Sen2Cor: Sentinel 2 Level 2A Atmospheric Correction Processor, Version 2.0.X, 28.09.2015

This is a short instruction how to setup the application. Further details are given in the Software User Manual.

This Application will support the three following Operating Systems:

Linux, Mac OSX and Windows (64 bit is mandatory).

The Sen2Cor application works under the umbrella of the **Anaconda** (Python 2.7) distribution package. The installation of the whole system is performed in two steps:

1. Anaconda Installation:

Download the recent version of the Anaconda python distribution for your operating system from: http://continuum.io/downloads and install it according to the default recommendations of the anaconda installer. It is strongly recommended to choose a local installation, except if you have the full administrator rights on your machine.

At the end of the installation, open a command line window and check the proper installation by typing "conda." It should display:

C:\Users\user>conda

usage: conda-script.py [-h] [-V] [--debug] command ...

conda is a tool for managing and deploying applications, environments and packages.

For subsequent installations of the processor you do not have to reproduce step 1.

2. SEN2COR Installation:

2.2 For Windows:

Download the archive http://s2tbx.telespazio-vega.de/sen2cor/sen2cor-2.0.4.zip and extract it with an unzip utility.

Open the folder sen2cor-2.0.4, type "python setup.py install" and follow the instructions. The setup will install the Sen2Cor application and all its dependencies under the Anaconda python distribution.

At the end of the installation you can select your home directory for the Sen2Cor configuration data. This is by default: "C:\Users\<your user account>\documents\sen2cor"

The setup script generates the following three environment variables:

SEN2COR_HOME : this is the directory where the user configuration data are stored (see above). This can be changed later by you in setting the environment variable to a different location.

SEN2COR_BIN : this is a pointer to the installation of the Sen2Cor package. This is located in the "site-packages" folder of Anaconda. **Do not change this.**

GDAL_DATA : this is a pointer to the directory where the GDAL coordinate system info is stored. This is located in the "site-packages\osgeo\data\gdal" folder of Anaconda. **Do not change this.**

Open a new command line window, to be secure that your new environment settings are updated. From this new command line window, perform the following test:

Call the processor via "L2A_Process --help". This will give you a list of possible further options.

If no errors are displayed, your installation was successful.

2.2 For Linux and Mac:

Download the archive http://s2tbx.telespazio-vega.de/sen2cor/sen2cor-2.0.4.tar.gz, and extract it with "tar –xvzf sen2cor-2.0.4.tar.gz"

Change the directory to the new created folder sen2cor-2.0.4, type "python setup.py install" and follow the instructions. The setup will install the Sen2Cor application and all its dependencies under the anaconda python distribution.

At the end of the installation you can select your home directory for the Sen2Cor configuration data. By default this is the directory where your $HOME environment variable points to.

The setup script generates a script called "L2A_Bashrc" and places it into your home directory. It contains the following three environment variables:

SEN2COR_HOME : this is the directory where the user configuration data are stored (see above). This can be changed later by you in setting the environment variable to a different location.

SEN2COR_BIN : this is a pointer to the installation of the Sen2Cor package. This is located in the "site-packages" folder of Anaconda. **Do not change this.**

GDAL_DATA : this is a pointer to the directory where the GDAL coordinate system info is stored. This is located in the "site-packages/osgeo/data/gdal" folder of Anaconda. **Do not change this.**

These settings are necessary for the execution of the processor. There are two possibilities how you can finish the setup:

1. You can call this script automatically via your .bashrc or .profile script (OS dependent). For this purpose, add the line "source <location of your script>/L2A_Bashrc" to your script.
2. You can call this script also manually via "source L2A_Bashrc" every time before starting the processor. However this is not recommended, as it may be forgotten.

Finally, to check the installation after sourcing the L2A_Bashrc, call the processor via "L2A_Process --help". This will give you a list of possible further options how to operate.

A basic L1C example test data set for further testing of the processor is provided for download at:

First satellite data for working with the processor can be downloaded from:

https://scihub.esa.int/

For further details how to operate the processor, read the Software User Manual which is located in the same folder as this short installation procedure.