

# Installing, Upgrading, and Uninstalling Macports

## What is Macports?

- Macports is a software repository that ports Linux open-source software to be compatible with Macs.
- Examples of such software are `gmt`, `nedit`, `ghostscript` and `gv`.

Installing Macports on your Mac will allow you to have access to their repository and install ported Linux tools. You can also update any Macports software you installed via the appropriate port command.

## Do I Need Macports?

- Macports is installed on every managed machine at IGPP.
- If you have a self-managed machine and need software like `gmt`, `nedit`, `gv`, etc. then you should follow this wiki.

## Macports at IGPP

Below is a list of ports that are installed on every managed IGPP computer:

- `szip`
- `gdal +curl +geos +hdf5 +netcdf`
- `gmt5`
- `gmt4`
- `gawk`
- `ghostscript`
- `gv`
- `xorg-libXt +flat_namespace`
- `nedit`
- `g95`
- `xpdf`
- `rsync`
- `sshfs`
- `geographiclib`
- `py27-obsipy`
- `py27-numpy`
- `py27-scipy`
- `py27-matplotlib`
- `netcdf`
- `hdf5-18`
- `ncarg`
  
- `gcc5 +universal`

A comprehensive list of available ports can be found at <http://www.macports.org/>

## Prerequisite: Install Xcode and Xcode Command Line Tools

1. A wiki on installing Xcode via the App Store can be found here: [Installing Xcode Tools and X11](#)
2. Prior to running these commands you should have:
3. Installed Xcode
4. Installed Xcode Command Line Tools.

```
sudo xcode-select --install
sudo xcodebuild -license (type "agree" to accept license).
open /Library/Developer/CommandLineTools/Packages/macOS_SDK_headers_for_macOS_10.14.pkg (10.14 and later)
```

## Installing Macports

1. Download and install Macports from <http://www.macports.org/> .
2. Sync your local software tree with the master repository using this command:

```
sudo port -v selfupdate
```

3. This installs all the ports used at IGPP:

```
sudo port install szip gdal +curl +geos +hdf5 +netcdf gmt5 gmt4 gawk ghostscript gv xorg-libXt
+flat_namespace nedit g95 xpdf rsync sshfs geographiclib py27-obsipy py27-numpy py27-scipy py27-
matplotlib netcdf hdf5-18 ncarg gcc5 +universal sudo port install szip gdal +curl +geos +hdf5 +netcdf
gmt5 gmt4 gawk ghostscript gv xorg-libXt +flat_namespace nedit g95 xpdf rsync sshfs geographiclib py27-
obsipy py27-numpy py27-scipy py27-matplotlib netcdf hdf5-18 ncarg gcc5 +universal
```

**Installing GMT:** An additional step is required for installing gmt4. Add the following line to your ~/.profile:

```
export PATH=/opt/local/lib/gmt4/bin:$PATH
```

Explanation: By default, Macports and most ports install in /opt/local/bin and /opt/local/sbin. To let the computer know where to look for Macports and installed ports, a path is created in ~/.profile as such:

```
export PATH=/opt/local/bin:/opt/local/sbin:$PATH
```

This is automatically done for you when you install Macports.

However, gmt4 is installed in /opt/local/lib/gmt4/. Since this path isn't installed by default, you must manually create it in your ~/.profile so your computer knows where to look for it.

## Upgrading Macports

These commands would be done if you wanted to keep your installed ports updated to the latest version.

1. sudo port selfupdate
2. sudo port upgrade installed

## Macports Cheat Sheet

Macports must be installed for the port command to work.

port command	Function
sudo port selfupdate	Sync local tree with Macports repository. Do this before installing or upgrading ports.
sudo port install [port]	Install ports
sudo port upgrade installed	Upgrade installed ports

## Uninstalling Macports

<https://guide.macports.org/chunked/installing.macports.uninstalling.html>

## Resources

Official documentation can be found at <http://www.macports.org/>.

If you need further assistance, please [contact IGPP Net Ops](#).