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Rocky Enterprise Linux 9.2 Manual Pages on command 'xxd.1'

\$ man xxd.1

XXD(1) General Commands Manual XXD(1)

NAME

xxd - make a hexdump or do the reverse.

SYNOPSIS

xxd -h[elp]

xxd [options] [infile [outfile]]

xxd -r[evert] [options] [infile [outfile]]

DESCRIPTION

xxd creates a hex dump of a given file or standard input. It can also convert a hex dump back to its original binary form. Like uuencode(1) and uudecode(1) it allows the transmission of binary data in a 'mail-safe' ASCII representation, but has the advantage of decoding to standard output. Moreover, it can be used to perform binary file patching.

OPTIONS

If no infile is given, standard input is read. If infile is specified as a '-' character, then input is taken from standard input. If no outfile is given (or a '-' character is in its place), results are sent to standard output.

Note that a "lazy" parser is used which does not check for more than the first option letter, unless the option is followed by a parameter. Spaces between a single option letter and its parameter are optional. Parameters to options can be specified in decimal, hexadecimal or octal notation. Thus -c8, -c 8, -c 010 and -cols 8 are all equivalent.

-a | -autoskip

Toggle autoskip: A single '*' replaces nul-lines. Default off.

-b | -bits

Switch to bits (binary digits) dump, rather than hexdump. This option writes octets as eight digits "1"s and "0"s instead of a normal hexadecimal dump. Each line is preceded by a line number in hexadecimal and followed by an ascii (or ebcdic) representation. The command line switches -r, -p, -i do not work with this mode.

-c cols | -cols cols

Format <cols> octets per line. Default 16 (-i: 12, -ps: 30, -b: 6). Max 256.

-C | -capitalize

Capitalize variable names in C include file style, when using -i.

-E | -EBCDIC

Change the character encoding in the righthand column from ASCII to EBCDIC. This does not change the hexadecimal representation. The option is meaningless in combinations with -r, -p or -i.

-e Switch to little-endian hexdump. This option treats byte groups as words in little-endian byte order. The default grouping of 4 bytes may be changed using -g. This option only applies to hexdump, leaving the ASCII (or EBCDIC) representation unchanged. The command line switches -r, -p, -i do not work with this mode.

-g bytes | -groupsize bytes

Separate the output of every <bytes> bytes (two hex characters or eight bit-digits each) by a whitespace. Specify -g 0 to suppress grouping. <Bytes> defaults to 2 in normal mode, 4 in little-endian mode and 1 in bits mode. Grouping does not apply to postscript or include style.

-h | -help

Print a summary of available commands and exit. No hex dumping is performed.

-i | -include

Output in C include file style. A complete static array definition is written (named after the input file), unless xxd reads from stdin.

-l len | -len len

Stop after writing <len> octets.

-o offset

Add <offset> to the displayed file position.

-p | -ps | -postscript | -plain

Output in postscript continuous hexdump style. Also known as plain hexdump style.

-r | -revert

Reverse operation: convert (or patch) hexdump into binary. If not writing to std? out, xxd writes into its output file without truncating it. Use the combination -r -p to read plain hexadecimal dumps without line number information and without a particular column layout. Additional Whitespace and line-breaks are allowed any? where.

-seek offset

When used after -r: revert with <offset> added to file positions found in hexdump.

-s [+][-]seek

Start at <seek> bytes abs. (or rel.) infile offset. + indicates that the seek is relative to the current stdin file position (meaningless when not reading from stdin). - indicates that the seek should be that many characters from the end of the input (or if combined with +: before the current stdin file position). Without -s option, xxd starts at the current file position.

-u Use upper case hex letters. Default is lower case.

-v | -version

Show version string.

CAVEATS

xxd -r has some builtin magic while evaluating line number information. If the output file is seekable, then the linenumbers at the start of each hexdump line may be out of order, lines may be missing, or overlapping. In these cases xxd will lseek(2) to the next position. If the output file is not seekable, only gaps are allowed, which will be filled by null-bytes.

xxd -r never generates parse errors. Garbage is silently skipped.

When editing hexdumps, please note that xxd -r skips everything on the input line after reading enough columns of hexadecimal data (see option -c). This also means, that changes to the printable ascii (or ebcdic) columns are always ignored. Reverting a plain (or post? script) style hexdump with xxd -r -p does not depend on the correct number of columns. Here anything that looks like a pair of hex-digits is interpreted.

Note the difference between

% xxd -i file

and

% xxd -i < file

xxd -s +seek may be different from xxd -s seek, as lseek(2) is used to "rewind" input. A '+' makes a difference if the input source is stdin, and if stdin's file position is not at the start of the file by the time xxd is started and given its input. The following examples may help to clarify (or further confuse!)

Rewind stdin before reading; needed because the 'cat' has already read to the end of stdin.

```
% sh -c "cat > plain_copy; xxd -s 0 > hex_copy" < file
```

Hexdump from file position 0x480 (=1024+128) onwards. The '+' sign means "relative to the current position", thus the '128' adds to the 1k where dd left off.

```
% sh -c "dd of=plain_snippet bs=1k count=1; xxd -s +128 > hex_snippet" < file
```

Hexdump from file position 0x100 (= 1024-768) on.

```
% sh -c "dd of=plain_snippet bs=1k count=1; xxd -s +-768 > hex_snippet" < file
```

However, this is a rare situation and the use of '+' is rarely needed. The author prefers to monitor the effect of xxd with strace(1) or truss(1), whenever -s is used.

EXAMPLES

Print everything but the first three lines (hex 0x30 bytes) of file.

```
% xxd -s 0x30 file
```

Print 3 lines (hex 0x30 bytes) from the end of file.

```
% xxd -s -0x30 file
```

Print 120 bytes as continuous hexdump with 20 octets per line.

```
% xxd -l 120 -ps -c 20 xxd.1
```

```
2e54482058584420312022417567757374203139
```

```
39362220224d616e75616c207061676520666f72
```

```
20787864220a2e5c220a2e5c222032317374204d
```

```
617920313939360a2e5c22204d616e2070616765
```

```
20617574686f723a0a2e5c2220202020546f6e79
```

```
204e7567656e74203c746f6e79407363746e7567
```

Hexdump the first 120 bytes of this man page with 12 octets per line.

```
% xxd -l 120 -c 12 xxd.1
```

```
000000: 2e54 4820 5858 4420 3120 2241 .TH XXD 1 "A
```

```
00000c: 7567 7573 7420 3139 3936 2220 ugust 1996"
```

```
000018: 224d 616e 7561 6c20 7061 6765 "Manual page
```

```
000024: 2066 6f72 2078 7864 220a 2e5c for xxd"..\
```

0000030: 220a 2e5c 2220 3231 7374 204d "..\" 21st M

000003c: 6179 2031 3939 360a 2e5c 2220 ay 1996..\"

0000048: 4d61 6e20 7061 6765 2061 7574 Man page aut

0000054: 686f 723a 0a2e 5c22 2020 2020 hor:..\"

0000060: 546f 6e79 204e 7567 656e 7420 Tony Nugent

000006c: 3c74 6f6e 7940 7363 746e 7567 <tony@sctnug

Display just the date from the file xxd.1

```
% xxd -s 0x36 -l 13 -c 13 xxd.1
```

0000036: 3231 7374 204d 6179 2031 3939 36 21st May 1996

Copy input_file to output_file and prepend 100 bytes of value 0x00.

```
% xxd input_file | xxd -r -s 100 > output_file
```

Patch the date in the file xxd.1

```
% echo "0000037: 3574 68" | xxd -r - xxd.1
```

```
% xxd -s 0x36 -l 13 -c 13 xxd.1
```

0000036: 3235 7468 204d 6179 2031 3939 36 25th May 1996

Create a 65537 byte file with all bytes 0x00, except for the last one which is 'A' (hex 0x41).

```
% echo "010000: 41" | xxd -r > file
```

Hexdump this file with autoskip.

```
% xxd -a -c 12 file
```

```
0000000: 0000 0000 0000 0000 0000 0000 .....
*
```

```
000ffc: 0000 0000 40          ....A
```

Create a 1 byte file containing a single 'A' character. The number after '-s' adds to the line numbers found in the file; in effect, the leading bytes are suppressed.

```
% echo "010000: 41" | xxd -r -s -0x10000 > file
```

Use xxd as a filter within an editor such as vim(1) to hexdump a region marked between 'a' and 'z'.

```
:'a,'z!xxd
```

Use xxd as a filter within an editor such as vim(1) to recover a binary hexdump marked between 'a' and 'z'.

```
:'a,'z!xxd -r
```

Use xxd as a filter within an editor such as vim(1) to recover one line of a hexdump.

Move the cursor over the line and type:

```
!!xxd -r
```

Read single characters from a serial line

```
% xxd -c1 < /dev/term/b &
```

```
% stty < /dev/term/b -echo -opost -isig -icanon min 1
```

```
% echo -n foo > /dev/term/b
```

RETURN VALUES

The following error values are returned:

- 0 no errors encountered.
- 1 operation not supported (xxd -r -i still impossible).
- 1 error while parsing options.
- 2 problems with input file.
- 3 problems with output file.
- 4,5 desired seek position is unreachable.

SEE ALSO

uuencode(1), uudecode(1), patch(1)

WARNINGS

The tools weirdness matches its creators brain. Use entirely at your own risk. Copy files. Trace it. Become a wizard.

VERSION

This manual page documents xxd version 1.7

AUTHOR

(c) 1990-1997 by Juergen Weigert

<jnweiger@informatik.uni-erlangen.de>

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Manual page started by Tony Nugent

<tony@sctnugen.ppp.gu.edu.au> <T.Nugent@sct.gu.edu.au>

Small changes by Bram Moolenaar. Edited by Juergen Weigert.