

Eclipse APP4MC 0.9.9



NEW AND NOTEWORTHY

APP4MC 0.9.9 (JUL 2020)

General description of platform changes

▶ **Only simple extensions of the meta model**

- Data types: Struct and StructEntry are taggable

▶ **Validations**

- New INCHRON validations, extended documentation

▶ **Extended definition of Amalthea Trace Database (Preview)**

▶ **User interface**

- Migration dialog supports recursive operation on folders
- Model Explorer no longer expands model files

Extended validations

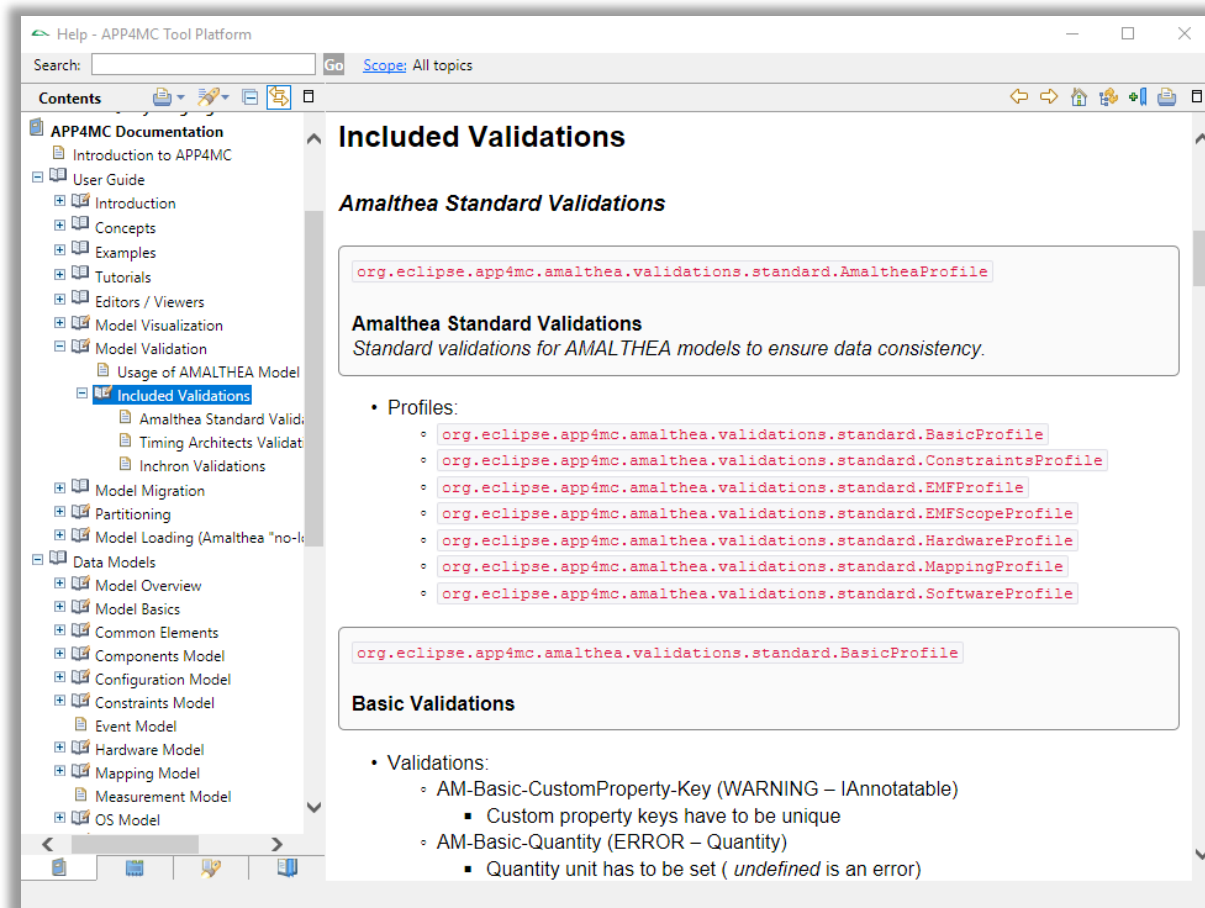
New INCHRON validations

The screenshot shows the 'Validations' dialog box in Eclipse APP4MC. The dialog has a 'Choose profiles' section with several categories of validations, each with a checkbox. Five callout boxes provide details for specific categories:

- Constraints Validations (INCHRON)**
 - Inchron-Constraints-LoadRequirementMissingResource
 - * CPU load requirement must have hardware context
- Hardware Validations (INCHRON)**
 - Inchron-HW-Memory-PortTypeResponder
 - * HW ports of memory should be of type responder
 - Inchron-HWModule-InconsistentPortWidths
 - * HW Module cannot have ports with unequal bitwidth
 - Inchron-HW-PU-PortTypeInitiator
 - * HW ports of processing Unit should be of type initiator
 - Inchron-HWModule-MissingClockReference
 - * HW Module must have 'Frequency Domain' reference
 - AM-HW-Port-BitWidth
 - * Bitwidth should be greater than zero
- Operating Systems Validations (INCHRON)**
 - Inchron-OS-Scheduler-Allocation-DifferentCPU
 - * OS Task scheduler should not be allocated to more than one HwStructure
 - Inchron-OS-PU-Allocation-MustBeDisjunct
 - * OS Scheduler to core mapping must be distinct
 - Inchron-OS-UserSpecificSchedulerCheck
 - * User specific task scheduler needs at least one task allocation
- Stimuli Validations (INCHRON)**
 - Inchron-Stimuli-TypeCheck
 - * Unsupported stimuli types
- Software Validations (INCHRON)**
 - Inchron-SW-Task-EnforcedMigrationCheck
 - * Invalid Enforced Migration of a task to a task Scheduler
 - Inchron-SW-Runnable-MustHaveActivityGraph
 - * Runnable must have at least one ActivityGraph
 - Inchron-SW-Task-NotAllocated-DifferentSchedulers
 - * Task cannot be scheduled by more than one OS
 - Inchron-SW-RunnableAllocation-Present
 - * Runnable allocation is not supported
 - Inchron-SW-Task-MustHaveActivityGraph
 - * Task must have at least one ActivityGraph
 - Inchron-SW-Runnable-NotAllocated-DifferentOS
 - * Runnable cannot be scheduled by more than one OS

The dialog also includes a 'Select All' button, an 'OK' button, and a help icon (?) in the bottom left corner.

Validations: Extended documentation

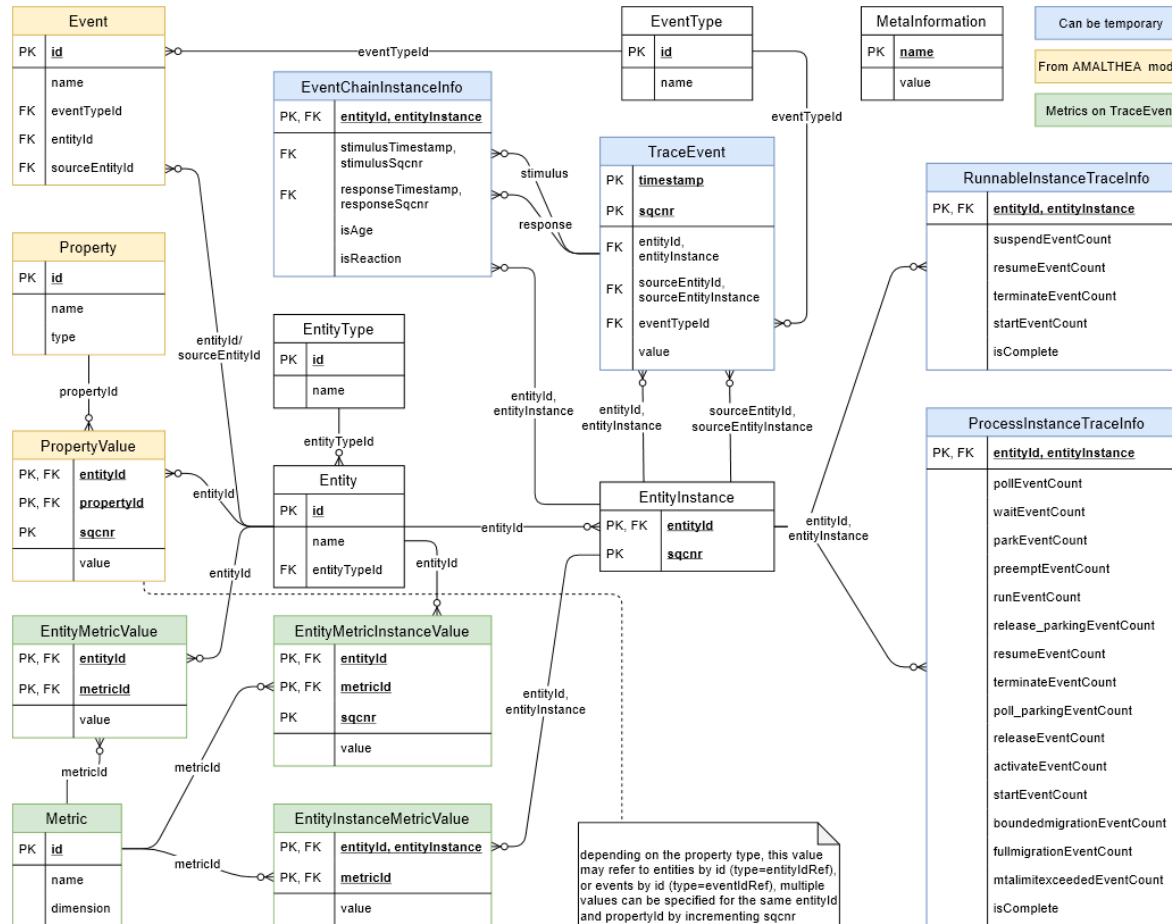


Amalthea Trace Database (Preview)

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- ▶ **SQLite database**
- ▶ **structured and consistent representation of**
 - trace data
 - extract of model content
 - metrics
- ▶ **suitable for exchange of metrics**
- ▶ **intended as a replacement for the measurement sub model**

Amalthea Trace Database (Preview)

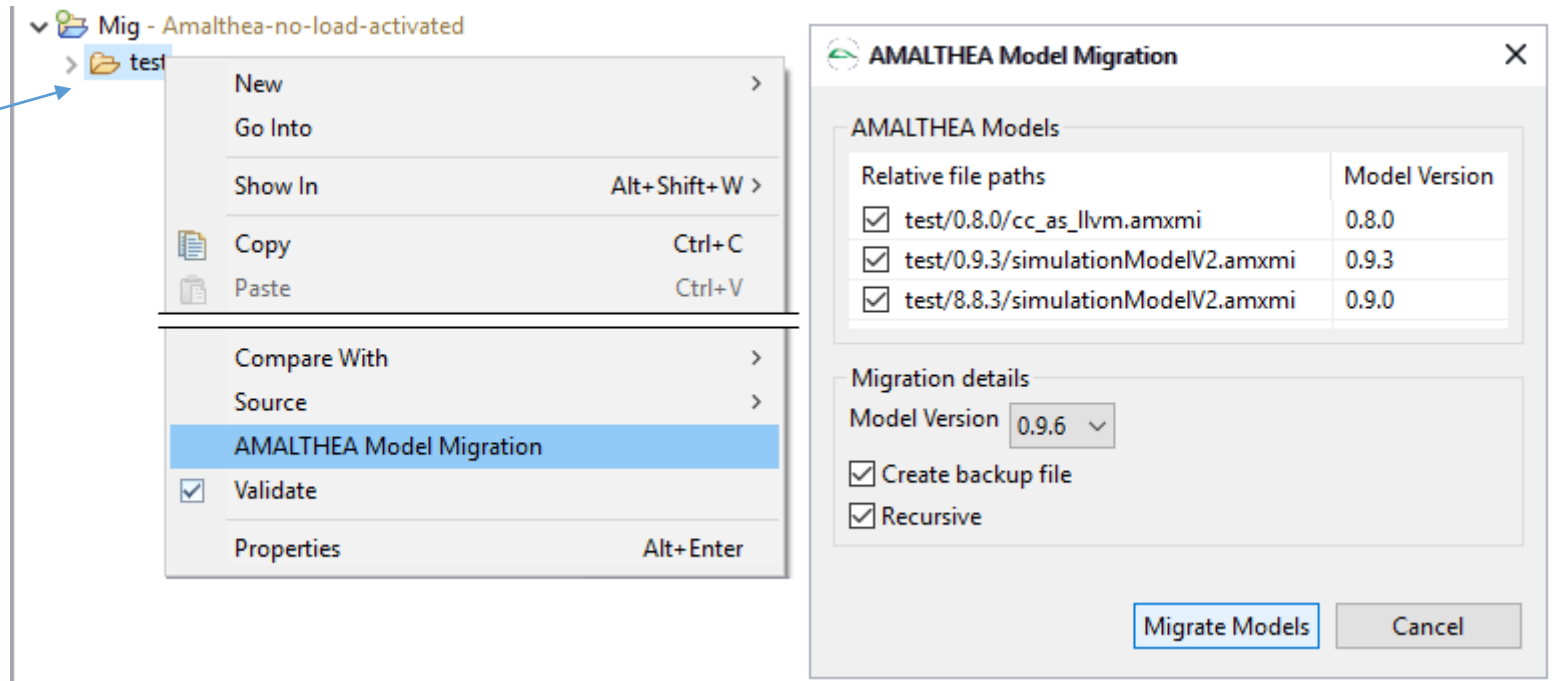


New Migration dialog

New Migration dialog

Possible selections are:

- a single .amxmi file
- a folder that contains at least one .amxmi file
- a project that contains at least one .amxmi file



New Migration dialog

Model Migration dialog consists of following information:

Selected AMALTHEA model files

- ▶ These are the models which are included in the selection
Note: The check box “recursive” allows to include the contents of subfolders
- ▶ Input model versions are displayed in the second column of the table
Note: In case of different AMALTHEA model versions in one folder, a warning will be shown.

Output model version

- ▶ This is the AMALTHEA model version to which the selected models files should be migrated to

Create backup file

- ▶ If the check box “Create backup file” is checked then a backup file with the same name suffix as in “Simple migration” is created before the migration. Otherwise the migration will be executed in place.