

# Translate/ tr Command Examples

Tr stands for translate or transliterate. The tr utility in unix or linux system is used to translate, delete or squeeze characters. The syntax of tr command is  
`tr [options] set1 [set2]`

The options of tr command are:

- -c : complements the set of characters in string.
- -d : deletes the characters in set1
- -s : replaces repeated characters listed in the set1 with single occurrence
- -t : truncates set1

## Tr command Examples:

### 1. Convert lower case letters to upper case

The following tr command translates the lower case letters to capital letters in the give string:

```
> echo "linux dedicated server" | tr "[:lower:]" "[:upper:]"
LINUX DEDICATED SERVER
> echo "linux dedicated server" | tr "[a-z]" "[A-Z]"
LINUX DEDICATED SERVER
```

### 2. Transform upper case letters to lower case.

Similar to the above example, you can translate the uppercase letters to small letters.

```
> echo "UNIX DEDICATED SERVER" | tr "[:upper:]" "[:lower:]"
unix dedicated server
> echo "UNIX DEDICATED SERVER" | tr "[A-Z]" "[a-z]"
unix dedicated server
```

### 3. Replace non-matching characters.

The -c option is used to replace the non-matching characters with another set of characters.

```
> echo "unix" | tr -c "u" "a"
uaaa
```

In the above example, except the character "u" other characters are replaced with "a"

### 4. Delete non-printable characters

The -d option can be used to delete characters. The following example deletes all the non-printable characters from a file.

```
> tr -cd "[:print:]" < filename
```

### 5. Squeezing characters

You can squeeze more than one occurrence of continuous characters with single occurrence. The following example squeezes two or more successive blank spaces into a single space.

```
> echo "linux    server" | tr -s " "
linux server
```

Here you can replace the space character with any other character by specifying in set2.

```
> "linux    server" | tr -s " " ", "
linux,server
```

## 6. Delete characters

The following example removes the word linux from the string.

```
> echo "linuxserver" | tr -d "linux"
server
```

# TR

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 or more spaces present continuously, then the previous command will translate each space 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
```