

# fescape

Filter unprintable characters from input stream.

## Design Considerations

Short and simple. Follow the original Unix philosophy of a program doing just one thing where both input and output are streamed and are therefore able to function well in a pipe sequence.

## File Locations

- Binary executable (**fescape**) located in `/usr/local/bin`
- Manpage (**fescape.1**) located in `/usr/local/share/man/man1`
- API documentation located in project folder as **fescape-apidoc.pdf**. Doc source files in `docs` folder.

## Arguments

- **file** : file(s) to display or stdin if none specified

## Switches

- **-r, --repeats** : display a count for repeated characters instead of displaying the characters themselves
- **-h, --help** : display usage
- **-n, --newline** : don't filter newlines
- **-o, --octal** : display octal codes instead of default hex codes

## Key Functions

`main()`

- Handle switches
- Handle arguments
- Handle actions

`void usage(const char *program)`

- Display help to user

`fescape(FILE *input_stream, FILE *output_stream, bool repeats, bool octal)`

- Performs the filter function.

## Dependencies

- `system-actions.{c,h}`

- `actions.{c,h}`

## Results

Haven't discovered any issues yet.

## Lessons

1. `**##__VA_ARGS__**`: GNU macro feature useful for variadic functions.
2. **VS Code**: VSC doesn't play nice with `make(1)` when debugging from within VSC. You gotta pick a lane.

## TODO

- ☒ Figure out best way to handle variadic function fronted by macro.
- ☒ Optimize functions in `system-actions.c`.