

WEINTEK LABS., INC.

# JS Object Read/Write Register Value

Demo Project

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## 1. Overview & Operation

### Overview

This demo project explains how to use JS object as a counter, so that it starts counting when the designated bit address is triggered, and the counter value is written to a register.

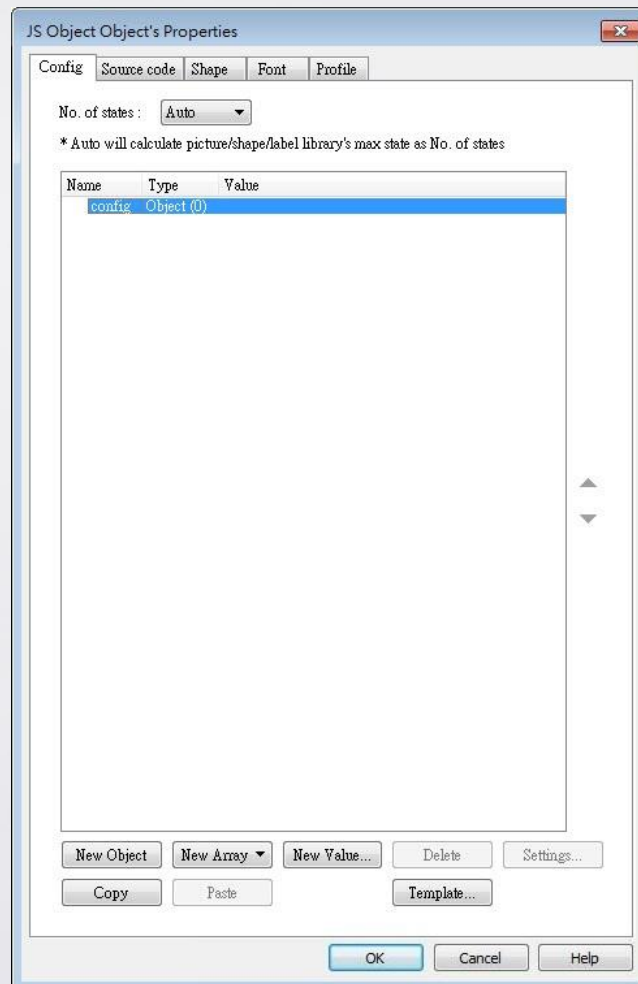
This demo project also explains how to read / write a register using JS object, with two types available in Config settings: Subscription and Address.

### Operation

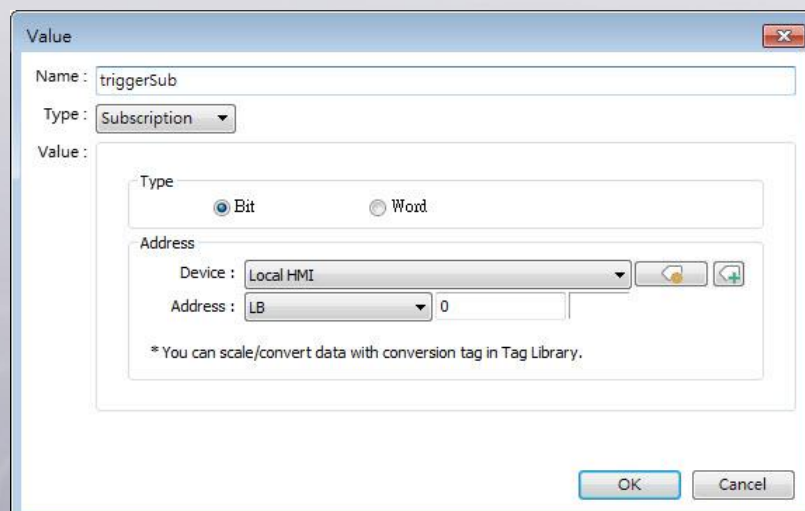
Tap the Toggle Switch on HMI to change the state of LB-0. JS object will add one to the counter value in LW-0 every time when the state of LB-0 changes from OFF to ON.

## 2. Setting up the Screen

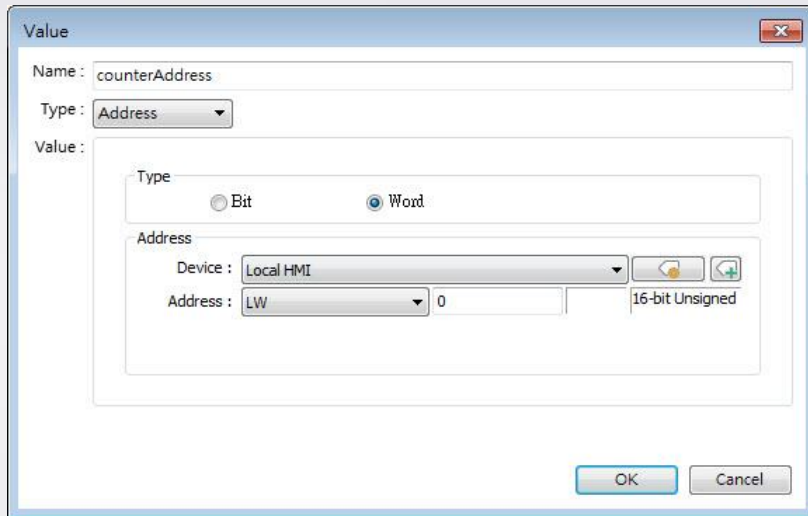
**Step 1.** Create a JS object, select config and click New Value.



**Step 2.** Add a property with “Subscription” data type, name it “triggerSub” and set address to LB-0.



**Step 3.** Add another property with “Address” data type, name it “counterAddress” and set address to LW-0.



Value

Name : counterAddress

Type : Address

Value :

Type

☐ Bit ☒ Word

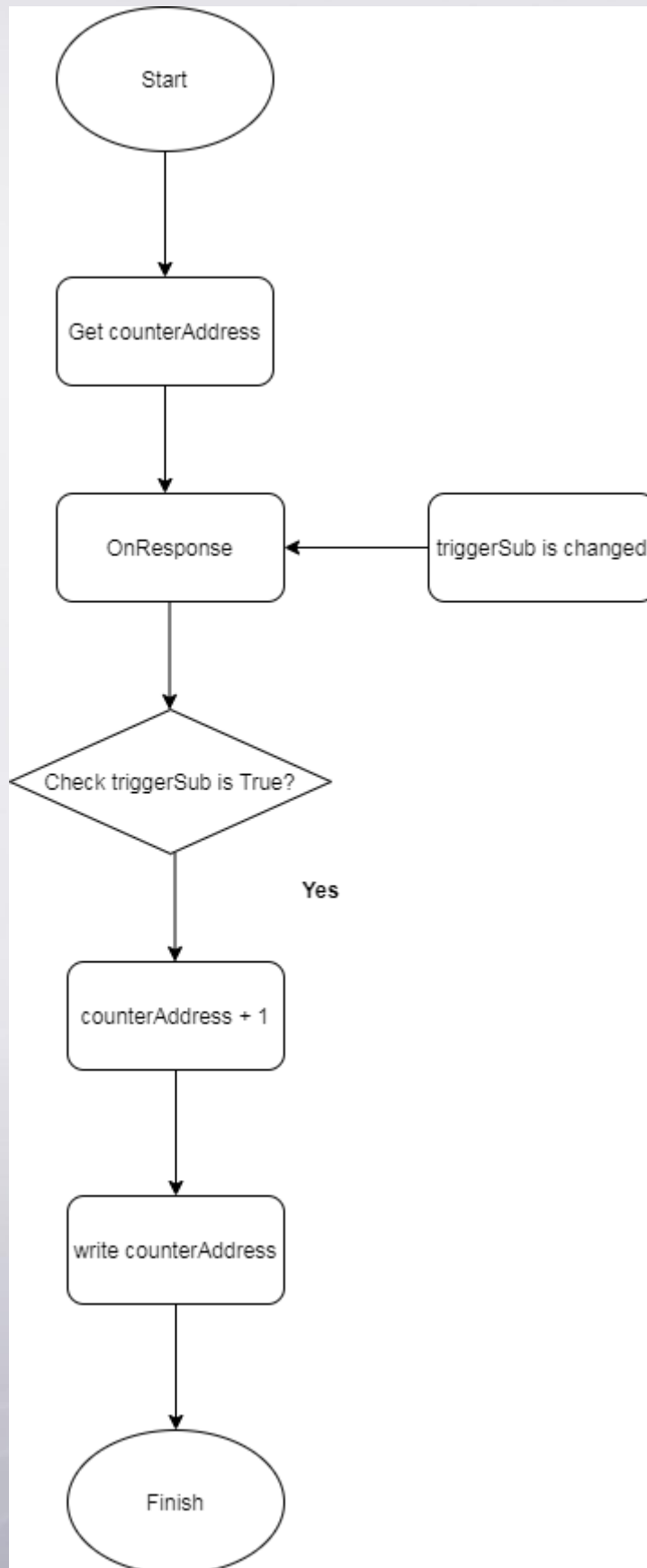
Address

Device : Local HMI

Address : LW 0 16-bit Unsigned

OK Cancel

**Step 4.** JS code process flow diagram.



**Step 5.** The following explains the source code.

```
1 const self = this;
2 const config = this.config;
3
4 var count = await getValue(config.counterAddress);
5
6 config.triggerSub.onResponse((err, data) => {
7   if (err) {
8     console.log(`Error: ${err.message}`);
9   } else {
10    const value = data.values[0];
11    if (value) {
12      count++;
13      driver.setData(config.counterAddress, count);
14    }
15  }
16 });
17
18 async function getValue(address) {
19   let data = await driver.promises.getData(address, 1);
20   return data.values[0];
21 }
```

**Line 4:** Call 'getValue' function to read the value in 'config.counterAddress', which is the counter built in step 3, address LW-0. Since the data type of 'counterAddress' is Address, this function is only executed once when it is used in the source code.

**Line 6:** The data type of 'config.triggerSub' built in step 3 is Subscription; therefore, JS object will keep attempting to get value in 'triggerSub', address LB-0. When the value in 'triggerSub' changes, the 'onResponse' function will be executed.

**Line 10:** Define a variable 'value' to represent data in 'triggerSub' (LB-0).

**Line 11:** When 'value' is true, the value in 'count' is added by 1 automatically.

**Line 13:** Use 'driver.setData' to write the value in 'count' into 'config.counterAddress'.

**Step 6.** Create a Toggle Switch and set address to LB-0.

**Step 7.** Create a Numeric object to display the value in LW-0.

### 3. Addresses

The addresses of key objects used in this demonstration are listed below, please adjust as necessary.

Object	Address	Object ID	Description
Window 10			
Toggle Switch	LB-0	TS_0	Triggers the counter
Numeric	LW-0	NE_0	The counter value
JS Object	LW-0 LB-0	co_0	The counter