
Installation Notes for the MISRA-C:2004 Compliance Module M2CM-3.2-QAC-8.1.2

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Introduction

This document describes the procedures required for installing the M2CM-3.2-QAC-8.1.2 MISRA-C:2004 Compliance Module for use with QA C 8.1.2 on the windows platform. Please note that this version of M2CM is designed to operate with QA C version 8.1.2 and will not function correctly with earlier releases.

The M2CM-3.2-QAC-8.1.2 package is designed to enforce compliance with the MISRA-C:2004 programming standard in conjunction with QA C 8.1.2. Your attention is drawn to the following documents located in the `m2cm\doc` directory (which is found within the installed instance of M2CM):

- **M2CM-3.2-QAC-8.1.2-Release_Notes.** This document describes the features that are new in this version of M2CM and will be of particular interest to users who are familiar with previous versions of the product.
- **M2CM-3.2-QAC-8.1.2-User_Guide.** Gives an introduction to the use of M2CM.

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. M2CM-3.2-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 M2CM is an extension.

Installing M2CM-3.2-QAC-8.1.2

Note that this version of M2CM will be installed into the same directory as any existing M2CM for QA C 8.1.2, overwriting any existing version of M2CM.

1. In general you will download M2CM-3.2-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 M2CM-3.2-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 `M2CM-3.2-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 M2CM personality files before introducing any changes you wish to make.

Uninstalling M2CM-3.2-QAC-8.1.2

This package automatically uninstalls when you uninstall QA C 8.1.2. Note M2CM-3.2-QAC-8.1.2 cannot be uninstalled in isolation.

Compliance Module Components

M2CM can only be installed as an add-on to QA C. When M2CM is installed, the components are copied to a directory called [m2cm](#) 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
m2cm\bin	about_m2cm.exe m2cmconf.bat qacsa_m2cm.exe qacsa_m2cm.exe.return_codes	M2CM version details report program. Script to initialise command line analysis. Secondary-analyser program. Secondary-analyser program configuration.
m2cm\messages	qac.usr.m2cm nnnn.html rule*.html	User message file. Replacement HTML help files which supplement standard QA C help text with cross-references to MISRA-C:2004 rules. HTML files which outline the implementation details of each MISRA-C:2004 rule. These are referenced by the HTML Annotated Source and serve as an online reference to the MISRA-C:2004 standard.
m2cm\doc	M2CM-3.2-QAC-8.1.2-Coding_Standard_Manual.html M2CM-3.2-QAC-8.1.2-Coding_Standard_Manual.pdf M2CM-3.2-QAC-8.1.2-Coding_Standard_Review.html M2CM-3.2-QAC-8.1.2-QAC_Message_Usage_Summary.html M2CM-3.2-QAC-8.1.2-QAC_Message_Usage_Summary.pdf M2CM-3.2-QAC-8.1.2-Release_Notes.html M2CM-3.2-QAC-8.1.2-Release_Notes.pdf M2CM-3.2-QAC-8.1.2-Rule_Enforcement.html M2CM-3.2-QAC-8.1.2-Rule_Enforcement.pdf M2CM-3.2-QAC-8.1.2-Rule_Xreference.html M2CM-3.2-QAC-8.1.2-Rule_Xreference.pdf M2CM-3.2-QAC-8.1.2-User_Guide.html M2CM-3.2-QAC-8.1.2-User_Guide.pdf M2CM-3.2-QAC-8.1.2-Win-Installation_Notes.html M2CM-3.2-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. M2CM user guide. M2CM user guide. Installation notes. Installation notes.
m2cm\personalities	m2cm.p_s m2cm.p_a m2cm.p_c	Message personality. Analyser personality. Compiler personality.
m2cm\projects\m2cm_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 [m2cm\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:2004 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 M2CM secondary-analysis program `qacsa_m2cm` is located in the `m2cm\bin` directory.

User Message File

The M2CM user message file `qac_usr.m2cm` is located in the `m2cm\messages` directory. It defines a new message structure, new messages and cross reference information.

HTML files

The `m2cm\messages` directory contains replacement HTML files which provide cross-reference links from a message to the MISRA-C:2004 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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