



**SCADE Display KCG 6.4.3 IEC 61508 SIL 3 Certification Kit and SCADE Display KCG 6.4.3 IEC 61508 SIL 1-2 Certification Kit** contain certification data for SCADE Display KCG and 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 that Esterel Technologies developed the SCADE Display KCG code generator and the OGLX library in compliance with IEC 61508 safety objectives at Safety Integrity Level SIL 3 or SIL 1-2.

Read more about certification data in:

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

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## Certification Scope

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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 IEC 61508 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.

### IEC 61508:2010 TÜV SÜD Certificates

TÜV certificates ensure that the components have been audited by an independent certification body. Request from Esterel Technologies your IEC 61508:2010 certificates in electronic format for [KCG](#) and [OGLX](#).



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## KCG Certification Data

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Each IEC 61508 Certification Kit includes the following documents for SCADE Display KCG:

- **Compliance Analysis with IEC 61508:2010 Standard:** Presents the compliance of KCG with IEC 61508 objectives at SIL 3 or SIL 1-2
- **Safety Requirements:** Express the required properties of SCADE Display KCG to support the development of embedded software satisfying IEC 61508:2010 objectives
- **Safety Plan:** Details KCG safety activities
- **Tool Assessment Plan (TAP):** Details KCG assessment activities
- **Tool Qualification Plan (TOP):** 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
- **Interface Requirement Specifications (IRS):** Describe the storage format for KCG input files and the graphics commands generated by KCG
- **Safety Case (SC):** Provides evidence that KCG is developed with the appropriate level of safety and identifies the Conditions of Use to be obeyed by KCG users for claiming the certification credits of the tool
- **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
- **Tool Installation Procedure (TIP):** Contains detailed instructions for installing KCG

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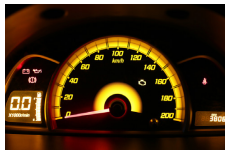
## OGLX Certification Data

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Each IEC 61508 Certification Kit includes the following documents for SCADE Display OGLX:

- **Compliance Analysis with IEC 61508:2010 Standard:** Presents the compliance of OGLX with IEC 61508 objectives at SIL 3 or SIL 1-2
- **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
- **Safety Requirements:** Express the required properties of SCADE Display OGLX to support the development of embedded software satisfying IEC 61508 objectives
- **Safety Plan:** Details OGLX safety activities
- **Software Assessment Plan (SAP):** Details OGLX software assessment activities
- **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
- **Safety Case (SC):** Provides evidence that OGLX is developed with the appropriate level of safety and identifies the Conditions of Use to be obeyed by OGLX users for claiming the certification credits of the library



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## Certification Kit Management

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- 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.

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## Certification Environment

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### 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 certified 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 IEC 61508 at SIL 3 or SIL 1-2
- 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.

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## Certification Consulting Services

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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 Safety Plan development and reviews of certification documents based on the Certification Kit

### Contact Information

Submit questions to Technical Support at  
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Contact one of our Sales representatives at  
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Direct general questions about Esterel Technologies to  
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Discover the latest news on our products and technology at  
<http://www.esterel-technologies.com>

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