SysML active validation suites

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Introduction

The SysML active validation suites enable you to see if a model is correct and complete immediately. It instantly displays any errors in the model and suggests appropriate solutions. The active validation suites have «activeValidationSuite» stereotype applied.

Each profile contains its own active validation suites. You can create your own validation suites.

You can meet the following active validation suites in the Validation dialog or Validation Suites dialog:

- SysML_activeValSuite Activities contains SysML constraints on the following elements: Discrete and noBuffer.
- SysML activeValSuite Blocks contains SysML constraints on the following elements: Binding Connector, Block, Distributed Property and Value Type.
- SysML_activeValSuite Constraint Blocks contains SysML constraints on the following elements: Constraint Block and Constraint Property.
- SysML_activeValSuite Non-normative Extensions contains SysML constraints on the following elements: nonStreaming, Streaming, Design Constraint, Functional Requirement, Interface Requirement and Performance Requirement.
- SysML_activeValSuite Port and Flows contains SysML constraints on the following elements: Flow Port, Flow Property, Flow Specification and Item Flow
- SysML activeValSuite Requirements contains SysML constraints on the following elements: Copy, Requirement and Test Case.

🖗 can find active validation suites in the Containment tree when the Show Auxiliary Resources option is enabled, expand the MD Customization for

SysML Package> SysML constraints Package > SysML active ValSuite package. The SysML active ValSuite Package is divided into separate Packages

Validating a project with active validation suites

Tomanually validate project with active validation suites, you can select the specific Active ValSuite (mentioned above) as the Validation Suite in the Vali dation dialog. How to start the validation >>



In the Model Browser, click and enable the Show Auxiliary Resources option.

Selecting active validation mode

Active validation automatically runs in the background according to the selected active validation mode.

To select the active validation mode

- 1. Do one of the following:
 - On the main menu, select Analyze > Validation > Active Validation.
 - On the main menu, select Options > Environment. On the left of the Environment Options dialog, select Active Validation group. Select the Active Validation option.
- 2. Select one of the following modes:
 - All enables all (user defined and system) active validation suites.
 - System enables validation suites that are critical to the model. For example, all projects have the UML Standard Profile, which has the Composition Integrity system validation suite. This suite contains validation rules allowing for detecting shared project usage, recovered element, or illegal reference related problems.

Can check these rules under the Auxiliary Resources > UML Standard Profile > Validation Profile > Composition Integrity.

- To show the auxiliary resources 3. Click OK.
 - Selected validation suites are active for all projects, not just the current project.

Specifying the active Malidation period and enable the Show Auxiliary Resources option.

You can control how often, in seconds, a modeling tool will analyze the rules to be executed and how often the modeling tool will execute these rules. After opening a project, all required validation rules will be executed, including system or all (user and system), and next time these rules will be checked only after the specified period.

To specify the active validation period

- 1. On the main menu, select Options > Environment.
- 2. On the left of the Environment Options dialog, select Active Validation group.
- 3. Select the Active Validation Period (seconds) option.
- 4. Type its value in seconds.

Decify a higher time period to ensure better performance of the application.

5. Click OK.

The specified period is used for all projects, not just the current project.

Customizing active validation options

You can customize the Active Validation options in the Project Options dialog.

To open the Active Validation options

- 1. Open the Project Options dialog in one of the following ways:
 - On the main menu, select Analyze > Validation > Active Validation Options.
 - On the main menu, select Options > Project. In the Project Options dialog, select General > Validation.
- 2. Specify the options you need in the Active Validation area. How to use the Project Options dialog >>
- 3. Click OK.

Project Options

Specify general project properties

Specify the validation, project dependency checker options and other general project-specific options.



Q Type here to filter options	Validation	
□···· ☑ General □··· ☑ Adorning □··· ☑ Browser □·· ☑ Corba IDL □·· ☑ Dependency Checker □·· ☑ Diagrams □· ☑ Diagrams Aspects □· ☑ General □· ☑ Suspect Links □· ☑ Validation □··· ☑ Symbol styles □··· ☑ Default model properties □··· ☑ Code Engineering	Deltain Deltain Validation Scope Validation Scope Validate Only Visible Diagrams Exclude Elements from Used Read-Only Project Mark in Tree and Diagrams Ignored Validation Suites Ignored Validation Rules Minimal Severity Validation Ignored Validation Suites Ignored Validation Rules Minimal Severity	 ✓ true ✓ true ✓ true ▲ warning [UML Standard Profile::Vali ▲ warning [UML Standard Profile::Vali Reset to Defaults
		OK Cancel Help

Active Validation options in the Project Options dialog.

Optimizing performance

- Set the Validate Only Visible Diagrams option value to true. This limits a validation scope to visible diagrams only.
- Set the Exclude Elements from Used Read-Only Project option value to true to reduce the number of elements to check in your model.
- · Set the Exclude elements from additional content option value to true to ignore the content of Smart packages while running the passive

Turning affathen parameters synchronization validate) dialog.

- To turn off the parameters synchronization

 Smart package content (separate elements) will be validated only if Smart package is set directly as a scope of the active validation.
 - 1. On the many package is set indirectly for the validation scope, modeling tool will automatically exclude it from the active validation scope, because

 - In the Project Options (jalequage are concerned) of the real ments.
 Find the Synchronize Parameters and Arguments option and set its value to false.

Related pages

- MagicDraw predefined validation suites
- MagicDraw active validation suites
- SysML validation suites
 Requirements validation suites