

# CONTRIBUTED DOCUMENTATION

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## Non-Andrew Workstation Depot Setup Guide

If you are running AFS and have a large software base, it is recommended that you go with the EMT model. There is a fairly large amount of overhead, but once that is taken care of things are much simpler. Take a look at the software management documents in the [depot WWW page](#).

This document will primarily concentrate on options that do not require AFS. However, it is still recommended that people read the software management documents before reading this document in order to get a better feel of the philosophy.

### Specifying Collections

In setting up a depot environment, one has two ways of specifying where collections are located: path and searchpath. "path" and "searchpath" can happily co-exist with each other in the same depot.pref file. Just be aware that in the event that a collection is specified with both "path" and "searchpath" the "path" specification will be used.

### Searchpath

The searchpath option has depot scan a directory for a list of collections. In that directory, the names of the subdirectories will become the collection names.

For example, if you did:

```
searchpath * /opt
```

and in opt you had:

```
dcelocal/ SUNWabcd/ gnu-emacs/
```

depot would attempt to process those three directories.

### Path

The other way of specifying collections is with the 'path' qualifier. In the above example, if we wanted to specify gnu-emacs, we would have

```
path gnu-emacs /opt/gnu-emacs
```

**Note:** The path option points directly to the directory where the files are housed, while searchpath points one level up.

### A Sample Configuration

For example if you have the following setup:

```
/software/RELEASE - directory to the released software  
/software/BETA_TEST - directory containing software in beta test  
/software/ALPHA_TEST - directory containing the software in alpha test
```

and you want to point you users to:

```
/usr/software
```

You would create `/usr/software/depot`. All the `depot.pref`'s mentioned below should go in this directory.

For your production machines, the `depot.pref` could be

```
searchpath * /software/RELEASE
```

For your staff/programmer machines, the `depot.pref` would include beta test software to ensure that most people participate in the beta test. The `depot.pref` would be:

```
searchpath * /software/BETA_TEST, /software/RELEASE
```

This would indicate that you should try to pull collections from `BETA_TEST` first and then from `RELEASE`. If the same collection exists in both locations, take the one first on the searchpath (e.g. `BETA_TEST`).

For people doing the early testing, the `depot.pref` could look like:

```
searchpath * /software/BETA_TEST, /software/RELEASE  
path gnu-emacs /software/ALPHA_TEST/gnu-emacs
```

This `depot.pref` would pull `gnu-emacs` from the `ALPHA_TEST` area but leave everything else the same.

## Simplest Case

The simplest case scenario is if you are dealing with a single machine. For this, you can use:

```
% mkdir /usr/software/depot  
% cat > depot.pref  
searchpath * depot  
EOF
```

and put all your collections in the depot directory. If you'd like to keep the source in the collection as 'src', add the command

```
specialfile src
```

to the `depot.pref` and depot will ignore the 'src' directory for all collections.

## Software Installation

It is important to note that the installation directory is not necessarily the same place from which you might run the software so it is often necessary to play some games.

Assuming that you have the setup and you are following the GNU configure script, it is generally pretty easy. First, you have to do a:

```
% make all prefix=/usr/software
```

and then do a:

```
make install prefix=/software/ALPHA_TEST/<collection_name>
```

The reason why you need to do the "make all" first is so that any hard coded paths get the "/usr/software" path rather than the '/software/... ' path. This is important as it allows you to move these collections between the ALPHA,BETA, and RELEASE directories without having to recompile.

## Releases

Assuming that software is installed into /software/ALPHA\_TEST, how do you get it into BETA\_TEST? The easiest way is to have some process copy the binaries. You should also "lock down" the sources. That is, go through and take away write access. This way, you can be assured that the sources in that location generated the binaries.

## Multi-Architecture

If you are supporting more than one system type, you have two choices. You can try to deal with the differences inside or outside of the collection.

An example of "inside" is that you would have:

```
/usr/software/bin/bar
```

which is really a shell script that calls /usr/software/bin/.` arch` /bar.

An example of the 'outside' model would be that you would have:

```
/software/>arch>/ALPHA_TEST/...  
/software/<arch>/BETA_TEST/...  
/software/<arch>/RELEASE/...
```

For common stuff, like man pages, It is simpler just to waste the disk space. But, if disk space is tight, you could also have:

```
/software/common/RELEASE_TEST/COMMON-<collection>
```

The "COMMON-" prefix to the collection is necessary to distinguish between the collection and the common portions of it.

## Release Control

To follow the EMT model some more, one could expand things by adding a timestamp (in place of the EMT version number). For example, you could have:

```
/software/src/<collection>/<timestamp>  
/software/ALPHA_TEST/<collection> ~ <timestamp>  
/software/BETA_TEST/<collection> ~ <timestamp>  
/software/RELEASE/<collection> ~ <timestamp>
```

(Note the use of '~' the default depot version delimiter) The timestamp would be the UNIX time value of when the collection was created.

## Conclusion

This is just a proposed way of doing things that has is not actually being used. This model is based on the EMT model which works well for us. If you have already set up depot and would like to share how you are doing so, please feel free to send us mail at

<mailto:depot+@andrew.cmu.edu>

We'd be very happy to add to our WWW server your document on your depot setup, or point a URL to the document.