

SAMIEdit Version 1.3.0 - Release Notes

1. NEW RELEASE DESCRIPTION

1.1 Software and Hardware Requirements

The SAMIEdit application is available for the following computer platforms and operative systems:

- Windows 7/8/10 (64-bit application)
- Mac OS X Intel 10.11 or above (64-bit application)
- iPad iOS 10 or later

The SAMIEdit software requires:

- 1 GB of hard disk space
- Graphic card
 - If the platform only has an integrated graphic card (e.g. Intel® HD Graphics), the display of 3D scenes may not be completely smooth. For some type of older cards, it has been observed flickering of the satellite 3D model.
 - Tested successfully with integrated graphic cards such as Intel® HD Graphics P630
 - If the platform has both a dedicated and an integrated graphic card, make sure you run the executable with the dedicated graphic card.
 - In Windows, this can be ensured by right-click on executable and selecting 'Run with graphics processor' → High-performance NVIDIA processor.
Another option is to right-click on the executable and select 'Change default graphics processor...'. Then in 'Program Settings'
 1. Select a program to customize: 'SAMIEdit.exe'
 2. Select the preferred graphics processor for this program: e.g 'High-performance NVIDIA processor'
 - In Mac OSX, the graphic card selection is handled transparently to the user. If you want to ensure the high performance graphic card is used at all times, then in System Preferences → Energy Saver, deselect the 'Automatic graphics switching' checkbox

1.2 Third-Party Libraries

SAMIEdit is based on Unity rendering engine v2018.1.6f1. The application also makes use of the EO CFI SW libraries version 4.14 to drive the satellite(s) orbital parameters, instruments swath behaviour and Sun/Moon objects.

1.3 Installation Packages

The SAMIEdit distribution consists of one archive for each supported computer platform:

	Package
Windows 64-bit	SAMIEdit_1_3_0_0_Win_x64.zip
Mac OS X 64-bit	SAMIEdit_1_3_0_0_OSX_x86_64.zip
iPad	Download from the App Store – v1.3 <i>not yet available</i>

1.4 Installation Hints

In order to install SAMIEdit, the distribution package needs to be unzipped into the selected installation directory. See the SAMIEdit Quick Start guide for further details and note *What_to_do_if_SAMIEdit_not_does_not_start_in_MacOSX_Sierra_Mohave.pdf* for issues regarding Mac OS X installation.

2. NEW FUNCTIONALITIES

This release provides the following new functionalities with respect to v1.2.0:

- **SAMI-AN-017:** Swath template is internally regenerated whenever an orbit change in OSF takes place
- **SAMI-AN-022:** Enable editing the duration field of a block in the Timeline Activity Window
- **SAMI-AN-027:** Switch between Manual and Timeline camera mode is now controlled through a new application menu entry Cameras→Set Camera mode. Note: *The checkbox next to the Cameras timeline has been removed*
- **SAMI-AN-029:** It is possible to set (through config.xml file) the value of the minimum elevation angle for the ground stations mask
- **SAMI-AN-030:** When selecting orbit/attitude file, if file validity does not include the project time window, a message window has been added prompting the user to accept to change accordingly the project time window (to avoid going back to set manually time window and select orbit file again)
- **SAMI-AN-042:** Integration of EarthCARE 3D model and mission files
- **SAMI-AN-046:** EOCCI libraries updated to the version 4.14
- **SAMI-AN-048:** The menu item "Toggle Time Mode" renamed as "Set Time Mode" with 2 sub-menu options: Simulation or Real-Time
- **SAMI-AN-053:** In 3D satellite camera view, the satellite info overlay of the satellite being displayed is highlighted (e.g. to distinguish satellites of the same constellation)
- **SAMI-AN-065:** Aeolus 3D model: change texture of one side of service module (white instead of gold) and radiator shape
- **SAMI-AN-074:** Aeolus 3D model: change textures (white coating) and solar array deployment animation

3. CLOSED SPRS

The following SPRs have been closed:

- **SAMI-AN-021:** Switching to Real-Time mode does nothing if current time is not contained in the Project Time Window → Message window has been added prompting the user to accept to change the project time window such that current real-time is contained
- **SAMI-AN-038:** The Earth appears distorted in Mac OS X if in full screen mode, regardless of the screen resolution selected.
- **SAMI-AN-039:** Rendering of the ESA font (but also of the GUI symbols) on Retina display looks visibly aliased

- **SAMI-AN-052:** The application crashes when loading a project where the orbit file is not found and a swath block is defined. If swath is not defined, the application reports the EO CFI error message.
- **SAMI-AN-055:** Labels and overlay text in white color are not readable when overflying the ice caps (e.g. with default Earth texture)→ Use light grey instead (e.g. C0C0C0)
- **SAMI-AN-056:** Export videos in High Quality in Mac OS X sometimes does not produce any output
- **SAMI-AN-057:** Shadow casting (satellite-relative 3D camera) should not be applied during eclipse

4. ADDITIONAL COMMENTS AND KNOWN PROBLEMS

4.1 Mission Support

The SAMIEdit distribution package already includes 3D models and mission configuration files for the following supported ESA missions:

- Aeolus
- Cryosat-2
- EarthCARE
- Dummy Satellite
- Sentinel-1A/B
- Sentinel-2A/B
- Sentinel-3A/B
- Sentinel-5P
- SMOS
- SWARM A/B/C

Example projects are provided for all supported missions.

Latest versions of Orbit Scenario Files (OSF) or Predicted Orbit Files (POF) and Swath Definition Files (SDF) for the supported missions can be found in the EOP System Support web server under the link:

http://eop-cfi.esa.int/Repo/PUBLIC/DOCUMENTATION/MISSION_DATA/

4.2 Known Issues

The current SAMIEdit release has the following known problems:

- **SAMI-AN-060:** Error message when launching SAMIEdit on OSX Sierra (v10.12.X), High Sierra (v10.13.X) or Mohave (v10.14.X).
Proposed workaround: See document *What_to_do_if_SAMIEdit_not_does_not_start_in_MacOSX_Sierra_Mohave.pdf* for indications about how to circumvent this problem.
- **SAMI-AN-088:** Number of orbits in Swath History Track and Orbit Track menu are not persistent when set to other than default.
Proposed workaround: Edit Project.xml file and set the value of the attribute NbOrbits="1" to the desired number (maximum: 20) in fields Satellite→ Properties → OrbitTrail and Satellite→ Swaths → Swath → History.

4.3 Hints and Tips

Please check the SAMIEdit Quick Start guide for further information.



Ref.: RN-SAMIEdit-1.3.0
Issue: 1.1
Date: 20/12/2018
Page: 4 / 4

5. REPORTING PROBLEMS

For any problems or questions please send an e-mail to the SAMIEdit helpdesk:
sami@eopp.esa.int