

Java Operation

The Java Operation mapped directly to the UML Operation is done with the stereotype «JavaOperation». This stereotype is optional, so if the UML class has no stereotype Java CE treats it as a Java Operation. If no appropriate property is found in UMLOperation, modifiers are mapped into UML Property properties or to the Java language properties. The Java Operation return type is mapped to the UML Type property of the UML Parameter with the "Return" direction kind. Java Operation parameters are mapped to the UML Parameters. The direction kind is set "In" for "final" parameters. Note that Java parameter type modifiers are mapped to the UML specific property "Type Modifier," but not to the UML Multiplicity.

Operation mapping table

Java Element	UML Element
Operation declaration	UML Operation, owned by UML Class, with stereotype «JavaOperation» (optional)
Operation Name	UML Operation Name
Operation documentation	UML Operation Documentation
Parameters list	UML Operation "Parameters" list
Return type	Mapped to the UML Parameter type with "return" direction kind, i.e., it resides in the UML Operation parameters list. It is a reference to the UML Classifier; its package structure and name represent the referenced Java class
Return type modifiers	Mapped to the MagicDraw specified property "Type Modifier"
Visibility modifier	UML Operation "Visibility" property
Final modifier	UML Operation "Is Leaf" property
Abstract modifier	UML Operation "Is Abstract" property
Static modifier	UML Operation "Is Static" property
Synchronized modifier	UML Operation "Concurrency" kind "guarded"
Throws list	UML Operation "Raised Exception" list. It is a list of references to the UML Classes; its package structure and name represent the referenced Java exception class.
Native modifier	Java Language property "Native modifier"
Strictfp modifier	Java Language property "Strictfp modifier"

Parameter mapping table

Java Element	UML Element
Parameter declaration	UML Parameter, owned by UML Operation, with stereotype «JavaParameter» (optional)
Parameter name	UML Parameter Name
Parameter documentation	When used in JavaDoc preprocessing, it is mapped to the UML Parameter Documentation. If not, it is part of the UML Operation Documentation.
Return type	Mapped to the UML Type property. It is a reference to the UML Classifier; its package structure and name represent the referenced Java exception class.
Return type modifiers	Mapped to the MagicDraw specified property "Type Modifier"
Final modifier	Direction kind "in" of the UML Parameter



Examples

Java Source Code

```
Re public class MyList
{
  /**
   * Operation Comment
   */
  public abstract void foo(final List list) throws IllegalArgumentException;
}
```

UML Model



Class with an operation.