

SAVOIR Electronic Data Sheet Definition: Overview and Current Status

The goal of Electronic Data Sheets (EDS) is to provide a machine-understandable mechanism for describing interfaces of avionics units onboard spacecraft. EDS of an avionics unit intends to supplement and gradually replace its traditional PDF-based Interface Control Documents (ICDs) which today accompany each device and are necessary to determine the device operation and interface.

“SAVOIR EDS Definition” is an ESA activity with SciSys, Airbus DS, OHB System and Thales Alenia Space. The activity addresses the definition of EDS, but also the question of how to address its implementation and acceptability in industrial processes. The activity extends the initial scope to functional and data handling with electrical aspects (i.e. TM/TC ICD, electrical ICD), with the view gradually cover also thermal and mechanical domains.

The objectives of the activity are as follows: 1) Specification of user requirements and associated industrial processes. 2) Definition the SAVOIR EDS data model (i.e. the “what”) and corresponding exchange format. 3) Assessment of the existing XML based exchange format developed in CCSDS. 4) Development of a common tool set. 5) Development of multiple proof-of-the-concept scenarios involving different usage of EDS and various types of units (sensors/actuators, MMFU, RTU, etc.). 6) Proposing a roadmap for EDS towards its adoption by European industry, including recommendations for further EDS standardisation (e.g. in SAVOIR, CCSDS or ECSS).

The presentation will provide an overview and the status of the activity.