17 | Displaying and Changing Text

This chapter describes how to display and change text in GP-Pro EX.
Please start by reading "17.1 Settings Menu" (page 17-2), and then turn to the corresponding page.

17.1 Settings Menu

Changing and Displaying Messages (Text)

Change text based on values entered in the PLC

)Setup Procedure (page 17-5)
)Introduction (page 17-4)

Changing the Displayed Text

Divides registered text into several sections and displays each section on a different screen.

Text Registration Screen

001	1. Release the three
002	tabs nearest you &
003	remove the cartridge's
004	top cover.
005	2. Open the left
006	side of the
007	cartridge and
008	remove part A.
009	3. Set the
010	opening part of
011	part A facing
012	downward.
013	
014	

Register the text.

Scroll through the screens and the text displays.

1. Release the three tabs nearest you & remove the cartridge's top cover.
Beep

2. Open the left side of the cartridge and remove part A.
Beep

3. Set the opening part of part A facing downward.

)Setup Procedure (page 17-9)
)Introduction (page 17-8)

Changing a Text's Language (Multilanguage)

D00300: 2

Change the value of the language change control address...

RUN STOP ▶ 運転 停止

. . . and the language of the Switch label or text changes.

)Setup Procedure (page 17-16)
)Introduction (page 17-15)

Changing a Text's Language (Multilanguage)

Touch the switch...

3. Set the opening part of part A facing downward.

Japanese
English
French

Beep

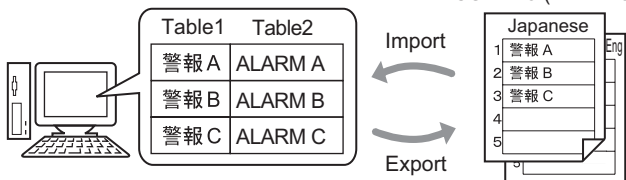...to change the text to another language.

③交換した部品 A の紙箱の開封口が下になるようにセットします。

Japanese
English
French

☞ Setup Procedure (page 17-25)
☞ Introduction (page 17-24)

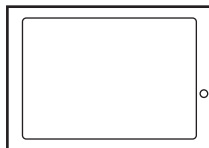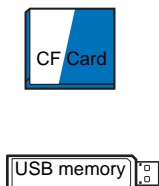## Importing/Exporting Registered Text Tables for Use in Different Projects

Text Table Registration Screen

Table1   Table2

警報 A	ALARM A
警報 B	ALARM B
警報 C	ALARM C

Import
Export

CSV File (TXT File)

Japanese

1	警報 A	Eng
2	警報 B	
3	警報 C	
4		
5		

☞ Setup Procedure (page 17-32)
☞ Introduction (page 17-31)

Changing Text Table without Data Transmission

CF Card

USB memory

Text Table data saved in the external memory is read.

☞ Setup Procedure (page 17-39)
☞ Introduction (page 17-38)

Displaying Bulletin Message on Multiple GP Screens

Distribution of Bulletin Message
We will have a general meeting. Please gather at the main meeting room immediately.

We will have a general meeting. Please gather at the main meeting room immediately.

We will have a general meeting. Please gather at the main meeting room immediately.

We will have a general meeting. Please gather at the main meeting room immediately.
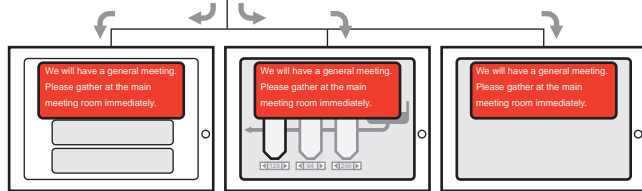
☞ Setup Procedure (page 17-45)
☞ Introduction (page 17-44)

17.2   Changing and Displaying Messages (Text)

17.2.1   Introduction

Change text based on values
entered in the PLC

You can change messages according to the bit address ON/OFF state or based on changes in the word address value (0 to 15).
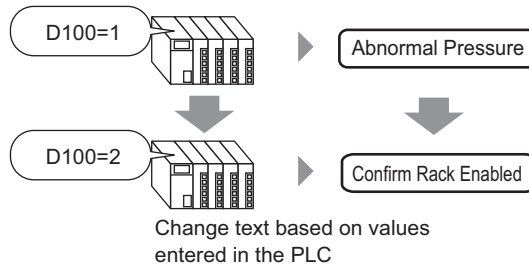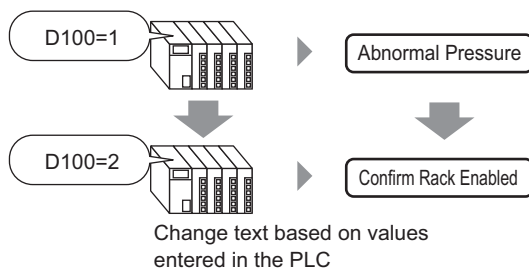
17.2.2 Setup Procedure

NOTE

- Please refer to the Settings Guide for details.
)"17.9.1 Message Display Settings Guide ■ Direct Input" (page 17-48)
- For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
)"8.6.1 Editing Parts" (page 8-44)

Change text based on values entered in the PLC

1 From the [Parts (P)] menu, select [Message Display (M)] or click . Place the Part on the screen.

2 Double-click the new Message Display. The following dialog box appears.
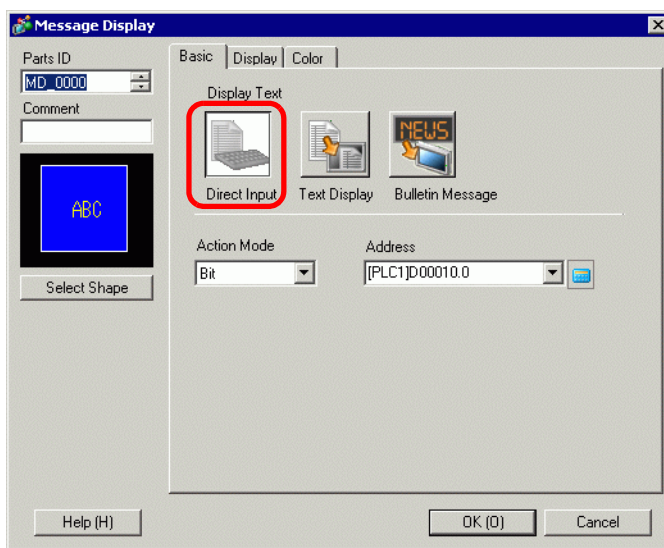
3 Select the Data Display shape from [Select Shape].

4 In the [Mode] drop-down list, select the method for changing messages. (For example, Word)

5 In [Address], set the address (D100) to trigger the message display.

Click the icon to display
an address input keypad.

Select device "D", input
"100" as the address, and
press the Enter key.
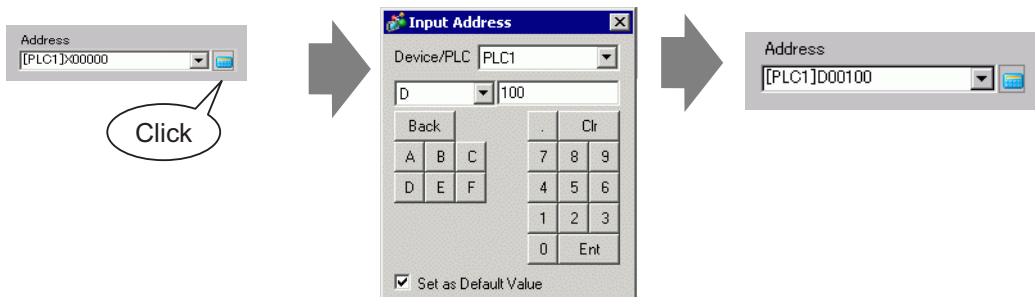
6 Click the [Display] tab. In the [Text Type] section, select [Direct Text].
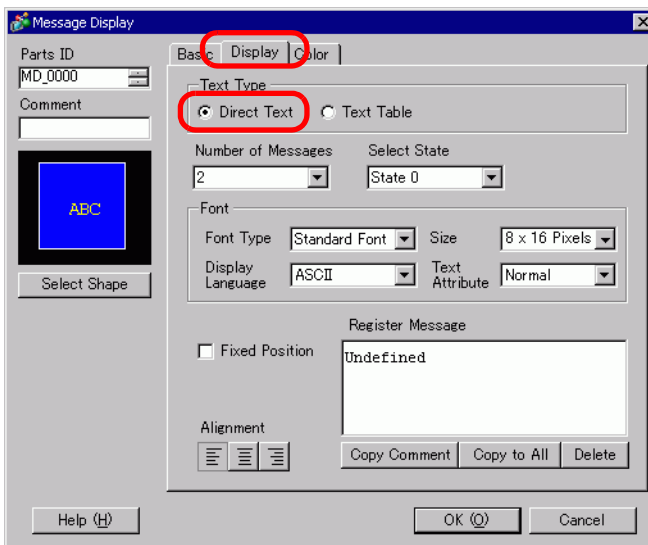
7 In the [Number of Messages] drop-down list, set the number of messages to display. (For example, 4)

8 Set the message Font Type, Size, and Display Language.

9 In the [Align] section, set the text position. (For example, Center)

10 Set the message for each state

In the [Select State] drop-down list, select [State 0] and type the message in the [Register Message] box. (If this box is left blank, the message displays nothing.)

Select State	Register Message
State 0 ▾	

11 In the [Select State] drop-down list, select [State 1] and type "Abnormal Pressure" in the [Register Message] box. (When State 1 is stored in [Address], "Abnormal Pressure" displays.)
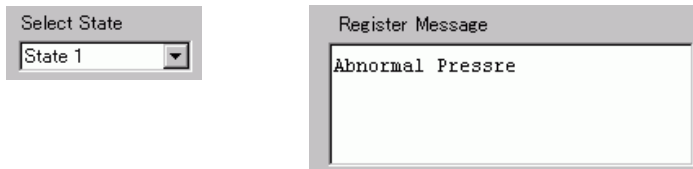
Select State	Register Message
State 1 ▾	Abnormal Pressre

12 In the [Select State] drop-down list, select [State 2] and type "Confirm Rack Enabled" in the [Register Message] box. (When State 2 is stored in [Address], "Confirm Rack Enabled" displays.)

Select State	Register Message
State 2 ▾	Confirm Rack Enabled

13 As needed, set the Text Color and Plate Color for each state on the [Color] tab, and click [OK (O)].

NOTE

• If you select a message that has not been defined, the Message Display shows nothing. For example, if the number of message states is 16 and only states 0 to 3 have messages defined, states 4 to 16 display only the empty message frame.
• You can type up to 100 single-byte characters for each message. Any characters over 100 are not displayed in the message.

17.3   Changing the Displayed Text

17.3.1   Introduction

Text Registration Screen

001	1. Release the three
002	tabs nearest you &
003	remove the cartridge`s
004	top cover.
005	2. Open the left
006	side of the
007	cartridge and
008	remove part A.
009	3. Set the
010	opening part of
011	part A facing
012	downward.
013	
014	

Register the text.

Scroll through the screens and the text displays.

1. Release the three tabs nearest you & remove the cartridge's top cover.	2. Open the left side of the cartridge and remove part A.	3. Set the opening part of part A facing downward.
Beep ▼▲	Beep ▼▲	▼▲

Displays registered messages on the screen.

You can display messages that are too large for a single screen by using a series of screens.

17.3.2 Setup Procedure

NOTE

• Please refer to the Settings Guide for details.
)"17.9.1 Message Display Settings Guide ■ Text Display" (page 17-53)
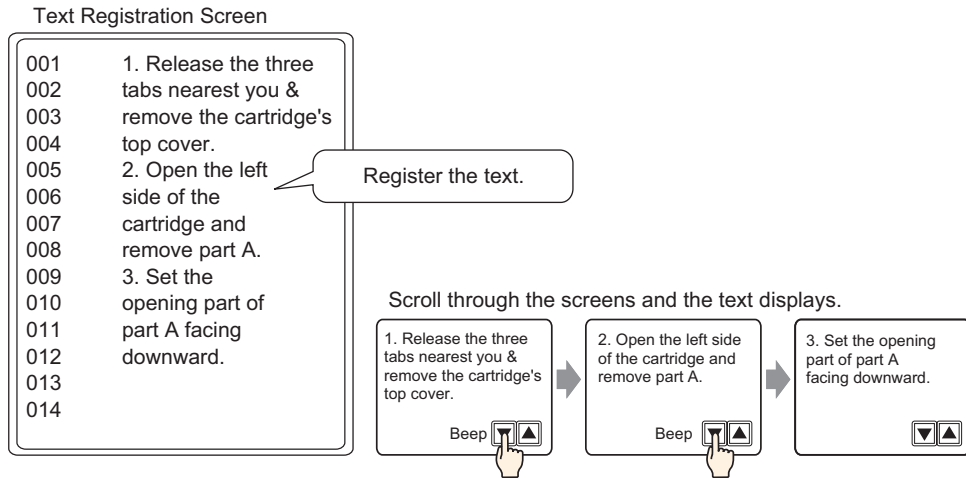)"17.9.2 Common (Text Registration) Settings Guide" (page 17-61)
• For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
)"8.6.1 Editing Parts" (page 8-44)

Displays registered text on the screen.

Text Registration Screen

001	1. Release the three
002	tabs nearest you &
003	remove the cartridge's
004	top cover.
005	2. Open the left
006	side of the
007	cartridge and
008	remove part A.
009	3. Set the
010	opening part of
011	part A facing
012	downward.
013	
014	

Register the text.

Scroll through the screens and the text displays.

1. Release the three tabs nearest you & remove the cartridge's top cover. Beep

2. Open the left side of the cartridge and remove part A. Beep

3. Set the opening part of part A facing downward.
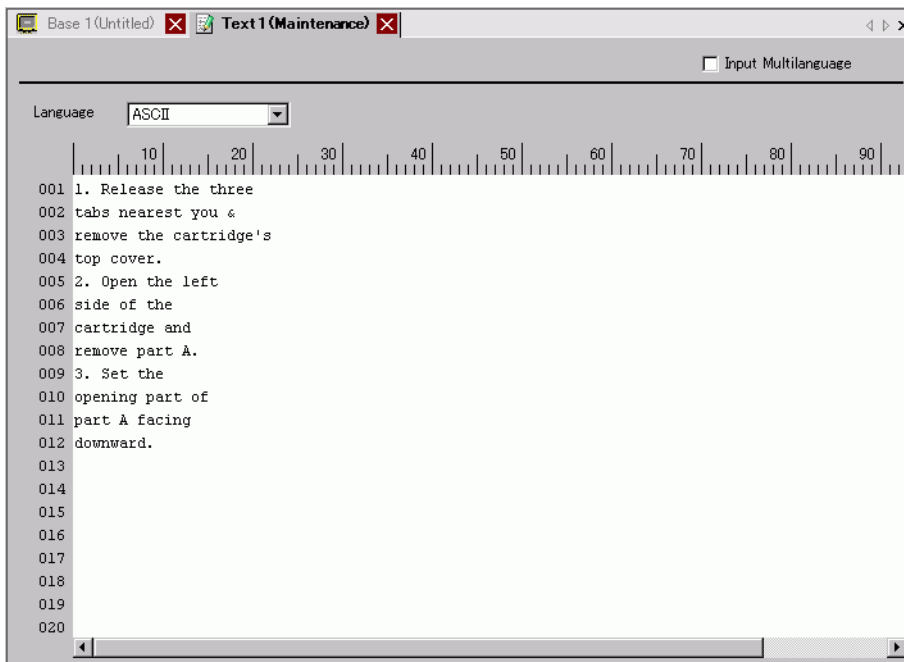
1 From the [Common Settings (R)] menu, select [Text Registration (T)] or click 🔣. The [New Text/Open] dialog box appears.

2 Set the text number and comment, then click [New]. The text input screen appears.
For example, Number = "1", Comment = "Maintenance"
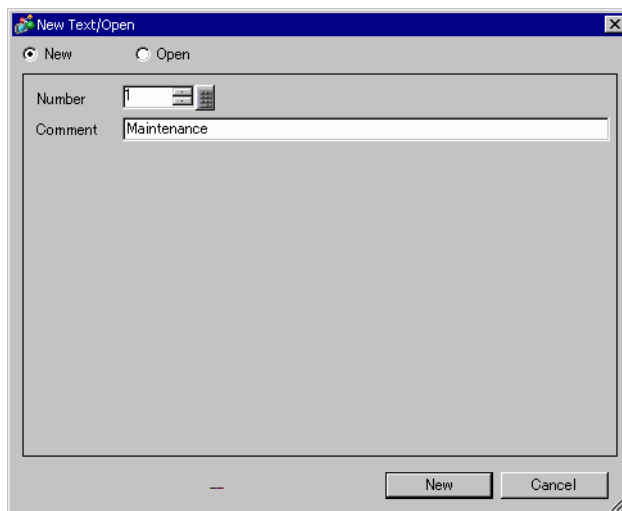
3 The text input screen appears. Enter the text for the message.

Click ◁ ▷ (×) at the top right of the screen to close the input screen.

4 Next, configure the Message Display settings. Open the drawing screen. On the [Parts (P)] menu, select [Message Display (M)] or click [ab^c] to open and display the screen on which you want to display the Text.

5 Double-click the new Message Display. The following dialog box appears.

6 Select [Text Display], and change the dialog box to [Extended] view.

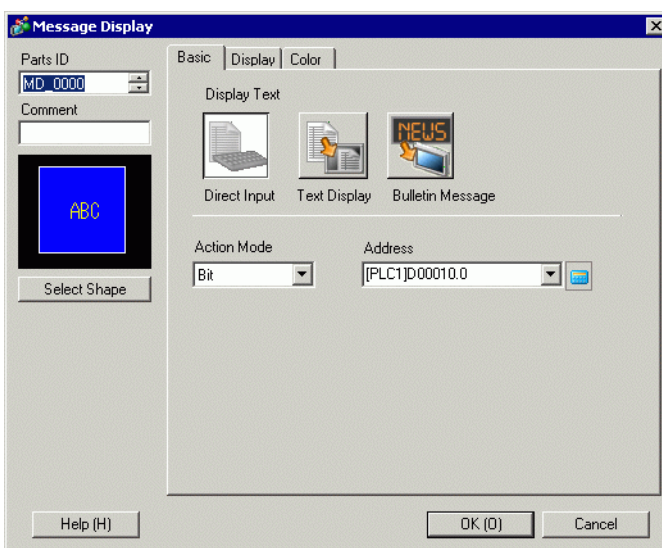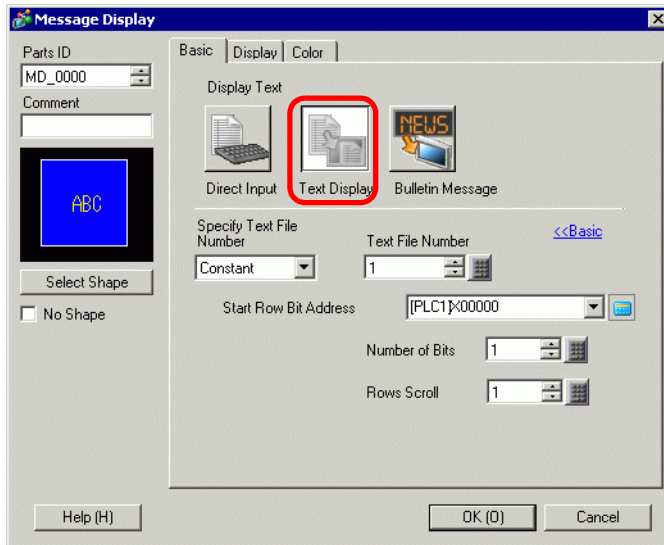7 In the [Specify Text File Number], select the method of specifying text to display. Set the [Text File Number].

8 In [Start Row Bit Address], set the start address (D100 00 bit) which will trigger the message display.

Select device "D", input
"100.0" as the address, and
press the Enter key.

Click [ ] to display
an address input
keypad.
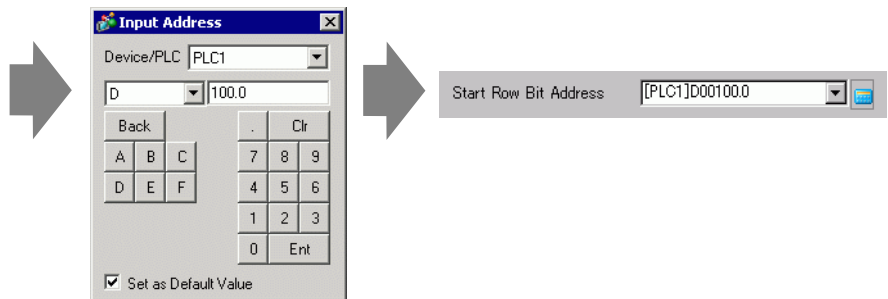
NOTE
• Set a bit address or a word address to specify bits. If you set a bit address, [Number of Bits] of sequential addresses are assigned to set the display start row. If you set a word address, [Number of Bits] of sequential bits in the word (16 bits) are used.

9 In the [Number of Bits] field, set the number of bits to use for designating the start row display. (For example, 2)

Number of Bits 2

NOTE • The number of bits to use depends on [Rows Scroll]. When scrolling four rows at a time, you need to scroll three times at the maximum to display 12 rows. 2 bits are required to store "3".

```
        15                              00
D100  [                            ]
```

Each scroll increments the address by 1. To display up to the 12th row, 2 bits are used.

```
0 0 ←Nothing displayed
0 1 ←1st - 4th row
1 0 ←5th - 8th row
1 1 ←9th - 12th row
```
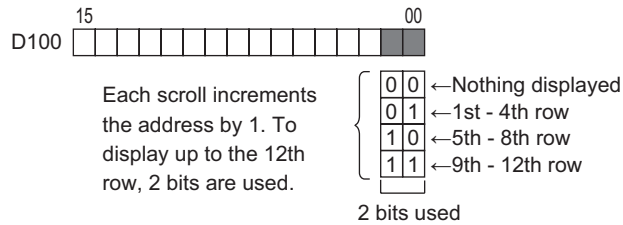2 bits used

10 In the [Rows Scroll] field, set the number of text rows to scroll each time. (For example, 4)

Rows Scroll 4

11 Click the [Display] tab. Set the [Display Characters] and [Display Rows].
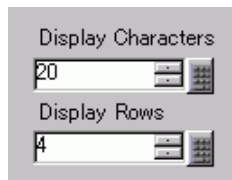
Display Characters
20
Display Rows
4

NOTE • Set "1" to [Display Characters] to display one single-byte character. Set "2" for one double-byte character.

12 As needed, set the Message Display color and text color on the [Color] tab, and click [OK]. The Message Display settings are complete.
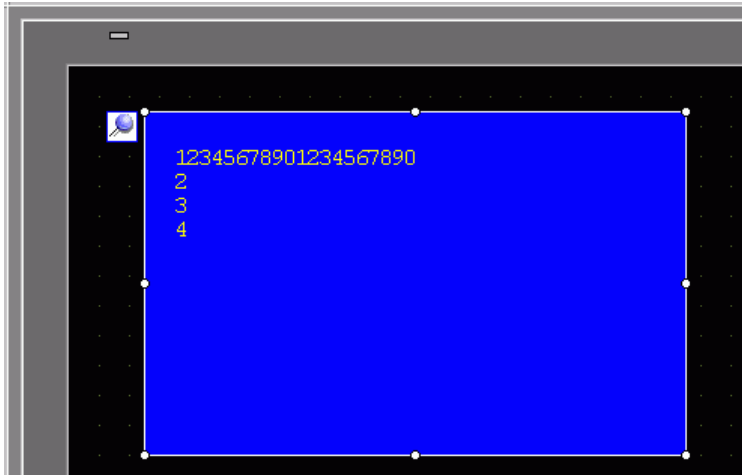
13 Set a Switch to scroll through messages. From the [Parts (P)] menu, point to [Switch Lamp (C)] and select [Word Switch (W)] or click ⬛. Place the switch on the screen.

14 Double-click the placed Switch part. The following dialog box appears.
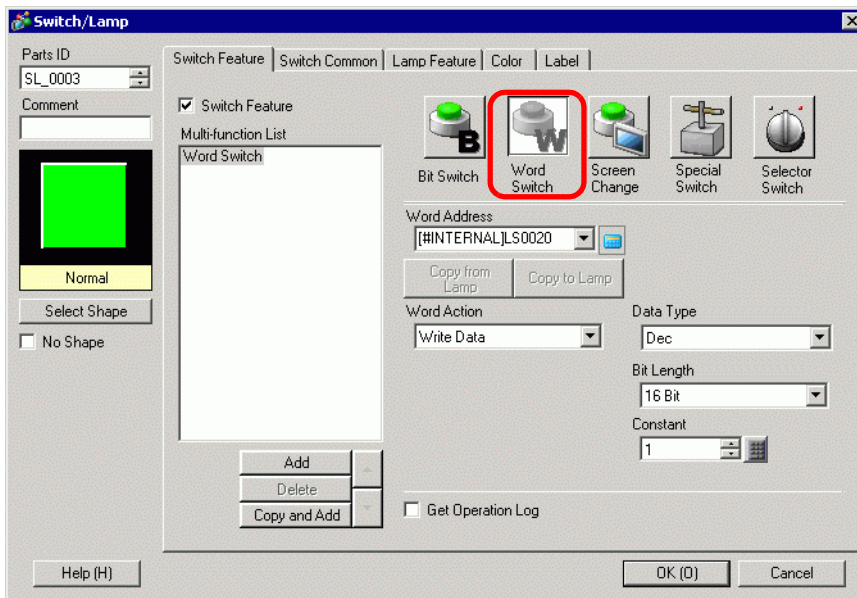
15 In [Select Shape], select the Switch shape.

16 In the [Word Address] field, set the address (D100) where you want to write data when you touch the switch.

17 In the [Word Action] drop-down list, select [Add Data]. Set an address value in [Addition Base Word Address].

18 As needed, set the Switch color and label on the [Color] tab and [Label] tab, and click [OK]. A Switch to scroll to next text has been created.
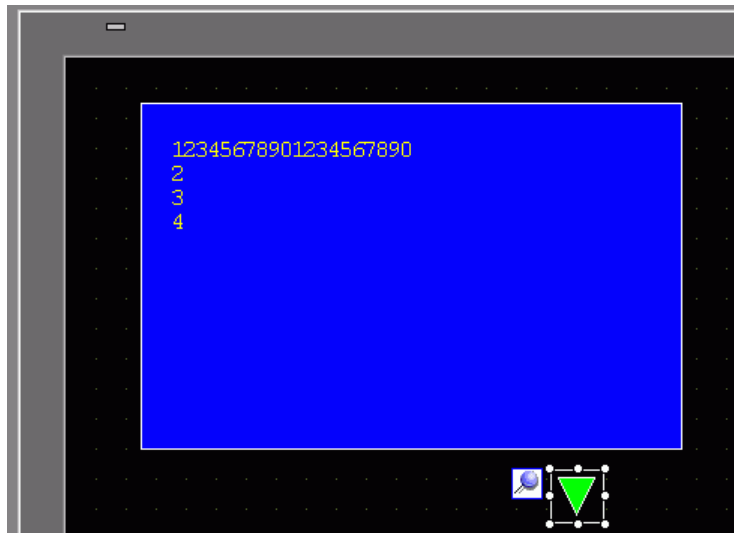
19 Create a Switch to scroll to previous text as well. Place a Word Switch and select [Subtract Data] from the [Word Action] drop-down list.

Two scroll switches have been placed.

NOTE
• Text can have up to 512 lines with up to 100 single-byte characters per line.
• When the data designated as the Display Start Row has no corresponding text row, the operation does not occur. The previously displayed rows remain.
• If the text data is wider than the display area, the portion that exceeds the display area is not displayed.

17.4   Changing a Text's Language (Multilanguage)

17.4.1   Introduction
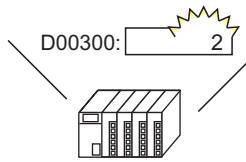
Change the value of the language change control address...

And the language of all text using text tables (Draw's text, Switch's label, etc.) changes.

Create a Text Table with text in multiple languages. You can then change languages in text objects even while the system is running. (No translation function is available.)

Foreign language text tables
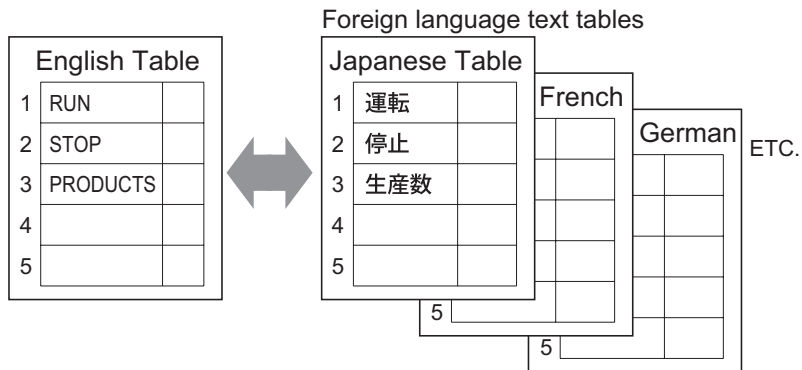
17.4.2 Setup Procedure

NOTE	• Please refer to the Settings Guide for details.

☞ "17.9.3 Text Table Settings Guide" (page 17-62)

☞ "17.9.4 Switch/Lamp - Label (Enable Text Table) Settings Guide" (page 17-68)

• For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".

☞ "8.6.1 Editing Parts" (page 8-44)

Configure settings to change languages for a Switch label while the system is running.

Change the value of the language change control address...

And the language of a Switch's label changes.

1 Register words and phrases to use on the screen in the Text Table.
From the [Common Settings (R)] menu, select [Text Table (S)] or click $\boxed{A_a}$. In the following window, select

2 Click [Language Change] The following dialog box appears. Select the [Enable Language Change Feature] check box.

NOTE

• If you clear the [Enable Language Change Feature] check box, the Text Table data that has been specified is deleted.

3 In the [Switching Control Address] field, set the address (for example, D300) that will store the Table Number to display.

Select device "D", input "300" as the address, and press the Enter key.

Click to display an address input keypad.
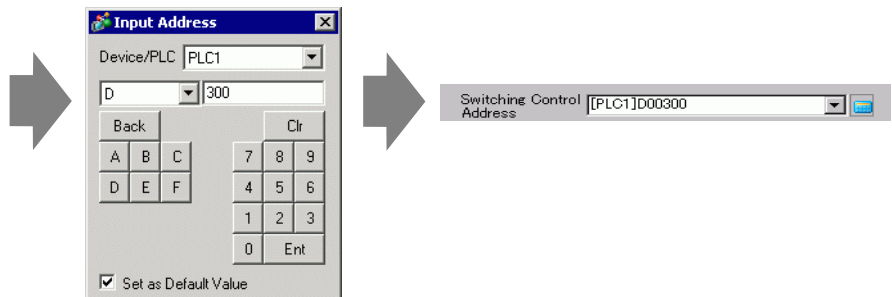
4 In the [Initial Table] drop-down list, set the table to display when the specified [Switching Control Address] is set to "0".

5 Select each Table's display language and click [OK].
For example, Table1= Japanese, Table2= ASCII
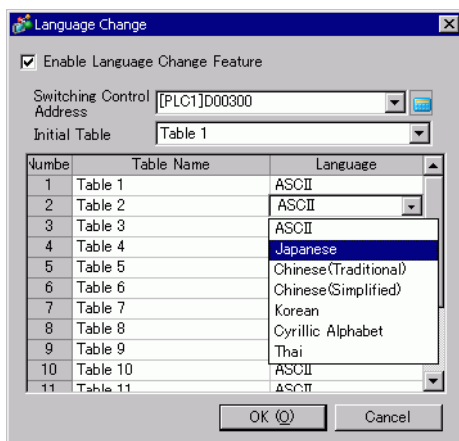
6 In the Text Table, set the [Characters] and [Number of Lines] and input words or simple
messages in each table.
For example, Number of Characters = 10, Number of Rows = 1

After entering your data, click ☒ on the [Text Table] tab to close the [Text Table].
Text table registration is completed.

> NOTE
>
> • Input text can be stored even if it exceeds the [Number of Characters] or
> [Number of Lines], so long as in the [Preferences] dialog box [Text Table]
> page, the [Number of Characters/Lines] is set to the [Adjust Automatically]
> option. Also, you can use Alt+Enter to start a new line.

7 Use the text table as a Switch's label to be used on the screen. Open the screen.
From the [Parts (P)] menu, point to [Switch Lamp (C)] option and select [Bit Switch (B)] or
click 🔘 . Place the bit switch on the screen.

8 Double-click the placed Switch part. The following dialog box appears.
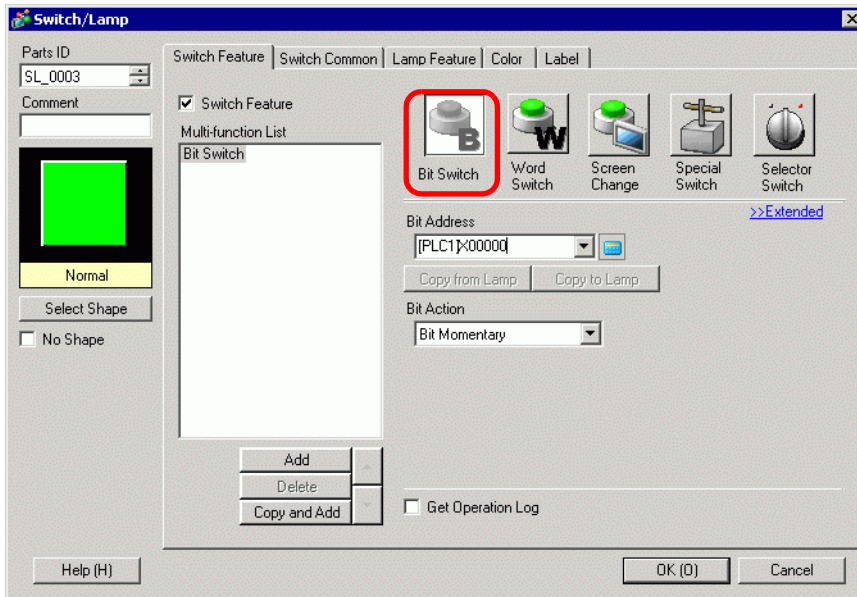
9 In [Select Shape], select the Switch shape.

10 Specify the [Bit Address] and select [Bit Set] in [Bit Action].

11 Click the [Label] tab, then select [Text Table].
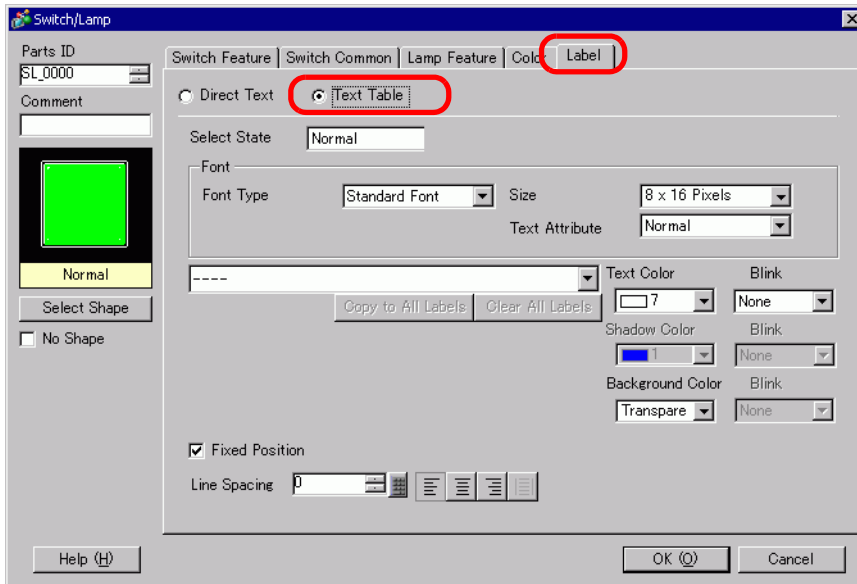
12 Set the Label font type, size, text color, etc.

NOTE

• When using [Stroke Font], you can select [Automatically Adjust Text Size] to adjust the font size of text from the Text Table so it fits in the part.

☞ 17.9.1 Message Display Settings Guide ■ Direct Input ◆ Display (Text Table) 17-50

13 When the text appears in the drop-down menu, select the text for the Label. For example, "Run"
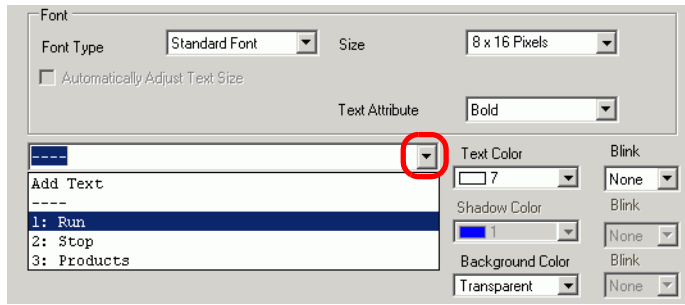
NOTE   • To add new words which are not registered in Text Table, select [Add Text].

14 Set the label text display position and click [OK].

The "Run" Switch has been created.

15 Create the same kind of "Stop" Switch.

[Switch Feature] Tab
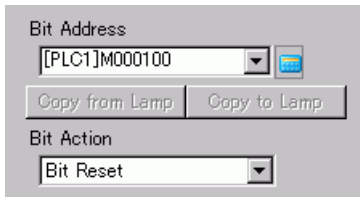
[Label] Tab
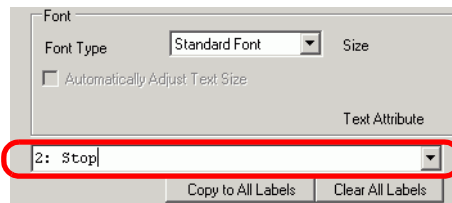
Two switches have been created.
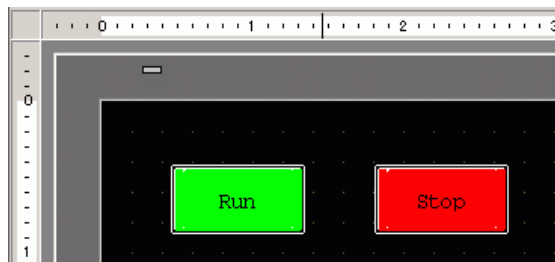
To check the display state when Text Tables are changed from the [View (V)] menu, point to [Change Language (L)] and select [Table 2].

Display State for Table 2
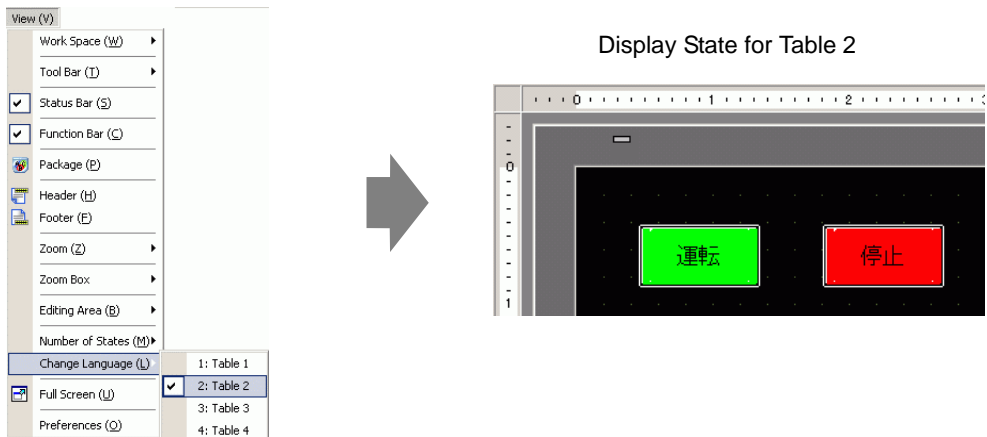
NOTE
- You can use text registered in Text Table for a Message Display, Draw text, Alarm Part item name, Alarm Message, etc. as well as a Switch label.
  - ☞ 17.9.1 Message Display Settings Guide ■ Direct Input ◆ Display (Text Table) 17-50
  - ☞ "17.9.5 Drawing Text (Using the Text Table) Settings Guide" (page 17-70)
  - ☞ "17.9.6 Alarm Part - Item/Extended (Text Table) Settings Guide" (page 17-72)
  - ☞ "17.9.7 Alarm (Enable Text Table) Settings Guide" (page 17-73)
- If you change languages, all the text using Text Table is changed. If text in multiple languages is registered, the language of the displayed text is also changed.
- You can automatically register text from Message Displays, Switches, Lamps, or Alarms to the Text Table.

◆ Convert Text Table

NOTE	• Please refer to the Settings Guide for details.
	☞ "5.17.4 [Utility] Settings Guide ■ Convert Text Table" (page 5-125)

Register the text on screens to the Text Table.

1 On the [Project (F)] menu, point to [Utility (T)], and click [Convert Text Table (T)].
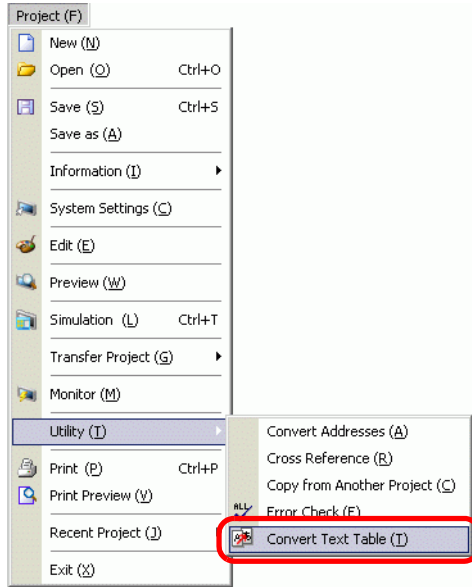
2 In the [Text Table Converter] dialog box, select which Table to add the converted text strings. (For example, [Table Number]1= Table 1, [Target to be converted] = Individual)
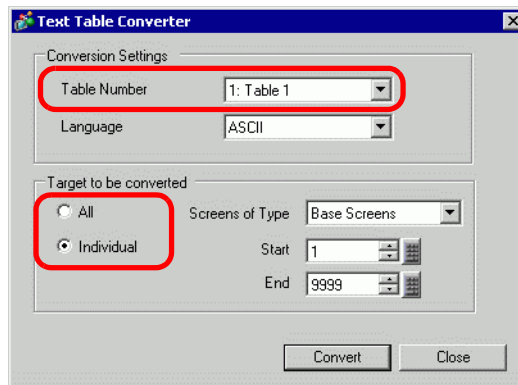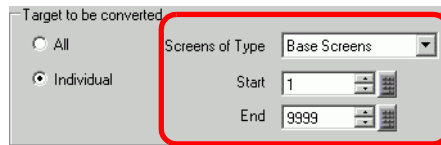
NOTE	• When the edited project is not saved, the following message appears before proceeding to the Text Table Converter dialog box.
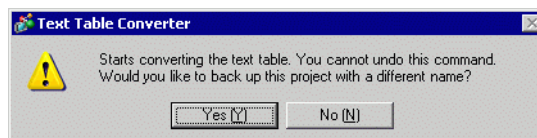
3 Use the Screens of Type, Start and End fields to select which screens to convert. (For example, [Screens of Type] = Base Screens, [Start] = 1, [End] = 1

NOTE
• When [Target to be converted] is set to [Individual], you can define which Screens of Type to convert.

4 Click [Convert] to collect all the text strings to the defined Text Table.
When conversion is complete, [Close] returns you to the screen editor.

NOTE
• If a text string already exists in the Text Table, it does not get added again.

17.5 Changing a Text's Language (Multilanguage)

17.5.1 Introduction

Touch the switch to
change languages...

3. Set the opening part of
part A facing downward.

Japanese ☐
English ☐
French ☐

Beep

The text changes into
another language.

③交換した部品 A の紙
箱の開封口が下になる
ようにセットします。

Japanese ☐
English ☐
French ☐
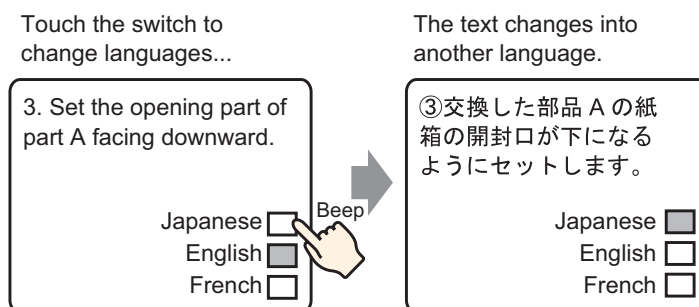
Create a preset text with words and phrases in another language for the text you want to change. You can then change languages of the text even while the system is running. (No translation function is available.) If you change languages, all the text using Text Table, as well as the text, is changed.

17.5.2　Setup Procedure

NOTE

• Please refer to the Settings Guide for details.
☞ "17.9.2 Common (Text Registration) Settings Guide" (page 17-61)
☞ "17.9.1 Message Display Settings Guide ■ Text Display" (page 17-53)
• For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
☞ "8.6.1 Editing Parts" (page 8-44)

Touch the switch...

The text changes into another language.

3. Set the opening part of part A facing downward.

Japanese ☐　Beep
English ☐
French ☐

③交換した部品 A の紙箱の開封口が下になるようにセットします。

Japanese ☐
English ☐
French ☐
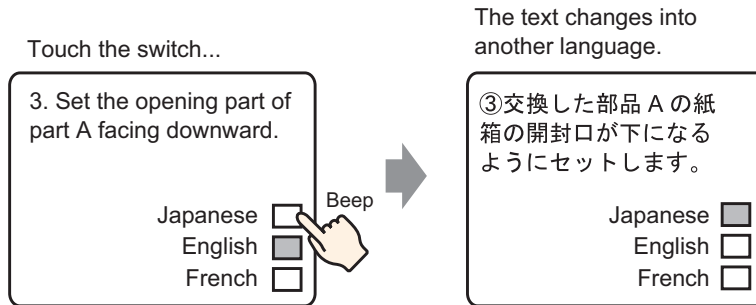
1 Saves used multilanguage text. From the [Common Settings (R)] menu, select [Text Registration (T)] or click 📝 . The [New Text/Open] dialog box appears.

2 Set the text number and comment, then click [New]. The text input screen appears.
For example, Number = "1", Comment = "Set"
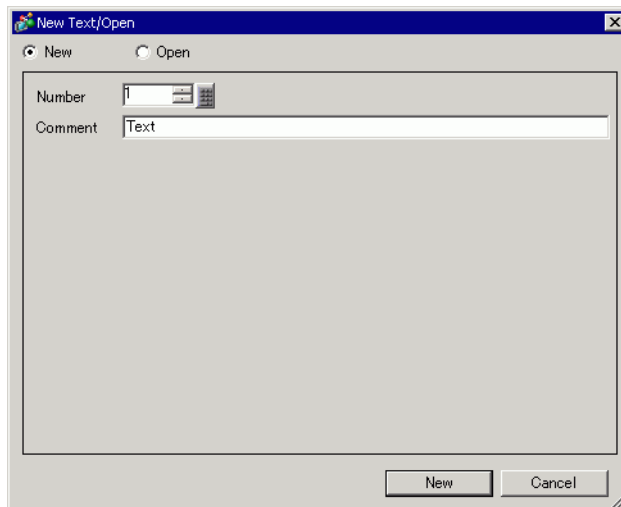
3 Select the [Input Multilanguage] check box. The following message appears. Click [Yes (Y)].
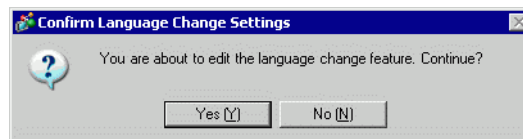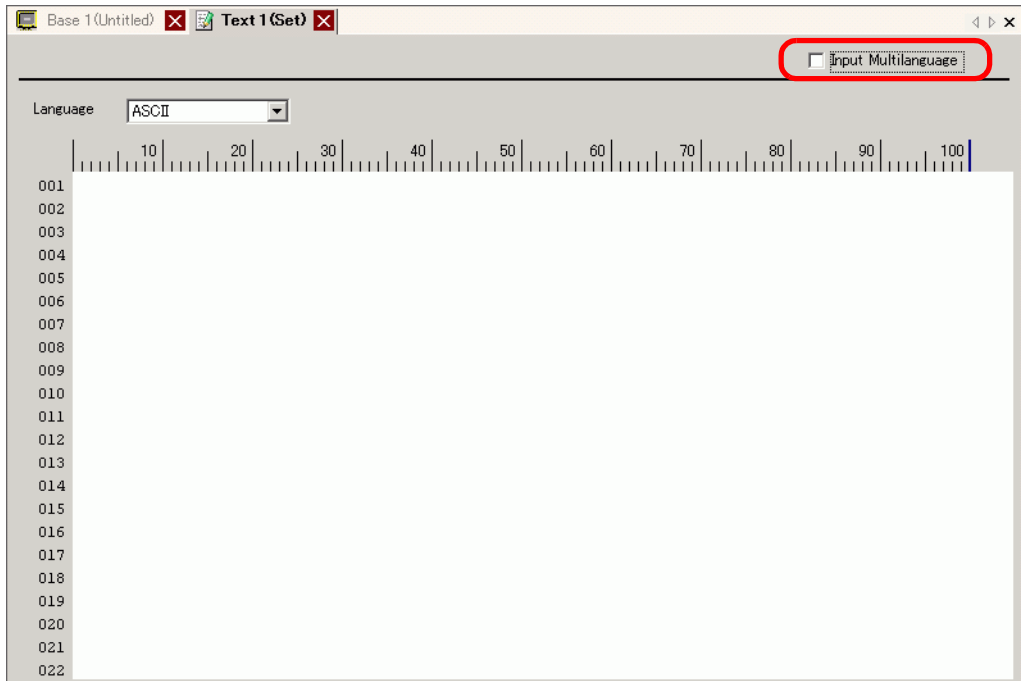
4 The [Language Change] dialog box appears. Select the [Enable Language Change Feature] check box.
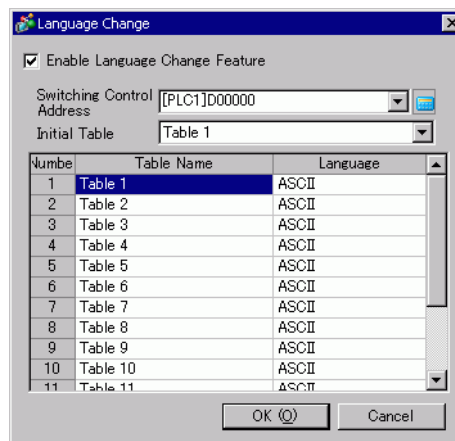
NOTE • If you clear the [Enable Language Change Feature] check box, the Text Table data is deleted.

5 In the [Switching Control Address] field, set the address (D300) to store the Table Number to display.

Click the icon to display an address input keypad.

Select device "D", input "300" as the address, and press the Enter key.

Switching Control Address [PLC1]D00000

Click

Input Address

Device/PLC PLC1

D   300

Back   Clr

A B C   7 8 9

D E F   4 5 6

               1 2 3

               0   Ent

☑ Set as Default Value

Switching Control Address [PLC1]D00300
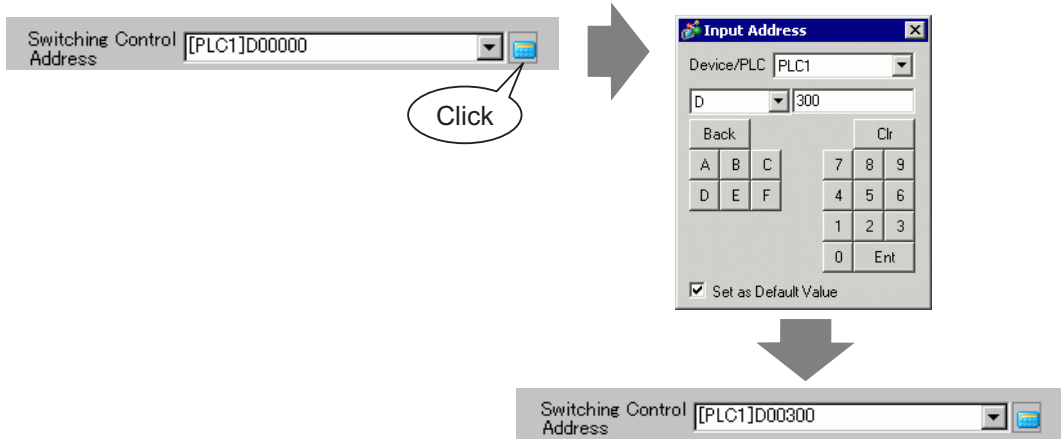
6 In the [Initial Table] drop-down list, set the table to display when the [Switching Control Address] is set to "0".

Initial Table   Table 1

7 Select each Table's display language and click [OK].
For example, Table1= Japanese, Table2= ASCII

Language Change

☑ Enable Language Change Feature

Switching Control Address [PLC1]D00300

Initial Table   Table 1

Number	Table Name	Language
1	Table 1	ASCII
2	Table 2	ASCII
3	Table 3	ASCII
4	Table 4	Japanese
5	Table 5	Chinese(Traditional)
6	Table 6	Chinese(Simplified)
7	Table 7	Korean
8	Table 8	Cyrillic Alphabet
9	Table 9	Thai
10	Table 10	ASCII
11	Table 11	ASCII

OK (O)   Cancel
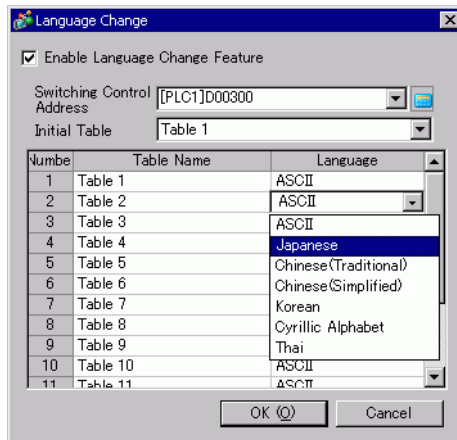
8 Enter the text to display for each table.
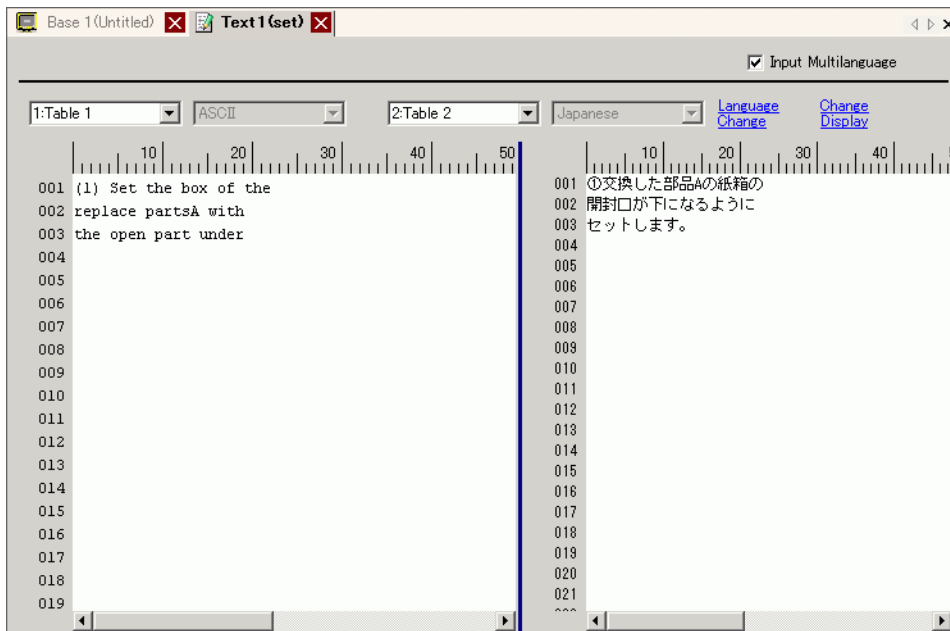
After entering your data, click ⊠ on the [Text Table] tab to close the text.
Text table registration is complete.

9 Next, configure the Message Display settings. Open the drawing screen. From the [Parts (P)] menu, select [Message Display (M)] or click ꊎ. Place the Part on the screen.

10 Double-click the new Message Display. The following dialog box appears. Click the [Text Display] icon.
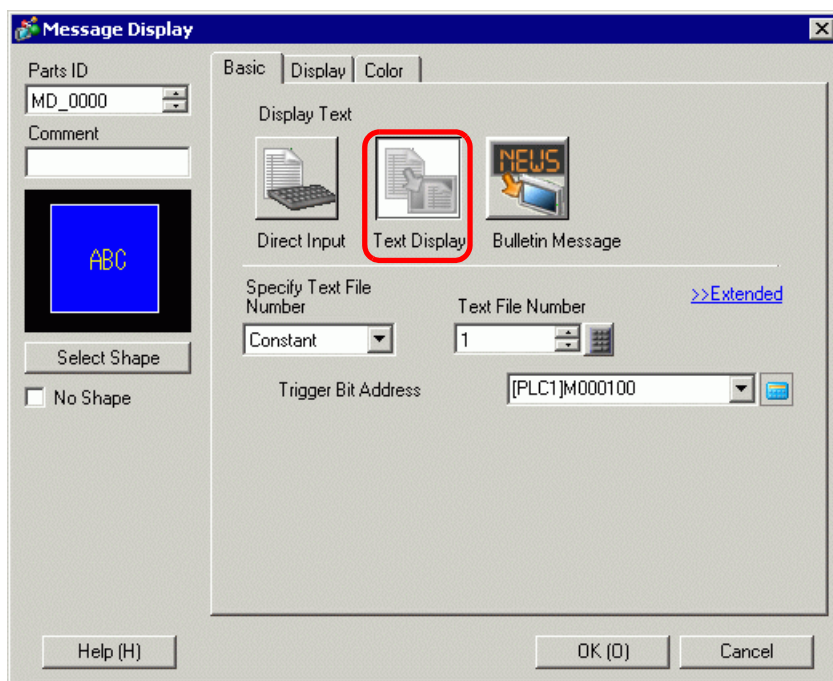
11 In the [Specify Text File Number] drop-down box, select the method of specifying text to display. Set the [Text File Number].

12 In [Trigger Bit Address], set the address (M100) which will trigger the text display.

Trigger Bit Address   [PLC1]M000100
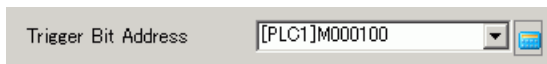
13 Click the [Display] tab. Set the [Display Characters] and [Display Rows].
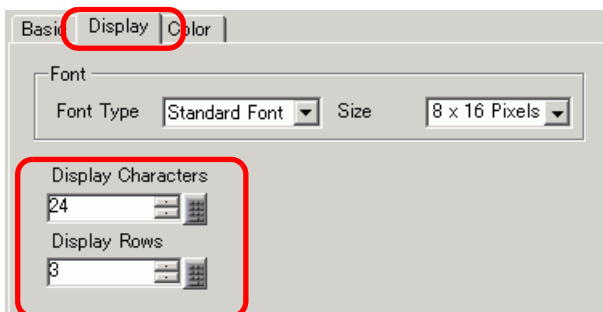
NOTE • Set "1" to [Display Characters] to display one single-byte character. Set "2" for one double-byte character.

14 As needed, set the Message Display color and text color on the [Color] tab, and click [OK]. The Message Display settings are complete.

15 Create a switch to change languages. From the [Parts (P)] menu, point to [Switch Lamp (C)] and select [Word Switch (W)] or click 🔵 and draw on the screen.

16 Double-click the placed Switch part. The following dialog box appears.
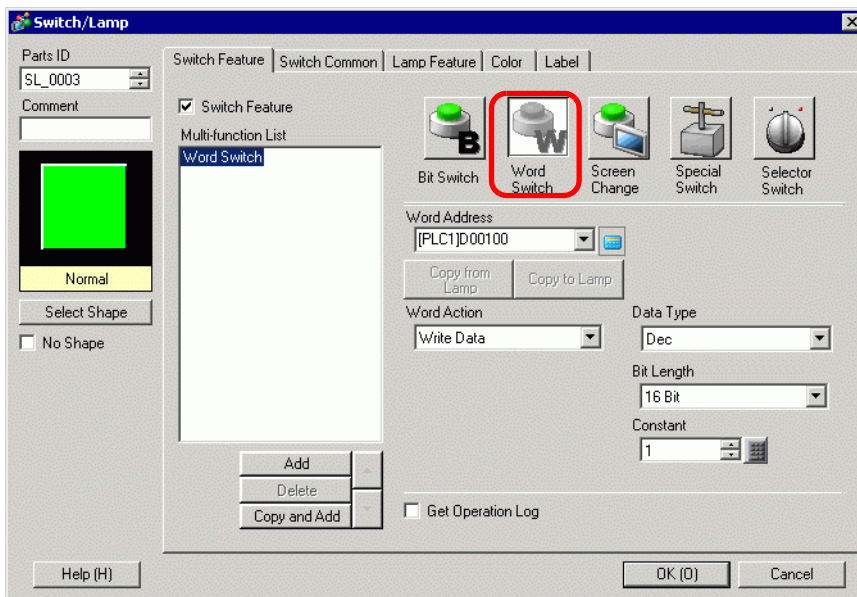
17 In [Select Shape], select the Switch shape.

18 In the [Word Address] field, set the same address (D300) as the set [Switching Control Address].

19 In the [Word Action] drop-down list, select [Write Data]. Set [Constant] to 1.

20 Specify the color and label for the switch on the [Color] tab and [Label] tab as required, and click [OK]. The switch for changing to English text (Table 1) has been created.
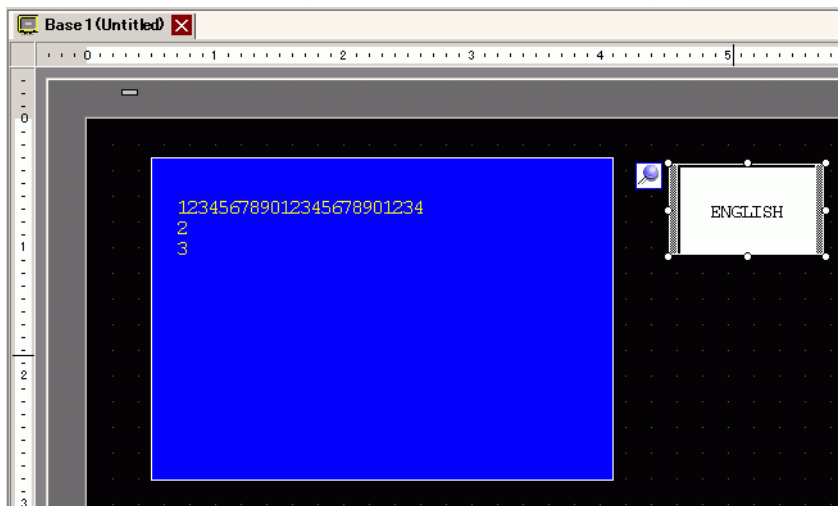
21 Create the same kind of Switch to change to Japanese text (Table 2). The settings for the Switch are as follows.
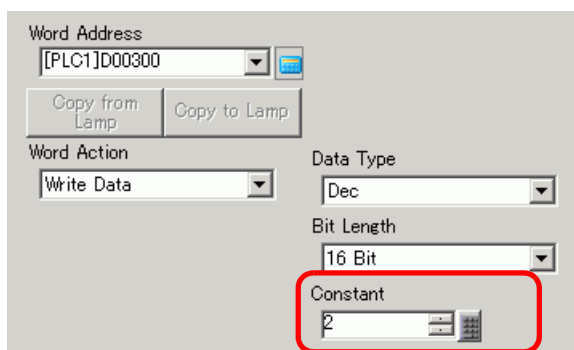
NOTE

• If you change tables (languages), all the text using Text Table, as well as the text, is changed.

17.6 Importing/Exporting Registered Text Tables for Use in Different Projects

17.6.1 Introduction

■ Saving/reusing registered Text Tables in CSV or TXT File Format
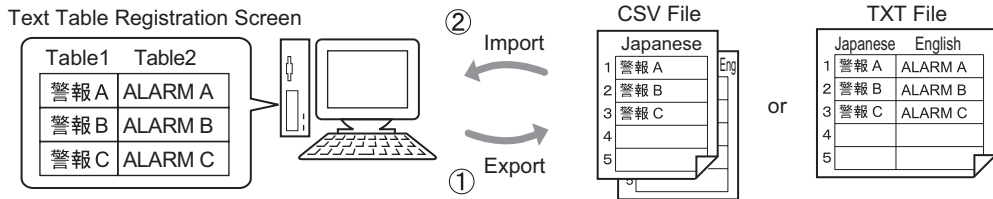
You can export Text Tables from a project and save them as CSV or TXT files. The saved Text Table files (∗.csv or ∗.txt) can then be edited in Microsoft Excel or another software.
☞ "17.6.2 Setup Procedure ■ Export" (page 17-32)
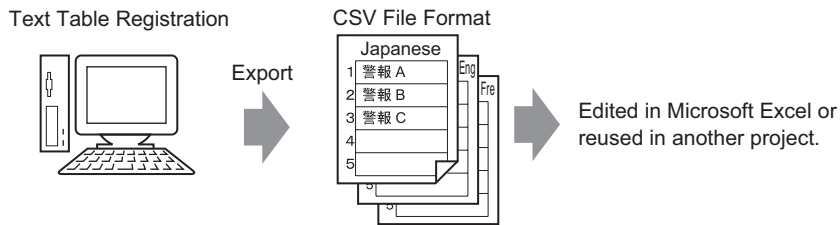
You can also use the Text Tables (see (1)) in another project by importing the CSV or TXT file.

By creating the Text Table file (∗.csv or ∗.txt) in Microsoft Excel in advance, you can use the file in the project by importing the file. Users who do not have access to GP-Pro EX can still edit text data for translation into other languages in the project.
☞ "17.6.2 Setup Procedure ■ Import" (page 17-34)
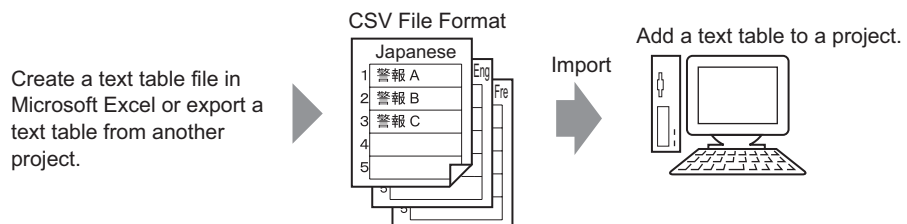
| NOTE | • To export/import multiple languages at the same time, save them in a TXT file. |

17.6.2 Setup Procedure

NOTE

• Please refer to the Settings Guide for details.
☞ "17.9.3 Text Table Settings Guide" (page 17-62)

■ Export

Exports the Text Tables to the CSV file format.
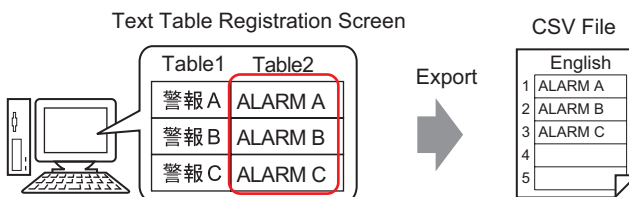
1 From the [Common Settings (R)] menu, select [Text Table (S)] or click 🔳 to open the Text Table screen. Select [Export] from [Utility].
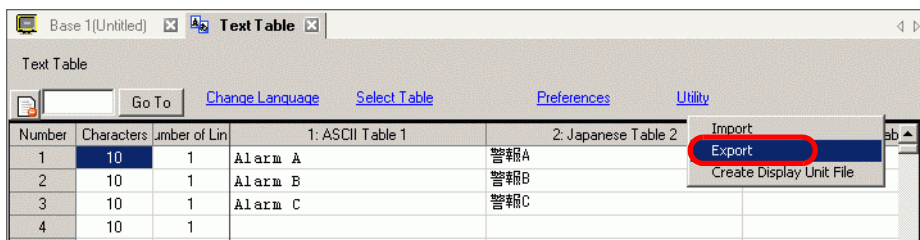
2 Select the check box to the left of the table name to export the table. Clear the check boxes next to tables you do not want to export.
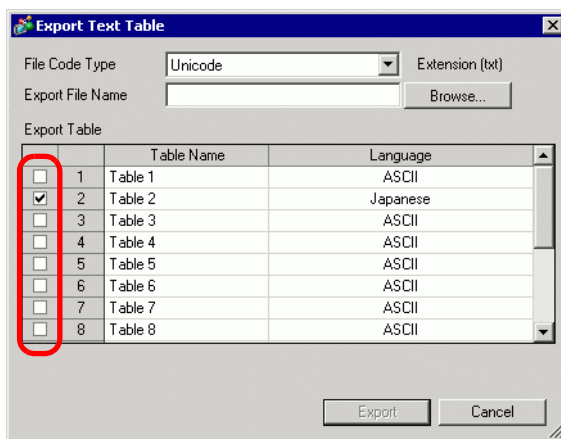
3 Select the code type of the files to export.
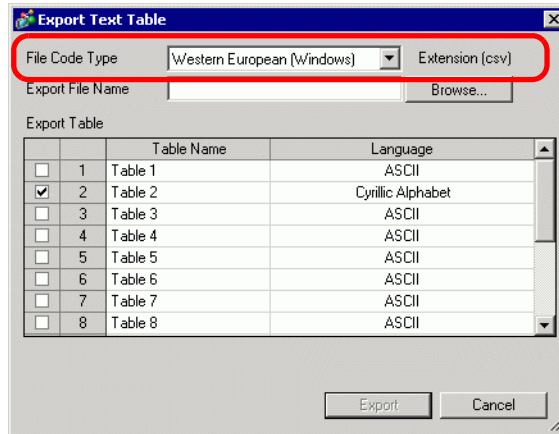
NOTE
- To export multiple languages at the same time, select [Unicode]. When [Unicode] is selected, a file is exported in the text file format (∗.txt). Click [Browse].

4 The [Save As] dialog box appears. Select a location and type a file name, then click [Save].
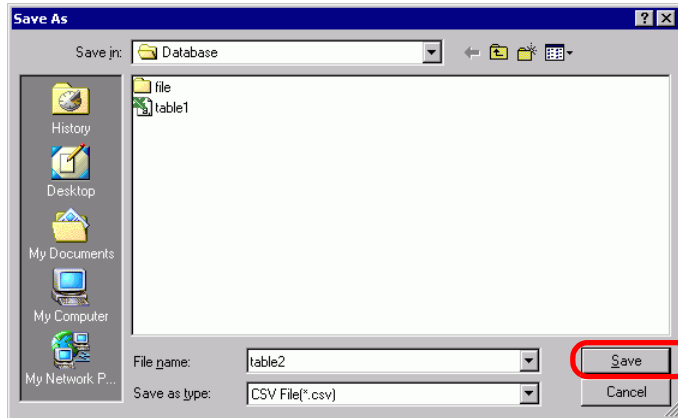
5 Click [Export] to export the tables. When the process is finished, the following dialog box appears. Click [OK] to complete the export.
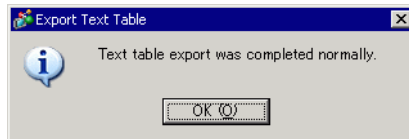
NOTE
- If there are any problems carrying out the export, the entire export process will be canceled.

■ **Import**

Imports Text Table files (∗.csv) to a project.

CSV File

Text Table Registration Screen

	English
1	ALARM A
2	ALARM B
3	ALARM C
4	
5	

Import

Table1　Table2

警報 A	ALARM A
警報 B	ALARM B
警報 C	ALARM C
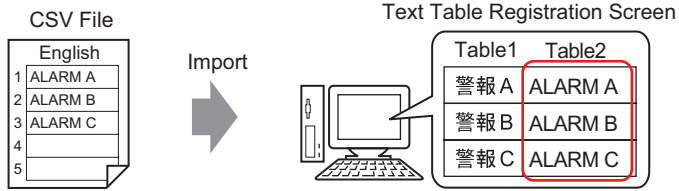
1 From the [Common Settings (R)] menu, select [Text Table (S)] or click ![icon]. In the following window, select [Import] from [Utility].
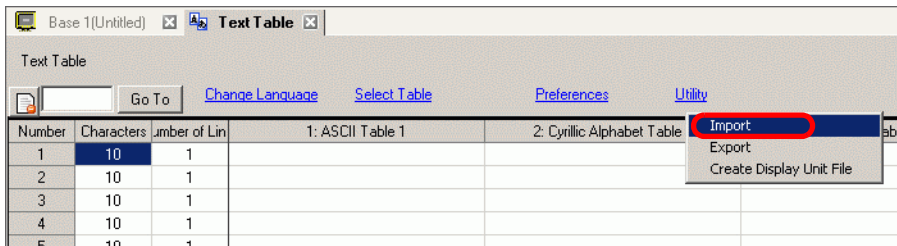
2 The [Import Text Table] dialog box appears. Click [Browse].
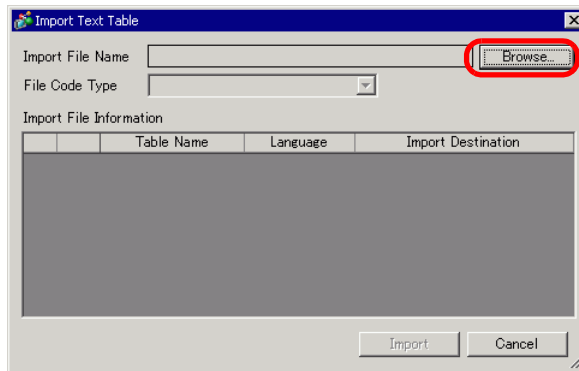
3 Select "CSV File (∗.csv)" in [Files of type], select a file to import, and click [Open].
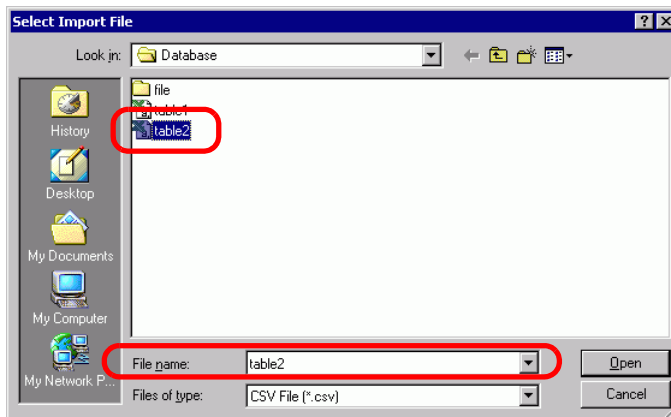
4 In the [File Code Type] drop-down list, select an option according to the language in the Text Table to import. Select the check box to the left of the table name to import the table. Clear the check boxes next to tables you do not want to import.
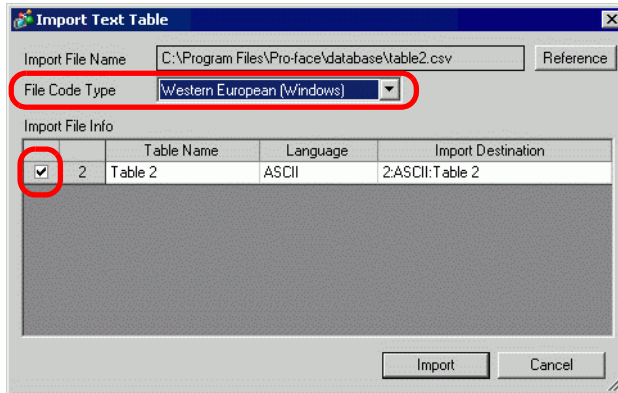
NOTE
• If you select a Text Table file in TXT format (∗.txt), the [File Code Type] is fixed as [Unicode]. To import multiple languages at the same time, select [Unicode].

5 Select a destination table. The Text Table is imported to the designated table by overwriting it.
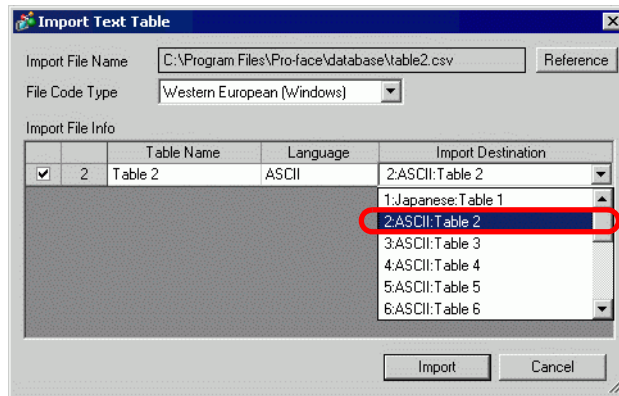
6 Click [Import]. The following dialog box appears. Click [OK] to complete the import.
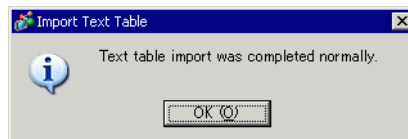
NOTE
• If there are any problems carrying out the import, the entire import process will be canceled and the Text Tables in the project are not affected.
• You can input text with up to 1,200 characters in a Text Table. Any excess/remaining characters or rows are not be imported.

17.6.3 Text Table File Format

Exported Text Tables' file (∗.txt or ∗.csv) format displays as follows.

Text Table Registration Screen

Number	Characters	Lines	1: ASCII Table 1	2: Japanese Table 2
1	10	1	Alarm	警報
2	10	1	OK	確認
3	10	1	Pressure	圧力異常
4	10	1		
5	10	1		

Export

CSV file format

String Table Data	. . . .Header (Necessary for import)
String Table Data	. . . .Header (Necessary for import)
,"","","1","2"	. . . .Each table's Table Number
,"","","Table 1","Table 2"	. . . .Each table's Table Name
,"","","ja-JP","en-US"	. . . .Each table's Language Code [1]
1,"10","1","Alarm"	. . . .The number of characters in Number 1, Number of Rows,
Each table's text	
2,"10","1","OK"	. . . .The number of characters in Number 2, Number of Rows,
Each table's text	
3,"10","1","Pressure"	. . . .The number of characters in Number 3, Number of Rows,
Each table's text	

When the above CSV file is represented in Excel, it looks as follows.

	A	B	C	D	E
1	String Table Data				
2				1	
3				Table 1	Table 2
4				en-US	ja-
5	1	10	1	Alarm	警報
6	2	10	1	OK	確認
7	3	10	1	Pressure	圧力異常

Table Number

Table Name

Number of Characters

Number of Text Rows

Language Code [1]

Index Number
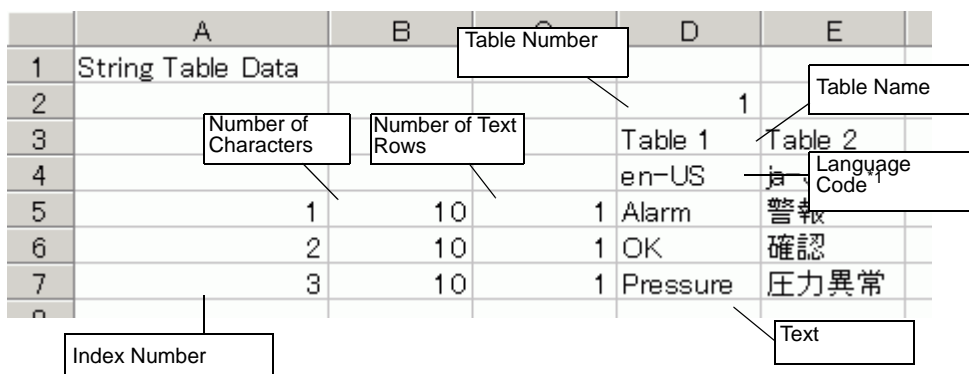
Text

NOTE
• When using the [Adjust Automatically] option, all the characters can be exported even if they exceed the Number of Characters or Number of Lines.

1   Text Table files (∗.txt or ∗.csv) displays each table's language with the following language codes.

Language	Japanese	ASCII	Chinese (Traditional)	Chinese (Simplified)	Korean	Cyrillic	Thai
Language Code	ja-JP	en-US	zh-TW	zh-CN	ko-KR	ru-ru	th-TH

17.7 Changing Text Table without Data Transmission

17.7.1 Introduction

Text Table data saved in the external memory is read.
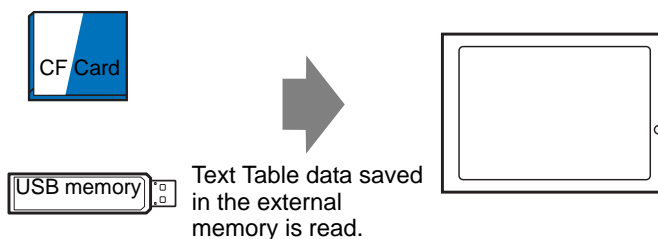
You can save the Text Table data in the external memory in advance and rewrite the Text Table data in the display unit during startup or from the offline menu.
Even in an environment where GP-Pro EX cannot be used, text of the alarm message and labels can be changed.

17.7.2 Setup Procedure

Text Table data saved in the external memory is read.
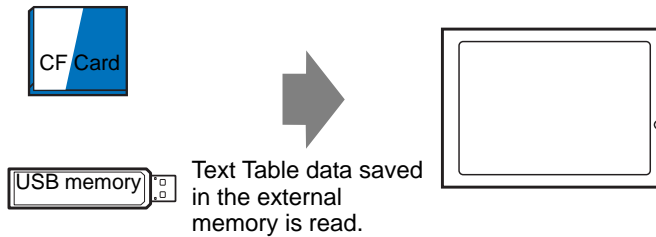
NOTE

• In order to use this feature, from [Display Unit] in [System Settings], go to [Extended Settings] - [Load Text Table] and select the [Enable Load Text Table] check box.
• Please refer to the Settings Guide for details.
)"17.9.3 Text Table Settings Guide" (page 17-62)

---

1 From the [Common Settings (R)] menu, select [Text Table (S)] or click 🔤. The following window opens.

NOTE

• When you edit and use a registered Text Table, open the data you want to edit.

---

2 Click [Language Change] The following dialog box appears. Select the [Enable Language Change Feature] check box.
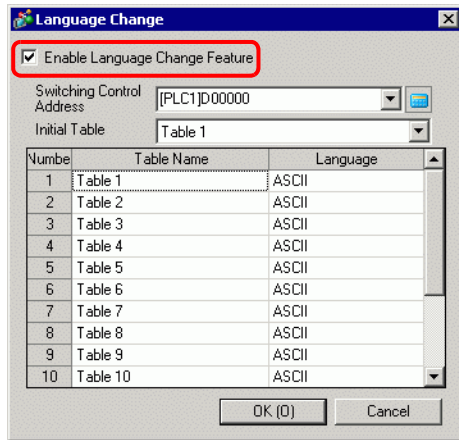
| NOTE | • If you clear the [Enable Language Change Feature] check box, the Text Table data that has been specified is deleted. |

3 Select each Table's display language and click [OK].
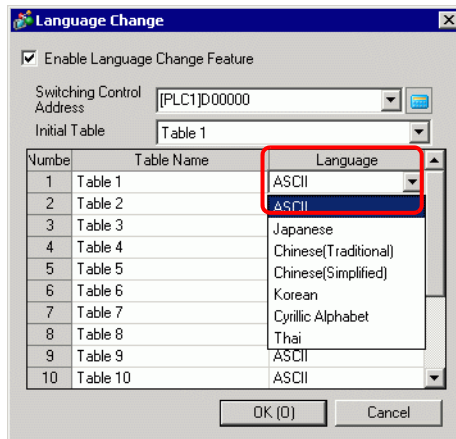
4 In the Text Table, set the [Characters] and [Number of Lines] and input words or simple messages in each table.

5 When you completed the entry to Text Table, select [Create Display Unit File] from [Utility].
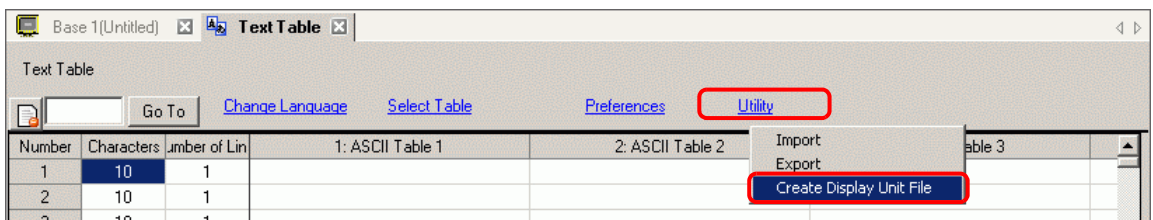
6 Select [File Code Type]. The [Destination Folder] allows you to select the folder to save the created file.
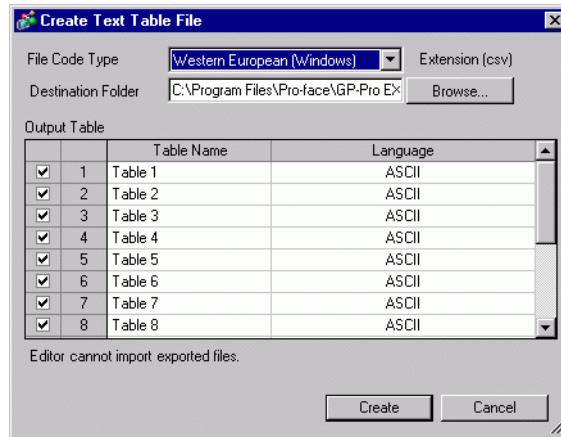
7 Make sure that the table you want to output is selected in [Output Table].
When you click the [Create] button, the Text Table file is created in the destination folder specified in [Destination Folder].

NOTE

• If you want to configure the Text Table data to be read at every startup time, from [Display Unit] in [System Settings], go to [Extended Settings] - [Load Text Table] and select [Read File at Startup]. With this setting, it may take some time to start up the display unit.
For details on the settings, refer to the following.
) "5.17.6 [System Settings] Setting Guide ◆ Extended Settings" (page 5-176)

• In order for data to be read at any timing, touch the start button of offline manual reading on the display unit.
For details on offline screen operation, refer to Maintenance/ Troubleshooting.

17.7.3 Folder Structure and File Format for Display Unit File

■ Folder Structure

The file output as an external file is saved with the following structure.
For each table, files are output as different files with the following names.

```
─STRTABLE ─┬─── TABLE001.CSV
           ├─── TABLE002.CSV
           ├─── TABLE003.CSV
           │       •
           │       •
           │       •
           └─── TABLE015.CSV
                 TABLE016.CSV
```
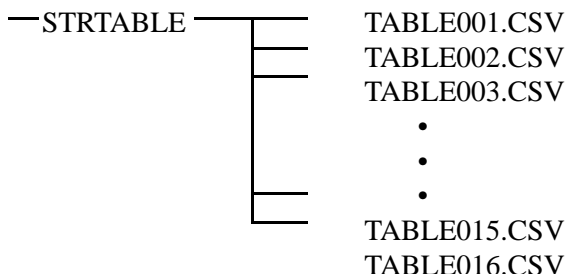
■ File Format

The format of the file output as an external file (∗.CSV) is as follows.
Files are output separately for each table.

| Base 1(Untitled) | Text Table |

Text Table

| Go To | Change Language | Select Table | Preferences | Utility |

Number	Characters	umber of Lin	1: ASCII Table 1	2: Japanese Table 2
1	10	1	Alarm	警報
2	10	1	OK	確認
3	10	1	Pressure	圧力異常
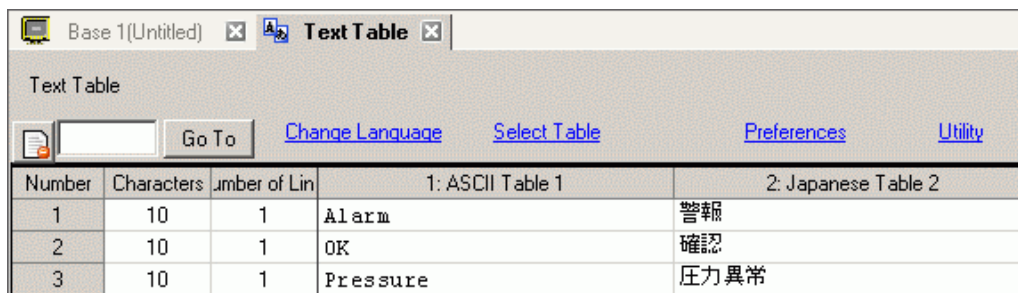
Output

String Table Data	. . . .Header (Necessary for output)
"1"	. . . .Table Number
"Table 1"	. . . .Each table's Table Name
"ja-JP"	. . . .Each table's Language Code [1]
1,"10","1", " ", "Alarm"	. . . .The number of characters in Number 1, Number of Rows, Each table's text
2,"10","1"," ","OK"	. . . .The number of characters in Number 2, Number of Rows, Each table's text
3,"10","1"," ","Pressure"	. . . .The number of characters in Number 3, Number of Rows, Each table's text

	A	B	C	D
1	String Table Data			
2				1
3				Table 1
4				en-US
5	1	10	1	Warning
6	2	10	1	Check
7	3	10	1	Pressure

Index Number

Number of Characters

Number of Characters

1 Text Table files (∗.txt or ∗.csv) displays each table's language with the following language codes.

Language	Japanese	ASCII	Chinese (Traditional)	Chinese (Simplified)	Korean	Cyrillic	Thai
Language Code	ja-JP	en-US	zh-TW	zh-CN	ko-KR	ru-ru	th-TH

17.8 Displaying Bulletin Message on Multiple GP Screens

17.8.1 Introduction

Distribution of Bulletin Message
We will have a general meeting.
Please gather at the main meeting room immediately.
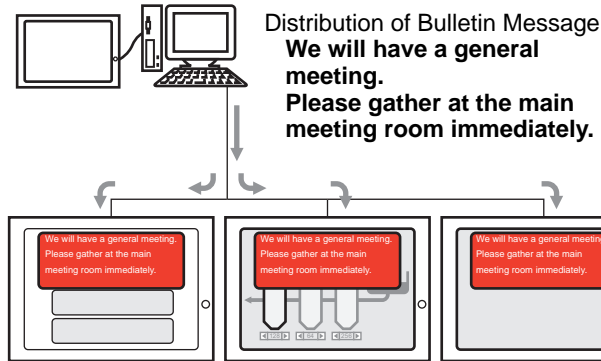
The Bulletin Message sent from the upper level can be displayed on the screens of multiple GPs. If a Bulletin Message Display is placed on the window screen, the Bulletin Message is displayed over any display on the GP screen so it is possible to view, for example, emergency message immediately.

17.8.2 Setup Procedure

NOTE

• Please refer to the Settings Guide for details.
)"17.9.1 Message Display Settings Guide ■ Bulletin Message" (page 17-60)
)"5.17.6 [System Settings] Setting Guide ◆ Mode" (page 5-152)

• For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
)"8.6.1 Editing Parts" (page 8-44)

Distribution of Bulletin Message
We will have a general meeting.
Please gather at the main meeting room immediately.

We will have a general meeting. Please gather at the main meeting room immediately.

We will have a general meeting. Please gather at the main meeting room immediately.

We will have a general meeting. Please gather at the main meeting room immediately.
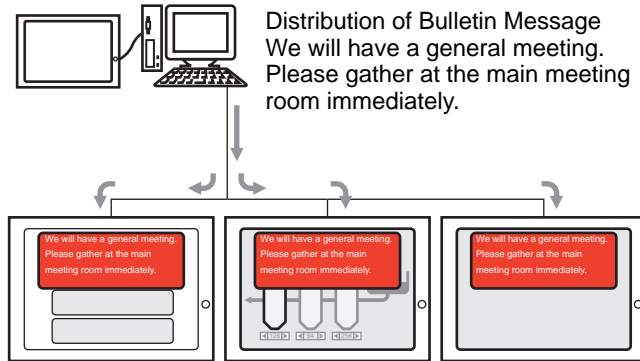
1 In the [System Settings], select [Display Unit].

System Settings

Display
Display
Display Unit
Logic Programs
Video/Movie
Font

Peripheral Settings
Peripheral List
Device/PLC
Printer
Input Equipment
Script
I/O Driver
FTP Server
Modem
Video Module/DVI Unit

Sy Ad Co Se Co Sc

NOTE

• If the [System Settings] tab is not displayed in the workspace, on the [View (V)] menu, point to [Workspace (W)], and then click [System Settings (S)].

2 When you click the [Mode] tab, the following screen is displayed. Select [Indirect] in [Global Window Operation].
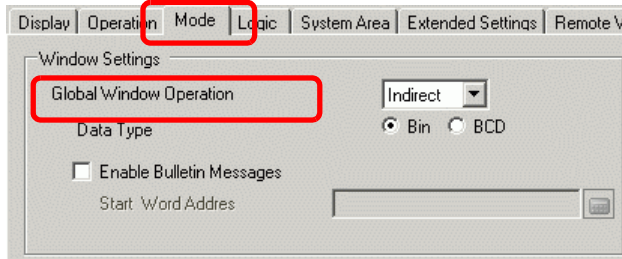
3 Select [Data Type] and select [Enable Bulletin Messages] check box.

4 Specify the start word address of the internal address in [Start Word Address].

Select the device "LS", input "100" in the address, and press the "Ent" key.

Click to display an address input keypad.

5 From the [Parts (P)] menu, select [Message Display (M)] or click [abc] . Place the Part on the screen.

6 Double-click the new Message Display. The following dialog box appears. Click [Bulletin Message].
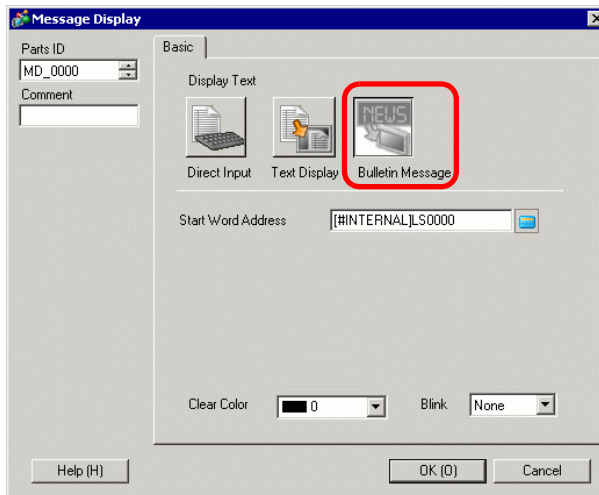
7 Select the Data Display shape from [Select Shape].

8 In [Start Word Address], set the address (LS100) to trigger the message display.

9 As needed, set the background [Clear Color] and [Blink] for the background of the display area, and click [OK].

17.9 Settings Guide

17.9.1 Message Display Settings Guide

Setting	Description
Part ID	Parts are automatically assigned an ID number. Text Display Part ID: MD_∗∗∗∗ (4 digits) The letter portion is fixed. You can change the number portion within the range of 0000-9999.
Comment	The comment for each Part can be up to 20 characters.
Part Shape	Displays the shape and status of the Part selected in [Select Shape].
Select Shape	Open the Select Shape dialog box to choose the Part shape.
Message Display Type	Select the Text Display part type. • Direct Input 　The displayed message changes according to the bit address ON/OFF state or the word address value. 　)" ■ Direct Input" (page 17-48) • Text Display 　Text registered to a text screen is changed and displayed. 　)" ■ Text Display" (page 17-53)
No Shape	When [Text Display] is selected, select whether or not the part will be transparent with no shape.
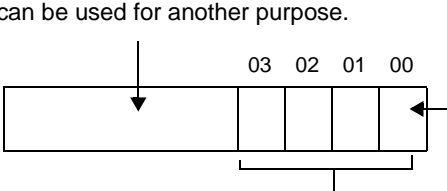
NOTE	• When Visible//Invisible is changed due to Visibility Animation, the operation of Message Display may differ. For more details on Visibility Animation, refer to the following:)"20.3 Showing and Hiding Objects" (page 20-8)

■ **Direct Input**

◆ **Basic**

Setting	Description

Action Mode	Select the method for changing Messages.
	• Bit
	  The Message changes in response to the bit address turning ON/OFF.
	• Word
	  The Message changes in response to which bits are displayed in the Word Address. Bits (starting from Bit 00) from the Word Address are automatically allocated, depending on the [Number of Messages] (2, 4, 8, 16) setting on the [Display] tab.
	
	When the Number of Messages is 2, only the 00 bit is used.
	
	The remaining bits can be used for another purpose.
	
	<table><tr><th>Number of Messages</th><th>Number of Bits Used</th></tr><tr><td>2</td><td>1</td></tr><tr><td>4</td><td>2</td></tr><tr><td>8</td><td>3</td></tr><tr><td>16</td><td>4</td></tr></table>
	When the Number of Messages is 16, bits 00-03 are used.

Address	Select the address which will trigger the Message display.

◆ **Display (Direct Text)**
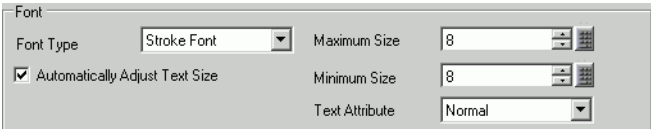
Setting		Description
Direct Text		For each state, defines message strings entered directly in the [Register Message] box.
Number of Messages		Select the number of Messages to display from 2, 4, 8, or 16. This option is available when the [Mode] field on the [Basic] tab is set to [Word].
Select State		Type a message for each selected state. When the [Mode] field on the [Basic] tab is set to [Bit], ON/OFF will display. When the [Mode] field on the [Basic] tab is set to [Word], the state indication buttons (State 0 to State 15) appear according to the Number of Messages set.
Font		Set a font for the text.
	Font Type	Choose a font type for the text from [Standard Font] or [Stroke Font].
	Size	Choose a font size for the text. Standard Font: Specify horizontal and vertical font dimensions in increments of 8 pixels, from [8 x 8] to [64 x 128], or select fixed font sizes of [6 x 10], [8 x 13], or [13 x 23]. When using fixed sizes, you can display only single-byte alphanumeric characters. Stroke Font: 6 to 127
	Display Language	Select the display language: [ASCII], [Japanese], [Chinese (Simplified)], [Chinese (Traditional)], [Korean], [Cyrillic], or [Thai].
	Text Attributes	Select the text attributes. Standard Font: Choose from [Standard], [Bold], [Shadow] (When using the [6 x 10] font size, select either [Standard] or [Shadow].) Stroke Font: Choose from [Standard], [Bold], [Outline]
Align		Select the alignment of the text. Continued

Continued

Setting	Description
Register Message	Type the text to be displayed. The comment can be up to 100 single-byte characters x 4 rows.
Copy Comment	Copies the text in the [Comment] field to the Message field selected in [Select State].
Copy to All	Copies all the text in the Register Message field selected in [Select State] to all states.
Delete	Deletes the message.

◆ **Display (Text Table)**

Setting		Description
Text Table		Displays Text registered as a Text Table.
Select State		Type a message for each selected state. When the [Mode] field on the [Basic] tab is set to [Bit], ON/OFF will display. When the [Mode] field on the [Basic] tab is set to [Word], the state indication buttons (State 0 to State 15) appear according to the Number of Messages set.
Font		Set a font for the text.
	Font Type	Choose a font type for the text from [Standard Font] or [Stroke Font].
	Automatically Adjust Text Size	If you select [Stroke Font], the [Automatically Adjust Text Size] option appears. By selecting this option, the font size adjusts automatically to fit the text in the part.) "17.9.8 Placing Text When Using Text Tables ◆ Automatically Adjust Text Size" (page 17-76)

Continued

Setting		Description
Font	Size	Choose a font size for the text. Standard Font: Specify horizontal and vertical font dimensions in increments of 8 pixels, from [8 x 8] to [64 x 128], or select fixed font sizes of [6 x 10], [8 x 13], or [13 x 23]. When using fixed sizes, you can display only single-byte alphanumeric characters. Stroke Font: 6 to 127 When using [Automatically Adjust Text Size], define the [Maximum Size] and [Minimum Size] of fonts. The text font size is adjusted within this range.
	Text Attributes	Select the text attributes. Standard Font: Choose from [Standard], [Bold], [Shadow] (When using the [6x10] font size, select either [Standard] or [Shadow].) Stroke Font: Choose from [Standard], [Bold], [Outline]
Register Message		Select the text string from registered strings in the Text Table. NOTE • If you select [Add Text], you can type new text in the Text Table.
Fixed Position		You can fix the display position of the Text. If you set the text to a fixed position, the Text Display area is fixed in the center of the Message Display.
Center		Displays the text in the center of the Text Display Area. ☞ "17.9.8 Placing Text When Using Text Tables ■ Message Display" (page 17-76)

◆ **Color**

Setting	Description
Select State	Select a color for each selected state. When the [Mode] field on the [Basic] tab is set to [Bit], ON/OFF will display. When the [Mode] field on the [Basic] tab is set to [Word], the state indication buttons (State 0 to State 15) appear according to the Number of Messages set.
Text Color	Select a color for the displayed text.
Shadow Color	Choose a shadow color for the text to display. [Display] tab's [Text Attribute] = [Shadow] is the only time you can use this feature.
Plate Color	Select the Message Display color (background color for the displayed text).
Border Color	Select the Message Display border color.
Blink	Select the blink and blink speed. [Font Color], [Shadow Color], [Plate Color], and [Border Color] can all be set up with different blink settings. **NOTE** • There are cases where you can and cannot set Blink depending on the Display Unit and System Settings' [Color]. ☞ "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)

■ **Text Display**

◆ **Basic Settings/Basic**
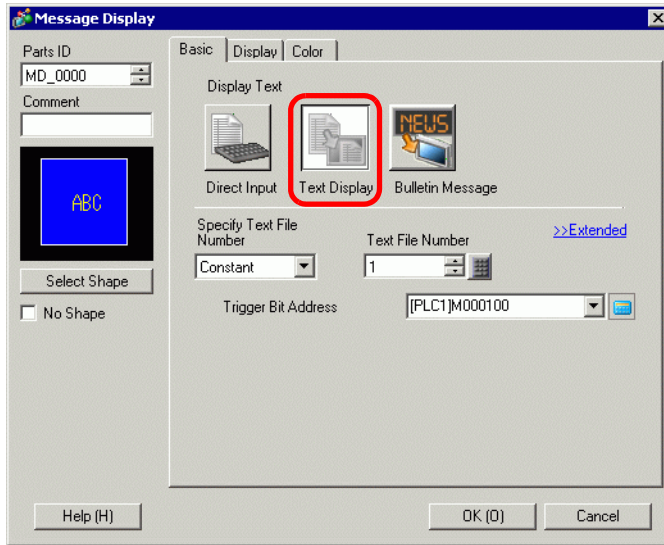
Setting			Description

Specify Text Number			Choose how the Text Number will be specified.
			• Constant
			  Specify a set constant in [Text Number]
			• Address
			  Select an address that will store the Text Number.

	Constant		Shows/hides the fixed text by turning the bit ON/OFF.
		Text Number	Set a number for the text from 1 to 8,999.
		Bit Address	Set a bit address to display the text. Displays the text selected in [Text Number] if you turn ON this bit and hides the text if you turn it OFF.
	Address		Displays desired text on the Message Display.
		Text Number Word Address	Set the address where the text number to display is stored. The text with the number stored in this address displays.
		Data Type	Select the data type of the text number to be stored in [Address].

◆ **Basic/Extended**

If you click [Extended] on the [Basic] tab, you can configure settings to display registered text from the specified row.

Text Registration Screen
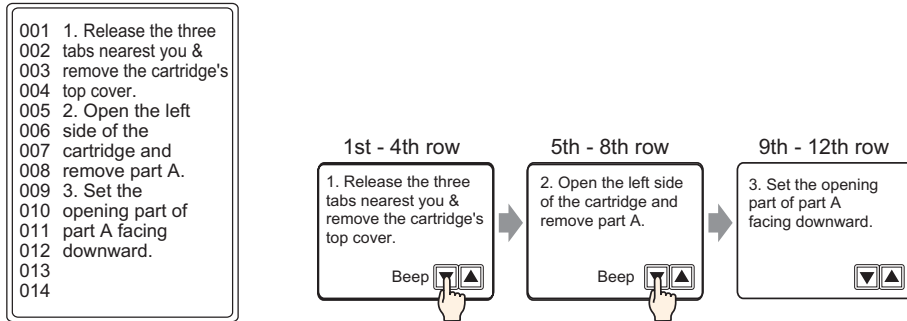
When [Specify Text Number] is [Constant]

Displays fixed text starting from various rows.

Setting	Description
Text Number	Set a number for the text from 1 to 8,999.
Start Row Bit Address	Set the start bit address to store the text display's start row specification data. You can set a bit address or a word address to specify bits. The display start row is determined by the data stored in the range of the start row to the bit specified in [Number of Bits] and the [Rows Scroll].

Continued

Setting	Description
Number of Bits	Sets how many bits, from the [Start Row Bit Address], are used for Display Start Row Specification. Select a value from 1 to 16. The number of bits to use will differ depending on the specified [Rows Scroll]. For example, 12 rows of text, Scroll will move by 4 rows each time: using 2 bits Because the number of bits used is set from the Display Start Row Specification data, the empty portion of the Reserved Area can be used for other purposes. For example, Start Row Bit Address: D100 bit 08, Number of Bits: 4 **NOTE** • When setting the [Number of Bits], please ensure that the allocated bits are in one word. Even if the number of bits is set to span across two words, only the address specified in [Start Row Bit Address] will be allocated as the Display Start Row. For example, Start Row Bit Address: D100 12 bit, Number of Bits:10

Continued
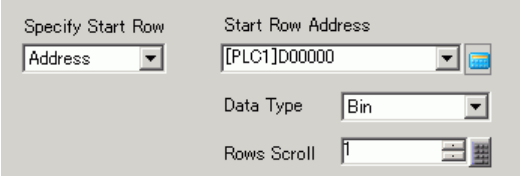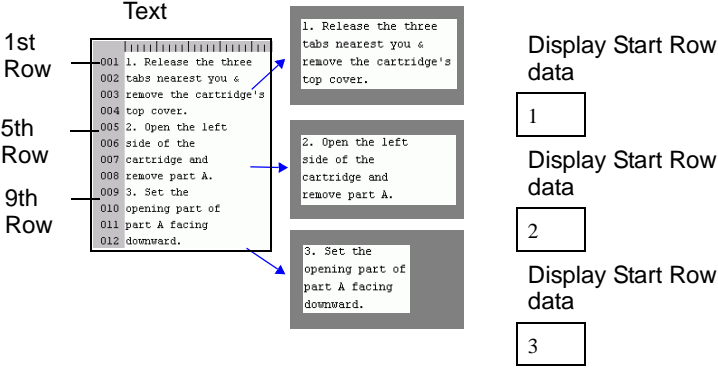
Setting	Description
Rows Scroll	Set the number of rows the display scrolls when the Start Row data changes.Use a number from 1 to 256. 　Display Start Row = Rows Scroll (Display Start Row data -1) +1 For example, [Display Rows] = 4, [Rows Scroll] = 4 　Display Start Row data = 1　Display Start Row = 1 　Display Start Row data = 2　Display Start Row = 5 　Display Start Row data = 3　Display Start Row = 9 If the Display Start Row is "0", the text does not display, and the Message Display's Display Area is shown with a transparent color.

When [Specify Text Number] is [Address]

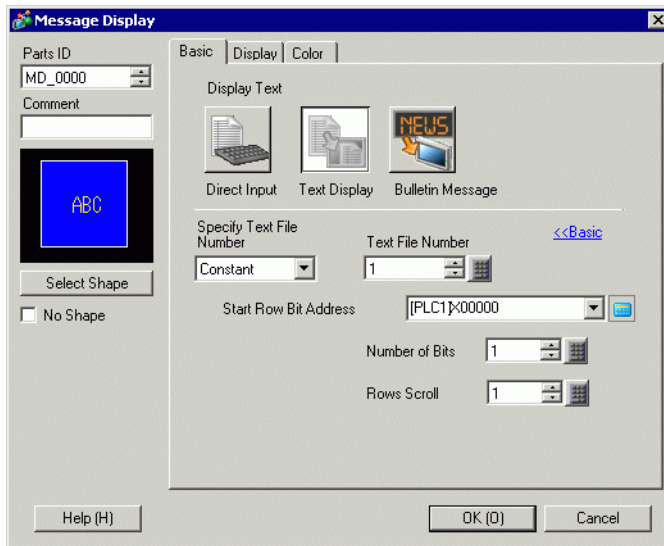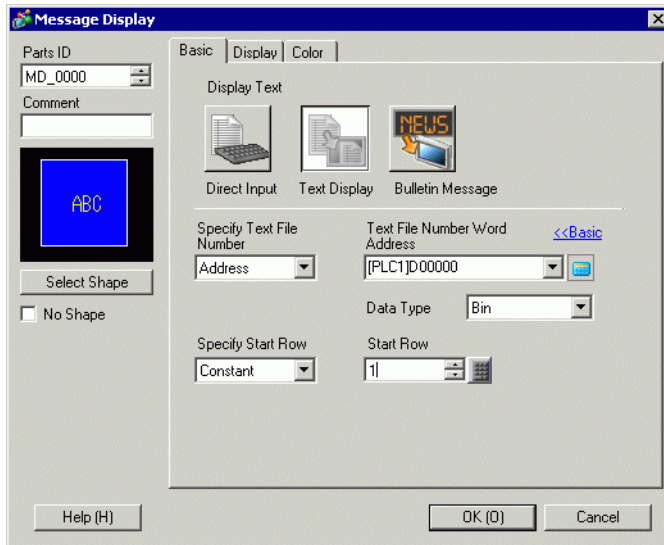| Setting	Description
Text Number Word Address	Set the address where the text number to display is stored. The text with the number stored in this address displays.
Data Type	Select the data type of the text number to be stored in [Address].

Continued

Setting			Description
Specify Start Row			Choose how the text's Start Row is specified. • Constant Specify a set constant as the Display Start Row. • Address Specify the address where the display start row is stored.
	Constant		Desired text displays starting from fixed lines.
		Start Row	Set a number for the text's Display Start Row from 1 to 512. When the start row does not exist, the operation is ignored. The previously displayed rows remain.
	Address		Displays desired text starting from various rows.
		Start Rung Address	Set the address of the word address that stores the text's Display Start Row. The Display Start Row is decided by the data stored in this field and by the [Rows Scroll]. When the start row does not exist, the operation is ignored. The previously displayed rows remain. The display is cleared when the Display Start Row is set to "0".
		Data Type	Choose the format for the text's Display Start Row.
		Scroll Columns	Set the number of rows the display scrolls when the Start Row data changes.Use a number from 1 to 256. Display Start Row = Rows Scroll (Display Start Row data -1) +1 For example, [Display] tab [Display Rows] = 4, [Rows Scroll] = 4 Display Start Row data = 1 Display Start Row = 1 Display Start Row data = 2 Display Start Row = 5 Display Start Row data = 3 Display Start Row = 9 If the Display Start Row data is "0", the text does not display, and the Message Display's Display Area is shown with a transparent color.

◆ **Display**

Setting	Description
Font Type	Choose from [Standard Font] or [Stroke Font].
Size	Choose a font size for the text. Standard Font: Specify horizontal and vertical font dimensions in increments of 8 pixels, from [8 x 8] to [64 x 128], or select fixed font sizes of [6 x 10], [8 x 13], or [13 x 23]. When using fixed sizes, you can display only single-byte alphanumeric characters. Stroke Font: 6 to 127
Display Characters	Set the number of single-byte characters to be displayed on each line from 1 to 100.
Display Rows	Set the number of lines of text to be displayed from 1 to 50.

◆ **Color**

Setting	Description
Text Color	Select a color for the displayed text.
Background Color	Select the Message Display color (background color for the displayed text).
Border Color	Select the Message Display border color.
Clear Color	Select a color for the Display Area for after the Message has been cleared (when the text of the corresponding number does not exist).
Blink	Select the blink and blink speed. For the [Font Color], [Background Color], [Border Color], and [Clear Color] can be set up with different blink settings.
	NOTE
	• There are cases where you can and cannot set Blink depending on the Display Unit and System Settings' [Color Settings].
	☞ "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)

■ Bulletin Message

◆ Basic

Setting	Description
Start Word Address	Select the start internal address (LS area, USER area or memory link system area) which will trigger the message display.
Clear Color	Select a color of the display area used when a message is cleared.
Blink	Select the Part blink and blink speed. **NOTE** • There are cases where you can and cannot set Blink depending on the Display Unit and System Settings' [Color Settings]. ☞ "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)

17.9.2 Common (Text Registration) Settings Guide

Setting	Description
Input Multilanguage	Select this check box to use Multilanguage input.
Language	Choose the language for the text: [ASCII], [Japanese], [Chinese (Traditional)], [Chinese (Simplified)], [Korean], [Cyrillic], or [Thai].
Text Input Border	You can enter text with up to 100 single-byte characters per row x 512 rows.
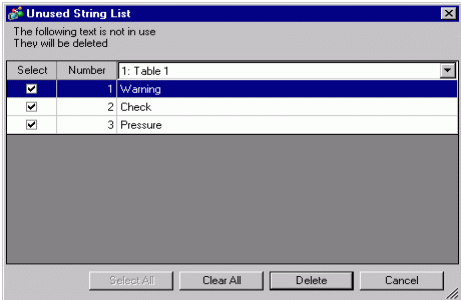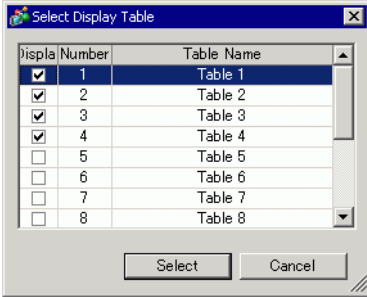
◼ Text (Input Multilanguage) Settings Guide
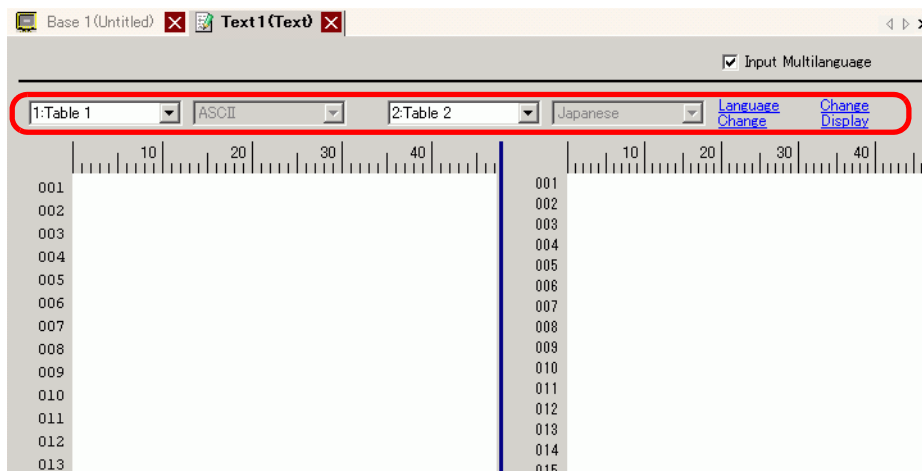
Setting	Description
Language Change Settings	The [Language Change Settings] dialog box appears. Set a language for each table. ☞ " ◼ [Language Change] Dialog Box" (page 17-64)
Change Display Unit	Changes the setting to display only one table or display two overlapping tables.
Select Table	Select the table to register text from [1:Table 1] to [16:Table 16].

17.9.3 Text Table Settings Guide
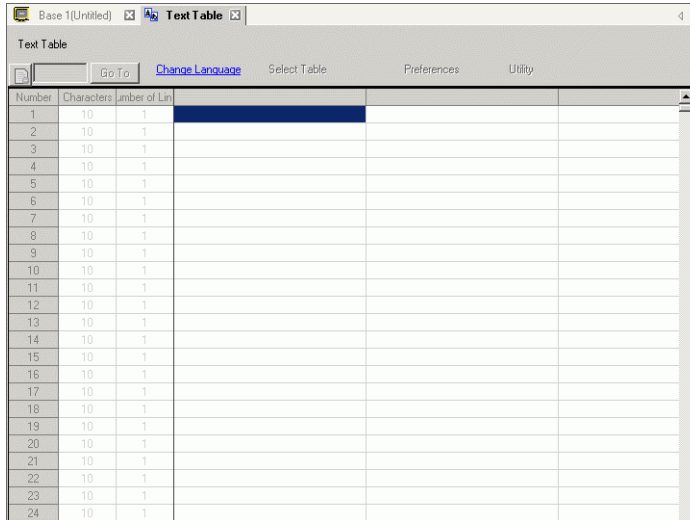
Setting	Description
Unused Text List	Click the 🗐 icon to display the [Unused Text List] dialog box. You can select and delete unused text collectively or separately.
Jump	Go to a specific row number.
Language Change Settings	Displays the [Language Change] dialog box.)" ■ [Language Change] Dialog Box" (page 17-64)
Select Table to Show	Set the tables to display on the Text Table setting screen. Select the check boxes next to the necessary tables to register the Text Table.
Import	Import Text Tables in either CSV or TXT file formats.)" ■ [Import Text Table] Dialog Box" (page 17-66)

Continued

Setting	Description
Export	Export Text Tables in either CSV or TXT file formats. ☞ " ■ [Export Text Table] Dialog Box" (page 17-65)
Preferences	Select how to handle inputs in the Text Table. On the [View (V)] menu click [Preferences(O)].Open the [Text Table] editor. • Use Defined Limits You cannot enter more than the character limit defined in the [Text Table] [Number of Characters] field. You cannot insert new lines by typing [Alt]+[Enter]. • Adjust Automatically All text inputs are accepted, even if you exceed the [Text Table] [Number of Characters] or [Number of Lines] fields. You can also insert new lines by typing [Alt]+[Enter].
Utility	
Create Display Unit File	Files are exported to different folders for each Text Table, and saved in the specified folders.
Text Table	Register text. You can register up to 10,000.
Number	Displays the Text Table's index number (row number).
Number of Characters	Set the number of characters to display on each row from 1 to 100 single-byte characters. The total number of characters ([Number of Characters] x [Number of Text Rows]) cannot exceed 1200 single-byte characters. **NOTE** • Each row's [Number of Characters] and [Number of Text Rows] are available in all tables.
Number of Text Rows	Set the Number of Text Rows from 1 to 40. The total number of characters ([Number of Characters] x [Number of Text Rows]) cannot exceed 1200 single-byte characters. **NOTE** • Each row's [Number of Characters] and [Number of Text Rows] are available in all tables. • If text spans across multiple rows, Alt + Enter will line feed. "\n" indicates a line feed. • Even if such an index number is specified on an Alarm Message, only the first line displays.
Input Text Field	Enter text to display for each table set in [Language Change].

■ **[Language Change] Dialog Box**

Set the Text Table language and the address to control the language change feature.

Setting	Description
Language Change Feature Enable	Select the check box to use the Language Change feature.
Switching Control Address	Select the address where the Table Number is stored. **NOTE** • When you specify a table number for which nothing is set, only a blank Text Display Area is shown.
Initial Table	Defines the table to display when the value in the [Switching Control Address] is zero.
Table Name	Set a table name of up to 30 characters for each table.
Language	Choose the language for each table.

■ [Export Text Table] Dialog Box

Saves registered Text Table data in TXT file format or CSV file format.

Setting	Description
File Code Type	Select the code type of the file to export: [Unicode], [ASCII (Windows)], [Japanese (Shift- JIS)], [Chinese Traditional (Big5)], [Chinese Simplified (GB2312)], [Korean], [Cyrillic (Windows)], or [Thai (Windows)]. **NOTE** • To export multiple languages at the same time, select [Unicode]. If you select other code types, text is not properly output to the files. • If [Unicode] is selected, the file extension is "txt". If other code types are selected, the extension is "csv".
Export File Name	Type a file name. Or click [Browse] to browse to a folder location.
Export Table	Select the check boxes next to the Text Tables you want to export. Clear the check boxes next to Text Tables that you do not want to export.

■ [Import Text Table] Dialog Box

Imports Text Table files (∗.txt or ∗.csv) to a project.

Setting	Description
Import File Name	Click [Browse] and select a file to import.
File Code Type	If the Text Table file to import is a CSV format file (∗.csv), select the appropriate code type: [Unicode], [ASCII (Windows)], [Japanese (Shift JIS)], [Chinese Traditional (Big5)], [Chinese Simplified (GB2312)], [Korean], [Cyrillic (Windows)], or [Thai (Windows)]. For import files that are the text format (∗.txt), the only option is [Unicode]. **NOTE** • To import multiple languages at the same time, select [Unicode].
Import File Information	The [Table Name] and [Language] of the file to import are displayed. Select the check box to the left of the table name to import the table. Clear the check boxes next to tables you do not want to import. The imported Text Tables overwrite any existing tables in the project file.

■ [Create Display Unit File] Dialog Box
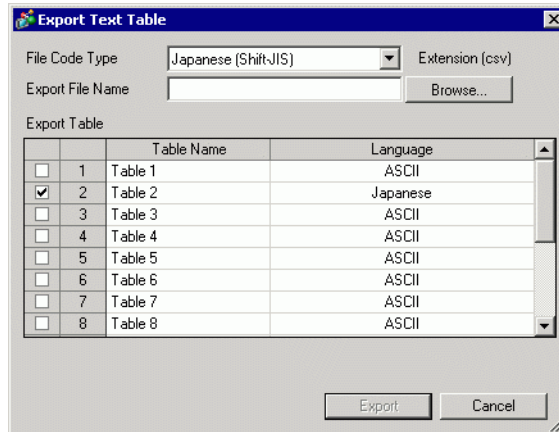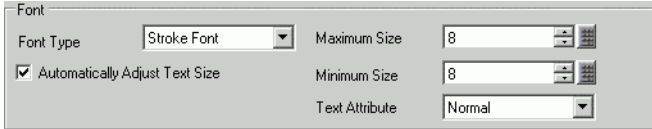
Setting	Description
File Code Type	Select the code type of the file to create: [Unicode], [ASCII (Windows)], [Japanese (Shift- JIS)], [Chinese Traditional (Big5)], [Chinese Simplified (GB2312)], [Korean], [Cyrillic (Windows)], or [Thai (Windows)].
Destination Folder Name	Specify the name of the folder to save the created file.

NOTE • The created file cannot be imported.

17.9.4 Switch/Lamp - Label (Enable Text Table) Settings Guide
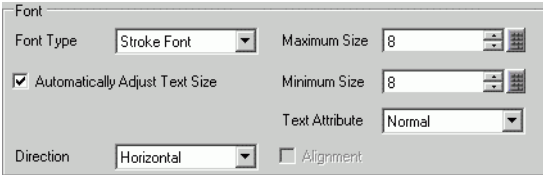
Setting		Description
Text Table		Displays Text registered as a Label.
Select State		Select the Lamp state. If the Lamp Feature is not used, only [Normal] can be selected. If the Lamp Feature is used, you can set the label corresponding to the lamp state. **NOTE** • To set a label that is interlocked or in delay, set the [Switch Common] tab's Extended Settings to [Show Interlocked Condition] or [Show In-Delay Status]. This will add the [Select State] choice.
Font		Set a font for the Label text.
	Font Type	Choose a font type for the text from [Standard Font] or [Stroke Font].
	Automatically Adjust Text Size	If you select [Stroke Font], the [Automatically Adjust Text Size] option appears. By selecting this option, the font size adjusts automatically to fit the text in the part.
	Size	Choose a font size for the text. Standard Font: Specify horizontal and vertical font dimensions in increments of 8 dots, from [8 x 8] to [64 x 128], or select fixed font sizes of [6 x 10], [8 x 13], or [13 x 23]. When using fixed sizes, you can display only single-byte alphanumeric characters. Stroke Font: 6 to 127. When using [Automatically Adjust Text Size], define the [Maximum Size] and [Minimum Size] of fonts. The text font size is adjusted within this range.

Continued

Setting		Description
Font	Text Attributes	Select the text attributes. Standard Font: Choose from [Standard], [Bold], [Shadow] (When using the [6 x 10] fixed font size, the options are [Standard] or [Shadow].) Stroke Font: Choose from [Standard], [Bold], [Outline]
Text		Select text used as the Label from the registered Text Tables. If you select [Add Text], the dialog box appears and you can add new text in the Text Table.
Text Color		Select a text color for the Label.
Shadow Color		Select a shadow color for the label text. **NOTE** • This can only be set when [Shadow] is set in [Text Attribute].
Background Color		Set the background color for the text.
Blink		Select the blink and blink speed. [Font Color], [Shadow Color], and [Background Color] can all be set up with different blink settings. **NOTE** • There are cases where you can and cannot set Blink depending on the Display Unit and System Settings' [Color Settings]. ☞ "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)
Fixed Position		When clicked, the Label is positioned in the center of the Part. ☞ "17.9.8 Placing Text When Using Text Tables ■ Switch Lamp Label" (page 17-74)
Line Spacing		Set a value from 0 to 255.
Align		Select the alignment of the text.

17.9.5 Drawing Text (Using the Text Table) Settings Guide

Setting		Setting
Text Table		Displays Text registered as a Text Table.
Font		Set a font for the text.
	Font Type	Choose a font type for the text.
	Automatically Adjust Text Size	If you select [Stroke Font], the [Automatically Adjust Text Size] option appears. By selecting this option, the font size adjusts automatically to fit the text in the part. **NOTE** • This property is unavailable when the [Direction] is [Vertical].
	Text Size	Choose a font size for the text. Standard Font: Specify horizontal and vertical font dimensions in increments of 8 dots, from [8 x 8] to [64 x 128], or select fixed font sizes of [6 x 10], [8 x 13], or [13 x 23]. When using fixed sizes, you can display only single-byte alphanumeric characters. Stroke Font: 6 to 127. When using [Automatically Adjust Text Size], define the [Maximum Size] and [Minimum Size] of fonts. The text font size is adjusted within this range.

Continued

Setting		Setting
Font	Text Attributes	Select the text attributes. Standard Font: Choose from [Standard], [Bold], [Shadow] (When using the [6 x 10] font size, select either [Standard] or [Shadow].) Stroke Font: Choose from [Standard], [Bold], [Outline]
	Direction	Select from [Horizontal] or [Vertical].
	Centering	When [Vertical] is selected in [Direction], align the center of the text.
Color		Configure the color settings for the text.
	Text Color	Select the text's color.
	Background Color	Set the background color for the text.
	Shadow Color	This can only be set when [Shadow] is set in [Text Attribute].
Blink		Select the blink and blink speed. For the [Font Color], [Background Color], and [Shadow Color] can all be set up with different blink settings. **NOTE** • There are cases where you can and cannot set Blink depending on the Display Unit and System Settings' [Color Settings]. ☞ "8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)
Align		When [Horizontal] is selected in [Direction], select the alignment of the text.
Line Spacing		Set a value from 0 to 255.
Text		Select text to display from the registered Text Tables. If you select [Add Text], the dialog box appears and you can add new text in the Text Table.
Center		When [Horizontal] is selected in [Direction], set whether to display the text in the center of the text display area. ☞ "17.9.8 Placing Text When Using Text Tables ■ Text" (page 17-75)

17.9.6 Alarm Part - Item/Extended (Text Table) Settings Guide

Setting		Description
Show Item Name		Select the check box next to [Show Item Name] to display the text on the Alarm Part. When [Text Table] is selected in [Show-Item-Name Settings], select text to use as an Item Name from the registered Text Tables. If you select [Add Text], the dialog box appears and you can add new text in the Text Table.
Show-Item-Name Settings		Configure settings for Item Name display.
	Font Type	Choose a font type for the Item Name.
	Size	Set a font size for the Item Name. Standard Font: Specify horizontal and vertical font dimensions in increments of 8 pixels, from [8 x 8] to [64 x 128], or select fixed font sizes of [6 x 10], [8 x 13], or [13 x 23]. When using fixed sizes, you can display only single-byte alphanumeric characters. Stroke Font: 6 to 127
	Text Attributes	Select the text attributes. Standard Font: Choose from [Standard], [Bold], [Shadow]. (When using the [6 x 10] font size, select either [Standard] or [Shadow].) Stroke Font: Choose from [Standard], [Bold], [Outline]
	Display Color	Select the Item Name's text color.
	Blink	Select the blink and blink speed. You can choose blink settings for [Display Color]. NOTE • There are cases where you can and cannot set Blink depending on the Display Unit and System Settings' [Color Settings].)"8.5.1 Setting Colors ■ List of Compatible Colors" (page 8-36)

17.9.7 Alarm (Enable Text Table) Settings Guide

Setting	Description
Enable Text Table	Select this check box to use the text registered in Text Tables as an Alarm Message. If this option is set, you can change languages of the Alarm Messages to display while the system is active. **NOTE** • If Alarm Messages are set and then you select this check box, the messages are deleted. • The [Language] and [Enable Text Table] settings are available to all Alarms (Alarm History's each block, Banner, and Show Summary). Direct Inputted messages and messages added on a Text Table cannot be displayed at the same time.
Language Change Settings	Displays the [Language Change] dialog box.) " ■ [Language Change] Dialog Box" (page 17-64)
Text Table	Select the Text Table to use.
Message	Select the text to use as a message from the text registered in the table selected in [Text Table]. **NOTE** • When multiple lines of text are selected, only the first line displays.

17.9.8　Placing Text When Using Text Tables

■ Switch Lamp Label

◆ Text Display Area

The size of a Part's text display area changes according to the size specified in the Text Table ([Number of Characters] x [Number of Text Rows]). Even when the number of characters in the Text Table is smaller than the set [Number of Characters] x [Number of Text Rows], the text display area remains the same size. Text always displays in the center of the text display area.

For example, Number of Characters = 6, Number of Text Rows = 3
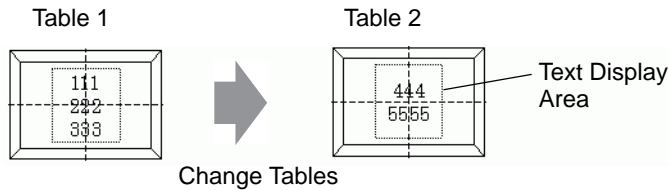
Table 1　　　　Table 2　　　　Text Display Area

Change Tables

NOTE	• When using [Stroke Font], select the Automatically Adjust Text Size check box to automatically adjust the font size so it fits inside the part.

◆ Align ([Align Left], [Align Center], [Align Right])

When multiple rows are set to the Text Table, the row with the largest number of characters (in the following example, the second row, "5555") is fixed and the other rows can be aligned to it with [Align Left], [Align Center], or [Align Right].
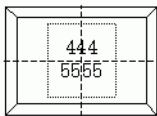
Set [Align Center]　　　Set [Align Left]　　　Set [Align Right]
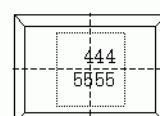
◆ Fixed Position

When [Fixed Position] is set:
The text display area is always fixed in the center of a Part.

Text Display Area

Part size gets bigger

The text display area is fixed in the center.
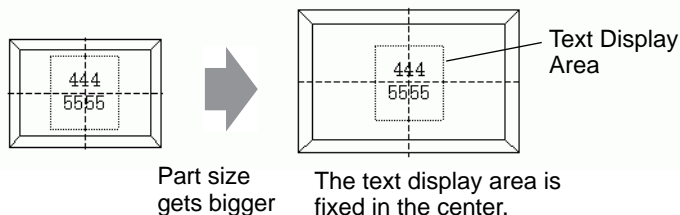
When [Fixed Position] is not set:
You can move the text display area to the desired position on a Part.

Part size gets bigger   The text display area is not fixed in the center.
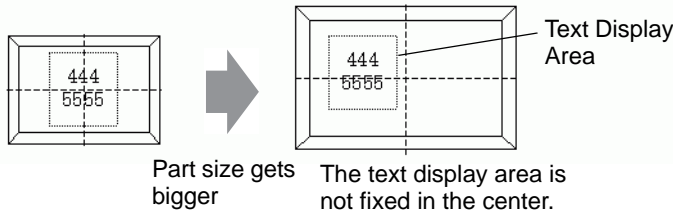
■ Text

◆ Text Display Area

The size of a Draw [Text]'s text display area changes according to the size specified in the Text Table ([Number of Characters] x [Number of Text Rows]). Even when the number of characters in the Text Table is smaller than the set [Number of Characters] x [Number of Text Rows], the text display area remains the same size.

For example, Number of Characters = 6, Number of Text Rows = 3

Change Tables
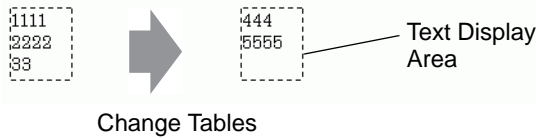
NOTE
• When using [Stroke Font], select the Automatically Adjust Text Size check box to automatically adjust the font size so it fits inside the part.

◆ Center

Centers the text in the Text Display Area.
If you specify the second row text in table 1, or the third row text in table 2, the text displays in the center of the display area.
When [Center] is set:

Set [Center]   Change Tables

When [Center] is not set:

Do not set [Center]   Change Tables

◆ Align ([Align Left], [Align Center], [Align Right])

When multiple rows are set to the Text Table, the row with the largest number of characters (in the following example, the second row, "5555") is fixed and the other rows can be aligned to it with [Align Left], [Align Center], or [Align Right].

Set [Align Left]   Set [Align Center]   Set [Align Right]

```
444          444          444
5555         5555         5555
```
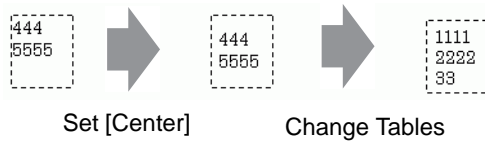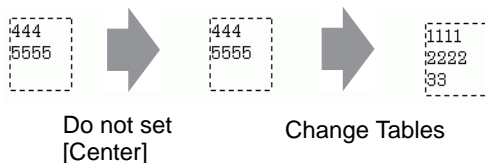
◆ Automatically Adjust Text Size

When using [Stroke Font] and you select the [Automatically Adjust Text Size] check box, the text size is automatically adjusted to fit. However, if minimized text does not fit in the frame, any text that exceeds the frame size does not display.

When all text fits in the frame   When minimized characters do not fit in the frame
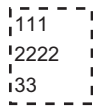
```
111                 111111              1111111111 1
2222                222222222222         11111
33                  3333333333          2222222222222
                                        2222222
                                        3333333333
                                        3333
```
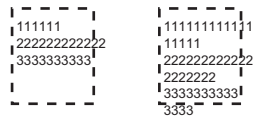
With [Stroke Font], when you select the [Automatically Adjust Text Size] check box, the text size is maximized as defined.

```
111111
222222
333333
```
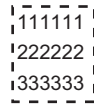
NOTE • Automatically Adjust Text Size is not available for vertical text.

■ Message Display

◆ Text Display Area

The size of a Message Display's text display area changes according to the size specified in the Text Table ([Number of Characters] x [Number of Text Rows]). Even when the number of characters in the Text Table is smaller than the set [Number of Characters] x [Number of Text Rows], the text display area remains the same size.

For example, Number of Characters = 6, Number of Text Rows = 3

```
1111                444
2222                5555        Text Display
33                              Area
```

Change Tables
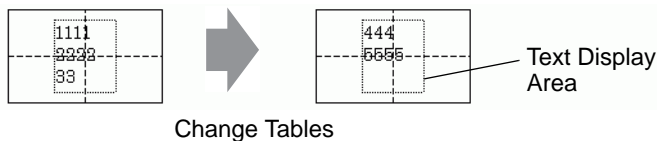
NOTE • When using [Stroke Font], select the Automatically Adjust Text Size check box to automatically adjust the font size so it fits inside the part.

◆ **Center**

Displays the text in the center of the Text Display Area.

If you specify the second row text in table 1, or the third row text in table 2, the text displays in the center of the display area.

When [Center] is set:

Set [Center]   Change Tables

When [Center] is not set:

Do not set   Change Tables
[Center]

◆ **Align ([Align Left], [Align Center], [Align Right])**
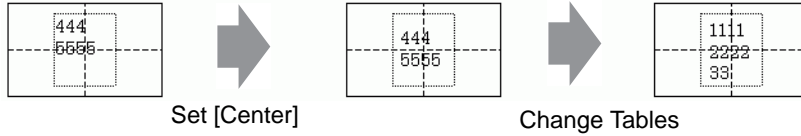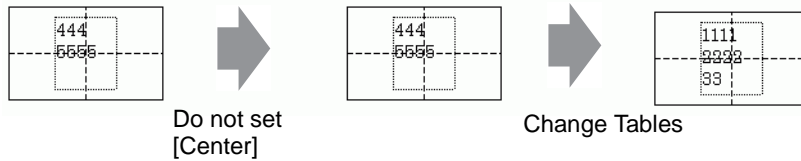
When multiple rows are set to the Text Table, the row with the largest number of characters (in the following example, the second row, "5555") is fixed and the other rows can be aligned to it with [Align Left], [Align Center], or [Align Right].

Set [Align Left]   Set [Align Center]   Set [Align Right]
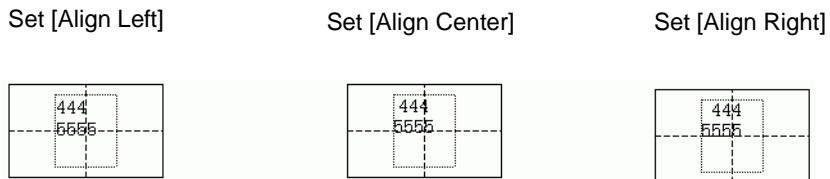
17.9.9   Bulletin Message Parts

■ Display Range of a Message

- When the display range of the message exceeds one row, line feed is automatically inserted according to the display range and the character width.
- The number of characters that can be displayed differs depending on the font size.
- If the lower portion of the text exceeds the display range, such a portion is not displayed.

Base Screen

Bulletin Message Parts
Display Range of a
Message

Bulletin Message Display

Message Display

Display

If the message is out of
the display range
Line feed is inserted

The lower portion out of the display
range is not displayed
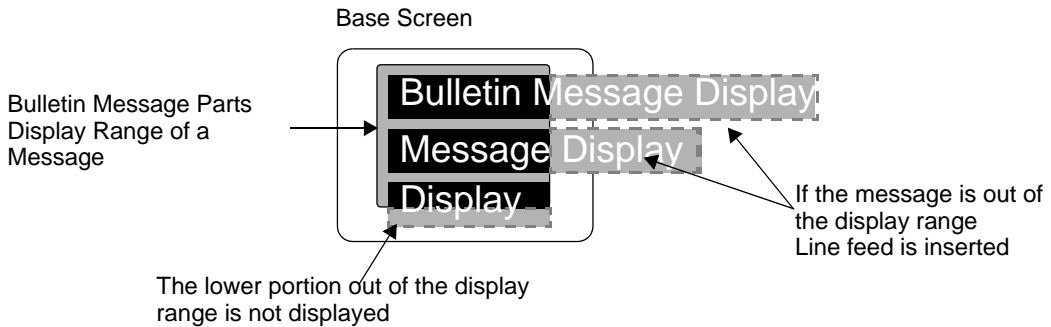
■ Format of Specified Address

In accordance with the following format, values are used with the specified internal address.

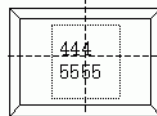| Address	Setting	
Specified Address+0	Display Trigger	
Specified Address+1	Window Number	Reserved address that is not used for Bulletin Message Parts
Specified Address+2	X coordinate of the window display position	
Specified Address+3	Y coordinate of the window display position	
Specified Address+4	Language	
Specified Address+5	Font	
Specified Address+6	Text Size	
Specified Address+7	Number of Characters	
Specified Address+8	Text Color	
Specified Address+9	Text Background Color	
Specified Address+10	Blink	
Specified Address+11	Text	
:	:	
Specified Address+n	Text	
Specified Address+n+1	Number of Characters	
Specified Address+n+2	Text Color	

Continued

Address	Setting
Specified Address+n+3	Background Color
Specified Address+n+4	Blink
Specified Address+n+5	Text
:	:
Specified Address+x	Text
Specified Address+x+1	End of the text (Number of characters)

Settings are stored according to the device size of the specified internal address.

• When 16 bit device is specified
Data is used in units of words according to the device size.

For example, specified address is USR0100
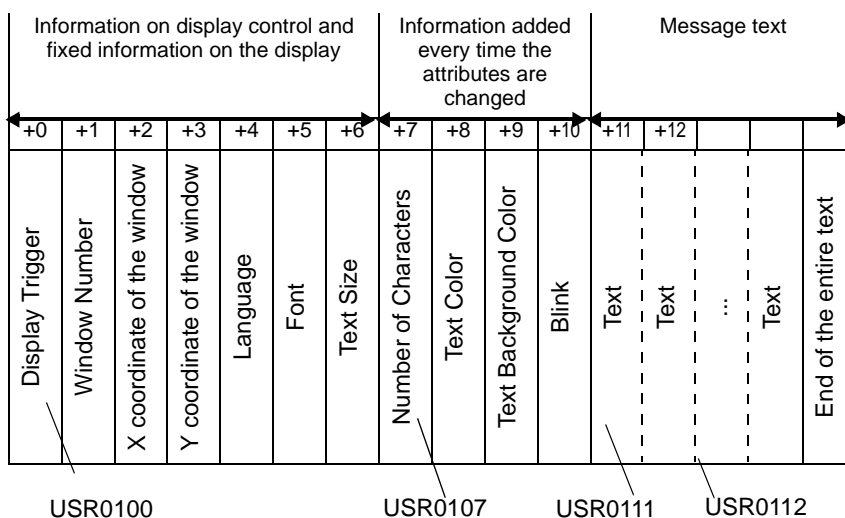
• When 32 bit device is specified
Data is used in Double Word units according to the device size.
However, the Text setting is used in units of words.

For example, specified address is LS0100

Information on display control and fixed information on the display | Information added every time the attributes are changed | Message text

+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	+11		+n	

| | | | | | | | | | | High | Low | | High | Low |

Display Trigger | Window Number | X coordinate of the window | Y coordinate of the window | Language | Font | Text Size | Number of Characters | Text Color | Text Background Color | Blink | Text | Text | ... | Text | Text | End of the entire text

USR0100   USR0107   USR0111

◆ **Specified Address+0: Display Trigger**

Set to display/delete the message.

...		5	4	3	2	1	0

Reserved | | | Displayed State | Reserved | | | Display/Delete

• Same bit is used regardless of the size of the specified device (16 bit/32 bit device).

State	Display/Delete Bit: Bit 0	Displayed State Bit: Bit 4
Delete	OFF	OFF
	OFF	ON
Display	ON	OFF
Displayed	ON	ON

The action in each state is as follows.
• Delete
  The message is deleted when the bit is turned OFF (Deleted State), and the Displayed State Bit is updated to OFF.
• Display
  The message is displayed according to the value of the address after Language (Specified Address+4).
  The Display Completion bit will be updated to ON.

- Displayed

  The state in which the message display is completed. To update the message, follow either one of the following procedures.
  - [Display] (Turn OFF the Displayed State bit)
  - [Delete], and then [Display]
- Display when Screen Changed

  When the specified address of the Bulletin Message Parts to which the screen will be changed is in [Display] or [Displayed] state, the text will be displayed within the message display range after the screen is changed.

  For example, same specified address is applied to all the Bulletin Message Parts set on the screen

  Base Screen 1

  Specify display text to "Message 1."

  Set 1 (Display) to Display Trigger.

  Screen Change

  Base Screen 2
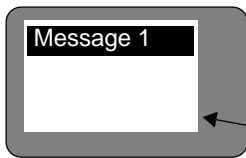
  Display Trigger is changed from 1 (Display) to 2 (Displayed).

  Message 1

  Bulletin Message Parts

  Screen Change

  Base Screen 3
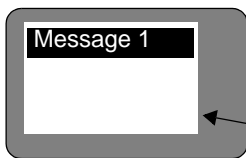
  Display Trigger remains 2 (Displayed).

  Message 1

  Change display text to "Message 2."
  Message text does not change.

  Bulletin Message Parts

  Screen Change

  Base Screen 2
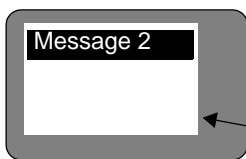
  Display Trigger remains 2 (Displayed).

  Message 2

  The display text is changed to "Message 2."

  Bulletin Message Parts

◆ **Specified Address+1: Window Number**

◆ **Specified Address+2: X coordinate of the window display position**

◆ **Specified Address+3: Y coordinate of the window display position**

Reserved addresses that are not used for Bulletin Message Parts

These addresses are used for window screen display if the internal address specified when [Indirect] is selected in the [Global Window Operation] setting is the same as the specified address of the Bulletin Message Parts.

| NOTE | ☞ "5.17.6 [System Settings] Setting Guide ◆ Mode" (page 5-152) |

◆ **Specified Address+4: Language**

Select a language for the text to display.

Language	Language Code
Europe	0x0000
Korea	0x0001
Taiwan	0x0002
China	0x0003
Japan	0x0004
Cyrillic (Stroke Font only)	0x0005
Thai (Stroke Font only)	0x0006

• Message will not be displayed when a language code other than the above is set.

◆ **Specified Address+5: Font**

Set text font for the message to display.

Font	Value
Standard Font	0
Stroke Font	1

• Standard font (stroke font for Cyrillic and Thai) will be applied when a value other than the above is set for the font.

◆ **Specified Address+6: Text Size**

Set the size of the text for the message to display.
The text sizes are as follows.

Text Size	Value
8x16	0x0810
8x32	0x0820
8x64	0x0840
16x16	0x1010
16x32	0x1020
16x64	0x1040
32x16	0x2010
32x32	0x2020
32x64	0x2040

- Only vertical size is applied for Stroke Font.
- When a value other than the supported text size values is set, an error message indicating a font reading error will be displayed.

◆ **Specified Address+7: Number of Characters**

Set the number of characters on which Text Color (Specified Address+8), Text Background Color (Specified Address+9) and Blink (Specified Address+10) are applied. Superposed characters such as Thai and Cyrillic, which are displayed as one character using two character codes, should be calculated as one character with 2 bytes.

- Number of Characters (Specified Address+7), Text Color (Specified Address+8), Text Background Color (Specified Address+9) and Blink (Specified Address+10) must be set collectively as one setting.
- When the number of characters differs from Number of Characters (Specified Address+7), text will not be displayed properly. For example, different text from the set text may be displayed.
- When the total number of characters exceeds 160, only 160 characters will be displayed.

For example, displaying the following message on the base screen.
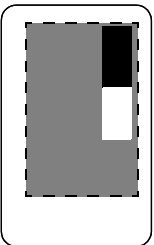
Setting Value	...
	Text Size
2	Number of Characters
	Text Color
	Text Background Color
	Blink
	Text
	Text
1	Number of Characters
	Text Color
	Text Background Color
	Blink
	Text
0	End of the entire text

2 characters

1 character

◆ **Specified Address+8: Text Color**

◆ **Specified Address+9: Text Background Color**

Set the display color for text.

Text color can be changed for each character.

- Number of Characters (Specified Address+7), Text Color (Specified Address+8), Text Background Color (Specified Address+9) and Blink (Specified Address+10) must be set collectively as one setting.
- Set to the head of the text you want to change.
- When a value other than the setting value is set, the lower bit 11 is used to display.

The following 64 colors are supported.

Number	RGB	Number	RGB	Number	RGB	Number	RGB
0	(0.0.0)	1	(0.0.255)	2	(0.255.0)	3	(0.255.255)
4	(255.0.0)	5	(255.0.255)	6	(255.255.0)	7	(255.255.255)
8	(0.0.64)	9	(0.0.160)	10	(0.64.0)	11	(0.64.64)
12	(0.64.160)	13	(0.64.255)	14	(0.160.0)	15	(0.160.64)
16	(0.160.160)	17	(0.160.255)	18	(0.255.64)	19	(0.255.160)
20	(64.0.0)	21	(64.0.64)	22	(64.0.160)	23	(64.0.255)
24	(64.64.0)	25	(64.64.64)	26	(64.64.160)	27	(64.64.255)
28	(64.160.0)	29	(64.160.64)	30	(64.160.160)	31	(64.160.255)
32	(64.255.0)	33	(64.255.64)	34	(64.255.160)	35	(64.255.255)
36	(160.0.0)	37	(160.0.64)	38	(160.0.160)	39	(160.0.255)
40	(160.64.0)	41	(160.64.64)	42	(160.64.160)	43	(160.64.255)
44	(160.160.0)	45	(160.160.64)	46	(160.160.160)	47	(160.160.255)
48	(160.255.0)	49	(160.255.64)	50	(160.255.160)	51	(160.255.255)
52	(255.0.64)	53	(255.0.160)	54	(255.64.0)	55	(255.64.64)
56	(255.64.160)	57	(255.64.255)	58	(255.160.0)	59	(255.160.64)
60	(255.160.160)	61	(255.160.255)	62	(255.255.64)	63	(255.255.160)

NOTE
- Color code is the same as in the settings in GP-Pro EX.

For example, Bulletin Message Parts are set on the base screen and the specified address is USR0100

Display text is "Standard Message Display".

Text color and background color for "Standard Message" are white and black, respectively.

Text color and background color for "Display" are black and white, respectively.

Specified Address | | Base Screen

	Specified Address	
Number of Characters	USR0107	8 (Number of characters)
Text Color	USR0108	7: White
Text Background Color	USR0109	0: Black
Blink	USR0110	0: No Blink
Text	USR0111	

:

Number of Characters	USR0118	
Text Color	USR0119	2 (Number of characters)
Text Background Color	USR0120	0: Black
Blink	USR0121	7: White
Text	USR0122	0: No Blink
Text	USR0123	
End of the text	USR0124	
	USR0125	0 (End of the text)

Standard
Message
Display

Bulletin
Message
Parts

◆ **Specified Address+10: Blink**

Set the text to blink or not to blink.

Blink	Value
No Blink	0
Medium Speed Blink	1
Low Speed Blink	2
High Speed Blink	3

• Number of Characters (Specified Address+7), Text Color (Specified Address+8), Text Background Color (Specified Address+9) and Blink (Specified Address+10) must be set collectively as one setting.

• When a value other than the values to blink is set, no blink will be specified.

◆ **Specified Address+11: Text**

Set text to display in the display range.

Text to be stored in the address is UNICODE.

When line feed is set for the display text, line feed will be inserted.

The maximum number of characters that can be displayed is 160 characters (including line feed).

NOTE

• When data is set to the internal address, Text Data Mode should be considered. For more details, please refer to the following.

) " ■ Storing Data according to Text Data Mode" (page 17-87)

◆ **Specified Address+n+x+1: End of the text (Number of characters)**

The end of the text to be displayed as Bulletin Message is specified.

This should be fixed to 0 (0x00).

■ **Storing Data according to Text Data Mode**

When data is set to the internal address, Text Data Mode should be considered.

The method for storing setting items to the internal address in order to display Bulletin Message differs depending on the device used and Text Data Mode.

◆ **USER Area**

Regardless of the storage order setting of Text Data Mode, the storage order is fixed to L/H (little endian).

	Storage Order	
	High	Low
Specified Address+0	2	1
Specified Address+1	4	3
Specified Address+2	6	5
Specified Address+3		
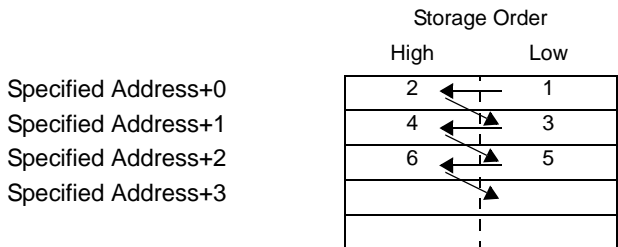
* Addition in the Specified Address is based on Words.

For example, when USR0100 is specified for the internal address and three characters with text data of 0x1234, 0xABCD and 0x5678 are stored (Display Trigger: 0, Text Color: 7, Text Background Color: 0, Blink: 1).

	High	Low	Setting Item
USR0100	0x00	0x00	Display Trigger
		:	
USR0107	0x00	0x03	Number of Characters
USR0108	0x00	0x07	Text Color
USR0109	0x00	0x00	Text Background Color
USR0110	0x00	0x01	Blink
USR0111	0x34	0x12	Text
USR0112	0xCD	0xAB	Text
USR0113	0x78	0x56	Text
USR0114	0x00	0x00	End of the text
USR0115			

◆ 16 Bit LS Area and Memory Link System Area

Depends on the settings in Text Data Mode.

- HL order (Text Data Mode: 1, 3, 5, 8)

Storage Order

	High	Low
Specified Address+0	1	2
Specified Address+1	3	4
Specified Address+2	5	6
Specified Address+3		

* Addition in the Specified Address is based on Words.

For example, when LS0100 is specified for the internal address and three characters with text data of 0x1234, 0xABCD and 0x5678 are stored (Display Trigger: 0, Text Color: 7, Text Background Color: 0, Blink: 1).

	High	Low	Setting Item
LS0100	0x00	0x00	Display Trigger
LS0107	0x00	0x03	Number of Characters
LS0108	0x00	0x07	Text Color
LS0109	0x00	0x00	Text Background Color
LS0110	0x00	0x01	Blink
LS0111	0x34	0x12	Text
LS0112	0xCD	0xAB	Text
LS0113	0x78	0x56	Text
LS0114	0x00	0x00	End of the text
LS0115			

• LH Order (Text Data Mode: 2, 4, 6, 7)

Storage Order

	High	Low
Specified Address+0	2	1
Specified Address+1	4	3
Specified Address+2	6	5
Specified Address+3		

* Addition in the Specified Address is based on Words.

For example, when LS0100 is specified for the internal address and three characters with text data of 0x1234, 0xABCD and 0x5678 are stored (Display Trigger: 0, Text Color: 7, Text Background Color: 0, Blink: 1).

	High	Low	Setting Item
LS0100	0x00	0x00	Display Trigger
	:		
LS0107	0x03	0x00	Number of Characters
LS0108	0x07	0x00	Text Color
LS0109	0x00	0x00	Text Background Color
LS0110	0x01	0x00	Blink
LS0111	0x12	0x34	Text
LS0112	0xAB	0xCD	Text
LS0113	0x56	0x78	Text
LS0114	0x00	0x00	End of the text
LS0115			

◆ **32 Bit LS Area and Memory Link System Area**

Depends on the settings in Text Data Mode.

• HL order (Text Data Mode: 1, 2, 3, 7)

Storage Order

	High		Low	
	High	Low	High	Low
Specified Address+0	1	2	3	4
Specified Address+1	5	6	7	8
Specified Address+2				
Specified Address+3				

* Addition in the Specified Address is based on Double Word units.

For example, when LS0100 is specified for the internal address and three characters with text data of 0x1234, 0x5678 and 0x9ABC are stored.
(Display Trigger: 0, Text Color: 7, Text Background Color: 0, Blink: 1)

	High		Low		Setting Item
	High	Low	High	Low	
LS0100	0x00	0x00	0x00	0x00	Display Trigger
	⋮		⋮		
LS0107	0x03	0x00	0x00	0x00	Number of Characters
LS0108	0x07	0x00	0x00	0x00	Text Color
LS0109	0x00	0x00	0x00	0x00	Text Background Color
LS0110	0x01	0x00	0x00	0x00	Blink
LS0111	0x12	0x34	0x56	0x78	Text
LS0112	0x9A	0xBC	Unused	Unused	Text
LS0113	0x00	0x00	0x00	0x00	End of the text
LS0114					
LS0115					

- LH order (Text Data Mode: 4, 5, 6, 8)
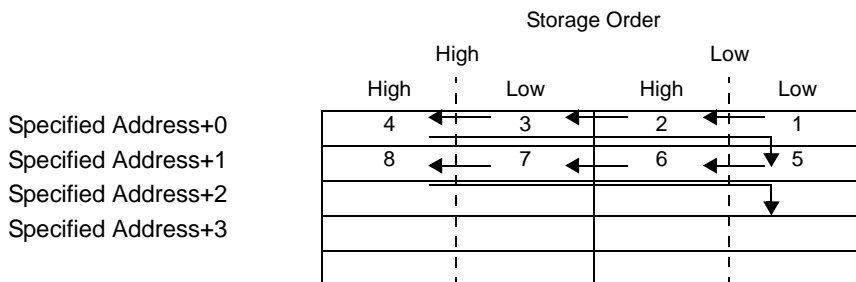
Storage Order

	High		Low	
	High	Low	High	Low
Specified Address+0	4	3	2	1
Specified Address+1	8	7	6	5
Specified Address+2				
Specified Address+3				

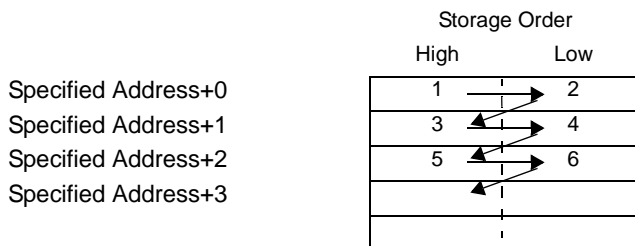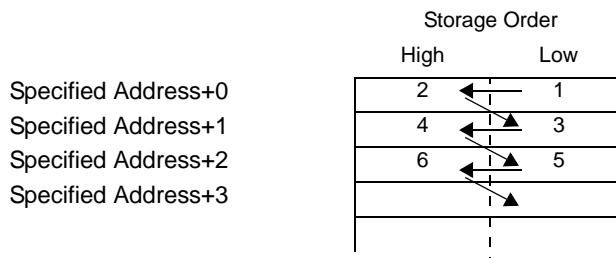* Addition in the Specified Address is based on Double Word units.

For example, when LS0100 is specified for the internal address and three characters with text data of 0x1234, 0x5678 and 0x9ABC are stored

(Display Trigger: 0, Text Color: 7, Text Background Color: 0, Blink: 1)

	High		Low		Setting Item
	High	Low	High	Low	
LS0100	0x00	0x00	0x00	0x00	Display Trigger
		⋮			
LS0107	0x00	0x00	0x00	0x03	Number of Characters
LS0108	0x00	0x00	0x00	0x07	Text Color
LS0109	0x00	0x00	0x00	0x00	Text Background Color
LS0110	0x00	0x00	0x00	0x01	Blink
LS0111	0x78	0x56	0x34	0x12	Text
LS0112	Unused	Unused	0xBC	0x9A	Text
LS0113	0x00	0x00	0x00	0x00	End of the text
LS0114					
LS0115					

■ Range of Internal Address Used

- Considering one character is 2 bytes, up to 160 characters (320 bytes) can be used.
- Superposed characters such as Thai and Cyrillic, which are displayed as one character using two character codes, use 2 bytes for one character.
- 1 word is 2 bytes.
- The minimum number of characters that can be used in a 16-bit device is 12 words. (Number of Characters [Specified Address+7] is 0; No characters to be displayed)

Information on display control and fixed information on the display	+	Information added every time the attributes are changed	+	End of the entire text
7 Words		4 Words		1 Words
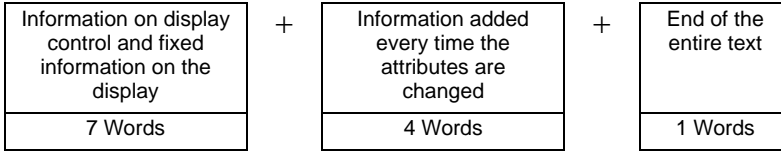
- The minimum number of characters that can be used in a 32-bit device is 24 words. (Number of Characters [Specified Address+7] is 0; No characters to be displayed)

Information on display control and fixed information on the display	+	Information added every time the attributes are changed	+	End of the entire text
14 Words		8 Words		2 Words
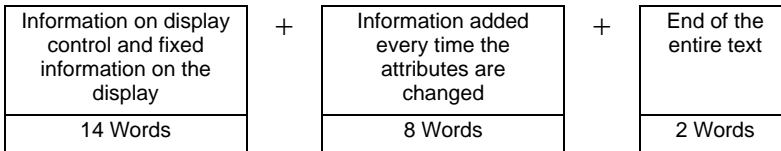
- The maximum number of words that can be used in a 16-bit device is 808 words when an attribute such as Text Color is changed for each of the maximum number of characters (160 characters) that can be displayed.

Information on display control and fixed information on the display — 7 Words + (Information added every time the attributes are changed — 4 Words + Maximum number of characters 160 characters) + (Text — 1 Words X Maximum number of characters 160 characters) + End of the entire text — 1 Words
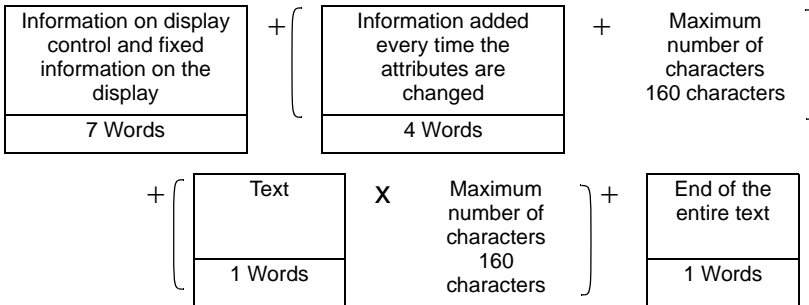
- The maximum number of words that can be used in a 32-bit device is 1,456 words when an attribute such as Text Color is changed for each of the maximum number of characters (160 characters) that can be displayed.

Information on display control and fixed information on the display — 14 Words + (Information added every time the attributes are changed — 8 Words + Maximum number of characters 160 characters) + (Text — 1 Words X Maximum number of characters 160 characters) + End of the entire text — 2 Words
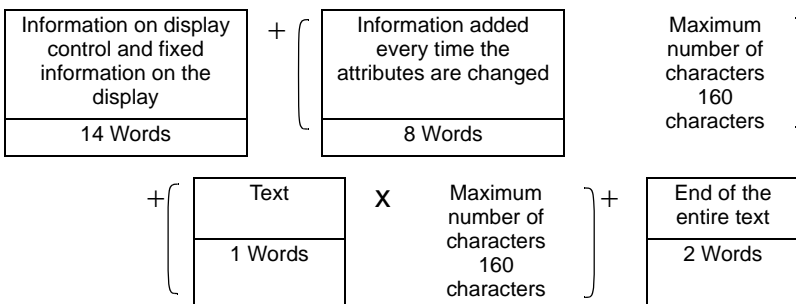
17.10　Restrictions

17.10.1　Restrictions on Message Display

■ Direct Input

- If a message is unregistered, the Message Display appears empty. For example, when the number of messages is 16 and only 0 to 3 have a registered message, states 4 to 15 appear as display only the Message Display frame.

■ Text Display

- When the data designated as [Display Start Row] has no corresponding row, no operation occurs. The previously displayed rows remain.
- If a message input exceeds the [Display Characters], the overflowing portion does not display.Please ensure that messages remain within the [Display Characters].

■ Bulletin Message

- Addresses that can specify LS area, USER area or memory link system area can be used for the internal address.
- Display of Bulletin Message using the Window Screen of Global Window Operation is performed according to the display priority of window screens.
  Therefore, while a Special Window that has higher priority such as Security Password Input Screen is displayed, the Window Screen of Global Window Operation that is a User Window cannot be displayed, so a Bulletin Message cannot be displayed either.
  Display of a Bulletin Message using the Window Screen of Global Window Operation has higher priority than the display of the other User Windows.

> NOTE
> - Refer to the following for details on the window type and priority of User Windows and Special Windows.
> ☞ "12.8 Restrictions for Windows" (page 12-29)

- The device monitor and Global Window screen cannot be displayed at the same time. If a Bulletin Message is displayed on all of the screens, the device monitor display operation is as follows.
  1. When you attempt to display the Global Window Screen while displaying the device monitor, the device monitor display is closed and the Global Window Screen is displayed.
  2. When you attempt to display the device monitor screen while displaying a Global Window, the Global Window is closed and the device monitor is displayed.
  3. In the case of 2 above, when the device monitor is closed, Global Window Screen is displayed again.
  4. In the case of 2 above, when the Global Window Screen is closed, the Global Window Screen and device monitor display disappear.
  ☞ "5.17.6 [System Settings] Setting Guide ◆ Mode" (page 5-152)
- Text that is out of the display range of Bulletin Message cannot be displayed.
- If the text has over 160 characters, only the first 160 characters can be displayed, regardless of the display range of the Bulletin Message.

- If the specified number of characters exceeds the address range of the internal address, the message is not displayed properly.
  Even when the number of characters to be displayed is within 160 characters, if the number of characters that exceeds the internal address range is specified, a reading error occurs and the specified number of characters cannot be displayed.
- If the lower portion of the text exceeds the display range, such a portion is not displayed.
- If the Number of Characters (Specified Address+7) specified in the address of the Bulletin Message Parts is invalid, the message is not displayed properly.
- When storing data to the specified address, check the settings of Text Data Mode (High/Low).
  If the settings are different from Text Data Mode, the message is not displayed properly.
  " ■ Storing Data according to Text Data Mode" (page 17-87)
- Language, Font and Text Size cannot be changed for each character.
- In order to set Text Color, Text Background Color and Blink for each character, storage area for the attribute of the target character is necessary for each setting.
- The following features are not supported by Bulletin Message Parts.
  1. Display angle for the vertical model (Angle: fixed to 0 degree)
  2. Line spacing setting
  3. Aligning the displayed text to the left/right/center
  4. Vertical text (Direction: fixed to horizontal)

17.10.2   Language Change (Multilanguage) Restrictions

- If you change languages, all the text using the Text Table changes.The text registered in the Text Table can be used for the following features.
  - Text
  - Switch Lamp Part Label
  - Alarm Part Item Name
  - Messages to register in a Message Display [Direct Input]
  - Alarm Messages to register in the Common [Alarm]
- If Multilanguage display is specified for the text, changing the language also changes the text in messages [Text Display] and [Text Alarm] parts.
- You cannot change the text in the Data Display [Text Display]. Nor can you use changing language to change item names and text that display on a Sampling Data Display or Special Data Display.
- Multiple text tables cannot display at the same time.
- Changing languages acts the same as changing screens. Screens that display before changing languages may not display after the change.
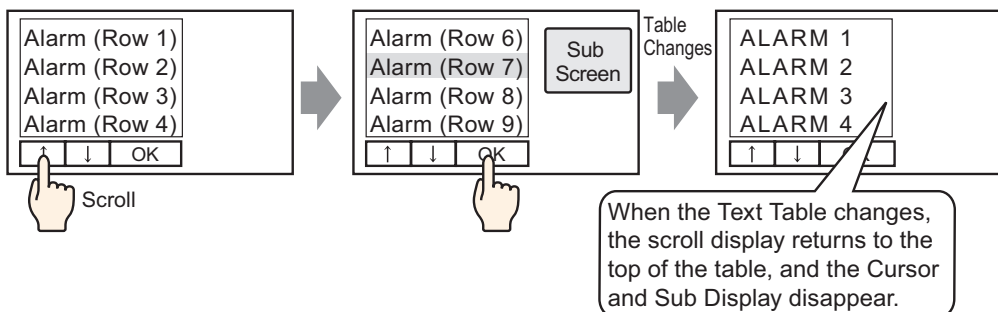
■ Changing Alarm Language

- When you set [Enable Text Table] in [Alarm], the existing messages are deleted.
- When registering Alarm Messages, Direct Input text and Text registered in a Text Table are set to all Alarms (Banner, Alarm History, Summary). Direct Input text and Text registered on a Text Table cannot display at the same time.
- For text registered on a Text Table with two or more lines, only the first line will be displayed/printed.

◆ Alarm History and Summary

- When setting an Alarm History Switch on the Alarm Part's [Switch] tab, you cannot use a Text Table for the label. If you want to change languages for an Alarm History Switch, use a Switch Lamp part's Special Switch.
)"10.15.4 Special Switch" (page 10-70)
- When you change a text table, the screen displays the initial state (the display state immediately after a screen change). Accordingly, any scroll movement or displayed Sub Screens is canceled when the text table changes.

For example,

Alarm (Row 1)		
Alarm (Row 2)		
Alarm (Row 3)		
Alarm (Row 4)		
↑	↓	OK

Scroll

Alarm (Row 6)		
Alarm (Row 7)	Sub Screen	
Alarm (Row 8)		
Alarm (Row 9)		
↑	↓	OK

Table Changes

ALARM 1
ALARM 2
ALARM 3
ALARM 4
↑ ↓

When the Text Table changes, the scroll display returns to the top of the table, and the Cursor and Sub Display disappear.

- Do not change the String Table (Language) while saving an Alarm History on a CF Card or USB storage device. If you do so, the file may not be displayed properly in a third-party software product, such as a spreadsheet.
- Also, the text in a different language will be output in the CSV File. Do not change the text table language while printing an Alarm History. If the text table language is changed the printout may contain gaps.
- When saving in CSV or when printing an Alarm History, "Date", "Trigger", item names are displayed in Japanese if the language of the Alarm Message (Text Table) is in Japanese. They are displayed in English if the Alarm Message is in another language (ASCII, Korean, Chinese (Traditional), Chinese (Simplified), and Cyrillic, Thai).

◆ **Banner**

- If the text table language is changed while an alarm message is scrolling, the language changes at the start of the next message.

17.10.3　Restrictions on Display Unit File Creation

- In order to use this feature, from [Display Unit] in [System Settings], go to [Extended Settings] - [Load Text Table] and select the [Enable Load Text Table] check box.
- When it is configured for the external files to be read during startup, it may take some time to start up the display unit.
- Files with a table number that is not set for the project file being transferred to the display unit cannot be read.
  Index numbers that are not specified cannot be read either.
- Settings of the project file being transferred to the display unit are applied on the number of characters for Text Table. If the number of characters of the external file is greater, the exceeded characters cannot be read.
- Files other than CSV files cannot be read.
- When the data type of the external file and the language setting of the Text Table being transferred to the display unit are different, the Text Table is rewritten but may not be displayed property.

17.10.4　Restrictions on Text Table Converter

- While converting the text table, if there is text that matches already registered text during the search, only the initially registered text remains valid.
- The Text Table supports up to 10000 indexes. If Text Table conversion produces more than 10000 indexes, an error message appears, and only text up to that point is stored.