Getting, Licensing & Installing

GIPSY-OASIS II

GIPSY-OASIS II & User Support

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Installing GIPSY-OASIS II

```
Introduction

This memo outlines the  special  steps  which  must  be
taken to enable a Linux,  HP 9000/700 series, or SUN workstation to
run the GIPSY-OASIS II software. It is intended to accompany
the GIPSY-OASIS II distribution to various institutions.



     It also gives important information about how a  user's
account should be set up.


Step 1: Get the files


Everyone should get


        README     (this file)
        ABOUT_RELEASE_2.6.0
        install_gipsy
        xt-gipsy.guide.ps
        repoint_gipsy_links.csh
In addition, Linux users should get
```

```
        master_exec_Linux86.tar.gz
        verify_Linux86.tar.gz
hp users should get
        master_exec_hpux11x.tar.gz
        verify_hpux11x.tar.gz
and sun users should get
        master_exec_sun4.tar.gz
        verify_sun4.tar.gz
```

There are a few supplementary freeware programs which are required.
Linux86 machines have everything needed except for xtpanel. The URLs
below should help you find what you need.

Necessary for sun and hpux11x machines:
```
        gnuplot            http://www.gnu.org/gnulist/production/gnuplot.html
        perl5              http://www.cpan.org/ports/index.html
        make               ftp://ftp.gnu.org/pub/gnu/make/
        tcl                http://dev.scriptics.com/software/
        tk                 http://dev.scriptics.com/software/
```

Necessary for Linux86, sun4 and hpux11x machines:
```
        xtpanel ftp://sep.stanford.edu/pub/Xtpanel/xtpanel.tar.gz
```

Step 2: Setup your machine

If you have already been running gipsy on your machine you
may not have much setup to do. You may decide to install it
in a new subdirectory gipsy_r6 for example) which will allow
you to transfer any scripts and databases you may have built
locally. I suggest that in the future you put such scripts
in places like /goa/bin/local for easy transfer to later
releases.

All machines

    All machines need to have a set of soft links. In the
table below I have assumed that the contents of the tape
will be read into /usr2/gipsy_r6. If this is not the case,
insert the proper full path name in place of usr2 below:

```
        /goa           /usr2/gipsy_r6/gipsy-oasis
        /eph           /usr2/gipsy_r6/eph
        /time-pole     /usr2/gipsy_r6/time-pole

        /335libs       /usr2/gipsy_r6/libraries    <-only needed for source code
```

A script to do this easily is included in repoint_gipsy_links.csh.

```
For example:
        root%: repoint_gipsy_links.csh /usr2/gipsy_r6


1     The swap partition should be large. We recommend at least 500 Mb.


2     The largest program, (smapper) uses about 260 Mb of RAM. If your machine
      has less than this, you will need to allow a larger swap space.


3     The following tools should be installed. They are available
      in the GNU-TOOLS directory if you don't have them already:
          GNUmake 3.70 or later
          perl 5
          gnuplot
          xt-panel
          tk-toolkit
          tcl


LINUX
      The executables were compiled on the g77 version egcs-2.91.66
19990314/Linux compiler on genuine Intel Pentium III processors.
They have been tested to run on Pentium III processors with the
Red Hat 6.2 operating system. You don't need a compiler to just run
the programs.


SUN
```

The GIPSY-OASIS II software has been tested on SUN
SPARC workstations running SUNOS 5.7, with SUN Fortran 5.0,
and the GNU C compiler gcc. You don't need a compiler to just run
the programs.

HP

The GIPSY-OASIS II software has been tested on HP
workstations running HP-UX 11.x and the HP F90 v2.4.10 fortran
compiler. You don't need a compiler to just run the programs.

There are several nonstandard modifications on HP systems which
must be made to the configuration in order to use GIPSY-OASIS II.

1   All disks which are to contain either GIPSY-OASIS II
    software or data must be initialized to allow long
    filenames.

2   The kernel should be configured with the following
    parameters:

```
  ----------------------------------------------------------------
   nproc      maximum # of processes                        276
   maxuprc    maximum # of processes a user may have          75
```

```
  maxdsize    maximum process data segment            1879048192
  maxssize    maximum process stack size                83886080
  maxtsize    maximum process text segment size         67108864

 ----------------------------------------------------------
```

User account configuration

    Users must include the GIPSY-OASIS II bin and man areas
in their search paths. These and a few other details can all
be taken care of in the user's .cshrc file.

    Users should not have noclobber set, and should not
have rm aliased to "rm -i".

    One of the first lines of the .cshrc file should be
                setenv ARCH '/goa/bin/arch'
(On the HP, the install script will make this command in
/goa/bin/arch and the .cshrc entry above should reflect
this.) This line must be before the path is set.

    The path must include /goa/bin and /goa/bin/$ARCH.

The MANPATH variable should include /goa/man.

A fragment from a .cshrc file which does all these
things for both SUN and HP computers is given below:

```
-------------------------------------------------------------------------


setenv ARCH `/goa/bin/arch`

if ($ARCH == "sun4") then
        set path = (~ ~/bin ~/bin/$ARCH /usr/local /usr/local/bin /usr/ucb /usr/
bin /usr/etc /usr2/lang /usr/openwin/bin /goa/bin /goa/bin/$ARCH ./$ARCH .)
        setenv MANPATH /usr2/lang/man:/usr/man:/usr/local/man:/goa/man
        setenv LD_LIBRARY_PATH /usr/openwin/lib:/usr2/lang/SC1.0.1
endif


if ($ARCH == "hpux11x") then
        set path= (~ ~/bin ~/bin/$ARCH /usr/bin/X11 /bin /usr/bin /usr/contrib/b
in /usr/local/bin /usr/ucb /goa/bin /goa/bin/$ARCH ./$ARCH .)
        setenv MANPATH /usr/man:/usr/local/man:/goa/man
endif


#set noclobber


#alias rm                 'rm -i'
```

```
#alias cp            'cp -i'
#alias mv            'mv -i'
-----------------------------------------------------------------------


step 3: Install the new GIPSY-OASISI II release 6

The script install_gipsy will install gipsy.
Typing  install_gipsy with no arguments should give some help.
The files in the gipsy installation will be owned by the user
who is untaring the file (assuming the user is not root). The
group will be set to 10000 - which we call gipsy group.

step 4:
link /goa/bin/$ARCH/GNUmake to wherever you put GNUmake (usually
/usr/local/bin/make), but I have seen /opt/local, and others.

If you do not have perl in /usr/local/bin/perl, you will need to
execute this script in /goa/bin:

        cd /goa/bin
        foreach i ('grep -l /usr/local/bin/perl'  *)
                echo $i
                chmod +w $i
```

```
                replace '/usr/local/bin/perl/' ''which perl'' $i
                chmod -w $i
        end

step 5:
Get the file verify.tar.Z, uncompress an untar it, and then follow
the instructions in the file README.verification. This will exercise
many of the programs in GIPSY. It is not necessarily intended as an
example of the best way to analyze data.


step 6:
Run the script /goa/crons/update_gipsy_files periodically.  I suggest
setting it up as a cron. It will keep such things as the iersb
LEAPSECS  PRNGPS, and CA-P files updated, and will also warn you
when a new version of GIPSY appears.
```