

# 1 Installing jGRASP

The current version of jGRASP is available from <http://www.jgrasp.org> in four separate files: two are self-extracting for **Microsoft Windows**, one is for **Mac OS X**, and the fourth is a generic **ZIP** file. Although the generic ZIP file can be used to install jGRASP on any system, it is primarily intended for **Linux** and **UNIX** systems. If you are on a Windows machine, either “jGRASP exe” or “jGRASP JRE exe” is recommended.

**jGRASP exe (2.8 MB) – Windows self-extracting exe file.** The full Java 2 Platform Standard Edition (J2SE) Development Kit (hereafter referred to as JDK) must be installed to run jGRASP and compile and run Java programs.

**jGRASP JRE exe (21.6 MB) – Windows self-extracting exe file with Java Runtime Environment (JRE).** This version includes a copy of the JRE so that no Java installation is required to run jGRASP itself; *however, the JRE does not include the Java compiler. If you will be compiling and running Java programs, you must also install the full JDK.* The *jGRASP JRE* version of jGRASP is convenient if you will be compiling programs in languages other than Java.

**jGRASP pkg.tar.gz (3.3 MB) – Mac OS X tarred and gzipped package file** (requires admin access to install). J2SDK is pre-installed on Mac OS X machines.

**jGRASP (3.4 MB) – Zip file.** After unzipping the file, refer to README file for installation instructions. *The full JDK must be installed in order to run jGRASP and to compile and run Java programs.*

**Installing on Windows 95/98/2000/XP/Vista** – After downloading either “jGRASP exe” or “jGRASP JRE exe” (described above), simply double click on the .exe file, and the script will take you through the steps for installing jGRASP. If you are uncertain about a step, you should accept the default by clicking Next and/or pressing ENTER key. When you have completed the installation, you should find the jGRASP icon on your desktop. jGRASP should also be listed on the Window’s Start – Programs menu.

**Installing on Mac OS X** – To install jGRASP on a Mac OS X machine, a root password is required. When you download jGRASP, the install file (.pkg.tar.gz) should unzip and untar automatically. If this does not happen, you can use Stuffit Expander [or from a terminal, use "gunzip jgrasp\*.tar.gz" then "tar xf jgrasp\*.tar"]. You should now be able to double click on the .pkg file to continue the installation. The first time you run jGRASP, the CSD font will be installed on your system, and a soft link to the jGRASP startup script (for command line execution) will be created in /usr/bin or your \$HOME/bin directory.

Currently, if you install Java 1.5 on Mac OS X, it is not automatically accepted as the default compiler. However, you can change the start up setting for jGRASP so that it will use Java 1.5 for itself and to compile and run your programs. Here are the steps to take after jGRASP 1.8.5 is installed:

- 1) Start up jGRASP in the usual way.

- 2) On the menu, select "Settings" - - "jGRASP Startup Settings" (near the bottom).
- 3) On the Startup Settings dialog, you should see "[Default]" selected as the Java executable for running jGRASP. Click the down-arrow to the right of "[Default]" and you see a list of the versions of Java installed on your machine. You may see both 1.5 and 1.5.0 in the list. Select either one of these, then click "OK".
- 4) Close and re-start jGRASP. Just ignore our warning message about using jGRASP with the new version of Java. In fact, click the option to not show it again.

If you were trying different compiler settings, etc. on your machine, you need to make sure the current environment in the compiler settings (Settings - - Compiler Settings - - Workspace) is set to:

jdk (integrated debugger, HotSpot VM, prefer JDK compiler) - generic

This is the default setting. You may need to stretch the Settings dialog to see the complete entry in the "Current Environment" window at the bottom of the dialog. If it is not set correctly, click the small square to the right of the entry. This will select the default setting above; a small black square inside the white square indicates the default has been selected. Click "Apply" and "Okay".

This setting tells jGRASP to "prefer" the java compiler from the same version of Java used to run jGRASP (i.e., the version you specified in the Startup Settings).

**Installing on x86 Linux, SPARC Solaris, and NetBSD/i386** – Unzip the distribution (.zip) file in the directory where you wish to install jGRASP. This will create a jgrasp directory containing all the files. You may want to add the "bin" subdirectory of this directory to your execution path or create a soft link to ../jgrasp/bin/jgrasp from a directory on the executable path.

**Compilers** - Although jGRASP includes settings for a number of popular compilers, it does not include any compilers. Therefore, if the compiler you need is not already installed on your machine, it must be installed separately. Since these are generally rather large files, the download time may be quite long depending on your connection speed. If a compiler is available to you on a CD (e.g, with a textbook), you may save yourself time by installing it from the CD rather than attempting to download it.

**Compiler Settings** - jGRASP includes settings for the following languages/compilers. The default compiler settings are underlined. Note that links for those that can be freely downloaded are included for your convenience.

**Ada** (GNAT)

<ftp://cs.nyu.edu/pub/gnat/3.15p/winnt/gnat-3.15p-nt.exe>

**C, C++** (GNU/Cygnus, Borland, Microsoft)

<http://sources.redhat.com/cygwin/>

[http://www.borland.com/downloads/download\\_cbuilder.html](http://www.borland.com/downloads/download_cbuilder.html)

**FORTRAN** (GNU/Cygnus)

Included with Cygwin, see (2) above. Note that FORTRAN is currently treated as Plain Text so there is no CSD generation.

**Java** (J2SE JDK, Jikes)

<http://java.sun.com/javase/downloads/index.jsp>

**Assembler** (MASM)

Note that assembler is treated as Plain Text so there is no CSD generation.

After you have installed the compiler(s) of your choice, you will be ready to begin working with jGRASP. If you are not using the default compiler for a particular language (e.g., *JDK* for Java), you may need to change the Compiler Settings by clicking on **Settings – Compiler Settings – Workspace**. Select the appropriate language, and then select the environment setting that most nearly matches the compiler you have installed. Finally, click *Use* on the right side of the Settings dialog. For details see [Compiler Environment Settings](#) in **jGRASP Help**.

**Starting jGRASP** - You can start jGRASP by double clicking on the icon on your Windows desktop. See the next section for details.



jGRASP