## Unix & Linux

## Usage of dash (-) in place of a filename

Asked 11 years, 2 months ago Modified 2 years, 5 months ago Viewed 346k times



For a command, if using - as an argument in place of a file name will mean STDIN or STDOUT.

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1. But in this example, it creates a file with the name -:





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```
How can I make - in this example mean STDOUT?
```

2. Conversely, how can I make – mean a file named – in examples such as:

cat -

shell command-line utilities

echo hello > -

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edited Jul 22, 2011 at 8:42



asked Jul 9, 2011 at 22:14 **92.3k** ● 163 ● 510 ● 893

Since I apparently have to have 50 reputation to comment directly... On the /dev/stdin /dev/stdout comment, AIX, which is a legitimate UNIX derivative does not have these pseudodevices. And, as a further comment, LINUX is not a UNIX derivative in any case. It is a POSIX-compliant workalike, and the most popular of the UNIX-ish OS's at this point, but make no mistake, this is no UNIX. But, the gist of the replies here are correct. The "-" notation is not interpreted as special by the shell, and is thus passed directly to each individual application as an ARG. If the application does not recogni – user95873 Dec 23, 2014 at 20:04

@user95873, what I suppose you wanted to say is: while Linux is Unix-like, not every Unix-like (or true UNIX) is Linux. The matter whether Linux is or isn't true UNIX (i.e. complies the Single UNIX Specification) doesn't have relation to /dev/std{in,out,err} issue. As /dev/std{in,out,err} is added feature, not missing. – sasha Dec 9, 2016 at 12:32 🖍

## 6 Answers

Highest score (default) Sorted by:





Using – as a filename to mean stdin/stdout is a convention that a lot of programs use. It is not a special property of the filename. The kernel does not recognise - as special so any system calls referring to - as a filename will use - literally as the filename.





With bash redirection, — is not recognised as a special filename, so bash will use that as the literal filename.



When cat sees the string - as a filename, it treats it as a synonym for stdin. To get around this, you need to alter the string that cat sees in such a way that it still refers to a file called -. The usual way of doing this is to prefix the filename with a path - ./-, or /home/Tim/-. This technique is also used to get around similar issues where command line options clash with filenames, so a file referred to as ./-e does not appear as the -e command line option to a program, for example.

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edited Jul 10, 2011 at 5:41

answered Jul 9, 2011 at 23:25



- It's worth adding that /dev/stdin and /dev/stdout are universally available and can be used in place of the convention. jmtd Jul 22, 2011 at 9:00
- @jmtd: /dev/std{in,out} are not universally available. Not all unixes have it. camh Jul 22, 2011 at 10:37
- Interesting, I assumed they were part of POSIX (but can't confirm). They're present at least on Linux, the BSDs and Solaris. Can you give an example of a modern UNIX that lacks them? - jmtd Aug 2, 2011 at 8:51
- @camh Not sure if you got the notification, and this is a very, very old topic; I'm not sure if you can, but I'm very curious if you know the answer to jmtd 's question?:) - Swivel Nov 23, 2016 at 6:29
- @jmtd I seem to have found a tentative answer to the question: unix.stackexchange.com/a/278368/31669 Swivel Nov 23, 2016 at 6:35



1. Instead of echo hello > -, you can use echo hello > /dev/stdout.

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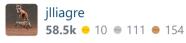
While '-' is a convention that has to be implemented by each program wanting to support it, /dev/stdin, /dev/stdout and /dev/stderr are, when supported by the OS (at least Solaris, Linux and BSDs do), independent of the application and then will work as you intend.



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edited Apr 29, 2013 at 2:41

answered Jul 10, 2011 at 2:26





As <u>camh mentioned</u>, — is just a naming convention used by some programs. If you want to refer to these streams with a file descriptor the shell will recognize, <u>jiliagre was correct</u> in having you use the name <u>/dev/stdin</u> or <u>/dev/stdout</u> instead. Those file names should work any place a normal file name would work.



(I)

1. That being said, your first example is kind of silly. Any output that would be caught by the redirect operator to write to a file is already ON standard-output, so redirecting it and writing it back to where it came from is useless. The behavior you use there is the pipe, not a redirect:



2. In your second example you simply need to give can some indication that you want a litteral file of that name, not the internal alias it has. You can do this easiest by specifying a path to the file like this:

```
cat ./-
```

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edited Apr 13, 2017 at 12:36



answered Jul 10, 2011 at 6:18





As for 1, the program has to support it. You can't just arbitrarily use it. As for 2, redirect input from (e.g., cat < -).

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The '-' approach has a lot of problems. First of all it requires an interpretation of the '-' character and many programs don't perform such

1

interpretation. And furthermore, there are some programs that interpret an hyphen as a delimiter marking the end of command line options. The programs are written to work with filename arguments, the '-' approach is an hack, nice but weak.



The best way is:

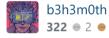


\$ echo hello > /dev/fd/1

/dev/stdout is a symbolik link of /dev/fd/1

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answered Oct 3, 2016 at 18:26



The redirection is interpreted by the shell, not the program being invoked. – sherrellbc Jan 3, 2017 at 13:46



Special characters have mostly two meanings:





ASCII numeric chart.





It's possible that a single character represents a string, or act as a string. as my understanding.

in C language fopen() function takes two arguments first file stream and the second mode in which file will be open. the mode is a string. even if it's single character.

cat > "-" works.

Community Bot

answered Apr 4, 2020 at 9:31

