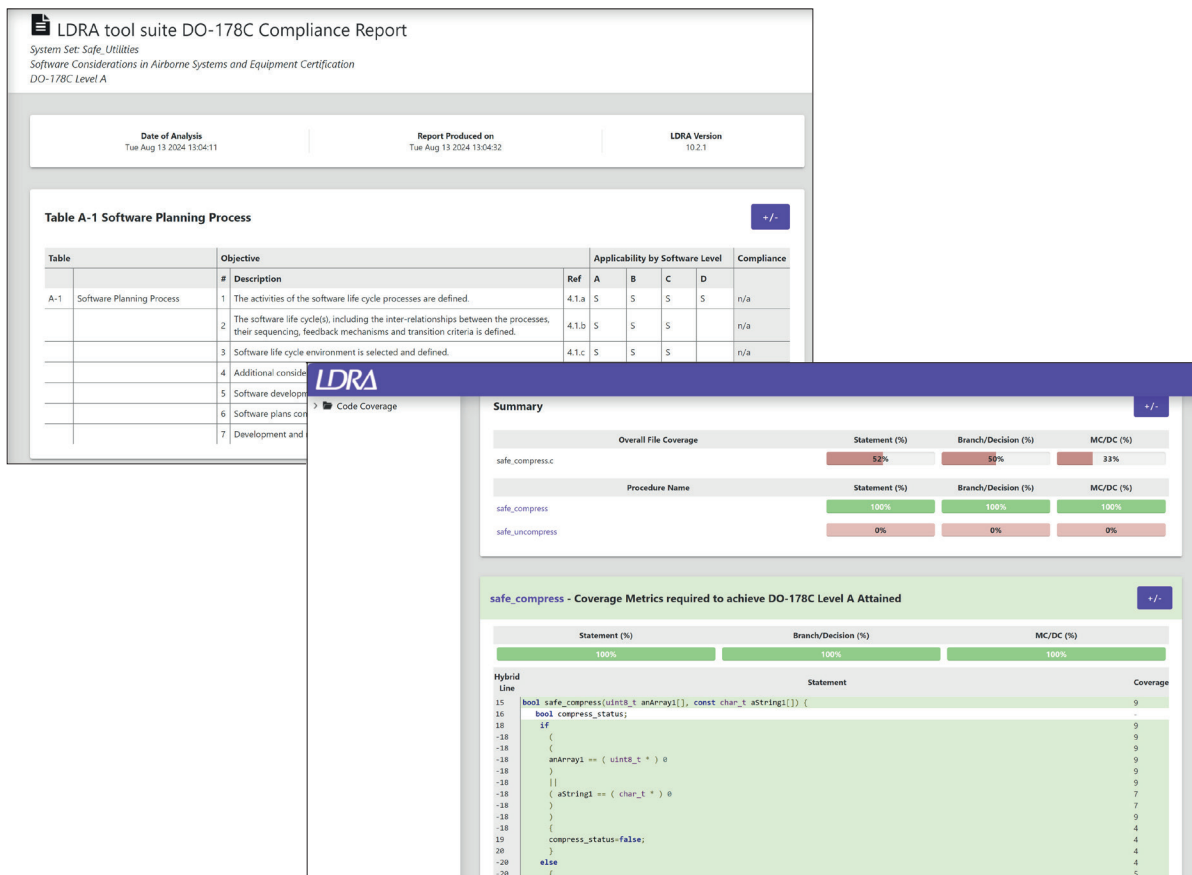


Achieve DO-178C compliance with the LDRA tool suite®

Today's LDRA tool suite is designed to support the key software development and verification activities specified in DO 178C from Design Assurance Level (DAL) E through to A. Features including requirements traceability, static analysis, dynamic analysis, unit test, on-target testing, execution time analysis, and source to object code traceability. Collectively, they provide a means to achieve compliance in an efficient, timely and cost effective manner.



Benefits

- extensible solution providing automated verification and validation, building quality into software from requirements through to deployment
- comprehensive reporting and collation of evidential artefacts
- supports DO-178C, the DO-33x series of supplements, and additional guidance including A(M)C 20-193 & A(M)C 20-170A
- tool qualification made easier through the provision of Tool Qualification Support Packages
- proven in use on hundreds of successful DO-178C compliant projects, up to and including DAL A
- configurable to allow focus of analysis on a task-by-task basis
- supports almost any target device*

Solution Details

Modular tool suite with options including:

- foundational static and dynamic analysis engine
- visualization platform
- coding standard compliance checking
- complexity analysis
- automated execution of unit and integral tests
- test case management
- structural coverage analysis
- data and control coupling analysis
- source to object code traceability
- execution time analysis
- hardware interfaces to target devices*
- standard-specific objectives & requirements traceability
- integration to ALM & PLM tools
- evidential artefact collation

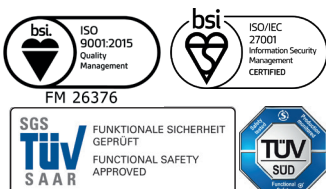
* Contact LDRA for further information relating to your tool chain

Support throughout the development life cycle

The LDRA tool suite plays a crucial role in achieving DO-178C compliance for software projects in the aerospace industry, providing comprehensive support for the achievement of objectives throughout the software development life cycle. Static and dynamic analysis capabilities allow developers to identify and rectify issues early in the development process in accordance with the standard.

- The LDRA tool suite supports the core DO-178C objectives, the DO-33x series of supplements, and guidance documents including A(M)C 20-193 (multicore) and A(M)C 20 170A (IMA).
- LDRA static analysis tools automate the scanned “inspection” of the source code, highlighting non-conformances as required by DO-178C §6.4.3d. Static analysis is valuable both for catching errors as code is written, and for highlighting those issues that only become apparent during integration (DO-178C §5.4).
- The on target “test cases and procedures” supported by the dynamic analysis functionality of the LDRA tool suite include low-level tests, integration tests, and system tests in accordance with DO 178C §6.4.4.2. The tool suite automates structural coverage analysis for all metrics specified in the standard, including MC/DC.
- For Level A systems LDRA Object Code Traceability fulfils the source to object code traceability requirements of DO 178C §6.4.4.2.b.
- LDRA offers a range of tools to support project managers as comprehensively as developers and testers, particularly through Stage of Involvement (SOI) reviews.
- The LDRA Productivity Package for Aerospace and Defense is a set of targeted capabilities drawn from the LDRA tool suite enabling customers to achieve DO-178C compliance through to DAL A, the highest level of assurance for airborne software.

The LDRA tool suite offers extensive benefits for DO-178C compliant projects, including automated verification and validation, comprehensive reporting, and seamless integration with other tools. It supports model-based development, data and control coupling analysis, and is scalable for projects of varying sizes. Additionally, it provides bi-directional traceability, static and dynamic analysis, and structural coverage analysis, ensuring thorough testing and compliance. Proven in numerous successful projects, the LDRA tool suite builds quality into software from requirements through to deployment, supporting almost any target device and facilitating seamless project development.



www.ldra.com
LDRA
LDRA UK & Worldwide
Portside, Monks Ferry,
Wirral, CH41 5LH
Tel: +44 (0)151 649 9300
e-mail: info@ldra.com

LDRA Technology Inc.
2540 King Arthur Blvd, Suite 228,
Lewisville, Texas 75086
United States
Tel: +1 (855) 855 5372
e-mail: info@ldra.com
LDRA Technology Pvt. Ltd.
Unit No B-3, 3rd Floor Tower B, Golden Enclave,
HAL Airport Road, Bengaluru 560017
India
Tel: +91 80 4080 8707
e-mail: india@ldra.com