Note: This document is not intended to be a long-term tutorial as the file structure of the initial public release of SWESARR data is under consideration. File naming conventions may change as radiometer data and ease-of-use factors are considered. The author does not take responsibility for any problems that may arise during the installation of any suggested software or dataset. The user should make sure that path variables and the wget location do not conflict with any prior software installation.

SAR Data Primer

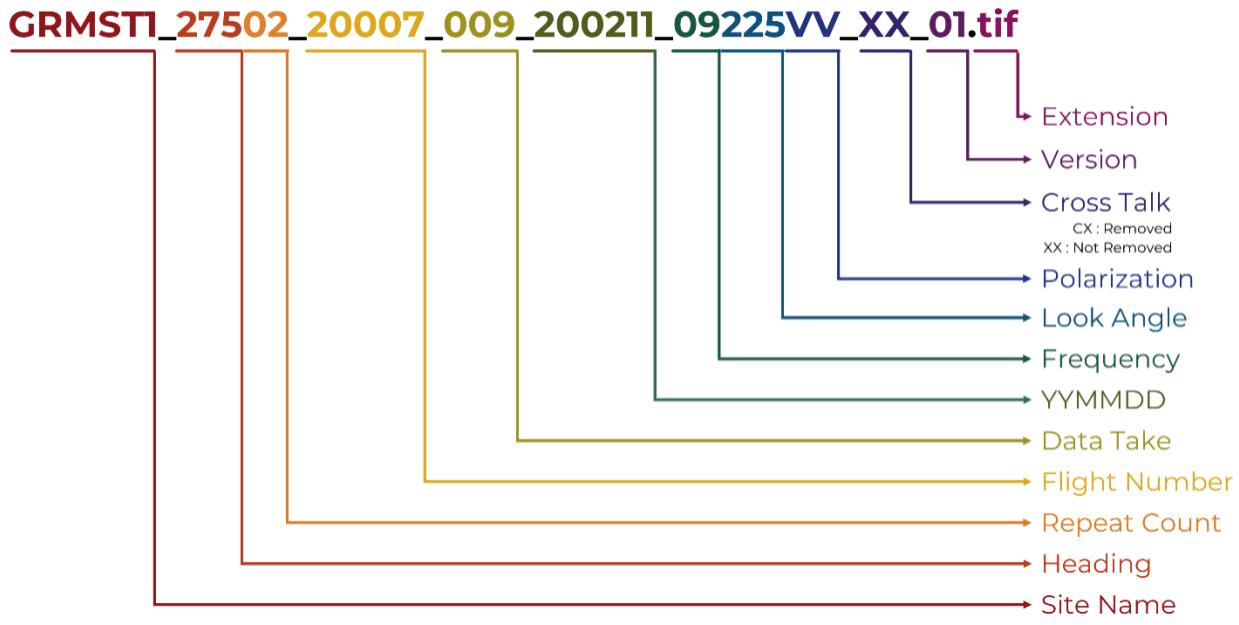
SWESARR's prerelease SAR data is available at the following public URL

https://glihtdata.gsfc.nasa.gov/files/radar/SWESARR/prerelease/

Supplementary information and processing updates are catalogued at the following URL

https://blogs.nasa.gov/swesarr/

Currently, only SAR data is available. The file naming convention follows UAVSAR's naming convention at time of writing. It is illustrated below:



The prerelease repository contains the following basic file extensions composing 15 files :

.tif		Six files containing the processed radar backscatter measurements and one file containing the digital elevation map used during processing. A total of **seven** files.
.kmz		A Google-Earth compatible file containing .jpgs of the six radar backscatter measurements. A **single** file designed for quick viewing of the data coverage.
.ann		A **single** text file that provides summary information related to the processing and coverage of the dataset.
.slc		**Six** large SLiCe files of the radar backscatter measurements.

Download Tutorial

There are currently 19 datasets which each contain 15 different files. Mass downloading extensions for web browsers, by the author's experience, do not appear capable of following the proper security protocol to download these files directly from the server. It is suggested that the reader use the `wget` command for mass downloading of these files.

A useful tutorial on using `wget` can be found here:

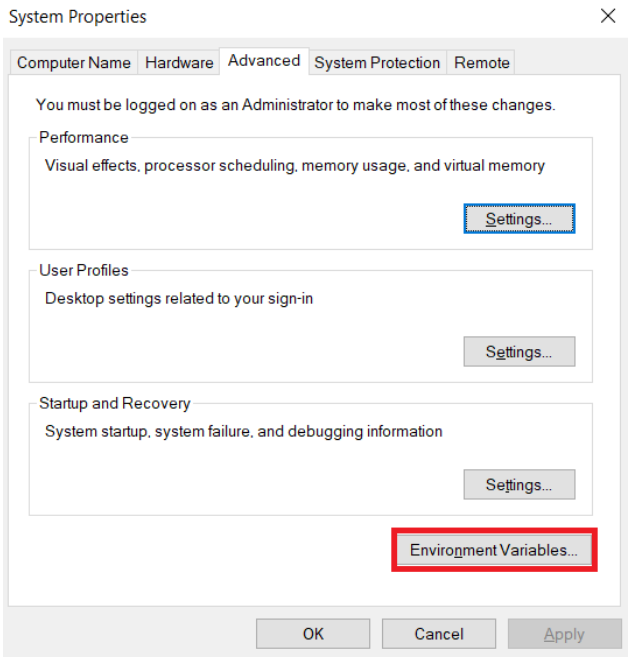
https://daac.ornl.gov/order_access.shtml

(This website suggests the use of the Chrono Download Manager which the author has not tested.)

Considerations for `wget`

It is important that the user update `wget` to its most recent version. Outdated versions of `wget` do not have the necessary protocols to download from the prerelease website.

To use `wget` on Windows

1. Download the most recent binaries of the `wget` command.
    a. Find the most recent wget.exe that is compatible with your OS-compatible here:
        i. https://eternallybored.org/misc/wget/
2. Place the wget.exe in a secure place on your computer
    a. Assuming that no compatibility issues will arise, I would suggest creating a location such as:
        i. C:\Program Files\wget\wget.exe
3. If desired, allow the wget executable to be called from the command line regardless of your current directory
    a. From the control panel, find the "Environment Variables" option under System Properties
    b. 

   c. Under the user variables, select “Path” and “Edit”
   d. Under the new menu, select “New” and paste the directory containing your wget.exe
4. Test that `wget` works from your command line by opening the prompt and entering `wget -h`

Using `wget`

Assuming that `wget` can be called at any directory location, one suggested workflow is as follows:

1. From the command line / terminal, `cd` into the directory where you wish to store the SWESARR dataset
2. Use the following command to save all .tif files into your desired directory:

```
wget -r -np -nH --reject "index.html*" -e robots=off -r --no-parent -A
"*tif" https://glihtdata.gsfc.nasa.gov/files/radar/SWESARR/prerelease/
```

This will store all .tif files under the appropriate directories within: `.\files\radar\SWESARR\prerelease`

Other file extensions can be selected by altering the appropriate term from the `wget` command.