MARTE Profile

Introduction

This specification of a UML® profile adds capabilities to UML for model-driven development of Real Time and Embedded Systems (RTES). This extension, called the UML profile for MARTE (in short MARTE), provides support for specification, design, and verification/validation stages. This new profile is intended to replace the existing UML Profile for Schedulability, Performance and Time.

MARTE consists in defining foundations for model-based description of real time and embedded systems. These core concepts are then refined for both modeling and analyzing concerns. Modeling parts provides support required from specification to detailed design of real-time and embedded characteristics of systems. MARTE concerns also model-based analysis. In this sense, the intent is not to define new techniques for analyzing real-time and embedded systems, but to support them. Hence, it provides facilities to annotate models with information required to perform specific analysis. Especially, MARTE focuses on performance and schedulability analysis. But, it defines also a general framework for quantitative analysis which intends to refine/specialize any other kind of analysis.

Features

UML Profile for MARTE: Modeling and Analysis of Real-Time Embedded Systems

Version 1.0
OMG Document Number: formal/2009-11-02
Standard document URL: http://www.omg.org/spec/MARTE/1.0

Note that MARTE 1.0 profile is not compatible with all its previous versions (used in MagicDraw 16.6 and older). We would recommend to use it in new projects only as automatic migration of the old projects is not provided.

Version 1.1

OMG Document Number: formal/2011-06-02

Standard document URL: https://www.omg.org/spec/MARTE/1.1

Version 1.2

OMG Document Number: formal/19-04-01

Standard document URL: https://www.omg.org/spec/MARTE/1.2