

Java Tools

- Java Development Toolkit (JDK)

- ◆ why JDK?

- ☞ free!
 - ☞ rapidly reflect changes
 - ☞ 'the' standard from Sun Microsystems
 - ☞ wide dissemination: UNIX, Mac, windows 32, +...
 - with many books, etc. ... <http://java.sun.com/>

- ◆ why not JDK?

- ☞ slow
 - ☞ primitive command-line tools only
 - ☞ buggy (getting better) & somewhat restricted
 - ☞ different tools on different platforms

Java Tools

■ JDK for Windows 95

◆ appletviewer—specialized applet browser

☞ appletviewer [-debug] file.html

- reads \.hotjava\properties
- read/write perms; proxies; security info.; firewalls

◆ java—bytecode interpreter

☞ java [options] classname (not .class file)

- class must have main method
- -classpath name; CLASSPATH environment variable
- -debug; -verbose
- -checksource
- -noverify, -verify, -verifyremote
- -Dproperty_name=new_value

Java Tools

◆ javac—java compiler

☞ javac [options] file.java

- -g
- -O
- -d output_directory

◆ javah—native method C file generator

☞ javah [options] classnames

- -stubs

◆ javap—bytecode disassembler

☞ javap [options] classnames

- -c (decompile)
- -l (line #s & local variable tables)
- -p (prints private & protected info as well as public)

Java Tools

◆ jdb—debugger

☞ jdb [java options] class

- java options passed to java tool

☞ jdb [-host hostname] -password passwd

- attach to running java interpreter
- may be on another host

☞ some commands:

- where
- stop at class:line; stop in class.method
- up; down
- dump
- list [line [number]]
- exit

Java Tools

◆ javadoc—documentation generator

☞ javadoc packagename

☞ javadoc filename

☞ document comment: `/** ... */`

☞ special tags for public/protected members:

- @see classname
 - annotate classes, methods or variables
- @return description
- @param param-name description
- @exception full-classname description
- @author
- @version
- any HTML

Java Tools

- Other tools

- ◆ Microsoft Visual J++
- ◆ IBM VisualAge
- ◆ Symantec Café
- ◆ Borland JBuilder
- ◆ Natural Intelligence Roaster
- ◆ Sun's Java Workshop
- ◆ *many* more...

tools recast from
existing C++ compilers
and environments

Java Tools

■ Some JDK 1.1 Tools



◆ rmic

☞ RMI compiler

◆ rmiregistry

☞ bootstrap RMI naming service

◆ jar

☞ creates a Java Archive (JAR) file

◆ jvakey

☞ generates digital signatures for archive files and manages the database of entities and their keys and signatures