

## Advantech AE Technical Share Document

<b>Date</b>	2019/7/4	<b>SR#</b>	1-3952257927
<b>Category</b>	<input type="checkbox"/> FAQ <input checked="" type="checkbox"/> SOP	<b>Related OS</b>	N/A
<b>Abstract</b>	WISE-4610 How to install Edgelinek in WISE-6610 for sending WISE-4610 node data to WISE-PaaS		
<b>Keyword</b>	LoRaWAN, WISE-PaaS/SCADA, Edgelinek		
<b>Related Product</b>	WISE-6610, WISE-4610		

### ■ Problem Description:

Customer wants to see the WISE-4610 data on WISE-PaaS/SCADA, and he would like to use EdgeLink for sending the data to WISE-PaaS. This document will guide you for installing EdgeLink in WISE-6610 to let WISE-4610 node data can upload to WISE-PaaS.



**Topology.** WISE-4610 data upload to WISE-PaaS/SCADA via Edgelinek on WISE-6610

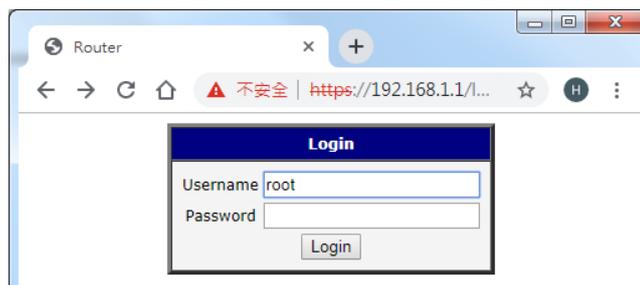
### ■ Answer:

#### First Part: Install EdgeLink into WISE-6610

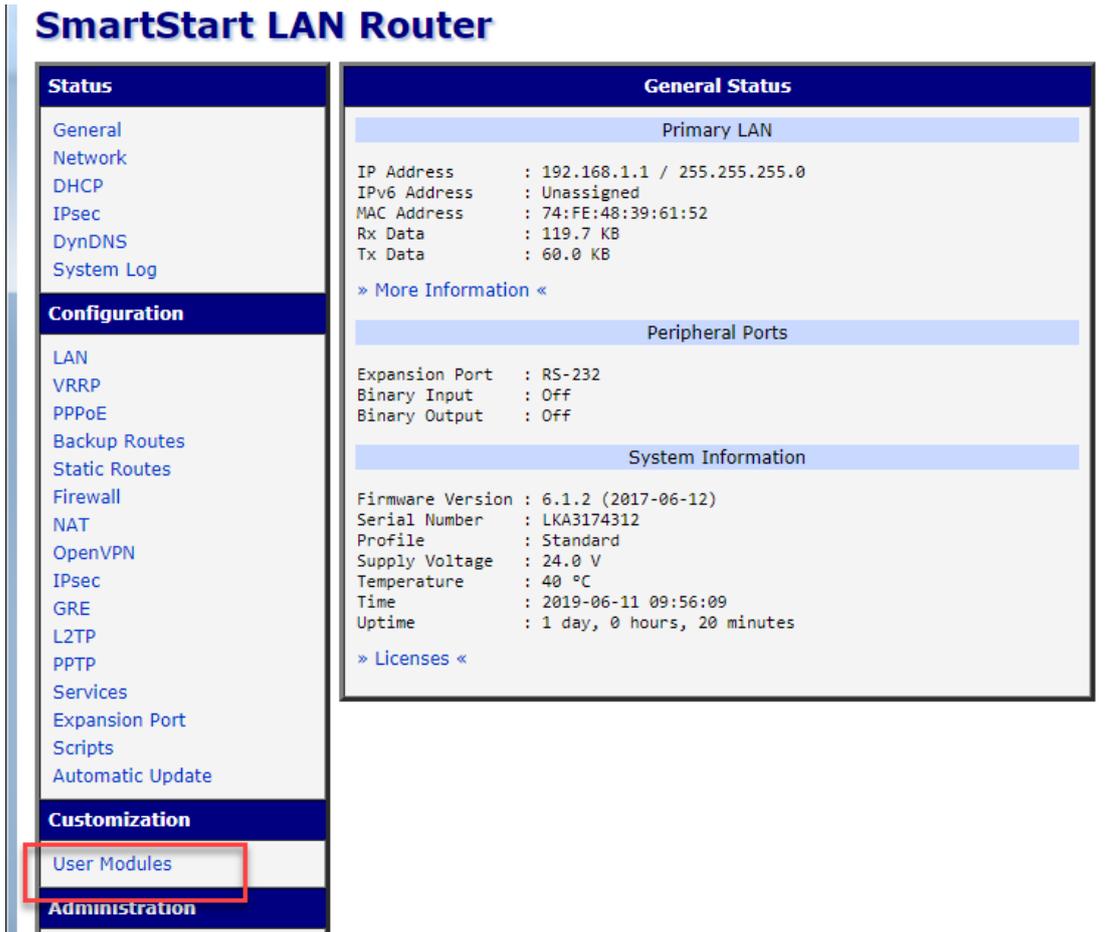
##### 1. Enter the WISE-6610 gateway.

Default IP: 192.168.1.1

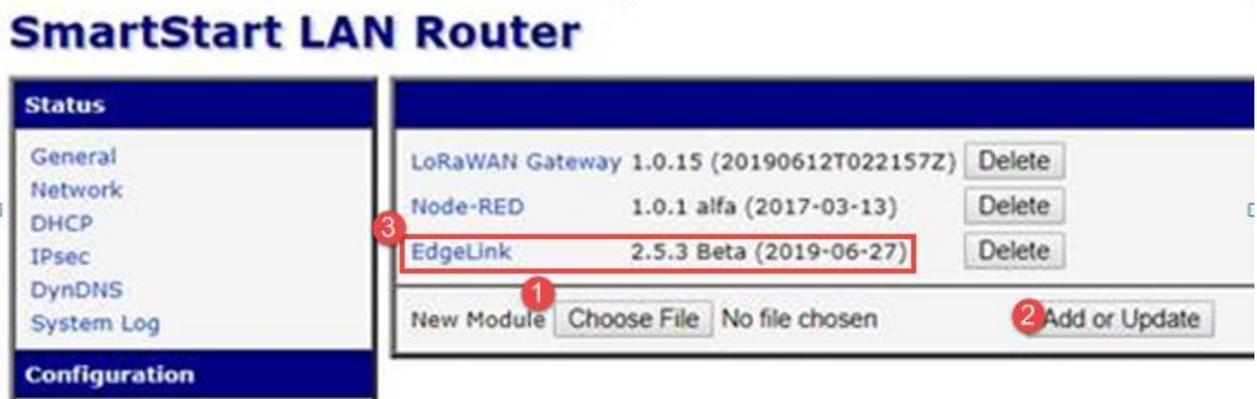
Account: **root** / Password: **root**



- Go to “user module”.



- Choose **edgelinek.v2.tgz** to import the file, then click **Add or update** button to install Edgelinek on WISE-6610. After you finished, you will see **EdgeLink** with version info on the screen.



- Make sure that WISE-6610 has connected to a router that can be able to access the Internet. You can check whether the Gateway IP of WISE-6610 is equal to the IP address of your router.

## SmartStart LAN Router

Status	Network Status																																			
<ul style="list-style-type: none"> <li>General</li> <li><b>Network</b></li> <li>DHCP</li> <li>IPsec</li> <li>DynDNS</li> <li>System Log</li> </ul>	<p><b>Interfaces</b></p> <pre> eth0  Link encap:Ethernet  Hwaddr 74:FE:48:3E:74:99       inet addr:10.1.1.18  Bcast:10.1.1.255  Mask:255.255.255.0       UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1       RX packets:1605539 errors:0 dropped:59416 overruns:0 frame:0       TX packets:1862463 errors:0 dropped:0 overruns:0 carrier:0       collisions:0 txqueuelen:1000       RX bytes:188988965 (180.2 MB)  TX bytes:1660898432 (1.5 GB)       Interrupt:56  lo    Link encap:Local Loopback       inet addr:127.0.0.1  Mask:255.0.0.0       inet6 addr: ::1/128 Scope:Host       UP LOOPBACK RUNNING  MTU:65536  Metric:1       RX packets:1161385 errors:0 dropped:0 overruns:0 frame:0       TX packets:1161385 errors:0 dropped:0 overruns:0 carrier:0       collisions:0 txqueuelen:0       RX bytes:74659828 (71.2 MB)  TX bytes:74659828 (71.2 MB)  nat64 Link encap:UNSPEC  Hwaddr 00-00-00-00-00-00-00-00-00-00-00-00-00-00-00-00       inet6 addr: 64:ff9b::/96 Scope:Global       UP POINTOPOINT RUNNING NOARP MULTICAST  MTU:1500  Metric:1       RX packets:0 errors:0 dropped:0 overruns:0 frame:0       TX packets:0 errors:0 dropped:0 overruns:0 carrier:0       collisions:0 txqueuelen:0       RX bytes:0 (0.0 B)  TX bytes:0 (0.0 B)           </pre>																																			
<ul style="list-style-type: none"> <li><b>Configuration</b></li> <li>LAN</li> <li>VRRP</li> <li>PPPoE</li> <li>Backup Routes</li> <li>Static Routes</li> <li>Firewall</li> <li>NAT</li> <li>OpenVPN</li> <li>IPsec</li> <li>GRE</li> <li>L2TP</li> <li>PPTP</li> <li>Services</li> <li>Expansion Port</li> <li>Scripts</li> <li>Automatic Update</li> </ul>	<p><b>Route Table</b></p> <table border="1"> <thead> <tr> <th>Destination</th> <th>Gateway</th> <th>Genmask</th> <th>Flags</th> <th>Metric</th> <th>Ref</th> <th>Use</th> <th>Iface</th> </tr> </thead> <tbody> <tr> <td>0.0.0.0</td> <td>10.1.1.1</td> <td>0.0.0.0</td> <td>UG</td> <td>0</td> <td>0</td> <td>0</td> <td>eth0</td> </tr> <tr> <td>10.1.1.0</td> <td>0.0.0.0</td> <td>255.255.255.0</td> <td>U</td> <td>207</td> <td>0</td> <td>0</td> <td>eth0</td> </tr> <tr> <td>10.1.1.1</td> <td>0.0.0.0</td> <td>255.255.255.255</td> <td>UH</td> <td>0</td> <td>0</td> <td>0</td> <td>eth0</td> </tr> </tbody> </table>	Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface	0.0.0.0	10.1.1.1	0.0.0.0	UG	0	0	0	eth0	10.1.1.0	0.0.0.0	255.255.255.0	U	207	0	0	eth0	10.1.1.1	0.0.0.0	255.255.255.255	UH	0	0	0	eth0			
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64:ff9b::/128	::	U	0	0	1	lo																														
ff00::/8	::	U	256	0	0	nat64																														
<ul style="list-style-type: none"> <li><b>Administration</b></li> <li>Users</li> <li>Change Profile</li> <li>Change Password</li> </ul>																																				

## Second Part: Create Project on WISE-PaaS/SCADA

- Contact with WISE-PaaS contact window to apply for account and password. Log in to the homepage of WISE-PaaS. In this document, we are using below URL for demonstration. <https://portal-scada-adviiot-ene-nbiot.wise-paas.com/#/>



### WebAccess/SCADA

Sign in to Cloud SCADA Network

Email
Password

Remember me

[Forget password?](#)

**Sign in**

- In Device Management, create New Project on the top right button.

After you create a new project, you may click Project Name to another SCADA List page.

### 3. Create New SCADA. Copy the SCADA ID.

If you forget to copy the SCADA ID, you can click detail for checking it again.

### 4. Because EdgeLink have implemented “Plug&Play” function, there is no need to add any device. Once the device is online, the SCADA would create a new device. Users could click the SCADA name to monitor devices.

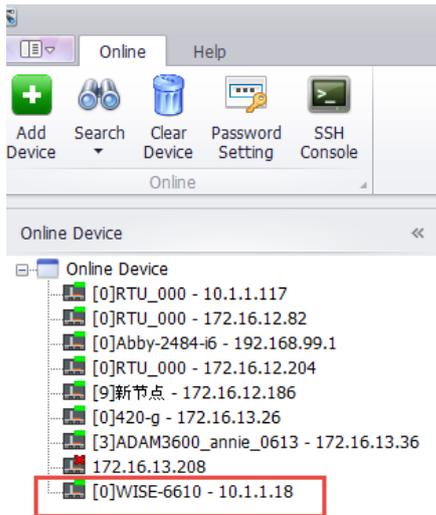
## Device List

Device Name	Device Type	Description	Status	Detail	Delete
NewNode	WebAccess/TagLink		●	⋮	🗑️

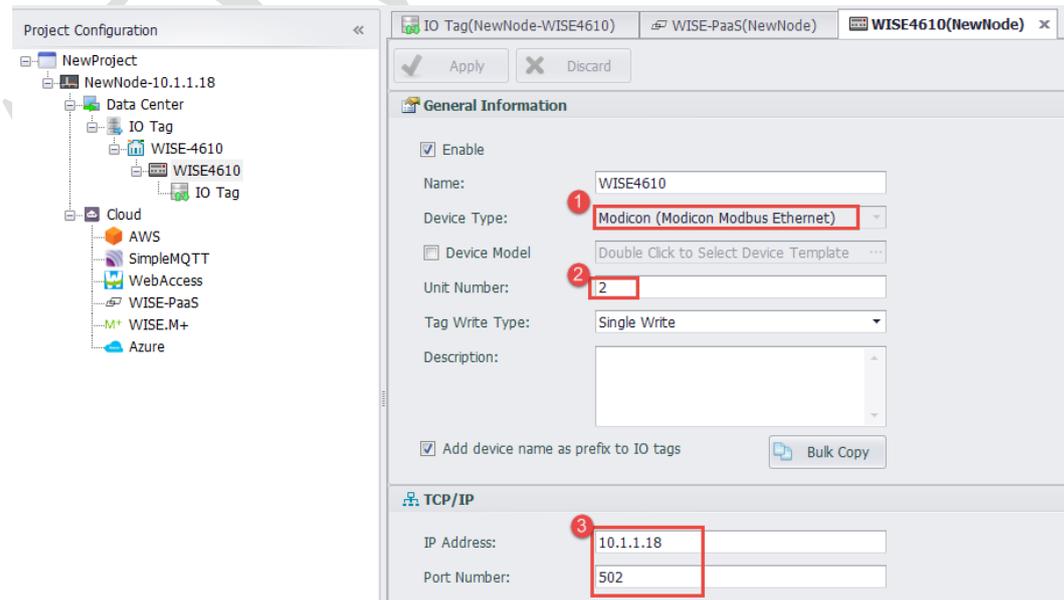
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### Third Part: WSE-6610 EdgeLink Project Setup

1. Use Online Search to check the IP of WISE-6610



2. Enter below parameter for using EdgeLink to get data from WISE-6610 by using Modbus.
  - 2.1 Choose Modicon for Modbus
  - 2.2 Enter the unit number, Make sure the unit id is equal to the Modbus ID on WISE-6610
  - 2.3 Enter the IP address of WISE-6610, the port number is 502



**Navigation**

**Router**

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- [Application Server](#)
- [Settings](#)
- [Status](#)
- [Modbus Mapping Table](#)
- [Payload Engine](#)
- [Licenses](#)
- [Return to Router](#)

**LoRaWAN Gateway Settings**

**Modbus TCP Mapping Table**

Request Slave ID	Node ID	Type	Action
1	FF389578	Class A	<input type="button" value="Delete"/>
2	FF38953D	Class A	<input type="button" value="Delete"/>

3. Create the tag you want to poll from WISE-6610

Name	Data Type	Source	Initial Val...	Scan Rate	Address	Conversio...	Scale Type	Read Write
WISE4610:AIO	Analog	Custom-add	0.0	1	41001	Unsigned In...	No Scale	Read/Write
WISE4610:NewTag	Analog	Custom-add	0.0	1	41002	Unsigned In...	No Scale	Read/Write
WISE4610:D1	Discrete	Custom-add	0	1	00001	N/A	No Scale	Read/Write
WISE4610:D11	Discrete	Custom-add	0	1	00002	N/A	No Scale	Read/Write
WISE4610:D12	Discrete	Custom-add	0	1	00003	N/A	No Scale	Read/Write

4. Set up EdgeLink project for WISE-6610.

4.1 Choose “WISE-PaaS” in the categories of Cloud service.

4.2 In Cloud setting, enable WISE-PaaS Cloud.

4.3 click to edit for adding the tag you want to upload to WISE-PaaS

Note: When enabling SSL, please ensure that the device time is consistent with the server time!

wise-msghub.eastasia.cloudapp.azure.com-1883 x iot.advantech.com-1883 wise-msghub.eastasia.cloudapp.azure.com-1883

Connect Type: MQTT

Enable:

Use Socks5 Proxy:  Edit

host: wise-msghub.eastasia.c...

Port: 1883

SSL Enable:

SSL Scenario: Anonymous conne...

MQTT Version: 3.1.1

Client ID: edgelinek201907041426i

User Name:

Password:

Keep Alive(s): 60

Retry Interva(s): 60

Timeout(s): 30

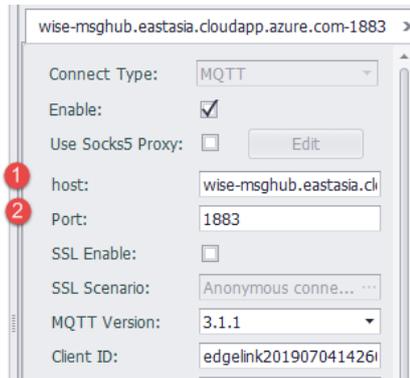
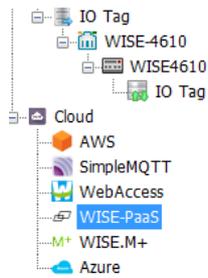
Tag Name	Alias	Tag Type	Deadband	Deadband Type	Unit	Jitter Time(s)	Decimal
WISE4610:AIO		analog	0	Absolute		0	2
WISE4610:NewTag		analog	0	Absolute		0	2
WISE4610:D1		discrete	0	Absolute		0	2
WISE4610:D11		discrete	0	Absolute		0	2
WISE4610:D12		discrete	0	Absolute		0	2

\* Double click to edit

4.1 We set “wise-msghub.eastasia.cloudapp.azure.com” in “host” for demonstration.

4.2 We set the port number 1883 in “Port” following WISE-PaaS port in this demo.

4.3 No need to fill in “Username” and “Password”.



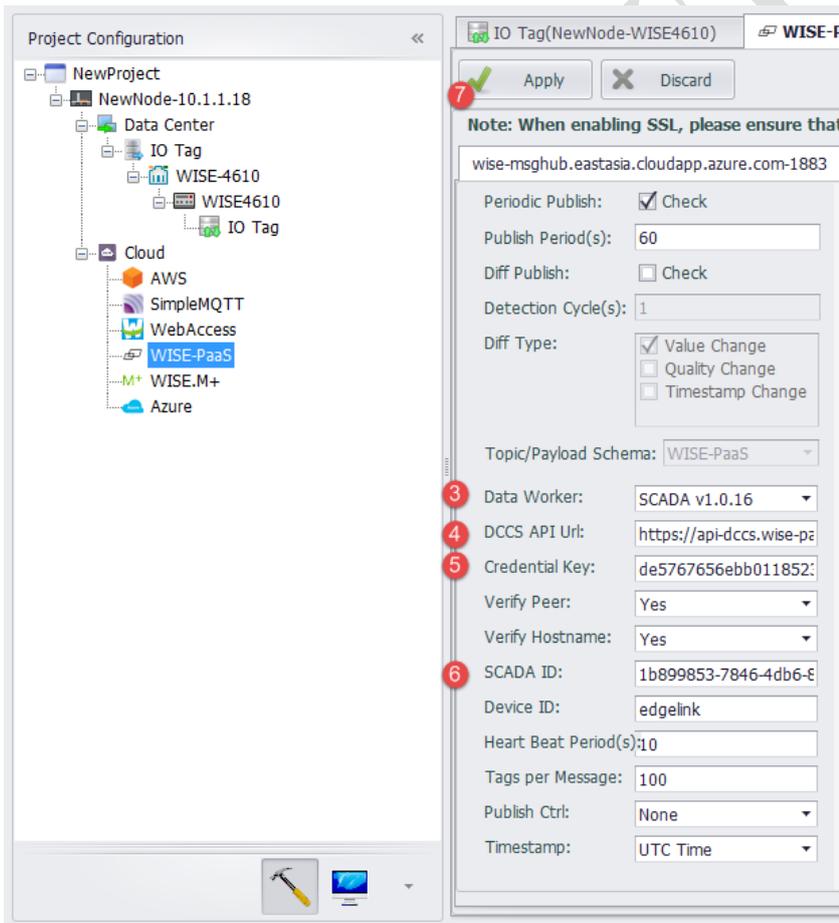
4.4 “Data Worker”: Choose SCADA v1.0.16

4.5 “DCCS API Url”: Following WISE-PaaS instruction, we use “<https://api-dccs.wise-paas.com/>” in this demo.

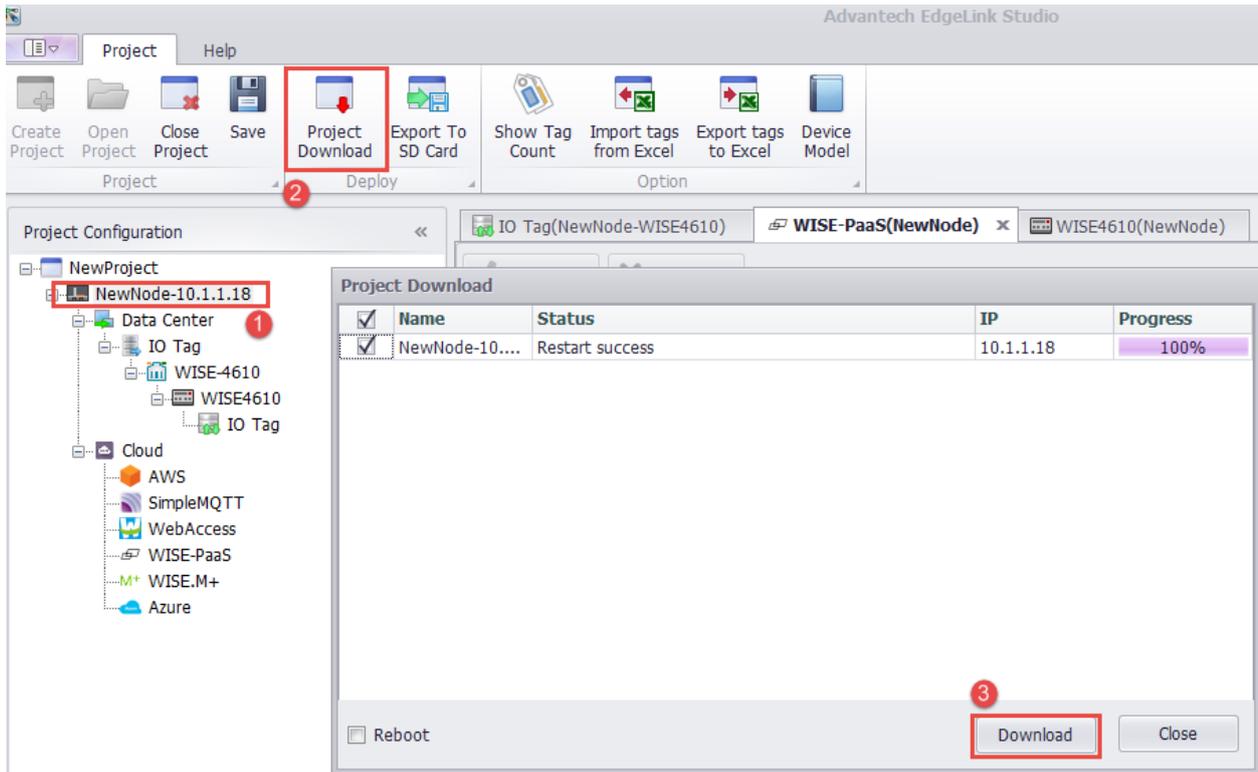
4.6 “Credential Key”: Following WISE-PaaS instruction, we use “dea4541b00c7d7195da93d5d8.....”.

4.7 “SCADA ID”: Following WISE-PaaS instruction to fill in SCADA ID.

4.8 Click **Apply** for saving the setting.



5. Click on the “**NewNode**”, then Click “**Project Download**”, then Click “**Download**” in the Project Download tab to download the Edgelinek project into WISE-6610



6. You will see all the the tag you choose in EdgeLink have sucessully uploaded to WISE-PaaS.

Home / WISE6610 / WISE4610test / NewNode

### Tag List

Tag Name	Tag Type	Description	Value	Update Time	Detail	Delete
WISE-4610:AI	Analog		32751.00	2019-07-03 02:23:53	...	🗑️
WISE-4610:DI	Discrete		1	2019-07-03 02:23:53	...	🗑️
WISE-4610:DI1	Discrete		0	2019-07-03 02:23:53	...	🗑️
WISE-4610:NewTag	Analog		0.00	2019-07-03 02:23:53	...	🗑️

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