Installing Netbeans with Maven Support on Linux

Overview

These are instructions for installing Netbeans, Maven and Maven support within Netbeans.

Java 1.5 Required

You must use a Java 1.5.0 JDK, because org.lcsim requires it.

I will also briefly describe how to import and build a Maven-based project within Netbeans.

(I) Warning

These linux specific instructions are not up-to-date. You should just follow the generic instructions.

Downloads

Java

Java 1.5.0 can be downloaded at http://java.sun.com/j2se/1.5.0/download.jsp.

JAVA_HOME

Set the JAVA_HOME variable to your JDK root area. Otherwise, Maven may not pick up the correct Java compiler.

At SLAC, you can setup the shared Java 1.5.0 JDK on Linux by executing this command.

export JAVAVER=1.5

Netbeans Installer

Get the install files for Netbeans from http://www.netbeans.org/index.html.

Click on the "4.1 beta" graphic.

Select your platform and download the installer.

Maven Installer

Download the maven installer from http://maven.apache.org/start/download.html.

Get the latest version as of 3/23/05 (update as appropriate).

wget http://www.apache.org/dyn/closer.cgi/maven/binaries/maven-1.0.2.tar.gz

Maven NBM

Mevenide provides Maven support in the Netbeans IDE. You need to get the "nbm" files from the Mevenide Downloads Area .

download

wget http://mevenide.codehaus.org/download/mevenide-netbeans-autoupdate-1.0.nbm wget http://mevenide.codehaus.org/download/mevenide-netbeans-grammar-0.6.1.nbm

Grammar NBM Might be Optional

As of now, if you want to install the most recent Netbeans, 4.1beta, you will need the special NBM file for XML grammar listed above. If, instead, you choose to use 4.0, you may not need to install the grammar pack separately. Thus, the instructions throughout this guide about this special setup should be ignored if you are using Netbeans 4.0 and not 4.1beta.

Summary

⚠

You should now have the following files for the installation.

```
mevenide-netbeans-autoupdate-1.0.nbm
mevenide-netbeans-grammar-0.6.1.nbm
netbeans-4_1-beta-linux.bin
maven-1.0.2.tar.gz
```

Maven Mispelled

"maven" has been mispelled as "meven" throughout the Maven IDE installation kit.

Obviously, the exact versions will change as Netbeans and Maven are updated.

Installation

Installing Maven

Unpack the Maven tarball.

```
tar zxvf maven-1.0.2.tar.gz
cd maven-1.0.2
```

Follow the installation instructions at http://maven.apache.org/start/install.html.

After installation, assuming you are still in the base directory, set the MAVEN_HOME environment variable.

export MAVEN_HOME=`pwd`

(i) MAVEN_HOME Required

This variable must be set in the Netbeans startup environment for the Maven support to work properly.

Installing Netbeans

Run the installer that you downloaded.

./netbeans-4_1-beta-linux.bin

Step through the wizard, selecting a location where you won't go over disk quota.

Make sure to select a Java 1.5.0 JDK.

For instance, this shows the shared install used at SLAC.

▼ NetBeans IDE 4.1 Beta Installer			
	Select a Java 2 Standard Edition JDK installed on your machine from the list below. You can pick a different JDK by typing in its installation directory or using the Browse button. J2SE JDK 1.4.2 or later is required.		
	J2SE JDK <u>H</u> ome Directory. /afs/slac.stanford.edu/package/java/i386_linux2/jdk1.5.0 B <u>r</u> owse		
	List of suitable J2SE JDKs found on this machine: /afs/slac.stanford.edu/package/java/i386_linux2/jdk1.5.0 (v. 1.5.0) /afs/slac/package/java/@sys/jdk1.5 (v. 1.5.0)		
InstallShield	< <u>B</u> ack <u>N</u> ext > <u>C</u> ancel		

When finished, startup Netbeans.

netbeans-4.1beta/bin/netbeans

Installing the Maven Grammar Support

Careful when Installing Modules

I noticed that if the module installation steps were performed incorrectly, Netbeans would complain once at restart about missing dependencies and then not allow reinstallation of the modules using the Update Manager, at least not in an obvious way. So try to do it correctly the first time, or Netbeans may need to be reinstalled. (Probably, there is a way to have it rescan for module updates, but I have not found it.)

Now you need to install Maven grammar support. The one you downloaded is especially for Netbeans 4.1beta.

In Netbeans, go to Tools -> Update Center.

Select Install Manually Downloaded Files and click Next.

Click Add and select the file mevenide-netbeans-grammar-0.6.1.nbm. Click Okay. You should see this file under Modules to Install.

♥ Update Center Wizard	
Steps	Select Modules to Install (Continued)
 Select Location of Modules Select Modules to Install Download Modules and Check Digital Signatures 	Click Add to select modules from a local disk. Select a directory to include all modules in that directory, or select individual .nbm files. Modules to Install
4. View Certificates and Install Modules	/scratch/sw/mevenide-netbeans-grammar-0.6.1.nbm Add Remove
	< <u>B</u> ack Next > <u>Finish</u> Cancel

You should see Meven IDE XML Grammar under Include in Install on the lefthand side.

Steps	Select Modules to Install	
 Select Location of Modules Select Modules to Install Download Modules and Check Digital Signatures View Certificates and Install Modules 	Available Updates and New Modules: — 🖅 Manually Downloaded Modules	Include in Install:
		<u>T</u> otal Size: <mark>36 KB</mark>
	Availabl <u>e</u> Version:	I <u>n</u> stalled Version:
		More
		- Pack Newt X Finish Cancel

Now select the boxes under Include and Global for Meven IDE XML Grammar. Click Accept or Yes to get past the boilerplate warnings.

💙 Update Center Wizard		
Steps	View Certificates and Install Modules	
 Select Location of Modules Select Modules to Install Download Modules and Check Digital Signatures View Certificates and Install Modules 	Select the modules you wish to install. If a module is signed, you must view and accept its cer Modules to Install Include Module Name Mevenide XML Grammar - version 0.6.1 Trusted	tificate. Global
	View⊆ertificate Save	Copy
	< <u>B</u> ack Next > <u>F</u> inish	Cancel



It is my preference to put the Maven IDE support in the Netbeans install area, i.e. Global, but it is not necessary for the install to work.

The IDE should ask to be restarted. Click Yes and then Okay to get past the Warning box about missing dependencies. These will be installed next.

Installing Maven IDE AutoUpdate

In a manner quite similar to the previous section, install the Maven Auto Updater from mevenide-netbeans-autoupdate-1.0.nbm.

The IDE will not be restarted for this step.

Installing Maven IDE Support

Go back to Tools -> Update Center and select Check the Web Deselect Development Update Center and make sure that Mevenide Update Center is selected.

♥ Update Center Wizard		
Steps	Select Location of Modules	
 Select Location of Modules Select Modules to Install Download Modules and Check Digital Signatures View Certificates and Install Modules 	Check the Web for Available Updates and New Modules. Select Update Center(s) to connect: Update Center Development Update Center Mevenide Update Center	
	Proxy Configuration To initiate connection to the Update Center server, click Next.	
	< <u>B</u> ack Next > Einish Can	cel

Under Available Updates and New Modules, you should see a number of modules under Mevenide Update Center. Click the Double Arrow to put these all into Include in Install. Now use the Single Arrow to deselect the installation of Mevenide-Grammar, as you installed this previously.

eps	Select Modules to Install	
 Select Location of Modules Select Modules to Install Download Modules and Check Digital Signatures View Certificates and Install Modules 	Available Updates and New Modules: P	Include in Install: Maven 1.0.1 library for Mevenide Mevenide Netbeans project support Goals grabber Mevenide-Repository Mevenide-Core Mevenide-Config
	Availabl <u>e</u> Version:	Total Size: 4403 KB
		More

Click Next and finish the installation exactly as before, making sure to select Include for all modules in the Modules to Install box.

After installing these modules, the IDE should be restarted.

If successful, you will no longer see any warnings when Netbeans starts.

To check that Maven support was successfully installed, check in File -> New Project. Under Categories, you should see a folder called Maven.

Using Maven in Netbeans

Opening an Existing Maven Project

You can open an existing Maven project using File -> Open Project. Valid folders will have a yellow box in the lower right of the folder icon. For instance, I could choose the GeomConverter or Icsim folders below.

♥ Open Project	
Look <u>I</u> n: 📑 work	
books LCPhys slic current_data lcs tbeam eclipse lcsim test gdml mkdep www-lcsim GeomConverter mokka jobs netbeans lakos_dep notes lcdd ronan LCDetectors root lcdg4 sim_build_test	Project Name: ✓ Open as Main Project ✓ Open Required Projects:
File <u>N</u> ame: /u/ey/jeremym/work Files of <u>T</u> ype: Project Folder	Open Project Folder Cancel

Select a valid folder in the chooser window and click Open Project Folder.

Netbeans will scan the project for classes and the like, which takes awhile. Once it is finished, you should see the project in the lefthand window.

Here is the **GeomConverter** project with some expanded folders.



Building the Project

To build the project using Maven, simply right click on the project in the lefthand pane and click Build.

NetBeans IDE 4	4.1 Beta - GeomConve	rter	
<u>Eile E</u> dit <u>V</u> iew	Build Run Refactor $\$	/er <u>s</u> ioning <u>T</u> ools ⊻	⊻indow <u>H</u>
🕒 🕒 🖉	> 🕼 🖌 📦	1 7 C	<i>></i>
Projects 👯 💷	× Files	Runtime	Welco
P Geom Con P Source P Source P Source P Tor P Test S P Resource P Test Resource	New Build Clean Rebuild Generate Javadoc Execute custom goal Reload Project Set Main Project Open Required Projects Close Project Properties org Icsim Glose Geometry esources t org Icsim Close Geometry esources t org Icsim Close Geometry esources t	 nverter.heprep nverter.lcdd nverter.lcdd.util 	

Alternately, you can select the menu item **Build -> Build Main Project** or press **F11**.

You should see the Maven splash screen in the console and scrolling messages as the project is built.

```
Output - Ics im: Geom Converter
build:start:
java:prepare-filesystem:
java:compile:
  [echo] Compiling to /a/surrey01/vol2/g.lcd.mc/prj/users/jeremym/GeomConverter/target/classes
  [echo]
NOTE: Targetting JVM 1.5, classes
 will not run on earlier JVMs
java:jar-resources:
test:prepare-filesystem:
test:test-resources:
test:compile:
test:test:
  [junit] Running org.lcsim.geometry.compact.converter.lcdd.ConvertTest
```

Congratulations, you now have Maven support in Netbeans.