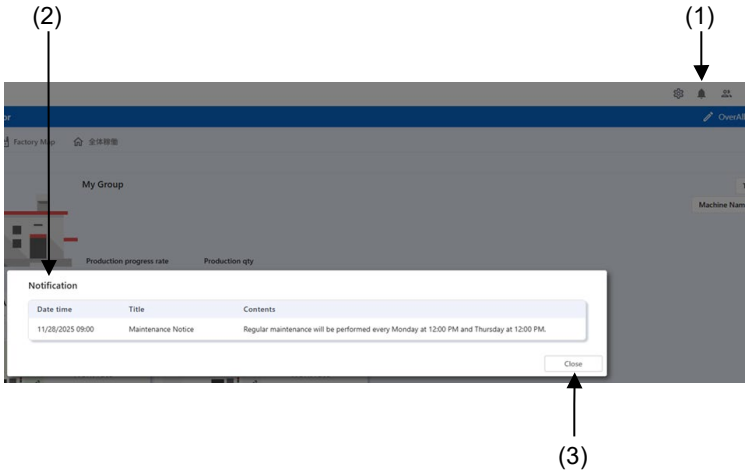


To remove a filter condition that you have set, click [X] to the left of the target row.



3.3 Notifications

Click the bell icon at the top right of the screen to display the notification list.



No.	Item	Contents
(1)	Bell icon	Click this icon to display the [Notification List] dialog. When there is an unread notification, a red circle is displayed on the bell icon ( ).
(2)	Notification list	The notifications are listed in descending order of date/time.
(3)	Close button	Close the notification list.

3.4 Linking to the Asset Management Screen

Click the person icon at the top right of the screen to display the Asset Management screen.



No.	Item	Contents
(1)	Asset Management screen link icon	Click this icon to open the Asset Management screen in a new tab.

3.5 Common Settings

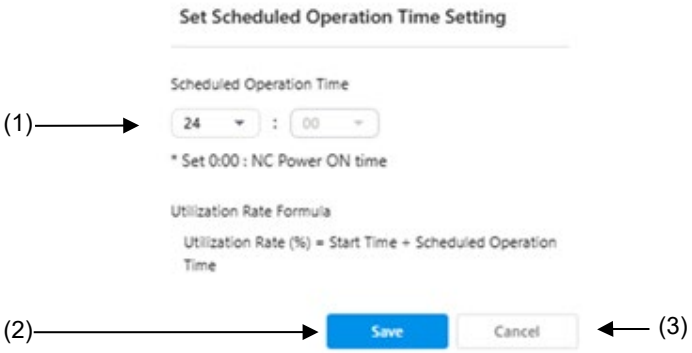
Click the settings icon at the top right of the screen to display the common settings list.



No.	Item	Contents
(1)	Common settings icon	Click this icon to open the common settings list menu.
(2)	Set Scheduled Operation Time Setting	Click this icon to display the [3.5.1 Setting the Scheduled Operation Time] dialog.

3.5.1 Setting the Scheduled Operation Time

In the Set Scheduled Operation Time Setting dialog, you can register the operation time required to calculate the work rate.



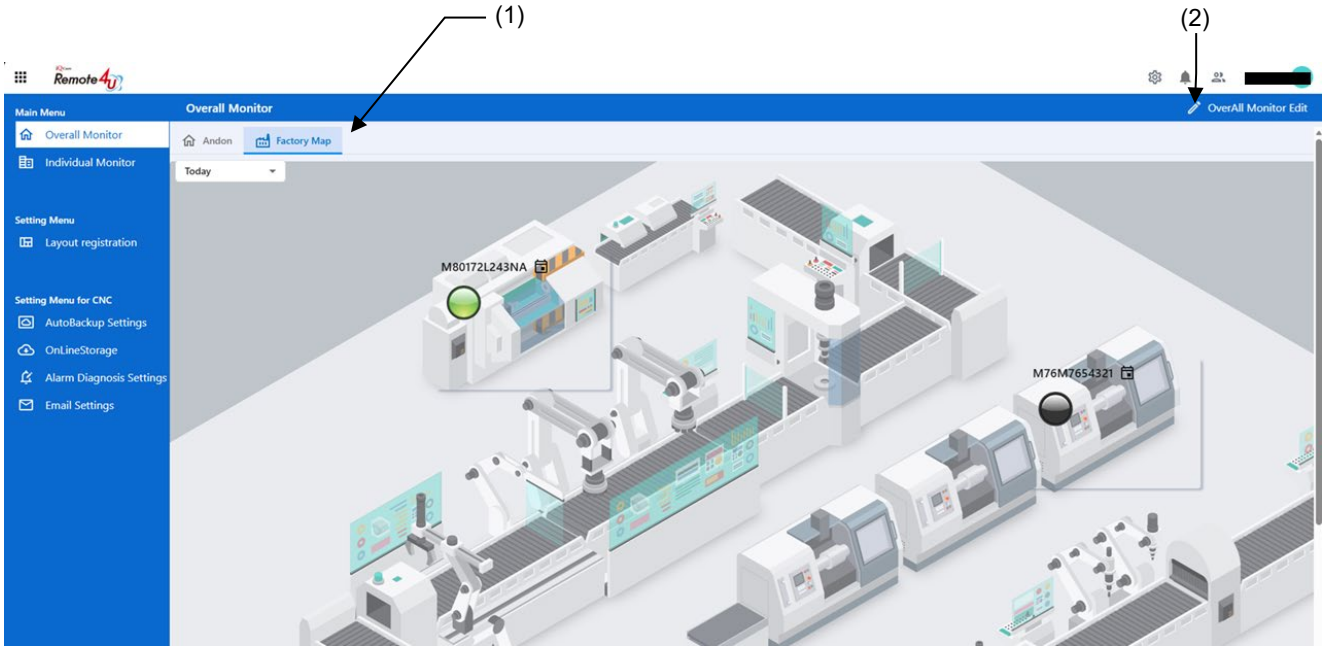
No.	Item	Contents
(1)	Scheduled operation time	Enter the scheduled operation time. Setting range: 00:00 to 24:00 If [00:00] is set, the time when NC power turns ON is used.
(2)	Save button	Set the scheduled operation time, and close the dialog.
(3)	Cancel button	Close the dialog without setting the scheduled operation time.

3.6 Overall Monitor

The Overall Monitor Screen allows you to display and check information for multiple machines on one screen. Select "Overall Monitor" from the side menu.

3.6.1 Overall Monitor Screen

The Overall Monitor Screen consists of the Andon screen that allows you to check the operational status for each machine group, the Factory Map screen that allows you to check the operational status in the same arrangement as the factory, and custom layout screens that you configure on the OverAll Monitor Edit screen.

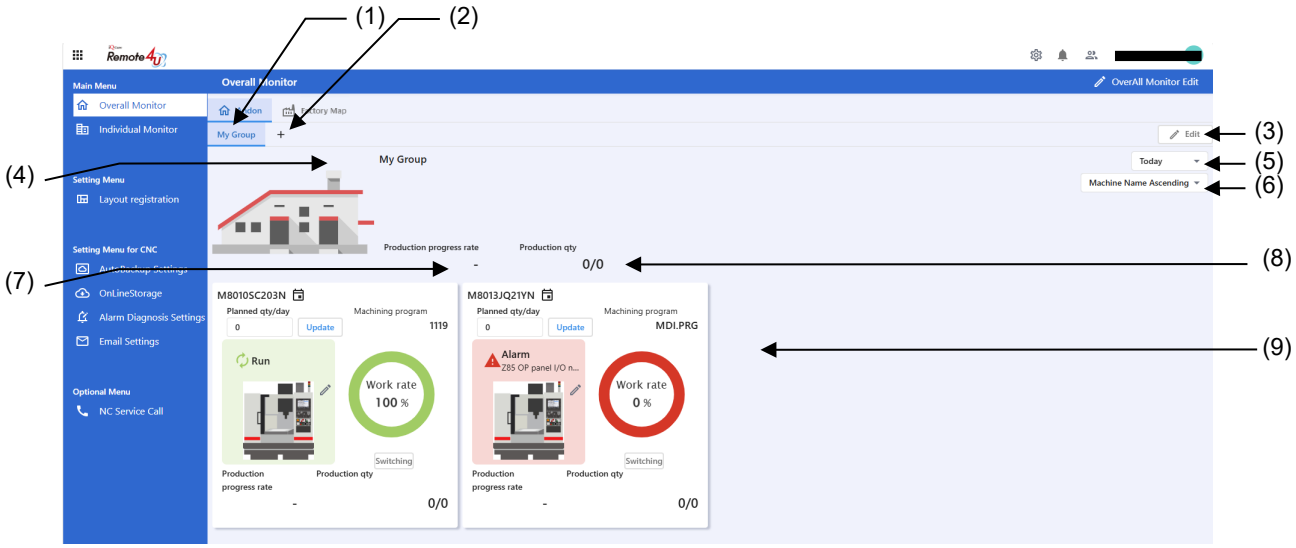


No.	Item	Specifications
(1)	Menu	The screen names displayed on the dashboard are displayed as a tab menu. If you select a tab, the screen is switched. By default, the Andon screen and Factory Map tab are displayed. In addition, a custom layout screen set on the OverAll Monitor Edit screen can be added.
(2)	OverAll Monitor Edit	Click this to open the OverAll Monitor Edit screen.

3.6.1.1 Andon Screen

The Andon screen allows you to check the operational status and production status of the machines affiliated with a machine group.

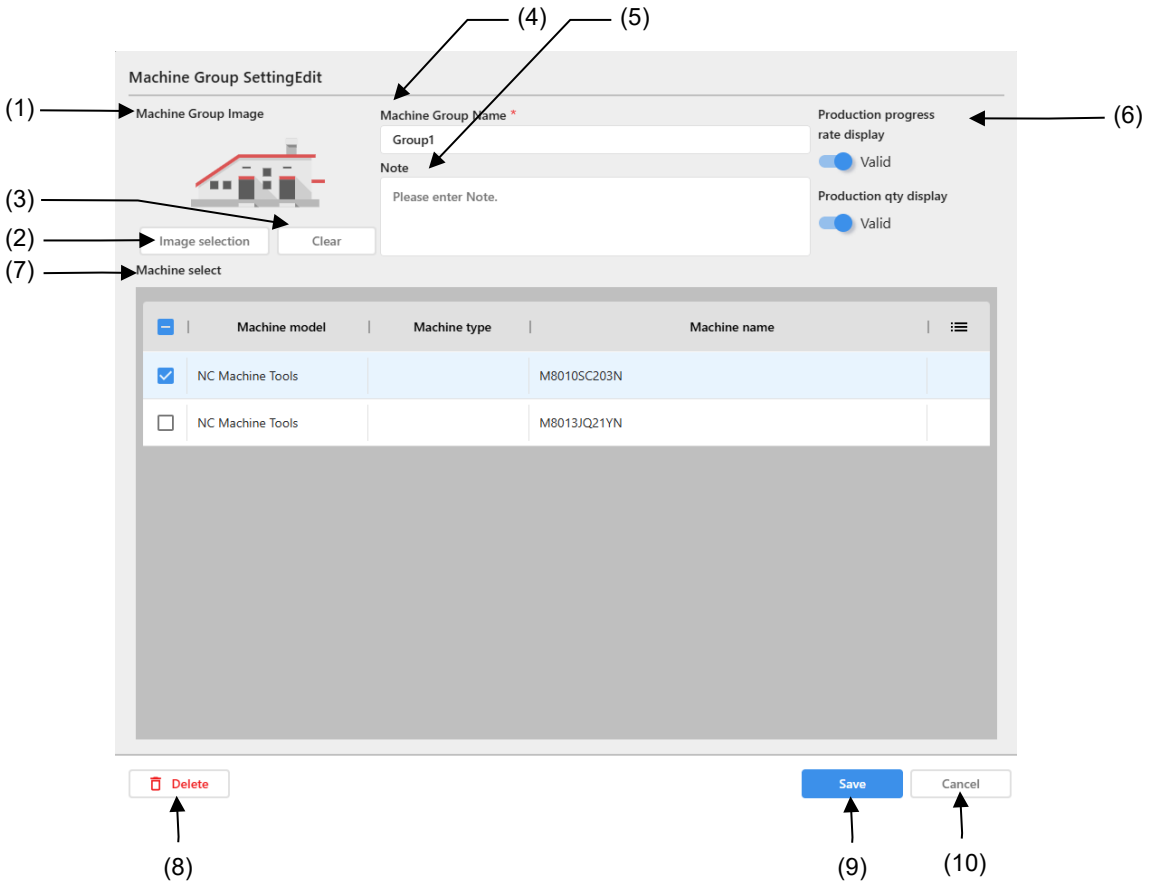
By default, only the My Group tab is displayed. You can add a machine group and register the machines you want to check to the group.



No.	Item	Contents
(1)	Machine group tab	A machine group refers to the base or line with which the machines are affiliated. The machine group can be switched by clicking a machine group tab. By default, the My Group tab is added.
(2)	Machine group add button (*1)	Click this button to display the "Machine Group Setting" dialog.
(3)	Edit button for machine group (*1)	Switch to the group you want to edit and then click this button. The "Machine Group Setting Edit" dialog for editing the machine group settings appears.
(4)	Machine group information	Displays the image, name, and notes of the machine group that was switched to by selecting a tab.
(5)	Period specification	Specify the period for the operational status and production status. The initial display is for today, but you can switch the display to a custom period. To set a custom period, specify the target dates (start to end).
(6)	Sort	Change the display order of the (9) Affiliated machine list to the order selected in the pull-down list. In the pull-down list, you can select from "Machine Name Ascending" and "Machine Name Descending".
(7)	Production progress rate	Displays the production progress rate average for machines affiliated with the machine group. In the Machine Group SettingEdit dialog, you can set the production progress rate to be hidden.
(8)	Production results	Displays the production quantity total for machines affiliated with the machine group. In the Machine Group SettingEdit dialog, you can set the production quantity to be hidden. (*) The number of machined workpieces of the first part system is displayed. (*) When the specified period is other than today, the production quantity is not reflected.
(9)	Affiliated machine list	Displays the andon cards for machines affiliated with the machine group.

(*1) This is not available on a mobile device.

■ **Machine Group SettingEdit dialog**

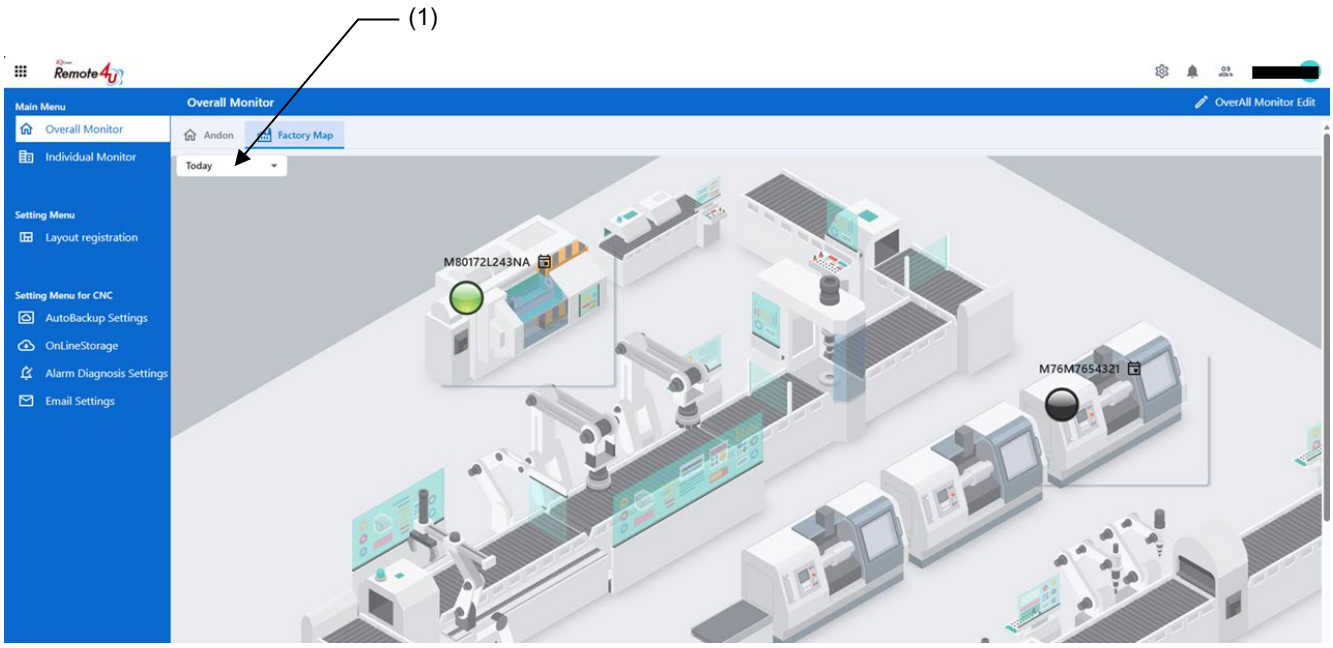


No.	Item	Contents
(1)	Machine Group Image	Displays an image of the machine group. The preset image is displayed. If it has not been set, the default image is displayed.
(2)	Image selection button	Click this button to display the Image selection dialog. You can select an image that has a file extension of JPEG/JPG/PNG and a file size of 10 MB or less. If an invalid file is selected, an error message appears.
(3)	Clear button	Click this button to clear the image and display the default image.
(4)	Machine Group Name	Set the machine group name.
(5)	Note	Set a note.
(6)	Production progress rate display Production qty display	Set whether to show/hide the production progress rate and production quantity. Default: Show (enabled)
(7)	Machine select	Select the machines to register to the machine group. Maximum registration limit: 10 machines
(8)	Delete button	This button is displayed only in the Edit dialog. Click this button to display the Confirm Deletion dialog. If you click Delete button in the Confirm Deletion dialog, the machine group settings are deleted.
(9)	Save button	Set the machine group settings, and close the dialog.
(10)	Cancel button	Close the dialog without setting the machine group settings.

3.6.1.2 Factory Map Screen

The Factory Map screen allows you to check the operational status and production status of machines in the same arrangement as the factory.

By default, a signal light card is placed on the factory background image. Settings such as the factory background image and signal light arrangement can be changed on the Layout Edit screen.



No.	Item	Contents
(1)	Period specification (*1)	Specify the period for the operational status and production status. The initial display is for today, but you can switch the display to a custom period. To set a custom period, specify the target dates (start to end).

(*1) When an andon card, signal light card, or other card is placed, you can check the operational status and production status for the specified period.

3.6.1.2.1 How to Edit the Factory Map Screen

Editing to change the background image of the Factory Map screen, signal light card arrangement, and machines associated with the signal light cards can be performed using the normal layout editing procedure (refer to "3.13.2 Layout Edit Screen"). You can switch to the screen to edit the factory map layout by selecting the factory map layout in "Layout registration" and then clicking the Edit button.



3.6.2 OverAll Monitor Edit Screen

If you click [OverAll Monitor Edit] on the Overall Monitor Screen, [Dashboard setting] appears on the OverAll Monitor Edit screen.

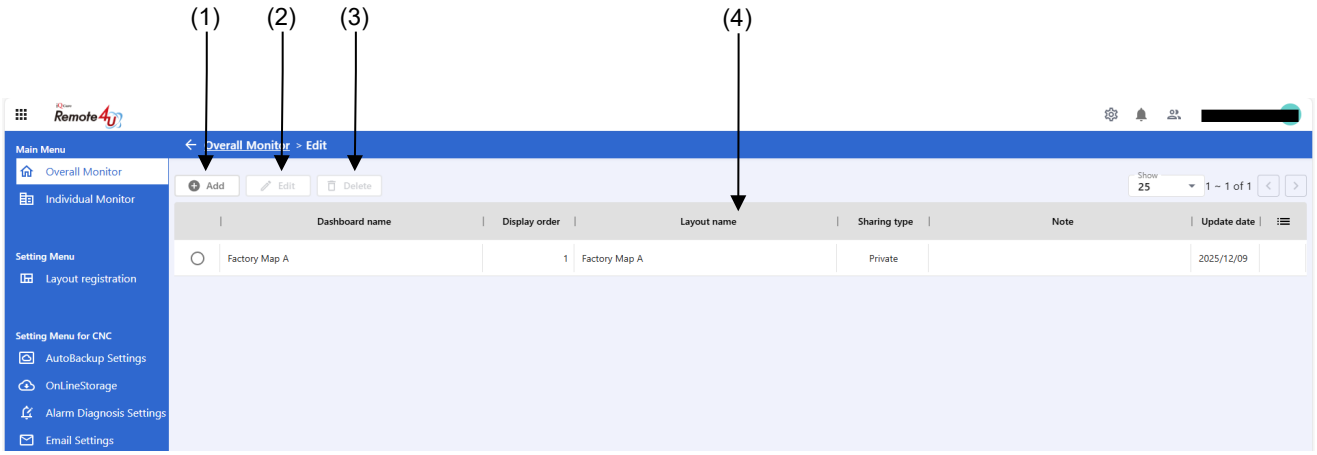
On the OverAll Monitor Edit screen, you can set [Dashboard setting] for displaying a layout for overall monitoring created in Layout registration on the Overall Monitor Screen.

This is not available on a mobile device.

3.6.2.1 Dashboard Setting

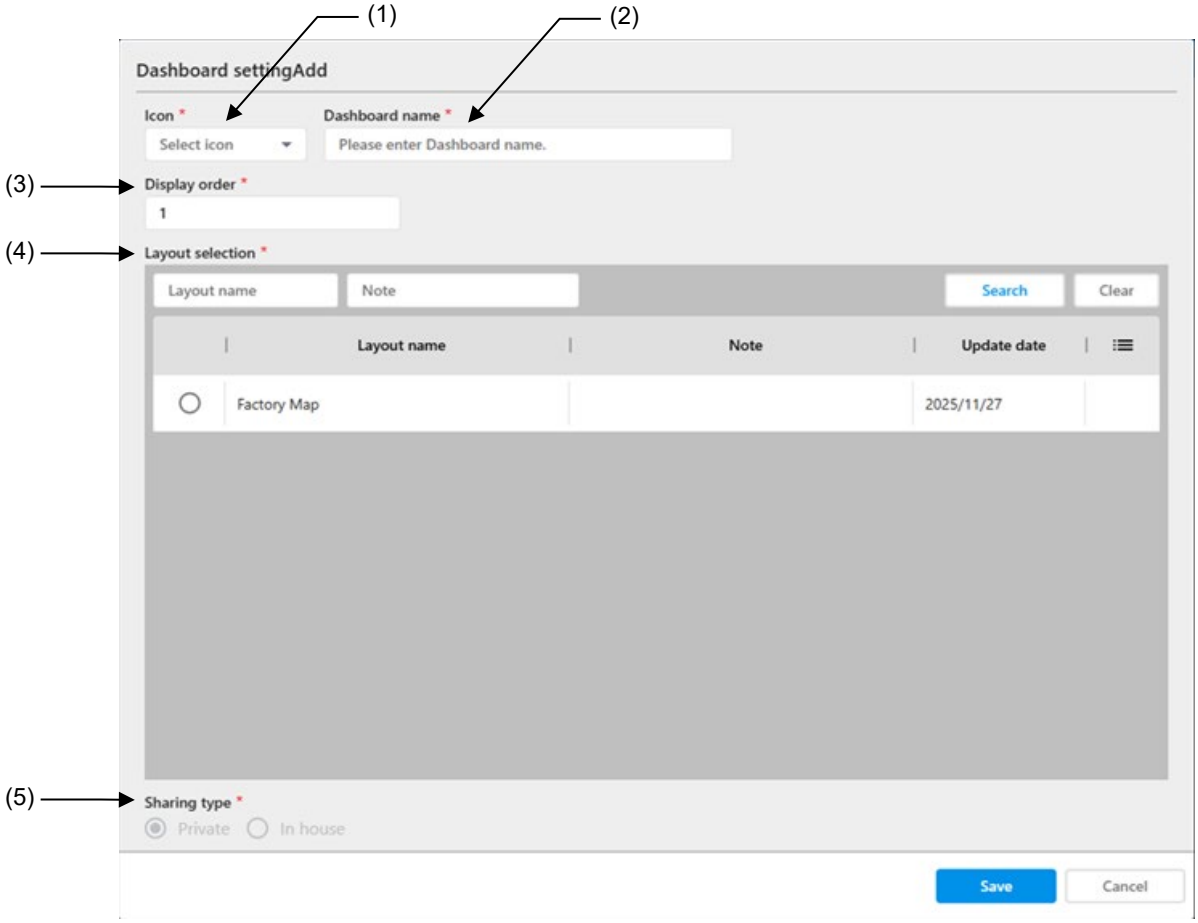
On the Dashboard setting screen, set the assignment of screens to be displayed in the dashboard that is displayed on the Overall Monitor Screen.

Click the [Add], [Edit], or [Delete] button to add, change, or delete a custom layout screen.



No.	Item		Contents
(1)	Add button		Displays the Dashboard settingAdd dialog.
(2)	Edit button		Select a screen to edit from the setting list and then click this button to display the Dashboard settingEdit dialog and edit the layout of the selected dashboard setting. You can edit the layout where "Sharing type" is [In house] or [Private].
(3)	Delete button		Select a screen to delete from the setting list and then click this button to delete the selected dashboard setting. You can delete a layout where "Sharing type" is [In house] or [Private].
(4)	Dashboard setting list		Displays a list of the menus displayed on the dashboard screen for overall monitoring.
		Dashboard name	Displays the name displayed in the menu of the Overall Monitor Screen.
		Display order	Displays the order number for display on the Overall Monitor Screen.
		Layout name	Displays the layout name registered on the Layout registration screen.
		Sharing type	Displays the range in which the dashboard is shared.
		Note	Displays the text string set in Layout registration.
		Update date	Displays the date and time that the dashboard was updated.

In the Dashboard settingAdd dialog and Dashboard settingEdit dialog, set each item and then select a layout from the list. When you click the [Save] button, the dashboard screen is set.



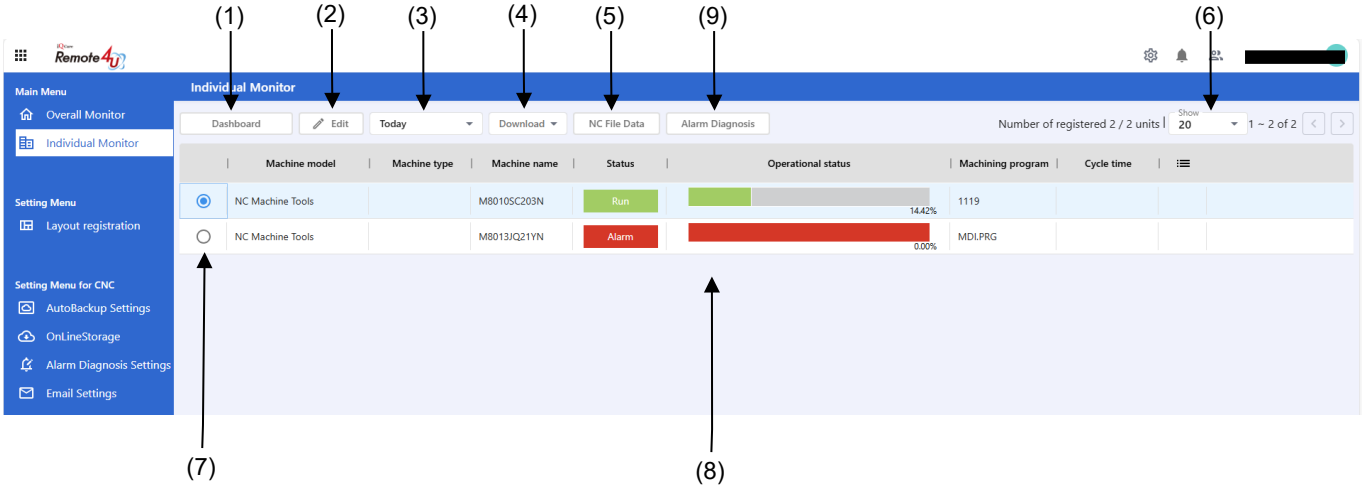
No.	Item		Contents
(1)	Icon		Select the icon to be displayed in the menu of the Overall Monitor Screen.
(2)	Dashboard name		Set the name of the menu to be displayed on the Overall Monitor Screen.
(3)	Display order		Set the order number for the menu to be displayed on the Overall Monitor Screen. The larger the value is, the more to right the menu is displayed. Setting range: 1 to 999
(4)	Layout selection		Select the layout to be displayed on the Overall Monitor Screen. The custom layouts created on the Layout registration screen are displayed in the list.
		Layout	Enter a layout name in [Layout name] as a search condition.
		Note	Enter a note in [Note] as a search condition.
		Search	Search for any layout that matches the entered search conditions (layout name and note) from the layout list, and display the search result in the layout list. ・ Searches are performed using partial matching. ・ If conditions are entered in both search boxes, the layouts that partially match all of the conditions are displayed. ・ If there are no search results, "No rows" is displayed. ・ If this button is clicked while the search boxes are blank, a list of all layouts that can be used on the Overall Monitor Screen is displayed.
		Clear	Clear the entered search conditions.
(5)	Sharing type(*1)		Select from [In house] and [Private]. [In house]: Users within the same company can view and edit. [Private]: Only registered users can view and edit.

3.7 Individual Monitor

Individual Monitor displays a list of the operational statuses of the connected machines. You can select a machine and go to the dashboard screen to monitor the machining information in more detail. Select "Individual Monitor" from the side menu.

3.7.1 Individual Monitor Screen

Individual Monitor Screen displays a list of the operational statuses of the connected machines.



No.	Item		Contents
(1)	Dashboard button		Selecting a machine by radio button and then clicking the [Dashboard] button switches to the "Dashboard" screen. Also double-clicking an item in the list changes the screen to the "Dashboard" screen.
(2)	Edit button		Select a machine by radio button and then click the [Edit] button. The screen switches to the Edit screen. Refer to "3.7.2 Edit Screen" for details.
(3)	Period specification		Specify the period to display "Operational status". Click [Today] to change it to [Custom] so that you can specify the start and end dates. If [Today] is specified, the operational statuses for today only are displayed. If [Custom] is specified and the period exceeds seven days, the operational statuses for seven days from the start date are displayed in [Operational status]. [Today] is displayed by default. The operational status from 00:00 to 24:00 on the day is displayed.
(4)	Download		Select an NC machine tool by radio button, specify a target period, and select the data to download from the [Download] pull-down list. The selected data is downloaded in CSV file format. Refer to "3.7.4 Downloading" for details.
(5)	NC File Data		If you select an NC machine tool by radio button and then click the [NC File Data] button, the NC File Data dialog appears. Refer to "3.7.5 NC File Data" for details.
(6)	Page switch		Specify the number of items to be displayed on one page. The default is 20. You can specify a value from "5, 10, and 20".
(7)	Radio button (*1)		Select the machine to be the operation target.
(8)	List		Displays a list of the information for each machine.
		Customer name	Displays the customer name.
		Model type	Displays the model of the target machine.
		Manufacturer	Displays the manufacturer name.

No.	Item		Contents
		Machine type	Displays the machine type name.
		Machine name	Displays the machine name. The machine name can be edited on the machine information edit screen.
		Status (*1) (*2)	Displays the status of the machine.
		Operational status (*1) (*2)	The operational status of the machine is displayed. The percentage of "operating status cumulative time / (operation time)" is displayed as work rate in a chart. The work rate is calculated using the following formula: ・When scheduled operation time is other than "00:00" Work rate (%) = Hours when operating status is [Run] / Scheduled operation time x 100 ・When scheduled operation time is "00:00" Work rate (%) = Hours when operating status is [Run] / Cumulative time of operating status including server stop x 100
		Serial number	Displays the serial number.
		NC serial number	Displays the NC serial number.
		NC model type	Displays the NC model type name.
		Machining program (*1)	Displays the name of the machining program being operated.
		Cycle time (*1)	Displays the cycle time of the program being operated.
		Completed parts (*1)	Displays the number of completed parts in the program being operated.
(9)	Alarm Diagnosis		If you select an NC machine tool by radio button and then click the [Alarm Diagnosis] button, the Alarm diagnosis screen opens. Refer to "3.10.1 Alarm Diagnosis Screen" for details.

(*1) Sorting and filtering cannot be performed.

(*2) In [Status] and [Operational status], the operating status of the machine is displayed according to the table below.

Operating status	Display color	Contents
Run	Green	During automatic operation
Stop	Yellow	Stopped during automatic operation
Alarm	Red	An alarm occurs.
Setup	Blue	During setup
Stand by	Orange	Other than the above while the power is ON
Off	Gray	Power OFF, unable to communicate with machine or server

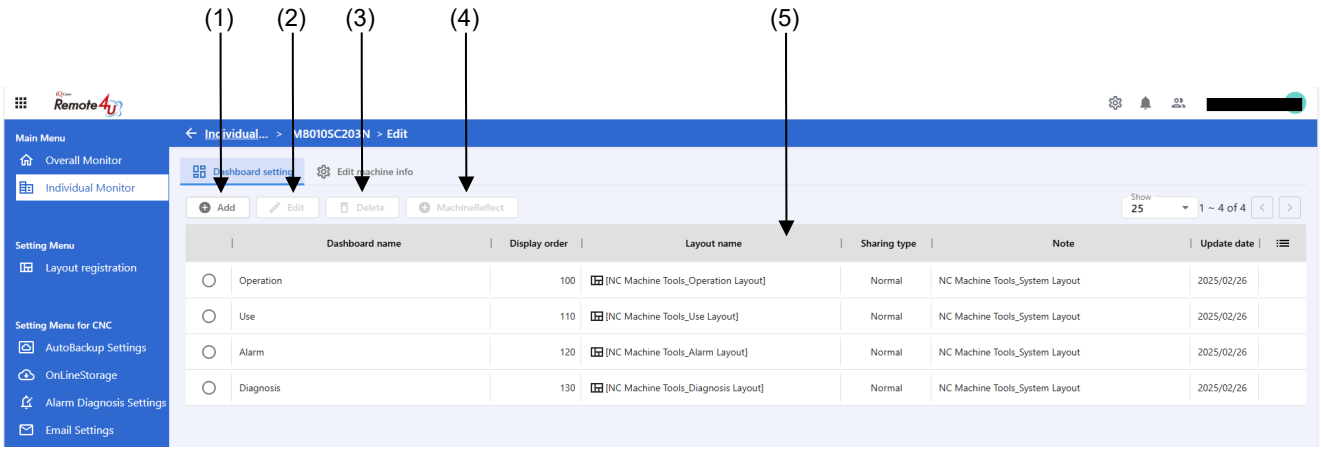
This is not available on a mobile device.

3.7.2 Edit Screen

If you select a machine on the Individual Monitor Screen and then click the [Edit] button, the Edit screen appears.
The Edit screen consists of the Edit machine info screen for setting the machine name and other settings and the Dashboard setting screen for setting custom screens and other settings.

3.7.2.1 Dashboard Setting Screen

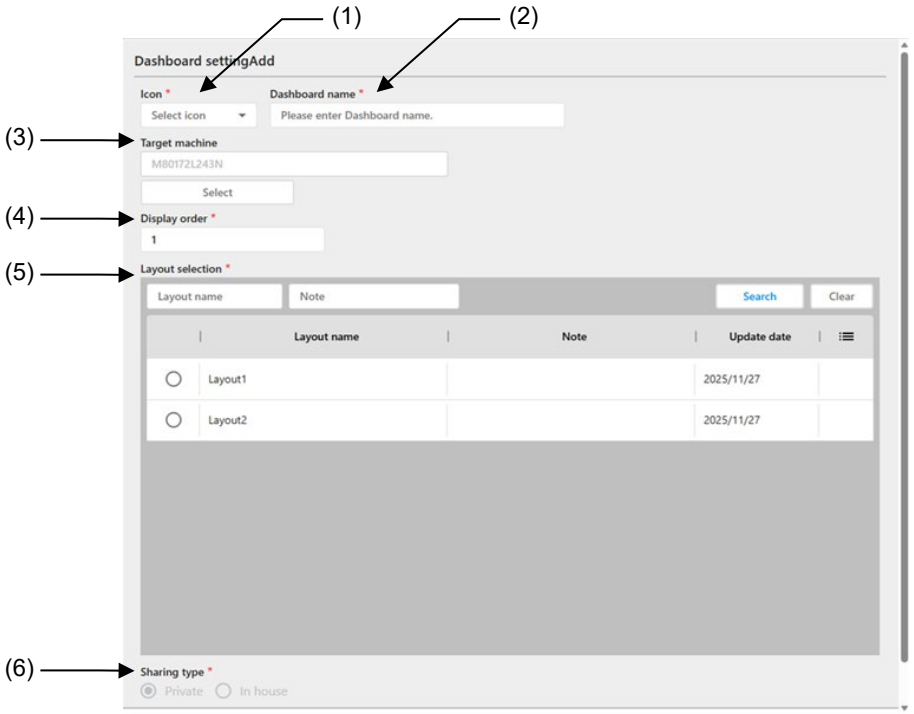
On the Dashboard setting screen, set the assignment of screens to be displayed in the dashboard.
The dashboard screens (system layout screens and custom layout screens) of the selected machine are displayed in a list. Click the [Add], [Edit], or [Delete] button to add, change, or delete a custom layout screen. If you click the [MachineReflect] button, the Machine select dialog appears, and you can reflect the custom layout screens in the dashboard of the selected machine.
The system layout screens cannot be edited or deleted.
This is not available on a mobile device.



No.	Item	Contents
(1)	Add button	Displays the Dashboard settingAdd dialog.
(2)	Edit button	If you select a screen to edit from the setting list and then click this button, the Dashboard settingEdit dialog appears to edit the layout of the selected dashboard setting. You can edit the layout where "Sharing type" is [In house] or [Private].
(3)	Delete button	If you select a screen to delete from the setting list and then click this button, the selected dashboard setting is deleted. You can delete a layout where "Sharing type" is [In house] or [Private].
(4)	MachineReflect button	If you select the screen you want to reflect to another machine and then click this button, the Machine select dialog appears. If you select a reflection destination, you can reflect the layout in the dashboard of the selected machine.
(5)	Dashboard setting list	Displays a list of menus displayed on the dashboard screen.

In the Dashboard settingAdd dialog, select a layout from the list and then set each item. When you click the [Save] button, the dashboard screen is set.

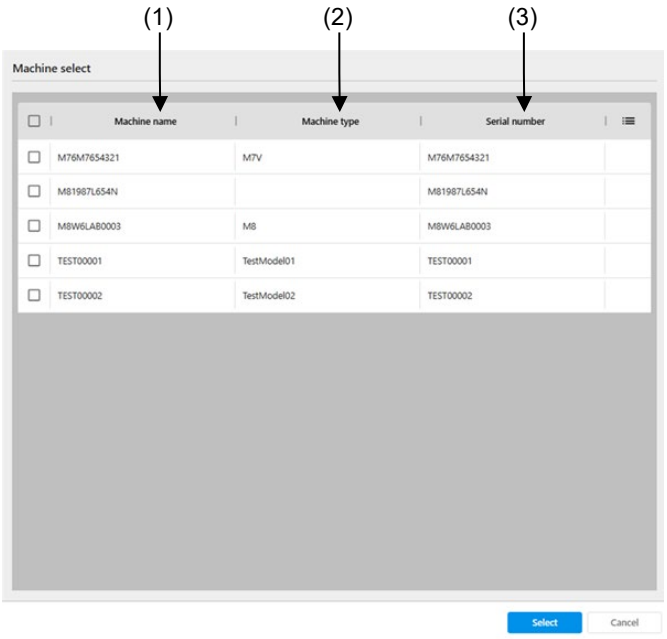
In the Dashboard settingEdit dialog, you can change the target machine and the items other than Sharing type. If you click the [Save] button after making the changes, the dashboard screen settings are changed.



No.	Item	Contents
(1)	Icon	Select the icon to be displayed in the menu of the dashboard screen.
(2)	Dashboard name	Set the name of the menu to be displayed on the dashboard screen.
(3)	Target machine (*1)	Select the machine of the layout reflection destination. When you click the [Select] button, the Machine select dialog appears. In the Machine select dialog, you can select multiple machines. If you select multiple machines, the specified layout is set for the dashboard of each machine.
(4)	Display order	Set the order number for the menu to be displayed on the dashboard screen. The larger the value is, the more to right the menu is displayed. Setting range: 1 to 999
(5)	Layout selection	Select the layout to be displayed on the dashboard screen. The custom layouts created on the Layout registration screen are displayed in the list.
(6)	Sharing type (*1)	Select from [In house] and [Private]. [In house]: Users within the same company can view and edit. [Private]: Only registered users can view and edit.

(*1) In the Dashboard settingEdit dialog, this cannot be changed.

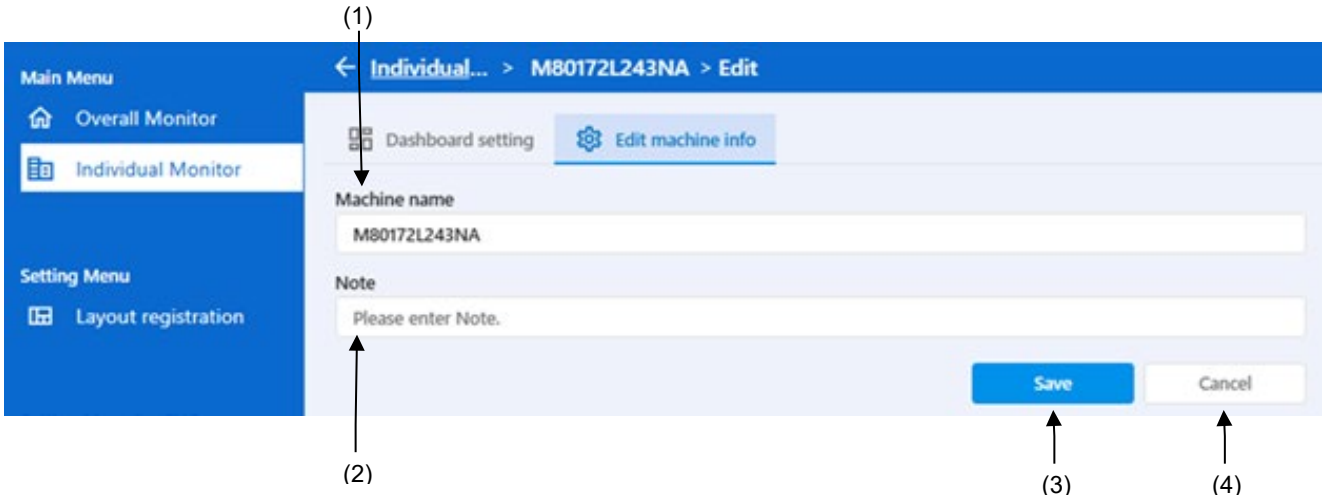
■ **Machine select dialog**



No.	Item	Contents
(1)	Machine name	Displays the machine name.
(2)	Machine type	Displays the model name.
(3)	Serial number	Displays the serial number.

3.7.2.2 Machine Information Edit Screen

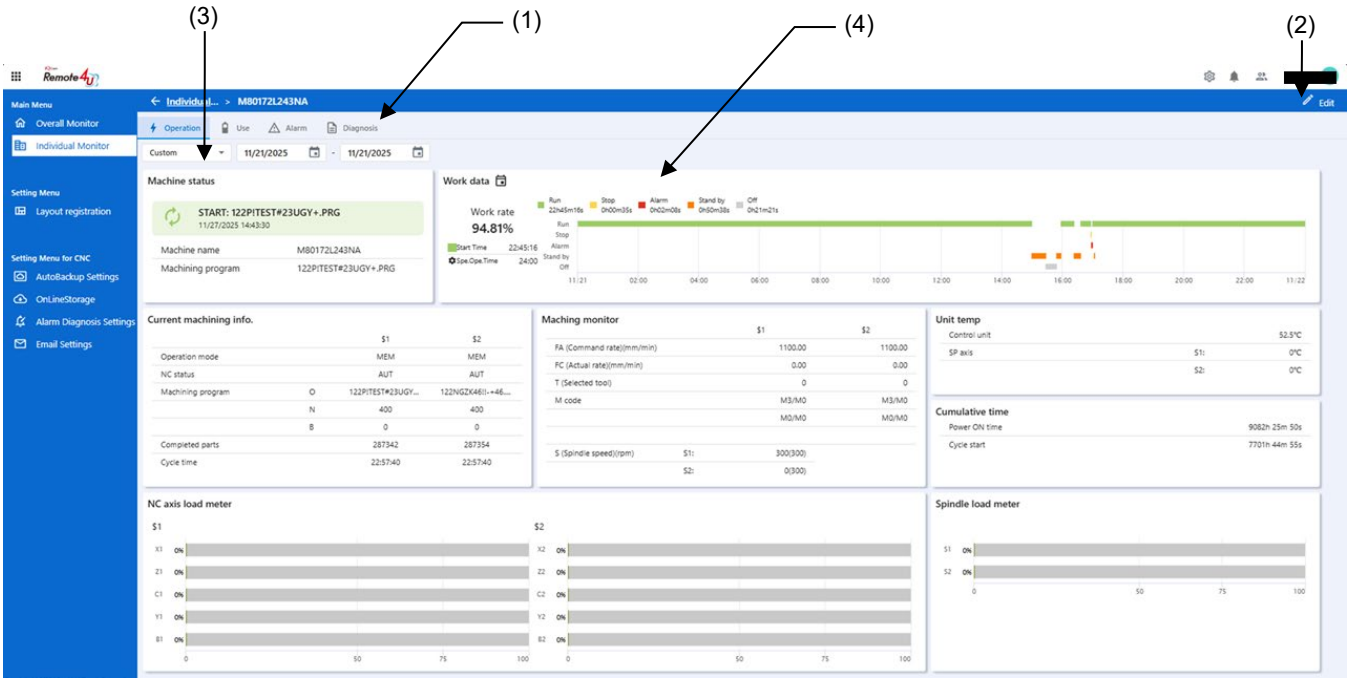
The Edit machine info screen is used to edit some of the items in "3.7.1 Individual Monitor Screen".



No.	Item	Contents
(1)	Machine name	Register the machine name. Default setting: Machine type name Up to 32 characters
(2)	Note	Register a note. Default setting: Blank Up to 64 characters
(3)	Save button	Set the machine name and note, and close the dialog.
(4)	Cancel button	Close the dialog without setting the machine name and note.

3.7.3 Dashboard Screen

The dashboard screen provides information that helps you grasp the operational status, such as information for monitoring the operating status of the machine and occurrence status of alarms. If you select a machine on the Individual Monitor Screen and then click the [Dashboard] button, the dashboard screen for the selected machine appears. With the initial settings, a system layout screen is displayed.



No.	Item	Contents
(1)	Menu	The screen names displayed in the dashboard are displayed in the tab menu. Select a tab to change the screen.
(2)	Edit	The screen changes to the "Edit" screen.
(3)	Period specification	Specify the period to display each data. If you click [Today], the setting changes to [Custom] so that you can specify the start and end dates. The set period is common to all screens that are switched by menu.
(4)	Information on each card	A card with a layout registered is displayed for each screen. Refer to "5 Cards" for details on the display contents of each card.

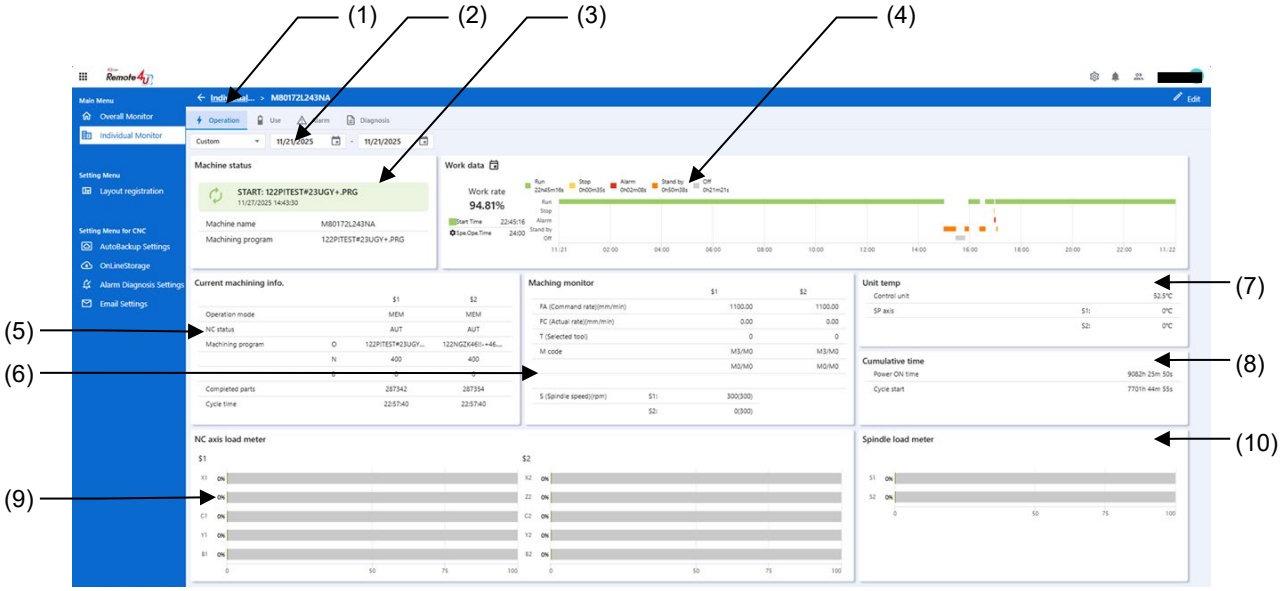
3.7.3.1 System Layout Screen

A system layout screen is a dashboard screen provided by Mitsubishi Electric. You can monitor the machining information of NC machine tools, check the alarm data, etc.

3.7.3.1.1 Operation

The Operation screen displays the operational status of the NC machine tool selected (by clicking the [Dashboard] button) on the Individual Monitor Screen.

The refresh interval is one minute for operation information, and ten seconds for other information.



No.	Item	Card used	Contents
(1)	Menu	-	A menu is displayed for each layout screen of the dashboard screen. The layout screen of a clicked menu opens.
(2)	Period specification	-	Specify the period to display each item. The initial display is for today, but you can switch the display to a custom period. To set a custom period, specify the target dates (start to end). 
(3)	Machine status (*1)	Machine status	The machine information and operating status are displayed. The alarm code is displayed when the operating status is "Alarm", and the program name is displayed when the operating status is "Run".
(4)	Work data (*1)(*2)	Operation time chart	The operational status of the machine for the specified period is displayed. The work rate and the state transition are displayed in a chart. If the specified period is longer than 7 days, this graph is not displayed.
(5)	Current machining information (*2)	Machining information	The status of machining currently being executed is displayed for each part system (up to eight part systems). Item / Remarks: Operation mode / - NC status / - Machining program / The three items of O, N, and B numbers are displayed. Completed parts / - Cycle time / - The contents of part system outside the display range can be checked by scrolling.

<table>
<tr><th>No.</th><th>Item</th><th>Card used</th><th>Contents</th></tr>
<tr><td>(6)</td><td>Machining monitor(*3)</td><td>Machining monitor</td><td>The following items such as command rate, M code, etc. are displayed.
<table>
<tr><th>Item</th><th>Remarks</th></tr>
<tr><td>FA (Command rate)</td><td>The unit of the first part system is displayed after the item name "FA (Command rate)".</td></tr>
<tr><td>FC (Actual rate)</td><td>The unit of the first part system is displayed after the item name "FC (Actual rate)".</td></tr>
<tr><td>T (Selected tool)</td><td>-</td></tr>
<tr><td>M code</td><td>-</td></tr>
<tr><td>S (Spindle speed)
・Measured value
・Commanded value</td><td>Up to eight axes are displayed.</td></tr>
</table>
The contents of part system outside the display range can be checked by scrolling.</td></tr>
<tr><td>(7)</td><td>Unit temp(*3)</td><td>Unit temp</td><td>The unit temperature of the machine is displayed.
<table>
<tr><th>Item</th><th>Remarks</th></tr>
<tr><td>Control unit (temperature)</td><td>-</td></tr>
<tr><td>SP axis (temperature)</td><td>Up to eight axes are displayed.</td></tr>
</table></td></tr>
<tr><td>(8)</td><td>Cumulative time(*3)</td><td>Cumulative time</td><td>The power-on time and the cycle start time are displayed.</td></tr>
<tr><td>(9)</td><td>NC axis load meter(*3)</td><td>Load meter</td><td>The information about the NC axes (up to eight axes) of the first and the second part systems is displayed by the load meter.
The contents outside the display range can be checked by scrolling.</td></tr>
<tr><td>(10)</td><td>Spindle load meter(*3)</td><td>Load meter</td><td>The information about the spindle (up to eight spindles) is displayed by the load meter.
The contents outside the display range can be checked by scrolling.</td></tr>
</table>

(*1) The operating status is displayed in the following colors.

Operating status	Display color	Contents
Run	Green	During automatic operation
Stop	Yellow	Stopped during automatic operation
Alarm	Red	An alarm occurs.
Stand by	Orange	Other than the above while the power is ON
Off	Gray	Power OFF, unable to communicate with machine or server

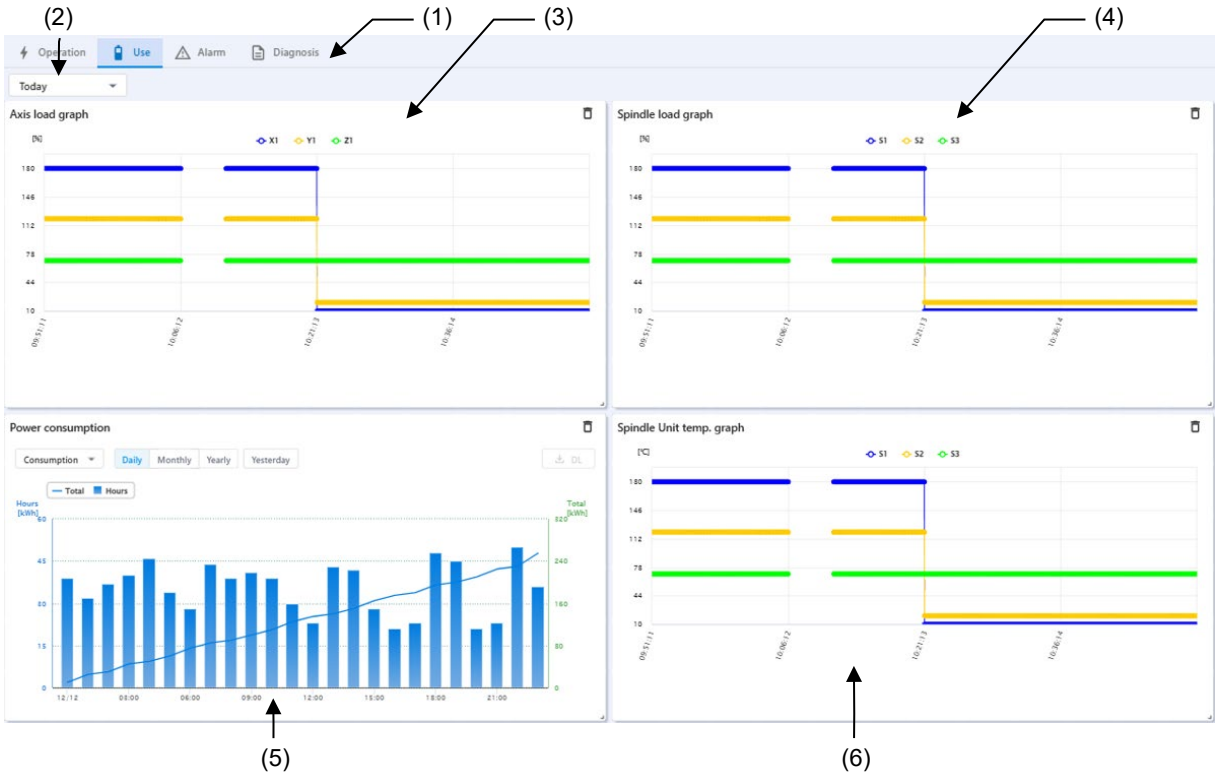
(*2) "..." is displayed instead of the 10th and subsequent characters of each part system.
Hover the cursor to see the entire contents including the abbreviated characters.

(*3) This is not displayed for DI-connected machines.

3.7.3.1.2 Use

The Use screen displays the consumption information of the NC machine tool selected (by clicking the [Dashboard] button) on the Individual Monitor Screen.

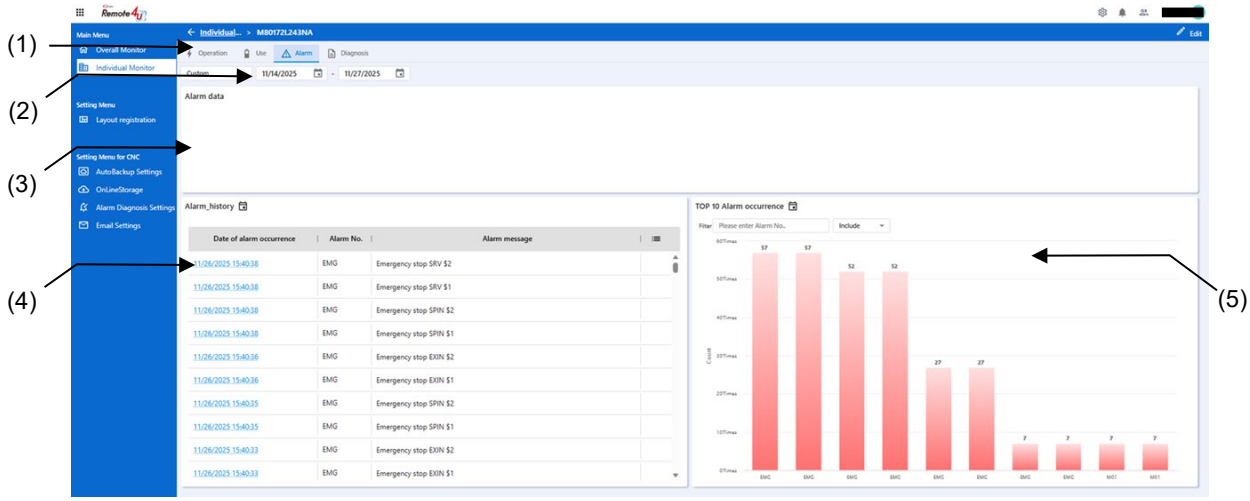
For details, refer to the sections of "Power Consumption Computation" and "EcoMonitorLight" in "PLC Programming Manual" supplied with your NC.

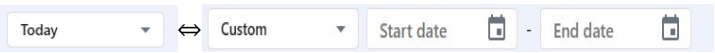


No.	Item	Card used	Contents
(1)	Menu	-	A menu is displayed for each layout screen of the dashboard screen. The layout screen of a clicked menu opens.
(2)	Period specification	-	Specify the period to display each item. The initial display is for today, but you can switch the display to a custom period. To set a custom period, specify the target dates (start to end). 
(3)	NC axis load graph	Axis load graph	Displays the NC axis load information as a graph.
(4)	Spindle load graph	Axis load graph	Displays the spindle load information as a graph.
(5)	Power consumption	Power consumption	Displays the power consumption as a graph.
(6)	Spindle unit temperature graph	Axis load graph	Displays the spindle unit temperature as a graph.

3.7.3.1.3 Alarm

The Alarm screen displays the alarms currently occurring and the alarm history for the NC machine tool selected (by clicking the [Dashboard] button) on the Individual Monitor Screen.



No.	Item	Card used	Contents
(1)	Menu	-	A menu is displayed for each layout screen of the dashboard screen. The layout screen of a clicked menu opens.
(2)	Period specification	-	Specify the period to display the alarms. The initial display is for today, but you can switch the display to a custom period. To set a custom period, specify the target dates (start to end). The period is reflected in the alarm history and total alarm count. 
(3)	Alarm data	Alarm data	All alarms that are currently occurring are displayed. The alarm numbers and alarm messages are displayed as alarm data. (*1) If the display range is exceeded, a scroll bar is displayed so that you can scroll. ■Display items Item: NC alarm (Common to part systems / Each part system) — Remarks: — Item: PLC alarm — Remarks: Only alarm numbers are displayed for PLC alarm, but alarm messages are not displayed.
(4)	Alarm history	Alarm history	Up to 1000 data items of alarm history in the specified period are displayed.

<table>
<tr><th>No.</th><th>Item</th><th>Card used</th><th>Contents</th></tr>
<tr><td></td><td></td><td></td><td>If there are 1000 or more data items in the specified period, the latest 1000 data items during the period are displayed.
The items are displayed in descending order of date and time of alarm occurrence by default.
If the display range is exceeded, a scroll bar is displayed so that you can scroll.
■Display items
<table>
<tr><th>Item</th><th>Remarks</th></tr>
<tr><td>Date of alarm occurrence</td><td>It is displayed in NC time. (*2)</td></tr>
<tr><td>Alarm No.</td><td></td></tr>
<tr><td>Alarm message</td><td></td></tr>
</table></td></tr>
<tr><td>(5)</td><td>Total alarm count</td><td>TOP 10 Alarm occurrence</td><td>The counts of alarms that occurred during the specified period are displayed for up to 10 alarms in order from most to least frequent.
The alarm incidence is also displayed.
Up to 1000 alarms in the specified period are the target.
If there are 1000 or more data items in the specified period, the latest 1000 data items during the period are the target.
Hover the mouse over the bar chart to see the tooltip. (*3)
■Display contents of bar chart tooltip
Alarm information (alarm number + alarm message), count</td></tr>
</table>

(*1) Example of alarm data

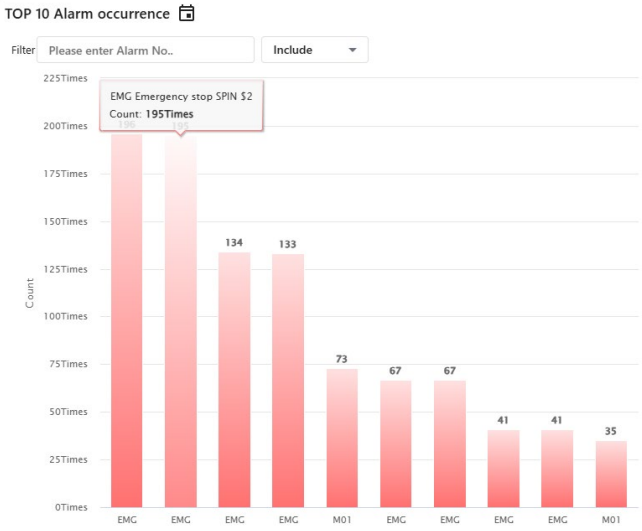
NC alarm	EMG	Emergency stop SPIN
	EMG	Emergency stop PLC
	M01	H/W stroke end axis exists 0006 XYZ
	M01	Handle feed axis number invalid 0106
	Y03	Drive unit not installed S1
	Z70	Absolute position parameter changed 0003 XY
PLC alarm	PLC	72
	PLC	19 1

(*2) The NC time is used when you save the time of alarm occurrences.
If the current time is different to the NC time, the time of operation data and alarm diagnosis data is also different to that of the alarm occurrence.

(Example) If the current time is different to the NC time

Current time ... 12:00:00
NC time ... 1:00:00 PM
When an alarm occurs at this time →
The time of alarm occurrence will be 1:00:00 PM. However, the data at this time will be saved as at 12:00:00.

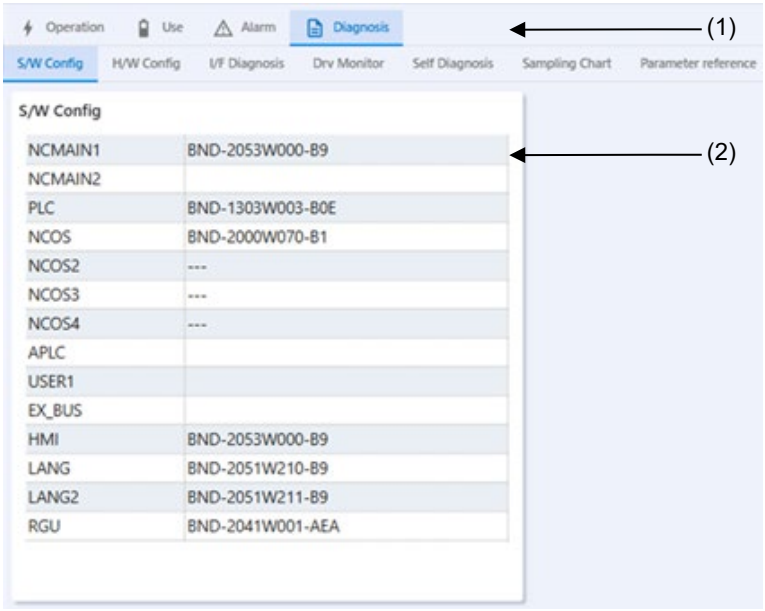
(*3) Total alarm counts, tool tip display image

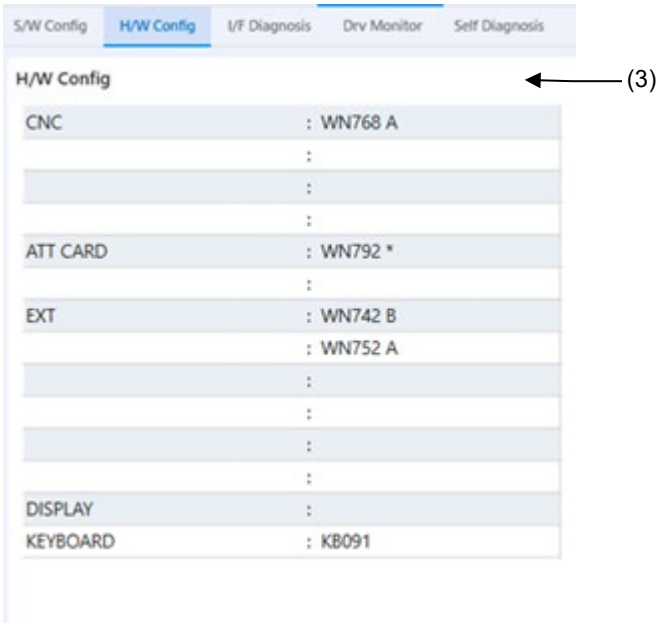


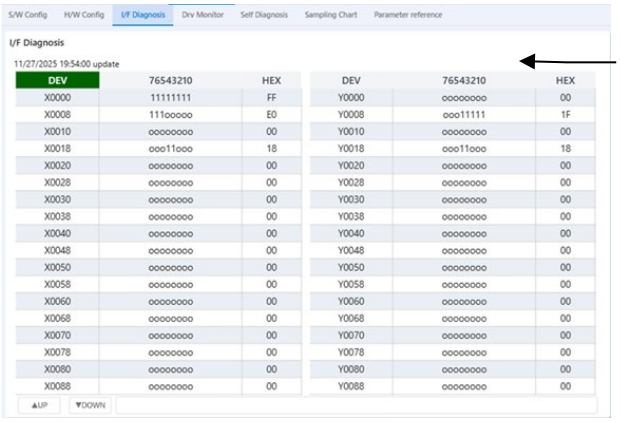
3.7.3.1.4 Diagnosis

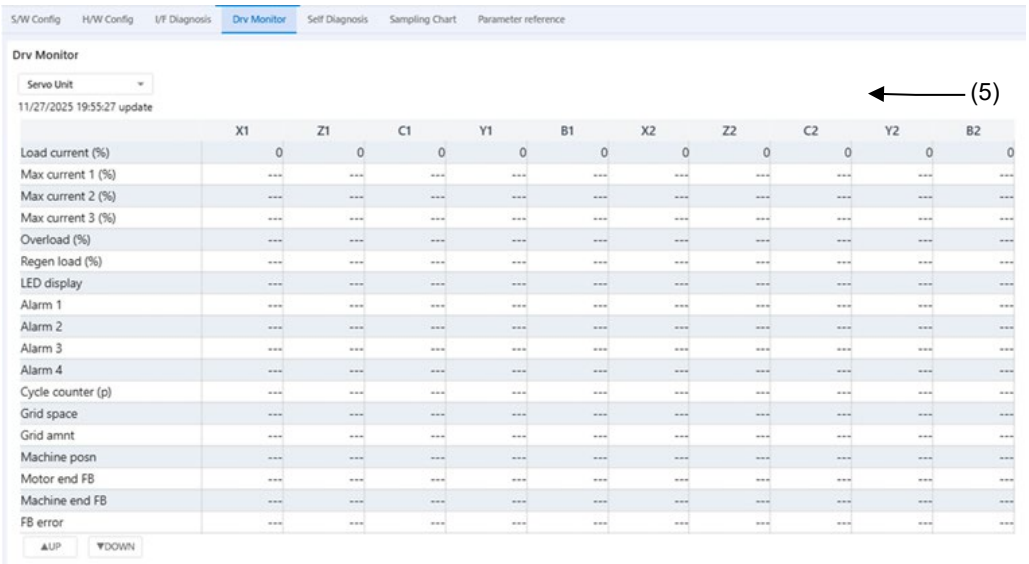
The Diagnosis screen displays the various information of the NC machine tool selected (by clicking the [Dashboard] button) on the Individual Monitor Screen.

The display contents vary depending on the tab menu selected.

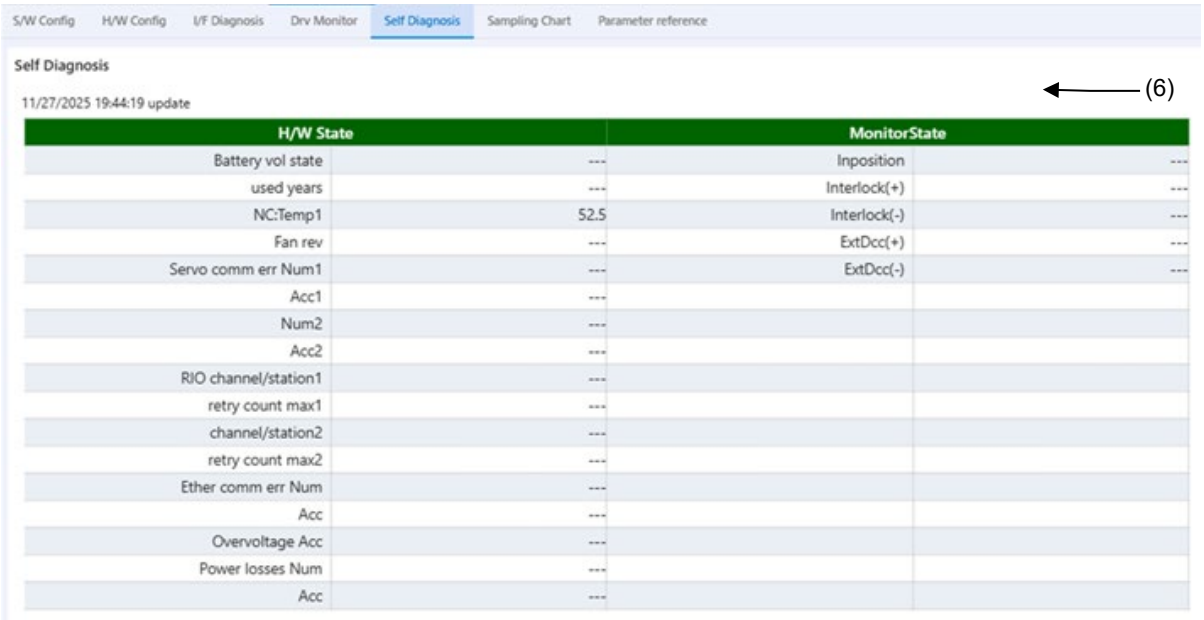



S/W Config
H/W Config
I/F Diagnosis
Drv Monitor
Self Diagnosis
H/W Config
(3)
CNC : WN768 A
ATT CARD : WN792 *
EXT : WN742 B
: WN752 A
DISPLAY :
KEYBOARD : KB091


I/F Diagnosis
11/27/2025 19:54:00 update
(4)
DEV 76543210 HEX DEV 76543210 HEX
X0000 11111111 FF Y0000 oooooooo 00
X0008 111ooooo E0 Y0008 ooo11111 1F
X0010 oooooooo 00 Y0010 oooooooo 00
X0018 ooo11ooo 18 Y0018 ooo11ooo 18
X0020 oooooooo 00 Y0020 oooooooo 00
X0028 oooooooo 00 Y0028 oooooooo 00
X0030 oooooooo 00 Y0030 oooooooo 00
X0038 oooooooo 00 Y0038 oooooooo 00
X0040 oooooooo 00 Y0040 oooooooo 00
X0048 oooooooo 00 Y0048 oooooooo 00
X0050 oooooooo 00 Y0050 oooooooo 00
X0058 oooooooo 00 Y0058 oooooooo 00
X0060 oooooooo 00 Y0060 oooooooo 00
X0068 oooooooo 00 Y0068 oooooooo 00
X0070 oooooooo 00 Y0070 oooooooo 00
X0078 oooooooo 00 Y0078 oooooooo 00
X0080 oooooooo 00 Y0080 oooooooo 00
X0088 oooooooo 00 Y0088 oooooooo 00

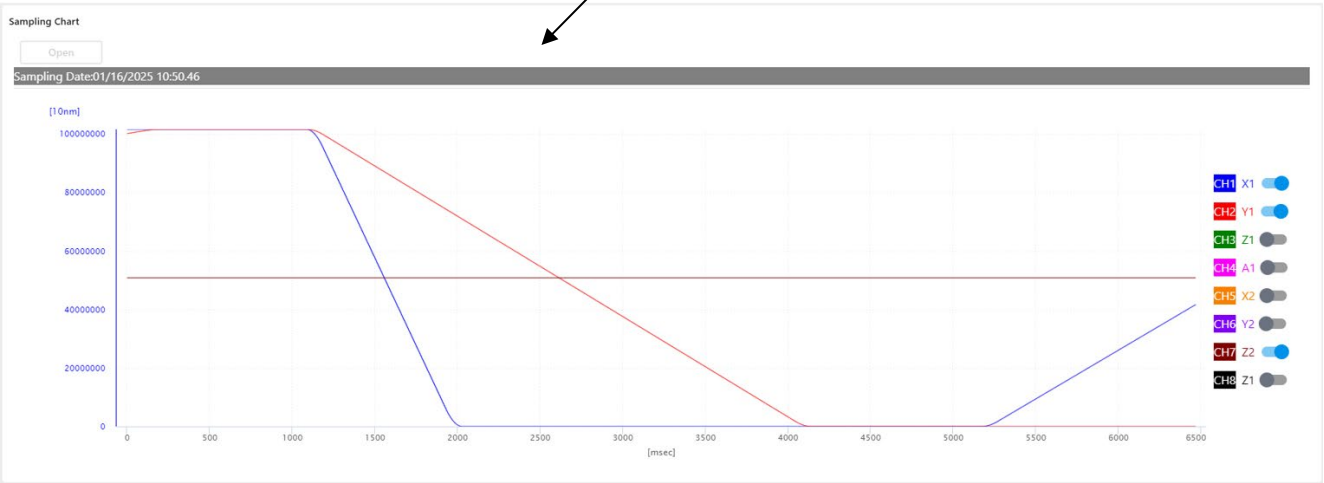


	X1	Z1	C1	Y1	B1	X2	Z2	C2	Y2	B2
Load current (%)	0	0	0	0	0	0	0	0	0	0
Max current 1 (%)	---	---	---	---	---	---	---	---	---	---
Max current 2 (%)	---	---	---	---	---	---	---	---	---	---
Max current 3 (%)	---	---	---	---	---	---	---	---	---	---
Overload (%)	---	---	---	---	---	---	---	---	---	---
Regen load (%)	---	---	---	---	---	---	---	---	---	---
LED display	---	---	---	---	---	---	---	---	---	---
Alarm 1	---	---	---	---	---	---	---	---	---	---
Alarm 2	---	---	---	---	---	---	---	---	---	---
Alarm 3	---	---	---	---	---	---	---	---	---	---
Alarm 4	---	---	---	---	---	---	---	---	---	---
Cycle counter (p)	---	---	---	---	---	---	---	---	---	---
Grid space	---	---	---	---	---	---	---	---	---	---
Grid amnt	---	---	---	---	---	---	---	---	---	---
Machine posn	---	---	---	---	---	---	---	---	---	---
Motor end FB	---	---	---	---	---	---	---	---	---	---
Machine end FB	---	---	---	---	---	---	---	---	---	---
FB error	---	---	---	---	---	---	---	---	---	---



H/W State		MonitorState	
Battery vol state	---	Inposition	---
used years	---	Interlock(+)	---
NC:Temp1	52.5	Interlock(-)	---
Fan rev	---	ExtDcc(+)	---
Servo comm err Num1	---	ExtDcc(-)	---
Acc1	---		
Num2	---		
Acc2	---		
RIO channel/station1	---		
retry count max1	---		
channel/station2	---		
retry count max2	---		
Ether comm err Num	---		
Acc	---		
Overvoltage Acc	---		
Power losses Num	---		
Acc	---		

(7)



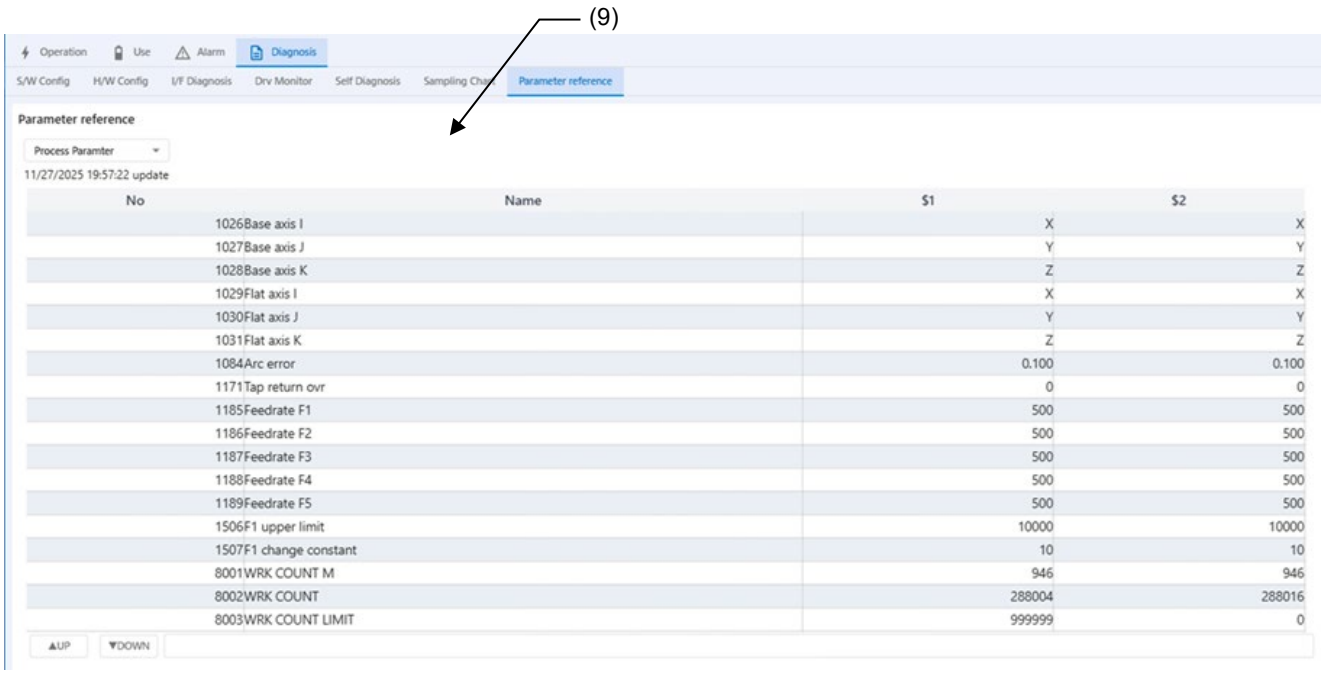
(8)

Key operation history

Open

07/10/2026 10:51:15 update

Date & Time (MM/DD/YYYY)	Screen Name	Screen Name(DTL)	Key Name
07/10/2026 09:48:46	Edit	Edit	INP
07/10/2026 09:48:37	Edit	Edit	ME1
07/10/2026 09:48:35	Mainte	Param	EDT
07/10/2026 09:48:33	Mainte	Param	INP
07/10/2026 09:48:32	Mainte	Param	1
07/10/2026 09:48:27	Mainte	Param	BAK
07/10/2026 09:48:20	Mainte	Param	BAK
07/10/2026 09:48:19	Mainte	Param	ME3
07/10/2026 09:48:18	Mainte	Param	ME2
07/10/2026 09:48:16	Mainte	Param	ME1
07/10/2026 09:48:08	Mainte	Mainte	ME2



No.	Item	Card used	Contents
(1)	Menu	- (*1)	A menu is displayed for each layout screen of the dashboard screen. The layout screen of a clicked menu opens.
(2)	S/W Configuration		Displays the software information of the device.
(3)	H/W Configuration		Displays the hardware information of the device.
(4)	I/F Diagnosis		Displays the device information.
(5)	Drv Monitor		Displays the drive monitor information of the selected unit.
(6)	Self Diagnosis		Displays the self diagnosis of the NC screen.
(7)	Sampling Chart		Clicking the Open button displays the data sampled for the NC. (M8 model only)
(8)	Key operation history		Clicking the Open button displays the NC operation history (key operation history) of the device. The key operation history is displayed in descending order of operation date and time.
(9)	Parameter reference		Displays the parameter information.

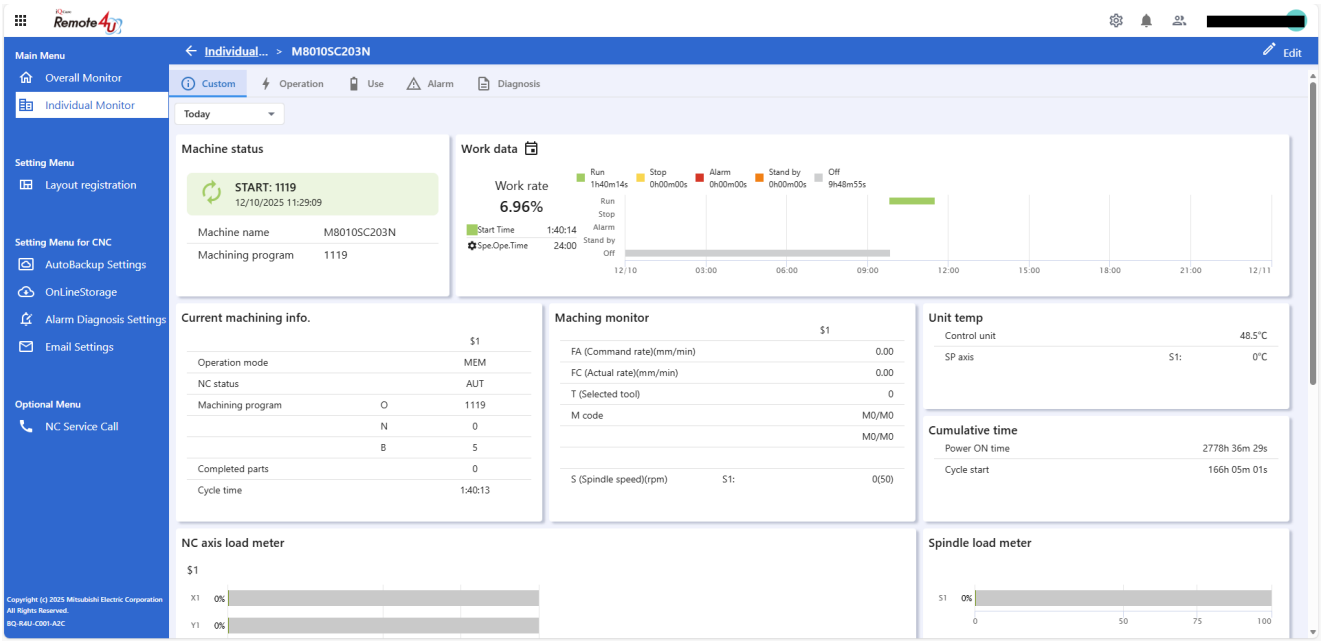
(*1) This cannot be placed in a custom layout.

3.7.3.2 Custom Layout Screen

A custom layout screen is a dashboard screen that a user has created by combining screen parts (cards).

Create a custom layout screen from [Layout registration] in the submenu. A created layout is displayed if you register it to the dashboard menu from [Dashboard setting] on the Edit screen.

Refer to "3.13 Layout Registration" for details on editing and registering custom layouts, and "3.7.2.1 Dashboard Setting Screen" for details on registering them to the dashboard menu.

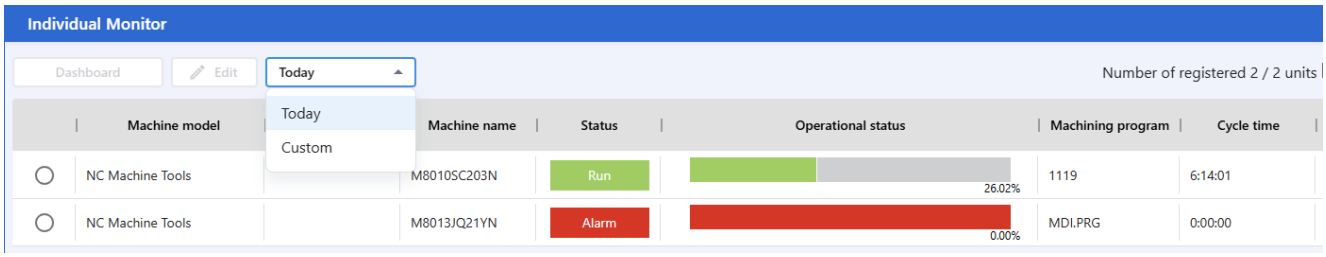


3.7.4 Downloading

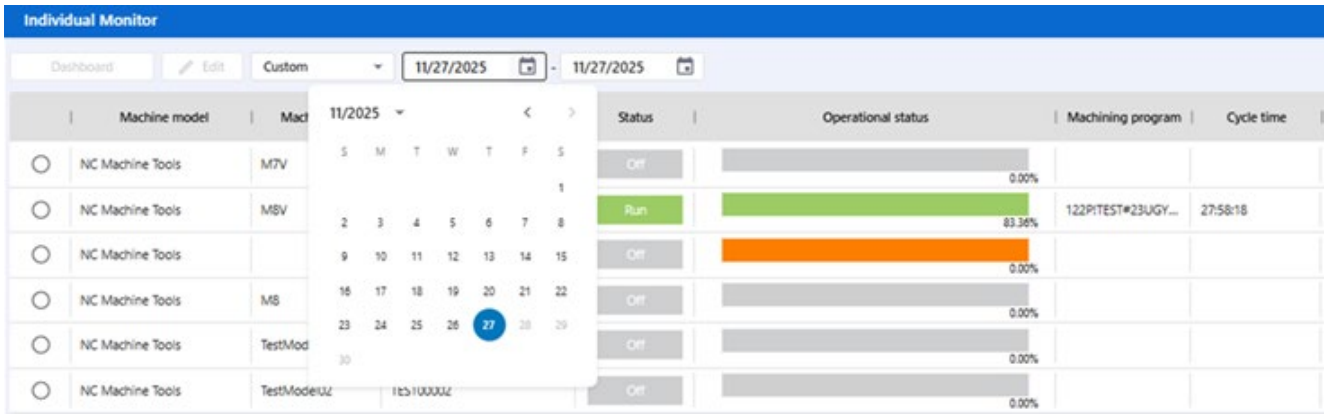
Select an NC machine tool in the Individual Monitor Screen, specify a target period, and select the data to download from the [Download] pull-down list. The selected data is downloaded in CSV file format.
The data that can be downloaded is daily operation detail, monthly operation detail, machining result list, and monthly machining result list. Furthermore, batch downloading of all data is also possible.

(1) Specify the period to download.
[Today] and [Custom] can be specified for the period to download. Click [Today] to change it to [Custom] so that you can specify the start and end dates.

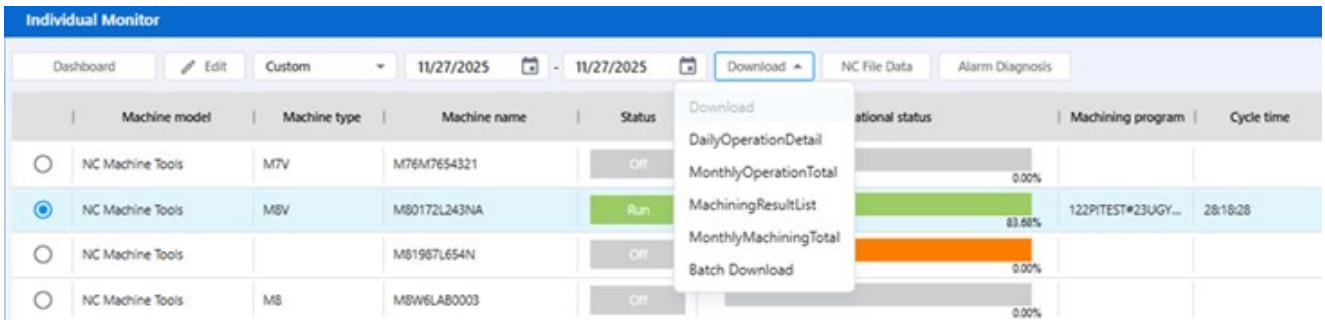
・ When [Today] is selected



・ When [Custom] is selected



(2) When you select the data to download from the [Download] pull-down list, downloading starts.
The data for the current day is downloaded when [Today] is selected, and the data from the entered start date to end date is downloaded when [Custom] is specified.



3.7.4.1 Daily Operation Detail

Download the operating status of the machine.
If [Today] is selected in [Period specification], the data for the current day is output.
If [Custom] is selected in [Period specification] and then a period of seven days or less is specified, the data from the start date to end date is output. If seven days are exceeded, the data for seven days from the start date is output.

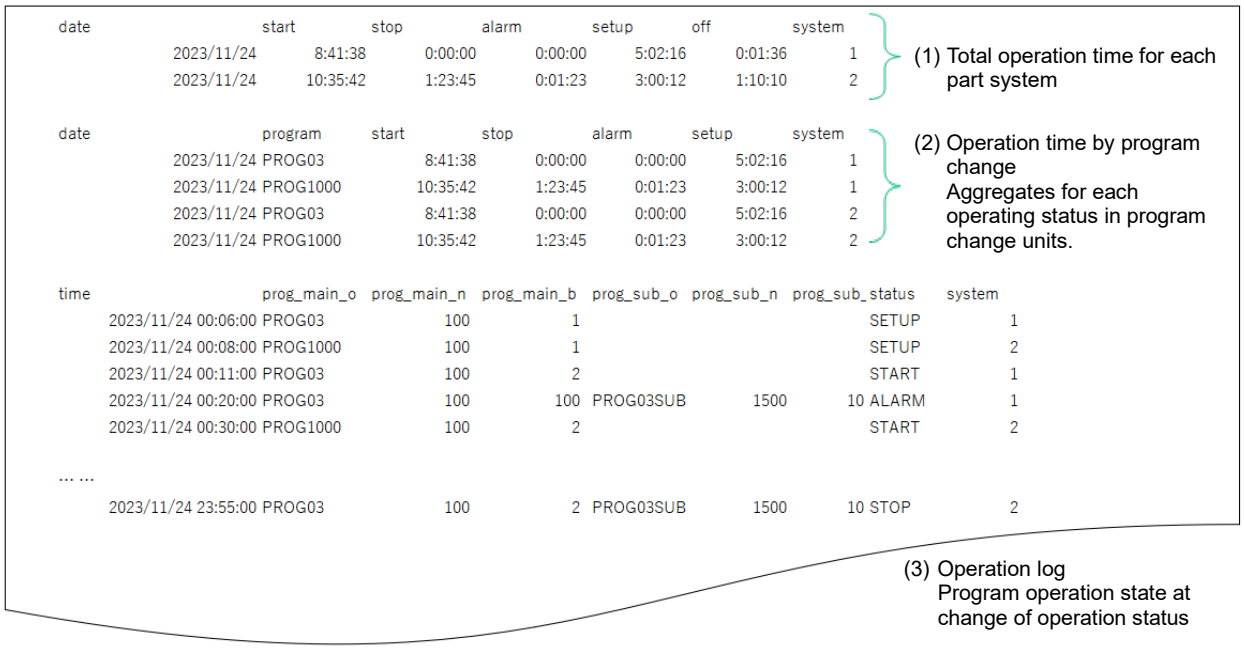
The following data are saved in the order of the time, part system No., and name of machining program.

- Total operation time for each part system

- Operation time by program change

- Operation log
When the number of part systems for the target device is not found, "Off" is output at the current number of systems.

■ **Output contents of "DailyOperationDetail"**



(1) Total operation time for each part system

The accumulated time of the operation status is output for each part system.

Output example of "DailyOperationDetail" (Total operation time for each part system)

date	start	stop	alarm	setup	off	system
2023/11/24	8:41:38	0:00:00	0:00:00	5:02:16	0:01:36	1
2023/11/24	10:35:42	1:23:45	0:01:23	3:00:12	1:10:10	2

Specifications for the saved file of "DailyOperationDetail" (Total operation time for each part system)

Item name	Contents	Format
date	Date specified in [Period specification]	yyyy/mm/dd
start	Aggregate result of the time for each part system when its operation status is "Start"	hh:mm:ss
stop	Aggregate result of the time for each part system when its operation status is "Stop"	hh:mm:ss
alarm	Aggregate result of the time for each part system when its operation status is "Alarm"	hh:mm:ss
setup	Aggregate result of the time for each part system when its operation status is "Setup"	hh:mm:ss
off	Aggregate result of the time for each part system when its operation status is "Off" or when the communication is disconnected	hh:mm:ss
system	Part system number	Numeric

(2) Operation time by program change

The accumulated time of the operation status by each program change is output for each part system.

Output example of "DailyOperationDetail" (Total operation time by program change)

date	program	start	stop	alarm	setup	system
2023/11/24	PROG03	8:41:38	0:00:00	0:00:00	5:02:16	1
2023/11/24	PROG1000	10:35:42	1:23:45	0:01:23	3:00:12	1
2023/11/24	PROG03	8:41:38	0:00:00	0:00:00	5:02:16	2
2023/11/24	PROG1000	10:35:42	1:23:45	0:01:23	3:00:12	2

Specifications for the saved file of "DailyOperationDetail" (Total operation time by program change)

Item name	Contents	Format
date	Date specified in [Period specification]	yyyy/mm/dd
program	The name of main program currently being executed is output for each part system in the order of execution.	String
start	Aggregate result of the time when the operation status is "Start" classified by main program name (*1)	hh:mm:ss
stop	Aggregate result of the time when the operation status is "Stop" classified by main program name (*1)	hh:mm:ss
alarm	Aggregate result of the time when the operation status is "Alarm" classified by main program name (*1)	hh:mm:ss
setup	Aggregate result of the time when the operation status is "Setup" classified by main program name (*1)	hh:mm:ss
system	Part system No. in which the main program is being executed (*1)	Numeric

(*1) When one program is executed multiple times in a part system on the same day; however another program is executed in between the same programs, the data will be aggregated separately.

(3) Operation log

The program name being executed when the operation status is changed is output for each part system.

Output contents of "DailyOperationDetail" (Operation log)

time	prog_main_o	prog_main_n	prog_main_b	prog_sub_o	prog_sub_n	prog_sub_	status	system
2023/11/24 00:06:00	PROG03	100	1				SETUP	1
2023/11/24 00:08:00	PROG1000	100	1				SETUP	2
2023/11/24 00:11:00	PROG03	100	2				START	1
2023/11/24 00:20:00	PROG03	100	100	PROG03SUB	1500	10	ALARM	1
2023/11/24 00:30:00	PROG1000	100	2				START	2
… …								
2023/11/24 23:55:00	PROG03	100	2	PROG03SUB	1500	10	STOP	2

Specifications for the saved file of "DailyOperationDetail" (Operation log)

Item name	Contents	Format
time	The date when an event occurred	yyyy/mm/dd hh:mm:ss
prog_main_o	Main program name being executed	String
prog_main_n	Main N number being executed	String
prog_main_b	Main B number being executed	String
prog_sub_o	Sub program name being executed	String
prog_sub_n	Sub N number being executed	String
prog_sub_b	Sub B number being executed	String
status	Operating status	Uppercase alphabetic characters
system	Part system number	Numeric

■ **File name to be saved**

File name	Specifications
Dayope_machine name_yymmdd.csv	The "yymmdd" is the date specified in [Period specification]. The machine name is that of [Machine name] displayed in the list on the Individual Monitor Screen. (*) When you specified the period for this function, output data of the period are acquired and saved on a daily basis. When you save the file, a download dialog box appears depending on your browser. The file name or storage location on saving the file can be changed in the download dialog box.

(Note 1) If the file cannot be saved, shorten the file path (the total length including the file name).

(Note 2) There is a character limit on the file path of the save location (the total length including the file name).
The maximum number of characters you can specify depends on your browser specifications.

3.7.4.2 Monthly Operation Total

Download the monthly operation total of the machine.

If [Today] is selected in [Period specification], the data for the current day is output.

If [Custom] is selected in [Period specification] and then a period of six months (186 days) or less is specified, the data from the start date to end date is output. If six months (186 days) are exceeded, the data for six months (186 days) from the start date is output.

When the number of part systems for the target device is not found, "Off" is output at the current number of systems.

Output contents of "MonthlyOperationTotal"

date	start	stop	alarm	setup	off	system
2023/11/24	12:00:00	0:00:00	0:00:00	12:00:00	0:00:00	1
2023/11/24	12:00:00	0:00:00	0:00:00	12:00:00	0:00:00	2
2023/11/25	12:00:00	0:00:00	0:00:00	12:00:00	0:00:00	1

Specifications for the saved file of "MonthlyOperationTotal"

Item name	Contents	Format
date	Date specified in [Period specification]	yyyy/mm/dd
start	Aggregate result of the time for each part system when its operation status is "Start"	hh:mm:ss
stop	Aggregate result of the time for each part system when its operation status is "Stop"	hh:mm:ss
alarm	Aggregate result of the time for each part system when its operation status is "Alarm"	hh:mm:ss
setup	Aggregate result of the time for each part system when its operation status is "Setup"	hh:mm:ss
off	Aggregate result of the time for each part system when its operation status is "Off" or when the communication is disconnected	hh:mm:ss
system	Part system number	Numeric

■ **File name specifications to be saved**

File name	Specifications
monope_machine name_yymmdd1_yymmdd2.csv	The "yymmdd1" is the start date specified in [Period specification]. The "yymmdd2" is the end date specified in [Period specification]. The machine name is that of [Machine name] displayed in the list on the Individual Monitor Screen. (*) When you specified the period for this function, output data of the period are acquired and it is saved as one file. When you save the file, a download dialog box appears depending on your browser. The file name or storage location on saving the file can be changed in the download dialog box.

(Note 1) If the file cannot be saved, shorten the file path (the total length including the file name).

(Note 2) There is a character limit on the file path of the save location (the total length including the file name).
The maximum number of characters you can specify depends on your browser specifications.

3.7.4.3 Machining Result List

Download the accumulated data for machined workpieces for each program of the machine.
If [Today] is selected in [Period specification], the data for the current day is output.
If [Custom] is selected in [Period specification] and then only one day is specified, the data for the specified date is output.
If one day is exceeded, the data for the start date is output.

The time spent for one machining, such as cycle time, cutting time, stop time, and alarm stop time, can be saved in the order of the time the machining was completed.

Output contents of "MachiningResultList"

time	program	count	cycle_time	cutting_time	stop	alarm	system
2023/11/24 00:06:00	PROG1000	1	0:03:00	0:02:40	0:00:00	0:00:00	2
2023/11/24 00:08:00	PROG03	1	0:02:00	0:01:16	0:00:00	0:00:00	1
2023/11/24 00:11:00	PROG03	2	0:02:00	0:01:16	0:00:00	0:00:00	1
2023/11/24 00:11:00	PROG1000	2	0:22:00	0:01:16	0:00:00	0:20:00	2
... ...							
2023/11/24 23:55:00	PROG03	100	2	PROG03SUB	1500	0:00:00	1

Specifications for the saved file of "MachiningResultList"

Item name	Contents	Format
time	The date when a machining is started	yyyy/mm/dd hh:mm:ss
program	Main program name	String
count	Number of the machined workpieces	Numeric
cycle_time	Cycle time for one machining	hhhh:mm:ss
cutting_time	Cutting time for one machining (*1)	hhhh:mm:ss
stop	The time when the operation status is "Stop" for one machining	hhhh:mm:ss
alarm	The time when the operation status is "Alarm" for one machining	hhhh:mm:ss
system	Part system number	Numeric

(*1) When you use the following NCs, the contents of "cutting_time" is the cutting time calculated on the remote service gateway unit (hereinafter RGU) side as the NCs do not have a cutting time.
- M7 Series
- C80 Series
- M8 Series version C0 or before

In this case, the cutting time may differ from the actual cutting time due to the following reasons.
- The cycle for acquiring the calculation values is longer than the cycle in the NC and short cutting times during the cycle for acquiring the calculation values cannot be calculated.
- During cycles determined to be "cutting", the times that are not cutting are still calculated as "cutting".
- The acquisition cycle is delayed.

■ **File name specifications to be saved**

File name	Specifications
mcnlog_machine name_yymmdd_x.csv	The "yymmdd" is the date specified in [Period specification]. The machine name is that of [Machine name] displayed in the list on the Individual Monitor Screen. When the layout of the machining result file on the same day was changed, output file is saved as a different file, adding "_1" (underscore + number) to the end of the original file name. When you save the file, a download dialog box appears depending on your browser. The file name or storage location on saving the file can be changed in the download dialog box.

(Note 1) If the file cannot be saved, shorten the file path (the total length including the file name).

(Note 2) There is a character limit on the file path of the save location (the total length including the file name).
The maximum number of characters you can specify depends on your browser specifications.

3.7.4.4 Monthly Machining Total

Download the monthly machining total of the machine.
If [Today] is selected in [Period specification], the data for the current day is output.
If [Custom] is selected in [Period specification] and then a period of one month (31 days) or less is specified, the data from the start date to end date is output. If one month (31 days) is exceeded, the data for one month (31 days) from the start date is output.

Output contents of "MonthlyMachiningTotal"

date	program	count	cycle_time	cutting_time	stop	alarm	system
2023/11/24	PROG1000	5	0:06:30	0:04:30	0:02:30	0:06:00	1
2023/11/24	PROG1000	2	0:06:00	0:02:15	0:01:30	0:03:00	2
2023/11/24	PROG03	3	0:08:00	0:04:15	0:02:30	0:08:00	2
2023/11/24	PROG1000	7	0:05:10	0:02:15	0:02:30	0:02:00	1
... ...							
2023/11/24	PROG03	100	0:08:00	0:04:15	0:02:30	0:08:00	2

Accumulated result of machined workpieces aggregated by date, part system and program

Specifications for the saved file of "MonthlyMachiningTotal"

Item name	Contents	Format
date	Date specified in [Period specification] (*) If the machining took over a day, the machining start date is output.	yyyy/mm/dd
program	Main program name	String
count	Aggregate result of the number of the machined workpieces for each date, part system and program name	Numeric
cycle_time	Aggregate result of the machining cycle time for each date, part system and program name	hhhh:mm:ss
cutting_time	Aggregate result of the cutting time for machining for each date, part system and program name	hhhh:mm:ss
stop	Aggregate result of time for each date, part system and program name when the operation status is "Stop" for machining	hhhh:mm:ss
alarm	Aggregate result of time for each date, part system and program name when the operation status is "Alarm" for machining	hhhh:mm:ss
system	Part system number	Numeric

■File name specifications to be saved

File name	Specifications
monmcnlog_machine name_yymmdd1_yymmdd2.csv	The "yymmdd1" is the start date specified in [Period specification]. The "yymmdd2" is the end date specified in [Period specification]. The machine name is that of [Machine name] displayed in the list on the Individual Monitor Screen. When you save the file, a download dialog box appears depending on your browser. The file name or storage location on saving the file can be changed in the download dialog box.

(Note 1) If the file cannot be saved, shorten the file path (the total length including the file name).
(Note 2) There is a character limit on the file path of the save location (the total length including the file name).
The maximum number of characters you can specify depends on your browser specifications.

3.7.4.5 Batch Downloading

Batch download (1) Daily operation detail, (2) Monthly operation total, (3) Machining result list, and (4) Monthly machining total for the target period of the machine.

If [Today] is selected in [Period specification], the data for the current day is output.

If [Custom] is selected in [Period specification], the data that can be downloaded differs depending on the specified period.

<table>
<tr><th rowspan="2">Specified period</th><th colspan="4">Data that can be downloaded</th></tr>
<tr><th>(1) Daily operation detail</th><th>(2) Monthly operation total</th><th>(3) Machining result list</th><th>(4) Monthly machining total</th></tr>
<tr><td>One day or less</td><td>Data for one day</td><td>Data for one day</td><td rowspan="5">Data for one day</td><td>Data for one day</td></tr>
<tr><td>Two days to seven days</td><td>Data from start date to end date</td><td rowspan="3">Data from start date to end date</td><td>Data from start date to end date</td></tr>
<tr><td>Eight days to 31 days</td><td rowspan="3">Data for seven days</td><td rowspan="2">Data for 31 days</td></tr>
<tr><td>32 days to 186 days</td></tr>
<tr><td>187 days or more</td><td>Data for 186 days</td></tr>
</table>

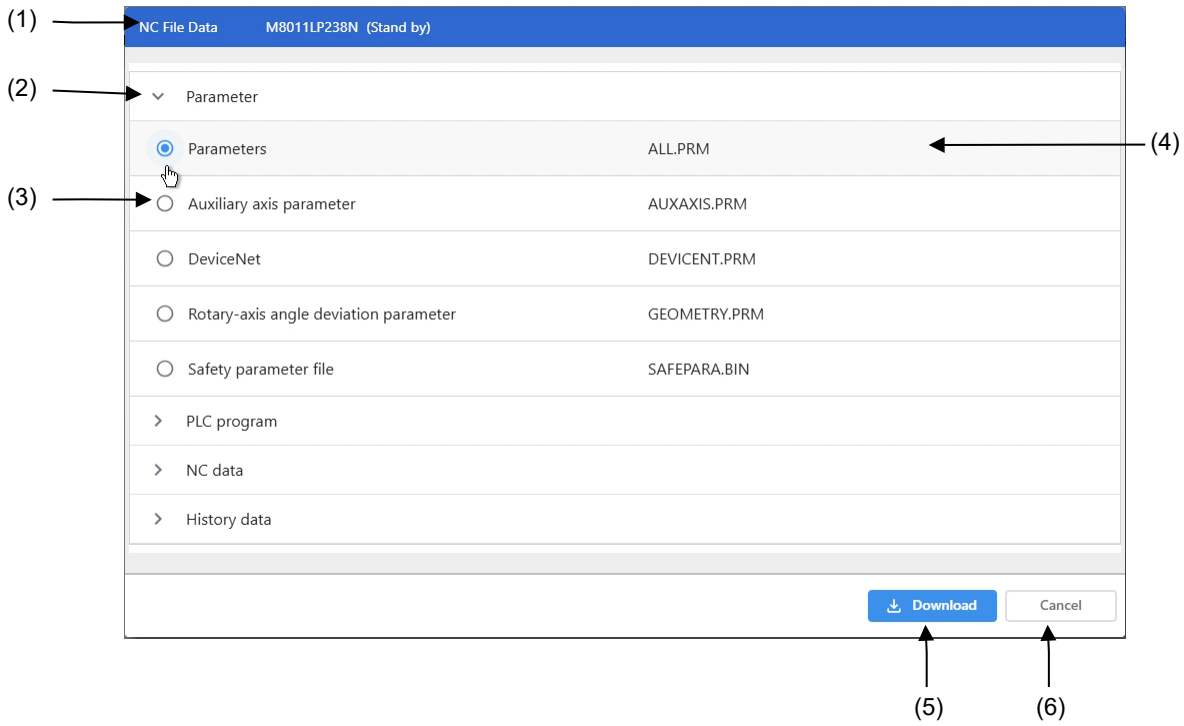
(*) If data does not exist for some functions when [Custom] is specified and then batch downloading is performed, error messages are displayed only for functions for which data does not exist.
Refer to "7.8 Message Output of Downloading" for the error messages.

(*) Up to four error messages are displayed.

3.7.5 NC File Data

In NC File Data, you can download the files in the NC to the local environment.

If you select an NC machine tool on Individual Monitor Screen and then click the [NC File Data] button, the NC File Data dialog appears.



No.	Item	Contents
(1)	Dialog title	Displays the machine name (blank state) of the machine selected in the Machine list.
(2)	Directory name	The display is expanded to show the files in the directory by clicking the icon on the left.
(3)	Data type	Displays the type of data in a file. A file with the check box selected is target for download. If the status of the machine is "Off", the radio button cannot be selected.
(4)	File name	Displays the name of the file to be downloaded.
(5)	Download button	Starts the download process for the selected files and closes the dialog. The selected files are downloaded in a ZIP file. File name: NCFile_{Device number}_{Date and time data requested}.zip {Device number}: Device number of machine selected in the Machine list {Date and time data requested}: Date and time (UTC) that a data request was made to the machine
(6)	Cancel button	Close the NC File Data dialog.

List of files that can be acquired

Refer to "9 Appendix 1: List of Files You Can Output with File Output Function".

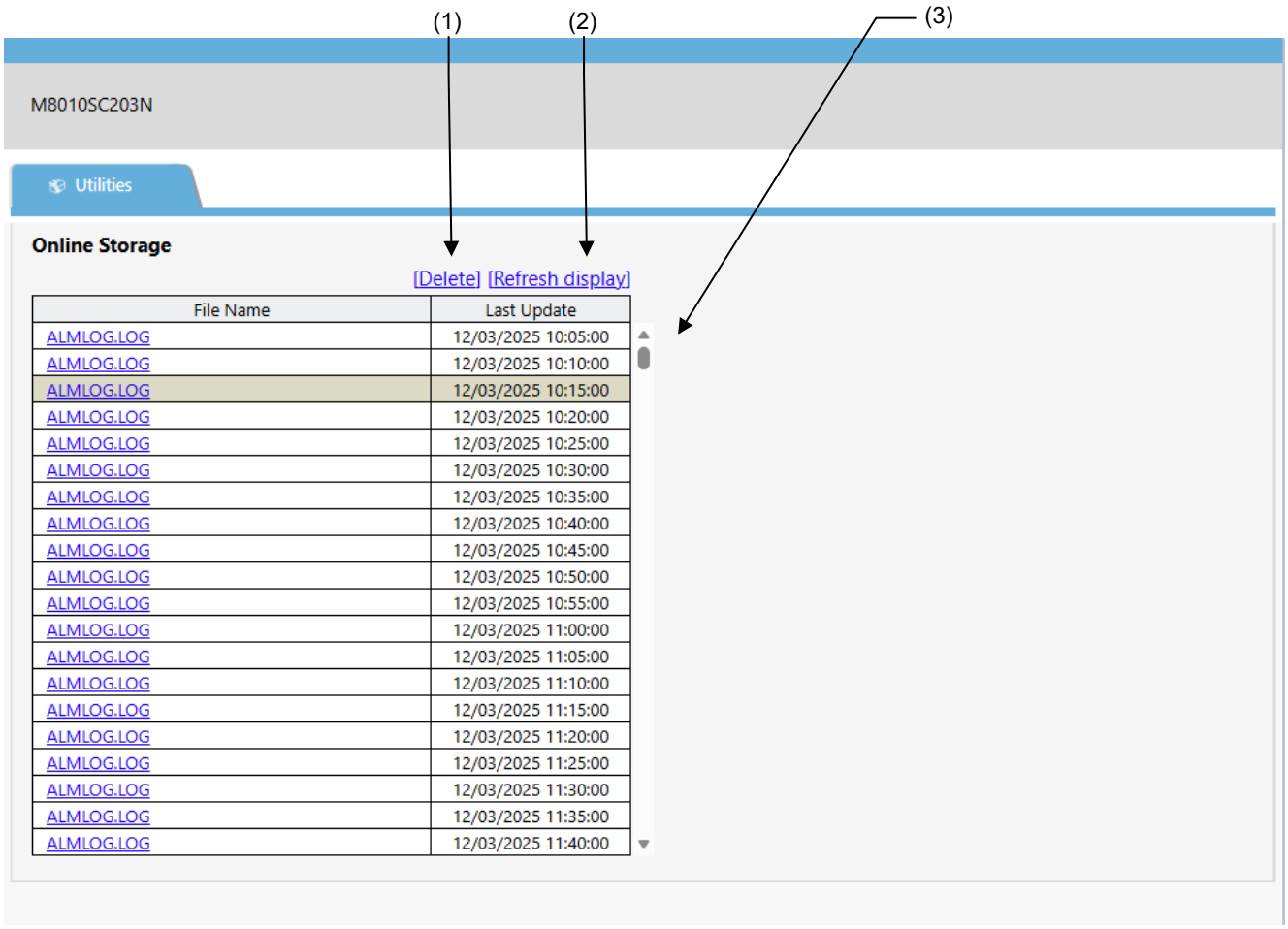
3.8 Online Storage

In Online Storage, a list of the files that are backed up in online storage is displayed, and you can download and delete the files.

If you select [Online Storage] from the side menu, the Machine select screen appears. The Machine select screen displays the target device list of the online storage. If you select a machine on the Machine select screen and then click the [Open] button, the Auto Backup Setup screen is displayed on another tab of the browser.

Note that this function is not available for DI-connected models.

3.8.1 Online Storage Screen



No.	Item		Contents
(1)	[Delete] link		If you select a row in [List], a link is displayed. Clicking the link displays the Confirm Deletion message. Click the [OK] button to delete the online storage file.
(2)	[Refresh display] link		Refreshes the list of online storage files.
(3)	List		Displays a list of online storage files.
		File Name	Displays the online storage file names. If you click the link of a file name, the online storage file is downloaded.
		Last Update	Displays the latest update date of the online storage file.

3.9 Email Settings

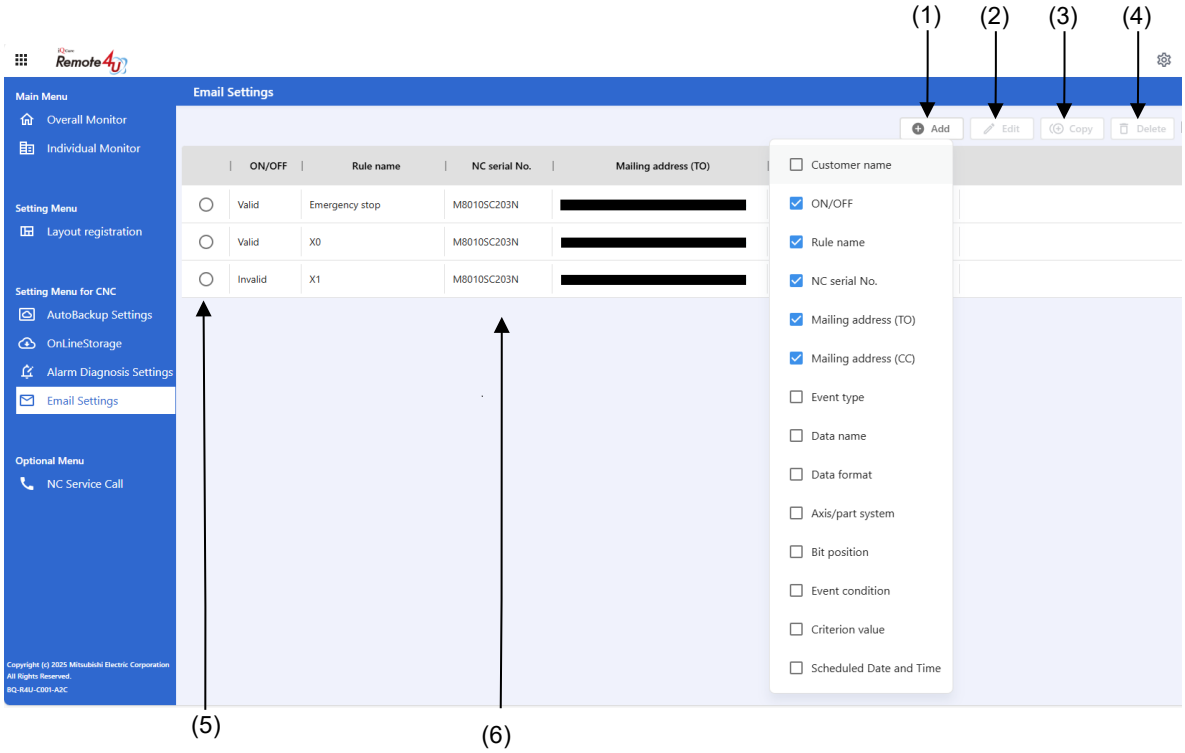
By setting the email notification conditions in Email Settings, you can receive email depending on the NC status. The email is sent when the set conditions are satisfied.

When you select [Email Settings] in the side menu, the screen switches to the Email Settings screen.

3.9.1 Email Settings Screen

The Email Settings screen displays a list of the currently set email notification conditions. A maximum of eight email notification conditions can be set per machine.

If you select multiple machines in [Target machine] on the edit email notification setting condition screen, lines are added only for the number of selected machines.



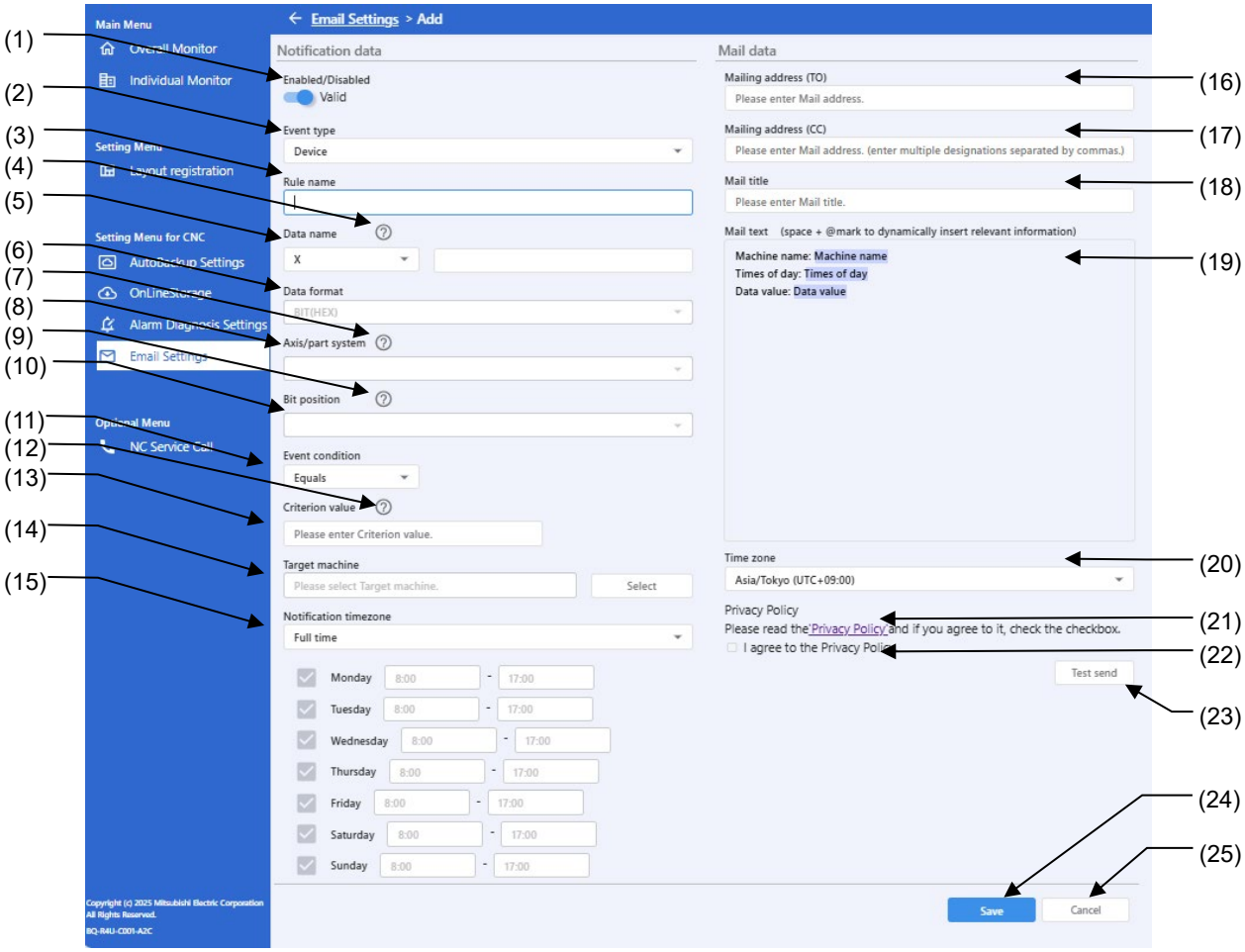
No.	Item	Contents
(1)	Add	Opens the edit email notification condition screen for adding notification conditions.
(2)	Edit	If you select a row in the email notification condition list and then click the [Edit] button, the screen switches to the edit email notification setting condition screen. The notification condition saved on the edit email notification setting condition screen is added to the list.
(3)	Copy	If you select a row in the email notification condition list and then click the [Copy] button, a copy with the same contents as the selected notification condition is made and the screen switches to the edit email notification setting condition screen. The notification condition saved on the edit email notification setting condition screen is added to the list.
(4)	Delete	If you select a row in the email notification condition list and then click the [Delete] button, the selected notification condition is deleted.
(5)	Radio button	Select the condition to be the operation target.

No.	Item		Contents
(6)	List		Displays a list of the information for each email notification condition.
		ON/OFF	Displays the valid/invalid status of the email notification condition.
		Notification condition name	Displays the notification condition name.
		NC serial No.	Displays the NC serial number.
		Mailing address (TO)	Displays the mail recipient (TO).
		Mailing address (CC)	Displays the mail recipient (CC).
		Notification condition	Displays notification condition.
		Data format	Displays the format of the acquired data.
		Axis/part system	Displays the axis/part system.
		Bit position	Displays the bit position.
		Event condition	Displays the judgment condition.
		Criterion value	Displays the judgment value.
		Date configured	Displays the setting date/time.

3.9.2 Edit Email Notification Setting Condition Screen

Set conditions to receive a notification email.

Notification emails are sent from "no_reply_cnc@iqcare-remote4u.com". If receiving from the domain of the email address for receiving notification email is set to be rejected, configure the settings to permit receiving of emails from the "@iqcare-remote4u.com" domain.



<table>
<tr><th>No.</th><th>Item</th><th>Contents</th></tr>
<tr><td>(1)</td><td>Enabled/Disabled</td><td>Turn ON/OFF email notification conditions.
When this is set to Invalid, email is not sent even if the NC satisfies the conditions.
When this is switched to Valid and the status has changed from not satisfying conditions to satisfying conditions, email is sent.</td></tr>
<tr><td>(2)</td><td>Event type</td><td>Select the event type.
<table>
<tr><th>Event type</th><th>Timing to send an email</th></tr>
<tr><td>Device</td><td>Set the notification conditions to the device.
Sends an email based on the contents input in [(5) Data name], [(11) Event condition], and [(13) Criterion value].</td></tr>
<tr><td>Common variable</td><td>Set the notification conditions to common variable.
Sends an email based on the contents input in [(5) Data name], [(11) Event condition], and [(13) Criterion value].</td></tr>
<tr><td>Emergency stop</td><td>When an emergency stop occurs due to one of the following reasons
・ Built-in PLC Stop state (STOP)
・ External PLC Communication error (XTEN)
・ External PLC Not ready (WAIT)
・ External PLC Communication error (LINK)
・ Built-in PLC Software emergency stop output device YC2C is "1" (PLC)
・ Power-down processing error emergency stop [C80] (IPWD)
・ LINE
・ User PLC Illegal codes exist (LAD)
・ PLC high-speed processing error (PC-H)
・ Spindle drive unit Emergency stop output (SPIN)
・ Servo drive unit Emergency stop output (SRV)</td></tr>
<tr><td>Machining completion</td><td>An email is not sent when the current number of the machined workpieces of the part system which is designated in "(8) Axis/part system" is renewed or becomes "0".

Does not send an email when the current number of the machined workpieces is renewed or is "0".</td></tr>
</table></td></tr>
<tr><td>(3)</td><td>Rule name</td><td>Notification condition name can be changed.</td></tr>
<tr><td>(4)</td><td>Data name help icon</td><td>Clicking this icon displays help information.</td></tr>
<tr><td>(5)</td><td>Data Name</td><td>Designate the target data of an email notification to match the notification condition items.
Device: Device number
Common variable: Common variable number (# is not required)

Refer to (*1) for the setting range.</td></tr>
<tr><td>(6)</td><td>Data format</td><td>Select the data format designated in [(5) Data name]. (This is input automatically)

For a 16/32-bit device, select from the following to match data stored in the device.
When the negative values are not stored: Number (HEX_unsigned integer)
When the negative values are stored: Number (HEX_signed integer)
When each bit has different meaning: BIT (HEX)</td></tr>
<tr><td>(7)</td><td>Axis/part system help icon</td><td>Clicking this icon displays help information.</td></tr>
<tr><td>(8)</td><td>Axis/part system</td><td>Designate the target axis/part system to send an email.
Select [Unspecified] when all axes and part systems are the target.</td></tr>
<tr><td>(9)</td><td>Bit position help icon</td><td>Clicking this icon displays help information.</td></tr>
<tr><td>(10)</td><td>Bit position</td><td>Designate the target bit of the notification. The end bit is "0".

This must be input when [(6) Data format] is [BIT (HEX)] for a 16/32-bit device.</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Contents</th></tr>
<tr><td>(11)</td><td>Event condition</td><td>Designate the detailed judgment conditions to send an email.
<table>
<tr><th>Criterion value</th><th>Under what condition does the NC trigger the sending of email?</th></tr>
<tr><td>Equal to</td><td>When equal to the judgment value</td></tr>
<tr><td>Not equal to</td><td>When the value differs from the judgment value</td></tr>
<tr><td>Greater than or equal to</td><td>When equal to the judgment value or more</td></tr>
<tr><td>Less than or equal to</td><td>When equal to the judgment value or less</td></tr>
<tr><td>Greater than</td><td>When exceeding the judgment value</td></tr>
<tr><td>Less than</td><td>When below the judgment value</td></tr>
<tr><td>Contains</td><td>When including the judgment characters</td></tr>
<tr><td>Does not contain</td><td>When not including the judgment characters</td></tr>
</table></td></tr>
<tr><td>(12)</td><td>Criterion value help icon</td><td>Clicking this icon displays help information.</td></tr>
<tr><td>(13)</td><td>Criterion value</td><td>Enter the judgment value of [(11) Event condition].
Use decimal number to enter numerical values.</td></tr>
<tr><td>(14)</td><td>Target machine</td><td>Select the machine for which to set the notification condition.
If the [Add] button or [Copy] button is clicked on the Email Settings screen, you can select multiple machines.
If the [Edit] button on the Email Settings screen is clicked, a machine cannot be selected.</td></tr>
<tr><td>(15)</td><td>Notification timezone</td><td>Set the notification timezone for email.</td></tr>
<tr><td>(16)</td><td>Mailing address (TO) (*2)</td><td>Register the email address of the mail recipient.
Only one address can be registered.</td></tr>
<tr><td>(17)</td><td>Mailing address (CC) (*2)</td><td>Email addresses to receive a copy of an email are displayed in a list.
Maximum 8 addresses can be registered.</td></tr>
<tr><td>(18)</td><td>Mail title</td><td>Enter the title of an email.</td></tr>
<tr><td>(19)</td><td>Mail text</td><td>Enter the contents of an email.
The following placeholders are replaced when you receive an email.
<table>
<tr><th>Placeholder</th><th>Replacement contents</th></tr>
<tr><td><#MachineName#></td><td>[Machine name]+(NC serial number) displayed on the Individual Monitor Screen
(Example) Machine01(ABCD0123)

When free input item 1 is a blank, the NC serial No. is displayed.</td></tr>
<tr><td><#NCTime#></td><td>A date and time that satisfies the notification conditions.

This is the date and time of the area set in [(20) Time zone]. This is not the date and time of the place where the NC is installed or the date and time set in the NC.</td></tr>
<tr><td><#DataValue#></td><td>Data value to satisfy the notification conditions</td></tr>
</table></td></tr>
<tr><td>(20)</td><td>Time zone</td><td>Set the timezone for the date and time to be displayed in the placeholder <#NCTime#> entered in [(19) Mail title].
The representative area based on the time zone of the device being used is set as the default value. Change the area as required.</td></tr>
<tr><td>(21)</td><td>Privacy Policy link</td><td>Clicking the link displays the sentences regarding handling of personal information.</td></tr>
<tr><td>(22)</td><td>Privacy Policy agreement check box</td><td>Check the check box to agree to the privacy policy. When unchecked, the notification condition cannot be saved.
This can be checked after closing the sentences displayed by clicking [(21) Privacy Policy link].</td></tr>
</table>

<table>
<tr><th>No.</th><th>Item</th><th>Contents</th></tr>
<tr><td>(23)</td><td>Test send button</td><td>Displays a test email send confirmation message. Click the [OK] button to send the test email.
This email is sent to the email addresses of "Mailing address (TO)" and "Mailing address (CC)". Contents of an email are as below.
<table>
<tr><th>Item</th><th>Contents</th></tr>
<tr><td>Email subject</td><td>[Test email (R4U)] <Input email subject></td></tr>
<tr><td>Contents</td><td>This is a test email sent from the (R4U) email notification setting screen.

<Input Email body></td></tr>
</table></td></tr>
<tr><td>(24)</td><td>Save button</td><td>Displays a save confirmation message. Click the [OK] button to save the notification conditions.
When there is a defect in the data contents, an error message is displayed at the top of the screen and the data is not saved. Save the data again after removing the error.</td></tr>
<tr><td>(25)</td><td>Cancel button</td><td>Displays a cancel confirmation message. Click the [OK] button to discard the editing contents.</td></tr>
</table>

(*1) The setting range of [(5) Data Name] is as follows.

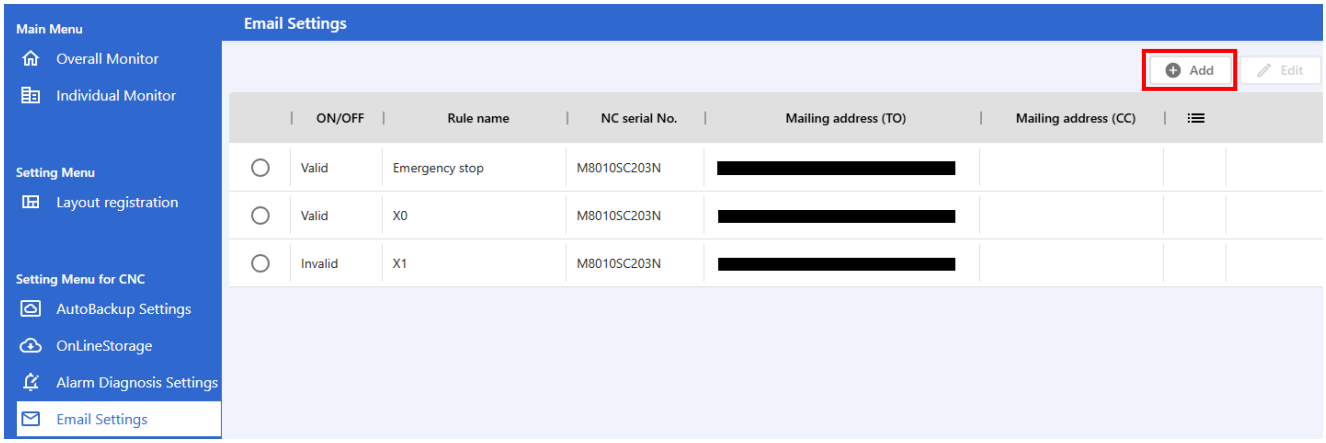
Notification condition	Setting range		
	M8/M8V	C80	M7/M7V
Device	X0 to X1FFF	X0 to X1FFF	X0 to X1FFF
	Y0 to Y1FFF	Y0 to Y1FFF	Y0 to Y1FFF
	D0 to D4095	D0 to D8191	D0 to D2047
	R0 to R32767	R0 to R32767	R0 to R13311
	M0 to M61439	M0 to M61439	M0 to M10239
	F0 to F2047	F0 to F2047	F0 to F1023
	L0 to L1023	L0 to L1023	L0 to L511
Common variable	100 to 199, 400 to 999		

(*2) An error does not occur when an email address which does not exist is set. Conduct an email reception test by clicking [(23) Test send button]. As an error does not occur when an email address is disabled after setting the notification, check if the set email address can still be used when you stop receiving emails.

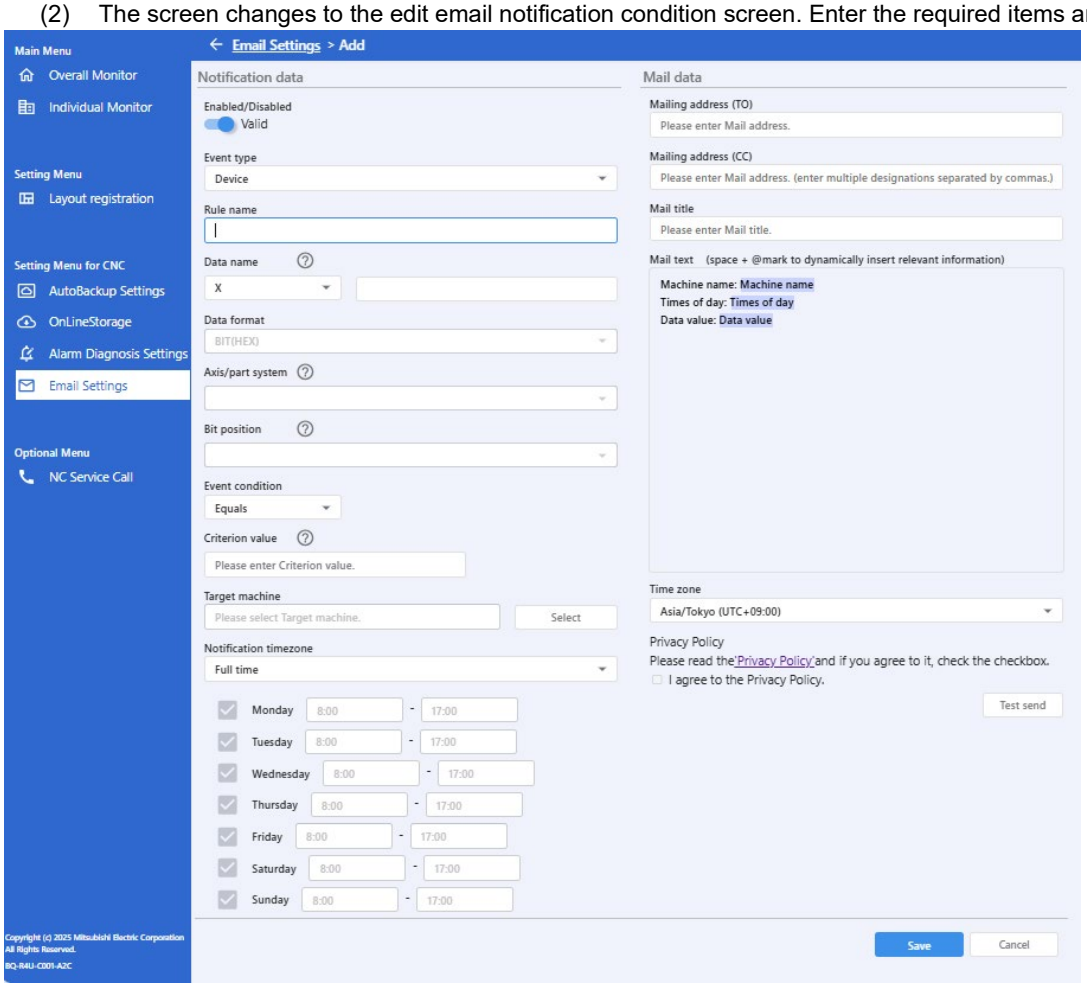
3.9.2.1 Adding Notification Conditions

To register new email notification conditions, follow the steps below.

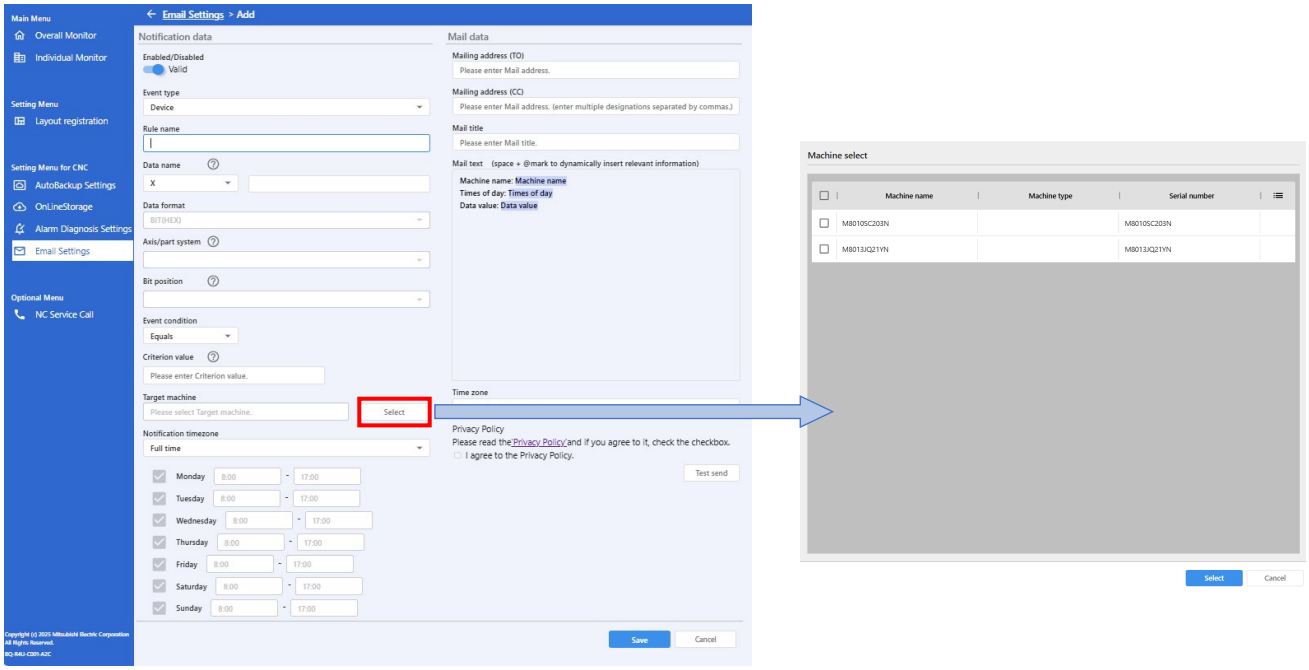
(1) Click the [Add] button on the Email Settings screen.



(2) The screen changes to the edit email notification condition screen. Enter the required items and optional items.



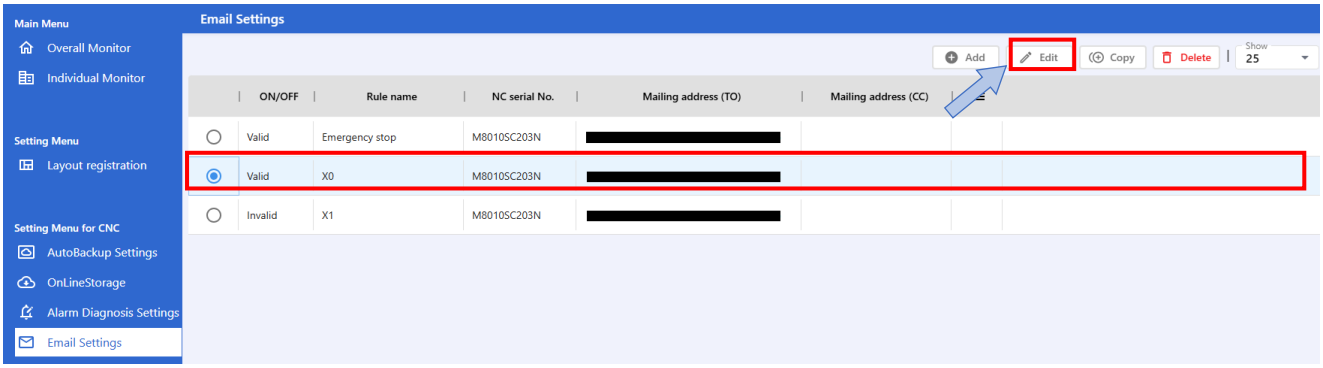
(*) When you click the [Select] button of [Target machine], the Machine select dialog appears.
Select the machine to send email notifications. You can select multiple machines.



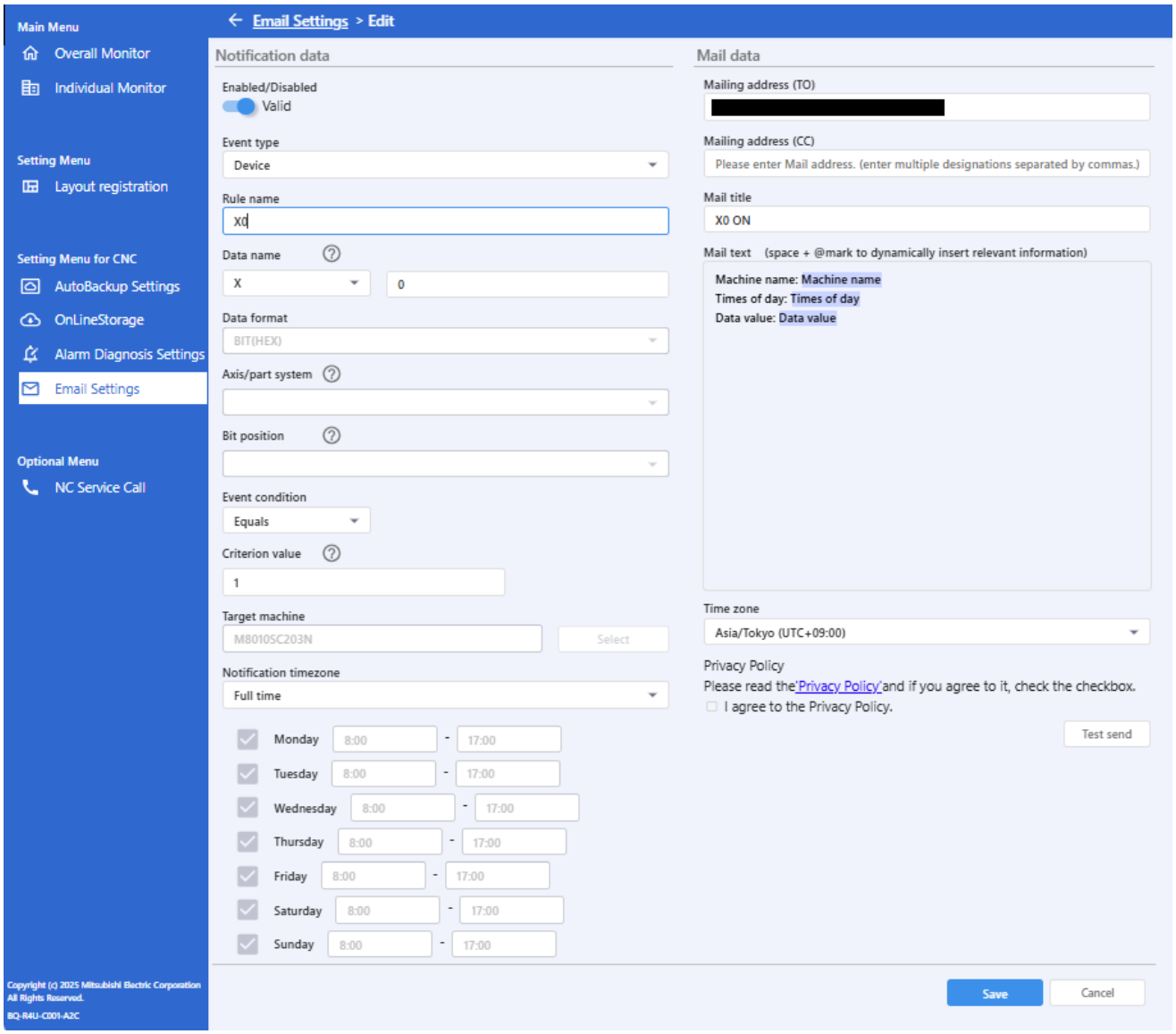
3.9.2.2 Editing Email Notification Conditions

To edit registered email notification conditions, follow the steps below.

(1) Select the email notification condition you want to edit and click the [Edit] button on the Email Settings screen.



(2) The screen changes to the edit email notification condition screen. Change the item you want to edit.
Note that [Target machine] cannot be changed. To change the assignment of [Target machine], delete the notification condition and then add it again.



3.9.2.3 How to Set [Notification condition]

The following shows the setting methods of the email notification conditions. The setting procedures to receive email at the following times are shown as examples.

■ **When X4 device is ON**

Item	Details
Notification condition	Select [Device].
Data Name	Enter "X4".
Data format	This is selected automatically.
Axis/part system	This is not necessary.
Bit position	This is not necessary.
Event condition	Select "Equal to" to receive an email when X4 device is ON (when bit is 1).
Criterion value	Select "1" to receive an email when X4 device is ON (when bit is 1).

■ **When D200 device is 100 or below**

Item	Details
Notification condition	Select [Device].
Data Name	Enter "D200".
Data format	Select "Number (HEX_unsigned integer)" when only positive values are entered in the D200 device with the NC. Select "Number (HEX_signed integer)" when negative values are entered.
Axis/part system	This is not necessary.
Bit position	This is not necessary.
Event condition	Select "Less than or equal to" to receive an email when the D200 device is 100 or below.
Criterion value	Enter "100" to receive an email when the D200 device is 100 or below.

■ **When bit 3 of D300 device is OFF**

Item	Details
Notification condition	Select [Device].
Data Name	Enter "D300".
Data format	Select [BIT (HEX)].
Axis/part system	This is not necessary.
Bit position	Enter "3" because bit 3 is the target.
Event condition	Select "Equal to" to receive an email when bit 3 is OFF (when bit is 0).
Criterion value	Enter "0" to receive an email when bit 3 is OFF (when bit is 0).

■ **When common variable #123 of part system 3 is greater than 45.6.**

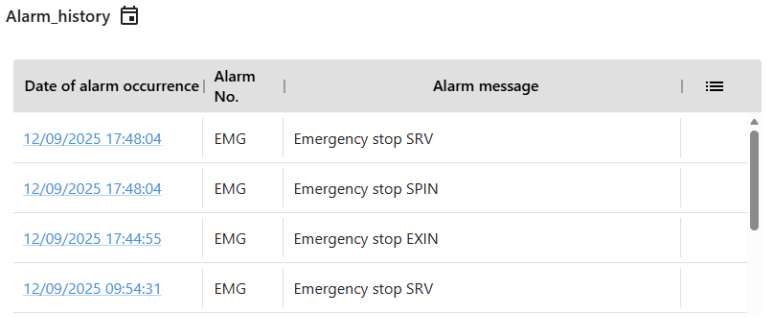
Item	Details
Notification condition	Select [Common variable].
Data Name	Enter "123".
Data format	This is selected automatically.
Axis/part system	Enter "3" because part system 3 is the target.
Bit position	This is not necessary.
Event condition	Select "Greater than" to receive an email when common variable is greater than 45.6.
Criterion value	Enter "45.6" to receive an email when common variable is greater than 45.6.

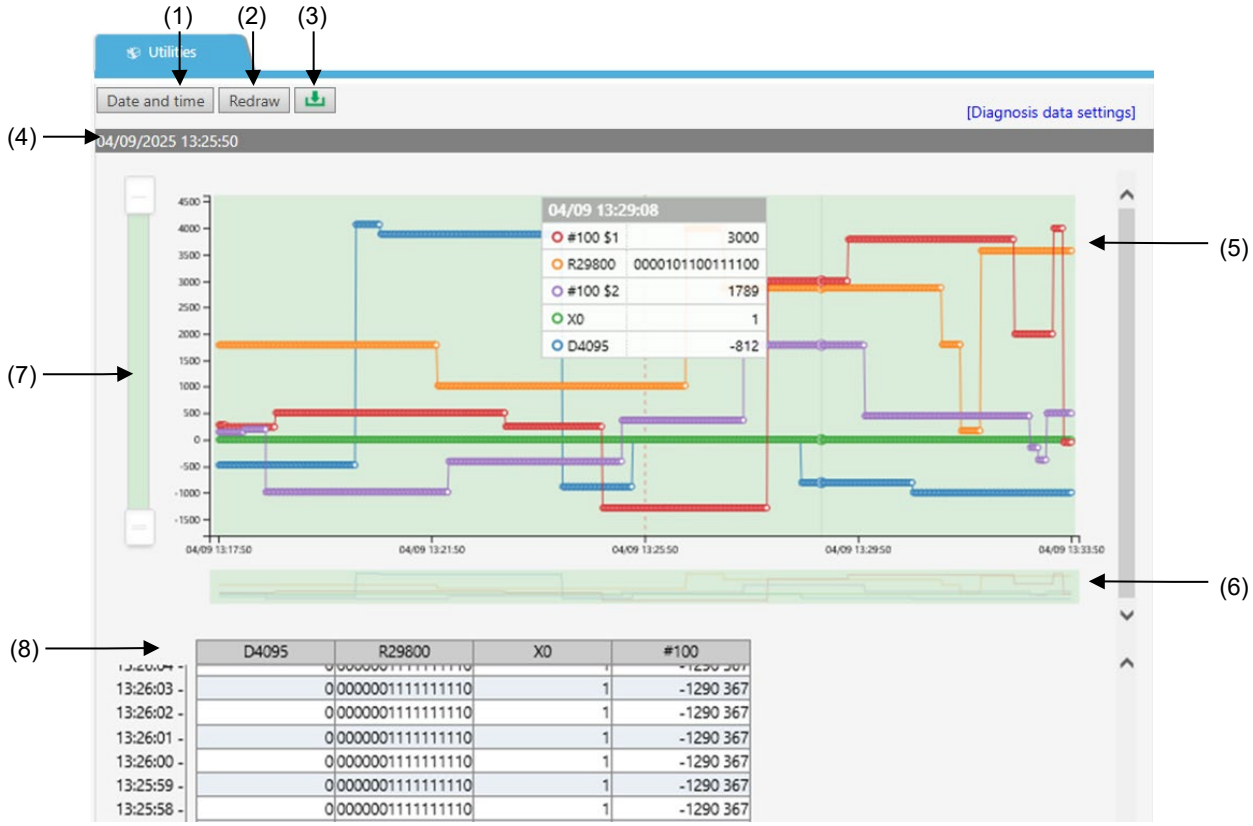
3.10 Alarm Diagnosis

In Alarm Diagnosis, you can check the data before and after a specified date and time of alarm occurrence.
If you select [Alarm Diagnosis Settings] from the side menu, the Machine select screen appears. The Machine select screen displays a list of machines for which to displays alarm diagnosis. If you select a machine on the Machine select screen and then click the [Alarm Diagnosis Settings] button, the Alarm diagnosis screen is displayed on another tab of the browser.
Note that this function is not available for DI-connected models.

3.10.1 Alarm Diagnosis Screen

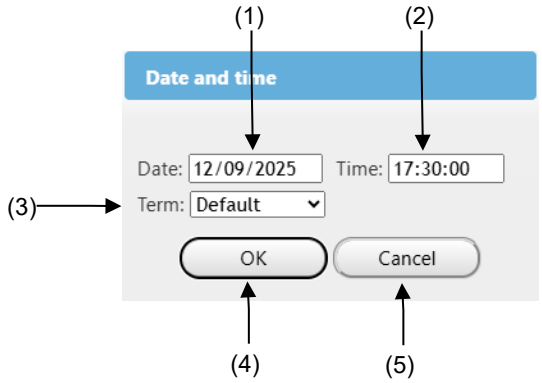
To open the Alarm diagnosis screen, click a date and time of alarm occurrence on an alarm history card in the dashboard. On the Alarm diagnosis screen, a graph and list of the designated data before and after the date and time of the alarm occurrence are displayed.





No.	Item	Contents
(1)	Date and time button	Click this button to display the Date and time dialog.
(2)	Redraw button	Click this button to reacquire the data for the date and time set in the Date and time dialog.
(3)	Download button	Click this button to download the data of [(8) Data list] in CSV file format.
(4)	Date and time	Displays the date/time set on the date and time dialog.
(5)	Data graph	Displays a graph of the data set on the diagnosis data list. Moving a mouse cursor over points or tapping points on a graph displays data of each point by a tooltip.
(6)	Sub chart	Drag the sub chart to set the range of time to display on a graph. Clicking or tapping outside the set range on the sub chart resets the setting range.
(7)	Range slider	Move the handles on both ends to set the range of values to display in the graph.
(8)	Data list	Displays the data for the designated date and time selected in [(4) Date and time] in chronological order. Data in bit data format displays OFF as 0 and ON as 1. The data for each part system / each axis is displayed as tab delimited. When no data can be displayed, this field is blank

■ **Date and time dialog**



No.	Item	Contents
(1)	Date	Selects the designated date.
(2)	Time	Selects the designated time.
(3)	Term	Set the time interval to display in [(5) Data graph]/[(8) Data list]. Item name: Default — Displays the changing points of the data for 15 minutes before and after the designated date and time. Item name: 1 h — Displays the changing points of the data for an hour before and after the designated date and time. Item name: 24 h — Displays the changing points of the data for 24 hours before and after the designated date and time.
(4)	OK button	Click this button to set the designated date and time and close the dialog. Then starts acquiring the data of the designated date/time.
(5)	Cancel button	Click this button to close the dialog without reflecting the settings.

3.10.2 Registering Diagnosis Data

When you click the [Alarm Diagnosis Settings] link on the screen, the Diagnosis data list screen appears.

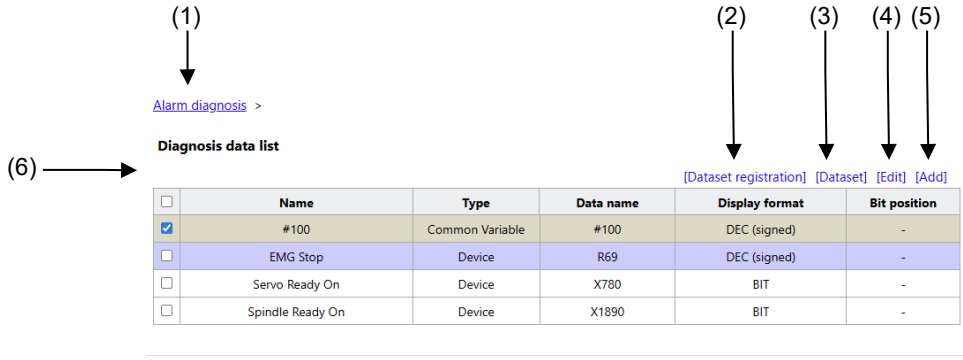
On the Diagnosis data list screen, you can add and edit diagnosis data. Furthermore, if you select created diagnosis data and then click the [Dataset registration] link, the created diagnosis data can be saved. You can access the saved data from [Dataset] and also use it with another machine.



3.10.2.1 Diagnosis Data List Screen

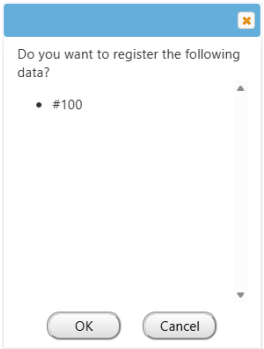
On the Diagnosis data list screen, set the diagnosis data to be output to the Alarm diagnosis screen.

The diagnosis data is stored in the cloud by adding the diagnosis data to this screen.

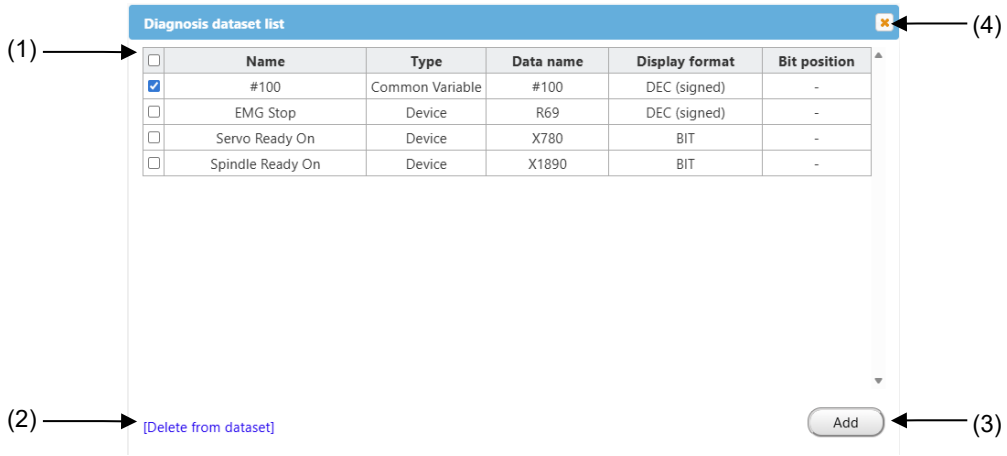


No.	Item	Contents
(1)	Alarm diagnosis link	Returns to the Alarm diagnosis screen.
(2)	Dataset registration link	This link is displayed when the checkbox of [(6) Diagnosis data list] is selected. Clicking the link displays the Dataset registration dialog (*1). The data with selected checkboxes is registered to the dataset.
(3)	Dataset link (*2)	Displays the Diagnosis dataset list dialog (*2).
(4)	Edit link	This link is displayed when the row of the diagnosis data is selected. Clicking it switches to the Edit diagnosis data screen for editing the diagnosis data. Refer to "3.10.2.2 Add (Edit) Diagnosis Screen" for details on the Edit diagnosis data screen.
(5)	Add link	Click this to switch to the Add diagnosis data screen for adding diagnosis data. Maximum 16 diagnosis data can be set. Refer to "3.10.2.2 Add (Edit) Diagnosis Screen" for details on the Add diagnosis data screen.
(6)	Diagnosis data list	Displays a list of diagnosis data.
	Check box	Select the check box for the diagnosis data to add to the dataset.
	Name	Displays the name.
	Type	Displays the type.
	Data Name	Displays the data name.
	Display format	Displays the display format.
	Bit position	Displays the bit position.

(*1) The Dataset registration dialog displays [Name] of the diagnosis data with check boxes selected in [(6) Diagnosis data list]. To register the data to the dataset, click [OK].



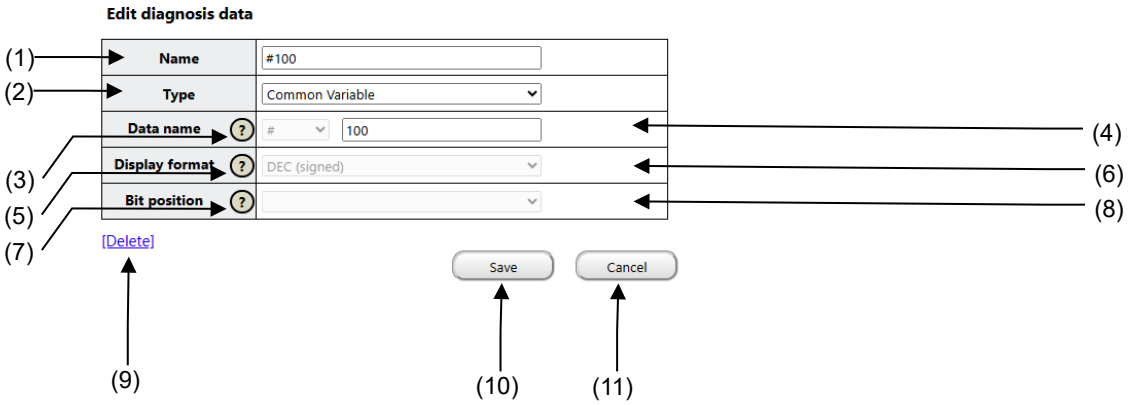
(*2) The Diagnosis dataset list dialog displays a list of the diagnosis data registered to the dataset. Select the check box of the diagnosis data to use and click the [Add] button. The diagnosis data with the check box selected is added to the list on the Diagnosis data list screen.



No.	Item		Contents
(1)	Diagnosis dataset		Displays a list of diagnosis data.
		Check box	Select the check box for the dataset to delete.
		Name	Displays the name.
		Type	Displays the type.
		Data name	Displays the data name.
		Display format	Displays the display format.
		Bit position	Displays the bit position.
(2)	"Delete from dataset" link		This link is displayed when the checkbox of [(1) Diagnosis dataset] is selected. Clicking it displays the confirmation dialog. If you click the [OK] button, the data is deleted from the dataset with the check box selected.
(3)	Add button		This can be selected when the checkbox of [(1) Diagnosis dataset] is selected. Selecting it adds the data with the check box selected to the diagnosis data list.
(4)	× button		Close the Dataset dialog.

3.10.2.2 Add (Edit) Diagnosis Screen

On the Add (Edit) diagnosis screen, you can create or edit setting data.



No.	Item	Contents
(1)	Name	The name of the diagnosis data can be changed.
(2)	Type	Select the type (device or common variable) of diagnosis data.
(3)	Data name help icon	Clicking this icon displays help information.
(4)	Data name	Designate data depending on the item in [(2) Type]. Device: Device number Common variable: Common variable number (# is not required) Refer to (*1) for the setting range.
(5)	Display format help icon	Clicking this icon displays help information.
(6)	Display format	If you selected [Device] in [(4) Data name], select the display format. DEC (signed): Displays in signed decimal numbers. DEC (unsigned): Displays in unsigned decimal numbers. HEX: Displays in hexadecimal numbers. Bit: The statuses of the bit are displayed as 0 and 1.
(7)	Bit position help icon	Clicking this icon displays help information.
(8)	Bit position	When [(6) Display format] is bit, designate the target bit position. Designate the end bit position as the numerical number 0. All bits are the target when you select "all".
(9)	Delete link	Displays a delete confirmation message. Click the [OK] button to delete the diagnosis data.
(10)	Save button	Displays a save confirmation message. Click the [OK] button to save the diagnosis data. When there is a defect in the data contents, an error message is displayed at the top of the screen and the data is not saved. Save the data again after removing the error.
(11)	Cancel button	Displays a cancel confirmation message. Click the [OK] button to discard the editing contents.

(*1) Setting range of data name

Notification condition	Setting range		
	M8/M8V	C80	M7/M7V
Device	X0 to X1FFF	X0 to X1FFF	X0 to X1FFF
	Y0 to Y1FFF	Y0 to Y1FFF	Y0 to Y1FFF
	D0 to D4095	D0 to D8191	D0 to D2047
	R0 to R32767	R0 to R32767	R0 to R13311
	M0 to M61439	M0 to M61439	M0 to M10239
	F0 to F2047	F0 to F2047	F0 to F1023
	L0 to L1023	L0 to L1023	L0 to L511
Common variable	100 to 199, 400 to 999		

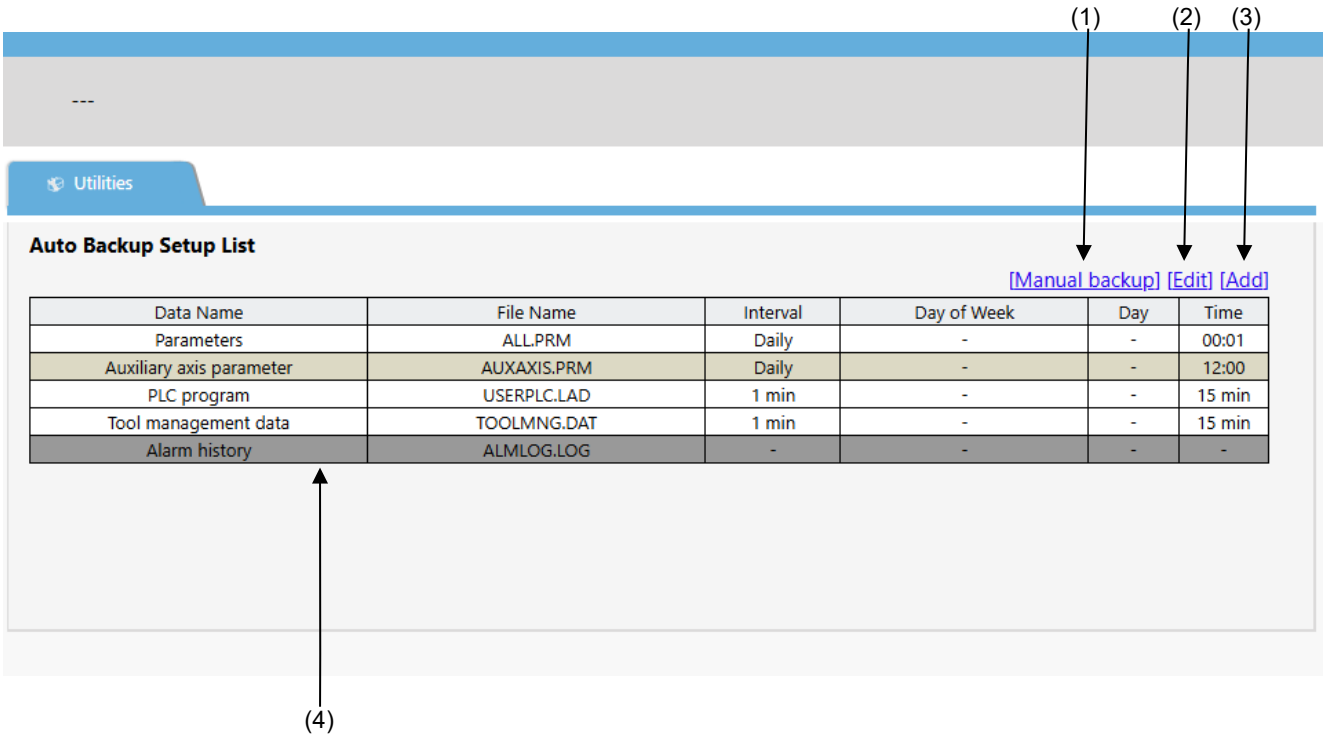
3.11 Auto Backup Setup

Auto backup setup allows the files in the NC to be backed up in online storage periodically based on a set execution schedule.

If you select [AutoBackup Settings] from the side menu, the Machine select screen appears. The Machine select screen displays the target device list for auto backup setup. If you select a machine on the Machine select screen and then click the [Edit] button, the Auto Backup Setup List screen is displayed on another tab of the browser.

This function is available only with NC machine tools. Note that this function is not available for DI-connected models.

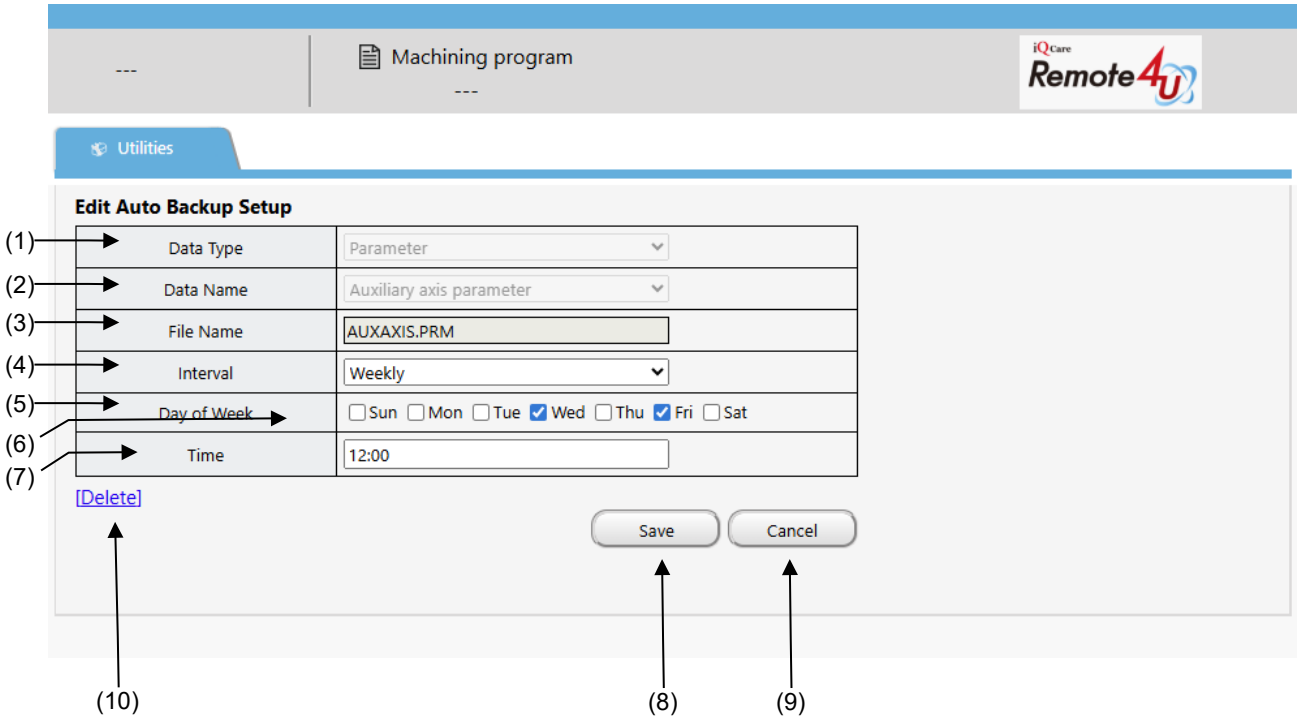
3.11.1 Auto Backup Setup List Screen



No.	Item		Contents
(1)	[Manual backup] link		Selecting a row of an auto backup setup displays the link. Click the [OK] button in the confirmation message to perform a manual backup. This is not displayed when the power supply is OFF.
(2)	[Edit] link		Selecting a row of an auto backup setup displays the link. Clicking it opens the Edit Auto Backup Setup screen. Refer to "3.11.2 Edit Auto Backup Setup Screen" for details on the Edit Auto Backup Setup screen.
(3)	[Add] link		Pressing this opens the edit screen of an auto backup setup. Add the automatic backup settings. The link is not displayed when auto backup setup is already registered for all files for which auto backup setup is possible.
(4)	List		Displays a list of auto backup setups.
		Data Name	Displays the data name of the target file for an automatic backup.
		File Name	Displays the file name of the target file for an automatic backup.
		Interval	Displays the interval of an automatic backup.
		Day of Week	Displays the day of week for an automatic backup.
		Day	Displays the date for an automatic backup.
		Time	Displays the time for an automatic backup.

3.11.2 Edit Auto Backup Setup Screen

On the Edit Auto Backup Setup screen, set the target files and execution schedule for an automatic backup.



No.	Item	Contents
(1)	Data type	Select the file type for an automatic backup. The contents displayed in the menu are the same as those of [(2) Data Name] in "3.7.5 NC File Data". If you transitioned from the [Edit] link on the Auto Backup Setup List screen, the value cannot be changed. If you transitioned from the [Add] link on the Auto Backup Setup List screen and the files in the type folder are all registered for the automatic backup setup, that type is not displayed in the Type menu.
(2)	Data Name	Select the file data name for an automatic backup. (*1) The files in the folder selected in [(1) Data type] are displayed. If you transitioned from the [Edit] link on the Auto Backup Setup List screen, the value cannot be changed. If you transitioned from the [Add] link on the Auto Backup Setup List screen, the data names of files that are already registered for an automatic backup setup are not displayed.
(3)	File Name	If you select [(1) Data type] and [(2) Data name], the file names of the files to be automatically backed up are displayed automatically.
(4)	Interval	Select the interval of an automatic backup. 1 min: Execute an automatic backup at each specified time. Daily: Execute an automatic backup every day at the specified time. Weekly: Execute an automatic backup at the specified time on the specified day of the week every week. Monthly: Execute an automatic backup at the specified time on the specified day of every month.
(5)	Day of Week	Check boxes are displayed when [Weekly] is selected in [(4) Interval]. Select the check boxes for the days of the week for an automatic backup.
(6)	Day	A text box is displayed when [Monthly] is selected in [(4) Interval]. Click the text box to display the date specification dialog and then specify the date for an automatic backup. (*2) Click the [OK] button to set the selected value in the text box.

No.	Item	Contents
(7)	Time	Click the text box to display the time specification dialog and then specify the time for an automatic backup. (*3) Click the [OK] button to set the selected value in the text box. The value displayed in the time specification dialog varies depending on the item selected in [(4) Interval]. [1 min]: 15 min, 30 min, Hourly, 6 hrs, 12 hrs [Daily], [Weekly], or [Monthly]: 00:00 to 23:59
(8)	Save button	A save confirmation message is displayed. Press the OK button to save the automatic backup settings. When there is a defect in the data contents, an error message is displayed at the top of the screen and the data is not saved. Save the data again after removing the error.
(9)	Cancel button	A cancel confirmation message is displayed. Click the OK button to discard the editing contents.
(10)	[Delete] link	A delete confirmation message is displayed. Press the OK button to delete the automatic backup settings.

(*1) The automatic backup is not executed when the specified file does not exist on the NC.

(*2) When [Monthly] is selected in [Interval] and the specified date does not exist in a particular month, the automatic backup is executed at 00:00 or later on the 1st of next month.

(*3) The backup is executed when the time set on the NC is at the specified time or later.

3.11.3 How to Set Automatic Backup

The following shows the setting methods of the automatic backup.

The setup procedures for executing an automatic backup on the following schedules are shown as examples.

- Back up parameters (ALL.PRM) every 6 hours.
- Back up alarm history (ALMLOG.LOG) at 07:00 every day.
- Back up all tool data (TOOLALL.DAT) at 10:00 every Monday.
- Back up common variable data (COMMON.VAR) at 13:00 every Monday, Wednesday, and Friday.
- Back up auxiliary axis parameter (AUXAXIS.PRM) at 21:00 on the 15th of every month.
- Back up all history (ALLLOG.LOG) at 22:00 on the 31st of every month.

■ **Backing up parameters (ALL.PRM) every 6 hours**

<Settings on Auto Backup Setup Screen>

Item	Details
Type	Select "Parameter".
Data Name	Input "Parameters".
File Name	This is displayed automatically. (ALL.PRM)
Interval	Select "1 min".
Time	Select "6 hrs".

<Date and time when an automatic backup is executed>

From 2022/04/01 (Fri) 00:00

Date and time set in the NC	Remarks
2022/04/01 (Fri) 00:00	
2022/04/01 (Fri) 6:00 AM	
2022/04/01 (Fri) 12:00 PM	
2022/04/01 (Fri) 6:00 PM	
2022/04/02 (Sat) 00:00	
:	

■ **Backing up alarm history (ALMLOG.LOG) at 07:00 every day**

<Settings on Auto Backup Setup Screen>

Item	Details
Type	Select "History data".
Data Name	Input "Alarm history".
File name	This is displayed automatically. (ALMLOG.LOG)
Interval	Select "Daily".
Time	Select "07:00".

<Date and time when an automatic backup is executed>

From 2022/04/01 (Fri) 00:00

Date and time set in the NC	Remarks
2022/04/01 (Fri) 7:00 AM	
2022/04/02 (Sat) 7:00 AM	
2022/04/03 (Sun) 07:00 AM	
2022/04/04 (Mon) 07:00 AM	
2022/04/05 (Tue) 07:00 AM	
:	

■ **Backing up all tool data (TOOLALL.DAT) at 10:00 every Monday**

<Settings on Auto Backup Setup Screen>

Item	Details
Type	Select "NC data".
Data Name	Input "Tool all data".
File Name	This is displayed automatically. (TOOLALL.DAT)
Interval	Select "Weekly".
Day of Week	Check "Mon".
Time	Select "10:00".

<Date and time when an automatic backup is executed>

From 2022/04/01 (Fri) 00:00

Date and time set in the NC	Remarks
2022/04/04 (Mon) 10:00 AM	
2022/04/11 (Mon) 10:00 AM	
2022/04/18 (Mon) 10:00 AM	
2022/04/25 (Mon) 10:00 AM	
2022/05/02 (Mon) 10:00 AM	
:	

■ **Backing up common variable data (COMMON.VAR) at 13:00 every Monday, Wednesday, and Friday**

<Settings on Auto Backup Setup Screen>

■ **Item**	Details
Type	Select "NC data".
Data Name	Input "Common variable data".
File Name	This is displayed automatically. (COMMON.VAR)
Interval	Select "Weekly".
Day of Week	Select the "Mon", "Wed", and "Fri" check boxes.
Time	Select "1:00 PM".

<Date and time when an automatic backup is executed>

From 2022/04/01 (Fri) 00:00

Date and time set in the NC	Remarks
2022/04/01 (Fri) 1:00 PM	
2022/04/04 (Mon) 1:00 PM	
2022/04/06 (Wed) 1:00 PM	
2022/04/08 (Fri) 1:00 PM	
2022/04/11 (Mon) 1:00 PM	
:	

■ **Backing up auxiliary axis parameter (AUXAXIS.PRM) at 21:00 on the 15th of every month**

<Settings on Auto Backup Setup Screen>

■ **Item**	Details
Type	Select "Parameter".
Data Name	Input "Auxiliary axis parameters".
File Name	This is displayed automatically. (AUXAXIS.PRM)
Interval	Select "Monthly".
Date	Select "15".
Time	Select "9:00 PM".

<Date and time when an automatic backup is executed>

From 2022/04/01 (Fri) 00:00

Date and time set in the NC	Remarks
2022/04/15 (Fri) 21:00	
2022/05/15 (Sun) 21:00	
2022/06/15 (Wed) 21:00	
2022/07/15 (Fri) 21:00	
2022/08/15 (Mon) 21:00	
:	

■ **Backing up all history (ALLLOG.LOG) at 22:00 on the 31st of every month**

<Settings on Auto Backup Setup Screen>

■ Item	Details
Type	Select "History data".
Data Name	Input "All history".
File Name	This is displayed automatically. (ALLLOG.LOG)
Interval	Select "Monthly".
Date	Select "31".
Time	Select "10:00 PM".

<Date and time when an automatic backup is executed>

From 2022/04/01 (Fri) 00:00

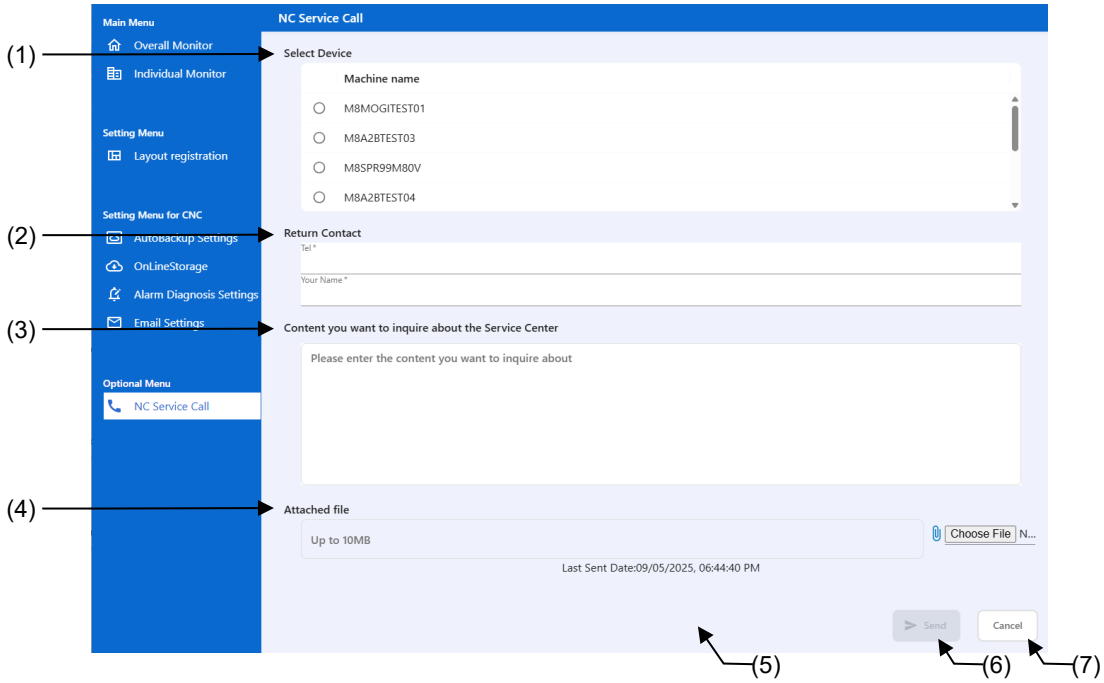
Date and time set in the NC	Note
2022/04/31 (-) 22:00	As April 31st 2022 does not exist, the automatic backup is executed at 00:00 or later on the 1st of next month.
2022/05/01 (Sun) 00:00	
2022/05/31 (Tue) 22:00	
2022/06/31 (-) 22:00	As June 31st 2022 does not exist, the automatic backup is executed at 00:00 or later on the 1st of next month
2022/07/01 (Fri) 00:00	
2022/07/31 (Sun) 22:00	
2022/08/31 (Wed) 22:00	
:	

3.12 NC Service Call

NC Service Call can be used when the service call function is enabled in the licenses of the machines that the logged in user can display. When the user sends trouble information to the service center via NC Service Call, the service center replies to the user.

When [NC Service Call] is selected in the side menu, the NC Service Call screen is displayed on another tab of the browser.

3.12.1 NC Service Call Screen



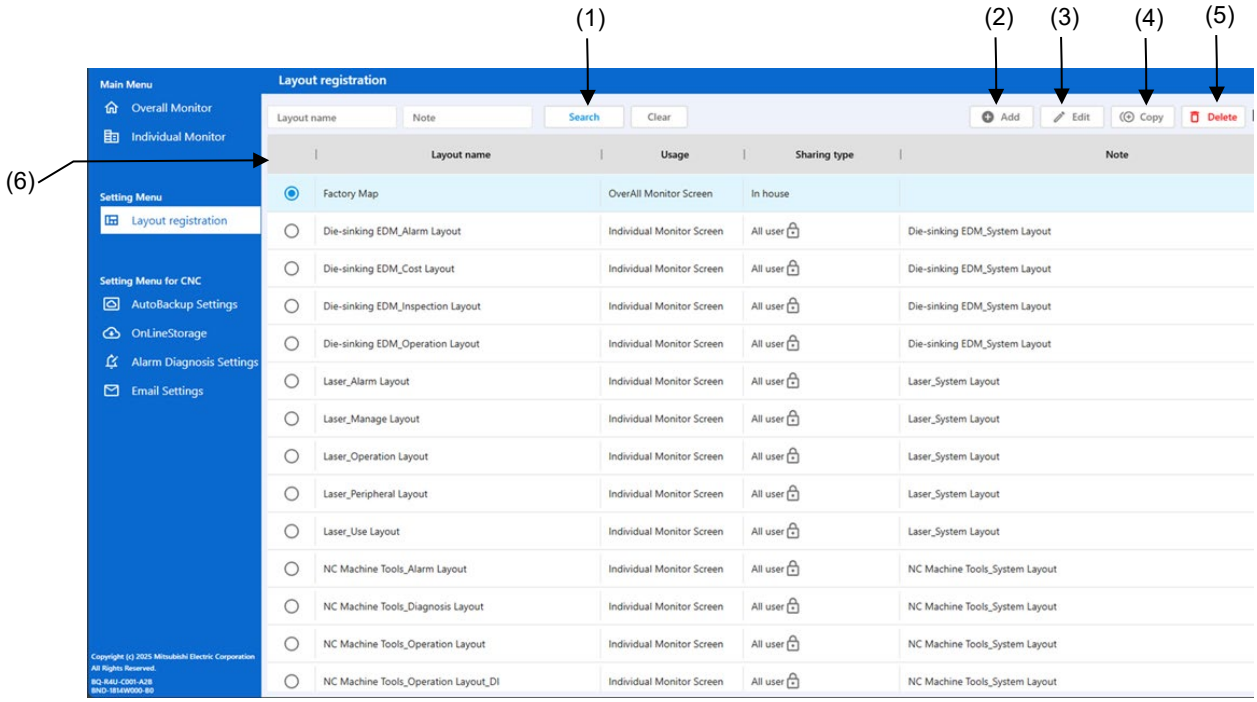
No.	Item		Contents
(1)	Select Device		Select the machine to inquire about.
(2)	Return Contact		Enter the return contact.
		Tel	Enter up to 20 characters consisting of only one-byte numerals, + (plus, only as the first character), and - (hyphens).
		Your Name	Enter up to 32 characters.
(3)	Content you want to inquire about the Service Center		Enter specific inquiry details. Up to 5,000 characters can be entered, including linefeed codes.
(4)	Attached file		When you click [Choose File], the File selection dialog appears. Specify an image or other attachment file. The specifications for the files that can be specified are as follows. ・ Maximum size: 10 MB ・ File name: Up to 95 characters When you specify a file, the file name and [×] icon are displayed. To cancel the file attachment, click the [×] icon.
(5)	Last Sent Date area		Displays the date and time when last sent an inquiry.
(6)	Send button		Clicking this displays the send confirmation dialog. If you click the [OK] button, email containing the entered contents is sent to the corresponding service center. When sending of the email completes, the completion message dialog appears. Click the [OK] button to close the "NC Service Call" screen. This item can be selected when all required input items are entered.
(7)	Cancel button		Close the "NC Service Call" screen.

3.13 Layout Registration

3.13.1 Layout Registration Screen

The "Layout registration" screen displays a list of system layout screens and custom layout screens.
You can add, copy, edit, and delete the layout screens. In the case of adding a layout screen, you can create a screen by customizing a screen displayed on the Overall Monitor Screen or dashboard screen.
This is not available on a mobile device.

(Note) A layout with a name containing "EDM" or "Laser" cannot be used.



No.	Item	Contents
(1)	Search	Specify [Layout name] and [Note] to search for a layout. Click the [Search] button to display the items that match the specified conditions in a list. Click the [Clear] button to clear the search conditions.
(2)	Add button	Click the [Add] button to switch to [Layout Edit Screen]. A layout saved in [Layout Edit Screen] is added to the list.
(3)	Edit button (*1)	Select a layout from the list and click the [Edit] button. The screen switches to [Layout Edit Screen] for the selected layout.
(4)	Copy button	Select a layout from the list and click the [Copy] button. A layout with the same contents as the selected layout is copied and the screen changes to [Layout Edit Screen].
(5)	Delete button (*1)	Select a layout from the list and click the [Delete] button. The confirmation dialog appears. Click [OK] in the confirmation dialog to delete the selected layout. If you select a layout used by one of the machines and click the [Delete] button, an error message appears and the layout cannot be deleted.

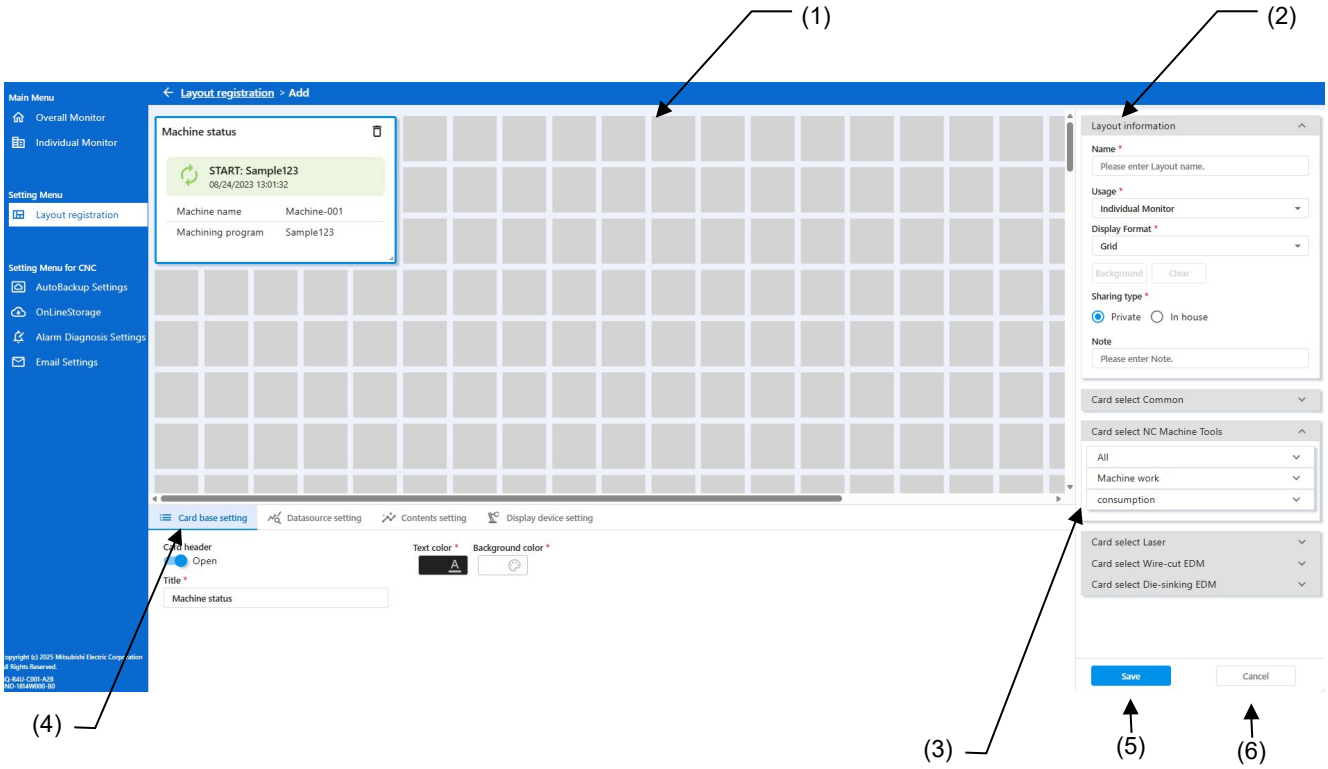
No.	Item		Contents
(6)	Layout list		Displays a list of layouts.
		Layout name	Displays the set layout name.
		Usage	Displays the usage of the layout. The layout can be used in the dashboard of the machine in the case of "Individual Monitor Screen", and in the dashboard for overall monitoring in the case of "Overall Monitor Screen".
		Sharing type	Displays the set sharing type. "All user" is displayed for screens created by Mitsubishi Electric.
		Note	Displays the set note.
		Update date	Displays the update date.

(*1) You can edit or delete a layout where "Sharing type" is [In house] or [Private].

3.13.2 Layout Edit Screen

The layout edit screen allows you to edit the layout by arranging the cards (screen parts) that make up the screen.

(Note) Laser, wire-cut EDM, and die-sinking EDM cards cannot be used.



No.	Item		Specifications
(1)	Layout arrangement area		This is the area for arranging cards. You can place a new card by dragging and dropping from "(3) Card select" on the right side of the screen. Change the position and size of the card as needed. You can delete a placed card with the icon at the top right of the card.
(2)	Layout information		Configure the settings related to the layout.
		Name	Set [Layout name]. The layout name is displayed in the list of [Dashboard setting] on the Layout registration screen or Edit screen.
		Usage	Select the usage from [Overall Monitor] and [Individual Monitor]. Overall Monitor: The layout can be used on the Overall Monitor Screen. Individual Monitor: The layout can be used in the dashboard of machine list.
		Display Format	Select the display format. When [Overall Monitor] is selected for [Usage], you can select [Grid] and [Fixed]. Click the [Background] button to specify the background image of the layout. Click the [Clear] button to clear the set background image. When [Individual Monitor] is selected for [Usage], you can select [Grid] only. Grid: Rearranges the cards into columns when the window size is changed. Fixed: Displays the cards in fixed positions without rearranging them into columns even if the window size is changed.
		Sharing type	Select the sharing type from [In house] and [Private]. Private: Only registered users can copy and edit. In house: Users within the same company can copy and edit.
		Note	Enter any contents.

No.	Item		Specifications
(3)	Card select		Place a card by dragging and dropping from Card select to [(1) Layout arrangement area]. The cards available vary depending on the model. Refer to "1.3 Supported Models" for the supported models.
(4)	Card setting tabs		These are displayed when a placed card is selected. The setting items differ for each card. Refer to "5 Cards" for details on the setting items of each card.
		Card base setting	Set the base items for when the card is displayed on the dashboard screen.
		Datasource setting	Set the display items for a customizable card.
		Contents setting	Set the graph color and other content settings.
		Display device setting	Set the machine for which to display card information.
(5)	Save		Click the [Save] button to add or change the layout in the layout list depending on whether [Add], [Edit], or [Copy] was selected in the Layout registration screen.
(6)	Cancel		Click the [Cancel] button to discard the settings and switch to the Layout registration screen.

4. Customizing the Dashboard Screen

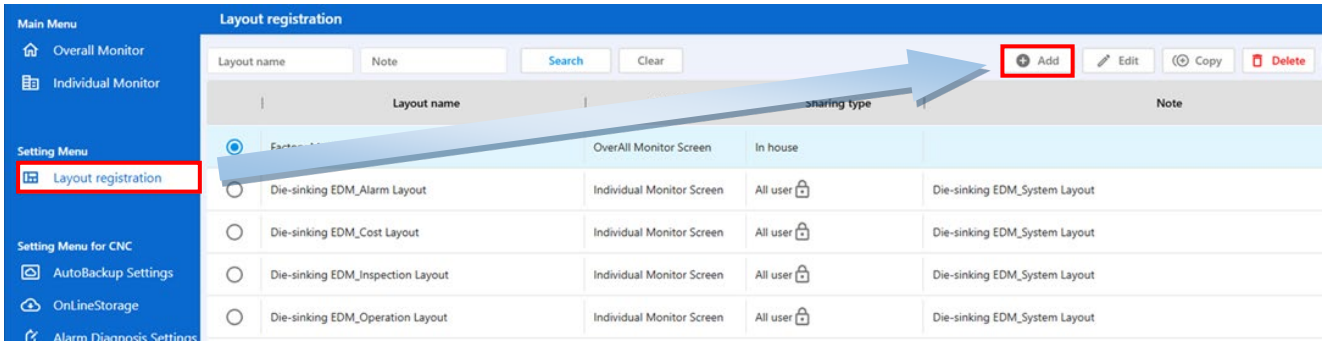
The screens that are displayed in the dashboard include custom layout screens created freely by users.
This chapter describes how to create custom layout screens, and assign them to the dashboard screen.
This is not available on a mobile device.

4.1 Individual Monitor

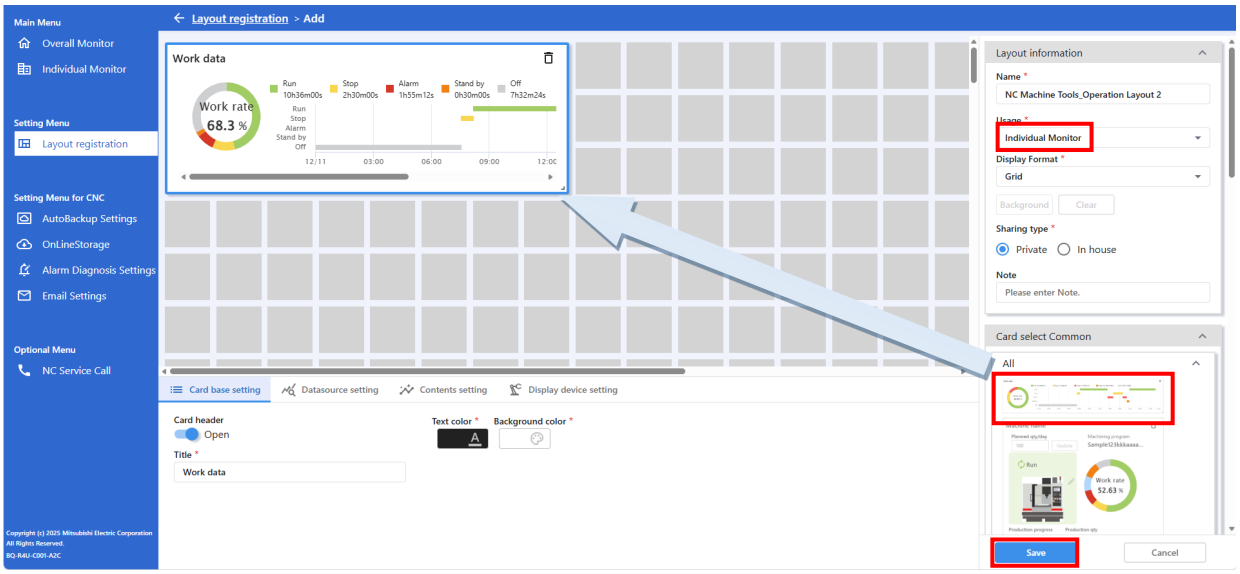
With the initial settings, only the system layout screens are registered.
To add or change the layouts displayed in the dashboard menu of a machine, perform the procedure of either "Copying and Changing a Layout" or "Creating a New Custom Layout".

4.1.1 Creating a New Layout

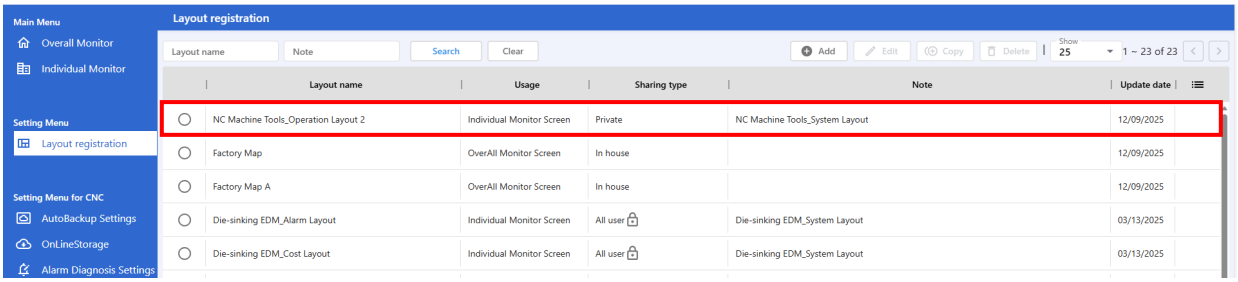
(1) Click the [Add] button in the Layout registration screen.
Refer to "3.13.1 Layout Registration Screen" for details on the Layout registration screen.



(2) The layout edit screen opens. Set [Individual Monitor] in [Usage] of [Layout information].
Select the cards to add to the screen from [Card select], and place them on the screen.
Adjust the layout of the placed cards, and click the [Save] button.
Refer to "3.13.2 Layout Edit Screen" for details on the layout edit screen.

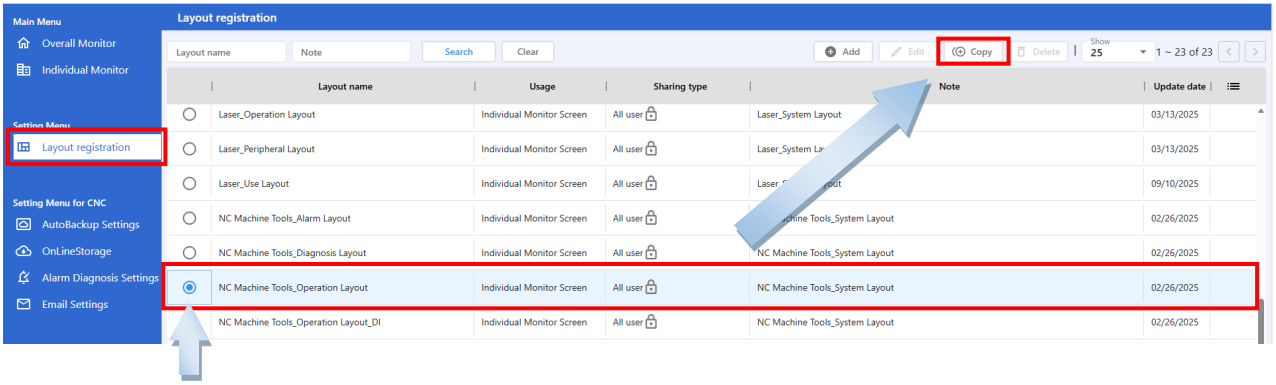


(3) The layout is saved, and added to the list on the Layout registration screen.

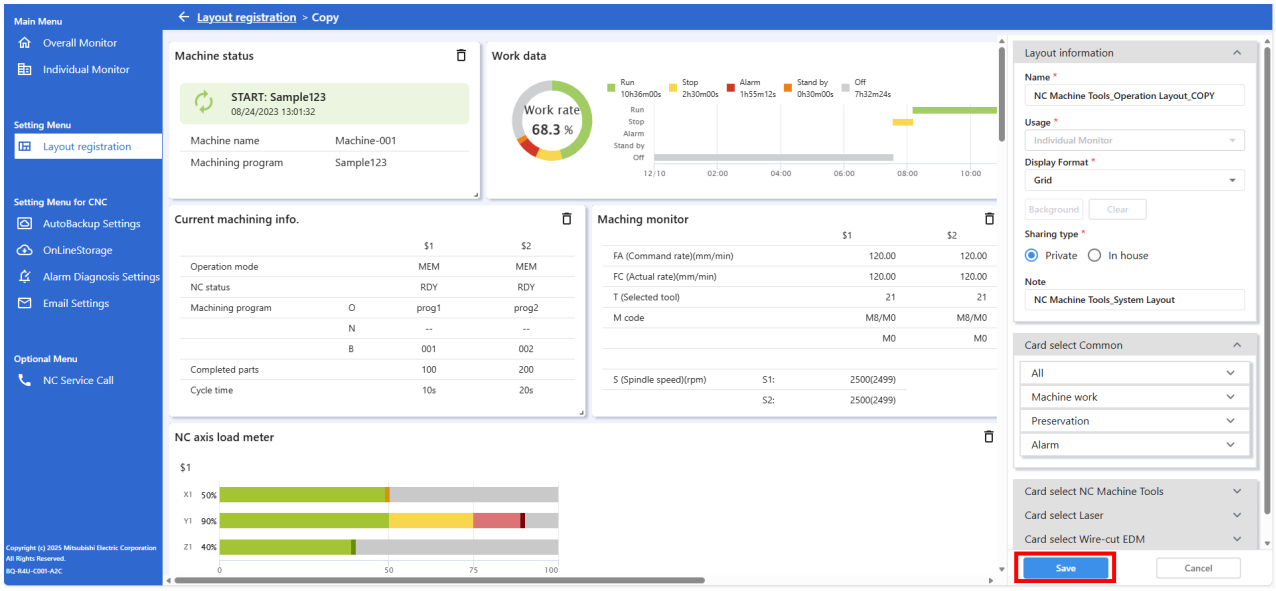


4.1.2 Copying and Changing a Layout

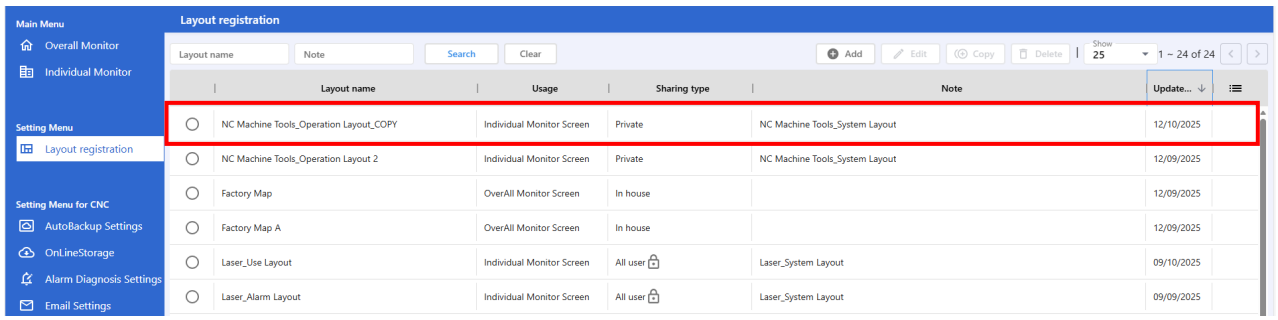
(1) Open the Layout registration screen, select a layout to copy among the layouts with [Usage] as [Individual Monitor Screen], and click the [Copy] button.



(2) The layout edit screen opens. Change the arrangement and settings of the layout, and click the [Save] button.

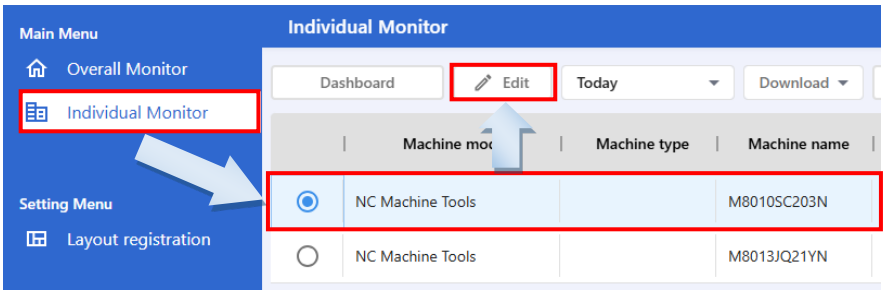


(3) The layout is saved, and added to the list on the Layout registration screen.

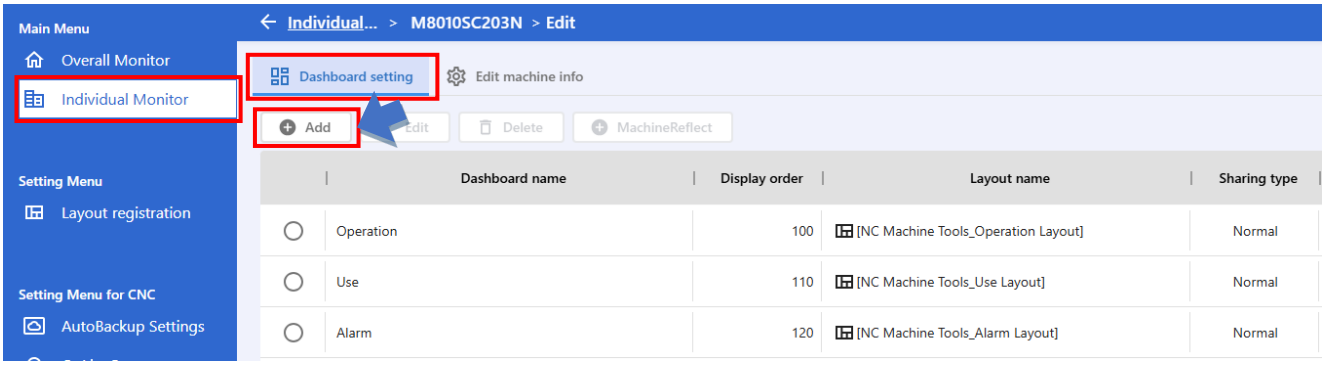


4.1.3 Assigning a Layout to the Dashboard Screen

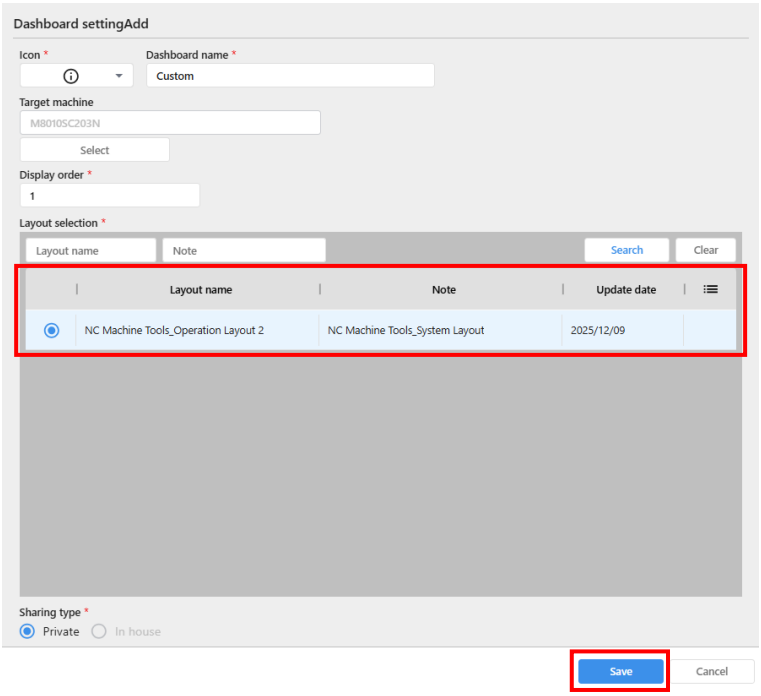
(1) Select the machine to edit in [Individual Monitor], and click the [Edit] button.



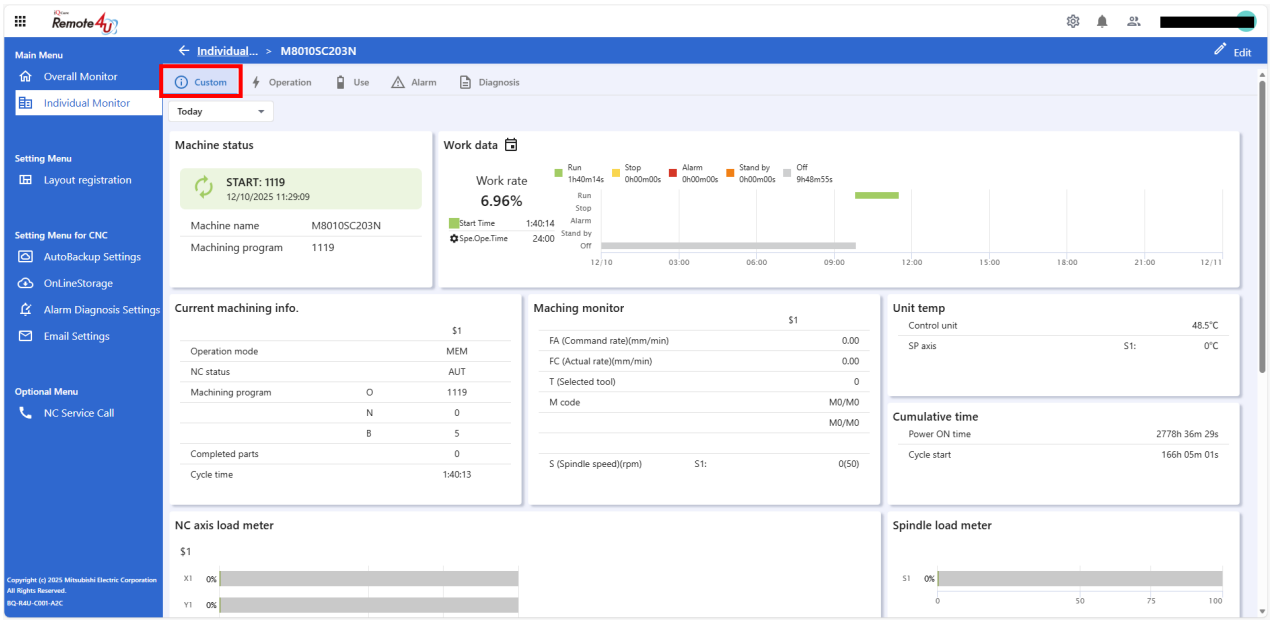
(2) The screen changes to the "Edit" screen.
Select [Dashboard setting] from the menu at the top of the screen, and click the [Add] button.
Refer to "3.7.2 Edit Screen" for details on the Edit screen.



(3) Select a created layout from the list in the Dashboard settingAdd dialog, configure various settings, and click the [Save] button.



(4) The saved layout is added to the list of [Dashboard setting] on the Edit screen.
When you open the dashboard screen of the machine, the saved layout is reflected.

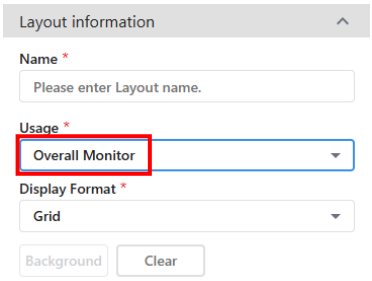


4.2 Overall Monitor

With the initial settings, a layout is not registered.

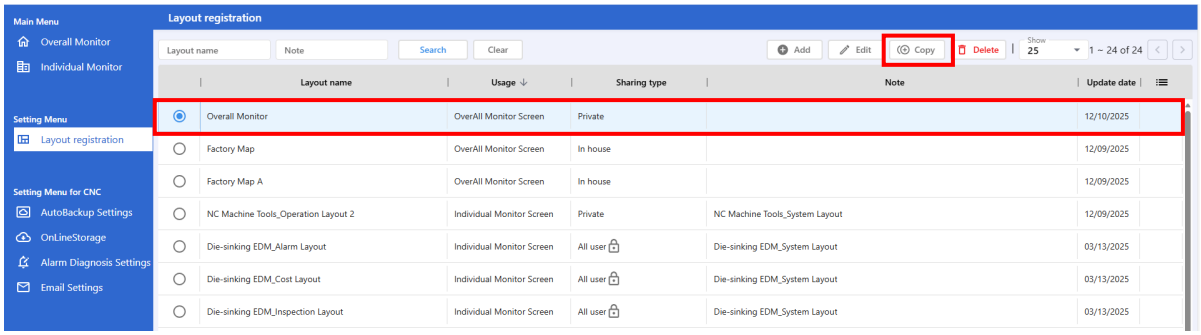
4.2.1 Creating a New Layout

Create a layout using the same procedure as Individual Monitor. (Refer to "4.1.1 Creating a New Layout".)
However, set [Overall Monitor] in [Usage] of [Layout information] on the layout edit screen.

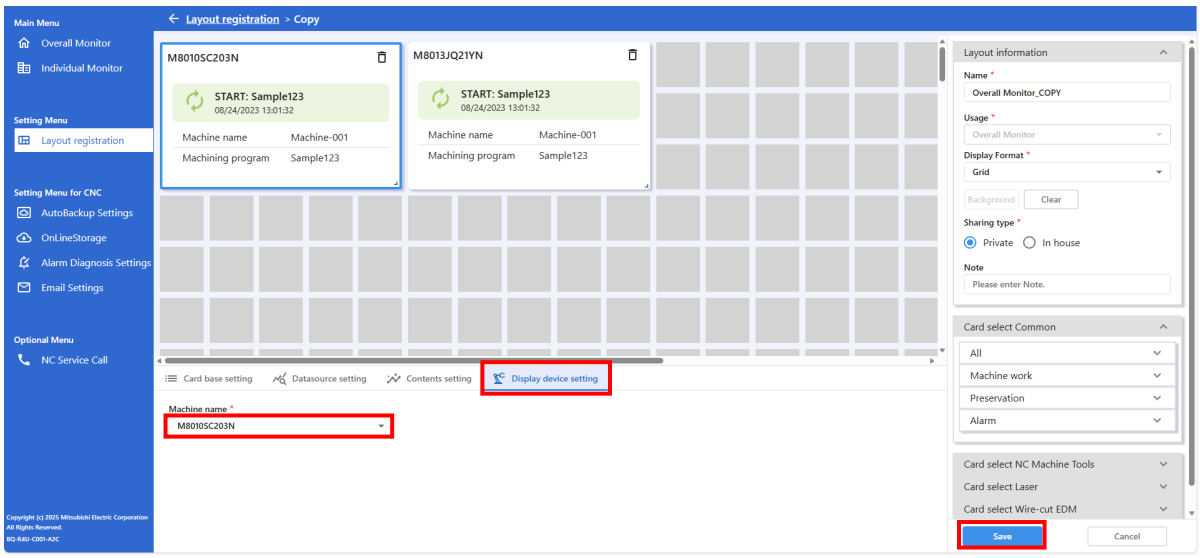


4.2.2 Copying and Changing a Layout

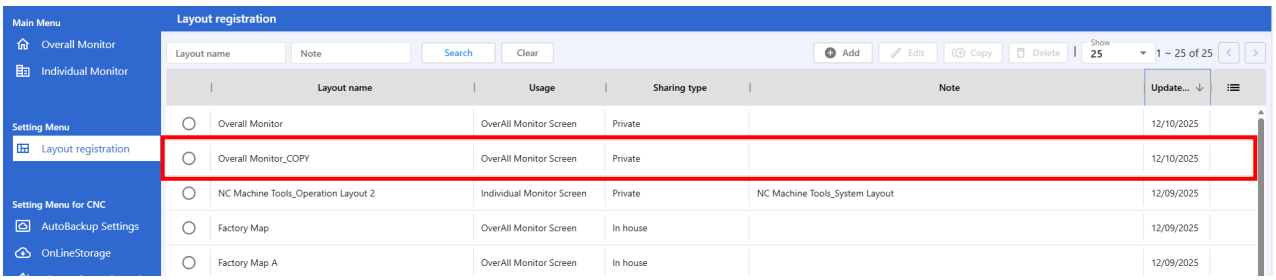
(1) Select a layout to copy among the layouts with [Usage] as [OverAll Monitor Screen] on the Layout registration screen, and click the [Copy] button.



(2) The layout edit screen opens. Change the arrangement and display device settings of the layout, and click the [Save] button.

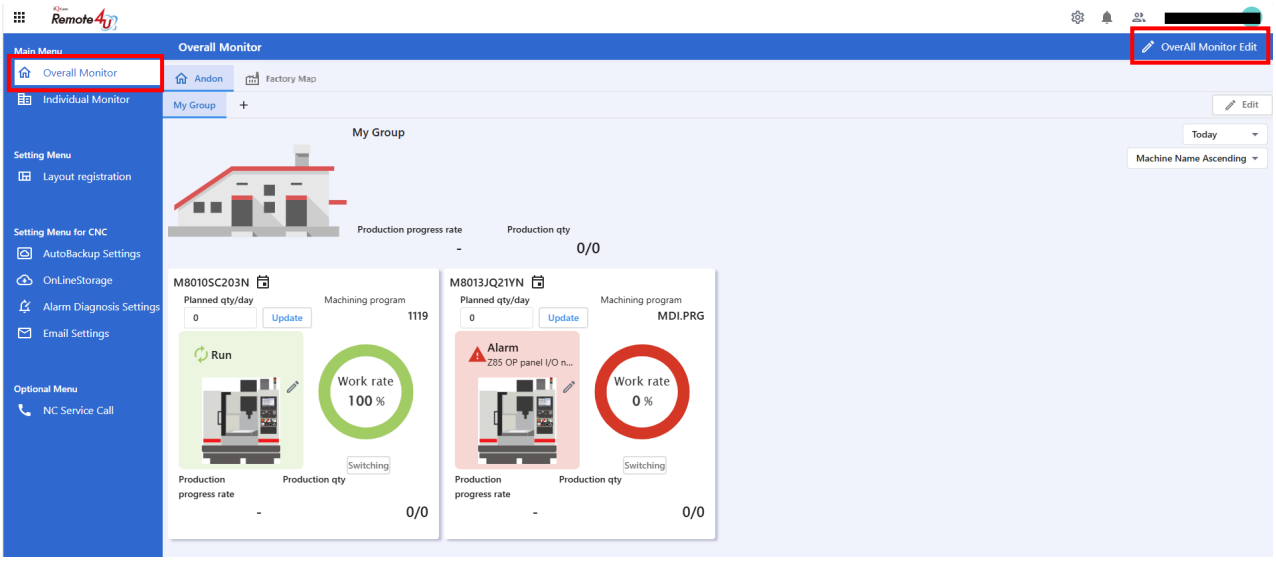


(3) The layout is saved, and added to the list on the Layout registration screen.

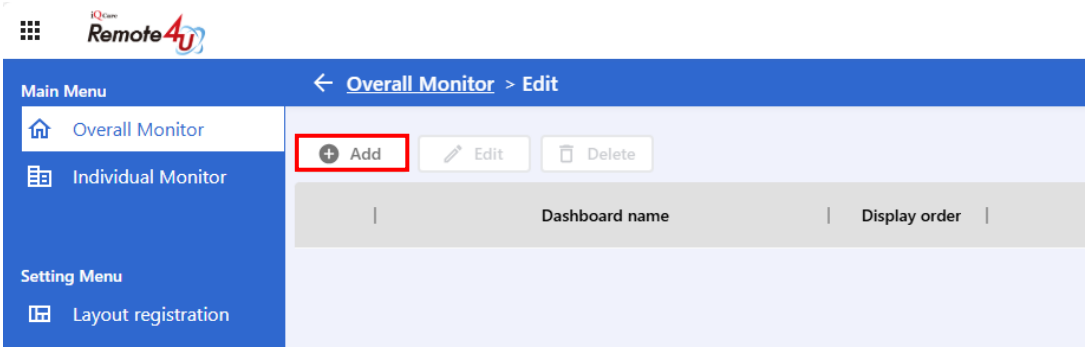


4.2.3 Assigning a Layout to the Overall Monitor Screen

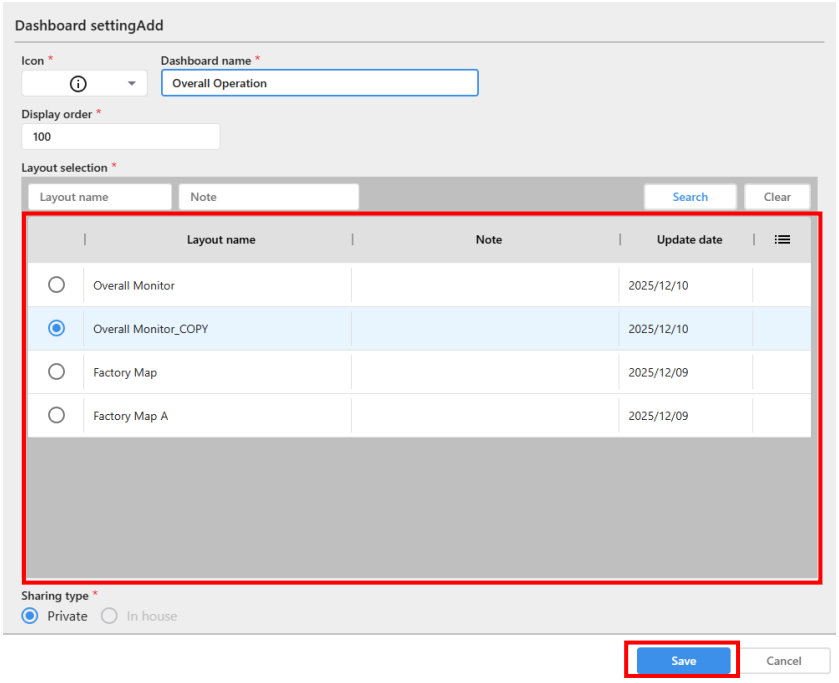
(1) Click [OverAll Monitor Edit] from [Overall Monitor].



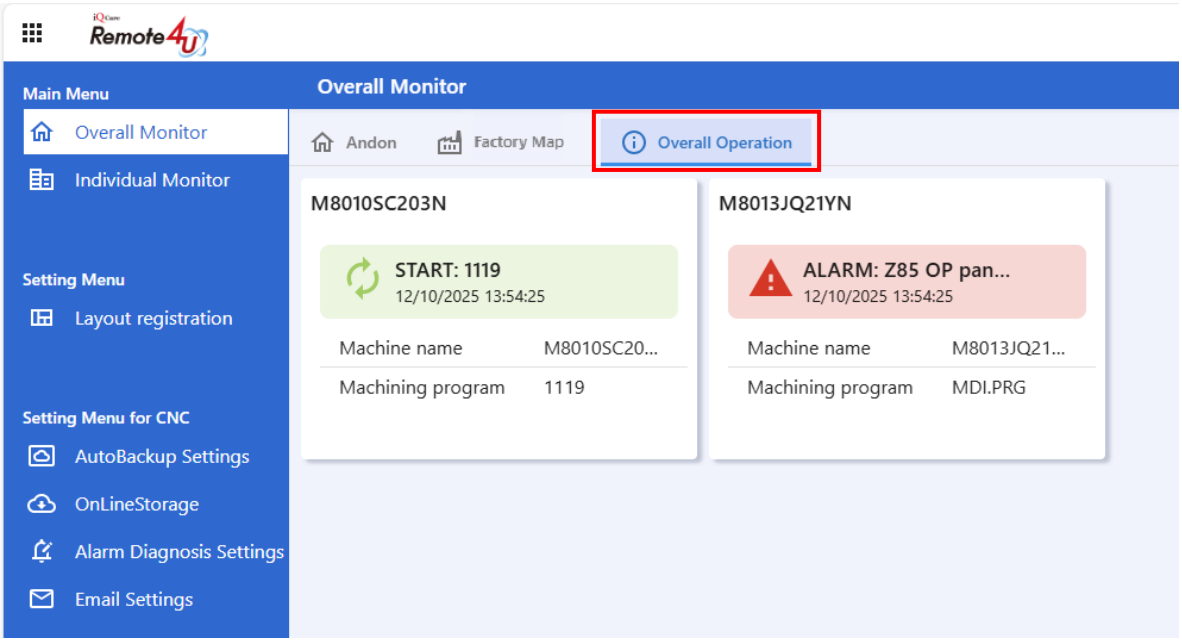
(2) The screen changes to the OverAll Monitor Edit screen.
Click the [Add] button in the menu at the top of the screen.
Refer to "3.6.2 OverAll Monitor Edit Screen" for details on the OverAll Monitor Edit screen.



(3) Select a created layout from the list in the Dashboard settingAdd dialog, configure various settings, and click the [Save] button.



(4) The saved layout is added to the list on the OverAll Monitor Edit screen.
When you open the Overall Monitor Screen, the saved layout is reflected.



5. Cards

5.1 Card List

The cards available on the "Layout registration" screen are as follows.

5.1.1 Common

Category	Card name	Contents	Reference
Operation	Operation time chart	The work rate and the state transition of the machine are displayed in a chart.	5.3.1.1 Operation Time Chart Card
	Andon	The operating status of the machine, and the work rate, production quantity, and production progress rate of the machine during the specified period are displayed.	0 Andon Card
	Signal light	The current operating status is displayed.	5.3.1.3 Signal Light Card
	Machine status	The operating status is displayed.	5.3.1.4 Machine Status Card
	Machining information	The current machining information of the machine such as operation mode, machining program name, etc. is displayed.	5.3.1.5 Machining Information Card
	Machining monitor	The current machining such as command rate, M code, etc. is monitored.	5.3.1.6 Machining Monitor Card
	Cumulative time	The cumulative time of the machine is displayed.	5.3.1.7 Cumulative Time Card
Maintenance	Power consumption graph	The power consumption or cost for the specified period is displayed as a graph.	5.3.2.1 Power Consumption Graph Card
Alarm	Top 10 most frequent alarms	The number of the alarms that occurred in the machine is displayed in a chart.	5.3.3.1 TOP 10 Alarm Occurrence Card
	Alarm history	The history of the alarms that occurred in the machine is displayed.	5.3.3.2 Alarm History Card
	Alarm data	The information about the alarm that is currently occurring in the machine is displayed.	5.3.3.3 Alarm Data Card

5.1.2 NC Machine Tools

Category	Card name	Description	Reference
Operation	Load meter	The information about the NC axis/spindle is displayed by the load meter.	5.4.1.1 Load Meter Card
	Unit temp	The unit temperature of the machine is displayed.	5.4.1.2 Unit Temp Card
Power consumption	Axis load graph	The axis data is displayed as a graph.	5.4.2.1 Axis Load Graph Card

5.1.3 Laser

This card can be placed, but the data cannot be displayed.

5.1.4 Wire-cut EDM

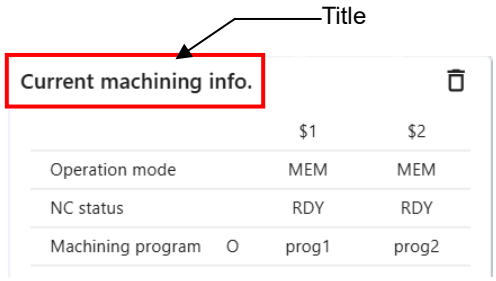
This card can be placed, but the data cannot be displayed.

5.1.5 Die-sinking EDM

This card can be placed, but the data cannot be displayed.

5.2 Common Setting Items of Cards

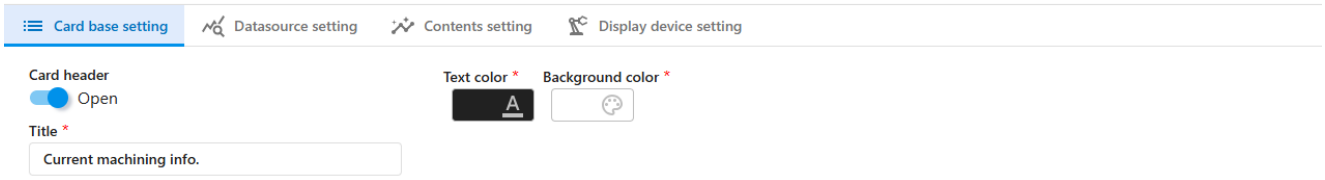
This chapter describes the common display items and settings items on each card.



Item	Contents
Title	Displays the title of the card. The initial display differs depending on the following conditions. (*1) ・ When [Individual Monitor] is selected in [Usage] of Layout information: Card name ・ When [Overall Monitor] is selected in [Usage] of Layout information: Hidden When [Overall Monitor] is selected in [Usage] of Layout information and the machine name is set on the Display device setting tab, the set machine name is displayed. Furthermore, when the machine name is changed, the name is replaced automatically with the new machine name.

(*1) For the andon card and signal light initial display, the machine name is displayed regardless of the setting of [Usage] of Layout information.

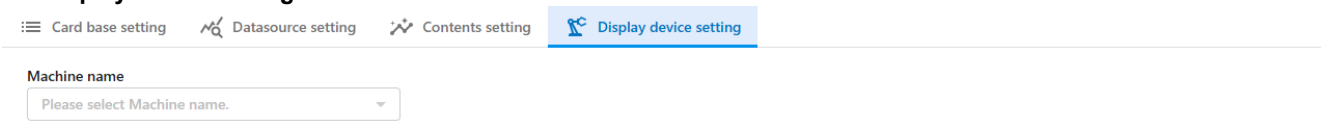
The following setting items are common on each tab.



Setting item	Contents
Card header	Set whether to show/hide the title of the card.
Title	Set the title of the card. The initial display differs depending on the following conditions. (*1) ・ When [Individual Monitor] is selected in [Usage] of Layout information: Card name ・ When [Overall Monitor] is selected in [Usage] of Layout information: Blank When [Overall Monitor] is selected in [Usage] of Layout information and the machine name is set on the Display device setting tab, the set machine name is entered automatically. String: 30 characters
Text color	Set the text color of the card.
Background color	Set the background color of the card.

(*1) For the andon card and signal light initial display, it is blank regardless of the setting of [Usage] of Layout information.

■ Display device setting



Setting item	Contents
Machine name	Select the machine for which to display the cards. The machines for which the logged in user has the display permission are displayed in the pull-down list. This item can be selected when [Overall Monitor] is selected in [Usage] of Layout information.

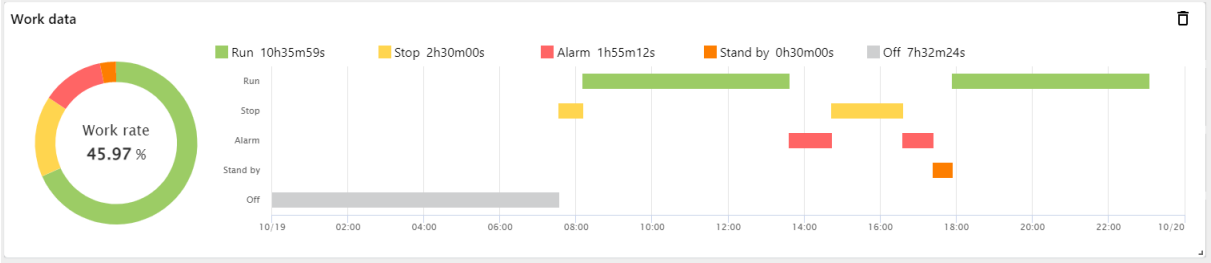
5.3 Common

5.3.1 Machine Work Tab

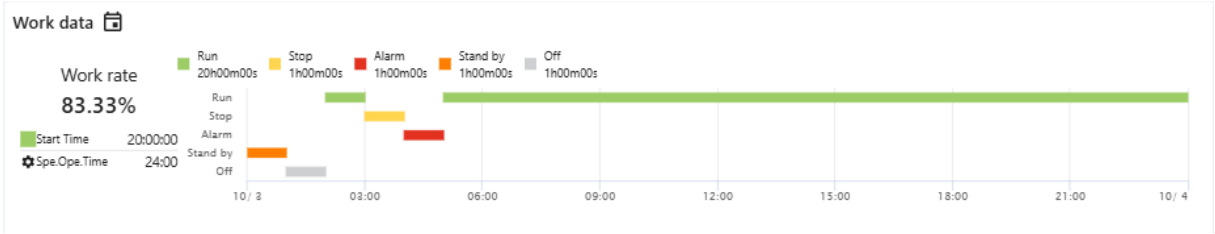
5.3.1.1 Operation Time Chart Card

The operational status and work rate of the machine are displayed in a chart. The display is common across all models.

[When scheduled operation time is 00:00]



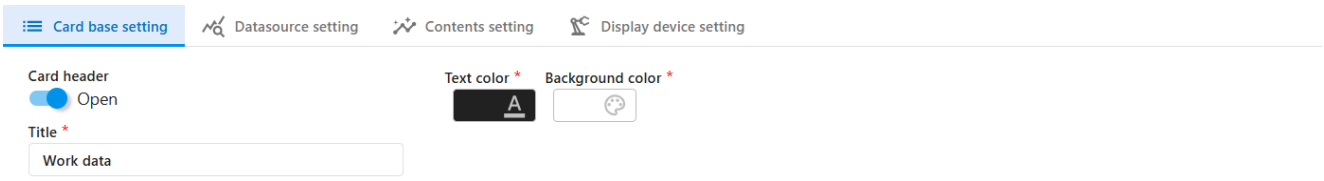
[When scheduled operation time is other than 00:00]



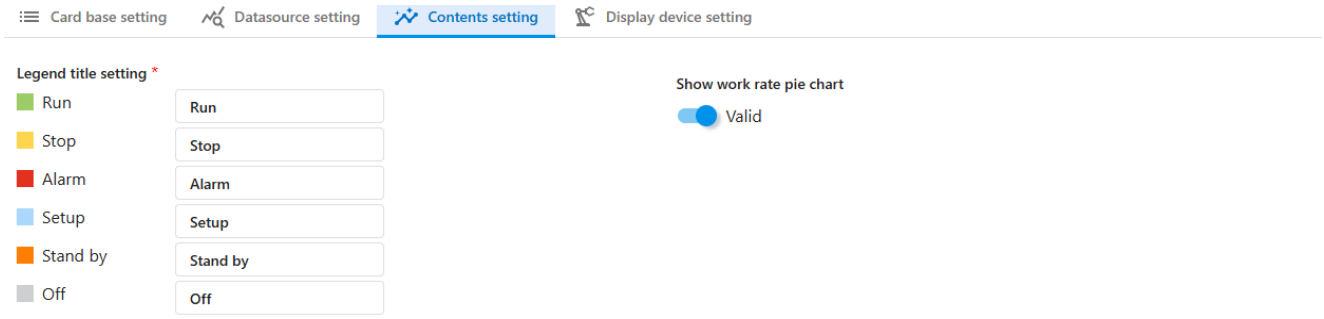
Item	Contents
Work rate	The percentage of cumulative time of operating status excluding power OFF and server stop in the specified period is displayed in a pie chart or fraction display. Operating status / Chart display color: Run: Green Stop: Yellow Alarm: Red Stand by: Orange The work rate is displayed to two decimal places. (The third digit after the decimal point is rounded off.) The work rate is calculated using the following formula: ・When scheduled operation time is other than "00:00" Work rate (%) = Hours when operating status is [Run] / Scheduled operation time x 100 ・When scheduled operation time is "00:00" Work rate (%) = Hours when operating status is [Run] / Cumulative time of operating status including server stop x 100 (Note) The pie chart does not include [Off], but the work rate includes [Off].
Operational status	The operational status in the specified period is displayed in a time series chart. If the specified period is 181 or more days, the operational status is not displayed. When the window size is increased in the X direction, the width of the work rate does not change, but the chart area of the operational status increases. The chart display color is the same as that of the work rate pie chart.

Item	Contents
Switching	When the displayed machine is an NC and the scheduled operation time is "00:00", the Switching button is displayed. Click the button to switch the work rate display between a pie chart and fraction display.

■ Card base setting



■ Contents setting



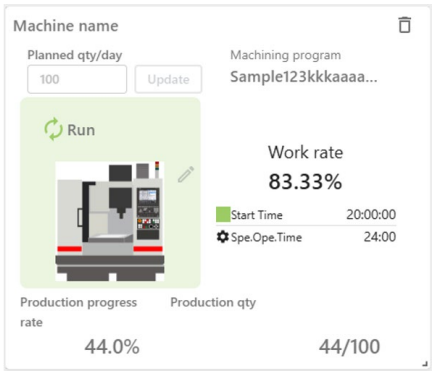
Setting item	Contents
Alarm	Set the display name of Alarm.
Run	Set the display name of Run.
Stop	Set the display name of Stop.
Stand by	Set the display name of Stand by.
Off	Set the display name of Off.
Show work rate pie chart	Set whether to show/hide the work rate pie chart. Default: Enabled
Alarm	Set the display name of Alarm.

(*) This card has no setting items for "Datasource setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

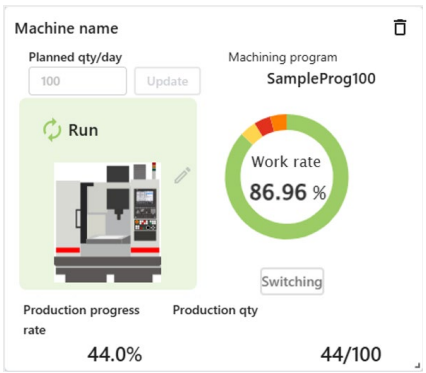
5.3.1.2 Andon Card

This card displays the operational status and production status.

[When scheduled operation time is other than 00:00]



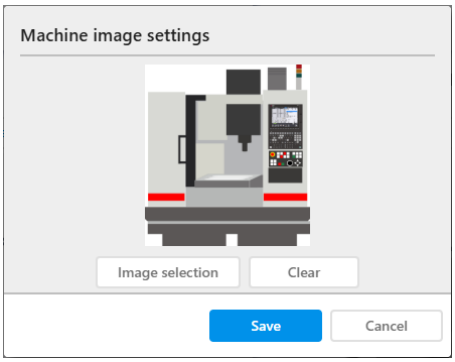
[When scheduled operation time is 00:00]



Item	Contents
Planned qty/day	Set the planned quantity per day. Default: 0 Settable value is an integer from 0 to 999999.
Update button	Reflects the change to the planned quantity.
Machining program	Displays the machining program. (*1)
Operating status	Displays the current operating status of "Run", "Stop", "Alarm", "Stand by", or "Off". If the operating status is "Alarm", the alarm number and alarm message of the first occurring alarm are also displayed.
Machine image	Set and display an image of the machine. When an image is set, the set image is displayed, and when it has not been set, the default image is displayed.
Edit button	Displays the Machine image settings dialog.
Work rate	Displays the percentage of each status as a pie chart. The percentage of the operating status is displayed at the center.
Production progress rate	Displays the percentage of the production quantity / planned quantity of the fist part system. When the planned quantity is 0, "-" is displayed. The planned quantity is calculated by planned quantity / day × number of days in specified period.
Production qty	Displays the production quantity and planned quantity of the fist part system. The planned quantity is calculated by planned quantity / day × number of days in specified period. (*) The number of machined workpieces of the first part system is displayed. (*) When the specified period is other than today, the production quantity is not reflected.
Switching	When the displayed machine is an NC and the scheduled operation time is "00:00", the Switching button is displayed. Click the button to switch the work rate display between a pie chart and fraction display.

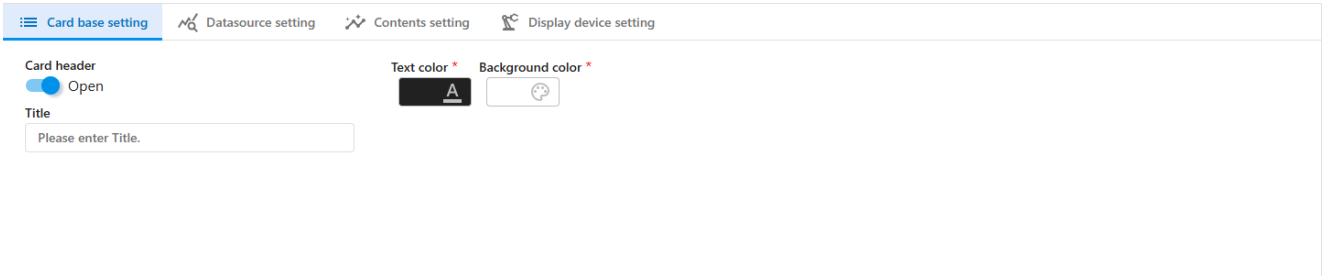
(*1) The characters that do not fit are abbreviated and indicated as "..."
Hover the cursor to see the entire contents including the abbreviated characters.

■ **Machine image settings dialog**

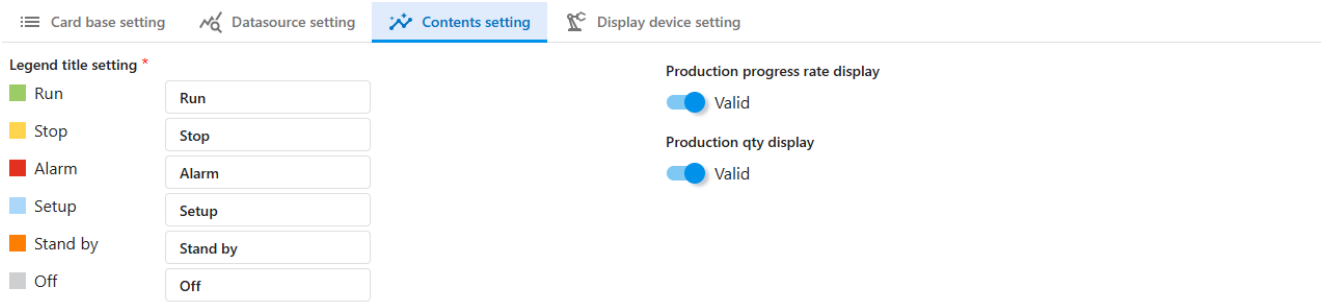


Item	Contents
Preview image	The image selected in [Image selection] is displayed as preview. Default: Default image of card
Image selection button	Click this button to display the Image selection dialog. Select the image file to display. A settable file is any file that has a file extension of JPEG, JPG, PNG and a file size of 10 MB or less. If an invalid file is selected, an error message is displayed below the preview.
Clear button	Clears the preview image. When the image is cleared, the default image is displayed.
Save button	Set the preview image as the machine image of the card, and close the dialog.
Cancel button	Close the dialog without setting the preview image as the machine image of the card.

■ **Card base setting**



■ **Contents setting**

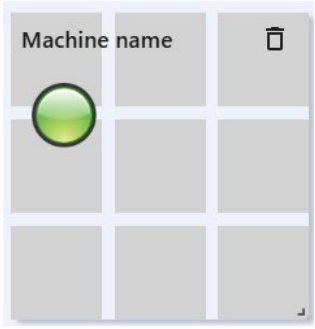


Setting item	Specifications
Legend title setting	Set the display text for the operating statuses to be displayed in the legend (tooltips) of the pie chart of [Operating status] and [Work rate]. Default: Run/Stop/Alarm/Stand by/Off
Production progress rate display	Set whether to show/hide [Production progress rate]. Default: Show If any of [Production progress rate display] and [Production qty display] are hidden, [Planned qty/day] and [Update] button are also hidden.
Production qty display	Set whether to show/hide [Production qty]. Default: Show

(*) This card has no setting items for "Datasource setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

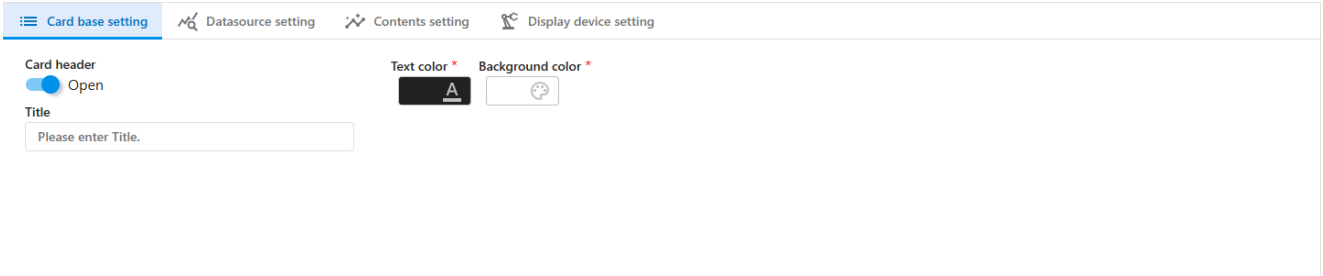
5.3.1.3 Signal Light Card

The current operating status is displayed. When you click this card, the andon card is displayed. If you click the area outside of the displayed andon card, the andon card is hidden.



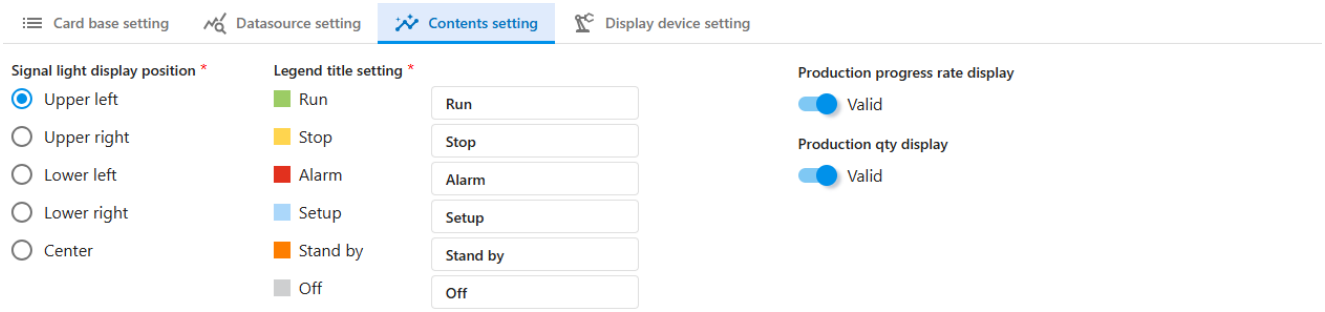
Item	Contents
Operating state	Displays the current operating status of "Run", "Stop", "Alarm", "Stand by", or "Off" in signal light format.

■ **Card base setting**



(Note) The display (title, text color, and background) of the andon card that is displayed when this is clicked is fixed.

■ **Contents setting**



Setting item	Contents
Signal light display position	Set the position to display the signal light. Default: Top left
Legend title setting (*1)	Set the display text for the operating statuses to be displayed in the legend (tooltips) of the pie chart of for the work rate.
Production progress rate display (*1)	Set whether to show/hide the production progress rate. Default: Show (Note) If any of the production progress rate display and production quantity display are hidden, the following are also hidden. Planned qty/day Update button
Production qty display (*1)	Set whether to show/hide the production quantity. Default: Show

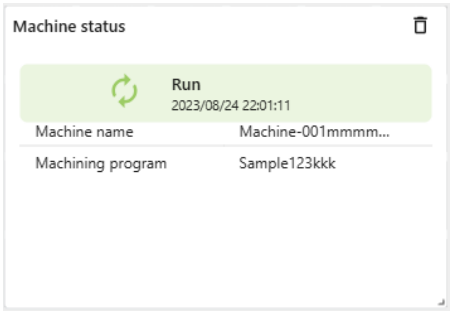
(*1) This is a setting item for the andon card.

(*) This card has no setting items for "Datasource setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.3.1.4 Machine Status Card

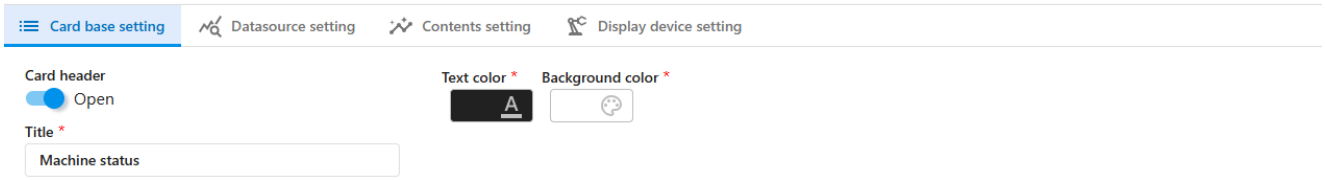
This card displays the operating status, machine name, machining program, and other information of the machine. The display is common across all models.

However, this is not displayed for DI-connected models.



Item	Contents
Operating status	The NC operating status is displayed.
Machine name	Displays the machine name of the NC.
Machining program name	The currently running program number is displayed. If the program number (program name) exceeds 10 digits, the 10th and subsequent digits are abbreviated as "...".

■ **Card base setting**

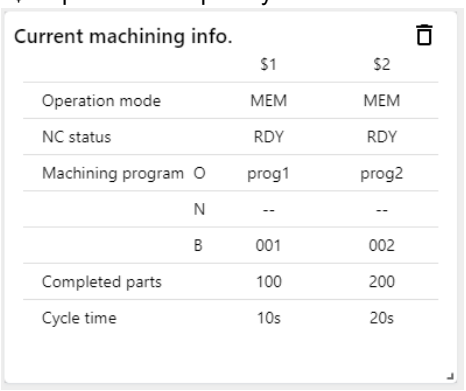


(*) This card has no setting items for "Datasource setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.3.1.5 Machining Information Card

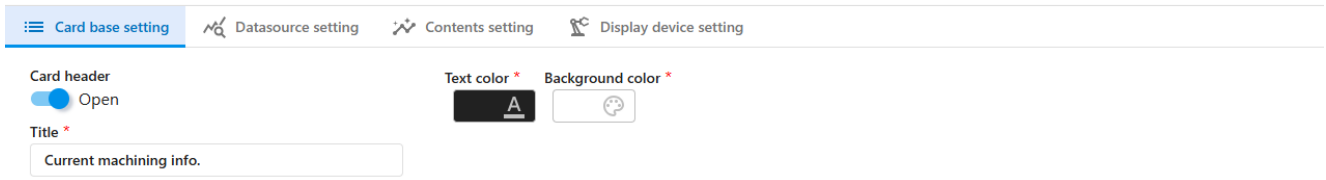
The machining information is displayed.

"$" represents the part system number. This is not displayed for DI-connected models.



Item	Contents
Operation mode	The operation mode is displayed.
NC status	The operating status is displayed.
Machining program	The currently running program number, sequence number, and block number are displayed. If the program number (program name) exceeds 10 digits, the 10th and subsequent digits are abbreviated as "...".
Completed parts	The number of machined workpieces is displayed.
Cycle time	The cycle time is displayed.

■ **Card base setting**



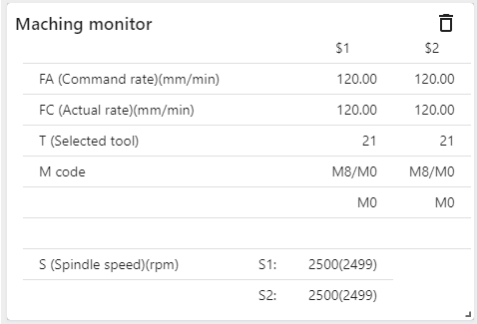
(*) This card has no setting items for "Datasource setting" and "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.3.1.6 Machining Monitor Card

This card displays the machining monitor information.

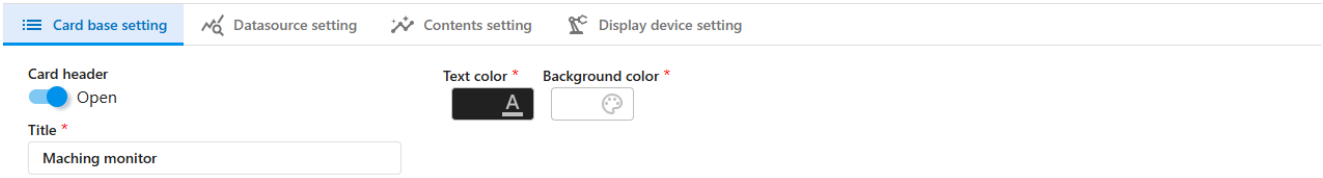
"$" represents the part system number.

This is not displayed for DI-connected models.



Item	Contents
FA (Command rate)	Displays the FA (command rate). The unit of the first part system is displayed after the item name "FA (Command rate)".
FC (Actual rate)	Displays the FC (actual rate). The unit of the first part system is displayed after the item name "FC (Actual rate)".
T (Selected tool)	Displays the T (selected tool).
M code	Displays the M code.
S (Spindle speed)	Displays the spindle speed. The commanded value and the actual rotation speed are displayed.

■ **Card base setting**

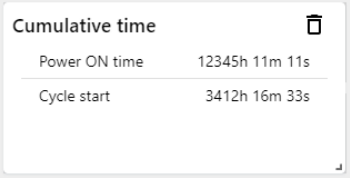


(*) This card has no setting items for "Datasource setting" and "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.3.1.7 Cumulative Time Card

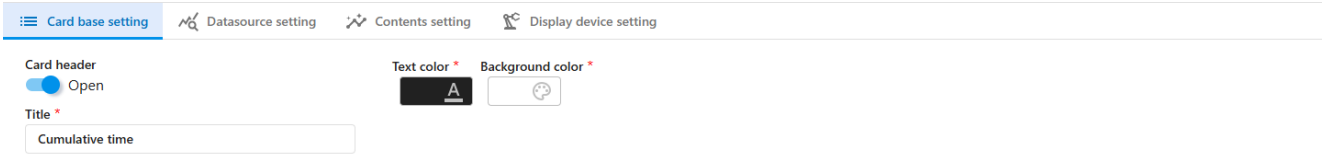
The cumulative time is displayed.

This is not displayed for DI-connected models.



Item	Contents
Power ON time	The power-ON time of NC is displayed.
Cycle start	The cycle start time of NC is displayed.

■ **Card base setting**

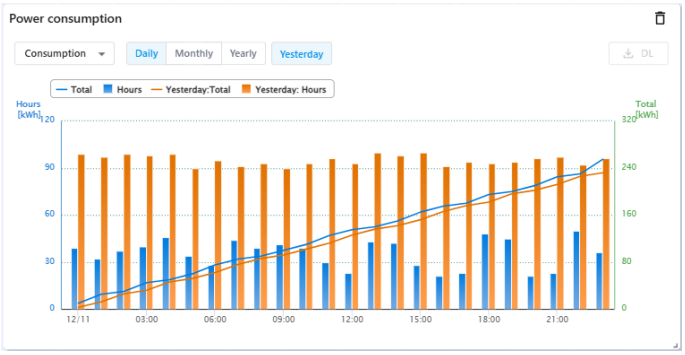


(*) This card has no setting items for "Datasource setting" and "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.3.2 Maintenance Tab

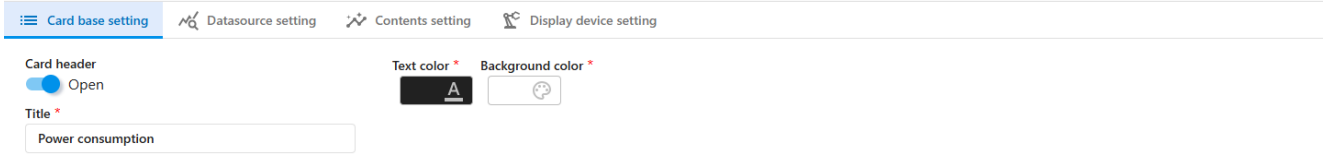
5.3.2.1 Power Consumption Graph Card

This card displays the power consumption or cost for the specified period as a graph.

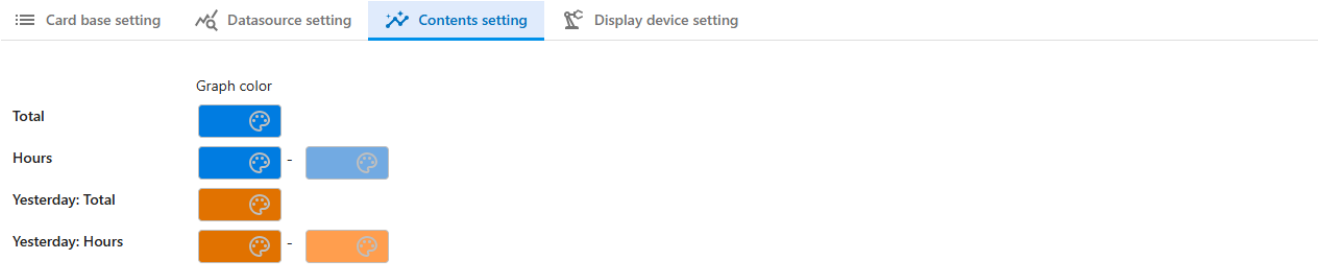


Item	Contents
Consumption/Cost	Only [Consumption] can be selected. Switching to [Cost] on the Layout Edit screen is possible, but switching on the Overall Monitor Screen or Individual Monitor Screen will no longer be possible.
Daily/Monthly/Yearly	Switch the period to display to daily, monthly, or yearly.
Yesterday/Last month/Last year	Displays a graph for yesterday, last month, and last year.
Chart area	Displays the power consumption or cost for the specified period as a bar chart and line chart (total amount).
Y axis	Displays the Y-axis information for the bar chart on the left side of the chart area, and for the line chart on the right side.
X axis	Displays the data for the specified period (daily/monthly/yearly) as follows. Daily: Displays the data for each hour from 00:00 to 24:00 on the specified start day. Monthly: Displays the data for each day from the 1st day to 31st including the specified start day. Yearly: Displays the data for each month for 12 months from the specified start month.
Chart legend	Displays a legend.

■ **Card base setting**



■ Contents setting



Setting item	Contents
Total	Set the line chart color for today's total.
Hours	Set the beginning of the bar chart for today's hours.
Yesterday: Total	Set the line chart color for yesterday's total.
Yesterday: Hours	Set the beginning of the bar chart for yesterday's hours.

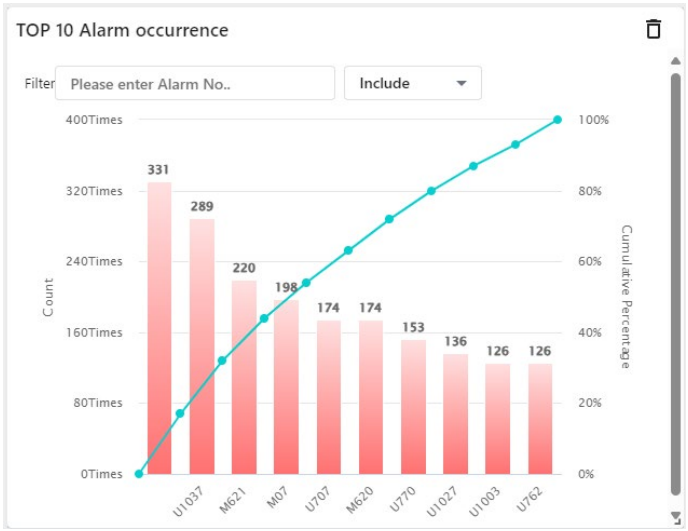
(*) This card has no setting items for "Datasource setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.3.3 Alarm Tab

5.3.3.1 TOP 10 Alarm Occurrence Card

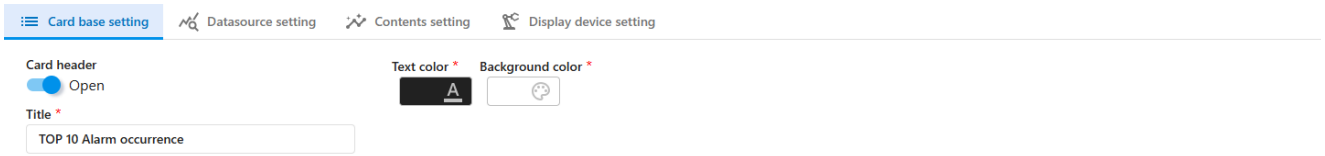
The totals of alarms that occurred during the specified period are counted, and displayed in a bar chart in order from most to least frequent.

The alarm incidence is also displayed in a line chart.

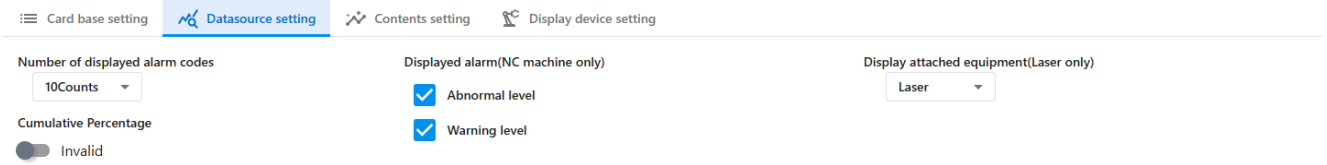


Item	Contents
Filter	Narrows down the graph to display by entered alarm number. If you enter an alarm number and then select [Include], a graph for the entered alarm number is displayed. If you selected [Does not include], a graph for the entered alarm number is hidden. Specify multiple error numbers separated by commas. The filter information is retained even if, for example, the screen is switched.
Total alarm count (bar graph)	The totals of alarms that occurred during the specified period are counted, and the specified number of alarm counts are displayed in a bar chart in order from most to least frequent. If alarm occurrence counts are the same, they are displayed in the following priority order. 1. Name order of alarm numbers 2. Name order of alarm messages
Alarm incidence (line chart)	Displays the incidence of alarms in a line chart. The alarm incidence is calculated using the following formula: Alarm incidence [%] = Total alarm count / All total alarm counts * 100 (*) The total alarm count is the count within the specified period.

■ **Card base setting**

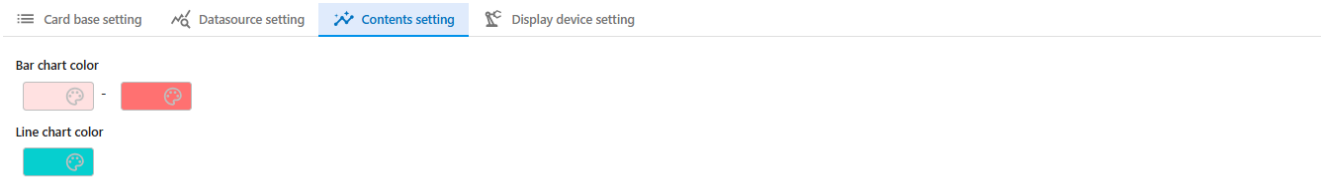


■ Datasource setting



Setting item	Contents
Number of displayed alarm codes	Set the number of displayed alarms. (5, 10, 15, or 20 counts) Default: 10 counts
Cumulative Percentage	Set whether to show/hide the cumulative percentage (line chart). Default: Valid
Displayed alarm	Set the targets for displayed alarms. Default: Abnormal level selected Warning level selected
Display attached equipment	Not used

■ Contents setting

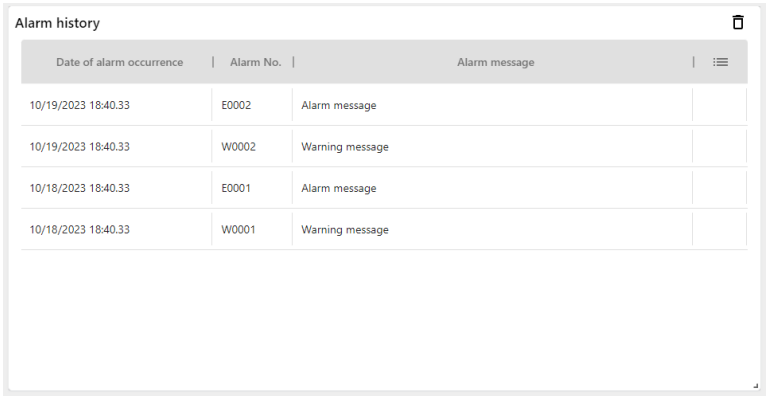


Setting item	Contents
Bar chart color	Set the bar chart color. Default: FF7171 (Hex) to 5C2A2A (Hex)
Line chart color	Set the line chart color. Default: 06CFCF (Hex)

(*) Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

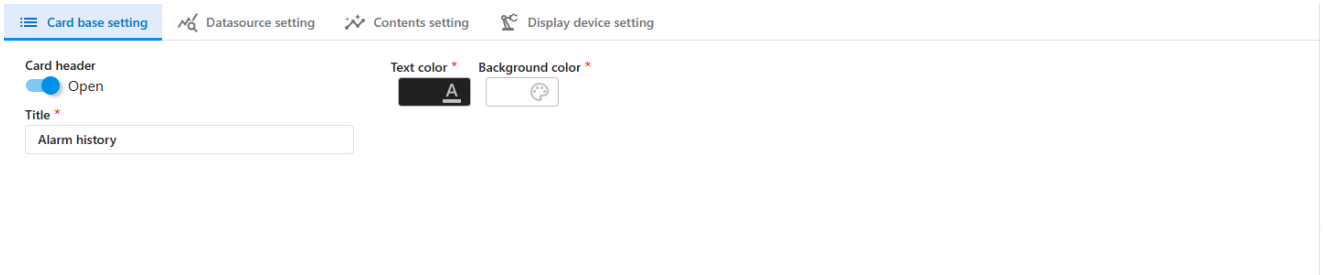
5.3.3.2 Alarm History Card

This card displays up to 1000 data items of alarm history in the specified period.
If there are 1000 or more data items in the specified period, the latest 1000 data items during the period are displayed.
If the display range is exceeded, a scroll bar is displayed so that you can scroll.

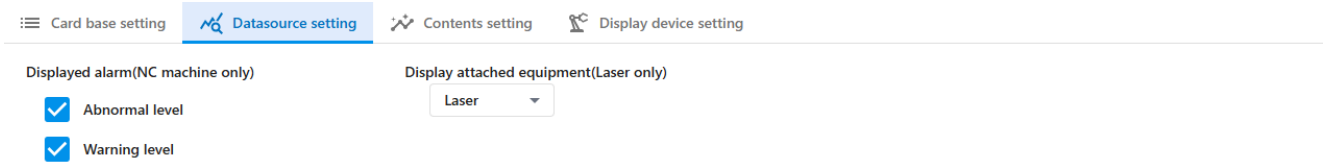


Item	Contents
Date of alarm occurrence	It is displayed in NC time.
Code	Displays the alarm number.
Message	Displays the alarm message.

■ **Card base setting**

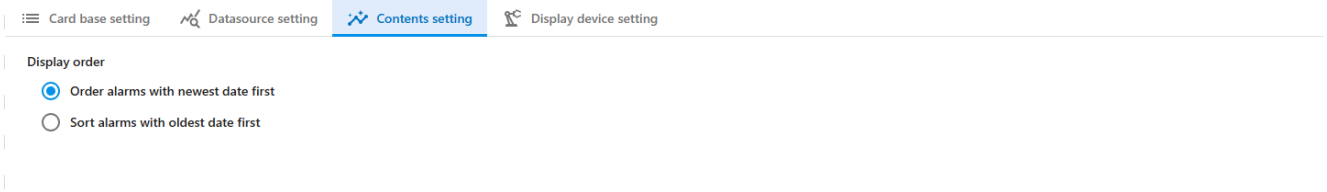


■ **Datasource setting**



Item	Contents
Displayed alarm	Set the targets for displayed alarms. (NC machine only) ・Abnormal level ・Warning level
Display attached equipment (Laser only)	This is not available because it is a Mitsubishi Electric laser dedicated setting.

■ **Contents setting**



Setting item	Contents
Display order	Set the default display order of the data. Setting item: ・ Order alarms with newest date first ・ Sort alarms with oldest date first Default: Order alarms with newest date first

(*) This card has no setting items for "Datasource setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

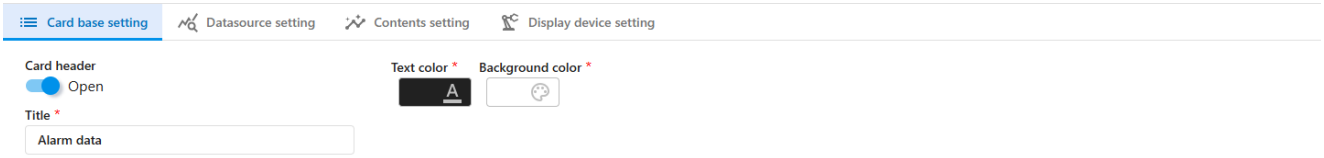
5.3.3.3 Alarm Data Card

This card displays the information for all alarms currently occurring.

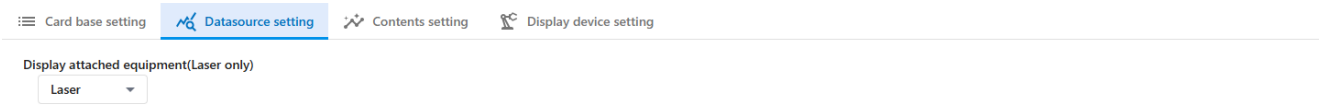


Item	Contents
Alarm data	All alarms that are currently occurring are displayed. The alarm numbers and alarm messages are displayed as alarm data. If the display range is exceeded, a scroll bar is displayed so that you can scroll.

■ Card base setting



■ Datasource setting



Item	Contents
Display attached equipment (Laser only)	This is not available because it is a Mitsubishi Electric laser dedicated setting.

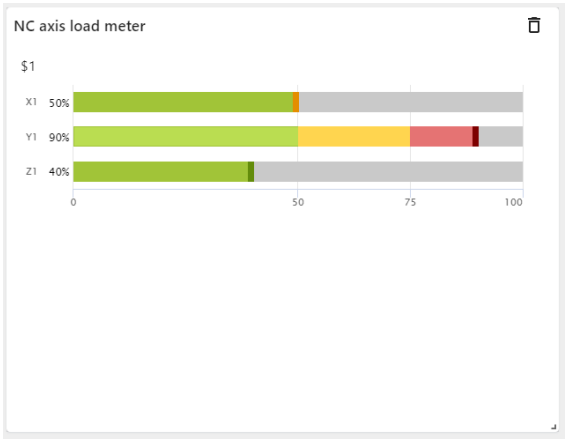
(*) This card has no setting items for "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.4 NC Machine Tools

5.4.1 Machine Work Tab

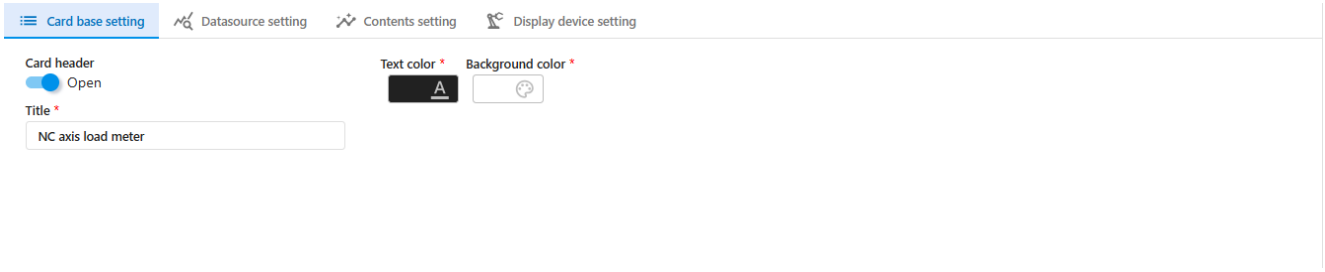
5.4.1.1 Load Meter Card

The load information of NC is displayed in a meter. "$" represents the part system number.
You can select an NC axis load meter or a spindle load meter on the [Datasource setting] tab.
This is not displayed for DI-connected models.

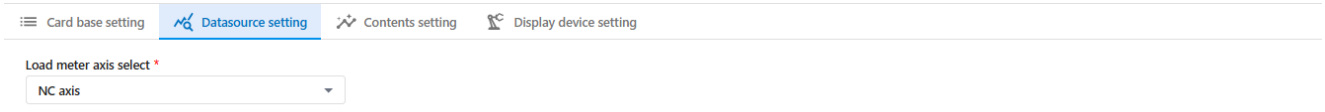


Item	Contents
NC axis load meter ($1 to $8)	The load information of NC axis for each part system is displayed in a meter. (Up to 8 part systems)
Spindle load meter	The load information of spindle is displayed in a meter. (Up to 8 axes)

■ **Card base setting**



■ **Datasource setting**



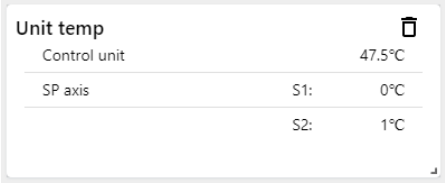
Setting item	Contents
Load meter axis select	Select the target of the load meter to display from NC axis and spindle. Default setting: NC axis

(*) This card has no setting items for "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.4.1.2 Unit Temp Card

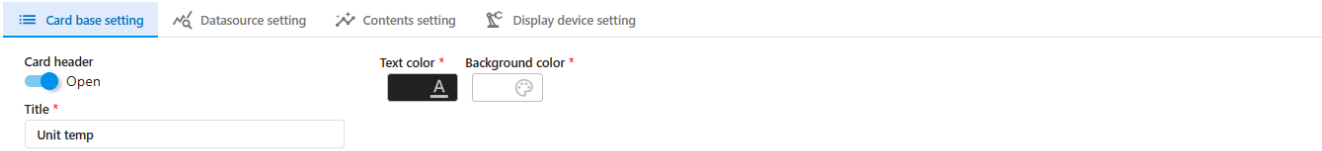
This card displays the unit temperature information. "S" represents the spindle number.

This is not displayed for DI-connected models.



Item	Contents
Control unit	The control unit temperature of NC is displayed.
SP axis	The spindle temperature of NC is displayed. Up to 8 axes spindles are displayed.

■ **Card base setting**

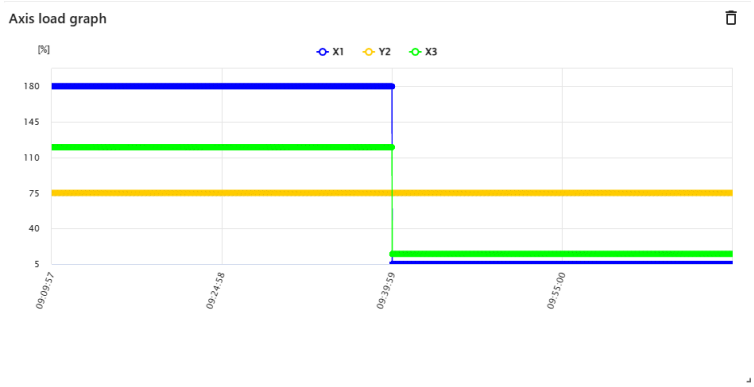


(*) This card has no setting items for "Datasource setting" and "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

5.4.2 Consumption Tab

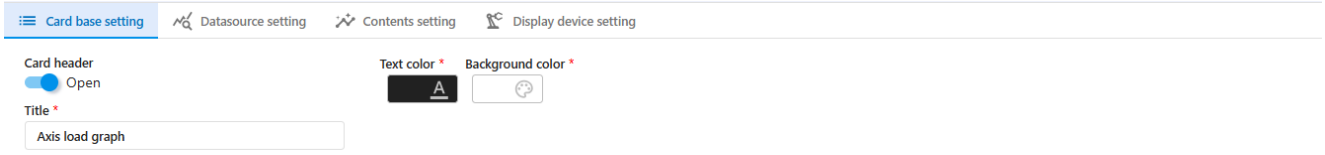
5.4.2.1 Axis Load Graph Card

This card displays the axis data as a graph.

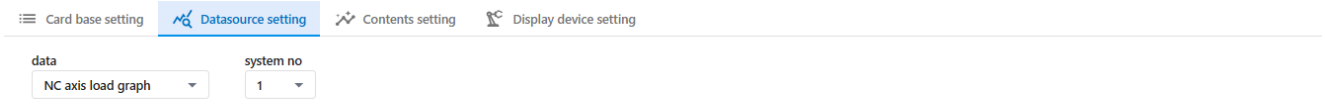


Item	Contents
Chart area	Displays the axis data of the data selected in [Datasource setting] as a line chart.
Y axis	Displays the unit that matches the data selected in [Datasource setting]. NC axis load graph: % Spindle load graph: % Spindle unit temperature: ℃
X axis	Displays the date and time.
Chart legend	Displays the axis names and axis numbers that match the data and part system selected in [Datasource setting]. NC axis load graph: Axis names acquired from the machine (examples: X1, Y1, Z1...) Spindle load graph: Axis numbers (S1, S2...) Spindle unit temperature: Axis numbers (S1, S2...)

■ **Card base setting**



■ Datasource setting



Setting item	Contents
Data	Set the data to be displayed. ・NC axis load graph ・Spindle load graph ・Spindle unit temperature graph
System no	When [NC axis load graph] is selected, specify the part system number. Default: 1 (*) If [data] is other than [NC axis load graph], this cannot be specified.

(*) This card has no setting items for "Contents setting". Refer to "5.2 Common Setting Items of Cards" for details on the display device settings.

6. Restrictions

(1) If the card of an unsupported processing machine is displayed, "Non-supported machine models." is displayed. For common cards, each item with a value that cannot be acquired on the screen is displayed as a blank.

(2) "---" is displayed for each item on the screen before the data acquisition from the NC, or when the data acquisition is unsuccessful for devices that are not supported, etc. A blank field is displayed when the value is not set to the NC.

(3) The "Sampling Chart" function cannot be used for M7 Series.

(4) PLC alarms which currently occur are not displayed on M7 Series. (However, they are displayed on the alarm history.)

(5) The year of the alarm occurrence is displayed in accordance with the setting of the RGU.

(6) Depending on the browser using, some interfaces of the application (e.g. calendar) may be displayed in the same language as your PC.

(7) In the NC File Data screen, when the data in the target NC is protected, the message "Failed to get the file" is displayed, and the file cannot be acquired.

(8) If the R4U license has expired, the NC machine tool is not displayed on the screen. To display it again, contact Mitsubishi Electric because the license needs to be renewed.

7. Message Output

7.1 Machine List Message Output

7.2 Message Output of Machine list > Edit > Basic setting

The following table shows the messages displayed during operation on the Edit screen.

No.	Item	Contents
1	Display contents	Reload site? Changes you made may not be saved.
	Display condition	When the URL is refreshed during editing
	Remedy	Select "Reload" or "Cancel" as desired.
2	Display contents	Leave site? Changes you made may not be saved.
	Display condition	When the URL is changed during editing
	Remedy	Select "Leave" or "Cancel" as desired.
3	Display contents	Discards the entered content and leaves the screen. Is it OK?
	Display condition	When clicked the "Cancel" button or switched to another screen during editing
	Remedy	Select "YES" or "NOT" as desired.
4	Display contents	Must be 32 characters or less (currently ○○ characters).
	Display condition	When 33 characters or more are entered in a machine, base, group, or note field
	Remedy	Enter within 32 characters.

7.3 Message Output of Individual Monitor > Edit > Dashboard setting

The following table shows the messages displayed during operation of Machine list > Edit > Dashboard setting.

No.	Item	Contents
1	Display contents	Do you want to delete the selected [Dashboard name]?
	Display condition	When a dashboard setting is selected and then [Delete] button is clicked
	Remedy	Select "Delete" or "Cancel" as desired.

The following table shows the messages output in the Add/Edit dialog of Dashboard setting.

No.	Item	Contents
1	Display contents	Select an icon.
	Display condition	When the [Save] button is clicked without selecting an icon
	Remedy	Select an icon.
2	Display contents	Please fill out this field.
	Display condition	When the dashboard name is a blank and the [Save] button is clicked
	Remedy	Enter the dashboard name.
3	Display contents	Please select layout.
	Display condition	When the [Save] button is clicked without selecting a layout
	Remedy	Please select layout.
4	Display contents	Must be 32 characters or less (currently ○○ characters).
	Display condition	When 33 characters or more are entered for the dashboard name
	Remedy	Enter within 32 characters.
5	Display contents	Must be 3 characters or less (currently ○ characters).
	Display condition	When 4 characters or more are entered for the display order
	Remedy	Enter 3 characters or less.

7.4 Message Output of Layout Registration Screen

The following table shows the messages displayed during operation on the Layout registration screen.

No.	Item	Contents
1	Display contents	Do you want to delete the selected [Layout name]?
	Display condition	When a layout is selected and then the [Delete] button is clicked
	Remedy	Select "Delete" or "Cancel" as desired.

7.5 Message Output of Layout Edit Screen

The following table shows the messages displayed during operation on the Layout Edit screen.

No.	Item	Contents
1	Display contents	Reload site? Changes you made may not be saved.
	Display condition	When the URL is refreshed during editing
	Remedy	Select "Reload" or "Cancel" as desired.
2	Display contents	Leave site? Changes you made may not be saved.
	Display condition	When the URL is changed during editing
	Remedy	Select "Leave" or "Cancel" as desired.

No.	Item	Contents
3	Display contents	Discards the entered content and leaves the screen. Is it OK?
	Display condition	When clicked the "Cancel" button or switched to another screen during editing
	Remedy	Select "YES" or "NOT" as desired.
4	Display contents	Must be 100 characters or less (currently ○○ characters).
	Display condition	When 101 characters or more are entered for the name of the layout information
	Remedy	Enter 100 characters or less for the name of the layout information.
5	Display contents	Please enter less than 32 characters.
	Display condition	When 33 characters or more are entered for a tag
	Remedy	Enter 32 characters or less for the tag.
6	Display contents	Must be 255 characters or less (currently ○○ characters).
	Display condition	When 256 characters or more are entered for a note
	Remedy	Enter less than 255 characters for the note.
7	Display contents	There are unconfigured items.
	Display condition	When any required item of the card settings is not entered
	Remedy	Enter the required items.
8	Display contents	Only .jpeg, .jpg, and .png files can be registered.
	Display condition	When the file extension of the selected file is other than JPEG, JPG, or PNG
	Remedy	Select a file for which the file extension is JPEG, JPG, or PNG.
9	Display contents	The file format and extension do not match. Only .jpeg, .jpg, and .png files can be registered.
	Display condition	When the file extension and file format of the selected file do not match
	Remedy	Select a file for which the file extension and file format match.
10	Display contents	Maximum file size is 10 MB.
	Display condition	When the file size of the selected file exceeds 10 MB
	Remedy	Make the file size less than 10 MB.

7.6 Message Output of Overall Monitor > OverAll Monitor Edit > Dashboard setting

The following table shows the messages displayed during operation of Overall Monitor > Edit > Dashboard setting.

No.	Item	Contents
1	Display contents	Do you want to delete the selected [Dashboard name]?
	Display condition	When a dashboard setting is selected and then [Delete] button is clicked
	Remedy	Select "Delete" or "Cancel" as desired.

7.7 Message Output of Card on Dashboard Screen

No.	Item	Contents
1	Display contents	Non-supported machine models.
	Display condition	When viewed the target card with an unsupported model
	Remedy	Delete the target card on the Layout Edit screen.

7.8 Message Output of Downloading

The following table shows the messages displayed when the download operation is performed.

No.	Item	Contents
1	Display contents	Please specify a start date.
	Display condition	When a start date is not specified for the target period in custom
	Remedy	Specify a start date.
2	Display contents	Please specify an end date.
	Display condition	When an end date is not specified for the target period in custom
	Remedy	Specify an end date.
3	Display contents	There is no detailed daily operational information for the specified period.
	Display condition	When there is no detailed daily operational information for the target period
	Remedy	Designate another date.
4	Display contents	There is no detailed monthly operational information for the specified period.
	Display condition	When there is no detailed monthly operational information for the target period
	Remedy	Designate another date.
5	Display contents	There is no list of processing results for the specified period.
	Display condition	When there is no machining result list for the target period
	Remedy	Designate another date.
6	Display contents	There is no monthly processed result aggregation for the specified period.
	Display condition	When there is no monthly machining total for the target period
	Remedy	Designate another date.

7.9 Message Output of NC File Data

The following tables show the messages displayed when the operation to download an NC file is performed.

No.	Item	Contents
1	Display contents	An error occurred on the server while downloading the NC file.
	Display condition	When the information about the machine that made the request differs from that displayed on the screen, or similar condition
	Remedy	Close the dialog and return to the Machine list screen.
2	Display contents	NC file error occurred while downloading.
	Display condition	When an unrecoverable error occurred
	Remedy	Wait a while and then perform downloading from the NC File Data dialog again.
3	Display contents	Failed to retrieve NC file data requested at [Date and time request for data made to machine] (UTC).
	Display condition	When the information about the machine that made the request differs from that displayed on the screen, or similar condition
	Remedy	Perform downloading from the NC File Data dialog again.
4	Display contents	An unexpected error occurred while downloading the NC file requested at [Date and time request for data made to machine] (UTC).
	Display condition	When an unrecoverable error occurred
	Remedy	Wait a while and then perform downloading from the NC File Data dialog again.
5	Display contents	The NC file requested at [Date and time request for data made to machine] (UTC) has been downloaded.
	Display condition	When the file download is completed successfully
	Remedy	-

7.10 Message Output of NC Service Call

The following table shows the messages displayed during use of the NC Service Call function.

No.	Item	Contents
1	Display contents	The attached file exceeds the maximum allowed size.
	Display condition	When the size of the attached file exceeds 10 MB
	Remedy	Select an attachment file with a file size of 10 MB or less.
2	Display contents	The name of the attached file exceeds maximum length.
	Display condition	When the length of the name of the attached file exceeds 95 characters
	Remedy	Modify the name of the attached file so that its length is 95 characters or less.
3	Display contents	The extension of the attached file is invalid.
	Display condition	When the extension of the attached file is .exe, .bat, or .zip
	Remedy	Select an attachment file for which the extension is other than .exe, .bat, or .zip.
4	Display contents	A server error has occurred. Try again.
	Display condition	When communication with the server failed
	Remedy	Please try again.

8. Troubleshooting

8.1 NC File Data

No.	Item	Contents
1	Trouble	The compressed file does not contain the specified file.
	Solution	Output of the specified file may not be supported due to the specifications or settings of the machine. Refer to "9 Appendix 1: List of Files You Can Output with File Output Function" for the files that can be output for each machine.

8.2 Factory Map Screen

No.	Item	Contents
1	Trouble	There is a signal light card with "Non-supported machine models." displayed on Factory Map.
	Solution	Refer to "2.3.2 Selecting the Machines to Display" and then set the target machine from the Asset Management screen. If the target machine does not exist, delete the signal light card with the target model assigned from the Factory Map layout.

9. Appendix 1: List of Files You Can Output with File Output Function

■ **M800V/M80V Series**

○: Displayed ×: Hidden

Directory name	Data type	File name	Format (*)	Supported models			
				M800VW Series	M80VW	M800VS Series	M80V Series
Parameter	Parameter	ALL.PRM	TXT	○	○	○	○
	Auxiliary axis parameters	AUXAXIS.PRM	TXT	○	○	×	×
	DeviceNet	DEVICENT.PRM	TXT	×	×	○	○
	Rotary-axis angle deviation parameters	GEOMETRY.PRM	TXT	○	○	○	○
	Safety parameter file	SAFEPARA.BIN	BIN	○	○	○	○
PLC program	PLC program	USERPLC.LAD	BIN	○	○	○	○
	Project 1 PLC program	PROJECT01.LAD	BIN	○	○	○	○
	Project 2 PLC program	PROJECT02.LAD	BIN	○	○	○	○
	Project 3 PLC program	PROJECT03.LAD	BIN	○	○	○	○
	Project 4 PLC program	PROJECT04.LAD	BIN	○	×	○	×
	Project 5 PLC program	PROJECT05.LAD	BIN	○	×	○	×
	Project 6 PLC program	PROJECT06.LAD	BIN	○	×	○	×
	Own station safety PLC program file	SAFEPLC1.LAD	BIN	○	○	○	○
	Other station safety PLC program file	SAFEPLC2.LAD	BIN	○	○	○	○
NC data	Common variable data	COMMON.VAR	TXT	○	○	○	○
	Tool life management data	TLIFE.TLF	TXT	×	×	×	×
	All tool data	TOOLALL.DAT	TXT	○	○	○	○
	Tool management data	TOOLMNG.DAT	TXT	×	×	×	×
	Tool compensation amount data	TOOL.OFS	TXT	○	○	○	○
	Workpiece offset data	WORK.OFS	TXT	○	○	○	○
History data	All history	ALLLOG.LOG	TXT	○	○	○	○
	Alarm history	ALMLOG.LOG	TXT	○	○	○	○
	Key operation history	KEYLOG.LOG	TXT	○	○	○	○
	Sampling data (binary)	NCSAMP.BIN	BIN	○	○	○	○
	Sampling data (text)	NCSAMP.CSV	TXT	○	○	○	○
	Touch history	TOUCHLOG.LOG	TXT	○	○	○	○

(*) TXT: Text, BIN: Binary

■ **M800/M80/E80/C80 Series**

○: Displayed ×: Hidden

Directory name	Data type	File name	Format (*)	Supported models					
				M800W Series	M80W	M800S Series	M80 Series	E80 Series	C80
Parameters	Parameter	ALL.PRM	TXT	○	○	○	○	○	○
	Auxiliary axis parameters	AUXAXIS.PRM	TXT	○	○	×	×	×	×
	DeviceNet	DEVICENT.PRM	TXT	×	×	○	○	×	×
	Rotary-axis angle deviation parameters	GEOMETRY.PRM	TXT	○	○	○	○	○	×
	Safety parameter file	SAFEPARA.BIN	BIN	○	○	○	○	○	○
PLC program	PLC program	USERPLC.LAD	BIN	○	○	○	○	○	×
	Project 1 PLC program	PROJECT01.LAD	BIN	○	○	○	○	○	×
	Project 2 PLC program	PROJECT02.LAD	BIN	○	○	○	○	○	×
	Project 3 PLC program	PROJECT03.LAD	BIN	○	○	○	○	○	×
	Project 4 PLC program	PROJECT04.LAD	BIN	○	×	○	×	×	×
	Project 5 PLC program	PROJECT05.LAD	BIN	○	×	○	×	×	×
	Project 6 PLC program	PROJECT06.LAD	BIN	○	×	○	×	×	×
	Own station safety PLC program file	SAFEPLC1.LAD	BIN	○	○	○	○	○	○
	Other station safety PLC program file	SAFEPLC2.LAD	BIN	○	○	○	○	○	○
NC data	Common variable data	COMMON.VAR	TXT	○	○	○	○	○	○
	Tool life management data	TLIFE.TLF	TXT	×	×	×	×	×	×
	All tool data	TOOLALL.DAT	TXT	○	○	○	○	○	○
	Tool management data	TOOLMNG.DAT	TXT	×	×	×	×	×	×
	Tool compensation amount data	TOOL.OFS	TXT	○	○	○	○	○	○
	Workpiece offset data	WORK.OFS	TXT	○	○	○	○	○	○
History data	**All history**	ALLLOG.LOG	TXT	○	○	○	○	○	○
	Alarm history	ALMLOG.LOG	TXT	○	○	○	○	○	○
	Key operation history	KEYLOG.LOG	TXT	○	○	○	○	○	○
	Sampling data (binary)	NCSAMP.BIN	BIN	○	○	○	○	○	○
	Sampling data (text)	NCSAMP.CSV	TXT	○	○	○	○	○	○
	Touch history	TOUCHLOG.LOG	TXT	○	○	○	○	○	○

(*) TXT: Text, BIN: Binary

■ **M700V/M70V/M700/M70/E70 Series**

○: Displayed ×: Hidden

Directory name	Data type	File name	Format (*)	Supported models					
				M700VW Series	M700VS Series	M70V Series	M700 Series	M70 Series	E70
Parameters	Parameter	ALL.PRM	TXT	○	○	○	○	○	○
	Auxiliary axis parameters	AUXAXIS.PRM	TXT	○	×	×	○	×	×
	DeviceNet	DEVICENT.PRM	TXT	×	○	○	×	×	×
	Rotary-axis angle deviation parameters	GEOMETRY.PRM	TXT	○	○	○	○	○	○
	Safety parameter file	SAFEPARA.BIN	BIN	○	○	○	○	○	○
PLC program	PLC program	USERPLC.LAD	BIN	○	○	○	○	○	○
	Project 1 PLC program	PROJECT01.LAD	BIN	×	×	×	×	×	×
	Project 2 PLC program	PROJECT02.LAD	BIN	×	×	×	×	×	×
	Project 3 PLC program	PROJECT03.LAD	BIN	×	×	×	×	×	×
	Project 4 PLC program	PROJECT04.LAD	BIN	×	×	×	×	×	×
	Project 5 PLC program	PROJECT05.LAD	BIN	×	×	×	×	×	×
	Project 6 PLC program	PROJECT06.LAD	BIN	×	×	×	×	×	×
	Own station safety PLC program file	SAFEPLC1.LAD	BIN	○	○	○	○	○	○
	Other station safety PLC program file	SAFEPLC2.LAD	BIN	○	○	○	○	○	○
NC data	Common variable data	COMMON.VAR	TXT	○	○	○	○	○	○
	Tool life management data	TLIFE.TLF	TXT	○	○	○	○	○	○
	All tool data	TOOLALL.DAT	TXT	×	×	×	×	×	×
	Tool management data	TOOLMNG.DAT	TXT	○	○	○	○	○	○
	Tool compensation amount data	TOOL.OFS	TXT	○	○	○	○	○	○
	Workpiece offset data	WORK.OFS	TXT	○	○	○	○	○	○
History data	All history	ALLLOG.LOG	TXT	○	○	○	○	○	○
	Alarm history	ALMLOG.LOG	TXT	○	○	○	○	○	○
	Key operation history	KEYLOG.LOG	TXT	○	○	○	○	○	○
	Sampling data (binary)	NCSAMP.BIN	BIN	×	×	×	×	×	×
	Sampling data (text)	NCSAMP.CSV	TXT	○	○	○	○	○	○
	Touch history	TOUCHLOG.LOG	TXT	×	×	×	×	×	×

(*) TXT: Text, BIN: Binary

Revision History

Date of revision	Manual No.	Revision details
Oct. 2019	IB(NA)1501552-C	First edition created.
Jul. 2020	IB(NA)1501552-D	Corresponded to Remote Service iQ Care Remote4U software version A4. The following chapters were revised. - Introduction - 1.3 Characteristics - 2.2.2 Connection Example: Remote Service Gateway Unit and M800S/M80/E80 Series - 2.5.1 Heat Radiation Countermeasures - 2.7.1 General Connection System Drawing - 2.7.3 Connecting with Control Unit - 2.7.4 Connecting with Host Device (Cloud Server) - 3.1 Setup Procedures - 3.2 Connecting with Remote Service Gateway Unit (RGU) - 3.3 Setting Parameters - 4.1 Remote Service Screen - 4.2 Basic Operations - 4.3 Details of Each Function - 4.4 Restrictions - 4.5 Message Outputs - 4.6 Troubleshooting and FAQ - 7 Appendix 3: Parameter List - 8 Appendix 4: Error List The following chapters were added. - 3.2.1 Network Connecting Method - 4.2.7 Scheduled Operation Time Setting - 4.3.7.3 NC File Data - 4.5.4 Message Outputs on the Scheduled Operation Time Setting Dialog - Function Compatibility The following chapters were deleted. - 3.2.1 To connect the NC control unit to the NC-LAN connector of the RGU - 3.2.2 To connect the RGU and the NC Control Unit to the Device for Internet Connection Respectively using a Hub Due to adding and deleting of the chapters as above, the existing chapter numbers were corrected. Mistakes were corrected.
Oct. 2020	IB(NA)1501552-E	The following chapter was revised. - Introduction
May 2021	IB(NA)1501552-F	Corresponded to Remote Service iQ Care Remote4U software version A7. The following chapters were revised. - 1.3 Characteristics - 1.4 Operation Environment - 2.2 General Connection Diagram - 2.3 List of Configuration - 2.7.1 General Connection System Drawing - 2.7.3 Connecting with Control Unit - 3 Initial Setup - 4.1 Remote Service Screen - 4.2.6 Changing Screens - 4.3.7 Utilities Screen - 4.3.7.1.3 Machining Result List - 4.5.2 Message Outputs on the "Utilities" Screen - 5.1 Introduction - 5.2 EMC Directives/EMC Regulations

Date of revision	Manual No.	Revision details
May 2021	IB(NA)1501552-F	The following chapters were added. - 4.3.7.4 Alarm Diagnosis - 4.3.7.5 Email Notification Settings Mistakes were corrected.
Sep. 2021	IB(NA)1501552-G	Corresponded to Remote Service iQ Care Remote4U software version A9. The following chapters were revised. - 4.3.5 Alarm Screen - 4.3.7.1.3 Machining Result List - 4.3.7.4 Alarm Diagnosis - 4.3.7.5.1 Edit Email Notification Condition Screen - 4.5.2 Message Outputs on the "Utilities" Screen - 5.1 Introduction - 5.2 EMC Directives
Jan. 2022	IB(NA)1501552-H	Corresponded to Remote Service iQ Care Remote4U software version AA. The following chapters were revised. - Introduction - 1 Outline - 3 Initial Setup - 3.1 Setup Procedures - 3.2 Connecting with Remote Service Gateway Unit (RGU) - 4.3.3 Operation Screen - 4.3.7 Utilities Screen - 4.5 Message Outputs The following chapters were added. - Manual List (M800V/M80V Series) - 3.3 When Using NC Direct Connection - 3.4 Applicable Models Due to adding and deleting of the chapters as above, the existing chapter numbers were corrected. Mistakes were corrected.
May 2022	IB(NA)1501552-J	Corresponded to Remote Service iQ Care Remote4U software version AB. The following chapters were revised. - 1 Outline - 1.1.1 RGU Connection - 1.2 Characteristics - 2.7.1 Connecting Remote Service Gateway Unit - 2.7.3 Connecting with Control Unit - 3 Initial Setup - 3.1 Setup Procedures - 3.1.1 When Using RGU Connection - 3.2.1 Connecting with Remote Service Gateway Unit (RGU) - 3.2.1.1 Network Connecting Method - 3.2.2.4 Parameters for Remote Service Connection of the RGU - 3.2.2.5 Setting Example - 3.3.3.3 Precautions - 3.4 Applicable Models - 4.1 Remote Service Screen - 4.2.7 Scheduled Operation Time Setting - 4.3.3 Operation Screen - 4.3.7 Utilities Screen - 4.3.7.3 NC File Data - 4.3.7.4 Alarm Diagnosis - 4.3.7.5 Email Notification Settings - 4.3.7.5.1 Edit Email Notification Condition Screen - 4.5.2 Message Outputs on the "Utilities" Screen - Function Compatibility

Date of revision	Manual No.	Revision details
May 2022	IB(NA)1501552-J	The following chapters were added. - 2.2.3 Connection Example: Remote Service Gateway Unit and M800VW/ M80VW Series - 2.2.4 Connection Example: Remote Service Gateway Unit and M800VS/M80V Series - 3.5 NC Versions whose Operation Has Been Confirmed - 4.3.7.3.1 Online Storage Screen - 4.3.7.3.2 Auto Backup Setup - 4.3.7.3.3 Edit Auto Backup Setup Screen - 4.3.7.3.4 Automatic Backup Setup Method - 4.5.5 Message Outputs on the Alarm screen Due to adding and deleting of the chapters as above, the existing chapter numbers were corrected. Mistakes were corrected
Feb. 2023	IB(NA)1501552-K	Corresponded to Remote Service iQ Care Remote4U software version AC. The following chapters were revised. - Introduction - 1 Outline - 1.1.1 RGU Connection - 1.2 Characteristics - 2.2.1 Connection Example: Remote Service Gateway Unit and 800W/M80W Series - 2.2.2 Connection Example: Remote Service Gateway Unit and M800S/M80/E80 Series - 2.2.3 Connection Example: Remote Service Gateway Unit and M800VW/ M80VW Series - 2.2.4 Connection Example: Remote Service Gateway Unit and M800VS/M80V Series - 3 Initial Setup - 3.1 Setup Procedures - 3.1.1 When Using RGU Connection - 3.1.2 When Using NC Direct Connection - 3.2.1.1 Network Connecting Method - 3.2.2.4 Parameters for Remote Service Connection of the RGU - 3.2.4.2 Checking on the Setting Screen - 3.3.2.2 Parameters for Remote Service Connection - 3.3.4.1 Checking on the Self Diagnosis Screen of the NC Control Unit - 3.3.4.3 Precautions - 4.1 Remote Service Screen - 4.2.3 Logging in to Remote Service - 4.2.4 Device Selection - 4.2.5 Changing Password - 4.2.6 Changing Screens - 4.2.8 Logging Out of Remote Service - 4.3.2 Device Screen - 4.3.4 Use Screen - 4.3.7 Utilities Screen - 4.3.7.1 Operation Status Acquisition - 4.3.7.1.1 Daily Operation Detail - 4.3.7.1.2 Monthly Operation Total - 4.3.7.1.3 Machining Result List - 4.3.7.2 History Data Acquisition - 4.3.10 Information Display - 6 Appendix 2: Precautions for Compliance to UL/c-UL Standards - Function Compatibility

Date of revision	Manual No.	Revision details
Feb. 2023	IB(NA)1501552-K	The following chapters were added. - 3.2.3 Setting the Current Date and Time of the NC Control Unit - 3.3.3 Setting the Current Date and Time of the NC Control Unit - 4.3.7.1.4 Monthly Machining Total - 4.3.11 License expiration information - 4.3.12 Service call function - 4.5.6 Message Outputs on the "Device" Screen Mistakes were corrected.
	(IB(NA)1501552-L)	Contents of "Remote Service iQ Care Remote4U User's Manual" (IB-1501552-K) were divided as follows. "Remote Service iQ Care Remote4U User's Manual" (IB-1501552-L) "Remote Service iQ Care Remote4U Setup Manual" (IB-1501813-A) Contents were revised to correspond to Remote Service iQ Care Remote4U software version B0. Contents were fully revised due to the renewal of operations and screens.
Mar. 2026	IB(NA)1501552-M	Contents were revised to correspond to Remote Service iQ Care Remote4U software version B0. The following chapters were revised. - 3.7.1 Individual Monitor Screen - 3.7.2.1 Dashboard Setting Screen - 3.7.3.1.3 Alarm - 3.9.2 Edit Email Notification Setting Condition Screen - 3.10 Alarm Diagnosis - 3.10.1 Alarm Diagnosis Screen - 3.10.2 Registering Diagnosis Data - 3.10.2.1 Diagnosis Data List Screen - 3.12.1 NC Service Call Screen - 5.3.1.1 Operation Time Chart Card - 5.4.2.1 Axis Load Graph Card Mistakes were corrected.
Aug. 2026	IB(NA)1501552-N	Contents were revised to correspond to Remote Service iQ Care Remote4U software version B1. The following chapters were revised. - 3.7.3.1.4 Diagnosis - 3.7.5 NC File Data - 7.9 Message Output of NC File Data

Global Service Network

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Charlotte, NC Service Satellite
Raleigh, NC Service Satellite
Dallas, TX Service Satellite
Houston, TX Service Satellite
Hartford, CT Service Satellite
Knoxville, TN Service Satellite
Nashville, TN Service Satellite
Huntsville, AL Satellite
Pittsburg, PA Service Satellite
Tampa, FL Service Satellite
Miami, FL Satelite
Lafayette, LA Service Satellite
Allentown, PA Satelite

Western Region Service Center (California)
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TEL: +1-714-699-2625 / FAX: +1-847-478-2650
San Francisco, CA Satelite
Seattle, WA Service Satellite
Denver, CO Service Satellite

Canada Region Service Center (Toronto)
4299 14TH AVENUE MARKHAM, ONTARIO L3R OJ2, CANADA
TEL: +1-905-475-7728 / FAX: +1-905-475-7935
Edmonton, AB Service Satellite
Montreal, QC Service Satellite

Mexico Region Service Center (Queretaro)
Parque Tecnológico Innovación Querétaro, Lateral Carretera Estatal 431, Km 2+200, Lote 91 Modulos 1 y 2
Hacienda la Machorra, CP 76246, El Marqués, Querétaro, México
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Monterrey, NL Service Satellite
Mexico City, DF Service Satellite

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France Service Satellite (Lyon)
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Turkey Service Center
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Suzhou Service Center
Wuhan Service Center
Ningbo Service Center
Hefei Service Center
Beijing Service Center
Tianjin Service Center
Xian Service Center
Dalian Service Center
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Notice

Every effort has been made to keep up with software and hardware revisions in the contents described in this manual. However, please understand that in some unavoidable cases simultaneous revision is not possible. Please contact your Mitsubishi Electric dealer with any questions or comments regarding the use of this product.

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MODEL	Remote Service iQ Care Remote4U
MODEL CODE	100-683
Manual No.	IB-1501552

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