

Objectives

- Discuss the SDK and associated tools
- Cover installation procedures for personal computers
- Discuss use of tools in CIS 226 – Introduction to Java Programming
- Brief DOS tutorial
- <http://hercules.fullcoll.edu/www-staff/brippe/cis226/>

Components of Java environment

- Java 2 Software Developer's Kit (SDK)
 - Suite of tools including Java compiler, platform, applet viewer, documentation tool, archiving and compression tool, and debugger
 - For PC version, tools run under DOS
 - Freeware downloadable from <http://java.sun.com/j2se/1.4.1/download.html>
 - SDK not JRE
- JEDPlus IDE or you can use JCreator
 - Provides Windows-based editor for Java source code and Windows-based user interface to the SDK tools
 - Must be configured to use the SDK you installed
 - Freeware downloadable from <http://hercules.fullcoll.edu/www-staff/brippe/cis226/>

Installation process

- Install the components
 - Install the SDK
 - Install JEDPlus (NOTE: You can use any editor you like, not just JEDPlus)
- Configure your system
 - Configure JEDPlus
 - Update your autoexec.bat

Save file into Temp



Install the SDK

- 1) Double-click the
 - **jdk1_2_2001-win** file in the Temp directory.
- 2) After unpacking, the system will run Install Shield.
- 3) Select and write down the directory and path where you install jdk1.4 SDK.
- 4) Continue through installation. When you are asked for components, you need everything except Java Sources and Demos. This will take approximately 50MB of disk space.
- 5) Delete the **jdk1_2_2001-win** file to recover disk space.

Running JDK setup



Select installation directory



■ It is very important to remember where the jdk1.4.0 directory is installed. Write this down!!! You will need to use this information later to configure the system.

- The remainder of this process assumes you have installed jdk1.4 at the root in C:
 - C:\jdk1.4

Select components to install



- If you are low on disk space, you can do without the Demos and the Java Sources...then it requires 50MB of disk space.

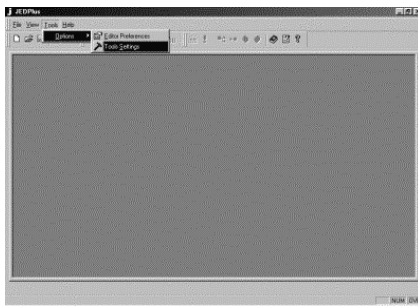
Install JEDPlus

- 1) Change to the JEDPlus folder in the \Temp directory.
 - 2) Double-click the Setup application and run through Setup. It is not important where JEDPlus is installed. Put it where you normally install software on your system, such as the \Program Files directory.
 - 3) Delete the JEDPlus folder that is in the \Temp directory to recover disk space.
- Can be downloaded at <http://staffwww.fullcoll.edu/brippe/cis226/>
 - Look for JEDPlus link on the right side

Configure JEDPlus

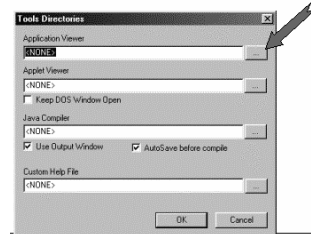
- 1) Bring up JEDPlus by selecting the shortcut that was added to your start menu during installation.
 - 2) Associate .java files with JEDPlus. You will see a dialog box asking you if you want to associate .java files with JEDPlus. If you say yes, then it will automatically invoke JEDPlus when you double-click on any file with the extension .java.
 - 3) Select Tools -> Options -> Tools Settings. This will bring up a dialog box that allows you to set the locations of the SDK tools that will be automatically run by JEDPlus.
 - 4) Set the paths for the tools. This is where you need the path for the Java SDK installation! Make sure that you do not confuse the application viewer (java.exe) with the applet viewer (appletviewer.exe). The path for custom documentation is <http://java.sun.com/j2se/1.4.1/docs/api/index.html>
- Additional JEDPlus Setup Instructions <http://www.tcs.auckland.ac.nz/~angela/teaching/help/jedplus>

Locate tool setting

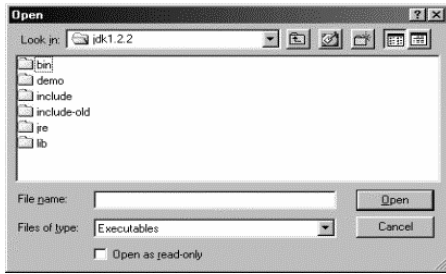


Set the paths to the tools

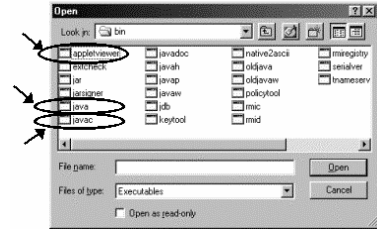
- The easiest method for setting the path is to click on the ... button to the right of the path and locate the appropriate file.



Locate jdk1.4\bin directory

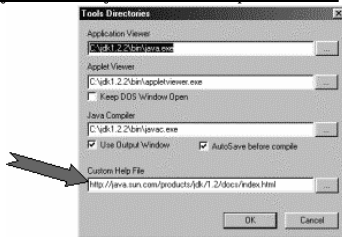


Here are the tools



Help file

- Fill in the custom documentation path with the location of the Sun on-line documentation:
 - <http://java.sun.com/j2se/1.4.1/docs/api/index.html>



Update your autoexec.bat

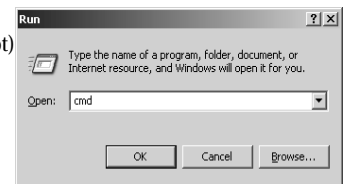
- 1) To make the SDK tools and libraries accessible, you should update your autoexec.bat by adding the lines in the Autoexec.bat file in the \Temp directory. Use notepad (or another text editor) to make the changes. Be sure to check the drive and path so that it matches the location of the jdk1.4 directory and Projects library. Be sure that there are no blanks around the = sign in the following:
 - SET PATH=%PATH%;C:\JDK1.4\BIN
 - SET CLASSPATH=.;C:\PROJECTS
- 2) Reboot your system
- Note these are my configurations, yours maybe different

DOS

- DOS what?
 - DOS "Disk Operating System" is a command-line environment for windows. Meaning that it allows users to type commands instead of using mouse clicks to interact with the computer? (WHAT?)
 - Invoke the JVM, Appletviewer or the Java Compiler.
 - Useful in debugging, solving configuration problems.

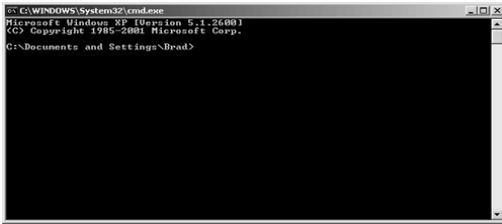
DOS

- How to DOS?
- Click on "Start" -> "Run"
- Next, type "cmd" (command-prompt)
- Click "OK"



DOS

- Command Prompt should now appear!!!



DOS Commands

- Commands
 - **cd** – change directories
 - **[drive letter:]** - Change drives
 - Ex. a: d: c: e:
 - **.** – current directory
 - **..** – parent directory
 - Ex. cd .. – moves you to the parent directory, if I'm currently at c:\projects and type "cd ..", I will now be at the root "c:\".
 - **dir** – list files and directories
 - **md** – creates a directory
 - **rmdir** – deletes a directory
 - **del** – deletes a file
 - **copy** – copies a file

DOS Commands

- Most DOS commands have help by typing the command and "/?"
 - cd /? – will display help information for changing directories.
- > cd /?
- > Displays the name of or changes the current directory.
- > CHDIR [/D] [drive:][path]
- > CHDIR [..]
- > CD [/D] [drive:][path]
- > CD [..]
- > ...

Java Development Kit (JDK)

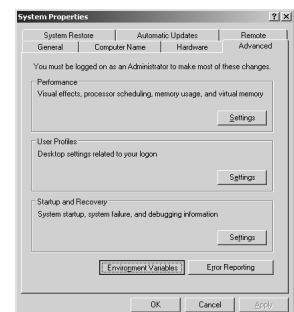
- javac
 - Java compiler which reads .java files and produces .class files
 - javac [options] [sourcefiles] [@files]
- java
 - Java platform that runs .class files
 - Used for applications
 - java [options] class [argument...]
- appletviewer
 - Java platform that behaves like a browser
 - Reads .html files that contain links to applets
 - Used for applets
 - appletviewer [options] urls... Or htm

Java Tips

- Environment Variables
 - **PATH** – tells the environment where java tools are located on the system. (JDK tools – compiler, jvm, appletviewer)
 - **CLASSPATH** – tells the jdk where to find your java class files, so they can be used.

Java Tips

- Remember
 - Set your classpath in your autoexec.bat for 95, 98
 - Control Panel, System, Environment Variables button for NT, XP, 2000.



Additional information:

<http://java.sun.com/j2se/1.4/docs/tooldocs/win32/classpath.html>