

Exercises Pure Data: week 1

1 Temperature

Create a converter from Celcius to Fahrenheit.

2 Two tones

1. Build a program that swaps the value of two `ints`.
2. Connect an `osc~` to a `dac~` and get the audio working.
3. Make a program that alternates between two tones, keeping each for one second.

3 Arrow keys (check assignment)

1. Make a patch that uses the up and down arrow keys to make an up/down counter and prints the output as:

```
Up: 15
Down: 20
```

Use `key`, `select`, `message`, `+`, `number`, `print`. Use the `+` object as memory cell.

2. Extend the counter in such a way that it has a range from 0 to 9 and can't go outside of this range. (E.g. with `clip`). Base the clipping on the `spigot` object and the `>` (bigger) and `<` (smaller) objects. You may have to use the `trigger` object.
3. Make a new version of your patch that counts in steps of 0.5. The limiting of the range still applies. Make a new version of your patch that counts up automatically (for example, adds 1 every second) instead of

using the arrow keys. Use the `metro` object in order to achieve this. Stop the metronome when 10 has been reached. (You can check if 10 has been reached with the `select` object).

4. Make a variation on this patch that is based on the `delay` object instead of the `metro` object. Again, it should count up every second. Use a `spigot` object to stop when 10 is reached.