
IT 1100 : Introduction to Operating Systems

Chapter 6

Concatenate Files

As you read the section on the `cat` command, please note that our primary usage of this command in this class is to display the content of a file. It does a whole lot more, but we won't worry about that right now.

The `cat` command has similar results to the `less` command. It allows us to view the contents of a file. Try the following commands to see the difference.

```
less /etc/passwd
```

```
cat /etc/passwd
```

Redirection

- Linux programs can receive input known as stdin or standard input (primarily this comes from the keyboard)
 - Programs have 2 types of output (standard output or stdout and standard error or stderr). stdout are normal output messages of a program (ie. the output generated by `ls -l`) stderr are the status messages or error messages of a program (we will see these later)
 - By default the 2 types of output are sent to the screen.
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Redirection

Sometimes you want to redirect the standard output from the screen to a file or some other location (a printer?). You can do this by using either `>` or `>>` after the command.

- `ls -l > file_list.txt`
- `echo "Who was in the movie Black sheep?" >> chris_farley.txt`

Practice the above commands a few times and then use the `cat` command to see if you can figure out the difference between the `>` and `>>`

Redirect StdErr

Issue a command that generates an error like:

- `ls -l /var/i/dont/exist`

Now , redirect that error to a file:

- `ls -l /var/i/dont/exist 2> bad_error`
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Redirect both

To redirect both stdout and stderr to same file do:

- `ls -l /var &> both.txt`
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Redirect output to the black hole

What if I don't want to see output on the screen AND I don't want to send it to a file? There is a location in linux to do that.

- `ls -l /var/ &> /dev/null`
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Piping

You can take the output of one command and send it to another command by using the pipe `|` operator. Here are some examples:

- `ls -l | wc -l`

The above command took the output of the `ls` command and piped it to the `wc` command. You could use `man wc` to figure out what either command does if you don't remember.

What does this command do?

- `echo "My name is fred" | wc`
 - `cat /etc/passwd | less`
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Textbook Time

Read and Complete the Exercises in the Book

- [WES-6](#)
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