

Active validation suites

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Introduction

Active validation suites enable you to immediately see if a model is correct and complete, instantly displaying any errors in the model and suggesting appropriate solutions. The active validation suites have the «activeValidationSuite» stereotype applied.



Each profile contains its own active validation suites. You can [create your own validation suites](#).

You can see the following active validation suites in the [Validation dialog](#) or [Validation Suites dialog](#):


- **Numbering Validation** contains constraints that check if the element number is unique.
- **Parameters Synchronization** contains constraints that keep your model valid and synchronized with your changes. [You can turn off parameters synchronization >>](#)
- **Path Overlapping** contains constraints that check to ensure that paths do not overlap.
- **Pins Displaying** contains constraints that check to ensure that actions do not contain hidden Pins.
- **Relations Ownership** contains constraints that check if a relationship has the same owner as its end elements.
- **Shape Ownership** contains constraints that check the element and path owner: if the symbol owner on the diagram correctly reflects the element owner in the model and the element, and if the diagram on which the symbol is drawn belongs to the same owner.
- **Text References Validation (Auto)** contains constraints that check if the hyperlink text and the referenced element are coherent.
- **UML Correctness** contains constraints that check the Ports compatibility, Pin types compatibility, Slot and Tags multiplicity correctness, etc.
- **Diagram Merge** contains constraints that check if the diagrams or symbols are merged correctly.



You can find active validation suites in the [Containment tree](#) when the **Show Auxiliary Resources** option is enabled. Expand the *UML Standard Profile* Package > *Validation Profile* Package > *Active Validation* package.

To show the auxiliary resources

Validating a project with active validation suites

To manually validate a project with active validation suites, you can select the specific validation suite (mentioned above) as the **Validation Suite** in the [Validation dialog](#). In the [Model Browser](#), click  and enable the **Show Auxiliary Resources** option.

[How to start the validation >>](#)

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.



Info

3. Click **OK**.
Selected validation suites are active for all projects, not just the current project.


You can check these rules under the **Auxiliary Resources > UML Standard Profile > Validation Profile > Composition Integrity**.

Specifying the active validation period

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

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.

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

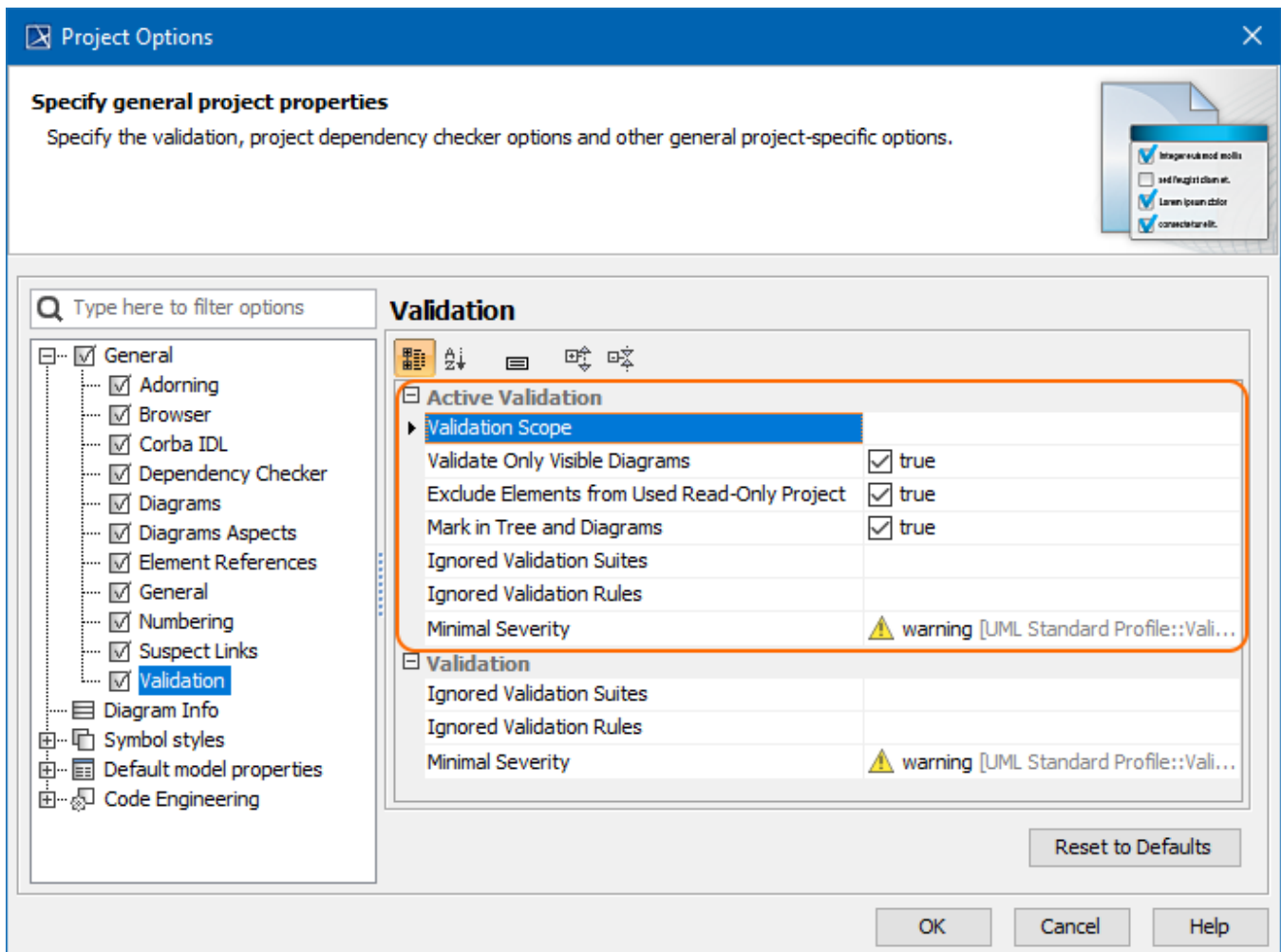
5. Click **OK**.
The specified period is used for all projects, not just the current project.

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**.





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.

Turning 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.

- If smart package is set indirectly for the validation scope, modeling tool will automatically exclude it from the active validation scope, because

To turn off the parameters synchronization

elements in the smart package are owned by other elements.

1. On the main menu, select **Options > Project**.
2. In the **Project Options** dialog, select **General > General**.
3. Find the **Synchronize Parameters and Arguments** option and set its value to *false*.

Related pages

- [MagicDraw predefined validation suites](#)
- [SysML validation suites](#)
- [SysML active validation suites](#)
- [Requirements validation suites](#)