Presentation of DAI project : BIM

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Our project

- works with simple bmp files
- applies a variety of filters with many parameters
- simple CLI tool

More detailed explanations in the project README.

Usage

```
java -jar target/BIM-1.0.jar -f <filter> <input> <output> <args> apply
```

Filter and arguments

- GRAYSCALE : luminosity
- SEPIA : no arguments
- COLOR_INTENSITY : intensity [%]
- ADJUST_COLOR : red, green, blue, intensity
- MOVING_AVERAGE : size of the averaged square

Usage

```
java -jar target/BIM-1.0.jar -f <filter> <input> <output> <args> apply
```

input

The input image file. Format is detected with extension, and it will only open suported formats (only bmp)

output

The output file. Creates a new file or overwrites an existing one. Exports with same format as input file.

Example 1

```
java -jar target/BIM-1.0.jar -f COLOR_INTENSITY test_images/desert.bmp test_images/desert_200_color.bmp 200 apply
```

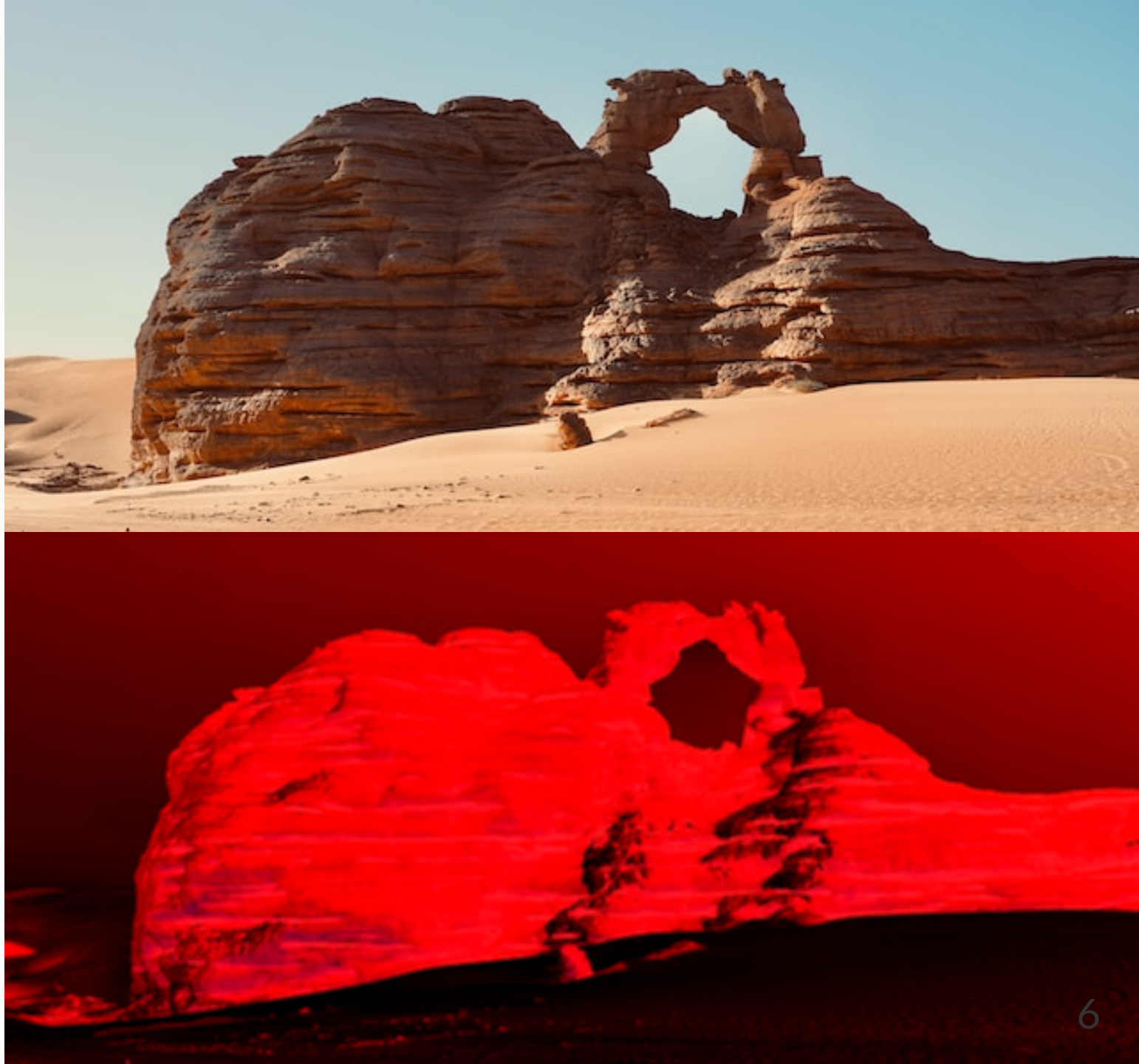
Filter : COLOR_INTENSITY

Intensity : 200%

Example 2

Two filters applied:

1. **Adjust color** 150 20 20 250
2. **Moving average**, size 2



Code

Dependencies

- picocli
- java color
- java io
- java math

Code

- commands : picocli stuff
- file : image file read/write
- filters
- image : the simple representation used troughout our project

file and filter are actually interfaces with different implementations. This is redundant for file image since we only implemented bitmap.