# **Aliyun IIoT**

Aliyun IIoT is currently divided into two categories:End-User and Manufacturer,and the two only differ in the registration process.

## **HMI Setting**

### $(\underline{1}) \texttt{Set IP}$ address and DNS server address

IMI Attribute					×
Security Levels Setting	User Permissio	ns Setting	Historical Events	Storage	Print Setting
Internet Time Synchr	onization COM	10 Setting	COM2 Setting	Extend	ed Memory
HMI Task Bar	HMI License Setting	HMI Ext	ended Attributes	HMI System In	formation Text
~Network Setting	1				1
Open FTP Password:	888888	Netwo	rk Device Setting		
Network 1 Setting					
IP 192 . 168 . 205 . 156	Subnet 255 . 255 . 255 Mask	. 0 Default Gateway	192 . 168 . 205 . 1		
Enable DNS	DNS1 192 . 168 . 100	. 254 DNS2	192 . 168 . 100 . 253	3	
Enable DHCP(Slave is not	recommended to enable)		,		
Network 2 Setting					
IP	Subnet Mask	· Default Gateway			
Enable DNS	DNS1	. DNS2		-	
Enable DHCP(Slave is not	recommended to enable)		1		
-WIFI Setting					
IP 127.0.0.2	Subnet 255 . 255 . 255	. 0 Default	192.168.0.1		
Enable DNS				-	
Enable DHCP(Slave is not	recommended to enable)	. o DNJZ	0.0.0.0		
Disalas Catting	,			_	
Display mode I H	lorizontal C Vertical	Fie	ld Bus Setting		
Save Screenshot to The I	Extended Memory				
	Extended Memory				
00	ISB1	C HMI			
Description					
				1	

 $(\ensuremath{\mathbbm l})$  Setting up the connection property with Aliyun IIoT

Choice "IoT">>"aliyun IIoT">>"Basic Setting">>"Control Setting", setting up whether connect with Aliyun or not.

HMI0	×
✓ EnableUser Ali Cloud IIoTFunction           Basic Setting           Basic Setting	
Data Setting	
Property Event Server	

Ali Cloud IIoT	×
Control Setting Property Setting UserIr	fo Manager
Server Setting	
Server heartbeat: 10 sec	Auto Connect Idle: 5 sec
Enable State Address	I Enable Control Address
HMI HMI0 - PLC	HMI HMI0 - PLC Number
Port None	Port None
Change Station Num 0	Change Station Num 0
AddrType RW	AddrType RW -
Addr 100 between HMI and serve	r Addr 200 between server and HMI. After
CodeType BIN -	checking, the value needs to be set manually. When not checking CodeType BIN it defaults to apline state
	, it defaults to online state
Length 2	
Use Address Tag	Use Address Tag
Pomat(Range):DDDDDD (0261000)	romat(Hange):000000 (0-261000)
RW100:	RW200:
0-Stopped,1-Disconnected,2-OnLine. RW101:	1-start,2-stop.
0-Normal,Less than 0 is error code.	
	OK Cancel Help

②Set the way the data is sent to the server

Choice"IoT">>"aliyun IIoT">>"Basic Setting">"property Setting",set the way data is sent to

the server, which is a global setting (all entries added to the properties interact with the server in this setting)

Ali Cloud IIoT	×
Control Setting Property Setting UserInfo Ma	anager
Send Mode Setting          Image: DataChanged data         Image: DataChang Sending         Image: Periodic Sending         Image: Address trigger sending         Trigger Mode         Image: OFF-SON         HMI         HMI         HMI         HMI         Image: Station Num         Image: Code Type         BIN         Format(Range): DDDD (0-9999)	QOS Setting
	OK Cancel Help

③Userinfo Manager will be told in the third step (Registration) to explain how to use.

④Three functional types of data interaction with servers

Choice"IoT">>"aliyun IIoT",data setting are divided into Property, Event, Service, used for data interaction with the server.

1.Property

New Item X							
Name: 図机物完装版 ? Tagname: FRS Server and HMD i though Tagname	nte	rnc	t w	ith	each	oth	ler
Unit: %			•	•		•	
Register/Data Type		•	•	•		•	•
C Bit © Word Data Type: 16-bit signed • dat decimal: 0 •	e ty t p:	ype age	is set	con ttin	sist gs.	ent	with
ReadWrite Attribute • ReadWrite O Read	•	•	•	•	· ·	•	•
Register	•	•	•	•		•	•
HMI HMIO - PLC Number	•	•	•	•		•	•
ChangeStationNum 0	•	•	•	•	· ·	•	
AddrType RW -	•				· ·		
Addr 0	•		•	•	· ·		•
CodeType BIN - Length 1 -	•		•	•	· ·	•	•
Format(Range):DDDDDD (0-261000)	•	•	•	•	· ·	•	•
OK Cancle	•	•	•	•		•	•

### Note: use of text components does not support Extended ASCII

#### 2.Event

Events are usually sent as important data, such as a temperature alarm, HMI configuration set the trigger conditions of the alarm, to trigger an alarm content to the Aliyun server. Aliyun server can edit and explain each alarm content, and finally push it to the user's remote device (APP,Mobile phone short message). The sending mode generally chooses "address trigger to send".

Taking three return air temperatures as an example, add the output parameters of the event alarm (when the event alarm triggers, the output of three temperature values will be pushed to the server).

Name: 回风高温告警事件 ? TagName: RAirHTempaLARM QOS: 1 ~ ? Send Mode Setting C Periodic Sending 100 *100ms ① Address trigger sending C DataChang Sending ⑦ ⑦nly send changed data Trigger Mode OFF->ON Fach event can independently set different HMI HMIO ~ PLC Number sending modes.	
QOS: 1 Send Mode Setting Periodic Sending 100 *100ms • Address trigger sending DataChang Sending	
Send Mode Setting         ○ Periodic Sending       100       *100ms       Address trigger sending         ○ DataChang Sending       Image: Construction of the sending of the sending of the sending of the sending modes.       Image: Construction of the sending modes.	
C Periodic Sending 100 *100ms ⊙ Address trigger sending C DataChang Sending	
C DataChang Sending       ✓ Only send changed data         Trigger Mode       OFF→ON         HMI       HMIO       FLC Number         HMIO       PLC Number	
Trigger Mode OFF->ON F Each event can independently set different HMI HMIO F PLC sending modes.	
Port None ChangeStationNum O	-
AddrType LB - Use Address Tag	
Addr 300 Format(Range):DDDD (0-9999)	
CodeType BIN - Length 1 -	
No Nome TegNeme Unit Address Info(HMT:PIC:Statio I	lata T
	>
Add Delete DeleteAll Modify	
OK Canc	el



Event Add					×
Name:	回风高温告	警事件	0	TagName: RAirHTempaLARM	0
QOS:	1	•	0		
Send Mode S C Perio C DataC Trigger J HMI } Port N AddrType Addr	Setting dic Sending hang Sendin Mode OFF-> MMIO ▼ N one LB 300	s ON mber	*100ms	<ul> <li>Address trigger sending</li> <li>✓ Only send changed data</li> <li>ChangeStationNum 0</li> <li>Use Address Tag</li> <li>Format(Range):DDDD (0-9999)</li> </ul>	*
CodeType	BIN -	Length 1	•		
No. Na	me	TagName	Unit	Address Info(HMI:PLC:Statio	Data T
1 0 2 0 3 0	]风温度  风温度  风温度	RAT RAT2 RAT3	ີ ເ ບັ	HMIO(RW:28) HMIO(RW:30) HMIO(RW:32)	float float double
Add	Dele	te Delet	eAll	Modify OK 0	> Cancel

### 3.Server

Mainly used for the server's call to the service.

HMI0				Х
EnableUser Al Basic Setting	Li Cloud IIoTFunction			
Data Setting				
Property Event	Server	1		
No.	Name	TagName	Input Paramet	Output Param
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Add	Delete DeleteA	II Modify	Export In	nport
				OK

9	Server Add						×
	Name:	ServerToj	pics 1	0	TagName:	ServerTopics 1	0
	QOS:	1		• 🕜			
	-Send Mode S	Setting—					
	Parameters	List					
	No. Nam	e	TagName	Parame.	Unit	Address Info	(HMI:PLC:Statio
	<						>
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Para	neters Type — • Input	Paramete		C Output Parame		
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gi	ster/Data Type-		<b>``</b>			
t:			Proper	ty List		
e: :	ItemValue 1	•	Tagname:	ItemValue 1	<b>?</b>	0
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Server Add	ł					×
Name: QOS:	服务 1		• ?	TagName:	ServerTopics	0
-Send Mode	e Setting-					
No N	ame	TazName	Parame	1/mit	Address Info()	MT:PLC:Statio
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[Add	Del	lete De	eleteAll	Modify		
					OK	Cancel

## Aliyun platform setting

①Register an Aliyun platform account, get APP and AppSecret (for registration)

【】 阿里云 <u>丁业</u> 互联网平台					
🔚 设备管理	•	服务调用验证信息管理			
四 项目管理	•				
□ 服务调用	-	Appkey 和 AppSecret是您访问API的密钥,具有该账户完全的权限,请您妥善保管。			
验证管理					
Dist Box		Appkey 🥐	AppSecret 🥐		
API接口列表					
のに使用活用			显示		
SUKETIE					

2 product development

Choice"device management">>"product development">>"New product">>"look up",many attributes and events have been added (the Tagname must correspond to HMI setting), and Product Key (for registration purposes) has been generated.

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□ 项目管理 4	步科	a1i5Z2E0GTI	直连设备	电力仪表	2018-10-26 17	7:51:49 <b>51 80 8</b>
C) 阿里云工业互联网平台						■ 帮助文档 kin**** ▼
	产品开发 > 产品详情					
设备列表						
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边缘计算网关	Product Key a1i5Z2E0GTI	(M)	产品类型 直边	设备	产品行业 电力	仪表
□ 项目管理 4	硬件平台、Cortex M0/M3/M4		操作系统 AliO	S Things	联网方式: Wi-F	9
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	A monthly below					
	功能建义,设备开发					
	功能模板					8542
	功能失望	功能名称		5099	描述	操作
	履性	国风温度显示	3	RAT	<i>a</i> t	1818 Bit 251
	周恒	回风温度显示2	1	LAT2		
	属性	回风温度显示3		CAT3	31.1	编辑 整种 双形
	属性	风机顺定转速	1	RS		and here and
	事件	回风高温告誓事件		AirHTempaLARM		编辑 勤時 双枝

③device list

Choice"device management">>"device list">>"look up",The registered screen is already in the device list, and you can choose automatic refresh, and view the data changes in real time.

C) 阿里云工业互联网平台				
<ul> <li>■ 设备管理</li> <li>●</li> <li>●</li> <li>●</li> <li>●</li> <li>●</li> <li>●</li> <li>□</li> <li>●</li> <li>□</li> <li>●</li> <li>□</li> <li>□</li></ul>	:0#ex ❷ 71	• 在现设备数 2 2	• 在近网关数 🥝 0	<ul> <li>・ 设施已用存体空间</li> <li>0.69G/10G</li> </ul>
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C) 阿里云工业互联网平;	5						
	设备列表 > 设备详情						
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边學计算网关	产品名称: 步科		最后上线时间 2018	-11-01 20:05:50	ProductKey a1i5Z2E0GTI	SEAL	
<b>月</b> 项目管理 4	所服网关 -		激活时间 2018-10-3	30 10:26:42	DeviceSecret ******		
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	<b>属性管理</b> 条件管理	服务调用 设备日志	转编服务 设备上传文件	数据日档			
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	回风濃度显示	RAT	-20	2018-11-01 20 12 27		重要数据	
	回风温度显示2	RAT2	39	2018-11-01 20:12:27		重看数据	
	回风温度显示3	RAT3	-20.000	2018-11-01 20 12:27	242	重要数据	

### (4) project management

Choice"Project Management Center">>"New project">>"device">>"add associated device", You can see your own registered HMI, and then select the "associated device" to put the device in the specified project

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### ⑤Aliyun configuration

Connecting with Aliyun, the configuration can be displayed in the screen of Kinco ,perhaps to display through the configuration of Aliyun Platform itself. Aliyun platform how to configure, you can refer to Ali cloud help document

### registration

In HMI settings, we refer to Userinfo Manager, which is used to register account information, including AppKey, AppSecret and Product Key, which can be obtained from the Aliyun platform. The process of registration between End-User and Manufacturer is different. ①End-User

End-user registration is achieved by dynamic registration tool(DRT). The specific registration process can refer to DRT document.

Ali Cloud IIoT	×
Control Setting Property Setting UserInfo Manager	
Account Infomation	
End users should use the Dynamic Registration Tool (DRT) for private registration on the Alibaba Cloud IIoT platform.	

	ID-249KH			?	$\times$		
用户	信息管理						
	AppKey:	*****	~				
	AppSecret:			🗌 显示密码			
				☑ 记住密码			
PK信	息管理						
	PK别名	步科	v	☑ 锁定			
	默认PK	a1i5Z2E0GTI		☑ 显示别名			
	Pł	( Name	Proc	luctKey			
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	添加 刪除全部						
	/						
	添加	删除 删除全部					

### 2 Manufacturer

Manufacturer registration is set up in Userinfo Manager and updated by downloading project.

Ali Cloud IIoT	×
Control Setting Property Setting UserInfo Ma	nager
Account Information	
АррКеу:	
AppSecret:	I Hide Password
ProductKey: a1i5Z2E0GTI	
Device vendor account information and ProductKey c updated by downloading the project.	an only be modified here and
	OK Cancel Help