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GILAT

NGNMS – AUTOMATED TESTING

Usage examples for: wptest.py | Vitalie Ghelbert - Moldova

Contents

Instalation 2
Example 7
Real working example flow: 7
Usage examples 0
Show help 0
Show active vsat's 1
Show one particular vsat 3
Show hub configuration 4
Checking vsat 5
Checking hub 7
Show DLF configurations: 8
Checking DLF connection: 8
Setting DLF device: 9
Run one particular test 9
Run all active test cases 9
Configuring TESTCASES 0
Data from output.xls file after running test 0
Configuring HUB. 0
Configuring VSAT. 1

Instalation

- from \\gna2\pituach\Svl\Automation&Simulator copy WP folder to disk C:
- enter C:\WP \setup folder
- Follow install instructions from INSTALL.TXT file.

  For 32 bit Windows, install all programs from 32/ folder in order specified below:

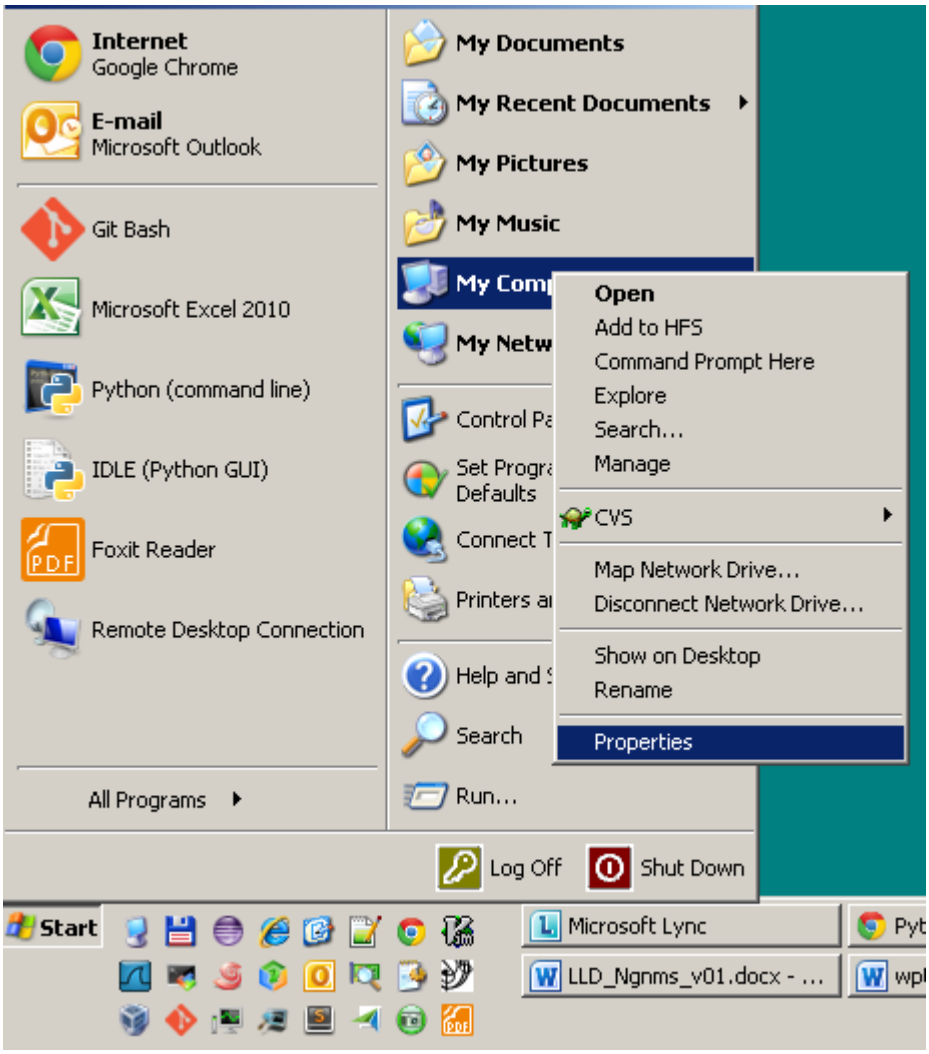
  1. python-2.7.5.msi
  2. setuptools-0.7.4.win32-py2.7.exe
  3. pycurl-7.19.0.win32-py2.7.exe
  4. pyserial-2.7-pre1.win32-py2.7.exe
  5. install_xlutils.bat

  For 64 bit Windows, install all programs from 64/ folder in order specified below:

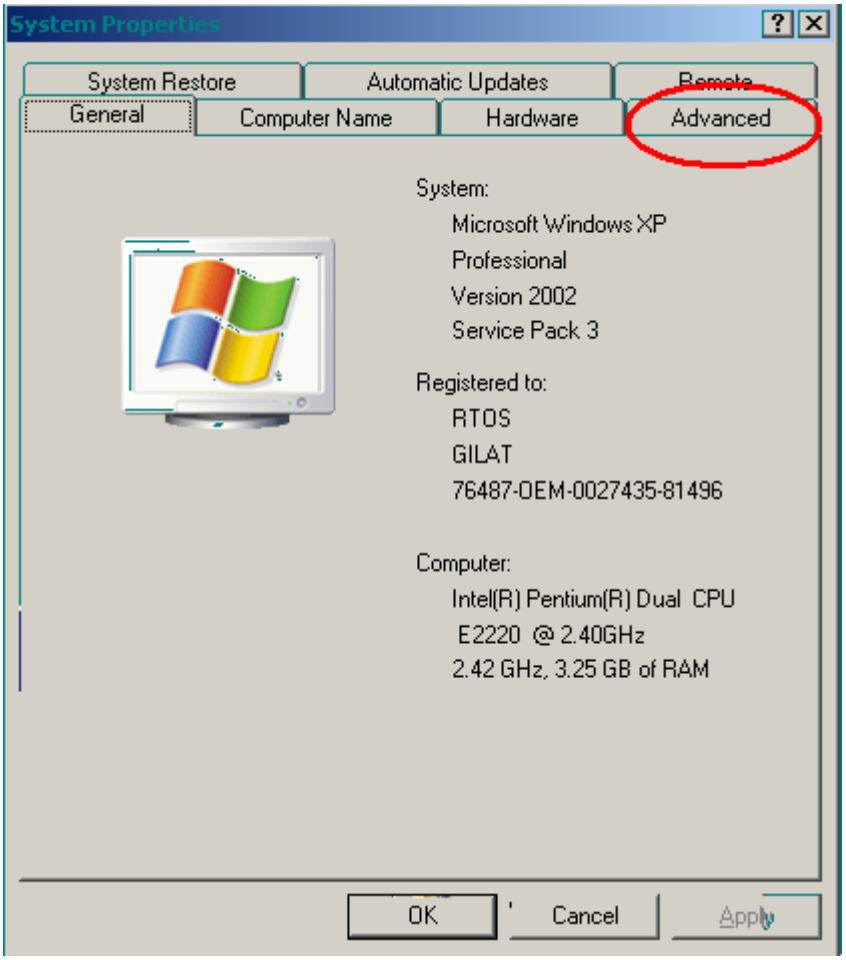
  1. python-2.7.5.amd64.msi
  2. setuptools-0.7.4.win-amd64-py2.7.exe
  3. pycurl-7.19.0.win-amd64-py2.7.exe
  4. pyserial-2.7-pre1.win-amd64-py2.7.exe
  5. install_xlutils.bat

- Add python path to PATH variable: C:\Python27; C:\Python27\Scripts;

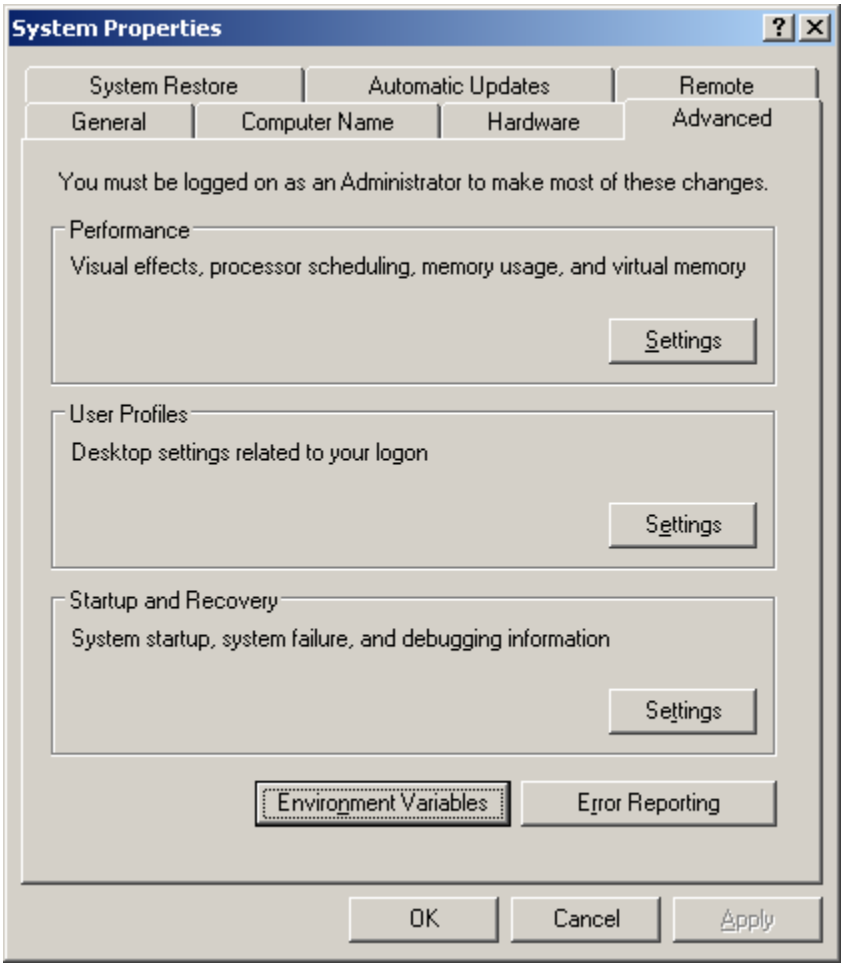
1. Click Start button, then right click on My Computer and click Properties (see picture below).



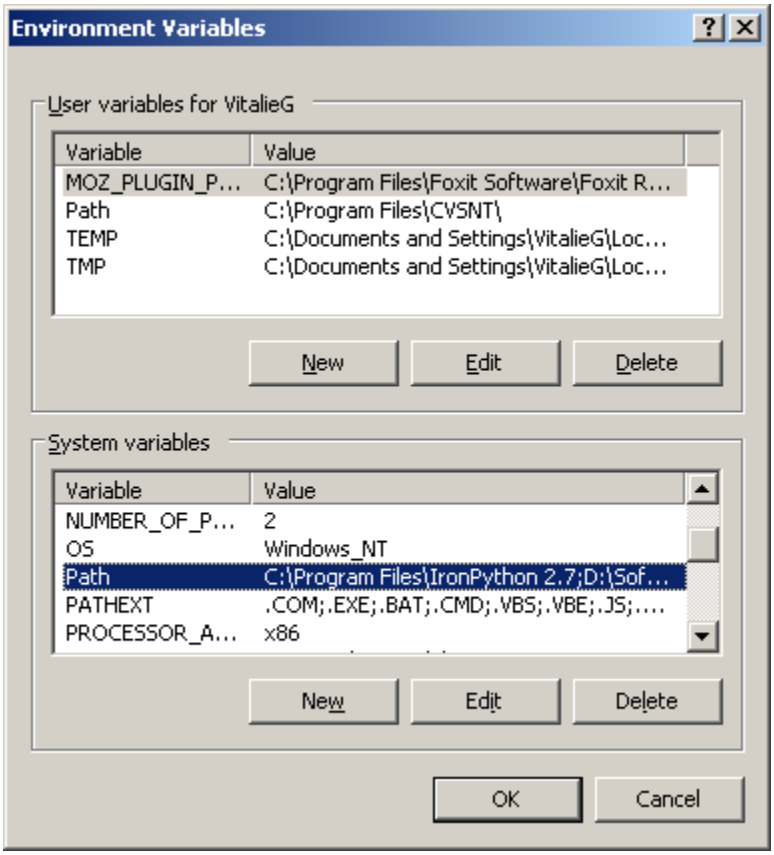
2. Then click on Advanced Tab.

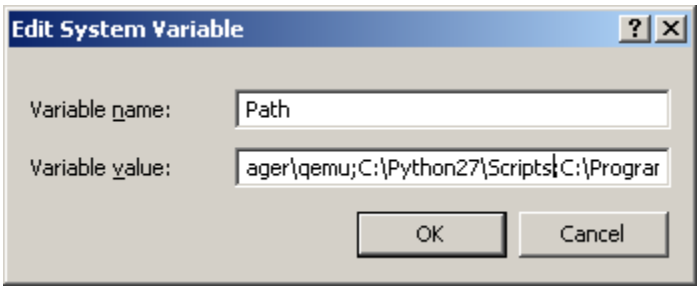


3. Click on Environment Variables.



4. From there, find Path variable and press Edit button:
   Copy and Paste C:\Python27; C:\Python27\Scripts; and press OK.
   Note: don't miss (;) at the end!





Example

Real working example flow:

1. open C:\WP\ngnms\data\demo.xls
2. open command prompt to C:\WP\ngnms
3. show DLF configuration file:

   wptest.py --dlf show
4. configuring DLF file C:\WP\ngnms\configs\dlf.ini
5. setting and setup DLF with:

   wptest.py --dlf setup

   wptest.py --dlf set

   NOTE: set “serial = 0” in C:\WP\ngnms\configs\dlf.ini if needed DLF connection over TCP.
6. show VSAT enabled configurations with:

   wptest.py --show vsat
7. show HUB enabled configurations with:

   wptest.py --show hub
8. show enabled TESTCASES with:

   wptest.py --show test
9. correct VSAT and/or HUB configurations into C:\WP\ngnms\data\demo.xls
10. check VSAT with:

    wptest.py --check vsat
11. check HUB with:

    wptest.py --check hub
12. If VSAT, HUB, DLF are ok, we could run one TESTCASE with:

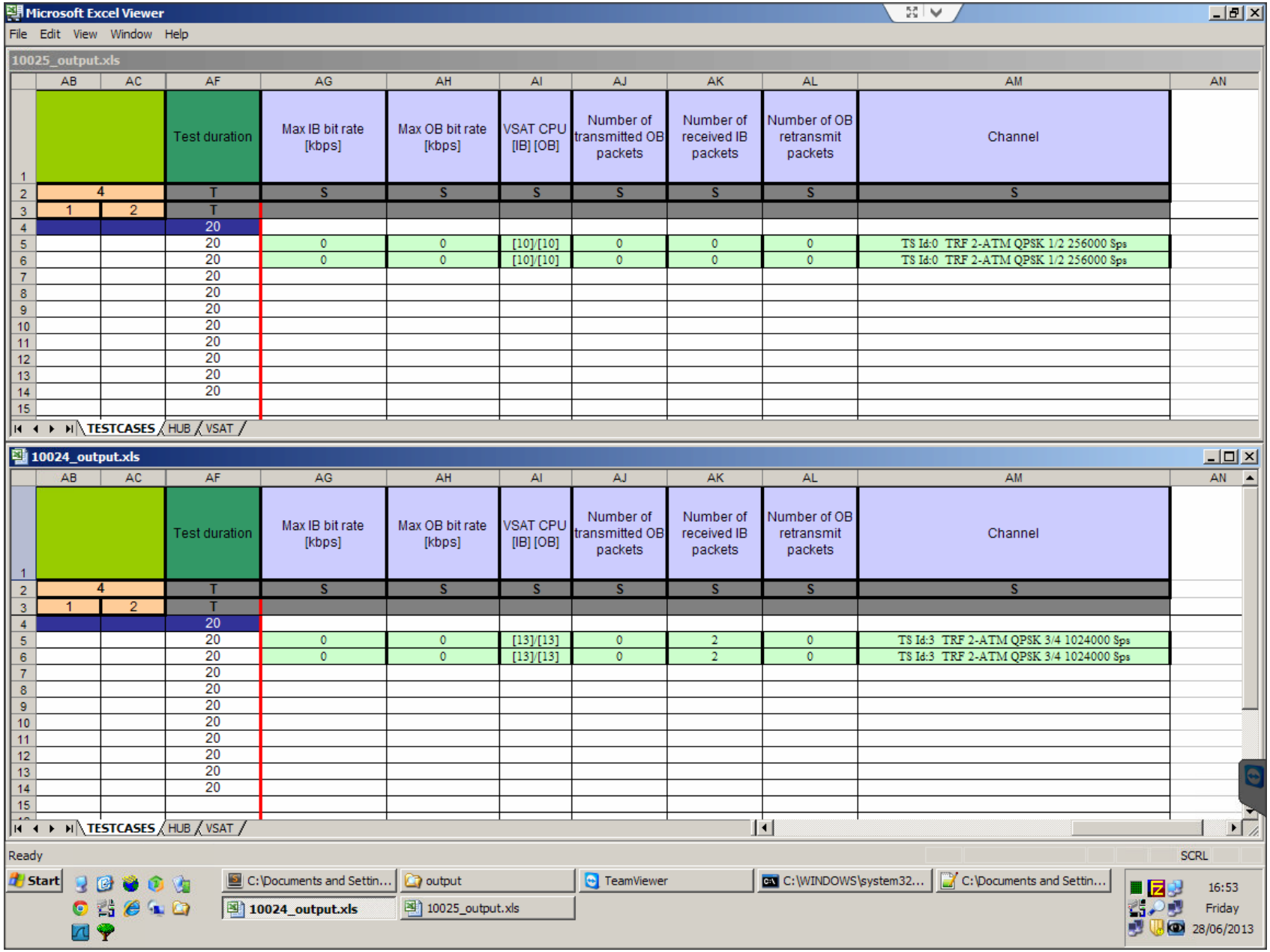
    wptest.py --run --name 2

    Note: this will run TESTCASE number 2. To run all TESTCASES:

    wptest.py --run
13. When program finished to run, you could check for result in:

    C:\WP\ngnms\data\output

    See picture from below.



Microsoft Excel Viewer

File Edit View Window Help

10025_output.xls

	AB	AC	AF	AG	AH	AI	AJ	AK	AL	AM	AN
1			Test duration	Max IB bit rate [kbps]	Max OB bit rate [kbps]	VSAT CPU [IB] [OB]	Number of transmitted OB packets	Number of received IB packets	Number of OB retransmit packets	Channel	
2	4		T	S	S	S	S	S	S	S	
3	1	2	T								
4			20								
5			20	0	0	[10]/[10]	0	0	0	TS Id:0 TRF 2-ATM QPSK 1/2 256000 Sps	
6			20	0	0	[10]/[10]	0	0	0	TS Id:0 TRF 2-ATM QPSK 1/2 256000 Sps	
7			20								
8			20								
9			20								
10			20								
11			20								
12			20								
13			20								
14			20								
15											

TESTCASES HUB VSAT

10024_output.xls

	AB	AC	AF	AG	AH	AI	AJ	AK	AL	AM	AN
1			Test duration	Max IB bit rate [kbps]	Max OB bit rate [kbps]	VSAT CPU [IB] [OB]	Number of transmitted OB packets	Number of received IB packets	Number of OB retransmit packets	Channel	
2	4		T	S	S	S	S	S	S	S	
3	1	2	T								
4			20								
5			20	0	0	[13]/[13]	0	2	0	TS Id:3 TRF 2-ATM QPSK 3/4 1024000 Sps	
6			20	0	0	[13]/[13]	0	2	0	TS Id:3 TRF 2-ATM QPSK 3/4 1024000 Sps	
7			20								
8			20								
9			20								
10			20								
11			20								
12			20								
13			20								
14			20								
15											

TESTCASES HUB VSAT

Ready SCRL

Start

C:\Documents and Settin... output TeamViewer C:\WINDOWS\system32... C:\Documents and Settin...

10024_output.xls 10025_output.xls

16:53 Friday 28/06/2013

Usage examples

Show help

```
C:\WP\ngnms>wptest.py --help

Usage: wptest.py [options]

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Options:
  --version             show program's version number and exit
  -h, --help            show this help message and exit
  -c DEVICE, --check=DEVICE
                        check [hub, vsat]'s status.
  -n NAME, --name=NAME  vsat name to check.
  -s INFO, --show=INFO  show [all, hub, vsat, test]'s info.
  -d, --disabled        show disabled rows only.
  -i INFILE, --in-file=INFILE
                        testcases input file [default: data/demo.xls]
  -r, --run             run one or [default:enabled] test cases
  --dlf=DLF             dlf state [show, check, set, setup]

wptest.py - read and run test cases from excel file.
```

Show active vsat's

- wptest.py --show vsat
- wptest.py --show vsat --disabled

```
C:\WP\ngnms>wptest.py --show vsat
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                  ENABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                VSAT : ENABLED
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
------------------------------------------------------------
              VSAT : V1 : ENABLED
------------------------------------------------------------
Active                          = x
Name                             = V1
Console IP                        = 192.168.140.76
Console PORT                        = 1010
Connection timeout                     = 10
Number of tries                      = 3
Tries timeout                       = 10
------------------------------------------------------------
```

```
C:\WP\ngnms>wptest.py --show vsat --disabled
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                 DISABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                VSAT : DISABLED
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
------------------------------------------------------------
              VSAT : V2 : DISABLED
------------------------------------------------------------
Active                          =
Name                             = V2
Console IP                       = 192.168.140.76
Console PORT                        = 1016
Connection timeout                     = 10
Number of tries                     = 3
Tries timeout                      = 10
------------------------------------------------------------
------------------------------------------------------------
              VSAT : V3 : DISABLED
------------------------------------------------------------
Active                          =
Name                             = V3
Console IP                       = 192.168.140.76
Console PORT                        = 101
Connection timeout                     = 10
Number of tries                     = 3
Tries timeout                      = 10
------------------------------------------------------------
```

Show one particular vsat

- wptest.py --show vsat --name V4

```
C:\WP\ngnms>wptest.py --show vsat --name V4
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                  ENABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                VSAT : ENABLED
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
VSAT: V1
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                 DISABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
               VSAT : DISABLED
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
VSAT: V2
VSAT: V3
------------------------------------------------------------
             VSAT : V4 : DISABLED
------------------------------------------------------------
Active                          =
Name                             = V4
Console IP                        = 10.111.35.6
Console PORT                        = 1004
Connection timeout                     = 10
Number of tries                      = 3
Tries timeout                       = 10
------------------------------------------------------------
VSAT: V5
VSAT: V9
VSAT: V10
```

Show hub configuration

- wptest.py --show hub
- wptest.py --show hub --disabled

```
C:\WP\ngnms>wptest.py --show hub
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                  ENABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                HUB : ENABLED
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
------------------------------------------------------------
             HUB : NS_3 : ENABLED
------------------------------------------------------------
Active                          = x
Name                             = NS_3
Type                            = NS
URL                             = https://172.20.255.1
User                            = rnd
Password                           = 6DTR2ZHGS6MQQ
------------------------------------------------------------
```

```
C:\WP\ngnms>wptest.py --show hub --disabled
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                  DISABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
                HUB : DISABLED
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
------------------------------------------------------------
             HUB : NS_3 : DISABLED
------------------------------------------------------------
Active                          =
Name                             = NS_3
Type                            = NS
URL                             = https://ngnms-server/
User                            = admin
Password                           = manager
------------------------------------------------------------
```

Checking vsat

- wptest.py --check vsat
- wptest.py --check vsat --name V2

```
C:\WP\ngnms>wptest.py --check vsat
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                    ENABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
------------------------------------------------------------
             -- V1 : ENABLED --
------------------------------------------------------------
Active              = x
Name                = V1
Console IP          = 192.168.140.76
Console PORT        = 1010
Connection timeout  = 10
Number of tries     = 3
Tries timeout       = 10

step:\> Checking connection ...
status: -> SUCCESS!

step:\> Checking link status!
status: Total Backbone Links UP = 1
status: ->Link UP!
------------------------------------------------------------
```

```
C:\WP\ngnms>wptest.py --check vsat --name V1
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                  ENABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
------------------------------------------------------------
             -- V1 : ENABLED --
------------------------------------------------------------
Active             = x
Name               = V1
Console IP         = 192.168.140.76
Console PORT       = 1010
Connection timeout   = 10
Number of tries      = 3
Tries timeout       = 10

step:\> Checking connection ...
status: -> SUCCESS!

step:\> Checking link status!
status: Total Backbone Links UP = 1
status: ->Link UP!
------------------------------------------------------------
============================================================
      INFO: Excel file data/demo.xls!
============================================================
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
                 DISABLED
HHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHHH
VSAT : V2
VSAT : V3
VSAT : V4
VSAT : V5
VSAT : V9
VSAT : V10
```

Checking hub

- wptest.py --check hub

```
C:\WP\ngnms>wptest.py --check hub
============================================================
      INFO: Excel file data/demo.xls!
============================================================
step:\> Connecting to: https://ngnms-server
info:\> [user: admin] [password: manager]
status: 200 https://ngnms-server/navigation/statustree/network
step:\> Scanning ngnms network tree ...
------------------------------------------------------------
  Teleport: main
     Satellite: Satellite
        RF Cluster: rfCluster 1
                NS: controller
------------------------------------------------------------
info:\> Available network segments names on server:
    controller            =   579
```

Show DLF configurations:

C:\WP\ngnms>**wptest.py --dlf show**

serial = 1
serial_port = COM1
serial_baudrate = 19200
tcp_ip = 192.168.140.76
tcp_port = 1001

Note: change serial = 0 to connect over TCP to DLF device.

[Action]
default = 0
constant = 1
trapeze = 0
sinus = 0
saw = 0
connectivity = 0

[DefaultsComp]
ib_noise = 1
ob_noise = 1
noise_output = 0
sync = 1
mesh = 0
etc …

Checking DLF connection:

C:\WP\ngnms>**wptest.py --dlf check**

status:\> Serial<id=0xc9c790, open=True>(port='COM1', baudrate=19200, bytesize=8, parity='N', stopbits=1, timeout=None, xonxoff=False, rtscts=False, dsrdtr=False)
status:\> checking serial port: COM1
status:\> port open: True
status:\> closing port: COM1
status:\> port open: False

Setting DLF device:

```
C:\WP\ngnms>wptest.py --dlf set

status:\> setting DLF defaults.
status:\> sending data over serial: COM1
status:\> finished!

C:\WP\ngnms>wptest.py --dlf setup

status:\> setting DLF defaults.
status:\> sending data over serial: COM1
ib_noise = 1 -> 90060D
ob_noise = 1 -> 93060D
noise_output = 0 -> 92000D
sync = 1 -> 91070D
mesh = 0 -> 8F000D95000D
status:\> finished!
```

Run one particular test

- **wptest.py --run --name 1**

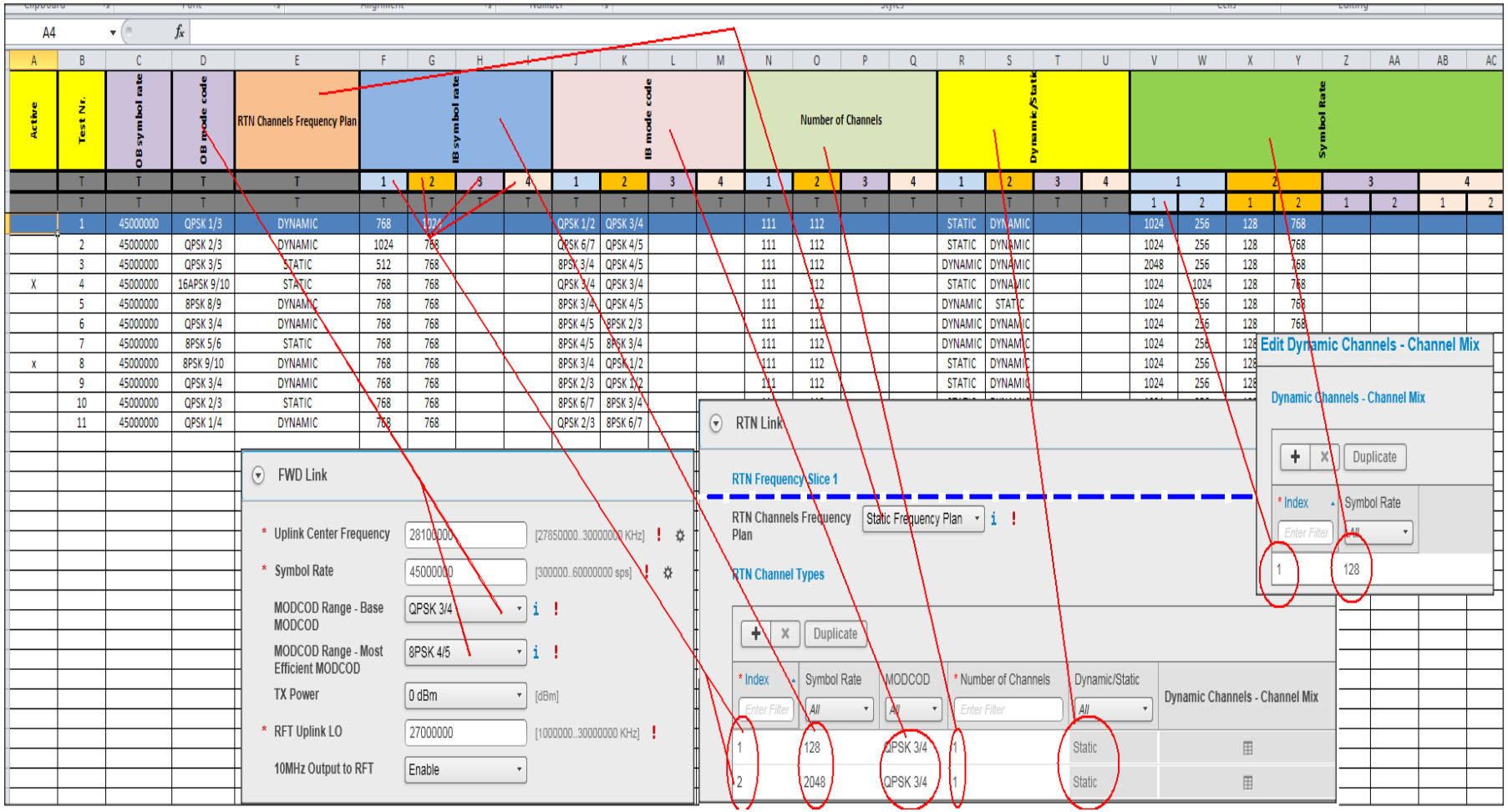
Run all active test cases

- **wptest.py --run**

Note: to run all disabled tests use --disabled option.

- **wptest.py --run --disabled**

Configuring TESTCASES



By default, you could use demo.xls file from data directory: C:\WP\ngnms\data\demo.xls

Hint: Make a copy before changing demo.xls file.

You can specify witch input file to use with -i option:

Example:

wptest.py -i data/demo.xls --run --name 4

That will read test cases from [data/demo.xls] file, and store to [data/output/] directory.

NOTE: by default, [data/demo.xls] is used if no (-i) option in provided.

Data from output.xls file after running test

AG	AH	AI	AJ	AK	AL	AM
Max IB bit rate [kbps]	Max OB bit rate [kbps]	VSAT CPU [IB] [OB]	Number of transmitted OB packets	Number of received IB packets	Number of OB retransmit packets	Channel
S	S	S	S	S	S	S
0	0	[10]/[10]	0	0	0	TS Id:0 TRF 2-ATM QPSK 1/2 256000 Sps
0	0	[10]/[10]	0	0	0	TS Id:0 TRF 2-ATM QPSK 1/2 256000 Sps

Configuring HUB.

	A	B	C	D	E	F
1	Active	Name	Type	URL	User	Password
2		NS_3	NS	https://172.20.255.1	rnd	6DTR2ZHGS6MQQ
3		Network Segment	NS	https://172.20.255.1	admin	manager
4	x	NS1	NS	https://172.20.255.1	admin	manager
5		NS5	NS	https://192.168.140.150:8443	admin	manager
6						
7						

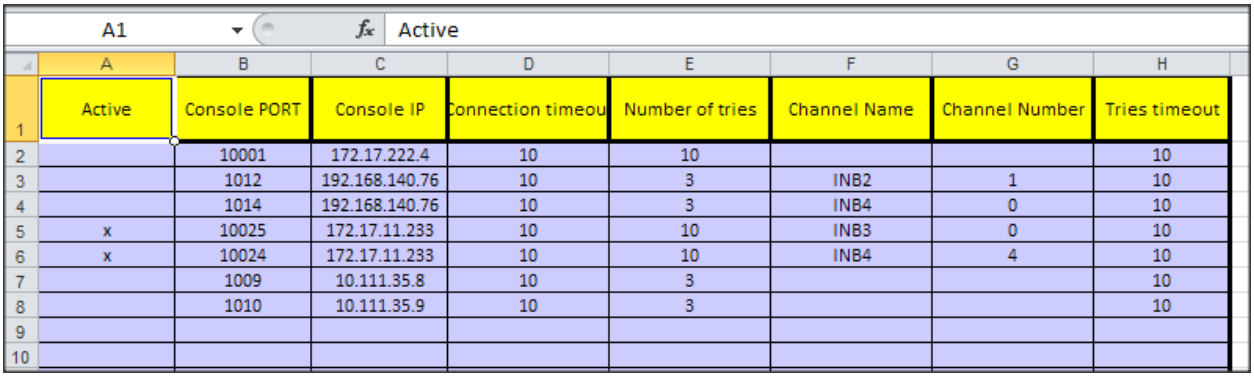
Active: just one line should be active.

Name: fill here network segment name

Type: optional
URL: ngnms link
User: ngnms user

Password: ngnms password

Configuring VSAT.



A1 | Active

	A	B	C	D	E	F	G	H
1	Active	Console PORT	Console IP	Connection timeou	Number of tries	Channel Name	Channel Number	Tries timeout
2		10001	172.17.222.4	10	10			10
3		1012	192.168.140.76	10	3	INB2	1	10
4		1014	192.168.140.76	10	3	INB4	0	10
5	x	10025	172.17.11.233	10	10	INB3	0	10
6	x	10024	172.17.11.233	10	10	INB4	4	10
7		1009	10.111.35.8	10	3			10
8		1010	10.111.35.9	10	3			10
9								
10								

Active: multiple lines could be active.
Console Port: telnet port connection
Console IP: telnet ip connection
Connection timeout: time until timeout
Channel Name: vsat connected to DLF channel.
Channel Number: TRF channel on which transmit vsat.
Number of tries: how many tries to check until link UP.
Tries timeout: time between each try if vsat has link DOWN.