

NAME

e2freefrag - report free space fragmentation information

SYNOPSIS

e2freefrag [**-c** *chunk_kb*] [**-h**] *filesystem*

DESCRIPTION

e2freefrag is used to report free space fragmentation on ext2/3/4 file systems. *filesystem* is the filesystem device name (e.g. */dev/hdc1*, */dev/md0*). The **e2freefrag** program will scan the block bitmap information to check how many free blocks are present as contiguous and aligned free space. The percentage of contiguous free blocks of size and of alignment *chunk_kb* is reported. It also displays the minimum/maximum/average free chunk size in the filesystem, along with a histogram of all free chunks. This information can be used to gauge the level of free space fragmentation in the filesystem.

OPTIONS

-c *chunk_kb*

If a chunk size is specified, then **e2freefrag** will print how many free chunks of size *chunk_kb* are available in units of kilobytes (Kb). The chunk size must be a power of two and be larger than filesystem block size.

-h Print the usage of the program.

EXAMPLE

```
# e2freefrag /dev/vgroot/lvhome
Device: /dev/vgroot/lvhome
Blocksize: 4096 bytes
Total blocks: 1504085
Free blocks: 292995 (19.5%)

Min. free extent: 4 KB
Max. free extent: 24008 KB
Avg. free extent: 252 KB
```

HISTOGRAM OF FREE EXTENT SIZES:

```
Extent Size Range : Free extents Free Blocks Percent
4K... 8K- : 704 704 0.2%
8K... 16K- : 810 1979 0.7%
16K... 32K- : 843 4467 1.5%
32K... 64K- : 579 6263 2.1%
64K... 128K- : 493 11067 3.8%
128K... 256K- : 394 18097 6.2%
256K... 512K- : 281 25477 8.7%
512K... 1024K- : 253 44914 15.3%
1M... 2M- : 143 51897 17.7%
2M... 4M- : 73 50683 17.3%
4M... 8M- : 37 52417 17.9%
8M... 16M- : 7 19028 6.5%
16M... 32M- : 1 6002 2.0%
```

AUTHOR

This version of e2freefrag was written by Rupesh Thakare, and modified by Andreas Dilger <adilger@sun.com>, and Kalpak Shah.

SEE ALSO

[debugfs\(8\)](#), [dumpe2fs\(8\)](#), [e2fsck\(8\)](#)