

## **Wikiprint Book**

**Title: WRF4GInstall**

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**WRF4G** can be installed in any Linux Computer. It provides the services needed to prepare, run and monitor experiments, it is able to manage many computing resources and use them to run different simulations of a WRF experiment at the same time.

Although in the following examples we will use the same computer to manage and run the experiments, scientists generally use a computer to prepare and manage the experiments (where WRF4G has to be installed) and different computing resources to run them (PBS or SGE Clusters, HPC infrastructures, stand-alone servers). We call **User Interface (UI)** to the computer where WRF4G is installed and **Computing Resources (CR)** to the nodes where a WRF experiment can run. In the following experiments the computer where the UI role is installed will act as CR.

## How to get WRF4G

The latest official version can get it by direct download [?WRF4G.tar.gz](#). Before you get it, you have to check the WRF4G requirements both UI and CR:

**x86\_64** Linux

```
[user@localhost ~]$ uname -p
x86_64
```

[?Python](#), version  $\geq 2.4$  and  $< 3.0$

```
[user@localhost ~]$ python -V
Python 2.7.3
```

## Platform Notes

WRF4G has only been run in 64bits platforms and it currently has been tested under the following O.S.:

- **Ubuntu 10.04, 11.04 and 12.04:** Issues not known.
- **Centos 5 and 6:** Issues not known.
- **Debian 6.0:** Issues not known.

## Deploy WRF4G

Download and unpack the distribution file into the deployment directory (e.g. \$HOME directory).

```
[user@localhost ~]$ cd
[user@localhost ~]$ wget http://www.meteo.unican.es/work/WRF4G.tar.gz
[user@localhost ~]$ tar xzvf WRF4G.tar.gz
```

Setup the WRF4G environment.

```
[user@localhost ~]$ export PATH=$HOME/WRF4G/bin:$PATH
```

In order to avoid typing the export command every time you open a terminal, you should copy it into \$HOME/.bashrc.

```
[user@localhost ~]$ echo "export PATH=$HOME/WRF4G/bin:$PATH" >> $HOME/.bashrc
```

The installation process provides the UI with:

- A set of scripts that allows to prepare, submit and monitor experiments.
- The WRF4G framework. This framework is a set of daemons/services that manage:
  - The Computing Resources where WRF is going to run.
  - The database where the experiment information and status (realization, chunks, jobs) is stored.

## Verifying installation

You can verify if WRF4G has been deployed properly by running the following command:

```
[user@localhost ~]$ wrf4g_framework start
Starting DRM4G (GridWay) .... OK
Starting WRF4G_DB (MySQL) ... OK
```

If the answers are not satisfactory ("OK"), you should check out the log files:

- `$HOME/WRF4G/opt/drm4g_gridway/var/gwd.log` for DRM4G (GridWay)
- `$HOME/WRF4G/var/mysql.log` for WRF4G\_DB (MySQL).

You should now move to [the WRF4G tutorial](#)

## Problems

If you find any problems, please [drop a ticket!!](#)