

Chapter 2 Training: SAR Image Processing Routines—Examples

Scripts

This training is done through command line and GUIs, and does not require any additional scripts.

Data

There are five zipped folders that contain data for these exercises: Data_ch2_E2, Data_ch2_S1_1, Data_ch2_S1_2, Data_ch2_S1_3, and Data_ch2_S1_change. The data files included in these zipped folder are:

- E2_80464_STD_F163_dem.tif (Data_ch2_E2)
- E2_80464_STD_F163.zip (Data_ch2_E2)
- S1A_IW_GRDH_1SDV_20150429T001909_20150429T001934_005691_0074DC_B016.zip (Data_ch2_S1_1)
- S1A_IW_GRDH_1SDV_20160807T000141_20160807T000210_012487_013866_11BE.zip (Data_ch2_S1_1)
- S1A_IW_GRDH_1SDV_20160807T000210_20160807T000235_012487_013866_7D4F.zip (Data_ch2_S1_1)
- S1A_IW_GRDH_1SDV_20160819T000142_20160819T000211_012662_013E26_8995.zip (Data_ch2_S1_1)
- S1A_IW_GRDH_1SDV_20160819T000211_20160819T000236_012662_013E26_5A79.zip (Data_ch2_S1_2)
- S1A_IW_GRDH_1SSV_20150417T001852_20150417T001921_005516_0070C1_17AA.zip (Data_ch2_S1_2)
- S1A_IW_SLC__1SDV_20150429T001907_20150429T001935_005691_0074DC_7332.zip (Data_ch2_S1_3)
- S1A_IW_SLC__1SSV_20150417T001852_20150417T001922_005516_0070C1_460B.zip (Data_ch2_S1_3)
- 20160807.tif (Data_ch2_S1_change)
- 20160819.tif (Data_ch2_S1_change)

Data Credits:

Copernicus Sentinel Data [2015, 2016], processed by ESA; ERS-2, ESA [2010].

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A note on unzipping files: if you find you are on a Mac and have trouble unzipping the files manually (for example instead of unzipping it gives you a .zip.cpgz file), you will need to use the Terminal to unzip the file. Open up the terminal and run the following command:

```
unzip location/of/file/filename.zip
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Be sure to replace “location/of/file/filename.zip” with the actual file path of the zipped file.

This will unzip the file into your home directory, which you can then move to whichever location you prefer.

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Supplemental Materials

Additional materials are included in the SupplementaryMaterials.zip folder. These files are not necessary to complete the training, but provide information that may be helpful.

The supplemental materials in the zipped folder include:

- *HowToUseTheASF_HyP3AutomaticProcessingService.pdf*
- *Lecture1_GeneralConceptsandBenefitsofSAR.pdf*
- *Lecture2_GeneralConceptsofInterferometricSAR.pdf*
- *Lecture3_ConceptsAndBenefitsofPolarimetricSAR.pdf*