

# GSTARS 2.1 INSTALLATION GUIDE

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The GSTARS 2.1 program files are distributed in CD-ROM or as a download from the U.S. Bureau of Reclamation Web site (see <http://www.usbr.gov/srhg/> and follow the GSTARS 2.1 link). The distribution package contains the essential files necessary to install its executable binaries on a PC-compatible computer running under Microsoft Windows 95/98/NT/2000 (other versions of Windows may be acceptable — such as Windows ME — but the programs have been tested using these operating systems only). This document provides detailed guidance on how to perform the installation of the GSTARS 2.1 computer program.

In addition to the files provided in the main distribution, two other programs need to be installed in order to run GSTARS 2.1 successfully:

- A PDF reader, such as Adobe's AcrobatReader;
- Sun's Java 2 Runtime Environment.

Both of these programs are included in the GSTARS 2.1 distribution package.

**AcrobatReader.** The best way to view PDF files is by using Adobe's AcrobatReader. The GSTARS 2.1 manual is distributed in PDF format, therefore you need this software to view and print it. AcrobatReader (version 5.0) is included in the GSTARS 2.1 distribution as a separate file (ar500enu.exe). Users outside the North American continent should obtain the version of AcrobatReader appropriate for the respective country, which can be downloaded free of charge directly from Adobe's Web site (<http://www.adobe.com/products/acrobat/readstep.html>). To install AcrobatReader simply doubleclick on the ar500enu.exe icon and follow the instructions displayed. The installation is easy and straightforward, requiring only the most basic computer skills.

**Sun's Java 2 Runtime Environment.** The Graphical User Interface (GUI) bundled with GSTARS 2.1 is based on Sun's Java programming language. GSTARS 2.1 can be run from the command line without the GUI, for which you don't need Java in your machine. However, if you want to be able to use the benefits of the GUI, you need to install Sun's Java 2 Runtime Environment. Sun's Java 2 Runtime Environment (version is 1.3) is included in the GSTARS 2.1 distribution as a separate file (j2re1\_3\_0-win.exe). Users outside the North American continent should obtain the international version of Java, which can be downloaded free of charge directly from its Web site (<http://java.sun.com/j2se/1.3/jre/>). Installation is accomplished by doubleclicking on the j2re1\_3\_0-win.exe icon and following the on-screen instructions.

After installing Java, make sure that the executable (java.exe) is in the system's PATH variable. You can check this by starting a command line window (command.com on 95/98 systems or cmd.exe on NT/2000 systems) and typing java. You should see something like this:

```
C:\>java
Usage: java [-options] class [args...]
           (to execute a class)
    or java -jar [-options] jarfile [args...]
           (to execute a jar file)
```

where options include:

```
-cp -classpath <directories and zip/jar files separated by ;>
           set search path for application classes and resources
-D<name>=<value>
           set a system property
-verbose[:class|gc|jni]
           enable verbose output
-version
           print product version and exit
-showversion
           print product version and continue
-? -help
           print this help message
-X
           print help on non-standard options
```

```
C:\>
```

Don't forget that users outside the U.S. using an international version of Microsoft Windows may have to install the international version of Sun's Java 2 Runtime Environment. Consult your system administrator for more information about this. Sun's Java Web site (<http://java.sun.com/>) should also have information specific to other countries.

**Installing GSTARS 2.1.** The model and GUI are distributed in the single zip file named GSTARS21.exe. The file will uncompress itself automatically by doubleclicking on its icon. We recommend that you install the file onto a root directory of any drive, such as in C:\GSTARS, but any directory structure can be used as long as it doesn't contain blank spaces in its name. For example C:\Programs\GSTARS may be used, but C:\Program Files\GSTARS should not. When unzipping GSTARS21.exe, a directory GSTARS is created containing a number of subdirectories with all the necessary files.

**Using GSTARS 2.1.** The GSTARS 2.1 GUI can be started by doubleclicking on the start.bat icon in the GSTARS directory. If you wish to run GSTARS 2.1 without the GUI, you can use GSTARS2.1.exe from a command line. The GSTARS 2.1 executable program is located in C:\GSTARS\gstars2.1\gstars2.1.exe (assuming that the GSTARS zip file was installed in C:\GSTARS). It can be copied to any other directory, including a diskette or CD-ROM. However, do not remove it: if it is removed from its original location the GUI will not be able to find it and therefore will not be able to run the program.

The GSTARS 2.1 manual is located in C:\GSTARS\gstars2.1\help\Manual.pdf (again, assuming that the GSTARS distribution file was unzipped to C:\GSTARS). You can copy it to any other place for viewing and printing, but you should not delete it from its original location.

**GSTARS 2.1 without GUI.** If you have an older system (older than Windows95) or do not wish to install all the software necessary to run the GUI, you can still use the command line version of GSTARS 2.1. To facilitate downloading the program over the internet at slower speeds, a smaller distribution was prepared. This distribution, called GSTARSpl.exe (for GSTARS 2.1 plain), is a self-extracting archive containing the manual, directories with the example files, and the numerical GSTARS 2.1 kernel.

**For more information.** Visit the U.S. Bureau of Reclamation's Sedimentation and River Hydraulics Group Web pages at <http://www.usbr.gov/srhg/> and follow the GSTARS 2.1 links for up to date information and new software releases. All the files mentioned here will be posted there, including the Adobe's AcrobatReader and Sun's Java 2 Runtime Environment installation files. Occasionally, new reports and article reprints are also posted there. You will also find how to direct questions or request additional information.