## EDS Parser used for generation of on-board software

The MA61C is an adapter that allows to command and monitor satellite digital units without driver installation or user configuration (plug and play concept). This concept relies on a database to perform the identification and installation, by matching incoming data to packet definitions. After the process, the driver enables commanding and monitoring, through a generic list of commands and telemetry.

SPiN together with Telespazio Vega Deutschland has been working to develop a parser program to extract data from an Electronic Data Sheet (EDS) and parse it to the MA61C API for installation in the onboard database. The parser is able to read EDS and extract the required information into a packet that will be sent through the MA61C API from a computer to the onboard database of the MA61C.

SPiN and Telespazio Vega Deutschland will work with suppliers of subsystems from both the new space and traditional space industries to convert their existing ICDs to EDS format which can later be used into the in-house developed parser. This has the advantage of establishing an EDS library which will be maintained and later on distributed back to the suppliers to reuse instead of ICD, for any updates they wish to feedback back to SPiN and Telespazio Vega Deutschland.

The parser has also an advantage that it could facilitate the use of EDS in other Telespazio Vega Deutschland products such as simulators, mission planning systems, mission control systems and automation. These products are commonly based on satellite subsystem models, satellite databases and data interfaces. Those could be extracted from EDS through the parser at the initial stage where the products do not yet support EDS, and gradually changed to use EDS as a baseline.

The presentation describes the parser development process, the EDS proposed life-cycle and the transformation of an EDS to the on-board database through the parser.