Installing NUCAPS in SHARPpy

Quick Guide

Install Pre-requisites

You will need **Python 3** to run SHARPpy. For instructions, visit the following websites:

- https://www.anaconda.com/products/individual for instructions on how to set-up Python.

You will need run a few simple commands in a **command line program:**

- Linux/MacOS: Open the **Terminal** application.
- Windows: Open the **Anaconda Prompt** applications.

Install the NUCAPS test branch in SHARPpy

You can now install the beta version of SHARPpy which contains NUCAPS satellite soundings. Open the command line for your operating system (see above) to perform these steps.

```
> git clone https://github.com/Jeff-Szkodzinski/SHARPpy.git
```

Change your directory to where you have downloaded SHARPpy (e.g. `/home/<user>/SHARPpy`).

```
> cd /home/<user>/SHARPpy
```

Next, we to create an isolated Anaconda environment just for running SHARPpy with all the necessary libraries (using `conda env create <options>`; it may take several minutes to install the libraries). If you are interested, you can open the `environment.yml` file to see which libraries are used.

```
> conda env create -f environment.yml
```

After creating the environment, we need to switch to this new environment (via `conda activate <env_name>`) which we have named `devel`.

```
> conda activate devel
```

Run `setup.py` to apply our NUCAPS updates to SHARPpy.

```
> python setup.py install
```

Once the installation is complete, keep the terminal open and follow the steps in the next section to launch SHARPpy.

Running SHARPpy from the Command Line

In the command line, type the command `sharppy` to launch the program.

```
> sharppy
```

If successful, a window will open which will give you access to soundings from NUCAPS, RAOBS, and select models. For instructions on using SHARPpy, see the "Display NUCAPS in SHARPpy" quick guide.

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