

How to install GrADS on Mac (Mac OS Monterey 12.6) with MacPorts

The following link is the key website!

<https://ports.macports.org/port/grads/>

grads
v 2.2.1
interactive visualization tool for earth science data

The Grid Analysis and Display System (GrADS) is an interactive desktop tool that is used for easy access, manipulation, and visualization of earth science data. The format of the data may be either binary, GRIB, NetCDF, or HDF-SDS (Scientific Data Sets). GrADS has been implemented worldwide on a variety of commonly used operating systems and is freely distributed over the Internet.

<http://cola.gmu.edu/grads/>

★ to install grads, paste this in macOS terminal after installing MacPorts

```
sudo port install grads
```

More instructions | Report an issue with this port

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You still need to install XQuartz!!

Step 1: Install MacPorts

Step 1.1: Install Xcode and the Xcode Command Line Tools if they don't exist.
(click it)

(open the terminal to check if /Library/Developer/CommandLineTools exists, and open the terminal to check if /Application/Xcode* exists before installing Xcode and CommandLineTools)

MacPorts

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Quickstart

1. Install [Xcode and the Xcode Command Line Tools](#)
2. Agree to Xcode license in Terminal: `sudo xcodebuild -license`
3. Install MacPorts for your version of the Mac operating system:
 - o [macOS Monterey v12](#)
 - o [macOS Big Sur v11](#)
 - o [macOS Catalina v10.15](#)
 - o [Older OS? See here](#)

Installing MacPorts

MacPorts version 2.7.2 is available in various formats for download and installation (note, if you are upgrading to a new major release of macOS, see the [migration info page](#)):

- "pkg" installers for [Monterey](#), [Big Sur](#), and [Catalina](#) for use with the macOS Installer. This is the simplest installation procedure that most users should follow after meeting the requirements listed [below](#). Installers for legacy platforms [Mojave](#), [High Sierra](#), [Sierra](#), [El Capitan](#), [Yosemite](#), [Mavericks](#), [Mountain Lion](#), [Lion](#), [Snow Leopard](#), [Leopard](#) and [Tiger](#) are also available.
- In [source form](#) as either a [tar.bz2](#) package or a [tar.gz](#) one for manual compilation, if you intend to customize your installation in any way.
- [Git clone](#) of the unpackaged sources, if you wish to follow MacPorts development.
- The [selfupdate](#) target of the `port(1)` command, for users who already have MacPorts installed and wish to upgrade to a newer release.

Checksums for our packaged [downloads](#) are contained in the corresponding [checksums file](#). The public key to verify the detached GPG signatures can be found under the [attachments section on jmr's wiki page](#). ([Direct Link](#))

Please note that in order to install and run MacPorts on macOS, your system must have installations of the following components:

Step 1.2: Download **both** [Xcode](#) and [Command Line Tools](#) through Apple Develop websites (login in with Apple ID).

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2.3. Upgrade MacPorts
2.4. Uninstall MacPorts
2.5. MacPorts and the Shell

2.1. Install Xcode

Xcode is a package provided by Apple containing compilers, libraries and additional tools required to develop applications for macOS.

2.1.1. Install Xcode on OS X 10.9 or Later

2.1.2. Install Xcode on OS X 10.7 Lion or OS X 10.8 Mountain Lion

2.1.3. Install Xcode on Mac OS X 10.6 Snow Leopard

2.1.4. Install Xcode on Older Releases of Mac OS X

Note

Always make sure to install the latest available version of Xcode for your macOS release; using outdated versions of Xcode may cause port install failures. Also note that Xcode is not updated via OS X's Software Update utility on OS versions prior to 10.6, and is updated via the Mac App Store starting with 10.7.

Follow the instructions for your version of macOS:

2.1.1. Install Xcode on OS X 10.9 or Later

Download the latest version of Xcode [from the Apple developer website](#) or get it [using the Mac App Store](#).

Once you have Xcode installed, open a terminal, run `xcode-select --install`, and click the Install button to install the required command line developer tools. Don't worry if you see a message telling you the software cannot be installed because it is not currently available from the Software Update Server. This usually means you already have the latest version installed. You can also get the command line tools from [the Apple developer website](#).

2.1.2. Install Xcode on OS X 10.7 Lion or OS X 10.8 Mountain Lion

Download the latest version of Xcode [from the Apple developer website](#) or get it [using the Mac App Store](#).

2.1.2.1. Xcode 4.3 and Later

Xcode 4.3 and later do not automatically install the command line tools, but MacPorts requires them. To install them, open the Xcode application, go to the Preferences window, to the Downloads section, and click the Install button next to Command Line Tools. Be sure to return to this window after every Xcode upgrade to ensure that the command line tools are also upgraded.

If you wish to create Installer packages with `port pkg`, you will also need to install PackageMaker, which is in the "Auxiliary Tools for Xcode" package as of Xcode 4.3. The download page for this package can be opened via the Xcode -> Open Developer Tool -> More Developer Tools... menu item. After downloading and mounting the disk image, drag the PackageMaker application to your /Applications directory.

2.1.3. Install Xcode on Mac OS X 10.6 Snow Leopard

If you are using Mac OS X 10.6, there are two branches of Xcode which could be considered to be the latest, 3.2.x and 4.x. Xcode 4 costs money, but Xcode 3 is still available free of charge. There are two options for downloading it.

- Xcode 3.2 - smaller download, but you will need to run Software Update after installing to get the latest version. Note that Apple might at some point discontinue providing these updates via their update servers.
- Xcode 3.2.6 and iOS SDK 4.3 - includes the iOS SDK which is not needed for MacPorts.

Both are available from the [Apple developer website](#). You may also be able to install Xcode 3.2 from your Mac OS X 10.6 DVD and then run Software Update to get the latest version.

Step 1.3: Find Xcode and corresponding Command Line Tools. (The version is up to you.)



Xcode 14.1 beta

September 14, 2022

[View Details](#)



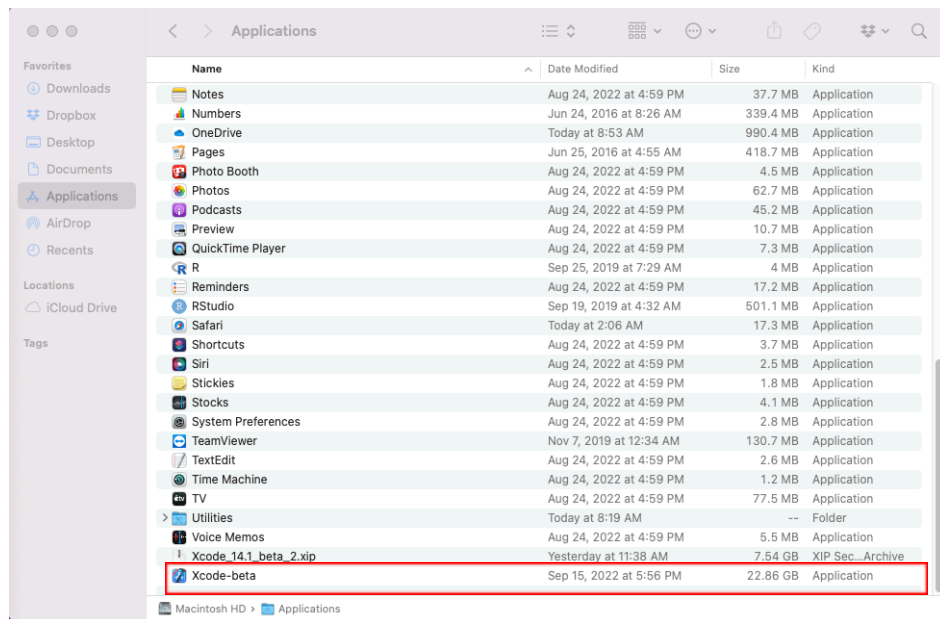
Command Line Tools for Xcode 14.1 beta

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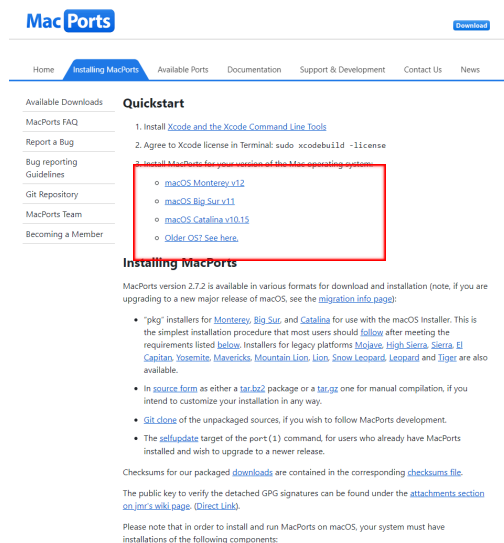
After downloading, move them to the /Applications, and install them (you can directly click them to install).

After install them, check if /Applications/Xcode*.app exists.



Open the terminal and type following command
 Sudo xcode-select -s /Applications/Xcode*.app
 Sudo xcode -license

Step 1.4: Download and install MacPort according to your operation system version.



After downloading MacPorts, reopen the terminal.

Step 2: Install GrADS

Step 2.1: Download the grads.



COLA	Climate Dynamics PhD	GrADS	Weather Maps
Virginia Weather			
Downloads	Documentation	Users Forum	GrADS Data Server (GDS)

Download GrADS Software

GrADS is free software. Under the terms of the COPYRIGHT, you can redistribute it and/or modify it under the terms of the GNU General Public License. GrADS is distributed in the hope that it will be useful, but without any warranty; without even the implied warranty of merchantability or fitness for a particular purpose. The tables below contains links to the most recent releases. Be sure to download the appropriate tar file for your particular hardware and operating system.

The Latest Version of GrADS

GrADS version 2.2.1 supports both classic and Cairo graphics and introduces a new GrADS-Python Interface.

GrADS version 2.1.* are old releases that use Cairo for all graphics rendering.
GrADS version 2.0.* are very old releases that use the classic graphics engines.

The "source" links below contains the source code, documentation, and the supplementary data sets. Information on how to build GrADS 2.2 and all of its required supplies from source may be found [here](#). The links for individual operating systems contain only a suite of pre-compiled executables.

Please look at the [Change Log](#) for lists of new features, bug fixes, and miscellaneous changes associated with each release.

Operating System	GrADS 2.2.0	GrADS 2.2.1 (the latest)
	source code	source code
Linux	RHEL-6.4 CentOS-7.3 SuSE-12.1 i686 (without OpenSSL) i686 (with OpenSSL)	CentOS-7.4 SuSE-12.1 i686 (without OpenSSL) i686 (with OpenSSL)
Mac OS X		darwin17.5 (OSX 10.13)
		Supplies Builds (You might need to install some of these shared libraries on your local system)

Earlier releases are available for grads-1.8, grads-1.9, grads-2.0, and grads-2.1. None of these builds are guaranteed to work on modern systems.

Step 2.2: open the terminal, type `sudo port install grads`, and then you can see it running.

Step 2.3: reopen the terminal, type `grads`. If something wrong about GAUPT happen, open the terminal, type `vi ~/.bash_profile`. And then change the path to the directory where your grads installed.

```
> Grid Analysis and Display System (GrADS) Version 2.2.0
> Copyright (C) 1988-2017 by George Mason University
> GrADS comes with ABSOLUTELY NO WARRANTY
> See file COPYRIGHT for more information
>
> Config: v2.2.0 little-endian readline grib2 netcdf hdf4-sds hdf5 opendap-grids, stn geotiff shapefile
> Issue 'q config' and 'q gxconfig' commands for more detailed configuration information
> Landscape mode? ('n' for portrait):
> GX Package Initialization: Size = 11 8.5
> GX Package Error: Could not find a record for the printing plug-in named "Cairo"
> * The environment variable GAUPT has not been set
> * Unable to open the default User Defined Plug-in Table: /usr/local/lib/grads/udpt
> Please read the documentation at http://cola.gmu.edu/grads/gadoc/plugins.html
> GX Package Terminated
```

Error message

```
laes -- vi ~/.bash_profile -- 124x38

# grads
export GADDIR=/opt/local/share/grads
export GASCRIPT=/opt/local/share/grads/scripts
export GAUDPT=/opt/local/share/grads/udpt
export PATH=/opt/local/share/grads:$PATH

# >>> conda initialize >>>
# !! Contents within this block are managed by 'conda init' !!
__conda_setup="$('/Users/laes/anaconda3/bin/conda' 'shell.bash' 'hook' 2> /dev/null)"
if [ $? -eq 0 ]; then
    eval "$__conda_setup"
else
    if [ -f "/Users/laes/anaconda3/etc/profile.d/conda.sh" ]; then
        . "/Users/laes/anaconda3/etc/profile.d/conda.sh"
    else
        export PATH="/Users/laes/anaconda3/bin:$PATH"
    fi
fi
unset __conda_setup
# <<< conda initialize <<<

# added by Anaconda3 5.3.1 installer
# >>> conda init >>>
# !! Contents within this block are managed by 'conda init' !!
__conda_setup="$('/anaconda3/bin/conda' 'shell.bash' 'hook' 2> /dev/null)"
if [ $? -eq 0 ]; then
    eval "$__conda_setup"
else
    if [ -f "/anaconda3/etc/profile.d/conda.sh" ]; then
        . "/anaconda3/etc/profile.d/conda.sh" # commented out by conda initialize
    else
        CONDA_CHANGEPS1=false conda activate base
    fi
fi
unset __conda_setup
# <<< conda init <<<
```

After changing them, type `source ~/.bash_profile`, and type `grads`. And then you can see the following scene.

