Author

CAST



**OMG-ASCQM**

**Detailed Report**

Application Name –

Version –

CAST AIP -

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| --- |
|  |
|  |

Monday, xx July 2012

My Application Name

Version Number

My CAST Version

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# Introduction

This assessment is an effort to determine the overall quality of the said applications against OMG-ASCQM rules and measure the overall health of the application. This assessment uses the CAST Application Intelligence Platform (AIP) to automatically scan the implementation of these applications to review the architecture, design, and code against current industry best practices and known design flaws that may impact performance.

CAST AIP adapts the quality rules from best-in-class industry standards (OWASP, CWE, CISQ, STIG, PCI, NIST, OMG-ASCQM). With its unique ability to perform dataflow and system-level analysis (From Presentation layer to Database layer), CAST provides the most accurate security findings, reducing a lot of false positives.

## Application Characteristics

This assessment is focused solely on the technical implementation of the said application (user interface to database), with no investigation of the functionality.

|  |  |
| --- | --- |
| Name | Value |
| kLoC | 504 |
| Files | 6,586 |
| Classes | 593 |
| SQL Art. | 0 |
| Tables | 119 |

*Fig 1: Application Technology characteristics Table 1: Application characteristics*

# OMG-ASCQM Summary

This section provides a summary of the OMG-ASCQM specified vulnerability identified in the structural quality analysis and measurement by CAST AIP. Details about OMG-ASCQM Standard can be found [here](https://www.omg.org/spec/ASCQM/).

Findings summary for CAST under OMG-ASCQM Standards.

| Rules | Total Violations | Added Violations | Removed Violations |
| --- | --- | --- | --- |
| Rule 1 | 0 | 0 | 0 |
| Rule 2 | 0 | 0 | 0 |
| Rule 3 | 0 | 0 | 0 |
| Rule 4 | 0 | 0 | 0 |
| Rule 5 | 0 | 0 | 0 |

*Table 2: OMG-ASCQM summary*

# CAST Findings for OMG-ASCQM Security

List of CAST violations for OMG-ASCQM Security.

| CAST Rules | Total Violations | Added Violations | Removed Violations |
| --- | --- | --- | --- |
| Rule 1 | 0 | 0 | 0 |
| Rule 2 | 0 | 0 | 0 |
| Rule 3 | 0 | 0 | 0 |
| Rule 4 | 0 | 0 | 0 |
| Rule 5 | 0 | 0 | 0 |

*Table 3: OMG-ASCQM Security* *violations*

# CAST Findings for OMG-ASCQM Reliability

List of CAST violations for OMG-ASCQM Reliability.

| CAST Rules | Total Violations | Added Violations | Removed Violations |
| --- | --- | --- | --- |
| Rule 1 | 0 | 0 | 0 |
| Rule 2 | 0 | 0 | 0 |
| Rule 3 | 0 | 0 | 0 |
| Rule 4 | 0 | 0 | 0 |
| Rule 5 | 0 | 0 | 0 |

*Table 4: OMG-ASCQM Reliability* *violations*

# CAST Findings for OMG-ASCQM Performance Efficiency

List of CAST violations for OMG-ASCQM Performance Efficiency.

| CAST Rules | Total Violations | Added Violations | Removed Violations |
| --- | --- | --- | --- |
| Rule 1 | 0 | 0 | 0 |
| Rule 2 | 0 | 0 | 0 |
| Rule 3 | 0 | 0 | 0 |
| Rule 4 | 0 | 0 | 0 |
| Rule 5 | 0 | 0 | 0 |

*Table 5: OMG-ASCQM Performance Efficiency* *violations*

# CAST Findings for OMG-ASCQM Maintainability

List of CAST violations for OMG-ASCQM Maintainability.

| CAST Rules | Total Violations | Added Violations | Removed Violations |
| --- | --- | --- | --- |
| Rule 1 | 0 | 0 | 0 |
| Rule 2 | 0 | 0 | 0 |
| Rule 3 | 0 | 0 | 0 |
| Rule 4 | 0 | 0 | 0 |
| Rule 5 | 0 | 0 | 0 |

*Table 6: OMG-ASCQM Maintainability* *violations*

# CAST Findings Details for OMG-ASCQM Security

|  |
| --- |
| Violations |
| No violation |

# CAST Findings Details for OMG-ASCQM Reliability

|  |
| --- |
| Violations |
| No violation |

# CAST Findings Details for OMG-ASCQM Performance Efficiency

|  |
| --- |
| Violations |
| No violation |

# CAST Findings Details for OMG-ASCQM Maintainability

|  |
| --- |
| Violations |
| No violation |

# Appendix

## About CAST Software Intelligence

Software Intelligence creates understanding into software architecture, end to end transaction flows, data access patterns and more, helping teams work confidently and faster. Hundreds of companies rely on CAST Software Intelligence to improve end-user satisfaction and time-to-market, prevent business disruption and reduce cost, enabling them to move past today’s obstacles and to tackle the next wave of innovation.

[Click here](https://www.castsoftware.com/software-intelligence) for more information about CAST Software Intelligence.

## About CISQ OMG-ASCQM Automated Quality Characteristic Measures

CISQ has developed Automated Quality Characteristic Measures to measure and manage the structural quality of IT application software. The automated measures for Security, Reliability, Performance Efficiency, and Maintainability are now OMG® approved standards making them global standards for use by IT organizations.

These measures were developed from coding rules covering some of the most serious violations of good architectural and coding practices that should be avoided and can be detected through static code analysis. Each measure counts the number of violations of the architectural and coding rules related to that quality characteristic, and then can be used in creating metrics for defect density, etc.

|  |  |
| --- | --- |
| [Security](https://www.omg.org/spec/ASCSM/) | Critical security violations in the source code drawn from the Top 25 security weaknesses in the Common Weakness Enumeration (CWE) repository |
| [Reliability](https://www.omg.org/spec/ASCRM/) | Critical violations of availability, fault tolerance, and recoverability of software |
| [Performance Efficiency](https://www.omg.org/spec/ASCPEM/) | Critical violations of response time, as well as processor, memory, and utilization of other resources by the software |
| [Maintainability](https://www.omg.org/spec/ASCMM/) | Critical violations of modularity, architectural compliance, reusability, analyzability, and changeability in software |