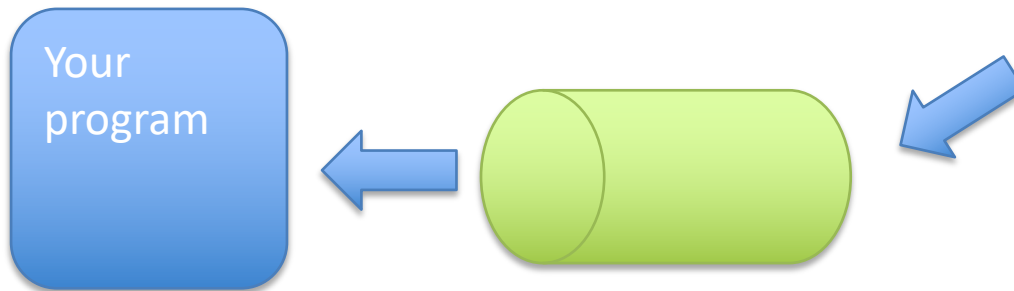


Redirection

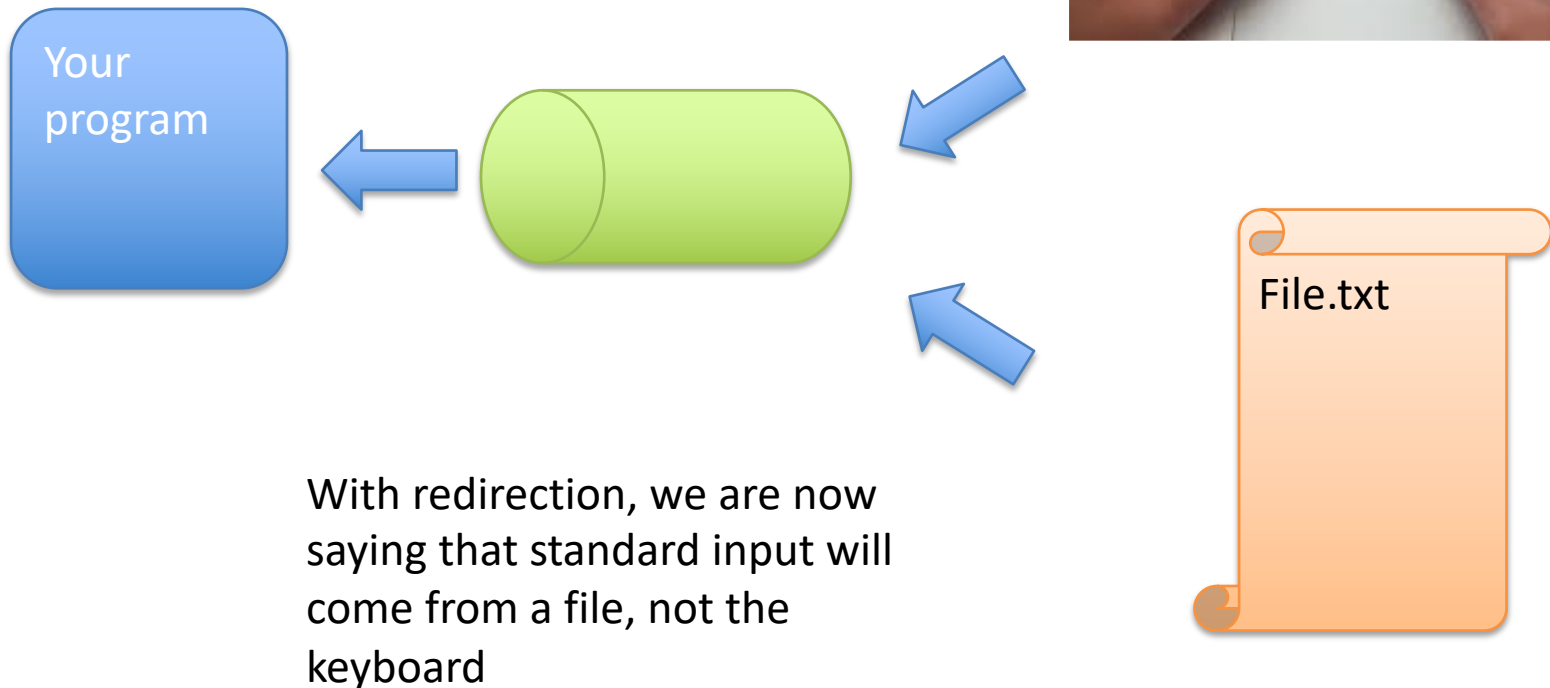
- Redirection is not specifically a C concept
 - I won't get into the details about what it is exactly
 - I will just talk about how to use it
- You can just think that when you are taking standard input from your keyboard, we are redirecting that to a file
- I will show an example of this today

Redirection



When you are using `stdin` (standard input), we are usually talking about you using your keyboard to get information into your program.

Redirection



Redirection

- Note that this is different than actually creating a program to read a file
 - We are NOT creating a FILE pointer or using the function `fopen`
 - We are simply redirecting the information going into `stdin` from the keyboard to a file
- Command line:
 - `Program < file.txt` (read in from a file instead of the keyboard)
 - `Program > file.txt` (output to a file instead of the screen)

When not using redirection, we can read in a file in the spots where the user would normally type input:

```
#include <stdio.h>
#include <string.h>
```

```
int main(void)
```

```
{
```

```
    char line [40];
```

```
    fgets(line, 40, stdin);
    printf("%s", line);
```



User would type input here



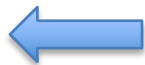
We can output what the user typed here

```
    fgets(line, 40, stdin);
```



User would type input here

```
    printf("%s", line);
```



We can output what the user typed here

```
}
```

```
#include <stdio.h>
#include <string.h>
```

```
int main(void)
```

```
{
```

```
    char line [40];
```

```
    fgets(line, 40, stdin);
    printf("%s", line);
```

Read in a line of the file (using redirection)

~~User would type input here~~



```
    fgets(line, 40, stdin);
```

~~We can output what the user typed here we got from the file~~



```
    printf("%s", line);
```

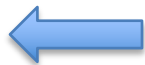
Read in a line of the file (using redirection)

~~User would type input here~~



```
}
```

~~We can output what the user typed here we got from the file~~



Command line:

```
computer$ ./a.out < somefile.txt
```

```
here's a line in the file
```

```
here's another line in the file
```

Normally, a program like this would expect the user to type input and then we would output it to screen:

Using redirection

Program 1

- Simple redirection examples