



C R E A S O

Persistent Scatterers for SARscape

This document is intended to present new features and improvements available in the Persistent Scatterers Module of **SARscape® 4.1**. For those who are not familiar with SARscape®, please refer to the **Technical Description** document available at: www.creaso.com/sarscape.htm

Following Sensors are supported

- ERS 1/2
- ENVISAT ASAR
- TerraSAR-X*
- Cosmo SkyMed*
- ALOS Palsar*
- RADARSAT -2*

*processing parameter setting optimisation ongoing

Displacement History

In addition to the "Displacement mean velocity" calculated on the entire temporal series, now it will be possible to generate also the "Displacement history", which consists of the Persistent Scatterers displacement (in millimetres) measured for each acquisition date with respect to the image used as reference.

Algorithms Improvements

The Persistent Scatterers measurements are more accurate due to the following algorithm improvements:

- Better removal of atmospheric fluctuations
- Possibility to input Ground Control Points (e. g. GPS or other ground measurements), which are used to correct the orbital parameters and consequently optimize the displacement trend

Enhancements of the workflow

- Possibility to choose the acquisition date to use as reference for the processing.
- Preliminary precision information is generated prior the processing execution. This enables to properly define the best processing configuration (i. e. Reference acquisition and Input file list).
- A precision estimate, for each Persistent Scatterer, of the mean displacement velocity and the height (elevation asl) is provided at the end of the process.
- Dedicated plot/graphics can be generated to visualise the Persistent Scatterers processing results.