**WORKFLOW FOR snap2stamps OPERATION**

**Step-1**

Download the required Sentinel-1 image from ASF Data Search Vertex and store it in Folder “secondaries”

G:\SNAP2StaMPS\secondaries (There are **152 Sentinel-**1 images in my case)

Make sure the other folders exist in G:\SNAP2StaMPS\ location along with secondaries such as

G:\SNAP2StaMPS\bin

G:\SNAP2StaMPS\graphs

G:\SNAP2StaMPS\Manual

G:\SNAP2StaMPS\master

**Step-2**

Adjust the project\_topsar.conf parameters as per the study area.



Make sure that the master image (“/.zip”) file is moved **manually** to the folder location after executing Step-5.

**Step-3**

The auto\_run.py script that automates the full workflow with the command below.

G:\SNAP2StaMPS>python auto\_run.py -F project\_topsar.conf

The additional folders are created after running this code which are:

G:\SNAP2StaMPS\coreg

G:\SNAP2StaMPS\ifg

G:\SNAP2StaMPS\logs

G:\SNAP2StaMPS\Mastersplit

G:\SNAP2StaMPS\split

**Step-4**

G:\SNAP2StaMPS>python topsar\_step\_0\_secondaries\_prep.py -F G:/SNAP2StaMPS/project\_topsar.conf

The no. of unique folder is created in the name of date of Sentinel-1 data acquit ions, such as G:\SNAP2StaMPS\secondaries\20180111…………..(There are **152 folder** created in my case)

**Step-5**

G:\SNAP2StaMPS>python topsar\_automaster.py -F G:/SNAP2StaMPS/project\_topsar.conf -M AUTO

After executing the above script, the automatic selection of master image is suggested by this code.

Make sure master image lies within in folder (20200617 was master image in my case)

G:\SNAP2StaMPS\secondaries\20200617\ S1A\_IW\_SLC\_\_1SDV\_20200617T122217\_20200617T122245\_033057\_03D449\_C3D9.zip

Now, after knowing that master image is 20200617, move the above .zip file in the location set at Step-2.

G:\SNAP2StaMPS\master\ S1A\_IW\_SLC\_\_1SDV\_20200617T122217\_20200617T122245\_033057\_03D449\_C3D9.zip

**The script at step-6 will run error if the master image is move as**

G:\SNAP2StaMPS\master\**20200617**\ S1A\_IW\_SLC\_\_1SDV\_20200617T122217\_20200617T122245\_033057\_03D449\_C3D9.zip

**Step-6**

G:\SNAP2StaMPS>python topsar\_step\_1\_splitting\_master\_multi\_IW.py -F G:\SNAP2StaMPS\project\_topsar.conf

After executing the above script, new folders and. dim images were created at the location G:\SNAP2StaMPS\MasterSplit.

Since, my area lies in sub-swath IW2 & IW3. The folders such as

G:\SNAP2StaMPS\MasterSplit\20200617\_IW2.data

G:\SNAP2StaMPS\MasterSplit\20200617\_IW3.data

And .dim file such as

G:\SNAP2StaMPS\MasterSplit\20180111\_IW3.dim

G:\SNAP2StaMPS\MasterSplit\20180111\_IW3.dim

The sub-swath depends on the AOI\_DEFINITION. So, Use the proper BBOX and WKT polygon information according to study area.

**Step-7**

G:\SNAP2StaMPS>python topsar\_step\_2\_splitting\_secondaries.py -F G:\SNAP2StaMPS\project\_topsar.conf

After executing the above script, new folders and. dim images were created at the location G:\SNAP2StaMPS\split

Since, my area lies in sub-swath IW2 & IW3. The folders such as

Make sure that similar folders are created for all 151 secondaries images

G:\SNAP2StaMPS\split\20180111\_IW2.data

G:\SNAP2StaMPS\split\20180111\_IW3.data

G:\SNAP2StaMPS\split\20180111\_IW2.dim

Make sure that similar. dim images are created for all 151 secondaries images

G:\SNAP2StaMPS\split\20180111\_IW3.dim

Should I first assemble my master images two sub-swath using ​topsar\_master\_assemble\_split\_applyorbit.xml and perform

topsar\_export\_mergeIW\_subset\_extDEM.xml for integrating external DEM

I couldn’t find appropriate python script for both operations.