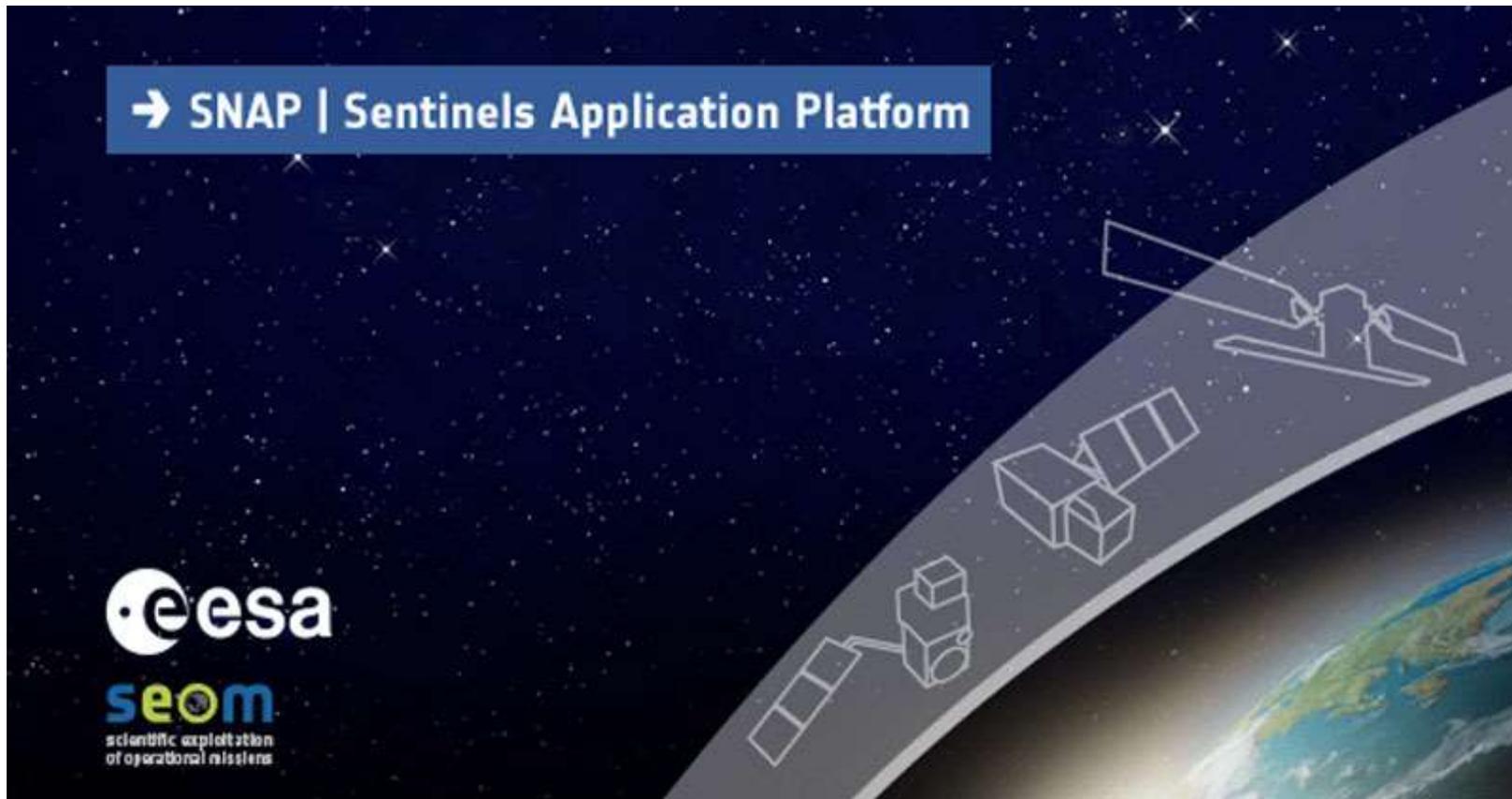


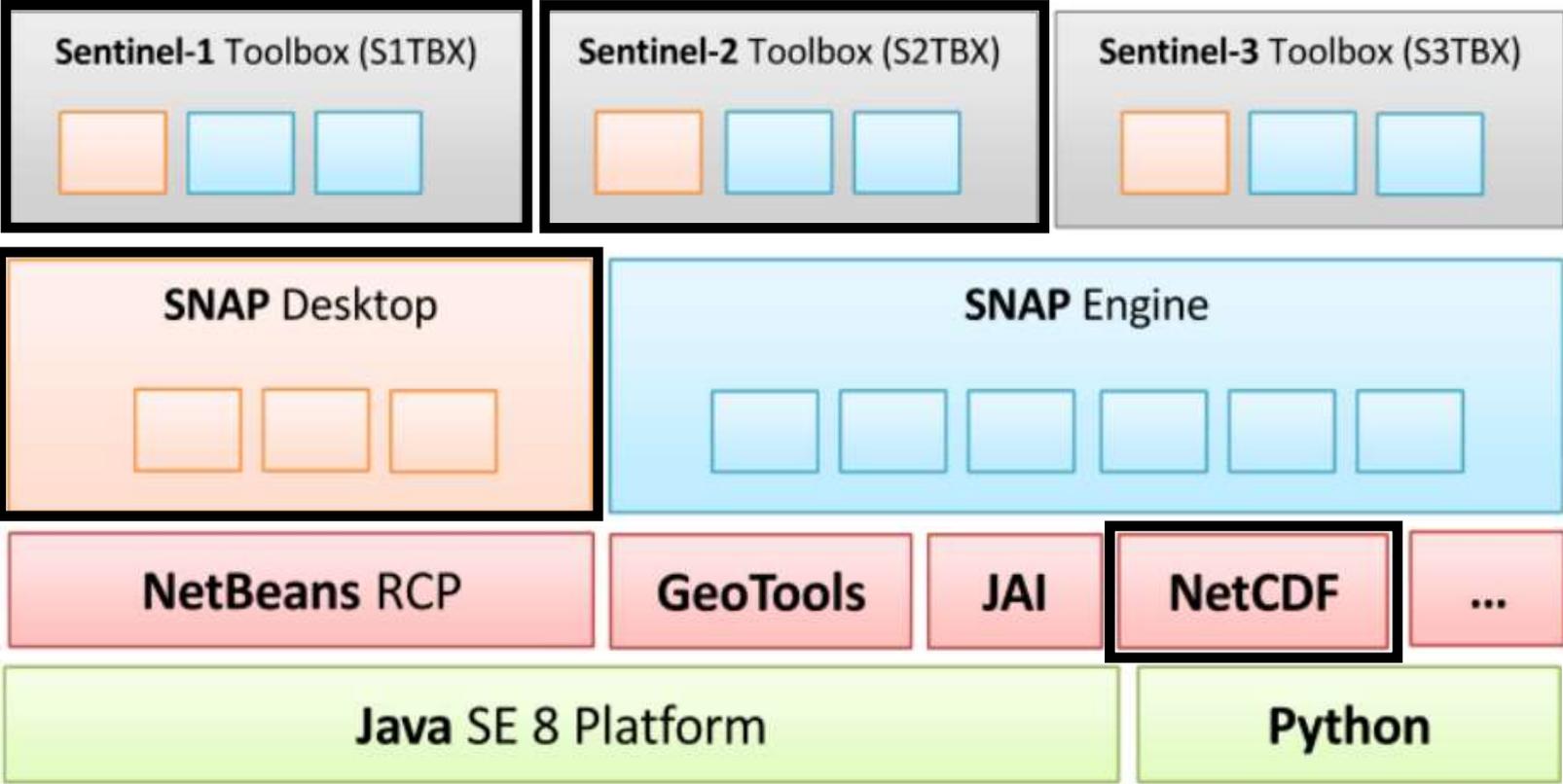
# Introduction to SNAP



# SNAP - What is?

- An **open-source**, flexible and re-usable scientific Toolbox
- Based on the strong software heritage of BEAM & NEST
- With specific Sentinel data **exploitation tools**
- **Multi-mission:**
  - Sentinel-1/2/3
  - Envisat, MODIS, SeaWIFS, ...
  - AVHRR, SMOS, Chris-PROBA, SPOT VGT, ...
  - LANDSAT, RapidEye, SPOT
  - Generic formats : NetCDF, GeoTIFF, HDF...
- **Modular** and **extensible**

# SNAP - Architecture



# SNAP - Core features

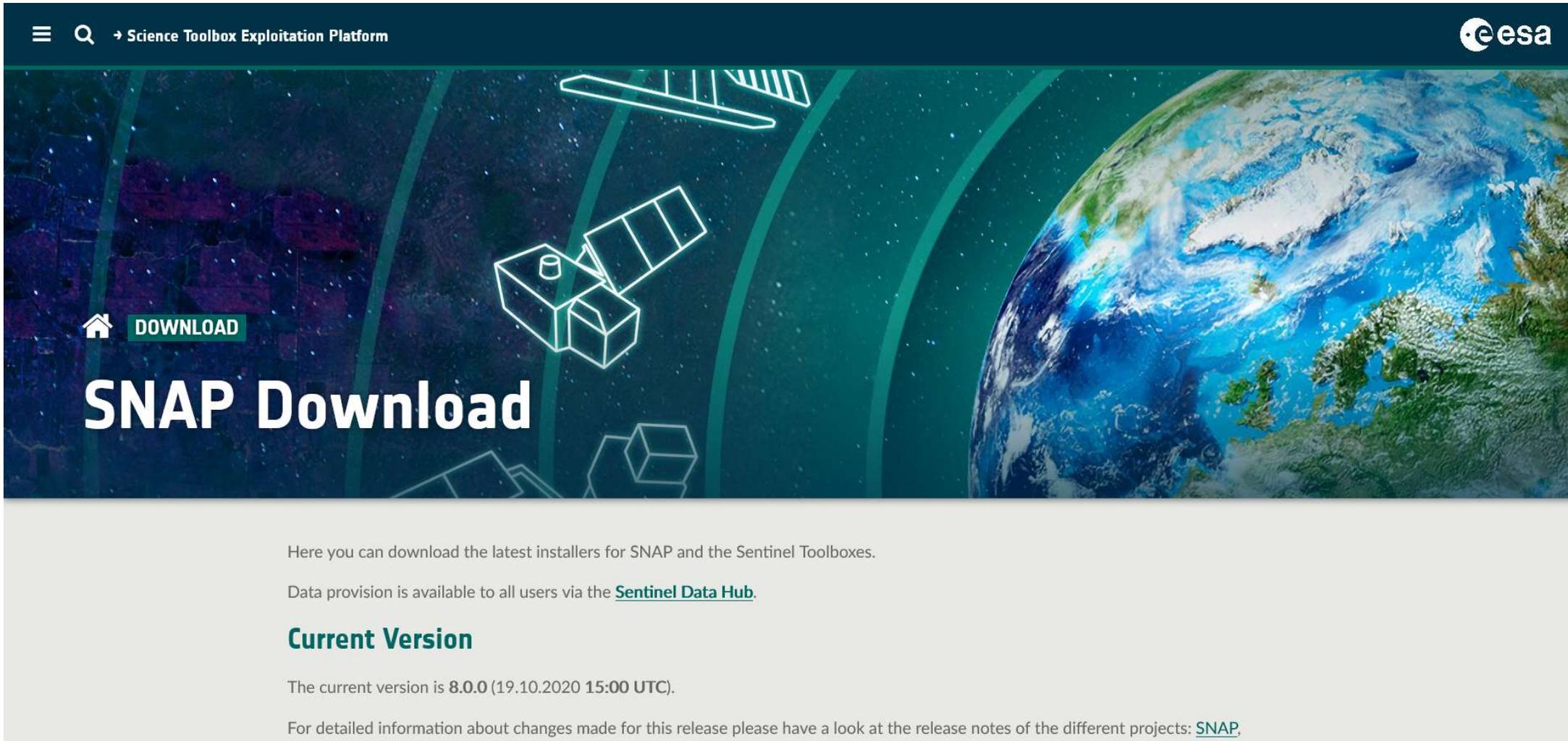
- Common architecture and **data model** for all Toolboxes.
- Very fast **image display and navigation** even of giga-pixel images.
- Graph Processing Framework (**GPF**).
- Advanced **layer management** allows adding and manipulation of new overlays such as images of other bands, images from WMS servers or ESRI shapefiles.
- Flexible **band arithmetic** using arbitrary mathematical expressions.
- Accurate **reprojection** and **ortho-rectification** to common map projections • Geo-coding and rectification using ground control points.
- Automatic SRTM **DEM** download and tile selection.
- **Multi-reading** and **Multi-core** processor support.

# SNAP - Extensibility

- Java as the native language. A Java API to
  - Develop your own application (cli or gui)
  - Extend the existing application by adding modules.
- Python as a main extension language.
  - SNAPPY: The Python API mimics the Java API
  - Write your own Python scripts leveraging on SNAP
  - Extend SNAP by developing modules in Python (numpy, scipy, ...).  
Useful for bridging your C/C++ library.
- Standalone Tools Adapter module
  - Use your own cli tools as if they were a native SNAP module
  - GDAL, Orfeo Toolbox, Sen2Cor, Sen2Three, ...

# SNAP - Download

<https://step.esa.int/main/download/snap-download/>



The screenshot shows the SNAP Download page on the Science Toolbox Exploitation Platform. The header includes a menu icon, a search icon, and the text "Science Toolbox Exploitation Platform" on the left, and the ESA logo on the right. The main content area features a background image of Earth from space with satellite icons. A "DOWNLOAD" button with a home icon is visible. The main heading is "SNAP Download". Below this, there is a paragraph stating: "Here you can download the latest installers for SNAP and the Sentinel Toolboxes. Data provision is available to all users via the [Sentinel Data Hub](#)." This is followed by a section titled "Current Version" with the text: "The current version is 8.0.0 (19.10.2020 15:00 UTC). For detailed information about changes made for this release please have a look at the release notes of the different projects: [SNAP](#),"

Science Toolbox Exploitation Platform

esa

DOWNLOAD

## SNAP Download

Here you can download the latest installers for SNAP and the Sentinel Toolboxes.

Data provision is available to all users via the [Sentinel Data Hub](#).

### Current Version

The current version is 8.0.0 (19.10.2020 15:00 UTC).

For detailed information about changes made for this release please have a look at the release notes of the different projects: [SNAP](#),

# SNAP - Download

later downloaded and installed using the plugin manager. Please note that SNAP and the individual Sentinel Toolboxes also support numerous sensors other than Sentinel.

Select your operative system

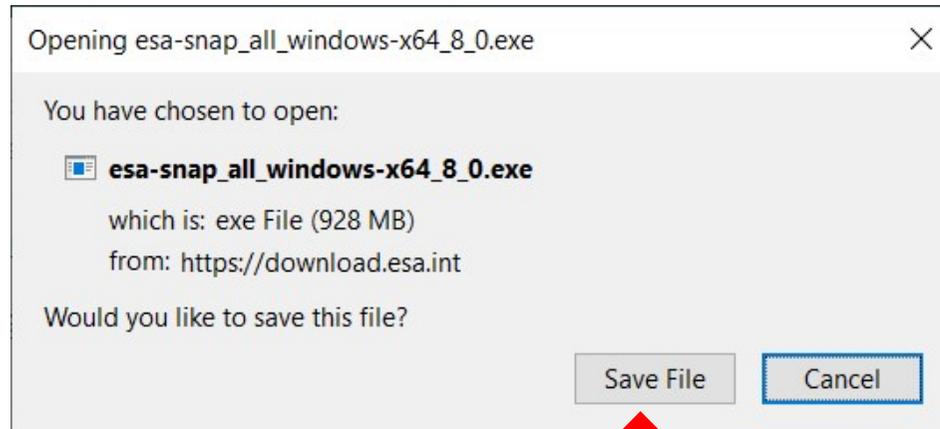
	Windows 64-Bit	Windows 32-Bit	Mac OS X	Unix 64-bit
Sentinel Toolboxes	These installers contain the <b>Sentinel-1, Sentinel-2, Sentinel-3</b> Toolboxes, download size is close to 900MB.			
	<a href="#">Main Download</a>	<a href="#">Main Download</a>	<a href="#">Main Download</a>	<a href="#">Main Download</a>
	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>
SMOS Toolbox	These installers contain only the <b>SMOS Toolbox</b> , download size is close to 500MB. Download also the <a href="#">Format Conversion Tool</a> (Earth Explorer to NetCDF) and the <a href="#">user manual</a> .			
	<a href="#">Main Download</a>	<a href="#">Main Download</a>	<a href="#">Main Download</a>	<a href="#">Main Download</a>
	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>
All Toolboxes	These installers contain the <b>Sentinel-1, Sentinel-2, Sentinel-3</b> Toolboxes, <b>SMOS</b> and <b>PROBA-V</b> Toolbox, download size is close to 1GB.			
	<a href="#">Main Download</a>	<a href="#">Main Download</a>	<a href="#">Main Download</a>	<a href="#">Main Download</a>
	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>	<a href="#">Mirror Download</a>

Select SNAP with all toolboxes



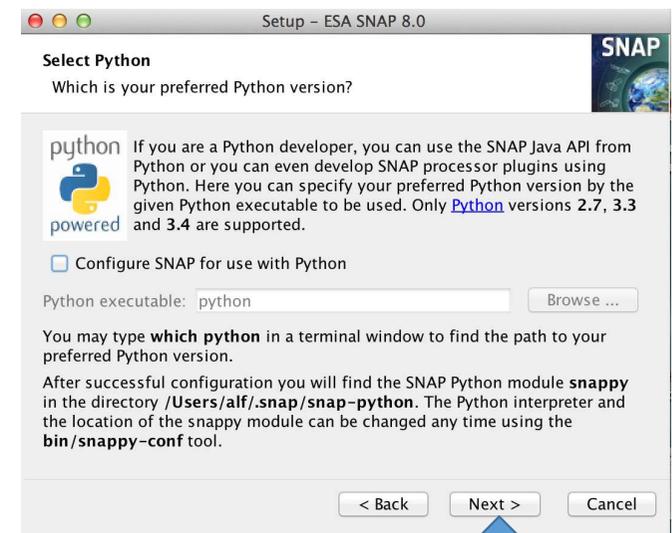
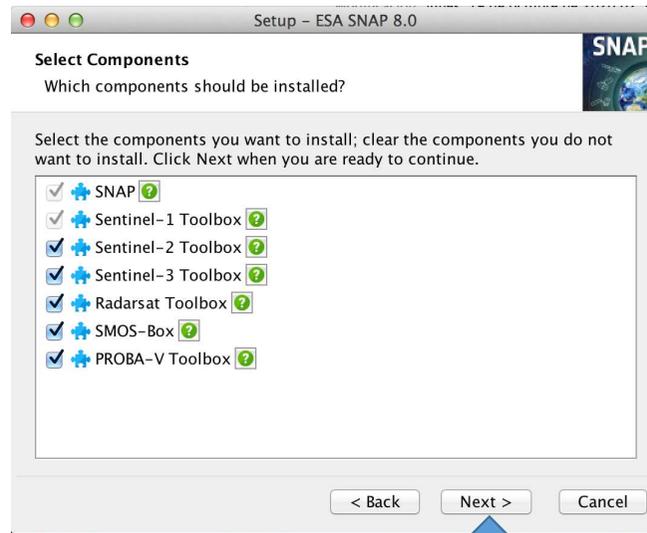
Thanks to the open-source license, we create the SNAP installers with the [multi-platform installer builder install4j](#) from ej-Technologies.

# SNAP - Download

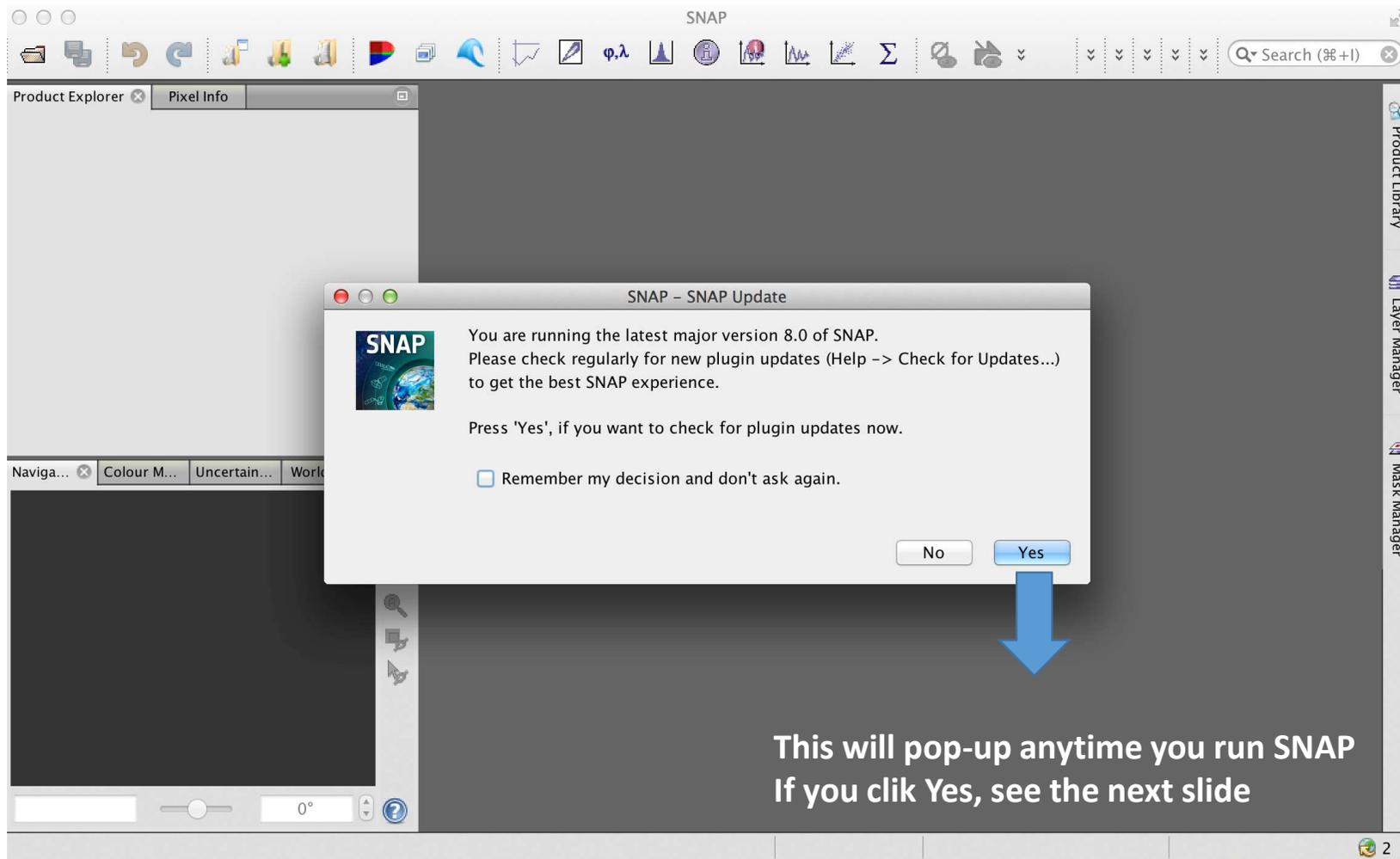


**Save File and then double click to install**  
**Have a break untill SNAP ends the installation**

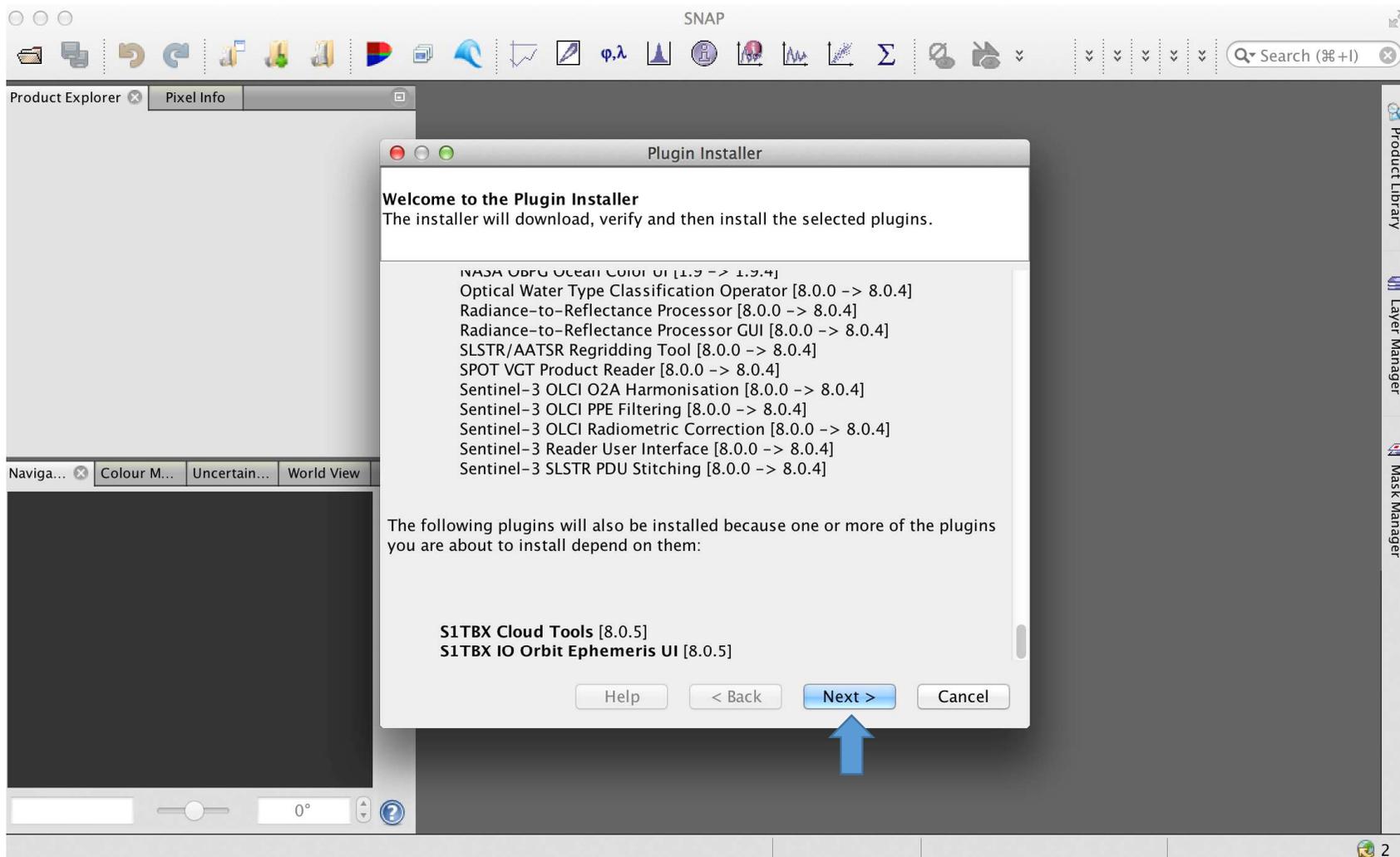
# SNAP - Download



# SNAP - Download



# SNAP - Download



# SNAP - Download



## netBeans Platform

NetBeans IDE and NetBeans Platform are based on software from [netbeans.org](http://netbeans.org), developed under Sun Public License (SPL). For more information visit [www.netbeans.org](http://www.netbeans.org)

Update is in progress.

Please wait ...

Unpacking `org-esa-snap-snap-remote-products-repository.nbm`



http://forum.step.esa.int

step forum

FAQ GDPR Sign Up Log In Search Menu

all categories Categories Latest Top

Category	Topics	Latest
<b>s1tbx</b>  The S1 Toolbox category regroups all threads about the Sentinel-1 Toolbox, as SAR readers or processors.  ■ Problem Reports ■ Interferometry ■ Polarimetry ■ STaMPS ■ PyRate ■ snaphu	5.0k	 Welcome to the Sentinel Toolbox Exploitation Platform Forum ■ snap 10 Jul '17
<b>s2tbx</b>  The S2 Toolbox category regroups all threads about the Sentinel-2 Toolbox as Sentinel-2 product readers and product manipulation, Sentinel-2 processors as L2A processor for atmospheric correction, L3 processor for temporal synthesis, etc.	2.3k	 Python executable ■ snap 2 36m
		 Grd radiometric terrain flattening error ■ Problem Reports 0 39m
		 Cannot construct DataBuffer - RAM usage doesn't go down after error ■ Problem Reports 2 1h
		 Importing snappy fails ■ python 6 2h
		 Radiometric Calibration and Geometric correction ■ s1tbx 0 3h