

## ***Eagle Eye TSP porting to HWIL configuration***

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The Eagle Eye is ESA's virtual space mission for an earth observation satellite in low earth orbit, including a single imaging payload.

The goal is to allow the assessment of a slimmed down approach to satellite avionics in a controlled software test environment.

In this activity the Time and Space Partitioning version of the satellite Central Software (CSW) has been upgraded to run on real hardware in Real-time Bench (RTB) configuration, as opposed to running on simulated hardware (TSIM) in the Software Validation Facility (SVF).

The software has been ported to run on both single core (GR-RASTA-105) and multicore (NGMP) hardware platforms.

The presentation examines the encountered issues and lessons learned performing the activity with resulting recommendations. The results of the activity are provided along with an assessment on the suitability of TSP on multicore in satellite on-board software.