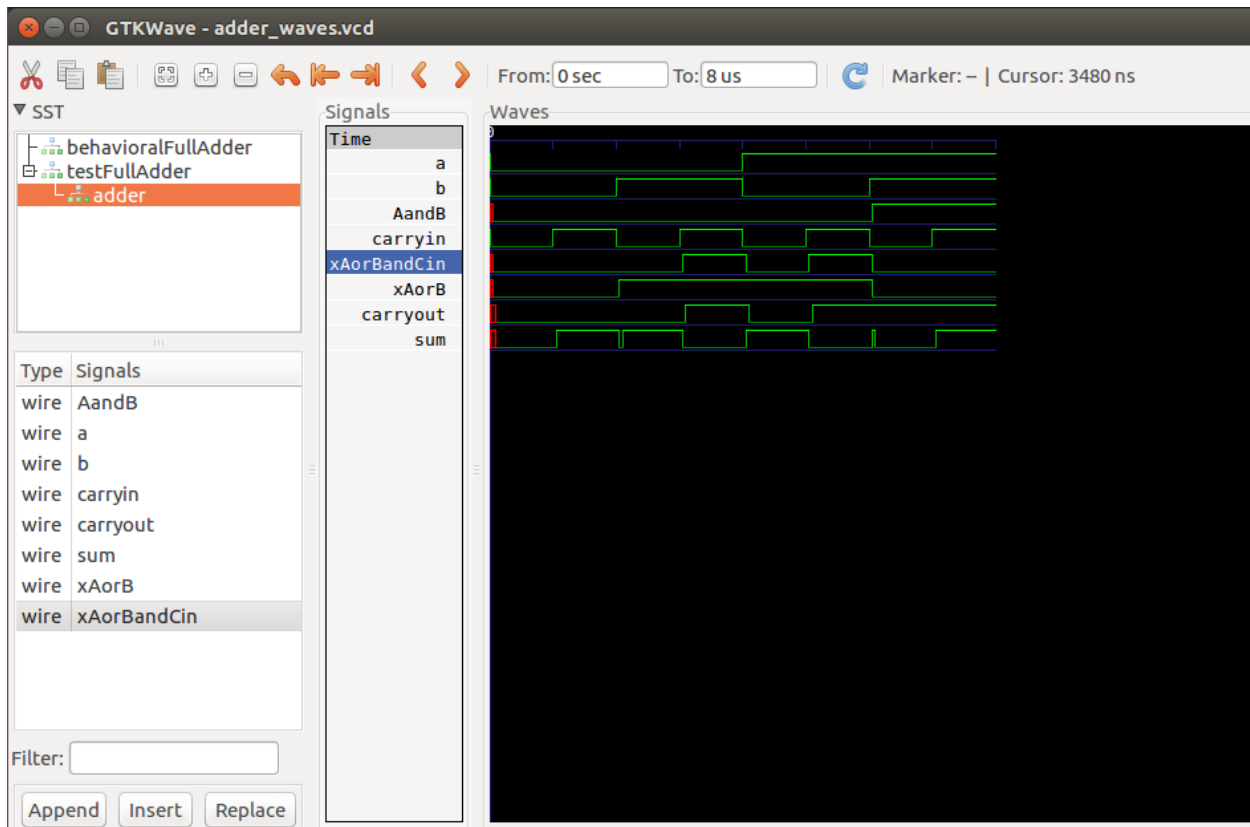


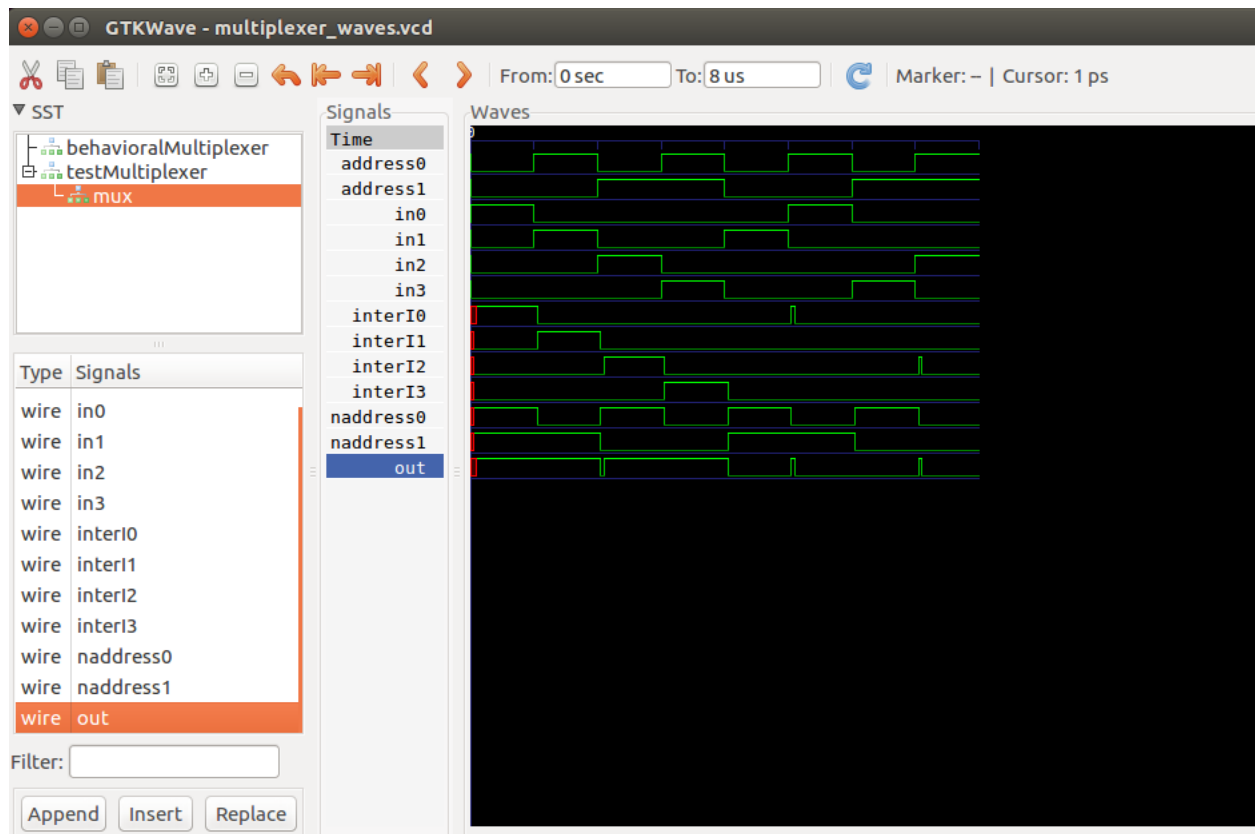
Adder



```
comparch@comparchVM:~/CompArchFall18/HW2$ ./adder.t
VCD info: dumpfile adder_waves.vcd opened for output.
a    b    cin Ecout Esum  cout sum
0    0    0    0    0    0    0
0    0    1    0    1    0    1
0    1    0    0    1    0    1
0    1    1    1    0    1    0
1    0    0    0    1    0    1
1    0    1    1    0    1    0
1    1    0    1    0    1    0
1    1    1    1    1    1    1
```

Multiplexer

```
comparch@comparchVM:~/CompArchFall18/HW2$ ./multiplexer.t
adr1 adr0 in3 in2 in1 in0 | out | Expected Output
VCD info: dumpfile multiplexer_waves.vcd opened for output.
0 0 0 0 0 1 | 1 | in0
0 1 0 0 1 0 | 1 | in1
1 0 0 1 0 0 | 1 | in2
1 1 1 0 0 0 | 1 | in3
0 0 0 0 1 0 | 0 | in0
0 1 0 0 0 1 | 0 | in1
1 0 1 0 0 0 | 0 | in2
1 1 0 1 0 0 | 0 | in3
```



Decoder

```
comparch@comparchVM:~/CompArchFall18/HW2$ ./decoder.t
En A0 A1 | 00 01 02 03 | Expected Output
VCD info: dumpfile decoder_waves.vcd opened for 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
```

