

# Demo Project for Scheduler

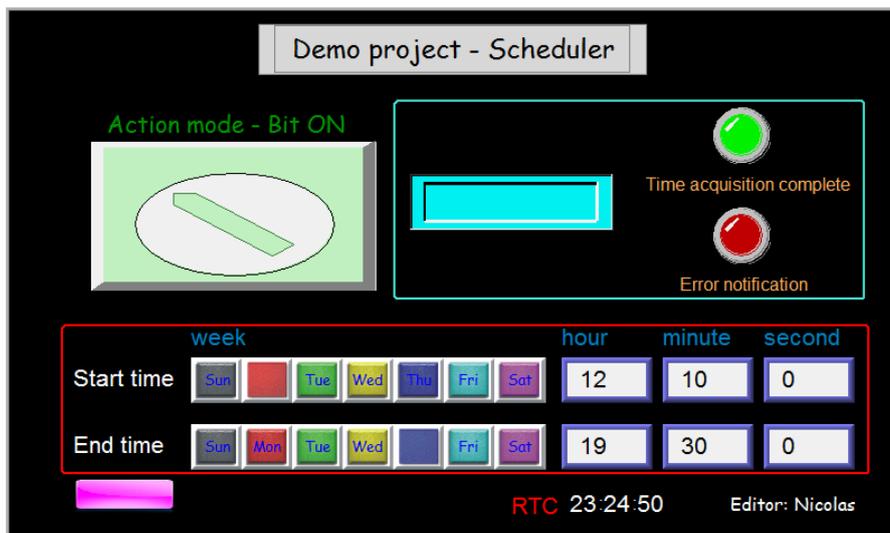
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## 1. Overview and Operation

### Overview

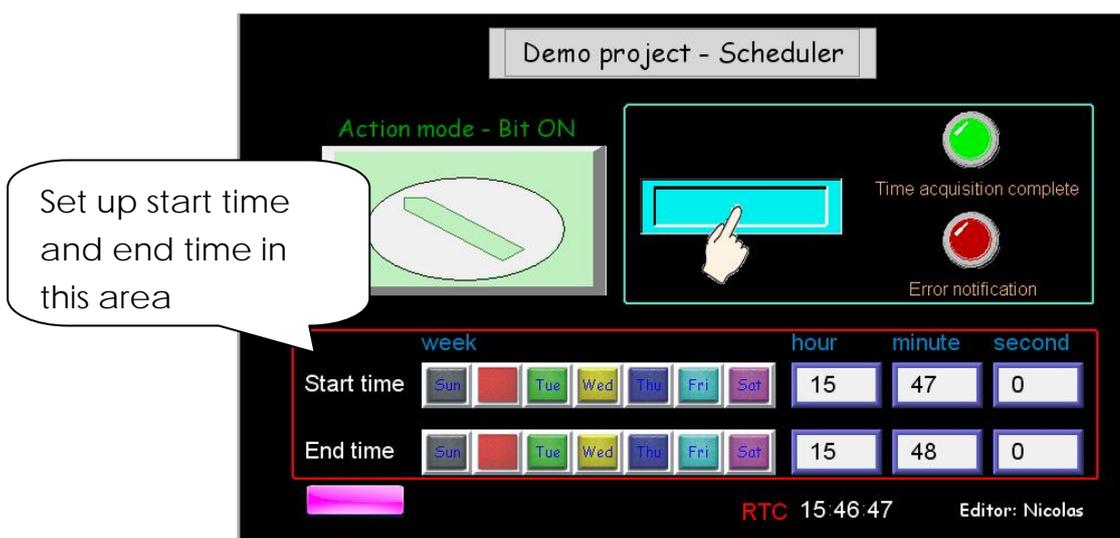
Scheduler object is used to turn on/off a bit or write a value to a word device at designated time. The time schedule setting is very flexible, it can be on daily basis or weekly basis. For more advance application you can use a table (a block of word devices) to set start and terminate time, then update the table at any scheduled time.



### Operation

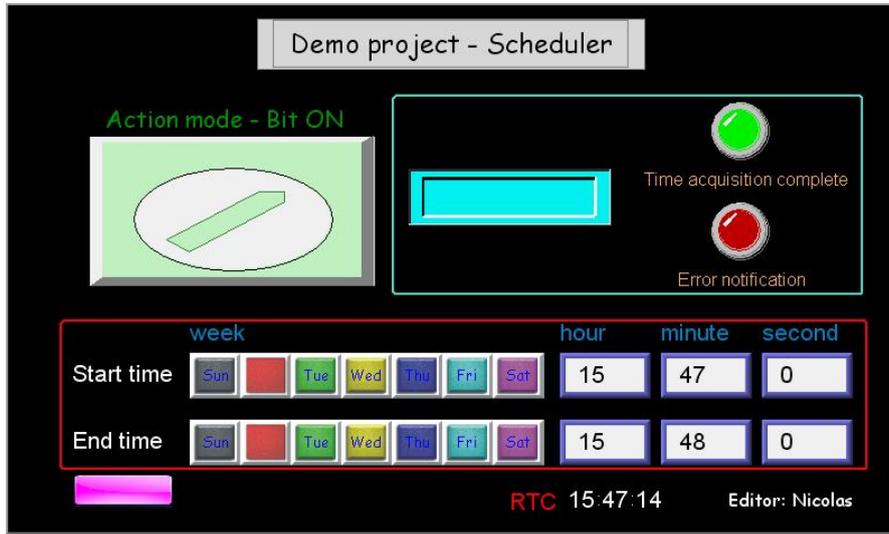
[Bit ON mode]

After setting the [action mode], [start time] and [end time], users can touch Update setting button to make the system reads the new scheduled time.

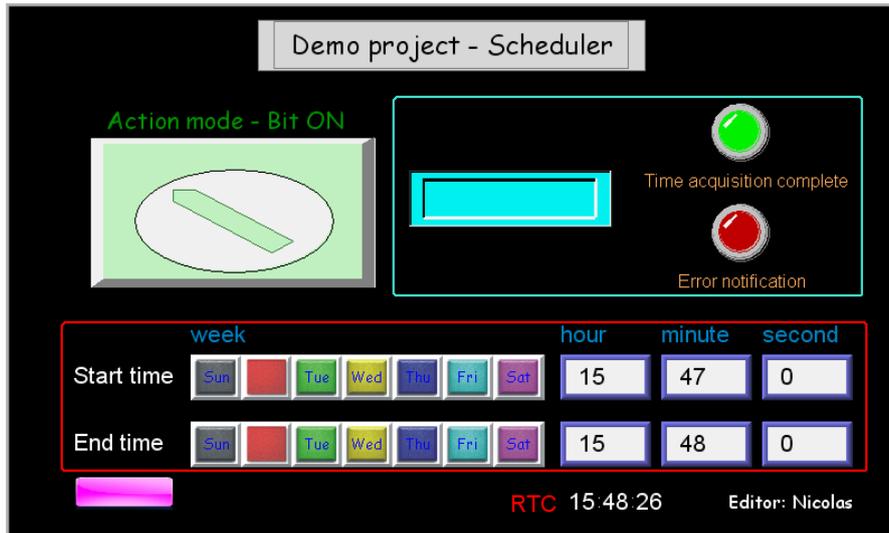




When reaching the designated start time, LB0 turns ON.



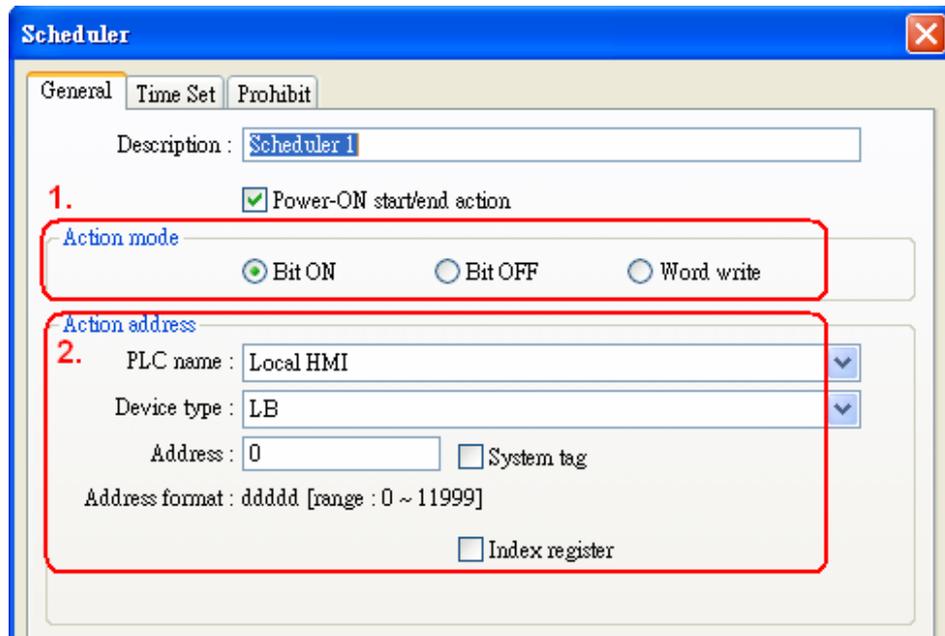
When reaching the designated end time, LB0 turns OFF.



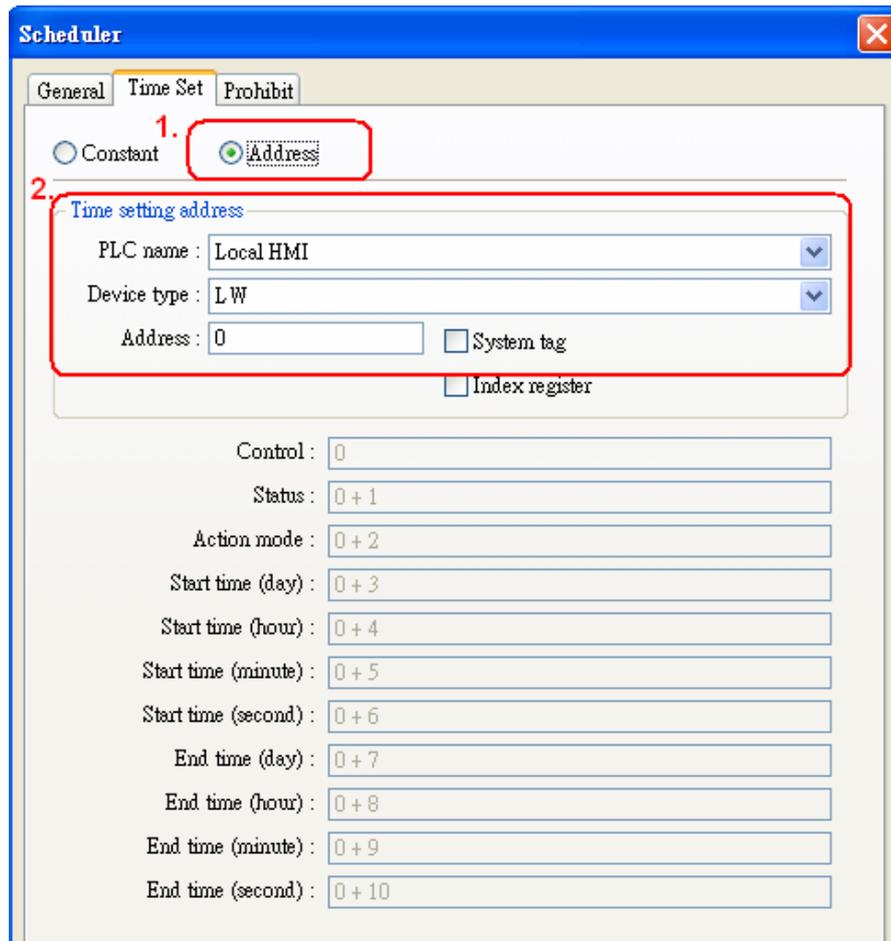
## 2. Setting Up the Screen

### [Bit ON mode]

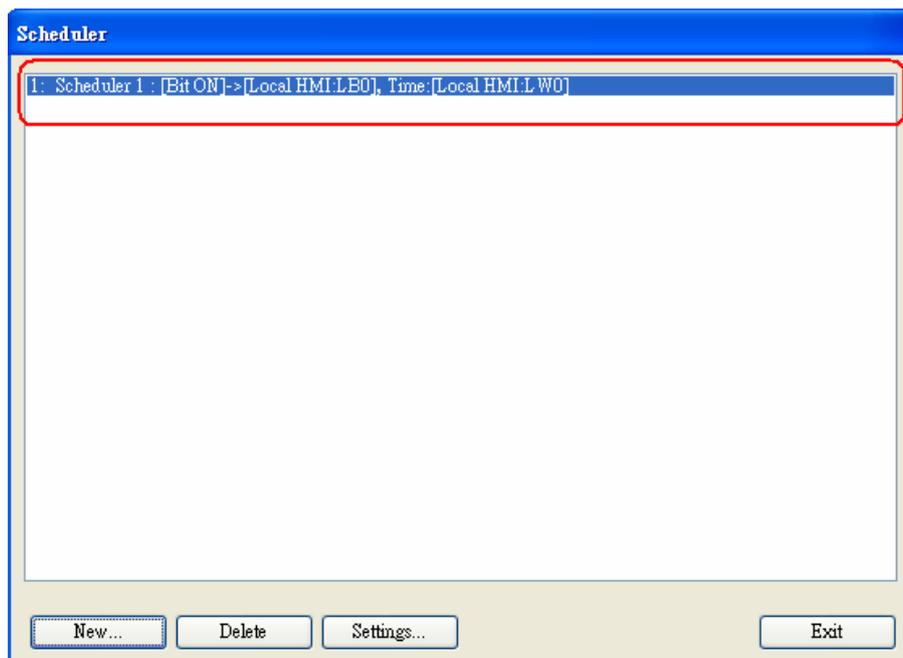
1. Click Scheduler object to select Bit ON and set action address to LB0.



2. On Scheduler / Time Set tab, select Address mode, and set time setting address to LW0.



3. After all settings are completed, a new scheduler is listed in the table.



4. Follow the time setting address to set up related objects.

The screenshot shows the 'Scheduler' software window with the 'Time Set' tab selected. The 'Address' radio button is chosen. The 'Time setting address' section is highlighted with a red box and contains the following fields:

- PLC name: Local HMI
- Device type: LW
- Address: 0
- System tag
- Index register

The lower section of the window, also highlighted with a red box, contains the following time-related fields:

- Control: 0
- Status: 0 + 1
- Action mode: 0 + 2
- Start time (day): 0 + 3
- Start time (hour): 0 + 4
- Start time (minute): 0 + 5
- Start time (second): 0 + 6
- End time (day): 0 + 7
- End time (hour): 0 + 8
- End time (minute): 0 + 9
- End time (second): 0 + 10

5. Control (time setting address+0).

Create a toggle switch object and set address to LW\_Bit 000000. This object is used to update new scheduled time.

**Toggle Switch Object's Properties**

General Security Shape Label Profile

Description : \_\_\_\_\_

**Read address**

PLC name : Local HMI

Device type : LW\_Bit

Address : 0000000  System tag

Address format : ddddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

Invert signal

**Write address :**

PLC name : Local HMI

Device type : LW\_Bit

Address : 0000000  System tag

Address format : ddddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

Write when button is released

**Attribute**

Switch style : Toggle

#### 6. Status (time setting address+1).

Create two bit lamp objects and set address to LW\_Bit 0000100 (Time acquisition complete) and LW\_Bit 0000101 (error notification).

**Bit Lamp Object's Properties**

General Security Shape Label Profile

Description : |

**Read address**

PLC name : Local HMI

Device type : LW\_Bit

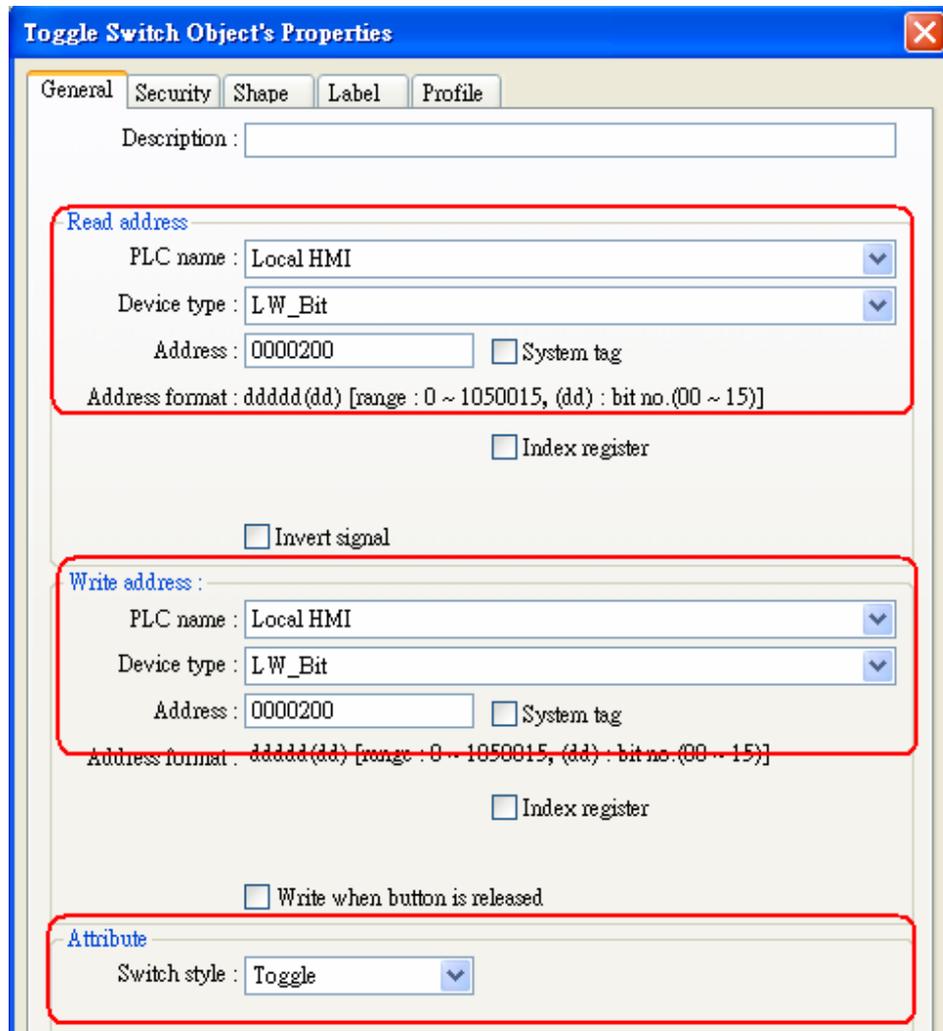
Address : 0000100  System tag

Address format : ddddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

### 7. Action mode (time setting address+2).

Create a toggle switch object and set address to LW\_Bit 0000200. This object is used to enable end time.



**Toggle Switch Object's Properties**

General Security Shape Label Profile

Description :

**Read address**

PLC name : Local HMI

Device type : LW\_Bit

Address : 0000200  System tag

Address format : dddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

Invert signal

**Write address :**

PLC name : Local HMI

Device type : LW\_Bit

Address : 0000200  System tag

Address format : dddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

Write when button is released

**Attribute**

Switch style : Toggle

### 8. Start time (day, time setting address+3).

Create seven toggle switch objects and set address from LW\_Bit 300 to 306 for each object.

**Toggle Switch Object's Properties**

General Security Shape Label Profile

Description : |

**Read address**

PLC name : Local HMI

Device type : LW\_Bit

Address : 300  System tag

Address format : dddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

Invert signal

**Write address :**

PLC name : Local HMI

Device type : LW\_Bit

Address : 300  System tag

Address format : dddd(dd) [range : 0 ~ 1050015, (dd) : bit no.(00 ~ 15)]

Index register

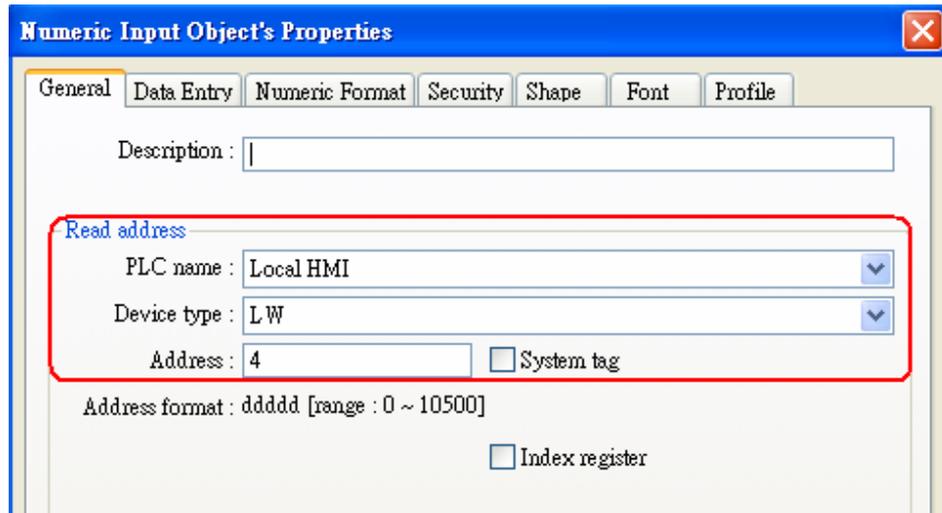
Write when button is released

**Attribute**

Switch style : Toggle

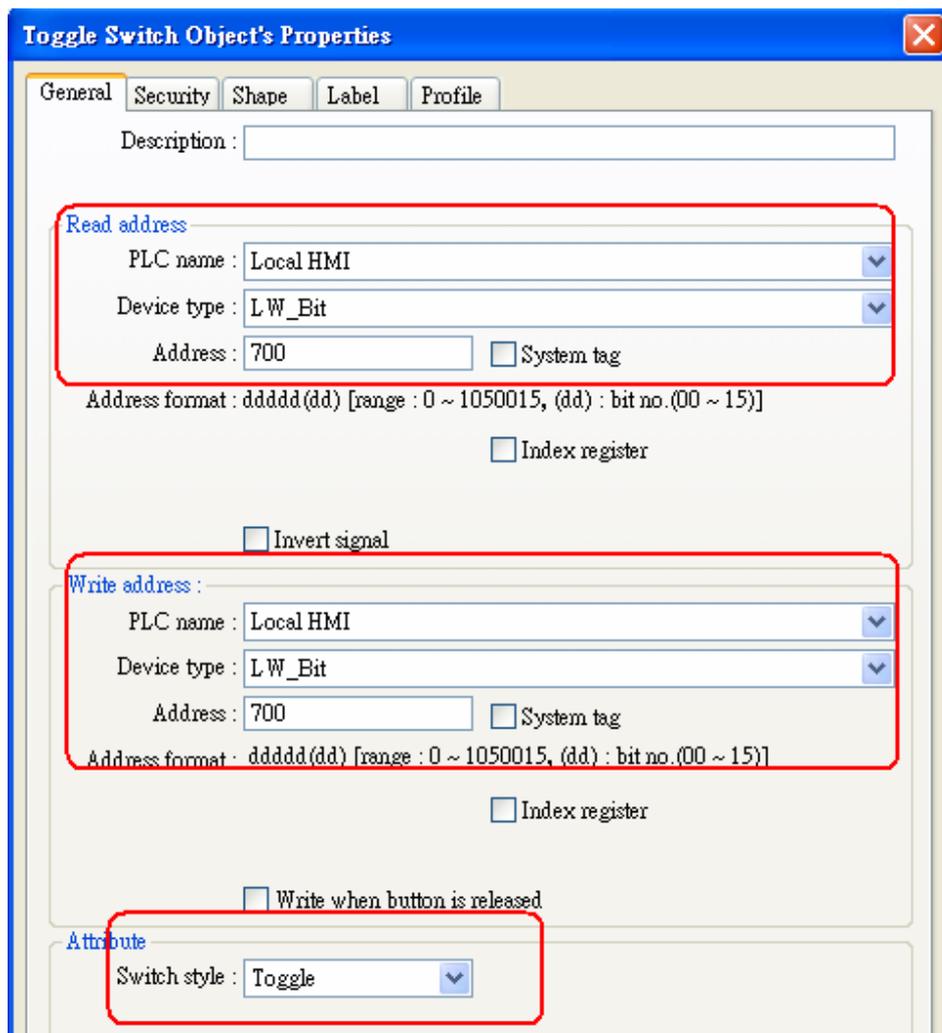
9. Start time (hour, time setting address+4), (minute, time setting address+5), (second, time setting address+6).

Create three numeric input objects and set address from LW4 to 6 for each object.



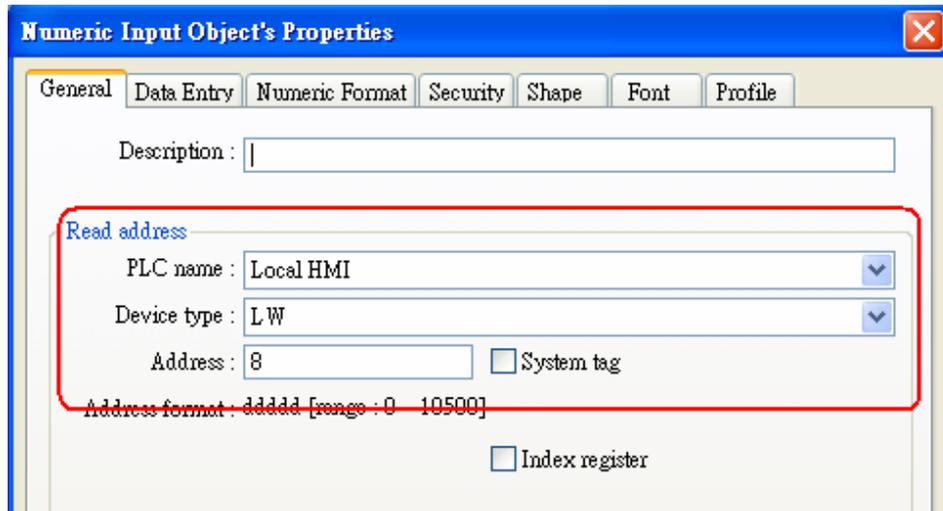
10. End time (day, time setting address+7).

Create seven toggle switch objects and set address from LW\_Bit 700 to 706 for each object.

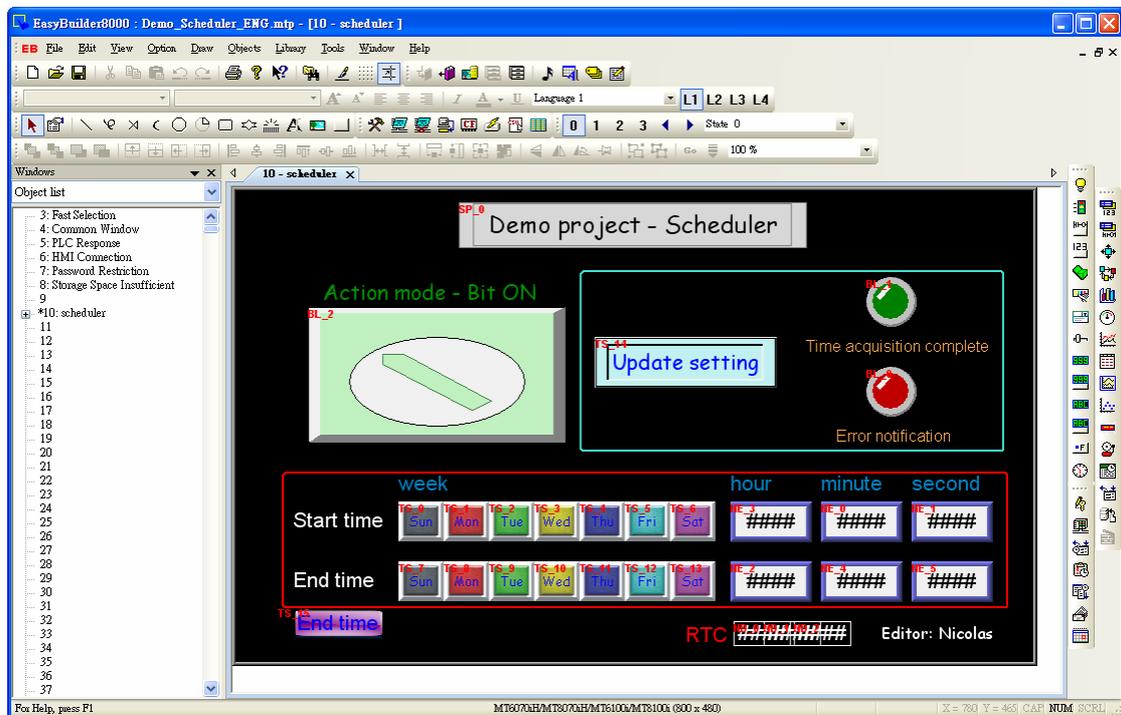


11. End time (hour, time setting address+8), (minute, time setting address+9), (second, time setting address+10).

Create three numeric input objects and set address from LW8 to 10 for each object.



12. After all required objects and settings are completed; a demo project for scheduler is shown below.



### 3. Addresses

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

Object	Address	Object ID	Detail
<b>Window10</b>			
Bit lamp	LB0	BL_0	Action address
	LW_Bit 101	BL_1	Error notification
	LW_Bit 100	BL_2	Time acquisition complete
Numeric input	LW4	NE_0	Start time – hour
	LW5	NE_1	Start time – minute
	LW6	NE_2	Start time – second
	LW8	NE_3	End time – hour
	LW9	NE_4	End time – minute
	LW10	NE_5	End time – second
Numeric display	LW9019	ND_0	Local hour
	LW9018	ND_1	Local minute
	LW9017	ND_2	Local second
Toggle switch	LW_Bit 300~306	TS_0~TS_6	Start time – week
	LW_Bit 700~706	TS_7~TS_13	End time – week
	LW_Bit 000	TS_14	Update setting
	LW_Bit 200	TS_15	Enable end time