

EGU22-7215

<https://doi.org/10.5194/egusphere-egu22-7215>

EGU General Assembly 2022

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## Scalable Change Detection in Large Sentinel-2 data with SEVA

**Mike Sips** and Daniel Eggert

German Research Center for GeoSciences GFZ, Section 1.4: Remote Sensing and Geoinformatics, Potsdam, Germany  
(sips@gfz-potsdam.de)

We present SEVA, a scalable exploration tool that supports users in detecting land-use changes in large optical remote sensing data. SEVA addresses three current scientific and technological challenges of detecting changes in large data sets: a) the automated extraction of relevant changes from many high-resolution optical satellite observations, b) the exploration of spatial and temporal dynamics of the extracted changes, c) interpretation of the extracted changes. To address these challenges, we developed a distributed change detection pipeline. The change detection pipeline consists of a data browser, extraction, error analysis, and interactive exploration component. The data browser supports users to assess the spatial and temporal distribution of available Sentinel-2 images for a region of interest. The extraction component extracts changes from Sentinel-2 images using the post-classification change detection (PCCD) method. The error assessment component supports users in interpreting the relevance of extracted changes with global and local error metrics. The interactive exploration component supports users in investigating the spatial and temporal dynamics of extracted changes. SEVA supports users through interactive visualization in all components of the change detection pipeline.