

Installing a Web GIS Server from the Ubuntu GIS Repository

Note that this is not a comprehensive guide but in short one needs to add Ubuntu repositories to the server apt list: see <http://trac.osgeo.org/ubuntugis/wiki/UbuntuGISRepository>, which on a typical system is located at `/etc/apt/sources.list`. It is a good idea to determine exactly which operating system version the server is running (if you not already aware of it) for example see below you re running Ubuntu *Hardy Heron*.

```
lsb_release -c
```

```
> hardy
```

% this means you are running the **hardy** version of Ubuntu

The following lines need to be added to the `sources.list` using a text editor:

```
deb http://ppa.launchpad.net/ubuntugis/ppa/ubuntu hardy main
deb-src http://ppa.launchpad.net/ubuntugis/ppa/ubuntu hardy main
```

The next step is to authenticate the repository (314DF160 is the OpenPGP key of the Ubuntu GIS repository):

```
sudo apt-key adv --keyserver keyserver.ubuntu.com --recv-keys 314
DF160
```

Starting with Ubuntu 9.10 (Karmic Koala) the Launchpad PPA (Personal Package Archive) repositories can also be added via command line (without manually editing the `sources.list` file and no need to authenticate the repository):

```
sudo apt-get install python-software-properties
sudo add-apt-repository ppa:ubuntugis/ppa
```

After updating your apt utility software package list you will be ready to start the GIS installation

```
sudo apt-get update
```

The following is an example for an installation sequence to set-up a Web Mapping enabled GIS Server. You see that all available packages can be installed (and also later be removed if needed) not only GIS components.

```
# install apache version 2
sudo apt-get install apache2

# install php
# see \url{https://help.ubuntu.com/8.04/serverguide/C/php5.html}
sudo apt-get install php5 libapache2-mod-php5
sudo apt-get install php5-cli
sudo apt-get install php5-cgi
sudo apt-get install php5-mysql # for MySQL
sudo apt-get install php5-pgsql # for PostgreSQL
```

```
# install gdal
sudo apt-get install gdal-bin
```

```
# install proj
sudo apt-get install proj
```

```
# install PostgreSQL and PostGIS
sudo apt-get install postgresql-8.4.4
apt-get install postgresql-server-dev-8.4 libpq-dev
apt-get install libgeos-dev
sudo apt-get install postgis-1.5
```

At this point you may take care of initial PostgreSQL housekeeping tasks (but yo can also save that for later)

```
# To set a password for the postgres database user this on the
  command line
```

```
psql -c"ALTER user postgres WITH PASSWORD 'postgres'"
```

```
# Switch to postgres user
```

```
sudo su - postgres
```

```
# Create the plpgsql language inside the database template:
```

```
createlang -d template_postgis plpgsql
```

Continue with the installation of Mapserver and Tilecache:

```
# install mapserver
sudo apt-get install cgi-mapserver
sudo apt-get install mapserver-bin
```

```
# install python image library
sudo apt-get install libjpeg62 libjpeg62-dev zlib1g-dev
```

```
# install tilecache
sudo apt-get install tilecache
```