

NAME

basenc – Encode/decode data and print to standard output

SYNOPSIS

basenc [*OPTION*]... [*FILE*]

DESCRIPTION

basenc encode or decode FILE, or standard input, to standard output.

With no FILE, or when FILE is –, read standard input.

Mandatory arguments to long options are mandatory for short options too.

--base64

same as 'base64' program (RFC4648 section 4)

--base64url

file- and url-safe base64 (RFC4648 section 5)

--base58

visually unambiguous base58 encoding

--base32

same as 'base32' program (RFC4648 section 6)

--base32hex

extended hex alphabet base32 (RFC4648 section 7)

--base16

hex encoding (RFC4648 section 8)

--base2msbf

bit string with most significant bit (msb) first

--base2lsbf

bit string with least significant bit (lsb) first

-d, --decode

decode data

-i, --ignore-garbage

when decoding, ignore non-alphabet characters

-w, --wrap=COLS

wrap encoded lines after COLS character (default 76). Use 0 to disable line wrapping

--z85 ascii85-like encoding (ZeroMQ spec:32/Z85); when encoding, input length must be a multiple of 4; when decoding, input length must be a multiple of 5

--help display this help and exit

--version

output version information and exit

When decoding, the input may contain newlines in addition to the bytes of the formal alphabet. Use **--ignore-garbage** to attempt to recover from any other non-alphabet bytes in the encoded stream.

ENCODING EXAMPLES

```
$ printf '\376\117\202' | basenc --base64
/k+C
```

```
$ printf '\376\117\202' | basenc --base64url
_k-C
```

```
$ printf '\376\117\202' | basenc --base32
7ZHYE===
```

```
$ printf '\376\117\202' | basenc --base32hex  
VP7O4===
```

```
$ printf '\376\117\202' | basenc --base16  
FE4F82
```

```
$ printf '\376\117\202' | basenc --base2lsbf  
011111111111001001000001
```

```
$ printf '\376\117\202' | basenc --base2msbf  
11111100100111110000010
```

```
$ printf '\376\117\202\000' | basenc --z85  
@.FaC
```

AUTHOR

Written by Simon Josefsson and Assaf Gordon.

REPORTING BUGS

Report bugs to: bug-coreutils@gnu.org

Report Gentoo bugs to: <https://bugs.gentoo.org/>

GNU coreutils home page: [<https://www.gnu.org/software/coreutils/>](https://www.gnu.org/software/coreutils/)

General help using GNU software: [<https://www.gnu.org/gethelp/>](https://www.gnu.org/gethelp/)

Report any translation bugs to [<https://translationproject.org/team/>](https://translationproject.org/team/)

SEE ALSO

Full documentation [<https://www.gnu.org/software/coreutils/basenc>](https://www.gnu.org/software/coreutils/basenc)
or available locally via: `info '(coreutils) basenc invocation'`

Packaged by Gentoo (9.11-r1 (p0))

Copyright © 2026 Free Software Foundation, Inc.

License GPLv3+: GNU GPL version 3 or later [<https://gnu.org/licenses/gpl.html>](https://gnu.org/licenses/gpl.html).

This is free software: you are free to change and redistribute it.

There is NO WARRANTY, to the extent permitted by law.