Working with the Time Package

Jeremy Morgan

SOFTWARE / DEVOPS ENGINEER

@JeremyCMorgan   www.jeremymorgan.com

What is The Time Package?

Overview

Understanding Wall Clock vs. Monotonic Clock

Formatting Time Output

Calculating Time Spans

Calculate Elapsed Time for Applications

Understanding Wall Clock vs. Monotonic Clock

Wall Clock

Used to keep track of the current time of day

Subject to variation

Great for humans

Not great for measuring time
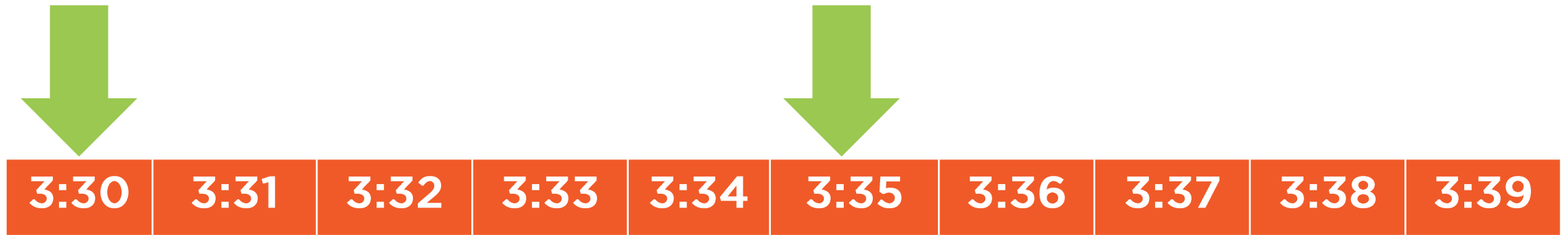
Monotonic Clock

Used for measuring time

Not subject to variation

Only meaningful for the process calling it
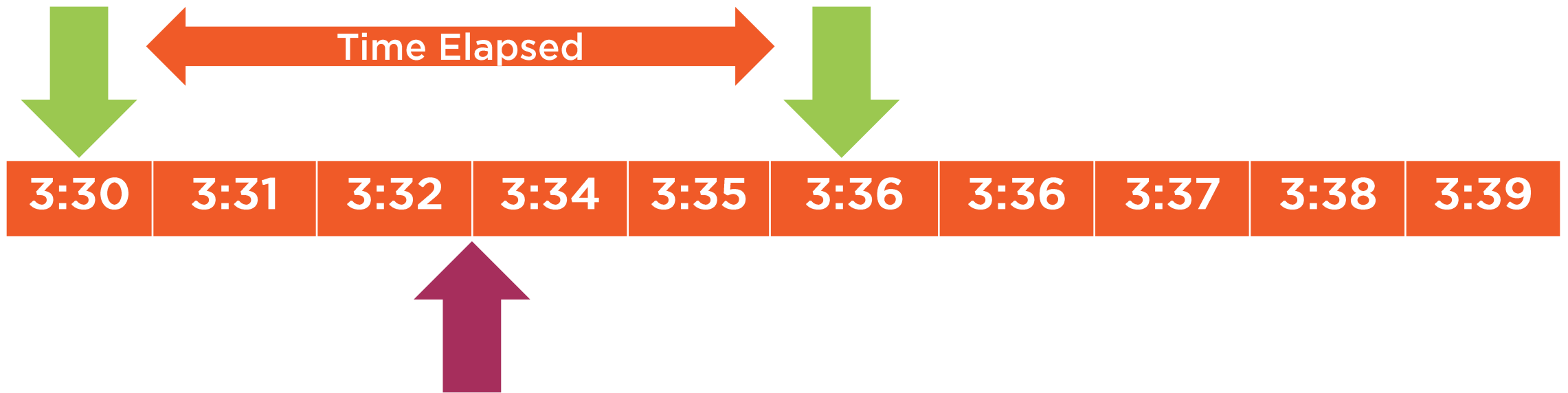
Can be simulated by wall clock time

Measuring Time Intervals

| 3:30 | 3:31 | 3:32 | 3:33 | 3:34 | 3:35 | 3:36 | 3:37 | 3:38 | 3:39 |

Time to process file: 5 minutes ?

Measuring Time Intervals

Time Elapsed

| 3:30 | 3:31 | 3:32 | 3:34 | 3:35 | 3:36 | 3:36 | 3:37 | 3:38 | 3:39 |

Time to process file: 6 minutes ?

Measuring Time Intervals

Minutes since lunch break
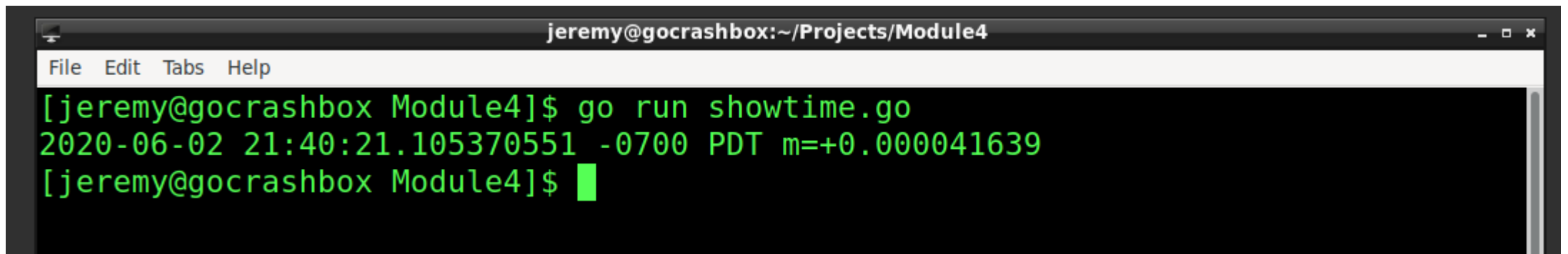
Time Elapsed

| 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 |
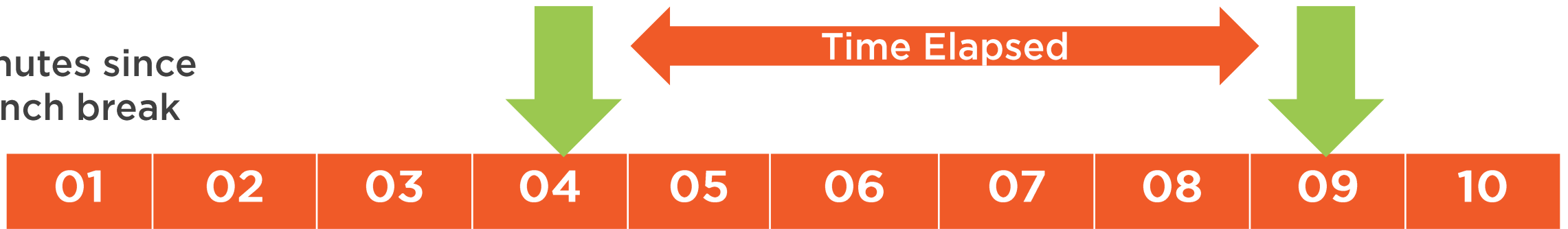
Time to process file: 5 minutes

```
t := time.Now()

fmt.Print(t)
```

time.Now() returns both Wall clock and Monotonic

Demo

Formatting Time Output

Demo

Calculating Time Spans

Demo

Calculate Elapsed Time for Applications

Summary

Wall Clock vs. Monotonic Clock

Formatted Time Output

Calculated Time Spans

Calculated Elapsed Time for Applications