
Installation Notes for the MISRA C:2012 Compliance Module M3CM-1.0-QAC-8.1.2

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Introduction

This document describes the procedures required for installing the M3CM-1.0-QAC-8.1.2 MISRA C:2012 Compliance Module for use with QA C 8.1.2 on the windows platform. Please note that this version of M3CM is designed to operate with QA C version 8.1.2 and will not function correctly with earlier releases.

The M3CM-1.0-QAC-8.1.2 package is designed to enforce compliance with the MISRA C:2012 programming standard in conjunction with QA C 8.1.2. Your attention is drawn to the following documents located in the `m3cm\doc` directory (which is found within the installed instance of M3CM):

- **M3CM-1.0-QAC-8.1.2-Release_Notes.** This document describes the features that are new in this version of M3CM and will be of particular interest to users who are familiar with previous versions of the product.
- **M3CM-1.0-QAC-8.1.2-User_Guide.** Gives an introduction to the use of M3CM.

All usage of this software must be in accordance with the terms of a current licence agreement with Programming Research as supplied with QA C. M3CM-1.0-QAC-8.1.2 is not licensed directly, but to use the product you will need an installed and licensed instance of QA C, of which M3CM is an extension.

Installing M3CM-1.0-QAC-8.1.2

Note that this version of M3CM will be installed into the same directory as any existing M3CM for QA C 8.1.2, overwriting any existing version of M3CM.

1. In general you will download M3CM-1.0-QAC-8.1.2-Win.exe, alternatively you may obtain the software on CD. Hence you may install directly using the downloaded package, or you may install M3CM-1.0-QAC-8.1.2 directly from your release CD. Alternatively, if you wish to install from a directory on a local disc or fileserver, insert the distributed software and copy its contents to a suitable location.

2. When installing from a download, run `M3CM-1.0-QAC-8.1.2-Win.exe`, or, when installing from a release CD, run `setup.exe`

The setup process will install the supplied files.

3. You are advised to take copies of your M3CM personality files before introducing any changes you wish to make.

Uninstalling M3CM-1.0-QAC-8.1.2

This package automatically uninstalls when you uninstall QAC 8.1.2. Note M3CM-1.0-QAC-8.1.2 cannot be uninstalled in isolation.

Compliance Module Components

M3CM can only be installed as an add-on to QA C. When M3CM is installed, the components are copied to a directory called [m3cm](#) within the QA C installation directory. The compliance module contains a number of elements which configure QA C and also extend the range of analysis checks. The following table describes the most important files:

Directory	Files	Description
m3cm\bin	about_m3cm.exe m3cmconf.bat qacsa_m3cm.exe qacsa_m3cm.exe.return_codes	M3CM version details report program. Script to initialise command line analysis. Secondary-analyser program. Secondary-analyser program configuration.
m3cm\messages	qac.usr.m3cm nnnn.html rule*.html	User message file. Replacement HTML help files which supplement standard QA C help text with cross-references to MISRA C:2012 rules. HTML files which outline the implementation details of each MISRA C:2012 rule. These are referenced by the HTML Annotated Source and serve as an online reference to the MISRA C:2012 standard.
m3cm\doc	M3CM-1.0-QAC-8.1.2-Coding_Standard_Manual.html M3CM-1.0-QAC-8.1.2-Coding_Standard_Manual.pdf M3CM-1.0-QAC-8.1.2-Coding_Standard_Review.html M3CM-1.0-QAC-8.1.2-QAC_Message_Usage_Summary.html M3CM-1.0-QAC-8.1.2-QAC_Message_Usage_Summary.pdf M3CM-1.0-QAC-8.1.2-Release_Notes.html M3CM-1.0-QAC-8.1.2-Release_Notes.pdf M3CM-1.0-QAC-8.1.2-Rule_Enforcement.html M3CM-1.0-QAC-8.1.2-Rule_Enforcement.pdf M3CM-1.0-QAC-8.1.2-Rule_Xreference.html M3CM-1.0-QAC-8.1.2-Rule_Xreference.pdf M3CM-1.0-QAC-8.1.2-User_Guide.html M3CM-1.0-QAC-8.1.2-User_Guide.pdf M3CM-1.0-QAC-8.1.2-Win-Installation_Notes.html M3CM-1.0-QAC-8.1.2-Win-Installation_Notes.pdf	Manual for coding standard. Manual for coding standard. Coding standard review document. Summary of usage of QAC messages. Summary of usage of QAC messages. Release notes. Release notes. Rule enforcement report. Rule enforcement report. Compliance matrix. Compliance matrix. M3CM user guide. M3CM user guide. Installation notes. Installation notes.
m3cm\personalities	m3cm.p_s m3cm.p_a m3cm.p_c	Message personality. Analyser personality. Compiler personality.
m3cm\projects\m3cm_examples*		Directory containing example source directory, personalities and output directory. NB some compliance modules do not have a projects directory.

Personality Files

Personality files are provided in the [m3cm\person](#) directory. Of these the message personality is key, it restricts the generation of messages to those which are relevant to the enforcement of the MISRA C:2012 rules. The analyser and compiler personality personalities also perform significant roles.

Secondary-Analysis Program

Where rules are not enforceable directly by QA C, additional checks may be provided through a secondary-analysis program. The M3CM secondary-analysis program `qacsa_m3cm` is located in the `m3cm\bin` directory.

User Message File

The M3CM user message file `qac_usr.m3cm` is located in the `m3cm\messages` directory. It defines a new message structure, new messages and cross reference information.

HTML files

The `m3cm\messages` directory contains replacement HTML files which provide cross-reference links from a message to the MISRA C:2012 rules.

Global Checks Report

Where coding standard rules impose constraints on the code of the complete project rather than the code in a single translation unit, coding standard enforcement is achieved using the Cross Module Analysis capability of the QA C product. CMA reports violations of project wide rules.

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