

## **Development of Electronic Data Sheets for Model-Based Systems Engineering**

Unlocking supply chain knowledge that is embedded within unstructured documents, like traditional PDF data sheets, Interface Control Documents and technical manuals, is key to enabling adoption of Model-Based Systems Engineering (MSBE) across the space mission lifecycle.

Satsearch, an incubatee at ESA BIC Noordwijk in the Netherlands, is developing a lightweight, machine- and human-readable, JSON-based, Electronic Data Sheet (EDS) format to capture key static and dynamic model characteristics and interfaces at equipment level. The satsearch database currently contains over 5000 space products, with over 150 having been translated to EDS format. These EDS are served through the satsearch API, enabling direct integration with systems engineering software tools. The satsearch team has built a number of integrations with partners, enabling "single click" import of equipment into design tools. The satsearch API is also being employed in a ESA NPI project to develop a Design Engineering Assistant for Concurrent Engineering.

This talk will summarize the work that is being done by satsearch, in conjunction with unit suppliers and integration partners, to facilitate the adoption of Integrated Mission Design: an MBSE approach based on direct integration of supply chain knowledge in the systems engineering process. The presentation will also highlight the efforts being undertaken to harmonize this approach with EDS development within the SAVOIR initiative.