NAME

compress, uncompress, zcat – compress, uncompress files or display expanded files

SYNOPSIS

compress [–fv] [-b *bits* **] [** *file . . .* **]**
compress [–cfv] [-b *bits* **] [** *file* **]**

uncompress [–cfv] [*file . . .* **]**

zcat [*file . . .* **]**

AVAILABILITY

SUNWesu

DESCRIPTION

compress

The **compress** utility will attempt to reduce the size of the named files by using adaptive Lempel-Ziv coding. Except when the output is to the standard output, each file will be replaced by one with the extension **.Z**, while keeping the same ownership modes, change times and modification times. If appending the **.Z** to the file name would make the name exceed {**NAME_MAX**} bytes, the command will fail. If no files are specified, the standard input will be compressed to the standard output.

The amount of compression obtained depends on the size of the input, the number of *bits* per code, and the distribution of common substrings. Typically, text such as source code or English is reduced by 50–60%. Compression is generally much better than that achieved by Huffman coding (as used in **pack**(1)), and takes less time to compute. The *bits* parameter specified during compression is encoded within the compressed file, along with a magic number to ensure that neither decompression of random data nor recompression of compressed data is subsequently allowed.

uncompress

The **uncompress** utility will restore files to their original state after they have been compressed using the **compress** utility. If no files are specified, the standard input will be uncompressed to the standard output.

This utility supports the uncompressing of any files produced by **compress**. For files produced by **compress** on other systems, **uncompress** supports 9- to 16-bit compression (see –**b**).

zcat

The **zcat** utility will write to standard output the uncompressed form of files that have been compressed using **compress**. It is the equivalent of **uncompress –c**. Input files are not affected.

OPTIONS

The following options are supported:

–c Write to the standard output; no files are changed and no **.Z** files are created. The behavior of **zcat** is identical to that of '**uncompress –c**'.

–f When compressing, force compression of *file*, even if it does not actually reduce the size of the file, or if the corresponding *file***.Z** file already exists. If the **–f** option is not given, and the process is not running in the background, prompt to verify whether an existing *file***.Z** file should be overwritten. When uncompressing, do not prompt for overwriting files. If the **–f** option is not given, and the process is not running in the background, prompt to verify whether an existing file should be overwritten. If the standard input is not a terminal and −**f** is not given, write a diagnostic message to standard error and exit with a status greater than **0**.

−**v** Verbose. Write to standard error messages concerning the percentage reduction or expansion of each file.

−**b** *bits* Set the upper limit (in bits) for common substring codes. *bits* must be between 9 and 16 (16 is the default). Lowering the number of bits will result in larger, less compressed files.

OPERANDS

The following operands are supported:

file A path name of a file to be compressed. If *file* is −, or if no *file* is specified, the standard input will be used.

ENVIRONMENT

See **environ**(5) for descriptions of the following environment variables that affect the execution of **compress**, **uncompress**, and **zcat**: **LC_CTYPE**, **LC_MESSAGES**, and **NLSPATH**.

EXIT STATUS

The following error values are returned:

0 Successful completion.

1 An error occurred.

2 One or more files were not compressed because they would have increased in size (and the −**f** option was not specified).

>2 An error occurred.

SEE ALSO

ln(1), **pack**(1)

DIAGNOSTICS

Usage: compress [−**fvc] [**−**b maxbits] [***file*. . .**]**
Invalid options were specified on the command line.

Missing maxbits
Maxbits must follow −**b**, or invalid maxbits, not a numeric value.

*file***: not in compressed format**
The file specified to **uncompress** has not been compressed.

*file***: compressed with** *xx***bits, can only handle** *yy***bits**
file was compressed by a program that could deal with more *bits* than the compress code on this machine. Recompress the file with smaller *bits*.

*file***: already has . Z suffix -- no change**
The file is assumed to be already compressed. Rename the file and try again.

*file***: already exists; do you wish to overwrite (y or n)?**
Respond **y** if you want the output file to be replaced; **n** if not.

uncompress: corrupt input
A **SIGSEGV** violation was detected, which usually means that the input file is corrupted.

Compression: *xx.xx*%
Percentage of the input saved by compression. (Relevant only for –**v**.)

– – **not a regular file: unchanged**
When the input file is not a regular file, (such as a directory), it is left unaltered.

– – **has** *xx* **other links: unchanged**
The input file has links; it is left unchanged. See **ln**(1) for more information.

– – **file unchanged**
No savings are achieved by compression. The input remains uncompressed.

filename too long to tack on .Z
The path name is too long to append the **.Z** suffix.

NOTES

Although compressed files are compatible between machines with large memory, –**b** 12 should be used for file transfer to architectures with a small process data space (64KB or less).

compress should be more flexible about the existence of the **. Z** suffix.