

Package import

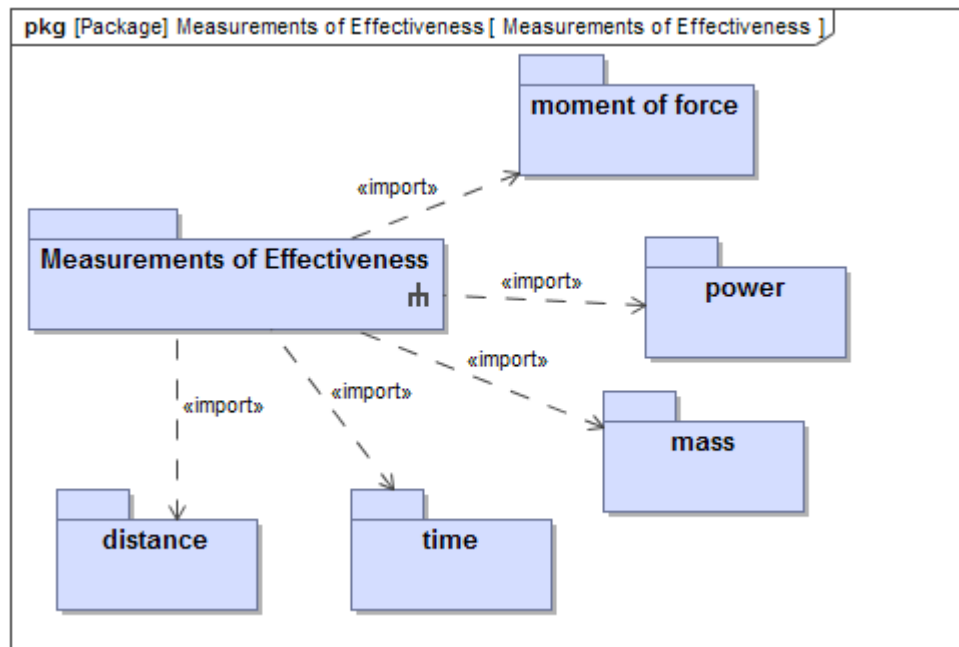
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In UML, package import is defined as a directed relationship between an importing namespace and a package whose members are imported into that namespace. The visibility of a package import is either public or private. The predefined keywords are «import» for a public package import, and «access» for a private package import.

A package import is displayed as a dashed arrow with an open arrowhead aiming from the importing namespace towards the imported package.

Package import applies to an entire package, and all the model elements of the target package are imported into the source namespace. The source package can access subpackages and their imported members of the target package to an infinite depth. The elements of an imported package are also accessible to the subpackages of the importing package.

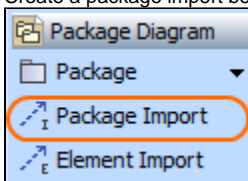


An example of the package import.

Restricting type selection list to imported elements

To restrict the type selection list to imported elements

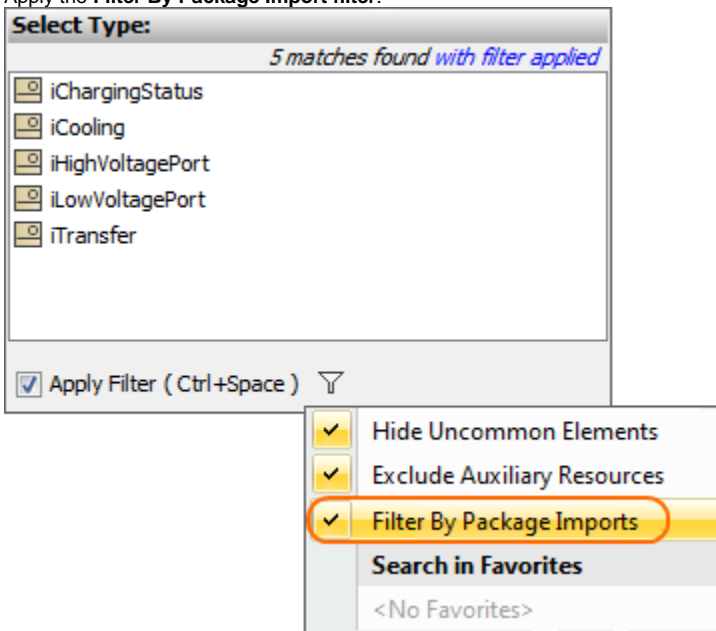
1. Create a package diagram.
2. Drag the package with typed elements, as well as packages with types, on the diagram pane.
3. Create a package import between them by clicking **Package Import** in the diagram palette.



To apply the filter

1. Click a typed element to open the **Select Type** dialog.

2. Apply the **Filter By Package Import** filter.



As a result, the type selection list is restricted to imported elements only.

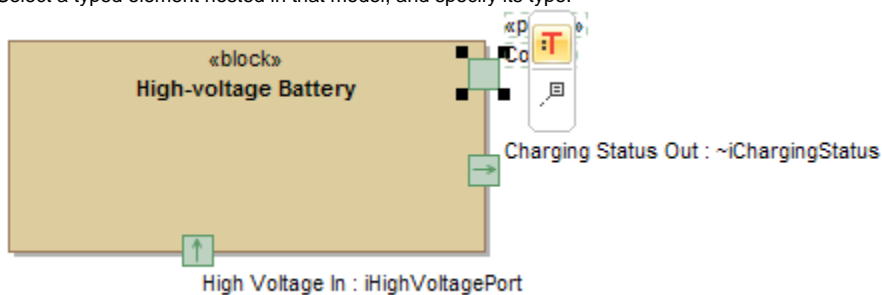
 There are more [useful filters](#) you can use for the same purpose.

Different abstraction levels

You can also use a Model instead of a package, in which case, the elements cannot be accessed from outside, and you can only select the types from packages that are owned within the Model element.

To only show elements from the desired abstraction level

1. Right-click the package to which you want to restrict your type selection, and select **Refactor > Convert To > Model**.
2. Select a typed element nested in that model, and specify its type.



3. Apply **Filter By Package Imports** to only list the elements that belong to the same abstraction level.

Validation

Use active validation to evaluate which element types are out of the scope specified by package imports.

1. Go to **Analyze > Validation > Validate**.
2. In the **Validation** dialog, select **UML correctness constraints** from the **Validation Suite** drop-down list.
3. Click **Validate**.
4. In the **Validation Results** panel, right-click the element you want to change or unset type for, and select **Change Type**, **Unset Type**, or **Create Package Import Relationship** accordingly.

Validation Results

Validation Results

Element

Severity

Abbreviation

Message

Is Ignored

UML correctness constraints

in ESP : 01 Conceptual Model::Interfaces::iESP

in GPS Receiver : 01 Conceptual Model::Interfac...

in GSM module : 01 Conceptual Model::Interface...

inout Adaptive Cruise Control : 01 Conceptual M...

inout Dashboard : 01 Conceptual Model::Interfa...

error

error

error

error

error

OutOfScope

OutOfScope

OutOfScope

OutOfScope

OutOfScope

The type was chosen out of scope.

The type was chosen out of scope.

The type was chosen out of scope.

The type was chosen out of scope.

The type was chosen out of scope.

Not Ignored

Change Type

Unset Type

Create Package Import Relationship

Ignore

Navigate to Validated Object

Alt+B

Go To

Select Rule in the Containment Tree

Element	Severity	Abbreviation	Message	Is Ignored
UML correctness constraints				
in ESP : 01 Conceptual Model::Interfaces::iESP	error	OutOfScope	The type was chosen out of scope.	Not Ignored
in GPS Receiver : 01 Conceptual Model::Interfac...	error	OutOfScope	The type was chosen out of scope.	
in GSM module : 01 Conceptual Model::Interface...	error	OutOfScope	The type was chosen out of scope.	
inout Adaptive Cruise Control : 01 Conceptual M...	error	OutOfScope	The type was chosen out of scope.	
inout Dashboard : 01 Conceptual Model::Interfa...	error	OutOfScope	The type was chosen out of scope.	