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<html><head></head><body><pre style="word-wrap: break-word; white-space: pre-wrap;">#include
<stdio.h>;
#include <time.h>;
#include <fcntl.h>;
#include <sys/stat.h>;

/*
From /usr/include/sys/stat.h

struct stat
{
    __dev_t    st_dev;           /* inode's device
    ino_t       st_ino;          /* inode's number
    mode_t      st_mode;         /* inode protection mode
    nlink_t     st_nlink;        /* number of hard links
    uid_t       st_uid;          /* user ID of the file's owner
    gid_t       st_gid;          /* group ID of the file's group
    __dev_t     st_rdev;         /* device type
    struct timespec st_atimespec; /* time of last access
    struct timespec st_mtimespec; /* time of last data modification
    struct timespec st_ctimespec; /* time of last file status change
    struct timespec st_birthtimespec; /* time of file creation
    off_t       st_size;         /* file size, in bytes
    blkcnt_t    st_blocks;        /* blocks allocated for file
    blksize_t   st_blksize;       /* optimal blocksize for I/O
    fflags_t    st_flags;         /* user defined flags for file
    __uint32_t  st_gen;           /* file generation number
    __int32_t   st_lspare; };

From /usr/include/sys/timespec.h

struct timespec
{
    time_t      tv_sec;          /* seconds
    long        tv_nsec;         /* and nanoseconds };
*/

int main()
{ struct stat S;
  int r, f;

/* If you are going to open the file anyway, do so first then use fstat like this */
  f = open("bunnies.txt", O_RDONLY);
  if (f < 0)
  { perror("open bunnies.txt");
    exit(1); }

  r = fstat(f, &S);
  if (f < 0)
  { perror("fstat");
    exit(1); }

/* But if you don't need to open the file, use plain old stat instead */
  r = stat("bunnies.txt", &S);
  if (f < 0)
  { perror("stat");
    exit(1); }

  printf("device = %d, inode = %d\n", S.st_dev, S.st_ino);
  printf("mode (protection) = %03o, owner = %d\n", S.st_mode, S.st_uid);
  printf("last access = %s", ctime(&S.st_atimespec.tv_sec));
  printf("last modified = %s", ctime(&S.st_mtimespec.tv_sec));
  printf("created = %s", ctime(&S.st_birthtimespec.tv_sec));
  printf("optimal block size = %d bytes\n", S.st_blksize);
  printf("size = %d bytes\n", S.st_size);

  close(f); }

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