

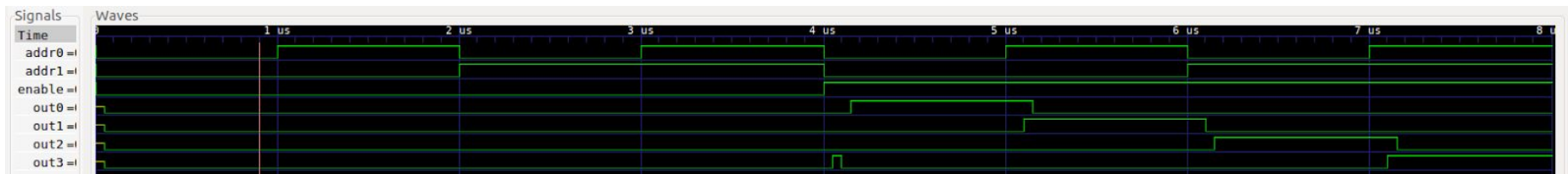
HW 1 Testing and Waveforms

Decoder:

```

youngdp@youngdp:~/HW1/CompArc/HW2$ ./decoder
En A0 A1 | 00 01 02 03 | Expected Output
0 0 0 | 0 0 0 0 | All false
0 1 0 | 0 0 0 0 | All false
0 0 1 | 0 0 0 0 | All false
0 1 1 | 0 0 0 0 | All false
1 0 0 | 1 0 0 0 | 00 Only
1 1 0 | 0 1 0 0 | 01 Only
1 0 1 | 0 0 1 0 | 02 Only
1 1 1 | 0 0 0 1 | 03 Only

```

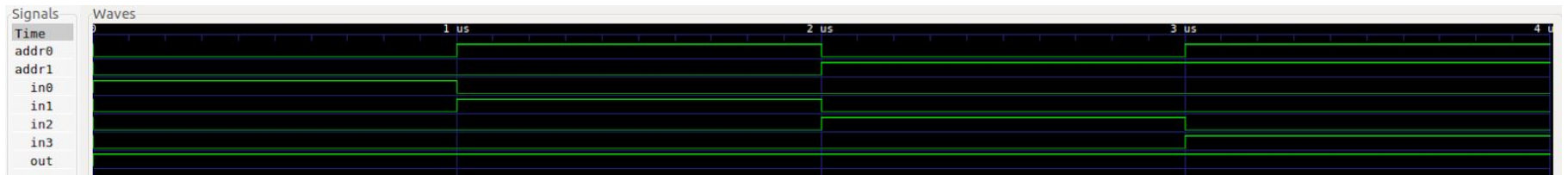


Multiplexer:

```

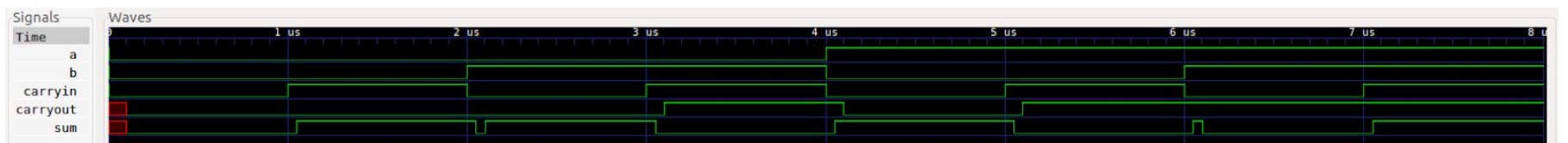
youngdp@youngdp:~/HW1/CompArc/HW2$ ./multiplexer
A0 A1 | in0 in1 in2 in3 | Out | Expected Output
0 0 | 1 0 0 0 | 1 | 01 Only
1 0 | 0 1 0 0 | 1 | 02 Only
0 1 | 0 0 1 0 | 1 | 03 Only
1 1 | 0 0 0 1 | 1 | 04 Only

```



Adder:

```
youngdp@youngdp:~/HW1/CompArc/HW2$ ./adder
A B Cin | Sum Cout | Expected Output
0 0 0 | 0 0 | 0 0
0 0 1 | 1 0 | 1 0
0 1 0 | 1 0 | 1 0
0 1 1 | 0 1 | 0 1
1 0 0 | 1 0 | 1 0
1 0 1 | 0 1 | 0 1
1 1 0 | 0 1 | 0 1
1 1 1 | 1 1 | 1 1
```



Note:

I did not use any scripts besides the standard methods of compiling and running verilog files:

```
$ iverilog -o adder adder.t.cv
```

```
$ ./adder
```

Followed by:

```
$ gtkwave adder.vcd
```