Viavi ONA800/1000 and TB5800 sample python scripts

Provided is a collection of Python scripts that are samples of how to automate the Viavi TB5800 and other TB/ONA products. Feel free to use these scripts as is, to edit them, or to copy parts of the code into your own scripts.

Download the latest scripts at: <https://github.com/teracommbrad/tb5800-python>

*All files are provided as examples of how to do simple Python automation scripts. No warranty is expressed or implied. Feel free to use these scripts and*

*Note: Scripts require Python3.*

Example Videos:

1. TBERD CommandLine.py: <https://youtu.be/ymKH5XqMhLg>
2. TBERD5800FileParser.py: <https://youtu.be/Y1OgwVs0B_4>

TBERDCommandLine.py:

Program that runs a terminal command line with simple commands such as peek, poke, scpi commands, load/close TB5800 apps. Dependency: TBERD5800Controls.py.

To start: Enter terminal and navigate to the directory with the python scripts.

>Python3 TBERDCommandLine.py

Commands:

APP : Brings up apps and starts an app chosen by user, closing others

MULTIAPP : Brings up apps and starts an app chosen by user, not closing others

START appname : Starts appname and closes all other apps.

appname may be multiple words, including arguments (60 second default timeout)

Example: START TermEth100GL2Traffic 1

MULTISTART appname : Starts appname, not closing any other apps

CURR : Gets Current Running apps, with an arrow to the current running app

PEEK page addr : Peek address with given page

Example : PEEK 0 0x56

PEEK addr : Peek address

Example : PEEK 0x56

POKE page addr value : poke page, address with value

Example : POKE 0 0x56 0x01

POKE addr value : poke address with value

Example : POKE 0x56 0x01

DELAY value : Delay value seconds

SCPI command : send scpi with given command; command may be multiple words

Example: SCPI :SYST:APPL:CAPP?

HELP : Provides help

EXIT or QUIT: Exit program

CLOSEAPP : Brings up prompt to exit app

CLOSEAPP appId : Exits app with given appId

ACTIVE : Select an active app based on prompt

Note: Closing app can take 5-10 seconds AFTER command is sent and received

Command names are not case-sensitive

Arguments/values are case sensitive

TBERD5800FileParser.py:

Python program that does simple automation scripts using a list in a text file (testcmd.txt). Option to output to a text file or to the terminal. Dependency: TBERD5800Controls.py.

To start: > python3 tberd5800fileparser.py -h

options:

-h, --help show this help message and exit

--app APP, -a APP TB5800 Application Name

--ipaddr IPADDR, -i IPADDR

The IP address of the TB5800

--infile INFILE, -f INFILE

The input file to read

--outfile OUTFILE, -o OUTFILE

The output file to write to; writes to terminal if none provided

--listcommands, -l Bring up list of commands

--delay DELAY, -D DELAY

Default delay between commands

--noapp, -N

\* No arguments uses default settings in the code:

defaultApp="TermEth100GL2Traffic 1"

defaultIP='192.168.200.2'

defaultFileName='testcmd.txt'

Examples:

>python3 tberd5800fileparser.py -i 192.168.200.2 -f testcmd.txt

Runs the commands in file testcmd.txt, output to terminal, ip address=192.168.200.2, application=TermEth100GL2Traffic 1

>python3 tberd5800fileparser.py -o output.txt

As above but output to “output.txt” file

Libraries/dependencies:

TBERD5800Controls.py: Library that contains functions and setup for opening ethernet sockets and communicating with TB5800

Note on Blank Display: Remote sessions blank the instrument screen by default. The screen can be made visible using “DEBUG=True” in the code. Note this is for debugging only and is note recommended or supported by Viavi.

#When DEBUG=True, uses \*REM VISIBLE ON (for debugging only)

#Otherwise, when DEBUG is False, uses \*REM command

DEBUG=False

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Downloading Tkinter libraries for python