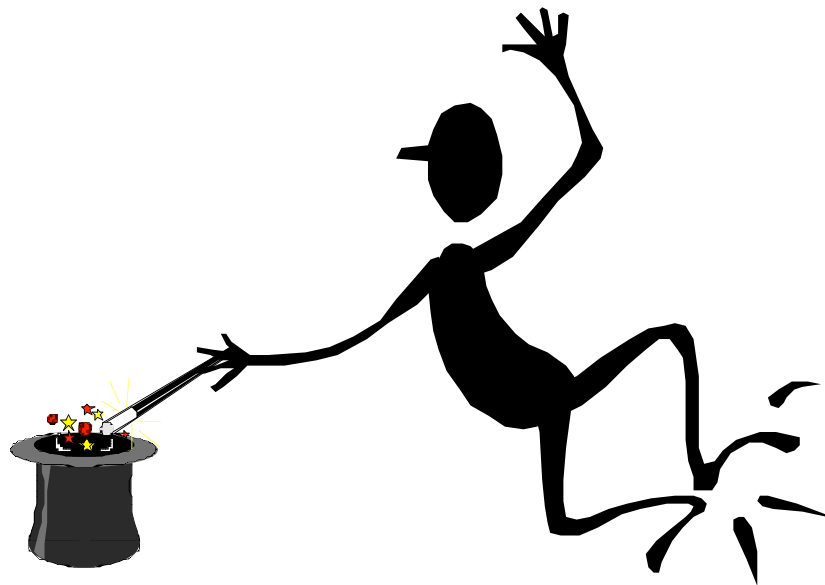




Navigation and Ancillary Information Facility

Getting and Installing the SPICE Toolkit



September 2009



Getting Toolkit

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- **All instances of the SPICE Toolkit are available 24x7 from the NAIF WWW server**

<http://naif.jpl.nasa.gov/naif/toolkit.html>

- **No password or identification is needed**
- **To download a Toolkit package**
 - Select language – FORTRAN, C, IDL, or MATLAB
 - Select computer platform/OS/compiler combination
 - Download all toolkit package components
 - » package file – toolkit.tar.Z (or toolkit.exe),
cspice.tar.Z (or cspice.exe),
icy.tar.Z (or icy.exe), or
mice.tar.Z (or mice.exe)
 - » Installation script (if present) – import*.csh
 - » Accompanying documents - README, dscriptn.txt, whats,new



Don't Port it Yourself

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- The packages provided on the NAIF server have been built and tested by NAIF on these particular environments.
- We highly recommend you **NOT** try to port any instance of the Toolkit to some other environment, especially without consulting with NAIF first.
 - There are both portability issues and compiler optimization issues that must be carefully dealt with.



Installing Toolkit

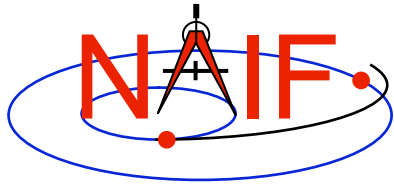
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Terminal Window

- To install the Toolkit, follow the directions given in the README. Normally this consists of the following (not applicable for PC Windows):

prompt> `chmod u+x importSpice.csh`
prompt> `./importSpice.csh`
prompt> `rm toolkit.tar`
- For PC Windows, execute the toolkit.exe application (or cspice or icy or mice) to expand the archive.

> `toolkit`
- You now have the expanded toolkit (or cspice or icy or mice) package.



Configuring Your Computer

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- For some programming environments there are **required** additional steps to prepare for programming using SPICE.
- For some programming environments there are **recommended** additional steps to make program development easier.
- **Read the “Preparing for Programming” tutorial and the “README” file found in the Toolkit download directory for more information!**



Checking It Out

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- **Try the executables**
 - Use *tobin* to convert the SPICE transfer format SPK and CK files supplied with the Toolkit to local binary.
 - » *cook_01.tsp*, *cook_02.tsp*, *cook_01.tc*, and *cook_02.tc* are found in the *../data* directory
 - Use *brief*, *ckbrief* or *spacit* to summarize the converted kernels.
- **Problems may occur if operating systems or compiler versions are out of sync**
 - Rebuild the Toolkit using the script “*makeall.csh*” (or “*makeall.bat*”) located in the “top level” directory (*toolkit* or *cspice* or *icy* or *mice*).
- **In the rare circumstance that things still don’t work, contact your System Administrator or NAIF.**



Backup

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- **Getting the Toolkit using command line FTP**



Command line FTP - 1

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```
Terminal Window

prompt> ftp naif.jpl.nasa.gov

Connected to naif.jpl.nasa.gov
220 Welcome to the NAIF FTP service.

Name (your.sight:your_name): anonymous
331 Please specify the password
Password: your@e.mail.address
230-
230- =====
230- |                               Jet Propulsion Laboratory                               |
230- |               * * *   W A R N I N G   * * *               |
230- |                               Property of the                               |
230- |                               UNITED STATES GOVERNMENT                               |
230- |=====
230-
230 Login successful. Have fun.
Remote system type is UNIX.
Using binary mode to transfer files.

ftp> cd pub/naif/toolkit/<FORTRAN or C or IDL or MATLAB>
250 CWD command successful.
ftp> dir
```




Command line FTP - 2

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Terminal Window

<pre>ftp> dir Mac_OSX_Absoft Mac_OSX_IFORT Mac_OSX_g77 PC_Cygwin PC_Linux PC_Windows_Digital PC_Windows_IFORT PC_Windows_Lahey Sun_Solaris</pre>	<pre>ftp> dir Mac_OSX_Apple_C Mac_OSX_Intel_C PC_Cygwin_C PC_Linux_C PC_Linux_C_64bit PC_Windows_Visual_C Sun_Solaris_C Sun_Solaris_GCC Sun_Solaris_GCC_64bit</pre>	<pre>ftp> dir Mac_OSX_Apple_C Mac_OSX_Intel_C PC_Linux_C PC_Windows_Visual_C Sun_Solaris_C Sun_Solaris_GCC</pre>	<pre>ftp> dir Mac_OSX_Apple_C Mac_OSX_Intel_C PC_Linux_C PC_Windows_Visual_C</pre>
<p>The environments available at the time you download the Toolkit may differ from those shown here.</p>			
FORTTRAN	C	IDL	MATLAB



Command line FTP - 3

Navigation and Ancillary Information Facility

```
Terminal Window

ftp> cd <environment>/packages
ftp> binary
200 Type set to I
ftp> get toolkit.tar.Z
      ( or toolkit.exe
        or cspice.tar.Z or cspice.exe
        or icy.tar.Z or icy.exe
        or mice.tar.Z or mice.exe )
. . .
ftp> ascii
200 Type set to A
• ftp> get importSpice.csh
      ( or importCSpice.csh
        or importIcy.csh
        or importMice.csh )
      ( not available for Windows environment )
ftp> get README
ftp> get dscrip tn.txt
ftp> get whats.new
ftp> quit
```