

Getting started PiiGAB QuickPost PiiGAB M-Bus Explorer & PiiGAB M-Bus 900S

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1. Document Information

PiiGAB QuickPost software add-on for PiiGAB M-Bus 900S gateway is developed by PiiGAB with the purpose of helping users to transmit readings of M-Bus meters over FTP or HttpPost without the need to have specific M-Bus drivers in the computer. Inside PiiGAB M-Bus 900S there is an internal meter which will be used to represent an M-Bus meter. PiiGAB's M-Bus ASCII protocol is used to extract the raw M-Bus data from the internal meter and store it into a readable file. PiiGAB have a free and public FTP-server which you may use to test that you can send your files to.

1.1 Versions

Version	Modified by	Detail
1.00.00	Stefan Eriksson	Initial version.
1.00.01	Stefan Eriksson	Edited distributor contact information.
1.00.02	Stefan Eriksson	Changed URL to public FTP-server.
1.01.00	Stefan Eriksson	Minor changes for PiiGAB M-Bus 900S.

2. Conditions

2.1 Preconditions

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2.2 Requirments

- PiiGAB M-Bus 900S gateway V2.02.02 or higher of MBusHub.
- Connection to the PiiGAB M-Bus 900S gateway and it's web interface.
- License for PiiGAB QuickPost in your PiiGAB M-Bus 900S.
- PiiGAB M-Bus Explorer installed.

2.3 Optional requirements

<continue>

3. Software and license

This section will describe how to check the software and license for the QuickPost.

3.1 Check QuickPost software installation

1. Open PiiGAB M-Bus 900S's web interface.

PiiGAB M	-Bus 900S
Start	Configuration Interface
Configuration	
Administration	Welcome to the configuration interface for PiiGAB M-Bus 900S. M-Bus, Modbus and MBusAscii Gateway.
Logging	» Configuration
Basic settings	# Comparation
QuickPost	» Administration Settings
Status	» Documents
Documents	
PiiGAB Online	» visit us online

2. In the left navigation field, make sure QuickPost is present.

Note:

If you don't have QuickPost available in the navigation field please go to <u>section 3.3</u> <u>Installation QuickPost</u> for instructions how to install it.

3.2 Check QuickPost software license

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on Administration.
- 3. Go down to the section called *License*.
- 4. Make sure QuickPost is visible in the Protocols field.

↓ License

Active License

Loads: 20 Loads Clients: 2 Clients Protocols: MBus.2, -, MBusAscii.1, -, -, -, -, -, -, -, -, QuickPost.100, Serial Nr: 25133188

Note:

If you don't have a license enabling QuickPost, please contact PiiGAB to order it. Make sure to specify the PiiGAB M-Bus 900S's serial number.

3.3 Installing QuickPost

If your PiiGAB M-Bus 900S lacks QuickPost software you can download it and install it your self:

- 1. Go to PiiGAB's homepage <u>www.piigab.com</u> and the download section.
- 2. Download the QuickPost file to your computer.
- 3. Open PiiGAB M-Bus 900S's web interface.
- 4. Click on Administration.
- 5. Go down to the Update software section.

↓ Update Software		
Install Firmware/Software (_900S.tgz)	Install	

Bläddra... Ingen fil är vald.

- 6. Press the *Browse* (Bläddra...) button and browse the QuickPost file on your computer.
- 7. Press the *Install* button.
- 8. Wait a couple of seconds to let the installation complete.
- 9. Update/refresh your browse.
- 10. QuickPost should now be present in the left navigation field.

3.4 Set the gateway's internal clock (optional)

It's recommended to set the internal clock in the PiiGAB M-Bus 900S to match the FTP- or HttpPost-servers' clock.

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on Administration.
- 3. Go down to the *Time and Date* section.

↓ Time and Date	, Time and Date						
Local Time	2016-09-19 16:09:38						
Set Clock, YYYY-MM-DD hh:mm:ss	2016-09-19 16:09:38	Set Clock Manually					
Time Zone	CET-1CEST-2,M3.5.0/02:00:00,M10.5.0/03:00:	Set Time Zone					
Network Time Protocol (NTP)	0.pool.ntp.org	Set NTP					
Hardware Clock (UTC)	Mon Sep 19 14:09:59 2016 0.000000 seconds						

4. Configure the internal clock as best suits your site.

4. Configure an M-Bus ASCII project

This section will describe how to configure an M-Bus ASCII protocol in PiiGAB M-Bus Explorer to read the internal meter in PiiGAB M-Bus 900S.

4.1 Configure slave port 1 for M-Bus communication

Slave port 1 can be used to read the internal meter inside your PiiGAB M-Bus 900S.

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on Configuration.
- 3. Click the *Slave port 1* tab.
- 4. Configure slave port 1 as the picture bellow.

↓ Slave port configuration 1		
Туре	UDP 🔻	
Local Port	10001	0
Timeout (ms)	2100	
Protocol	M-Bus 💌	
Save Settings		

5. Press Save Settings button.

Slave port 1 is now configured for M-Bus communication. You can read the internal meter in *PiiGAB M-Bus Setup Wizard* with primary address 251.

PiiGAB M-Bus Setup Wizard	
Find meter's primary and secondary address	_M <u>-Bus</u>
 Initialize only Find meter's primary and secondary address Set meter's primary address Set meter's baudrate Read meter's telegram Application Reset only 	Initialise before sending command SND_NKE Application reset Applicationreset Subcode: No Subcode
Requesting data (REQ_UD2) Reading succeeded. The meter's primary address is 251, and its identification number is 16777360 (PII). Complete primary PiiGAB M-Bus OPC Server and Citect address (preferred) is 251. Complete secondary PiiGAB M-Bus OPC Server and Citect address is 16777360.4129.02.0E Other servers/programs is often using the same	 Use secondary addressing Primary address: 251 Test and diagnostics (single meter only) <u>Debug</u> <u>Search</u>
© 2005-2014 <u>PiiGAB</u> / <u>TroSoft</u> <u>B</u> ack Version 3.1.1	<u>N</u> ext <u>E</u> xit

4.2 Configure PiiGAB M-Bus Explorer for M-Bus ASCII

The internal meter inside PiiGAB M-Bus 900S contains for instance of M-Bus voltage, M-Bus current and the serial number. The voltage, current and serial number can be used to represent actual values from an M-Bus meter.

- 1. Start PiiGAB M-Bus Explorer.
- 2. Create a new M-Bus ASCII project.

	Namnlös - PiiGAB M-Bus Explorer								
	File	Edit	Project	Templates	Tools	View	Help		
		New			+		M-Bus OPC Server		
		Open		(Ctrl+O		M- <u>B</u> us meters to Modbus (900)		
							M-Bu_s Ascii (900)		
Save			Ctrl+S						

3. Create a new channel and configure it as the picture below.

New Channel	×
Channel Name: Ga Description:	teway Help
Communication Adv	anced
Communication Sett	ings
TCP Socket Client	
ODP Socket Client	
Serial	
IP-address:	192.168.10.171
Port:	10001
Reconnect Time:	60000

Note:

Your PiiGAB M-Bus 900S's IP-address may be something different than the example.

4. Create a new meter and configure it as the picture below.

New Device						
Device Name: Description: Channel Name: Group Name:	Internal Gatewav	Add Close Help				
Address Advar	nced gs dress 251 • Address lumber:					

5. Create three OPC-items in the meter. The specifications for the OPC-items are.

Name	Data record	Tag type	Data type
ID	1	Value	VT_BSTR
Voltage	2	Value	VT_BSTR
Current	3	Value	VT_BSTR

The configuration of the three OPC-items should be as the picture below:



6. Set the project as active project.

	Z QuickPost - PiiGAB M-Bus Explorer								
	File	Edit Project T	lemplates To	ols Vi	ew	Help			
		New		+		•	2		
l		<u>O</u> pen	Ctrl+	·0 <	Tag Ta	gs on a Nar	Intern ne		
l		<u>S</u> ave	Ctrl+	-s		D ID			
I		Sa <u>v</u> e As		_ L	=	Vol	tage		
l				<		Cur	rent		
l		Get Active Project							
		Set As <u>A</u> ctive Proje	ect						
		<u>E</u> xit							

7. Make sure the project is the active project and the server indication is steady red.

Active project: QuickPost	• Monitor	• • Server
---------------------------	------------	------------

- 8. Save the project.
- 9. Start the monitor function by pressing the \bigcirc button.
- 10. Wait for Quality cell for each OPC-item to change to Good.

QuickPost - PiiGAB M-Bus Explorer	THE REAL	100	No.	100	-		. 🗆 🗙
<u>File Edit Project Templates Tools Vie</u>	w <u>H</u> elp						
📄 🖻 💾 📓 🗙 💌 🛥 🤝 🎸	📄 🎦 🚍 🖡	3 🖻 🗈	🗈 🕒 🧕) ?			-
Server Browser 🛛 🔻 🕂 🗙	Tags on Internal						- ↓ ×
4 🔁 QuickPost	Tag Name	Datarecord	Tag Type	Data Type	Description	Value	Quality
4 Gateway	🗈 ID	1	Value	VT_BSTR		16777360	Good
	■ Voltage	2	Value	VT_BSTR		40	Good
Project: • 4 ×	🗈 Current	3	Value	VT_BSTR		54	Good
Properties							
Proiect: OuickPost							
Proiect Type: M-Bus Ascii							
Created: 9/9/2013 1:30:01 PM							
Last Modified: 9/9/2013 1:35:27 PM							
🖬 📼 💻 ⋑							
1 0 1 3							
	٠						
Project Saved.		💥 🔍	Licensierad	O Active pro	oject: QuickPost	Monitor	• Server

Note:

If you don't have quality *Good* on your OPC-items then you have some configuration errors. See over primary address, IP-address, port number and protocol. You can also test the communication with *PiiGAB M-Bus Setup Wizard*.

If you receive values, simular as the picture above, you have a working M-Bus ASCII project ready for QuickPost.

Upload

5. Configure PiiGAB M-Bus 900S for QuickPost

This section will describe how to configure the master port and slave port 2 for QuickPost. To configure the QuickPost software please see <u>section 6. Configure QuickPost</u>.

5.1 Upload the M-Bus ASCII CSV-file to the PiiGAB M-Bus 900S

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on Configuration.
- 3. Go to the Upload CSV-file section.

Upload CSV/XML-File

Bläddra... Ingen fil är vald.

- 4. Press the *Browse (Bläddra…)* button and browse to the *M-Bus ASCII CSV-file* on your computer. The file is located in the same folder where you created the M-Bus ASCII project in PiiGAB M-Bus Explorer.
- 5. Press the Upload button to upload the file into the gateway.

5.2 Configure master port

The CSV-file, uploaded in section 5.1, must be bound to the master port.

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on Configuration.
- 3. Click the Master port tab.
- 4. Select the CSV-file you uploaded in section 5.1 in the Configuration File field.
- 5. Press Save Settings button.

↓ Master port configurati	n
Туре	Serial 💌
Com port	M-Bus Master 💌
Baud rate	2400 🔻 📀
Timeout (ms)	3000
Reconnect (s)	1000
Protocol	M-Bus 💌
Configuration File	QuickPost.csv
M-Bus Master options	
myprimaryaddress	251
switchblocktime	200

Save Settings

5.3 Configure slave port 2

One of the PiiGAB M-Bus 900S's slave ports must be configured for M-Bus ASCII. Slave port 2 can be chosen for M-Bus ASCII since slave port 1 is already used for M-Bus communication. With this setup M-Bus communication with PiiGAB M-Bus Explorer and other M-Bus clients goes through slave port 1 and M-Bus ASCII goes through slave port 2.

Note:

If you have a license which only enables one slave port you can use slave port 1 instead of slave port 2.

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on Configuration.
- Click the *Slave port 2* tab.
 Configure slave port 2 according to the picture below.
 Press *Save Settings* button.

↓ Slave port configuration 2		
Туре	UDP 🔻	
Local Port	10002	0
Timeout (ms)	2000	
Protocol	M-Bus Ascii 🔻	
M-Bus Ascii options		
stationid	0	
Save Settings		

6. Configure QuickPost

This will describe the basic of configure QuickPost. Make sure QuickPost is installed and you have license for QuickPost. Please see <u>section 3. Software and license</u>.

- 1. Open PiiGAB M-Bus 900S's web interface.
- 2. Click on QuickPost.

Version 1.01.01

Configure Log List Fi	les	
File Name	my_filename	
File Format	Siemens EMC 💌	
Remote HttpPost/Ftp URL	http://myhttppostserver.com	
M-Bus ASCII Server IP	127.0.0.1	UDP
M-Bus ASCII Server Port	10001	
M-Bus ASCII Station Id	0	
Read Timeout [s]	20	
N Bad Reads	3	
Configuration File	No File 🔹	Show Configuration
Upload Method	HttpPost 🔻	
Upload Time [HH:MM]	00:30	(UTC)
Read Period [minutes]	1440	
Read Offset [minutes]	0	
Upload Period [minutes]	0	
File Keep Time [Days]	7	
User Name	my_username	
Password	my_password	
Enable QuickPost	Yes 🔻	
Read & Upload at startup	Yes 🔻	
Save Settings and Restart QuickP	ost	
Restart QuickPost		

- 3. All fields must be specified for the QuickPost to work properly.
 - Note the *Configuration File* field should be the same as the configuration file on the Master port.
 - o Please see the manual of QuickPost for a detail description of all fields.
- 4. Use the *Enable QuickPost* switch to either enable or disable the QuickPost process.
- 5. Press Save Settings and Restarts QuickPost.

7. Test with PiiGAB's FTP-server

You may test your configuration to PiiGAB's public FTP-server.

1. Please configure the QuickPost as the picture below:

Version 1.01.01

Configure Log List Files

File Name	QuickPost	
File Format	Siemens EMC 🔻	
Remote HttpPost/Ftp URL	ftp://www29.fsdata.se/	
M-Bus ASCII Server IP	127.0.0.1	UDP
M-Bus ASCII Server Port	10002	
M-Bus ASCII Station Id	0	
Read Timeout [s]	20	
N Bad Reads	1	
Configuration File	QuickPost,csv 🔻	Show Configuration
Upload Method	Ftp 🝷	
Upload Time [HH:MM]	0	(UTC)
Read Period [minutes]	1	
Read Offset [minutes]	0	
Upload Period [minutes]	1	
File Keep Time [Days]	7	
User Name	piigab-quickpost	
Password	quickpost	
Enable QuickPost	Yes 🔻	
Read & Upload at startup	Yes 🔻	
Save Settings and Restart QuickF	ost	
Restart QuickPost		

2. Press the Save Settings and restart QuickPost button.

This should read the internal meter each minute and upload the result in a separate file to the FTP-server.

You may use any FTP-client to connect to the FTP-server and check that your file has been sent. There is a built-in <u>FTP-client in Windows Explorer</u> which you can use.

8. Appendix 8.1 Contacts

PiiGAB Processinformation

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