

Installing Bacula Client on Mac OS X Server

This tutorial guides you through a Bacula install on a fresh installation of Mac OS X Server 10.5 (Leopard).

This does not include setting up firewall settings. The client bacula-fd daemon listens for connections from the server on TCP port 9102 and should be allowed to make unrestricted outbound connections to the 129.128.31.128/27 subnet.

Prerequisites for Installation:

- MacPorts (formerly known as DarwinPorts)
 - Xcode Developer Tools (version 3.2.1 or later for Snow Leopard, 3.1.4 or later for Leopard, or 2.5 for Tiger)
 - X11 User package (optional on Tiger, included by default on Leopard and Snow Leopard)
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Install MacPorts

Visit the MacPorts download page at <http://www.macports.org/install.php> and download the appropriate installation file for MacPorts for your OS.



NOTE: If you have not yet installed Apple's Xcode Developer Tools (version 3.2.1 or later for Snow Leopard, 3.1.4 or later for Leopard, or 2.5 for Tiger), you will receive the following error:



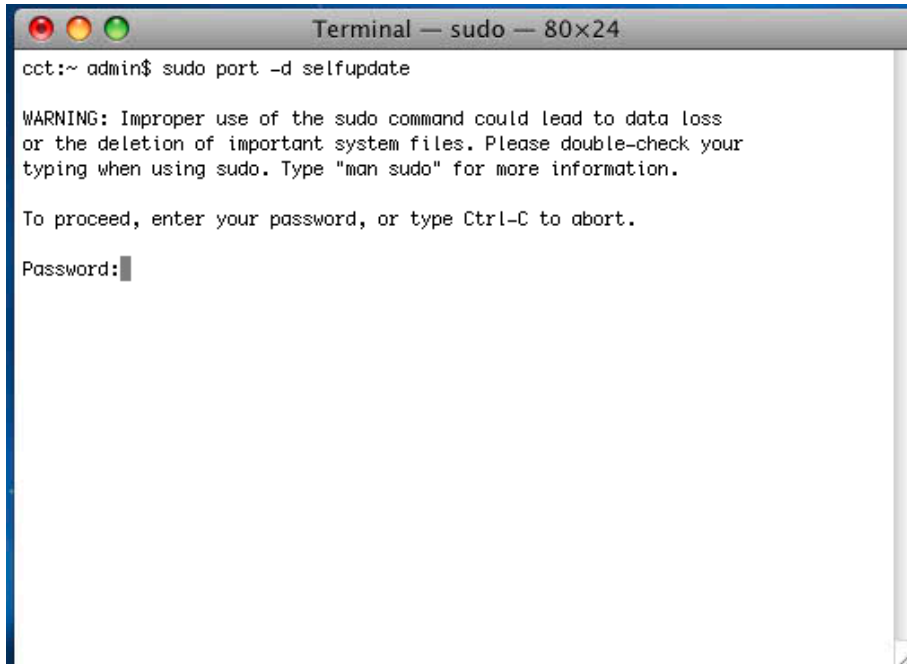
Please see the “**Installing Xcode Developer Tools**” section under Troubleshooting at the end of this document.

Locate the MacPorts .pkg file and run the installer. There are no unusual options to configure.



Install MacPorts Update

Open a Terminal window and enter the command: **sudo port -d selfupdate**



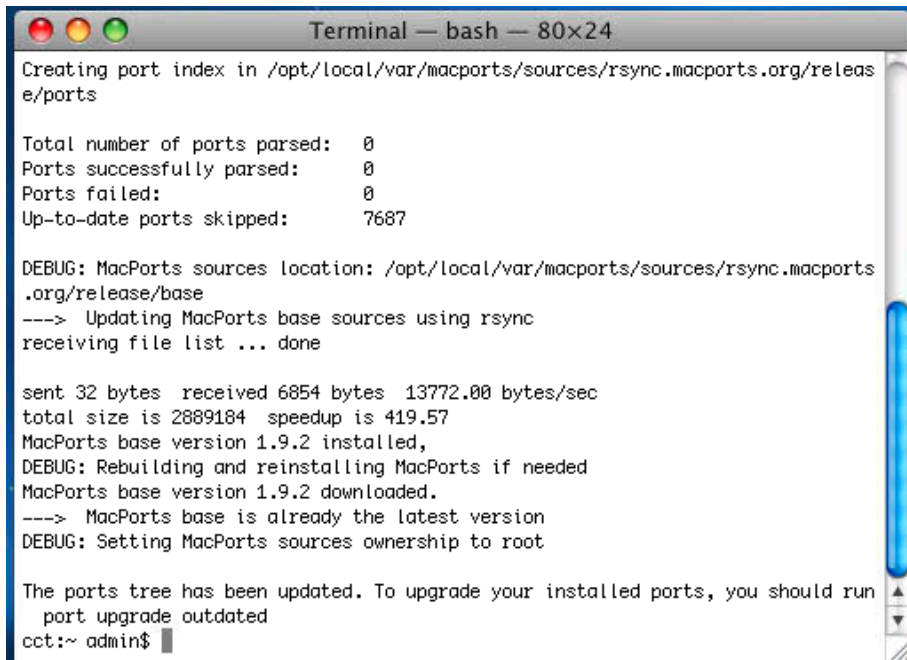
```
Terminal — sudo — 80x24
cct:~ admin$ sudo port -d selfupdate

WARNING: Improper use of the sudo command could lead to data loss
or the deletion of important system files. Please double-check your
typing when using sudo. Type "man sudo" for more information.

To proceed, enter your password, or type Ctrl-C to abort.

Password: █
```

When complete, the window should look similar to the following:



```
Terminal — bash — 80x24
Creating port index in /opt/local/var/macports/sources/rsync.macports.org/release/ports

Total number of ports parsed:  0
Ports successfully parsed:    0
Ports failed:                 0
Up-to-date ports skipped:     7687

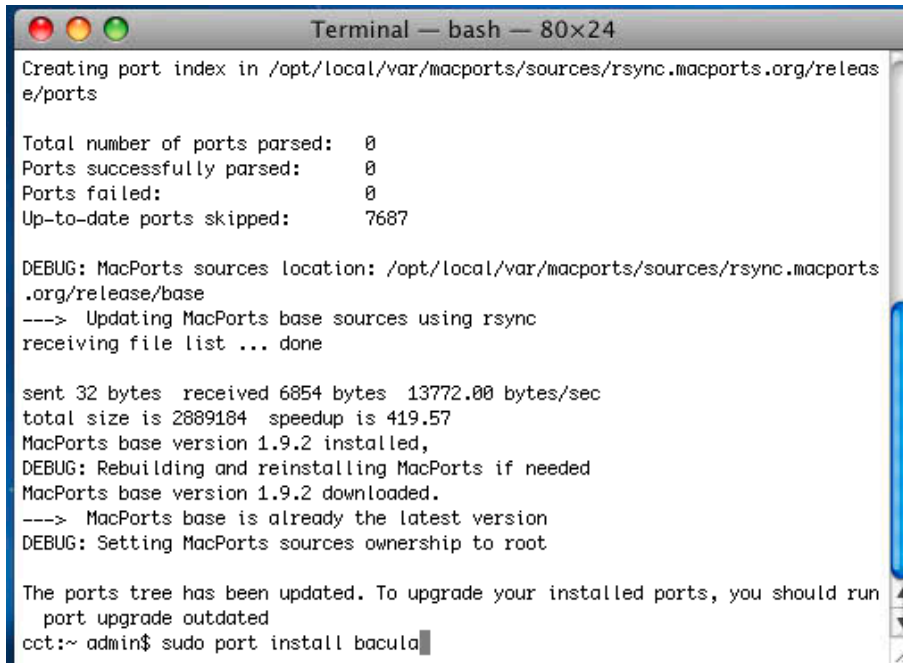
DEBUG: MacPorts sources location: /opt/local/var/macports/sources/rsync.macports.org/release/base
----> Updating MacPorts base sources using rsync
receiving file list ... done

sent 32 bytes  received 6854 bytes  13772.00 bytes/sec
total size is 2889184  speedup is 419.57
MacPorts base version 1.9.2 installed,
DEBUG: Rebuilding and reinstalling MacPorts if needed
MacPorts base version 1.9.2 downloaded.
----> MacPorts base is already the latest version
DEBUG: Setting MacPorts sources ownership to root

The ports tree has been updated. To upgrade your installed ports, you should run
  port upgrade outdated
cct:~ admin$ █
```


Install Bacula Client

Open a Terminal window and enter the command: **sudo port install bacula**



```
Terminal — bash — 80x24
Creating port index in /opt/local/var/macports/sources/rsync.macports.org/release/ports

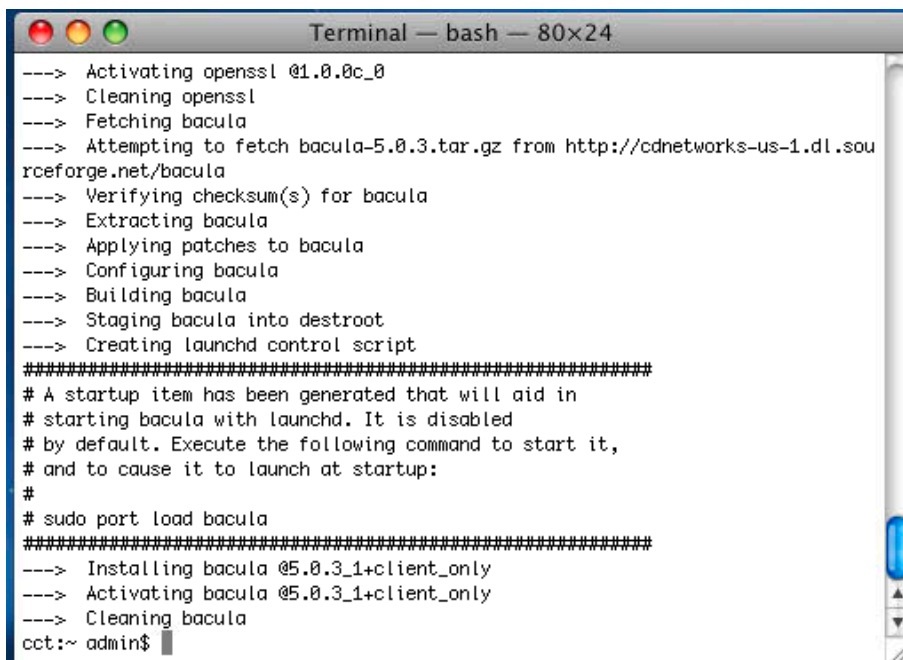
Total number of ports parsed:  0
Ports successfully parsed:    0
Ports failed:                 0
Up-to-date ports skipped:    7687

DEBUG: MacPorts sources location: /opt/local/var/macports/sources/rsync.macports.org/release/base
----> Updating MacPorts base sources using rsync
receiving file list ... done

sent 32 bytes  received 6854 bytes  13772.00 bytes/sec
total size is 2889184  speedup is 419.57
MacPorts base version 1.9.2 installed,
DEBUG: Rebuilding and reinstalling MacPorts if needed
MacPorts base version 1.9.2 downloaded.
----> MacPorts base is already the latest version
DEBUG: Setting MacPorts sources ownership to root

The ports tree has been updated. To upgrade your installed ports, you should run
port upgrade outdated
cct:~ admin$ sudo port install bacula
```

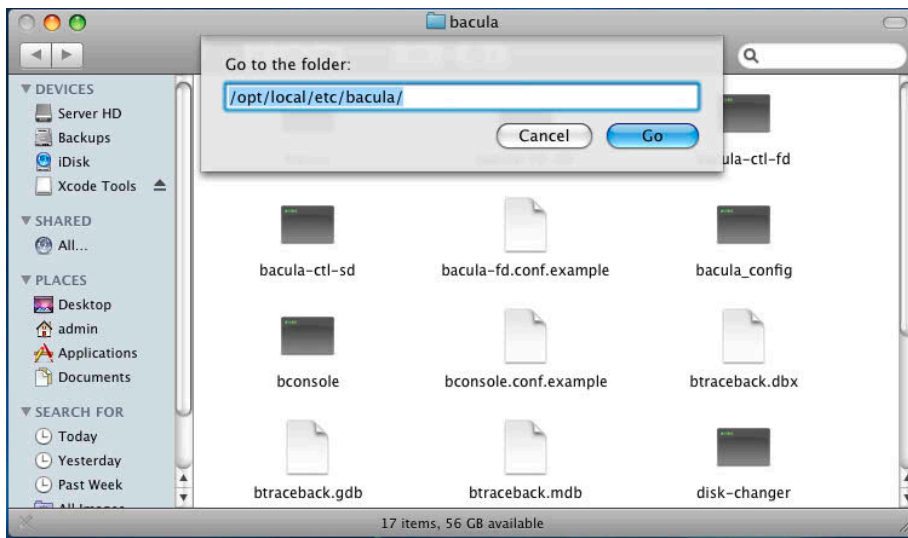
When complete, the window should look similar to the following:



```
Terminal — bash — 80x24
----> Activating openssl @1.0.0c_0
----> Cleaning openssl
----> Fetching bacula
----> Attempting to fetch bacula-5.0.3.tar.gz from http://cdnetworks-us-1.dl.sourceforge.net/bacula
----> Verifying checksum(s) for bacula
----> Extracting bacula
----> Applying patches to bacula
----> Configuring bacula
----> Building bacula
----> Staging bacula into destroot
----> Creating launchd control script
#####
# A startup item has been generated that will aid in
# starting bacula with launchd. It is disabled
# by default. Execute the following command to start it,
# and to cause it to launch at startup:
#
# sudo port load bacula
#####
----> Installing bacula @5.0.3_1+client_only
----> Activating bacula @5.0.3_1+client_only
----> Cleaning bacula
cct:~ admin$
```

Install Bacula Configuration Files

Place the **bacula-fd.conf** and **bconsole.conf** files provided to you by the Bacula administrators in the directory: **/opt/local/etc/bacula**

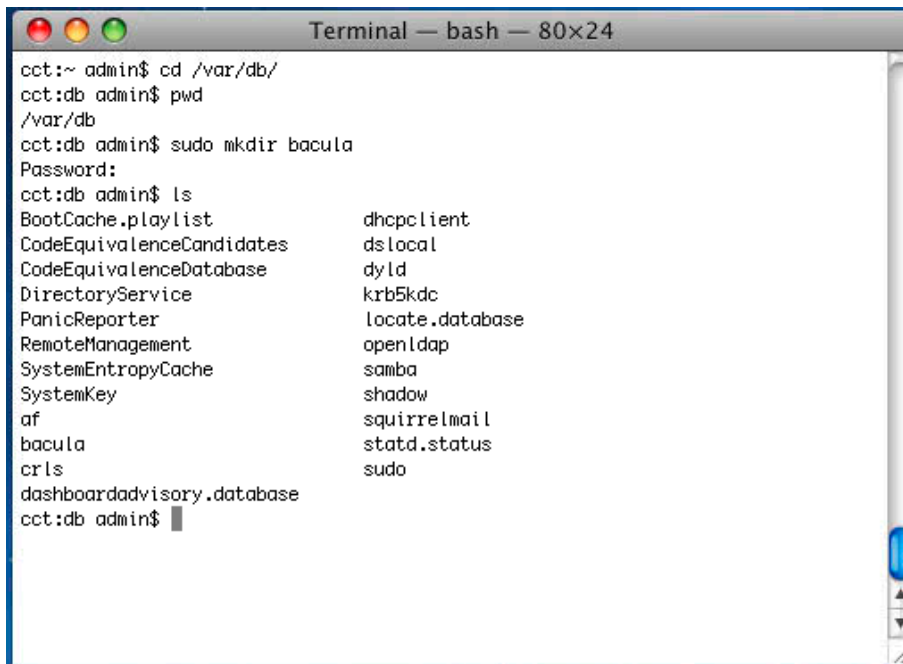


You will be prompted for administrator access to copy files to this location.

Create Bacula Working Directory

Create the directory: **`/var/db/bacula`**

You will need administrator access to create this directory.



```
Terminal — bash — 80x24
cct:~ admin$ cd /var/db/
cct:db admin$ pwd
/var/db
cct:db admin$ sudo mkdir bacula
Password:
cct:db admin$ ls
BootCache.playlist          dhcpclient
CodeEquivalenceCandidates  dslocal
CodeEquivalenceDatabase     dyld
DirectoryService            krb5kdc
PanicReporter               locate.database
RemoteManagement            openldap
SystemEntropyCache          samba
SystemKey                   shadow
af                           squirrelmail
bacula                       statd.status
cris                         sudo
dashboardadvisory.database
cct:db admin$
```

Start the Bacula Daemon

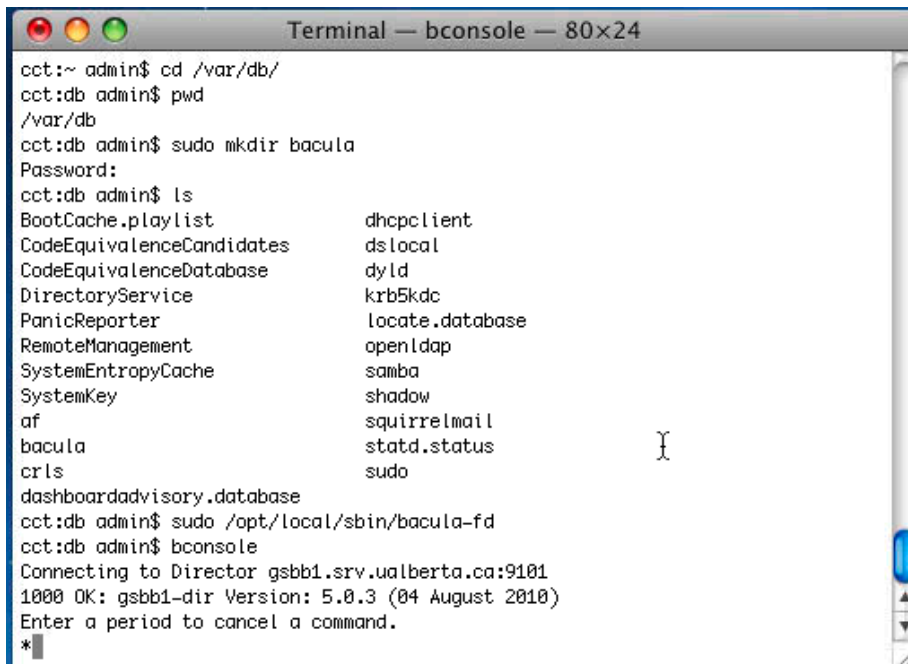
Run the command: **`sudo /opt/local/sbin/bacula-fd`**

You will need administrator access to start the daemon.

Test Connectivity to Bacula Servers Using bconsole

Run the command: **bconsole**

You should see a successful connection as follows:



```
Terminal — bconsole — 80x24
cct:~ admin$ cd /var/db/
cct:db admin$ pwd
/var/db
cct:db admin$ sudo mkdir bacula
Password:
cct:db admin$ ls
BootCache.playlist          dhcpclient
CodeEquivalenceCandidates  dslocal
CodeEquivalenceDatabase    dyld
DirectoryService           krb5kdc
PanicReporter              locate.database
RemoteManagement          openldap
SystemEntropyCache        samba
SystemKey                  shadow
af                          squirrelmail
bacula                     statd.status
cris                        sudo
dashboardadvisory.database
cct:db admin$ sudo /opt/local/sbin/bacula-fd
cct:db admin$ bconsole
Connecting to Director gsbbl.srv.ualberta.ca:9101
1000 OK: gsbbl-dir Version: 5.0.3 (04 August 2010)
Enter a period to cancel a command.
*|
```

Success!

If you are able to connect to the Bacula director through bconsole successfully, your Bacula client setup is complete!

Your backup jobs should run at the scheduled times as set by Bacula admin.

Troubleshooting

Bacula admin cannot contact server, or bconsole does not connect

Ensure that your firewall allows incoming connections from the Bacula server, and allows unrestricted outbound connections to 129.128.31.128/27 subnet. (Subnet Mask: 255.255.255.224)

Ports 9101 and 9102 may be used for bconsole.

sudo: port: command not found

If the system cannot find the command "port" it will return the above error. You may need to install the latest version of MacPorts, or ensure that the .profile file or .bash_profile includes the path to where port is installed.

configure: error: no acceptable C compiler found in \$PATH

Ensure all 3 of the Xcode Tools packages (Developer Tools Essentials, System Tools, UNIX Development Support) are installed, install the latest version of MacPorts, or ensure that the .profile file or .bash_profile includes the path to where gcc or cc is installed.

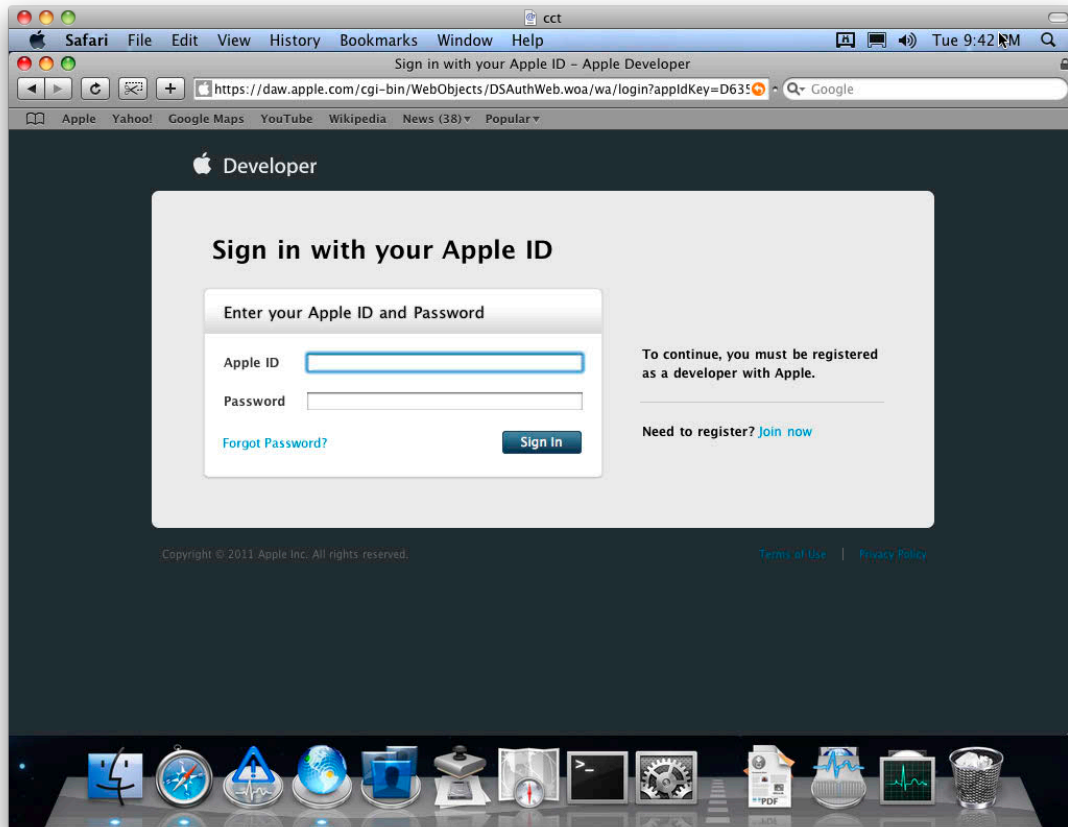
<Bacula server>-fd: ERROR TERMINATION AT util.c:859

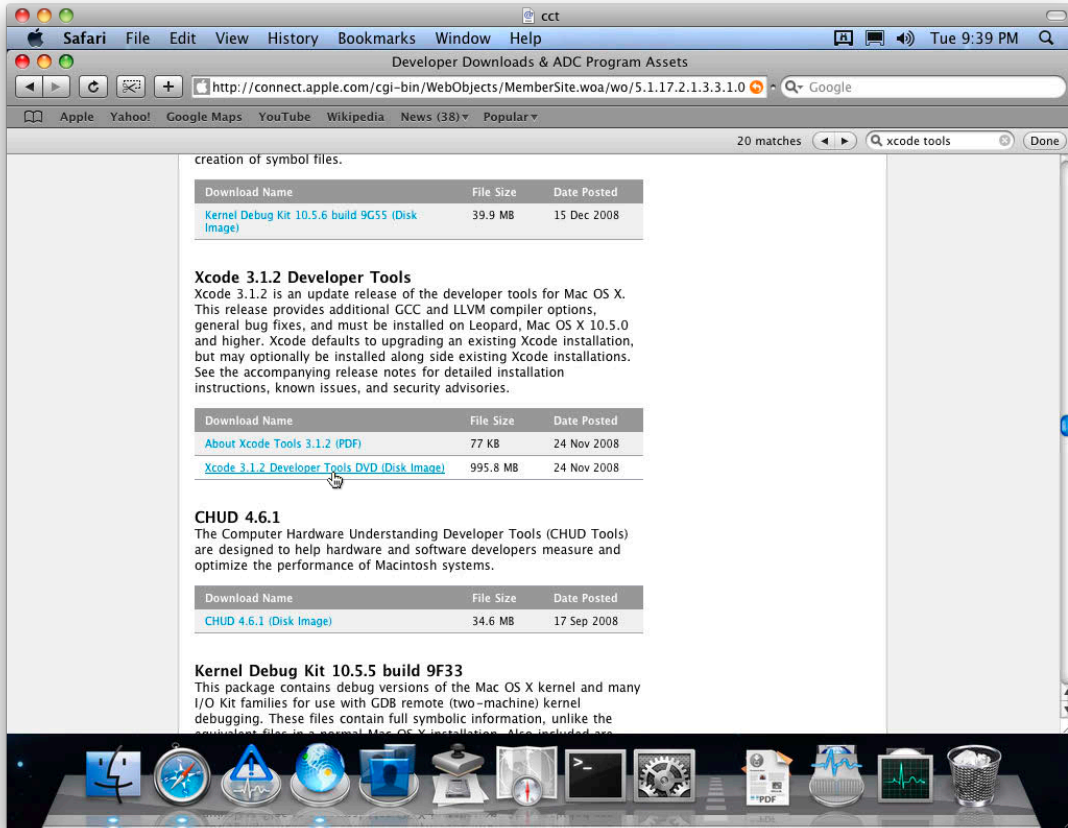
Working Directory: "/var/db/bacula" not found. Cannot continue.
Ensure you create the directory listed above. You can use the following command:
sudo mkdir /var/db/bacula

Installing Xcode Developer Tools

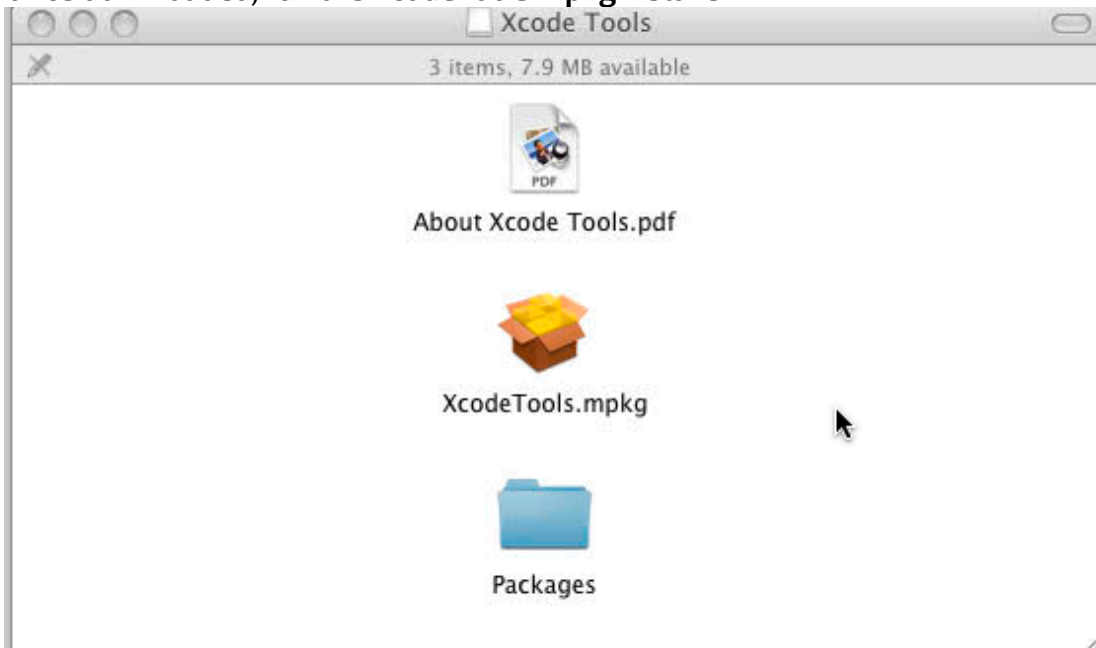
If you require the Xcode Developer Tools, you can download this from the Apple Developer Connection site at <http://connect.apple.com>

It is listed under Developer Tools section (under Downloads)





Once downloaded, run the **XcodeTools.mpkg** installer



Ensure that the following packages are installed:

- **Developer Tools Essentials**
- **System Tools**
- **UNIX Development Support**

