

A satellite image of Europe at night, showing city lights and coastlines. A large green rectangular box is overlaid on the right side of the image, containing the title and subtitle.

PROBA-V QWG#11

Atmospheric Correction - Implementation

Webex 25/06/2020



PV Atm. Correction - Implementation Status

- Started from C3S SMAC AC prototype software
 - Feasibility assessment on PROBA-V operational processing machines:
 - Installation of AC software: done
 - Memory consumption of AC software is very high:
 - Per AC software instance: up to 10GB RAM for a tile of 5000x5000 pxl
- ➔ AC software is potential bottleneck as each PROBAV processing machine only has 16GB RAM



PV Atm. Correction - Implementation Status

- Feasibility assessment on PROBA-V operational processing machines (cont'd):
 - VITO (Iskander) provided a “memory” patch:
 - Memory consumption reduced with factor 6 (~1.8GB for 5000x5000 tile)
 - Negative side effect: processing time x 2 !!
 - Compared to current PROBA-V AC software:
 - “New” AC software is 2x slower
 - Impact on overall processing Level2B processing time: +10%
 - HYGEOS to redeliver an updated version of the AC software (containing “memory” patch)



PV Atm. Correction - Implementation Status

- Work in progress:
 - Downloading of CAMS global re-analysis data
 - Update AC software:
 - (a) Support reading/writing HDF5 files (internal PROBA-V file format)
 - (b) Reading/writing status mask
 - HYGEOS to deliver a reference test dataset
- Update workflow for generation of Level2B products



PV Atm. Correction - Implementation Status

- Expected timeline:
 - Implementation:
 - Validation:
 - Ready for operations: