

SCADE Display KCG 6.4.3 DO-178B&C Levels A and B Certification Kit and SCADE Display KCG 6.4.3 DO-178B&C Levels C and D Certification Kit contain tool qualification data for

SCADE Display KCG and library certification data for OGLX (OpenGL eXtension to SCADE Display KCG).



A distinct set of material is available for each product component (KCG and OGLX). This material demonstrates to certification authorities on the one hand that Esterel Technologies developed the SCADE Display KCG code generator as a qualifiable development tool under DO-178B or as DO-330 TQL-1 tool under DO-178C. On the other

hand, it demonstrates that the OGLX library was developed in compliance with Level A safety objectives under DO-178B or DO-178C.

The Certification Kits are available either for Levels A and B applications or Levels C and D applications.

Read more about certification data in:

- [“Certification Scope”](#)
- [“KCG Certification Data”](#)
- [“OGLX Certification Data”](#)
- [“Certification Kit Management”](#)
- [“Certification Environment”](#)
- [“Certification Consulting Services”](#)

Certification Scope

Once acquainted with the content of the Certification Kit, users should develop their software processes based on the certification credits proposed in the Certification Kit. Esterel Technologies is ready to assist its customers in defining their certification processes and needs through consulting services.

Project plans for the user application must specify the development and verification methodology with SCADE Display KCG and SCADE Display OGLX Library and express the claimed certification credits in compliance with DO-178B or DO-178C safety objectives.

Notice it is the users' responsibility to generate the OGLX library binary in their target environment and complete certification activities accordingly.

Access to Software Life Cycle Data

Certification Kits are a subset of certification data. Customers that have the Certification Kit, as well as their certification authorities, can access all SCADE Display KCG/OGLX software life cycle data on site at Esterel Technologies upon request for certification audits purpose.

All KCG/OGLX certification data are available for audit, including design, verification cases and procedures, verification results, software configuration management and software quality assurance records.

KCG Certification Data

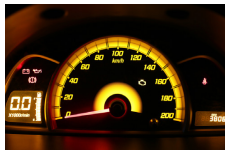
Each Certification Kit includes the following documents for SCADE Display KCG:

- **Compliance Analysis:** Presents the compliance of SCADE Display KCG with DO-178B objectives at Level A and B or C and D, or with DO-330 objectives at TQL-1
- **Tool Qualification Plan (TQP):** Presents all provisions taken for the qualification of KCG Code Generator and references the other project plans
- **Tool Operational Requirements (TOR):** Describes the KCG functionality and usage. This document corresponds to the TOR-Developer as defined in DO-330.
- **Interface Requirement Specifications (IRS):** Describe the storage format for KCG input files and the graphics commands generated by KCG
- **Tool Accomplishment Summary (TAS):** Presents the compliance status with the Tool Qualification Plan, the conditions of use, the list of unresolved defects, and tool limitations
- **Tool Installation Procedure (TIP):** Contains detailed instructions for installing KCG
- **Tool Configuration Index (TCI):** Presents the tool version and configuration
- **Tool Life Cycle Environment Configuration Index (TECI):** Presents the software environment used for tool certification

OGLX Certification Data

Each Certification Kit includes the following documents for SCADE Display OGLX:

- **Compliance Analysis:** Presents the compliance of OGLX plans with DO-178B or DO-178C objectives at Level A and B or C and D
- **Plan for Software Aspects of Certification (PSAC):** Presents all provisions taken for the certification of OGLX as a software library and references the other project plans
- **Software Requirements Standard (SRST):** Describes methods and tools used to describe the software requirements of OGLX
- **Software Design Standard (SDST):** Describes methods, rules, and tools followed to ensure safety and maintainability of OGLX design
- **Software Coding Standard (SCST):** Describes methods, rules, and tools followed to ensure safety and maintainability of OGLX source code
- **Software Test Standard (STST):** Describes methods, rules, and tools used to establish test cases, and procedures for the OGLX library
- **Software Requirements Specification (SRS):** Describes the High-Level Requirements of OGLX in combination with the IRS
- **Interface Requirement Specification (IRS):** Describes all graphics commands implemented by OGLX
- **Software Architecture Document (SAD):** Describes the architecture of the OGLX components
- **Software Detailed Design Document (DDD):** Contains the detailed design of OGLX
- **Software Installation Procedure (SIP):** Contains detailed instructions for installing OGLX
- **Software Configuration Index (SCI):** Presents the configuration status and version content of the OGLX library
- **Test Specification (TS):** Presents the Test Strategy, Test Cases and Procedures for OGLX certification
- **Test Cases and Procedures (TCP)** to be run by users on their target environment after adaptation to the specific environment (the adaptation activity is not included in the kit)
- **Test Installation and Execution Procedure (TIEP):** Contains detailed instructions for installing and running test database
- **Software Accomplishment Summary (SAS):** Presents the compliance status with the PSAC, the conditions of use, the list of unresolved defects, and tool limitations



Certification Kit Management

- Esterel Technologies' support team sends regular Safety Status Reports that complement the Certification Kits by giving the list of all open problems and their mitigation actions in SCADE Display KCG and OGLX known at report publication date. These reports are also available on the Esterel Technologies [Support web site](#).
- Updates to the Certification Kits and Safety Status Reports are provided to customers under maintenance service.

Certification Environment

SCADE Display KCG Certification Environment

Users must use SCADE Display KCG in the same environment as the environment used for certification. The Certification Kit applies to the following environment:

- SCADE Display KCG 6.4.3 qualifiable on Windows XP SP3 (32-bit) and Windows 7 SP1 (64-bit)

SCADE Display OGLX Certification Environment

Users perform OGLX embedded library certification on their own platform. The Certification Kit applies to the following environment:

- SCADE Display OGLX 6.4.3 certifiable software library for DO-178C Levels A and B or C and D
- OGLX Tracer 1.0 distributed in the Certification Kits. This tool is used to verify OGLX Library on the user target platform by running executable test cases.

Certification Consulting Services

To help customers with certification activities, Esterel Technologies can provide specific consulting services like:

- Certification liaison support for tool and library certification
- Setting up SCADE Display-based development process from system requirements to software integrated on the target
- Support for PSAC development and reviews of certification documents based on the Certification Kits

Contact Information

Submit questions to Technical Support at
scade-support@esterel-technologies.com

Contact one of our Sales representatives at
scade-sales@esterel-technologies.com

Direct general questions about Esterel Technologies to
scade-info@esterel-technologies.com

Discover the latest news on our products and technology at
<http://www.esterel-technologies.com>

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