

Demo Project for Alarm/Event with Watch Function

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1. Overview and Operation

[Overview]

This demo project is displaying the specified value by watch function in Alarm/Event Log.

It is useful when users need to observe multi-value in the event or alarm objects.

Syntax is provided below for embedding PLC data in the content of an event log.

Usage

<code>%(WATCH#)d.*</code>	Display signed decimal integer
<code>%(WATCH#)f.*</code>	Display floating point
<code>%(WATCH#)s</code>	Display string
<code>%(WATCH#)X</code>	Display unsigned hexadecimal integer, using "ABCDEF."
<code>%(WATCH#)x</code>	Display unsigned hexadecimal integer, using "abcdef."

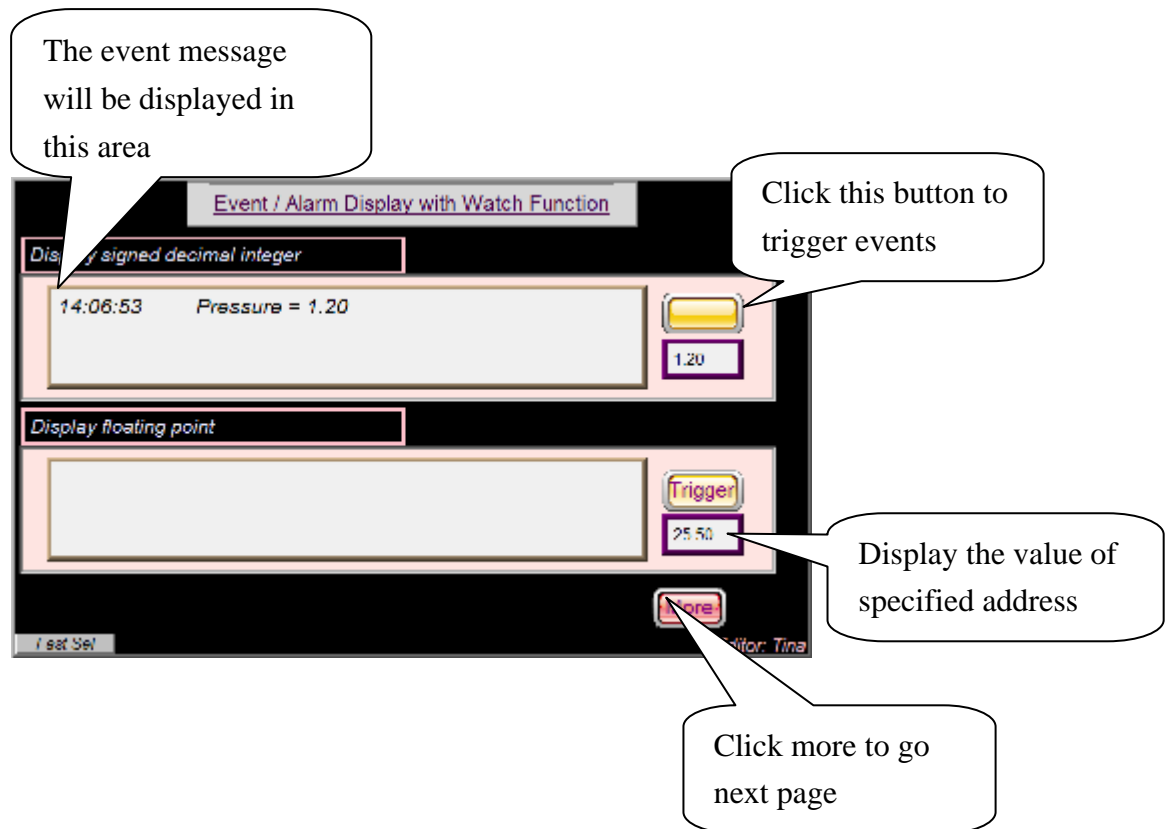
where # : watch no., range : 1~4
* : the number of digits after the decimal point
If * is 0, ".*" can be ignored.

Examples

- 1.Pressure = `%(WATCH1)d.1`
- 2.Temperature1 is `%(WATCH1)f.2`, Temperature2 is `%(WATCH2)f.2`
- 3.Alarm : IP = `%(WATCH1)X` : `%(WATCH2)X` : `%(WATCH3)X` : `%(WATCH4)X`
- 4.Counter is `%(WATCH3)d`
- 5.Message = `%(WATCH1)s`, Index = `%(WATCH3)d`

[Operation]

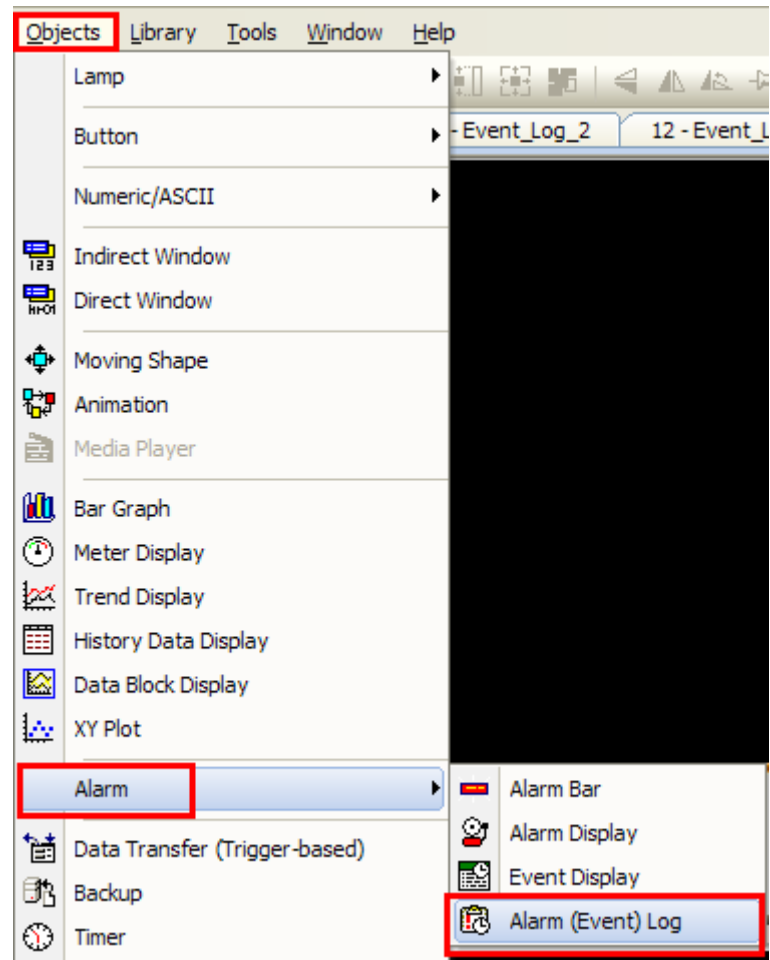
Touch the triggering button to display the message in the event display object. Please refer to picture below.



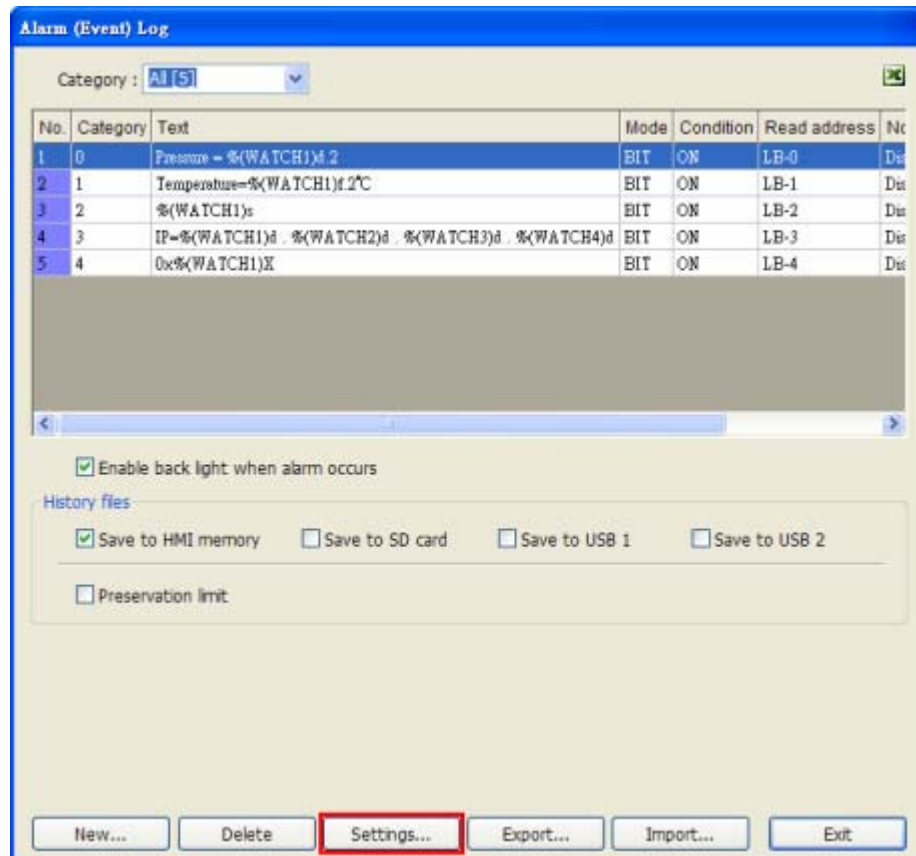
2. Setting Up the Screen

2-1 Setting of the Event Log

Go to Objects/Alarm/Alarm (Event) Log



The Alarm (Event) Log table appears as below. This project is setting 5 events.



Click Settings button to see the no. 0 settings.

- In the General page, set the read address and triggering condition.

Alarm (Event) Log

General Message

Category : 0 Priority level : Low

Address type : Bit

1. Read address

PLC name : Local HMI

Device type : LB

Address : 0 ☐ System tag

Address format : ddddd [range : 0 ~ 11999]

☐ Index register

Notification

☐ Enable

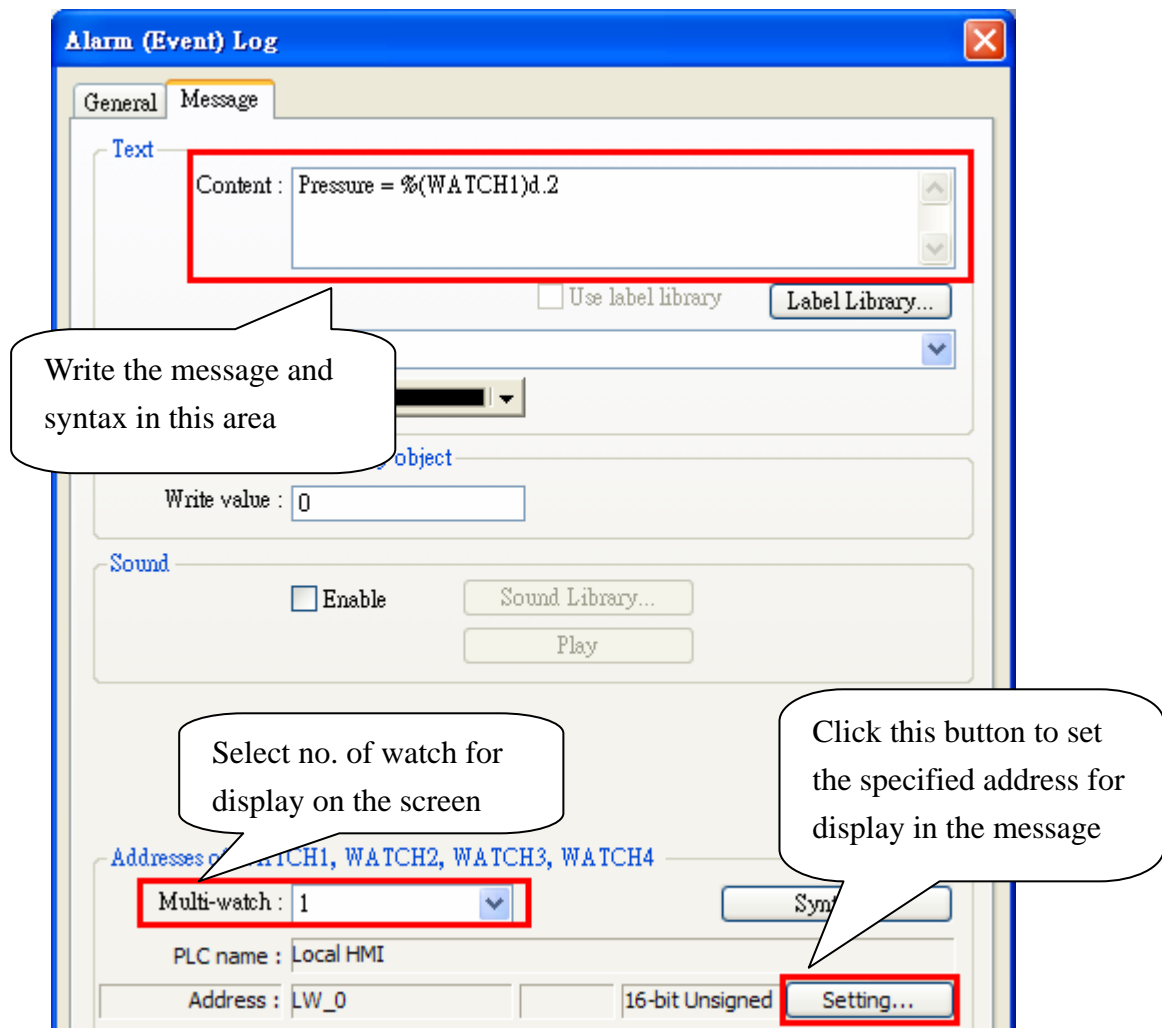
2. Condition

Trigger : ON

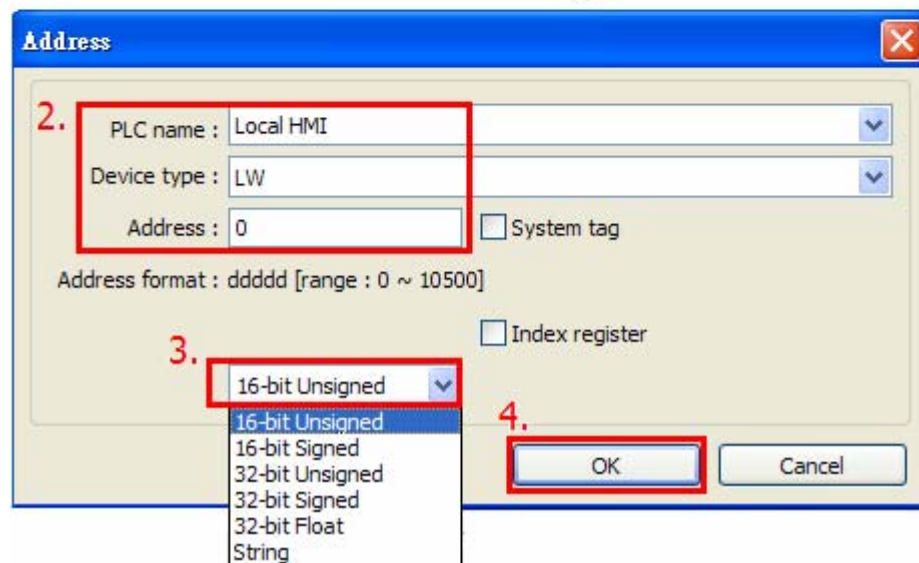
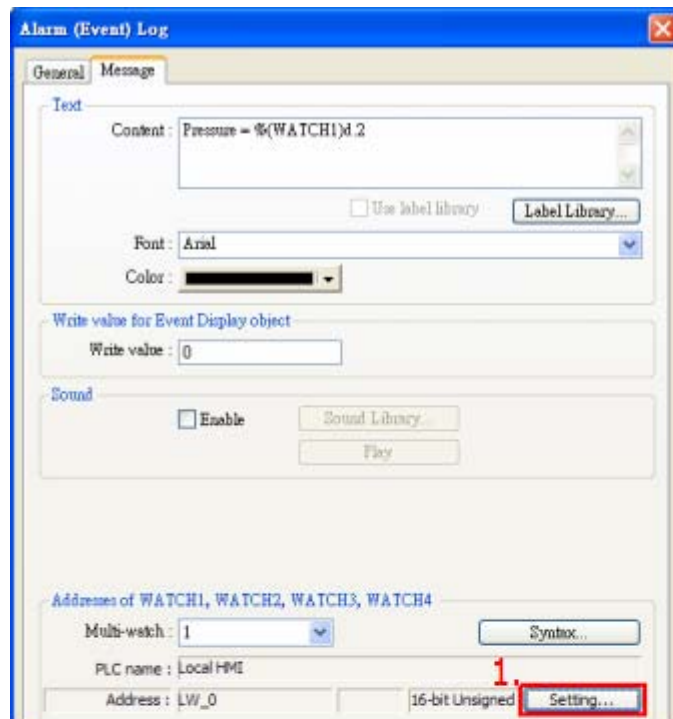
Set the read address for triggering event.

Set the triggering condition

- In the Message, set the no. of multi-watch and then according to the data format, write the message in the Content area.



After clicking Setting button, a dialogue box appears as below. Select the device type and format for displaying the value.



Note:

In the multi-watch selection, an event message is able to display max. 4 addresses simultaneously.

Write 4 watches in the content

Alarm (Event) Log

General Message

Text

Content : IP=%(WATCH1)d . %(WATCH2)d . %(WATCH3)d . %(WATCH4)d

☐ Use label library Label Library...

Font : Arial

Color :

Write value for Event Display object

Write value : 0

Sound

☐ Enable Sound Library... Play

2.

Addresses of WATCH1, WATCH2, WATCH3, WATCH4

Multi-watch : 4 Syntax...

PLC name : Local HMI

Address : LW_8 16-bit Unsigned Setting...

PLC name : Local HMI

Address : LW_9 16-bit Unsigned Setting...

PLC name : Local HMI

Address : LW_10 16-bit Unsigned Setting...

PLC name : Local HMI

Address : LW_11 16-bit Unsigned Setting...

OK Cancel Help

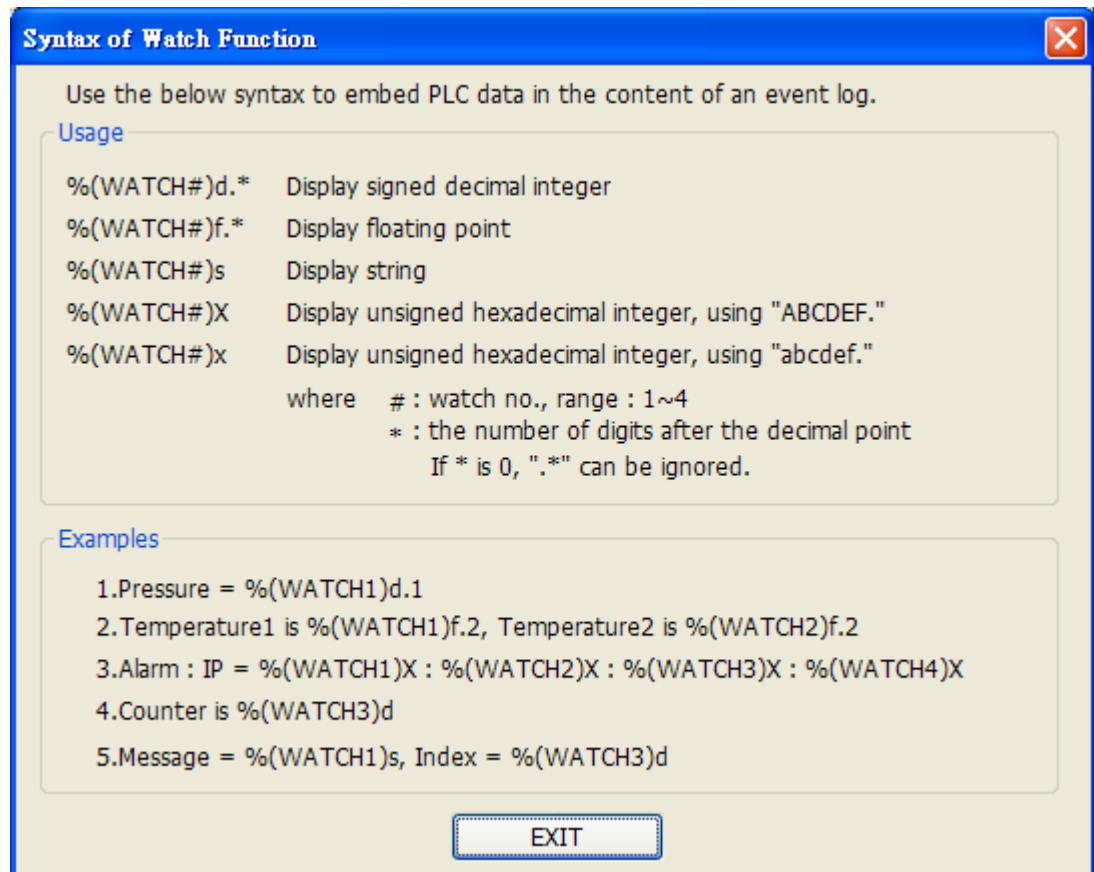
- Watch function

Click Syntax button to refer to the syntax information.

Addresses of WATCH1, WATCH2, WATCH3, WATCH4

Multi-watch : 1 Syntax...

Syntax of watch function dialogue box appears and there are 5 usages for displaying different format, please refer to the related syntax according to the PLC data.



2-2 Setting of the Event / Alarm display

- Alarm Display object

Select Include categories (please refer to Alarm (Event) Log settings).

The Format is for setting the Sort and Order & Characters.

Alarm Display Object's Properties

Alarm Shape Font Profile

1. Include categories : 0 thru 0 (see Alarm (Event) Log object)

Acknowledge style : Click

Color

☐ Transparent

Frame : Background :

2.

Format

Sort

☐ Time ascending ☒ Time descending

Order & Characters

	Display items	Display chars
<input type="checkbox"/>	Event trigger date	0
<input checked="" type="checkbox"/>	Event trigger time	0
<input checked="" type="checkbox"/>	Event message	0

Display order

- Event trigger time
- Event message

If "Display chars" is 0, it means that the system will display all of characters.

Date : MM/DD/YY Time : HH:MM:SS

OK Cancel Help

- Event Display object

Event Display Object's Properties

General Event Display Shape Font Profile



1. Include categories : 1 thru 5 (see Alarm (Event) Log object)



Acknowledge style : Click


Max. event no. : 200

Color

☐ Transparent

Frame :  Background : 

Acknowledge :  Return to normal : 

Select box : 

2.

Format

Sort

☐ Time ascending ☒ Time descending

Order & Characters

	Display items	Display chars
<input type="checkbox"/>	Sequence no.	0
<input type="checkbox"/>	Event trigger date	0
<input checked="" type="checkbox"/>	Event trigger time	0
<input type="checkbox"/>	Acknowledge time	0
<input type="checkbox"/>	Return to normal time	0
<input checked="" type="checkbox"/>	Event message	0

Display order

Event trigger time

Event message

If "Display chars" is 0, it means that the system will display all of characters.

Date : MM/DD/YY Time : HH:MM:SS

OK Cancel Help

3. Addresses

The addresses used in this demo project are listed below. Please change these addresses according to your system.

Addresses		Object ID	Detail
Window 10			
Bit	LB0	TS_0	To trigger event category 0
	LB1	TS_1	To trigger event category 1
Word	LW0	ND_0	Display LW0 value
	LW1	ND_1	Display LW1 value
Window 11			
Bit	LB2	TS_0	To trigger event category 2
	LB3	TS_1	To trigger event category 3
Word	LW8~LW11	ND_0~ND_3	Display LW8~LW11 values
	LW3	AE_0	Write in string for display in the alarm
Window 12			
Bit	LB4		To trigger event category 4
Word	LW12	NE_0	Display LW12 value
Window 13			
Bit	LB0~LB4	SB_0~SB_4	To trigger event category 0~4
Alarm (Event) Log			
Bit	LB0		To trigger event category 0
	LB1		To trigger event category 1
	LB2		To trigger event category 2
	LB3		To trigger event category 3
	LB4		To trigger event category 4
Word	LW0		Category 0 / address of WATCH1 %(WATCH1)d.2
	LW1~LW2		Category 1 / address of WATCH1 %(WATCH1) f.2
	LW3		Category 2 / address of WATCH1 %(WATCH1)s
	LW8~LW11		Category 3 / address of WATCH1~4 %(WATCH1)d %(WATCH2)d %(WATCH3)d %(WATCH4)d

	LW12		Category 4 / address of WATCH1 %(WATCH1)X
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