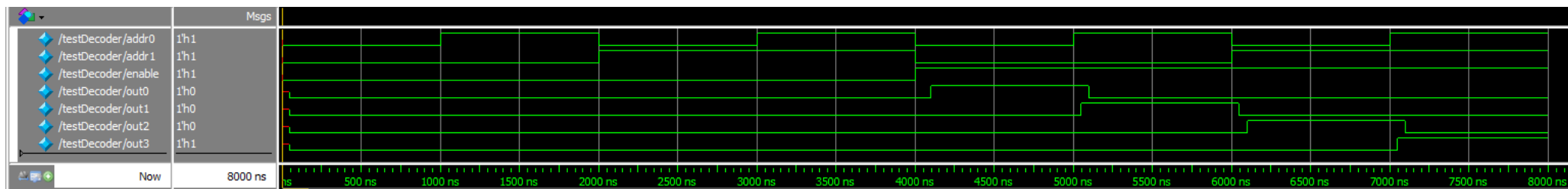Shane Skikne

CompArch HW2
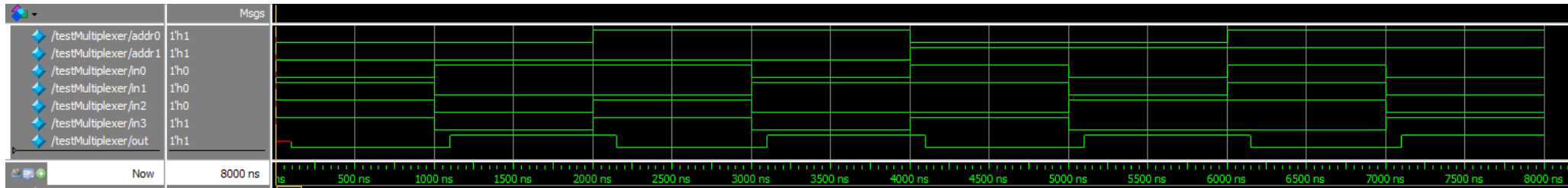
Decoder:

```
# En A0 A1| O0 O1 O2 O3 | 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  | O0 Only
# 1  1  0 | 0  1  0  0  | O1 Only
# 1  0  1 | 0  0  1  0  | O2 Only
# 1  1  1 | 0  0  0  1  | O3 Only
# 0 ns
# 8400 ns
```

4:1

```
# A0 A1 I0 I1 I2 I3| O | Expected Output
# 0  0  0  1  1  1 | 0 |  Just in0
# 0  0  1  0  0  0 | 1 |  Just in0
# 1  0  1  0  1  1 | 0 |  Just in1
# 1  0  0  1  0  0 | 1 |  Just in1
# 0  1  1  1  0  1 | 0 |  Just in2
# 0  1  0  0  1  0 | 1 |  Just in2
# 1  1  1  1  1  0 | 0 |  Just in3
# 1  1  0  0  0  1 | 1 |  Just in3
# 0 ns
# 8400 ns
```

Adder

```
# a  b carryin | sum carryout | Expected Output
# 0  0    0    | 0      0      |   0 and 0
# 0  0    1    | 1      0      |   1 and 0
# 0  1    0    | 1      0      |   1 and 0
# 0  1    1    | 0      1      |   0 and 1
# 1  0    0    | 1      0      |   1 and 0
# 1  0    1    | 0      1      |   0 and 1
# 1  1    0    | 0      1      |   0 and 1
# 1  1    1    | 1      1      |   1 and 1
# 0 ns
# 8400 ns
```