

View Seasat HDF5 Files in ASF MapReady

This data recipe is for users who wish to view Seasat HDF5 files.

In this document you will find

- A. Background
- B. Materials List
- C. Sample Granule
- D. Steps
 - Option 1 ASF View
 - Option 2 MapReady

A) Background

To distribute digitally processed 1978 Seasat SAR data in 2013, engineers used the most recent version of the <u>Hierarchical Data Format</u>, or HDF5 file format. These Seasat HDF5 files are viewable using the ASF MapReady image processing software. Each HDF5 file consists of a metadata group and a data group, which contain the SAR data as backscatter values in the HH layer, as well as latitude, longitude, and temporal data.

Seasat data had been archived on magnetic tapes, and images processed from the tapes were available only as optical images of film strips or scanned digital images. Neither the tapes nor the film allow the quantitative analysis possible with the new digital archive.

B) Materials

- Windows PC
- ASF MapReady ver. 3.1.24
- HDF5 format Seasat Granule or Sample Granule (Fig. 1)

C) Sample Granule

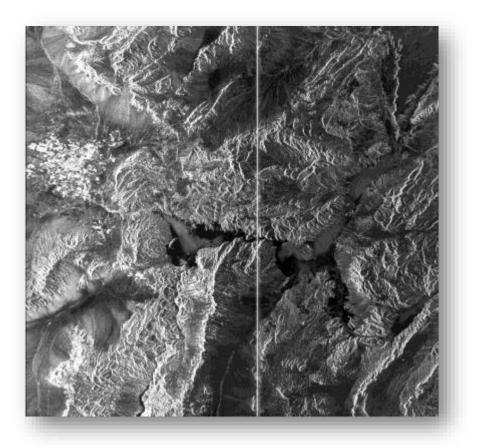


Figure 1. The sample granule shows Las Vegas in the upper left of a Seasat image of parts of Nevada and Arizona. The white vertical line is from a calibration pulse. Credit NASA 1978, processed by ASF DAAC 2013.

D) Steps

1) Download Materials

- a) Download ASF's MapReady ver. 3.1.24
- b) Install MapReady using the Installation Wizard
- c) Download an HDF5 formatted data granule from the Seasat collection using Vertex,
- or use the Sample Granule
- d) Create a working directory and extract the .zip file

20 May 2020 v.7 | 2

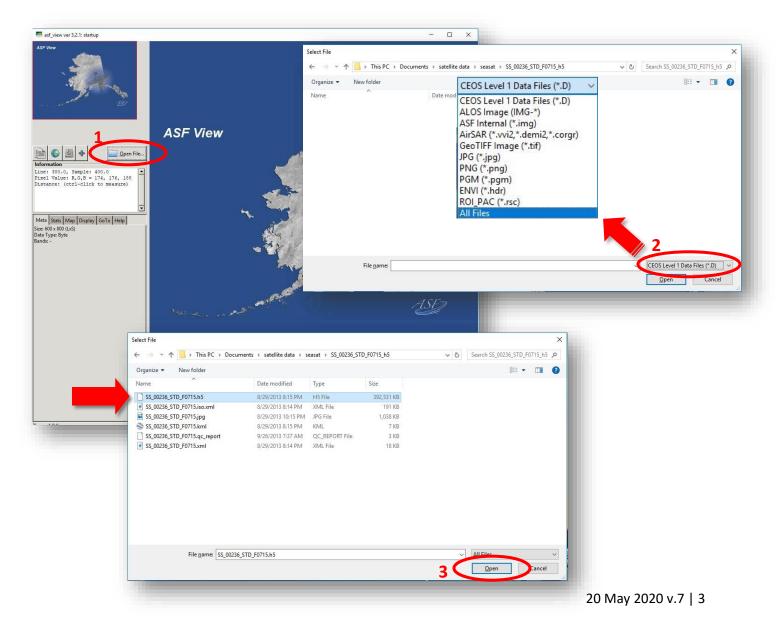
2) View Data – 2 Options

- a) Option 1: ASF View
 - i. Click on the Windows Start button



Windows 10

- ii. Open ASF View
- iii. Click on **Open File...** (1) and navigate to the folder that contains the Seasat file you downloaded
- iv. Click to expand the file type menu in the bottom right corner and select **All Files** (2)



UAF is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/nondiscrimination v. Then select the *.h5* file and click **Open** (3), in which the Seasat image and metadata will be displayed (*Fig. 4*)

b) Option 2: ASF MapReady

i. Open ASF MapReady

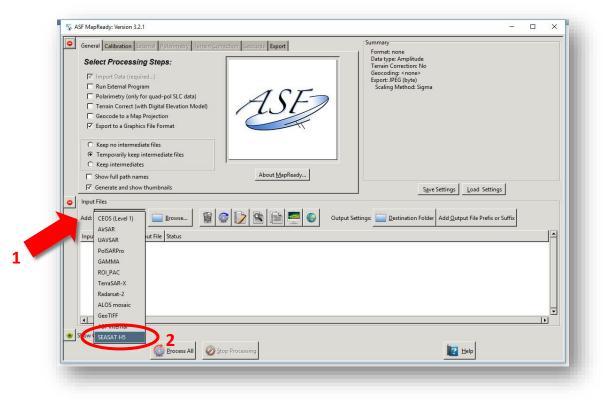


Figure 2.

- ii. In the *Input Files* section, click the button next to **Add**: (1) to expand the menu, then select **SEASAT H5** (2) (*Fig. 2*)
- iii. Click on the **Browse...** button (3) and navigate to the folder with the Seasat file you downloaded (*Fig. 3*)
- iv. Select the .h5 file and click **Open** (4) (Fig. 3)

elect File			×
← → · · ↑ 📙 → This PC → D	ocuments > satellite data > seasat > SS_00236_STD_F0715_h5	✓ ⊘ Search SS_00236_STD_F0715_h5	م ا
Organize 👻 New folder		III 🔻 🔟	0
Name	Date modified Type Size		
SS_00236_STD_F0715.h5	8/29/2013 8:15 PM H5 File 392,531 KB		
			X X
File <u>n</u> ame: SS <u>.0</u>	0236_STD_F0715.h5 C Keep no intermediate files Temporarily keep intermediate files C Keep intermediates Show full path names	SEASAT HDF5 Files (".h5) 4 Open Cancel 3 About MapReady	
	Generate and show thumbnails		Save Settings Load Settings
	Add: SEASAT H5	Output Settings:	tion Folder Add <u>O</u> utput File Prefix or Suffix
	Input File Bands Output File	Status	
	SS_00236_STD_F0715.h5 - SS_00236_STD_F0		
	4		
	Show Completed Files	Processing	Help
	Figure 3.		
	easat file will be displayed ir on the <i>viewer</i> button in the to		

vii. The image will open in ASF View, a viewer application which can also display CEOS format data and many other image processing formats (*Fig. 4*)

Hint: Press the **<End>** key on your keyboard to zoom out and view the entire image

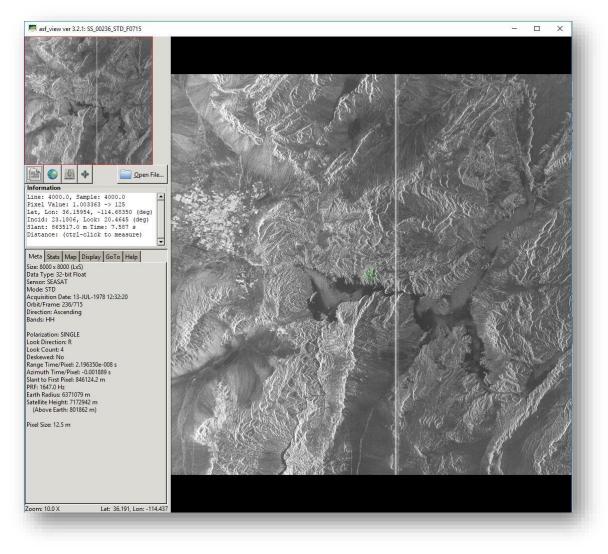


Figure 4. Viewing the sample granule in ASF View, which is part of the MapReady tool suite

Note: ASF View can be opened directly by navigating to the

C:\Program Files (x86)\ASF_Tools\MapReady 3.2

folder and double-clicking on *asf_view.exe*

20 May 2020 v.7 | 6