

Assignment 3

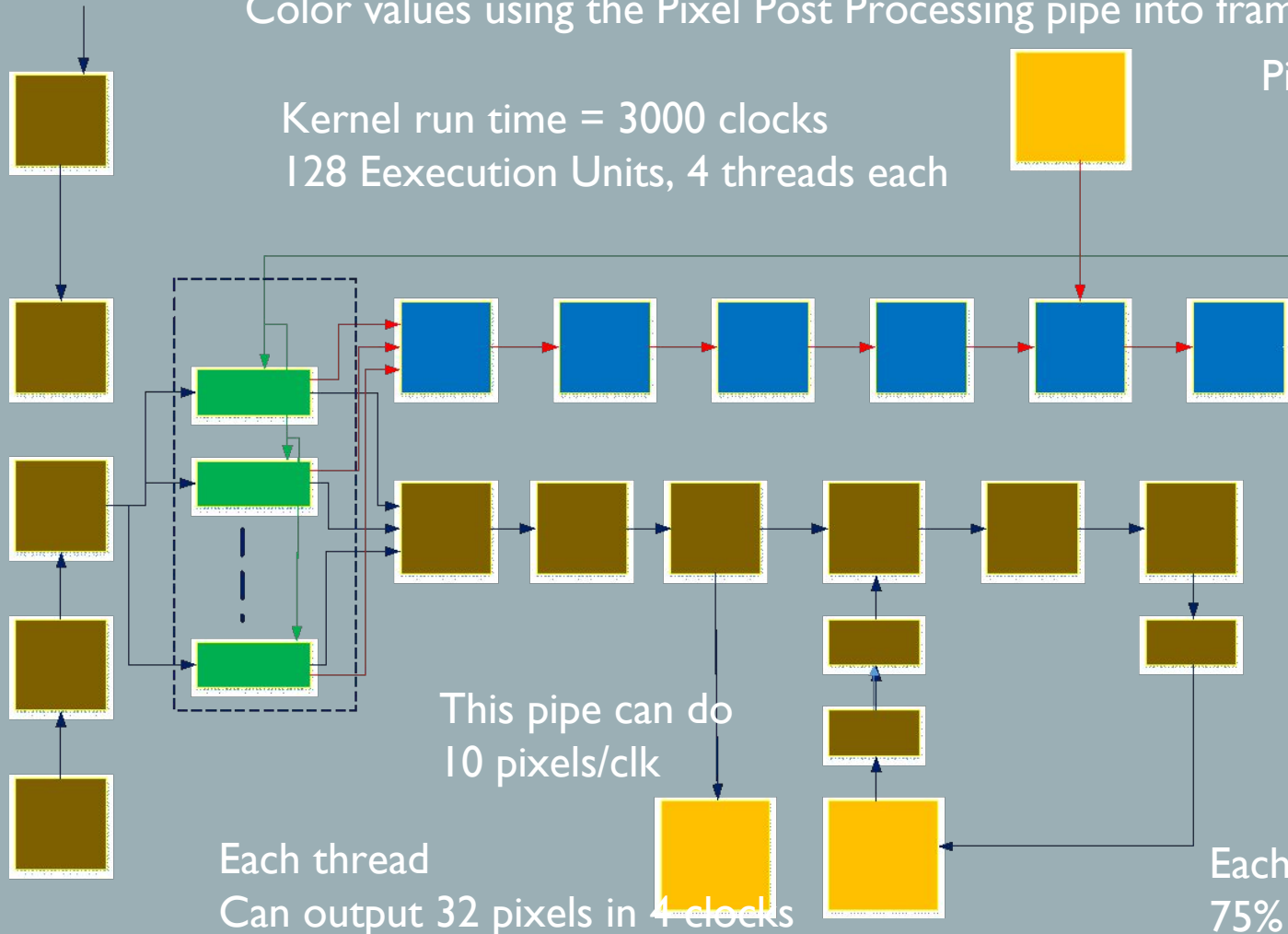
In this workload, we are shading a rectangle covering the full screen and writing out the Color values using the Pixel Post Processing pipe into frame buffer

Resolution = 1080p
Clock Frequency = 1 Ghz

Pixel format = R8G8B8A8_UNORM

Kernel run time = 3000 clocks
128 Execution Units, 4 threads each

Dispatch rate
32 pixels thread
Every 5 clocks



QUESTION
What frame rate (in fps)
can u achieve ?
Explain in detail

Each cacheline is 64B/clock
75% of the time, cache misses
Every time u miss u have to fetch 64B
Net memory bw available = 32B/clock