bash echo number of lines of file given in a bash variable without the file name

I have the following three constructs in a bash script:

```
NUMOFLINES=$(wc -l $JAVA_TAGS_FILE)
echo $NUMOFLINES" lines"

echo $(wc -l $JAVA_TAGS_FILE)" lines"

echo "$(wc -l $JAVA_TAGS_FILE) lines"
```

And they both produce identical output when the script is run:

```
121711 /home/slash/.java_base.tag lines
121711 /home/slash/.java_base.tag lines
121711 /home/slash/.java_base.tag lines
```

I.e. the name of the file is also echoed (which I don't want to). Why do these scriplets fail and how should I output a clean:

```
121711 lines
```

?

bash wc

edited Nov 19 '15 at 23:04
Ciro Santilli 巴拿馬文件 六四事件 法轮功
42.3k ● 8 ● 183 ● 141

asked Aug 18 '12 at 21:15
Marcus Junius Brutus
6,794 ● 7 ● 62 ● 122

Possible duplicate of get just the integer from wc in bash – Ciro Santilli 巴拿馬文件 六四事件 法轮功 Nov 19 '15 at 23:05

6 Answers

An Example Using Your Own Data

You can avoid having your filename embedded in the **NUMOFLINES** variable by using redirection from **JAVA_TAGS_FILE**, rather than passing the filename as an argument to *wc*. For example:

```
NUMOFLINES=$(wc -l < "$JAVA_TAGS_FILE")
```

Explanation: Use Pipes or Redirection to Avoid Filenames in Output

The *wc* utility will not print the name of the file in its output if input is taken from a pipe or redirection operator. Consider these various examples:

```
# wc shows filename when the file is an argument
$ wc -l /etc/passwd
41 /etc/passwd

# filename is ignored when piped in on standard input
$ cat /etc/passwd | wc -l
41

# unusual redirection, but wc still ignores the filename
$ < /etc/passwd wc -l
41

# typical redirection, taking standard input from a file
$ wc -l < /etc/passwd
41
```

As you can see, the only time *wc* will print the filename is when its passed as an argument, rather than as data on standard input. In some cases, you may want the filename to be printed, so it's useful to understand when it will be displayed.

answered Aug 18 '12 at 21:31
CodeGnome
39k ● 4 ● 57 ● 114

beware that this approach will not include the last line if the last line does not terminate by end of line character. See my fix below. – ling Oct 18 '15 at 5:33

`wc` can't get the filename if you don't give it one.

```
wc -l < "$JAVA_TAGS_FILE"
```

answered Aug 18 '12 at 21:17

Ignacio Vazquez-Abrams
429k ● 59 ● 760 ● 924

2 Well, then don't. Just pass the file to `wc` 's stdin as shown in the answer. So `cat "$JAVA_TAGS_FILE" | wc -l` or, equivalently, `wc -l < "$JAVA_TAGS_FILE"` . This way, `wc` only gets raw data, not the filename. – Witiko Jul 4 '13 at 14:23

You can also use awk:

```
awk 'END {print NR,"lines"}'
filename
```

Or

```
awk 'END {print NR}' filename
```

answered Aug 11 '15 at 12:33

chilicuil
231 ● 2 ● 9

It's a very simple:

```
NUMOFLINES=$(cat $JAVA_TAGS_FILE | wc -l )
```

or

```
NUMOFLINES=$(wc -l $JAVA_TAGS_FILE | awk '{print $1}')
```

answered Aug 18 '12 at 21:18

Slava Semushin
8,259 ● 5 ● 29 ● 44

(apply on Mac, and probably other Unixes)

Actually there is a problem with the wc approach: it does not count the last line if it does not terminate with the end of line symbol.

Use this instead

```
nbLines=$(cat -n file.txt | tail -n 1 | cut -f1 | xargs)
```

or even better (thanks gniourf_gniourf):

```
nblines=$(grep -c '' file.txt)
```

Note: The awk approach by chilicuil also works.

edited Oct 19 '15 at 7:41

answered Oct 18 '15 at 5:32

ling
1,208 ● 1 ● 12 ● 18

1 Very convoluted method! Maybe you'll want `nblines=$(grep -c '' file)` instead (which is the canonical way of counting incomplete lines in this case). Note though that according to POSIX, you're counting the incomplete lines (and not the lines). You're in fact dealing with a binary file and not a text file. – gniourf_gniourf Oct 18 '15 at 6:33

@gniourf_gniourf Thanks, I didn't know about that, it works great and is even more concise. – ling Oct 19 '15 at 7:39

I normally use the 'back tick' feature of bash

```
export NUM_LINES=`wc -l filename`
```

Note the 'tick' is the 'back tick' e.g. ` not the normal single quote

edited Jan 1 '15 at 20:03

fejese
3,398 ● 4 ● 16 ● 29

answered Jul 18 '14 at 12:45

Russ Hore
1

5 That's just a different notation, and doesn't solve the issue of the file name being part of the result. – Izzy Jan 1 '15 at 19:57
