

# The Impatient's Guide to DESDM EUPS installation

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This is a short set of instructions for installing the DESDM EUPS system in your machine. For more detail please refer the official [EUPS installation guide](#)

## 1) Prerequisites for OSX (10.7-10.11)

### 1a) Xcode

DESDM eups uses Darwin's cc (clang compiler), so you will need to have Xcode installed. **You will need a free developer's account to download them.**

For a complete set of instructions, please see the complete list of [pre-requisites packages](#).

For OSX 10.7 you can use [Xcode \(4.6.2\) dmg](#)

For OSX 10.8 and 10.9 you can use [Xcode \(5.1.1\) dmg](#)

For Yosemite (OSX 10.10) we strongly recommend [Xcode 6.3.1](#).

For El Capitan (OSX 10.11) we recommend [Xcode 7.3.1](#)

Make sure that you've agreed to the Xcode license agreements, please run 'xcodebuild -license.'

```
sudo xcodebuild -license
```

The command line developer tools are also required, please run:

```
xcode-select --install
```

### 1b) Gfortran

Unfortunately Apple does not ship with gfortran. Get the gfortran dmg image from: <https://gcc.gnu.org/wiki/GFortranBinaries>

- for 10.7: <http://coudert.name/software/gfortran-4.8.2-Lion.dmg>
- for 10.8: <http://coudert.name/software/gfortran-4.8.2-MountainLion.dmg>
- for 10.9: <http://coudert.name/software/gfortran-4.8.2-Mavericks.dmg>
- for 10.10: <http://coudert.name/software/gfortran-4.9.2-Yosemite.dmg>
- for 10.11: <http://coudert.name/software/gfortran-6.1-ElCapitan.dmg>

### 1c) GCC for Darwin.

For Darwin only, in addition to cc (clang) we also need gcc to compile atlas\_netlib and scamp.

You can automatically install them (as sudo/root) on Darwin using the following script: [install\\_gcc\\_Darwin.sh](#)

```
chmod +x install_gcc_Darwin.sh
./install_gcc_Darwin.sh
```

We strongly advise to use the following gcc distributions for OS X from <http://hpc.sourceforge.net/>

- for 10.7: [gcc-4.7-bin.tar.gz](#)
- for 10.8: [gcc-4.8-bin.tar.gz](#)
- for 10.9: [gcc-4.8-bin.tar.gz](#)

- for 10.10: [gcc-4.9-bin.tar.gz](http://gcc-4.9-bin.tar.gz)
- for 10.11: [gcc-5.1-bin.tar.gz](http://gcc-5.1-bin.tar.gz)

#### 1d) X11/XQuartz

Unfortunately Apple does not ship with X11 either. Download and install the latest image for [XQuartz](#).

## 2) Decide on the location to install EUPS

For example if you want to install in the user local space `~/EUPS_DESDM`

```
mkdir $HOME/EUPS_DESDM
cd $HOME/EUPS_DESDM
```

## 3) Install EUPS

Download the EUPS self-install script

```
curl -O http://desbuild2.cosmology.illinois.edu/desdm_eupsinstall.py
```

After that, run it with python:

```
python desdm_eupsinstall.py
```

and follow the instructions.

If you get a message like: "On OSX only CLANG compilers are supported"

In another terminal type: `xcodebuild -find clang`

Similarly for: Please select the CLANG C++ compiler that will be used to build packages:

```
xcodebuild -find clang++
```

It will ask for two installation paths, one for EUPS itself and one for the software installed via EUPS packages. It will also ask if ICC and MKL should be used (which leads to a set of additional questions). The script can also modify the login-scripts to setup EUPS every time you log in. After confirming the settings the script will download and install EUPS.

In case we are re-installing EUPS, make sure we clean-up the EUPS variables.

```
unsetenv EUPS_PATH
unsetenv EUPS_DIR
```

## 4) SVN Access

Make sure you have read access (check out) to DESDM Subversion repository.

```
svn info $SVNROOT

or something like:

svn --username "your username" info $SVNROOT

or

svn --username desdmsvn info $SVNROOT [see below for password information]
```

Note that the `SVNROOT` environment variable is set by a setup script (e.g., `eups/desdm_eups_setup.sh`) in the directory where EUPS was installed. This script should be called automatically if you open a new terminal.

## Subversion (SVN) access problems

If you forgot your password, it might be stored as plain text in your home directory space under:

```
$HOME/.subversion/auth/svn.simple/
```

You should also have received an email with your SVN password when you signed up for DESDM access. Since you are not allowed to change your SVN password, you should be able to search your email for a message like this:

```
SUBJECT: DES Subversion Access Information
FROM: root <root@desdb.cosmology.illinois.edu>
BODY:
  Hello <username>,

  Welcome to the Dark Energy Survey Subversion system. The repository is located at:
  SVN URL: https://desweb.cosmology.illinois.edu/svn/desdm/devel

  Your username is: <username>
  Your password is: <password>

  If you have any questions or issues in regards to your subversion access, feel free
  to contact us at des-admin@cosmology.illinois.edu .
```

If you can find your svn password you can use the default read-only one:

Username: **anonymous**

Password: **anonymous**

## 5) Start installing packages

For example, to install the development packages:

```
eups distrib install pythonCore spring2016+0 --nolocks
```

Once it build, you can load it like this:

```
setup -v pythonCore spring2016+0
```

## Some example commands

### Find all versions of Sextractor

```
eups distrib list | grep sextractor
```

If you get an error like this:

```
eups distrib: Unable to take shared lock on /data/vault/rgm/soft/des/DESDM/eups/packages: an exclusive lock is held by [user=rgm, pid=17165]
```

Try this

```
eups distrib list sextractor
```

```
eups distrib list <package-name>
```

```
eups distrib list --nolocks | grep sextractor
```

### Install Sextractor

If you get an error like this:

```
eups distrib: Unable to take shared lock on /data/vault/rgm/soft/des/DESDM/eups/packages: an exclusive lock is held by [user=rgm, pid=17165]
```

Try this

```
eups distrib list sextractor
```

```
eups distrib list <package-name>
```

```
eups distrib list --nolocks | grep sextractor
```

## Install Sextractor

```
eups distrib install --nolock sextractor 2.21.0+1
```

```
setup -v sextractor 2.21.0+1
```

## Viewing the SVN logs

<https://dessvn.cosmology.illinois.edu/websvn/desdm/devel/terapix/tags/sextractor-2.23.0/>

See view logs

You will need to login [need to check read only info](#)

Your SVN credentials are stored under `~/.subversion/auth/svn.simple/`