

MATLAB ATE

SIMULATION AND MODELLING

SATELLITE COMMUNICATIONS ENGINEERING

MATLAB AUTOMATED TEST ENVIRONMENT DEVELOPMENT

Teledyne e2v, a global leader in specialised components and systems for healthcare, science, space, transportation, defence and industrial markets, had a need to develop the analysis software suite to be used during the production testing phase of space image devices. Such devices need to be fully tested to demonstrate compliance with ESA performance specification to achieve their mission as part of the satellite instrument. The analysis software is used to determine performance characteristics of the devices under different conditions which will enable engineers to select 'flight models' from the tested devices.

Telespazio UK, through its recent acquisition of e2E, deployed and experienced engineer into the clients software team to take responsibility of the analysis software suite for space image sensors. Two final builds of the automated software tool were delivered for two separate projects, as well as informal deliveries to support early engineering analysis.

The following activities were delivered within the

project:

- › Software design, development and testing
- › Design performance requirements analysis to scope the software functionalities
- › Communications and presentations to the project lead to address software needs and arising issues

The fully tested software builds and associated documentation are being used by Teledyne e2v to test space image devices and to demonstrate compliance with performance requirements. The tool is being used to assist the engineers in validating and selecting the best 'flight models' as well as supporting design improvements and customer discussions.

The need for automation was very important for the customer to save on engineering hours and generate effective reports for the customer.