NetBeans Platform in 5.0:
Radically simplified rich-client application & plug-in module development environment.


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Sun Microsystems
Madrid, March 23, 2006
Agenda: NetBeans Platform

• Why:
  > What are the problems that we're trying to solve?

• What:
  > Getting to know our resources.

• How:
  > Demonstration!

• Where:
  > Useful References.

• Q/A
NetBeans IDE: Swiss Army Knife

- Java EE (JSP, EJB, etc.)
- Bundled servers
- Java SE (Swing libs, etc.)
- Java ME (Mobility)
- BPEL & SOA
- Profiler
- Collaboration
- UML Modeling

Problem: You want more!!!
Solution: Plug-in Modules... (http://www.netbeans.org/catalogue/index.html)

HOME > Plugins
Module Catalogue

Browse by Category | All Modules | New Modules

Choose A Category

Java Tools
AppPerfect Code Analyzer, CheckStyle
integration, Lumbermill-NetBeans-Module,
MevenIDE, NbJBoss, PMD - for NetBeans

Developing NetBeans
Default Filesystem Viewer

J2EE Tools
GlobalEnvironment

Database
DB Visual Architect for NetBeans, Kodo
JDO, turbosql

Modeling Tools
MagicDraw UML, SDE for NetBeans

TestTools
AppPerfect Unit Tester

Distributed Application Support
Inca X

Web
Struts Console

Graphical User Interface (GUI) Development Tools
KalIDEoscope, XTT - Smart Web Clients for Java

Tools
CodeAnalyzer, Explore From Here, Find
Resource, Fortune, Humai Trader,
OpenVMS DCL Support, OpenVMS EDT
Editor Keybindings, yWorks Ant
Explorer

Profiling
AppPerfect JVM Profiler, JProfiler,
NetBeans Profiler, YourKit Java Profiler

J2ME
Business 2 Mobile

C, C++, and Fortran
OpenVMS C/C++ Compiler Support
Module, OpenVMS Fortran Compiler
Support

Version Control
OpenVMS CMS Support Profile
...More Plug-in Modules...
(http://www.nbextras.org/)

A new module, Execution Profile, has been added to the update center. This module allows to create execution profiles for individual main classes. It supports setting runtime arguments and JVM arguments independently for each main class.

The module is written by Iván Rivera Rodríguez and Geertjan Wielenga (help contents) and is released under the SPL license. The sources are attached to this entry.

Tags: NetBeans, module

Recently Opened Files
A new module, Recently Opened Files, is available on the update center. This small module adds a new menu item into the File menu with a list of recently opened files. The number of recent files that show in the list can be configured in the Tools/Options/Miscellaneous.
...Even More Plug-in Modules... (http://blogs.sun.com/scblog)

Updated LineTools module - changed key bindings for Copy Line operation.

Based on the feedback I have changed the key bindings for Copy Line operation: Alt+Shift instead of Ctrl+Shift). The new key bindings are:

<table>
<thead>
<tr>
<th>Action</th>
<th>Key binding</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move line (or lines spanned by selection) up</td>
<td>Alt+Up</td>
<td><img src="icon1.png" alt="Icon" /></td>
</tr>
<tr>
<td>Move line (or lines spanned by selection) down</td>
<td>Alt+Down</td>
<td><img src="icon2.png" alt="Icon" /></td>
</tr>
<tr>
<td>Copy line (or lines spanned by selection) up</td>
<td>Alt+Shift+Up</td>
<td><img src="icon3.png" alt="Icon" /></td>
</tr>
<tr>
<td>Copy line (or lines spanned by selection) down</td>
<td>Alt+Shift+Down</td>
<td><img src="icon4.png" alt="Icon" /></td>
</tr>
</tbody>
</table>

I have uploaded the updated module on the update centers described in J2 (EA2)/NetBeans 4.1 Update Center.
...Even More Plug-in Modules... (http://blogs.sun.com/geertjan)
...And Even More Plug-in Modules... (New ones keep popping up all the time!)

Monday February 27, 2006

Enhanced version of WebSearchEngines module available

Hi,

the module for netbeans has been updated again. The access to the word under caret is accurate now.

Masoud Kalali's Blog

Masoud Kalali holds a software engineering education and has been practicing programming for the last 8 years. Experienced in various programming languages, his platform of choice is Java. He specializes in both client and server side development, and is interested in emerging technologies, JSRs, and database Development.

Friday March 17, 2006

MORE ENHANCEMENTS FOR DOB

Hi users (I hope there are more than 2 or 3),

based on the remarks of Mark, I put some additional enhancements into the DataObjectsBrowser:

- a "lazy" scan could be performed now, what means, the scan will stop time by time and "go to bed" for some seconds
- when switching between main projects, the projects are not rescanned any longer from the beginning, but the scan will be resumed where it stopped before the switch
- Scan shows percentages now
- a FAQ section introduced in help

My first NetBeans Plugin and Update Center are available

Saturday March 04, 2006

Hello guys,

for now, my first plugin and a Update Center are available for now. This plugin is called Copy action history. When the user uses the Copy action in NetBeans system, Strings are cached and are available for future user uses over the Paste History action. So, the history for the Copy actions are exhibit in a list and user choose which he want paste. See screenshots below:
...Surprise! *Still* More Plug-in Modules...
Secret: *Everything* in NetBeans IDE is provided by a plug-in module!

If we remove *all* the NetBeans IDE's plug-in modules...
...we get the NetBeans Platform!

- Application framework for desktop applications.
- Menus, toolbars, windowing system, other services... out of the box!
- “Rich-client applications”.
- Saves (many) years of development time.
- Used everywhere...
SysUpTime: Network Management System
Nokia NetAct: Mobile Network Manager
Fiorano Studio: Lego Blocks for SOA
Streamsim IDE: Oil Flow Modeling
NetBeans IDE 5.0: Java Development
Summary: Why Plug-in Modules?

- Problem 1: “NetBeans IDE doesn't provide everything I need!”
  Solution: Create NetBeans Plug-in Modules and install them in the NetBeans IDE.

- Problem 2: “I want to develop a desktop application, quickly, smoothly, and without reinventing the wheel!”
  Solution: Create NetBeans Plug-in Modules and install them in the NetBeans Platform.
What are our resources for developing plug-in modules?

Before NetBeans IDE 5.0:
- No specific support in the IDE's user interface.
- No/little documentation. Mailing lists.

Since NetBeans IDE 5.0:
- Wizards & templates for setting up projects.
- Wizards & templates for kickstarting NetBeans APIs.
- Many other user interface enhancements.
What's the development process?

1) Create a plug-in module project
2) Use (many) file templates
3) Develop the plug-in module
   • Source Editor
   • NetBeans API Javadoc
   • Tutorials
4) Build, install, test, and debug
5) Distribute!
1) Create a Plug-in Module Project

- **Module Project**
  > Provides the user interface.

- **Library Wrapper Module Project**
  > Puts a library JAR on a module's classpath.

- **Module Suite Project**
  > Groups and deploys a set of interdependent modules and library wrappers.
i. Projects
   - Source Packages
     - org.netbeans.modules.helloworldpluginmodule
   - Unit Test Packages
     - <default package>
   - Important Files
     - XML Layer
     - Module Manifest
     - Build Script
     - Project Metadata
     - NetBeans Platform Config
   - Libraries
     - JDK 1.5 (Default)

ii. Projects
   - Source Packages
   - Unit Test Packages
   - Important Files
     - XML Layer
     - Actions
     - DTDs
     - Databases
     - Editors
     - Favorites
     - Palette
     - HTMLPalette
     - HTTPServer_DUMMY
     - J2EE
     - JSPPalette
     - Keymaps
     - Loaders
     - MDRepositories

iii. layer.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE filesystem PUBLIC "-//NetBeans//DTD Filesystem 1.1//EN" "http://www.netbeans.org/dtds/filesystem-1_1.dtd">
<filesystem>
  <folder name="Menu">
    <file name="File_hidden"/>
  </folder>
</filesystem>
```
2) Create File Templates

- **Action wizard**
  - Creates an action that can be invoked from a menu item, pop-up menu, toolbar button, or keyboard shortcut

- **Window Component wizard**
  - Creates a new window with an Open action invoked from a menu item
2) Create File Templates (Cont'd)

- File Type wizard
  > Lets the IDE recognize a new file type

- Wizard wizard
  > Creates a new wizard for creating, for example, new files in the IDE

- Project Template wizard
  > Adds a new template to the New Project wizard

- J2SE Library Descriptor wizard
  > Adds a new class library to the Library Manager of the user's IDE
2) Create File Templates (Cont'd)

- Options Panel wizard
  > Lets you extend the NetBeans Options window

- JavaHelp Help Set wizard
  > Creates all the annoying little files required by JavaHelp help sets

- Update Center wizard
  > Creates a plug-in module for registering the URL to your update center

- Module Installer wizard
  > Creates and registers a file for install-time method calls
3) Develop the Plug-in Module

- Become familiar with the NetBeans APIs
- Use the NetBeans Source Editor
- Refer to the NetBeans API Javadoc
3) Develop the Plug-in Module (Cnt'd)
3) Develop the Plug-in Module (Cnt'd)

- http://platform.netbeans.org/tutorials
  - Quick Start Guide
  - FAQ
  - Tutorials
4) Build, Deploy, Test, and Debug

- Build Project
- Run Project
- Debug Project
- Create NBM File
- Install Project
- etc...
NBM File: What is it? Why do I care?

• NetBeans Module in binary file format.
• Packaged for delivery via the web.
• NBM files:
  > Are compressed
  > Can contain multiple JARs
  > Contains metadata NetBeans uses to display information in the Update Center
• (Secret: Just a ZIP file with a special extension!)
• Are described in an XML file (autoupdate descriptor)
5) Distribute the NBM File...
...or, for rich-client applications, set a splash screen first...
...as fancy as you want it to be!
Then, create a ZIP file for your app...
...or a JNLP application!

- JNLP applications can be delivered and started over the web.
- With one menu item in the IDE, you can package your application as a JNLP application, for easy distribution to your end users.
Show me! Demonstration...

1. Create plug-in module project.
2. Add and install a new menu item.
3. Bundle JFugue API with the plug-in module.
4. Call method in JFugue API, from menu item.
5. Install in NetBeans Platform.

Then: Look at NetBeans IDE's bundled samples.
Summary

• NetBeans IDE 5.0 offers comprehensive module development support, both for building on top of the NetBeans Platform and for extending the IDE.
  > Brand new module project and file templates provide all the basic files and code needed.
  > NetBeans API Javadoc, samples, tutorials, and mailing lists add to the total out-of-the-box experience.

• Need Help?
  > dev@openide.netbeans.org
Questions & Answers