NAME

filesystem – file system organization

SYNOPSIS

/
/usr
/export

DESCRIPTION

The file system tree is organized for administrative convenience. Distinct areas within the file system tree are provided for files that are private to one machine, files that can be shared by multiple machines of a common architecture, files that can be shared by all machines, and home directories. This organization allows sharable files to be stored on one machine but accessed by many machines using a remote file access mechanism such as NFS. Grouping together similar files makes the file system tree easier to upgrade and manage.

The file system tree consists of a root file system and a collection of mountable file systems. The **mount**(2) program attaches mountable file systems to the file system tree at mount points (directory entries) in the root file system or other previously mounted file systems. Two file systems, **/** (the root) and **/usr**, must be mounted in order to have a completely functional system. The root file system is mounted automatically by the kernel at boot time; the **/usr** file system is mounted by the system start-up script, which is run as part of the booting process.

Root File System

The root file system contains files that are unique to each machine. It contains the following directories:

/dev	Primary location for special files. Typically, device files are built to match the kernel and hardware configuration of the machine.
/dev/dsk	Block disk devices.
/dev/pts	Pseudo-terminal devices.
/dev/rdsk	Raw disk devices.
/dev/rmt	Raw tape devices.
/dev/sad	Entry points for the STREAMS Administrative driver.
/dev/term	Terminal devices.
/etc	Host-specific administrative configuration files and databases. **/etc** may be viewed as the directory that defines the machine's identity.
/etc/acct	Accounting system configuration information.
/etc/cron.d	Configuration information for **cron**(1M).
/etc/default	Defaults information for various programs.
/etc/dfs	Configuration information for exported file systems.

/etc/fs	Binaries organized by file system types for operations required before **/usr** is mounted.
/etc/inet	Configuration files for Internet services.
/etc/init.d	Shell scripts for transitioning between run levels.
/etc/lib	Shared libraries needed during booting.
/etc/lp	Configuration information for the printer subsystem.
/etc/mail	Mail subsystem configuration.
/etc/net	Configuration information for transport independent network services.
/etc/opt	Configuration information for optional packages.
/etc/rc0.d	Scripts for entering or leaving run level 0. See **init**(1M).
/etc/rc1.d	Scripts for entering or leaving run level 1. See **init**(1M).
/etc/rc2.d	Scripts for entering or leaving run level 2. See **init**(1M).
/etc/rc3.d	Scripts for entering or leaving run level 3. See **init**(1M).
/etc/saf	Service Access Facility files.
/etc/skel	Default profile scripts for new user accounts. See **useradd**(1M).
/etc/sm	Status monitor information.
/etc/sm.bak	Backup status monitor information.
/etc/tm	Trademark files; contents displayed at boot time.
/etc/uucp	UUCP configuration information. See **uucp**(1C).
/export	Default root of the exported file system tree.
/home	Default root of a subtree for user directories.
/kernel	Subtree of Platform Independent loadable kernel modules required as part of the boot process. It includes the generic part of the core kernel that is platform-independent, **/kernel/genunix.** See **kernel**(1M).
/mnt	Default temporary mount point for file systems. This is an empty directory on which file systems may be temporarily mounted.
/opt	Root of a subtree for add-on application packages.
/platform	Subtree of Platform Specific objects which need to reside on the root filesystem. It contains a series of directories, one per supported platform. The semantics of the series of directories is equivalent to / (root).
/platform/*/kernel	Platform Dependent objects with semantics equivalent to /kernel. It includes the file **unix** ,the core kernel that is platform dependent. See **kernel**(1M).

/platform/*/lib	Platform Dependent objects with semantics equivalent to /lib.
/platform/*/sbin	Platform Dependent objects with semantics equivalent to /sbin.
/proc	Root of a subtree for the process file system.
/sbin	Essential executables used in the booting process and in manual system recovery. The full complement of utilities is available only after **/usr** is mounted.
/tmp	Temporary files; cleared during the boot operation.
/var	Root of a subtree for varying files. Varying files are files that are unique to a machine but that can grow to an arbitrary (that is, variable) size. An example is a log file.
/var/adm	System logging and accounting files.
/var/cron	Log files for **cron**(1M).
/var/mail	Directory where users' mail is kept.
/var/news	Community service messages. Note: this is not the same as USENET-style news.
/var/nis	NIS+ databases.
/var/opt	Root of a subtree for varying files associated with optional software packages.
/var/preserve	Backup files for **vi**(1) and **ex**(1).
/var/sadm	Databases maintained by the software package management utilities.
/var/saf	Service access facility logging and accounting files.
/var/spool	Root directory for files used in printer spooling, mail delivery, **cron**(1M), **at**(1), etc.
/var/spool/cron	**cron**(1M) and **at**(1) spooling files.
/var/spool/locks	Spooling lock files.
/var/spool/lp	Line printer spool files. See **lp**(1).
/var/spool/mqueue	Mail queued for delivery.
/var/spool/pkg	Spooled packages.
/var/spool/uucp	Queued **uucp**(1C) jobs.
/var/spool/uucppublic	Files deposited by **uucp**(1C).
/var/tmp	Transitory files; this directory is *not* cleared during the boot operation.
/var/uucp	**uucp**(1C) log and status files.
/var/yp	Databases needed for backwards compatibility with NIS and **ypbind**(1M); unnecessary after full transition to NIS+.

/usr File System

Because it is desirable to keep the root file system small and not volatile, on disk-based systems larger file systems are often mounted on **/home**, **/opt**, **/usr**, and **/var**.

The file system mounted on **/usr** contains architecture-dependent and architecture-independent sharable files. The subtree rooted at **/usr/share** contains architecture-independent sharable files; the rest of the **/usr** tree contains architecture-dependent files. By mounting a common remote file system, a group of machines with a common architecture may share a single **/usr** file system. A single **/usr/share** file system can be shared by machines of any architecture. A machine acting as a file server may export many different **/usr** file systems to support several different architectures and operating system releases. Clients usually mount **/usr** read-only so that they do not accidentally change any shared files.

The **/usr** file system contains the following subdirectories:

/usr/4lib	**a.out** libraries for the Binary Compatibility Package. See *Binary Compatibility Guide*.
/usr/bin	Primary location for standard system utilities.
/usr/bin/sunview1	SunView executables. This directory is only present when the Binary Compatibility Package is installed.
/usr/ccs	C compilation system.
/usr/ccs/bin	C compilation commands and system utilities.
/usr/ccs/lib	Libraries and auxiliary files.
/usr/demo	Demo programs and data.
/usr/dt	root of a subtree for CDE Motif.
/usr/dt/bin	Primary location for CDE Motif system utilities.
/usr/dt/include	Header files for CDE Motif.
/usr/dt/lib	Libraries for CDE Motif.
/usr/dt/man	On-line reference manual pages for CDE Motif.
/usr/games	Game binaries and data.
/usr/include	Include headers (for C programs, etc).
/usr/kernel	Subtree of Platform Independent loadable kernel modules, not needed in the root filesystem.
/usr/platform	Subtree of Platform Specific objects which does not need to reside on the root filesystem. It contains a series of directories, one per supported platform. The semantics of the series of directories is equivalent to /platform, except for subdirectories which don't provide utility under one or the other (for example: /platform/include isn't needed).
/platform/*/include	Platform Dependent headers with semantics equivalent to /usr/include.
/platform/*/kernel	Platform Dependent objects with semantics equivalent to

	/usr/kernel.
/platform/*/lib	Platform Dependent objects with semantics equivalent to /usr/lib.
/platform/*/sbin	Platform Dependent objects with semantics equivalent to /usr/sbin.
/usr/lib	Program libraries, various architecture-dependent databases, and executables not invoked directly by the user (system daemons, etc).
/usr/lib/acct	Accounting scripts and binaries. See **acct**(1M).
/usr/lib/dict	Database files for **spell**(1).
/usr/lib/class	Scheduling class-specific directories containing executables for **priocntl**(1) and **dispadmin**(1M).
/usr/lib/font	**troff**(1) font description files.
/usr/lib/fs	File system type dependent modules; generally not intended to be invoked directly by the user.
/usr/lib/iconv	Conversion tables for **iconv**(1).
/usr/lib/libp	Profiled libraries.
/usr/lib/locale	Localization databases.
/usr/lib/lp	Line printer subsystem databases and back-end executables.
/usr/lib/mail	Auxiliary programs for the **mail**(1) subsystem.
/usr/lib/netsvc	Internet network services.
/usr/lib/nfs	Auxiliary NFS-related programs and daemons.
/usr/lib/pics	Position Independent Code (PIC) archives needed to rebuild the run-time linker.
/usr/lib/refer	Auxiliary programs for **refer**(1).
/usr/lib/sa	Scripts and commands for the system activity report package. See **sar**(1).
/usr/lib/saf	Auxiliary programs and daemons related to the service access facility.
/usr/lib/spell	Auxiliary programs and databases for **spell**(1). This directory is only present when the Binary Compatibility Package is installed.
/usr/lib/uucp	Auxiliary programs and daemons for **uucp**(1C).
/usr/local	Commands local to a site.
/usr/net/servers	Entry points for foreign name service requests relayed using the network listener. See **listen**(1M).
/usr/oasys	Commands and files related to the optional Framed Access Command Environment (FACE) package. See **face**(1).

/usr/old	Programs that are being phased out.
/usr/openwin	Installation or mount point for the OpenWindows software.
/usr/sadm	System administration files and directories.
/usr/sadm/bin	Binaries for the Form and Menu Language Interpreter (FMLI) scripts. See **fmli**(1).
/usr/sadm/install	Executables and scripts for package management.
/usr/sbin	Executables for system administration.
/usr/sbin/static	Statically linked version of selected programs from **/usr/bin** and **/usr/sbin**. These are used to recover from broken dynamic linking and before all pieces necessary for dynamic linking are present.
/usr/share	Architecture-independent sharable files.
/usr/share/man	On-line reference manual pages (if present).
/usr/share/lib	Architecture-independent databases.
/usr/share/lib/keytables	Keyboard layout description tables.
/usr/share/lib/mailx	Help files for **mailx**(1).
/usr/share/lib/nterm	**nroff**(1) terminal tables.
/usr/share/lib/pub	Character set data files.
/usr/share/lib/spell	Auxiliary scripts and databases for **spell**(1).
/usr/share/lib/tabset	Tab setting escape sequences.
/usr/share/lib/terminfo	Terminal description files for **terminfo**(4).
/usr/share/lib/tmac	Macro packages and related files for text processing tools, for example, **nroff**(1) and **troff**(1).
/usr/share/lib/zoneinfo	Time zone information.
/usr/share/src	Source code for utilities and libraries.
/usr/snadm	SNAG files.
/usr/ucb	Berkeley compatibility package binaries. See *Source Compatibility Guide*.
/usr/ucbinclude	Berkeley compatibility package headers.
/usr/ucblib	Berkeley compatibility package libraries.
/usr/vmsys	Commands and files related to the optional FACE package. See **face**(1). Berkeley compatibility package libraries.

/export File System

A machine with disks may export root file systems, swap files, and **/usr** file systems to diskless or partially-disked machines that mount them into the standard file system hierarchy. The standard directory tree for sharing these file systems from a server is:

/export	The default root of the exported file system tree.

/export/exec/*architecture-name*

The exported **/usr** file system supporting *architecture-name* for the current release.

/export/exec/*architecture-name***.***release-name*
The exported **/usr** file system supporting *architecture-name* for *release-name*.

/export/exec/share The exported common **/usr/share** directory tree.

/export/exec/share.*release-name*
The exported common **/usr/share** directory tree for *release-name*.

/export/root/*hostname* The exported root file system for *hostname*.

/export/swap/*hostname* The exported swap file for *hostname*.

/export/var/*hostname* The exported **/var** directory tree for *hostname*.

SEE ALSO

at(1), **ex**(1), **face**(1), **fmli**(1), **iconv**(1), **lp**(1), **mail**(1), **mailx**(1), **nroff**(1), **priocntl**(1), **refer**(1), **sar**(1), **sh**(1), **spell**(1), **troff**(1), **uucp**(1C), **vi**(1), **acct**(1M), **cron**(1M), **dispadmin**(1M), **fsck**(1M), **init**(1M), **kernel**(1M), **mknod**(1M), **mount**(1M), **useradd**(1M), **ypbind**(1M), **mount**(2), **intro**(4), **terminfo**(4)

Binary Compatibility Guide
Source Compatibility Guide