NAME

echo — output arguments

SYNOPSIS

echo [**-n**] [*string*]...

DESCRIPTION

Writes each *string*, separated by a single space (‘ ’, **0x20**), to the standard output stream.

If **-n** is specified as the first argument, it’s skipped. Otherwise, the newline character is written after all *string*s.

EXIT STATUS

0 if no errors (like the output exceeding its quota) were encountered while writing, otherwise **1** and a diagnostic is issued.

SEE ALSO

printf(1)

STANDARDS

Conforms to IEEE Std 1003.1-2024 (“POSIX.1”); backslashes in *string*s and first-argument **-n** are implementation-defined — this implementation handles them compatibly with Version 7 AT&T UNIX.

HISTORY

Appeared, fully-formed, in the second edition of the UNIX Programmer’s Manual as echo(I):

```
NAME        echo  --  echo arguments
SYNOPSIS    echo [ arg1 ... ]
DESCRIPTION echo writes all its arguments in order as a line on the
            standard output file.  It is mainly useful for
            producing diagnostics in command files.
OWNER       doug
```

Version 4 AT&T UNIX notes that

> *Echo* with no arguments does not print a blank line.

in the **BUGS** section, but this is seemingly incongruent with Version 2 AT&T UNIX **echo**, which does yield and empty line for no arguments, but always adds a space after each argument. Either way, it’s impossible to verify any-more.

Version 5 AT&T UNIX sees a C implementation, and a removal of that **BUGS** stanza — the arguments are separated by single spaces and end with a newline.

Version 7 AT&T UNIX adds newline-suppressing first-argument-**-n** behaviour. This is inherited by 3BSD, and remains unchanged in the BSD.

Programmer’s Workbench (PWB/UNIX), derived from Version 6 AT&T UNIX, additionally sees ‘**\n**’, ‘**\c**’ which "terminates *echo* without a newline", and ‘**\0***N*’, writing the "octal number *N*".

CB-UNIX 2.1 additionally recognises ‘**\b**’, ‘**\f**’, ‘**\r**’, ‘**\t**’, ‘\\’, and phrases the octal escape as ‘*****n*’, described as "the 8-bit character whose ASCII code is the 1-, 2- or 3-digit octal number *n*, which must start with a zero"; this is the same as the PWB/UNIX one, but just more confusing.

It also notes that if the final argument ends with a space, that space, as well as the terminating newline, is removed — this is described as equivalent to **\c**, but **\c** just exit(2)s.

CB-UNIX was, among others, the basis for AT&T System III UNIX, where it first saw light outside of AT&T. It sees the same **echo**, except that the final-space behaviour is nowhere to be found.

AT&T System V Release 2 UNIX also recognises ‘**\v**’.

AT&T System V Release 4 UNIX handles **-n** as the first argument, which replaces the final newline with a space.

AT&T System V Release 2 UNIX and AT&T System V Release 3 UNIX both provide **echo** sh(1) built-ins, equivalent to their stand-alone **echo**s (under CB-UNIX, the built-in is **fecho**, and "its output cannot be redirected as easily as that of *echo*").

AT&T System V Release 4 UNIX also ships Version 7 AT&T UNIX **echo** under /usr/ucb. Its built-in depends on *ucb_builtins*:

```
/*
 * The following flag is set to true if /usr/ucb is found in the path
 * before /usr/bin. This value is checked when exectuing the echo and test
 * built-in commands. If true, the command behaves as in BSD systems.
 */
```

If set, it uses inlined Version 7 AT&T UNIX **echo**, otherwise the AT&T System V Release 3 UNIX built-in *except* on i386, where it also handles **-n**-as-first-argument, but doesn't leave a trailing space (like Version 7 AT&T UNIX, unlike AT&T System V Release 4 UNIX).

X/Open Portability Guide Issue 2 ("XPG2") standardises AT&T System V Release 3 UNIX **echo** verbatim. As the two major implementations were irreconcilable, IEEE Std 1003.2-1992 ("POSIX.2") standardised the most base-line Version 2 AT&T UNIX-style **echo**, and specifies implementation-defined behaviour if any of the *string*s contain a '\' or if the first argument is **-n**, instead creating printf(1) as a portable alternative, with **%b** mirrorring AT&T System V Release 3 UNIX escape handling.