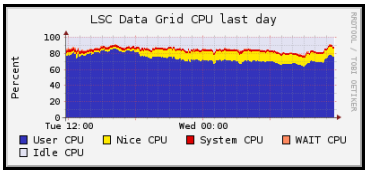
LIGO Data Grid



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LSC DataGrid Client Installation

Installing LSC DataGrid Client 4.8

What's included?

Click here for a list of the included components.

What's new?

- Click here to find what else is new.

Supported Platforms And Other Requirements

- Click here first: support exists for Linux, Mac OS X, and Solaris.
- The Client/ClientPro require ~500/1000 MBs of disk space, plus up to an additional 500-1000 MBs is needed during the installation process.
- Python 2.4 or later is recommended. Perl 5.8.0 or later is required, and 5.10.0 is now supported.
- If the installation fails on Linux (even after trying pacman -pretend-platform ...), try these failsafe instructions for installing only gsissh (e.g. if you only care about being able to log into an LSC cluster).
- Mac Users: If you only need LDG for gsissh, Adam Mercer has instructions at: http://www.lsc-group.phys.uwm.edu/~ram/globus.html to build a patched gsissh from source.
- For further Mac support, join the LIGO Mac mailing list: http://www.gravity.psu.edu/mailman/listinfo/ligomac.

FIXES TO KNOWN PROBLEMS

Click here if you have problems with the installation. If you do not find a fix to your problem, send an email to Greg Mendell for further help.

INSTALLATION

1. **IMPORTANT: BEFORE YOU START**
   If you have an existing LDG installation, please open a new shell and run the following:

   ```
   $ env | grep -i LDG
   ```

   This should return an empty list. However, if there is already anything in your environment pointing to an existing installation of LDG, then this will confuse the installation. (This is one of the main problems user have when installing LDG.) The solution in this case is to make sure that nothing to do with LDG is sourced, for example in ~/.bashrc, ~/.bash_profile ~/.tcshrc or ~/.cshrc files, before trying to install LDG. Once you have a shell running where "env | grep -i LDG" returns an empty list, then proceed with the installation from that shell.
2. **INSTALLATION INSTRUCTIONS**: Check "What's included?" above to see whether you want the Client or ClientPro. (If you just want to ssh to a cluster, install the Client. For PyGlobus, TclGlobus, and other extra packages, install the ClientPro.) Follow the instructions below. (Solaris users at the lab sites should look at important notes given at the bottom of this section first.)

   Get pacman v3.28 from here:
   http://www.ldas-sw.ligo.caltech.edu/ldg_dist/ldg4.8/software/pacman-3.28.tar.gz

   and run these commands:

   ```
   $ tar zxf pacman-3.28.tar.gz
   $ cd pacman-3.28
   $ source setup.(c)sh
   $ cd ..
   $ mkdir ldg-4.8
   ```

```
$ cd ldg-4.8/
$ pacman -allow non-snapshottable-downloads -get
http://www.ldas-sw.ligo.caltech.edu/ldg_dist/ldg4.8:Client

or

$ pacman -allow non-snapshottable-downloads -get
http://www.ldas-sw.ligo.caltech.edu/ldg_dist/ldg4.8:ClientPro
```

Answer y to all questions, and when the installation finishes, run these commands:

```
$ cp setup.csh setup.csh.sav
$ cat setup.csh | sed 's/alias grid-proxy-init=/alias grid-proxy-init /g' > tmpfile.csh; mv tmpfile.csh setup.csh
```

With LDG 4.8, grid-proxy-init is now aliased to creates RFC 3820 compliant proxies. However, for tcsh users, the alias does not get set up properly in setup.csh until you run the last command above. The alias is already set up properly for bash users in setup.sh. If you are using Linux and pacman does not recognize your platform, try

```
$ cd ..
$ rm -rf ldg-4.8
$ mkdir ldg-4.8
$ cd ldg-4.8
```

(i.e., remove the ldg-4.8 directory and recreate it) and then run

```
$ pacman -pretend-platform CentOS-5
```

or

```
$ pacman -pretend-platform Debian-5
```

(or choose a platform similar to yours from the list of supported platforms here.) and then repeat the "pacman -allow non-snapshottable-downloads -get..." command.

Once the installation succeeds, go to GETTING A CERTIFICATE, then GETTING USER ACCOUNTS ON THE LDG CLUSTERS, and finally USING THE CLIENT TOOLS below. If the installation fails, see FIXES TO KNOWN PROBLEMS above.

3. **SOLARIS USERS AT LAB SITES ONLY, NOTE THESE SPECIAL INSTRUCTIONS**: On Solaris the installation builds globus from source. This has not been tested. However, to give it a try, at Hanford and Caltech, set up these environment variables first:

```
$ setenv PATH /ldcg/bin:$PATH
$ setenv LD_LIBRARY_PATH /ldcg/lib
```

At Livingston set up these environment variables first.

```
$ setenv PATH /apps/bin:$PATH
$ setenv LD_LIBRARY_PATH /apps/lib
```

Then try the INSTALLATION INSTRUCTIONS above.

GETTING A CERTIFICATE

The LDG Client is installed and configured but you still need to apply for a digital certificate if you don't already have one. Go to Getting Certificates, but don't forget to come back here! (Note that if you use the client certificate utilities that come with LDG, cert-renew, LSCrequestCert, and cert-retrieve, that these require the perl modules LWP and SSLeay. In most cases these are installed with LDG. However, if you get errors that refer to these, ask your local systems administrator for help, or try installing them from cpan, or send an email to Greg Mendell.
If you already have a certificate then you can continue onto the next step. There is no need to get a new certificate.

GETTING USER ACCOUNTS ON THE LDG CLUSTERS

Once the LDG Client is installed and you have a valid certificate, you next need to request accounts on the LDG clusters here. If you already have accounts on the LDG clusters, but have a brand new certificate (not just the renewal of an existing one), you should still go to the account request page. In this case you will tick the box indicating that you have an existing account, and enter your old and new certificate information.

USING THE CLIENT TOOLS

For an introduction to the LDG Client Tools go here

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