

Getting Started with NetBeans IDE

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IDRsolutions



About us

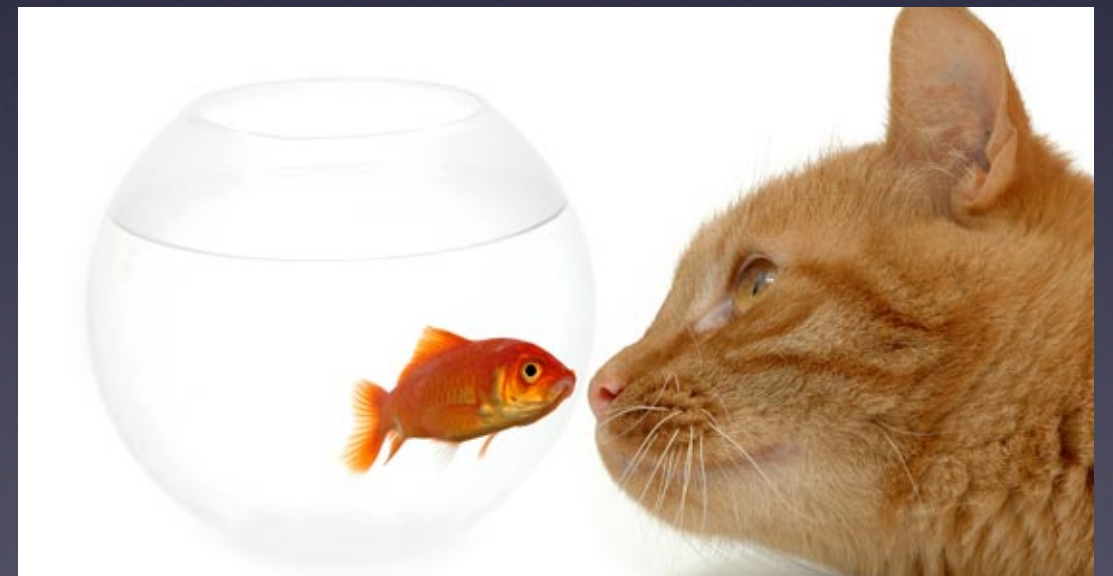
- UK based software company IDR solutions founded in 1999
- First product grew out of an MSc project at University of Greenwich
- Using Java since 1997 and have used Vi, JBuilder, VisualCafe, Eclipse, IDEA, NetBeans
- Regular speakers at JavaOne and other events
- Big NetBeans fans. Use NetBeans, help with testing, NetBeans partners, NetBeans dream team
- Work with PDF, HTML5, SVG in Java and JavaFX

Ask us about NetBeans, Java, HTML5, SVG, PDF or setting up and running a software business...



The talk will cover...

- Introducing NetBeans
- All the tools you will ever need for coding
- Debugging and testing with NetBeans
- Code quality
- Plugin manager
- Something about cats...



The NetBeans 'family'

NetBeans

NetBeans IDENetBeans PlatformPluginsDocs & SupportCommunityPartners

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NetBeans IDE 8.1 Download8.0.2 | 8.1 | Development | JDK9 Branch | Archive

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IDE Language: English Platform: Mac OS X
Note: Greyed out technologies are not supported for this platform.

NetBeans IDE Download Bundles

Supported technologies *	Java SE	Java EE	HTML5/JavaScript	PHP	C/C++	All
NetBeans Platform SDK	•	•				•
Java SE	•	•				•
Java FX	•	•				•
Java EE		•				•
Java ME						—
HTML5/JavaScript		•	•	•		•
PHP			•	•		•
C/C++					•	•
Groovy						•
Java Card™ 3 Connected						—
Bundled servers						
GlassFish Server Open Source Edition 4.1.1		•				•
Apache Tomcat 8.0.27		•				•

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Free, 114 MBFree, 234 MBFree, 136 MBFree, 136 MBFree, 142 MBFree, 263 MB

* See the [installation instructions](#) for all the details.

New to JavaScript, PHP, and C/C++ Development with NetBeans IDE?

The HTML5/JavaScript, PHP, and C/C++ bundles, shown in the table above, include the Java Runtime Environment, which is needed to run NetBeans IDE. Download and install the bundle and you will be able to run and use NetBeans IDE immediately. You do not need to download and install a separate Java installation.

New to Java Development with NetBeans IDE?

To run NetBeans IDE and develop Java programs, you need to install the Java SE Development Kit (JDK) first. JDK 7 Update 10 (or later) is required for installing and running the 'Java SE', 'Java EE', and 'All' bundles shown in the table above. [You can download the latest JDK here](#) or you can download the latest [JDK together with NetBeans IDE here](#).

Tip: ZIP distributions of NetBeans IDE are available [here](#).

Advanced Usage of NetBeans IDE

New to Java Desktop Development on the NetBeans Platform?

When you need to create large modular applications to be run on the Java desktop, you can develop applications based on the NetBeans Platform (a 'rich client platform') using the 'Java SE' bundle, shown in the table above. Learn more about the [NetBeans Platform here](#).

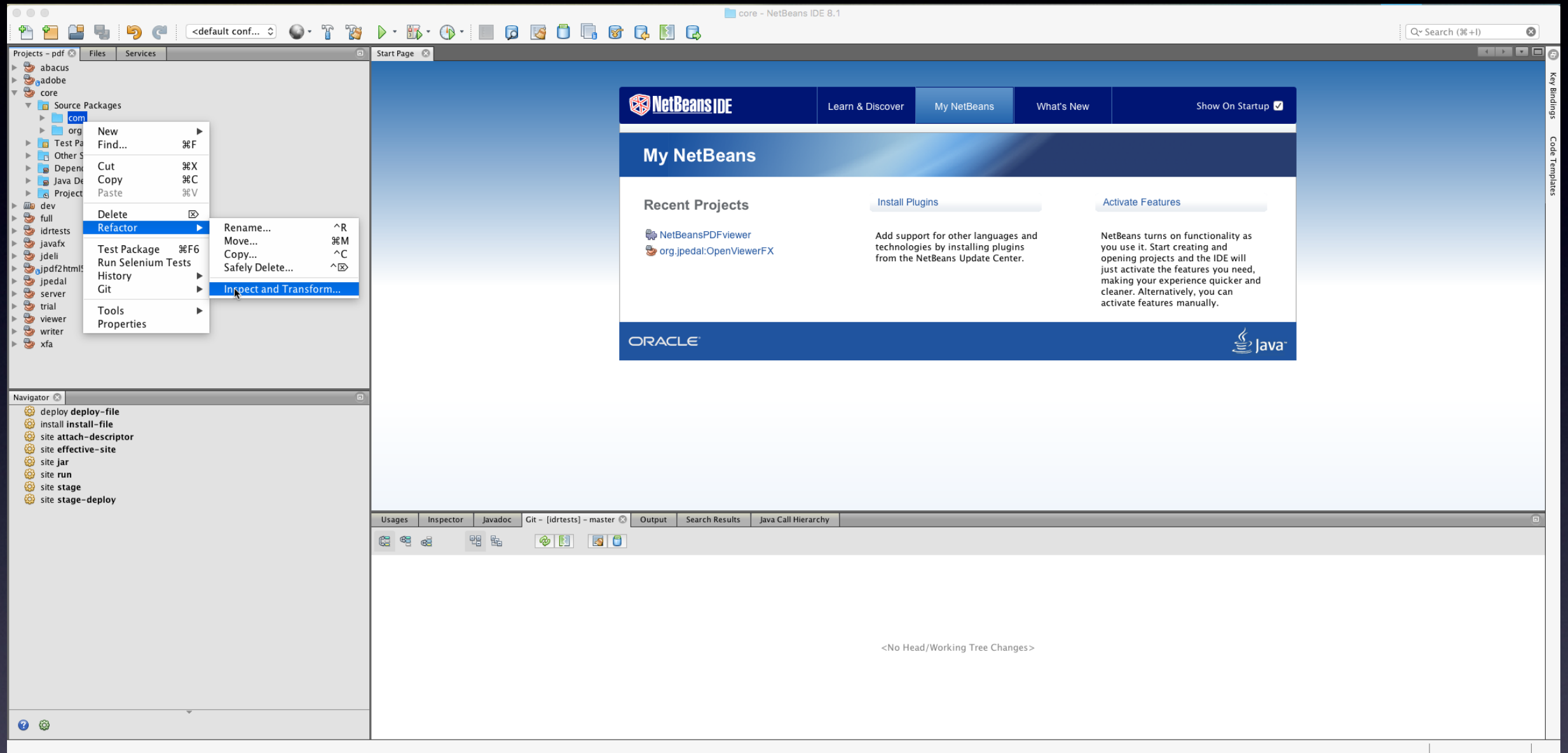
[New to Working with the NetBeans Source Code?](#)

Important Legal Information:

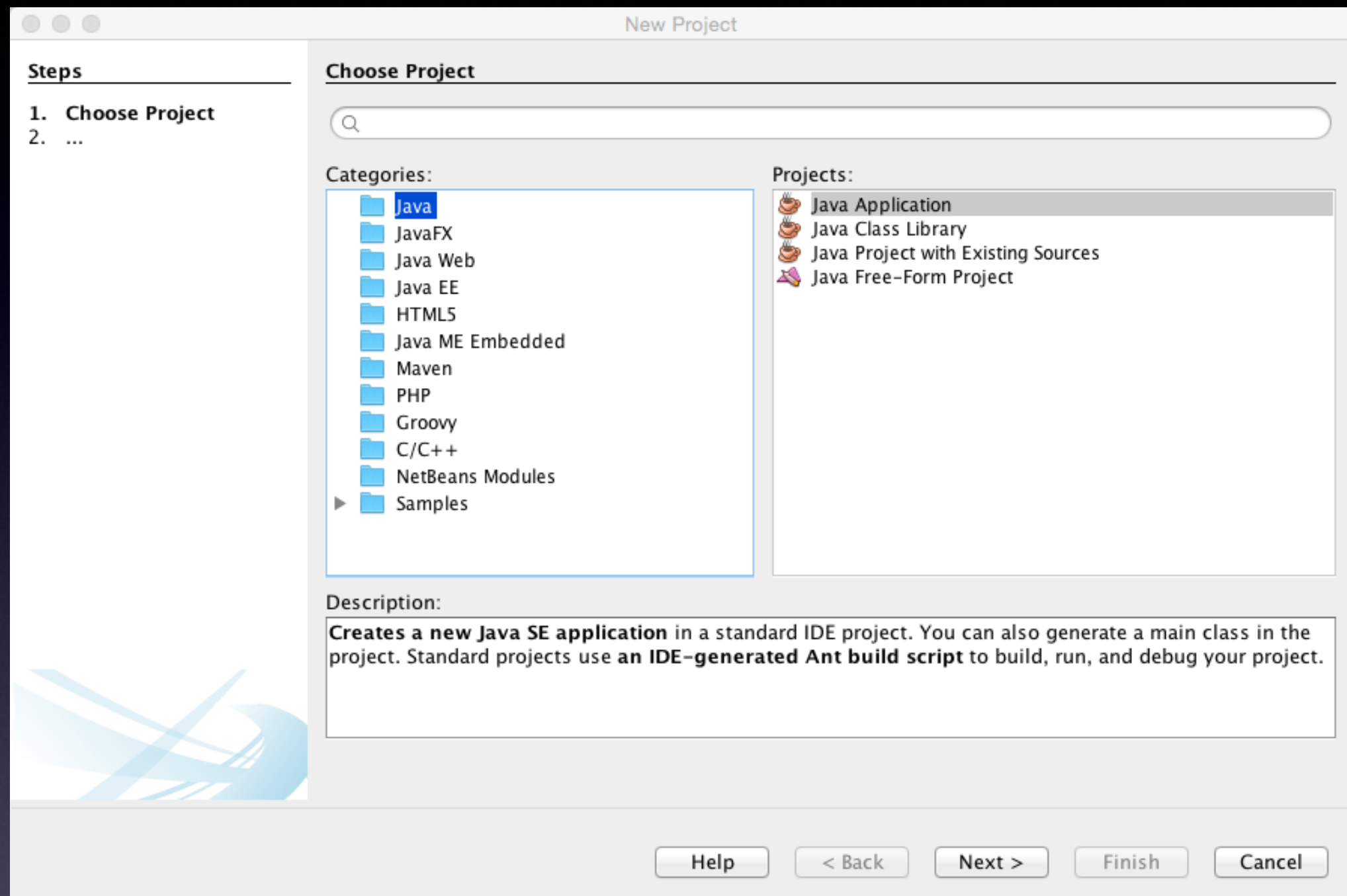
NetBeans Community Distributions are available under a Dual License consisting of the [Common Development and Distribution License \(CDDL\) v1.0](#) and [GNU General Public License \(GPL\) v2](#). Such distributions include additional components under separate licenses identified in the [License file](#). See the [Third Party License file](#) for external components included in NetBeans and their associated licenses.

IDE, SDK, Framework or Platform?

Context matters

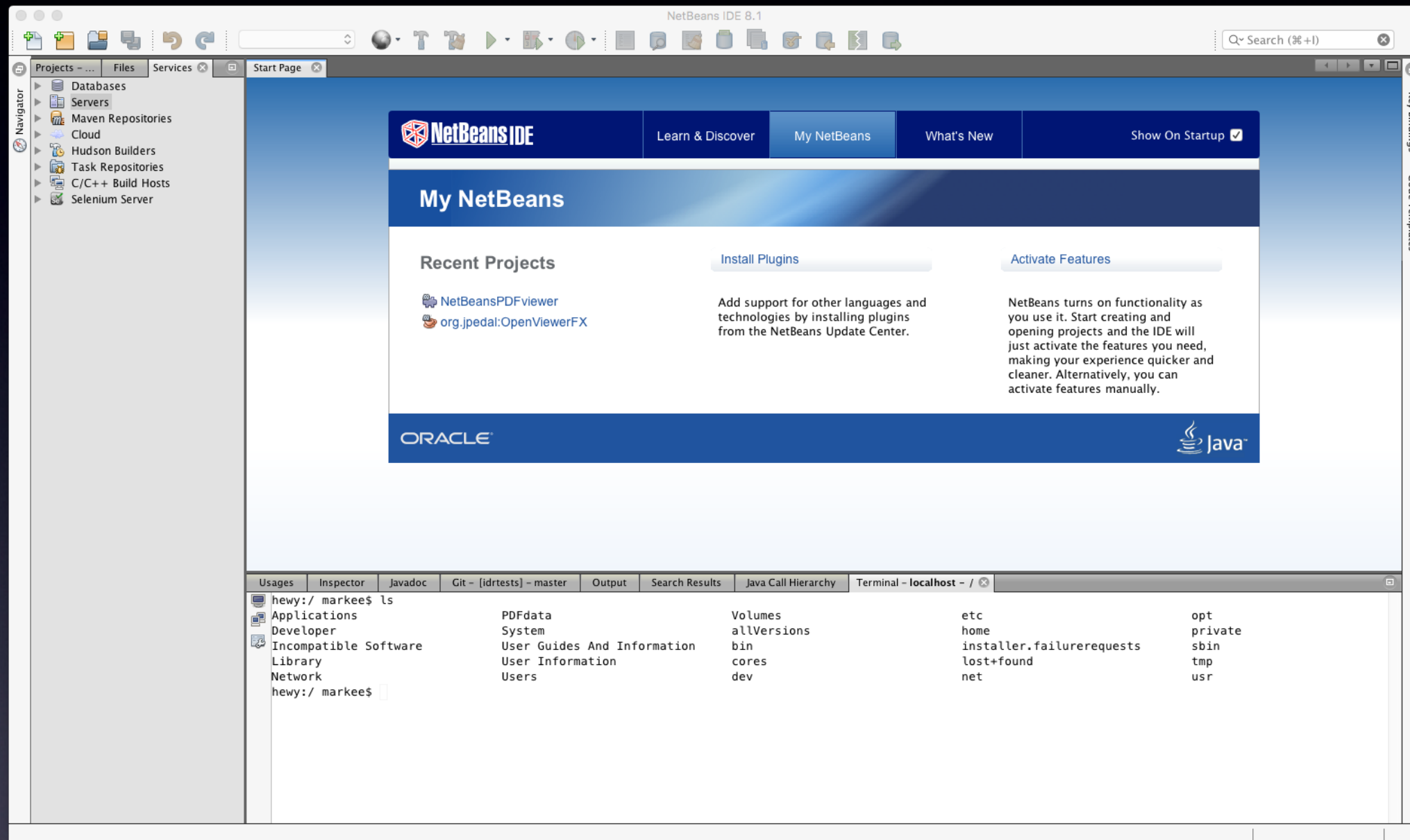


NetBeans Projects



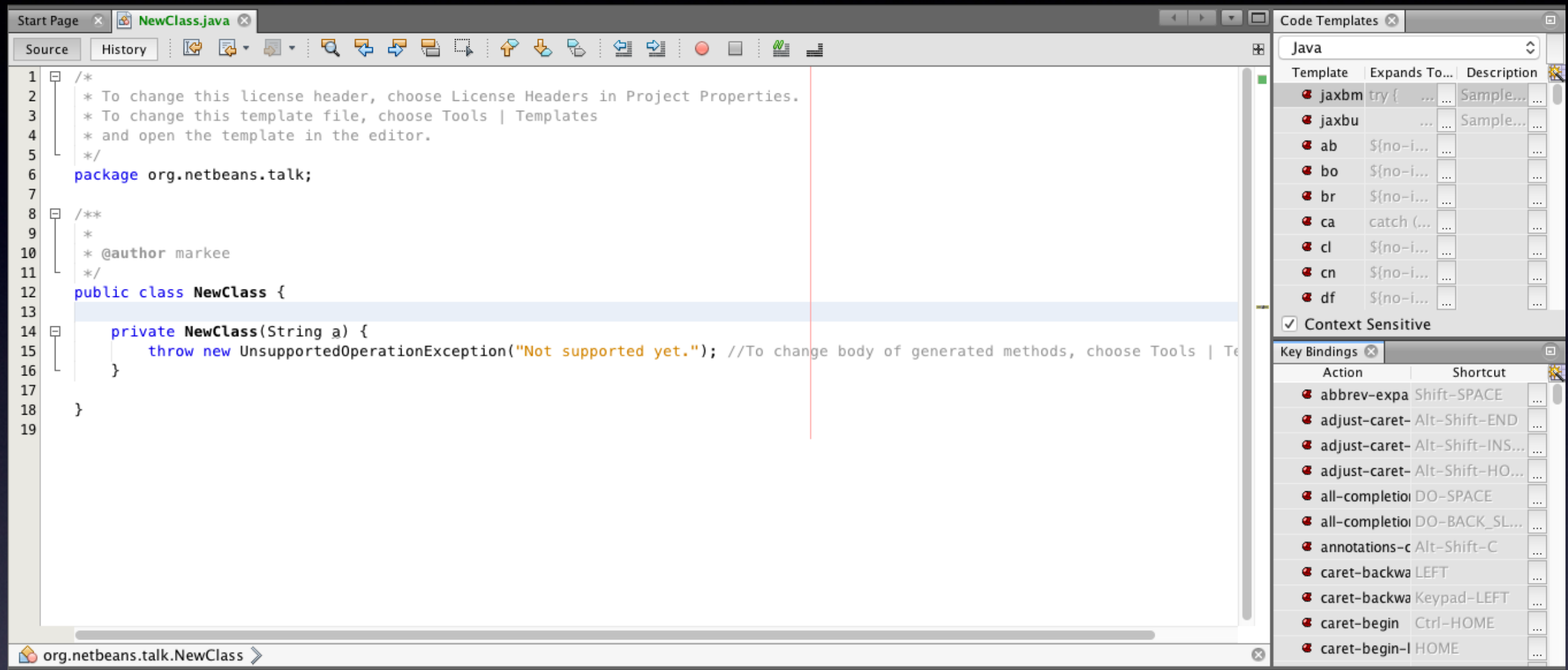
You can have multiple projects all open at once
Add other languages with Plugins (ie Android)...

You can live inside NetBeans



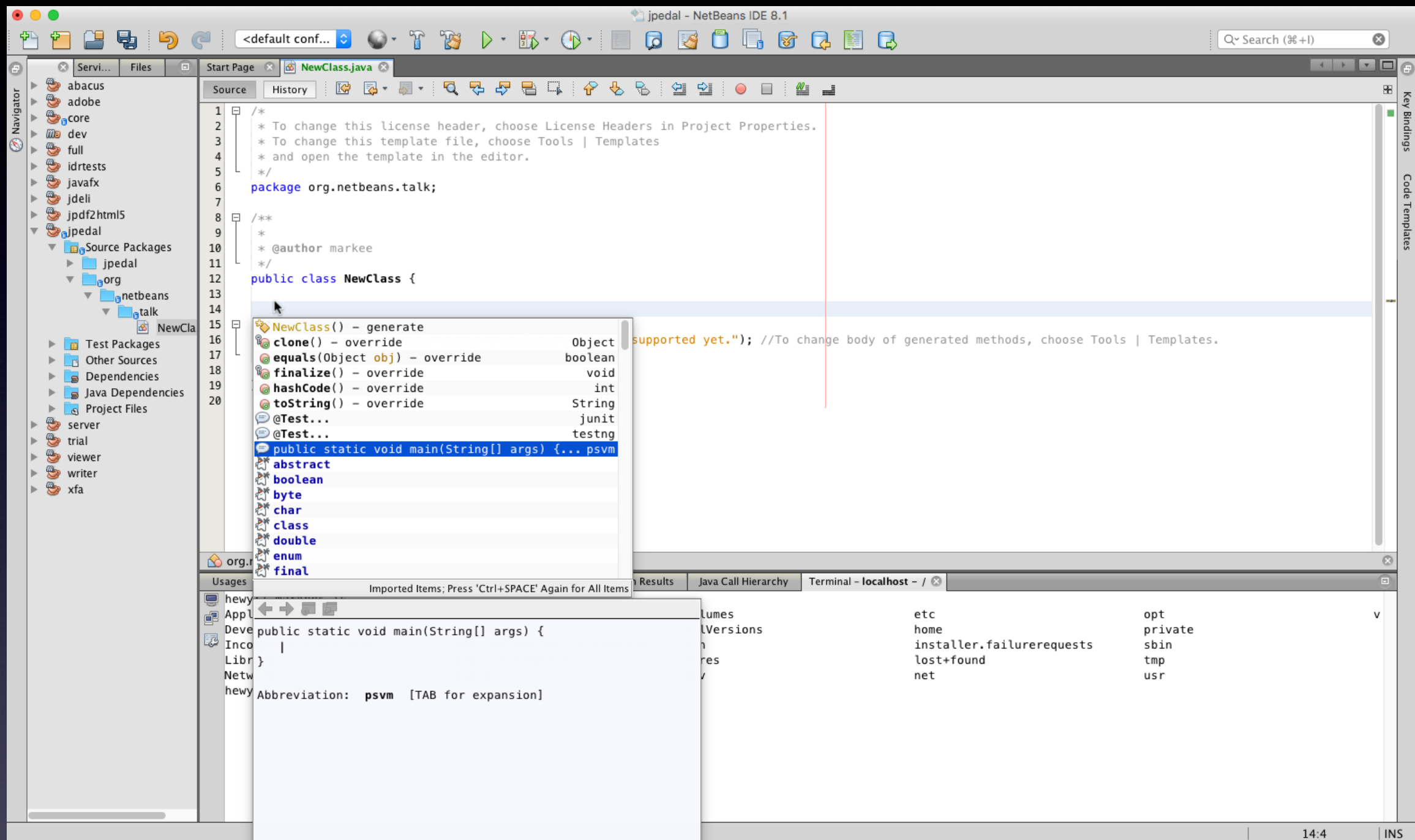
Start Page, services, full screen, even a shell...

Help writing code



General options, templates, formatting and ability to refine keyboard shortcuts, sensible defaults

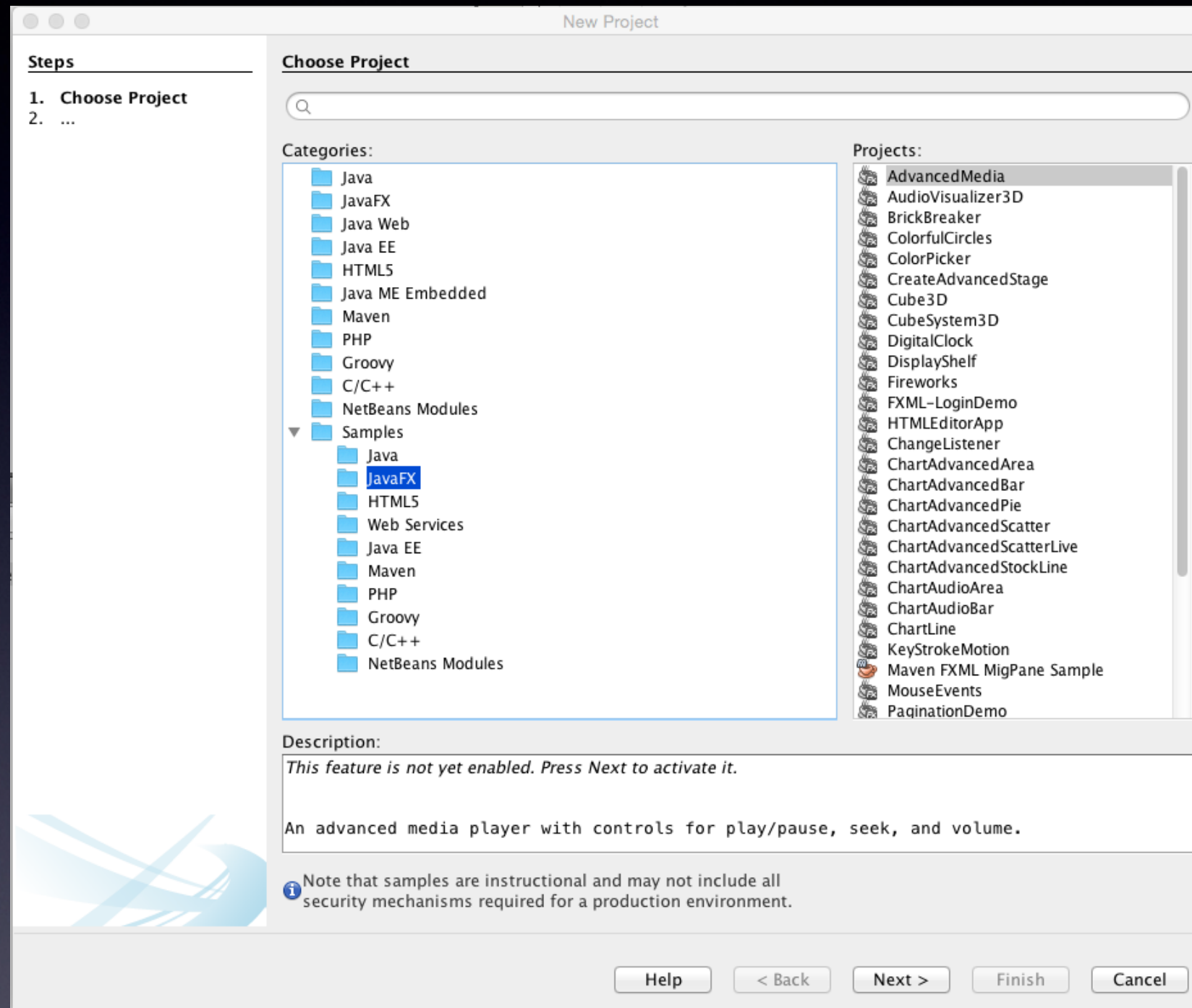
Inside NetBeans



code help, getters and setters, catching silly mistakes

Good artists copy, great artists steal!

Quote from ~~Pablo Picasso~~ Georgia Ingham



JavaFX - comments, history

Maven support

The screenshot displays the NetBeans IDE 8.1 interface with the 'Project Properties - server' dialog open. The 'Actions' tab is selected, showing a list of actions including 'Run project', which is highlighted. The 'Execute Goals' field contains the command: `process-classes org.codehaus.mojo:exec-maven-plugin:1.2.1:exec`. The 'Set Properties' field contains the command: `exec.args=-Dorg.jpdedal.page=21 -Dorg.jpdedal.hires=true -classpath %classpath org.jpdedal`. The 'Activate Profiles' field is empty. The 'Build Recursively (with modules)' and 'Build With Dependencies' checkboxes are unchecked.

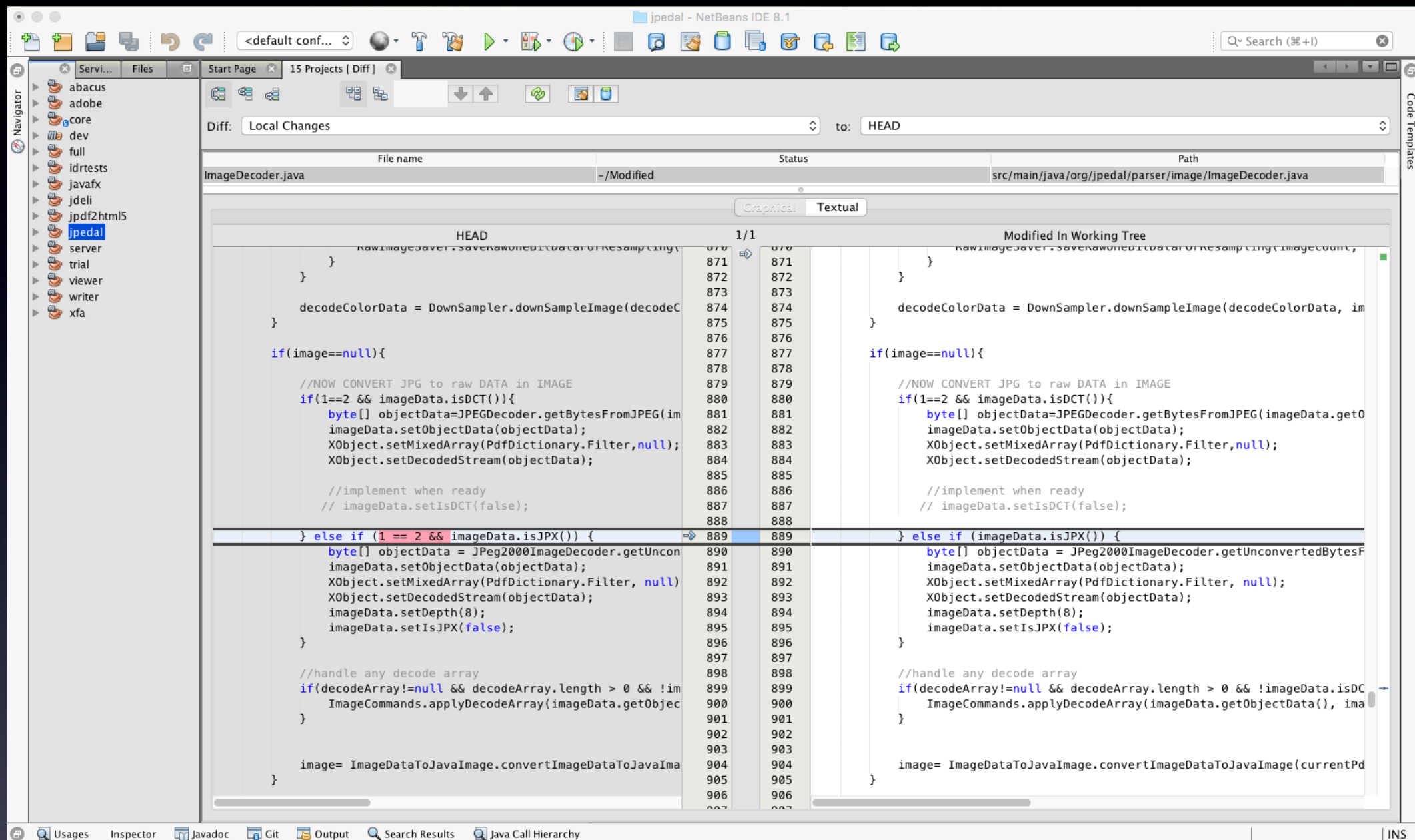
The 'POM model' view shows the project structure with the following dependencies:

- org.mozilla:1.7.2
- jdali:1.0-SNAPSHOT
- full:1.0-SNAPSHOT
- core:1.0-SNAPSHOT
- bcprov-jdk16:140

The 'Project Properties' dialog also shows the 'Categories' list on the left, including General, Sources, Configurations, Whitelists, JavaScript Libraries, Build, Compile, Run, Actions, JavaScript Frameworks, RequireJs, License Headers, Formatting, CheckStyle Formatting, and Hints.

It just works...

Version control



Note the toolbar is configurable....

Debugging code in NetBeans...

The screenshot shows the NetBeans IDE with the `Fireworks.java` file open. The code defines a `SanFranciscoFireworks` class that extends `Pane`. It includes a `stop()` method, a `play()` method, and a static class `SanFranciscoFireworks` with various attributes and a constructor. The constructor initializes a color palette of 180 colors using `RadialGradient` and `Stop` objects. The variable inspector window at the bottom shows the state of the `SanFranciscoFireworks` object.

```
72 }
73
74 @Override public void stop() {
75     sanFranciscoFireworks.stop();
76 }
77
78 public void play() {
79     sanFranciscoFireworks.start();
80 }
81
82 public static class SanFranciscoFireworks extends Pane {
83     private final AnimationTimer timer;
84     private final Canvas canvas;
85     private final ImageView background;
86     private final List<Particle> particles = new ArrayList<Particle>();
87     private final Paint[] colors;
88     private int countdownTillNextFirework = 40;
89
90     public SanFranciscoFireworks() {
91         // create a color palette of 180 colors
92         colors = new Paint[181];
93         colors[0] = new RadialGradient(0, 0, 0.5, 0.5, 0.5, true, CycleMethod.NO_CYCLE,
94             new Stop(0, Color.WHITE),
95             new Stop(0.2, Color.hsb(59, 0.38, 1)),
96             new Stop(0.6, Color.hsb(59, 0.38, 1, 0.1)),
97             new Stop(1, Color.hsb(59, 0.38, 1, 0))
98         );
99         for (int h=0; h<360; h+=2) {
100             colors[1+(h/2)] = new RadialGradient(0, 0, 0.5, 0.5, 0.5, true, CycleMethod.NO_CYCLE,
101                 new Stop(0, Color.WHITE),
102                 new Stop(0.2, Color.hsb(h, 1, 1)),
103                 new Stop(0.6, Color.hsb(h, 1, 1, 0.1)),
104             );
105         }
106     }
107 }
```

Variables Window:

Name	Type	Value
this	Fireworks\$SanFranciscoFireworks	#362
timer		null
canvas		null
background		null
particles	ArrayList	"size = 0"
colors	Paint[]	#386(length=181)
countdownTillNextFirework	int	40
Static		
Inherited		

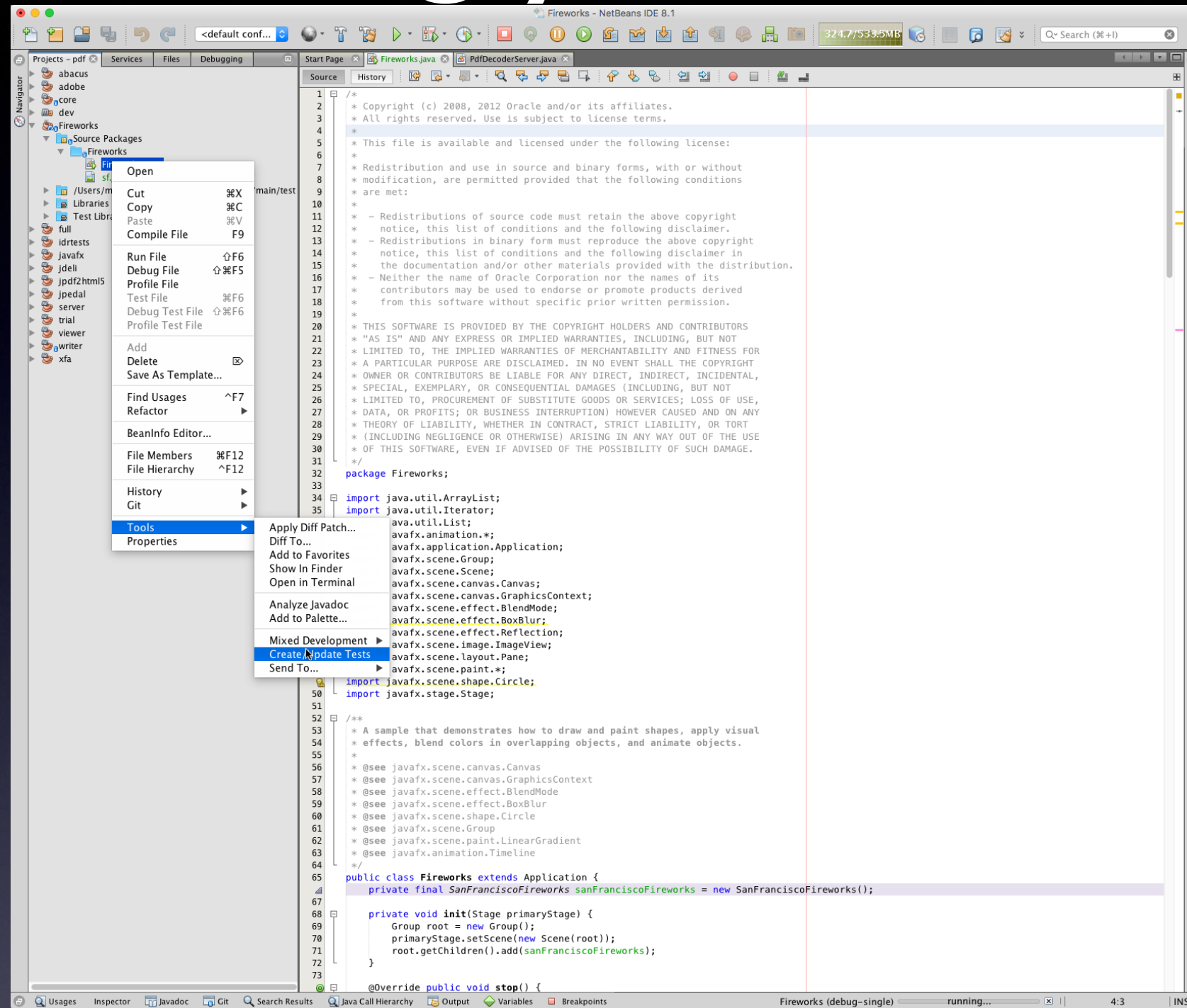
...and Chrome

The image shows a NetBeans IDE window titled "Project Properties - ResponsiveRabbits". The "Categories" list on the left includes Sources, CSS Preprocessors, JavaScript Libraries (with sub-items npm, Bower, and CDNJS), JavaScript Frameworks (with sub-item RequireJS), Run, Node.js, Cordova, JavaScript Testing, Selenium Testing, License Headers, and Formatting. The "Run" category is selected. On the right, the "Browser:" field is set to "Chrome with NetBeans Connector", with checkboxes for "Auto-refresh" and "Synchronize Browser" both checked. The "Start File:" field contains "index.html". The "Web Server:" field is set to "Embedded Lightweight Server". The "Web Root:" field contains "/ResponsiveRabbits". Below these fields, it says "The project's URL will be". At the bottom of the dialog are "OK", "Cancel", and "Help" buttons.

Overlaid on the right is a Chrome browser window titled "Project Easel Demo" showing the URL "localhost:8383/ResponsiveRabbits/index.html". A yellow notification bar at the top of the browser says "'NetBeans Connector' is debugging this browser." with a "Cancel" button. The page content includes a "Project name" input field, a "Welcome!" heading, and a paragraph: "NetBeans Project Easel is about combining state of the art HTML5/CSS3/JavaScript client development with Java/REST web services. Enabling the development and customization of flexible and performant industry standard client-side interfaces for multiple devices." Below this is a "Learn more »" button. At the bottom of the browser window, there are three small images of rabbits.

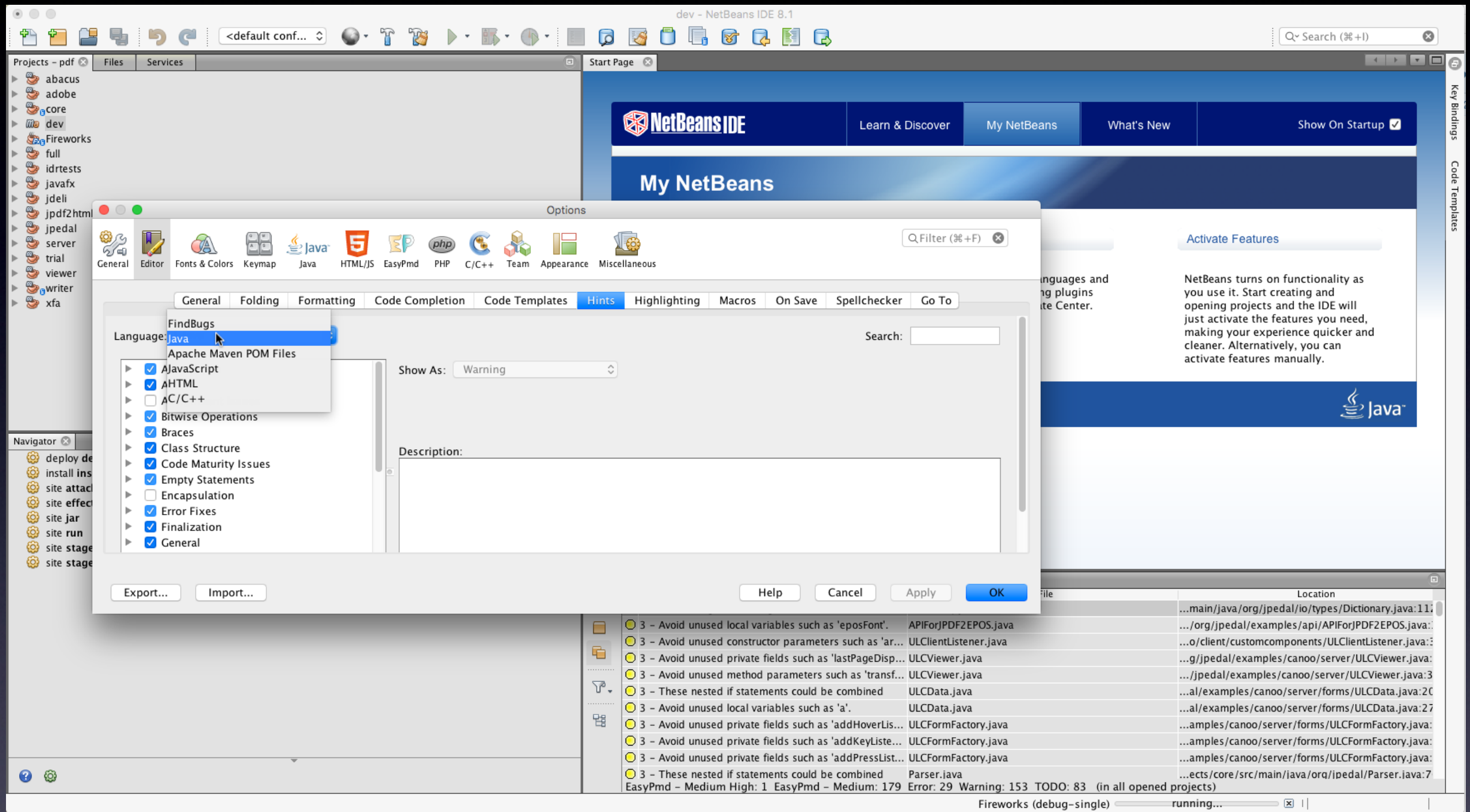
On the right side of the Chrome window is a "Debug in NetBeans" menu. It lists various device emulation options: Desktop (1280 x 1024), Tablet Landscape (1024 x 768), Tablet Portrait (768 x 1024), Smartphone Landscape (480 x 320), Smartphone Portrait (320 x 480), Widescreen (1680 x 1050), Netbook (1024 x 600), and Size to Fit. A "Customize..." option is at the bottom.

Testing your code



JUnit support for Continuous Integration

Code quality



Inspect, Inspect and Transform, Hints, FindBugs, PMD

Plugins

The screenshot shows the NetBeans IDE 8.1 interface. The 'Plugins' window is open, displaying a list of available plugins. The 'arduino-plugin' is selected, and its details are shown on the right. The IDE's status bar at the bottom indicates the application is 'running...'.

NetBeans IDE 8.1

Plugins Window:

- Updates | Available Plugins (193) | Downloaded | Installed (86) | Settings
- Check for Newest
- Search:

Install	Name	Category	Source
<input type="checkbox"/>	arduino-plugin	Arduino	
<input type="checkbox"/>	NetBeans Atlassian AJS supp...	Atlassian	
<input type="checkbox"/>	Bamboo Plugin Development	Atlassian	
<input type="checkbox"/>	Confluence Plugin Developm...	Atlassian	
<input type="checkbox"/>	Atlassian Plugin Development	Atlassian	
<input type="checkbox"/>	Backlog	Base IDE	
<input type="checkbox"/>	Aspose.BarCode Java (Mave...	Base IDE	
<input type="checkbox"/>	Spellchecker Croatian Dictio...	Base IDE	
<input type="checkbox"/>	Dynamic Look And Feel Cha...	Base IDE	
<input type="checkbox"/>	GitHub Issues	Base IDE	
<input type="checkbox"/>	Aspose.Pdf Java for NetBean...	Base IDE	
<input type="checkbox"/>	Aspose.Cells Java for NetBe...	Base IDE	
<input type="checkbox"/>	NbOpenedFiles	Base IDE	
<input type="checkbox"/>	Spellchecker French Dictiona...	Base IDE	
<input type="checkbox"/>	Dark Look And Feel Themes	Base IDE	
<input type="checkbox"/>	Spellchecker Spanish Diction...	Base IDE	
<input type="checkbox"/>	Spellchecker German Diction...	Base IDE	
<input type="checkbox"/>	Oracle Developer Cloud Serv...	Base IDE	
<input type="checkbox"/>	Spellchecker Portuguese an...	Base IDE	
<input type="checkbox"/>	CVS	Base IDE	

arduino-plugin

Community Contributed Plugin

Version: 2.0.3
Author: Jaques Claudino
Date: 1/8/16
Source: Plugin Portal
Homepage: <https://github.com/jaquesclaudino/arduino-netbeans>

Plugin Description

<https://github.com/jaquesclaudino/arduino-netbeans>

Buttons: Install, Close, Help

Status Bar: Usages | Inspector | Javadoc | Git | Search Results | Java Call Hierarchy | Output | Variables | Breakpoints : (debug-single) | running...



AWWPIX



Happy developing with NetBeans....



Any questions...