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8 Linux TR Command Examples

by Lakshmanan Ganapathy on December 19, 2012

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tr is an UNIX utility for translating, or deleting, or squeezing repeated characters. It will read from STDIN and write to STDOUT.

tr stands for translate.

Syntax

The syntax of tr command is:

```
$ tr [OPTION] SET1 [SET2]
```

Translation

If both the SET1 and SET2 are specified and '-d' OPTION is not specified, then tr command will replace each characters in SET1 with each character in same position in SET2.

1. Convert lower case to upper case

The following tr command is used to convert the lower case to upper case

```
$ tr abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ
thegeekstuff
THEGEEKSTUFF
```

The following command will also convert lower case to upper case

```
$ tr [:lower:] [:upper:]
thegeekstuff
THEGEEKSTUFF
```

You can also use ranges in tr. The following command uses ranges to convert lower to upper case.

```
$ tr a-z A-Z
thegeekstuff
THEGEEKSTUFF
```

2. Translate braces into parenthesis

You can also translate from and to a file. In this example we will translate braces in a file with parenthesis.

```
$ tr '{}' '()' < inputfile > outputfile
```

The above command will read each character from "inputfile", translate if it is a brace, and write the output in "outputfile".

3. Translate white-space to tabs

The following command will translate all the white-space to tabs

```
$ echo "This is for testing" | tr [:space:] '\t'
This    is      for     testing
```

4. Squeeze repetition of characters using -s

In Example 3, we see how to translate space with tabs. But if there are two are more spaces present continuously, then the previous command will translate each spaces to a tab as follows.

```
$ echo "This   is   for testing" | tr [:space:] '\t'
This                is                      for     testing
```

We can use -s option to squeeze the repetition of characters.

```
$ echo "This   is   for testing" | tr -s [:space:] '\t'
This    is      for     testing
```

Similarly you can convert multiple continuous spaces with a single space

```
$ echo "This  is  for testing" | tr -s [:space:] ' '
This is for testing
```

5. Delete specified characters using -d option

tr can also be used to remove particular characters using -d option.

```
$ echo "the geek stuff" | tr -d 't'
he geek suff
```

To remove all the digits from the string, use

```
$ echo "my username is 432234" | tr -d [:digit:]
my username is
```

Also, if you like to delete lines from file, you can use sed d command.

6. Complement the sets using -c option

You can complement the SET1 using -c option. For example, to remove all characters except digits, you can use the following.

```
$ echo "my username is 432234" | tr -cd [:digit:]
432234
```

7. Remove all non-printable character from a file

The following command can be used to remove all non-printable characters from a file.

```
$ tr -cd [:print:] < file.txt
```

8. Join all the lines in a file into a single line

The below command will translate all newlines into spaces and make the result as a single line.

```
$ tr -s '\n' ' ' < file.txt
```
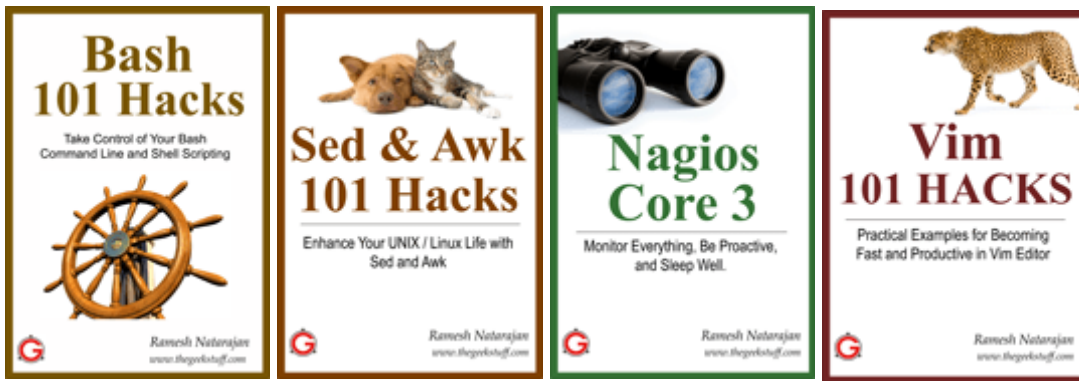
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- mre December 19, 2012, 10:42 am

    Hello

    How can I order in script lower words to upper the first letter of word only ?

    ex: ramesh natarajan > Ramesh Natarajan

    Thank you!

    Link
- Jalal Hajigholamali December 19, 2012, 8:45 pm

    Hi,
    Thanks for nice article.

    Hi "mre"

    tr can not solve your problem…

    Link
- Goxxi December 20, 2012, 2:18 am

    Hi,

    I think, that [:lower:], [:digit:], …. must be quoted
    to protect this symbolic names against filename expansion!

    Command line example:

    $ touch d i g t
    $ tr [:digit:] '*'
    tr: extra operand `i'
    Try `tr –help' for more information.
    $

    With regards,
    Goxxi

Link
- Kamal Kishore December 24, 2012, 6:37 am

  8) Join all the lines in a file into a single line
  The below command will translate all newlines into spaces and make the result as a single line.

  $ tr -s '\n' ' ' < file.txt

  also can use tr '\n' <file.txt # here we get the same result without using -s (switch)

  Link
- Saravanan February 6, 2013, 12:55 pm

  Nice article.

  Link
- VIVEK August 1, 2013, 8:19 pm

  echo "This is for testing" | tr [:space:] '\t' …
  This command works only wen I enclose single quotes in between '[:space:]'..
  i.e echo "This is for testing" | tr '[:space:]' '\t'

  Link
- surendra December 23, 2013, 5:09 am

  echo "welcome"|tee word|cut -c1|tr [a-z] [A-Z]|tee word1|echo "`cat` `cat word`"|cut -c1,4-10.
  this will work to make the first letter of word to be capital

  Link
- linux torvalds February 16, 2014, 11:37 am

  how to replace multiple characters with only one given characters ?

  Link
- Bhupender Singh March 31, 2014, 7:15 pm

  This is how you can change multiple characters to only one character

  echo `tr wabd A filename to save the output

  Link
- linux torvalds April 9, 2014, 7:13 am

  @bhupender singh
  hey,
  I don think 'wabd' are options for tr; check by `man tr` command…

  Link
- linux torvalds April 9, 2014, 7:19 am

  @bhupender singh
  hey,
  I don think 'wabd' are options for tr; check by `man tr` command…

  Link
- maria May 14, 2014, 7:18 am

how to delete all control symbols from a line except NULL and new line?
I try
tr -d [[:cntrl:]]
but i need to save \n

Link

- Anonymous November 9, 2014, 1:48 pm

  fast commend is not working
  fast commmend ANS -tr -s " [a-z]" "[A-Z" < file name

  Link

- Vijay January 8, 2015, 5:49 pm

  Dear Lakshmanan,

  Your tr of lower to upper is incorrect. You need to surround the brackets in single quotes.

  Sincerely,
  Vijay

  Link

- Bensen June 5, 2015, 2:25 am

  Hi! Thanks for the article.

  I am trying to to use your command from nr 2 to change all text within a file from lower to upper.
  however bash just deletes everything!

  tr [:lower:] [:upper:] text.txt

  any advice on how i could avoid this? i want to overwrite the same file basically input and output at the
  same location. thx!

  Link

- Pratyush July 20, 2015, 5:49 am

  @Bensen
  If this is your exact command
  tr [:lower:] [:upper:] text.txt
  Then it needs to be changed to
  tr [:lower:] [:upper:] < text.txt

  You need to redirect the file content, using '<' , to the 'tr' command

  Link

- Maswood Alam November 13, 2015, 2:23 am

  [root@abc alam]# cat kbc |tr [:lower:] [:upper:]
  HI ALAM HOW ARE YOU []
  I [AM FINE] BRO
  [root@nldtlx07 alam]#
  How can I also translate the braces in same command
  cat kbc |tr [:lower:] [:upper:] && [] {}====> Its not working

Link

- Dinis November 24, 2015, 5:46 am

  How can I change a text file with only NL line separators to a DOS one?

  Link
- Ivan February 11, 2016, 10:39 am

  Hi, i working on an assignment where i have to encrypt a text file.
  I finish most of the sub part but i could not solve the main part.

  Im suppose to add a "key" into a-z. for example, the key is ZEROZEBRA->ZEROBA
  (i also have to remove the alphabet if they are the same)

  plaintext alphabet ->abcdefghijklmnopqrstuvwxyz
  ciphertext alphabet->zerobacdfghijklmnpqstuvwxy

  notice that key is place to the left and the order of the alphabet is changed

  After that, i use the ciphertext to encrypt a text file(i done this part).

  Link
- JP March 19, 2016, 11:14 am

  How do you combine many [SET1](s) and [SET2](s) into one tr -d command? I want to see an example of
  this. For example, I want to remove both the '00' and 'E-' in one tr -d command from a file1.

  Link
- HTechnology March 26, 2016, 4:32 am

  Thanks, it helped me, I like the organisation of this tuto, it realy saves a time then reading the
  documentation topic of command 🙂

  Link
- arun April 8, 2016, 3:09 am

  how to replace a character with multiple table.For example I need to replace a by 4 tabs

  Link

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