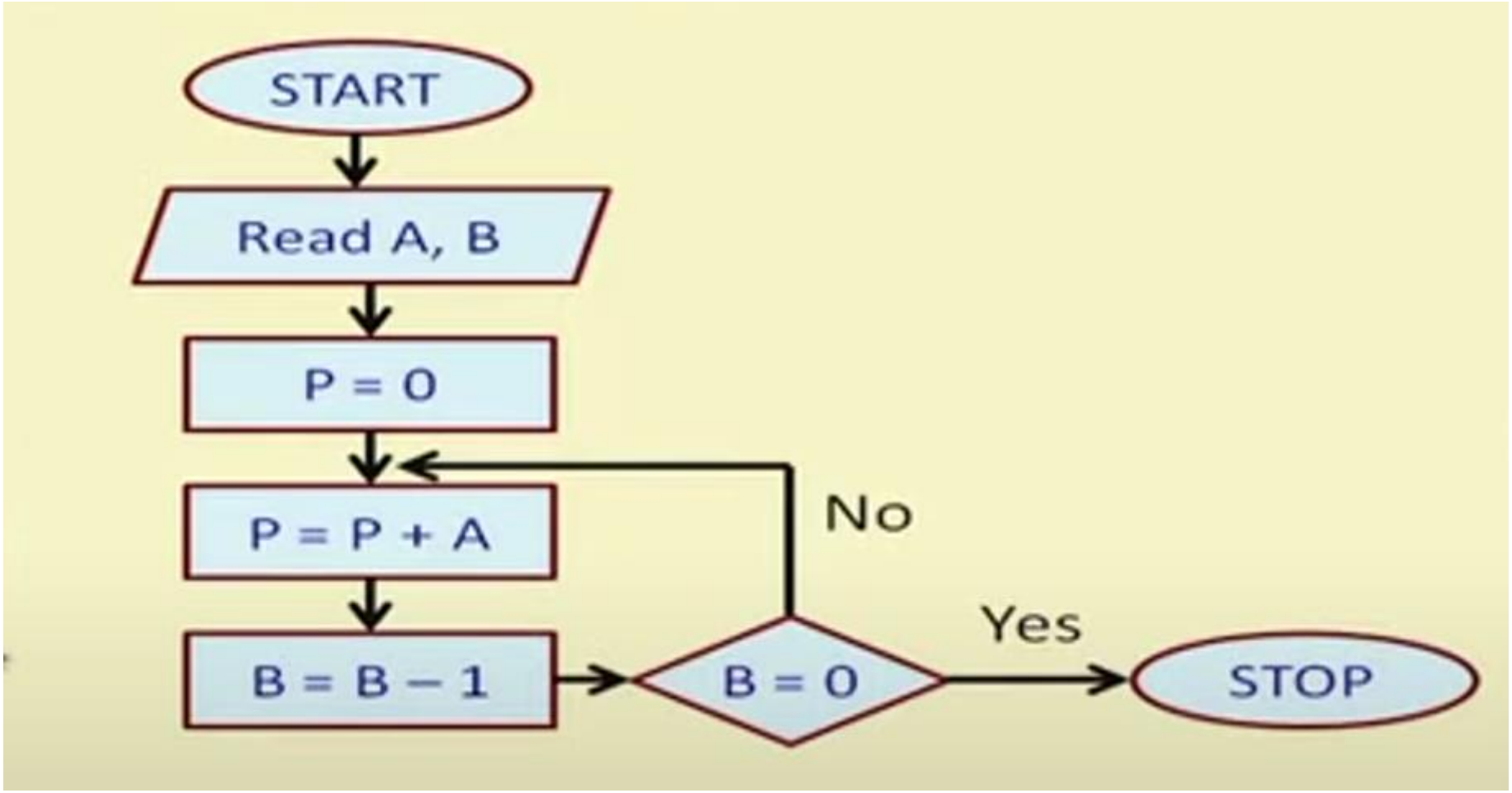
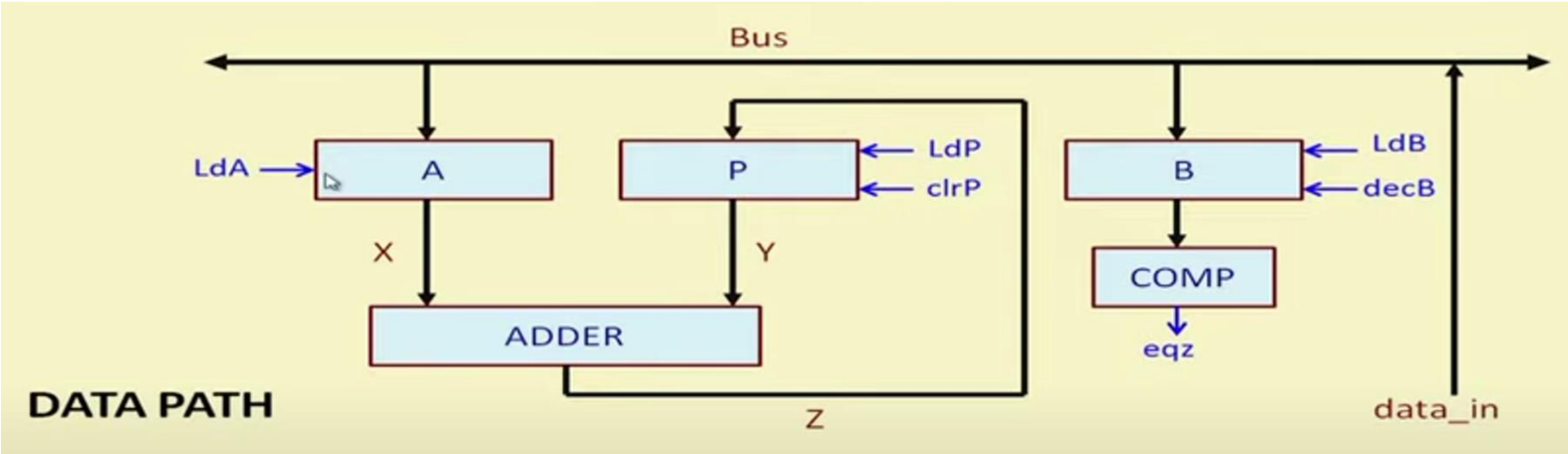
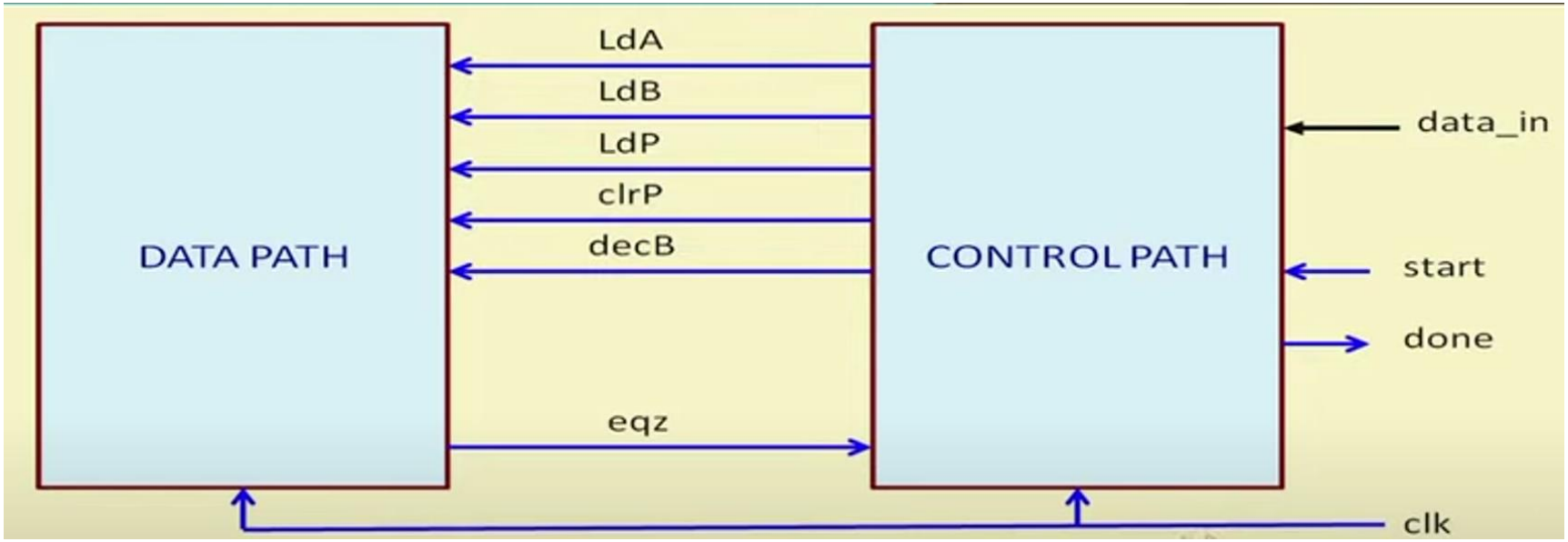
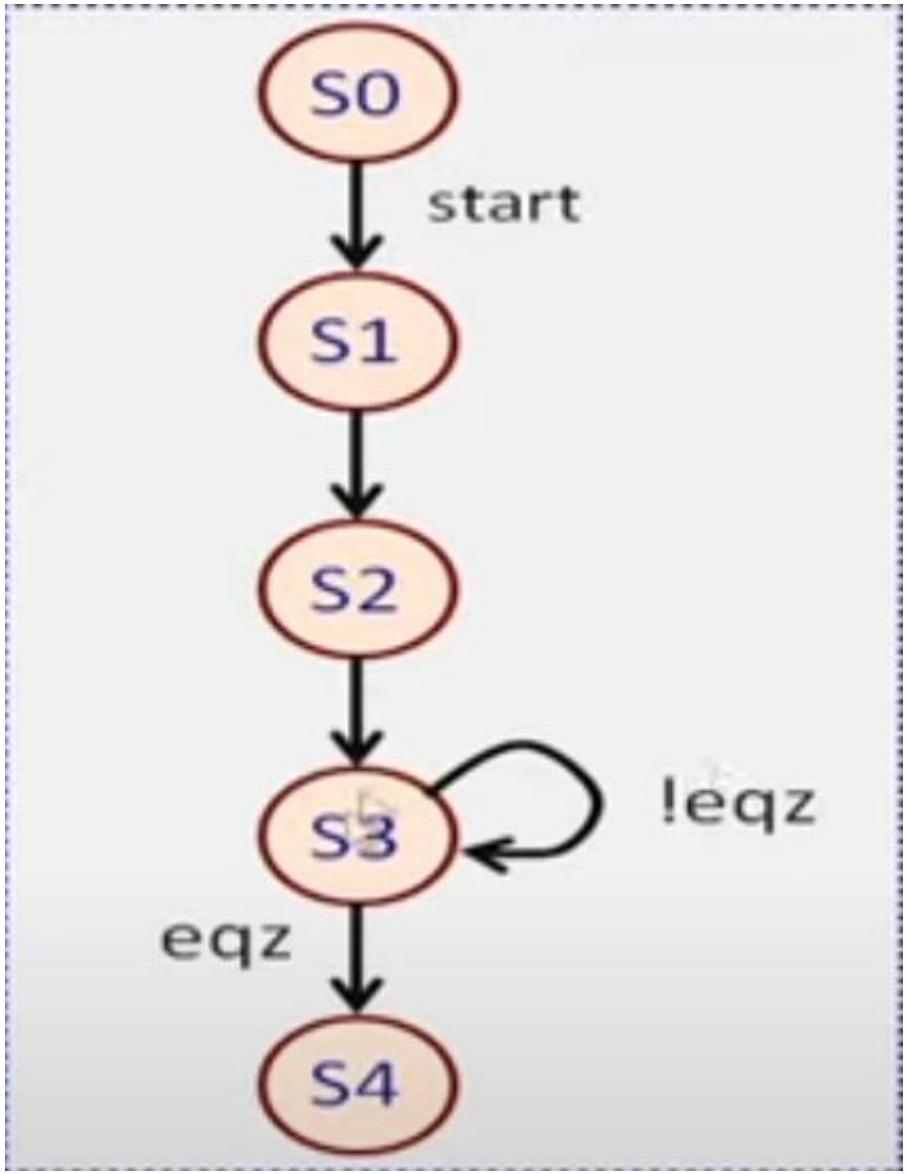
# Multiplication By Repeated Addition

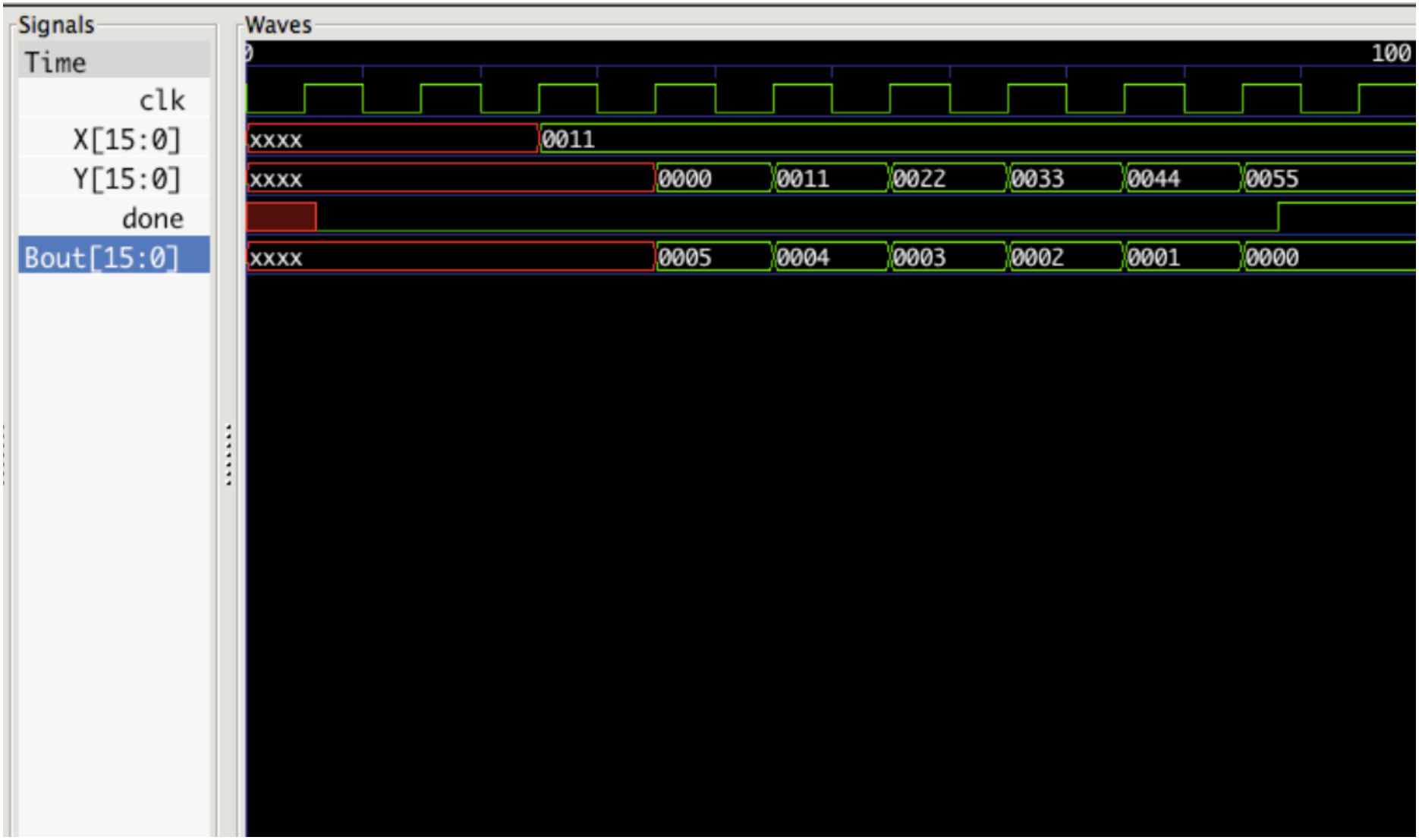



Bus
LdA
A
P
LdP
clrP
B
LdB
decB
X
Y
COMP
eqz
ADDER
DATA PATH
Z
data_in


LdA
LdB
LdP
clrP
decB
DATA PATH
CONTROL PATH
data_in
start
done
eqz
clk

# STATE-DIAGRAM OF CONTROL PATH




Signals
Waves
Time
clk
X[15:0]
Y[15:0]
done
Bout[15:0]
100
xxxx
0011
xxxx
0000
0011
0022
0033
0044
0055
xxxx
0005
0004
0003
0002
0001
0000