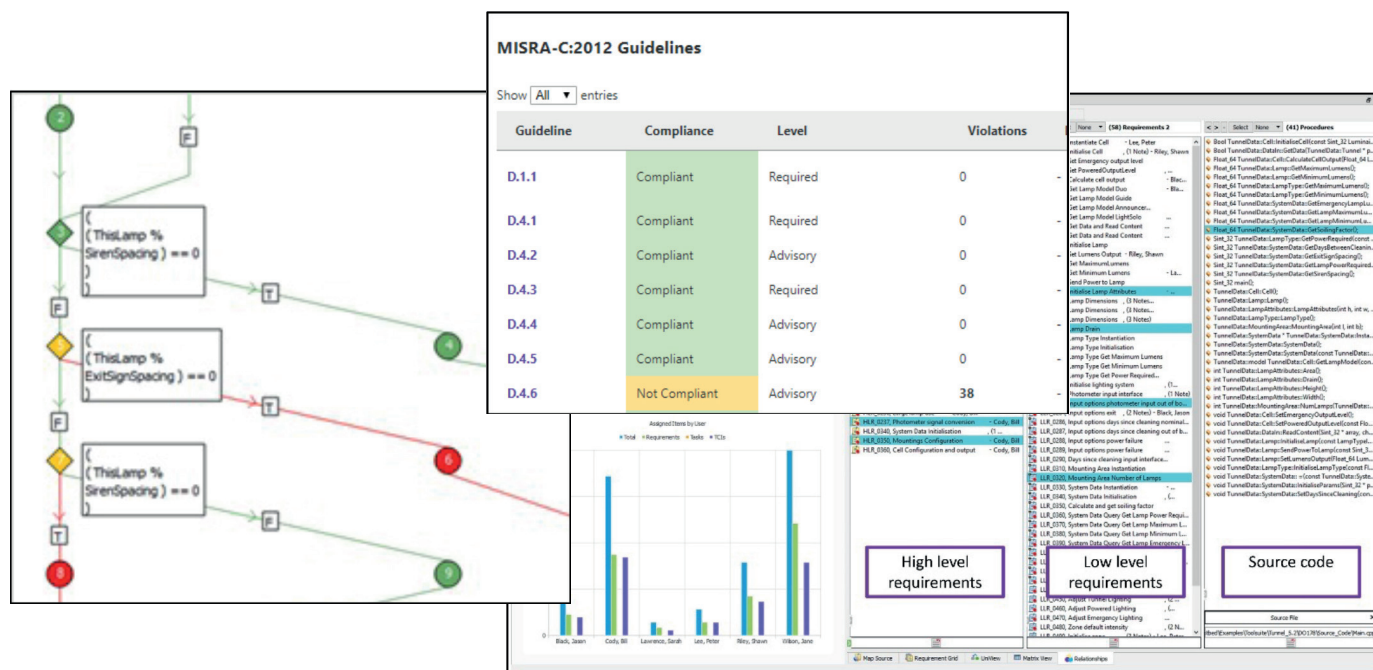


ECSS standards: Compliance with ECSS-E-ST-40C and ECSS-Q-ST-80C Rev1

The ECSS set of standards are for use in all European space activities and are designed to be coherent and user friendly. Many of the standards have an impact on the software development process, with ECSS-E-ST-40C and ECSS-Q-ST-80C Rev1 being especially pertinent.

The LDRA tool suite is designed to support the key software development and verification activities specified in the standards. Features including static analysis, source and object code coverage analysis, unit test, on-target testing and requirements traceability collectively provide a means to achieve compliance in an efficient, timely and cost-effective manner.



Benefits

- a uniquely complete solution through the combined application of static and dynamic analysis techniques
- automates bidirectional traceability to project requirements as required by the ECSS standards
- automates static analysis, dynamic analysis, unit testing, structural coverage, test case creation, and on-target hardware execution
- support object code verification for software of criticality category A, as specified in ECSS-E-ST-40C §5.8.3.5 e
- integrates rules checking in consideration of MISRA, CERT and other coding standards
- provides required evidential artefacts

Solution Details

- The LDRA tool suite provides a modular solution to some or all of the ECSS objectives as required.
- The tools are underpinned by LDRA's ISO 9001:2015 certified Quality Management System, and the LDRA tool suite's TÜV SÜD and SGS-TÜV Saar certification.
- The tool suite generates configurable software metrics in support of ECSS-Q-ST-80C Rev.1 §7.1 Product quality assurance and metrication.
- Automated test and configuration management provide an automated approach to testing re-used software on different target hardware in accordance with ECSS-Q-ST-80C Rev.1 §7.3.
- Integrates seamlessly into any development process model including V-model, waterfall, and CI/CD.