

NAME

stat – get file status

SYNOPSIS

(stat = 18.)

sys stat; name; buf

stat(name, buf)

char *name;

struct inode *buf;

DESCRIPTION

Name points to a null-terminated string naming a file; *buf* is the address of a 36(10) byte buffer into which information is placed concerning the file. It is unnecessary to have any permissions at all with respect to the file, but all directories leading to the file must be readable. After *stat*, *buf* has the following structure (starting offset given in bytes):

```
struct inode {
    char    minor;           /* +0: minor device of i-node */
    char    major;          /* +1: major device */
    int     inumber;        /* +2 */
    int     flags;          /* +4: see below */
    char    nlinks;         /* +6: number of links to file */
    char    uid;            /* +7: user ID of owner */
    char    gid;            /* +8: group ID of owner */
    char    size0;          /* +9: high byte of 24-bit size */
    int     size1;          /* +10: low word of 24-bit size */
    int     addr[8];        /* +12: block numbers or device number */
    int     actime[2];      /* +28: time of last access */
    int     modtime[2];     /* +32: time of last modification */
};
```

The flags are as follows:

```
100000    i-node is allocated
060000    2-bit file type:
    000000    plain file
    040000    directory
    020000    character-type special file
    060000    block-type special file.
010000    large file
004000    set user-ID on execution
002000    set group-ID on execution
001000    save text image after execution
000400    read (owner)
000200    write (owner)
000100    execute (owner)
000070    read, write, execute (group)
000007    read, write, execute (others)
```

SEE ALSO

ls (I), fstat (II), fs (V)

DIAGNOSTICS

Error bit (c-bit) is set if the file cannot be found. From C, a -1 return indicates an error.