

Re: What's the difference pipe vs redirection is the following case case.

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```
When I execute party, it brings up a chat line. Ie
m-net% party
Welcome to PARTY! Type '?' for help:
triluda: my hero
mickeyd: are we cheech'n'chongish enough?
When I do the following
m-net% party | /dev/null
zsh: permission denied: /dev/null
I get permission denied.
But when I do something like the following
m-net% party > /dev/null
Welcome to PARTY! Type '?' for help:
```

e

```
The output from party gets redirected to /dev/null
What's the difference between the two? Ie, why do I get
permission
denied when I try to pipe party to /dev/null?
```

Because you can pipe to another process but not a file. '|' is for connecting the stdout of the process on the left hand side to the stdin of the process of the right hand side. '>' is for redirecting the stdout of the left hand side process to a file on the right hand side. You get permission denied for

```
m-net% party | /dev/null
```

because it instructs the shell to start the program /dev/null but, when the shell tries to do so, it finds that /dev/null hasn't the executable bit set (which makes sense since /dev/null isn't an executable but just a "file", not a program).

Re: What's the difference pipe vs redirection is the following case case.

Maybe I'm overcomplicated this a bit, but what's the difference between an executable, a "file", and a program? I thought an executable was a program.

"executable" and "program" mean roughly the same thing, if you don't get into too many arguments over shared libraries and unlinked object code. Executables are files. Files are not necessarily executable.

A file with no execute permission cannot be executed as though it were a program. That's what:

```
party | /dev/null
```

is attempting to do. A file that is not a valid executable file (e.g. because it doesn't contain any code but contains only porn, last week's grocery list, or pirated music, or contains code for the wrong CPU type, or something the OS doesn't support) also cannot be run as a program. If it has execute permission the shell may attempt to run it as a shell script, which is usually something between hilarious and a disaster.

You also can't do:

```
m-net% /dev/null
```

OR

```
m-net% party ; /dev/null
```

for the same reasons, although the second one will appear to work until you exit party.

You can, as root, cd to the directory containing party, then:

```
m-net# cat /dev/null > party
```

but it's not recommended since you'll replace "party" with an empty file, and it will quit working.

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