

An Automated Approach to Consolidate Galileo System Availability

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Abstract : Europe's Global Navigation Satellite System, Galileo, provides worldwide positioning and navigation services. The satellites in space are only one part of the Galileo system. An extensive ground infrastructure is essential to oversee the satellites and ensure accurate navigation signals. High reliability and availability of the entire Galileo system are crucial to continuously provide positioning information of high quality to users. Outages are tracked, and operational availability is regularly assessed. A highly flexible and adaptive tool has been developed to automate the Galileo system availability analysis. Not only does it enable a quick availability consolidation, but it also provides first steps towards improving the data quality of maintenance tickets used for the analysis. This includes data import and data preparation, with a focus on processing strings used for classification and identifying faulty data. Furthermore, the tool allows to handle a low amount of data, which is a major constraint when the aim is to provide accurate statistics.

Keywords : availability, data quality, system performance, Galileo, aerospace

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