

NAME

dump — incremental dump tape format

DESCRIPTION

The *mhdump* and *mhrestor* commands are used to write and read incremental dump magnetic tapes.

The dump tape consists of a header record, some bit mask records, a group of records describing filesystem directories, a group of records describing filesystem files, and some records describing a second bit mask.

The header record and the first record of each description have the format described by the structure included by

```
#include <dumprestor.h>
```

This include file has the following contents.

```
/*          @(#)dumprestor.h          2.1          */
#define NTREC          20
#define MLEN           16
#define MSIZ           4096

#define TS_TAPE        1
#define TS_INODE        2
#define TS_BITS         3
#define TS_ADDR         4
#define TS_END          5
#define TS_CLRI         6
#define MAGIC           (int)60011
#define CHECKSUM        (int)84446
struct          spcl
{
    int          c_type;
    time_t       c_date;
    time_t       c_ddate;
    int          c_volume;
    daddr_t      c_tapea;
    ino_t        c_inumber;
    int          c_magic;
    int          c_checksum;
    struct        dinode      c_dinode;
    int          c_count;
    char         c_addr[BSIZE];
} spcl;

struct          idates
{
    char         id_name[16];
    char         id_incno;
    time_t       id_ddate;
};
```

NTREC is the number of 512 byte blocks in a physical tape record. *MLEN* is the number of bits in a bit map word. *MSIZ* is the number of bit map words.

The *TS_* entries are used in the *c_type* field to indicate what sort of header this is. The types and their meanings are as follows:

TS_TAPE

Tape volume label

TS_INODE

A file or directory follows. The *c_dinode* field is a copy of the disk inode and contains

bits telling what sort of file this is.

TS_BITS A bit mask follows. This bit mask has a one bit for each inode that was dumped.

TS_ADDR

A subblock to a file (*TS_INODE*). See the description of *c_count* below.

TS_END End of tape record.

TS_CLRI A bit mask follows. This bit mask contains a one bit for all inodes that were empty on the file system when dumped.

MAGIC All header blocks have this number in *c_magic*.

CHECKSUM

Header blocks checksum to this value.

The fields of the header structure are as follows:

c_type The type of the header.

c_date The date the dump was taken.

c_ddate The date the file system was dumped from.

c_volume The current volume number of the dump.

c_tapea The current block number of this record. This is counting 512 byte blocks.

c_inumber

The number of the inode being dumped if this is of type *TS_INODE*.

c_magic This contains the value *MAGIC* above, truncated as needed.

c_checksum

This contains whatever value is needed to make the block sum to *CHECKSUM*.

c_dinode This is a copy of the inode as it appears on the file system.

c_count This is the count of characters following that describe the file. A character is zero if the block associated with that character was not present on the file system, otherwise the character is non-zero. If the block was not present on the file system no block was dumped and it is replaced as a hole in the file. If there is not sufficient space in this block to describe all of the blocks in a file, *TS_ADDR* blocks will be scattered through the file, each one picking up where the last left off.

c_addr This is the array of characters that is used as described above.

Each volume except the last ends with a tapemark (read as an end of file). The last volume ends with a *TS_END* block and then the tapemark.

The structure *idates* describes an entry of the file where dump history is kept.

SEE ALSO

mhdump(1), *mhrestor(1)*, *fs(5)*

FILES

/usr/include/sys/types.h, */usr/include/sys/ino.h*, */usr/include/dumprestor.h*