OMG: Automated Source Code CISQ Measures (ASCQM)

return to the OMG Standards

Table 1: Automated Source Code Measures (ASCQM)

Title	Automated Source Code Quality Measures
Acronym	ASCQM
Version	1.0
OMG Document Number	formal/20-01-02
Release Date	January 2020
About Specification	https://www.omg.org/spec/ASCQM/About-ASCQM
Document	https://www.omg.org/spec/ASCQM/1.0/PDF

Note: The following is an excerpt from the actual document. It is provided here as a convenience and is not authoritative. Refer to the original document as the authoritative reference.

Scope/Purpose

This specification updates, expands, and combines four previous adopted specifications of the OMG:

- *Automated Source Code Maintainability Measure (ASCMM)* https://www.omg.org/spec/ASCMM/1.0/
- *Automated Source Code Performance Efficiency Measure (ASCPEM)* https://www.omg.org/spec/ASCPEM/1.0/
- *Automated Source Code Reliability Measure (ASCRM)* https://www.omg.org/spec/ASCRM/1.0/
- *Automated Source Code Security Measure (ASCSM)*https://www.omg.org/spec/ASCSM/1.0/

The measures in these standards were calculated from detecting and counting violations of good architectural and coding practices in the source code that could result in unacceptable operational risks or excessive costs. Establishing standards for these measures at the source code level is important because they have been used in outsourcing and system development contracts without having international standards to reference. For instance, the ISO/IEC 25000 series of standards that govern software product quality do not provide measures at the source code level.

A primary objective of updating these measures was to extend their applicability to embedded software, which is especially important for the growing implementation of embedded devices and the Internet of Things. Functionality that has traditionally been implemented in IT applications is now being moved to embedded chips. Since the weaknesses included in the measures specified in this document have been found to be applicable to all forms of software, embedded software is not

treated separately in this specification.