

**NAME**

How to build fstrcmp

**SPACE REQUIREMENTS**

You will need about 3MB to unpack and build the *fstrcmp* package. Your mileage may vary.

**BEFORE YOU START**

There are a few pieces of software you may want to fetch and install before you proceed with your installation of *fstrcmp*

## GNU libtool

The libtool program is used to build shared libraries. It understands necessary weird and wonderful compiler and linker tricks on many weird and wonderful systems.

<http://www.gnu.org/software/libtool/>

## GNU Groff

The documentation for the *fstrcmp* package was prepared using the GNU Groff package (version 1.14 or later). This distribution includes full documentation, which may be processed into PostScript or DVI files at install time – if GNU Groff has been installed.

**GCC** You may also want to consider fetching and installing the GNU C Compiler if you have not done so already. This is not essential. The *fstrcmp* program was developed using the GNU C compiler.

The GNU FTP archives may be found at <ftp.gnu.org>, and are mirrored around the world.

**SITE CONFIGURATION**

The **fstrcmp** package is configured using the *configure* program included in the source distribution.

The *configure* shell script attempts to guess correct values for various system-dependent variables used during compilation, and creates the *Makefile* and *lib/config.h* files. It also creates a shell script *config.status* that you can run in the future to recreate the current configuration.

Normally, you just *cd* to the directory containing *fstrcmp*'s source code and then type

```
% ./configure
...lots of output...
%
```

If you're using *csh* on an old version of System V, you might need to type

```
% sh configure
...lots of output...
%
```

instead, to prevent *csh* from trying to execute *configure* itself.

Running *configure* takes a minute or two. While it is running, it prints some messages that tell what it is doing. If you don't want to see the messages, run *configure* using the quiet option; for example,

```
% ./configure --quiet
%
```

To compile the **fstrcmp** package in a different directory from the one containing the source code, you must use a version of *make* that supports the *VPATH* variable, such as *GNU make*. Then *cd* to the directory where you want the object files and executables to go and run the *configure* script. The *configure* script automatically checks for the source code in the directory that *configure* is in and in *..* (the parent directory). If for some reason *configure* is not in the source code directory that you are configuring, then it will report that it can't find the source code. In that case, run *configure* with the option *--srcdir=DIR*, where *DIR* is the directory that contains the source code.

By default, *configure* will arrange for the *make install* command to install the **fstrcmp** package's files in */usr/local/bin*, */usr/local/lib*, */usr/local/include*, and */usr/local/man*. There are options which allow you to control the placement of these files.

- `--prefix=PATH`  
This specifies the path prefix to be used in the installation. Defaults to */usr/local* unless otherwise specified.
- `--exec-prefix=PATH`  
You can specify separate installation prefixes for architecture-specific files. Defaults to *\${prefix}* unless otherwise specified.
- `--bindir=PATH`  
This directory contains executable programs. On a network, this directory may be shared between machines with identical hardware and operating systems; it may be mounted read-only. Defaults to *\${exec\_prefix}/bin* unless otherwise specified.
- `--mandir=PATH`  
This directory contains the on-line manual entries. On a network, this directory may be shared between all machines; it may be mounted read-only. Defaults to *\${prefix}/man* unless otherwise specified.

The *configure* script ignores most other arguments that you give it; use the `--help` option for a complete list.

On systems that require unusual options for compilation or linking that the *fstrcmp* package's *configure* script does not know about, you can give *configure* initial values for variables by setting them in the environment. In Bourne-compatible shells, you can do that on the command line like this:

```
$ CXX='gcc -traditional' LIBS=-lposix ./configure
...lots of output...
$
```

Here are the *make* variables that you might want to override with environment variables when running the *configure* script:

Variable: CC

C compiler program. The default is *cc*.

Variable: CPPFLAGS

Preprocessor flags, commonly defines and include search paths. Defaults to empty. It is common to use `CPPFLAGS=-I/usr/local/include` to access other installed packages.

Variable: INSTALL

Program to use to install files. The default is *install* if you have it, *cp* otherwise.

Variable: LIBS

Libraries to link with, in the form *-lfoo -lbar*. The *configure* script will append to this, rather than replace it. It is common to use `LIBS=-L/usr/local/lib` to access other installed packages.

If you need to do unusual things to compile the package, the author encourages you to figure out how the *configure* script could check whether to do them, and mail diffs or instructions to the author so that they can be included in the next release.

## BUILDING FSTRCMP

All you should need to do is use the

```
% make
...lots of output...
%
```

command and wait.

You can remove the program binaries and object files from the source directory by using the

```
% make clean
...lots of output...
%
```

command. To remove all of the above files, and also remove the *Makefile* and *lib/config.h* and *config.status* files, use the

```
% make distclean
...lots of output...
%
```

command.

The file *etc/configure.ac* is used to create *configure* by a GNU program called *autoconf*. You only need to know this if you want to regenerate *configure* using a newer version of *autoconf*.

## TESTING FSTRCMP

The *fstrcmp* package comes with a test suite. To run this test suite, use the command

```
% make sure
...lots of output...
Passed All Tests
%
```

The tests take a fraction of a second each, with most very fast, and a couple very slow, but it varies greatly depending on your CPU.

If all went well, the message

```
Passed All Tests
```

should appear at the end of the make.

## INSTALLING FSTRCMP

As explained in the *SITE CONFIGURATION* section, above, the *fstrcmp* package is installed under the */usr/local* tree by default. Use the *--prefix=PATH* option to *configure* if you want some other path. More specific installation locations are assignable, use the *--help* option to the *configure* script for details.

All that is required to install the *fstrcmp* package is to use the

```
% make install
...lots of output...
%
```

command. Control of the directories used may be found in the first few lines of the *Makefile* file and the other files written by the *configure* script; it is best to reconfigure using the *configure* script, rather than attempting to do this by hand.

## GETTING HELP

If you need assistance with the *fstrcmp* package, please do not hesitate to contact the author at

```
Peter Miller <pmiller@opensource.org.au>
```

Any and all feedback is welcome.

When reporting problems, please include the version number given by the

```
% explain -version
explain version 0.7.D001
...warranty disclaimer..
%
```

command. Please do not send this example; run the program for the exact version number.

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fstcmp version 0.7

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The comparison code is derived from the fuzzy comparison functions in GNU Gettext 0.17. The GNU Gettext comparison functions were, in turn, derived from GNU Diff 2.7.

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