

User Manual



Connecting the Edge controller to a network

- The Edge controller will first have to be configured to connect to a Wi-Fi or Ethernet connection. Download and install the Embedos 'EmEdge Configurator' app from Google Play S on an android smartphone.
- 2. Connect the smartphone USB port to the Edge controller USB port.

3. Open 'EmEdge Configurator' and choose 'Yes' and the prompt to enable USB tethering.



Figure 1: Select 'rndis0' as the interface when connected via USB

Settings			
ETHERNET	WLAN	NODE-RED	UPDATE
Address Type			
Static	~		
IP Address			
Netmask			
Gateway			
		_	
UPDATE	REFRE	SH REE	воот

Figure 3: Choose if device IP is to be static or taken using DHCP



Figure 2: The device listed after scan. Tap the 'gears' to setup the unit

Settings			
ETHERNET	WLAN	NODE-RED	UPDATE
Wlan Interface	: wlan0	•	SCAN
Connected To:			
SSIDs			
REFRESH			CONNECT

Figure 4: Scan and select the WiFi AP to connect to

4. Once the device is connected, and if using DHCP or WiFi, the IP given to the device can be found by checking the connected client list in the router settings. Or use a network scanning application as shown below.

tP Range - Angry IP Sc	anner		
Scan Go to Command	ds Favorites	Tools Help	
IP Range: 192.168.100.0) to 19	2.168.101.255	IP Range \vee 🔅
Hostname: LAPTOP-AH	HVP4GC IP1	Netmask 🗸	► Start
IP	Ping	Hostname	Ports [1+]
😔 192.168.100.53	2 ms	[n/a]	22
🕞 192.168.100.54	1 ms	[n/a]	22
📀 192.168.100.55	4 ms	[n/a]	22
🕞 192.168.100.56	4 ms	[n/a]	22
📀 192.168.101.100	3 ms	[n/a]	22
🔵 192.168.100.1	4 ms	[n/a]	[n/a]
🔵 192.168.100.2	7 ms	[n/a]	[n/a]
🕞 192.168.100.11	4 ms	[n/a]	[n/a]
9 192.168.100.12	6 ms	[n/a]	[n/a]

Figure 5: Angry IP Scanner used to find Edge controllers with port 22 Open

Connection Diagram



- Master Unit gets connected to Ethernet.
- Slave is connected to Master using RS-485
- PLC will also be connected on RS-485

Embedos Dashboard Manual

Page 1



Real Time Data

Description:

- Displays Gauges for 8 analog channels.
- Similarly displays a graph of the last 100 values of the corresponding channels.

Page 2

Config	urator	Realtime Da	ata Reports	Application Sett	ings Network S	ettings C	hannel Settings			Logout
Rep	orts									
Hist	orica	I								
Octoi	oer 23, 201	19 - October 2	3, 2019	Sea	arch					
Show	10 🔻	entries								
Search:										
Сору	Excel	CSV PD	F Print							
time	analog_	ch1 an	alog_ch2	analog_ch3	analog_ch4	Input_1	analog_ch5	analog_ch6	analog_ch7	analog_ch8
No dat	a available	in table								
Showing Previo	0 to 0 of (us Nex	0 entries ct								
© Embe	dos Engine	eering 2019								

Reports:

Description:

- Select the time duration or set a custom range for reports using the convenient drop down selector.
- The table that will be populated accordingly and can be navigated through the page buttons below.
- Download the data shown on the table using the convenient buttons in Excel, CSV or PDF formats directly.
- Or print data directly using the print button.
- The copy button copies the data to the clipboard for pasting as text.

Configurator Realtime D		Application Setting	s Network						Logout
General Setting	gs								
Interface Type:	RTU	T	E:	aud: 9600		Slave I	D: 1		
Siave IP-	102 158 101	242	Siava P	ant: soo	-				
	152.100.101.	-		502					
SM 8 Mode:	gateway	¥	Poli Inter	IVAI: 1		_			
						Save			
Trigger Settings									
Add Edit Delete									
Show 10 V entries							_		
							Search:		
Name 11 Address 17 Mo	dbus Type 🗍	Datatype 11 Trig	ger Type	Low Threshold	High Thre	shold 11 Number 11	Messag)e	41
Input_1 10 noi	aing register	u_int mat	en			8828385089	(name)	nas changed t	to (data)
showing 1 to 1 or 1 entries								Previous	1 Next
Channel Config	uration								
	uration						Search:		
obancel number	В	CARGO DAY	11	sensor min	İt	coals factor	11	offert	l†
1	+-	1000	+1	0	+1	0	+1	1000	
2		10000000		0		352		-1533984	
3		1000		0		0		1000	
6		1000		0		0		1000	
7		1000		0		0		1000	
Showing 1 to 5 of 5 entries								Previous	l Next
© Embedos Engineering 2019									

Application Settings

General Settings

- 1. Interface Type:
 - a. RTU: Modbus RS485 Protocol
 - b. TCP: Modbus TCP Protocol
- 2. SMS Mode:
 - a. Sim: SMS sent through a sim card.
 - b. Gateway: SMS sent through internet connection.
- 3. Slave IP:
 - a. Enter your Modbus TCP IP address. (In case of Interface Type as RTU, Slave IP option will be greyed out)

4. Baud:

- a. Enter Baud Rate of Device (In case of Interface Type as TCP, Baud Option will be greyed out)
- 5. Slave Port:
 - a. Enter your Modbus TCP port. (In case of Interface Type as RTU, Slave port Option will be greyed out)
- 6. Poll Interval:
 - a. Set the data logging rate. (seconds)
- 7. Slave ID:
 - a. Set the Modbus RTU slave ID. (In case of Interface Type as TCP, Slave ID will be greyed out)

Configurato	r Realtime Da	ta Repo	rts Appli e	cation Settings	Netwo	ork Settings	Channe	el Settings				
Genera	al Setting	S										
Inte	rface Type:	RTU	•		1	Baud:	9600	•		Slave ID:	1	
	Slave IP:	192.168.101	1.212		Slave	Port:	502					
:	SMS Mode:	gateway	Ŧ		Poll Int	erval:	1					
									Save			
Add Edit Show 10 Y	Settings Delete entries									Sear	sh:	
Name 🕸	Address 🕸	Modbus T	уре 🕴	1 Datatype	lt T	Trigger Typ	e ↓î	Low Thresh	old I	High Threshold	11	Number 11
⊕ 1	1	1		17	1			1				1
Input_1	10									1		
-	10	holding re	gister	u_int	n	natch				'		8828385089
Showing 1 to 2 of Channe Show 10 T	f2 entries 1 row : I Configu	selected	gister	u_int	n	natch				Sear	Pre	8828385089 vious 1 Next
Showing 1 to 2 of Channel Show 10 T Channel_numb	f2 entries 1 row : I Configu] entries er	selected	gister sensor_ma	u_int BX	n 	natch	nin	11	scale_fact	Sear	Pre ch:	ss2s3s50s9 vious 1 Next
Showing 1 to 2 of Channel Show 10 V channel_numb 2	f2 entries 1 row : I Configu] entries er	holding re selected	sensor_ma 1000	u_int BX	n tt	sensor_r 0	nin	11	scale_fact	Sean	Pre	8828385089 vious 1 Next
Showing 1 to 2 of Channel Show 10 v channel_numb 2 3	f 2 entries 1 row : I Configu] entries er	In a constraint of the selected selecte	sensor_ma 1000	ax	n Lt	sensor_r 0 0	nin	11	scale_fact	Sean	Pre	8828385089 vious 1 Next

	Reports Application Settings Net	work Settings Channel Settings				
General Settings	Edit Record		×			
	Name:	1				
Interface Type: RTU	Address:	1		Slave ID:		
Slave IP: 192.168.	Madhur Tunai					
SMS Mode: gateway	moubus type.	1				
	Datatype:	17				
Trigger Settings						
Add Edit Delete	Trigger Type:	1				
Show 10 v entries	Low Threshold:	1				
				Search:		
Name 41 Address 41 Modbu	High Threshold:	1		gh Threshold	1 Number 1	1
(⊕ 1 1 1 Input 1 10 holding	Number:	1			1 8828385089	
Showing 1 to 2 of 2 entries 1 row selected						
	Message:	1			Previous 1 Next	
Channel Configuratio						
Show 10 v entries		Clos	e Submit	Search:		
channel_number	k sensor_max 41	sensor_min 11	scale_factor		offset	
2	1000	0	1		0	
3	1000	0	1		0	
Showing 1 to 2 of 2 entries					Previous 1 Next	

Page 4

Configurator Realtime I	Data Reports Application Settings	Network Settings	Channel Settings		
Ethernet Settir	ngs				
, Addressing:	Static •				
IP Address:	192.168.1.100	Netmask:	255.255.255.0	Gateway	r:
		Save			
WLAN Setting	S				
Connected to:	No Active Connection				
IP Address:	N/A				
Password:					
	Save				
Internet Conne	ectivity				
Status:	Not Connected Refresh				
© Embedos Engineering 2019					

Network Settings

Ethernet Settings:

For setting up Ethernet port

- 1. Addressing:
 - a. Static
 - b. DHCP
- 2. IP Address:
- 3. Netmask:
- 4. Gateway:

WLAN Settings

- 1. Connected To:
- 2. IP Address:
- 3. Password:

Internet Connectivity

1. Status:

channel_number	↓à.	sensor_max	sensor_min ↓↑	scale_factor
e 12		123	324	434
offset 3				
9 123		23	43	4
offset 4				
2		1000	0	1
21		123	123	1233
23		43	543	3
3		1000	0	1

Gauge Settings					
Add Edit Delete	channel_number:	channel_number			
Show 10 • entries	sensor_max:	sensor_max		Search:	
channel number				scale factor	
- 12	sensor_min:	sensor_min		434	
offset 3	scale factor:				
123	scale_lactor.	scale_tactor		4	
offset 4	offset:	offset			
0 2				1	
© 21				1233	
23			Close	mit 3	
G 3	1000	0		1	
Showing 1 to 6 of 6 entries 1 row selec Embedos Engineering 2019 Confinuerator Realitime Data Re	ports Application Satings Network	Settings Channel Setting	19		Previous 1 Next
© Embedos Engineering 2019 Configurator Realtime Data Re	ports Application Sottings Network Edit Record	Settings Channel Setting	B ×		Previous 1 Next
© Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete	ports Accilication Settings Network Edit Record channel_number:	Settings Channel Setting	e ×		Previous 1 Next
© Embedos Engineering 2019 Configurator Resiltime Data Re Gauge Settings Add Edit Delete Show 10 r entries	ports Arcilication Sattinos Network Edit Record channel_number: sensor_max:	Settines Channel Settine 123 23	в 		Previous 1 Next
© Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries	orts Accilection Settings Network Edit Record channel_number: sensor_max:	Settines Channel Settine 123 23	в х	Search:	Previous 1 Next
© Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number	rete Accilention Settings Metwork Edit Record channel_number: sensor_max: sensor_min:	Settines Channel Settine 123 23 43	в х	Search: scale_factor	Previous 1 Next
Showing 1 to 6 of 6 entries 1 row select © Embedos Engineering 2019 Configurator Realtine Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number • 12	nate Application Settings Metwork Edit Record channel_number: sensor_max: sensor_min:	Setlinos Channel Settino 123 23 43	ъ ×	Search: scale_factor 434	Previous 1 Next
Showing 1 to 6 of 6 entries 1 row select e Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number e 12 offset 3	events Acceleration Settings Metworks Edit Record channel_number: sensor_max: sensor_min: scale_factor:	Settinca Channel Settinc 123 23 43 4		Search: scale_factor 434	Previous 1 Next
Showing 1 to 6 of 6 entries 1 row select Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number • 12 offset 3 • 123	ports Anciention Settinos Network Edit Record channel_number: sensor_max: sensor_min: scale_factor: offset:	Settince Channel Settince 123 23 43 4 4 4		Search: scale_factor 434	Previous 1 Next
© Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number ● 12 offset 3 ● 123 offset 4	events Accilication Settines Network Edit Record channel_number: sensor_max: sensor_min: scale_factor: offset:	Setting Channel Setting 123 23 23 43 4 4 4 4		Search: scale_factor 434 4	Previous 1 Next
© Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number ● 12 offset 3 ● 123 offset 4 ● 2	Edit Record Edit Record channel_number: sensor_max: sensor_min: scale_factor: offset:	Settines Channel Settine 123 23 43 4 4 4		Search: scale_factor 434 4 1	Previous 1 Next
Showing 1 to 6 of 6 entries 1 row select Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number 12 offset 3 12 offset 4 2 2 2 2 2 3 3 3 4 3 4 3 4 3 4 5 5 5 5 5 5 5 5 5 5 5 5	erts Acciention Setting Metwork Edit Record channel_number: sensor_max: sensor_min: scale_factor: offset:	Settines Channel Settine 123 23 43 4 4 4	S X	Search:	Previous 1 Next
Showing 1 to 6 of 6 entries 1 row select © Embedos Engineering 2019 Configurator Realtime Data Re Gauge Settings Add Edit Delete Show 10 • entries channel_number • 12 offset 3 • 123 offset 4 • 2 • 21 • 23	rente Arealication Settines Metwork Edit Record channel_number: sensor_max: sensor_min: scale_factor: offset:	Setilocs Channel Settine 123 23 43 4 4	S X	Search: scale_factor 434 4 1 1233 3	Previous 1 Next

Channel Settings

- Up to 8 channels supported. Add, edit and delete channels.
- Delete and edit individual channels by selecting them.
- Scale Factor and Offsets are automatically set.

NOTE: USB HAS TO BE INSERTED AT ALL TIMES

For any more information, kindly contact: