

# Java Code Engineering

This chapter describes how our modeling tool maps Java language elements to UML, helps choose which profiles to use, and describes Java code engineering properties.

This chapter features the following:

1. [Java Mapping to UML](#) describes general rules our modeling tool uses to map each Java element to UML and which profile is used. You will find an example and corresponding model in MagicDraw with marked properties used in Java to describe mapping rules.
2. [Java CE Options](#) introduces specific Java options.
3. [Method Implementation Reverse](#) describes a functionality that switches Java from a Sequence Diagram to our modeling tool.

## References

Gosling, J., Joy, B., Steele, G., Bracha, G., & Buckley, A. (2012, February 6). The Java™ Language Specification. Java SE 7 Edition. Retrieved March 29, 2012, from <http://docs.oracle.com/javase/specs/jls/se7/jls7.pdf>

## Java support in modeling tools developed by No Magic, Inc.

You can perform the following actions:

- Import Java source code into a model (reverse engineering).
- Generate Java code from the model (code generation).
- Apply changes to the source code from the model (round-trip). You can change Java declaration headers and apply them to existing source code; however, you cannot change the method of implementation.
- Create a sequence diagram from the selected method body.
- Create a model from the Java byte code.

### Related pages:

- [Java Mapping to UML](#)
- [Java CE Options](#)
- [Method Implementation Reverse](#)
- [Code Engineering](#)
  - [Code Engineering Sets](#)
  - [Generating Code](#)
  - [Reverse Options](#)
  - [Global options for Code Engineering](#)
  - [Files of Properties](#)
  - [Java Code Engineering](#)
  - [C++ Code Engineering](#)
  - [C# Code Engineering](#)
  - [CORBA IDL Mapping To UML](#)
  - [WSDL](#)