NAME

fsck - file system consistency check and interactive repair

SYNOPSIS

fsck [**-Cdfnpvy**] [**-B** | **-F**] [**-T** *fstype*:*fsoptions*] [**-t** *fstype*] [**-c** *fstab*] [*special* | *node*] ...

DESCRIPTION

The **fsck** utility invokes file system-specific programs to check the special devices listed in the fstab(5) file or in the command line for consistency.

It is normally used in the script */etc/rc* during automatic reboot. Traditionally, **fsck** is invoked before the file systems are mounted and all checks are done to completion at that time. If background checking is available, **fsck** is invoked twice. It is first invoked at the traditional time, before the file systems are mounted, with the **-F** flag to do checking on all the file systems that cannot do background checking. It is then invoked a second time, after the system has completed going multiuser, with the **-B** flag to do checking on all the file systems that can do background checking. Unlike the foreground checking, the background checking is started asynchronously so that other system activity can proceed even on the file systems that are being checked.

If no file systems are specified, **fsck** reads the table */etc/fstab* to determine which file systems to check. Only partitions in */etc/fstab* that are mounted "rw", "rq" or "ro" and that have non-zero pass number are checked. File systems with pass number 1 (normally just the root file system) are always checked one at a time.

If not in preen mode, the remaining entries are checked in order of increasing pass number one at a time. This is needed when interaction with **fsck** is required.

In preen mode, after pass 1 completes, all remaining file systems are checked, in pass number order running one process per disk drive in parallel for each pass number in increasing order.

In other words: In preen mode all pass 1 partitions are checked sequentially. Next all pass 2 partitions are checked in parallel, one process per disk drive. Next all pass 3 partitions are checked in parallel, one process per disk drive. etc.

The disk drive containing each file system is inferred from the shortest prefix of the device name that ends in a digit; the remaining characters are assumed to be the partition and slice designators.

If the **-t** or **-T** flags are not specified, **fsck** will attempt to determine the file system type and call the appropriate file system check utility. Failure to detect the file system type will cause **fsck** to fail with a message that the partition has an unknown file system type.

The options are as follows:

-C   Check if the "clean" flag is set in the superblock and skip file system checks if file system was
        properly dismounted and marked clean.

-c *fstab*
        Specify the *fstab* file to use.

-d   Debugging mode. Just print the commands without executing them. Available only if **fsck** is
        compiled to support it.

-f   Force checking of file systems. Running "fsck -f" ignores the journal and does a full consistency
        check of the disk so will find and fix the errors about which the journal is unaware.

-n   Causes **fsck** to assume no as the answer to all operator questions, except "CONTINUE?".

-p   Enter preen mode. In preen mode, only a restricted class of innocuous file system
        inconsistencies will be corrected. If unexpected inconsistencies caused by hardware or software
        failures are encountered, the check program will exit with a failure. See the manual pages for the
        individual check programs for a list of the sorts of failures that they correct when running in
        preen mode.

-F   Run in foreground mode. The check program for each file system is invoked with the **-F** flag to
        determine whether it wishes to run as part of the boot up sequence, or if it is able to do its job in
        background after the system is up and running. A non-zero exit code indicates that it wants to
        run in foreground and the check program is invoked. A zero exit code indicates that it is able to
        run later in background and just a deferred message is printed.

-B   Run in background mode. The check program for each file system is invoked with the **-F** flag to
        determine whether it wishes to run as part of the boot up sequence, or if it is able to do its job in
        background after the system is up and running. A non-zero exit code indicates that it wanted to
        run in foreground which is assumed to have been done, so the file system is skipped. A zero exit
        code indicates that it is able to run in background so the check program is invoked with the **-B**
        flag to indicate that a check on the active file system should be done. When running in
        background mode, only one file system at a time will be checked. Note that background **fsck** is
        limited to checking for only the most commonly occurring file system abnormalities. Under
        certain circumstances, some errors can escape background **fsck**. It is recommended that you
        perform foreground **fsck** on your systems periodically and whenever you encounter file-
        system-related panics.

-t *fstype*

  Invoke **fsck** only for the comma separated list of file system types. If the list starts with "no" then invoke **fsck** for the file system types that are not specified in the list.

-v   Print the commands before executing them.

-y   Causes **fsck** to assume yes as the answer to all operator questions.

-T *fstype:fsoptions*

  List of comma separated file system specific options for the specified file system type, in the same format as mount(8).

FILES

/etc/fstab file system table

SEE ALSO

fstab(5), fsck_ffs(8), fsck_msdosfs(8), mount(8)

HISTORY

A **fsck** utility appeared in 4.0BSD. It was reimplemented as a filesystem independent wrapper in NetBSD 1.3 and first appeared in FreeBSD 5.0. The original filesystem specific utility became fsck_ffs(8) at this point.