

Overview

WinPP102 is a test and simulation program for the transmission of integrated totals protocol IEC 60870-5-102. You can monitor the Messages of an existing link or simulate the Master or the substation. Interfacing to the telecontrol equipment is done via the serial interface COM. The program supports two COM interfaces. It is possible to run the program several times simultaneously and thus support several COM interfaces. Do you want to monitor the command and monitoring direction simultaneously, you need two COM ports. For simulation a COM port is sufficient.

For test purposes it can also be used as a "Format 1.2" or as a "Byte" receiver, here you may set the parity, number of data bit and stop bit.

System Requirements: Windows 7, Vista or XP, Pentium, 100 MB RAM, 100 MB Disc, at least 1 COM port, USB port for dongle, VGA or better.

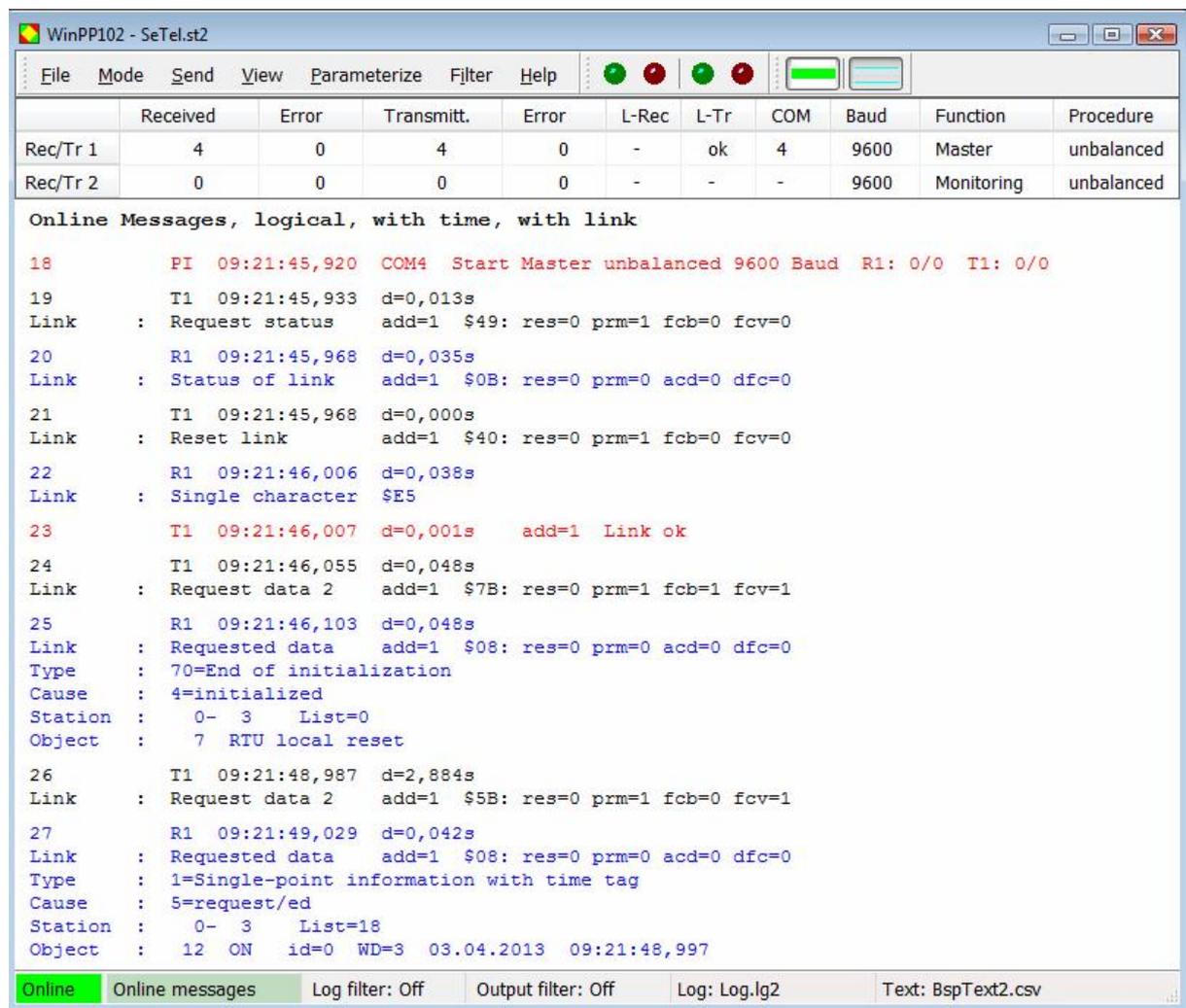


Fig. 1 WinPP102, Online message display

You can configure the following parameters for example:

- Ø Program function (monitoring, master, station, byte receiver)
- Ø Length of link address
- Ø Structure of common address
- Ø COM Port, Baud rate
- Ø Use of the single control character E5

Send messages

There are 12 single messages and 12 message lists available. In a list you can parameterize up to 3000 objects. The transmission instigation for the messages and lists takes place via operation or via an event. An event can be: reception of a particular type of message or successful establishment of a link. You can then send messages and message lists.

The parameterized messages and lists can be saved and loaded. For test purposes you can send illogical link and data messages. For examples: send NACK instead of ACK, do not toggle the FCB bit, use private ASDU, send the check character incorrectly, etc.

The transmitted messages are parameterized logically, see below.

List 5 parameterize, right click=load/save file.

Designation: Test all types

Send instigation by: Operation (dropdown) Type n: 7

List/Obj. to be sent how often: 1 Transm.: 1

Number of objects per transmission: 0

Wait time after transmission: 0

Link address: 1 (dropdown)

Common address: 0- 3 List number: 1

Period of time: 00:00:00 [1] ETI [2] PTI [] TIS [] IV [] SO

Ino	Acti...	Type	Cause	Obj.a...	Information	Qualifier
1	<input checked="" type="checkbox"/>	1=Single-point information with time tag	5	1	1=ON	.....II
2	<input checked="" type="checkbox"/>	2=Accountig integrated totals/4B	3	2	999999	.....I.
3	<input checked="" type="checkbox"/>	3=Accountig integrated totals/3B	3	3	9999	.....II
4	<input checked="" type="checkbox"/>	4=Accountig integrated totals/2B	3	4	99	.....I.
5	<input checked="" type="checkbox"/>	5=Periodically reset accounting IT/4B	3	5	888888	.....I.I
6	<input checked="" type="checkbox"/>	6=Period. reset accounting IT/3B	3	6	88888	.....II.
7	<input checked="" type="checkbox"/>	7=Periodically reset accounting IT/2B	3	7	8888	.....III
8	<input checked="" type="checkbox"/>	8=Operational integrated totals/4B	3	8	-777777	.....I...
9	<input checked="" type="checkbox"/>	9=Operational integrated totals/3B	3	9	-66666	.....I.I
10	<input checked="" type="checkbox"/>	10=Operational integrated totals/2B	3	10	-5555	.....
11	<input checked="" type="checkbox"/>	11=Periodically reset operational IT/4B	3	10	-44444444	.....
12	<input checked="" type="checkbox"/>	12=Period. reset operational IT/3B	3	10	-333333	.....
13	<input checked="" type="checkbox"/>	13=Periodically reset operational IT/2B	3	10	-2222	.....
14	<input checked="" type="checkbox"/>	70=End of initialization	4	10	0	.....
15	<input checked="" type="checkbox"/>	71=Manufacturer and product specification of IT DT:5	10	65		.....

[x] Transmit [OK] [Cancel] [Help]

1-13, 70, 71, 72, 100-123, F12 or right click = List

The program checks the received messages for transmission errors, link faults and ASDU faults. Faulty messages are marked as such. Every transmitted and received message is allocated a time stamp and is stored in a Log file. The size of the Log file can be parameterized. The messages in the Log file can be output to a printer or stored in a text file. The Log file is organized as a circular buffer. When the file is full then the newest message overwrites the oldest message.

Output filter

Parameterize output filter, right click=load/save filter.

Filter selection: Single point information [Delete]

Messages from: 03.04.2013 09:21

Messages until: 03.04.2013 09:21

Message status: error-free faulty

Message source: R1 T1 R2 T2

Message number	off	1	off	32
Message length	off	0	off	0
Link function code	off	0	off	0
Link address	off	0	off	0
Message type ID	equal	1	off	0
Cause	off	0	off	0
List number	off	0	off	0
1 Common address 1	off	0	off	0
2 Common address 2	off	0	off	0
3 Address Inf. object	off	0	off	0

OK Cancel Reset filter Help

0 - 255, F12 or right click = List