



# 100 DAYS OF RTL

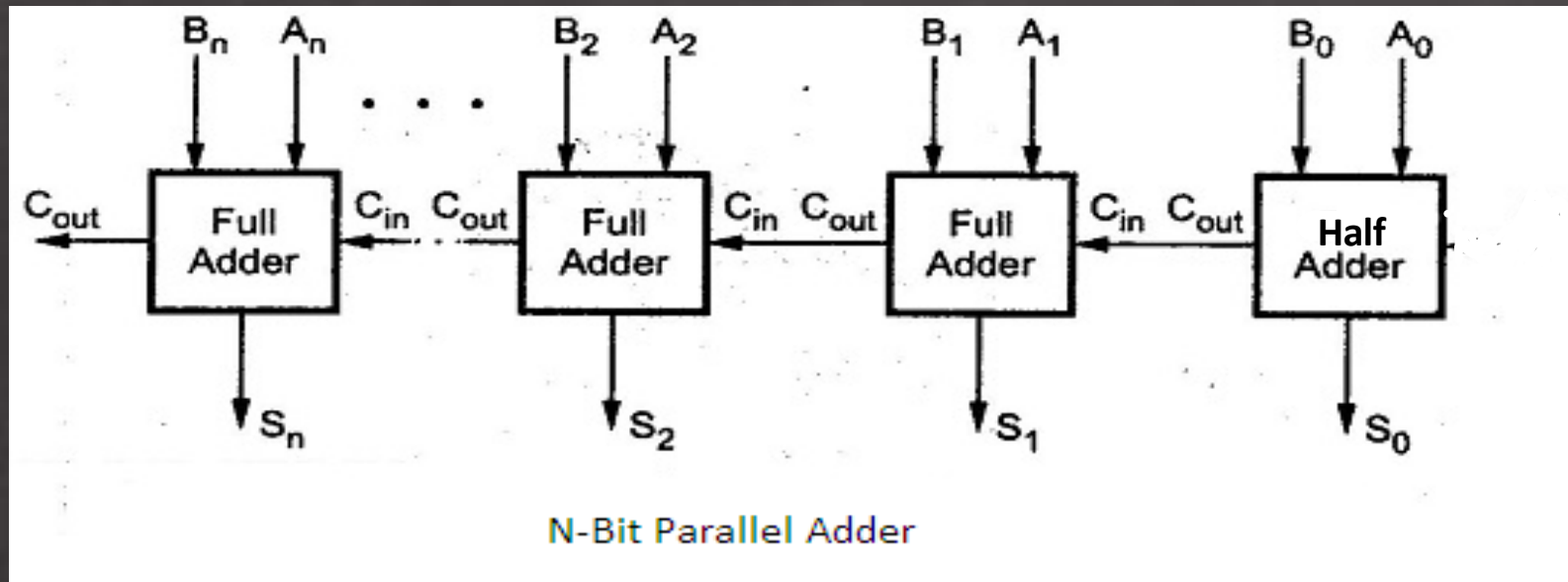
Day 3 – N-bit Parallel Adder

By Sumasree Vucha



# N-bit Parallel Adder:

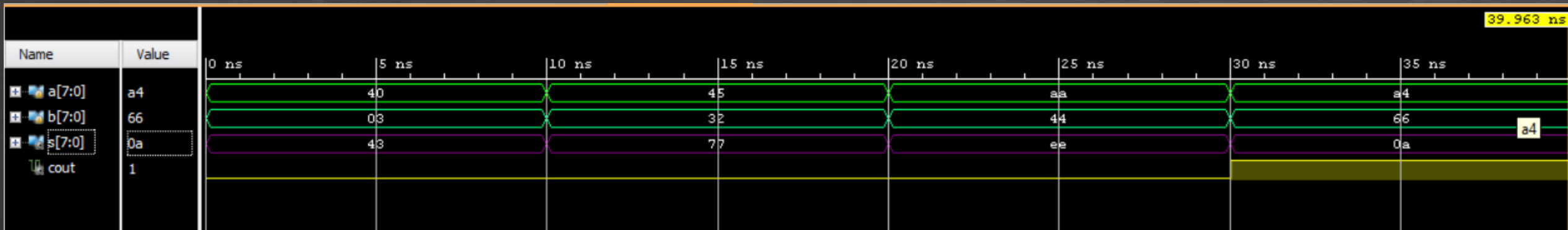
- The adder is one of the most fundamental part of any digital circuit, yet it is inefficient if used as just the base forms i.e. as full adder and half adder.
- As these only add one bit at a time, while in reality we need a lot more than that to occur simultaneously.
- So, we combine the functionality of both the adders and put it together to build a more practical approach -> N-bit Adder.



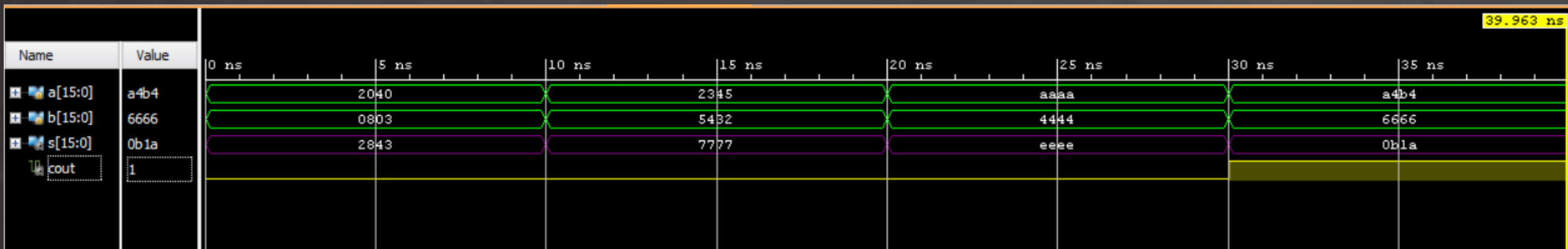
# N-bit Adder

## Simulation Waveforms:

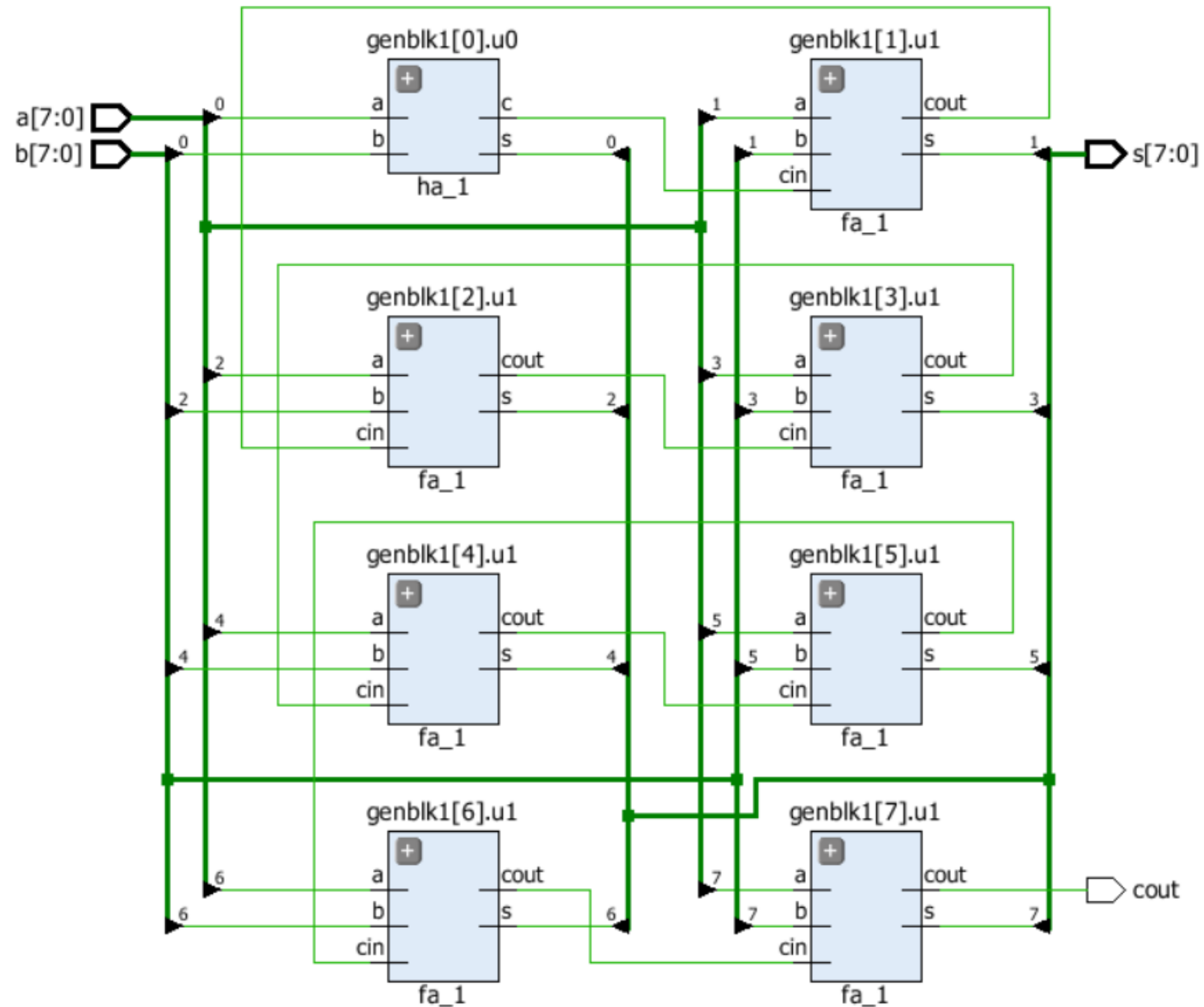
N=8:



N=16:



# Schematic: (n=8)



(n=16)

