

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)*