VCHKPlotter Manual

VCHKPlotter version 0.314159. Author: Ben-Lukas Thornton (Ben.Thornton955@cranfield.ac.uk), s405955

Requirements

- Python >= 3.10
- A suitable install of pip
- Windows requires you to install dependencies manually. (Install all the packages in DEPENDENCIES.txt to a VENV) These are suitably referenced and cited in the report, where necessary.

Installation

Linux:

Inside the folder that contains setup.py, execute:

```
pip install .
```

Windows:

No install available. See usage instructions for Windows below.

Usage

For all specified output types, the program will create a subfolder in `./output_location` with the name identical to the title of the section in the input file. E.g. "st". Lower case. The program will always print the "sn" section to *stdout*. If this option is passed as a command-line flag, then it will be saved additionally as a `.txt` file in the `sn` subfolder, but there will be no graph for this section.

Linux:

After install, to produce all plots in "verbose" mode, execute:

```
VCHKPlotter ./path_to_input.vchk ./output_location -a -v
```

Windows:

This package provides a `./windows` directory. This directory contains a windows friendly copy of the code and can be executed by running:

```
python ./__main__.py ...args...
```

Advanced Usage Instructions:

- Use the `-a` flag to request all output types. Note that with use of this flag, you can use the `-no-` variants of the file-type flags to exclude them. As opposed to typing all the outputs you do want, sometimes it's easier to just specify those you *don't*.
- Use the `-v` for verbose output. Will catch superfluous arguments and print to *stderr* in yellow.
- Use the following flags to select manually the types of outputs you want: `-af`, `-dp`, `-hwe`, `-idd`, `-psc`, `-psi`, `-qual`, `-sis`, `-sn`, `-st`, `-tstv`. You can provide these in all capitals or all lower case.
- When using the `-a` flag, you can switch off certain outputs by prefixing the above arguments with `-no-`. The on and off variant of a flag are mutually exclusive. The program will *error* if you provide `-af -no-af` for example.