USER'S MANUAL

SMOOSS-i

STAR MICRONICS CO., LTD.

Machine Tools Division

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SMOOSS-i

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Introduction

Thank you very much for purchasing “SMOOSS-i”.
This manual explains the minimum method necessary for operating this item on the server.
Please refer to the manuals of each manufacturer issue for details on hardware (main body of the server), basic software (OS), and the initialization of the server.
Please read and understand the contents of this user’s manual thoroughly before using “SMOOSS-i”.
We kindly ask for your long and continued use.

NOTICE

- You can use SMOOSS-i on the server without password for 90 days after installation.
- For continuous use, you need to get the password for each server to be used.
- To get password, copy and fill in “SMOOSS-i : Password Request Sheet” on the next page then send it to STAR MICRONICS or your dealer by e-mail.

SMOOSS-i Password Request Sheet

Please fill in fields below and send to STAR MICRONICS or your dealer by e-mail.
(Password Request Sheet: ¥PasswordRequestSheet¥English¥PasswordRequestSheetE.pdf)

Note) **• Please acknowledge beforehand that once the password is issued, the software cannot be returned regardless of any reasons.**

Date	／ ／
Your company name	
e-mail address	
Operating System	○ Windows Server 2019 ○ Windows Server 2016 ○ Windows 11 Pro ○ Windows 10 Pro 64bit ○ Other ( )
Manufacturer and model of the Server	
Version of SMOOSS-i	

Serial number of SMOOSS-i

No. | | | | | - | | | | |

ID code (Refer to the section 3-3.)

				-					-				

Note) Please do not fill in this column.

Password

A support website for SMOOSS-i users

The Star Micronics home page (http://star-m.jp/eng/)

provides information that will prove useful when using the SMOOSS-i software, details on upgrades and a wide range of other information.

After accessing the Star Micronics homepage, click on

[Download Center] > [Automatic Lathes].

Then, enter the following user name and password to display the support page.

User name:	STARMONITOR
Password:	GREEN2020

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CHAPTER 1
Outline

1 Outline

1-1 General Specifications

Target machine	Machine tool manufactured by Star Micronics
Target CNC	FANUC Series 16i/18i/21i-MODEL A (*1)(*2) FANUC Series 16i/18i/21i-MODEL B FANUC Series 30i/31i/32i-MODEL A FANUC Series 30i/31i/32i-MODEL B FANUC Series 0i-MODEL D FANUC Series 0i-MODEL F MITSUBISHI M70V MITSUBISHI M80
	・LAN cable wiring is necessary depending of machine type. Please inquire STAR MICRONICS in this case. ・When Ethernet has already been used, SMOOSS-i cannot be used in some cases. Please inquire STAR MICRONICS in this case. *1. Necessary options differ depending on machine type and lot. Please inquire STAR MICRONICS to confirm. *2. Ethernet cannot be used depending on machine type and lot. Please inquire STAR MICRONICS in this case. When Ethernet cannot be used, SMOOSS-i is unavailable.
Server operating environment	Supported OS Windows Server® 2012 R2 Windows Server® 2016 Windows Server® 2019 Windows® 10 Pro 64bit (*3) Windows® 11 Pro (*3) Only these Windows® operating system support SMOOSS-i. Hardware (*4)(*5) ・CPU: Intel® Core™ i3 processor or higher. ・Memory: 8GB or more. ・Hard Drive: 500GB or more (RAID1 type recommended) ・Disk Drive: Optical drive support read of CD-R (Used when installing software) ・Display: 1280 × 1024 resolution or more ・LAN interface: 100BASE-T or more
	*3. Processing speed can become slow due to function limiting of OS. *4. Achieved performance may differ depending on the type, capability or use condition of the server. *5. Functions of SMOOSS-i can affect operating speed of other applications, and vice versa.

Corresponding client device	PC(Windows®) Supported OS Windows® 7 Windows® 8.1 Windows® 10 Browser Google Chrome Microsoft Edge®
	iPad® / iPad Air® / iPhone® (*6) Supported OS iOS 10 or onwards Browser Google Chrome Safari®
	Android tablet/ Smart phone (*6) Supported OS Android 6.0 or onwards Browser Google Chrome
	・Corresponding client devices should be prepared by users. *6. SMOOSS-i provide screens for PC/ tablet. When the screens cannot display within those devices or character size is small, please adjust by zooming in/Out or rotating screen.
Networking device	Ethernet cable Use shielded Category 5 twisted-pair cable (STP cable) to improve the resistance to electrical noise in an FA environment. ・Recommended cable examples ·DTS5087C-4P (twisted wire) by Furukawa Electric Co., Ltd. ·F-4PFWMF (single-wire cable) by NISSEI ELECTRIC CO., LTD.
	LAN switch Use LAN switch for business.
	・Networking device and necessary peripheral equipment or related construction work should be provided by users. ・Some networking devices does not equip a dustproof structure. Take oil mist countermeasures such as installing networking devices inside dustproof cabinet etc. In addition, select the available type of device with considering operating environment such as temperature.

1-2 Software

Specifications	Details	Chapter	Remarks
Monitoring display function	·Real time displaying for machine operation status	4-3-1	
	·Displaying achievement rate, progress rate, cycle time, one cycle stop status	4-3-1	
	·Displaying achievement ratio and progress rate per day/ total.	4-3-1	
	·Displaying details	4-3-1	
	·Real time displaying of multiple machine in one screen	4-3-1	
	·Totaling display per group	4-3-1	
	·Tiled screen display (for improving visibility on large screen)	4-3-2	
	·Displaying completion date and time	4-3-3	
	·Displaying tool life	4-3-3	
History display function	·Displaying operation history in time series.	4-4-1	
	·Displaying the rate of operation history	4-4-1	
	·Graphic displaying for processed results/ production schedule	4-4-4	
	·Displaying execution history and machined numbers per program	4-4-2	
	·Displaying date and time or contents of generated alarm	4-4-1	
	·Displaying alarms per generated number of times	4-4-3	
	·Display alarms by machine stop time	4-4-3	
	·CSV file output	4-8	
Setting	·Setting of production schedule	4-5-1	
	·CSV file output	4-8	
Work record function	·Input and preserve number of defective products	4-6-1	
	·Automatic preservation of input date/ time	4-6-1	
	·Preservation of user's original work record	4-6-2	*1
	·CSV file output	4-8	
Notification	·Alarm generation is notified by E-mail	5-2	*2 *3
	·Notification by E-mail is sent when communication is disconnected with machine	5-2	
Back-up function for CNC data	· Back-up for machining program	3-9	
	· Back-up for parameter data	3-9	
	· Back-up for SRAM	3-9	
Program I/O function	· Input and output of machining program	8-1	
	· Display and edit of machining program contents	8-1	
	· Access restriction for each user	7-3	

*1. Items and contents of input can be customized.

*2. Environment for using E-mail is necessary.

*3. Internet connection is necessary to notify outside.

1-3 Precautions

・This product uses “PostgreSQL” for database software therefore installation on the same server as other product which using “PostgreSQL” and use this product together with it is impossible.

・This product use “IIS (Microsoft Internet Information Services)” as Web system.
For installation on the same server as other product which also using “IIS” and use this product together with it, inquire STAR MICRONICS.

・For this product, installing on exclusive server to use is recommended.

CHAPTER 2
Setting

2 Setting

2-1 Flow of setting work

Follow the procedure below to carry out setting work.

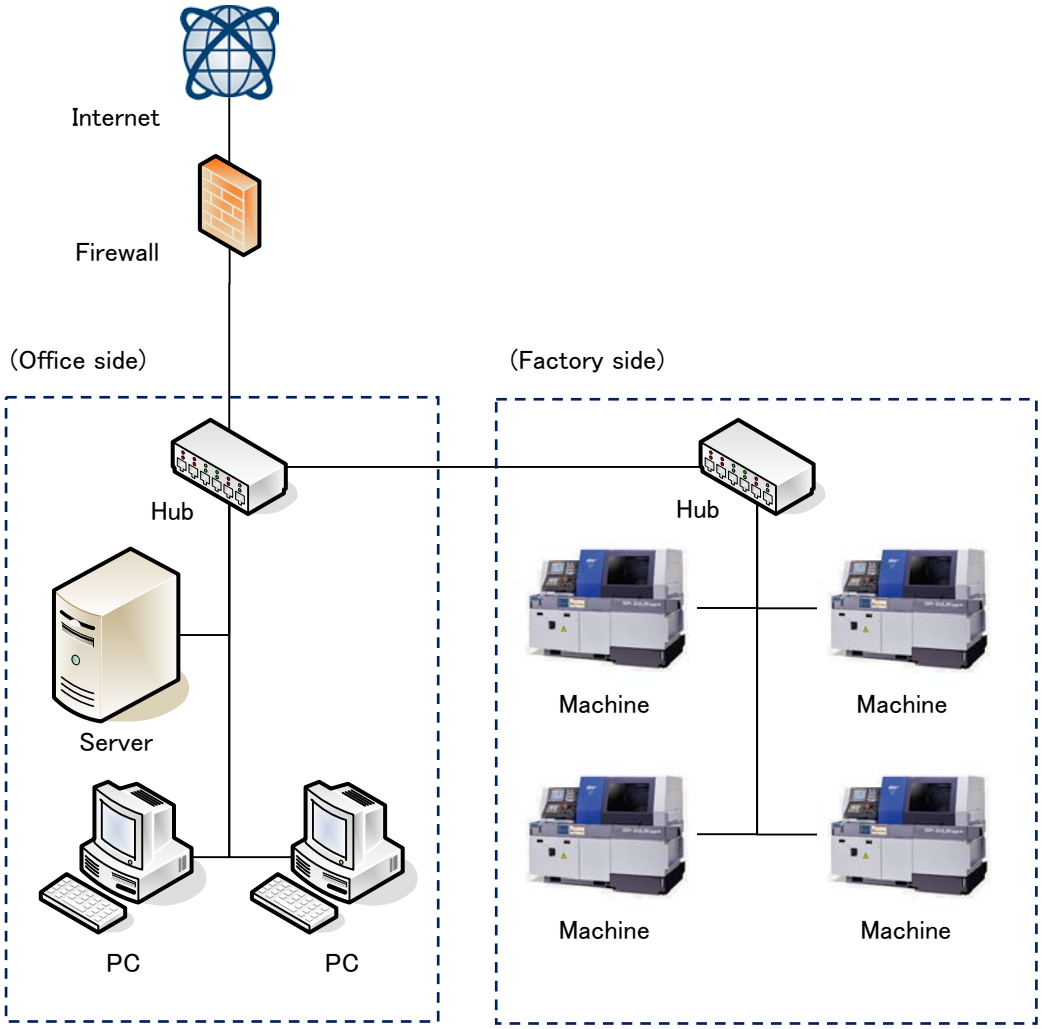
	Items	Contents	Chapter
1	Network construction	When network have not been constructed in factory and office, construct network. In addition, client devices should be prepared as necessary.	2-2
2	Cable connection	Connect network cable which has been prepared by the user to the machine side interface.	2-3
3	Setting for machine side CNC	Set network information to CNC of the machine	2-4
4	Basic setting for the server	Connect the server to the network then set concerning network. Refer to operation manual issued by each manufacture for the procedure.	---
5	Software installation	Install necessary software.	2-5
6	Setting for information collect application	Set up information collect application	3-8
7	Machine registration to information collect application	Register the machine to information collect application	3-7
8	Information collection start	Collects information from the machine	3-4
9	Access for the top page (check)	Access to the top page with browser of client device to check the current machine status. If the status can be checked, setting is complete.	4-1

When using the Program I/O function, also perform the following tasks.

	Items	Contents	Chapter
10	Setting the Program I/O function	Use the Program I/O Function Management application to set up users and folders used for I/O.	7-1
11	Access for the top page (check)	Access to the top page of the Program Input/Output function with browser of the client device, the login screen will appear. If you can log in as the user you created, the setup process is complete.	8-1

2-2 Network construction

<System configuration>



When network have not been constructed in factory and office, construct network.
In addition, client devices should be prepared as necessary.
Networking device and necessary peripheral equipment or related construction work should be provided by users.
Please inquire of network system supervisor of your company about network configuration or environment setting system.

NOTICE

- Internet connection is necessary to notify outside by E-mail notification function.
- When using external mail server, Internet connection is also necessary.
- The length of Ethernet cable is maximum of 100m. Do not lengthen the cable for more than necessary.

REFER

- Refer to “1-1 General Specifications” and “1-3 Precautions” for precautions.

2-3 Cable connection

Check the interface of machine side. Interface is prepared as standard for following machine type.

Machine types which have LAN interface as standard (As of Oct. 2022)

- SB-16III
- SD-26
- SK-51
- SL-7/10
- SP-20/23
- SR-20JII
- SR-32JII
- SR-32JIII
- SR-38
- SR-38J
- SV-20R
- SX-38

LAN cable is necessary for machines other than above types. Please check with STAR MICRONICS.

For machine types which have interface as standard, follow the procedure below to connect the network cable and the interface of machine side.

⚠ WARNING

・Always carry out this work while the machine main breaker is OFF (**O**).

1) Turn off (**O**) the main power supply of the machine.
2) Open the cover of the control cabinet.
3) Put the network cable from cable entry to inside the control cabinet together with signal wire cable (black colored cable).
4) Insert the connector plug of the cable in the network cable adapter (*1) prepared inside the control cabinet.
   (*1) The other side of the adapter is connected to the Ethernet connector of CNC by the network cable inside the control cabinet.
5) Close the cover of the control cabinet.

NOTICE

・For machine types with not interface, carry out same procedure above to connect after checking LAN connection interface according to the machine type.

2-4 CNC side setting

2-4-1 For CNC by FANUC

a) For FS 30i/ 31i/ 32i/ 0i (10.4" LCD)

Set by the following procedure.

1) Press the SYSTEM key 

of function key.

2) Keep the menu key  of right end of soft keys pressed until following menu displays.

NOTICE

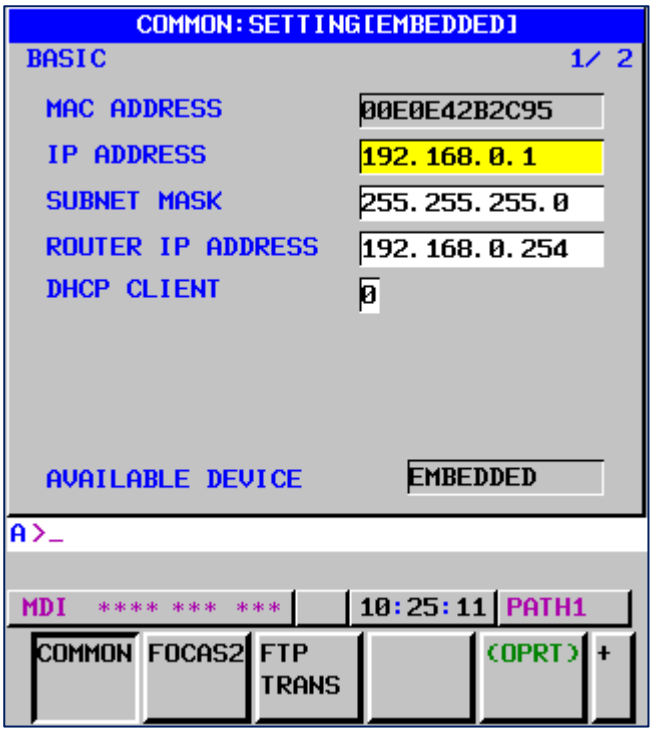
·If Multi-function Ethernet is enabled, following menu will be displayed.

If the network cable is connected to the Multi-function Ethernet (connector [CD38B]), select the soft key [ETHERNET] before making the subsequent settings.
If [ETHERNET] is selected, [MULTI-FUNC ETHER] will appear at the top of the screen thereafter.

If the network cable is connected to the Embedded Ethernet (connector [CD38A]), follow the instructions from 3) onward.

3) Press the soft key [EMBED PORT] to display following screen.

In the case that data have already been registered, its contents display.



4) AVAILABLE DEVICE setting

Set AVAILABLE DEVICE as “EMBEDDED”. When “PCMCIA” is set, carry out following steps to change.

(Steps)

Press the soft key [(OPRT)] to display following menu.

Press soft key [EMB/PCMCIA] then press [EXECUTE].

NOTICE

- [AVAILABLE DEVICE] is not displayed on the Multi-function Ethernet setup screen.

5) Input/ update the data with using MDI key and soft key.

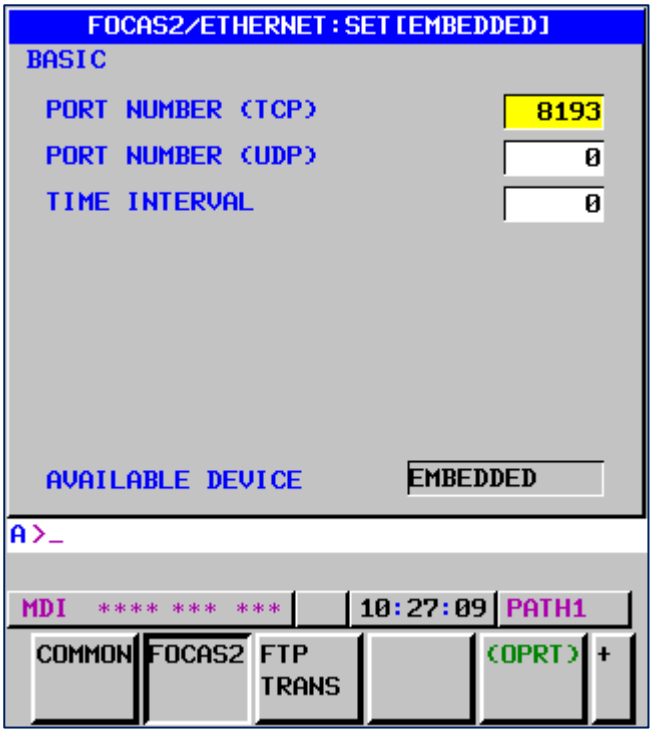
Setting items on common screen.

Items	Contents
IP ADDRESS	Specify the IP address of the CNC E.g.) 192.168.0.1
SUBNET MASK	Specify a mask address for the IP address of the network. E.g.) 255.255.255.0
ROUTER IP ADDRESS	Set IP address of router if network is with router. E.g.) 192.168.0.254
DHCP CLIENT	Setting with zero is necessary, only if this item displays.

NOTICE

- If there is anything unclear with contents, be sure to check with network supervisor of your company before setting. If there is a mistake in these settings, network error etc. can occur in whole network.
- If Multi-function Ethernet is enabled, set the IP addresses of the Embedded port and Multi-function Ethernet to different addresses, or leave unused functions blank.

Press soft key [FOCAS2] to display following screen.



Settings on FOCAS2/ETHERNET screen

Items	Contents
PORT NUMBER(TCP)	Set the port No. for this application. Input range is from 5001 to 65535. Set 8193 if there is no problem.
PORT NUMBER(UDP)	Set with zero.
TIME INTERVAL	Set with zero.

6) Restart

If any setting is changed, carry out restart of Ethernet function.

(Steps)

Press soft key [(OPRT)] to display following menu.

Press soft key [RSTART] then press soft key [EXECUTE].

(If soft key [RSTART] does not display, restart the machine)

b) For FS 0i (8.4" LCD)

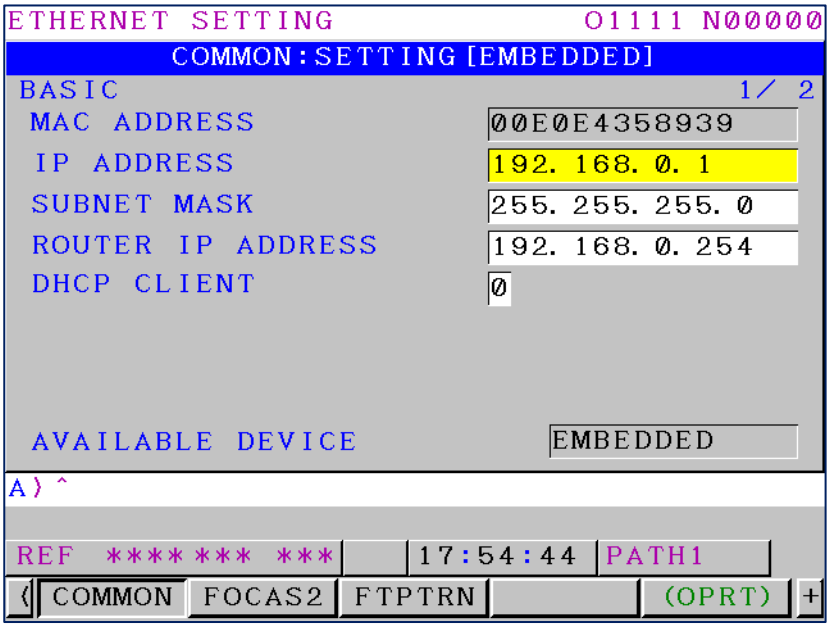
Set by the following procedure

1) Press the SYSTEM key  of function key.

2) Keep the menu key  of right end of soft keys pressed until following menu displays.

3) Press the soft key [EMBED] to display following screen.

In the case that data have already been registered, its contents display.



4) AVAILABLE DEVICE setting

Set AVAILABLE DEVICE as "EMBEDDED". When "PCMCIA" is set, carry out following steps to change.

(Steps)

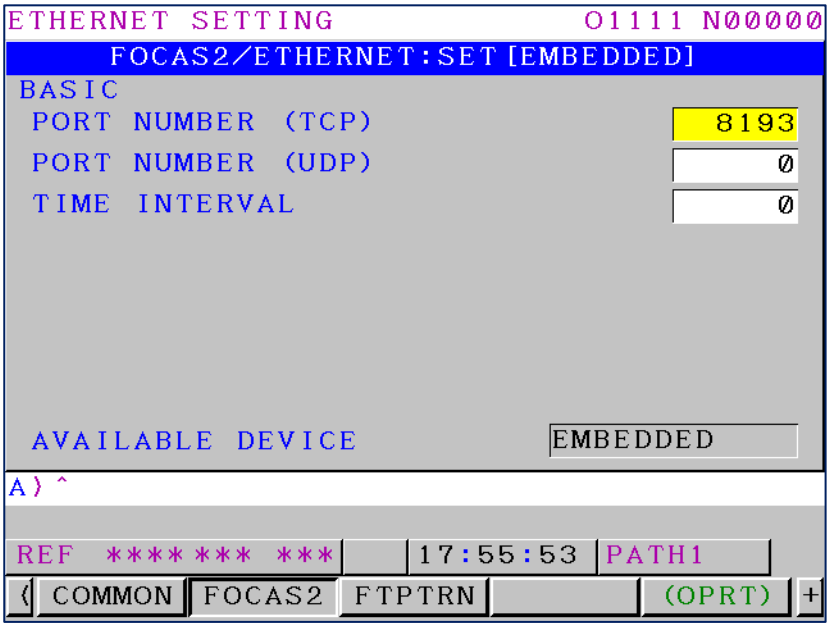
Press the soft key [(OPRT)] to display following menu.

Press soft key [EMB/PCMCIA] then press [EXECUTE].

5) Input/ update the data with using MDI key and soft key.

Refer to “a） For FS 30i/ 31i/ 32i/ 0i (10.4” LCD)” on setting items and contents.

Press soft key [FOCAS2] to display following screen.



Refer to “a） For FS 30i/ 31i/ 32i/ 0i (10.4” LCD)” on setting items and contents.

6) Restart

If any setting is changed, carry out restart of Ethernet function.

（Steps）

Press soft key [(OPRT)] to display following menu.

Press soft key [RSTART] then press soft key [EXECUTE].

(If soft key [RSTART] does not display, restart the machine)

c) For FS 16i/ 18i/ 21i

Set by the following procedure

1) Press the SYSTEM key  of function key.

2) Keep the menu key  of right end of soft keys pressed until [ETHPRM] displays.

3) Press the soft key [ETHPRM].

For 16i-B/ 18i-B/ 21i-B

Check that "EMBEDDED PORT" displays as "AVAILABLE ETHERNET".

If "PCMCIA" displays, carry out following steps to change.

(Steps)

Press soft keys in the order of [SWITCH] → [EMBEDD] → [EXEC].

Press the soft key [EMBEDD] on the screen which displays "EMBEDDED PORT" as "AVAILABLE ETHERNET".

Following screen displays.

In the case that data have already been registered, its contents display.

```
ETHERNET PARAMETER
                              PAGE:  1/ 2
 MAC ADDRESS                 080019023161
 NUMBER OF SCREENS                   14
 MAXIMUM PATH                         2
 HDD EXISTENCE                        0

 IP ADDRESS                192.168.62.101
 SUBNET MASK               255.255.255.0
 ROUTER IP ADDRESS         192.168.62.254
```

4) Input/ update the data with using MDI key and soft key.

Refer to "a) For FS 30i/ 31i/ 32i/ 0i (10.4" LCD)" on setting items and contents.

Screens are switchable with page up and page down keys.

```
ETHERNET PARAMETER
                              PAGE:  2/ 2
(DNC1/ETHERNET)
 PORT NUMBER(TCP)                  8193

 PORT NUMBER(UDP)                     0

 TIME INTERVAL                        0
```

Refer to "a) For FS 30i/ 31i/ 32i/ 0i (10.4" LCD)" on setting items and contents.

5) Restart

If any setting is changed, carry out restart of the machine.

2-4-2 For CNC by MITSUBISHI

Set by the following procedure

1) Press the MAINTE key 

.

2) Press the [Param] menu key.

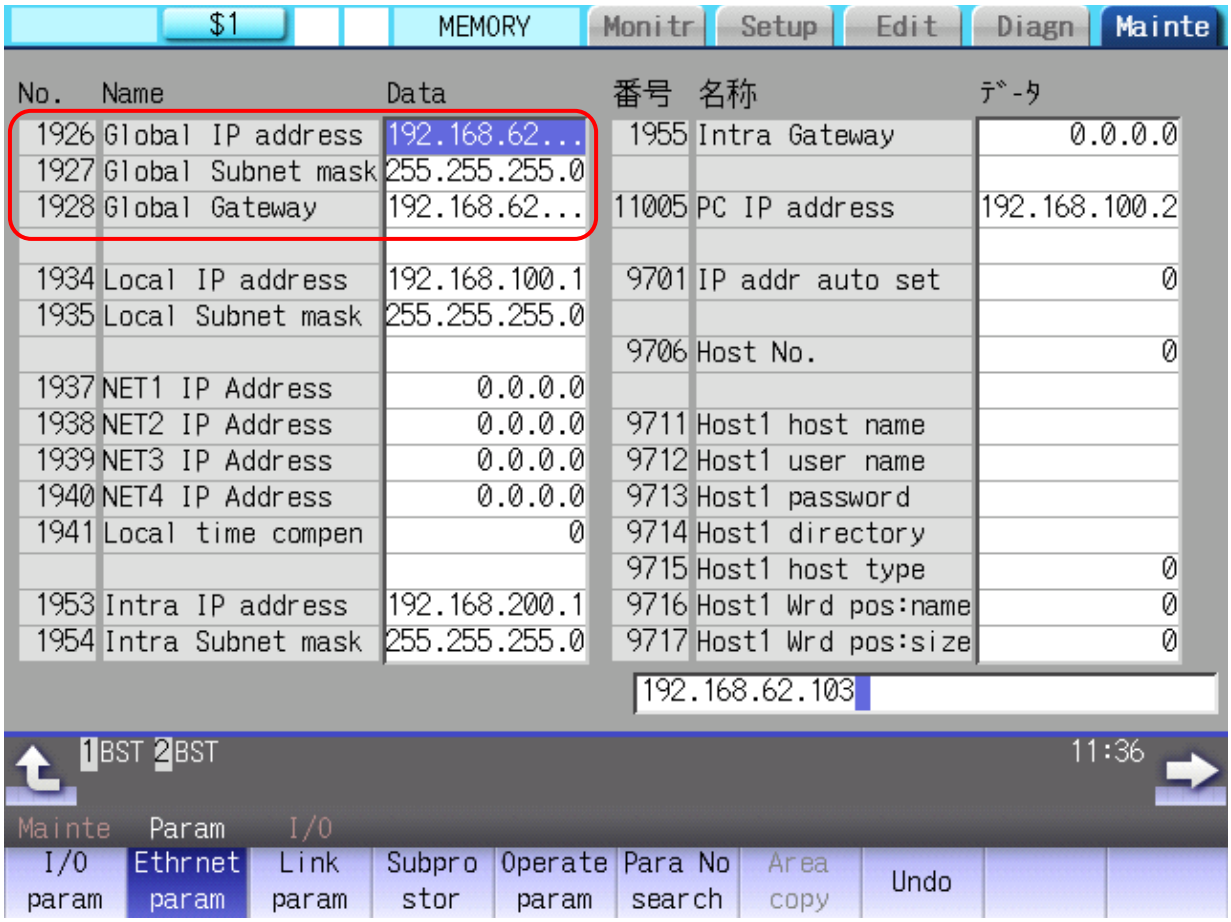
3) Press the  menu changeover key until the [Ethrnet param] operation menu key is displayed.

4) Press the [Ethrnet param] operation menu key.

NOTE

- The cursor can also be moved by the following steps.
  1. Press the [Para No.search] operation menu key.
  2. Input parameter No.1926 with the data setting keys.
  3. Press the INPUT key 

.



5) Input/ update the data with using MDI key.

Parameter	Name	Contents
No.1926	Global IP address	Specify the IP address of the CNC E.g.) 192.168.0.1
No.1927	Global Subnet mask	Specify a mask address for the IP address of the network. E.g.) 255.255.255.0
No.1928	Global Gateway	Set IP address of gateway if network is with gateway. E.g.) 192.168.0.254

・If there is anything unclear with contents, be sure to check with network supervisor of your company before setting. If there is a mistake in these settings, network error etc. can occur throughout the network.

6) Restart

If you changed the setting, restart the machine.

2-5 Installing the software

2-5-1 Flow of installation

Carry out installation as following order.

	Items	Contents	Chapter
1	Installation of database software	Install PostgreSQL	2-5-2
2	Installation of .NET Framework	Install .NET Framework	2-5-3
3	Addition of Web system function	Add Web system (IIS) to server	2-5-4
4	Installation of Web application software	Install Web application software	2-5-5
5	Installation of information collect software	Install information collect software	2-5-6
6	Installation of MITSUBISHI CNC communication software	Install MITSUBISHI CNC communication software. Install the software for communicating with Mitsubishi CNC.	2-5-7

NOTICE

・Be sure to sign in with the account of server supervisor or with that of user belongs to the Administrators group.
・Quit all other applications.

REFER

・Refer to “Chapter 6. Data backup” for detail on database backup software.

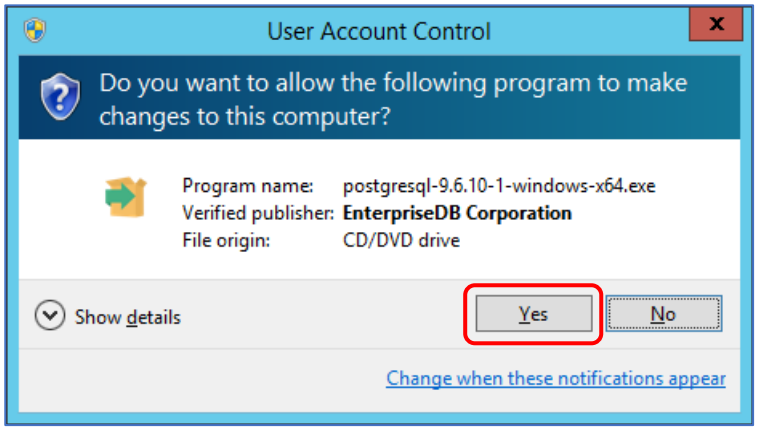
2-5-2 Installation of database software

1) Insert installation disc of SMOOSS-i into optical drive.

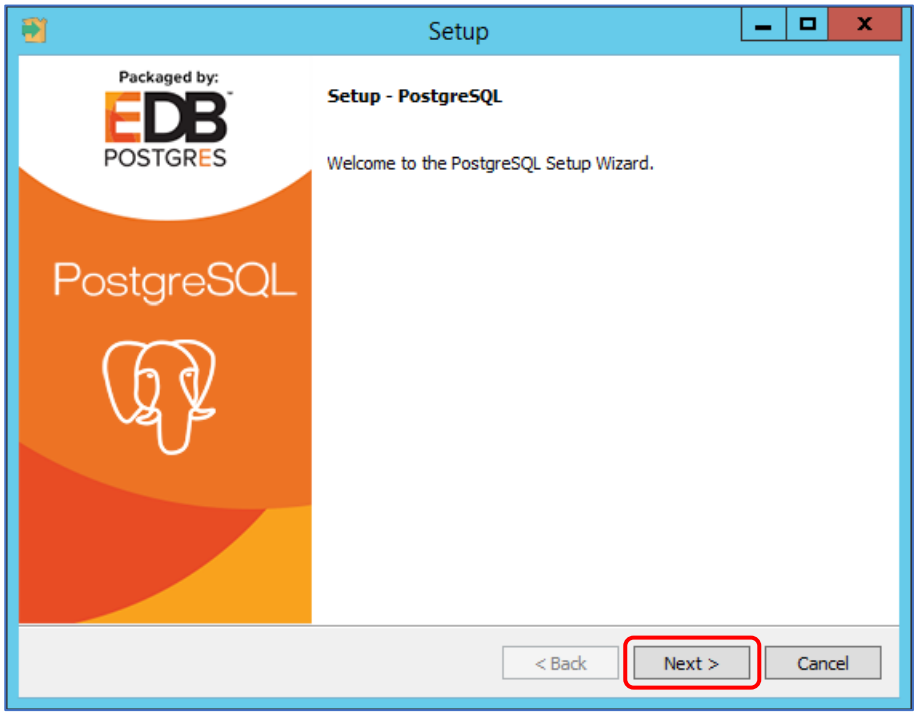
2) Display files of “PostgreSQL” folder of installation disc by Windows Explorer.

3) Double click “setup.bat”.

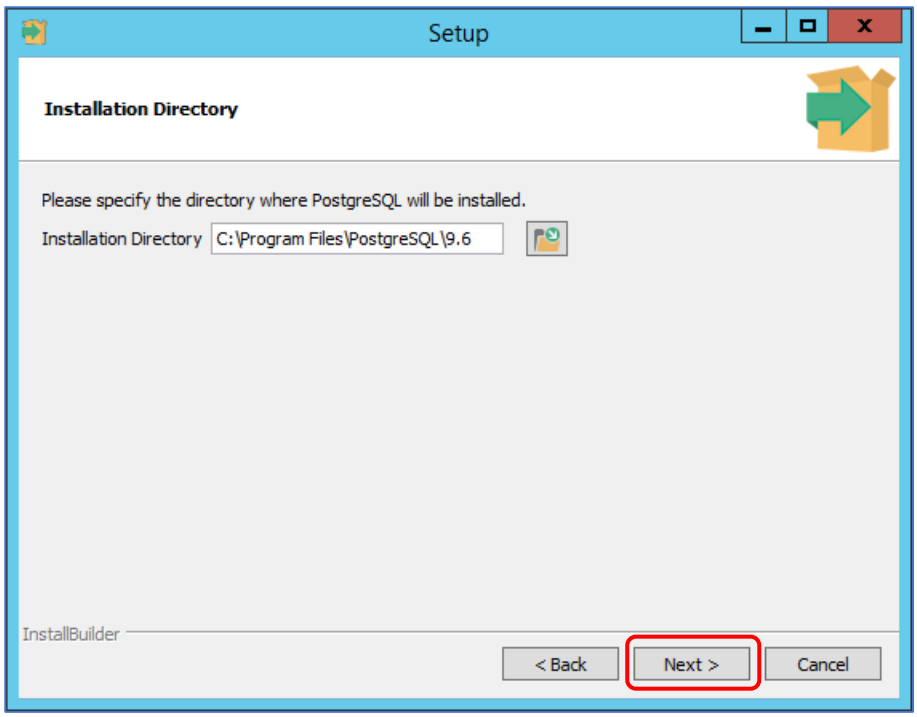
When User Account Control displays, click [Yes]



4) When following screen displays, click [Next >].



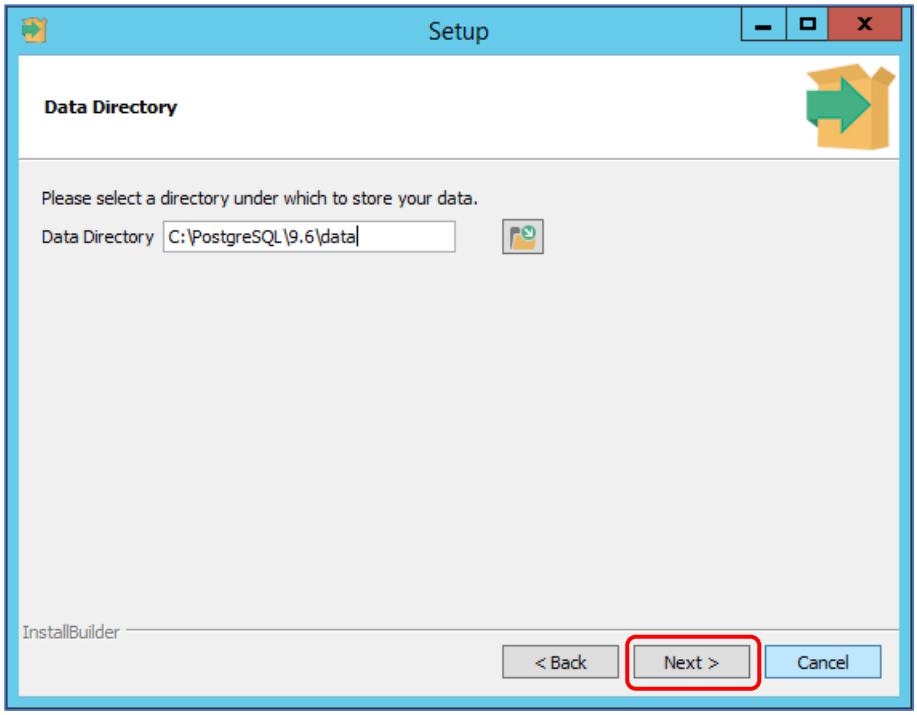
5) Installation Directory for the “PostgreSQL” will be specified. Click [Next >].



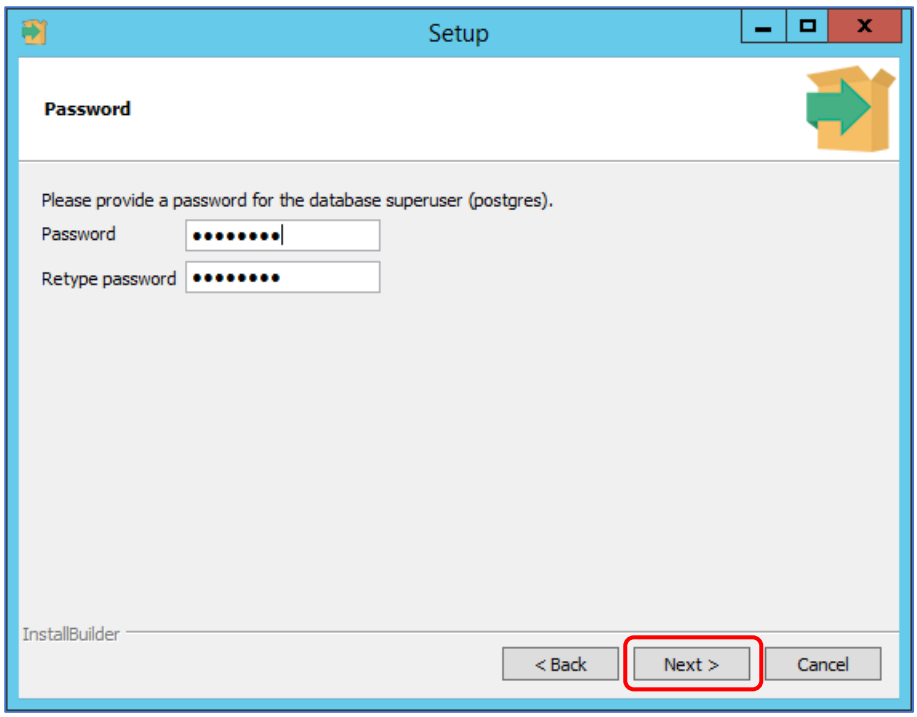
NOTICE

•Do not change the directory to which the program will be installed.

6) Data Directory to store data will be specified. Default is “C:\PostgreSQL\9.6\data”.
To change, input the directory. Then click [Next >].



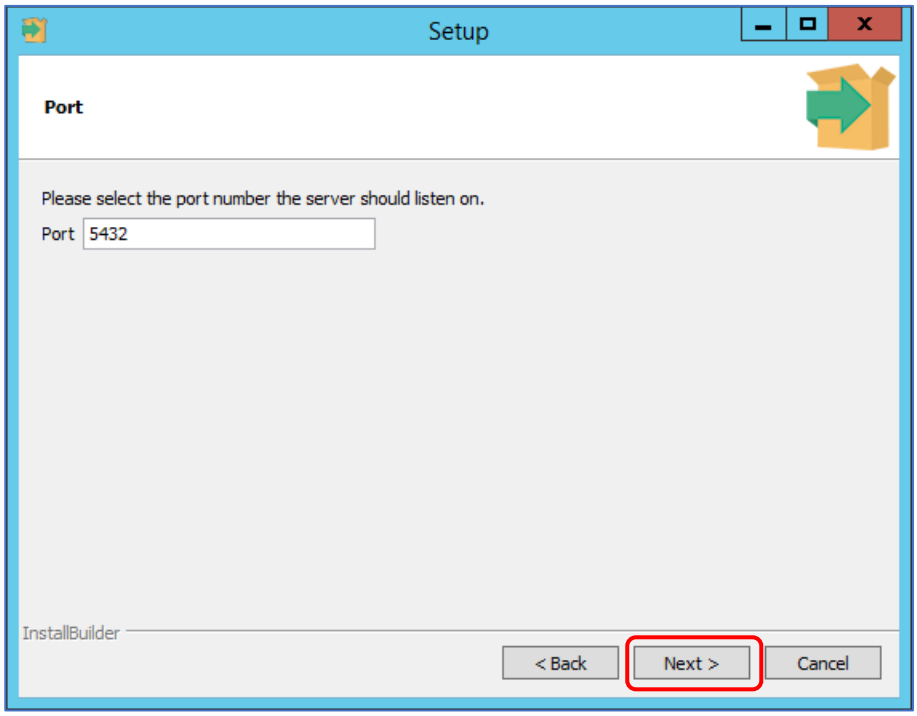
7) When following screen displays, click [Next >].



NOTICE

・If password was deleted, input “postgres” with small letter.

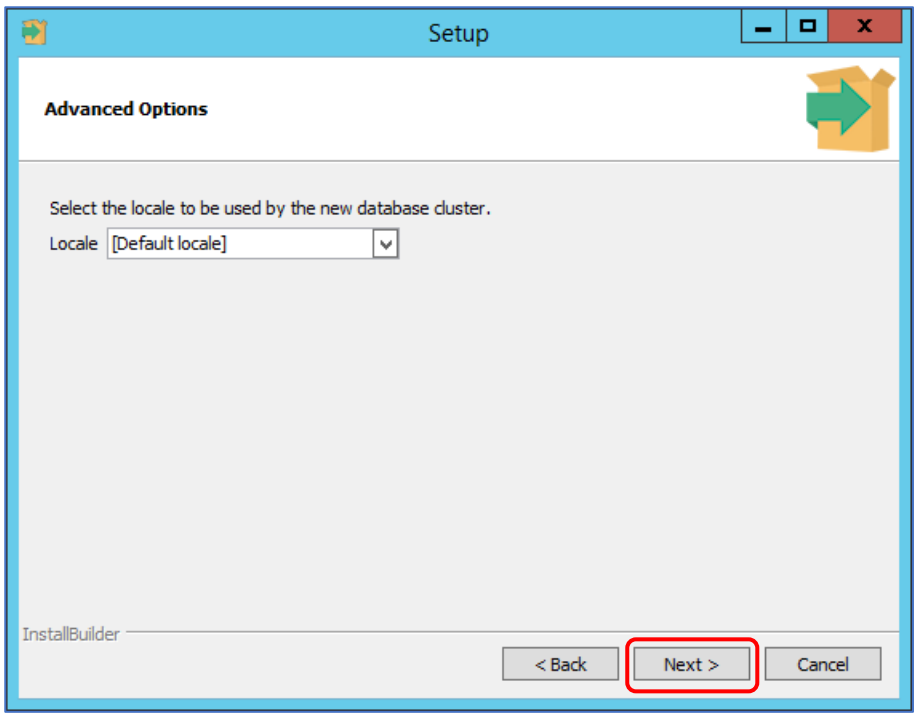
8) When following screen displays, click [Next >].



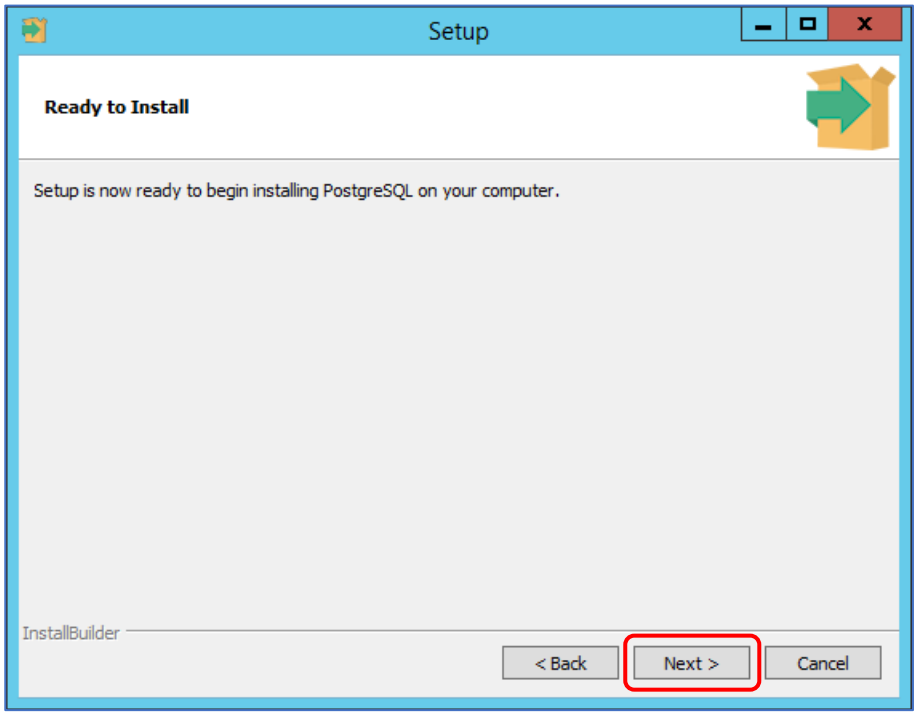
NOTICE

・Do not change the value.

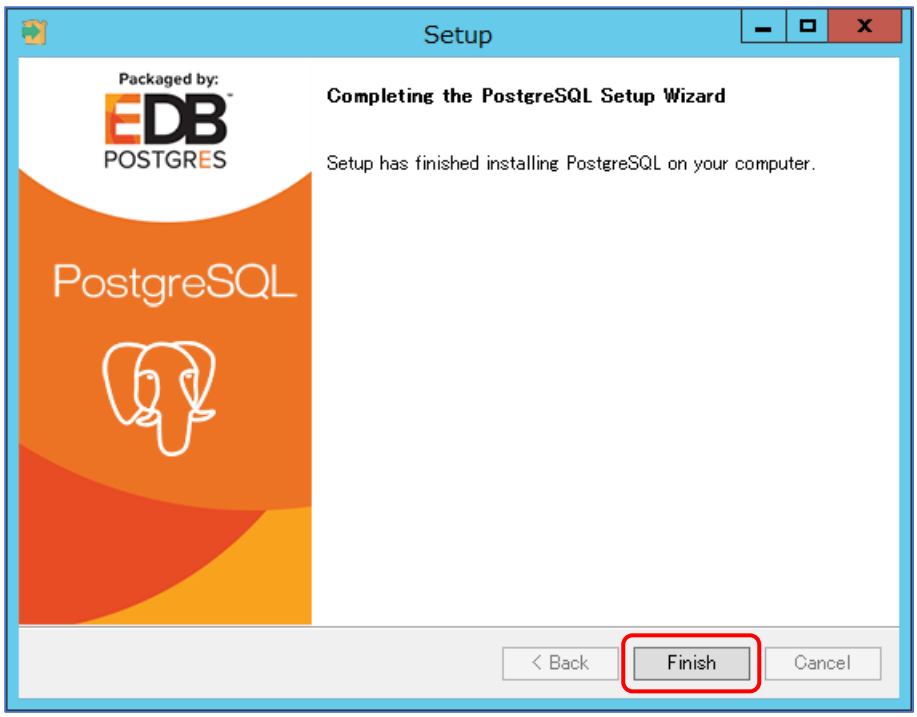
9) When following screen displays, click [Next >].



10) When following screen displays, click [Next >]. Installation starts.



11) When installation completes, following screen displays. Click [Finish] to close Setup window.



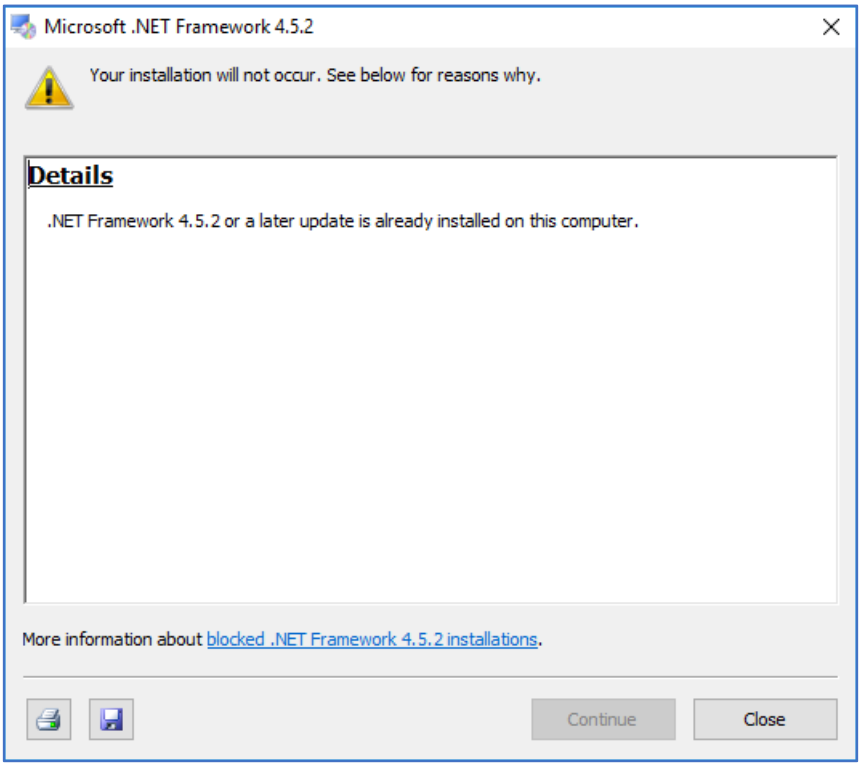
2-5-3 Installation of .NET Framework

NOTICE

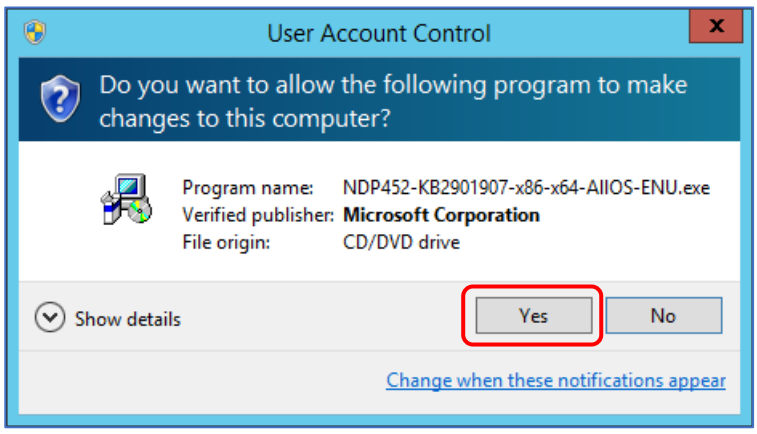
- Install this only when the OS is Windows Server 2012 R2.
  For Windows Server 2019/2016 or Windows 11/10, this is not required to install.
- Version "4.5.2" will be installed. When the later version of this application is already installed, this is not required to install.

NOTE

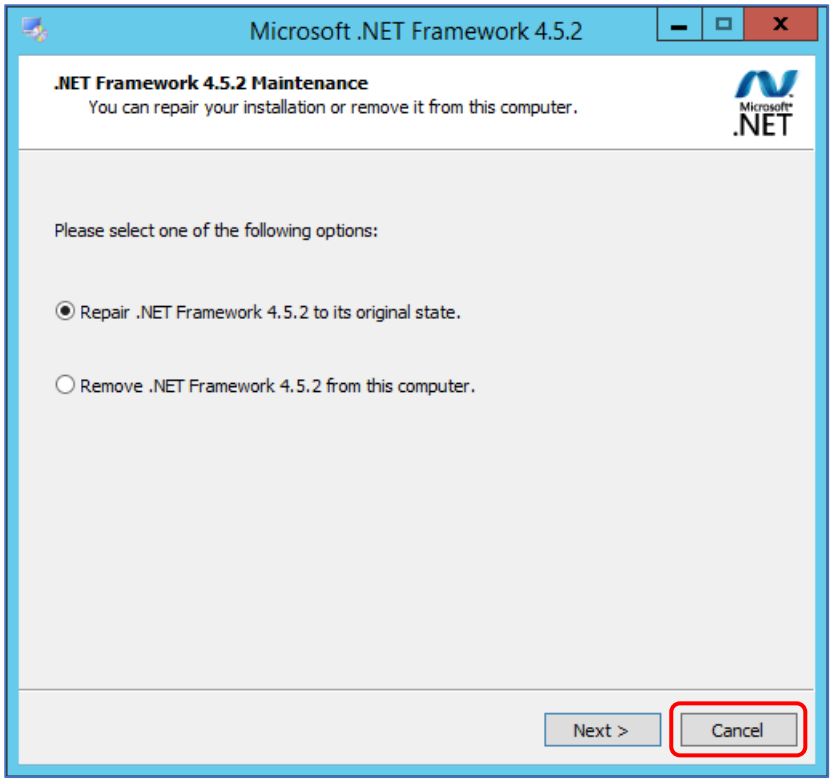
- If start installation to OS of Windows Server 2019/2016 or Windows 11/10, following screen will display then click [Close] to cancel.



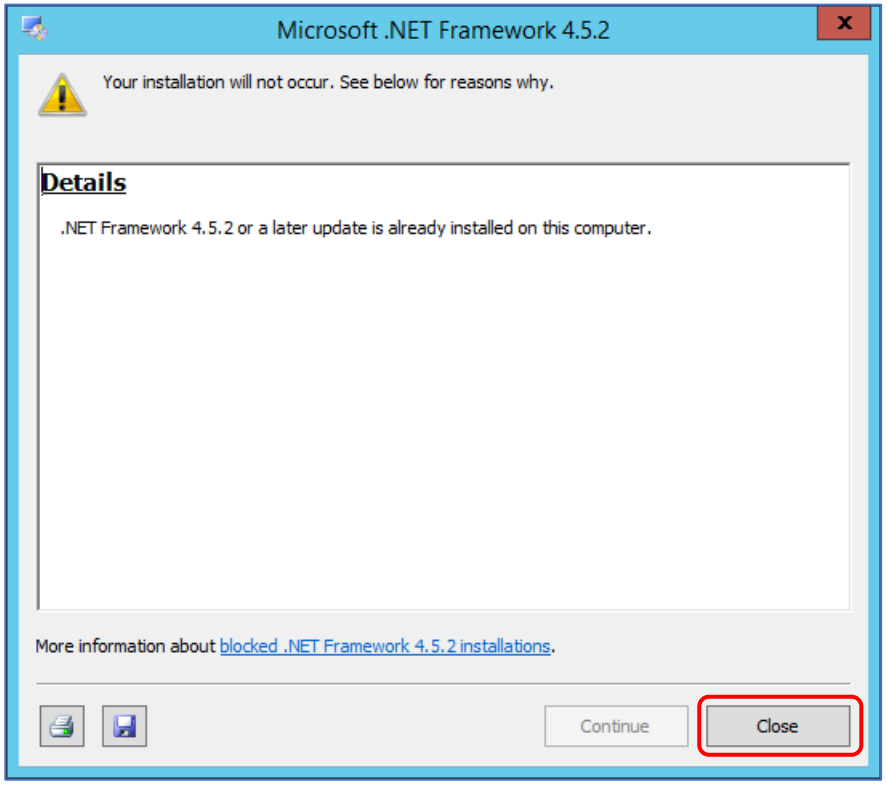
1) Insert installation disc of SMOOSS-i into the optical drive.
2) Display files of ".NET Framework" folder of installation disc by Windows Explorer.
3) Double click "NDP452-KB2901907-x86-x64-AllOS-ENU.exe".
   When User Account Control displays, click [Yes]



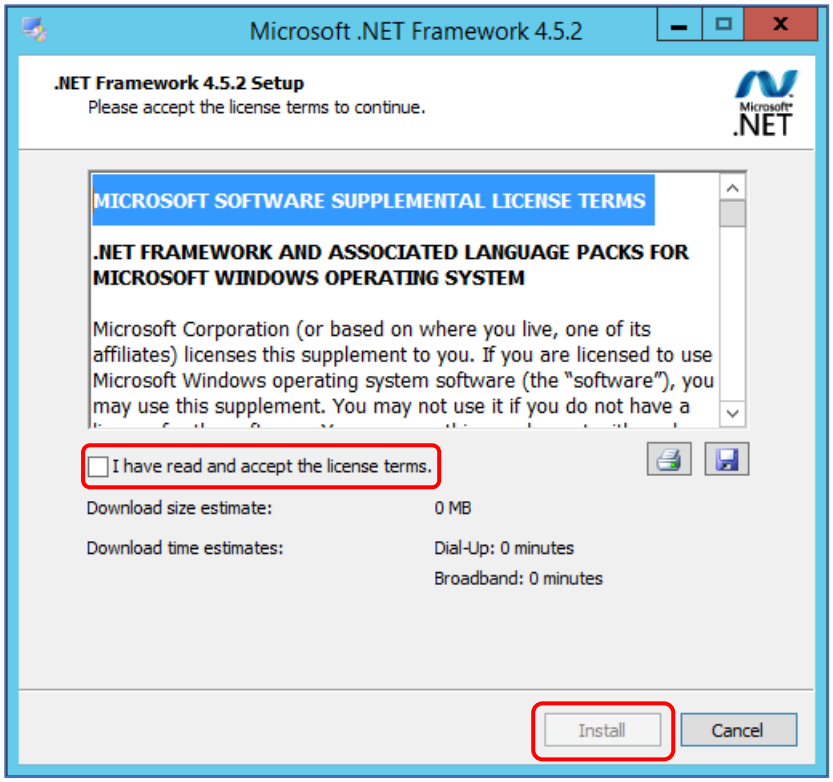
If following screen displays, “4.5.2” is already installed then click [Cancel] to cancel.



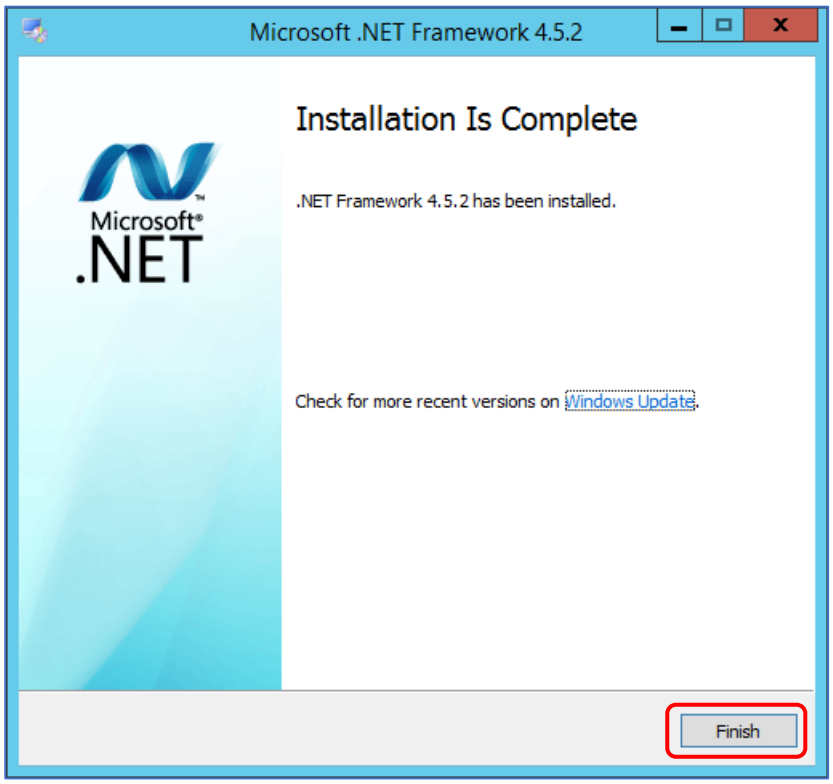
If following screen displays, the later version of “4.5.2” is already installed then click [Close] to cancel.



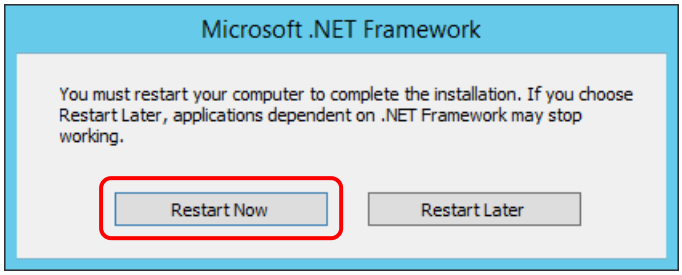
4) When following screen displays, check the box of [I have read and accept the license terms.] to click [Install].



5) Following screen displays in the end. Click [Finish].



6) When following screen displays, click [Restart Now] to restart the server.



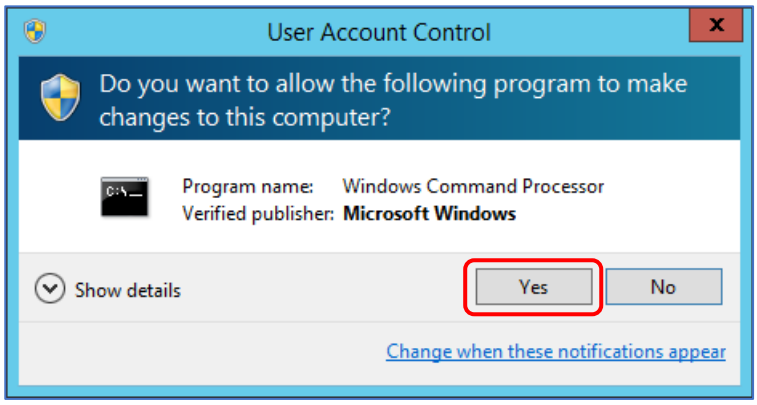
2-5-4 Addition of Web system function

1) Insert installation disc of SMOOSS-i into optical drive.

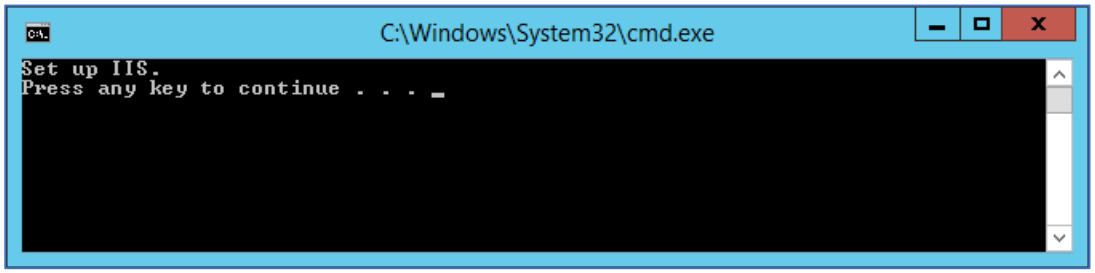
2) Display files of “IIS” folder of installation disc by Windows Explorer.

3) Double click “setup.bat”.

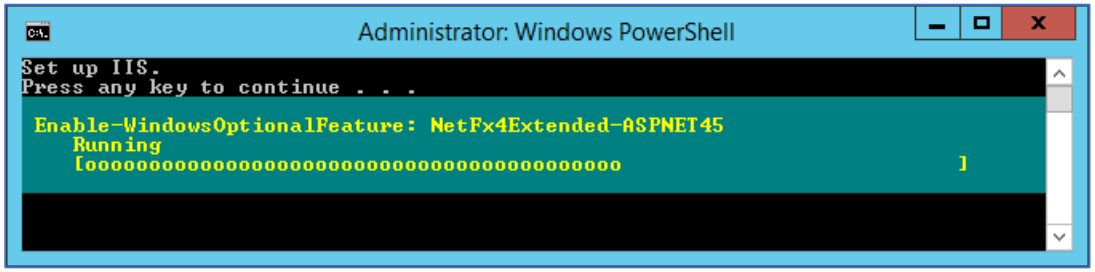
When User Account Control displays, click [Yes]



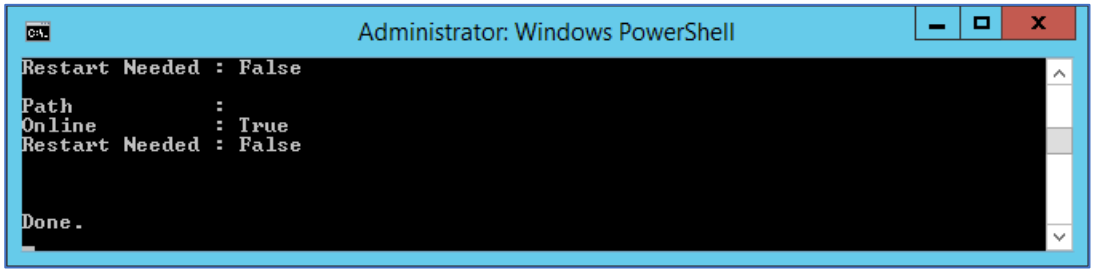
4) When following screen displays, press any key.



Following screen displays while setting.



5) When “Done.” is displays, setting completes. Click any key to close the window.



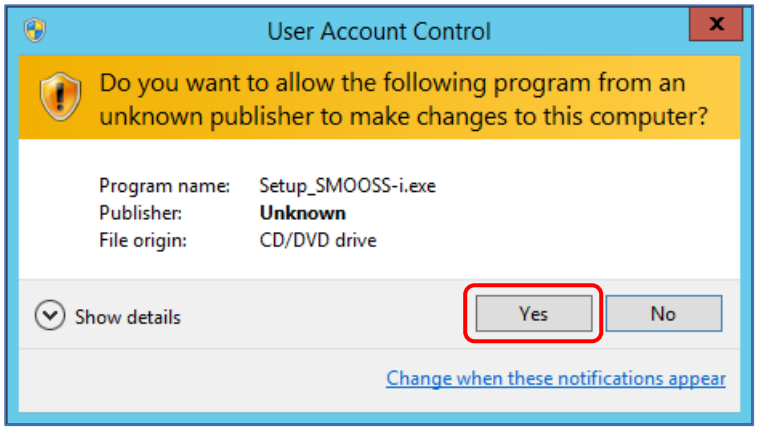
2-5-5 Installation of Web application software

1) Insert installation disc of SMOOSS-i into optical drive.

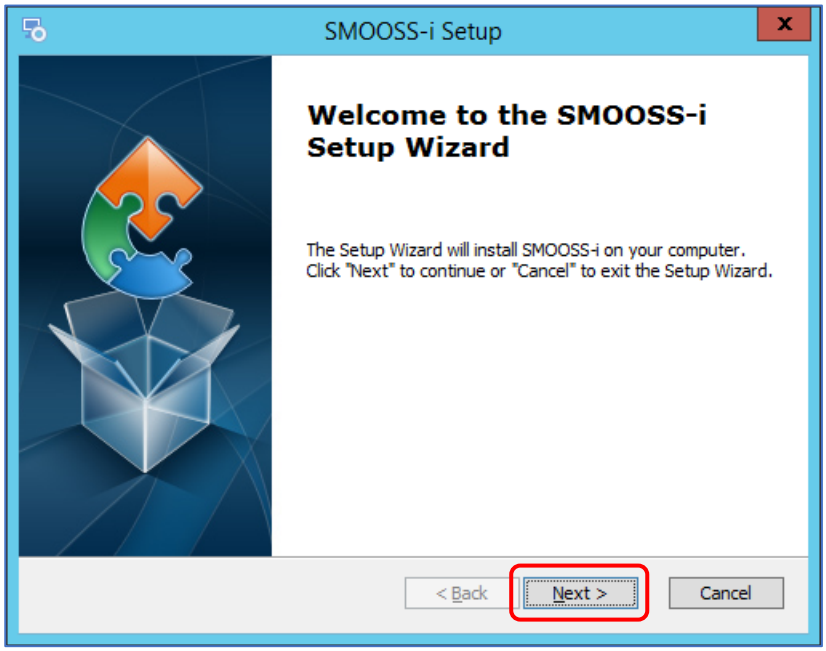
2) Display files of “SMOOSS-i” folder of installation disc by Windows Explorer.

3) Double click “Setup_SMOOSS-i.exe”.

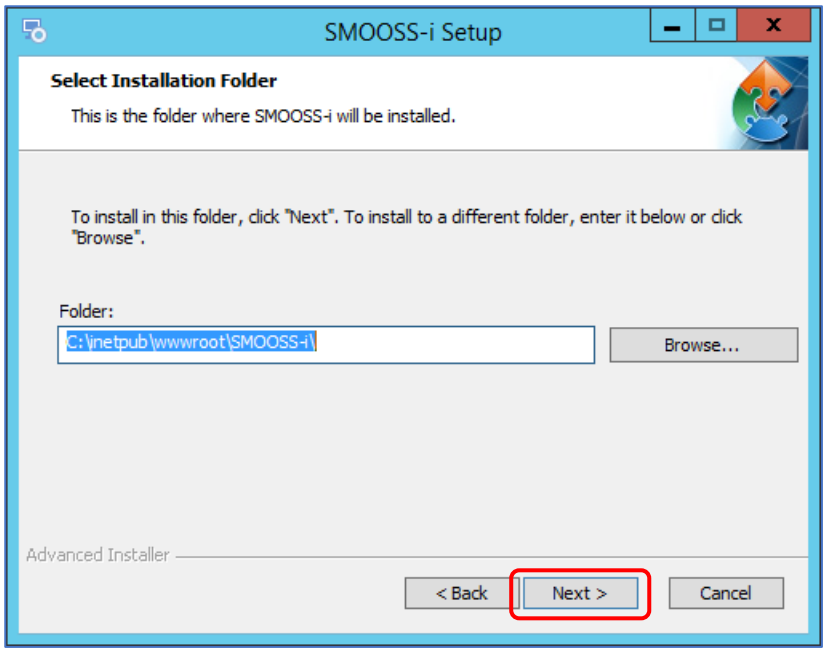
When User Account Control displays, click [Yes]



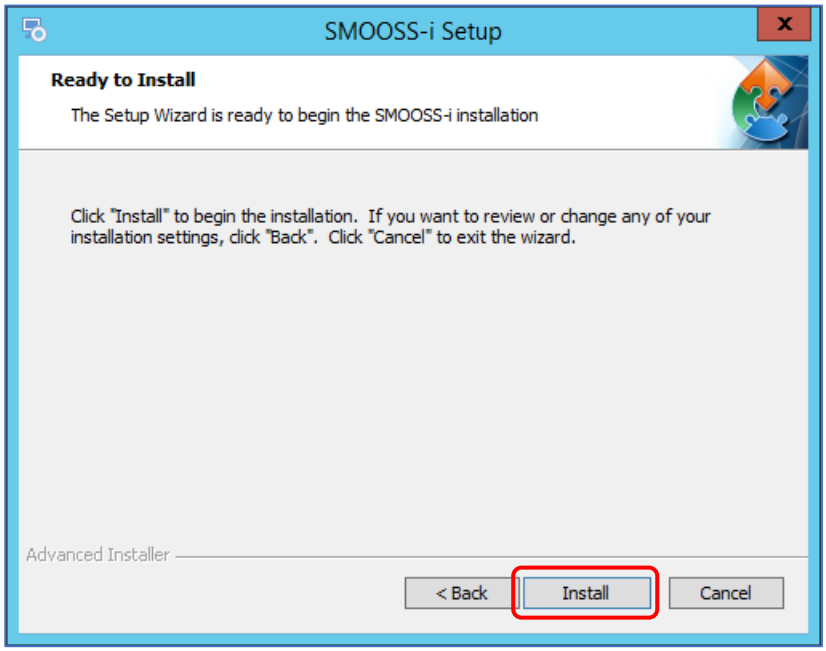
4) When following screen displays, click [Next >].



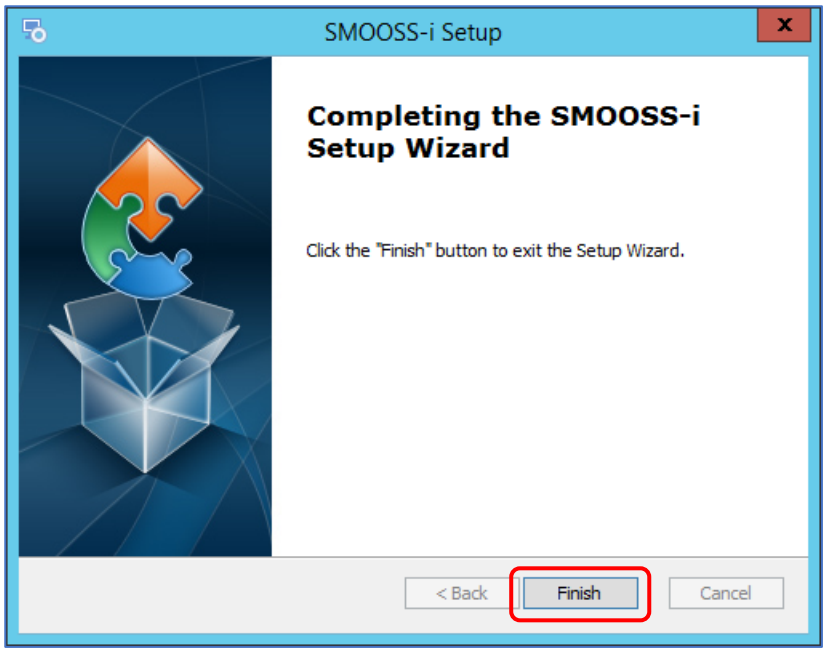
5) Installation Directory for the “SMOOSS-i” will be specified. Click [Next >].



6) When following screen displays, click [Install].



7) When installation completes, following screen displays. Click [Finish] to close Setup window.



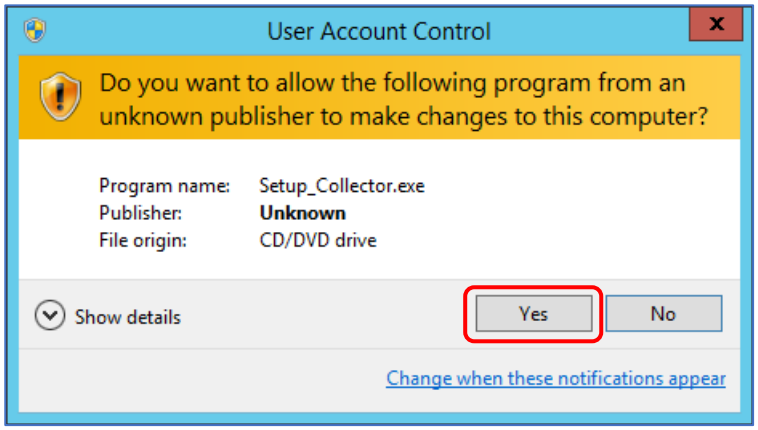
2-5-6 Installation of information collect software

1) Insert installation disc of SMOOSS-i into optical drive.

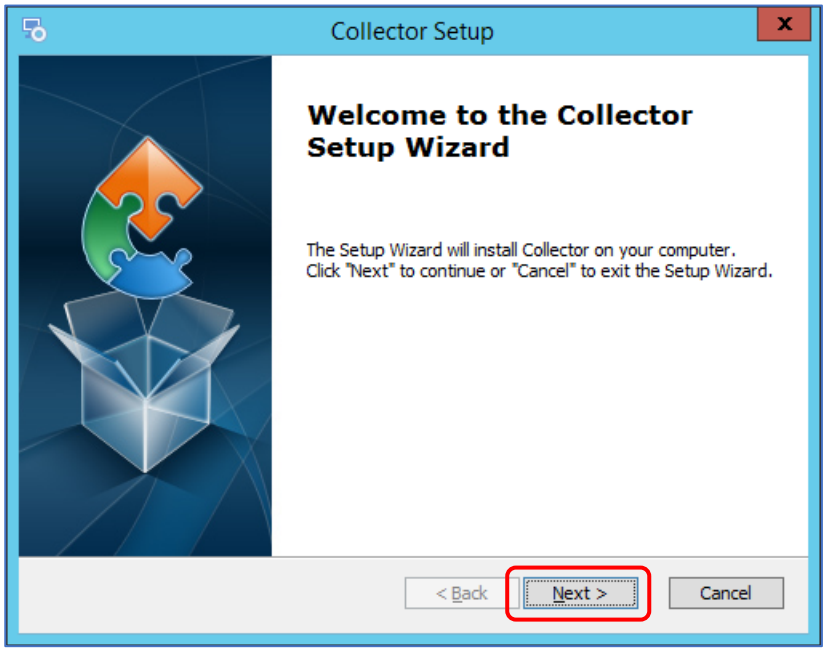
2) Display files of “Collector” folder of installation disc by Windows Explorer.

3) Double click “Setup_ Collector.exe”.

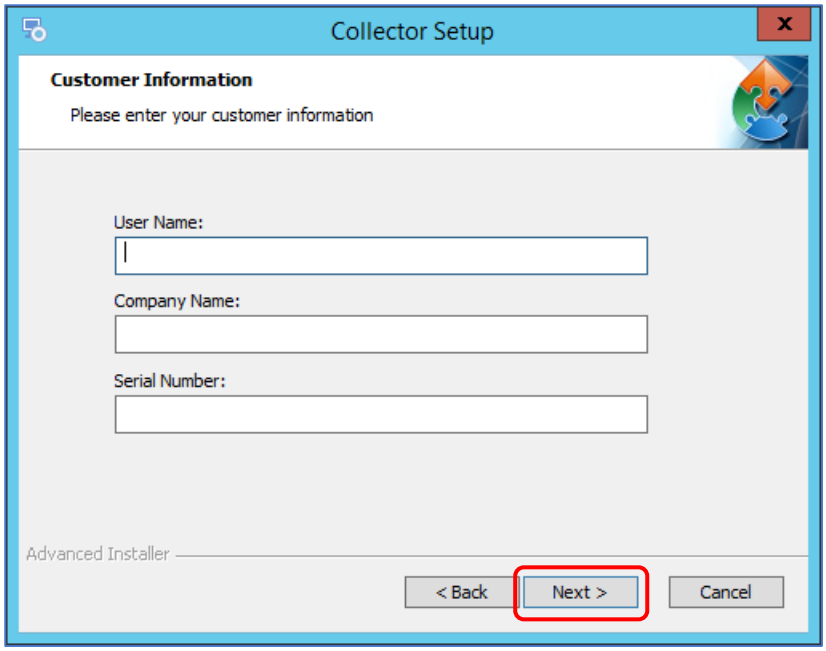
When User Account Control displays, click [Yes]



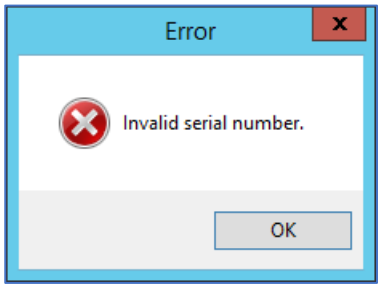
4) When following screen displays, click [Next >].



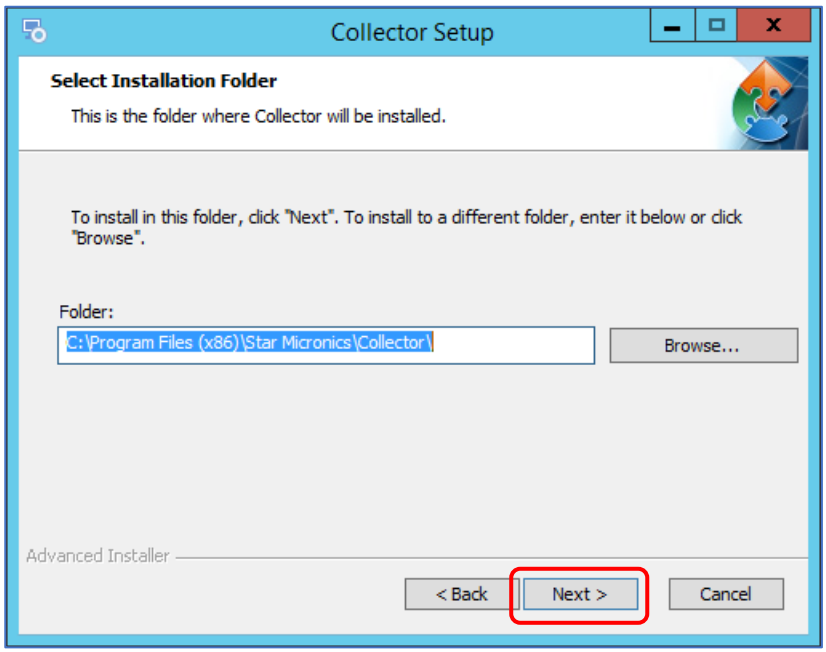
5) Enter User Name, Company Name and Serial Number. There is no problem even if User Name and Company Name is blank. Click [Next >] after entering.



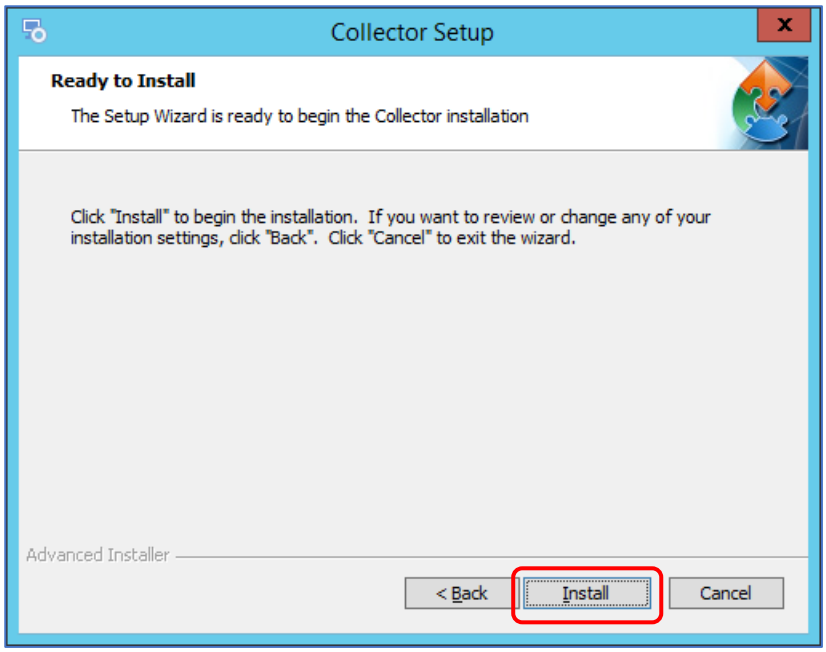
If wrong number is entered to serial number, following screen displays.



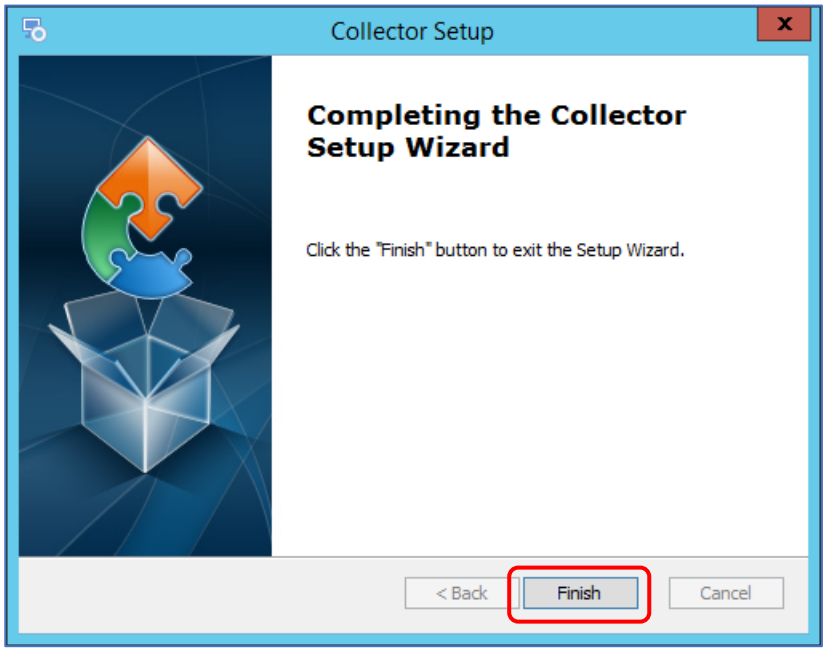
6) Installation Directory for the “Collector” will be specified. Click [Next >].



7) When following screen displays, click [Install].



8) When installation completes, following screen displays. Click [Finish] to close Setup window.



2-5-7 Installation of MITSUBISHI CNC communication software

NOTICE

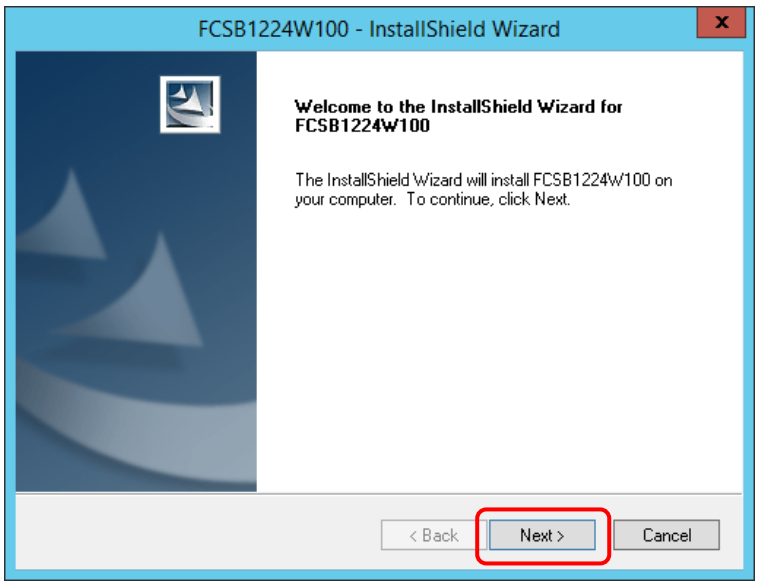
• Install the software only when communicating with MITSUBISHI CNC.

1) Insert installation disc of SMOOSS-i into optical drive.

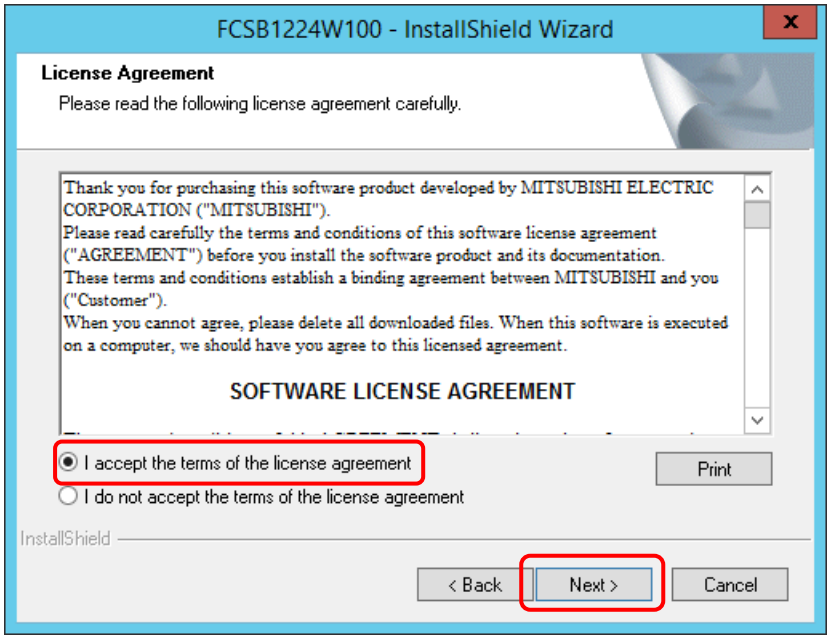
2) Display files of “FCSB1224W100” folder of installation disc by Windows Explorer.

3) Double click “runtime-setup.exe”.

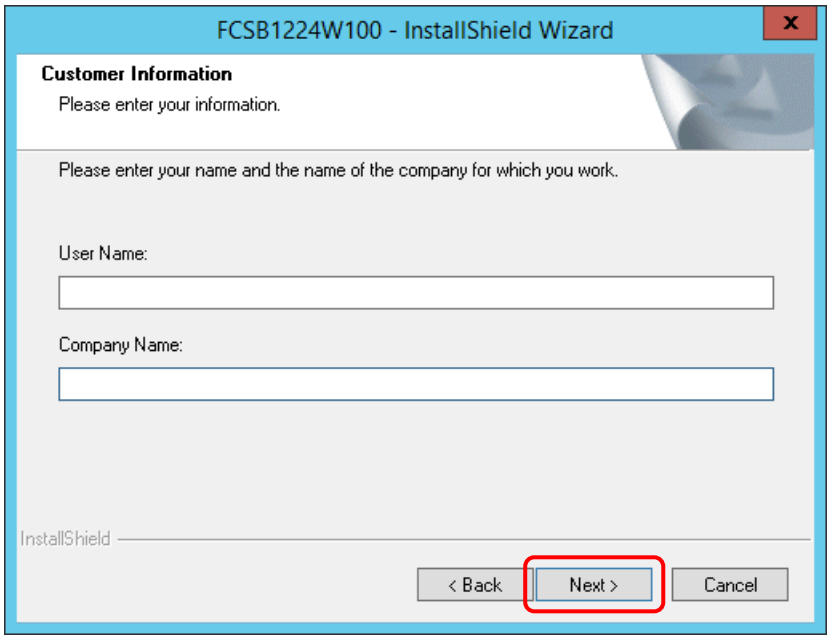
4) When following screen displays, click [Next >].



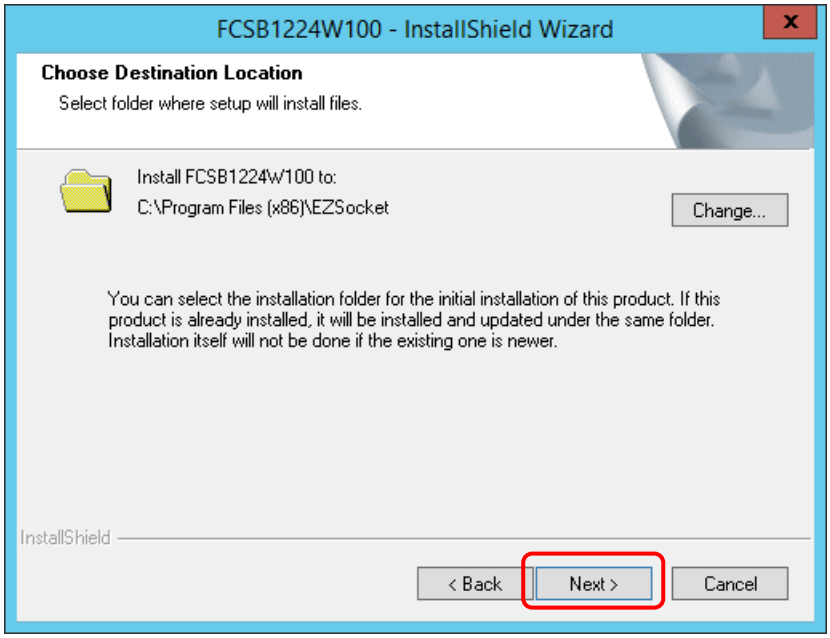
5) When following screen displays, after reading license agreement carefully, select [I accept the terms of the license agreement] and click [Next >].



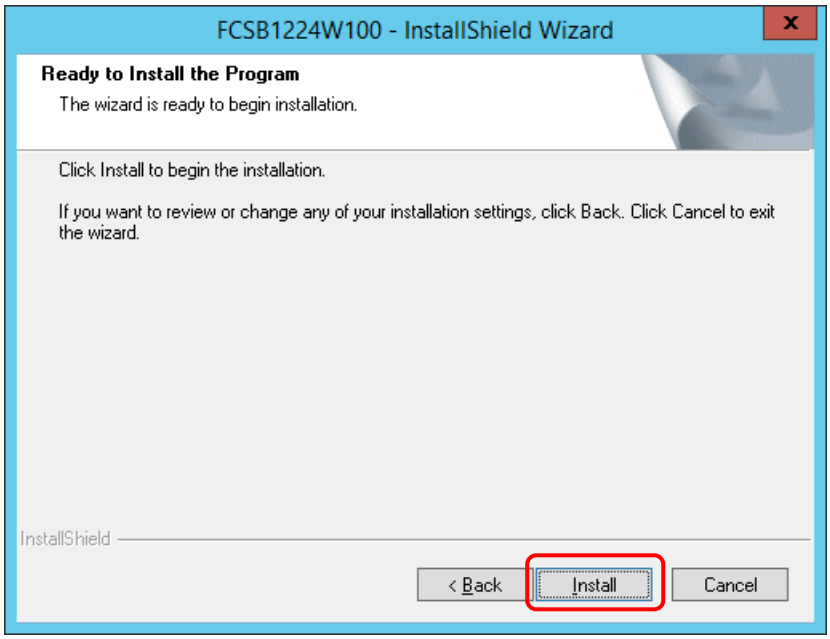
6) Enter User Name and Company Name. Click [Next >] after entering.



7) When following screen displays, click [Next >].



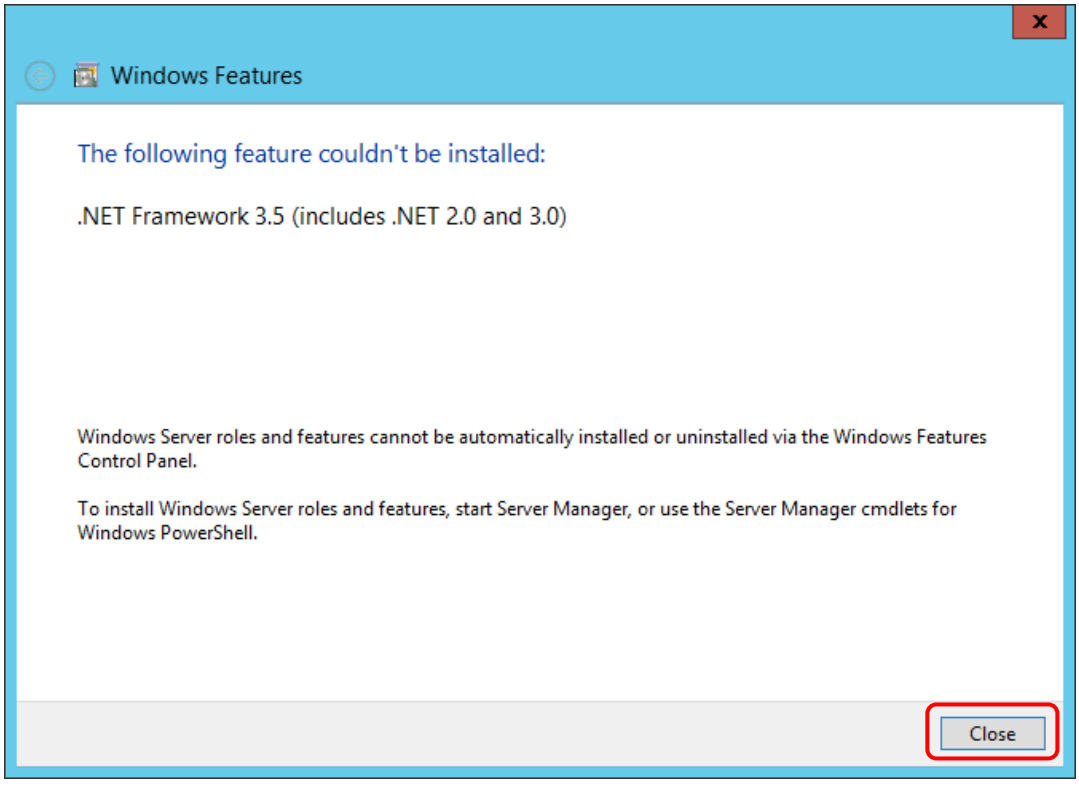
8) When following screen displays, click [Install].



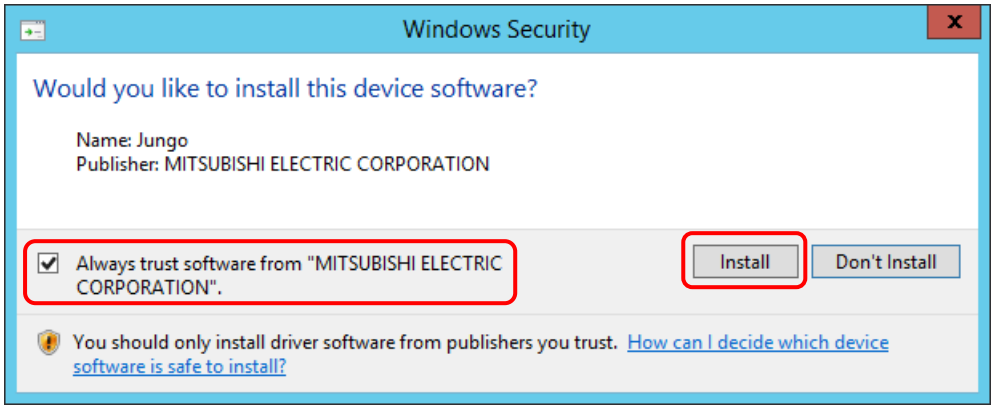
9) When the following screen displays, click [Close]. Please click [Close] several times as the same screen is displayed over and over again.

NOTE

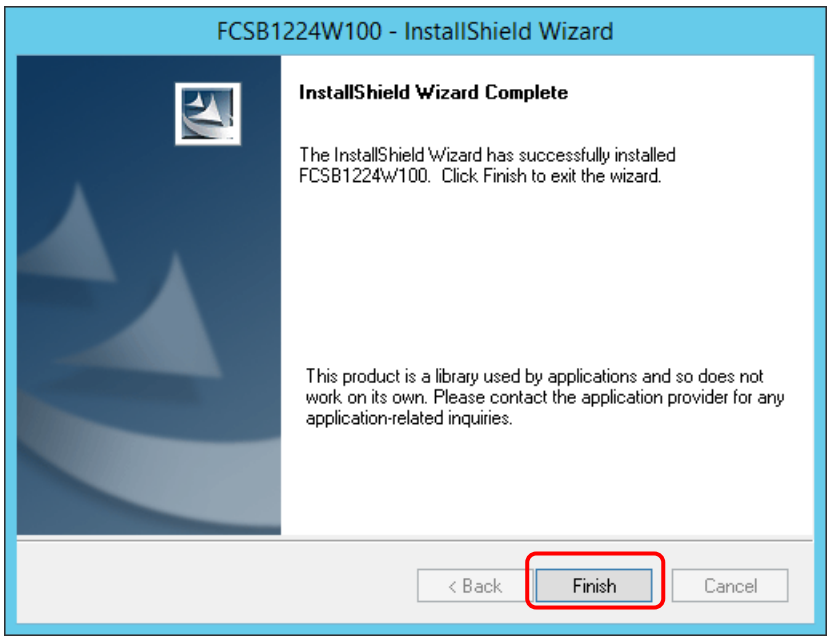
▪ There is no need to install .NET Framework 3.5 to operate the software.



10) When following screen displays, click [Install].



11) When installation completes, following screen displays. Click [Finish] to close Setup window.



12) Restart the server.

CHAPTER 3

Information collect application

3 Information collect application

3-1 Starting

3-1-1 For Windows Server 2019/2016, Windows 11/10

a) When starting from short cut

Double click the short cut [Collector]  to start Collector.

b) When starting from the start menu

1) Select Windows' start menu.

For Windows 11, select the arrow net to [All Apps].

2) Select [Star Micronics SMOOSS-i].

3) Select [Collector] to start Collector.

3-1-2 For Windows Server 2012 R2

a) When starting from short cut

Double click the short cut [Collector]  to start Collector.

b) When starting from the start menu

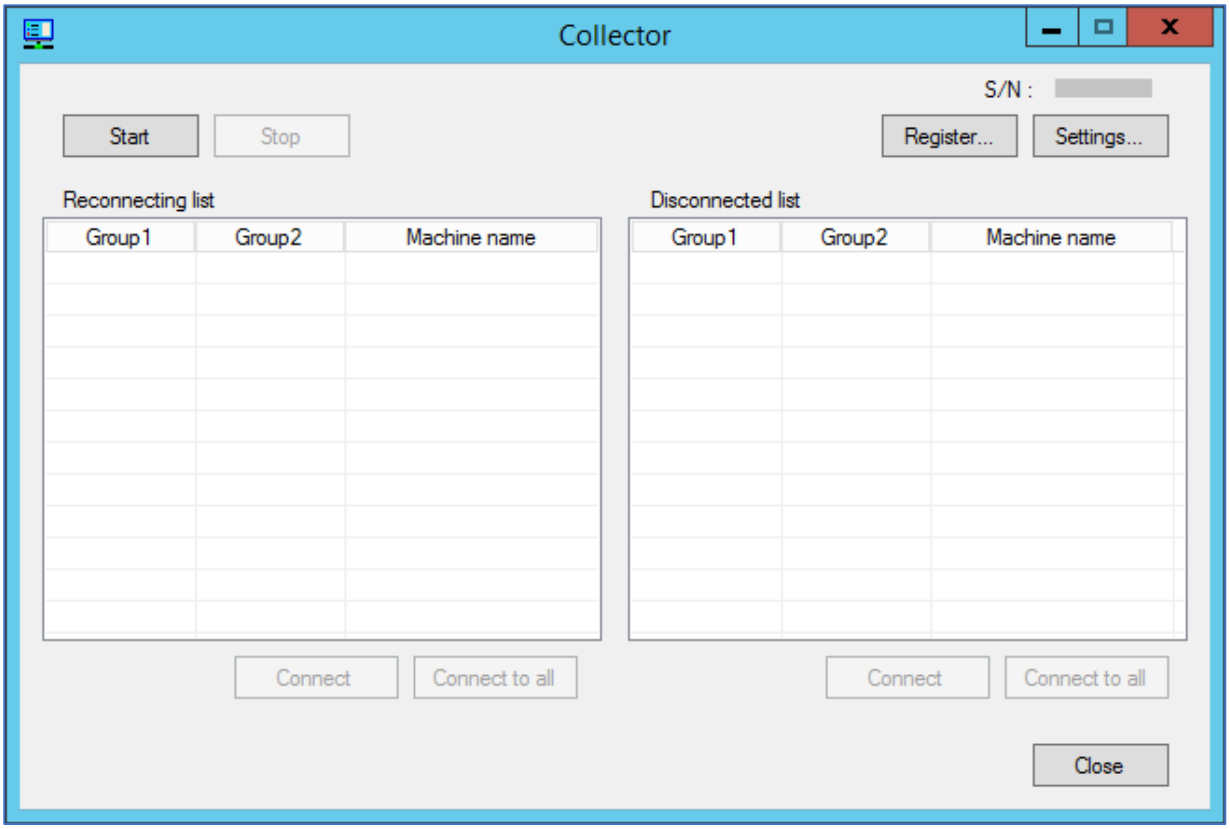
1) Select Windows' start menu.

2) Click the icon of down arrow.

3) Click [Collector] in [Star Micronics SMOOSS-i] to start.

3-2 Main Screen

When Collector starts, following main screen displays.



Buttons and functions

[S t a r t] To start information collection.

[S t o p] To stop information collection.

[Register…] To display Registration screen. Refer to section 3-7.

[Settings…] To display Settings screen. Refer to section 3-8.

[Connect] To start connection with machine. Refer to section 3-6.

[Connect to all] To start connection with machine. Refer to section 3-6.

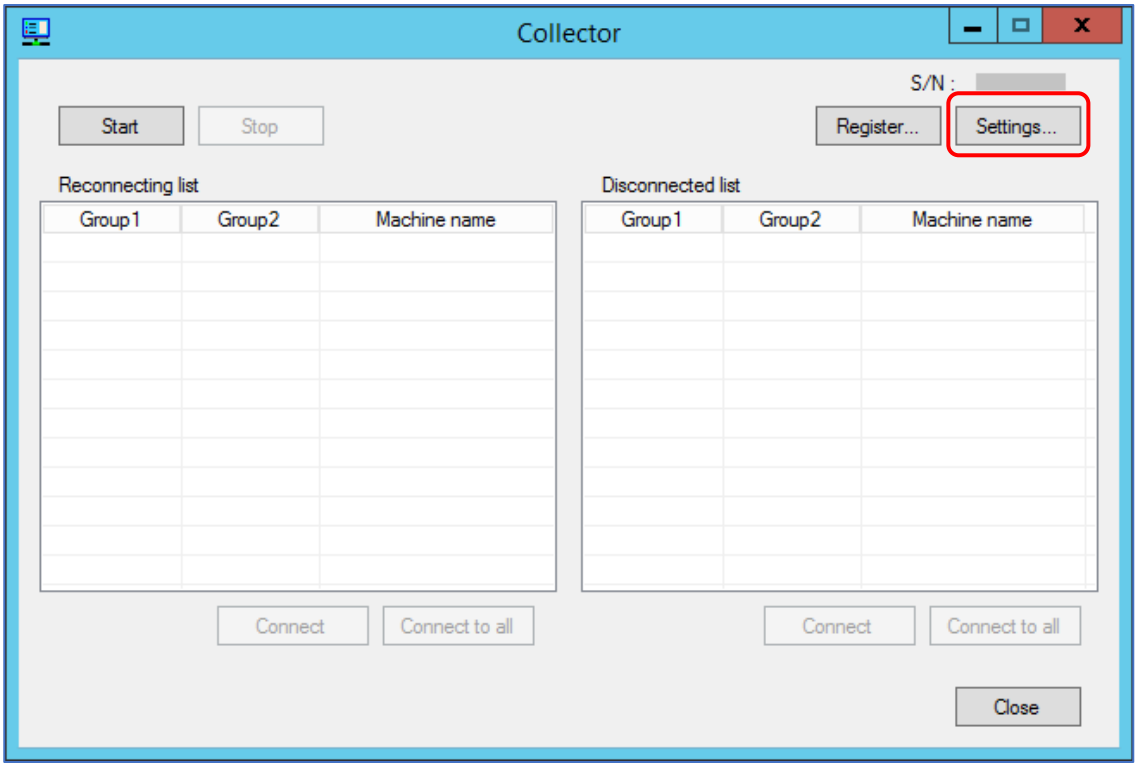
[C l o s e] To finish the Collector.

3-3 License Registration

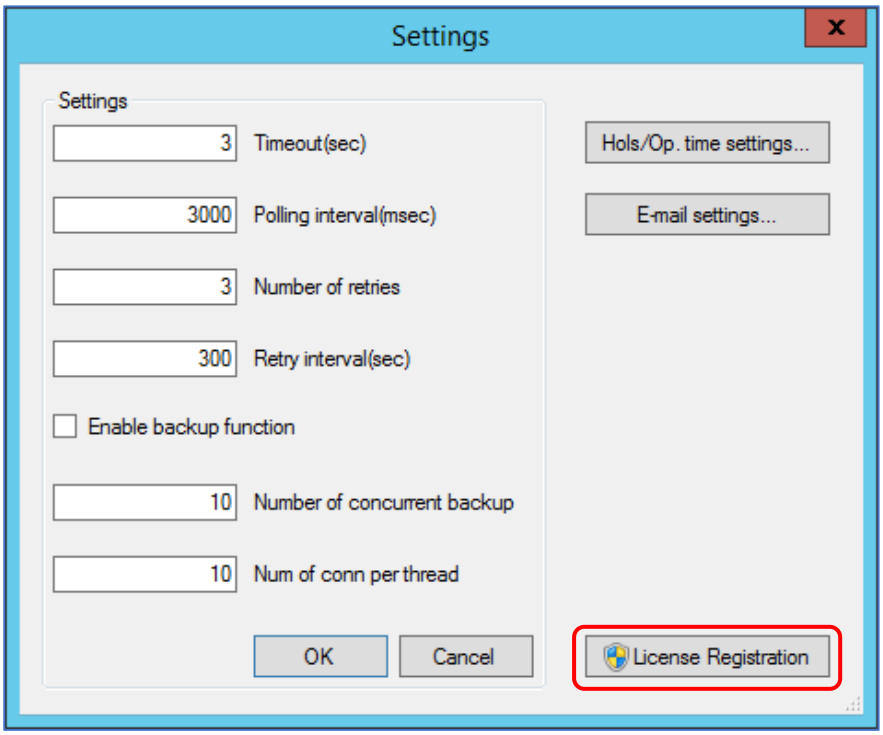
NOTICE

・You can use SMOOSS-i on the server without password for 90 days after installation.

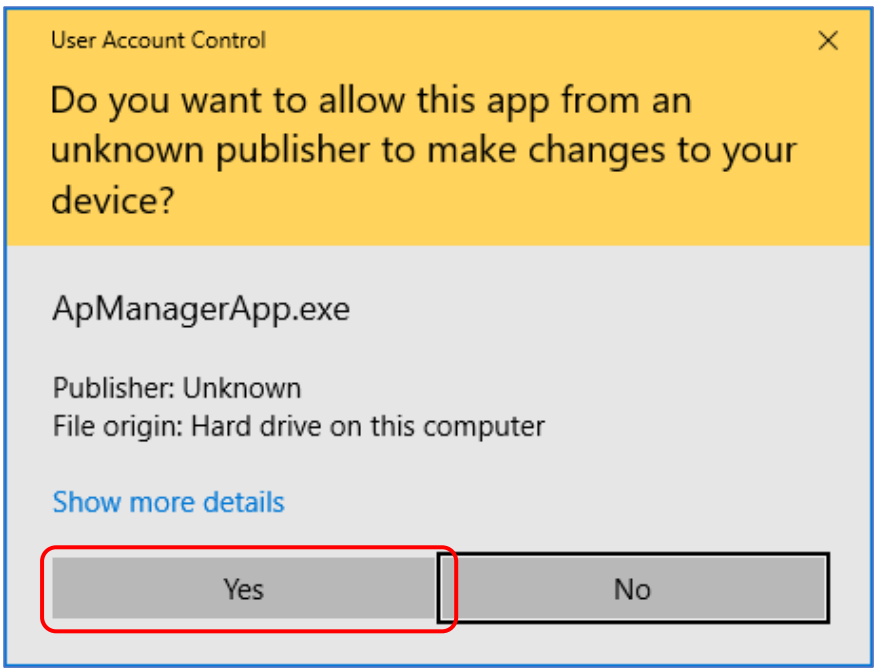
Click [Settings…] button on the main screen.



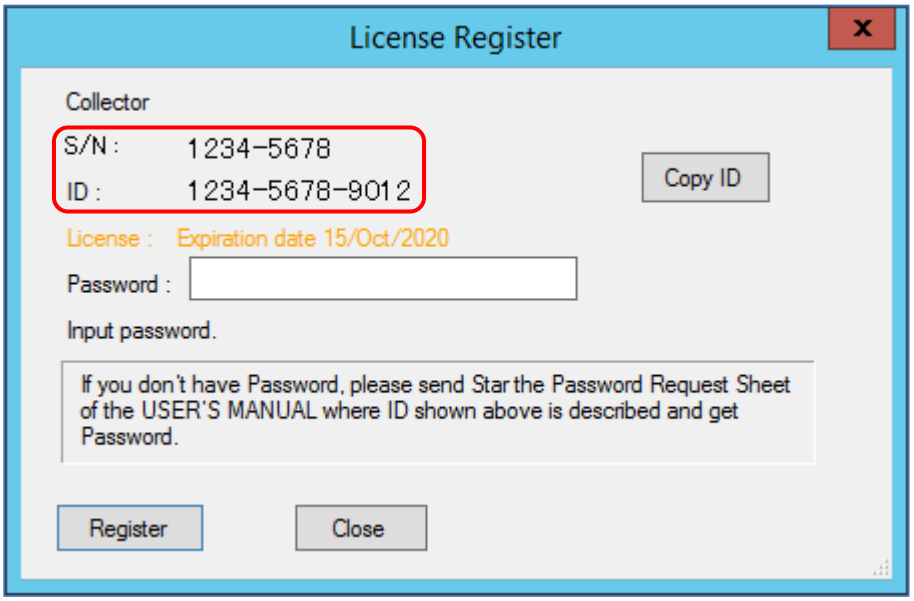
When following screen displays, click [License Registration].



When User Account Control displays, click [Yes]



The password prompt dialog box appears. Acquire the password from Star and input the password into the password field and click [Register] button. After inputting the correct password, no further license registration is required.



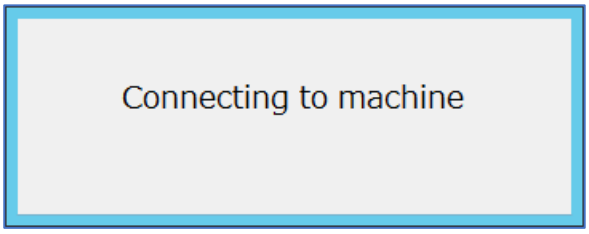
NOTICE

- Please send "Password Request Sheet" to STAR MICRONICS and acquire the password. S/N and ID code shown in the screen above are necessary to complete the "Password Request Sheet". "Password Request Sheet" can be found on page iv of this manual.
- You need to acquire a new password for each server.
- You need to sign in with a username (an account name) of server administrator or belonged to the Administrators group.

3-4 Start

Click [Start] button to start information collection.

During connecting process with the machine, following message displays. The message window closes automatically after connection completes. When connecting with multiple machines, multiple message windows displays according to the number of the machine.



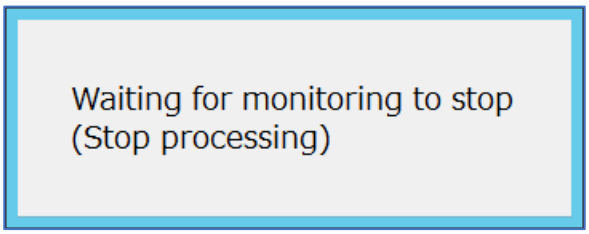
NOTICE

・<For versions earlier than 1.8.2>
While collecting the information, do not sign out (log off) on the server. If doing so, information collecting interrupts.
<For version 2.0.0 and later>
Information will continue to be collected even if you sign out (log off).

3-5 Stop

Click [Stop] button to stop information collection.

While in stop processing, following message displays. The message window closes automatically after the process completes.



3-6 Connection, reconnection

Any error occurrence during communicating is recorded in list of reconnection or disconnection.

・Reconnection list

Machines which continue reconnection are listed in this list. Periodical reconnection try is carried out for the machines. When achieved correct connection, information is collected.

To connect right away, click [Connect] or [Connect to all].

・Disconnection list

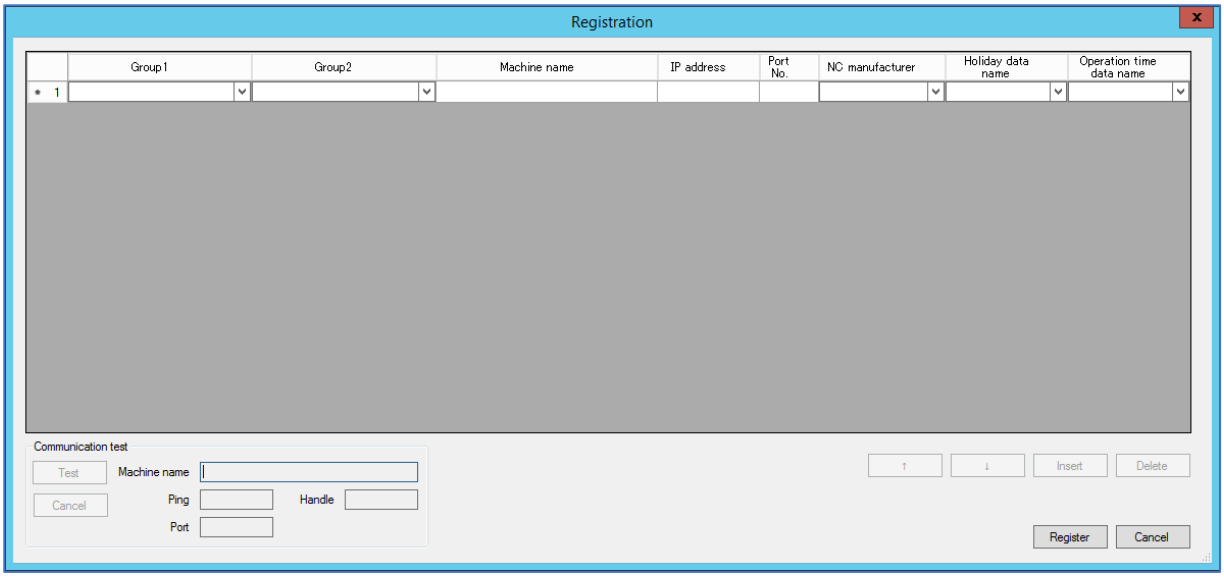
Machines which finished the reconnection process are listed in this list. Automatic reconnection is not carried out for the machines in this list. To connect, click [Connect] or [Connect to all].

REFER

・Refer to “3-8 Settings” for details on settings of reconnection action.

3-7 Registration

Click [Register…] button to display following screen.

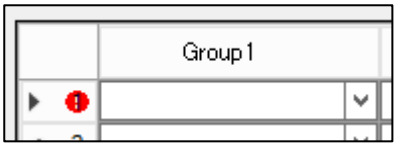


Items	Contents
Group1	To set “Grop1”. When not using, leave blank.
Group2	To set “Grop2”. When not using, leave blank.
Machine name	To set machine name.
IP address	To set the IP address of target machine.
Port No.	To set the port number of target machine. Set “683” for MITSUBISHI CNC.
NC manufacturer	To set the NC manufacture of target machine.
Holiday data name	To set Holiday data name made with the procedure in “section 3-8-1”.
Operation time data name	To set Operation time data name made with the procedure in “section 3-8-1”.

The settings of NC manufacturer are as follows.

Settings	Contents
FANUC	For FANUC CNC.
MITSUBISHI	For MITSUBISHI CNC.
FANUC(OC)	For FANUC CNC machine tools manufactured by other companies (non STAR).
MITSUBISHI(OC)	For MITSUBISHI CNC machine tools manufactured by other companies (non STAR).
N/A	Not communicate with the machine. Displays on “Monitor” screen.
N/M	Not communicate with the machine. Not display on “Monitor” screen (History only).

If there is any problem on the entered data, red mark displays on the No of line with problem.



About communication with machine tools manufactured by other companies.

NOTICE

・Communication with machine tools manufactured by other companies is not guaranteed.

When communicating with machine tools manufactured by other companies, following information will be collected.

- NC status (Operate, Stop, Alarm)
- Count value (parameter value of PATH 1)
- Program name being selected and comments.
- Alarm Message.
- Operator Message.

Button and function

[Register] To register input data.

[Cancel] To cancel input data.

[↑] To move data of the line with cursor to above.

[↓] To move data of the line with cursor to below.

[Insert] To add a line just above the line with cursor.

[Delete] To delete data of the line with cursor.

NOTE

・In the web page (refer to 4-3-1 NC status list view), machines are displayed in the same order as set in this section.

Communication test

Select target machine to be tested then click [Test] button. Item being tested flashes.

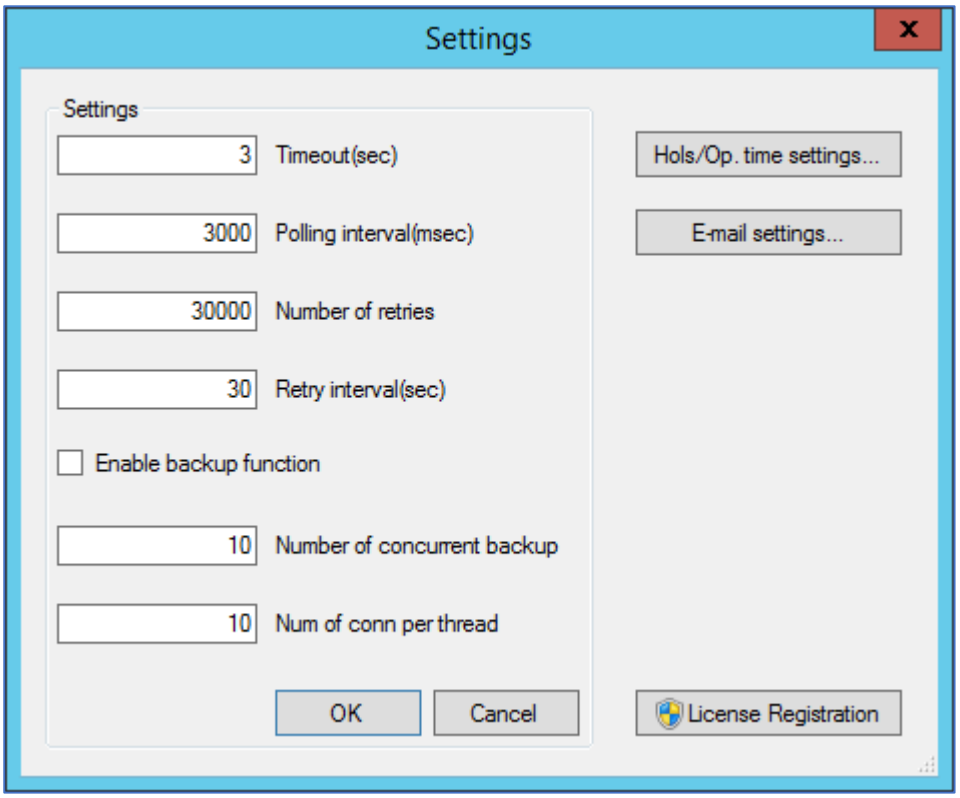
When test completes, results displays in each field.

To interrupt, click [Cancel] button.

Items	Contents
Machine name	To display the target machine name.
Ping	To display the Ping test result. When an error occurs, it is displayed in the form of "error count / test count". For example, if an error occurs 3 times in 5 tests, it will be displayed as "3/5".
Port	To display the test result of port number. When an error occurs, "NG" is displayed.
Handle	To display the test result of handle acquisition. When an error occurs, the number will be displayed.

3-8 Settings

Click [Settings…] button to display following screen.

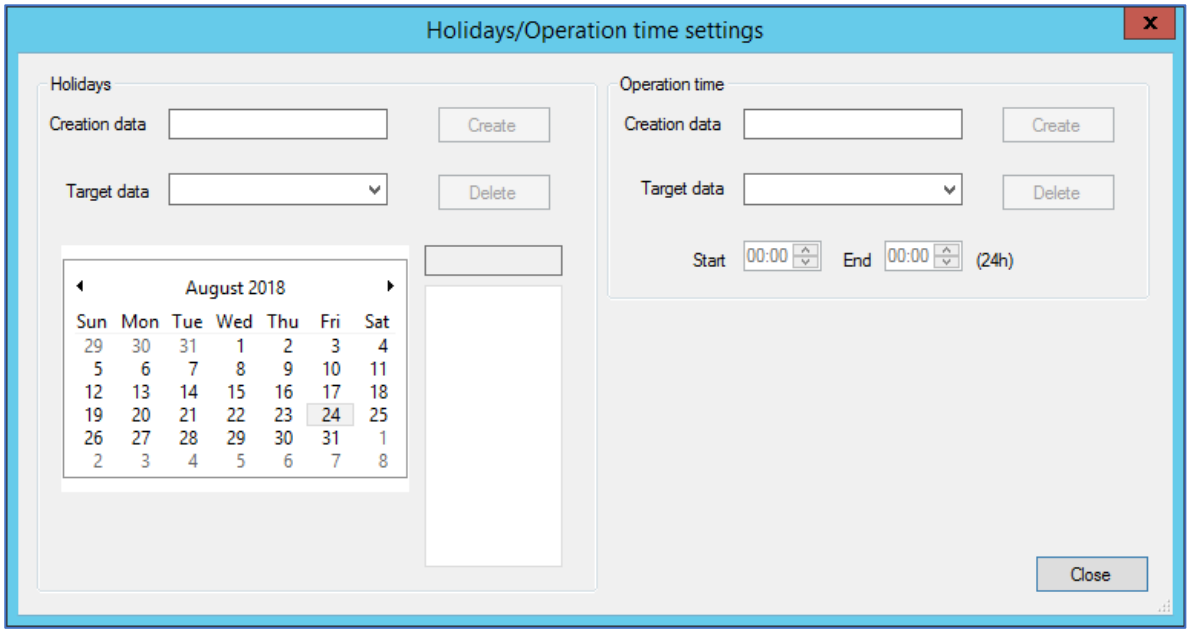


Items	Default	Contents
Timeout(sec)	3	To set timeout value when communicating with the machine.
Polling interval(msec)	3000	To set time interval to acquire the machine data.
Number of retries	30000	To set the number of times to try reconnection in the case of disconnection with the machine.
Retry interval(sec)	30	To set time interval of when trying reconnection.
Enable backup function	Ineffective	For using back-up function, check the box.
Number of concurrent backup	10	To set the number of target machine from which the back-up data is collected at the same time.
Number of conn per thread	10	Do not change the value.

Each item can be set. Leave default values normally.

3-8-1 Setting of holidays, operation time

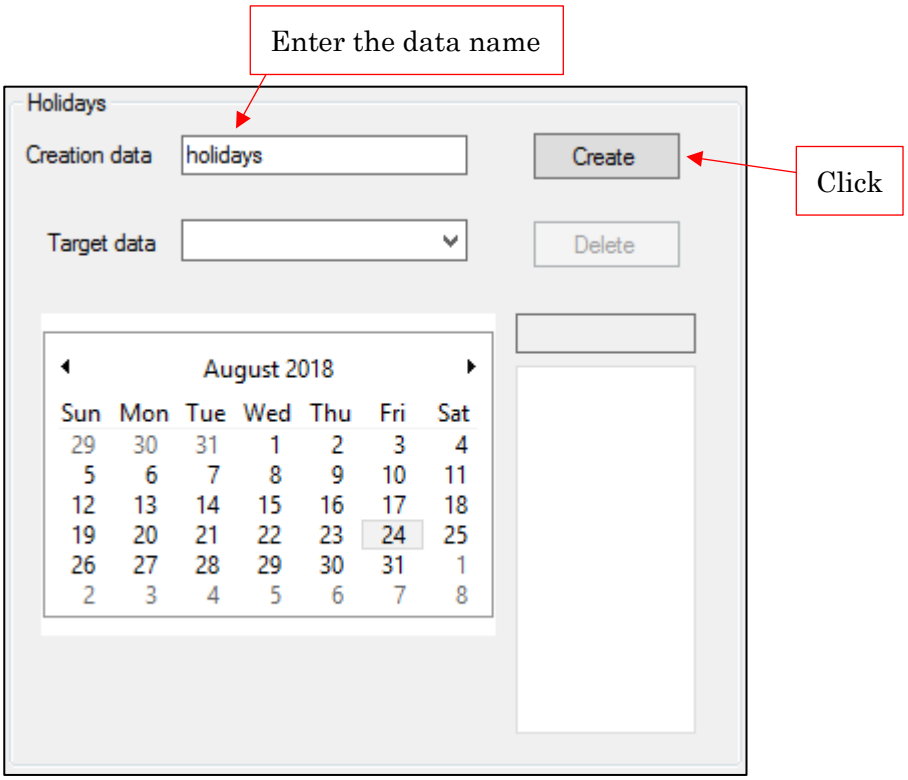
Click [Hols/Op. time settings…] button to display following screen.



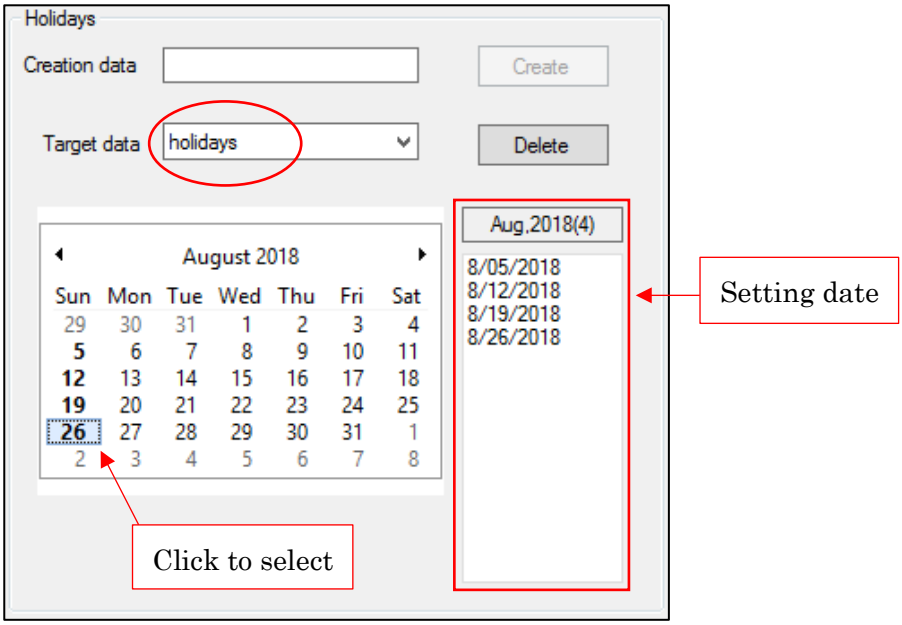
a) Holidays data

・Creating

Enter the data name to be create into “Creation data” field to click [Create] button.



Check that the entered data name is displayed at “Target data” field then click to select the date to be set as holiday in the calendar. The setting date displays on the right of the calendar.

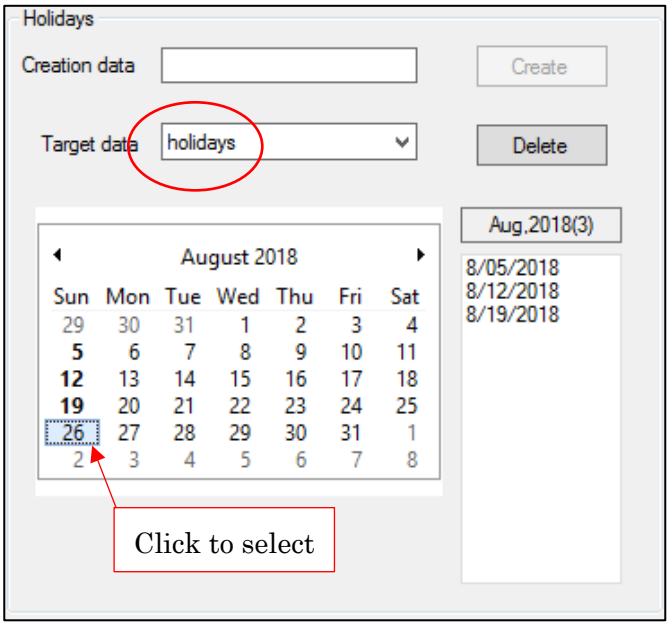


NOTICE

- Operation to preserve is unnecessary.
- Alphanumeric characters (A–Z, a–z, 0–9) and underscore (_) can be used for entering the data name. Data name must start with other than numeric characters.

・Editing

Select the Holidays data to be edited from “Target data” field and click a date on calendar to select. If the date is already set as Setting date, the date will be deleted. If the date is not set yet, the date will be added as holiday to Setting date.



NOTICE

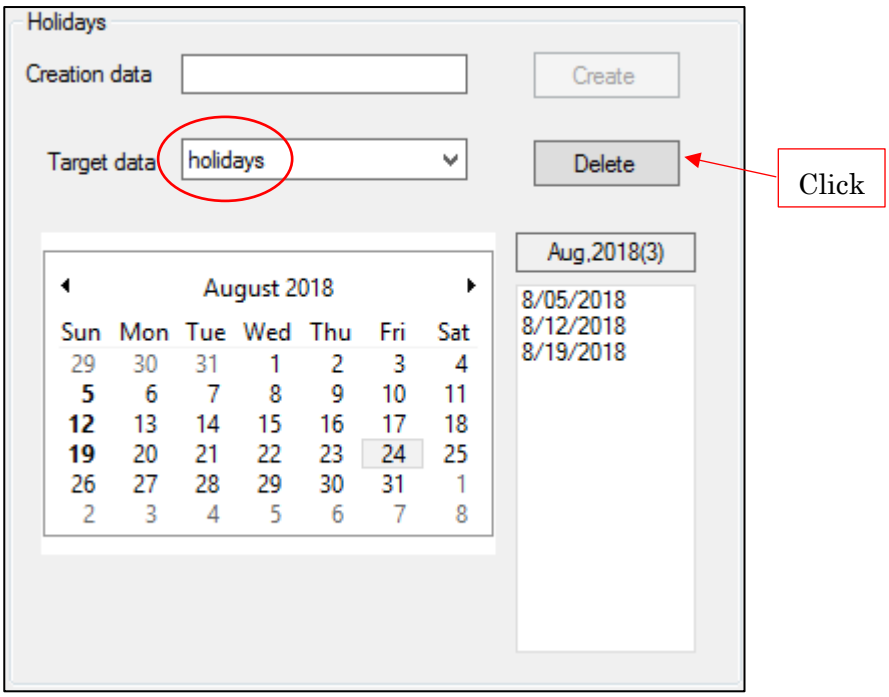
- Operation to preserve is unnecessary.

・Data deleting

NOTICE

・Deleted data cannot be restored.

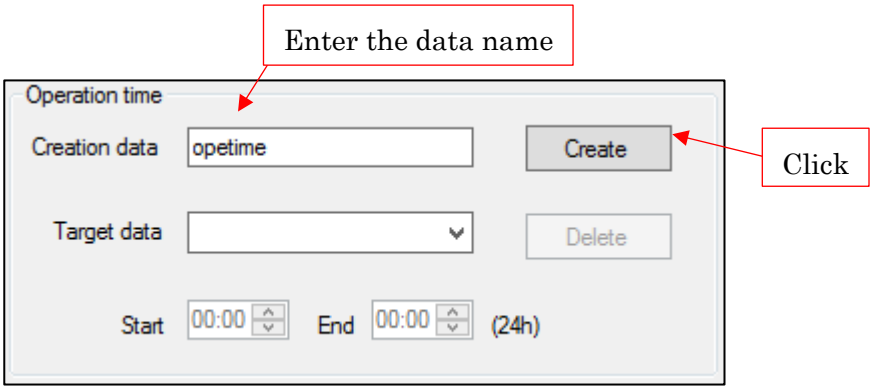
Selected the Holidays data to be deleted from “Target data” field to click [Delete] button.



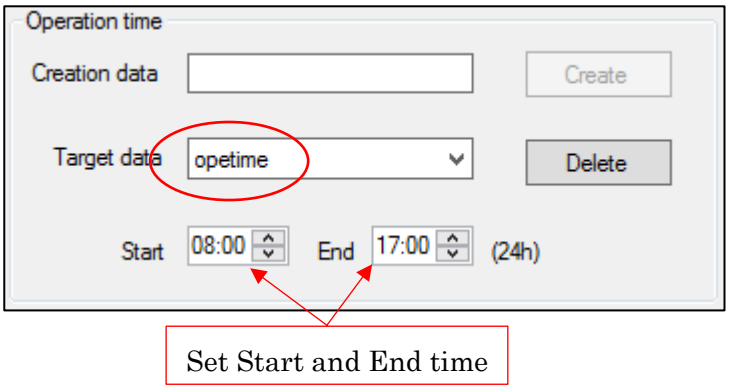
b) Operation time data

・Creating

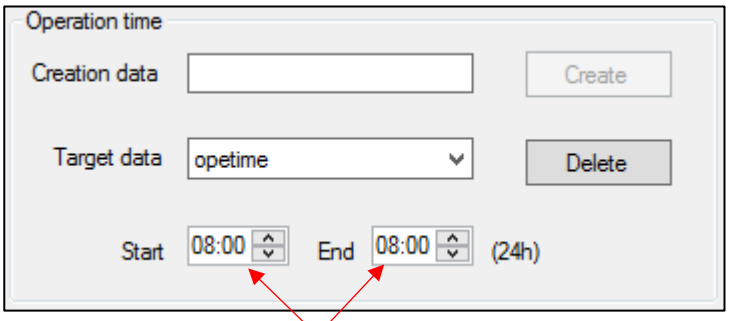
Enter the operation time data to be created in “Creation data” field to click [Create] button.



Check that the entered data name is displayed at “Target data” field then set the Start and End time. To set as 24 hours operating, set same datum time both to Start and End time.



Set Start and End time



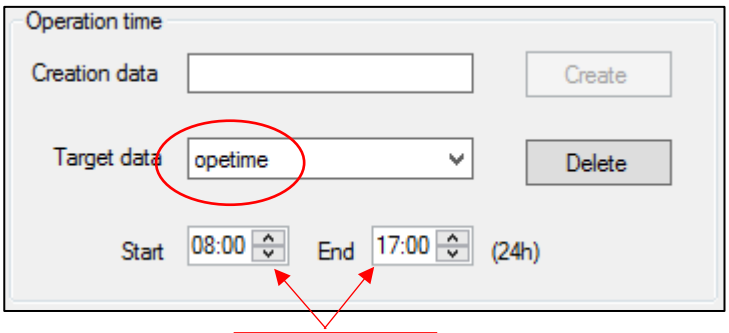
Same datum time is set for 24 hours operation

NOTICE

- Operation to preserve is unnecessary.
- Alphanumeric characters (A–Z, a–z, 0–9) and underscore (_) can be used for entering the data name. Data name must start with other than numeric characters.

・Editing

Select the Operation time to be edited from “Target data” field and correct time.



Correct time

NOTICE

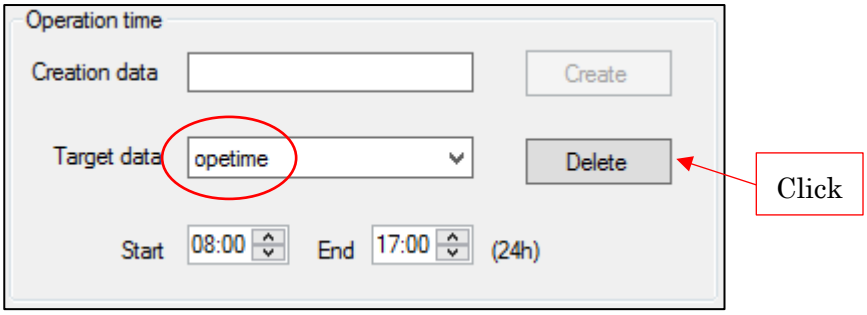
- Operation to preserve is unnecessary.

・Data deleting

NOTICE

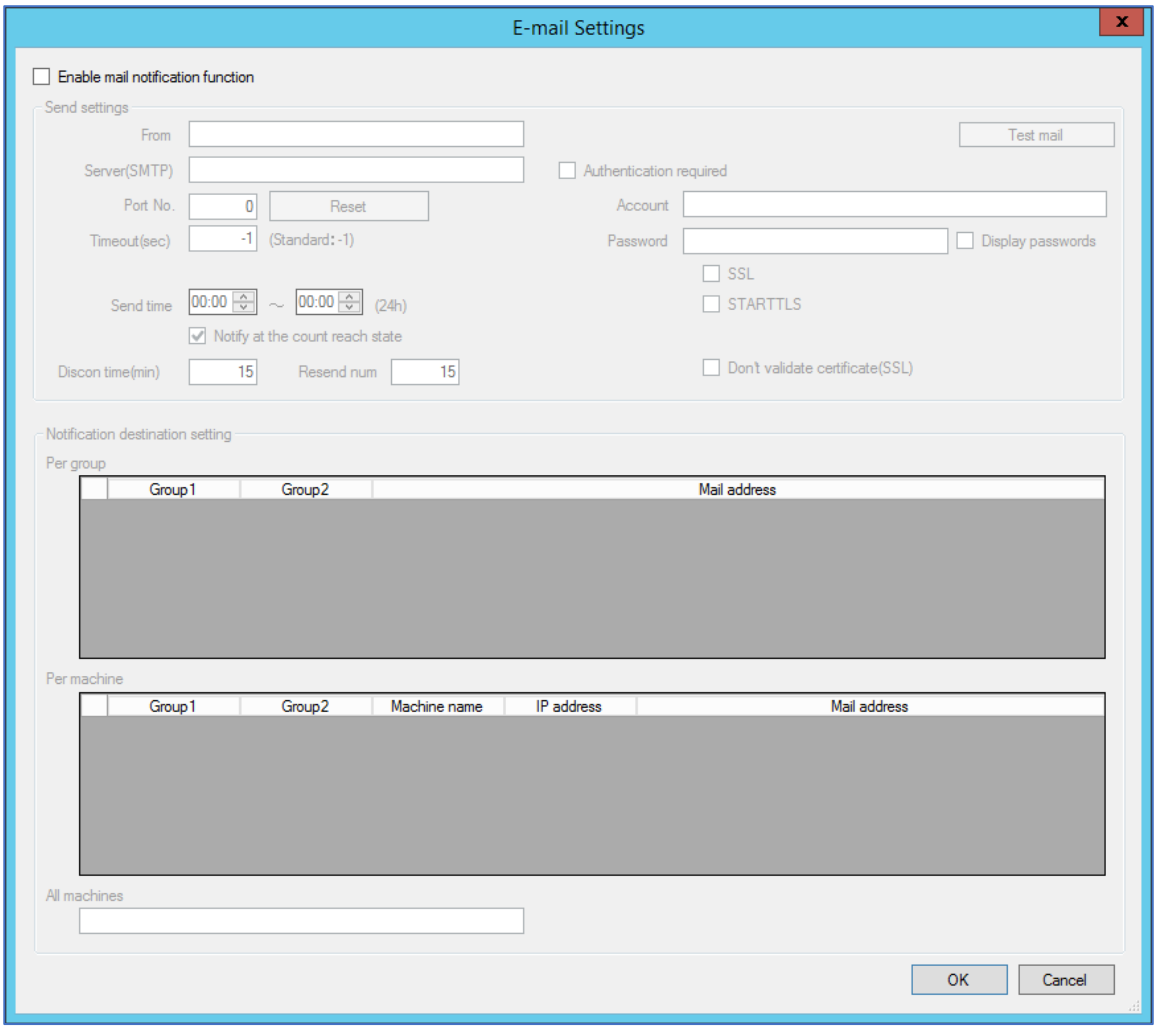
・Deleted data cannot be restored.

Select the Operation time to be deleted from “Target data” field to click [Delete] button.



3-8-2 Setting of E-mail notification

Click [E-mail settings…] button to display following setting screen.



To use mail notification function, check the box of “Enable mail notification function”.

a) Send settings

Item	Contents
From	To set sender address. The address set in this field will be displayed to the mail receiver as sender address. E.g.) smooss-i@****.com Administrator <smooss-i@****.com>
Server(SMTP)	To set sending server. E.g.) 192.168.1.1 smtp.****.com
Port No.	To set port number. E.g.) 25 By clicking [Reset] button, appropriate value will be set in accordance with the current setting.
Timeout	To set timeout value. Set with “-1” normally.

When authentication is required for sending server, set following settings.

Items	Contents
Authentication required	Check the box.
Account	To set the account name.
Password	To set the password.
Display passwords	To display characters of “Password” field.
SSL	Check this box to use encrypted connection (SSL).
STARTTLS	Check this box to use encrypted connection (STARTTLS).
Don’t validate certificate(SSL)	Do not check this box.

NOTICE

・If there is anything unclear with contents, be sure to check with network supervisor of your company before setting.

Setting of E-mail sending time

By setting E-mail sending time, E-mail is sent only in the specified time.

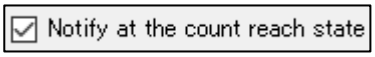
Setting such as starts before 0 o'clock and ends after 0 o'clock is also available.

When not specifying, set 0 o'clock to both time.

Setting of making E-mail sent at the count reach state.

To send E-mail at the count reach state, check the box of "Notify at the count reach state".

This box is checked at initial status.



NOTICE

・Without check in this box, followings will not be notified.
The count reach state of parts counter.
The count reach state of tool life counter.

Setting of disconnected time

Set the time until judging as disconnection to the machine in "Discon time". Default value is "15".

Setting of resend number

Set the number of times to try resending when communication error with the sending server in "Resend num". Default value is "15".

NOTICE

・Resending is carried out with one-minute interval.
・After finishing carrying out resending for the number of times as set in "Resend num", sending does not function even if communication error occurs with sending server.

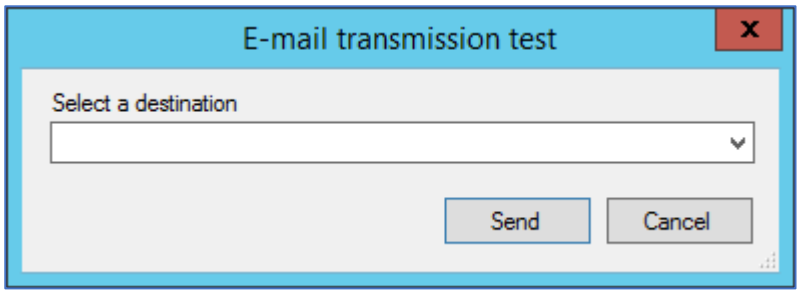
b) Notification destination setting

Sending destination of notification can be set per group and machine. Entering field is prepared according to the registration status of machine therefore enter the address in corresponding field. To set multiple addresses, divide them with comma ",".

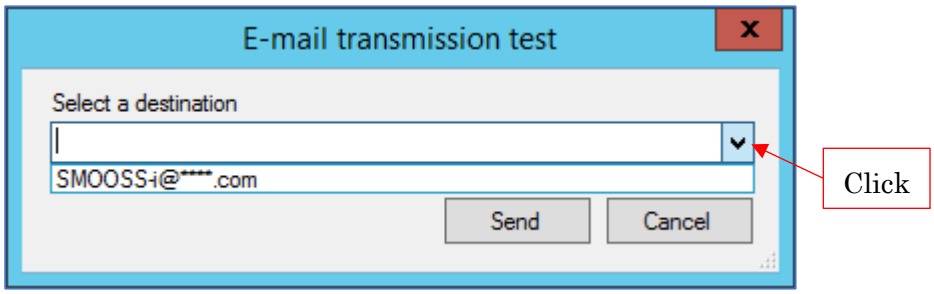
To send notification for all machine monitored, enter the address in "All machines".

c) Sending the test mail

Click [Test mail] button to display following screen.



Select an address set as destination from the drop-down list. Direct entering is also allowed.

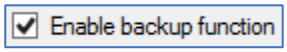


Click [Send] button to send test mail.

3-9 CNC Data back up

3-9-1 Displaying the button

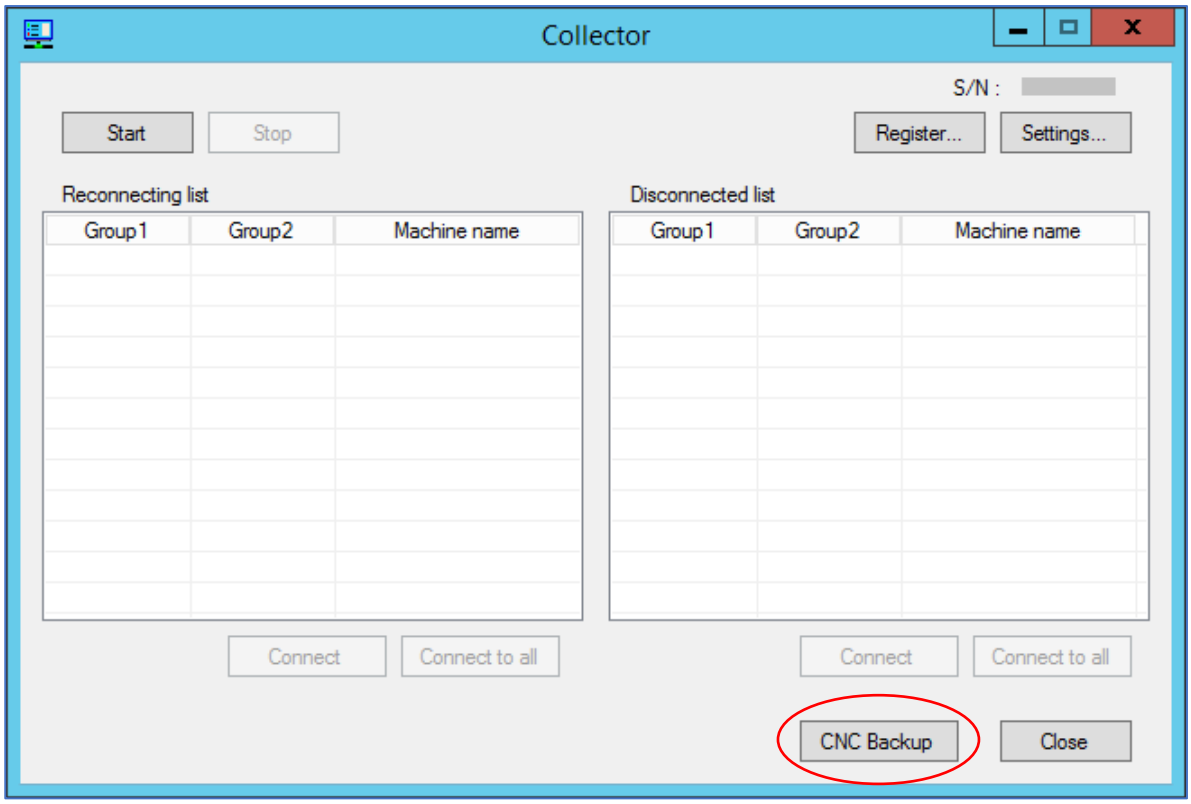
[CNC Backup] button does not appear without setting. Check “Enable backup function” on setting screen to display this button.



REFER

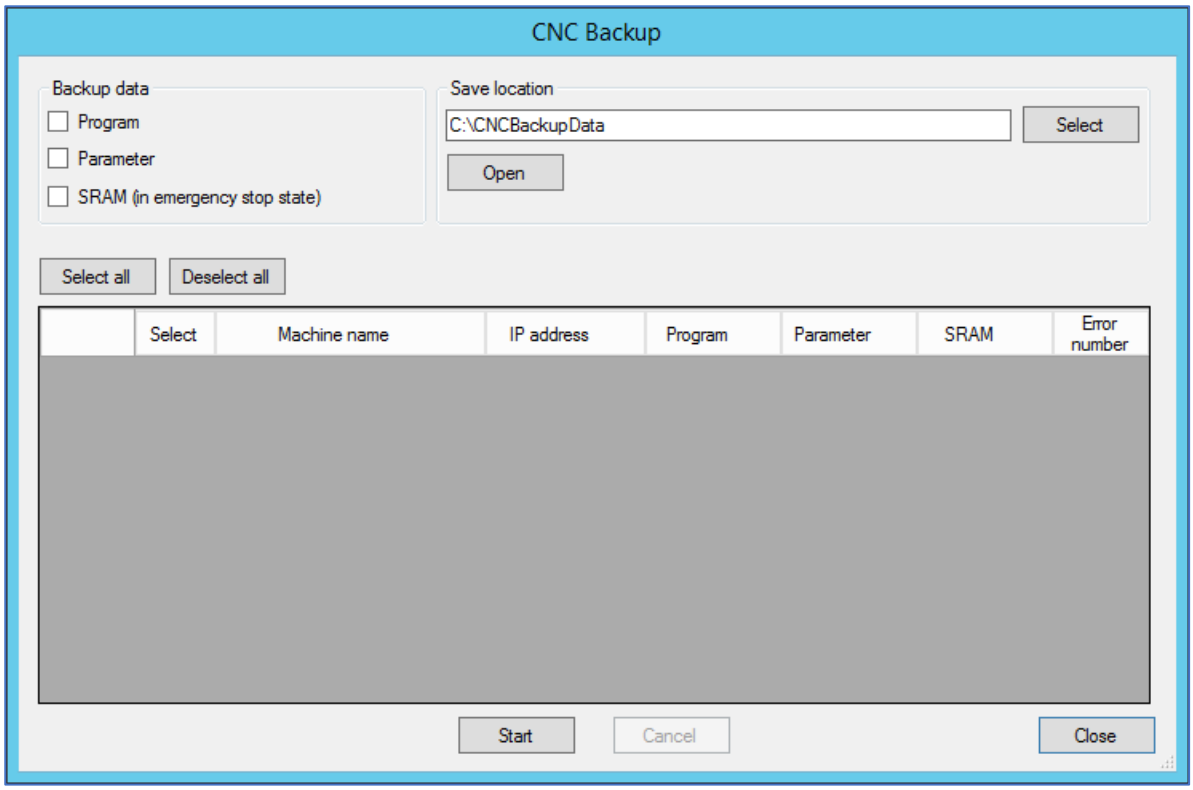
・Refer to “3-8 Settings” for details.

By checking “Enable backup function”, [CNC Backup] button displays on main screen.

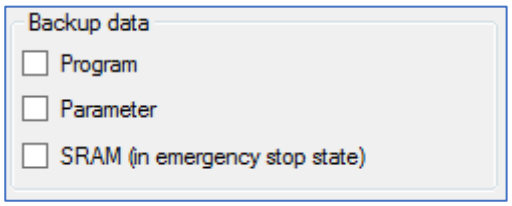


3-9-2 About the screen

Click [CNC Backup] button to display following screen.



a) Backup data



Items	Contents
Program	Check this to back up the machining program.
Parameter	Check this to back up the parameter data.
SRAM	Check this to back up SRAM data.

NOTICE

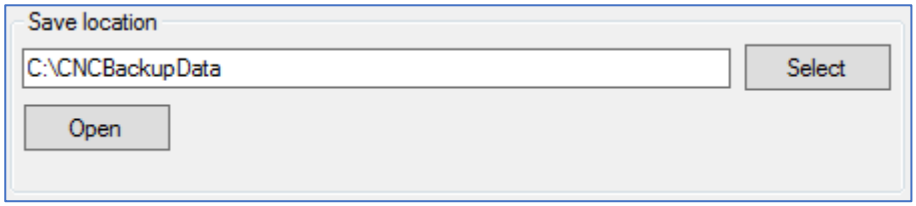
・To back up SRAM data, make the machine into the emergency stop state. Otherwise, an error will be generated.

<For the CNC series of 16i, 18i, 21i>

・To back up the program data, switch the machine mode to other than MDI mode. In addition, stop the background edit. Otherwise, an error will be generated.

・To back up the parameter data, carry out back up function during machine stop. When carrying out back up function even during one cycle stop state, an error will be generated. In this case, reset the machine then back up the parameter data.

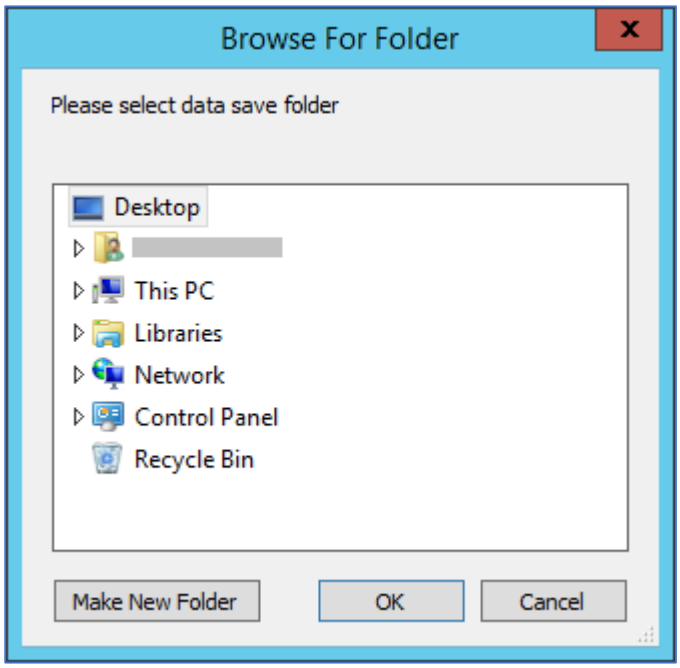
b) Save location



Specify the folder for saving back up data.

Click [Open] button to open the folder input in the form by Windows Explorer.

Click [Select] button to open following screen then specify a save folder.



NOTICE

・Default directory of Save location is C:\CNCBackupData".

・Folder for each machine is created in specified Save location.
Folder name is set as "Machine name (IP address)"

E.g.)

Machine name	IP address	Folder name to be created
Machine100	192.168.62.100	Machine100(192.168.62.100)

・Moreover, folder with folder name of back-up date is created in folder for each machine.

E.g.)

Back up date	Folder name to be created
July 7, 2018	20180707

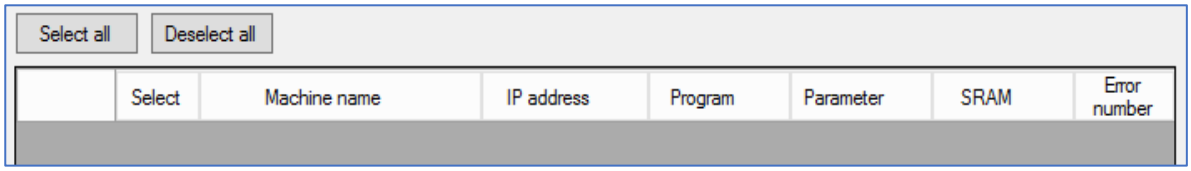
If multiple times of back-up is carried out in the same day, the folder of latest data is created with the name of date and the folders other than the latest one are created with name of back-up execution date and time.

E.g.)

Date time of backup	Folder name to be created
July 7, 2018 10:03:25	20180707_100325
July 7, 2018 20:00:37	20180707

c) List table

Target machine for data collection display by list table format.



Items	Contents
Select	Check the desired machine to collect the data.
Machine name	Machine name is displayed.
IP address	IP address of the machine is displayed.
Program	Status for program data collection is displayed.
Parameter	Status for parameter data collection is displayed.
SRAM	Status for SRAM data collection is displayed.
Error number	Error number is displayed.

Click [Select all] button to make all machine be a target.

Click [Deselect all] button to make all machine be out of target.

3-9-3 Operation procedure

1) Select (check the box) the data to save in “backup data”.

2) Specify the save folder by “Save location”.

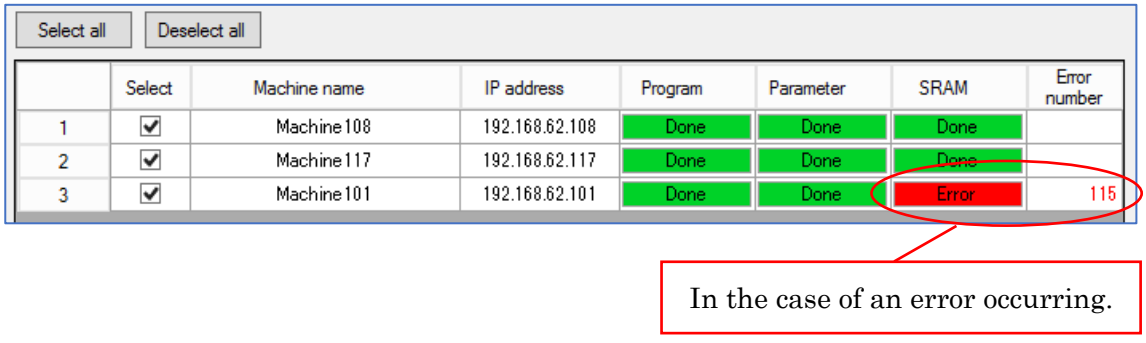
3) Check the “Select” column of the machine to collect data in the list.

4) Click [Start] button to start back-up.

Click [Cancel] to cancel in progress.

Example of list is following screen.

“Done” displays on the data collected normally, and “Error” displays on that with abnormal end.



5) Click [Close] button to close the screen.

3-9-4 Back up data name

File name of the back upped data is as follows.

Items	PATH (PATH/HEAD)	File name	
		Series 0i,30i,31i,32i	Series 16i,18i,21i
Program	1	ALL-PROG.TXT	PROGRAM.ALL
	2	ALL-PROG.P-2	PROGRAM.P-2
	3	ALL-PROG.P-3	–
Parameter	1	CNC-PARA.TXT (*1)	CNCPARAM.DAT
	2		CNCPARAM.P-2
	3		–
SRAM	–	SRAM *** (*2)	

(*1) Data for all PATHs is backed up to one file.

(*2) File name starts "SRAM" and character and extension follow in the different way depending on the machine type.

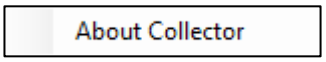
3-9-5 Error list

No.	Contents	
102	Cause	Communication disconnected.
	Measures	Check the cable of Ethernet, Power supply of CNC or network equipment
114	Cause	CNC is processing.
	Measures	Execute again.
115 118	Cause	System software of CNC is not applicable.
	Measures	The software needs to be revised. Please inquire STAR MICRONICS.
126	Cause	Program data was tried to back up during MDI mode.
	Measures	Back up program data during other than MDI mode.
	Cause	Program data was tried to back up during background edit.
	Measures	Back up program data after finishing background edit.
127	Cause	Parameter data was tried to back up during machine operation.
	Measures	Back up parameter data after finishing machine operation.
	Cause	Parameter data was tried to back up during one cycle stop.
	Measures	Back up parameter data after resetting the machine.
	Cause	SRAM data was tried to back up in status other than emergency stop.
	Measures	Back up SRAM data during emergency stop status.
Other	Cause	Internal error occurred.
	Measures	Execute again. If same error occurs, please inquire STAR MICRONICS.

3-10 Close

Click [Close] button to finish Collector.

3-11 Version information

Right-click on main screen to display 

then click it. Following version information displays.

CHAPTER 4
Web application

4 Web application

4-1 Access to the top page

Following address is top page of SMOOSS-i.

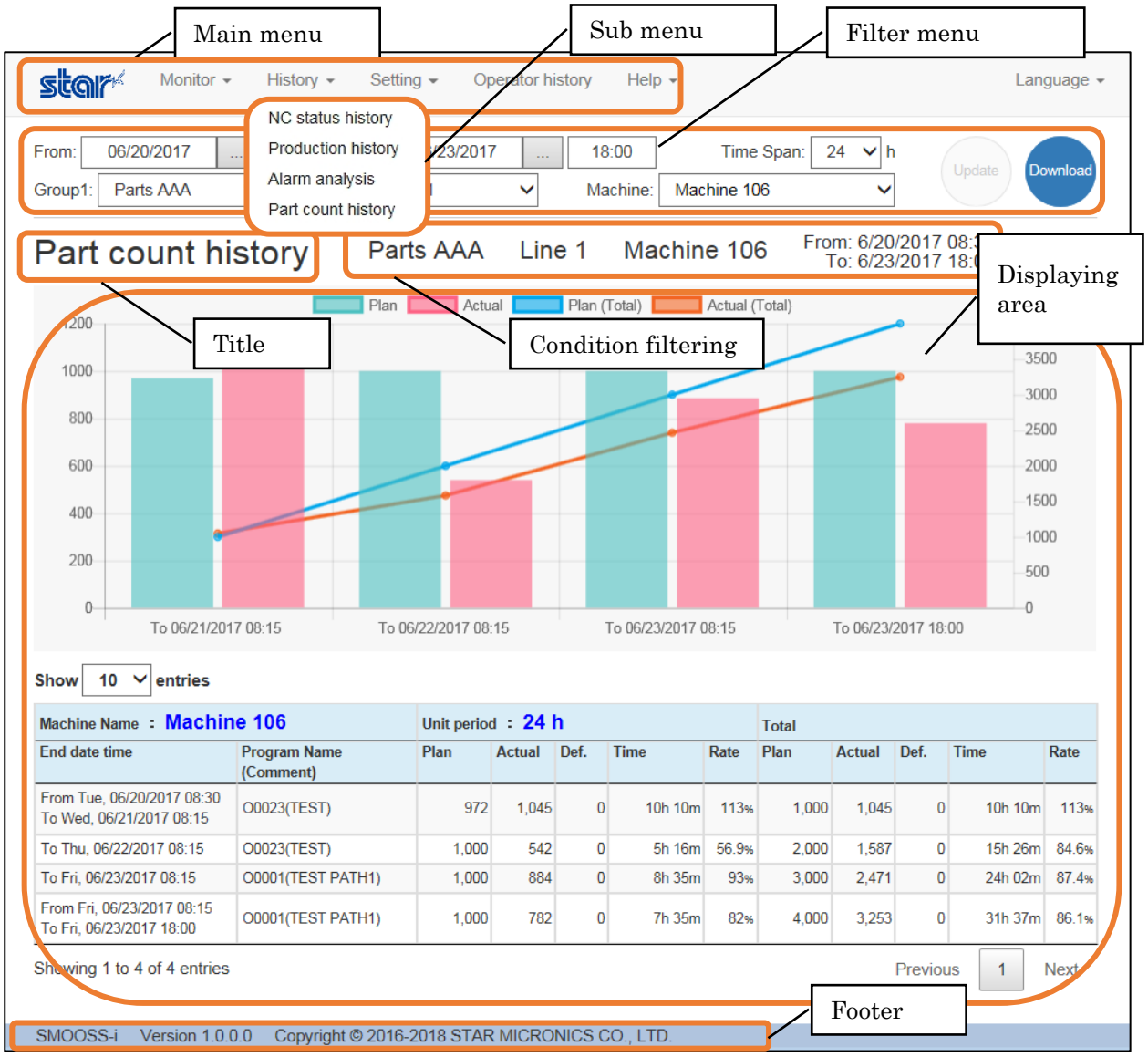
http://*********/SMOOSS-i/ ・・・ Enter the server IP address to *

Access to the address by browser such as Internet Explorer etc. to display “NC status list” (refer to section 4-3-1).

NOTICE

・Inquire serve IP address to the network supervisor of your company.

4-2 Screen configuration



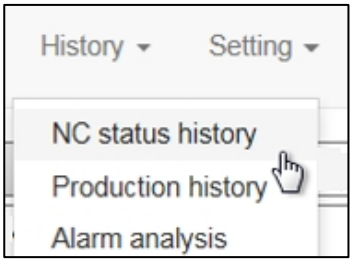
■ Main menu

Moving to the sub menu or each screen from the main menu displayed on screen top is possible.

■ Sub menu

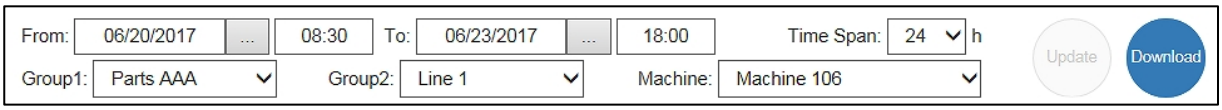
Select one category of Main menu to display the sub menu of the category.

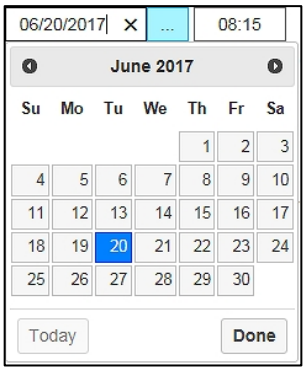
Select one sub menu to move to each screen.



■ Filter menu

Set machine or period to display for filtering displaying contents. This menu displays in the case that filtering is necessary, such as after selecting “History” on the main menu.



Items	Contents
Period	Set date and time of start and end. Click the ellipsis “…” to display calendar as follows. Click [Today] button to return to current month. 
Group1	To narrow the machine of Displaying area or display machines of designated group, select the name of group1 from the list.
Group2	To narrow the machine of Displaying area or display machines of designated group, select the name of group2 from the list.
Machine	Select the target machine name from the list. In the case that both group 1 and 2 is selected, machine which included to both groups can be selected. When selecting “All”, information of multiple machines display by a list. “All” is displayed only in the screen where displays multiple machines.
Time Span	Select the time span for data collecting in section 4-4-4 “Part count history” etc.
Update	By clicking this button, recalculation is carried out the result is renewed based on the current selection.
Download	Click this button to output the values of current period or machine selection. Refer to the section 4-8 “Output file format”.

NOTICE

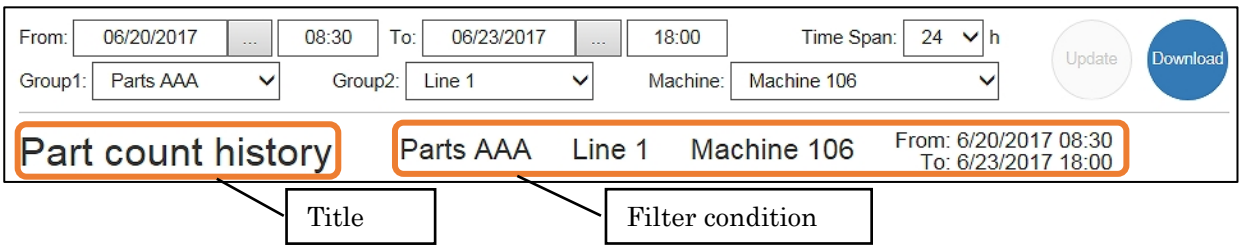
- Be sure to click [Update] button to renew the displayed contents after changing the selection of the Filter menu.
- This software communicates with machine by specific time span to collect information therefore status changing in short time may not be recorded as history.

■ Title

Title of the screen displays.

Click the title to switch display/ non-display of the filter menu.

Filter condition set with “Filter menu” displays on the right of the title.

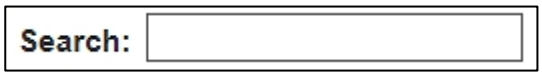


■ Displaying area

Contents of selected screen displays.

■ Search box

This enable to filter by inputting words to this box and display only necessary information.



[Search box] display on the screens such as “4-3-1 NC status list view”.

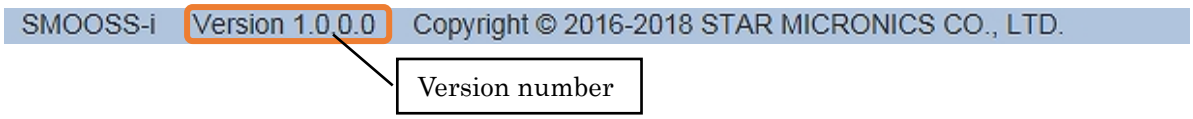
■ Sort

Items with ▲▼ mark in the list table can be sorted in ascending/ descending order by clicking item name.

This mark is displayed together with items name such as “Count” on the “4-3-1 NC status list view” etc.

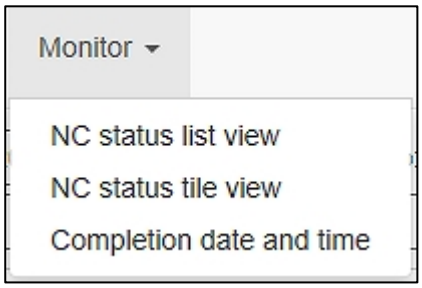
■ Footer

Name of this application and version number displays.



4-3 Monitor

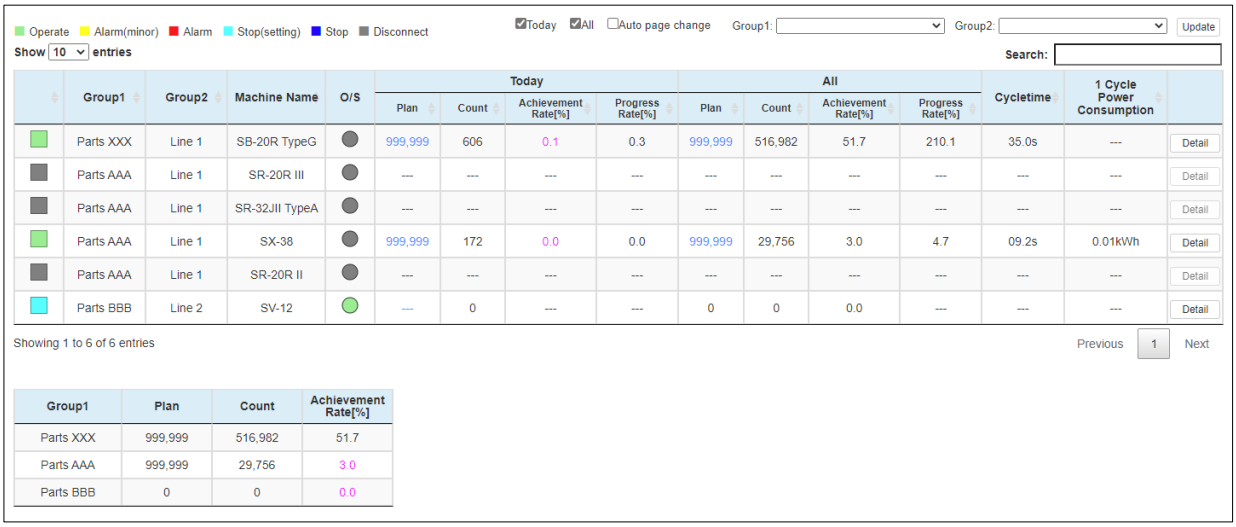
Select “Monitor” of main menu to display following sub menu. Moving from each sub menu to designated screen is possible.



4-3-1 NC status list view

NC status can be checked by a list in real time with this screen.

Status per machine and total value of each item per group displays.



(Electricity consumptions are displayed when machines supported to display them are operating.)

Check the box to operate following.

Item	Contents
Alarm Only	To display only alarm or alarm(minor) machines.
Today	To display Plan, Count, Achievement rate of from operating start time to current.
All	To display Plan, Count, Achievement rate of from start of Production schedule to current.
Auto page change	To change to next page by specific time span automatically.

Followings are displayed.

Item		Contents
Left end column		Current NC status is indicated with color (*1)
Group1		“Group1” name of displayed items. (*2)
Group2		“Group2” name of displayed items. (*2)
Machine Name		“Machine name” of displayed items. (*2)
O/S		Display with green color for items which stop by one cycle stop.
Plan		Display the value of Plan (the value to produce finally) set in 4-5-1 “Production schedule” screen. When “Production schedule” is not set, value of Plan will be “PRESET” value of the machine and period of produce will be one day and the color will be blue.
Achievement Rate (%)		This rate is the percentage of Count value as for Plan value. Displayed color of this rate alter by Achievement Rate and Progress Rates. Pink ： When progress rate is less than 100%. Green： When achievement rate is 90% or more. Black ： Other than above states.
Progress Rate (%)		This rate is the percentage of Count value as for Plan value from machining start to current. Plan value from machining start to current is calculated considering holidays and operation time.
Today		Display information from the operating start of this day to current.
	Plan	Display the value of Plan to produce for this day.
	Count	Display the total value of machined parts from the operating start of this day to current.
	Achievement Rate (%)	The percentage of Count value of this day as for Plan value of this day.
	Progress Rate (%)	The percentage of Count value of this day as for Plan value from the operating start of this day to current.
All		Display information from the start of Production schedule to current
	Plan	Display the Plan value (the value to produce finally).
	Count	Display the total value of machined parts from the start of plan to current. When Production schedule is not set, Count value of the plan displays.
	Achievement Rate (%)	This rate is the percentage of Count value as for Plan value (the value to produce finally)
	Progress Rate (%)	This rate is the percentage of Count value as for Plan value from the start of Production schedule to current.
Cycle time		Displays cycle time which is same as on “Counter screen”.
1 Cycle Power Consumption		Displays electricity consumption for one cycle. (When machines supported corresponding function are operating.)
[Detail] button		Click to display details.

(*1) Color for the NC status

Color of this column shows the NC status. Green, red, yellow are colors of beacon.

Refer to the operation manual of the machine for detail on the beacon.

Color	Status name	Status
green	Operate	On automatic operating (includes time for bar changing by automatic bar feeder).
yellow	Alarm(minor)	On alarm generating such as the count reach state.
red	Alarm	On alarm displaying on the screen.
light blue	Stop(setting)	On stop status in setting mode.
blue	Stop	On stop status in machining mode.
gray	Disconnect	On power OFF or communicating.

(*2) Any name can be set for “Group1”, “Group2”, “Machine name”.

REFER

・Refer to “3-7 Registration”.

Click [Detail] button to display following table.

Machine 112	PATH1	PATH2	PATH3
Program Name (Comment)	O2500 (TEST PATH1 WORK001)	O2500 (TEST PATH2 WORK001)	
Alarm Message			
Operator Message	2085 TOOL LIFE COUNTER COUNT UP		

Following items display per PATH.

Items	Contents
Program Name (Comment)	Displays name of program name being selected and comments written at program beginning.
Alarm Message	Display alarms being generated up to five.
Operator Message	Display the message of alarm being generated.

■ Filter by group name

Machine information filtered by “Group1” and “Group2” are displayed.

For monitor “List view”, “Tile view”,” Completion date and time”

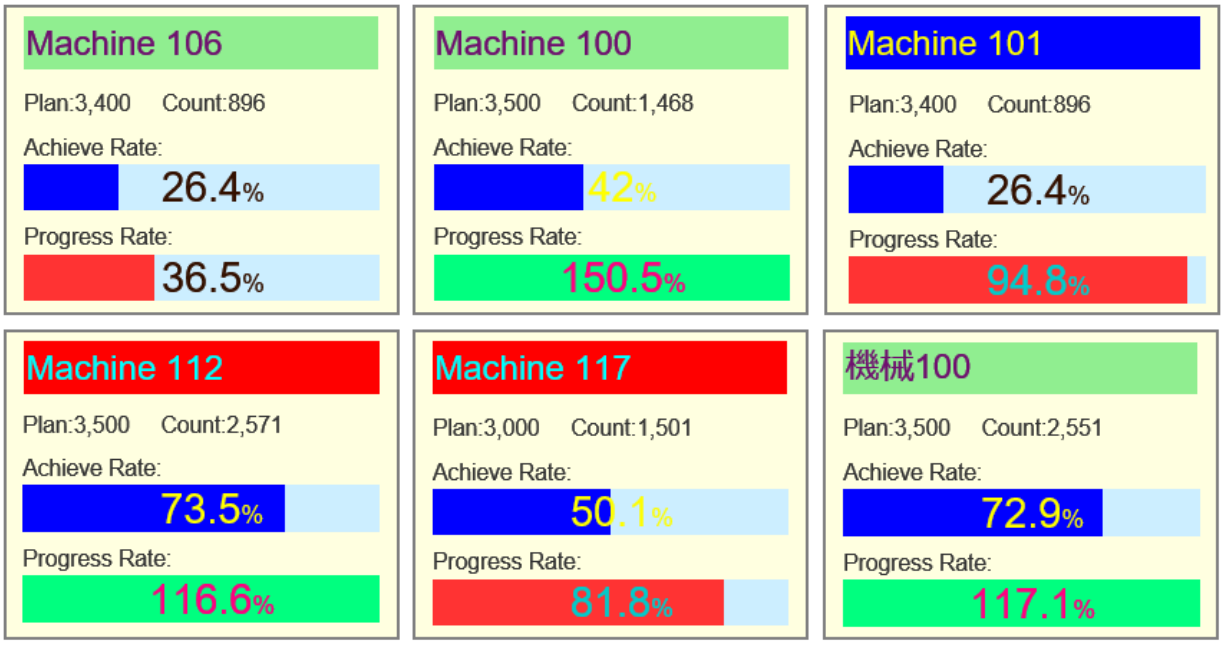
■ Auto enable alarm filter

“Alarm only” filter is automatically enabled when new alarm has occurred or alarm number is increased.

Alarm filter is automatically disabled when all machines have recovered from alarm status.

4-3-2 NC status tile view

Select “NC Status tile view” of sub menu to display NC status.



Click on the screen other than the tile to switch display/ non-display of main menu on screen top and footer on screen bottom. (Except iPhone and iPad)

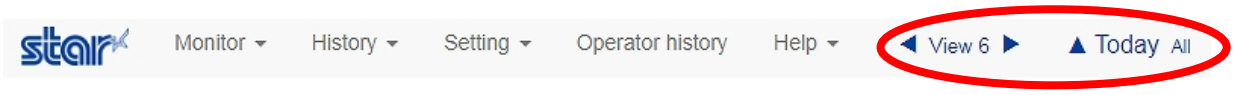
Click on the tile to display details of the machine clicked.

Right-click on the screen to hide the cursor. (Only for PC)
Either click display again the cursor.

Three formats and six types are prepared for the displaying format.
Click the triangle mark on the main menu allow to switch the displaying format.

◀ View 6 ▶ : To switch the displaying format

▲ Today All : To switch the period of displayed information.
All/ Today/ Mix1/ Mix2 (Mix 1 and 2 is only for format 2 and 3)



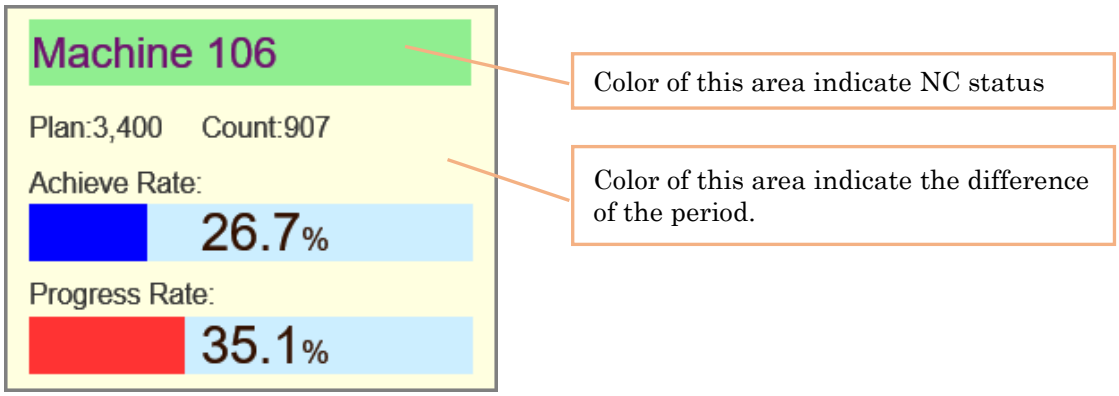
Machine name, Plan, Count, Achievement rate, Progress rate display.
Plan and Count display only for format one.

If “alarm only” filter is enabled, only alarm machines are displayed.
Alarm filter is automatically enabled when new alarm has occurred or alarm number is increased.
Alarm filter is automatically disabled when all machines have recovered from alarm status.

NOTE

- Achievement rate is the percentage of Count value as for Plan value.
- Progress rate is the percentage of Count value as for Plan value from machining start to current.

・Format one: Bar display (four types with this format)



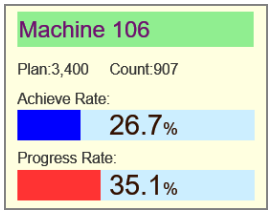
NC status can read by the background color of the machine name.

REFER

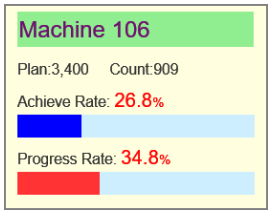
・Refer to “(*1) Color for the NC status” of “4-3-1 NC status list view” for details on the color.

Background color of tile view indicate the difference of the period.
(White: All the period, Light yellow: Today)

Four types of the bar displaying are prepared.

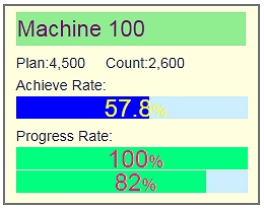


The values of achievement rate and progress rate display on the place with overlap to bar display.



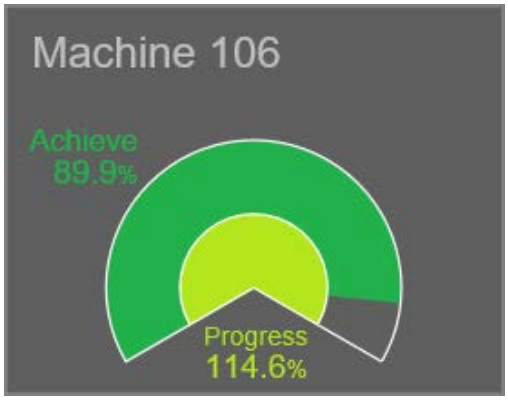
The values of achievement rate and progress rate display on the place without overlap to bar display.

Display with thick bar for easy recognition.



Display with second line to indicate progress rate of over 100%.

・Format 2: Tachometer (one type with this format)



Displaying color of achievement rate and progress rate indicate the status.

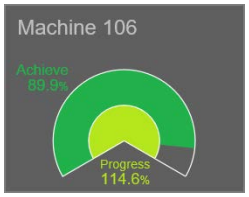
Outer circle: Achievement rate/ Inner circle: Progress rate.

For both rates, left end is 0% and right end is 100%.

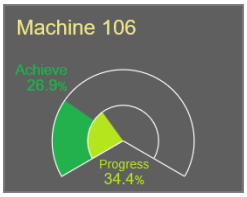
Color of the machine name indicate the difference of the period.

(White: All the period, Yellow: Today)

All



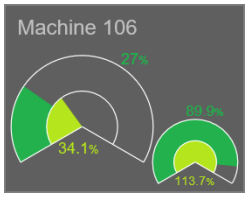
Today



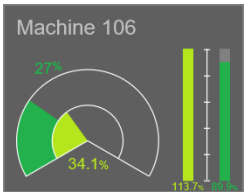
Mix 1 and Mix 2 display two periods (All and Today) at the same time.

(Left side: Today, right side: All the period)

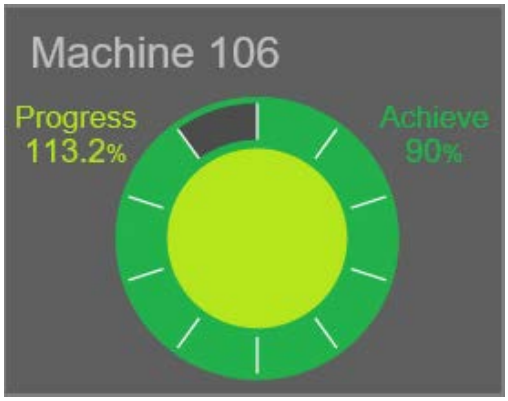
Mix 1



Mix 2



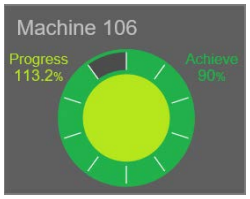
・Format 3: Barrel (one type with this format)



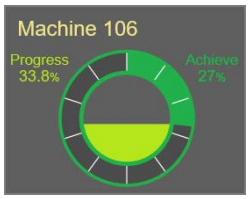
Displaying color of achievement rate and progress rate indicate the status.
Outer circle: Indicate achievement rate with clockwise. (Full circle is 100%)
Inner circle: Indicate progress rate with increasing colored area.
(All of this area is filled when progress rate is 100% or more.)

Color of the machine name indicate the difference of the period.
(White: all the period, Yellow: Today)

All

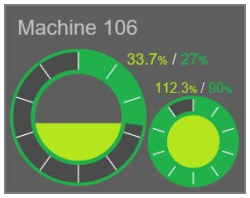


Today

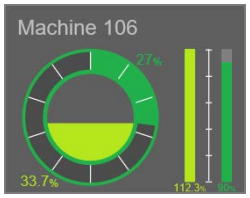


Mix 1 and Mix 2 display two periods (All and Today) at the same time.
(Left side: Today, right side: All the period)

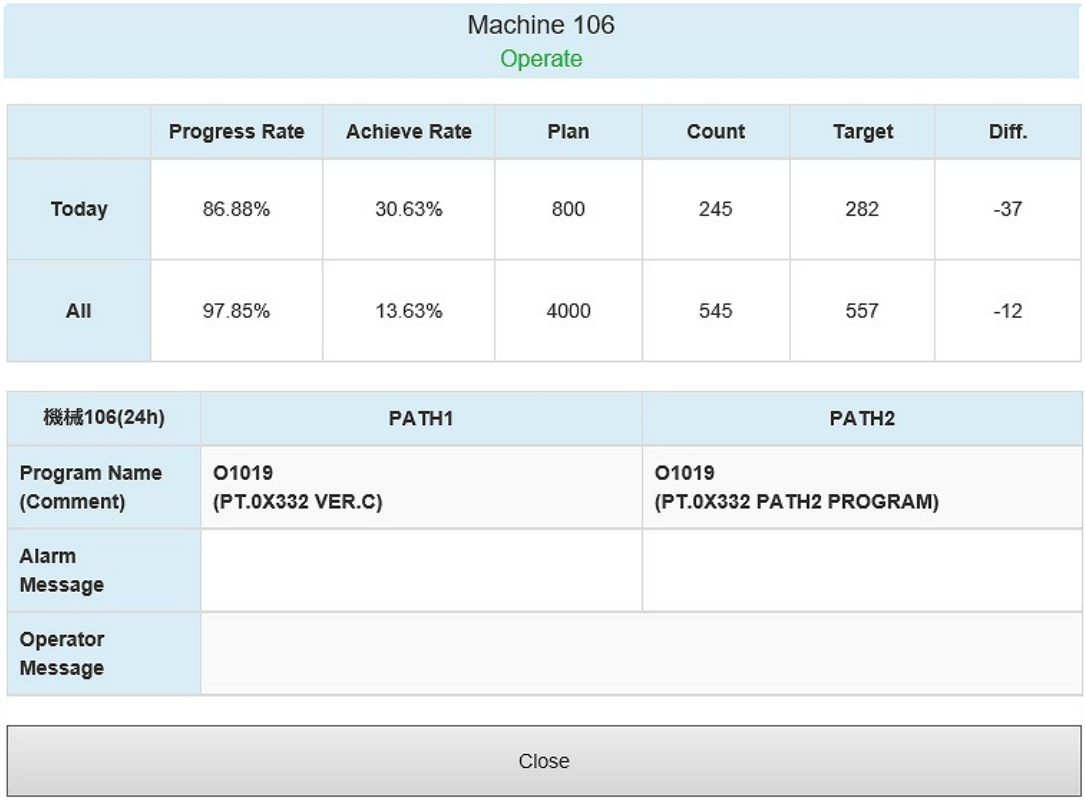
Mix 1



Mix 2



Click on the tile to display details on the right side of the screen.



Machine 106
Operate

	Progress Rate	Achieve Rate	Plan	Count	Target	Diff.
Today	86.88%	30.63%	800	245	282	-37
All	97.85%	13.63%	4000	545	557	-12

機械106(24h)	PATH1	PATH2
Program Name (Comment)	O1019 (PT.0X332 VER.C)	O1019 (PT.0X332 PATH2 PROGRAM)
Alarm Message		
Operator Message		

Close

Machine name and status display on the upper of the screen.

Following items display on the middle of the screen.

Item		Contents
Today		Display information from the operating start of this day to current.
	Achievement Rate (%)	The percentage of Count value of this day as for Plan value of this day.
	Progress Rate (%)	The percentage of Count value of this day as for Plan value from the operating start of this day to current.
	Plan	Display the value of Plan to produce for this day.
	Count	Display the total value of machined parts from the operating start of this day to current.
	Target	The plan value from the operating start of this day to current
	Diff.	Difference = Count - Target
All		Display information from the start of Production schedule to current
	Achievement Rate (%)	This rate is the percentage of Count value as for Plan value (the value to produce finally)
	Progress Rate (%)	This rate is the percentage of Count value as for Plan value from the start of Production schedule to current.
	Plan	Display the Plan value (the value to produce finally).
	Count	Display the total value of machined parts from the start of plan to current. When Production schedule is not set, Count value of the plan displays.
	Target	The plan value from the start of Production schedule to current.
	Diff.	Difference = Count - Target

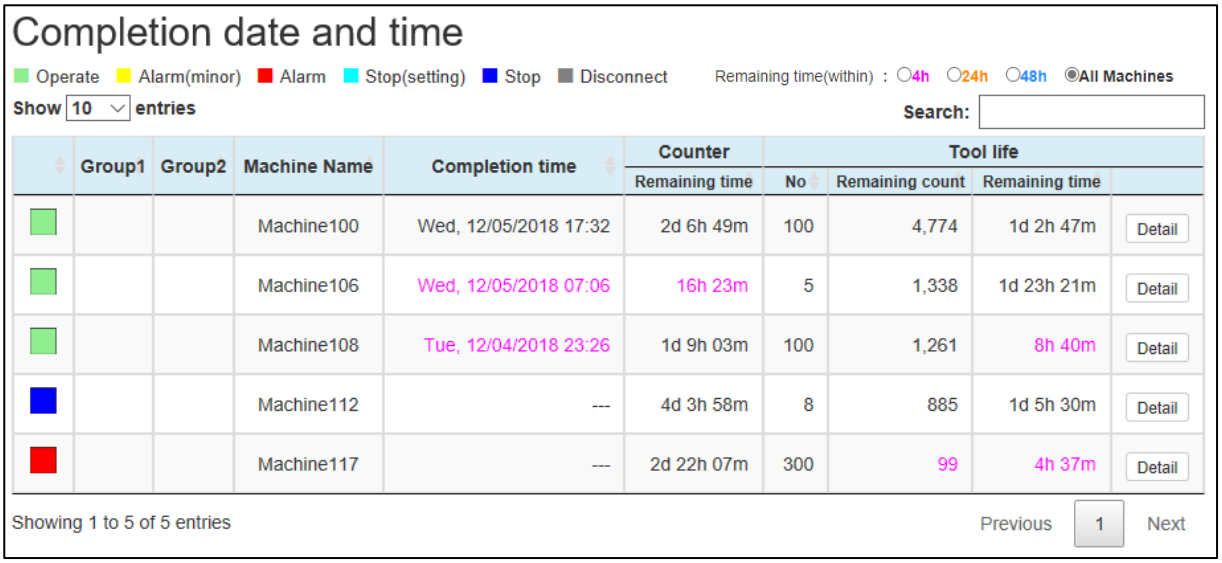
Following items display on the lower of the screen.

Items	Contents
Program name (Comment)	Name of the main program being selected displays with comment described at the program beginning.
Alarm message	Display alarms being generated up to five.
Operator message	Display the message of alarm being generated.

Click “Close” to close details screen then move back to the normal tile display.

4-3-3 Completion date and time

Select “Completion date and time” on the sub menu to display following screen.



Scheduled date and time of when machine being operated stops can be checked with this screen.

If remaining time radio button is checked, displayed items will be selected by the counter and tool life remaining time.

Following items are displayed.

Items		Contents
Left end column		Current NC status is described with color (*1)
Group1		“Group1” name of displayed items. (*1)
Group2		“Group2” name of displayed items. (*1)
Machine Name		“Machine name” of displayed items. (*1)
Completion time		During machine operation, date and time when machine stop is displayed as follows. Month/ Day/ Year hour:minute Calculates time until the count reach state of parts counter and tool life counter and estimates completion time. Characters’ of this column change to pink color in the case machine will stop within 24 hours. When “SETTING OF NON-STOP TIME PERIOD” is ON, time display in according with the set parameter.
Counter	Remaining time	During machine operation, time until parts counter the count reach state is displayed. (seconds is not displayed). Characters’ of this column change to pink color in the case machine will stop within 24 hours.
Tool life	Path	Path No. which to reach the count reach state first is displayed. Displayed in the case of FANUC CNC standard functions and MITSUBISHI CNC.
	No.	Counter No. or Tool No. which to reach the count reach state first is displayed. Multiple counters will be reach the count reach state, smallest No. displays. Machine by number : Counter No. is displayed Machine by tool number : Tool No. is displayed. When tool unit which can attach multiple tools is selected, the rank in the unit displays in parenthesis. That of the back-machining tool is “B”. E.g.) 100 : This means Tool of No.100. In the case of the unit which can attach multiple tools, this means the first tool (whose last digit of ID is “1”). 3400(2) : Tool of No. 3400 can attach multiple tool and this means the second tool (whose last digit of ID is “2”) 4000B(3) : Tool of No. 4000 can attach multiple tool and this means the third tool (whose last digit of ID is “3”) FANUC CNC (standard functions) : Tool group No. is displayed. MITSUBISHI CNC : Counter No. is displayed

	Remaining count	Remaining (Value which Count value is subtracted from Preset value) is displayed. Characters' color of this column turns pink when the value is smaller than setting value of notice.
	Remaining time	The remaining time until the count reach state of the tool life counter is displayed during the machine operation. Characters' color of this column turns pink in the case the machine will stop within 24 hours.
[Detail] button		Click this button to display details of tool life management.

NOTICE

- Items with (*1) are same as each item of section 4-3-1 "NC status list view."
- Values on this screen change when the value of parts counter is renewed thus the changing value on the screen of machine is not reflected to this screen immediately.
- FANUC CNC standard function is used in SK-51.

Click [Detail] button to display following table.
(Screen example for the case only with M20 count mode)

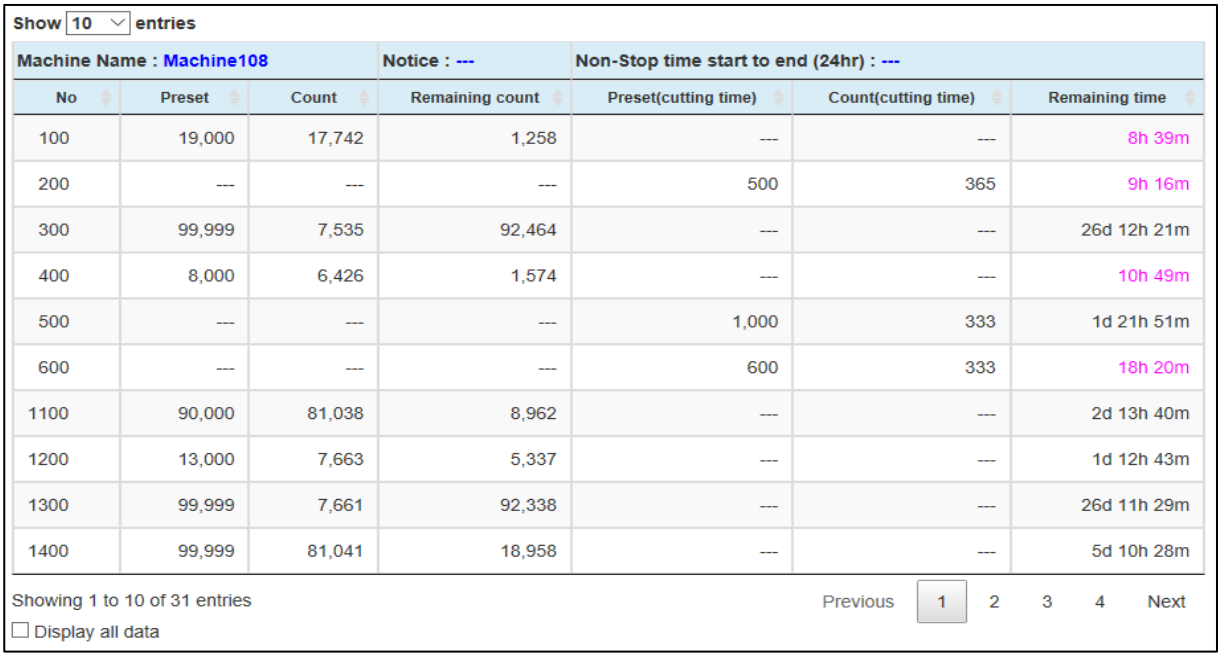
Show 10 entries

Machine Name : Machine108			Notice : ---	Non-Stop time start to end (24hr) : ---		
No	Preset	Count	Remaining count	Preset(cutting time)	Count(cutting time)	Remaining time
100	19,000	17,747	1,253	---	---	8h 37m
200	10,000	6,037	3,963	---	---	1d 3h 16m
300	99,999	7,540	92,459	---	---	26d 12h 31m
400	8,000	6,431	1,569	---	---	10h 48m
500	99,999	80,565	19,434	---	---	5d 13h 47m
600	99,999	80,684	19,315	---	---	5d 12h 58m
1100	90,000	81,043	8,957	---	---	2d 13h 39m
1200	13,000	7,668	5,332	---	---	1d 12h 42m
1300	99,999	7,666	92,333	---	---	26d 11h 39m
1400	99,999	81,046	18,953	---	---	5d 10h 28m

Showing 1 to 10 of 31 entries Previous 1 2 3 4 Next

Display all data

(Screen example for the case of combined use of M20 count mode and cutting time mode)



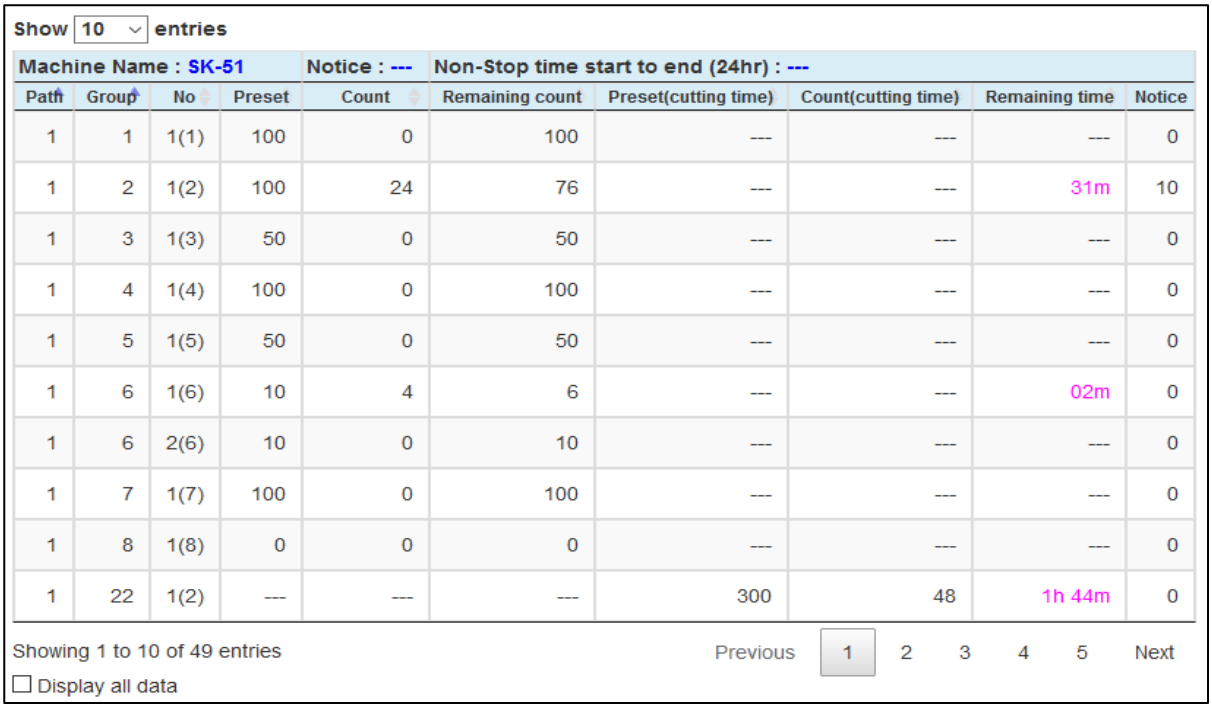
Show 10 entries

Machine Name : Machine108			Notice : ---	Non-Stop time start to end (24hr) : ---		
No	Preset	Count	Remaining count	Preset(cutting time)	Count(cutting time)	Remaining time
100	19,000	17,742	1,258	---	---	8h 39m
200	---	---	---	500	365	9h 16m
300	99,999	7,535	92,464	---	---	26d 12h 21m
400	8,000	6,426	1,574	---	---	10h 49m
500	---	---	---	1,000	333	1d 21h 51m
600	---	---	---	600	333	18h 20m
1100	90,000	81,038	8,962	---	---	2d 13h 40m
1200	13,000	7,663	5,337	---	---	1d 12h 43m
1300	99,999	7,661	92,338	---	---	26d 11h 29m
1400	99,999	81,041	18,958	---	---	5d 10h 28m

Showing 1 to 10 of 31 entries Previous 1 2 3 4 Next

Display all data

(Screen example for the FANUC CNC standard function)



Show 10 entries

Machine Name : SK-51				Notice : ---	Non-Stop time start to end (24hr) : ---				
Path	Group	No	Preset	Count	Remaining count	Preset(cutting time)	Count(cutting time)	Remaining time	Notice
1	1	1(1)	100	0	100	---	---	---	0
1	2	1(2)	100	24	76	---	---	31m	10
1	3	1(3)	50	0	50	---	---	---	0
1	4	1(4)	100	0	100	---	---	---	0
1	5	1(5)	50	0	50	---	---	---	0
1	6	1(6)	10	4	6	---	---	02m	0
1	6	2(6)	10	0	10	---	---	---	0
1	7	1(7)	100	0	100	---	---	---	0
1	8	1(8)	0	0	0	---	---	---	0
1	22	1(2)	---	---	---	300	48	1h 44m	0

Showing 1 to 10 of 49 entries Previous 1 2 3 4 5 Next

Display all data

(Screen example for the MITSUBISHI CNC)

Show 10 entries

Machine Name : Machine103 Notice : --- Non-Stop time start to end (24hr) : ---

Path	No	Preset	Count	Remaining count	Preset(cutting time)	Count(cutting time)	Remaining time
1	1	9,999	985	9,014	24:0:0	0:6:3	---
1	2	4,000	2,984	1,016	24:0:0	4:58:45	15h 24m
1	3	3,000	110	2,890	0:0:0	0:7:16	---
1	4	5,000	3,140	1,860	24:0:0	17:27:31	14h 06m
1	5	9,999	761	9,238	99:0:0	53:5:15	---
1	7	9,999	791	9,208	24:0:0	0:3:5	---
1	9	9,999	2,542	7,457	24:0:0	0:43:47	---
1	10	9,999	33	9,966	24:0:0	0:1:7	---
1	11	9,999	838	9,161	24:0:0	4:7:32	---
1	12	9,999	2,615	7,384	24:0:0	7:7:35	---

Showing 1 to 10 of 27 entries Previous 1 2 3 Next

☐ Display all data

Following items are displayed.

Items	Contents
Machine name	"Machine name" of displayed items same as screen of section 4-3-1.
Notice	Display the setting value of Notice.
Non-Stop time start to end	Display the setting value of NON-STOP TIME PERIOD when "SETTING OF NON-STOP TIME PERIOD" is ON.
Path	Path No. is displayed. Displayed in the case of FANUC CNC standard functions and MITSUBISHI CNC.
Group	Tool group No. is displayed. Displayed only in the case of FANUC CNC standard functions.
No.	Display Counter No. or Tool No. It is same as "Completion date and time" screen. In case of FANUC CNC standard function, serial number in group and tool number in parentheses are displayed.
Preset	Display current Preset value. (M20 count mode)
Count	Display current Count value. (M20 count mode)
Remaining count	Remaining (Value which Count value is subtracted from Preset value) is displayed. Characters' color of this column turns pink when the value is smaller than setting value of notice.
Preset (cutting time)	Display current Preset value. (cutting time mode)
Count (cutting time)	Display current Count value. (cutting time mode)
Remaining time	The remaining time until the count reach state of each counter is displayed during the machine operation. Characters' color of this column turns pink in the case the machine will stop within 24 hours.
Notice	The number of notices is displayed. Displayed only in the case of FANUC CNC standard functions.
Display all data	Check this box to display all data including ineffective data is displayed. Ineffective one is displayed with gray color.

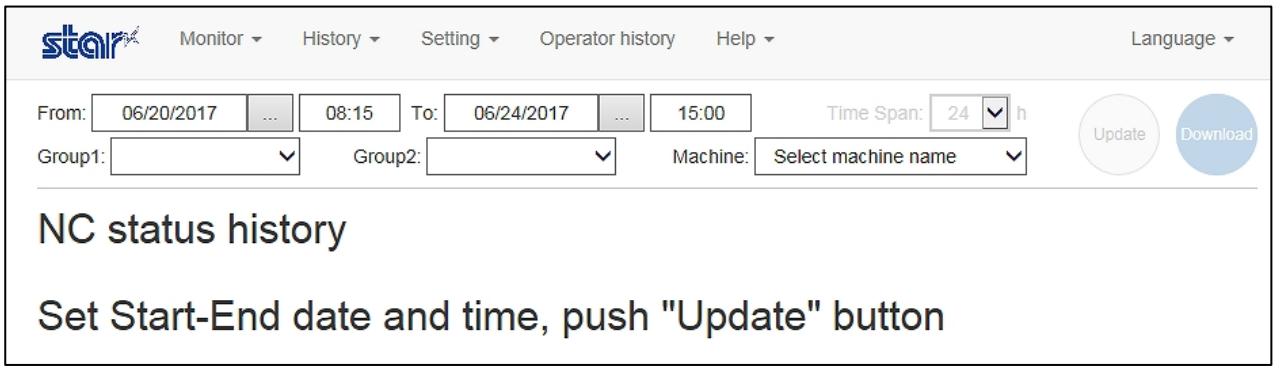
NOTICE

- Values on this screen change when the value of parts counter is renewed thus the changing value on the screen of machine is not reflected to this screen immediately.
- When checking the box of "Display all data", data of tool number which cannot be used on the machine is also displayed.
- FANUC CNC standard function is used in SK-51.

4-4 History

Select “History” of main menu to display following sub menu. Select one sub menu to move to each screen.

When machines to display or period etc. is still not set, following screen displays. Click “Update” button after setting each item. History screen with specified items displays.



REFER

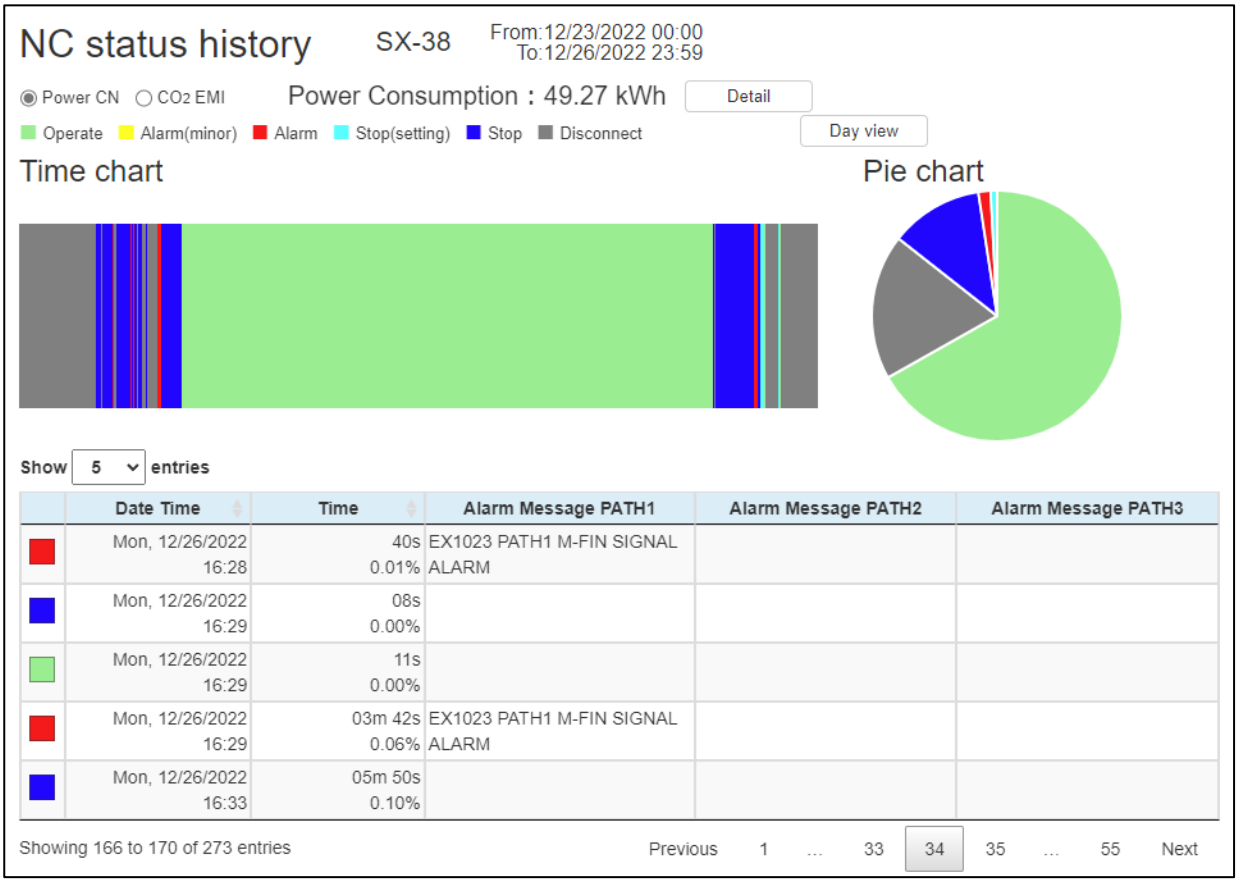
・Refer to “■ Filter menu” of “4-2 Screen configuration” for setting procedure.

4-4-1 NC status history

NC status history of machine can be reviewed.

Time chart, Pie chart, NC status and alarm message table display.

Pie chart indicates the rate of each NC status against the total.



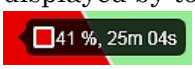
Followings are items display in the table.

Items	Contents
Left end column	Current NC status is indicated with color same as section 4-3-1.
Date Time	Display date and time on which the NC status changed.
Time	Display the duration of one status, and its rate against specific period.
Alarm Message (for each PATH)	Display alarm messages up to five alarms.

Displays power consumption or CO2 emissions below the title.
(Only for machines that support corresponding function)

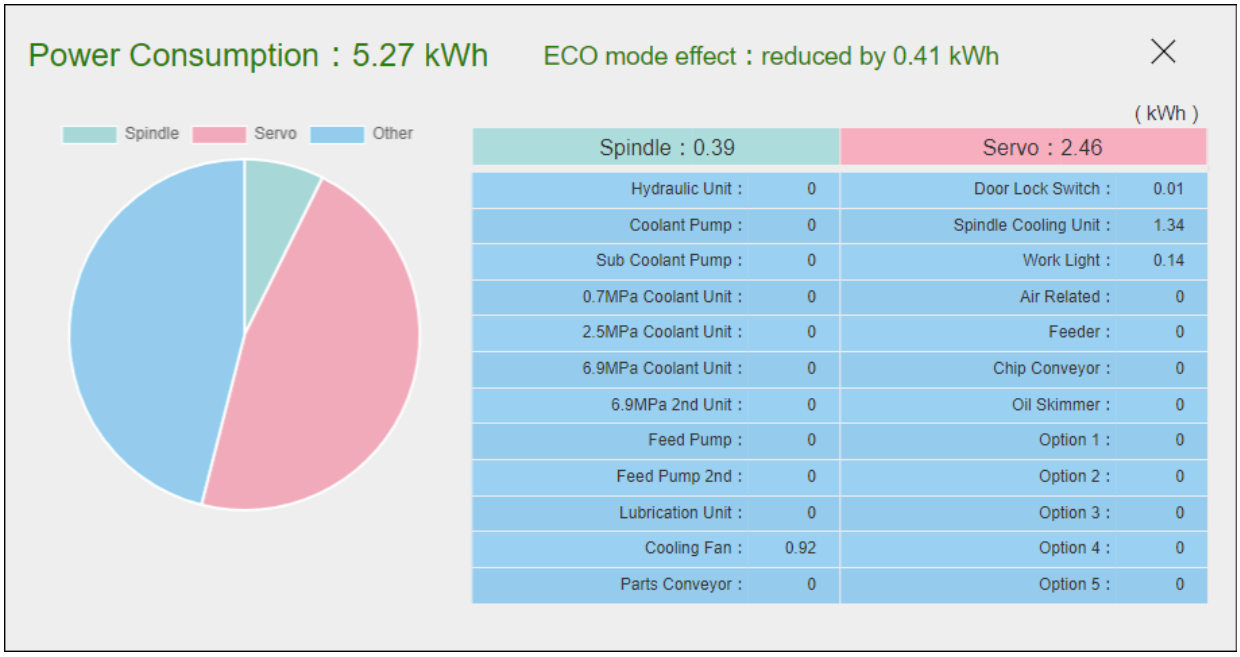
When pointing at the Time chart with the cursor, its “Date of the week”, “Date Time” and “Time” of the table are displayed by tooltip.

When pointing at the Pie chart with the cursor, its “Rate” and “Total time” of the status are displayed by tooltip.



Press the "Detail" button to display a list of each unit.

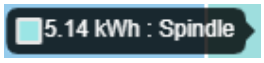
(If the power consumption or CO2 emissions are 0, the [Details] button will not be displayed.)



If ECO mode is enabled during the period, the power consumption or CO2 emissions are displayed in green; if not, the power consumption or CO2 emissions are displayed in black.

The amount of power consumption reduction or CO2 emission reduction due to the ECO mode function is displayed in the upper center of the screen.

When the cursor is hovered on the pie chart, the value and name of each unit will be shown.

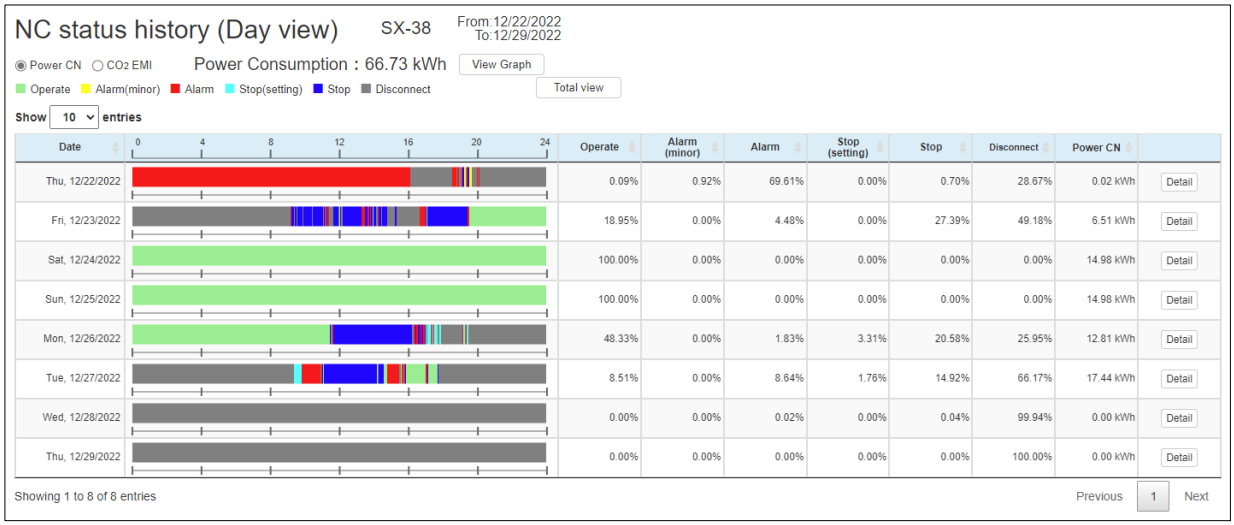


Click on the X to close the list.

■ Day view

Click [Day view] button to display “Day view” screen.

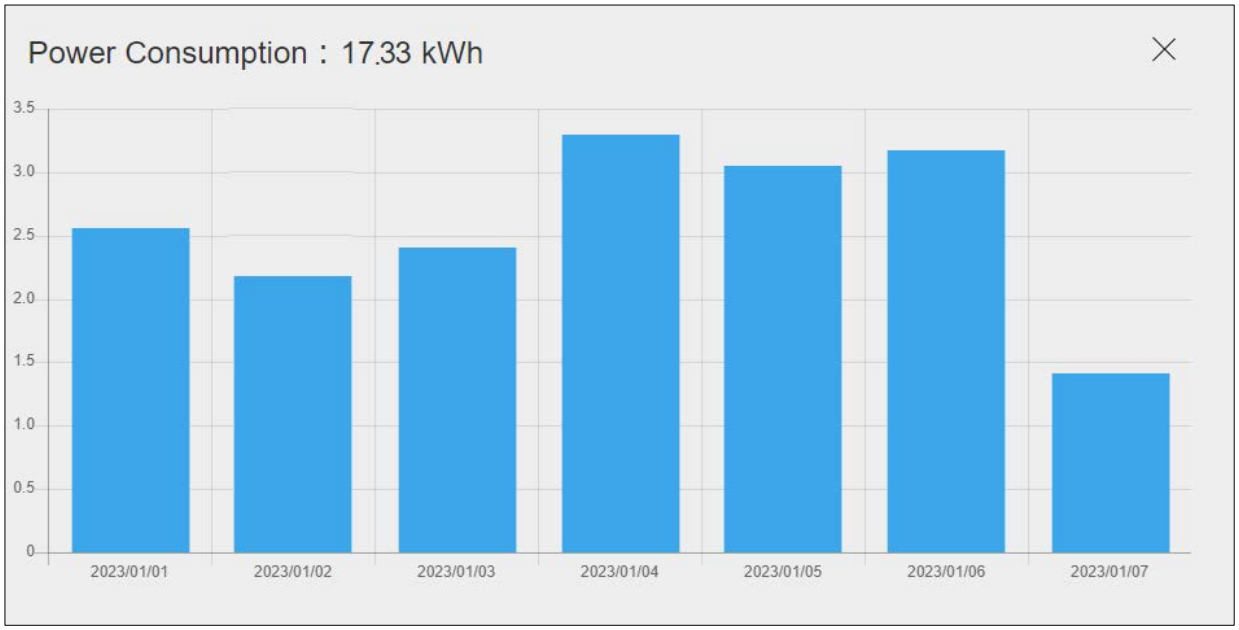
Click [Total view] button to display “Total view” screen.



Items	Contents
Date	Display date.
Bar chart	Display time bar chart of NC status history from 0:00 to 24:00.
Operate	Display the ratio of each NC status to 24 hours.
Alarm(minor)	
Alarm	
Stop(setting)	
Stop	
Disconnect	
Power CN / CO2 EMI	Displays daily power consumption or CO2 emissions. (Only for machines that support corresponding function)
[Detail] button	Click this button to display the total view of specified period.

Press the "View Graph" button to display a daily graph.

(If the power consumption or CO2 emissions are 0, the “View Graph” button will not be displayed.)



Click on the X to close the graph.

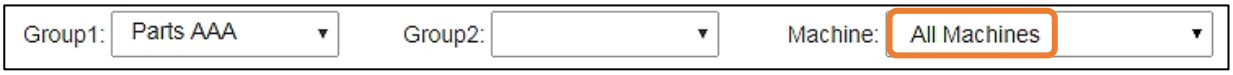
■ Multiple display

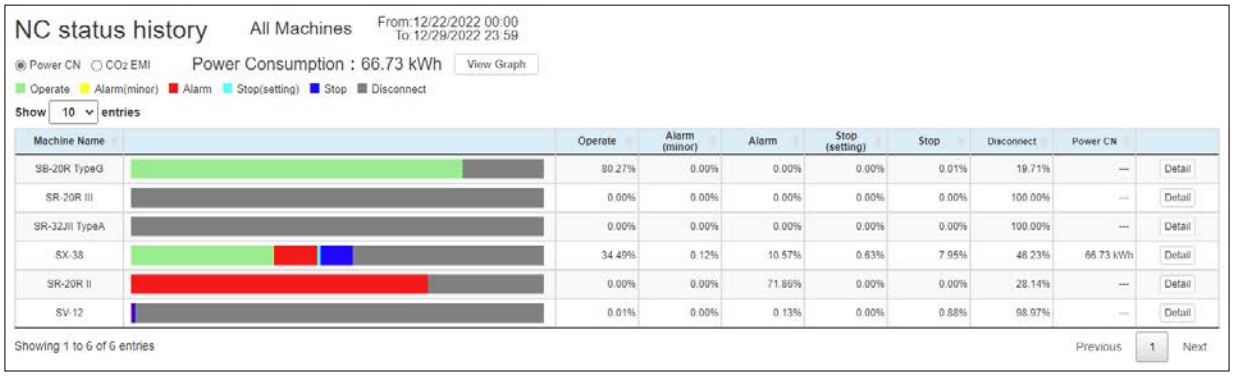
Select “All Machines” in the “Machine” drop-down filter list will display a list of the NC status history of multiple machines.

If both Group 1 and 2 are selected, the information for all machines belonging to both groups will be displayed.

If one of Group 1 or 2 is selected, the information for all machines belonging to the selected group will be displayed.

If neither Group 1 nor Group 2 is selected, the information for all registered machines will be displayed.

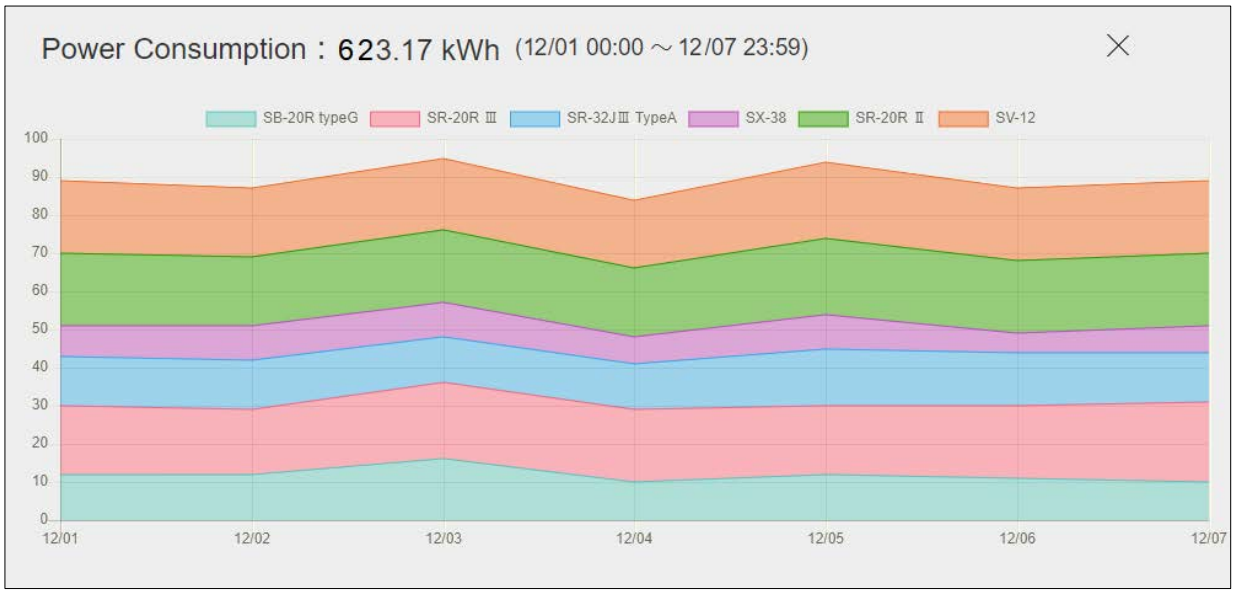




Items	Contents
Machine Name	Display target machines.
Bar chart	Displays the percentage of operating status for the specified period in a bar graph.
Operate	Displays the percentage of the operating status for the specified period in text.
Alarm(minor)	
Alarm	
Stop(setting)	
Stop	
Disconnect	
Power CN / CO2 EMI	Displays the power consumption or CO2 emissions for the specified period in text. (If machines supported to display them are selected.)
[Detail] button	Click to display the details of the operating status history for the specified period.

Press the "View Graph" button to display a daily graph.

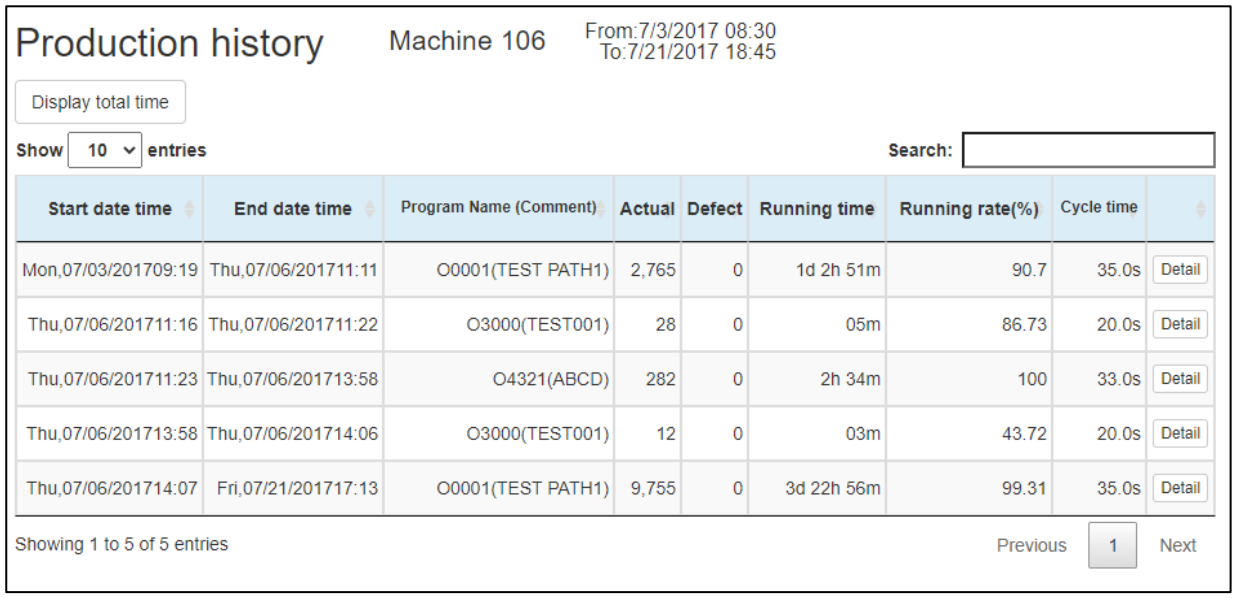
(If the power consumption or CO2 emissions are 0, the “View Graph” button will not be displayed.)



Click on the X to close the graph.

4-4-2 Production history

Production history such as executed program or the number of machined parts etc. are displayed.



Items	Contents
Start date time	Display the date and time when first count is counted after program is selected.
End date time	Display the date and time when last count is counted before program is changed.
Program Name (Comment)	Display the name of main program selected on PATH1 and the comment described at the program top.
Actual	The number which Defect is subtracted from the number of the parts machined is displayed.
Defect	Number of defect which is set in section 4-6-1 “Defect count”.
Running time	Display the time the machine operated.
Running rate(%)	This rate is the percentage of Running time as for scheduled time.
Cycle time	Display the Median (the middle number of the cycle time) (*1)
[Detail] button	Click this button to display the transition of specified period.

(*1) Cycle time:

Average and Median are calculated from all cycle time data recorded per parts counter.

Record of following cases are excluded from the calculation.

- Three seconds or less.
- Other than continuous operation.

NOTE

Difference of Average and Median

・Median: calculated with the cycle time excluding the time for bar changing by automatic bar feeder.
When aligning the all number of the cycle time record in ascending order, the just central number of the column becomes Median.

・Average: calculated with all cycle time including the time for bar changing.

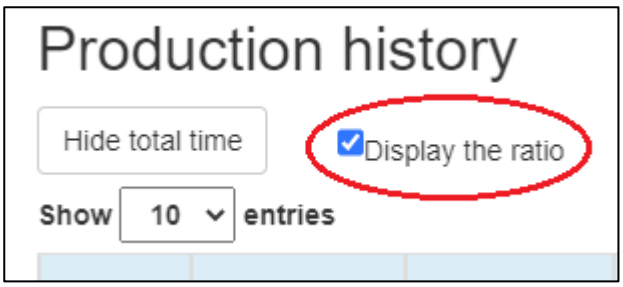
■ Total time display

Click [Display total time] button to display “Total time view” screen.

Click [Hide total time] button will switch to the normal screen.

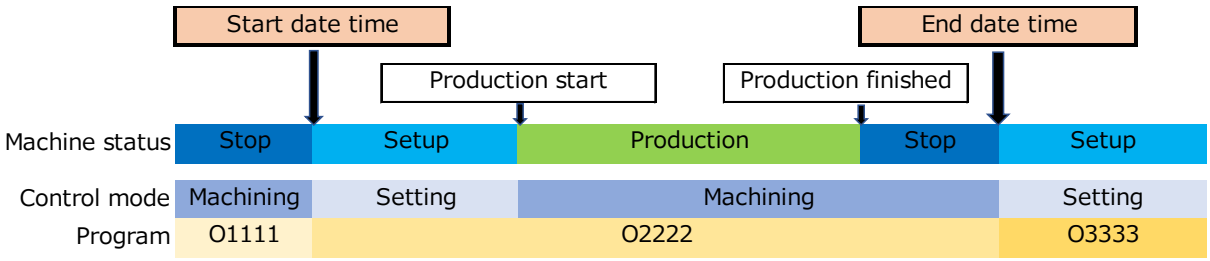
Items		Contents
Program Name		Display the name of main program selected on PATH1.
Start date time		Display the date and time the control mode was changed from Machining to Setting before production.
End date time		Display the date and time the control mode was changed from Machining to Setting after production.
NC Status history	Bar chart	Displays the NC status history between the start time and the end time in a time bar graph. If "Display the ratio" is checked, the ratio of each NC status is displayed.
	[Detail] button	Click to display the details of the NC status history between the start time and end time.
Actual		Displays the number of units processed minus the number of defects.
Defect		Displays the number of defective products set in the 4-6-1 "Defect count" screen.
Running time		Display the time the machine operated.
Running rate(%)		Display the operating time as a percentage.
Cycle time		Display the Median (the middle number of the cycle time) (*1)
Total time	Operate	Display the total time of each NC status between the start date and the end date and time. If "Display the ratio" is checked, the ratio of each NC status is displayed.
	Alarm(minor)	
	Alarm	
	Stop(setting)	
	Stop	
	Disconnect	
[Detail] button		Click to display the details of the transition for the specified period.

If you want to display the ratio, check the "Display the ratio" checkbox.



・Explanation of start time and end time

The start time and end times are set assuming that the production of the part is repeated in the flow shown in the figure below.



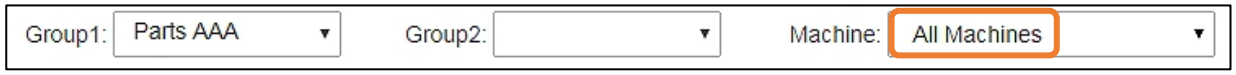
■ Multiple display

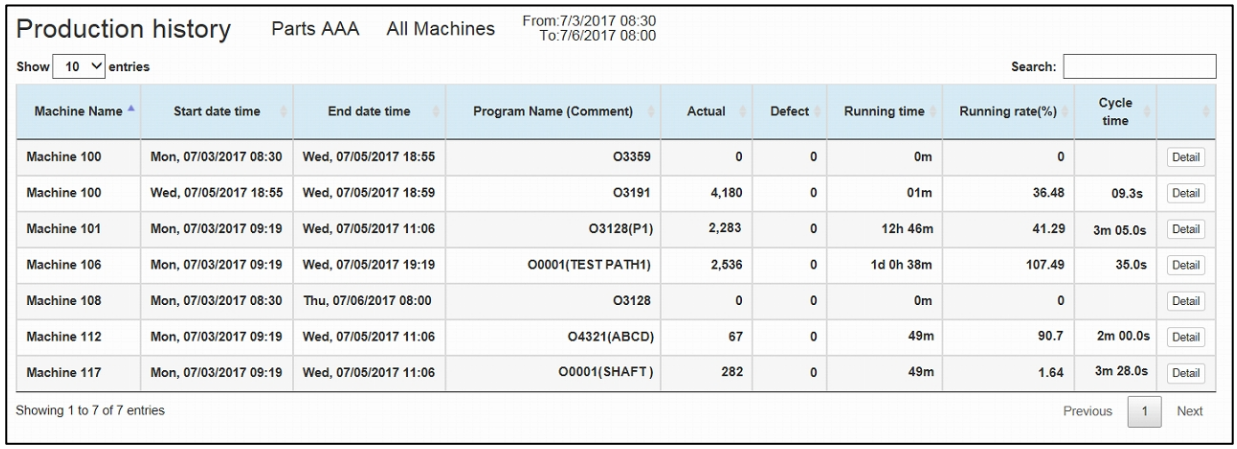
Select “All Machines” for “Machine” of filtering menu to display list screen which indicate part count history for multiple machines at the same time.

If both Group 1 and 2 are selected, information of all machines included to both groups is displayed.

If one of Group 1 or 2 is selected, information of all machines included to the group selected is displayed.

If both Group 1 and 2 are not selected, information of all machines which is registered is displayed.



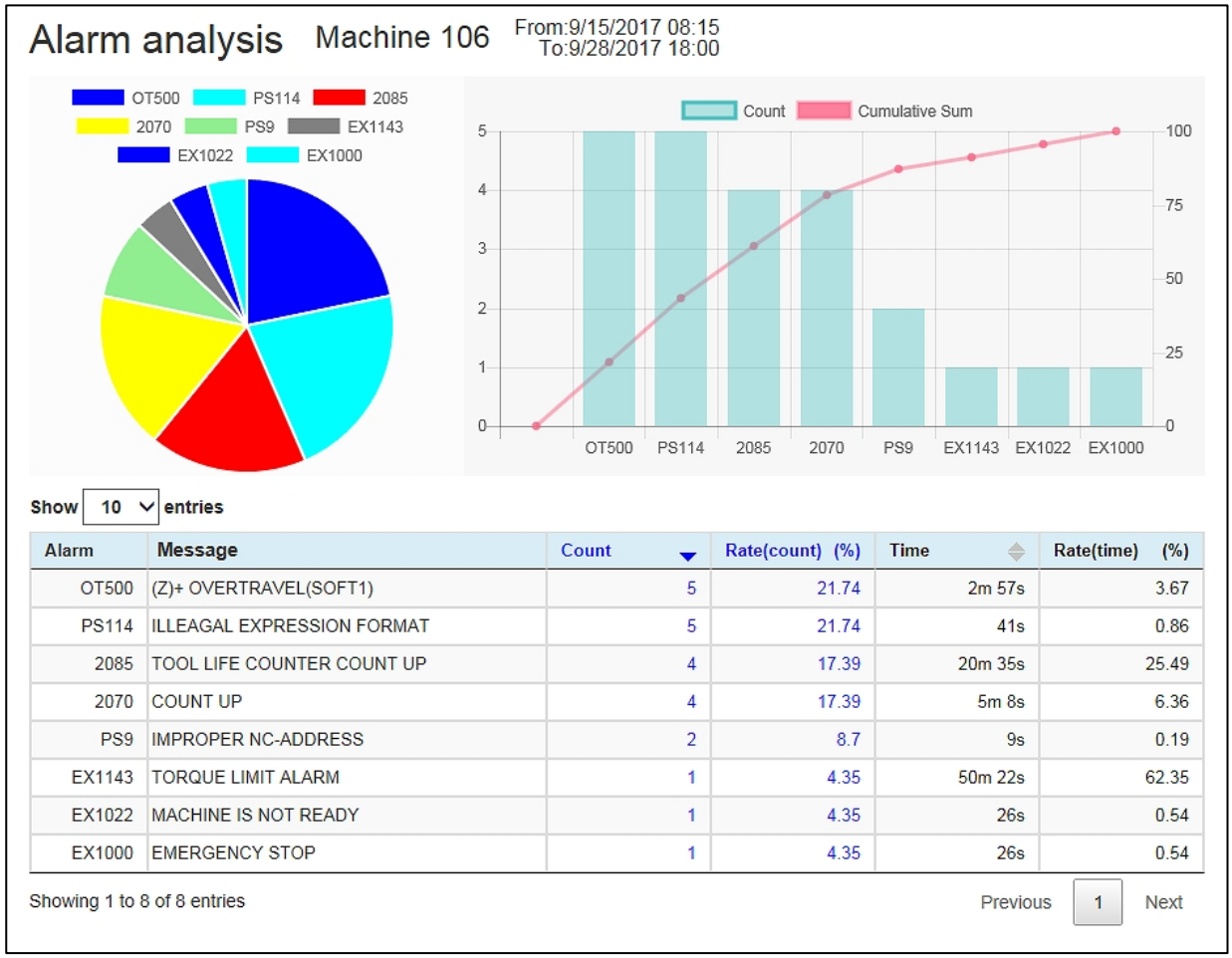


Machine Name	Start date time	End date time	Program Name (Comment)	Actual	Defect	Running time	Running rate(%)	Cycle time	
Machine 100	Mon, 07/03/2017 08:30	Wed, 07/05/2017 18:55	O3359	0	0	0m	0		Detail
Machine 100	Wed, 07/05/2017 18:55	Wed, 07/05/2017 18:59	O3191	4,180	0	01m	36.48	09.3s	Detail
Machine 101	Mon, 07/03/2017 09:19	Wed, 07/05/2017 11:06	O3128(P1)	2,283	0	12h 46m	41.29	3m 05.0s	Detail
Machine 106	Mon, 07/03/2017 09:19	Wed, 07/05/2017 19:19	O0001(TEST PATH1)	2,536	0	1d 0h 38m	107.49	35.0s	Detail
Machine 108	Mon, 07/03/2017 08:30	Thu, 07/06/2017 08:00	O3128	0	0	0m	0		Detail
Machine 112	Mon, 07/03/2017 09:19	Wed, 07/05/2017 11:06	O4321(ABCD)	67	0	49m	90.7	2m 00.0s	Detail
Machine 117	Mon, 07/03/2017 09:19	Wed, 07/05/2017 11:06	O0001(SHAFT)	282	0	49m	1.64	3m 28.0s	Detail

4-4-3 Alarm analysis

This function analyzes number of times (or generation time of) alarm generated on the machine. Followings are displayed on the screen.

- Combination chart that displays the number of times (or generation time) and cumulative ratio for each alarm that generated during specified period.
- Pie chart for each alarm
- Table which displays the number of times, generation time and each rate, for each alarm.



Alarm	Message	Count	Rate(count) (%)	Time	Rate(time) (%)
OT500	(Z)+ OVERTRAVEL(SOFT1)	5	21.74	2m 57s	3.67
PS114	ILLEAGAL EXPRESSION FORMAT	5	21.74	41s	0.86
2085	TOOL LIFE COUNTER COUNT UP	4	17.39	20m 35s	25.49
2070	COUNT UP	4	17.39	5m 8s	6.36
PS9	IMPROPER NC-ADDRESS	2	8.7	9s	0.19
EX1143	TORQUE LIMIT ALARM	1	4.35	50m 22s	62.35
EX1022	MACHINE IS NOT READY	1	4.35	26s	0.54
EX1000	EMERGENCY STOP	1	4.35	26s	0.54

Items	Contents
Alarm	Displays alarm No.
Message	Alarm message
Count	Displays the number of times for alarm generation.
Rate(count) (%)	Displays the percentage of the number of alarm generation times as for total of specified period.
Time	Displays total time of alarm generating time until canceled.
Rate(time) (%)	Displays the percentage of the time of alarm generation as for total of specified period.

To switch between counter-based analysis and time-based analysis, click “Time” or “Count” of the table.

■ Multiple display

Select “All Machines” for “Machine” of filtering menu to display list screen which indicate alarm history for multiple machines at the same time.

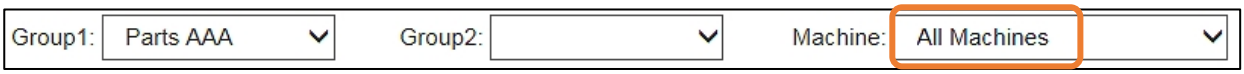
If both Group 1 and 2 are selected, information of all machines included to both groups are displayed.

If one of Group 1 or 2 is selected, information of all machines included to the group selected is displayed.

If both Group 1 and 2 are not selected, information of all machines which is registered is displayed.

Actual results of specified period and cumulative is displayed with line graph.

Scheduled plan, actual results and running time are displayed in list table based on specified period and cumulative.

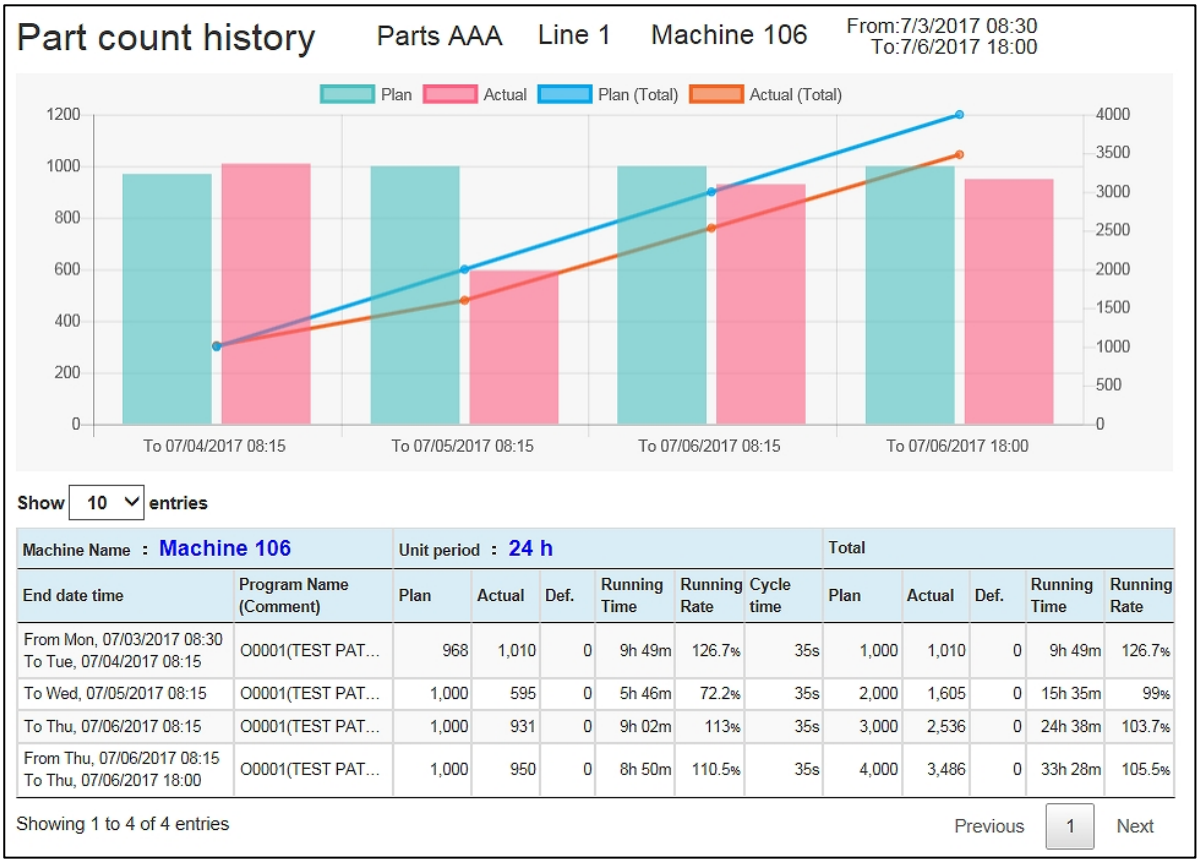


4-4-4 Part count history

Production plan and actual results can be checked.

Chart and table for production schedule of specified period and actual result are displayed.

(Unit period: bar chart, cumulative: line graph)



Items	Contents
Machine name	Display target “Machine name”.
Unit period	The result added up by using unit period (time span) is displayed.
Total	Display cumulative result from start date.
Start date time End date time	Display start or end date time of cumulative.
Program name (Comment)	Display the name of the main program selected on PATH 1 and comment described at the top of the program.
Plan	Display the value of Plan (the value to produce finally) set in 4-5-1 “Production schedule” screen. When “Production schedule” is not set, value of Plan will be “PRESET” value of the machine and period of produce will be one day. Zero is applied to Holiday and outside work hour.
Actual	The number which Defect is subtracted from the number of the parts machined is display.
Def.	Number of defect which is set in section 4-6-1 “Operator history”.
Time	Display the time the machine operated.
Rate (%)	Display Running rate.
Cycle time	Display the Median (the middle number of the cycle time) (*1)

(*1) Cycle time

Average and Median are calculated from all cycle time data recorded per parts counter.

Record of following cases are excluded from the calculation.

- Three seconds or less.
- Other than continuous operation.

NOTE

Difference of Average and Median

- Median: calculated with the cycle time excluding the time for bar changing by automatic bar feeder.
  When aligning the all number of the cycle time record in ascending order, the just central number of the column becomes Median.
- Average: calculated with all cycle time including the time for bar changing.

■ Multiple display

Select “All Machines” for “Machine” of filtering menu to display list screen which indicate part count history for multiple machines at the same time.

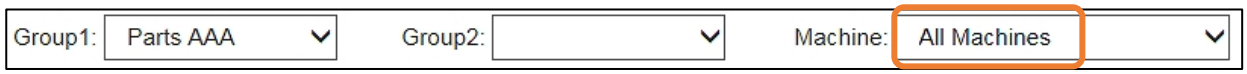
If both Group 1 and 2 are selected, information of all machines included to both groups are displayed.

If one of Group 1 or 2 is selected, information of all machines included to the group selected is displayed.

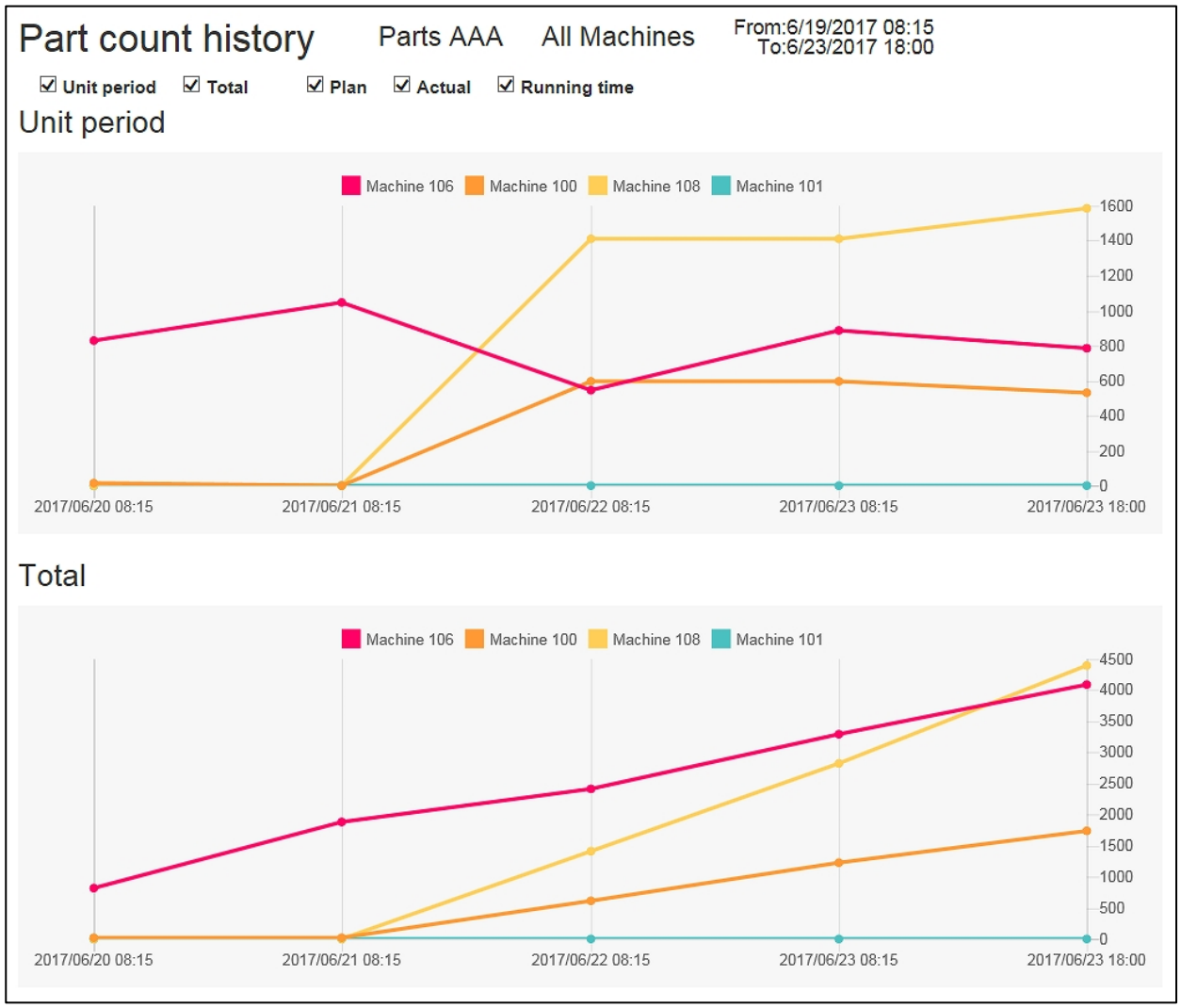
If both Group 1 and 2 are not selected, information of all machines which is registered is displayed.

Actual results of specified period and cumulative is displayed with line graph.

Scheduled plan, actual results and running time are displayed in list table based on specified period and cumulative.



Line graph



List table

Show 5 entries Search:

Machine Name	Item		6/20 Tue 08:15	6/21 Wed 08:15	6/22 Thu 08:15	6/23 Fri 08:15	6/23 Fri 18:00
Machine 106	Unit period	Plan	0	1000	1000	1000	1000
		Actual	828	1045	542	884	782
		Running time	08:03	10:10	05:16	08:35	07:35
	Total	Plan	0	1000	2000	3000	4000
		Actual	828	1873	2415	3299	4081
		Running time	00:08:03	00:18:13	00:23:29	01:08:05	01:15:40
Machine 100	Unit period	Plan	146	146	146	146	59
		Actual	18	0	600	600	530
		Running time	05:54	00:00	10:01	10:00	08:42
	Total	Plan	490	637	784	931	990
		Actual	18	18	618	1218	1748
		Running time	00:05:54	00:05:54	00:15:56	01:01:57	01:10:39
Machine 108	Unit period	Plan	656250	656250	656250	656250	406250
		Actual	0	0	1410	1408	1588
		Running time	00:55	00:00	07:50	07:51	08:45
	Total	Plan	999999	999999	999999	999999	750000
		Actual	0	0	1410	2818	4406
		Running time	00:00:55	00:00:55	00:08:46	00:16:37	01:01:22
Machine 101	Unit period	Plan	65624	65624	65624	65624	40624
		Actual	0	0	0	0	0
		Running time	00:54	00:00	00:00	00:00	02:53
	Total	Plan	99999	99999	99999	99999	74999
		Actual	0	0	0	0	0
		Running time	00:00:54	00:00:54	00:00:54	00:00:54	00:03:48

Showing 1 to 4 of 4 entries Previous 1 Next

Items	Contents
Machine name	Display the target “Machine name”.
Unit period	The result added up by using unit period (time span) is displayed.
Total	Display cumulative result from start date.
Plan	Display the value of Plan (the value to produce finally) set in 4-5-1 “Production schedule” screen. When “Production schedule” is not set, plan will be that the number of the “PRESET” value will be produced with one day. Zero is applied to Holiday and outside work hour.
Actual	The number which defect is subtracted from the number of the parts machined is display.
Running time	Display the time the machine operated.

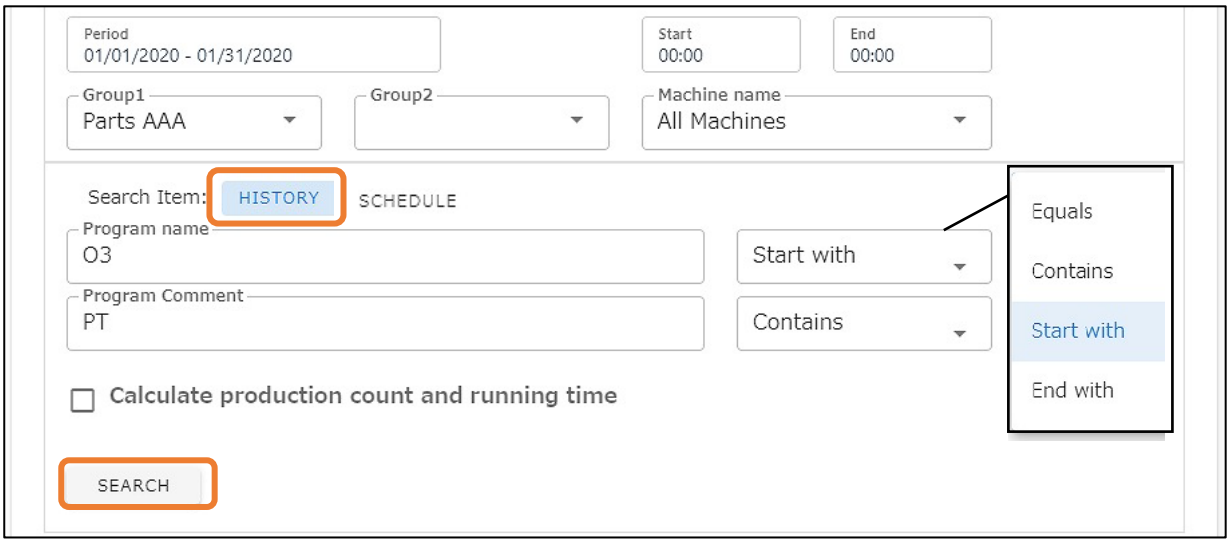
By checking the boxes, following will be executed. (Initial setting: all is checked)

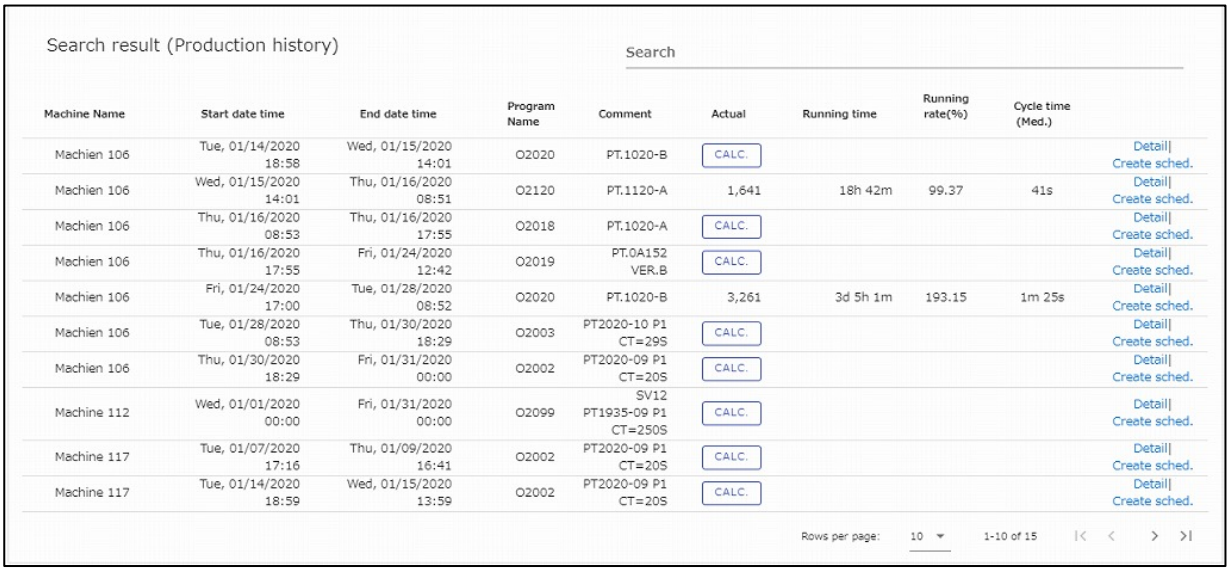
Items	Contents
Unit period	Data of specified period is displayed with line graph. (Horizontal axis: unit period) In addition, information of unit period in the list table is displayed.
Total	Data of specified period is displayed with line graph. (Horizontal axis: cumulative) In addition, information of cumulative in the list table is displayed.
Plan	Value of Production schedule is displayed on the items for unit period and cumulative.
Actual	Value of actual result is displayed on the items for unit period and cumulative.
Running time	Running time is displayed on the items for unit period and cumulative.

4-4-5 Search

■Search “production history”

Set search conditions and push [SEARCH] button.





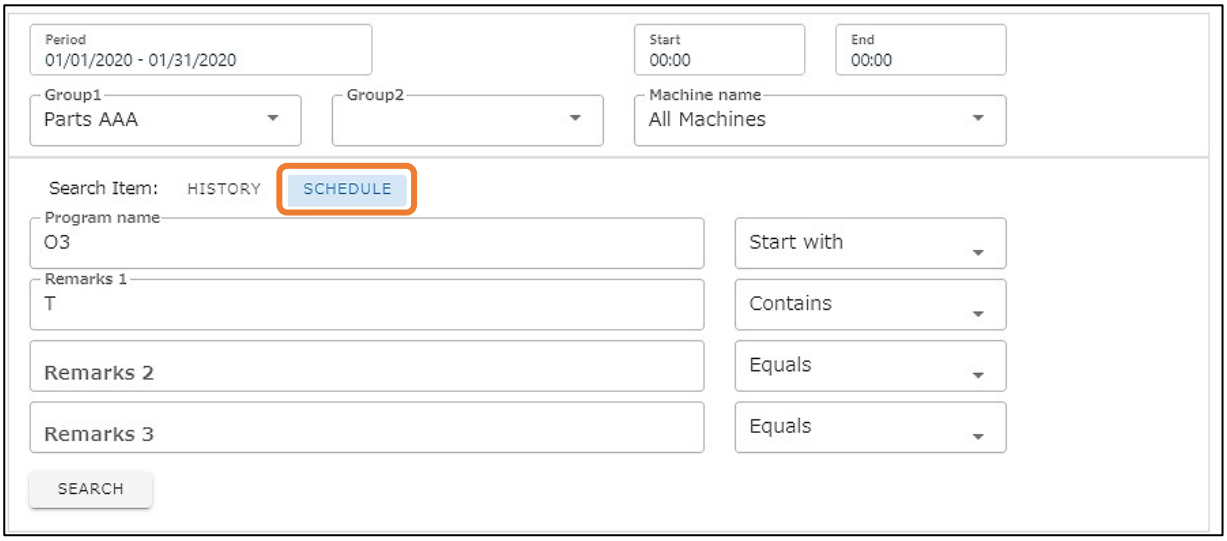
[CALC.]: Calculate actual part count, running time, running rate and cycle time.

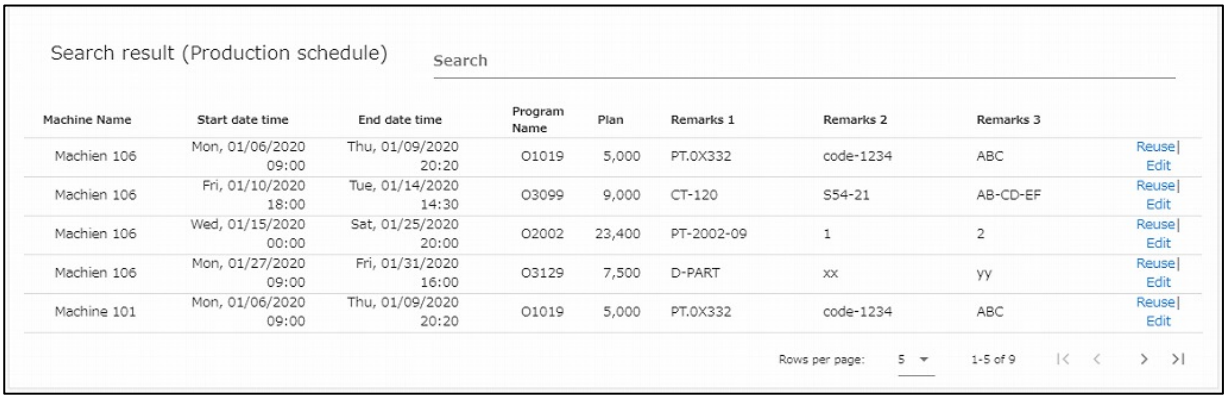
Detail: Jump to “Part count history” page.

Create sched.: Jump to “Create Production schedule” and copy production history data.

■Search “production schedule”

Set search conditions and push [SEARCH] button.





Machine Name	Start date time	End date time	Program Name	Plan	Remarks 1	Remarks 2	Remarks 3	
Machien 106	Mon, 01/06/2020 09:00	Thu, 01/09/2020 20:20	O1019	5,000	PT.0X332	code-1234	ABC	Reuse| Edit
Machien 106	Fri, 01/10/2020 18:00	Tue, 01/14/2020 14:30	O3099	9,000	CT-120	S54-21	AB-CD-EF	Reuse| Edit
Machien 106	Wed, 01/15/2020 00:00	Sat, 01/25/2020 20:00	O2002	23,400	PT-2002-09	1	2	Reuse| Edit
Machien 106	Mon, 01/27/2020 09:00	Fri, 01/31/2020 16:00	O3129	7,500	D-PART	xx	yy	Reuse| Edit
Machine 101	Mon, 01/06/2020 09:00	Thu, 01/09/2020 20:20	O1019	5,000	PT.0X332	code-1234	ABC	Reuse| Edit

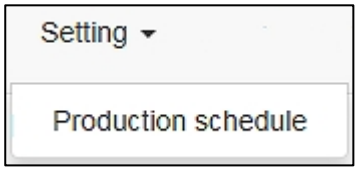
Rows per page: 5 1-5 of 9

Reuse: Create new production schedule using selected data.

Edit: Edit selected production schedule.

4-5 Setting

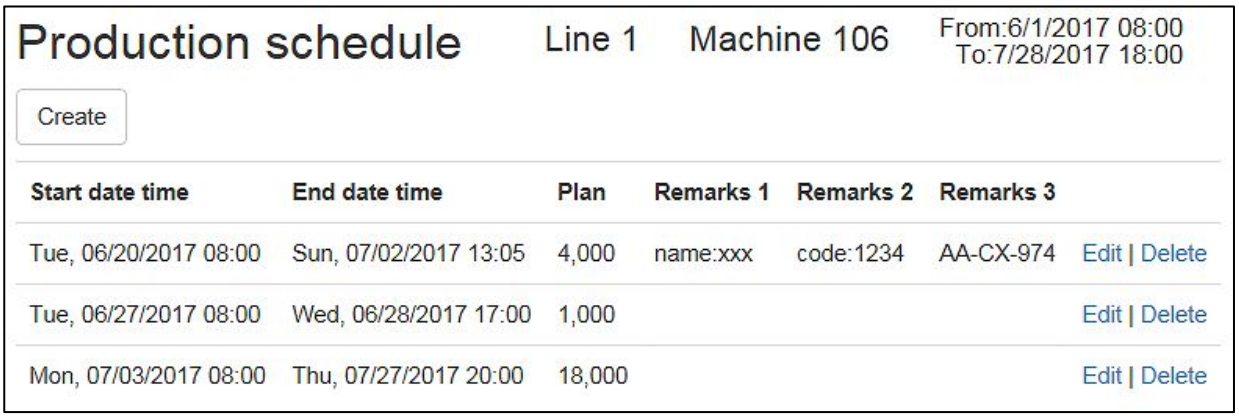
Select “Setting” of Main menu to display following sub menu. Select the sub menu to move to the designated screen.



4-5-1 Production schedule

Set the production schedule.

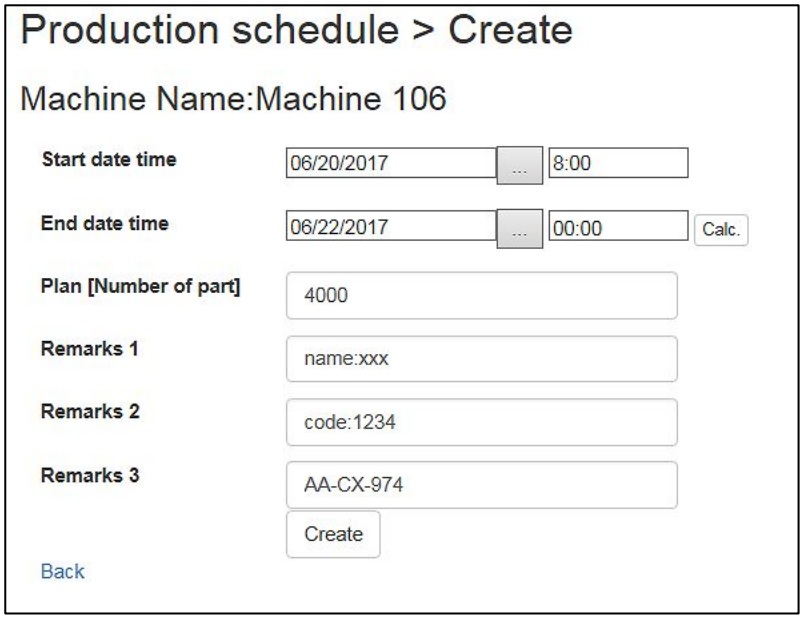
“Plan” value per set time span of part count history, “Achievement rate” and “Progress rate” are calculated by using the value set in this section.



Items	Contents
Start date time	Displays start date and time of machining.
End date time	Displays end date and time of machining.
Plan	Displays the number of products to be produced.
Remarks 1	Sets and displays any value or character.
Remarks 2	Sets and displays any value or character.
Remarks 3	Sets and displays any value or character.

・Creation

Click [Create] button to display “Production schedule > Create” screen.



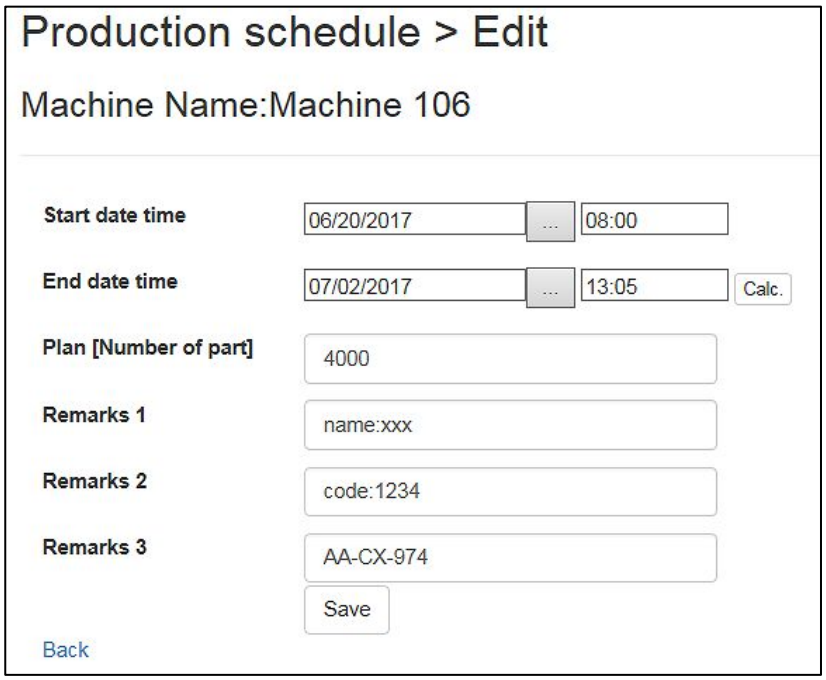
Click [Calc.] button to display input items to calculate End date time on lower of screen.

Enter each item then click [Create] button to add production schedule.

Click “Back” to return to the former screen without creating production schedule.

・Edit

Click “Edit” to display “Production schedule > Edit” screen.



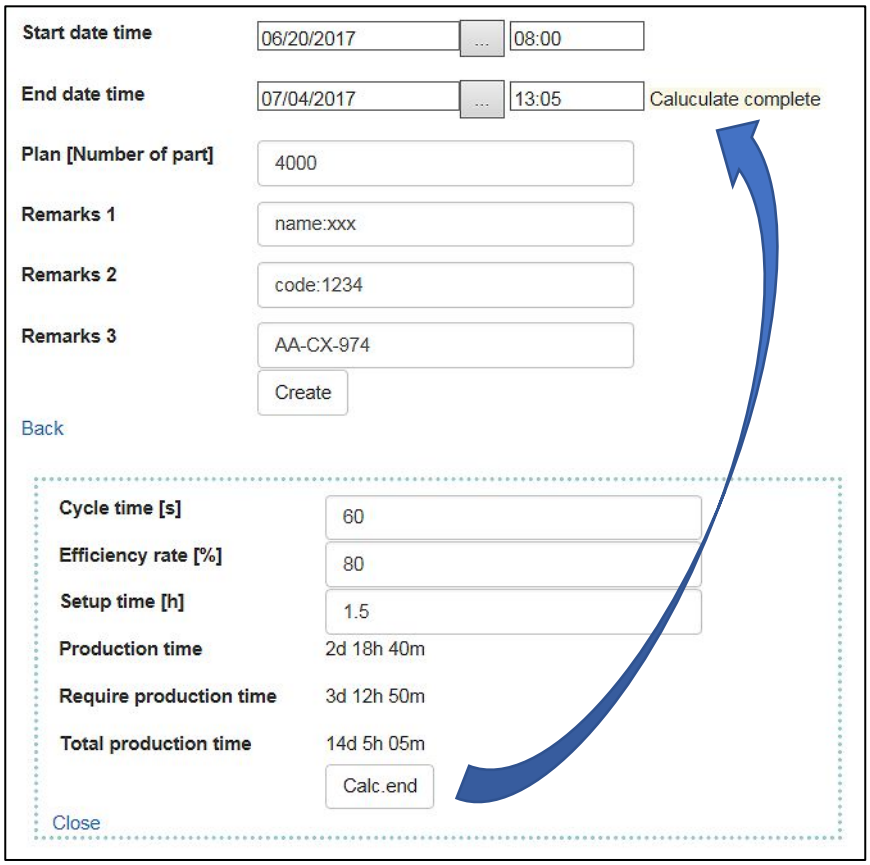
Click [Calc.] button to display input items to calculate End date time on lower of screen.

Enter each item then click [Save] button to save edited production schedule.

Click “Back” to return to the former screen without reflecting changes to production schedule.

・Calculate end date and time

Set input items and click [Calc.end] then End date time is calculated and date time is input into the input form.



Items	Contents
Cycle time [s] *1	Set cycle time.
Efficiency rate[%] *2	Set efficiency rate.
Setup time [h] *2	Set setup time. E.g.) 1 hour 30 minute = 1.5[h]
Production time	Display production time. Production time = “Cycle time” * “Plan[number of part]”
Require production time	Display production time + stop time. Stop time = “Setup time” + “Production time” *(100/”Efficiency rate”-1)
Total production time	Display production time + stop time + non-operation time. Non-operation time is calculated considering operation start time, operation end time and holiday.

(*1) Cycle time is reset by [Create] or [Save] of the plan.

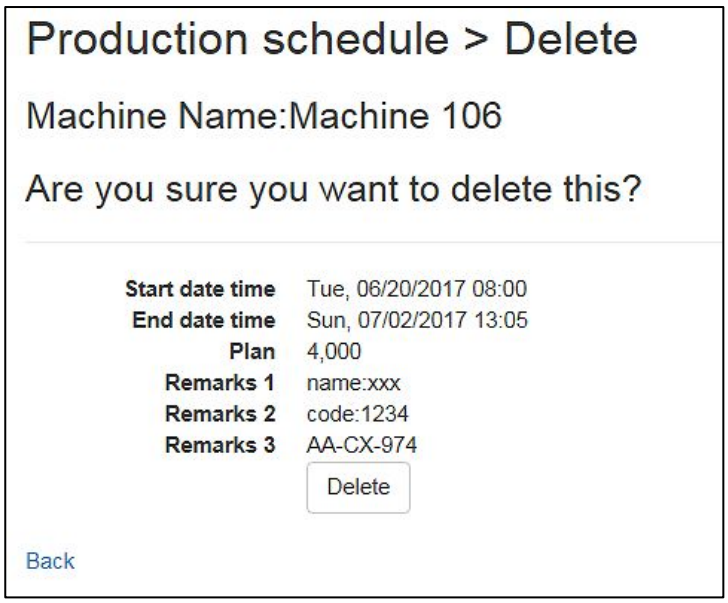
(*2) Efficiency rate and Setup time are saved as specified value by [Create] or [Save] of the plan.

・Delete

NOTICE

・Deleted data cannot be restored.

Click “Delete” to display “Production schedule > Delete” screen.



Click [Delete] button to delete the selected production schedule.

Click “Back” to return to the former screen without executing anything.

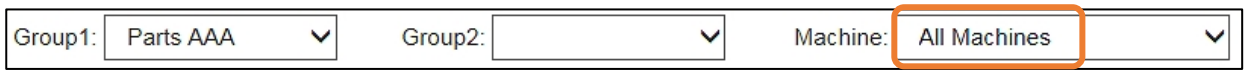
■ Multiple setting

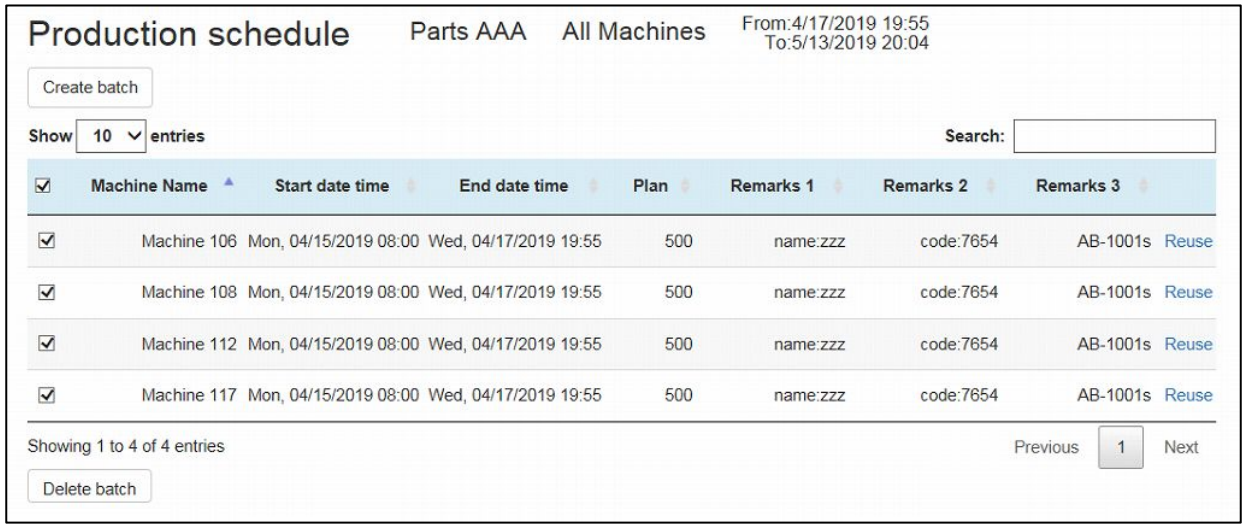
Select “All Machines” for “Machine” of filtering menu to display list screen which indicate production schedule for multiple machines at the same time.

If both Group 1 and 2 are selected, information of all machines included to both groups are displayed.

If one of Group 1 or 2 is selected, information of all machines included to the group selected is displayed.

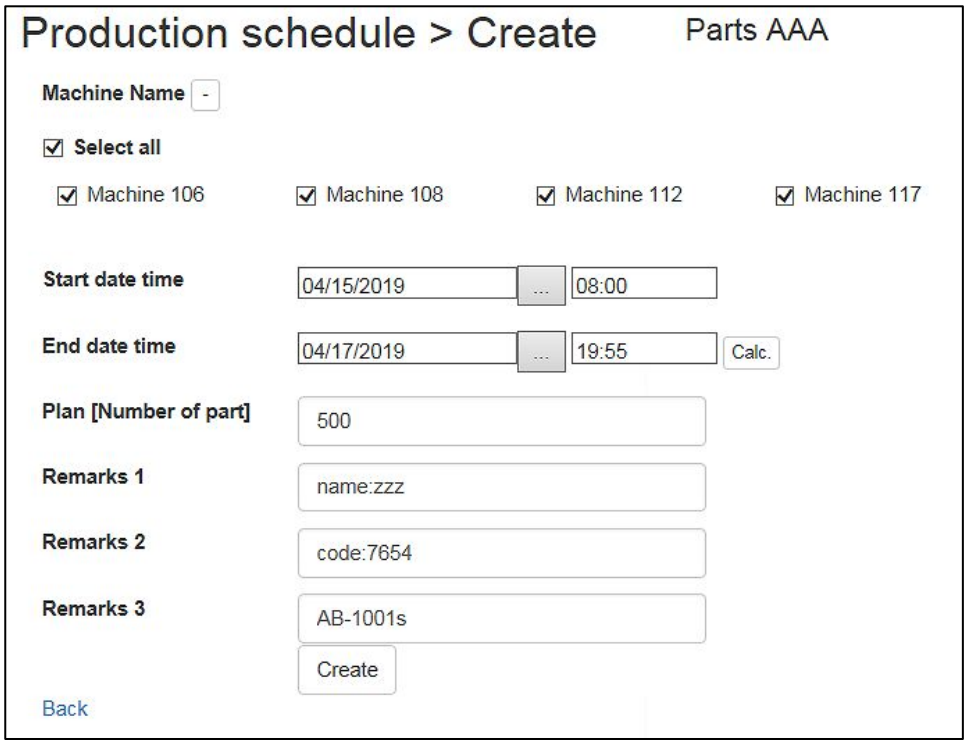
If both Group 1 and 2 are not selected, information of all machines which is registered is displayed.





・ Creation

Click [Batch create] button to display “Production schedule > Create” screen.



Schedule will be added to the machine whose box is checked. In the initial state, schedule will be added to all displayed machines. Uncheck the box of unnecessary machine.

By checking box of “Select all”, check status of all displayed machines will be changed.

By clicking the - button right of “Machine Name”, each machine name will be hidden and the - button will be changed to the + button. Click the + button to display each machine name again.

For other items, procedure is same as the setting for individual machine.

・Reuse of Production Schedule

By clicking “Reuse”, “Production schedule > Create” screen will be displayed.

As initial value for each item, values of selected line has been input. Items and operation procedure are same as Batch create.

NOTE

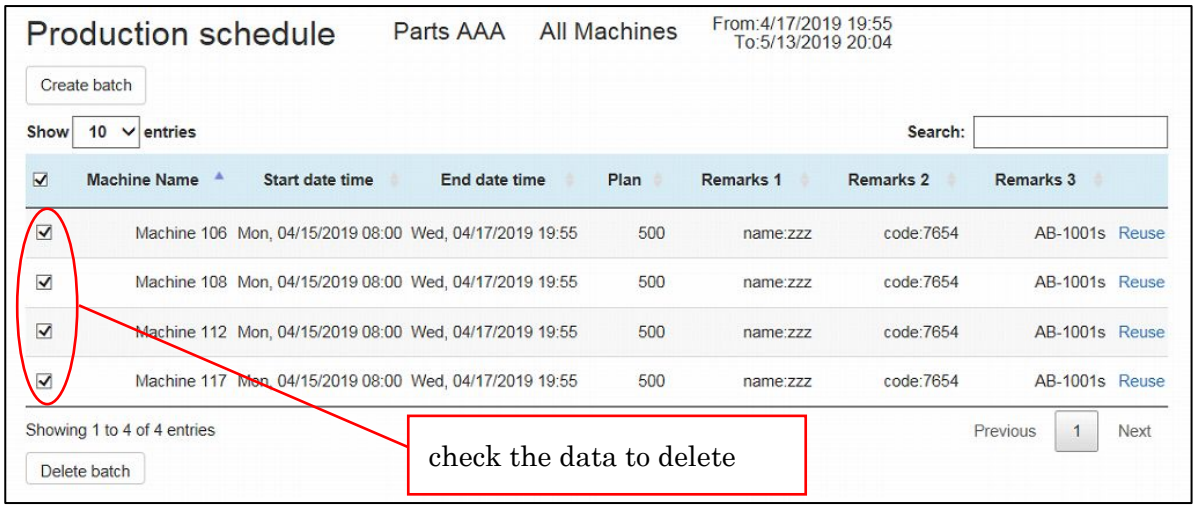
・ This function enables you to create similar schedule as previous in short period.

・Delete

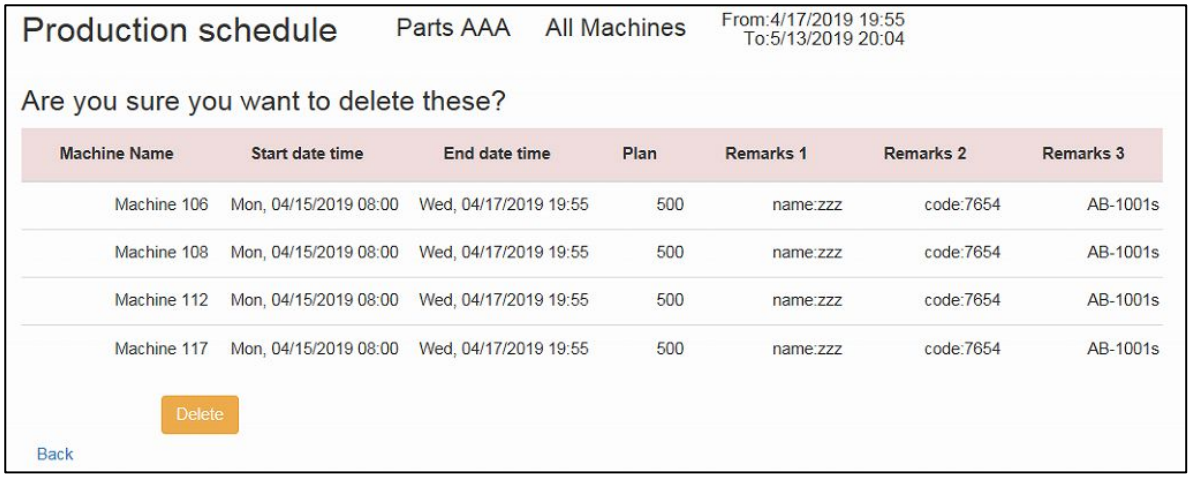
NOTICE

・Deleted data cannot be restored.

Check the box of the data to be deleted on Production schedule screen. By checking the box in title line, all displayed data will become target to delete.



Click “Batch delete” to display delete-confirmation screen.

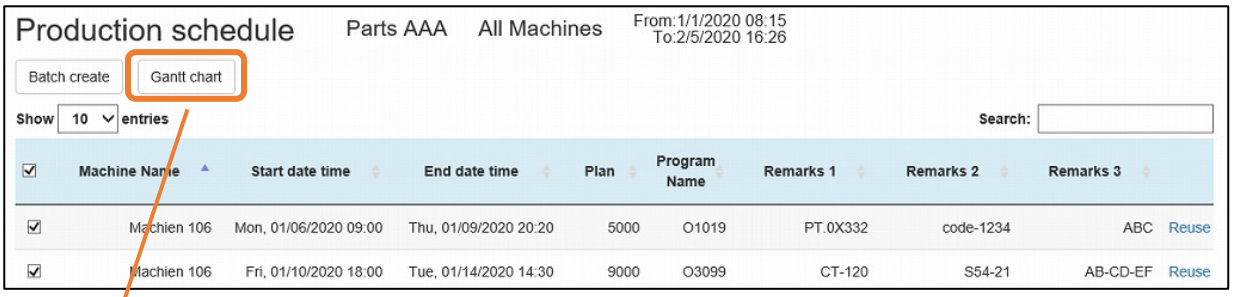


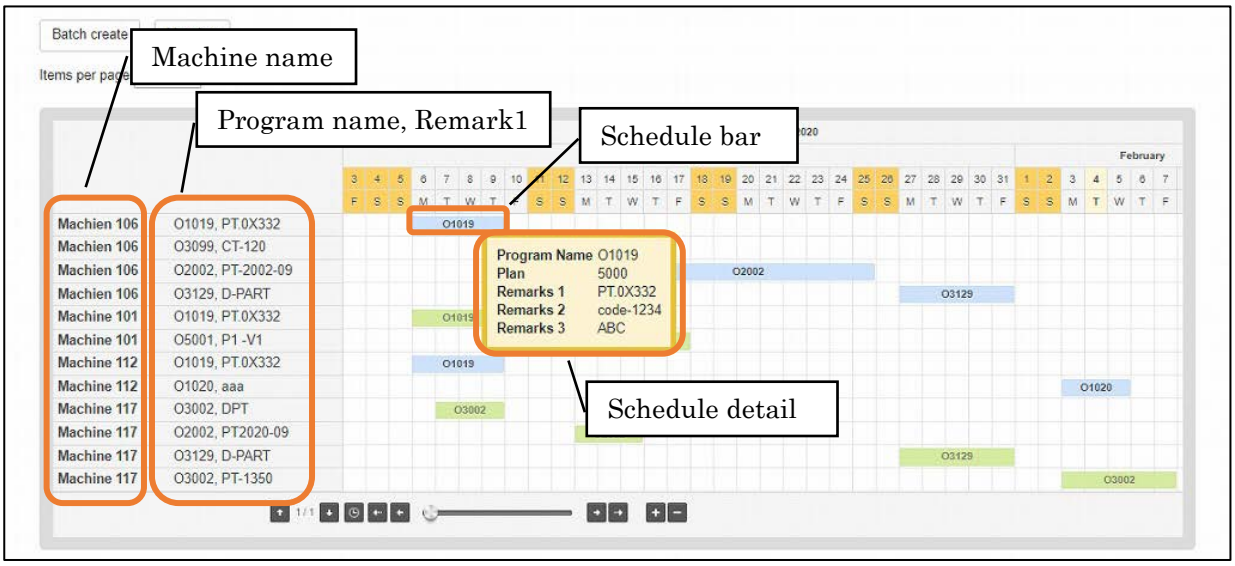
Click [Delete] button to delete the selected production schedule.

Click “Back” to return to the former screen without executing anything.

■ Gantt Chart of production schedule

Push [Gantt chart] button to display a Gantt chart of production schedule.





Hover the pointer over a “schedule bar”, detail of the schedule is displayed.

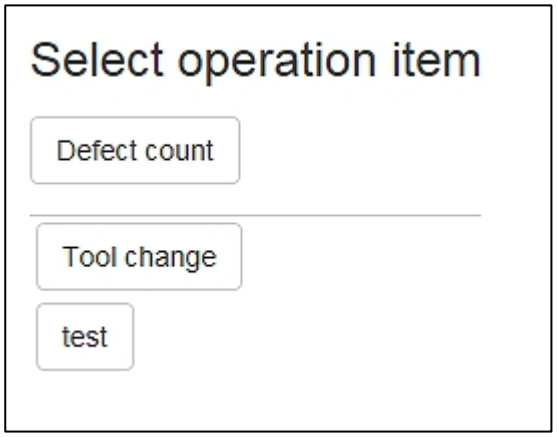
Clink a “schedule bar” to go to the “schedule edit” screen.

4-6 Operator history

Select “Operator history” of main menu.

Display buttons to be saved on the screen.

Moving to each Operator history screen by each button is possible.



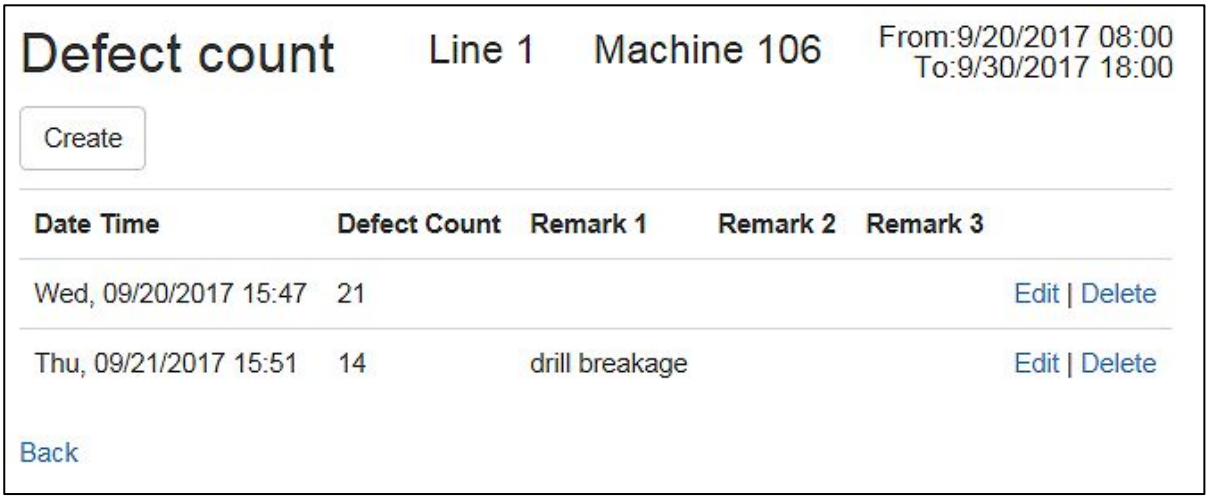
NOTE

・Displaying contents or saving items in the section 4-6-2 “Custom operator history” can be customized. Please inquire STAR MICRONICS of procedure to customize them.

4-6-1 Defect count

Set defect count.

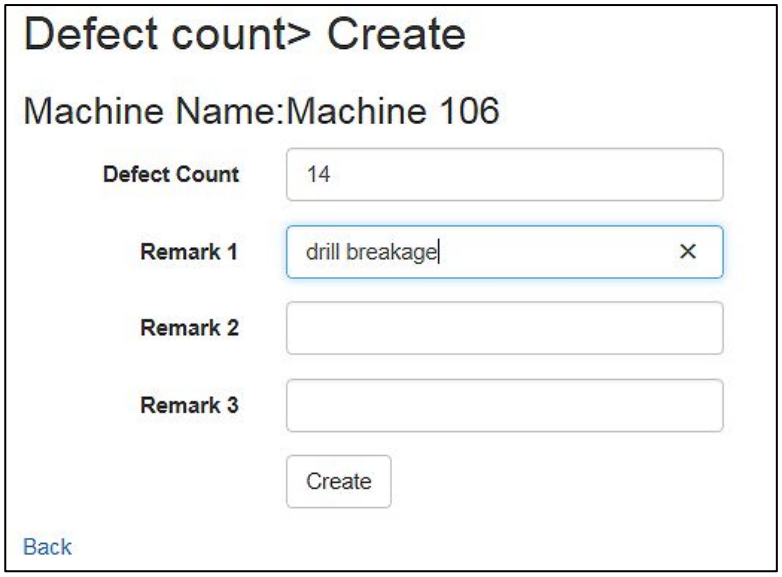
Defect count set in this section will display “Production history” and “Part count history” screen.



Items	Contents
Date Time	Displays date and time which the record was added.
Defect Count	Displays the number of defective products.
Remark 1	Sets and displays any value or character.
Remark 2	Sets and displays any value or character.
Remark 3	Sets and displays any value or character.

・Addition

Click [Create] button to display “Defect count > Create” screen.

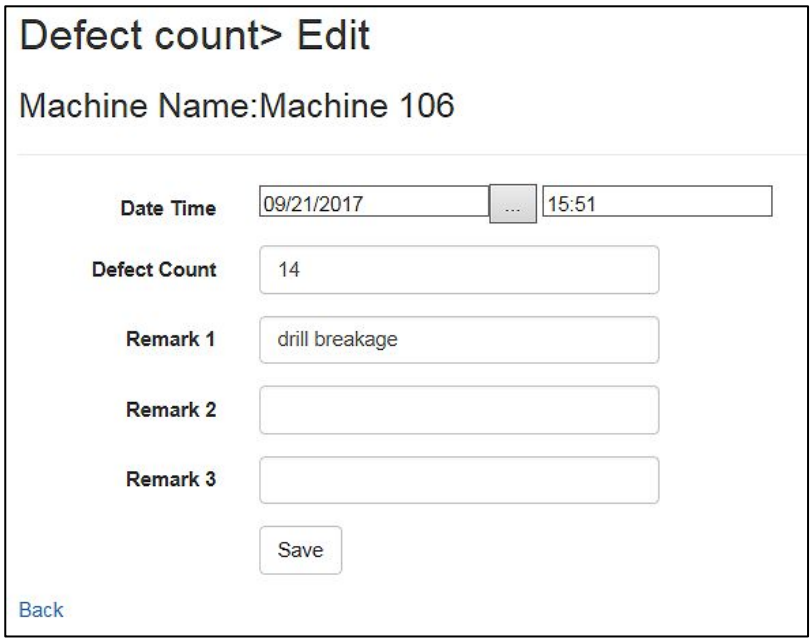


Enter each item then click [Create] button to add the record of the number of defective products.

Click “Back” to return to the former screen without adding any records.

・Edit

Click “Edit” to display “Defect Count > Edit”.



Edit each item then click [Save] button to save changes on record of defective products.

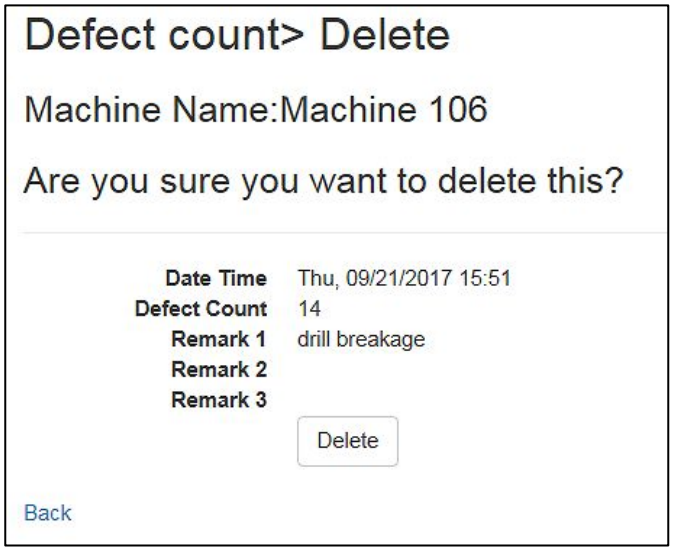
Click “Back” to return to the former screen without editing any records.

・Delete

NOTICE

・Deleted data cannot be restored.

Click “Delete” to display “Defect count > Delete” screen.



Click [Delete] button to delete the selected record of defective products.

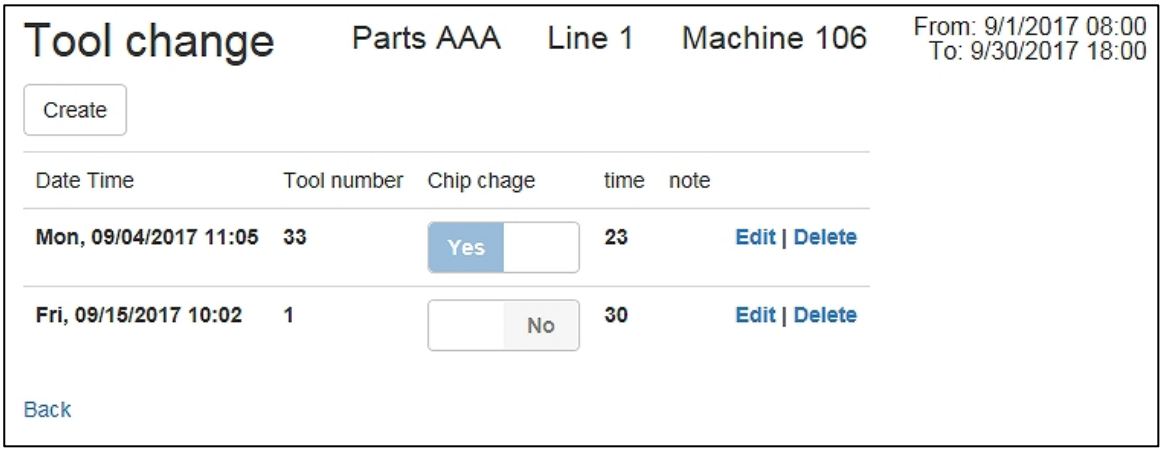
Click “Back” to return to the former screen without executing anything.

4-6-2 Custom operator history

This screen is for saving arbitral work record.

Setting the work contents as well as items for each work contents is possible.

Following is the method to record “Tool change” as one example.



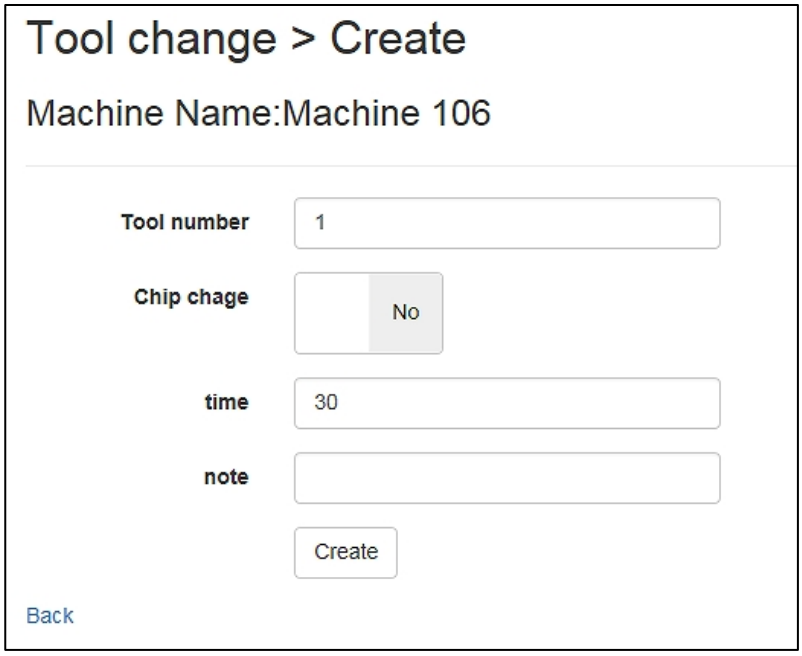
NOTE

- Displaying contents or saving items in this section can be customized. Please inquire STAR MICRONICS of procedure to customize them.
- “Yes/ No”, “Whole number”, “Decimal” or “Characters” can be selected for saving items.

・Create

Click [Create] button to display “Tool change > Create” screen.

Optimized input means are provided for each format of saving items.

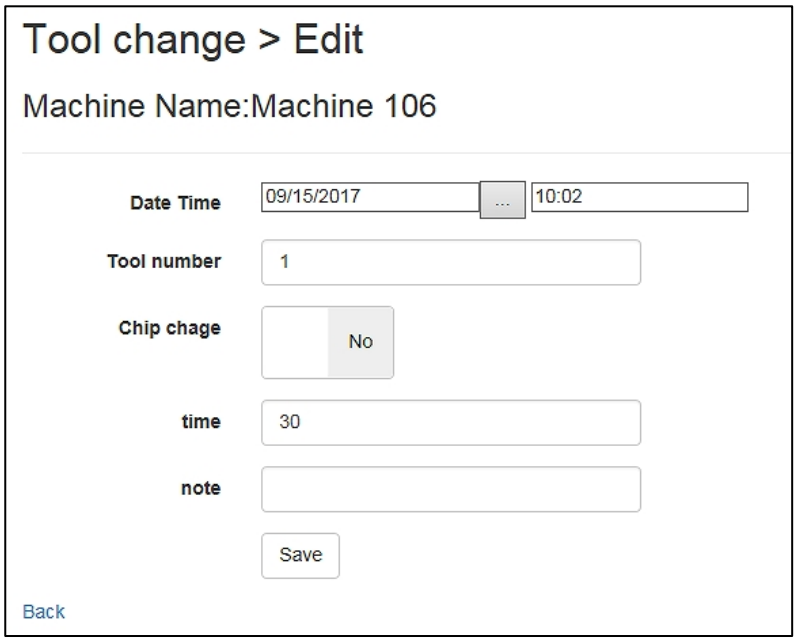


Enter each item then click [Create] button to add the work record.

Click “Back” to return to the former screen without adding any records.

・Edit

Click “Edit” to display “Tool change > Edit” screen.



Edit each item then click [Save] button to save the changes of work record.

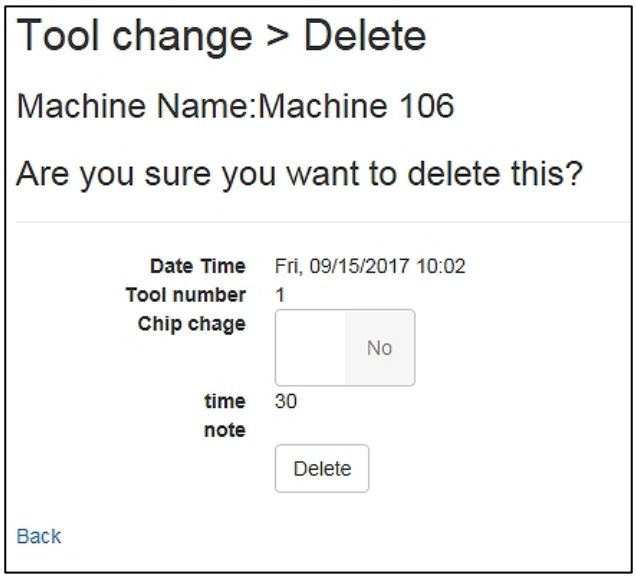
Click “Back” to return to the former screen without editing.

・Delete

NOTICE

・Deleted data cannot be restored.

Click “Delete” to display “Tool change > Delete” screen.



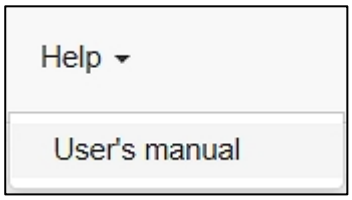
Click [Delete] button to delete the selected work record.

Click “Back” to return to the former screen without executing anything.

4-7 Help

Select “Help” in Main menu to display following sub menu.

Moving to each screen from each sub menu is possible.



4-7-1 User’s manual

Displays User’s manual.

4-8 Output file format

Outputs a CSV file with following format.

4-8-1 File name

CSV file name is made as "AAAA_BBBB_CCCC.csv"

Items	Contents
AAAA	Name of each screen (Refer to section 4-8-4 "Specific items".)
BBBB	Machine name When "All Machines" is selected, BBBB is made as "All_group1name_group2name".
CCCC	Start date and time set in "Filter menu". Format is "MM_DD_YYYY". E.g.) July 28,2017 is described as "07_28_2017".

4-8-2 Common format

Each item of data will be output as follows.

Items	Format
Date time	MM/DD/YYYY hh:mm:ss YYYY: Year/ MM: Month/ DD: Day hh: Hour (0-24)/ mm: Minute/ ss: Second E.g.) July 28,2017 8:15:8 is described as "07/28/2017 08:15:08"
Period	h:mm:ss h: Hour/ mm: Minute/ ss: Second (If the period is over one day, h is over 24 hour) E.g.) One day and 4 hour 3 minutes 12 seconds is described as "28:03:12".

4-8-3 Common items

Common items for all screen is output with following format.

Line No.	Items	Contents
1	Machine Name	Machine name of output data. When “All Machines” is selected, output name becomes “All”
2	Start day	Start day of output data
3	Start time	Start time of output data
4	End day	End day of output data
5	End time	End time of output data
6	Time span (hours)	Time span (unit: hour) of collecting for output data.
7	Group1	Group 1 name for output machine data.
8	Group2	Group 2 name for output machine data.
9	Operation start time (*1)	Operation start time for output machine data
10	Operation end time (*1)	Operation end time for output machine data
11	Holiday (*1)	Holidays in output period
21	Title	Title of the screen for output data.
22 onwards		Items for each screen

(*1) is not output when “All Machines” is selected for machine.

4-8-4 Specific items

Specific items differ per screens are output with following format.

■ NC status history

Items	Contents
Power Consumption (kWh)	Line 12: Power consumption data for specified displaying period.
CO2 Emissions (kg-CO2)	Line 13: CO2 emissions data for specified displaying period.
Data start line	Line 25: "Rate" data
	Line 38: "NC status history" data
Name of each screen	NCStatusHist

Output items（Rate）

Column No.	Item name	Contents
1	N/A	N/A
2	N/A	N/A
3	Status number	Number indicate NC status 20: Operate/ 11: Alarm(minor)/ 10: Alarm 1: Stop(setting)/ 0: Stop/ -1: Disconnect
4	Status	NC status
5	Time	Duration of same NC status
6	Ratio [%]	Percentage as for specified displaying period.

Output items（NC status history）

Column No.	Item name	Contents
1	Date Time	Date and time NC status changed
2	Day of week	The day of the week NC status changed
3	Status number	Numbers indicate change of NC status. 20: Operate/ 11: Alarm(minor)/ 10: Alarm 1: Stop(setting)/ 0: Stop/ -1: Disconnect
4	Status	NC status
5	Time	Duration of same NC status
6	Ratio [%]	Percentage as for specified displaying period.
7	Alarm message PATH1	Alarm number and message of PATH1
8	Alarm message PATH2	Alarm number and message of PATH2
9	Alarm message PATH3	Alarm number and message of PATH3

■ NC status history (multiple)

Items	Contents
Data start line	Line 24
Name of each screen	NCStatusHist

Output items

Column No.	Item name	Contents
1	Machine Name	Machine name of output data.
2	Operate	Percentage as for specified displaying period.
3	Alarm(minor)	
4	Alarm	
5	Stop(setting)	
6	Stop	
7	Disconnect	
8	Power Consumption (kWh)	Total power consumption for specified displaying period.
9	CO2 Emissions (kg-CO2)	Total CO2 emissions for specified displaying period.

■ Production history

Items	Contents
Data start line	Line 23: When one machine is selected.
	Line 22: When “All Machines” is selected.
Name of each screen	ProductionHist

・ When one machine is selected

Output items

Line No.	Item name	Contents
1	Start date time	Date and time of count start
2	Start day of week	Day of the week of count start
3	End date time	Date and time of count end
4	End day of week	Day of the week of count end
5	Program Name (Comment)	Main program name and comment at program beginning
6	Actual	The number which Defect is subtracted from the number of the parts machined
7	Defect	The number of the defective products
8	Running time	Time of machine operation
9	Running rate (%)	This rate is the percentage of Running time as for schedule time.
10	Cycle time(Avg.)	Average of cycle time for each parts counter.
11	Cycle time(Med.)	Median of cycle time for each parts counter.

・When “All Machines” is selected.

Output items

Line No.	Item name	Contents
1	Machine Name	Name of machine
2	Start date time	Date and time of count start
3	Start day of week	Day of the week of count start
4	End date time	Date and time of count end
5	End day of week	Day of the week of count end
6	Program Name (Comment)	Main program name and comment at program beginning
7	Actual	The number which Defect is subtracted from the number of the parts machined
8	Defect	The number of the defective products
9	Running time	Time of machine operation
10	Running rate (%)	This rate is the percentage of Running time as for schedule time.
11	Cycle time(Avg.)	Average of cycle time for each parts counter.
12	Cycle time(Med.)	Median of cycle time for each parts counter.

■ Production history (Total time)

Items	Contents
Data start line	Line 23
Name of each screen	ProductionHistDetail

Output items

Line No.	Item name	Contents
1	Program Name (Comment)	Main program name and comment at program beginning
2	Start date time	Date and time the control mode was changed from Machining to Setting before production.
3	Start day of week	Day of the week the control mode was changed from Machining to Setting before production.
4	End date time	Date and time the control mode was changed from Machining to Setting after production.
5	End day of week	Day of the week the control mode was changed from Machining to Setting after production.
6	Actual	The number which Defect is subtracted from the number of the parts machined
7	Defect	The number of the defective products
8	Running time	Time of machine operation
9	Running rate (%)	This rate is the percentage of Running time as for schedule time.
10	Cycle time(Avg.)	Average of cycle time for each parts counter.
11	Cycle time(Med.)	Median of cycle time for each parts counter.
12	Operate	Total time of each NC status between the start date and the end date and time.
13	Alarm(minor)	
14	Alarm	
15	Stop(setting)	
16	Stop	
17	Disconnect	
18	Operate(%)	Percentage of each NC status between the start date and the end date and time.
19	Alarm(minor)(%)	
20	Alarm(%)	
21	Stop(setting)(%)	
22	Stop(%)	
23	Disconnect(%)	

■ Alarm analysis

Items	Contents
Data start line	Line 23: “Alarm analysis” data
	Two lines later from end of “Alarm analysis” data : “Alarm list” data
Name of each screen	AlarmAnalysis

Output items (Alarm analysis)

Column No.	Item name	Contents
1	Alarm	Alarm No.
2	Message	Alarm message
3	Count	The number of times for alarm generation
4	Rate(count) (%)	The percentage of the number of alarm generation times as for total of specified period
5	Time	Total time of alarm generating time until canceled
6	Rate(time) (%)	The percentage of the time of alarm generation as for total of specified period

Output items (Alarm list)

Column No.	Item name	Contents
1	Machine Name	Name of machine
2	Alarm	Alarm No.
3	Message	Alarm message
4	Generation date time	Alarm generation date and time
5	Day of week	Day of the week of alarm generated
6	Time	Alarm generating time

■ Production history

Items	Contents
Data start line	Line 24: When one machine is selected.
	Line 22: When “All Machines” is selected.
Production schedule information	Add production schedule data to two lines later from the line of the production history end. (When one machine is selected.)
Name of each screen	PartCountHist

・When one machine is selected

Output items

Column No.	Item name		Contents
1	Start date time		Date and time of collecting start
2	Start day of week		Day of the week of collecting start
3	End date time		Date and time of collecting end
4	End day of week		Day of the week of collecting end
5	Program Name(Comment)		Main program name and comment at program beginning
6	Unit period (*1)	Plan	The number of production schedule
7		Actual	The number which Defect is subtracted from the number of the parts machined
8		Defect	The number of the defective products
9		Running time	Time of machine operation
10		Running rate (%)	This rate is the percentage of Running time as for schedule time.
11		Cycle time(Avg.)	Average of cycle time for each parts counter.
12		Cycle time(Med.)	Median of cycle time for each parts counter.
13	Total (*2)	Plan	The number of production schedule
14		Actual	The number which Defect is subtracted from the number of the parts machined
15		Defect	The number of the defective products
16		Running time	Time of machine operation
17		Running rate (%)	This rate is the percentage of Running time as for schedule time.

(*1) Unit period : Results collected in unit period (time span)

(*2) Total : Cumulative results from the start date and time of output data

・When “All Machines” is selected

Output items (Common in machines)

Line No.	Item name	Contents
22	Start date time	Date and time of collecting start
23	Start day of week	Day of the week of collecting start
24	End date time	Date and time of collecting end
25	End day of week	Day of the week of collecting end

Output items （per machine）

Line No. (*3)	Item name		Contents
26	Program Name(Comment)		Main program name and comment at program beginning
27	Unit period (*4)	Plan	The number of production schedule
28		Actual	The number which Defect is subtracted from the number of the parts machined
29		Defect	The number of the defective products
30		Running time	Time of machine operation
31		Running rate (%)	This rate is the percentage of Running time as for schedule time.
32		Cycle time(Avg.)	Average of cycle time for each parts counter.
33		Cycle time(Med.)	Median of cycle time for each parts counter.
34	Total (*5)	Plan	The number of production schedule
35		Actual	The number which Defect is subtracted from the number of the parts machined
36		Defect	The number of the defective products
37		Running time	Time of machine operation
38		Running rate (%)	This rate is the percentage of Running time as for schedule time.

(*3) Data per machine is added to the horizontal direction.

Line number of second machine or later

= (Line Nos. of above table) + 13 × (number of machine - one)

E.g.) Line 26 = Program Name of first machine

Line 37 = (26+13×1) = Program Name of second machine

Line 56 = (34+13×2) = Defect of third machine

(*4) Unit period : Results collected in unit period (time span)

(*5) Total : Cumulative results from the start date and time of output data

Data per unit period is added to the horizontal (row) direction.

E.g.) Third row is data of first day. Fourth row is data of second day.

■ Production schedule

Items	Contents
Data start line	Line 23
Name of each screen	ProductionSchedule

・When one machine is selected

Output items

Column No.	Item name	Contents
1	Start date time	Date and time of machining start
2	Start day of week	Day of the week of collecting start
3	End date time	Date and time of collecting end
4	End day of week	Day of the week of collecting end
5	Plan	Schedule number to produce
6	Remarks 1	
7	Remarks 2	
8	Cycle time	Plan cycle time
9	Efficiency rate	Plan efficiency rate
10	Setup time	Setup time
11	Remarks 3	
12	Program Name	NC Program name (e.g. O1234)

・When “All Machines” is selected.

Output items

Line No.	Item name	Contents
1	Machine Name	Name of machine
2	Start date time	Date and time of machining start
3	Start day of week	Day of the week of collecting start
4	End date time	Date and time of collecting end
5	End day of week	Day of the week of collecting end
6	Plan	Schedule number to produce
7	Remarks 1	
8	Remarks 2	
9	Cycle time	Plan cycle time
10	Efficiency rate	Plan efficiency rate
11	Setup time	Setup time
12	Remarks 3	
13	Program Name	NC Program name (e.g. O1234)

■ Operation history (Number of defective products)

Items	Contents
Data start line	Line 23
Name of each screen	DefectHist

Output items

Column No.	Item name	Contents
1	Date Time	Date and time which Defect is set.
2	Day of week	Date and time which Defect is set.
3	Defect Count	The number of the defective products
4	Remark 1	
5	Remark 2	
6	Remark 3	

■ Operation history (Specified by user)

Items	Contents
Data start line	Line 23
Name of each screen	OperatorHist_XX (XX is page number)

Output items

Column No.	Name of items	Contents
1	Date Time	Date and time which work was executed (or was set).
2	Day of week	Day of the week which work was executed (or was set).
3 and later	Items specified by user	Setting value for items specified by user

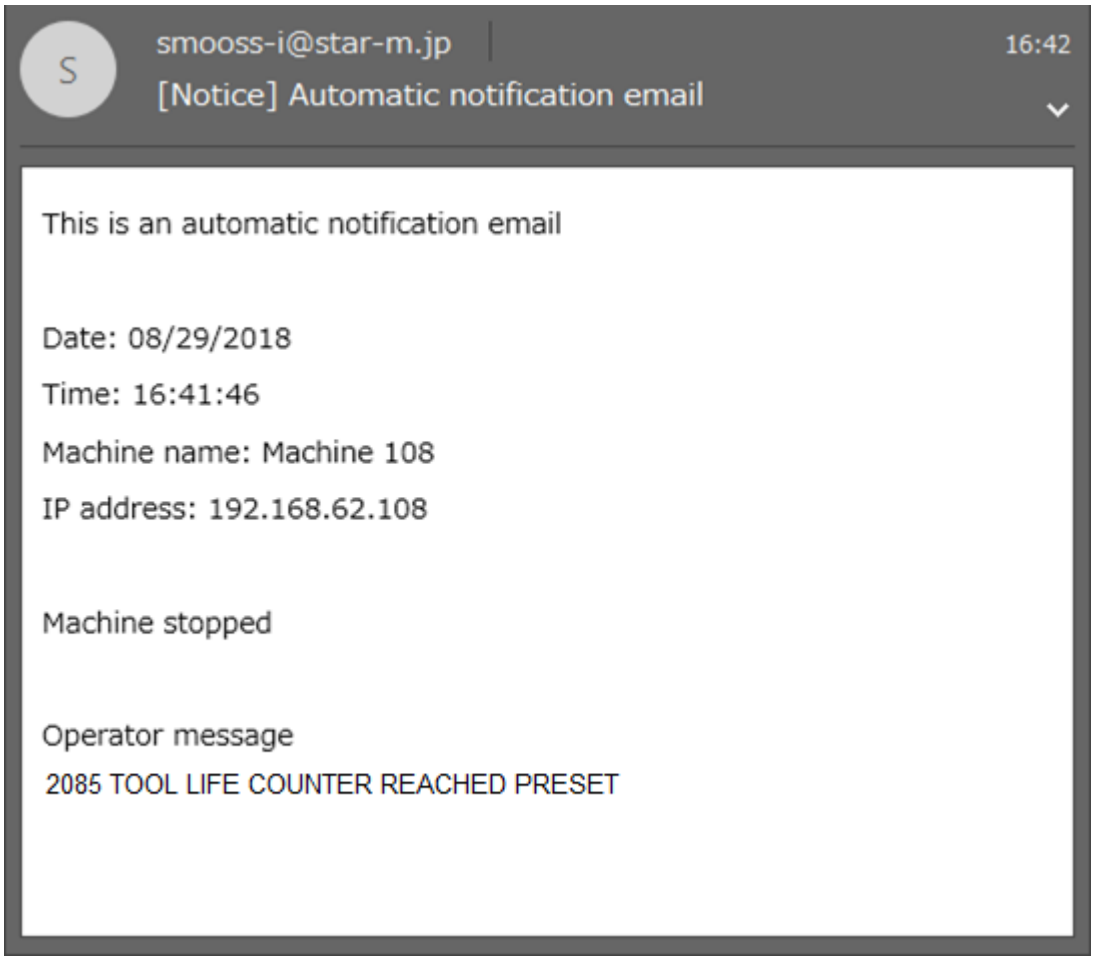
CHAPTER 5
E-mail notification

5 E-mail notification

5-1 Outline

This is a function notifies by E-mail when the machine stops machining with alarm generating.

Example (It differs depending on the E-mail software).



5-2 Specification

a) Condition to notify

When both conditions of “Mode of machine” and “Status” are satisfied with following things respectively, notification is carried out.

・Mode of machine

When control mode is machining mode and a program operates in Memory mode.
(Mode selection key is set to “MEMORY”.)

・Status (In the case that machine status becomes any of followings)

1. Alarm was generated and machine stopped.
2. Machine stopped with displaying an operator message.
3. Communication disconnected with machine (No reply despite of reconnection)

NOTE

- Setting not to notify at the count reach state for parts counter and tool life is possible.
- Time length until judging of communication disconnection with the machine can be alter. Initial value is 15 minutes.

b) Notification contents

- Machine stop date
- Machine name
- IP address
- Number and contents of alarm/operator message generated when machine stopped.

5-3 Setting

Set by following the procedure of section 3-8-2 “Setting of E-mail notification”

NOTICE

- E-mail notification can be received with E-mail software used regularly.
- Environment for using E-mail is necessary. (Connection from the server where information collect software operates to E-mail sever needs to be possible).
- Internet environment is necessary to notify outside such as mobile phone.
- Internet environment is also necessary to use external E-mail sever.

CHAPTER 6
Data backup

6 Data backup

Collected data is saved in the hard disk. However, if the sever or the hard disk is failure by any chance, all data will be lost.

Even if in such case, the last backed-up data can be restored from the hard disk of other than on the server if the data have been backed up.

Be sure to back up periodically with the software for back-up work.

6-1 Installation of backup software

Install back-up software for the database.

Two kinds of software are prepared for different data management methods. Select appropriately.

Methods	Details
Based on data	A folder with name of date is created each time of back-up and data is saved in the folder. When data is backed up for multiple times in one day, folder is created with the name that back-up execution time is added to the folder name except for the latest one. E.g.1) For the data of 09/25/2017 ····· D:\DB_Backup\data\20170925\ E.g.2) In the case of second times in 10/01/2017 First time in 10:03:25, second time in 20:00:37 For the first time ·····D:\DB_Backup\data\20171001_100325\ For the latest time ···D:\DB_Backup\data\20171001\ (The folder of the latest for the day is named with character string of the date only.)
Base on version	Data is accumulated at each time of back-up. After regulated preservation number (five data), the oldest version will be deleted. The latest back-up data is saved in following folder. D:\DB_Backup\data\Backup1 The number of each folder name is added by one at every back-up execution. E.g.) Backup1 → Backup2 The oldest version (Backup5) will be deleted at new back-up.

1) Set the installation disc of SMOOSS-i into the optical disk drive.

2) Decide the drive to back up the data. Then copy following data to the folder to be used for back-up with windows explorer.

- For date type back-up
  Tool\Backup_Date\DB_Backup
- For version type back-up
  Tool\Backup_Version\DB_Backup

3) Double-click “CreatingShortcut.vbs” in “bin” folder inside the copied folder. The short cut icon will be created on the desktop.

Fore back-up  For restoring 

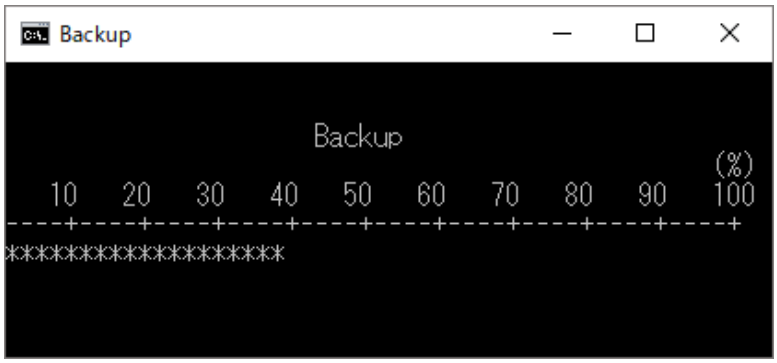
6-2 Backup procedure

NOTICE

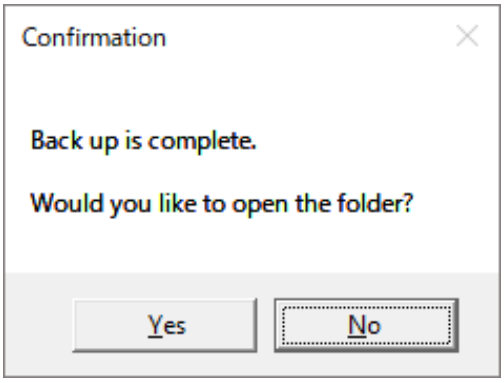
・Be sure to finish Collector before back-up.

1) Double-click the icon on the desktop. 

Following screen displays during back-up work.



2) Following screen displays after completing.



YES : Finish back-up work with opening stored folder with windows explorer.

NO : Finish with this window closed.

NOTICE

・When data was backed up in the hard disk on the server, copy back-up data to the other place than the hard disk on the server.

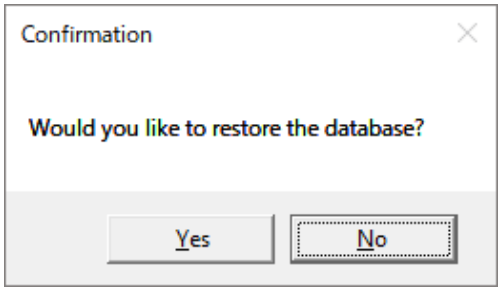
6-3 Restoration procedure

NOTICE

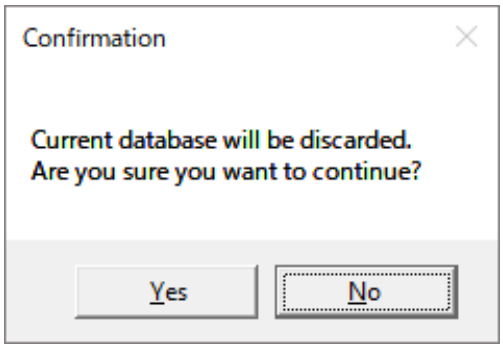
- Current database is discarded by restoration. Discarded data cannot be restored therefore operate carefully.
- Do not start Collector during restoration.
- Following setting of E-mail notification is not restored therefore set these again. Refer to section 3-8-2.
  Sever (SMTP), Port No., Timeout, each information for authentication

1) Double-click the icon for restoration  on the desk top.

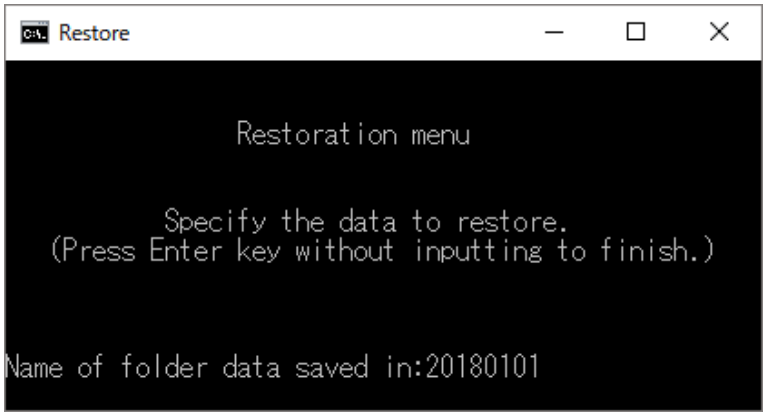
2) Following screen displays then click [YES].



3) Following screen displays then click [YES].



4) Specify the data to restore. Enter the folder name where back-up data saved.

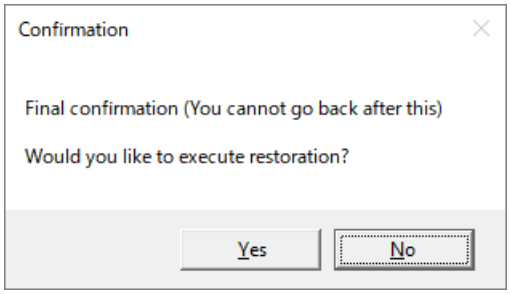


5) Select the database to restore. Enter the number then press “Enter” key.

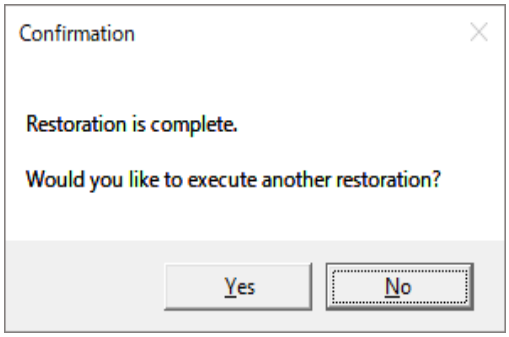
Contents of database

No.	Name	Contents	No.	Name	Contents
1	mholiday	Holidays data	5	muserinput	Operator history
2	mrecord	History data	6	mworking	Operation time, Production schedule
3	msetting	Setting, Registration information	7	notifysetting	Setting of E-mail notification
4	mstatus	Monitor data			

6) Following screen displays then click [YES].



7) Following screen displays after completing.



YES ：Continue to restore another database.

NO ：Finish with this window closed.

CHAPTER 7
Program I/O function management application

7 Program I/O function management application

7-1 Starting

7-1-1 For Windows Server 2019/2016, Windows 11/10

a) When starting from short cut

Double click the short cut [PrgMgrAdmin]  to start PrgMgrAdmin.

b) When starting from the start menu

1) Click Windows' start menu.

For windows 11, select the arrow next to [All Apps].

2) Click [Star Micronics SMOOSS-i].

3) Click [PrgMgrAdmin] to start PrgMgrAdmin.

7-1-2 For Windows Server 2012 R2

a) When starting from short cut

Double click the short cut [PrgMgrAdmin]  to start PrgMgrAdmin.

b) When starting from the start menu

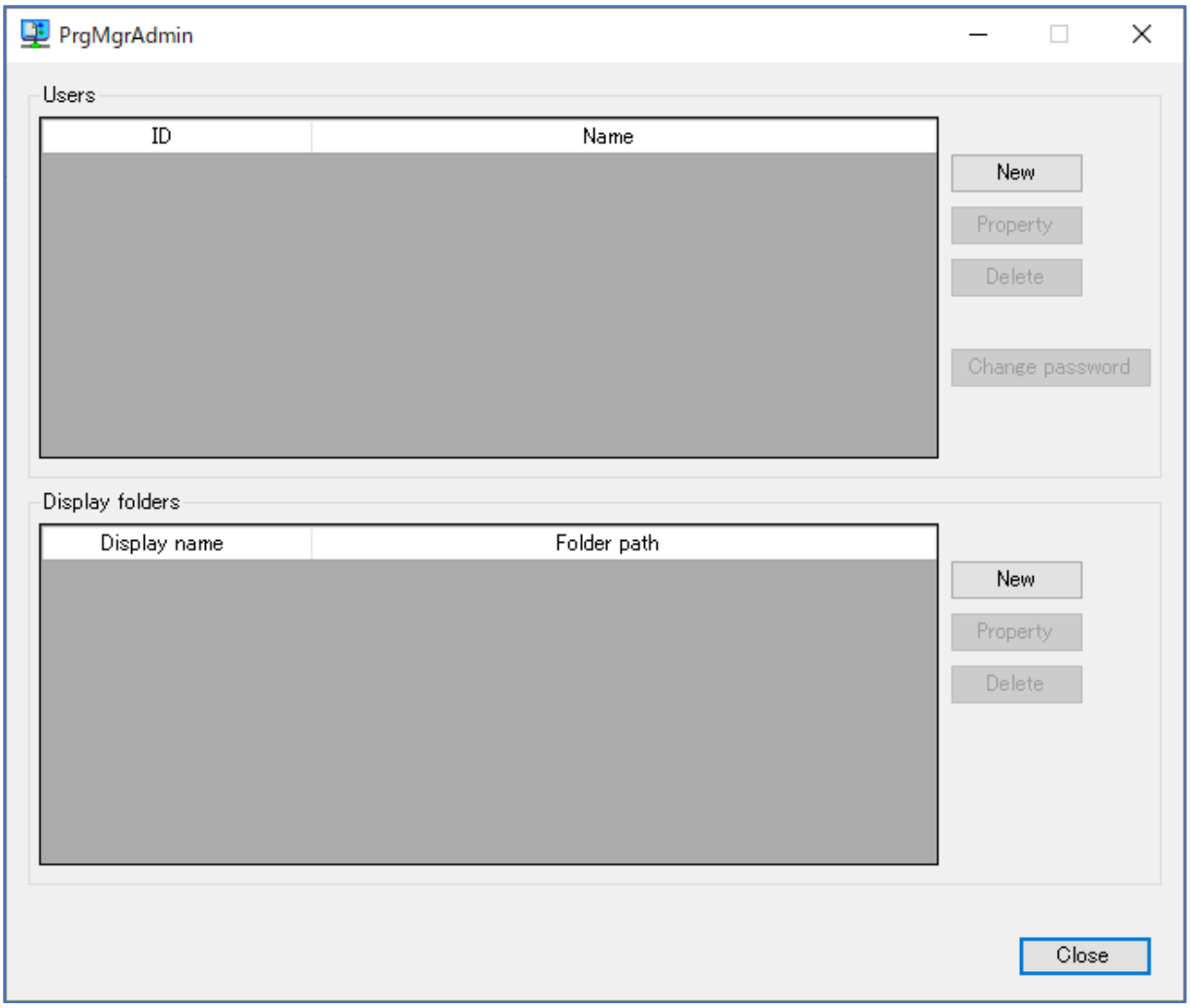
1) Click Windows' start menu.

2) Click the icon of down arrow.

3) Click [PrgMgrAdmin] in [Star Micronics SMOOSS-i] to start.

7-2 Main Screen

When PrgMgrAdmin starts, following main screen displays.



On the main screen, you can see the list of user settings and data folder settings.

The area enclosed by the "Users" frame is the user settings area, and the area enclosed by the "Display folders" frame is the folder display settings area.

7-3 User settings

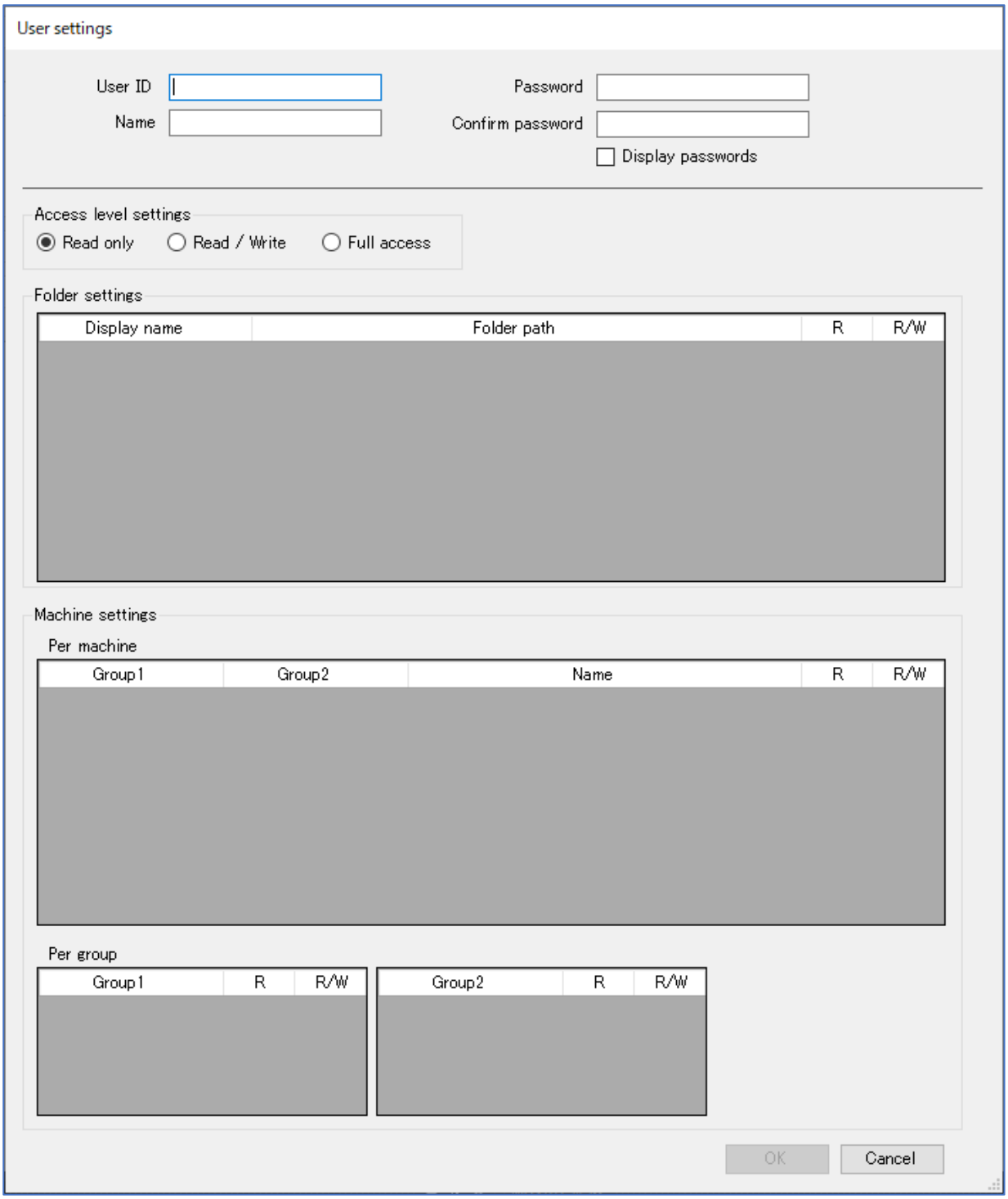
Items	Contents
ID	Displays the ID for each user.
Name	Displays the name.

Button and function

Items	Contents	Chapter
New	Create a new user.	7-3-1
Property	Confirm or change user settings.	7-3-2
Delete	Delete the user.	7-3-3
Change password	Change the user's password.	7-3-4

7-3-1 Create new

Click the [New] button in the User Settings area to display the following setting window.



a) Basic settings

Items	Contents
User ID	Enter the ID you want to use to login.
Name	Enter a name for this user. You may leave it blank.
Password	Enter the password you will use to login.
Confirm password	Re enter the password for confirmation.
Display passwords	If checked, the password will be displayed.

NOTICE

- It is not possible to set the same user ID as an existing user ID.
- You can't check your password later.
- Alphanumeric characters and symbols can be used for the user ID and password.
  Capital letter: [A-Z]
  Small letter: [a-z]
  Number: [0-9]
  Symbol: ! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [\ ] ^ _ ` { | } ~

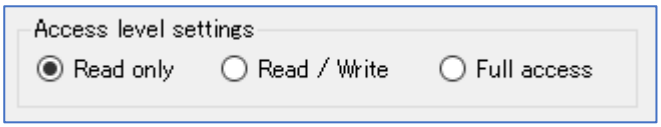
NOTE

- You can login to the web page using the user ID and password that you set up in this screen.

REFER

- For more information about login, please refer to "8-2 Login Screen".

b) Access level settings



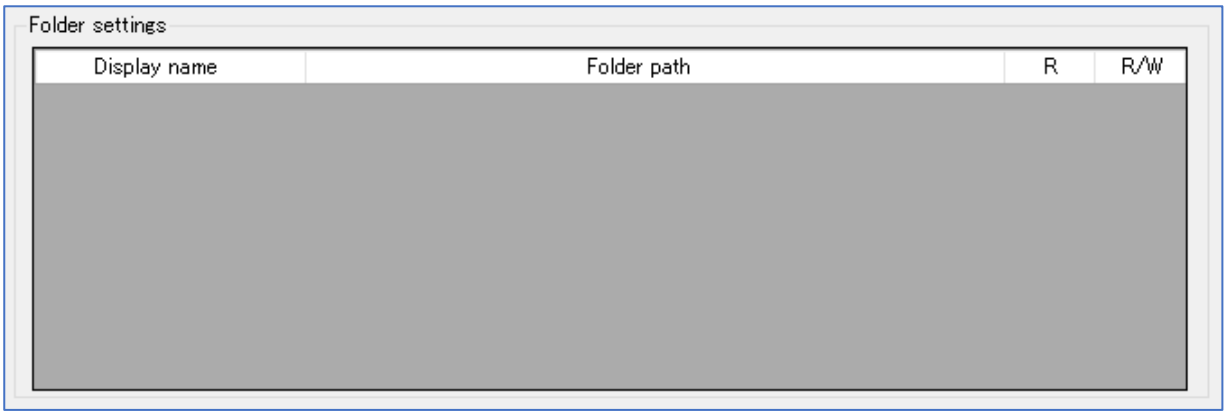
Set the access level for this user.

Items	Contents
Read only	Allows you to read data from a specified machine or folder.
Read/Write	Allows you to read and write data from a specified machine or folder.
Full access	You can read and write data from any machine or folder.

NOTICE

- This setting takes precedence over individual data folder settings and machine settings.
  For example, if this setting is set to "Read only", an error will occur when writing even if the individual setting is set to "Read/Write".
- "Full access" ignores individual settings and allows reading and writing to all machines and folders. Set this with care.

c) Folder settings



Set the access permissions for each folder.

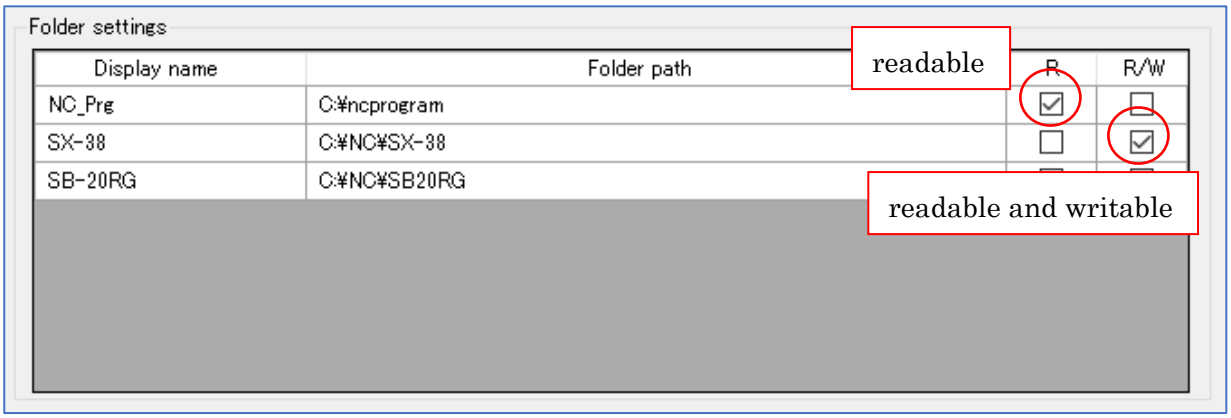
Items	Contents
Display name	Displays the name displayed in the "Storage" section of the web screen.
Folder path	Displays the path to the folder.
R	If checked, this folder will be readable.
R/W	If checked, this folder will be readable and writable.

If there is no folder display setting, this setting field will be empty. In this case, please set the folder display settings.

REFER

- For more information about folder display settings, please refer to "7-4 Folder Display Settings".

An example of the configuration is shown below.



d) Machine settings

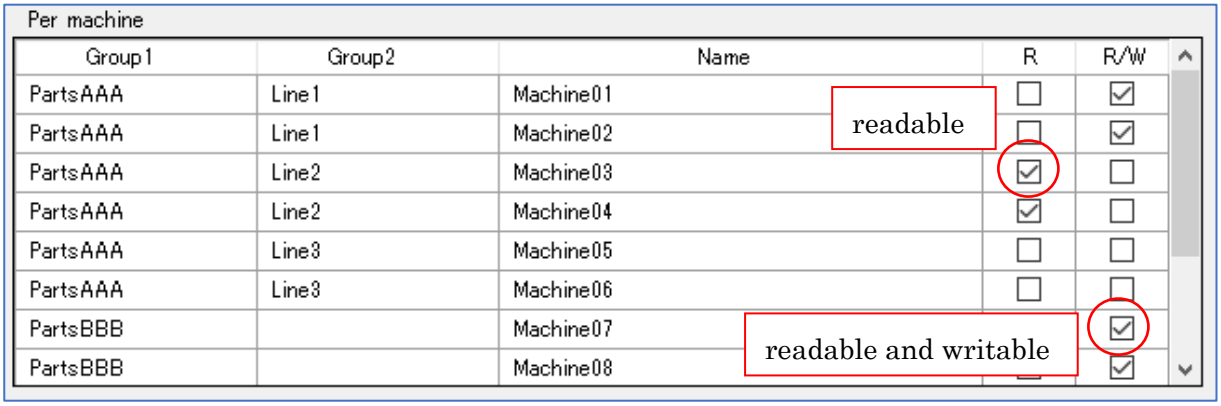
Set the permissions for each machine.

Items	Contents
Group1	Displays the name of "Group 1".
Group2	Displays the name of "Group 2".
Name	Displays the machine name.
R	If checked, this machine will be readable.
R/W	If checked, this machine will be readable and writable.

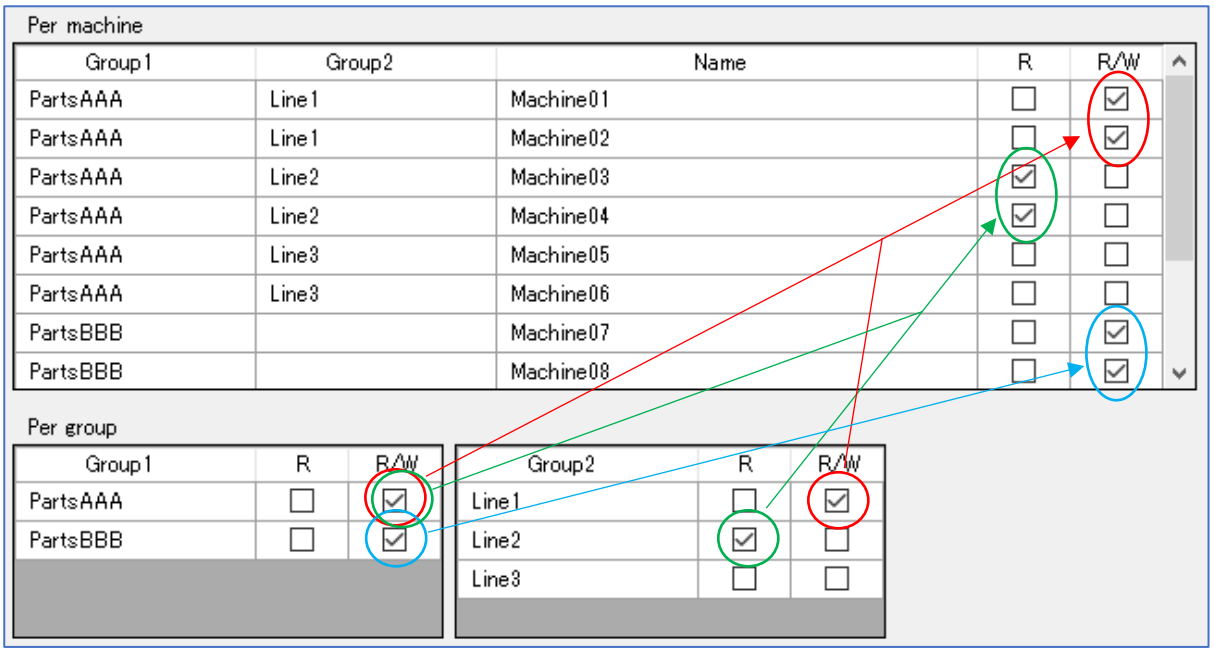
If no machine registration has been made, this setting field will be blank. In this case, please register the machine.

REFER ・For more information about machine registration, please refer to "3-7 Registration".

An example of the configuration is shown below.



It is also possible to set this for each group.



Changing setting of “Per group” area will also change the setting status for each machine belonging to the group.

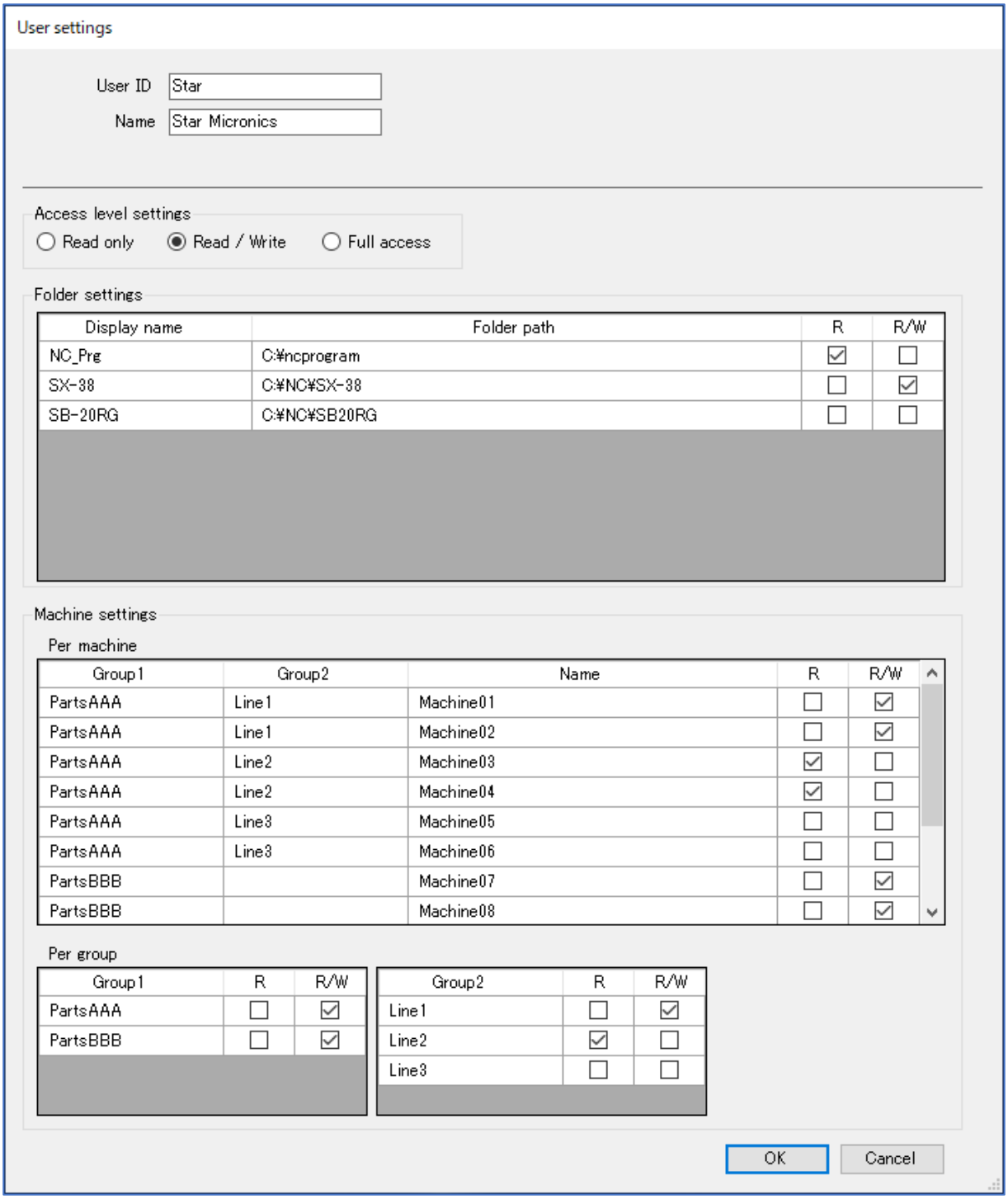
If a machine belongs to both Group 1 and 2, and settings of the two group are different, lower permission will be applied. As an example, in the case of "Machine03" and "Machne04", Group 1 of "PartsAAA" is set to "R/W" and Group 2 of "Line2" is set to "R". In this case, "R" is applied to "Machine03" and "Machne04".
In addition, the permissions of "Line3" in Group 2 are not set, so permissions are not set for "Machine05" and "Machine06".

NOTICE

- It is possible to change the permissions of each machine after setting the groups. However, if you set the permissions for each group again, the status will be reflected on each machine. If you want to change the permissions of a specific machine in a group, change the permissions of each machine after setting the group permissions, or set the permissions for each machine without using the group settings.
- The settings for each group on this screen are effective only for the current group setting. Even if a machine is registered or a group is changed after the settings have been made, they will not be reflected automatically. In such a case, make the settings again on this screen.

7-3-2 Property

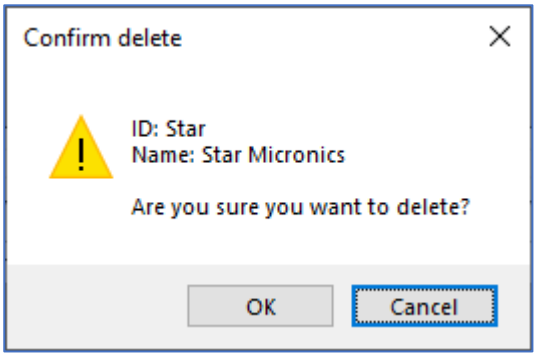
Select the data in the list screen and click the "Property" button to display the following screen.



If you have changed the settings, click the "OK" button.

7-3-3 Delete

Select the data you want to delete in the list screen, and click the "Delete" button, and the following screen will appear.

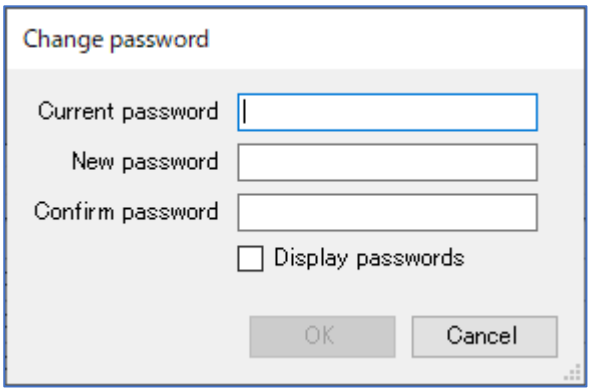


Click the "OK" button to delete.

Click the "Cancel" button to abort.

7-3-4 Change password

Select the data you want to change on the list screen and click the "Change password" button, and the following screen will appear.



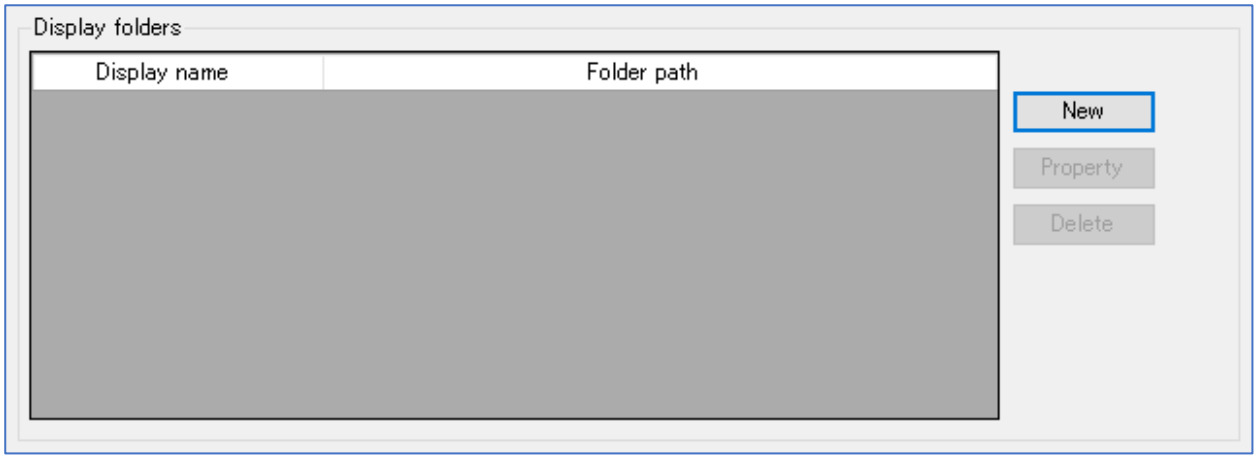
Items	Contents
Current password	Enter current password.
New password	Enter new password.
Confirm password	Re enter the password for confirmation.
Display passwords	If checked, the password will be displayed.

Click the "OK" button to change the settings.
Click the "Cancel" button to abort.

NOTICE
・You can't check your password later.

REFER
・For more information about the characters that can be used for passwords, please refer to "7-3-1 Create new".

7-4 Folder display settings



Items	Contents
Display name	Displays the name displayed in the "Storage" section of the web screen.
Folder path	Displays the path to the folder.

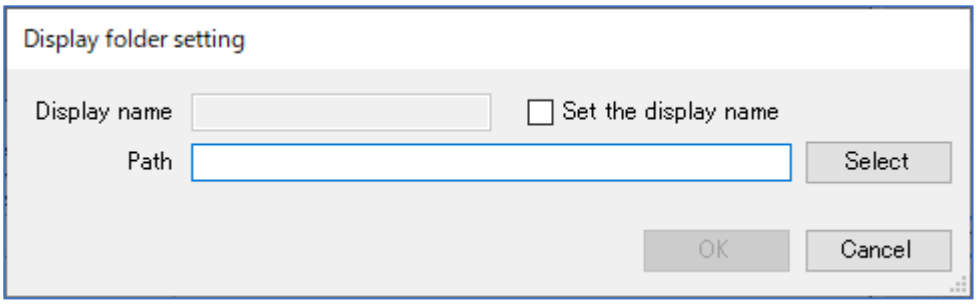
Button and function

Items	Contents	Chapter
New	Create a new display name.	7-4-1
Property	Confirm or change the display name setting.	7-4-2
Delete	Delete the display name setting.	7-4-3

NOTICE
・This setting is the same for all users.

7-4-1 Create New

Click the [New] button to display the following setting window.



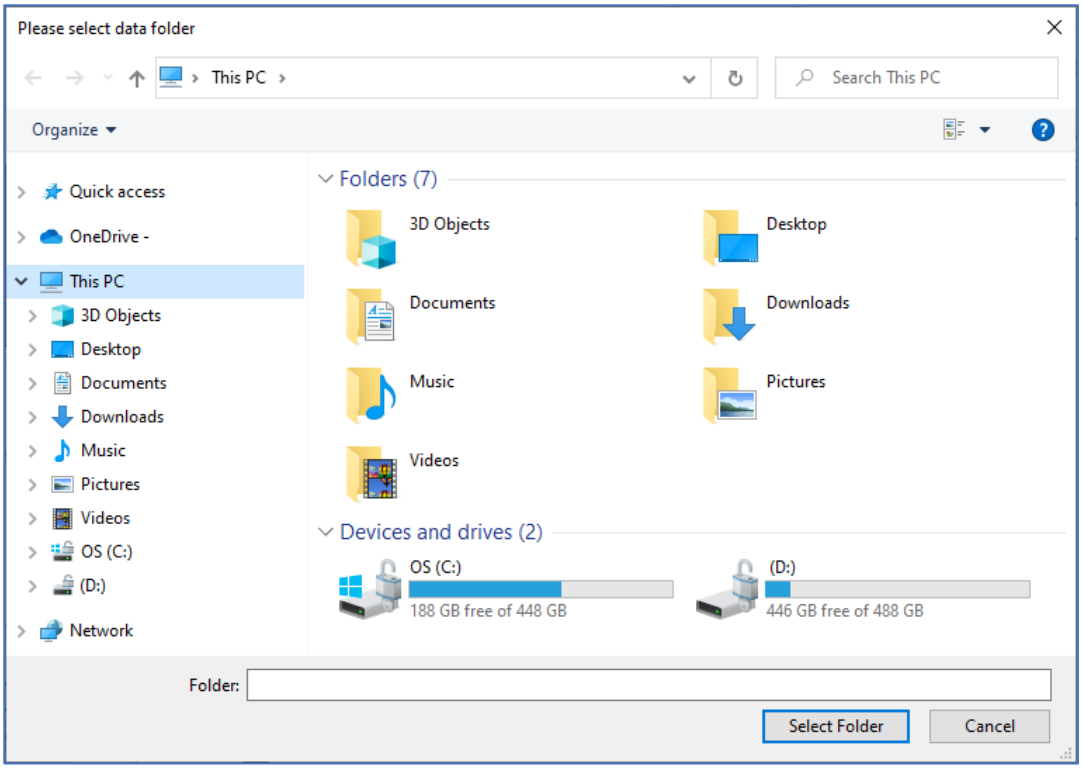
Items	Contents
Display name	The name displayed in the storage column on the web screen. Normally, the selected folder name will be set. It is also possible to set your own display name.
Set the display name	When checked, the display name can be entered.
Path	Enter the path to the folder. Click the "Select" button to open the selection window.

After entering the data, click the "OK" button to display the set data in the list.

NOTICE

・You cannot set the same display name as an existing display name.
It is possible to set the same path for multiple display names.

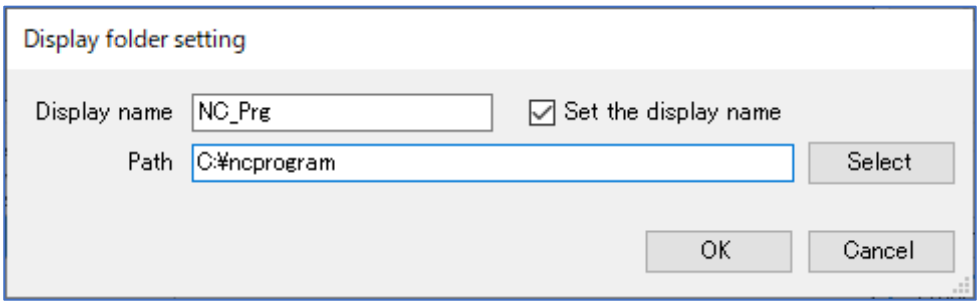
Click the "Select" button on the setting screen to display the following screen.



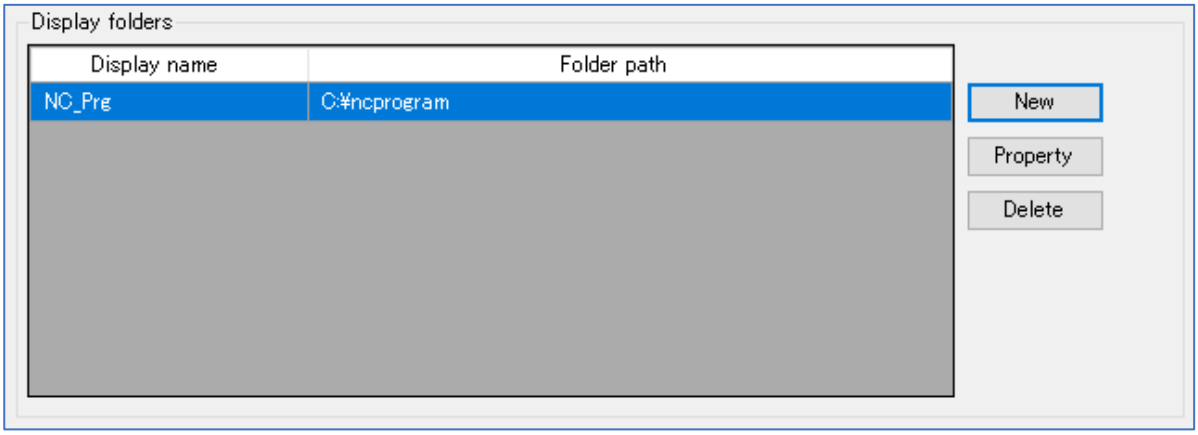
Select the folder you want to set and click the "Select Folder" button to enter the path.

(Setting example)

Configure the settings as shown below and the click the “OK” button.

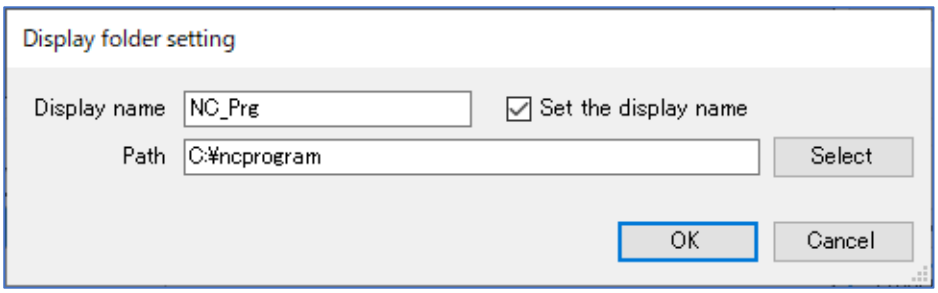


The list screen looks like this.



7-4-2 Change

Select the data you want to change in the list screen and click the "Properties" button to display the following setting screen.



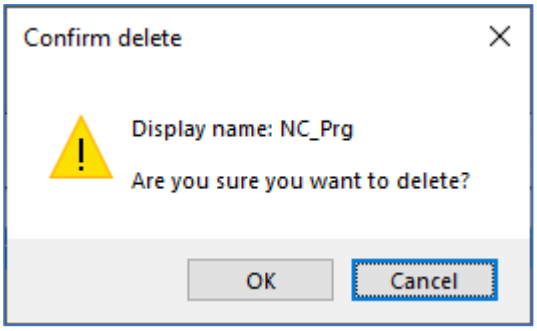
Items	Contents
Display name	Displays the name displayed in the "Storage" section of the web screen.
Set the display name	When checked, the display name can be entered.
Path	Enter the path to the folder. Click the "Select" button to open the selection window.

After entering the data, click the "OK" button to display the set data in the list.

NOTICE
- You cannot set the same display name as an existing display name.
- It is possible to set the same path for multiple display names.

7-4-3 Delete

Select the data you want to delete in the list screen, and click the "Delete" button, and the following screen will appear.



Click the "OK" button to delete.

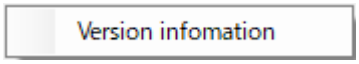
Click the "Cancel" button to abort.

NOTE
- Only the settings for display will be deleted. The data in the folder will not be deleted.

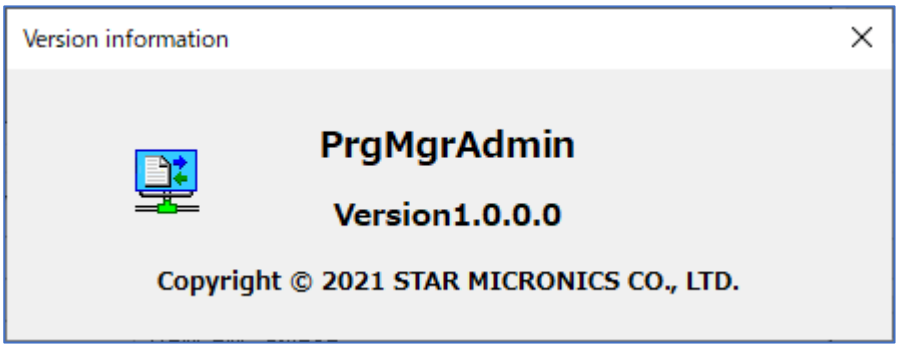
7-5 Close

Click [Close] button to finish PrgMgrAdmin.

7-6 Version information

Right-click on main screen to display 

then click it. Following version information displays.



CHAPTER 8
Program I/O function
Web application

8 Program I/O function Web application

8-1 Access to the top page

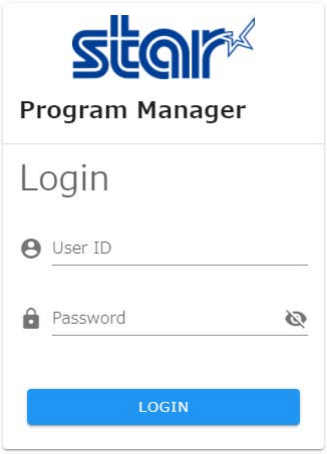
Following address is top page of web application, Program Manager.

http://*********/ProgramManager/ …Enter the server IP address to *

Access to the address by browser such as Microsoft Edge, etc. Then, “Login” screen will appear. (refer to section 8-2).

8-2 Login Screen

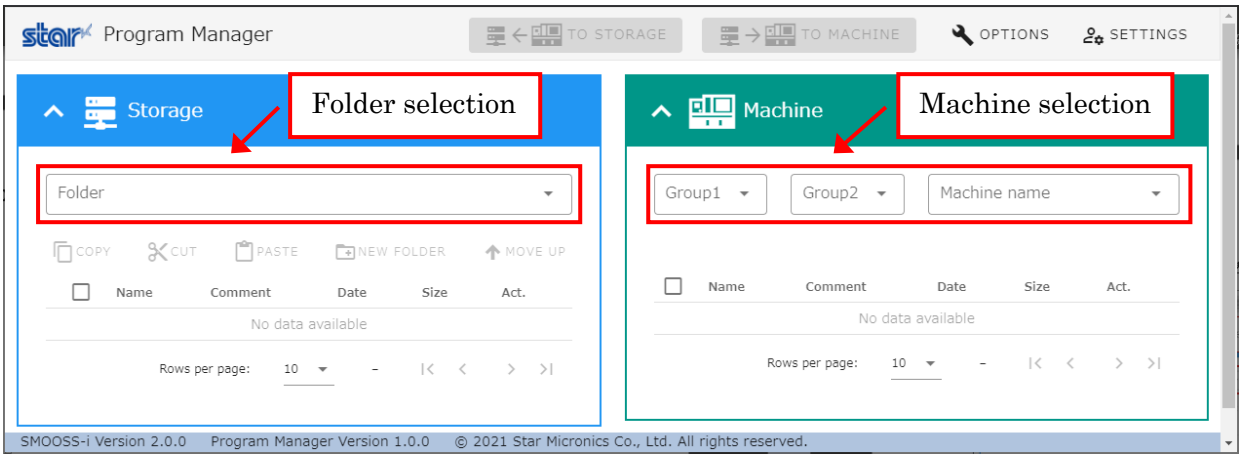
When the web application starts, following login screen will be displayed.



On the login screen, enter the user ID and password that you set up in PrgMgrAdmin. Once entered, click [LOGIN].

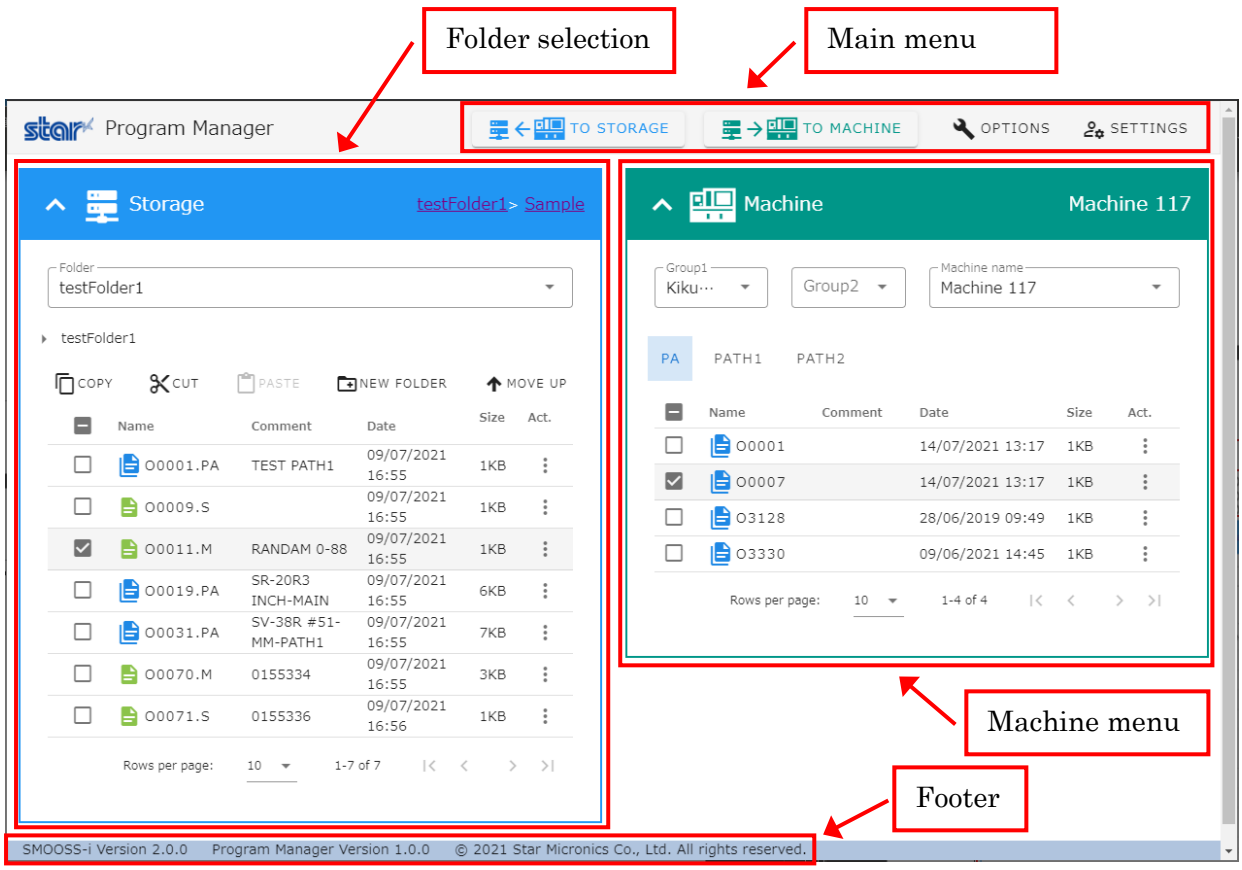
8-3 Main Screen

After successfully logging in, the following main screen will be displayed.



On the main screen, select the root folder from the folder pull-down menu to display the file list in the folder, and select the machine name from the machine name pull-down menu to display the NC program list in the machine.

8-4 Page Layout



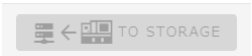
8-4-1 Main Menu

At the top of the screen, [TO STORAGE] and [TO MACHINE] that do the transfer process, and [OPTIONS] and [SETTINGS] that change the screen settings.

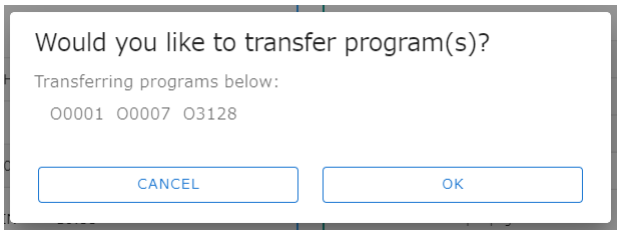
・[TO STORAGE]

Sends the selected NC program from the NC program list on the machine to the storage.

[TO STORAGE] button will be disabled if not ready to send to storage, for example, if no folder in the storage is selected, or no NC program is selected from the NC program list on the machine.

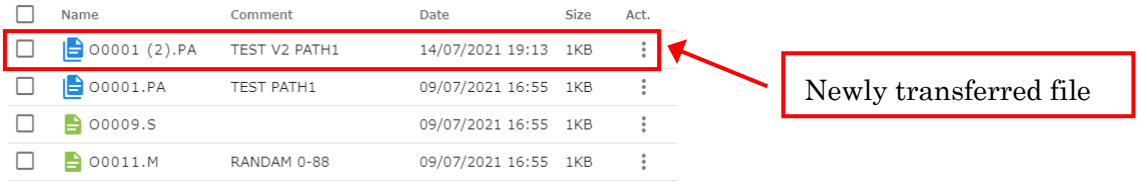
Disabled: 

The confirmation dialog for the transfer will appear if click the [TO STORAGE] button.

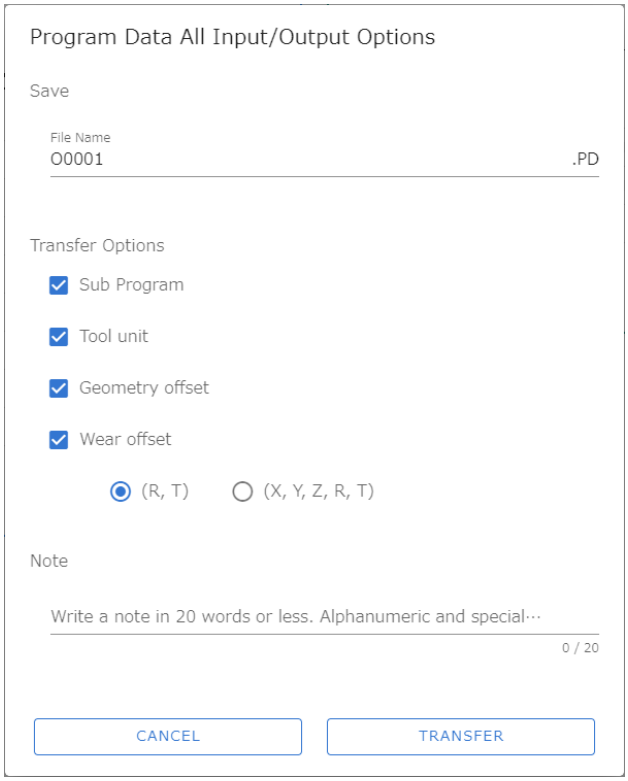


Click [CANCEL] to return to the main screen without transferring the data, or click [OK] to transfer the program.

If a file with the same name already exists in the storage, a sequential number in parentheses will be added to the name of the newly transferred file.



When transferring a FANUC multi-path program data file, the confirmation dialog for the program data all input/output options will be displayed.



The program number (name) is entered as the name of the file, but it can be changed to another name.

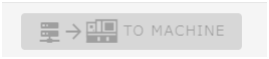
Subprograms can be transferred at the same time.

Also, file notes can be entered using up to 20 alphanumeric characters and symbols.

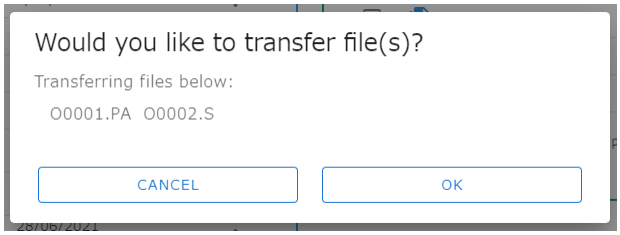
・[TO MACHINE]

Sends the selected file from the list of files in the storage to the machine.

[TO MACHINE] button will be disabled if the machine name is not selected, or no file is selected from the file list in the storage.

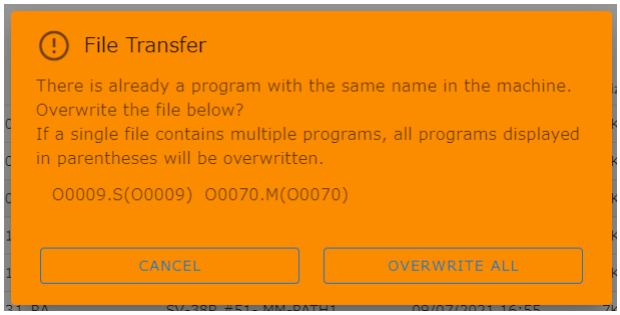
Disabled: 

Click [TO MACHINE] button to display the transfer confirmation dialog.

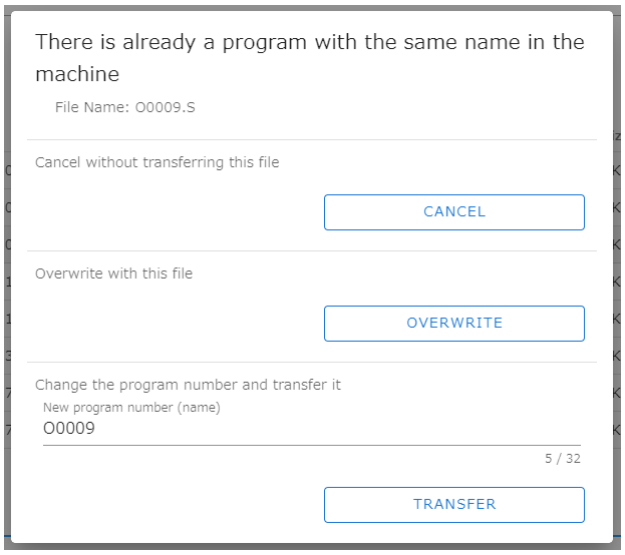


Click [CANCEL] to return to the main screen without transferring the data, or click [OK] to transfer the file.

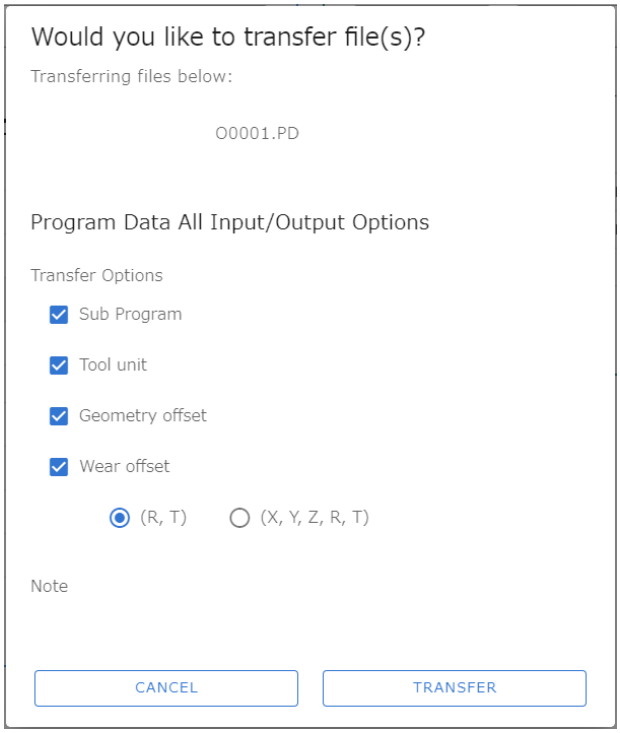
If NC program with the same name already exists on the machine, a confirmation dialog for overwrite transfer will be displayed.



If there is only one single-path program with the same name, it is possible to change the program number (name) and transfer it from the following confirmation dialog for overwrite transfer.



When transferring a FANUC multi-path program data file, the confirmation dialog for the program data all input/output options will be displayed.



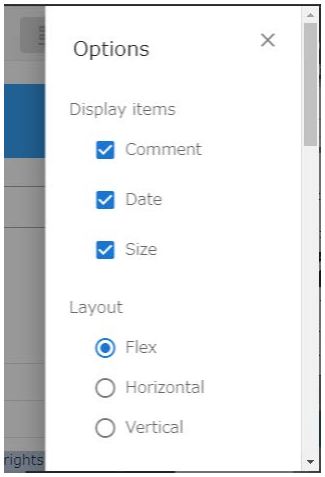
Notes displays the contents of the notes listed in the FANUC multi-path program data file.

NOTICE

- To transfer a FANUC multi-path program data file, select only one file.
- Folders in the storage file list cannot be transferred to the machine. If you select a folder, the [TO MACHINE] button will be disabled.

・OPTIONS

The options allow you to set the items to be displayed and the layout of the screen.



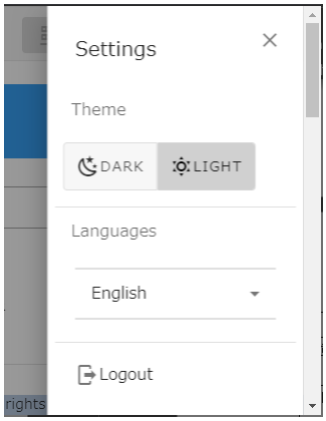
If you uncheck the items in [Display items], the unchecked items will be hidden from the columns of the list displayed in storage and machine.

In the layout options, you can set the following.

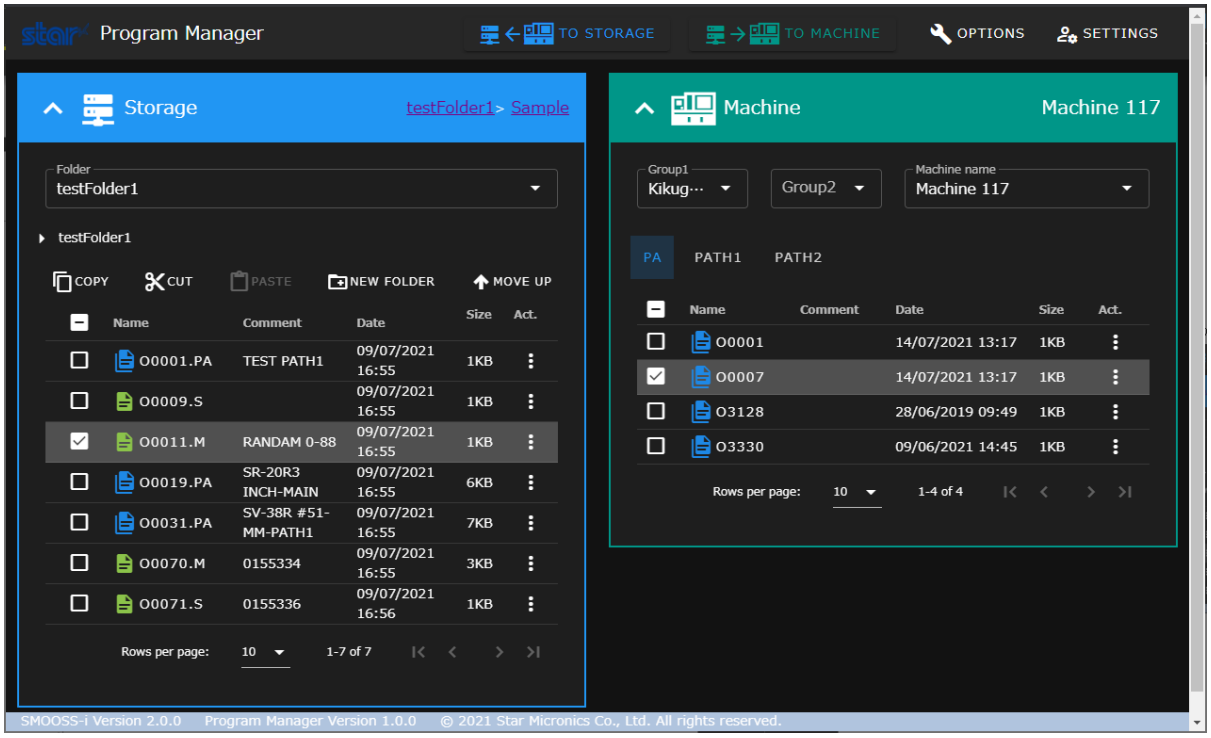
Item	Content
Flex	When the width of the screen is wide, storage and machines are displayed side by side, and when the width of the screen is narrow, they are displayed vertically.
Horizontal	Regardless of the width of the screen, the storage and the machine will always be displayed side by side.
Vertical	Regardless of the width of the screen, the storage and the machine will always be displayed vertically.

・SETTINGS

In the settings, you can specify the theme of the main screen and the language to be displayed. You can also log out logged-in user from here.

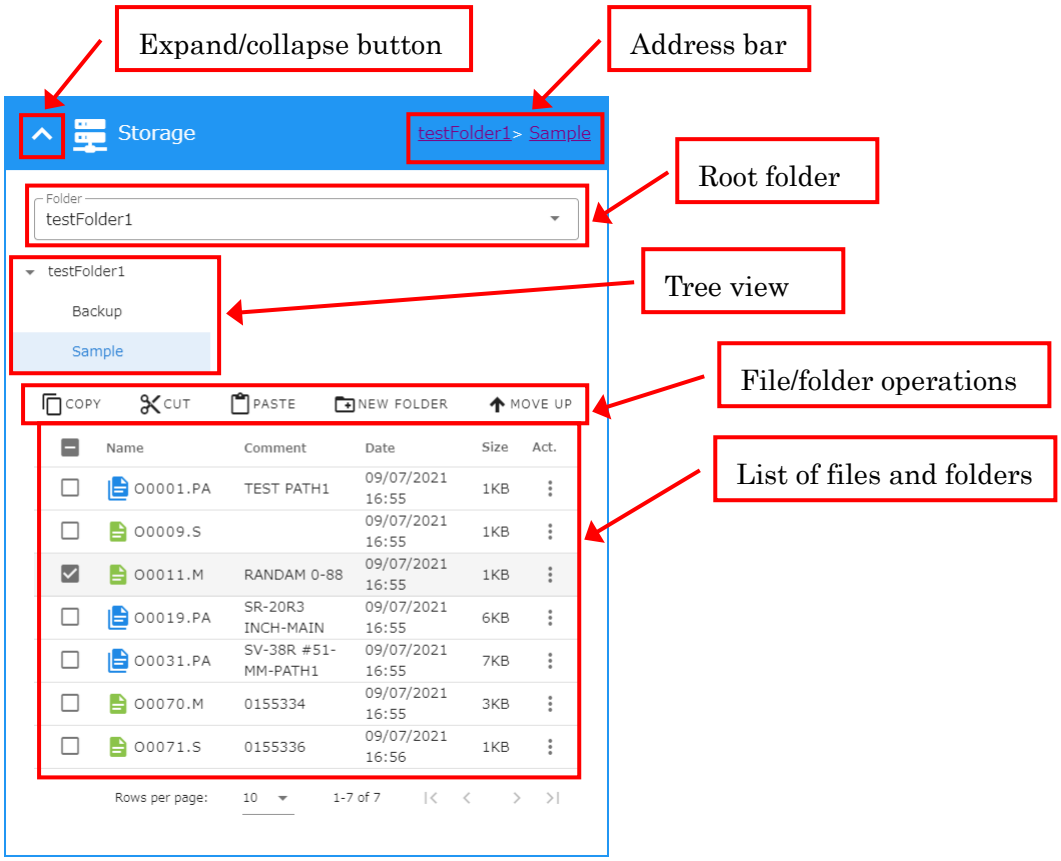


When the theme is set to DARK, the main screen will be displayed in black tones.



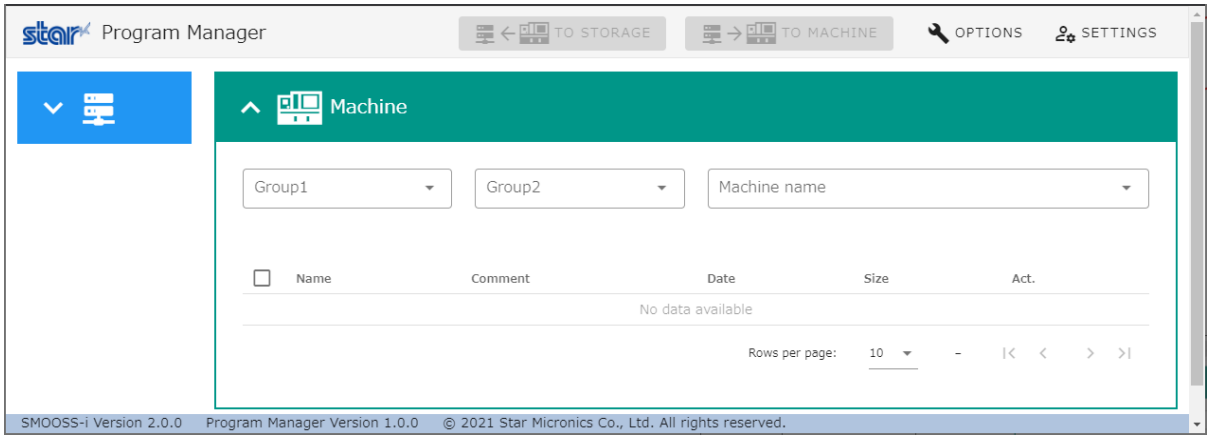
8-4-2 Storage Menu

In the storage menu, you can perform various operations on the files in the selected folder.



・Expand/collapse button

Allows you to close and open the storage view. Closing the storage view will increase the width of the machine displayed.



・Address bar

Displays the currently displayed folder by its address from the root folder. Clicking on the folder name displayed in the address bar will take you to the clicked folder.

・Root folder

Select the root folder from the pull-down menu.

・Tree view

Displays the folder structure of the root folder in the tree view. By clicking on a folder in the tree view, you can change the folder to be displayed.

・File/folder operations

Operations on files and folders. The button will be disabled when the condition is not operable.

Disabled except for [NEW FOLDER]: 

Selecting a file or folder from the file/folder list will enable [COPY] and [CUT]. Click [COPY] or [CUT] to activate [PASTE], which allows you to copy or move the selected file or folder.

When you move a folder from the root folder, [MOVE UP] will be enabled and clicking on it will take you to the folder one level up from the one you are viewing.

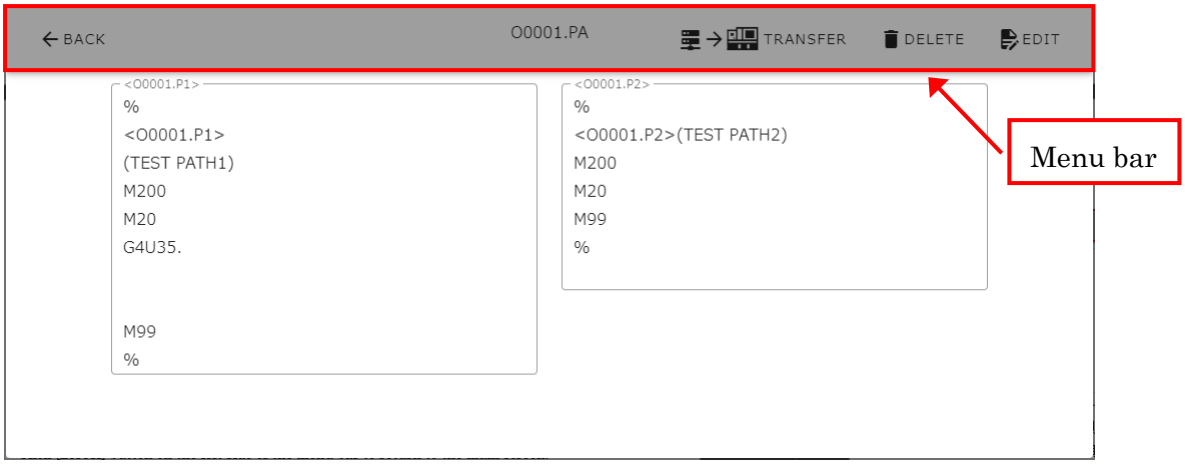
Click [NEW FOLDER] to create a new folder within the currently displayed folder.

・List of files and folders

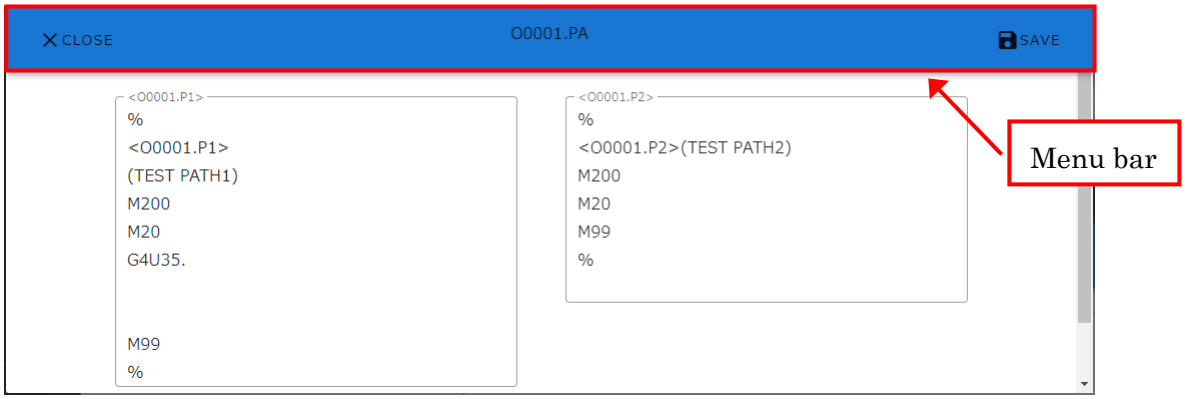
It displays a list of files and subfolders in the currently displayed folder. The icon to the left of the name allows you to visually identify the type.

Folder	: Green folder icon ( )
FANUC NC program file	
Multi-path program file	: Blue multiple document icon ( )
Files with multiple programs	: Brown multiple document icon ( )
Multi-path program data file	: Orange multiple document icon ( )
Single-path program file	: Light green document icon ( )
MITSUBISHI NC program file	: Gray multiple document icon ( )
Other files	: Purple document icon ( )

Clicking on a file will display the contents of the file.



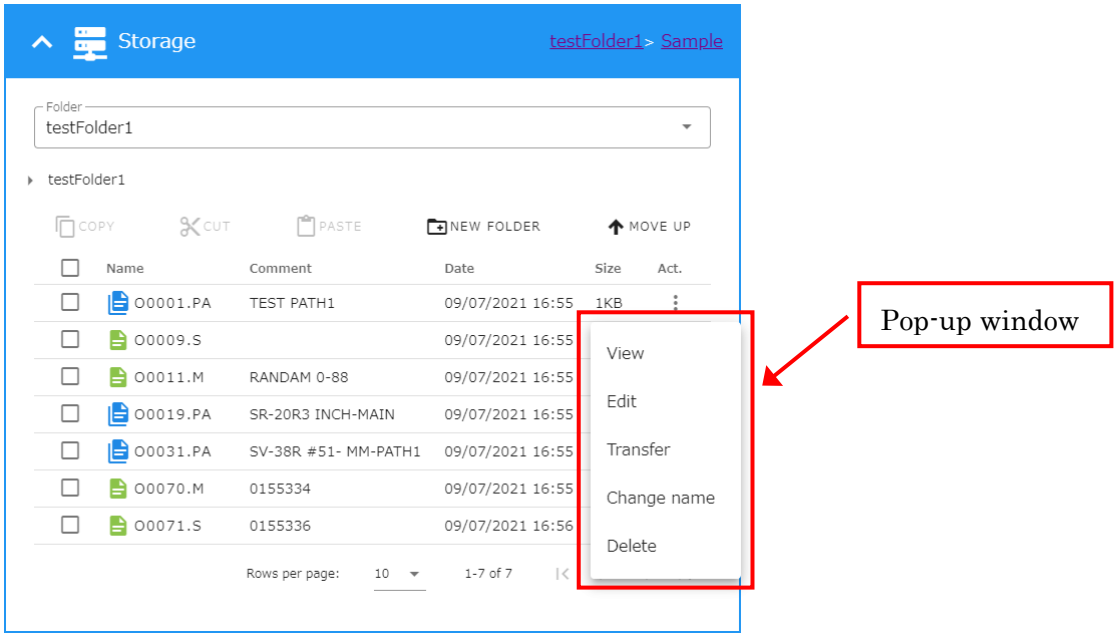
Click [BACK] button on the left side of the menu bar to return to the main screen.
[TRANSFER] button on the right side of the menu bar can be clicked if the machine name is already selected, and will transfer the currently displayed file to the machine.
Click [DELETE] on the right side of the menu bar to delete the currently displayed file.
Click [EDIT] on the right side of the menu bar to open a screen where can edit the contents of the file.



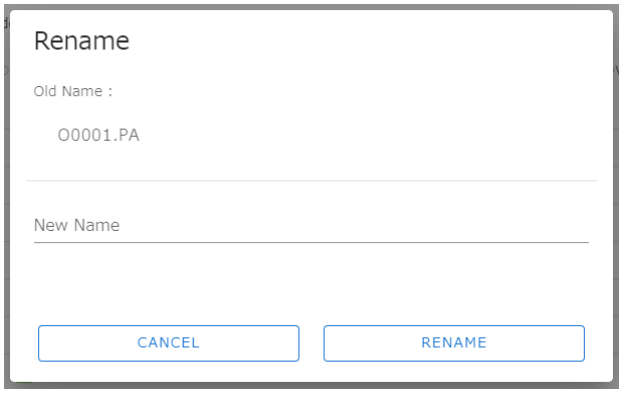
Click [CLOSE] button on the left side of the menu bar to return to the previous screen.
Click [SAVE] on the right side of the menu bar to save the file with the currently displayed contents.

Clicking on a subfolder will take you to the subfolder you clicked on.

Click on the vertical dot icon in the [Act.] column to open a pop-up window that allows to operate individual files.

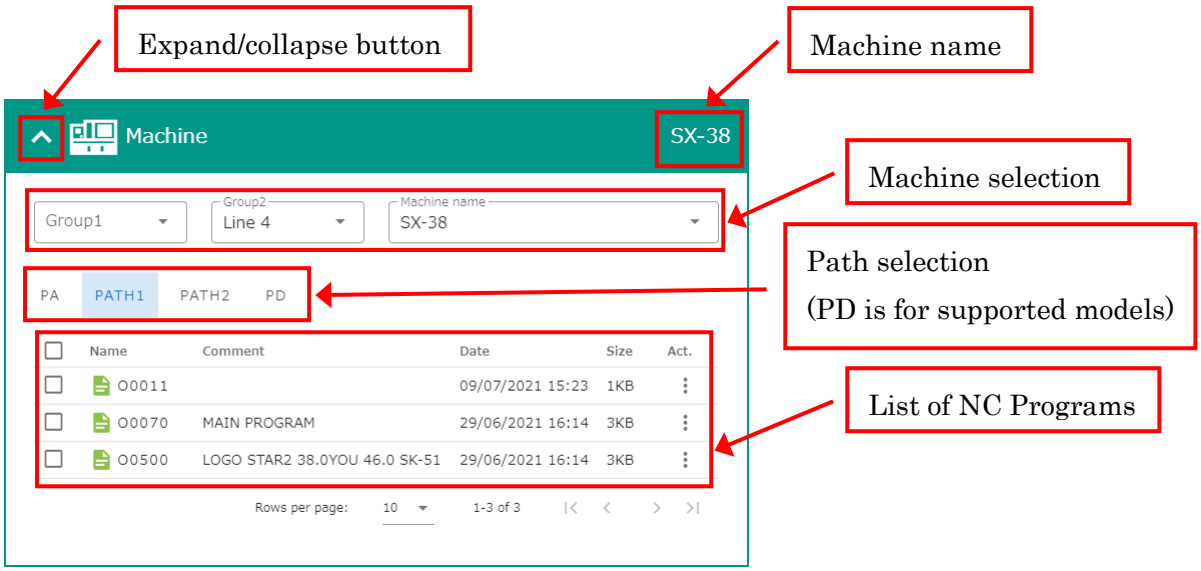


Click [Change name] to rename a file or folder.



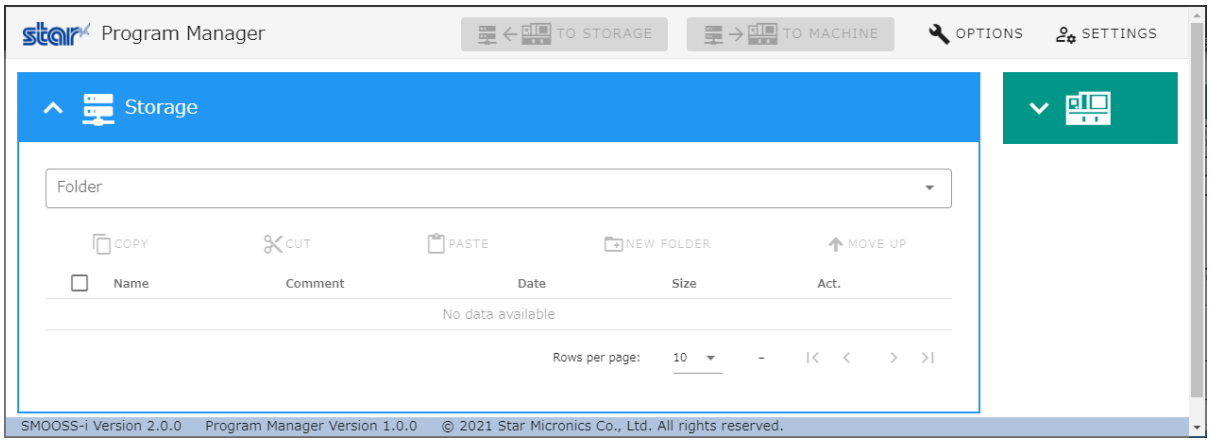
8-4-3 Machine Menu

The machine menu allows you to perform various operations on the NC program of the selected machine.



・Expand/collapse button

Allows you to close and open the machine view. Closing the machine view will increase the width of the storage displayed.



・Machine name

Displays the machine name selected in [Machine selection].

・Machine selection

Select the machine from the pull-down menu.

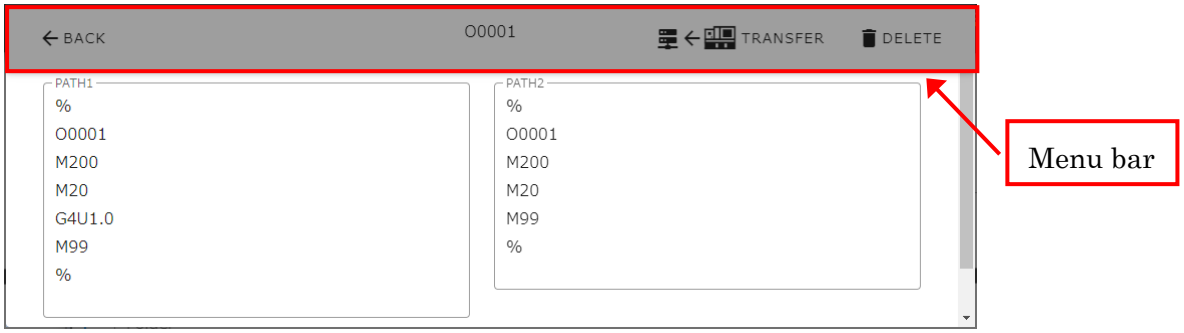
・Path selection

Select a path to display the NC program list of the machine.

・List of NC programs

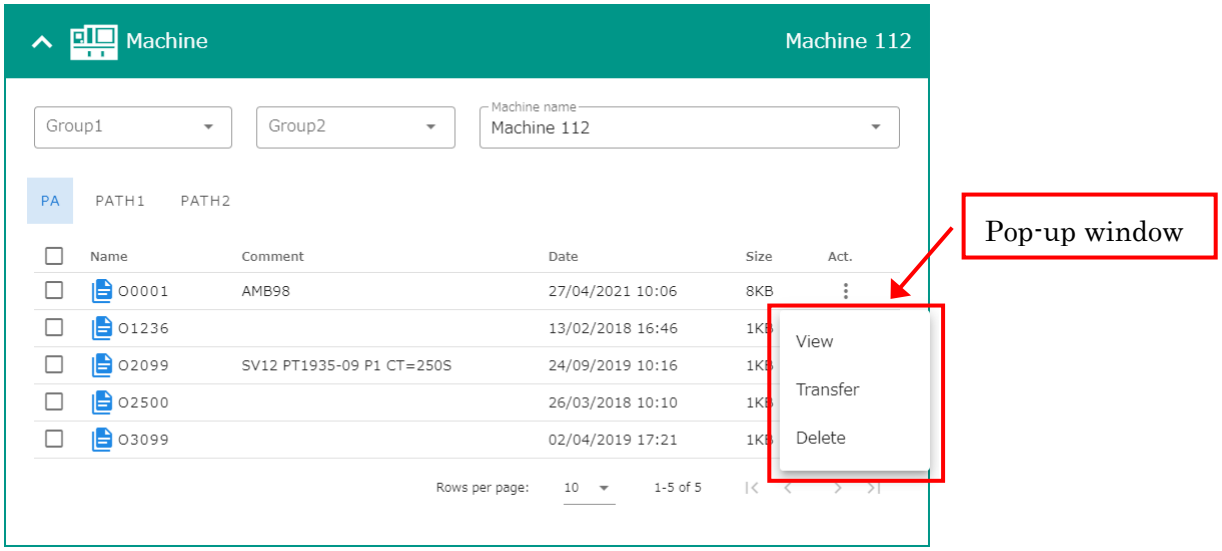
Displays the NC program list for the currently selected path.

Click on the NC program to display the contents of the NC program.



Click [BACK] button on the left side of the menu bar to return to the main screen.
[TRANSFER] button on the right side of the menu bar can be clicked if the folder in storage is already selected, and will transfer the currently displayed NC program to the folder in storage.
Click [DELETE] on the right side of the menu bar to remove the currently displayed NC program from the machine.

Click on the vertical dot icon in the [Act.] column to open a pop-up window that allows you to control individual NC programs.



8-4-4 Footer

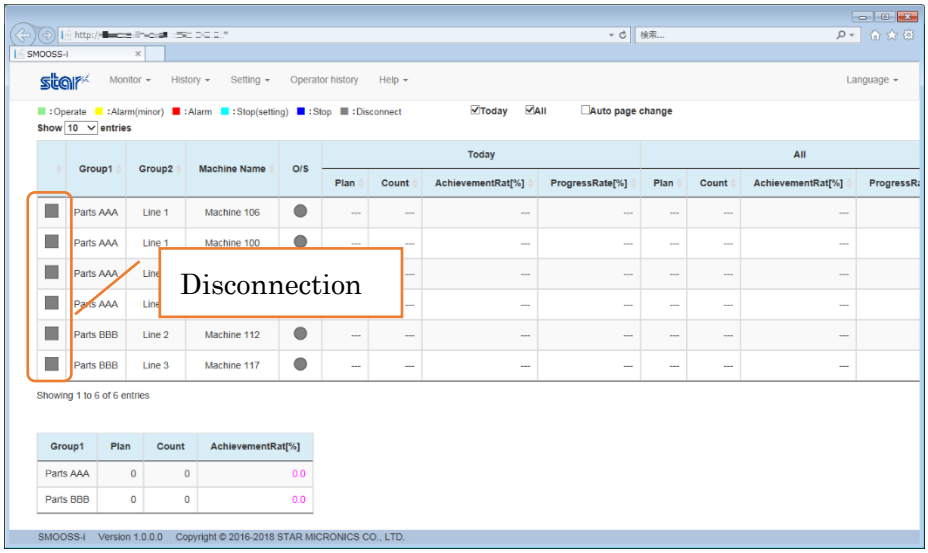
Displays the version number of SMOOSS-i .

CHAPTER 9
Trouble shooting

9 Trouble shooting

・Disconnection (Unavailable of communication with machine)

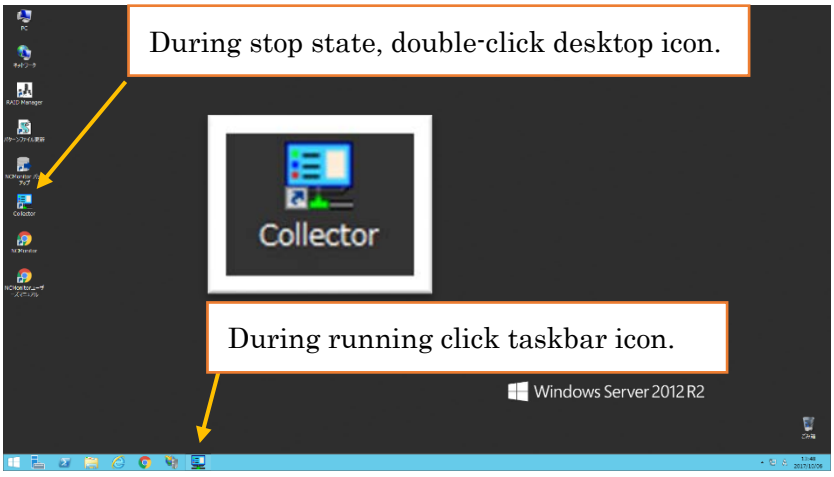
Status of the list screen indicate “Disconnection” even though the machine power is ON.



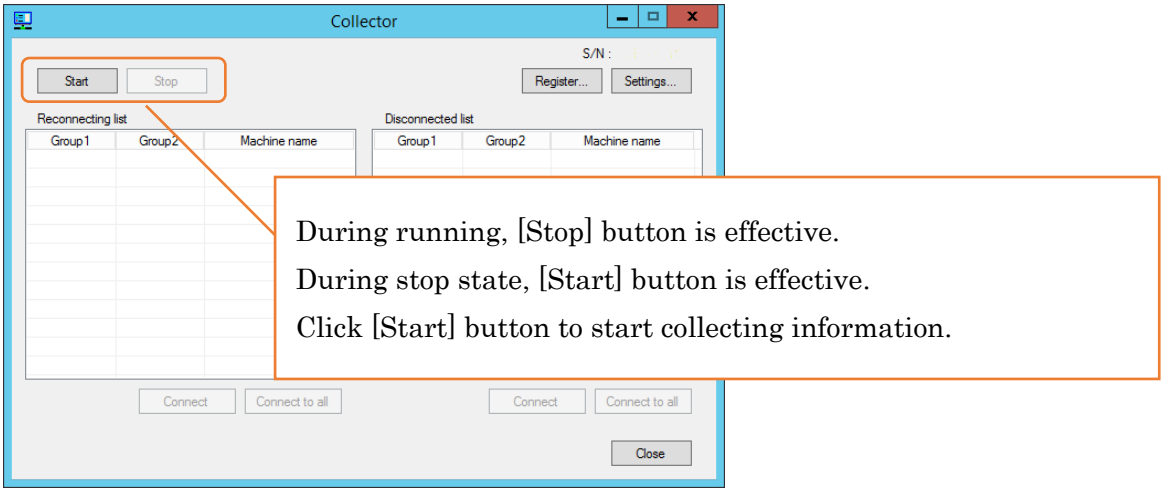
1) Start Collector.

When Collector is running, click the [Collector] icon  of taskbar.

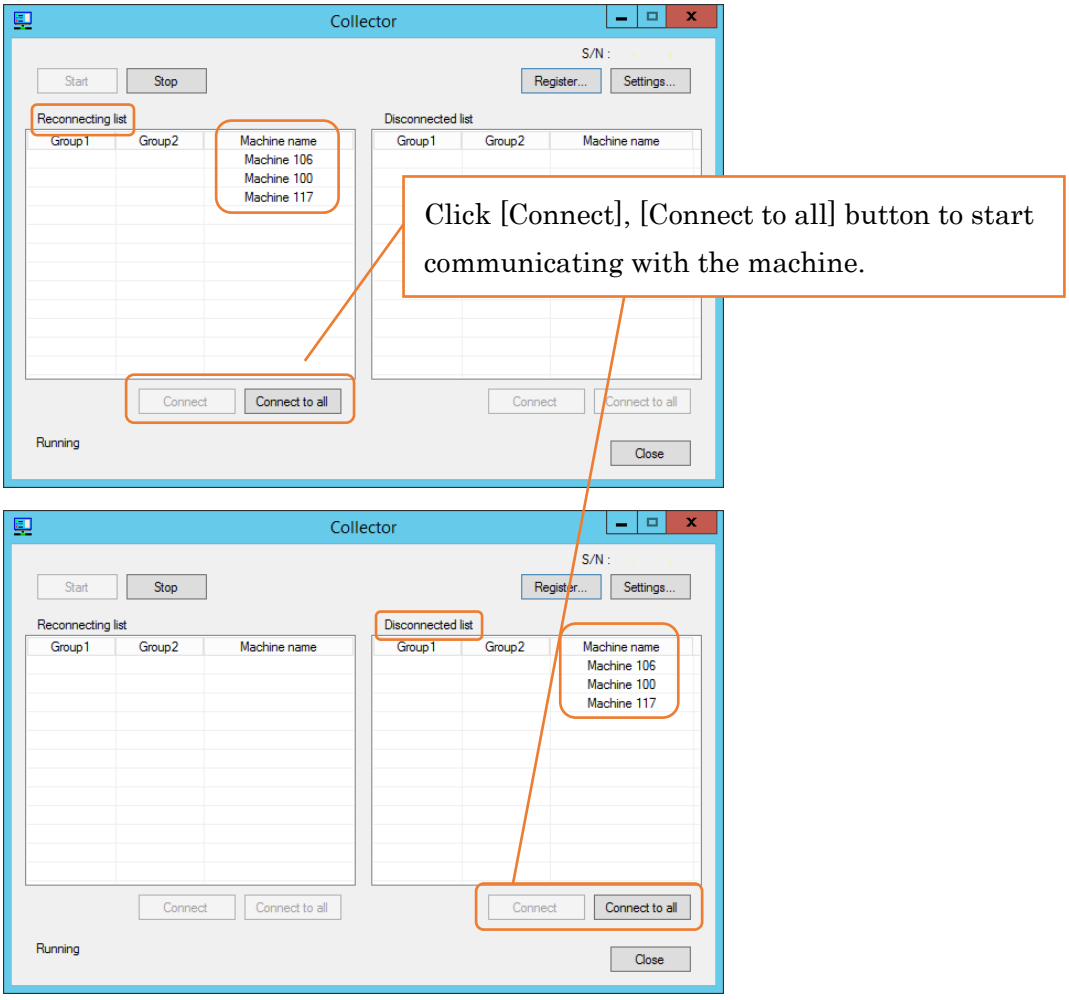
When Collector is not running, double-click the [Collector] icon  of desktop to start.



2) Check the status of Collector. Then start collecting information if Collector is stop state.



3) When Collector is running, check the machine of “Reconnecting list” or “Disconnected list”. When machines listed in each list, click “Connect” or “Connect to all” button to start communicating with machine.



4) When machines remain in “Reconnecting list” or “Disconnected list” after step 3), restart the machine.
Then click “Connect” or “Connect to all” button again to connect.

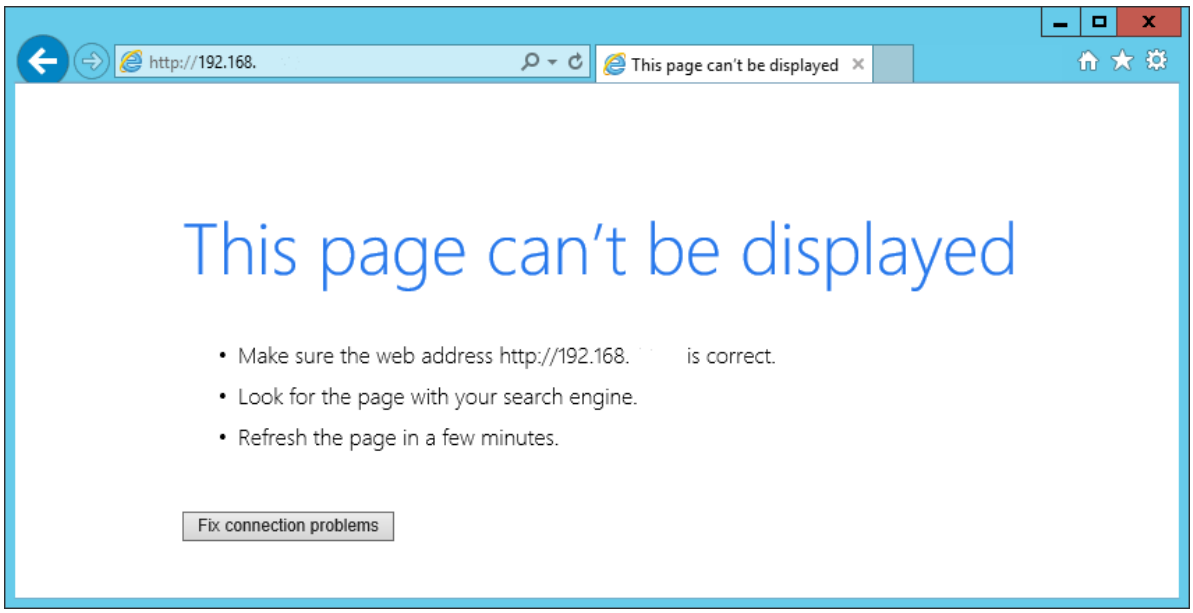
• **“Collector stop” is displayed**

“Collector stop” is displayed while displaying “Monitor page”.

Refer to “**Disconnection (Unavailable of communication with machine)**” on the previous page.

・**Web page cannot display.**

In the case that Error message “This page can’t be displayed” etc. displays instead of correct page when accessing to the top page of SMOOSS-i.



Check with following steps.

1) Operation check on the server

Double click the desktop icon of [SMOOSS-i] on the server to display the top page of SMOOSS-i.

2) In the case that the top page of SMOOSS-i displays correctly,

Operation monitoring system is running normally. Check the web page address that could not display on the terminal.

Address is http://*********/SMOOSS-i/ Enter the server IP address to *

If the address is correct, check whether the terminal connects with the network.

3) In the case that all machine status is disconnection or is not renewed however the top page of SMOOSS-i displays,

Server does not connect to the network correctly, restart the server then start Collector.

4) In the case that display does not change after restarting the server,

Check if LAN cable is connected correctly.

・**“Collector stop” is displayed**

“Connection error” is displayed while displaying “Monitor page”.

Refer to “**Web page cannot display**” above.

・**History is not recorded**

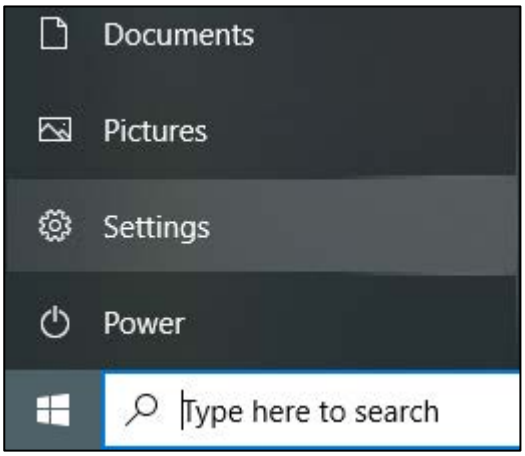
This software communicates with machine by specific time span to collect information therefore status changing in short time may not be recorded as history.

・**After starting the server, "Collector stop" is displayed. It is not displayed after restarting the server. (Windows10, 11)**

Disable the fast startup future on Windows.

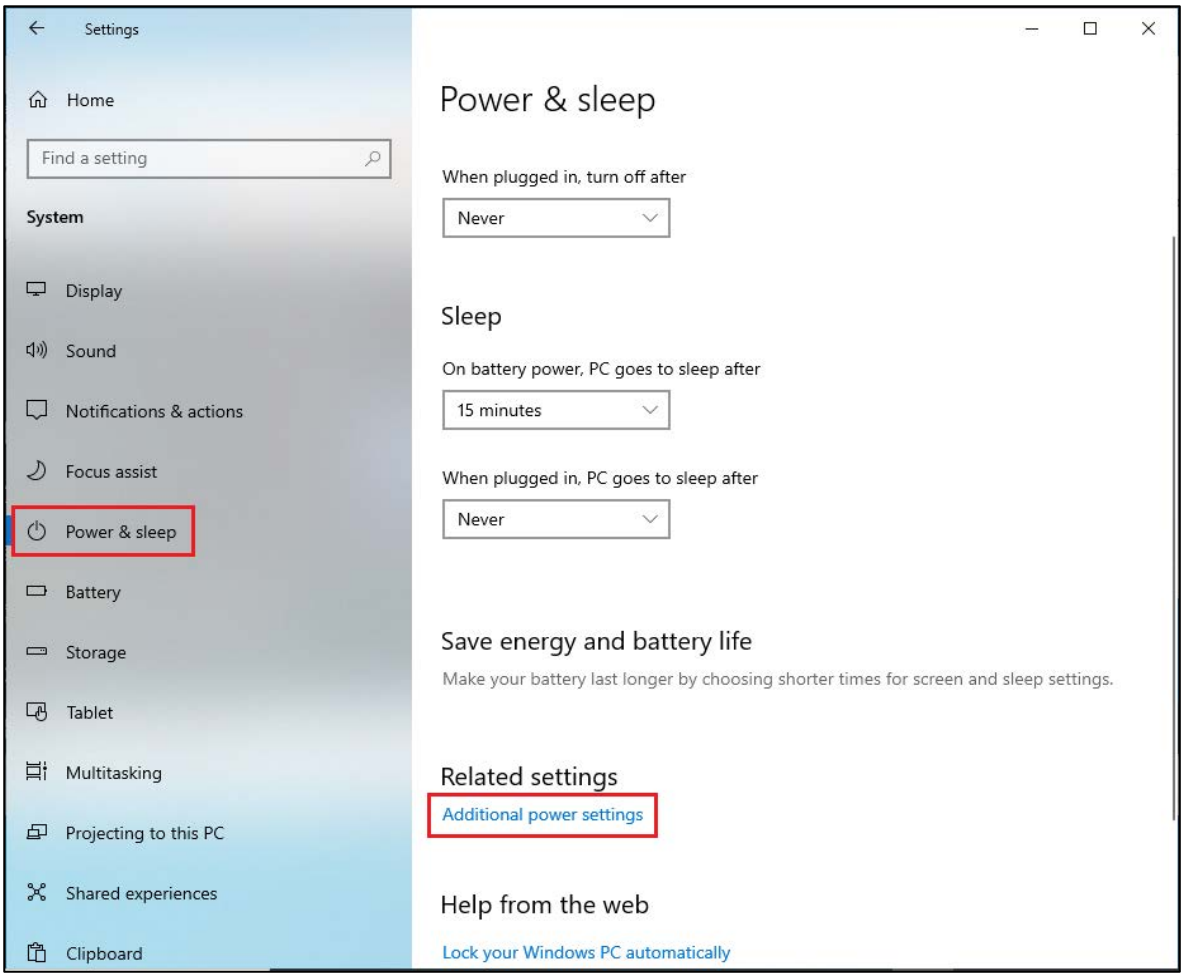
[Windows10]

1.Open the Settings menu by clicking Start and Settings.

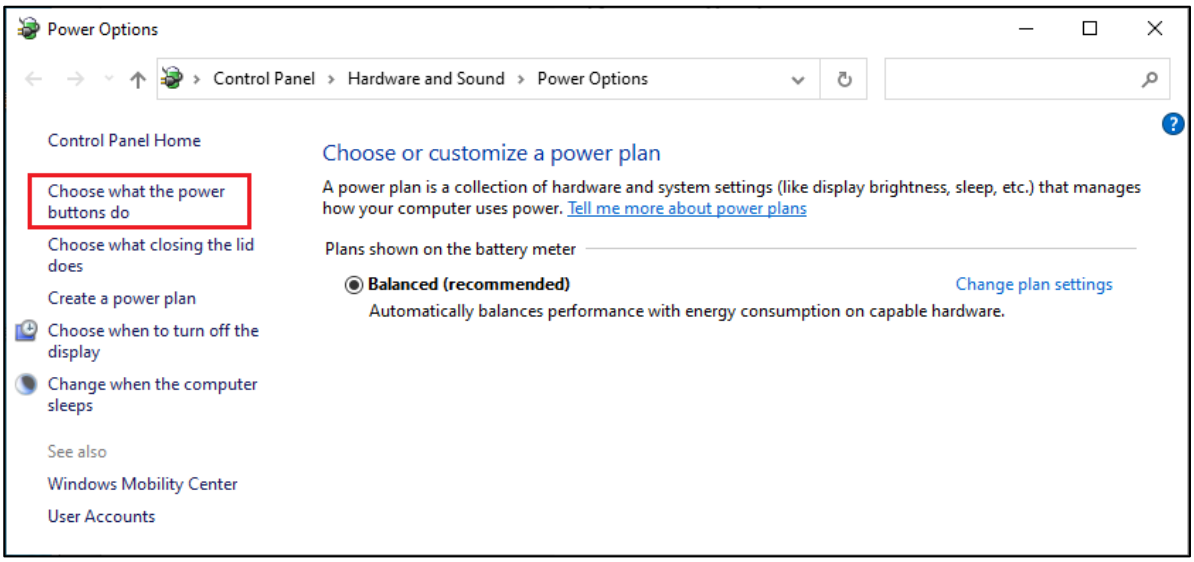


2.In the Settings menu, go to System, then Power & sleep.

3.Select Additional power settings.

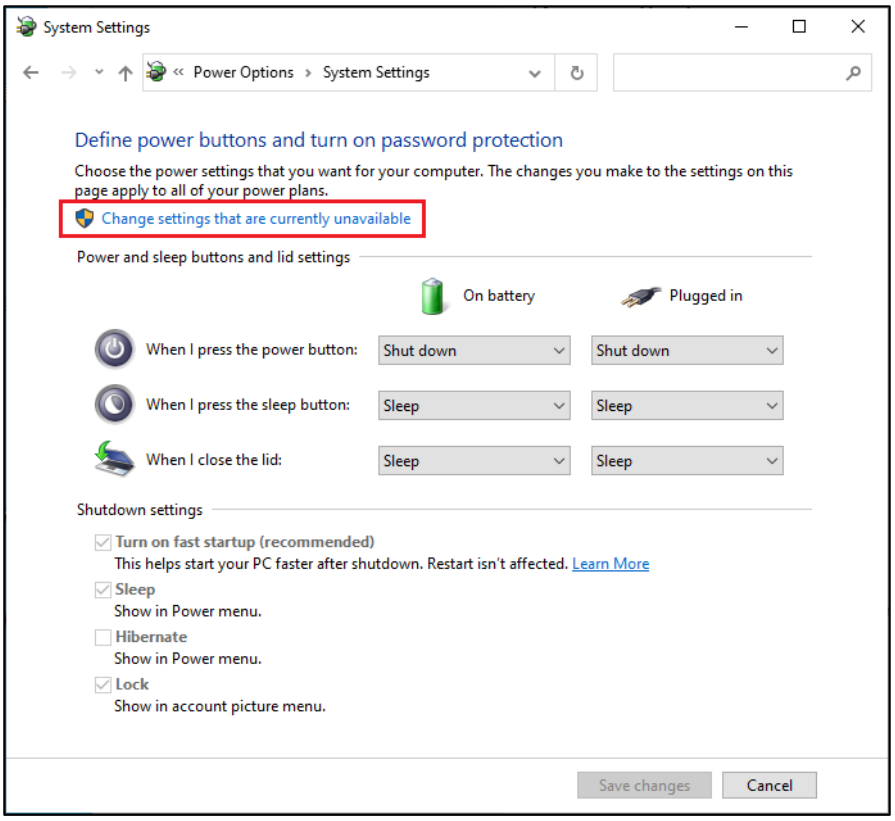


4.The Power Options window will open. Click Choose what the power buttons do.

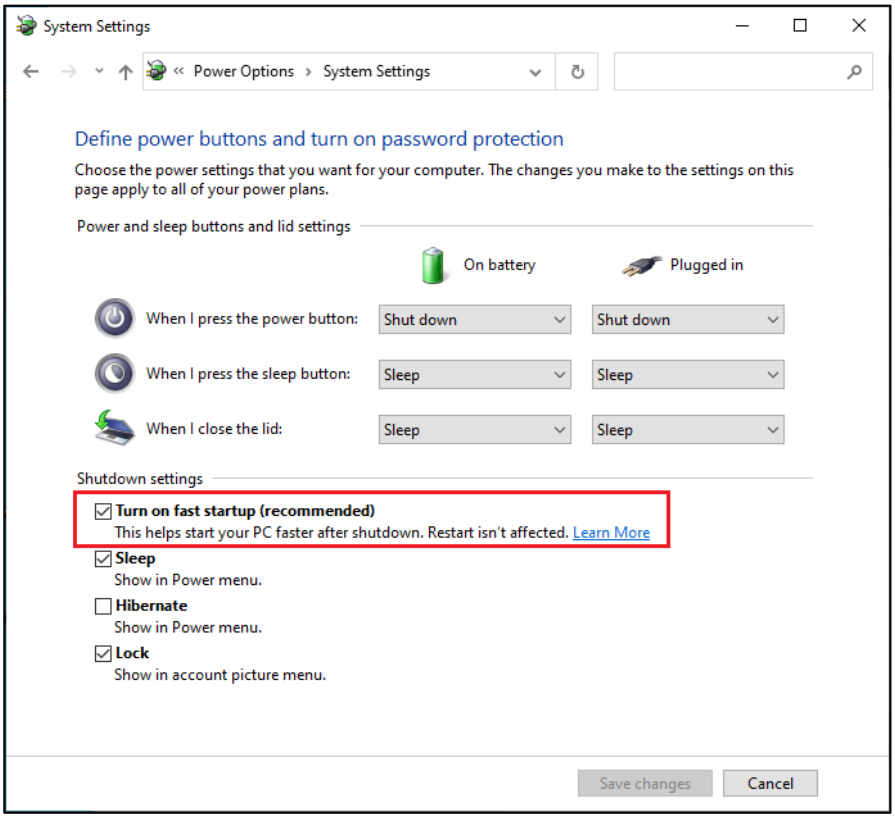


5.Click Change settings that are currently unavailable.

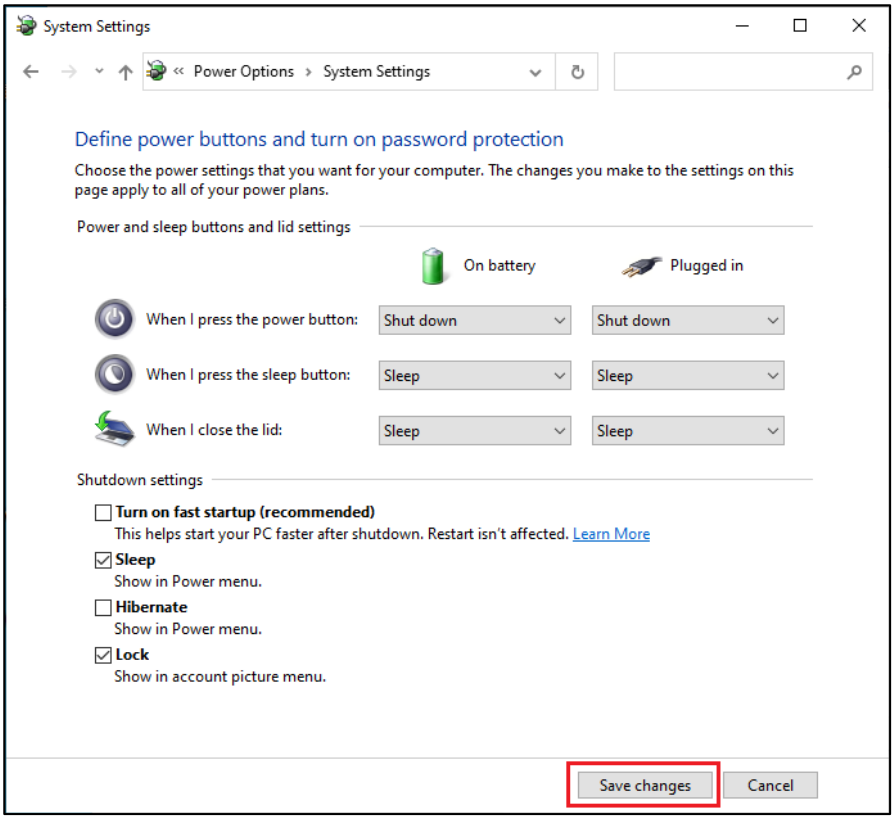
When User Account Control displays, click [Yes]



6.At the bottom of the window is a Shutdown settings section. In this section, there is an option labeled Turn on fast startup (recommended). Deselect the box.

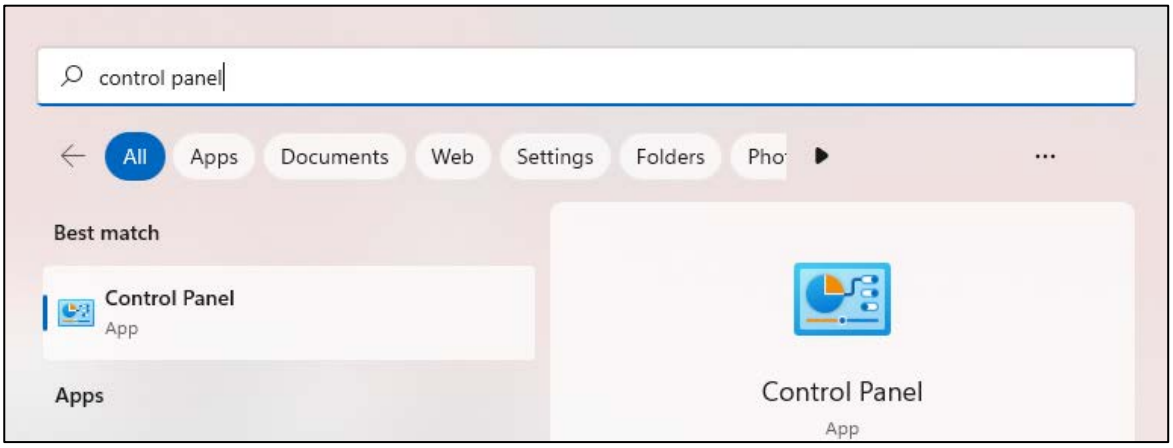


7. Click Save changes and exit out of the window.

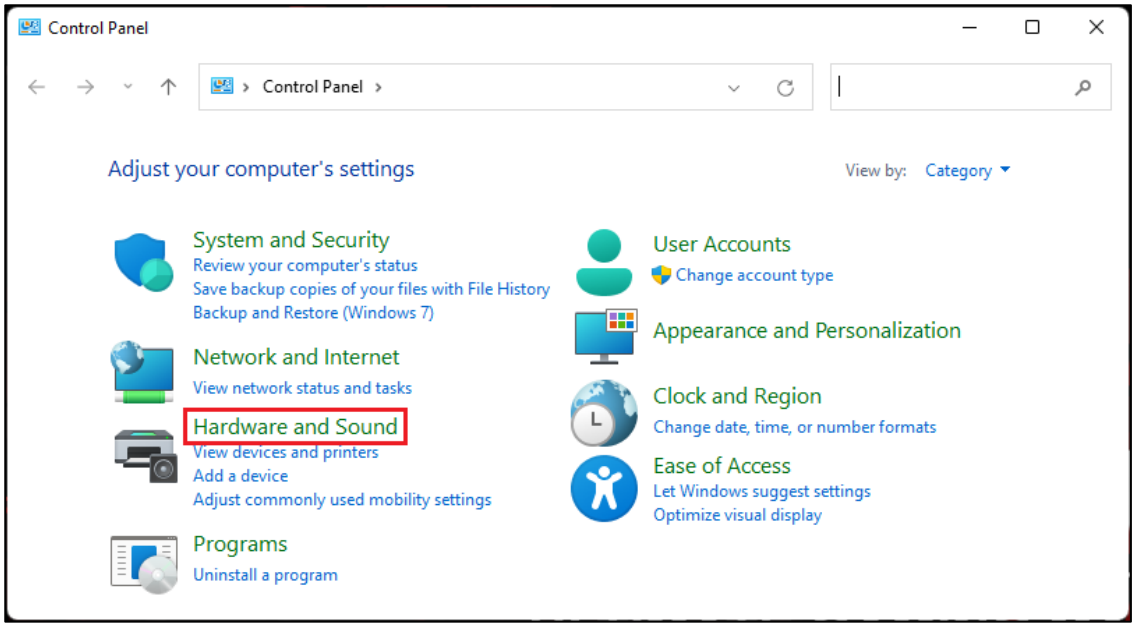


[Windows11]

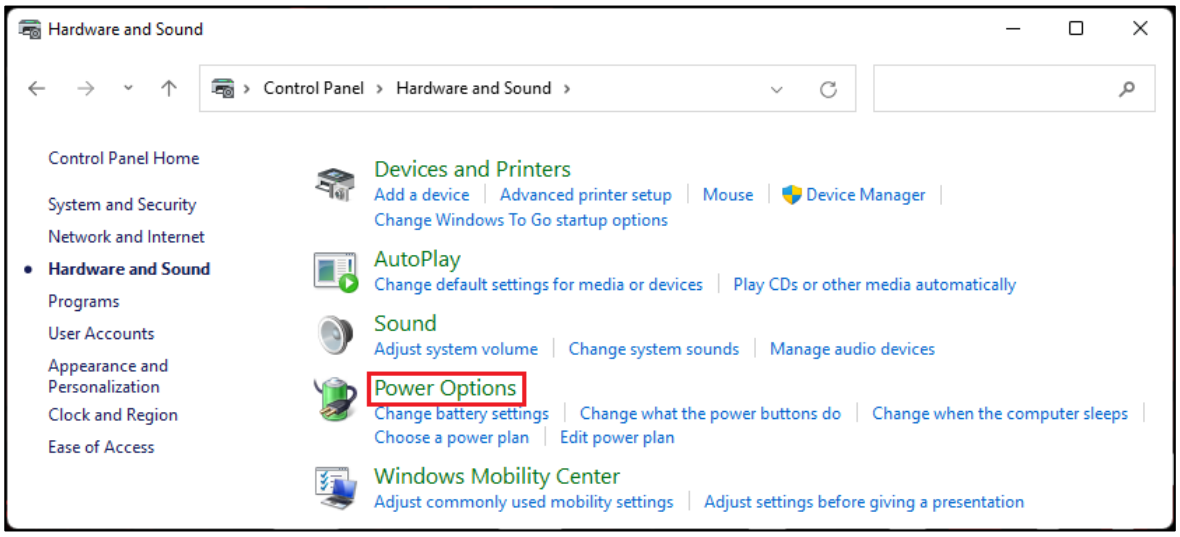
1.Go to Start, search for and select Control Panel.



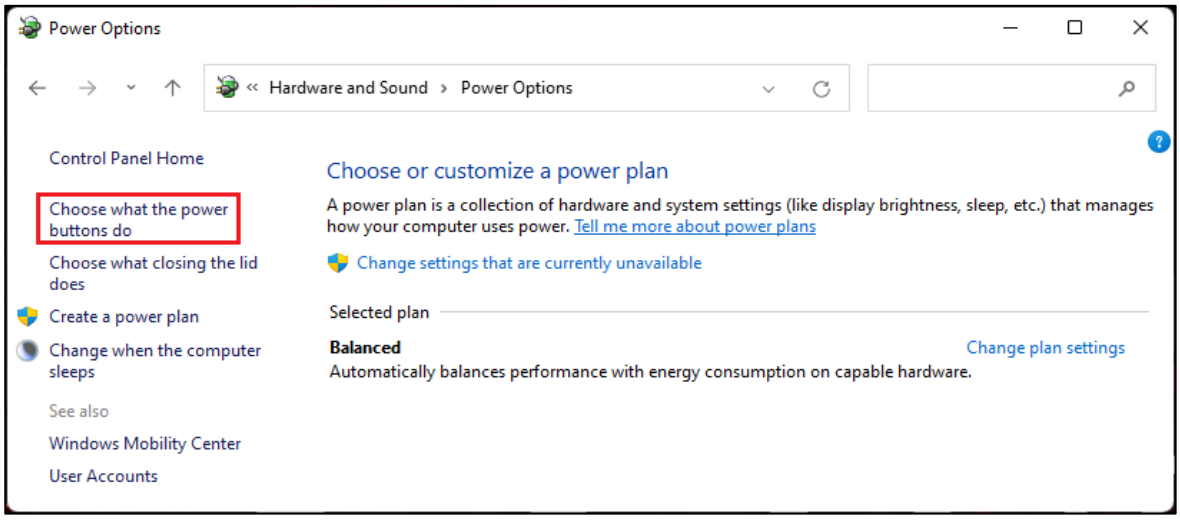
2.In the Control Panel, click Hardware and Sound.



3.Select Power Options.

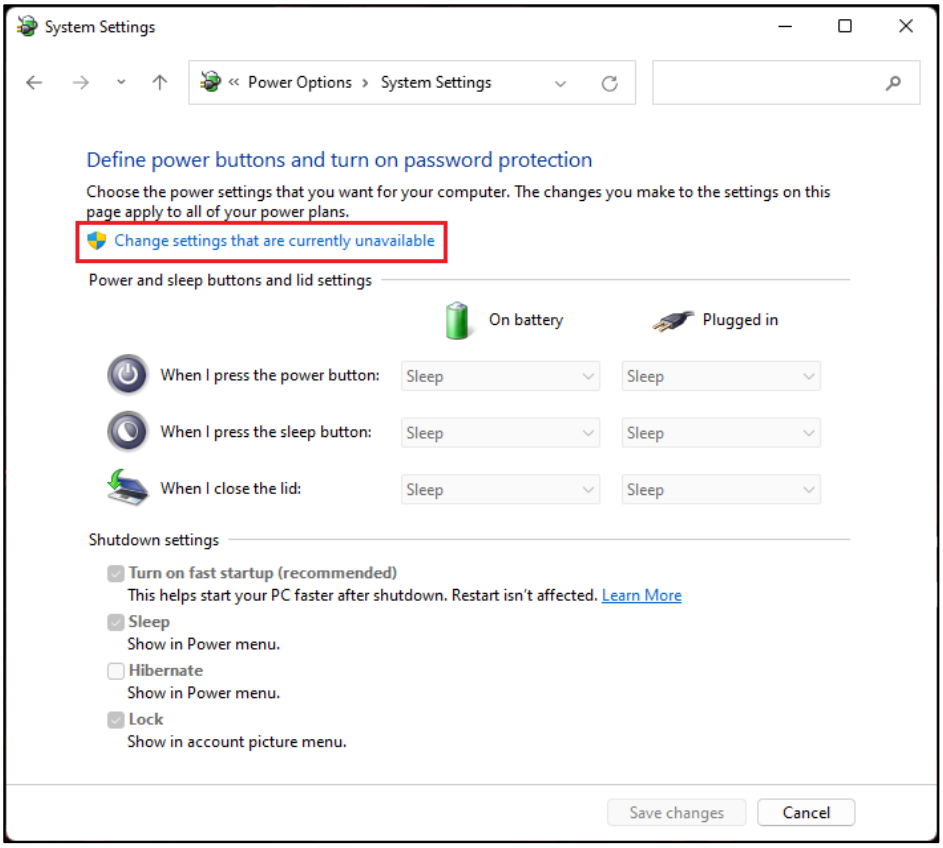


4.Click Choose what the power buttons do.

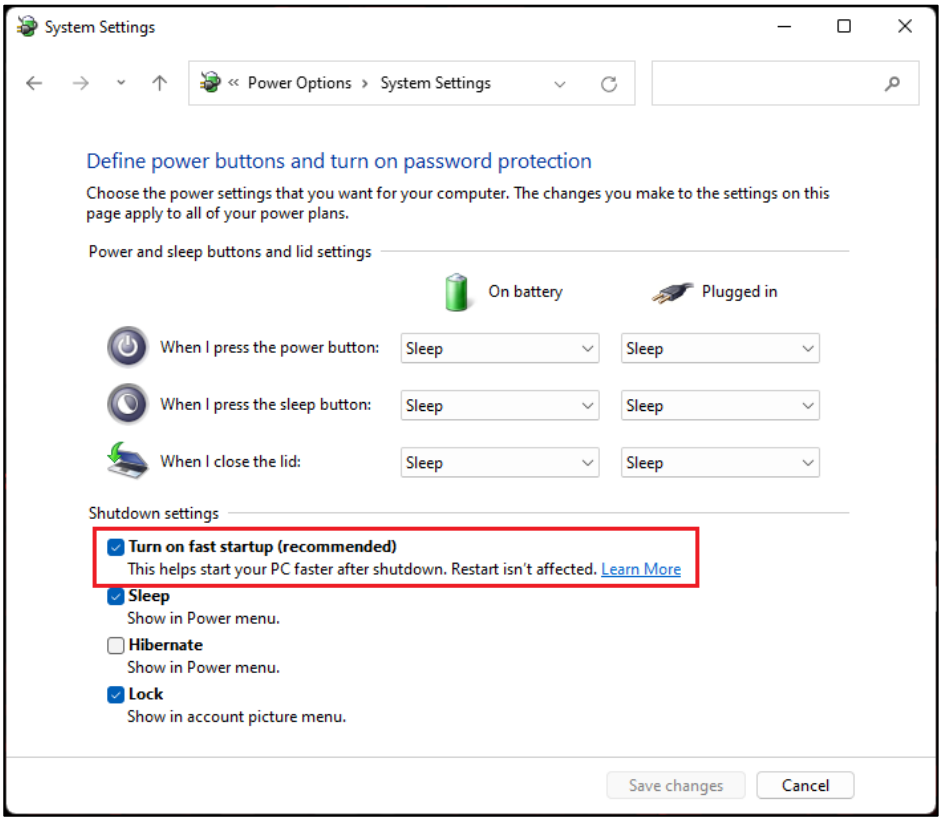


5.Click Change settings that are currently unavailable.

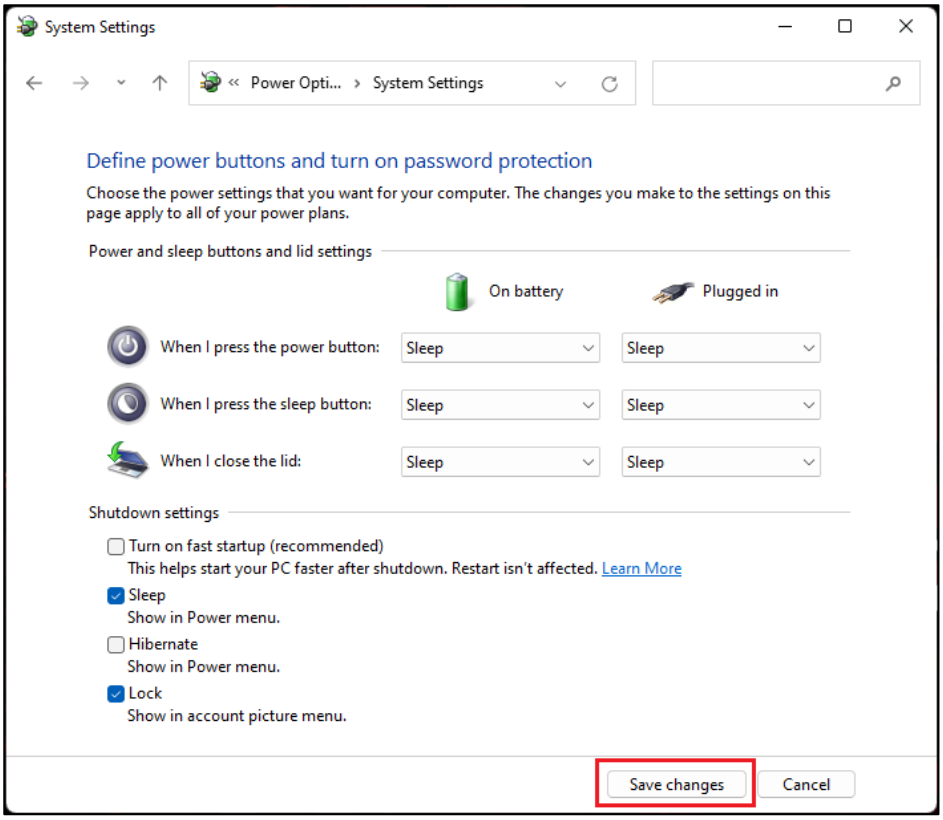
When User Account Control displays, click [Yes]



6.At the bottom of the window is a Shutdown settings section. In this section, there is an option labeled Turn on fast startup (recommended). Deselect the box.



7. Click Save changes and exit out of the window.



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