INTRODUCTION

Thank you for choosing Type SW2D5F-OLEX-E Excel Communication Support Tool.
Before using Type SW2D5F-OLEX-E Excel Communication Support Tool, please read this manual carefully to use the product to its optimum.
A copy of this manual should be forwarded to the end user.

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8. USING OLEX

This chapter provides the procedure of actually accessing the PLC CPU using OLEX.

POINT
After setting cells, do not change the sheet name. If you change it, we cannot guarantee the data.

8.1 Monitoring the Device States

Perform the following procedure to actually monitor device states using OLEX.

(Example)
Devices to be monitored : D100 to D109 (Short)
Fields used : 1 to 10 (D100 to D109)
Cell settings : Device states will be displayed as shown below.

	A	B	C
4			
5		D100 value	D105 value
6		D101 value	D106 value
7		D102 value	D107 value
8		D103 value	D108 value
9		D104 value	D109 value
10			

(1) Create a tag.
   Refer to Chapter 7 and Section 10.2 and create a tag.
   Specifying "Ordinary" in the tag setting on the Tag setup utility enables fast data collection.

(2) Start the Tag management process.
   Refer to Section 10.2.2 and start the Tag management process.

(3) Start Excel.

(4) Set the cell area to be monitored.
   Set the cell area (B5 to C9) you will monitor.

	A	B	C
4			
5			
6			
7			
8			
9			
10			

(5) Set the cell area name and set the communication mode, consecutive direction, etc.

    (a) Choose [OLEX]-[Cell setup]-[Monitor setup/revision] in the menu and enter the cell area name.

After typing the cell area name, click!
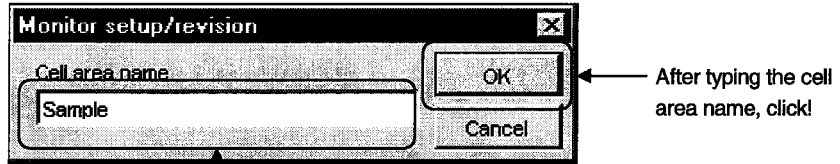
Type any cell area name.

    (b) Set the tag name, field No., communication mode and consecutive direction, and click the "Register" button.

Specify the tag.

Choose Read this time.
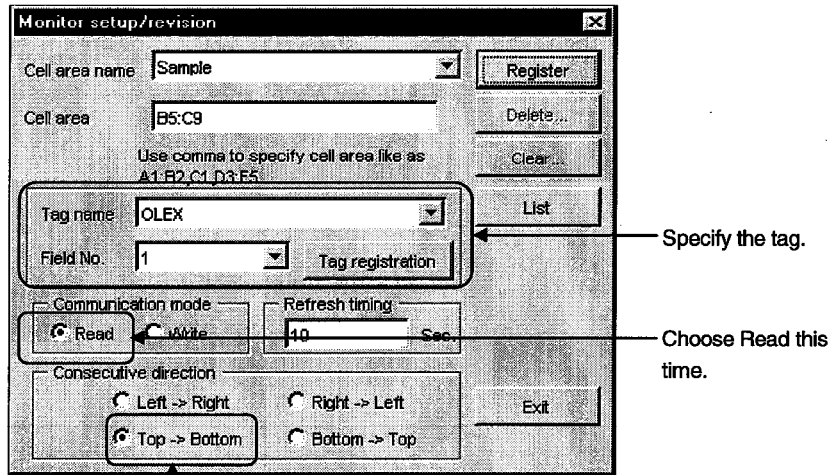
Choose Top → Bottom this time.

(6) Conduct a test.

Choose [OLEX]-[test]-[Read test] in the menu, set the cell area name to be tested, and click the "Execute" button.

At this time, make sure that the values of D100 to D109 are monitored correctly in the set area.
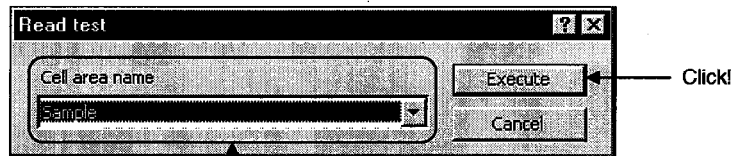
Click!

Choose the cell area name.

(7) Make setting to monitor device states in the set cell area.

Choose [OLEX]-[Cell area name valid/invalid] in the menu and make setting to make the set cell area valid.

(Defaults to a checked (valid) status.)

Check this to make it valid.
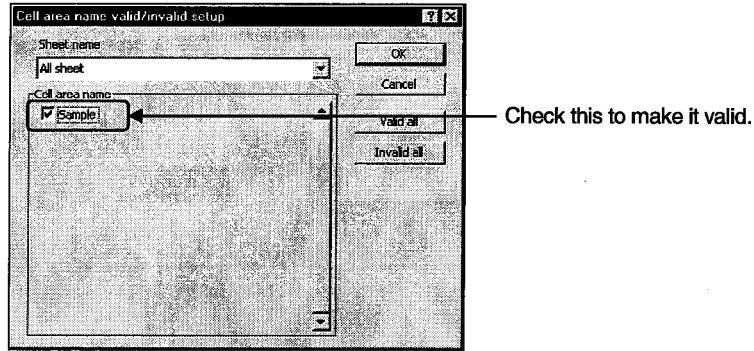
(8) Save the sheet.

Save the set sheet.

(9) Make setting to start monitoring.

(a) Choose [OLEX]-[Auto start-up set/release] in the menu.
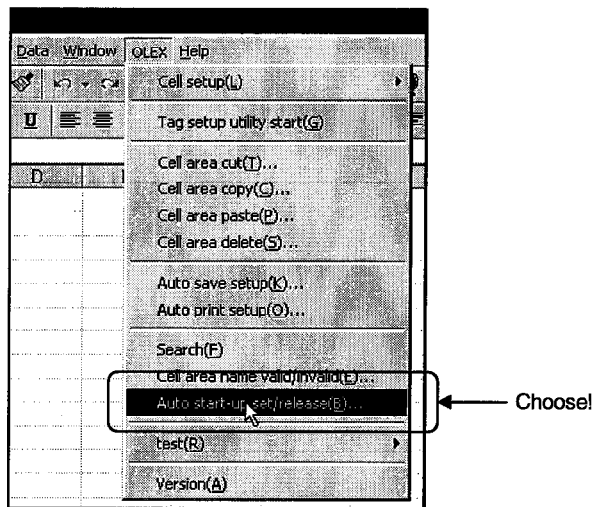
Choose!

(b) As the following dialog box appears, click the "OK" button.
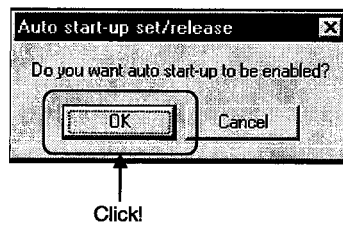
Click!

(c) As the following dialog box appears, select the file for which monitor setting has been made, and click the "Open" button.
(Here, select the file saved last.)
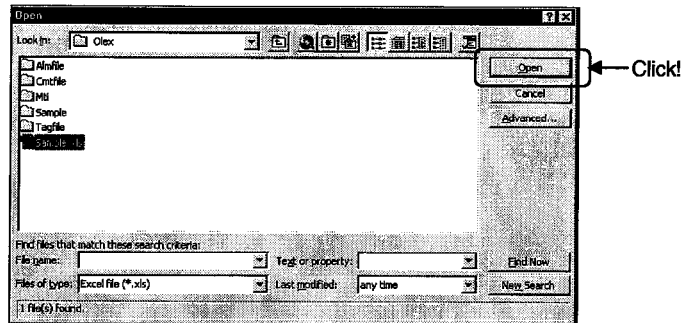
←—Click!

(d) As the following dialog box appears, click the "OK" button and then log off or restart.

——— Click!
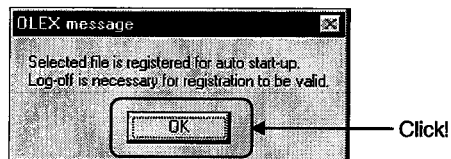
(e) After completion of logon or restart, starting the Tag management process starts Excel automatically, opens the file for which automatic start-up setting has been made, and starts execution.

8.2 Logging the Device Values

Perform the following procedure to actually log device values using OLEX.

(Example)
Devices to be logged   : D100 to D104 (Short)
Cell settings   : Device states will be displayed as shown below.

(1) Create a tag.
    Refer to Chapter 7 and Section 10.2 and create a tag.
    Specifying "Ordinary" in the tag setting on the Tag setup utility enables fast data collection.

POINT
The tag used must be the one for which the communication intervals have been set to 1 second or longer and Logging (Extended) has been made.

(2) Start the Tag management process.
    Refer to Section 10.2.2 and start the Tag management process.

(3) Start Excel.

(4) Set the cell area to be logged.
    Set the cell area (B5 to G14) you will log.

(5) Set the cell area name and set the communication mode, consecutive direction, etc.

(a) Choose [OLEX]-[Cell setup]-[Logging setup/revision] in the menu and enter the cell area name.

Type any cell area name.

Loging setup/revision ☒

Cell area name   OK

Sample2   Cancel

After typing the cell area name, click!
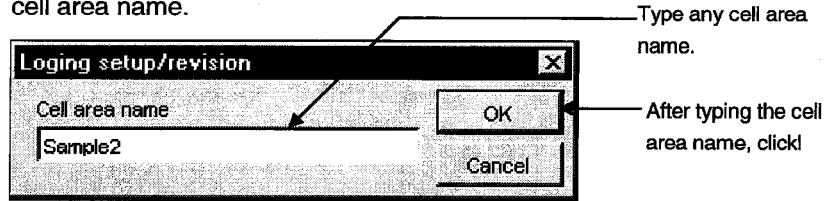
(b) Set the tag name, the display option, and the display method used when the last part of the cell area is reached, and click the "Register" button.

Logging setup/revision ☒

Cell area name   Sample2 ▼   Register

Cell area   B5:G14   Delete...

Use comma to specify cell area like as A1:B2,C1,D3:E5   Clear...

Tag name   OLEX ▼   List

Tag registration

Display option
☑ With date
☑ With day
☑ With time   ☑ Hour ☑ Min. ☑ Sec.

Display option when reach to the end of cell area.
○ Scroll to previous
○ Display from the top after clearing cell area.
○ Display from the top without clearing cellarea.
○ Interrupt logging
   ☐ Resume after auto file save
   ☐ Resume after auto sheet print   Exit

Specify the tag name.

Check to display the date and time.

Set the processing method used when the last part of the cell area is reached.

(6) Conduct a test.

Choose [OLEX]-[test]-[Read test] in the menu, set the cell area name to be tested, and click the "Execute" button.

At this time, make sure that the date/time when the logging test was made and the values of D100 to D104 are logged correctly on the top line of the set area.
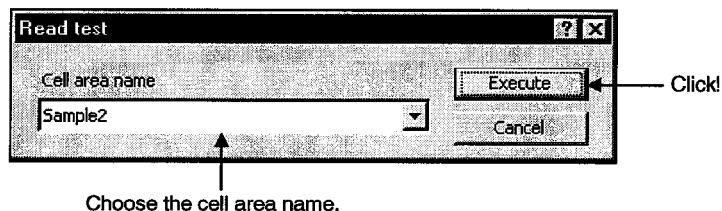
Read test ?☒

Cell area name   Execute ◄─ Click!

Sample2 ▼   Cancel

Choose the cell area name.

(7) Make setting to monitor device states in the set cell area.
Choose [OLEX]-[Cell area name valid/invalid] in the menu and make setting to make the set cell area valid.
(Defaults to a checked (valid) status.)

Check this to make it valid.
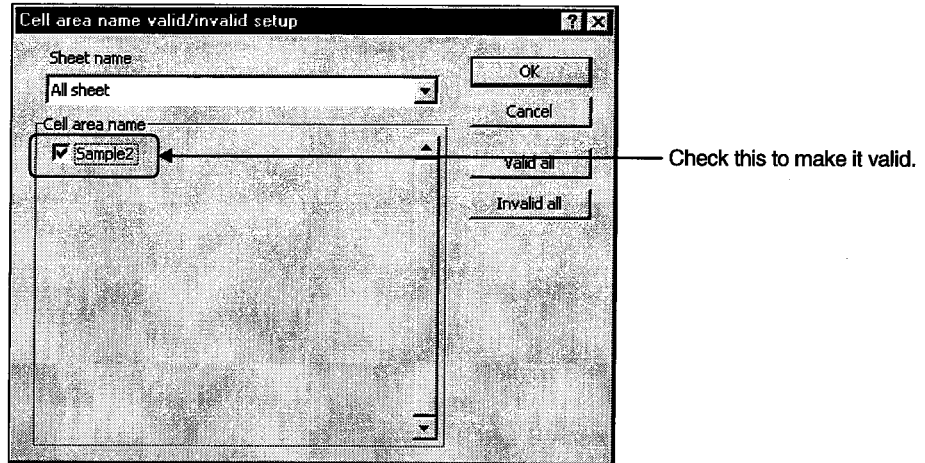
(8) Save the sheet.
Save the set sheet.

(9) Make setting to start logging.
(a) Choose [OLEX]-[Auto start-up set/release] in the menu.
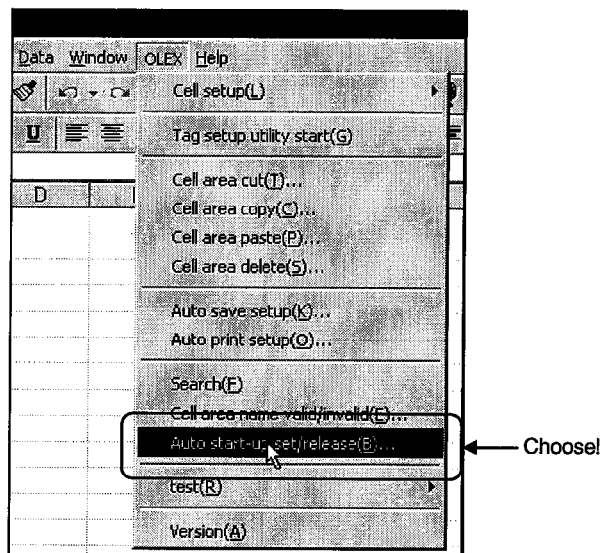
Choose!

(b) As the following dialog box appears, click the "OK" button.

Auto start-up set/release

Do you want auto start-up to be enabled?

OK   Cancel
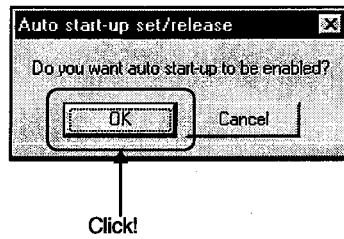
Click!

(c) As the following dialog box appears, select the file for which logging setting has been made, and click the "Open" button.
(Here, select the file saved last.)

← Click!

(d) As the following dialog box appears, click the "OK" button and then log off or restart.

OLEX message

Selected file is registered for auto start-up.
Log-off is necessary for registration to be valid.

OK   ◄─── Click!

(e) After completion of logon or restart, starting the Tag management process starts Excel automatically, opens the file for which automatic start-up setting has been made, and starts execution.

8.3 Displaying the Alarm Summary Comments

Perform the following procedure to actually use the alarm summary function on OLEX.

(Example)
Bit devices to be used   : Y0 to Y8
Cell settings   : Alarm comments will be displayed in the following area.

B	C	D	E	F
3				
4	Type (12)	Time (12)	Alarm message (12)	Class (12)
5	•	•	•	•
6	•	•	•	•
7	•	•	•	•
8	•	•	•	•
9	•	•	•	•
10	•	•	•	•
11	•	•	•	•
12	•	•	•	•
13	•	•	•	•
14	Type (2)	Time (2)	Alarm message (2)	Class (2)
15	Type (1)	Time (1)	Alarm message (1)	Class (1)

(1) Create a tag.
Refer to Chapter 7 and Section 10.2 and create a tag.
Always create a tag where bit devices are set.
Specifying "Ordinary" in the tag setting on the Tag setup utility enables fast data collection.

(2) Create an Alarm summary file.
Create an Alarm summary file using the Alarm summary setup utility.
Always set a larger number of alarm comments than the number of bit devices specified in the tag.
Refer to Section 10.4 for the utility operations.

(3) Start the Tag management process.
Refer to Section 10.2.2 and start the Tag management process.

(4) Start Excel.

(5) Set the cell area where alarm comments will be displayed.
Set the cell area (C4 to F15) you will display alarm comments.
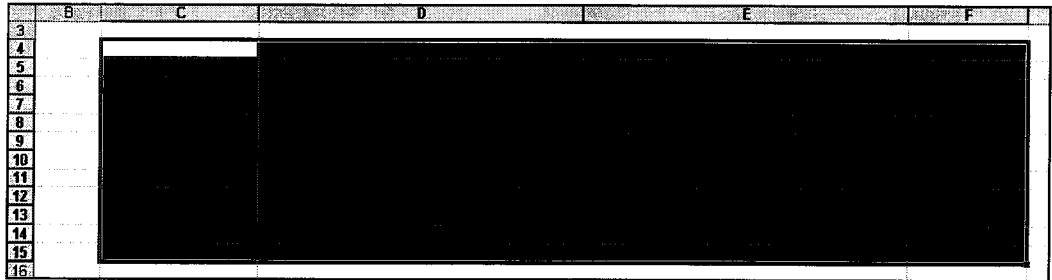
(6) Set the cell area name and set the communication mode, consecutive direction, etc.

(a) Choose [OLEX]-[Cell setup]-[Alarm setup/revision] in the menu and enter the cell area name.
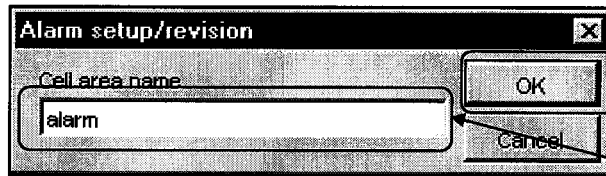
— After typing the cell area name, click!

— Type any cell area name.

(b) Set the Tag name, Field No. and Alarm summary file, and click the "Register" button.
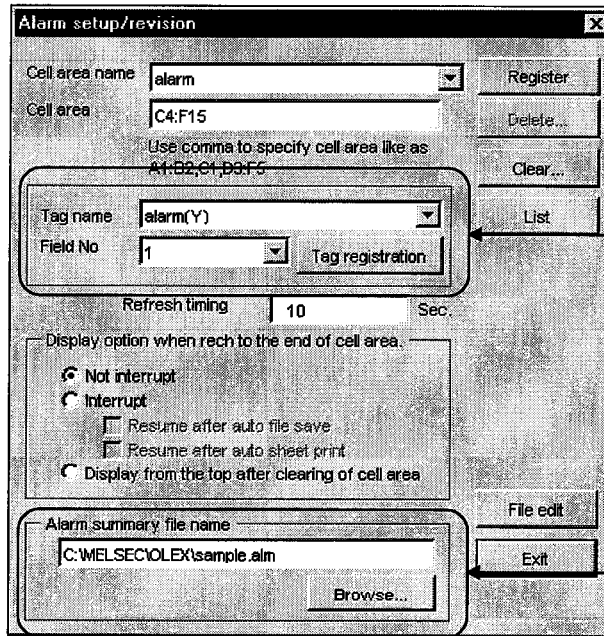
— Specify the Tag name and Field number.

— Choose the Alarm summary file.

(7) Make setting to display alarm comments in the set cell area.
Choose [OLEX]-[Cell area name valid/invalid] in the menu and make setting to make the set cell area valid.
(Defaults to a checked (valid) status.)

Check this to make it valid.
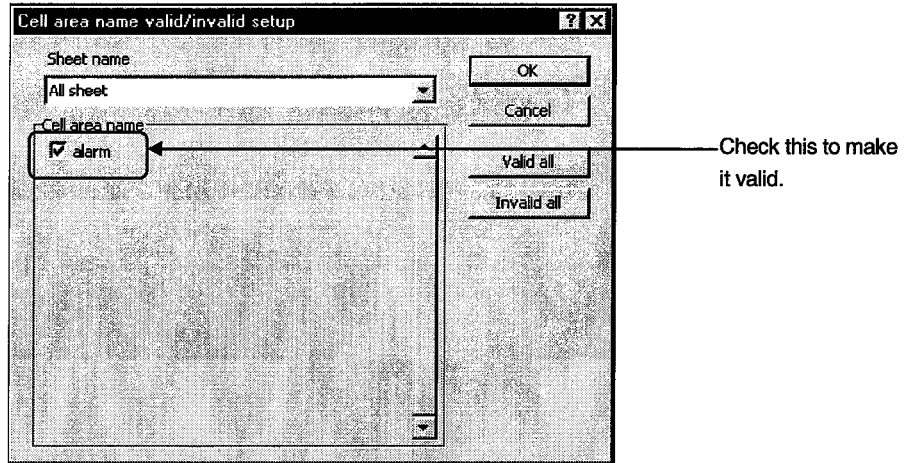
(8) Save the sheet.
Save the set sheet.

(9) Make setting to start alarm comment display.
(a) Choose [OLEX]-[Auto start-up set/release] in the menu.
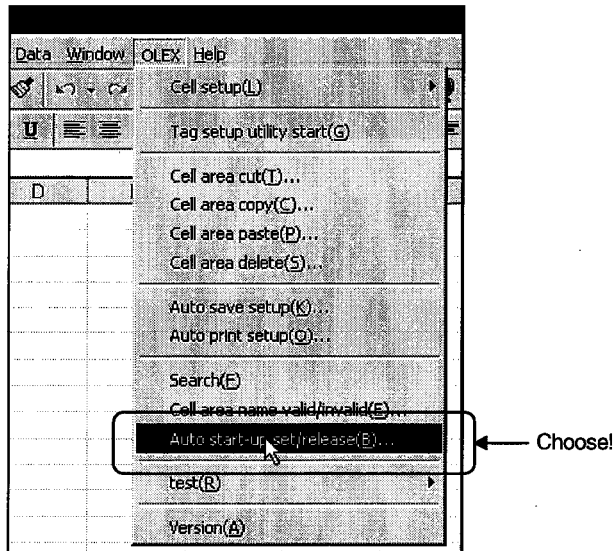
Choose!

(b) As the following dialog box appears, click the "OK" button.
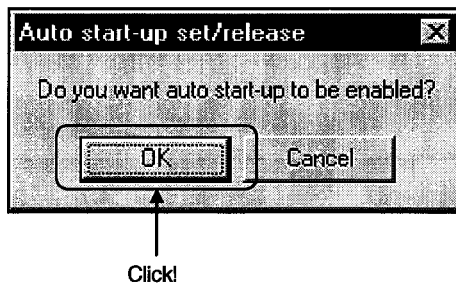
Click!

(c) As the following dialog box appears, select the file for which alarm setting has been made, and click the "Open" button.
(Here, select the file saved last.)
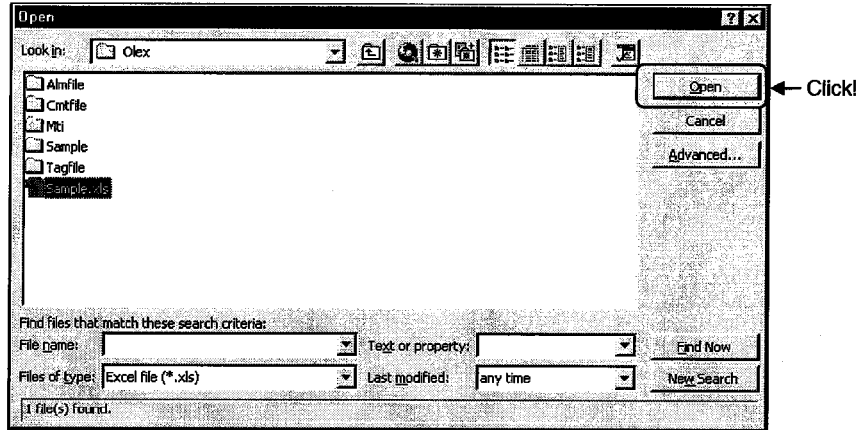
(d) As the following dialog box appears, click the "OK" button and then log off or restart.
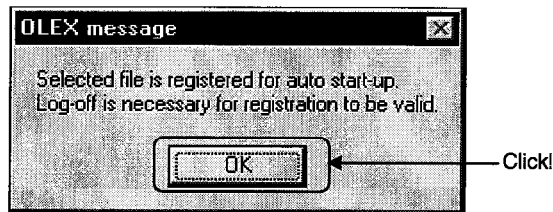
(e) After completion of logon or restart, starting the Tag management process starts Excel automatically, opens the file for which automatic start-up setting has been made, and starts execution.

8.4 Displaying the Comment

Perform the following procedure to actually use the comment function on OLEX.

(Example)
Device to be used   : D10
Cell settings   : A comment will be displayed in the following area.
                           Set only one cell.

(1) Create a tag.
   Refer to Chapter 7 and Section 10.2 and create a tag.
   Specifying "Ordinary" in the tag setting on the Tag setup utility enables fast data collection.

(2) Create a comment file.
   Refer to Section 10.3 and create a comment file.

(3) Start the Tag management process.
   Refer to Section 10.2.2 and start the Tag management process.

(4) Start Excel.

(5) Set the cell area where a comment will be displayed.
   Set the cell area (B2) you will display a comment.

(6) Set the cell area name and set the communication mode, consecutive direction, etc.

(a) Choose [OLEX]-[Cell setup]-[Comment setup/revision] in the menu and enter the cell area name.

After typing the cell area name, click!

Type any cell area name.
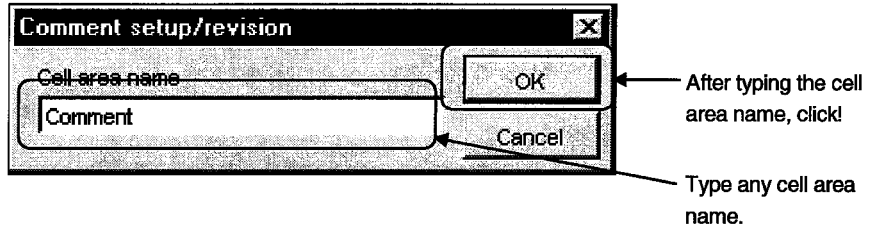
(b) Set the Tag name, Field No. and Comment file, and click the "Register" button.

Specify the Tag name and Field number.

Choose the Comment file.
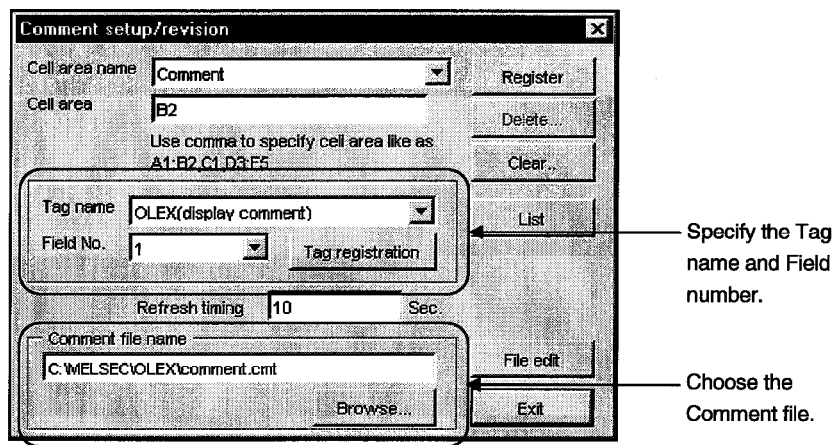
(7) Make setting to display a comment in the set cell area.
Choose [OLEX]-[Cell area name valid/invalid] in the menu and make setting to make the set cell area valid.
(Defaults to a checked (valid) status.)

Check this to make it valid.
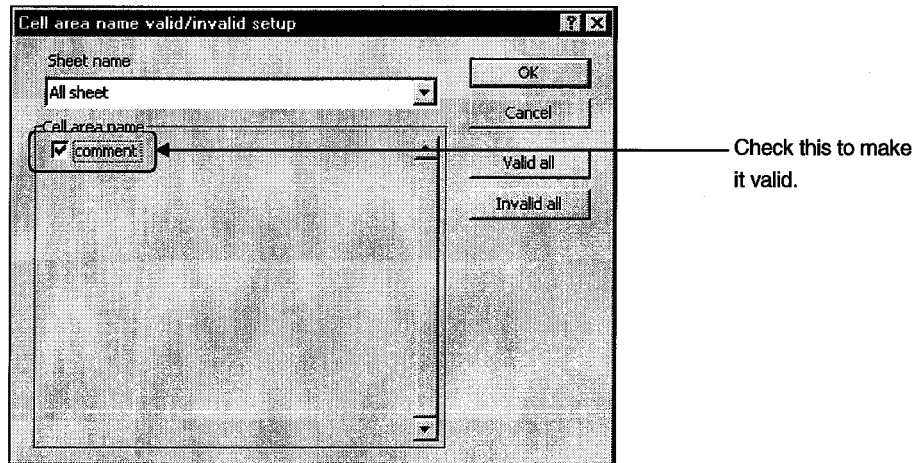
(8) Save the sheet.
Save the set sheet.
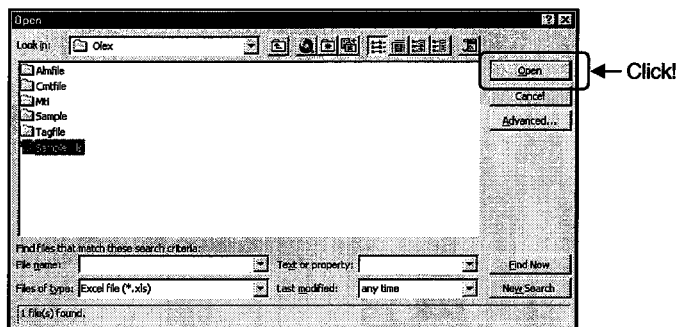
(9) Make setting to display a comment.

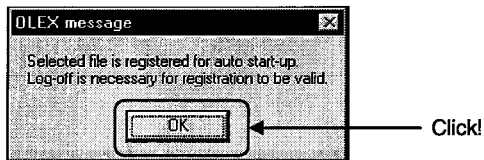(a) Choose [OLEX]-[Auto start-up set/release] in the menu.
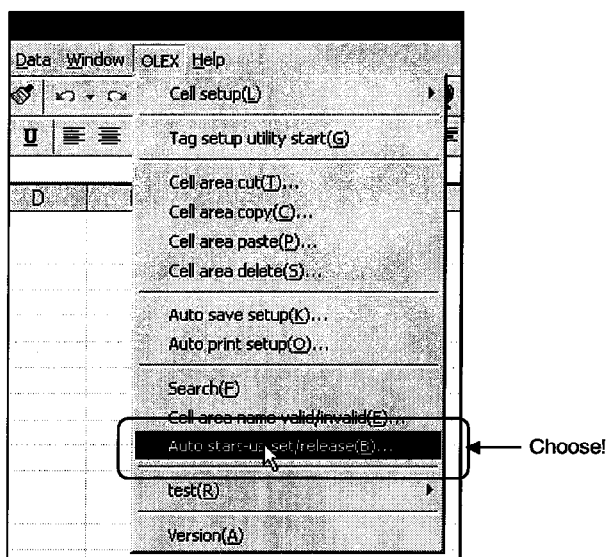
(b) As the following dialog box appears, click the "OK" button.
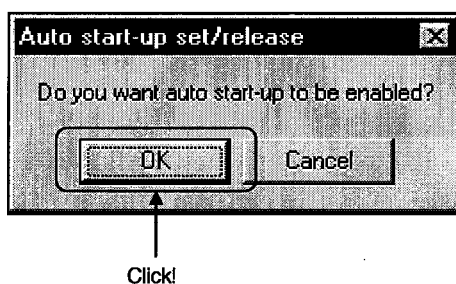
Click!

(c) As the following dialog box appears, select the file for which comment setting has been made, and click the "Open" button.
(Here, select the file saved last.)
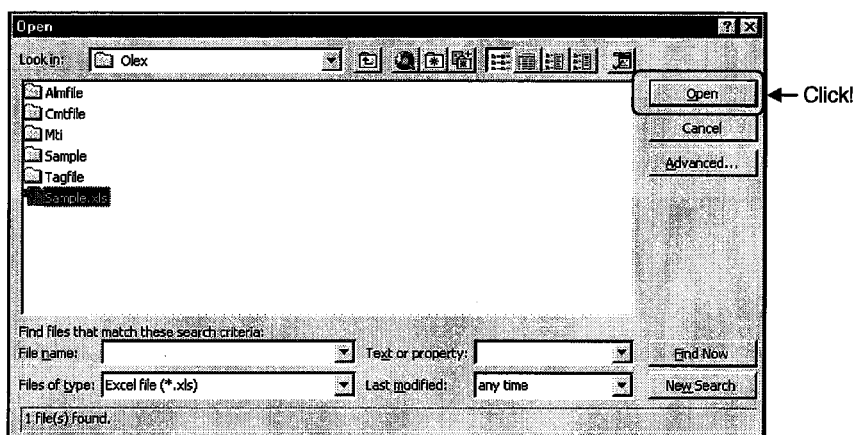
(d) As the following dialog box appears, click the "OK" button and then log off or restart.

OLEX message

Selected file is registered for auto start-up.
Log-off is necessary for registration to be valid.

OK ←——— Click!
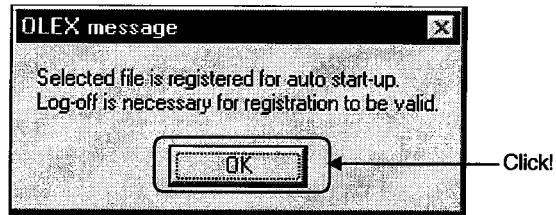
(e) After completion of logon or restart, starting the Tag management process starts Excel automatically, opens the file for which automatic start-up setting has been made, and starts execution.

9. OPERATIONS COMMON TO THE UTILITIES

This chapter describes the operations common to the utilities.

9.1 Starting the Utility

Any utility can be started by clicking the corresponding menu item among 1) to 5) shown below in the [Start]-[Programs]-[MELSEC APPLICATION]-[EXCEL COMMUNICATION SUPPORT (OLEX-E)]-[Tag Management] menu.
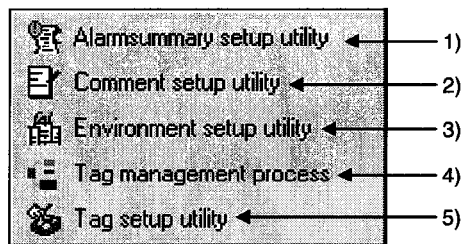
1) Start the Alarm summary setup utility.

2) Start the Comment setup utility.

3) Start the Environment setup utility.

4) Start the Tag management process.
   (For details, refer to Section 10.2.2.)

5) Start the Tag setup utility.

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9.2 Closing the Utility

Any utility can be closed by clicking the "Exit" button at the bottom of the Utility screen.
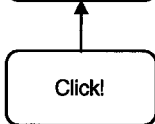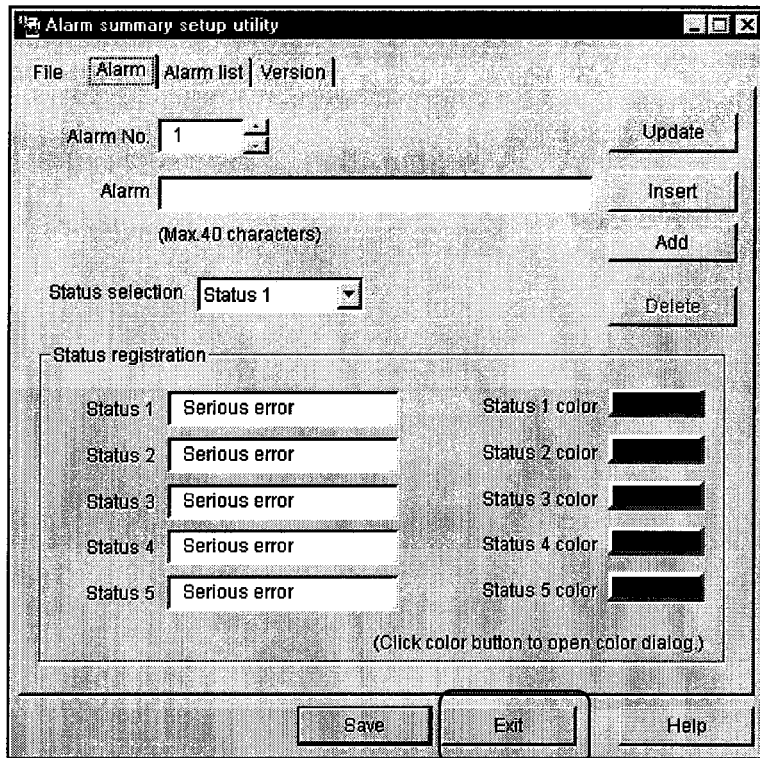
9.3 Saving the Settings

The settings made on the Utility can be saved by clicking the "Save" button at the bottom of the Utility screen.

The settings will not be saved if you close the Utility without clicking the "Save" button.
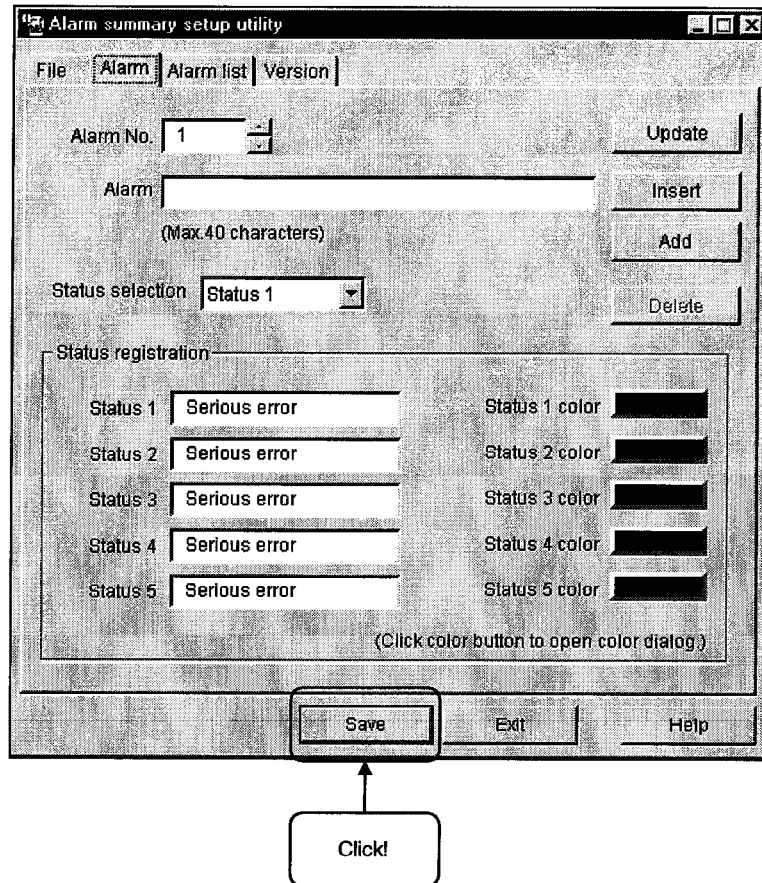
9.4 Displaying the Help Screen

The Utility help screen can be displayed by clicking the "Help" button at the bottom of the Utility screen.
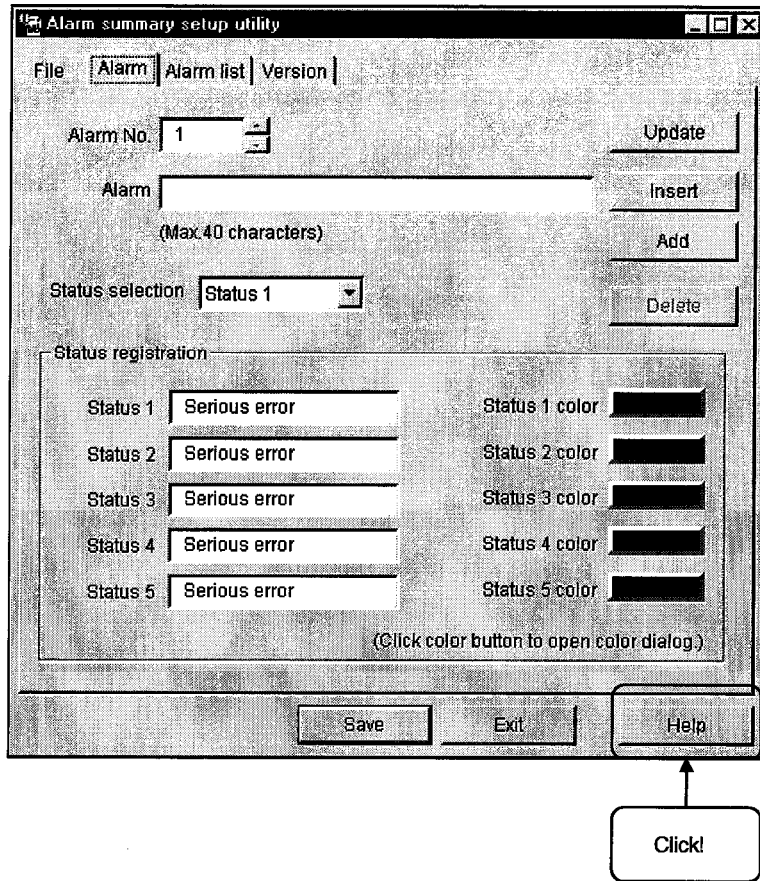
9.5 Confirming the Version

The version of the Utility can be confirmed by clicking the "Version" tab.
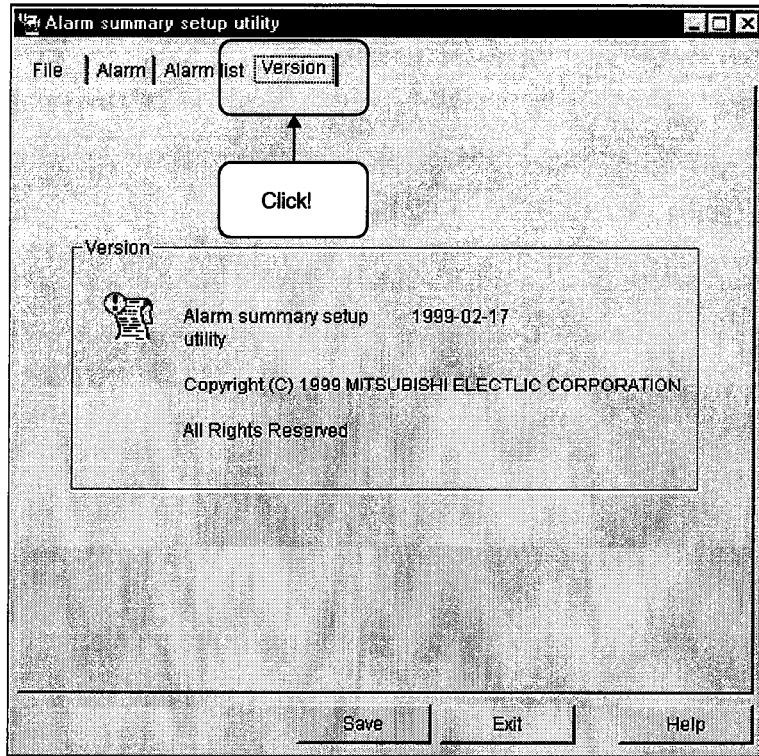
MEMO

10. UTILITY OPERATIONS

This chapter describes how to operate and set the utilities.

10.1 Environment Setup Utility

This section explains how to operate and set the Environment setup utility.

10.1.1 Operating Procedure

This section provides the procedure of operating the Environment setup utility.

```
                    ┌──────────────┐
                    │    START     │
                    └──────┬───────┘
                           │
          ┌────────────────────────────────────┐
          │ Set the tag file name on the File   │  ····· Refer to Section 10.1.2.
          │ screen.                             │
          └────────────────┬───────────────────┘
                           │
          ┌────────────────────────────────────┐
          │ Set the channel name to the used    │  ····· Refer to Section 10.1.3.
          │ channel on the Communication screen.│
          └────────────────┬───────────────────┘
                           │
   No          ◇ Do you use the                 ◇
  ◀────────────  communication interval and communication interval
               name which are not default ones?
                           │ Yes
          ┌────────────────────────────────────┐
          │ Make setting on the Comm. interval  │  ····· Refer to Section 10.1.4.
          │ screen.                             │
          └────────────────┬───────────────────┘
                           │
   No          ◇ Do you set the logging time?   ◇
  ◀────────────
                           │ Yes
          ┌────────────────────────────────────┐
          │ Make setting on the Logging time    │  ····· Refer to Section 10.1.5.
          │ screen.                             │
          └────────────────┬───────────────────┘
                           │
                    ┌──────────────┐
                    │     END      │
                    └──────────────┘
```

10

10.1.2 Operations on the File Screen

These operations include the setting of the tag file name to be read for execution of the Tag management process.
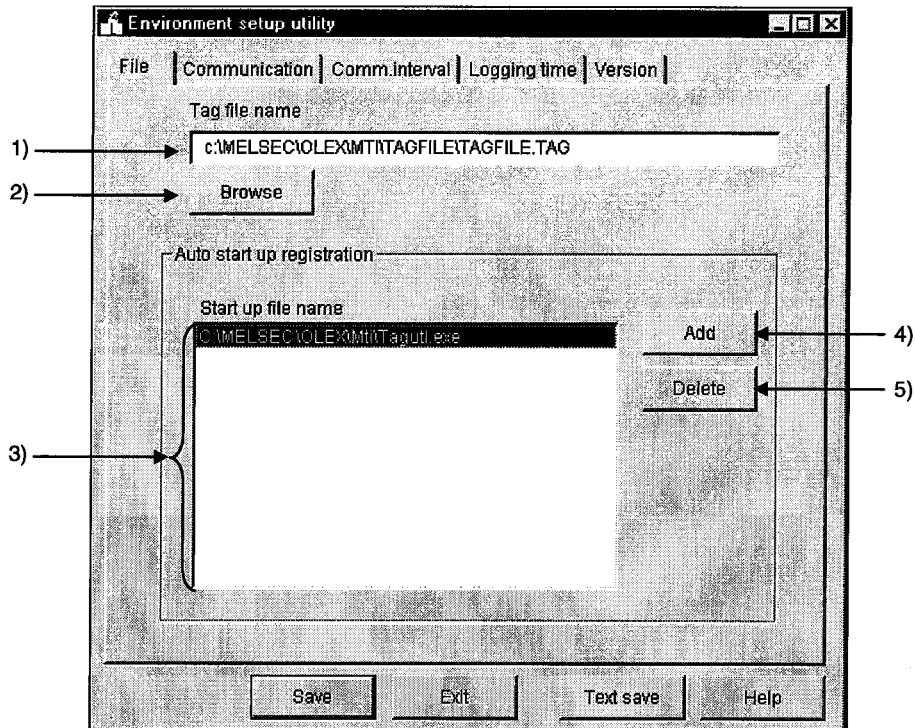
1) Tag file name

Set the tag file which the Tag management process will read.

2) "Browse" button

Used to find the tag file to be set in 1).

As the file setting dialog box opens, choose the tag file.

3) Start up file name

Shows the application started simultaneously with the starting of the Tag management process.

4) "Add" button

Used to set the application started simultaneously.

You can set up to a total of 16 files.

However, the files that may be set are only those having EXE, XLS and MDB extensions. Any other files cannot be started if set.

5) "Delete" button

Choose the file name registered in 3) by clicking it, and click this button to delete the file selected in 3) and release automatic start-up.

10.1.3 Operations on the Communication Screen

Set channel names relative to the Communication channels. (Up to 10 names)
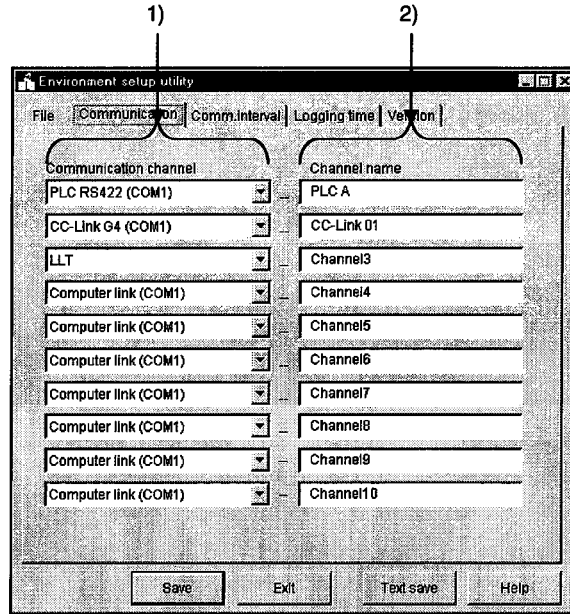
1) Communication Channel

Choose the communication channels relative to the channel names.

2) Channel Name

Set only the channel names with which the user's desired names will be used.
The user makes communication setting with the Tag setup utility on the basis of the channel names set.

Setting example

Communication Channel	Channel Name
MELSECNET/10 (First)	Assembly line 1
MELSECNET/10 (Second)	Machining line 2
MELSECNET/10 (Third)	Machining line 1
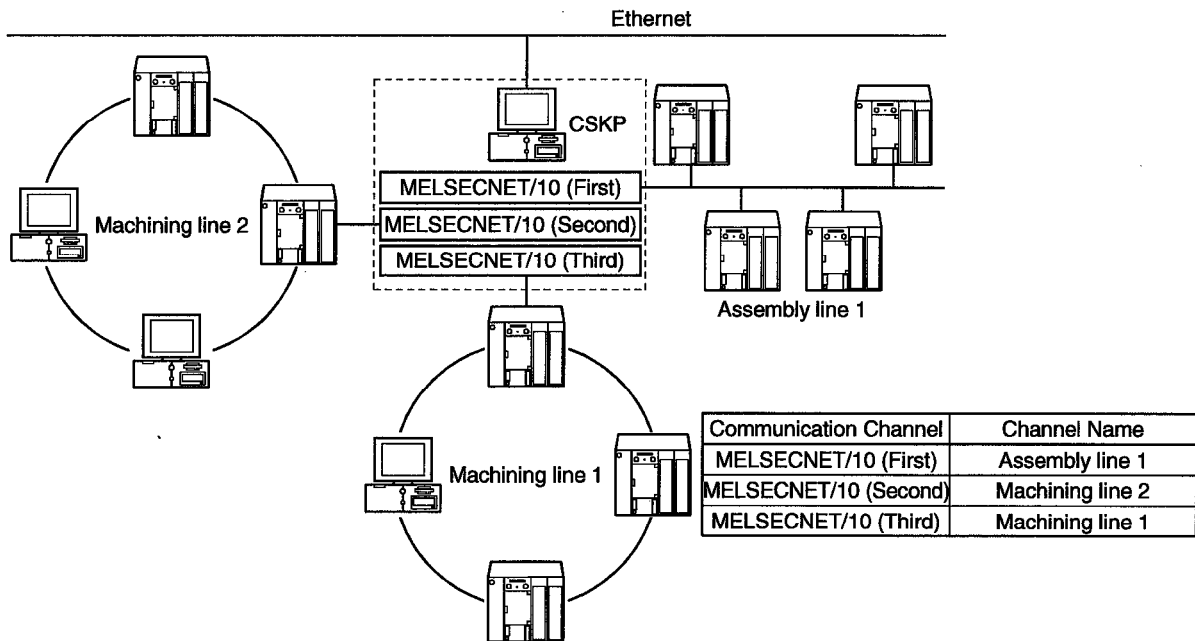
10.1.4 Operations on the Comm. Interval Screen

You can attach any names to the Communication intervals and define them as the communication names. (Up to 30 names)

1)   2)

Interval	Interval name	Interval	Interval name
5	500msec	5	MonCycle16
10	1sec	5	MonCycle17
600	1min	5	MonCycle18
6000	10min	5	MonCycle19
18000	30min	5	MonCycle20
36000	1hour	5	MonCycle21
864000	1day	5	MonCycle22
5	MonCycle8	5	MonCycle23
5	MonCycle9	5	MonCycle24
5	MonCycle10	5	MonCycle25
5	MonCycle11	5	MonCycle26
5	MonCycle12	5	MonCycle27
5	MonCycle13	5	MonCycle28
5	MonCycle14	5	MonCycle29
5	MonCycle15	5	MonCycle30

Save   Exit   Text save   Help

1) Comm. Interval

Intervals can be set in 100ms increments.

Hence, "5" sets the communication interval to 500ms.

(The setting range is 1 to 864000.)

2) Comm. Interval Name

Set the user's desired names.

The user makes communication setting with the Tag setup utility on the basis of the communication interval names set.

10.1.5 Operations on the Logging Time Screen

Set the time zones when the logging operation of the Tag management process will be performed.
You can set up to four zones.
(On OLEX, set them when using the automatic printing or automatic saving function.)

1)   2)   3)
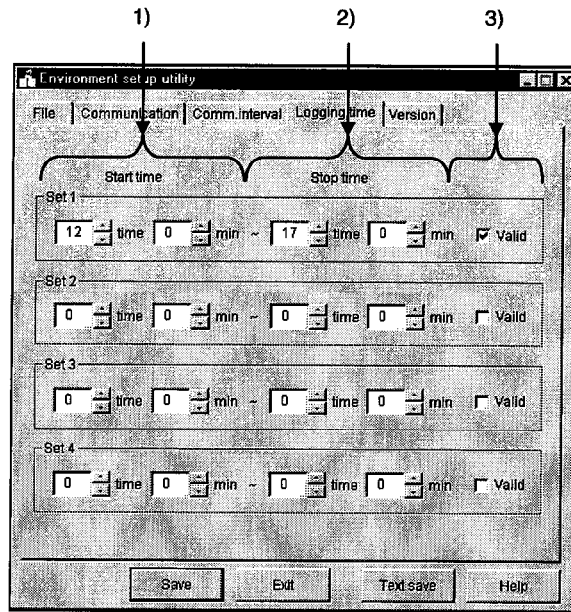
1) Start time
   Set the data logging operation-starting time of the Tag management process.
   Type the set time on a 24-hour basis. (Setting range: 0:00 to 23:59)

2) Stop time
   Set the data logging operation-ending time of the Tag management process.
   Type the set time on a 24-hour basis. (Setting range: 0:00 to 23:59)

3) Valid/invalid check box
   Set whether the set operation times are made valid or not.
   Check the box to make the set times valid.
   When the box is unchecked, the set times are invalid.

POINTS

(1) If the period between the Start time and the Stop time is longer than 24 hours, their settings cannot be made.

(2) The settings on this screen are valid only when you have checked "Log within the operation time period" in Logging Setting within "Extended" on the Tag setup utility. For details, refer to Section 10.2.6 (3).

(3) If you have made the logging setting, the following folder is created but never delete it.
   Deleting it will disable proper logging.
   If you want to delete all log information, delete all files in the folder.

   <HD drive>-<User-defined folder>-<CSKP>-<MTI>-<LOGFILE>

10.1.6 About Saving Data as a Text

By clicking the "Text save" button at the bottom of the Environment setup utility, the settings made with the Environment setup utility can be saved as a text file.

(1) Operation procedure
Perform the following procedure to save the data of the setting in a text file.
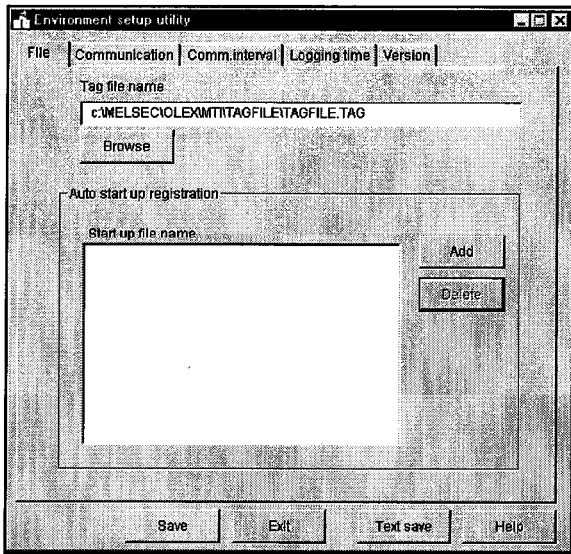
1. Click the "Text save" button on the Environment setup utility.

↓
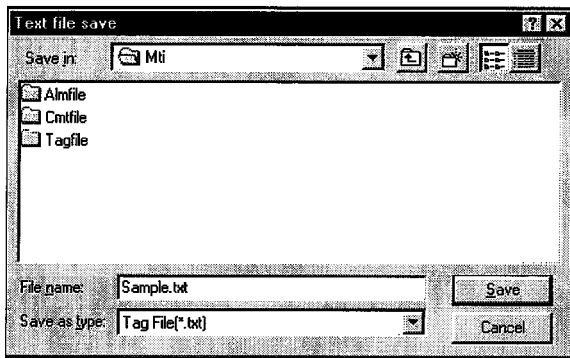
2. As the left dialog box appears, set the saving place and file name and click the "Save" button.

(2) File data

The data of the created text file will be described.

```
[Tag File]
C:\TAGFILE\sample.tag

[Starting File]
C:\SAMPLE.EXE
    •
    •
    •

[Communication channel setting]
Computer Link (COM1) = Channel 1
LLT = Logic
    •
    •
    •

[Interval]
5 = 500msec
10 = 1sec
600 = 1min
    •
    •
    •

[Logging time]
0Hr0Min - 0Hr0Min -> Invalid
0Hr0Min - 0Hr0Min -> Invalid
    •
    •
```
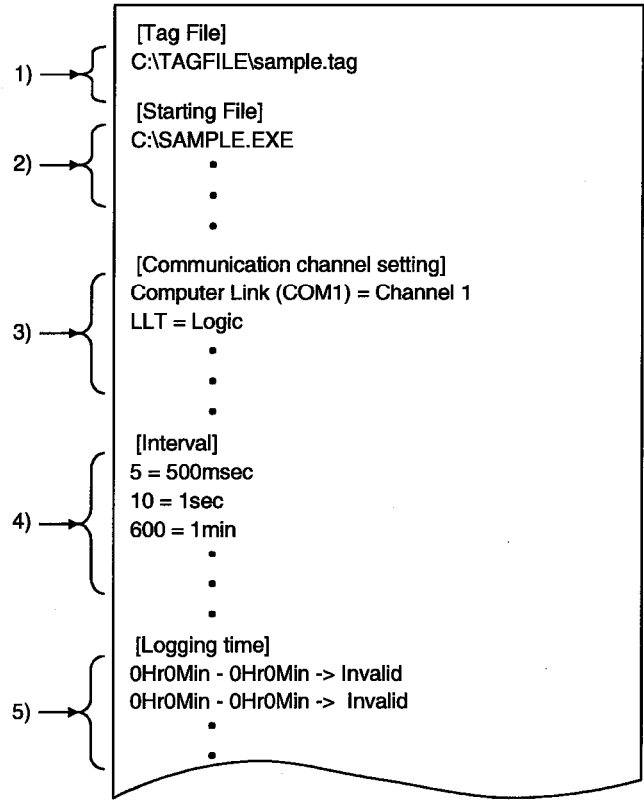
1) Indicates the data set to the tag file name on the "File" screen.

2) Indicates the data set to automatic start-up registration on the "File" screen.

3) Indicates the data set to the "Communication" screen.

4) Indicates the data set to the "Comm. interval" screen.

5) Indicates the data set to the "Logging time" screen.

10.2 Tag Setup Utility

This section provides how to operate and set the Tag setup utility.

10.2.1 Operating Procedure

The following flowchart provides the operation procedure of the Tag setup utility.

```
              ┌─────────────┐
              │    START    │
              └──────┬──────┘
                     │
      ┌──────────────────────────────────┐
      │ Set the tag file name on the File │ ····· Refer to Section 10.2.3.
      │ screen.                           │
      └──────────────┬───────────────────┘
                     │
      ┌──────────────────────────────────┐
      │ Set the tag on the Communication  │ ····· Refer to Section 10.2.4.
      │ screen.                           │
      └──────────────┬───────────────────┘
                     │
  No       ╱──────────────────────────────╲
  ┌───────< Do you monitor the device values >
  │         ╲        set to the tag?       ╱
  │          ╲──────────────────────────╱
  │                     │ Yes
  │    ┌──────────────────────────────────┐
  │    │ Make sure that the Tag management │ ····· Refer to Section 10.2.7.
  │    │ process is running and monitor    │
  │    │ devices on the Device monitor     │
  │    │ screen.                           │
  │    └──────────────┬───────────────────┘
  │                   │
  └──────────────────►│
                      │
  No       ╱──────────────────────────────╲
  ┌───────< Do you confirm the set tags in  >
  │         ╲           a list?             ╱
  │          ╲──────────────────────────╱
  │                     │ Yes
  │    ┌──────────────────────────────────┐
  │    │ Confirm the tags on the List      │ ····· Refer to Section 10.2.8.
  │    │ screen.                           │
  │    └──────────────┬───────────────────┘
  │                   │
  └──────────────────►│
                      │
              ┌───────┴──────┐
              │     END      │
              └──────────────┘
```

10.2.2 About the Tag Management Process

The Tag management process is a process which provides a communication method using a tag on the basis of the information set with the Environment setup utility and the information of the tag file.
When using a tag, the Tag management process must be running.

(1) Starting method
Click [Start]-[Programs]-[MELSEC APPLICATION]-[EXCEL COMMUNICATION SUPPORT (OLEX-E)]-[Tag management]-[Tag management process].

POINT
Before starting the Tag management process, you need to create a tag file with the Tag setup utility and specify the tag file with the Environment setup utility.

---

(2) Ending method
To close the Tag management process, force it to end.
Alternatively, choose "Tag management process" on the task bar and press the "Alt" + "F4" keys.

(3) Reloading procedure
The Tag management process must be reloaded to reflect the modified/added tag file for use during execution of the Tag management process.

1) Stop the Tag management process.
Open the "File" screen and click the "Stop..." button.

Click to stop.
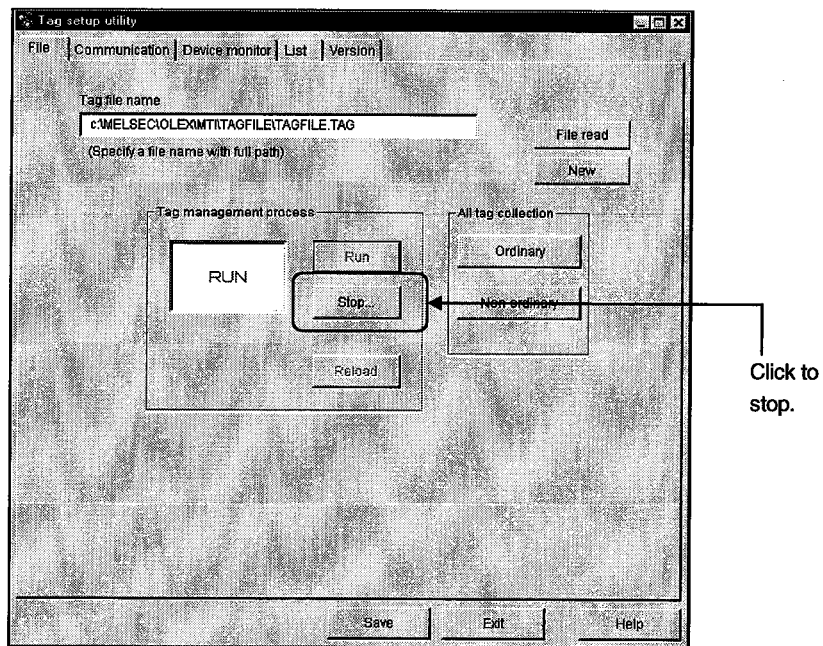
2) Edit the tag file.

3) Update the modified/added tag information.
Open the "Communication" screen, modify/add tags and click the "Tag Update" button.

4) Click the "Save" button to save the information.

5) Reload the Tag management process.
Click the "Reload" button to reload the Tag management process.

Click to reload.
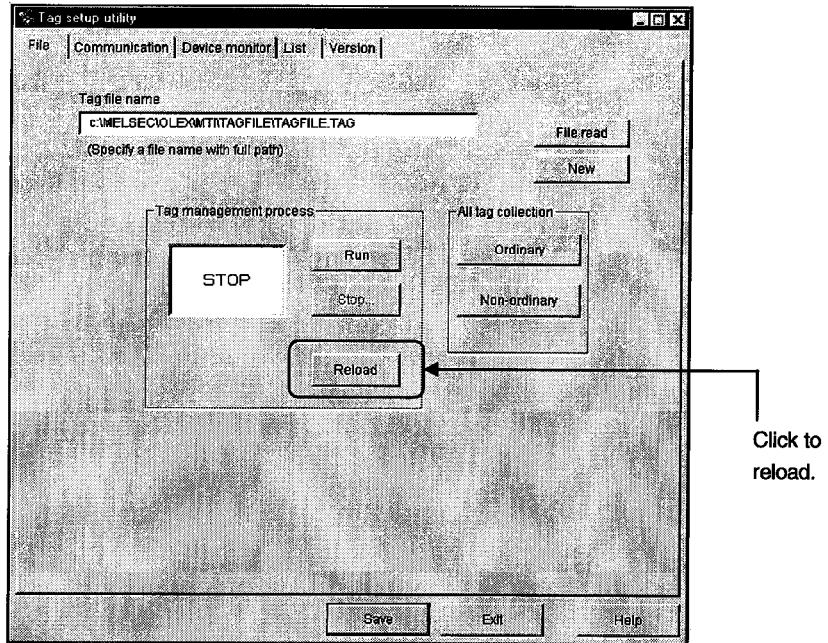
6) Execute the Tag management process.
Click the "Execute" button to run the Tag management process.

Click to execute.
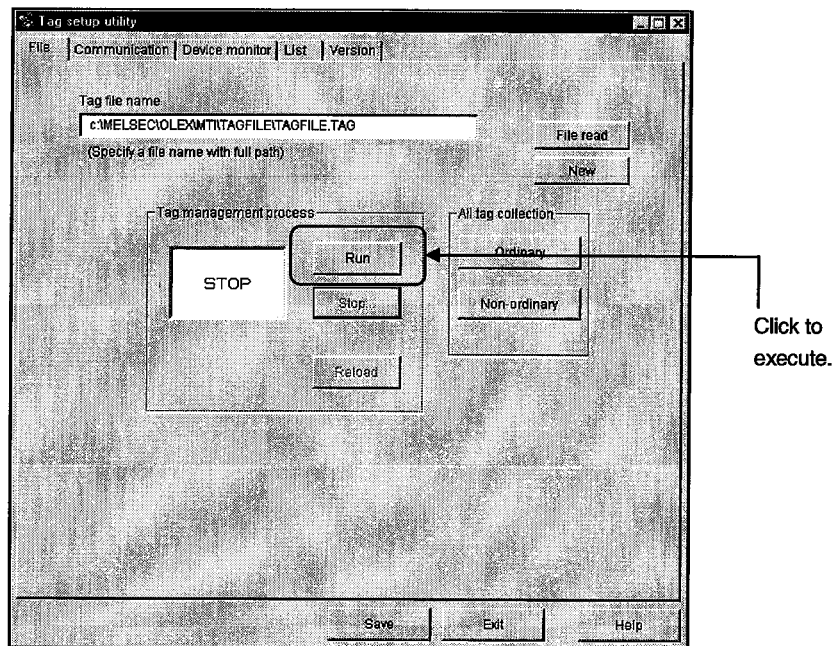
10.2.3 Operations on the File Screen

Set the tag file to be saved, collection timing, and whether the Tag management process is run or stopped.
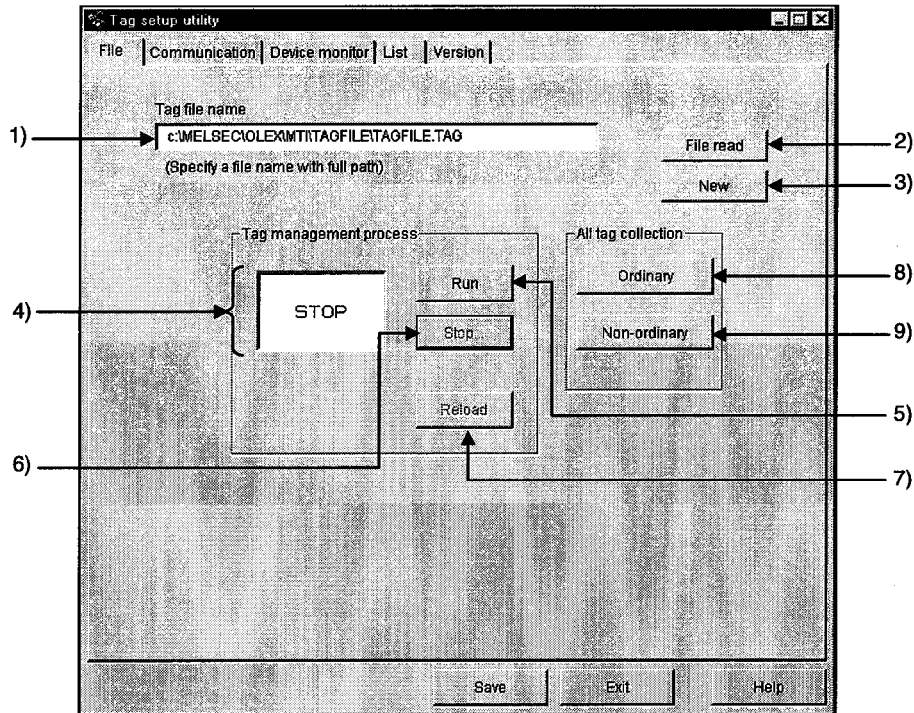
1) Tag file name

Specify the tag file name to be set.

2) "File read" button

Used to find the tag file to be set in 1).

As the file setting dialog box opens, choose the tag file.

3) "New" button

Used to create a new tag file.

As the file setting dialog box opens, set the name of a new tag file to be created.

4) Tag management process operating status

Indicates the current status of the Tag management process.

RUN.................... Indicates that the Tag management process is "running".
STOP .... Indicates that the Tag management process is "at a stop".
NOT RUN........... Indicates that the Tag management process is not started.

5) "Run" button

Used to run the Tag management process.

You cannot use this button to start the Tag management process.

(This button cannot be selected when the Tag management process has not yet been started.)

6) "Stop..." button
   Used to stop the Tag management process.
   You cannot use this button to end the Tag management process.
   (This button cannot be selected when the Tag management process has not yet
   been started.)

7) "Reload" button
   Used to reload the Tag management process.
   Note that this button may be selected only during the stop of the Tag management
   process.

8) "Ordinary" button
   Used to set all collection timings of the set tags to "Ordinary" in batch.

   Ordinary .... Data is always collected independently of whether the
   application using the tags is active or inactive.

9) "Non-ordinary" button
   Used to set all collection timings of the set tags to "Non-ordinary" in batch.

   Non-ordinary .... Data is collected only when the application using the tags
   is active.

POINT
The Tag management process has great influence on the processing speed of the personal computer. When using other application, it is recommended to stop the Tag management process.

10.2.4 Operations on the Communication Screen

Set the network, devices, etc. to the tag.
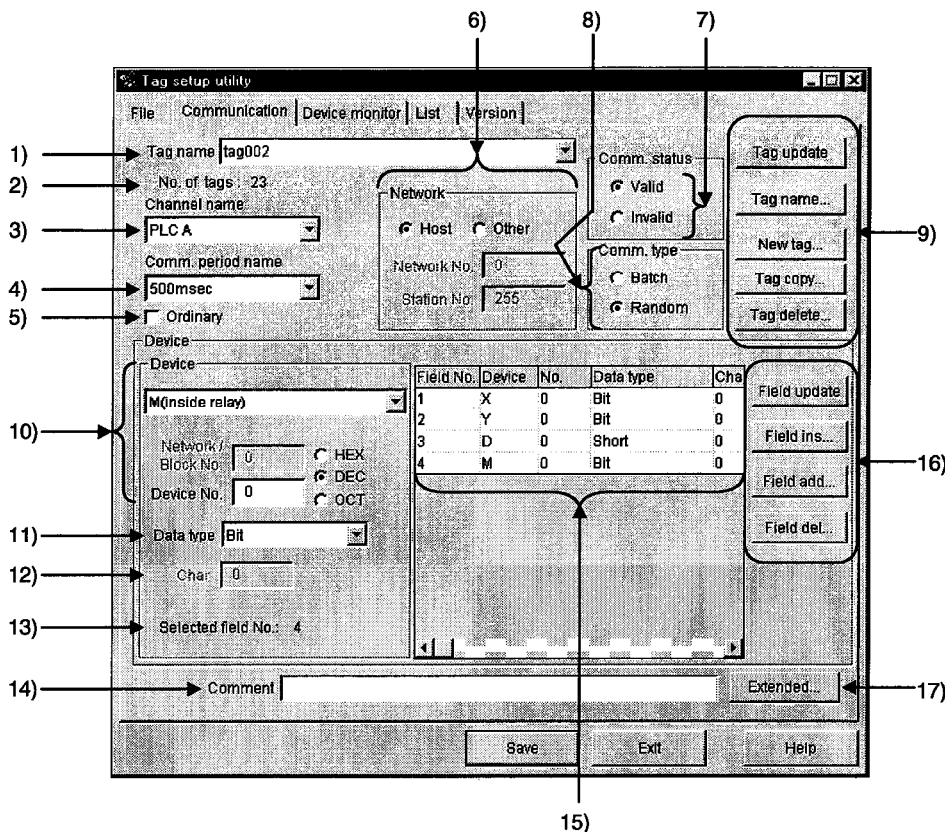
1) Tag Name

Choose the tag name to which the setting will be registered.

2) No. of tags

Shows the number of tags registered currently.

3) Channel name

Choose the channel name set with the Environment setup utility. (Refer to Section 10.1.3.)

4) Comm. period name

Choose the communication interval name set with the Environment setup utility. (Refer to Section 10.1.4.)

5) Ordinary

When this box is checked, data is always collected independently of whether the application using the tags is active or inactive.

When this box is unchecked, data is collected only when the application using the tags is active.

6) Network

Set the communication network.

If other station has been selected, the network number and station number can be set. For details, refer to Section 10.2.5.

7) Comm. status

Set whether the communication of the set tag is valid or invalid.

If you set Invalid, communication is not made.

8) Comm. type

Specify "Batch" or "Random" as the way of access to the PLC.

Batch .... Choose this when accessing the specified points of a single device name.

Random .... Choose this when accessing one point of each of many device names.

9) Tag-related buttons

"Tag Update" ....Used to update the tag data set to the tag file.

To save the data, click the "Save" button.

"Tag name..." ....Used to create the tag name automatically or change it.

The tag name created automatically is set as follows.

(The default tag name is the automatically created tag name.)

```
  *    * *    * *   * * * *
  ↑    ↑      ↑     ↑
  |    |      |  Device number
  |    |   Device name
  |  Station number
Channel ID
```
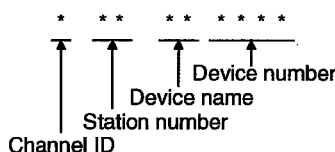
Example: When channel ID 1 is selected and W device No. 0 of the own station is specified

Tag name: 1FFWD0000

"New tag..." ....Used to create a new tag. (Up to 32 characters)

When entering a tag name, you cannot use the following characters.

"\", "/", ":", "*", "?", """, "<", ">", "|"

"Tag copy" ...... Used to copy the tag currently being edited.

"Tag delete" ..... Used to delete the tag currently being edited.

10)Device

Device...................... Choose the type of the device used for communication.

Network/Block No. ... You can enter data when you specify any of the following devices.

Device Name	Description
L* (Except L)	Set the network No. of the specified device.
ER	Set the block No. of the specified device.
EM	
ED	

Device No................. Set the device No. of the specified device type.

HEX, DEC, OCT ...... Specify the hexadecimal, decimal or octal when setting the extension No. or device No.

HEX .... Hexadecimal

DEC .... Decimal

OCT .... Octal

POINT
If you selected Batch in Communication Type and "Bit" in Data Type, specify the device number as a multiple of 8 (0, 8, 16, ...) and the field count as a multiple of 16 (0, 16, 32, ...). For Ethernet communication, however, specify the device number as a multiple of 16 (0, 16, 32, ...).

11)Data type

Determine the data type relative to the set device.

12)Char

Specify the number of characters to reserve the number of device points.

The number of characters is up to 40 characters.

(Valid only when Char is selected in Data Type.)

13)Selected (Field No.)

Selected field No............This number appears when the communication type is Random.

The field No. of the item currently selected in the field preview appears.

Field count.....................This number appears when the communication type is Batch.

Set the field count which reserves the devices in the unit specified in Data Type.

Example: If Device = D, Device No. = 0, Data Type = Long, and field count = 3, devices of 32 bits are reserved as a single field since the data type is Long.

DO (16 bits)	— Field No. 1
D1 (16 bits)	
D2 (16 bits)	— Field No. 2
D3 (16 bits)	
D4 (16 bits)	— Field No. 3
D5 (16 bits)	
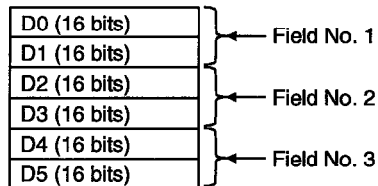
14)Comment

Comment the tag.

15)Field preview

Shows the field data set until now.

Alternatively, clicking selects the field.

(Appears only when "Random communication" is chosen in Communication Type.)

16)Field button (valid only when Random is selected in Communication Type)

"Field update"......Used to register the current setting in the selected field.

"Field ins..."..........Used to insert a new field in a place preceding the currently selected field.

"Field add..."........Used to create a new field in the last field.

"Field del..."........Used to delete the currently selected field.

17)Extended...

Used to show the dialog screen where logging setting and Hand shake are set.

(Refer to Section 10.2.6.)

(Setting example for random communication)

For random communication with W100 (Short), D0 (Long) and ER0 (block No. 1) (Short)

W100 setting
- 1) Choose communication type "Random".
- 2) Choose device type "W" and type device number "100".
- 3) Click the "Field update" button. (Use the data type of default single precision.)

D0 setting
- 4) Click the "Field add" button.
- 5) Choose device type "D" and type "0" in Device No.
- 6) Choose data type "Long".
- 7) Click the "Field update" button.

ER0 setting
- 8) Click the "Field add" button.
- 9) Choose device type "ER" and type "0" in Device No.
- 10) Type block No. "1".
- 11) Click the "Field update" button. (Use the data type of default single precision.)

12) Click the "Tag Update" button.
13) Click the "Save" button.

(Setting example for batch communication)

For batch communication with 10 points starting from W100 (Short)

W100 setting
- 1) Choose communication type "Batch".
- 2) Choose device type "W" and type device number "100".
- 3) Type "10" in Field.
- 4) Click the "Tag Update" button.

5) Click the "Save" button.

10.2.5 About the Network Setting

The settings of "Network" on the "Communication" screen change with the communication path used as indicated below.

```
┌─Network──────────────────┐
│                          │
│   ⌀ Host    ⦿ Other      │
│                          │
│  Network No. │ 1          │
│                          │
│  Station No. │ 1          │
│                          │
└──────────────────────────┘
```

(1) Host setting
    When you choose Host in the network setting, the settings are as follows.

Communication	Description
Computer link	Not used.
Ethernet	Not used.
RS-422	Access is made to the PLC CPU directly connected.
MELSECNET/10	Access is made to the own personal computer.
CC-Link	
CC-Link G4	Not used.
Shared device	Access is made to the EM and ED devices of the own personal computer.
LLT	Access is made to LLT on the own personal computer.

(2) Other setting
When you select Other in "Network Setting", the settings are as follows.

Communication		Description	
		Network number	Station number
Computer link		Not used.	Set the logical station number specified on the utility.
Ethernet			
CC-Link G4			
CPU RS-422	Via MELSECNET/10	Set the network number.	Set the station number.
MELSECNET/10		Set the network number.	Set the station number.
CC-Link		Not used.	Set the station number.
Shared device	Via MELSECNET/10	Set the network number	Set the station number.
LLT		Not used.	Not used.

POINTS

(1) The shared devices (EM, ED) may be set only on Windows NT4.0 using the shared device utility.
They cannot be set on Windows 95 or Windows 98.
However, the shared devices (EM, ED) on Windows NT4.0 can be accessed from Windows 95 or Windows 98.
(2) To access the shared devices (EM, ED) of the other personal computer (other station), specify the channel of MELSECNET/10 which is used as a communication path.

Personal computer (Host)

User application

EM,ED	MELSECNET/10

Channel No. 9   Channel No. 51 to 54

Personal computer (Other)

User application

EM,ED	MELSECNET/10

Channel No. 9   Channel No. 51 to 54
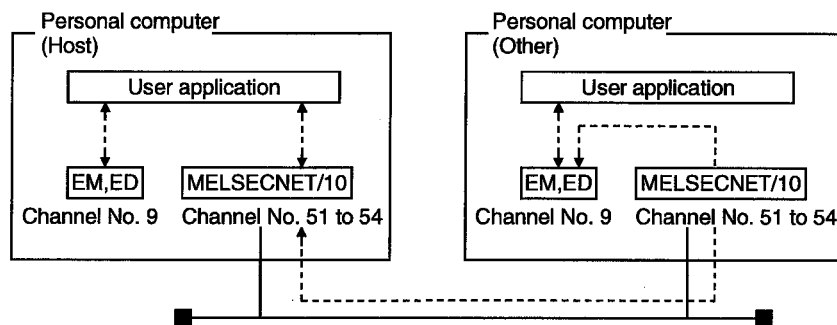
10.2.6 Operations on the Extended Screen

Set the Condition, Logging and Hand shake.

(1) Explanation of buttons
The buttons function as follows.

"OK".........Used to make the setting valid and return to the Communication Setting screen.
"Cancel"...Used to make the setting invalid and return to the Communication Setting screen.
"Help"......Used to display Help.

(2) Condition
Set the condition of signaling data collection.
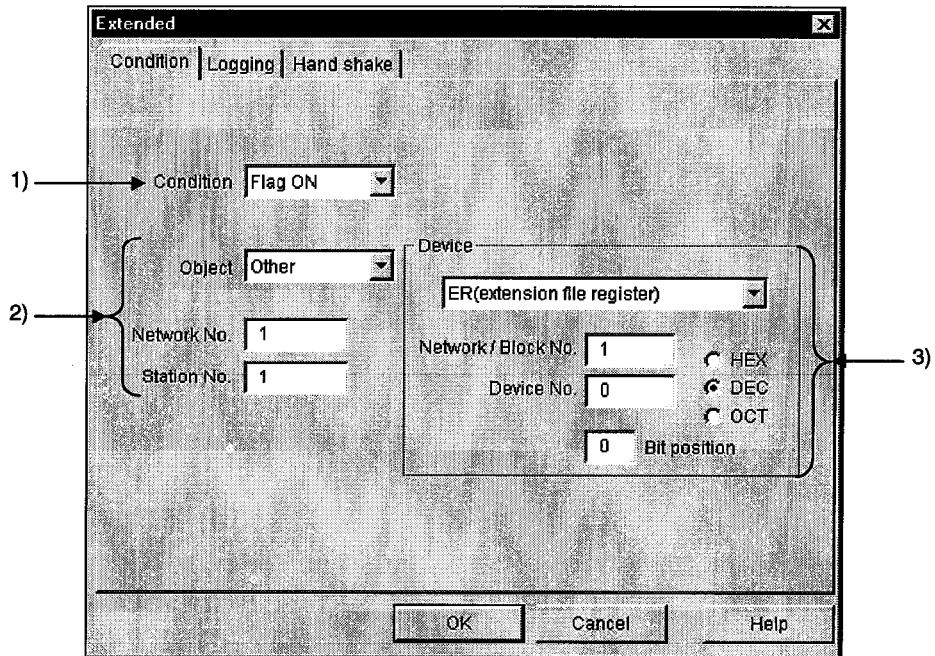
1) Condition
Set the condition of collecting data.

No Setting..........The collection condition on this screen is not reflected.
Flag ON ....Data can be collected only when the specified bit device is ON.
Flag OFF............Data can be collected only when the specified bit device is OFF.

2) Network setting
Set the network No. and station No. of the device used as the collection condition.

Object .... Choose any of the following items in the combo box.
Host .... The device of the own station is set as the collection condition.
Other .... The device of the other station is set as the collection condition.
Also, you can enter the network No..
According to Tag .... The device of the station number whose setting was Updated on the communication setting screen is set as The collection condition. (Refer to Section 10.2.4.)
Network No. .... Specify the network No.
(Valid only when Other Station is selected in Station Setting.)
Station No. .... Set the station number.
(Valid only when Other Station is selected in Station Setting.)

POINTS

(1) Note that if you have specified "According to Tag" in Station Setting and then changed the station number in "Communication", that change is not reflected on the station setting of "Extended".
(2) When setting "Other" in Station Setting (making transient communication), it is assumed that the communication speed will be affected greatly. Therefore, when specifying the station, we recommend you to specify "Host".

---

3) Device
Device type............... Choose the type of the device used for communication.
Network/Block No. .. You can enter data when you specify any of the following devices.

Device Name	Description
L*	Set the network No. of the specified device.
ER	
EM	Set the block No. of the specified device.
ED	

Device No. .... Set the device No. of the specified device type.
HEX, DEC, OCT ...... Specify the hexadecimal, decimal or octal when setting the extension No. or device No.
HEX .... Hexadecimal
DEC .... Decimal
OCT .... Octal
Bit Position .... Set the bit used as the collection condition when you specified the word device.

(3) Logging
Set whether logging is specified or not.
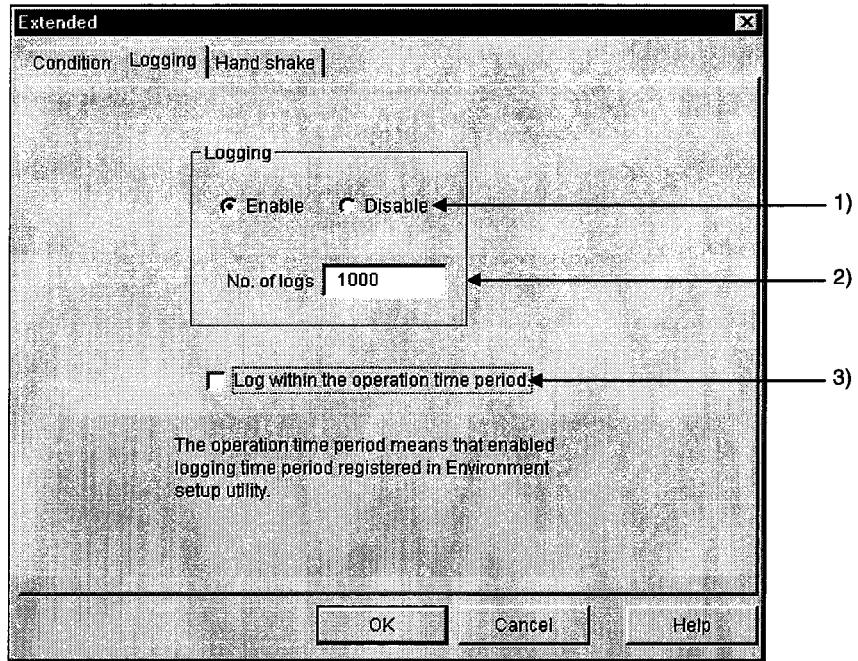
1) Logging
Set whether logging is made or not.

Enable............As soon as the Tag management process has started, data
                    collection starts and log data is saved.
Disable..........Logging is not made.

2) No. of logs
Set the number of log data to be collected. (1 to 10000)

3) Logging within the operation time period
Data is collected according to the operation time set on the Environment setup
utility.

(Refer to Section 10.1.5.)

POINT
Set the communication interval to 1 seconds or longer in the tag to which log setting is made.

(4) Hand shake

Set the Hand shake data.
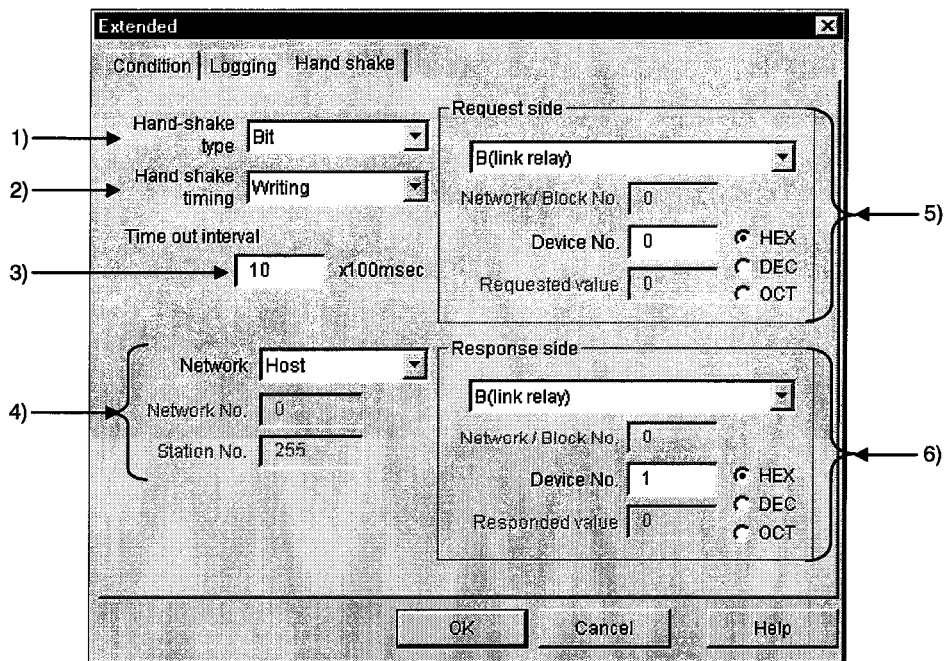
1) Hand-shake type

Choose the way of handshaking.

Bit..............................Hand shake is made in accordance with ON and OFF of
bit devices.

● Operation sequence

Request bit ON → Data transfer → Response bit ON → Request bit OFF →
Response bit OFF → Completion

Word ....Hand shake is performed according to the values stored
into word devices.

● Operation sequence

Request value stored into request word device → Data transfer → Response
value stored into response word device → 0 stored into request word device
→ 0 stored into response word device → Completion

Unconditional ..... Data transfer is made without Hand shake.

2) Hand shake timing

Set the timing of handshaking.

3) Time out interval

Set the time-out period. (1 to 36000)
Time-out is a period from "request device set" to "request device reset" for
write, and a period from "response device set" to "response device reset" for
read.

4) Network

Set the network No. and station No. of the devices used for Hand shake.

Choose any of the items in the Network Setting combo box.

Host .... The devices of the own station are set to Hand shake.

Other .... The devices of the other station are set to Hand shake. Also, you can enter the network No.

According to tag .... The devices of the station number set on the Communication setting screen are set to Hand shake. (Refer to Section 10.2.4.)

Network No. .... Specify the network No. (Valid only when Other Station is selected in Station Setting.)

Station. No. .... Set the station number. (Valid only when Other Station is selected in Station Setting.)

5) Request side

Specify the device used as a request side flag.

Set the device type, network/block No., device number, and HEX, DEC or OCT as in this section, (2), 3).

Request value .... Set the value written to the word device as a request value. (Valid only when the word device is selected in Hand-shake type.)

6) Response side

Specify the device used as a response side flag.

Set the device type, network/block No., device number, and HEX, DEC or OCT as in this section, (2), 3).

Response value....... Set the value written to the word device as a response value. (Valid only when the word device is selected in Hand-shake type.)

POINTS

(1) Note that if you have specified "According to tag" in Network Setting and then changed the station number in "Communication", that change is not reflected on the station setting of "Extended".

(2) When setting "Other" in Network Setting (making transient communication), it is assumed that the communication speed will be affected greatly. Therefore, when specifying the station, we recommend you to specify "Host".

(3) When the tag specified for handshake is specified to Logging for reading, the data collection of the other tag communicating at the same time will be affected extremely. (It will take longer time.)

(4) Set the Hand shake time out interval so that the communication interval value is greater than the Hand shake time out value.

(a) Hand shake timing

Hand shake is made as shown in the following timing charts.

1) When data is written to Tag management process device memory
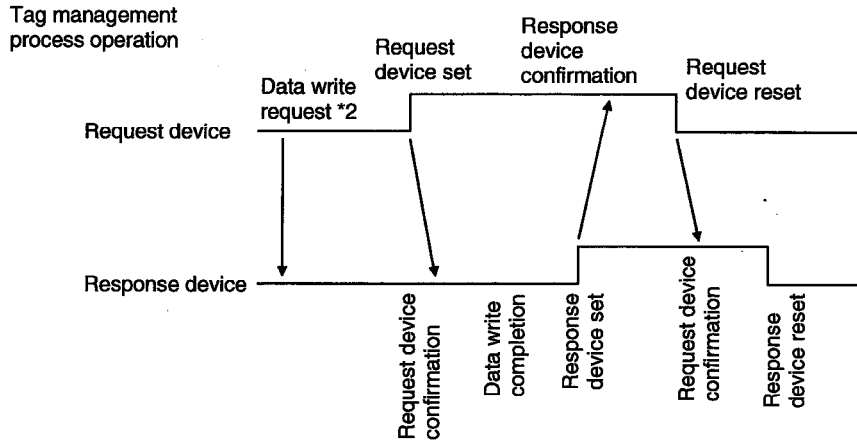
Tag management
process operation

Data write request *2 — Request device set — Response device confirmation — Request device reset

Request device

Response device

(labels: Request device confirmation, Data write completion, Response device set, Request device confirmation, Response device reset)

PLC operation *1

*1 For PLC operation, a program must be written using the sequence ladder or MELSEC data link library.
*2 Request of OLEX to write data to device memory.
  Since the Tag management process makes this request actually, the Tag management process is on the request side.

2) When data is read from Tag management process device memory

When time-out occurs, read data is discarded.
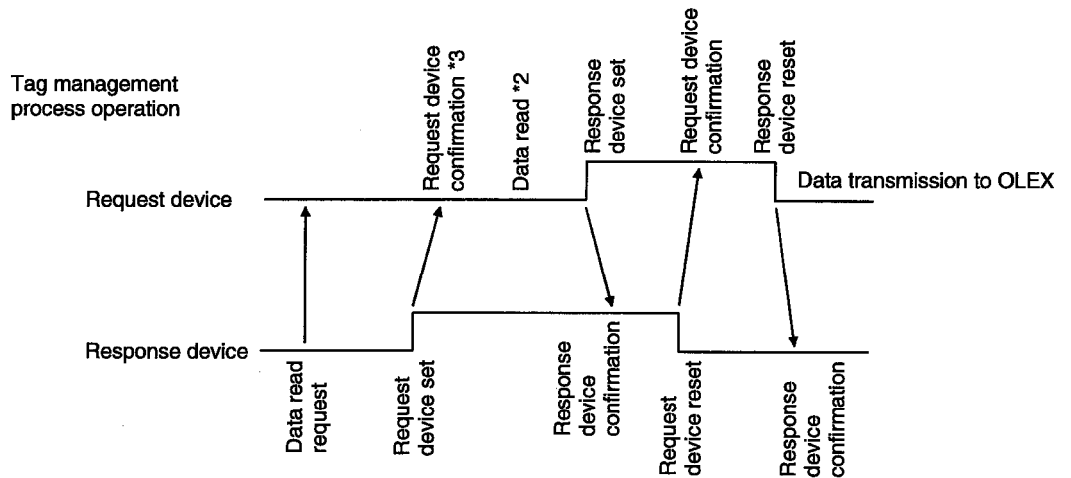
Tag management
process operation

(labels: Request device confirmation *3, Data read *2, Response device set, Request device confirmation, Response device reset)

Request device

Data transmission to OLEX

Response device

(labels: Data read request, Request device set, Response device confirmation, Request device reset, Response device confirmation)

PLC operation *1

*1 For PLC operation, a program must be written using the sequence ladder or MELSEC data link library.
*2 The Tag management process reads the device memory data.
  It is not read unless the request device is set on OLEX.
  After reading data, the Tag management process sets the response device.
*3 An error (-30) occurs if the request device has not been set for request device confirmation.

10.2.7 Operations on the Device Monitor Screen

Monitor devices based on the data of the tag file currently under control of the Tag management process.
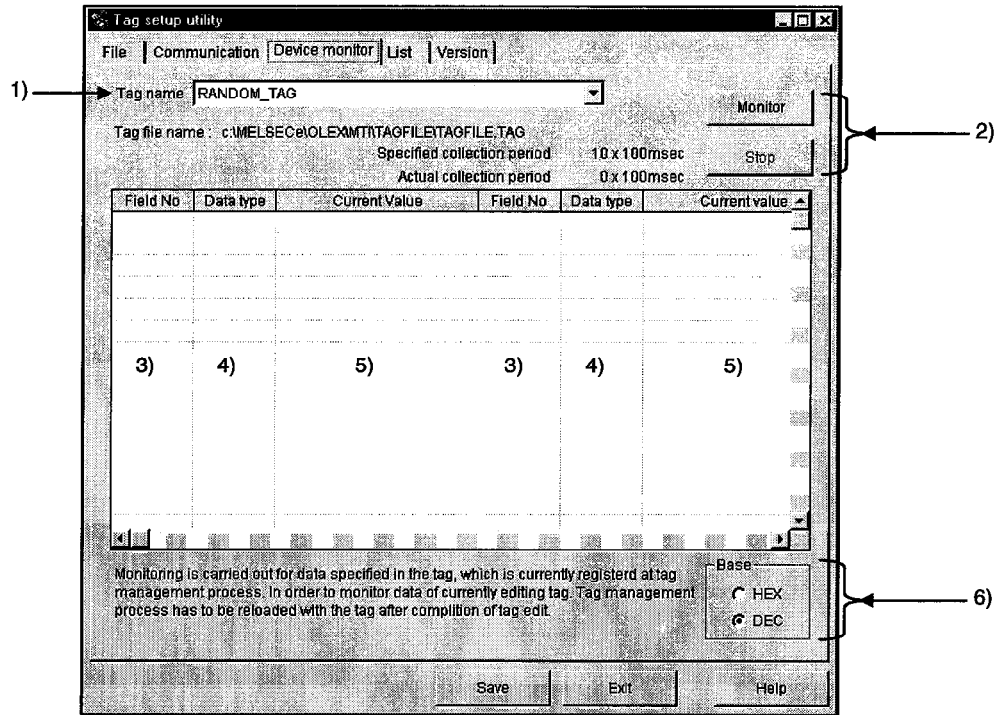
1) Tag name
Devices are monitored based on the data of the tag specified here.

2) Monitor and Stop buttons
"Monitor": Used to start monitor. "Stop": Used to stop monitor.

3) Field No.
Shows the field numbers being monitored.

4) Data type
Shows the data types of the devices set to the fields.

5) Current value
Shows the current device values. (When bit device is ON: "*")

6) Base
Set the format of the data to be displayed.

HEX ... Hexadecimal display
DEC ... Decimal display

POINTS
(1) Monitor stops when you change the screen (to the file setting, communication setting or other screen) by tab operation.
(2) When monitoring the tag being edited, save the edited tag and restart the Tag management process.

10.2.8 Operations on the List Screen

List the data set to the tag file.
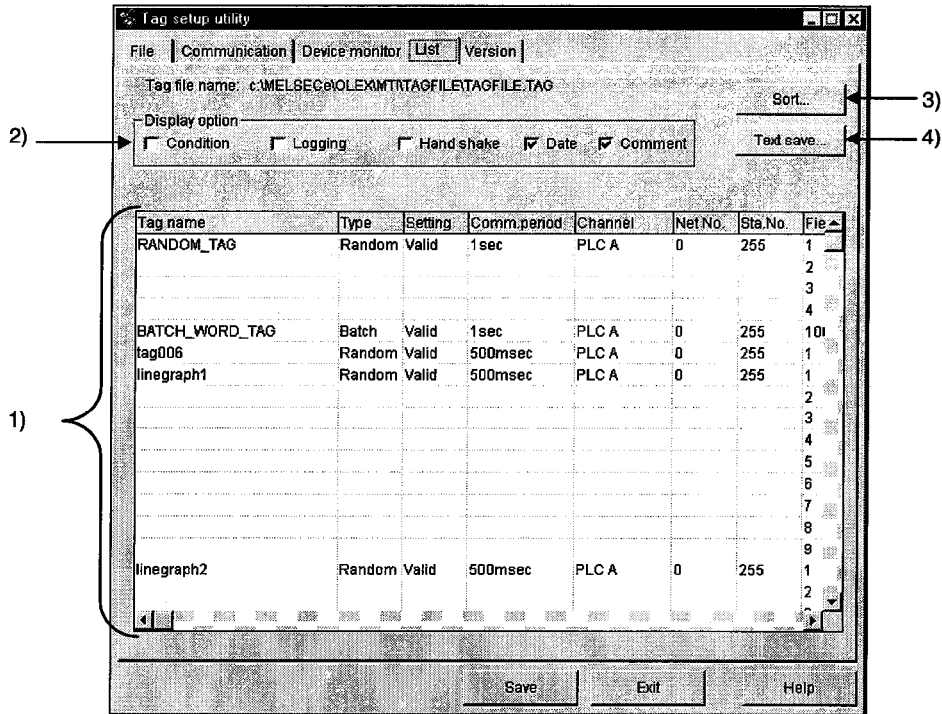
1) Setting display

   Tags registered to the tag file are listed.

2) Display option

   Check and display the items you want to display in addition to the data currently being shown.

3) "Sort..." button

   As the following dialog box opens, set the sort conditions (Two or more conditions may be set.)

   Note that priority is from top to bottom.

   Items not checked return to the initial states.

Priority is from top to bottom.

Used to execute sorting (rearrangement) and return to the setting list screen.

Used to return to the setting list screen without executing sorting (rearrangement).
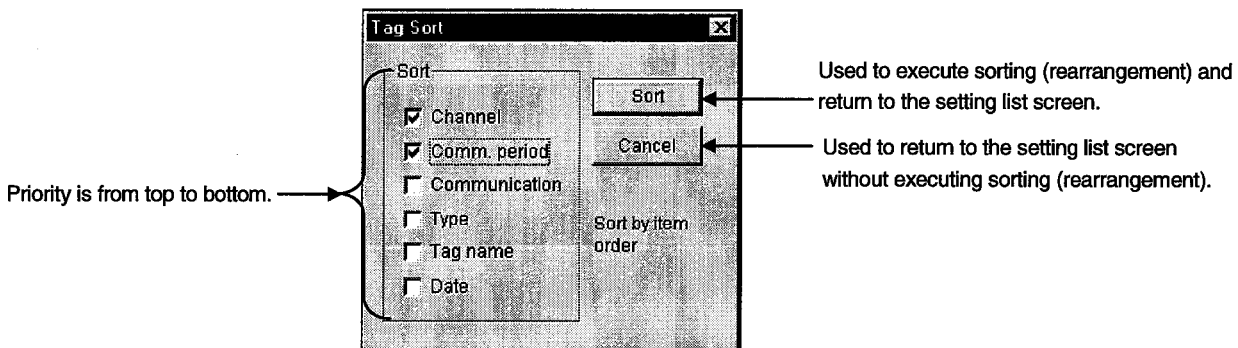
| POINTS |

(1) Sorting of character strings, such as comments, are made in ASCII code order. (Not in alphabetical order.)

(2) Data in the sorted status cannot be saved in the tag file.

4) "Text save" button
Used to save the currently displayed data in the specified text file.

POINT
Data is saved as a text in the sorted status.

10.3 Comment Setup Utility

This section describes the operation and setting procedures of the Comment setup utility.

10.3.1 Operation Procedure

The following flowchart provides the operation procedure of the Comment setup utility.

```
                    ┌─────────────────┐
                    │      START      │
                    └─────────────────┘
                             │
        ┌────────────────────────────────────────────┐
        │ Set the comment file name on the File screen. │  ····· Refer to Section 10.3.2.
        └────────────────────────────────────────────┘
                             │
        ┌────────────────────────────────────────────┐
        │   Set comments on the Comment screen.        │  ····· Refer to Section 10.3.3.
        └────────────────────────────────────────────┘
                             │
  No              ◇─────────────────────────────◇
 ◄────────────────  Do you confirm the set comments as a list?
                    ◇─────────────────────────────◇
                             │ Yes
        ┌────────────────────────────────────────────┐
        │ Make setting on the Comment List screen.     │  ····· Refer to Section 10.3.4.
        └────────────────────────────────────────────┘
                             │
                    ┌─────────────────┐
                    │      END        │
                    └─────────────────┘
```
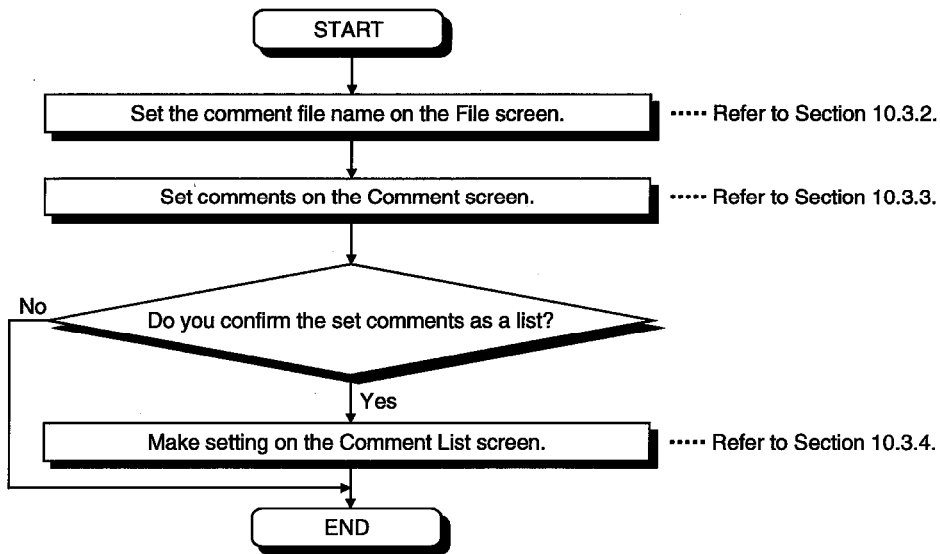
10.3.2 Operations on the File Screen

Set the file where comments will be saved.
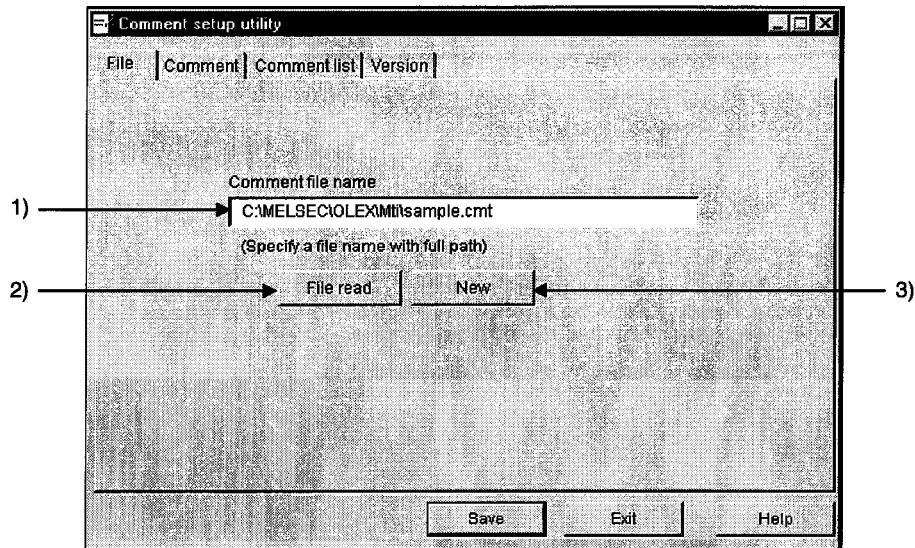
1) Comment file name
   Specify the comment file name to be set.

2) "File read" button
   Used to find the comment file to be set in 1).
   As the file setting dialog box opens, set the comment file.

3) "New" button
   Used to create a new comment file.
   As the file setting dialog box opens, set a new comment file.

10.3.3 Operations on the Comment Screen

Set the definition, display range and character color of a comment.
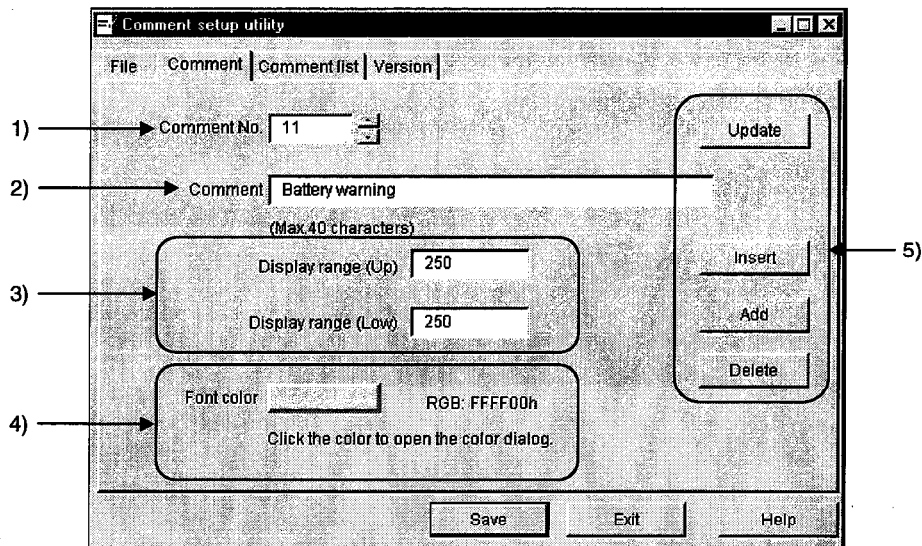
1) Comment No.

Set the comment number where the comment definition, display range, character color and so on are saved. (Up to No. 1000)

2) Comment

Describe the comment definition relative to the comment number. (Up to 40 characters)

3) Comment range

Set the upper and lower limits of the device value for displaying the comment.
The comment is displayed when the device value is within the setting range.
When specifying one point, set the same value to the upper and lower limits.

4) Font color

Since this setting does not concern the character color, you need not set the color.

5) Buttons

"Update" ... Used to update the definition of the comment currently being selected.
"Insert" ...... Used to add a new comment in a place preceding the comment currently being selected.
"Add" .... Used to add a new comment in a place next to the last comment number.
"Delete" ..... Used to delete the comment currently being selected.

10.3.4 Operations on the Comment List Screen

Show the set comments as a list.
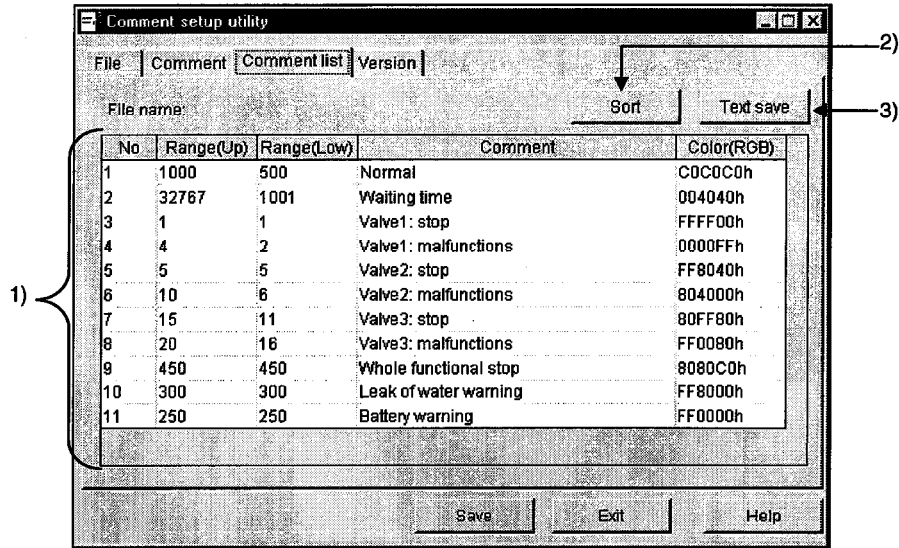
1) Setting display screen

Shows the comments registered to the comment file as a list.

2) "Sort" button

As the following dialog box opens, set the sort conditions
(Two or more conditions may be set.)
Note that priority is from top to bottom.
Items not checked return to the initial states.

Priority is from top to bottom.

Used to execute sorting
(rearrangement) and return to
the comment list screen.

Used to return to the comment
list screen without executing
sorting (rearrangement).
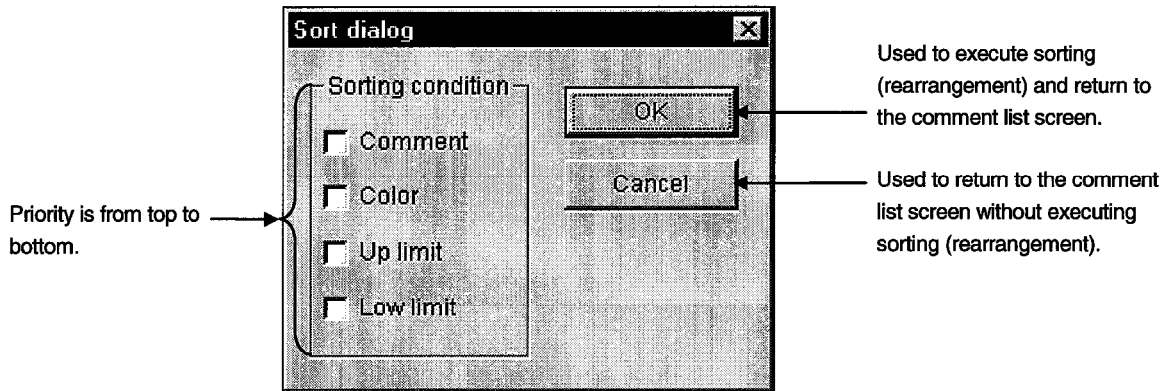
POINTS
(1) Sorting of character strings, such as comments, are made in character code order. (Not in alphabetical order.)
(2) Data in the sorted status cannot be saved in the comment file.

3) "Text save" button

Used to save the currently displayed data in the specified text file.
When sorting has been executed, data is saved as a text in the sorted status.

10.3.5 Comment File Format

The comment file is saved in a text file in the following format.

(Example) *. CMT

```
CMT 00A
1, 1, 2, Waiting time, 0[Enter]
2, -32000, -30000, Battery warning, FFFFFF[Enter]
3, 100000, 200000, Line 1: stop, FF00[Enter]
4, 201, 201, Line 1: start, FF0000[Enter]
```

    1)   2)   3)   4)   5)   [Enter] ... Line feed
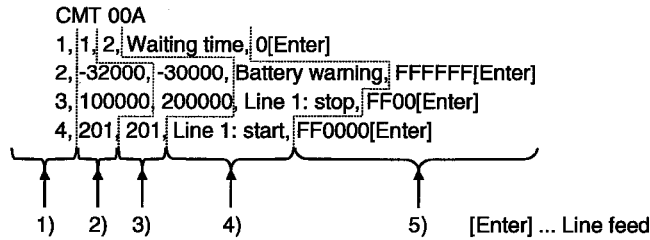
1) Comment number
2) Lower limit
3) Upper limit
4) Comment character string
5) Color code (RGB code)

POINTS
(1) Settings should be separated by a comma (,).
(2) The line starting with "//" is handled as a comment.

10.4 Alarm Summary Setup Utility

This section describes the operation and setting procedures of the Alarm summary setup utility.

10.4.1 Operation Procedure

The following flowchart provides the operation procedure of the Alarm summary setup utility.

```
          ┌──────────────┐
          │    START     │
          └──────┬───────┘
                 │
  ┌──────────────┴──────────────────────────┐
  │ Set the alarm summary file name on the   │ ····· Refer to Section 10.4.2.
  │ File screen.                              │
  └──────────────┬──────────────────────────┘
                 │
  ┌──────────────┴──────────────────────────┐
  │ Set alarms on the Alarm screen.          │ ····· Refer to Section 10.4.3.
  └──────────────┬──────────────────────────┘
                 │
      No   ◇─────┴─────────────────────────◇
    ◄──────  Do you confirm the set alarms as a list?
             ◇───────────┬─────────────────◇
                         │ Yes
  ┌──────────────────────┴──────────────────┐
  │ Make setting on the Alarm list screen.   │ ····· Refer to Section 10.4.4.
  └──────────────────────┬──────────────────┘
                         │
          ┌──────────────┴───────┐
          │     END      │
          └──────────────────────┘
```
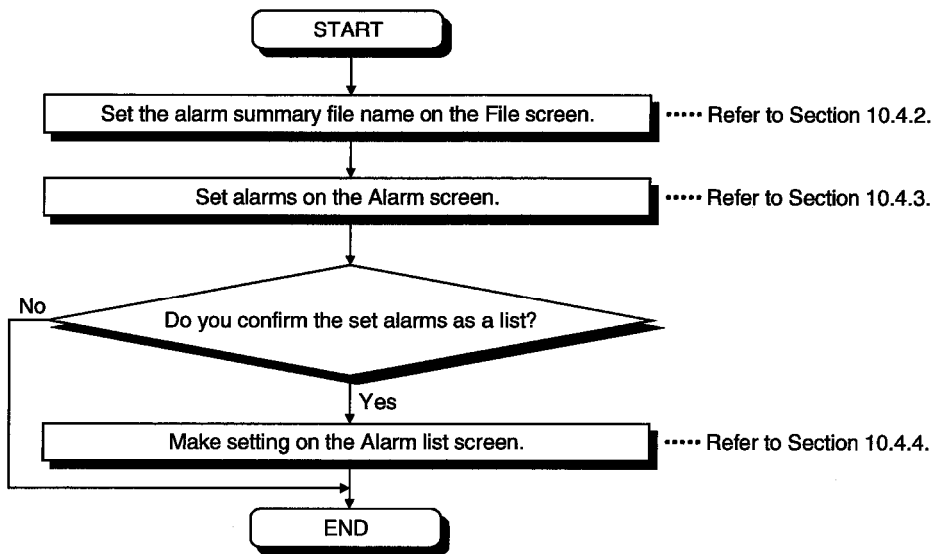
10.4.2 Operations on the File Screen

Set the file where alarm summary information will be saved.
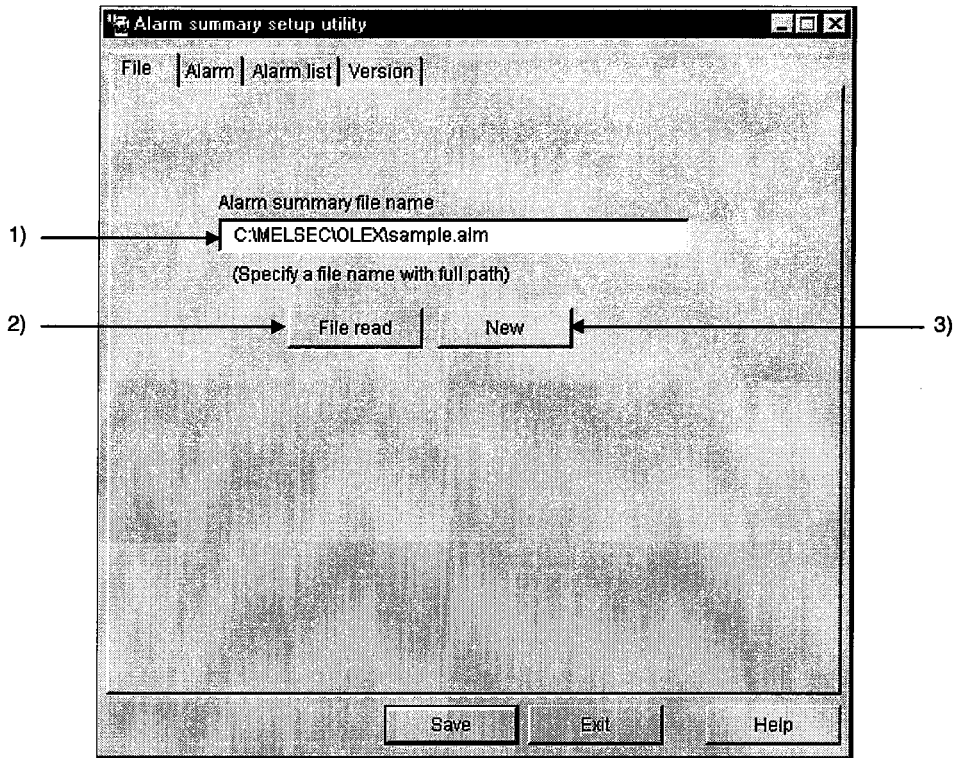
1) Alarm summary file name
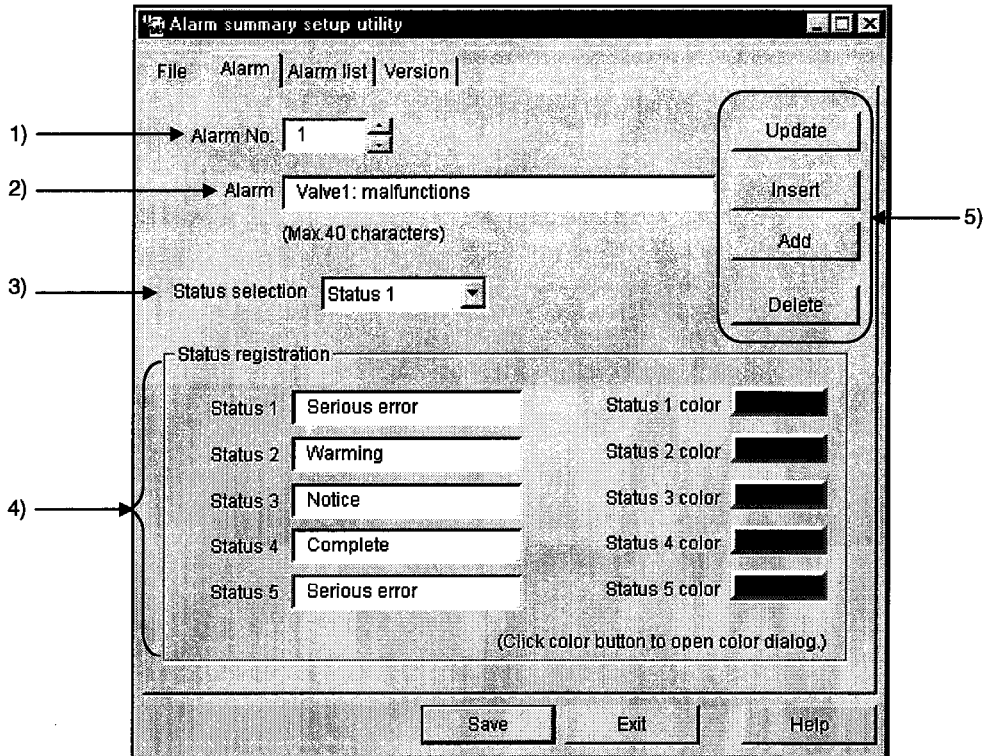   Specify the file name where the data set with this utility will be saved.

2) "File read" button
   Used to find the alarm summary file to be set in 1).
   As the file setting dialog box opens, set the alarm summary file.

3) "New" button
   Used to create a new alarm summary file.
   As the file setting dialog box opens, set a new alarm summary file name.

10.4.3 Operations on the Alarm Screen

Set the definition, classification character strings and character colors of an alarm.

1) Alarm No.
Set the file name where the data set with this utility will be saved. (Up to No. 300)

2) Alarm
Describe the definition of the alarm message relative to the alarm number. (Up to 40 characters)

3) Status selection
Select the status which will be displayed simultaneously with the alarm definition.
Set the data to be selected in Set Status.

4) Status registration
Set the character strings and colors of the classifications to be displayed.
Status ....Set the character string of the classification to be displayed. (Up to 16 characters)
Status (1 to 5) Color ......You need not set this item.

5) Buttons
"Update" ... Used to update the data currently being selected.
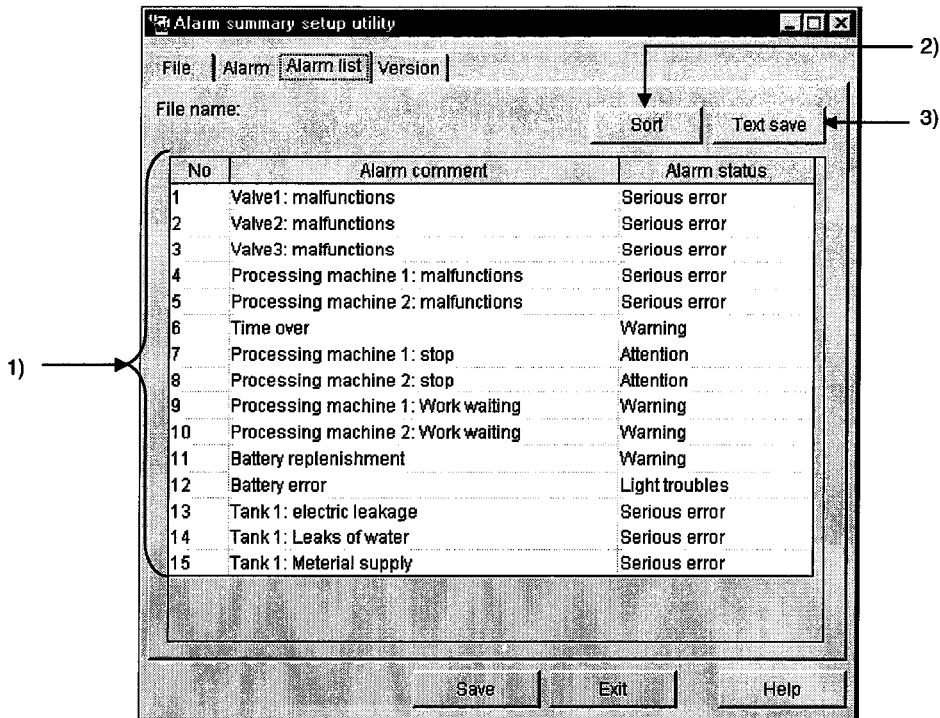"Insert" ...... Used to insert a new alarm in a place preceding the alarm currently being selected.
"Add" .... Used to add a new alarm in a place next to the last alarm number.
"Delete" ..... Used to delete the alarm summary currently being set.

10.4.4 Operations on the Alarm List Screen

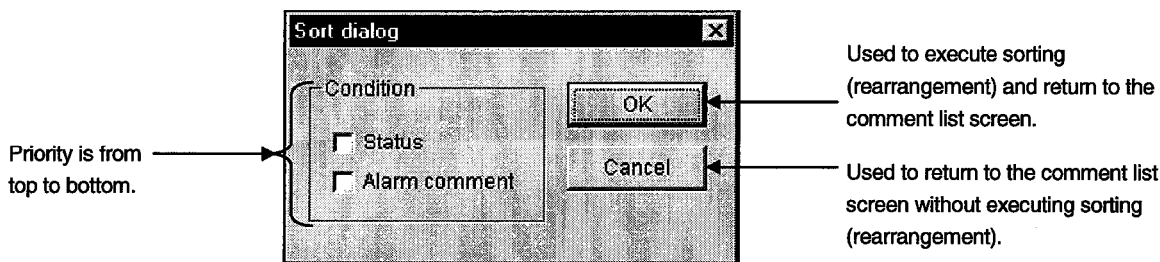Show the set alarms as a list.

1) Setting display screen

Shows the set alarm comments and alarm states as a list.

2) "Sort" button

As the following dialog box opens, set the sort conditions (Two or more conditions may be set.)
Note that priority is from top to bottom.
Items not checked return to the initial states.

Priority is from top to bottom.

Used to execute sorting (rearrangement) and return to the comment list screen.

Used to return to the comment list screen without executing sorting (rearrangement).

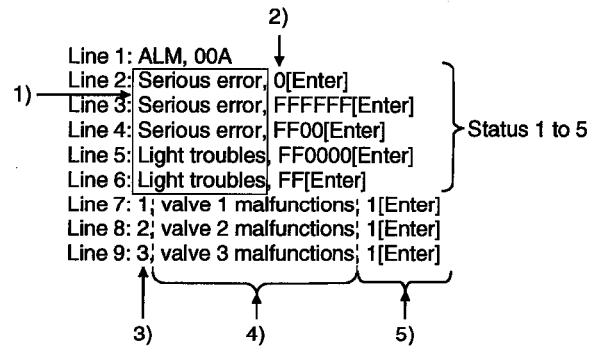| POINTS |
| --- |
| (1) Sorting of character strings, such as comments, are made in ASCII code order. (Not in alphabetical order.) |
| (2) Data in the sorted status cannot be saved in the alarm summary file. |

3) "Text save" button

Used to save the currently displayed data in the specified text file.

10.4.5 Alarm Summary File Format

The alarm summary file is saved in a text file in the following format.

(Example)

```
                                 2)
         Line 1: ALM, 00A        ↓
  1)─────Line 2: Serious error, 0[Enter]
         Line 3: Serious error, FFFFFF[Enter]
         Line 4: Serious error, FF00[Enter]        ─Status 1 to 5
         Line 5: Light troubles, FF0000[Enter]
         Line 6: Light troubles, FF[Enter]
         Line 7: 1; valve 1 malfunctions; 1[Enter]
         Line 8: 2; valve 2 malfunctions; 1[Enter]
         Line 9: 3; valve 3 malfunctions; 1[Enter]

                   ↑        ↑              ↑
                   3)       4)             5)
```

1) Status
2) Color code for status (RGB code)
3) Alarm number
4) Alarm comment character string
5) Status number

POINT
Settings should be separated by a comma (,).