

NAME

cksum — compute Ethernet checksum

SYNOPSIS

cksum [*file*]...

DESCRIPTION

Writes an Ethernet CRC of each *file*, its size in bytes, and its name, separated by tabs, followed by newlines, to the standard output stream. If no *files*, use the standard input stream and omit the name. If a *file* is "-", use the standard input stream.

The *files*' size is also included in the sum, so files beginning with runs of NUL bytes produce different results.

EXAMPLES

```
$ echo POSIX.2 | cksum
3842620415      8
$ echo POSIX.2 | cksum 'IEEE P1003.2 Draft 11.2-September 1991.pdf' -
2938529873      3226947 IEEE P1003.2 Draft 11.2-September 1991.pdf
3842620415      8      -
```

SEE ALSO

sha1sum(1), sum(1)

STANDARDS

Conforms to IEEE Std 1003.1-2024 ("POSIX.1"); the field separator can be any nonempty sequence of spaces and tabs. The CRC polynomial is $x^{32} + x^{26} + x^{23} + x^{22} + x^{16} + x^{12} + x^{11} + x^{10} + x^8 + x^7 + x^5 + x^4 + x^2 + x + 1$, the same one used by ISO/IEC 8802-3:1989 (Ethernet).

All bytes of the file are summed, followed by non-zero bytes of its length, from the least significant.

HISTORY

Created in IEEE Std 1003.2-1992 ("POSIX.2"), as **sum** implementations were irreconcilable, cf. sum(1).