How to detect M-Bus meters by SMS

FAQ describes how to set 2N® SmartCOM PRO for AMS function by SMS message. 2N® SmartCOM PRO automatically detect M-Bus meters. Then reads data from M-Bus meters and store data in internal memory. 2N® SmartCom server with web interface readout 2N® SmartCOM PRO units and parse M-Bus messages to CSV files.

Tested with firmware (SCE_1-12-0-12-252). Ask 2N for this firmware or access to test web server - contact your salesman or send a request go to https://support.2n.cz

Connect you 2N® SmartCom PRO unit to your 2N® SmartCom server. In this scenario will be used 2N® SmartCom test server with web interface.

Check, that your unit is connected to the server. (Web interface or in software 2N® Control panel)
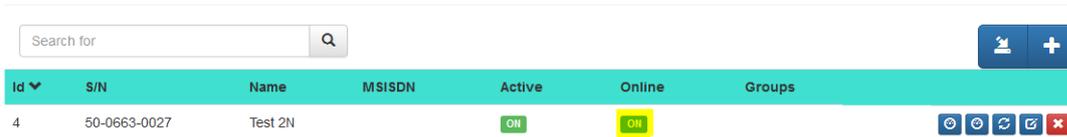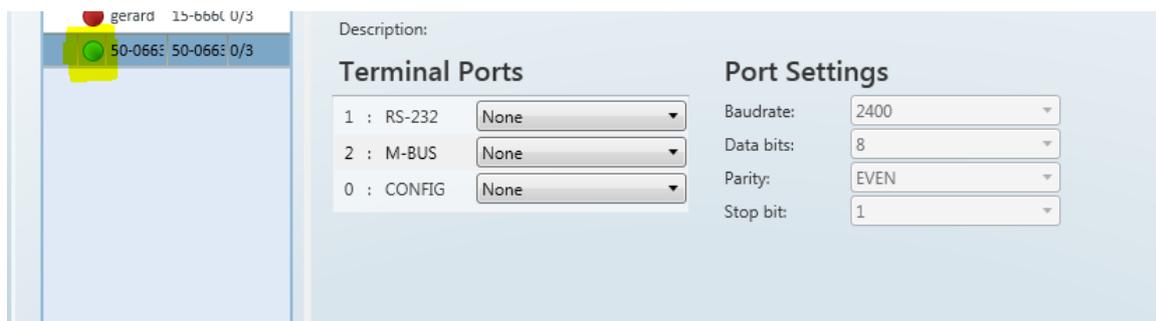

Use software 2N® Control panel or AT commands and configure M-Bus port parameters.

2N® Control panel

In the page "Terminals", you can also set parameters of RS232,RS485,MBUS. Default M-Bus parameters are

Baudrate: 2400, Databits: 1, Parity: Even, Stop bit: 1, (Parameters of you M-Bus meter may be different – check it)

AT Comands

Settings M-Bus: speed 2400bd/s - data bits 8 – stop bits 1 – parity – even

at^scport2="baudrate",2400   Set baudrate

at^scport2="DATA_BITS",8   Set data bits

at^scport2="STOP_BITS",1   Set stop bits

at^scport2="PARITY",1   Set even parity

at^scport2?   Check settings

at^scport2="save"   Save settings

```
at^scport2="baudrate",2400
ERROR
at^scport2="baudrate",2400
OK
at^scport2="DATA_BITS",8
OK
at^scport2="STOP_BITS",1
OK
at^scport2="PARITY",0
OK
at^scport2?
^SCPORT2: "BAUDRATE",2400
^SCPORT2: "DATA_BITS",8
^SCPORT2: "STOP_BITS",1
^SCPORT2: "PARITY",0
OK
at^scport2="save"
OK
```

Enable AMS function (0 = AMS turned off)

at^scams="enable",1

Meter installation SMS

Performing this command deletes all the data from 2N®SmartCom PRO terminal memory as well as the meter reading configuration part. All the connected meters during the SMS processing will be available for the readout. The parameter interval is global for all installed meter by SMS.

SMS command:

SC AMSADD PWD=<password> QTY=<n> PORT=<port> PROTOCOL=<protocol> INT=<interval>

Parameters:

- PWD - SmartCom PRO password
- QTY - number of meters installed on SmartCom PRO M-Bus interface
- PORT - number of SmartCom PRO physical port (M-Bus port = 2)
- PROTOCOL - number of protocol to be used for data reading (M-Bus protocol = 2)
- INT - interval for data reading from meters - values: 1M, 2M, 3M, 4M, 5M, 6M, 10M, 12M, 15M, 20M, 30M, 1H, 2H, 3H, 4H, 6H, 8H, 12H, 1D

SMS Answer:

QTY=n ERR=error_code ADDR=address#1, address#2,..., address#n

Parameters:

- QTY - number of meters found on SmartCom PRO M-Bus interface
- ERR - error code if any
- address – secondary address
- Error codes:
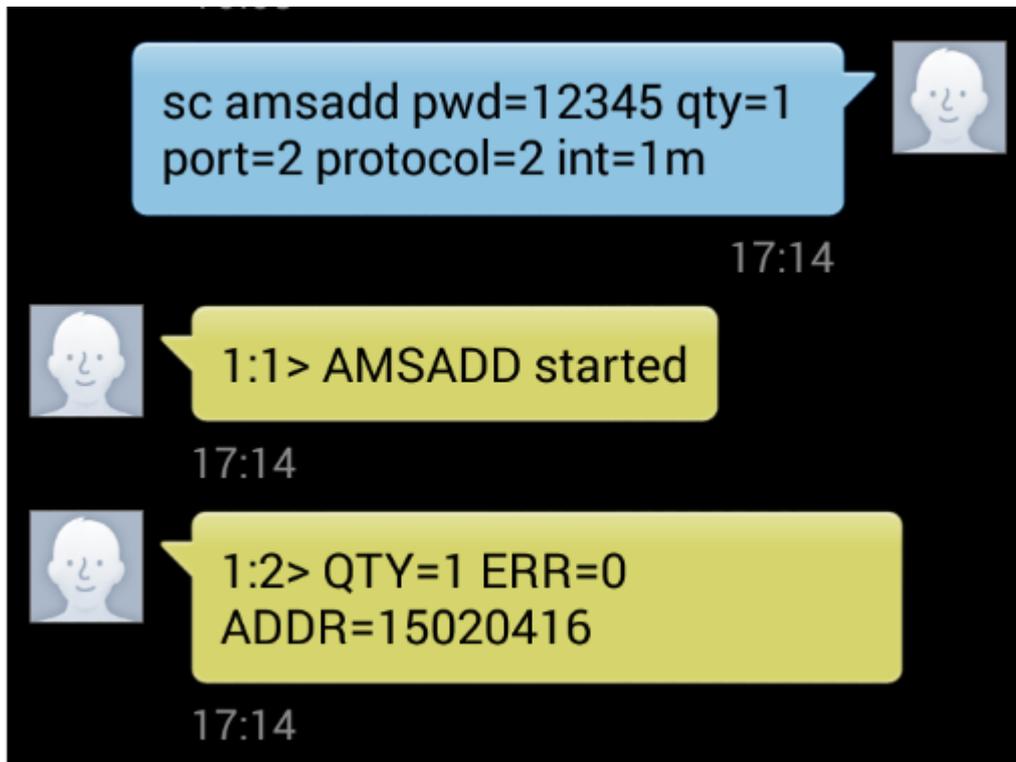
Go to web interface to section "Terminals Monitoring" and synchronize your 2N® SmartCom PRO unit with 2N® SmartCom server.

Pres Start sync

Wait until synchronization is finished

In section "Meters" you can find information about your M-Bus meters

Results are in section - "Results" - For the access data (login, password) please contact your salesman or send a request go to https://support.2n.cz

Index pro ftp://90.182.112.38/../

🔼 O adresář výše

Název	Velikost	Změněno	
📊 15020416_50-0663-0027_valuereport_20160212130522_3104.csv	9 KB	12.2.2016	13:05:00
📊 15020416_50-0663-0027_valuereport_20160212140007_3104.csv	5 KB	12.2.2016	14:00:00
📊 15020416_50-0663-0027_valuereport_20160212150005_3104.csv	5 KB	12.2.2016	15:00:00
📊 15020416_50-0663-0027_valuereport_20160212160004_3104.csv	5 KB	12.2.2016	16:00:00
📁 2015_11		9.11.2015	13:57:00
📁 2015_12		4.12.2015	18:26:00
📁 2016_01		1.1.2016	0:00:00

or can be download by FTP client - loggin name:o2 pass:o2
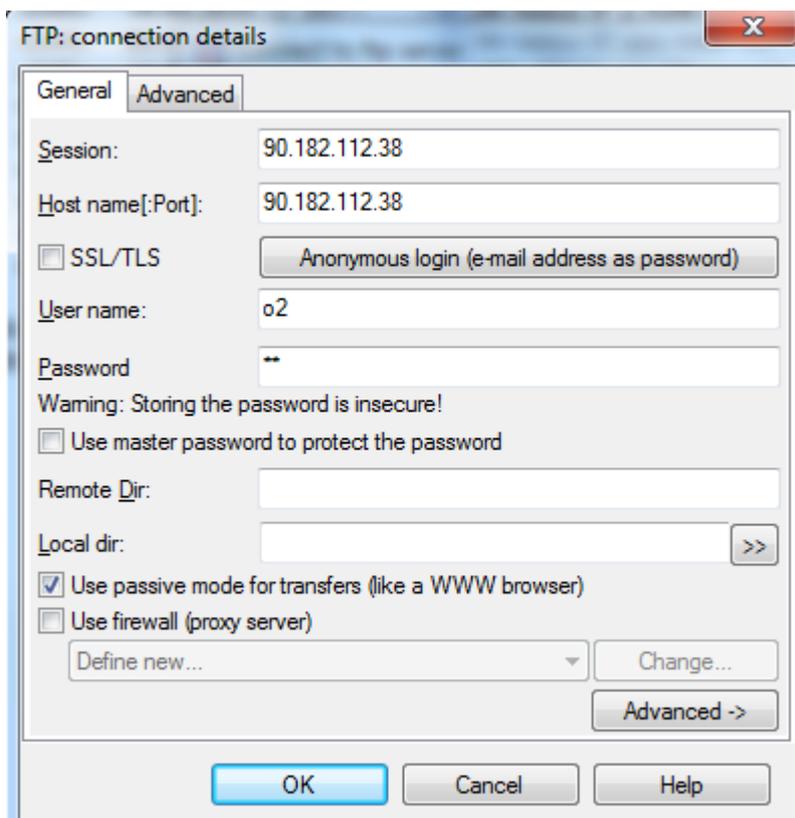
↑ Name	Ext	Size	Date	Attr
🔼 [..]		<DIR>		
📁 [2015_11]		<DIR>	09.11.2015 13:57	-755
📁 [2015_12]		<DIR>	04.12.2015 18:26	-755
📁 [2016_01]		<DIR>	01.01.2016 00:00	-755
📄 15020416_50-0663-0027_valuereport_20160212130522_3104	csv	8,8 k	12.02.2016 13:05	-644
📄 15020416_50-0663-0027_valuereport_20160212140007_3104	csv	4,0 k	12.02.2016 14:00	-644
📄 15020416_50-0663-0027_valuereport_20160212150005_3104	csv	4,4 k	12.02.2016 15:00	-644
📄 15020416_50-0663-0027_valuereport_20160212160004_3104	csv	4,4 k	12.02.2016 16:00	-644

General AMS errors	
0	- without error
1	- error of input data
2	- error of output data
3	- protocol cannot be used for this port
4	- readout not started

M-Bus AMS errors
131072   - non specific error (internal error of module)
131073   - readout was stopped by user
131074   - bad format address and speed of the device
131075   - parameters of the port were not set
131076   - message "SND_NKE" was not send in defined time interval to the device
131077   - message "SND_NKE" was not send in defined time interval to the device
131078   - timeout - receiving "SND_NKE" message response
131079   - bad frame when receiving "SND_NKE" message from the device
131080   - message "REQ_UD2" was not send
131081   - message "REQ_UD2" was not send
131082   - timeout - receiving "REQ_UD2" message response
131083   - incorrect communication frame for "REQ_UD2" message
131084   - incorrect response for "REQ_UD2" message
131085   - incorrect device address in response for "REQ_UD2" message
131086   - message "SND_UD slave selection" was not send in defined time interval
131087   - message "SND_UD slave selection" was not send in defined time interval
131088   - timeout - receiving "SND_UD slave selection" message response
131089   - bad frame for "SND_UD slave selection" response message
131090   - message "SND_UD slave selection" was not send in defined time interval during searching slaves on bus
131091   - message "SND_UD slave selection" was not send in defined time interval during searching slaves on bus
131092   - message "REQ_UD2" was not send in defined time interval during searching slaves on bus
131093   - message "REQ_UD2" was not send in defined time interval during searching slaves on bus
131094   - collision of secondary addresses during searching slaves on bus (two or more devices have same secondary address)
131329   - bad first "start" byte for device´s response message
131330   - bad second "start" byte for device´s response message
131331   - bad first "stop" byte for device´s response message
131332   - bad checksum of the response frame
131333   - bad value of the response frame length
131334   - bad value of the response frame length