2021x News for Developers



Released on: February 12, 2021

In this release, new APIs have been added, some existing were changed or removed. Additionally, the UML metamodel and the profiles have been updated.

Runtime environment is changed to Java 11.

- Runtime environment
- UML metamodel changes
- Open API changes related to modifications of UML metamodel
- Profiles changes
- Profiles implementation changes
- Removed Open APIs because of dropped features
- Changes in Simulation Open API
- Other Open API changes
- File Format changes
- Upcoming changes in 2021x Refresh1

Runtime environment

Runtime environment is changed to Java 11; Java 8 is not supported anymore.

UML metamodel changes

We changed a way how stereotype applications and tagged values are represented in the UML model. InstanceSpecifications, Slots, ValueSpecifications are not used for that anymore. New meta-classes are introduced for storing tagged values. This new approach reduces number of elements in the projects up to 50%.

- Element.appliedStereotypeInstance, InstanceSpecification.stereotypedElement meta-properties are removed
- TaggedValue, ElementTaggedValue, StringTaggedValue, RealTaggedValue, BooleanTaggedValue, IntegerTaggedValue meta-classes are added
- Element.appliedStereotypes meta-property is added

More details in Developer Guide Working with stereotypes and tagged values

Open API changes related to modifications of UML metamodel

- *com.nomagic.uml2.ext.jmi.helpers.StereotypesHelper* utility class was refactored
    - Methods related to InstanceSpecifications, Slots, ValueSpecifications were removed
    - Methods related to working with tagged value were moved to com.nomagic.uml2.ext.jmi.helpers.TagsHelper
    - Various deprecated methods were moved to com.nomagic.uml2.ext.jmi.helpers.DeprecatedStereotypesHelper and com.nomagic.uml2.ext.jmi.helpers.DeprecatedTagsHelper

⚠ StereotypesHelper extends DeprecatedStereotypesHelper, DeprecatedTagsHelper, TagsHelper. It should be enough to recompile your java plugins.

You will need to adjust StereotypesHelper usages in your scripts if you have such embedded into the models.

- com.nomagic.uml2.ext.jmi.smartlistener.SmartListenerConfig was refactored. New predefined configs are added, irrelevant ones are removed. New methods for merging configurations are added.
- Some methods are removed from com.nomagic.magicdraw.hyperlinks.HyperlinkUtils

Profiles changes

- The SysML profile is updated due to changes in SysML 1.6:
    - The profile has some minor changes, to comply with Standard changes of SysML 1.6
- The UAF profile is updated due to changes in UAF 1.1:
    - The Profile has some minor changes, to comply with Standard changes of UAF 1.1

Profiles implementation changes

- Implementations of profiles are changed
    - *com.nomagic.magicdraw.sysml.util.SysMLProfile, com.nomagic.uml2.MagicDrawProfile and other profiles implementations extends com.nomagic.profiles.ProfileImplementation instead of com.nomagic.uml2.ext.jmi.helpers.StereotypeByProfileCache anymore*

    - Various methods and constants are deprecated in newly generated profiles implementations.

- Profiles implementation code generator is extended with new options. See more Custom profile implementation

Removed Open APIs because of dropped features

- *com.nomagic.magicdraw.patterns.*** classes are removed as Patterns functionality is removed
- Some constants are removed from *com.nomagic.magicdraw.actions.ActionsID*, *com.nomagic.magicdraw.properties.PropertyID* due to removed features
- Teamwork Server is not supported anymore, related APIs are removed
    - Removed classes
        - com.nomagic.magicdraw.teamwork.application.TeamworkUtils
        - com.nomagic.magicdraw.teamwork.application.BranchData
        - com.nomagic.magicdraw.teamwork.application.VersionData
        - com.nomagic.magicdraw.core.project.RemoteProjectDescriptor
    - Removed methods from other classes
        - com.nomagic.magicdraw.core.Project, com.nomagic.magicdraw.core.ProjectUtilities
        - com.nomagic.magicdraw.core.project.ProjectDescriptorsFactory
        - com.nomagic.magicdraw.core.project.ProjectEventListener
        - com.nomagic.magicdraw.core.modules.ModulesService
    - Classes moved to other packages
        - com.nomagic.teamwork.common.projects.CategoryInfo moved to com.nomagic.magicdraw.teamwork2.esi.CategoryInfo
        - AddModuleInfo, LeaveModuleInfo, ResolveLocalModuleInfo, UseModuleInfo classes are moved to com.nomagic.magicdraw.teamwork2.local2remote.** package
- Class com.nomagic.magicdraw.visualization.projectsmap.ProjectMapHelper removed as Project Usage Map functionality is dropped

Changes in Simulation Open API

- Removed from OpenAPI
    - com.nomagic.magicdraw.simulation.engine.ExecutionEngineDescriptor#getEngineIcon
    - com.nomagic.magicdraw.simulation.engine.ExecutionEngineDescriptor#canAnimate
    - com.nomagic.magicdraw.simulation.engine.ExecutionEngineDescriptor#isAutoDiagramOpened
    - com.nomagic.magicdraw.simulation.engine.ExecutionEngineDescriptor#canDebug
    - com.nomagic.magicdraw.simulation.engine.ExecutionEngineDescriptor#isDiagramPerSession
    - com.nomagic.magicdraw.simulation.engine.ExecutionEngineDescriptor#canUserTriggerEvents
- Simplified API - use SimulationManager#execute(Element element, boolean start) : SimulationResult instead of
    - SimulationManager#execute(com.nomagic.uml2.ext.magicdraw.classes.mdkernel.Element element) : SimulationSession
    - SimulationManager#execute(com.nomagic.uml2.ext.magicdraw.classes.mdkernel.Element element, java.lang.Boolean isMainSession, java.lang.Boolean start, java.lang.Boolean isSilent) : SimulationSession
    - SimulationManager#execute(com.nomagic.uml2.ext.magicdraw.classes.mdkernel.Element element, java.lang.Boolean isMainSession, java.lang.Boolean start) : SimulationSession
- Removed Project parameter from various methods in com.nomagic.magicdraw.simulation.SimulationManager. BaseElement should be passed instead of Project into these methods:
    - SimulationManager#logConsoleDebug(Project project, String message)
    - SimulationManager#logConsoleError(Project project, String message)
    - SimulationManager#logConsoleInfo(Project project, String message)
    - SimulationManager#logConsoleWarn(Project project, String message)
    - SimulationManager#logConsoleDebug(BaseElement element, String message)
    - SimulationManager#logConsoleError(BaseElement element, String message)
    - SimulationManager#logConsoleInfo(BaseElement element, String message)
    - SimulationManager#logConsoleWarn(BaseElement element, String message)

Other Open API changes

- *com.nomagic.magicdraw.annotation.AnnotationManager* was refactored from singleton to project service.
    - *AnnotationManager#getInstance(com.nomagic.magicdraw.core.Project)* should be used to get an instance for a given project now.
- *com.nomagic.magicdraw.ui.dialogs.SelectElementDlg* one of constructors was removed.
- *com.nomagic.magicdraw.core.options.HttpProxyOptionsGroup* was removed. *com.nomagic.magicdraw.core.options.NetworkOptionsGroup* should be used instead.
- Previously deprecated constants and methods were removed from
    - *com.nomagic.requirements.util.RequirementsConstants*
    - *com.nomagic.magicdraw.sysml.util.SysMLConstants*
    - com.nomagic.uml2.ext.jmi.helpers.ClassifierHelper
    - com.nomagic.uml2.ext.jmi.helpers.ModelHelper
- *com.nomagic.magicdraw.commandline.CommandLine* method *CommandLine#run* replaced with *CommandLine#execute*
- com.nomagic.magicdraw.uml.symbols.layout.UMLGrap was changed. Only constructors and some necessary getters and setters are left open api. All other methods and fields are no longer OpenAPI.
- com.nomagic.magicdraw.uml.Finder.ByQualifiedNameFinder uses generics on passed "Class" arguments
- com.nomagic.magicdraw.ui.RefreshManager exposed to Open API

File Format changes

There are no changes.

Upcoming changes in 2021x Refresh1

We are considering to remove OSGi support. This change will not affect how your plugins are launched and used, but you might need to adjust your code if you are starting MagicDraw application from your application.