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## mkdir's "-p" option

So this doesn't seem like a terribly complicated question I have, but it's one I can't find the answer too. I'm just confused about what the -p option does in Unix. I used it for a lab assignment while creating a subdirectory and then another subdirectory within that one. It looked like this:

```
mkdir -p cmps012m/lab1
```

This is in a private directory with normal rights (rli dwka). Thanks in advance! Oh, and would someone mind giving a little explanation of what "rli dwka" means? I'm not a total noob to Unix, but I'm not really familiar with what this means. Hopefully that's not too vague of a question.

[unix](#) [command-line](#) [command-line-arguments](#) [directory-structure](#)

edited Nov 11 '14 at 20:35



[JasonMArcher](#)

7,409 9 42 45

asked Mar 29 '14 at 22:50



[user3476866](#)

111 1 1 3

1 [man mkdir](#) will answer your question. As for "rli dwka", I have no idea; you'll need to give us some more context. – [Keith Thompson](#) Mar 29 '14 at 22:54

### 3 Answers

The man pages is the best source of information you can find... and is at your fingertips: `man mkdir` yields this about `-p` switch:

```
-p, --parents
    no error if existing, make parent directories as needed
```

Use case example: Assume I want to create directories `hello/goodbye` but none exist:

```
$mkdir hello/goodbye
mkdir:cannot create directory 'hello/goodbye': No such file or directory
$mkdir -p hello/goodbye
$
```

`-p` created both, `hello` and `goodbye`

This means that the command will create all the directories necessities to fulfill your request, not returning any error in case that directory exists.

About `rli dwka`, Google has a very good memory for acronyms :). My search returned this for example: [http://www.cs.cmu.edu/~help/afs/afs\\_acs.html](http://www.cs.cmu.edu/~help/afs/afs_acs.html)

Directory permissions

```
l (lookup)
    Allows one to list the contents of a directory. It does not allow the reading of
    files.
i (insert)
    Allows one to create new files in a directory or copy new files to a directory.
d (delete)
    Allows one to remove files and sub-directories from a directory.
a (administer)
    Allows one to change a directory's ACL. The owner of a directory can always change the
    ACL of a directory that s/he owns, along with the ACLs of any subdirectories in that
    directory.
```

File permissions

```
r (read)
    Allows one to read the contents of file in the directory.
w (write)
    Allows one to modify the contents of files in a directory and use chmod on them.
k (lock)
    Allows programs to lock files in a directory.
```

Hence `rli dwka` means: *All permissions on.*

It worth mention, as @KeithThompson pointed out in the comments, that not all Unix systems support ACL. So probably the `rldwka` concept doesn't apply here.

edited Mar 30 '14 at 0:11

answered Mar 29 '14 at 22:59



Paulo Bu

19.6k 4 39 53

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But not all Unix-like systems support ACLs, so `rldwka` may or may not be meaningful. – Keith Thompson Mar 29 '14 at 23:34

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@KeithThompson Well I agree, I just wanted mention what the acronym stands for. – Paulo Bu Mar 29 '14 at 23:35

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Yes, but often just answering someone's question is less helpful than providing background information needed to understand the answer. – Keith Thompson Mar 29 '14 at 23:56

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I'll point it out in the answer. I just wasn't aware of this. Thanks for correcting me. – Paulo Bu Mar 30 '14 at 0:08

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This answer is the most verbose way possible of saying "RTFM, let me google that for you" and I love it. I once was a noobie intern that didn't know anything, and forgot that before asking my manager I should just google it. Go easy on these new guys; sometimes it's hard to figure out what to google. You don't know what you don't know. But everyone gets more skillful at googling after years of doing it. – Dagrooms Jun 16 at 14:57

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`-p|--parent` will be used if you are trying to create a directory with `top-down` approach. That's create parent directory then child and so on iff none exists.

`-p, --parents` no error if existing, make parent directories as needed

About `rldwka` it means giving full or administrative access. Found it here <https://itservices.stanford.edu/service/afs/intro/permissions/unix>.

answered Mar 29 '14 at 23:10



Rahul

54.8k 9 37 68

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Note that `-p` is an argument to the `mkdir` command specifically, not the whole of Unix. Every command can have whatever arguments it needs.

In this case it means "parents", meaning `mkdir` will create a directory and any parents that don't already exist.

answered Mar 29 '14 at 23:05



IMSoP

34.5k 6 40 68