

NAME

hier - layout of file systems

SYNOPSIS

An overview of the file system hierarchy.

DESCRIPTION

/ root directory

/bin/ user utilities that are fundamental to single-user and multi-user modes

/boot/ programs and configuration files used during bootstrap of the operating system

defaults/ default bootstrap configuration files; see loader.conf(5)

dtb/ compiled flattened device tree (FDT) files; see fdt(4) and dtc(1)

overlays/ compiled flattened device tree (FDT) overlays; these can be applied using the *fdt_overlays* setting in loader.conf(5)

efi/ mount point for the EFI System Partition (ESP) on UEFI systems

firmware/ loadable kernel modules containing binary firmware, for hardware to which firmware must be downloaded

kernel/ pure kernel executable (the operating system loaded into memory at boot time) and kernel modules

modules/ third-party loadable kernel modules, such as those associated with ports(7)

zfs/ zfs(8) pool cache files

/compat/ files supporting binary compatibility with other operating systems

linux/ default location for linux(4) compatibility run-time

/dev/ the normal mount point for devfs(5)

fd/ file descriptor files; see fd(4)

/etc/ system configuration files and scripts

bluetooth/ bluetooth configuration files

defaults/ default system configuration files; see rc(8)

- localtime* local timezone information; see *ctime*(3)
- mail/* sendmail(8) control files
- mtree/* mtree(8) configuration files
- pam.d/* configuration files for the Pluggable Authentication Modules (PAM) library; see *pam*(3)
- periodic/* scripts that are run daily, weekly, or monthly by *cron*(8); see *periodic*(8)
- ppp/* PPP configuration files; see *ppp*(8)
- rc.d/* system and daemon startup/control scripts; see *rc*(8)
- security/* OpenBSM audit configuration files; see *audit*(8)
- ssh/* OpenSSH configuration files; see *ssh*(1)
- ssl/* OpenSSL configuration files

- /home/* users' home directories; whilst the layout is not standardized, the typical home for an interactive user beastie would be */home/beastie/*

- /lib/* system libraries that are critical to binaries in */bin* and */sbin*
 - casper/* service-specific *libcasper*(3) Capsicum support libraries
 - geom/* class-specific libraries for the *geom*(8) utility
 - nvmecontrol/* vendor-specific libraries to extend the *nvmecontrol*(8) utility

- /libexec/* system utilities that are critical to binaries in */bin* and */sbin*

- /media/* empty directory commonly containing mount points for removable media such as USB drives, CDs, and DVDs

- /mnt/* empty directory commonly used by system administrators as a temporary mount point

- /net/* automounted NFS shares; see *auto_master*(5)

- /nonexistent/*
 - a non-existent directory; conventionally, a home directory for special user accounts that do not require a home directory. See also */var/empty/*

- /proc/* process file system; see *procfs*(5)

- /rescue/* statically-linked programs for emergency recovery; see *rescue*(8)

- /root/* home directory of the root user

<i>/sbin/</i>	system programs and administration utilities that are fundamental to single-user and multi-user modes
<i>/tmp/</i>	temporary files that may be removed by <i>rc</i> (8); see the <i>clear_tmp_enable</i> variable of <i>rc.conf</i> (5)
<i>/usr/</i>	contains the majority of user utilities and applications
<i>bin/</i>	common utilities, programming tools, and applications
<i>freebsd-dist/</i>	distribution files (like <i>base.txz</i> ; see <i>release</i> (7) and <i>bsdinstall</i> (8))
<i>include/</i>	standard C include files
<i>lib/</i>	shared and archive <i>ar</i> (1)-type libraries
<i>compat/</i>	shared libraries for compatibility
<i>debug/</i>	standalone debug data for the kernel and base system libraries and binaries
<i>dtrace/</i>	DTrace library scripts
<i>engines/</i>	OpenSSL (Cryptography/SSL toolkit) dynamically loadable engines
<i>libdata/</i>	miscellaneous utility data files
<i>gcc/</i>	GCC configuration data
<i>ldscripts/</i>	linker scripts; see <i>ld</i> (1)
<i>pkgconfig/</i>	<i>pc</i> (5) (<i>ports/devel/pkgconf</i>) files; collections of compiler flags, linker flags, and other information relevant to library use
<i>libexec/</i>	system daemons and system utilities that are executed by other programs
<i>aout/</i>	utilities to manipulate <i>a.out</i> executables
<i>elf/</i>	utilities to manipulate ELF executables
<i>lpr/</i>	utilities and filters for LP print system; see <i>lpr</i> (1)
<i>sendmail/</i>	the <i>sendmail</i> (8) binary; see <i>mailwrapper</i> (8)
<i>sm.bin/</i>	restricted shell for <i>sendmail</i> (8); see <i>smrsh</i> (8)
<i>local/</i>	local executables, libraries, etc. Also used as the default destination for the <i>ports</i> (7) framework. Within <i>local/</i> , the general layout sketched out by hier for <i>/usr</i> should be used. Exceptions are the <i>ports</i> documentation (in <i>share/doc/<port>/</i>), and <i>/usr/local/etc</i> (mimics <i>/etc</i>).
<i>obj/</i>	architecture-specific target tree produced by building FreeBSD from source; see <i>build</i> (7)

<i>ports/</i>	FreeBSD ports collection; see ports(7)
<i>sbin/</i>	system daemons and system utilities that are executed by users
<i>share/</i>	architecture-independent files
<i>calendar/</i>	system-wide calendar files; see calendar(1)
<i>dict/</i>	word lists; see look(1)
<i>frebsd</i>	FreeBSD-specific terms, proper names, and jargon
<i>web2</i>	words from Webster's Second International
<i>doc/</i>	miscellaneous documentation
<i>examples/</i>	various examples for users and programmers
<i>firmware/</i>	firmware images loaded by userland programs
<i>games/</i>	used by various games
<i>keys/</i>	known trusted and revoked keys
<i>pkg/</i>	fingerprints for pkg(7) and pkg(8)
<i>locale/</i>	localization files; see setlocale(3)
<i>man/</i>	manual pages
<i>misc/</i>	miscellaneous system-wide files
<i>termcap</i>	terminal characteristics database; see termcap(5)
<i>mk/</i>	templates for make; see make(1)
<i>nls/</i>	national language support files
<i>security/</i>	data files for security policies such as mac_lomac(4)
<i>sendmail/</i>	sendmail(8) configuration files
<i>skel/</i>	example . (dot) files for new accounts
<i>snmp/</i>	MIBs, example files and tree definitions for the SNMP daemon
<i>defs/</i>	tree definition files for use with gensnmptree(1)
<i>mibs/</i>	MIB files
<i>syscons/</i>	syscons(4) files
<i>fonts/</i>	console fonts; see vidcontrol(1) and vidfont(1)
<i>keymaps/</i>	console keyboard maps; see kbdcontrol(1) and kbdmap(1)
<i>scrnmaps/</i>	console screen maps

sysroot/ files necessary for the `-sysroot` compiler/linker argument to build non-native binaries

VERSION/ files for FreeBSD release *VERSION*. By convention, "*VERSION*" matches `uname(1)` **-r**.

MACHINE.MACHINE_ARCH/

represent the binary ABI for these files.

"*MACHINE*" matches `uname(1)` **-m**.

"*MACHINE_ARCH*" matches `uname(1)` **-p**.

tabset/ tab description files for a variety of terminals; used in the termcap file; see `termcap(5)`

vi/ localization support and utilities for `vi(1)`

vt/ `vt(4)` files

fonts/ console fonts; see `vidcontrol(1)` and `vidfont(1)`

keymaps/ console keyboard maps; see `kbdcontrol(1)` and `kbdmap(1)`

zoneinfo/ timezone configuration information; see `tzfile(5)`

src/ FreeBSD source code; see `development(7)`. The layout of the source tree is described by the top-level *README.md* file.

tests/ the FreeBSD test suite; see `tests(7)`

/var/ log, temporary, transient, and spool files

account/ system accounting files

acct execution accounting file; see `acct(5)`

at/ timed command scheduling files; see `at(1)`

jobs/ job files

spool/ output spool files

backups/ miscellaneous backup files

<i>cache/</i>	miscellaneous cache files
<i>pkg/</i>	cached packages for pkg(8)
<i>crash/</i>	default directory for kernel crash dumps; see crash(8) and savecore(8)
<i>cron/</i>	cron(8) files
<i>tabs/</i>	crontab(5) files
<i>db/</i>	miscellaneous automatically-generated system-specific database files
<i>freebsd-update/</i>	temporary files and downloads for freebsd-update(8)
<i>empty/</i>	for use by programs that require an empty directory. Uses include privilege separation by sshd(8)
<i>games/</i>	miscellaneous game status and score files
<i>heimdal/</i>	Kerberos server databases; see kdc(8)
<i>log/</i>	miscellaneous system log files
<i>utx.lastlogin</i>	last login log; see getutxent(3)
<i>utx.log</i>	login/logout log; see getutxent(3)
<i>mail/</i>	user mailbox files
<i>msgs/</i>	system messages database; see msgs(1)
<i>preserve/</i>	unused, present for historical reasons
<i>quotas/</i>	file system quota information files
<i>run/</i>	files containing information about the operating system since it was booted
<i>bhyve/</i>	bhyve(8) virtual machine unix(4)-domain sockets
<i>ppp/</i>	writable by the "network" group for command connection sockets; see ppp(8)
<i>utx.active</i>	database of current users; see getutxent(3)
<i>rwho/</i>	rwho data files; see rwhod(8), rwho(1), and ruptime(1)
<i>spool/</i>	miscellaneous printer and mail system spooling directories
<i>clientmqueue/</i>	undelivered submission mail queue; see sendmail(8)
<i>ftp/</i>	ftp root directory; see ftpd(8)
<i>mqueue/</i>	undelivered mail queue; see sendmail(8)
<i>output/</i>	line printer spooling directories

tmp/ temporary files that are not removed by rc(8)

vi.recover/ vi(1) recovery files

yp/ the NIS maps; see yp(8)

NOTES

This manual page documents the default FreeBSD file system layout. The actual hierarchy on a given system is defined at the system administrator's discretion. A well-maintained installation will include a customized version of this document.

SEE ALSO

apropos(1), find(1), grep(1), ls(1), whereis(1), which(1)

HISTORY

A **hier** manual page appeared in Version 7 AT&T UNIX.