

WAMQTT Driver Guide

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1. WAMQTT Communications

1.1. Introduction to WAMQTT

WebAccess SCADA Node provides a interface named “WAMQTT” via MQTT protocol. The protocol specification please refer “WebAccess Cloud MQTT Design Specification”.

1.2. Configure WAMQTT device in WebAccess

The steps, in summary, are:

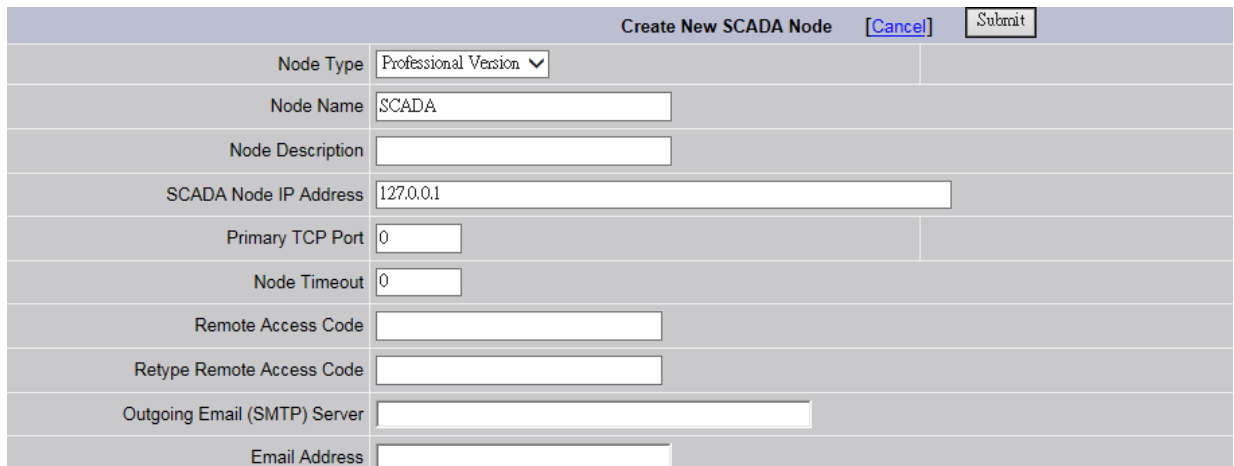
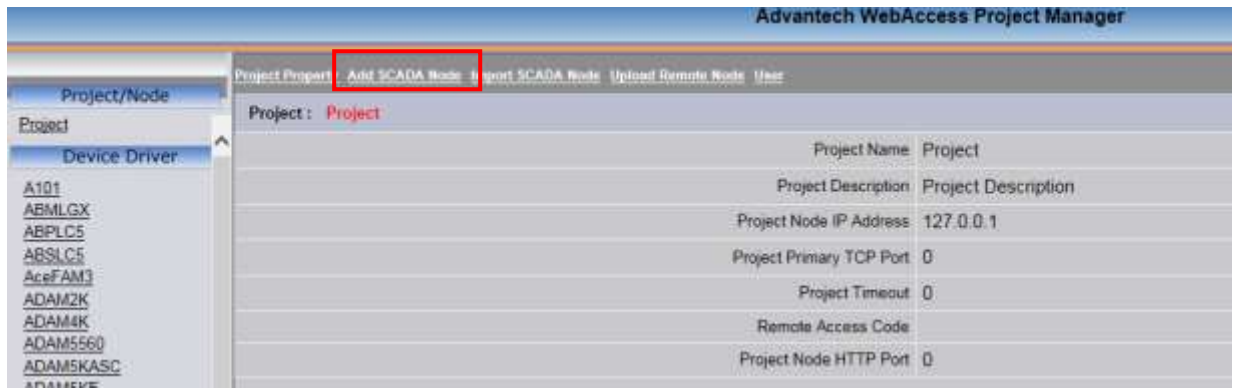
1. Start Internet Explorer **Web Browser**.
2. Enter IP address of the **Project Node**.
3. Use **WebAccess Configuration**.
4. Open or Create a **Project**.
 - 4.1 Create a new **Project**.

- 4.2 Open an existing Project.

Advantech WebAccess Project Manager				
				Current Project(s)
Project Name	Project	Dashboard	Description	IP
Project	Configure	Edit	Project Description	127.0.0.1

Please select one of above available Projects to start!

5. Configure a **SCADA node** (the Touch Panel that will connect to the automation hardware).



6. Configure a **Comport** for the SCADA Node that is a **TCPIP type Comport**.



7. Configure Scan Time, Timeout, Retry Count, Auto Recover Time, and Backup Port Number to match those in the device.

8. Configure a **WAMQTT** (determines the communications Protocol or Device Driver) using **Add Device**.

9. Use **Add Tag** or **Add Block** to create tags.

10. Select a Parameter to match the type of data.

11. Modify the Address to match the actual address.

12. Apply a Tag name.

13. Edit Tags in Project Manager to assign **Alarms, Scaling, Engineering Units, Description** and other features.

1.3. TCPIP Properties

Create New Comport		[Cancel]	Submit
Interface Name	TCPIP		
Comport Number	1		
Description	Description		
Scan Time	1	<input type="radio"/> MilliSecond	<input checked="" type="radio"/> Second <input type="radio"/> Minute <input type="radio"/> Hour
Timeout	1000	MilliSecond	
Retry Count	3		
Auto Recover Time	60	Second	
Backup Port Number	0		
Scan Devices in Parallel	<input type="radio"/> Yes <input checked="" type="radio"/> No		
		[Cancel]	Submit

1.3.1. Comport Number

WebAccess Comorts is a logic communication port in the WebAccess configuration for Serial Port Interface.

1.3.2. Description

An optional field used for user reference.

1.3.3. Scan Time

This is the time in milliseconds to scan. If the PLC cannot respond as fast as the SCAN Time entered, WebAccess will scan at a slower rate. Scan Time is also network dependant, it is possible to enter a Scan Time faster than your network can respond, WebAccess will poll all devices and tags on the Comport before starting a new scan.

1.3.4. Timeout

Timeout is the time waited before re-sending a communications packet that did not have a reply. Timeout specifies is irrelative in Wzzard communication.

1.3.5. Retry Count

The number of times to retry communications if no reply is received from a device. Combined with Timeout, also determines time to consider a device or port as BAD. Retry Count is irrelative in Wzzard communication.

1.3.6. Auto Recover Time

Recover Time is the time to wait after a Device is marked Bad (or Failed) before re-initializing communications. It is irrelative in WAMQTT communication.

1.3.7. Backup Port Number

No Support.

1.4. Device Properties – WAMQTT

Create New Device		[Cancel]	[Submit]
Device Name	WAMQTT		
Description			
Unit Number	0		
Device Type	WAMQTT		
Primary	IP Address	127.0.0.1	
	Port Number	1883	
	Device Address	if other than Unit Number	
Secondary	IP Address		
	Port Number		
	Device Address		
Heartbeat frequency (second) =	5		
Device ID:	WAMQTT1		
Backup Device ID:			
User Name:			
Password:			
		[Cancel]	[Submit]

Add your device to the TCPIP Port, by selecting the TCPIP Port you have configured, then select **Add Device**.

To modify an existing Device, Select **Device Properties**. The Device Properties Page for a TCPIP Type Device appears.

1.4.1. Device Name

Device name is a User-assigned name that will appear in the Project Manager (Configuration Tool) and in runtime VIEW Displays. Choosing a descriptive Name can help technicians identify the location of your device.

Changing only the Device Name will rename the existing device. Changing both the **Device Name** and the **Unit Number** will make a copy of the device (e.g. create another device).

1.4.2. Description

Assigned description up to 70 characters.

1.4.3. Unit Number

Unit Number is an identifier of device.

1.4.4. Device Type

Once a Device Type is created on a COM port, the Device Type of additional devices will be limited to this Device Type. The device type is “WAMQTT”.

1.4.5. Device Id

This is the unique identifier of device.

1.4.6. Backup Device Id

This is the unique identifier of backup device.

1.4.7. UserName

MQTT protocol provides username and password for authentication. The default value is “”.

1.4.8. Password

MQTT protocol provides username and password for authentication. The default value is “”.

1.4.9. Heartbeat Frequency

The heartbeat frequency (seconds) of device. Default is 5. If driver no receives

heartbeat message more than the frequency, the device will be regarded to offline.

1.5. Tag List

Analog ParaName	Description	Address
AI	Analog Tag	AI/t
Discrete ParaName	Description	Address
DI	Dicrete Tag	DI/t
Text ParaName	Description	Address
Text	Text Tag	Text/t

* Recover data log: “/t” means tag needs to recover data which are generated in the disconnected period.

1.6. Error Code Reference

Error Code	Description
ffff	System Error (Driver not be loaded).
8100	Device is offline
80A0	No tag data.
80A1	Tag data is wrong from ground scada or device.
8888	System Error (Initial device failed).