

# Building AFS Source RPM

To get new bug fixes not yet in a production release, to try out a newer release, or simply because the newest OpenAFS has not yet been packaged for your version of Fedora/RHEL, you may wish to build your own OpenAFS RPMs. This, of course, first requires a SRC rpm. SRC RPMs can be generated from the OpenAFS source.

## Step-by-step guide

You will need devel libraries and tools installed on your system for OpenAFS to build successfully.

1. Do a "git clone" of the OpenAFS source code repository:  
git clone [git://git.openafs.org/openafs.git](https://git.openafs.org/openafs.git)
2. Check what branches (or tags) are available. Generally, there will be a branch for the current "stable" and the major development efforts of OpenAFS. When completed, each release including pre-releases will have a tag:

```
$ git branch -r

origin/HEAD -> origin/master

origin/disconnected

origin/instrumentation

origin/master

...

origin/openafs-stable-1_6_9-branch

origin/openafs-stable-1_6_x
```

As of the time of this writing, you will generally want the "origin/openafs-stable-1\_6\_x" branch, since 1.6.x is the current stable version of OpenAFS.

If you would rather checkout a tag, list the tags with:

```
$ git tag -l

and checkout a particular tag with:

$ git checkout tags/tagname
```

3. Checkout the branch (or tag) you want:  
git checkout origin/openafs-stable-1\_6\_x  
git checkout tags/openafs-stable-1\_6\_11pre2
4. You need to create a .version file at the top level of your git tree... this is used to indicate what "version" of OpenAFS you are installing. Even if it isn't a real version. For example, I wanted to call my version openafs-1.6.11pre1.1:

```
]$ cat .version

openafs-devel-1_6_11pre1_1
```

Note that the dots are replaced by underscores.

and note that you need a "-devel" or "-stable" between "openafs" and the version number.

5. Rename your "openafs" directory to correspond to the version (leaving out the -stable or -devel). So, with the above version, my "openafs" directory is now named: openafs-1.6.11pre1.1
6. Now, you will need to run the "regen.sh" script in the top level of your openafs directory:  
openafs-1.6.11pre1.1]\$ ./regen.sh
7. Once completed, cd up one directory and create two tar files, named with your openafs version, one containing the source and one containing the documentation:

```
tar cjvf openafs-1.6.11pre1.1-src.tar.bz2 openafs-1.6.11pre1.1/ --exclude=openafs-1.6.11pre1.1/doc --exclude=openafs-1.6.11pre1.1/.git

tar cjvf openafs-1.6.11pre1.1-doc.tar.bz2 openafs-1.6.11pre1.1/doc
```

8. Now, cd to the src/packaging/RedHat subfolder:

```
pwd

/home/user/Downloads/openafs/openafs-1.6.11pre1.1/src/packaging/RedHat
```

9. And run the "makesrpm.pl" script to build your src rpm:  
perl ./makesrpm.pl ../../../../openafs-1.6.11pre1.1-src.tar.bz2 ../../../../openafs-1.6.11pre1.1-doc.tar.bz2
10. Now, you have a .src.rpm you can rebuild to generate RPMs:  
rpmbuild --rebuild openafs-1.6.11-0.pre1.src.rpm

11. The built RPMs should be placed in ~/rpmbuild/RPMS/



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