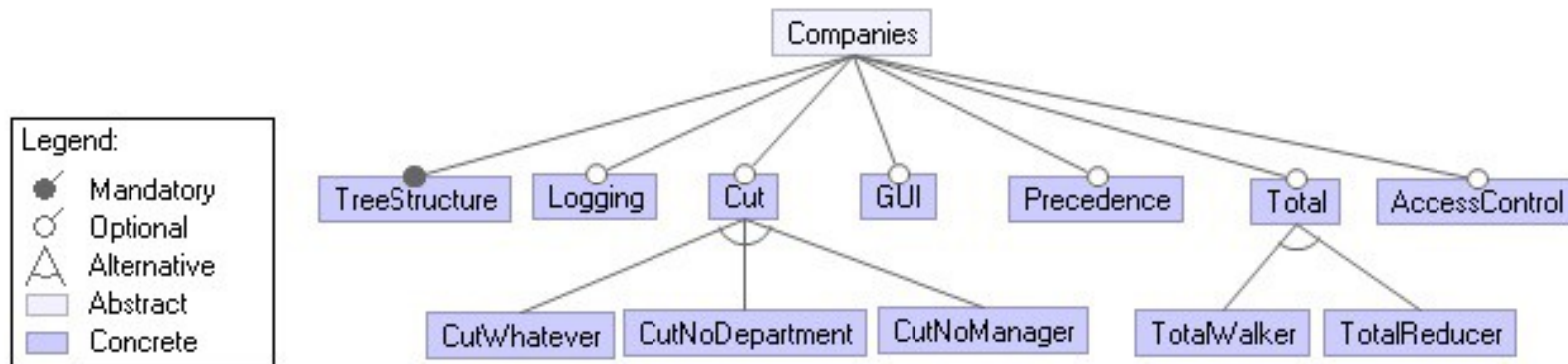# 101Companies Software Product Line

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Feature Model

Getting Started With Java

Setting up your Java environment:

• Get the suitable Java distribution from the Oracle/Java website.

• Run the installer.

• Add a new system variable with the name JAVA_HOME and the value of the directory Java was installed in.

• Add %JAVA_HOME%\bin to your system path.

Getting Started with Ant

- To get up and running with the binary edition of Ant quickly, follow these steps:

  1 - Make sure you have a Java environment installed.

  2 - Download Ant.

  3 - Uncompress the downloaded file into a directory.

  4 - Set environmental variables ANT_HOME to your ANT. environment and add %ANT_HOME%/bin to your PATH.

Generating Products
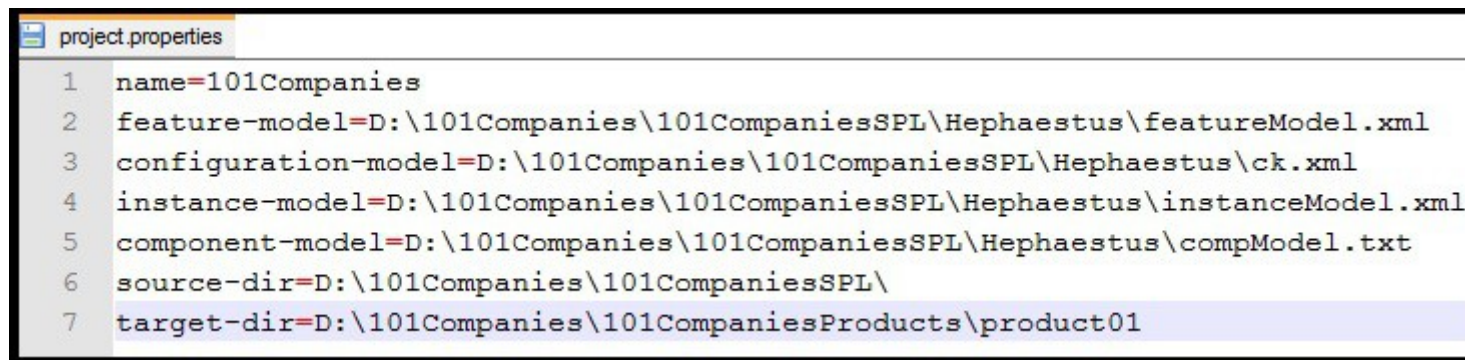
Three Steps:

Step 1: Set project.properties file.

Step 2: Run Hephaestus tool*.

Step 3: Run the generated product.

* Hephaestus-code is currently available for windows.

Step 1: Set project.properties file

• Set the path to where this folder is located in your computer in all fields.

• Set the instance-model field to the instance you have chosen.

• Set the target-dir field to the directory where the project will be generated

```
project.properties
1    name=101Companies
2    feature-model=D:\101Companies\101CompaniesSPL\Hephaestus\featureModel.xml
3    configuration-model=D:\101Companies\101CompaniesSPL\Hephaestus\ck.xml
4    instance-model=D:\101Companies\101CompaniesSPL\Hephaestus\instanceModel.xml
5    component-model=D:\101Companies\101CompaniesSPL\Hephaestus\compModel.txt
6    source-dir=D:\101Companies\101CompaniesSPL\
7    target-dir=D:\101Companies\101CompaniesProducts\product01
```
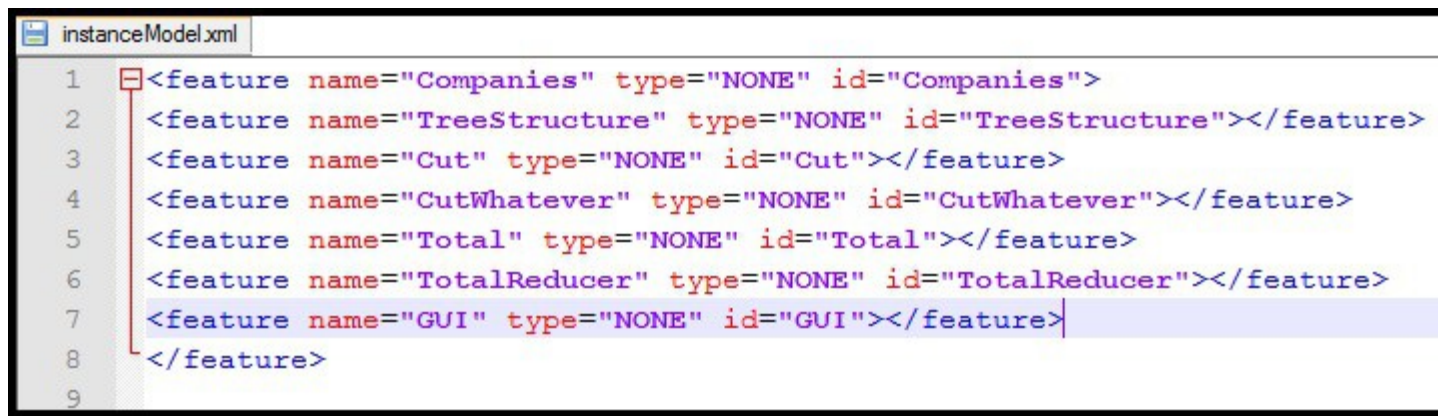
Warning

• If you choose a target directory where a product has already been generated, clean the folder before generating a new product.

• Optionally, you can change the target-dir in project.properties.

Hephaestus Instance Model

- Inside 101Companies\hephaestus folder, choose the product configuration between some of the existing instance models or create a new xml file following the same pattern of the existing instance models and save.

```
instanceModel.xml
1  <feature name="Companies" type="NONE" id="Companies">
2    <feature name="TreeStructure" type="NONE" id="TreeStructure"></feature>
3    <feature name="Cut" type="NONE" id="Cut"></feature>
4    <feature name="CutWhatever" type="NONE" id="CutWhatever"></feature>
5    <feature name="Total" type="NONE" id="Total"></feature>
6    <feature name="TotalReducer" type="NONE" id="TotalReducer"></feature>
7    <feature name="GUI" type="NONE" id="GUI"></feature>
8  </feature>
9
```

Step 2: Run Hephaestus tool

In your command line:

1 - Go to hephaestus folder.

2 - Run VMCODE.exe.

3 - Type project.properties and hit enter.

4 - When the program asks to generate the product, type y and hit enter.

5 - If no warnings appears, the product was generated with success.

* If you are interested to see configuration knowledge, in hephaestus folder type java -jar ckeditor.jar ck.xml

Step 3 – Run the generated product

In your command line go to the generated product directory.

Type:

ant t : To run the tests of the generated product.

ant r : To run the Main Class of the generated product.

ant ca : To clean all files of the product folder in order to generate another product in the same target.

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