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AGENDA

- **NetBeans: Field Guide!**
 - Introduction
 - What is it? (Definition and History)
 - Why Should you care (Benefits to developers)
 - Download, Installation and Configuration
 - Prerequisites
 - Setup and Installation
 - What does it do? (Major Features)
 - Project System (Demo)
 - Editor Capabilities (Demo)
 - Building, Running, and Debugging Applications (Demo)
 - Q/A

INTRODUCTION

- **Definitions:**
 - IDE
 - An Integrated Development Environment is a bundle of tools (A set of programs) that are run from a single user interface.
 - NetBeans is one such tool.
 - It is an open source, cross-platform IDE comprising a suite of tools to support development in the full range of Java technologies.
 - It is a full-featured, modular, extensible Java technology IDE.

INTRODUCTION

- **History:**
 - Started as a student project in the Czech Republic (originally called Xelfi), in 1996.
 - The goal was to write a Delphi-like Java IDE in Java.
 - A company was formed around this project, called NetBeans and went on to release versions 2.0, 2.1, and finally 3.0 of NetBeans (called Developer) in May 1999.
 - In October 1999, SUN acquired NetBeans
 - Released "Forte For Java Community Edition"
 - Based on NetBeans Developer 3.0
 - Eventually in June 2000, Sun Open Sourced the Project and it grew into a "tools platform" that we have today!

MOTIVATION

- **Why should you use NetBeans?**
 - An Open Source Java IDE, written in Java
 - Supported by a large community of developers
 - Multi-Platform, Extensible, and Distributed
 - It is built entirely on top of Ant
 - Award Winning
 - Best Open Source Tool of 2005
 - Product Of the Year 2003, 2005
 - Best Java Debugging Tool 2003
 - Supports all Major Java technologies
 - J2ME 2.0, J2SE 5.0, J2EE 1.4
 - automated deployment
 - Sun Java System Application Server, BEA Systems WebLogic, IBM WebSphere and JBoss Java application servers, along with debugging support for these products.

DOWNLOAD

- **Prerequisites:**
 - A JDK
 - J2SE 1.4.2 and/or J2SE 5.0(Tiger)
 - J2EE 1.4
 - J2ME 2.0 (With the NetBeans Mobility Pack)
 - An Application Server (For J2EE Development)
 - Sun One Application Server
 - JBoss
 - IBM WebSphere
 - BEA WebLogic

INSTALLATION AND SETUP

- **NetBeans IDE 4.1:**
 - Standalone
 - <http://www.netbeans.org/downloads/index.html>
 - Bundled with JDK
 - **J2SE 1.4.2**
 - <http://java.sun.com/j2se/1.4.2/download.html>
 - **J2SE 5.0(Tiger)**
 - <http://java.sun.com/j2se/1.5.0/download.jsp>
 - **J2EE 1.4**
 - <http://java.sun.com/j2ee/1.4/download.html#sdk>

FEATURES

- **Project System**
 - In the IDE, you always work inside of a project.
 - The Project System is based on Apache ANT
 - An IDE project is a group of Java source files and associated information about what belongs on the classpath, how to build and run the project, etc.
 - 2 Types of Projects Supported
 1. **Standard projects that use an IDE-generated Ant script to build the project. (Demo)**
 2. **Free-form projects that are based on existing Ant scripts.**
 1. Provide more Power and freedom but are harder to maintain
 2. Requires Binding of ant targets to IDE commands

FEATURES

- **Code Editor Capabilities**
 - Code Completion with JavaDoc Preview(Demo)
 - type a few characters and then choose from a list of possible classes methods, variables, etc to auto-complete the expression.
 - Word Matching(Demo)
 - Type a few characters and press Ctrl-L then have the Source Editor generate the next matching word or Ctrl-K to generate the previous matching word automatically.
 - Abbreviations(Demo)
 - short groups of characters that expand into a full word or phrase when you press the space bar.
 - Refactoring(Demo)
 - The restructuring of code, using small transformations, in which the result does not change any program behavior.

FEATURES

- **Building Applications**
 - The IDE uses an Ant build script to build your applications.
 - **In standard projects (Demo)**
 - The IDE generates the build script based on the options you enter in the New Project wizard and the project's Project Properties dialog box.
 - **In free-form projects**
 - The IDE relies on your existing Ant script to provide targets for IDE actions, such as building, running, and debugging.

FEATURES

- **Running Applications**
 - The IDE uses an Ant script to run your applications.
 - **In standard projects (Demo)**
 - The IDE generates the build script based on the options you enter in the New Project wizard and the project's Project Properties dialog box.
 - For Java applications, you can set the project's main class, runtime arguments, VM arguments, and working directory in the Project Properties dialog box.
 - **In free-form projects**
 - The IDE uses your existing Ant script to run the application.

FEATURES

- **Debugging Applications**
 - Debugging is the process of examining your application for errors.
 - **In standard projects (Demo)**
 - You debug by setting breakpoints and watches in the code and running it in the debugger.
 - Code can be executed one line at a time and examine the state of your application in order to discover any problems.
 - The IDE uses the Sun Microsystems JPDA debugger to debug programs.
 - Users can start a debugging session, step through the code manually, and monitor variables and method calls.
 - **In free-form projects**
 - An ANT target has to be written for the Debug Project command.
 - Targets can also be written to debug specific files and map these targets to the project's commands.

SUMMARY

- **Great Tool for Java programmers**
 - Open Source
 - Free-Form Project System Based on ANT
 - Web Applications, Services support
 - Awarded Winning Development Platform
 - Tightly integrated with the Java 2 Platform
 - **J2ME 2.0, J2SE 5.0, J2EE 1.4 support built in**
 - **Automatic Deployment to Major Application Servers**
 - **Faster and Easier Development**

Questions and Answers

- **Thank you!**
- **Q/A**