

CHAPTER 13

OPERATION LOGGING

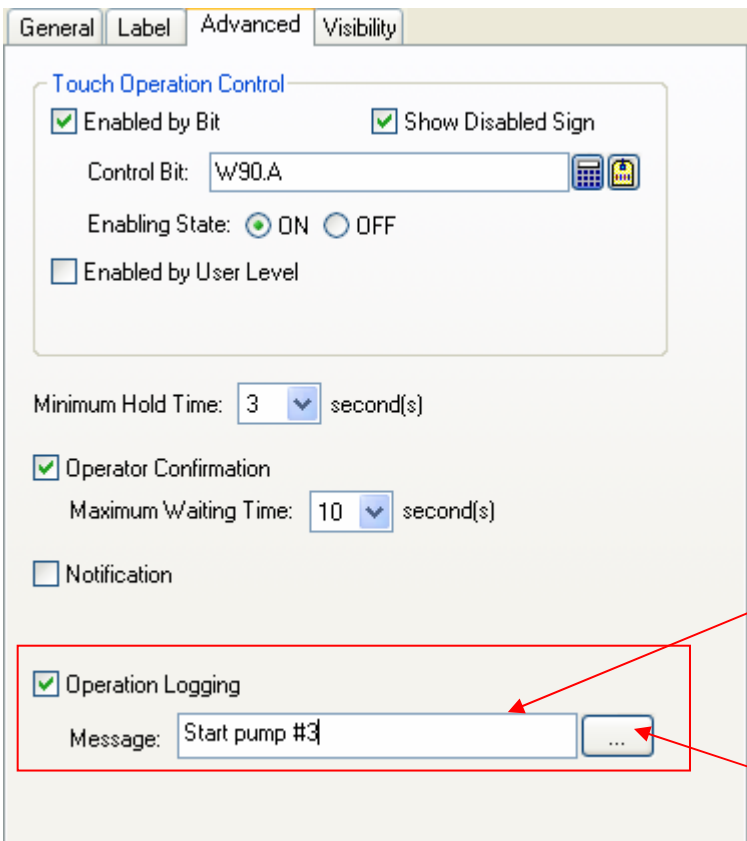
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This chapter describes how to set up the operation logging and configure the operation log display to show the operation loggers.

13.1. Using Operation Logging

To use an operation logging in your application, please do the followings:

1. Setting up Operation Logging
Described in [Section 13.2](#)
2. Adding custom operation message in the Advanced page of the related object
Described in [Section 4.4.5](#)



Enter the operation message of the first language.

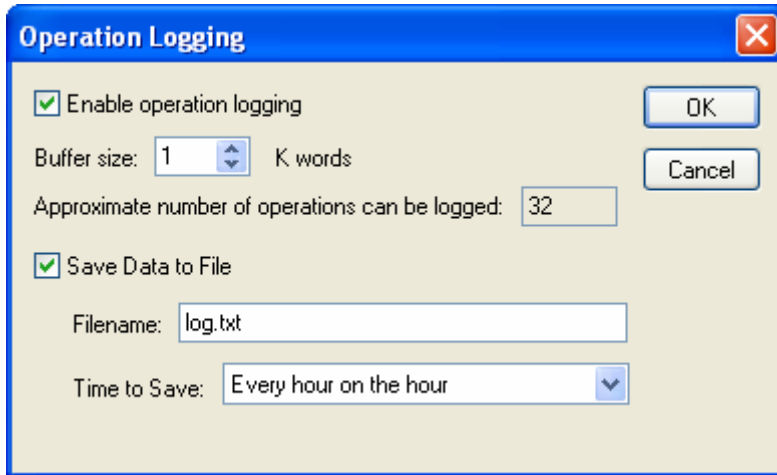
Click the button to bring up the Operation Message dialog box that you can edit the operation message for all the languages.

3. Creating and configuring Operation Log Displays
Described in [Section 13.3](#)

The software also lets user clear the operation logging buffer by the function button. To know how to define a function button to clear the operation history, please see [Section 5.4.1 Basic Operations](#) of function buttons.

13.2. Setting up Operation Logging

You can set up the operation logging with the Operation Logging dialog box. In this dialog, you can determine the required memory for operation logging buffer, specify how to save the operation logs to a text file. To open the dialog box, please double click the node named Operation Logging in the Project Manager tool window or use Operation Logging... command on the Panel menu. The following is an example of the Operation logging dialog box.



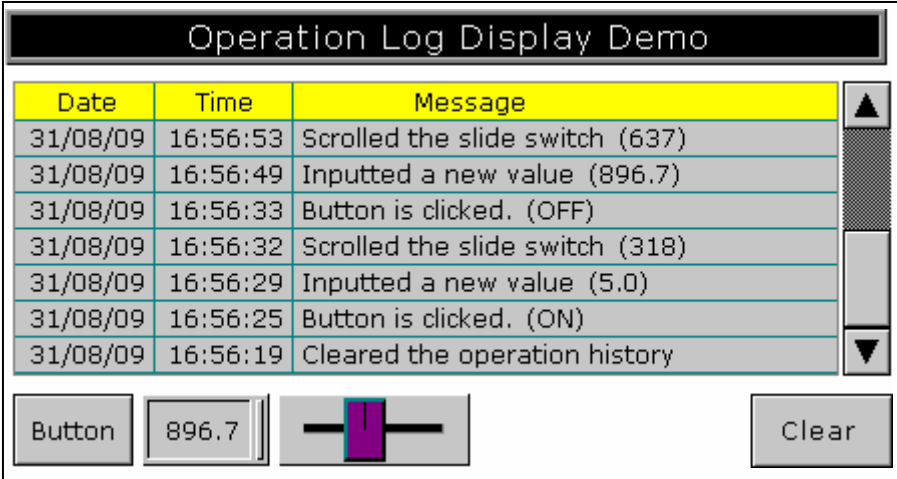
The table below describes each property in the Operation Logging Properties dialog.

Property		Description
Enable operation logging	<Check Box>	Check this option to enable the operation logging.
	Buffer Size	The size of operation logging buffer. The unit is K words. The buffer size can be specified between 1 and 512 K words.
	Approximate number of operations can be logged	The maximum number of operation loggers that the operation logging buffer can hold. The formula to calculate the approximate number is: $\text{Number} = \text{Buffer Size} * 1024 * 2 / 64$
Save Data to File	<Check Box>	Check this option so the newly operation loggers will be written to a specified file periodically. Each time when performing the saving, the panel writes only the operation loggers that are not saved to a file before.
	File Name	The filename or the prefix of the filename of the file to save the operation loggers. The operation loggers are saved in text format and the file extension name must be ".txt". You can use any text editor and Microsoft Excel to view the operation loggers directly. This item is available when the option Save Data to File is checked.
	Time to Save	Specifies the period to save the operation loggers. This item is available when the option Save Data to File is checked. There are nine kinds of period available: Every hour on the hour ; Every 8 hours (00:00, 08:00, 16:00) ; Every 12 hours (00:00, 12:00) Every day at 00:00; Every day at 08:00; Every day at 12:00; Every Sunday at 00:00; Every Monday at 00:00; Every month's first day at 00:00.

13.3. Setting up Operation Log Displays

13.3.1. Basic Operations

You can display a list of operation logs by using an operation log display.



The above is an example of the operation log display. The first row is the title row. It displays the title of each column. The other rows display one operation per row. You can create scroll button groups or scroll bars to scroll the contents. An operation log display can have three columns. The following table describes the content of each column for an operation log display.

Column	Description
Date	The date when the record is created. This column is optional.
Time	The time when the record is created. This column is optional.
Message	The message of the associated operation. This column is optional.

The text color and font of a row is determined by the settings in the General Page.

13.3.2. Operation Options

The following operation option can be added to an alarm display. Select and set the option in the Operation Log Display dialog box.

Options	Description
Visibility Control	You can show and hide an operation log display by a specified bit or the current user level. Select and set this option in the Visibility page.

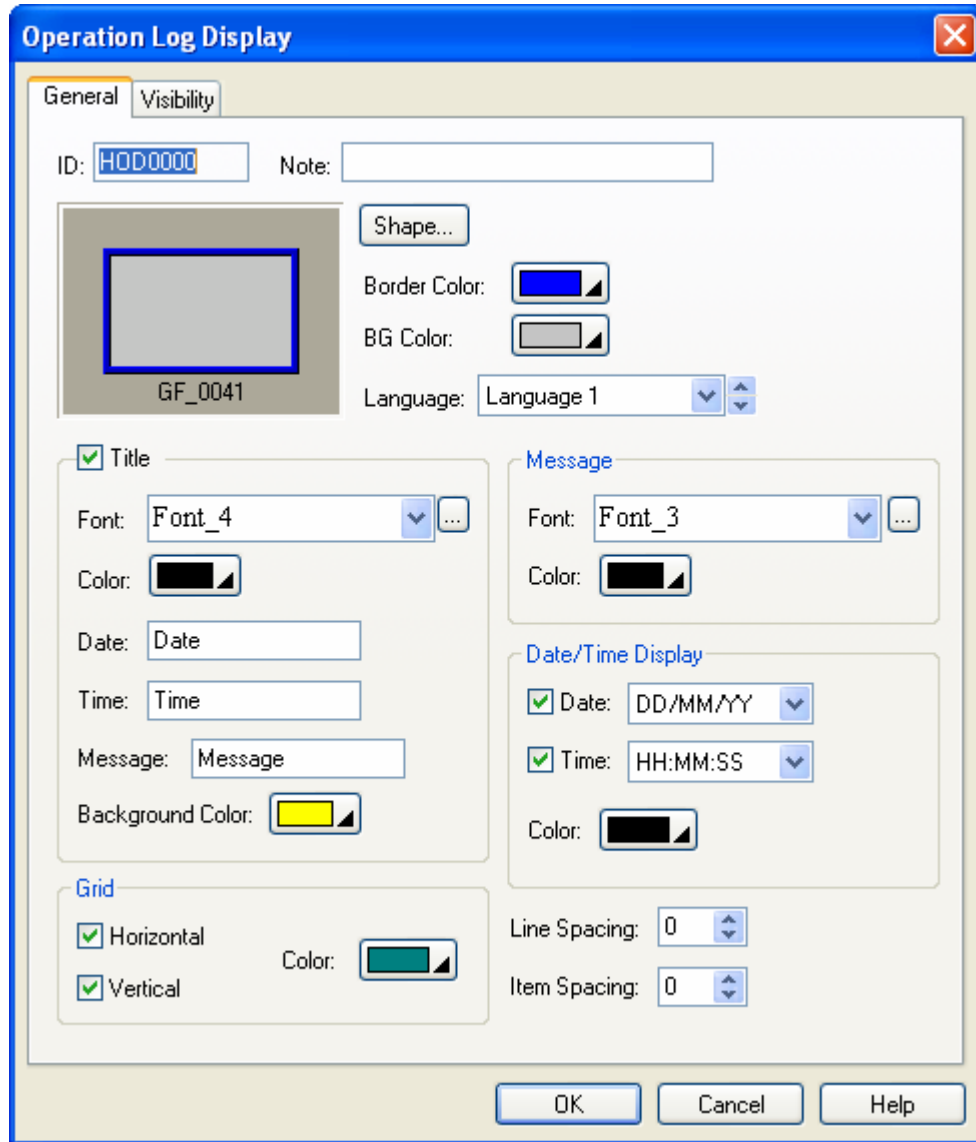
13.3.3. Settings

You can complete all the settings of an operation log display in the Operation Log Display dialog box. This dialog box contains the following two pages.

- **General**
Described in [Section 13.3.3.](#)
- **Visibility**
Described in [Section 4.4.6.](#)

13.3.4. General Settings

This section describes how to define the general settings for an operation log display. The following is an example of the General page of the Operation Log Display dialog box.



The following table describes each property in the General page.

Property	Description
ID	The object's identifier. It is generated when the object is created. The identifier is unique within the screen where the object is on and is unchangeable. The format of the ID's for the operation log display is HOD####.
Note	You can type a note for the object.
Shape settings	For details about the following properties, see Section 4.3.4 Setting up the Shape of an Object. Shape... , Border Color, BG Color
Language	Select a language so you can view and edit the language dependent settings in the Title group and Message group for that language. The language dependent properties in the Title group include Font and Message; in the Message group include Font.

Continued

Property		Description	
Title	<Check Box>	Select this option if you want the operation log display to have a title row to show the title for each column of the displayed list.	
	Font	Select a font for the title text.	
	Color	Select a color for the text.	
	Date	Specifies the title for the Date column.	
	Time	Specifies the title for the Time column.	
	Message	Specifies the title for the Message column.	
	Background Color	Select a background color for the title row.	
Grid	Horizontal	Select this option if you want the operation log display to have horizontal grids.	
	Vertical	Select this option if you want the operation log display to have vertical grids.	
	Color	Select a color for the grids.	
Message	Font	Select a font for the message.	
	Color	Select a color for displaying the predefined message.	
Date/Time Display	Date	<Check Box>	Check this option if you want the operation log display to have the Date column.
		<Drop-down List>	Select a format for displaying the date
	Time	<Check Box>	Check this option if you want the operation log display to have the Time column.
		<Drop-down List>	Select a format for displaying the time
	Color	Select a color for Date/Time.	
Line Spacing		Specifies the extra space in pixels for two adjacent rows of the operation log display.	
Item Spacing		Specifies the extra space for every column of the operation log display.	