

## Re: Newbie-ish question about ( [ and [[

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*Source:* <http://unix.derkeiler.com/Newsgroups/comp.unix.shell/2006-12/msg01068.html>

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  - *Date:* Wed, 20 Dec 2006 19:11:32 +0100
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Michael wrote:

Thanx for the great input. I think I'm beginning to get the light bulb turned on.

Here's what I believe y'all said.

The construct ( blah ) means:

```
( # Open a new subshell
Blah # Execute the "Blah" command(s) and save the exit status
) # Close the subshell and return the exit status of Blah to
the calling shell
```

There's nothing like "closing" a subshell.

( ... ) will invoke a subshell that executes the commands '!...!'.

So, I can actually put any command or command string inside of the "( ... )" that returns an exit status that the "if" then evaluates. Operators are permitted, but only as they relate to the commands.

You don't need a subshell if you want an if-construct to check for the return status; just use the commands as they are, for example...

```
if grep pattern <file.txt
then
: ...
fi
```

A subshell is helpful if you want your environment unchanged but the commands want their own environment, e.g. as in

```
( cd /some/dir ; tar cf - ) | ( cd /another/dir ; tar xf - )
```

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Here in both subshells the working directories are changed as needed.

Next, the construct [ foo ] means:

```
[ # Execute the alias of the test command on the following  
Blah # something that the test command can legally evaluate  
] # terminus of what is being tested
```

Not necessarily an alias. There might be a program /bin/[ or it might also be a shell built-in, or both.

```
$ ls -l /usr/bin/[  
lrwxrwxrwx 1 root root 4 2003-06-05 01:14 /usr/bin/[ -> test
```

```
$ type [  
[ is a shell builtin
```

Janis

So the contents of the "[ ]" must contain operators, not commands; unless an operator is operating on the result of a command.

Did I get it right?

Thanx!

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