Lucrarea 3

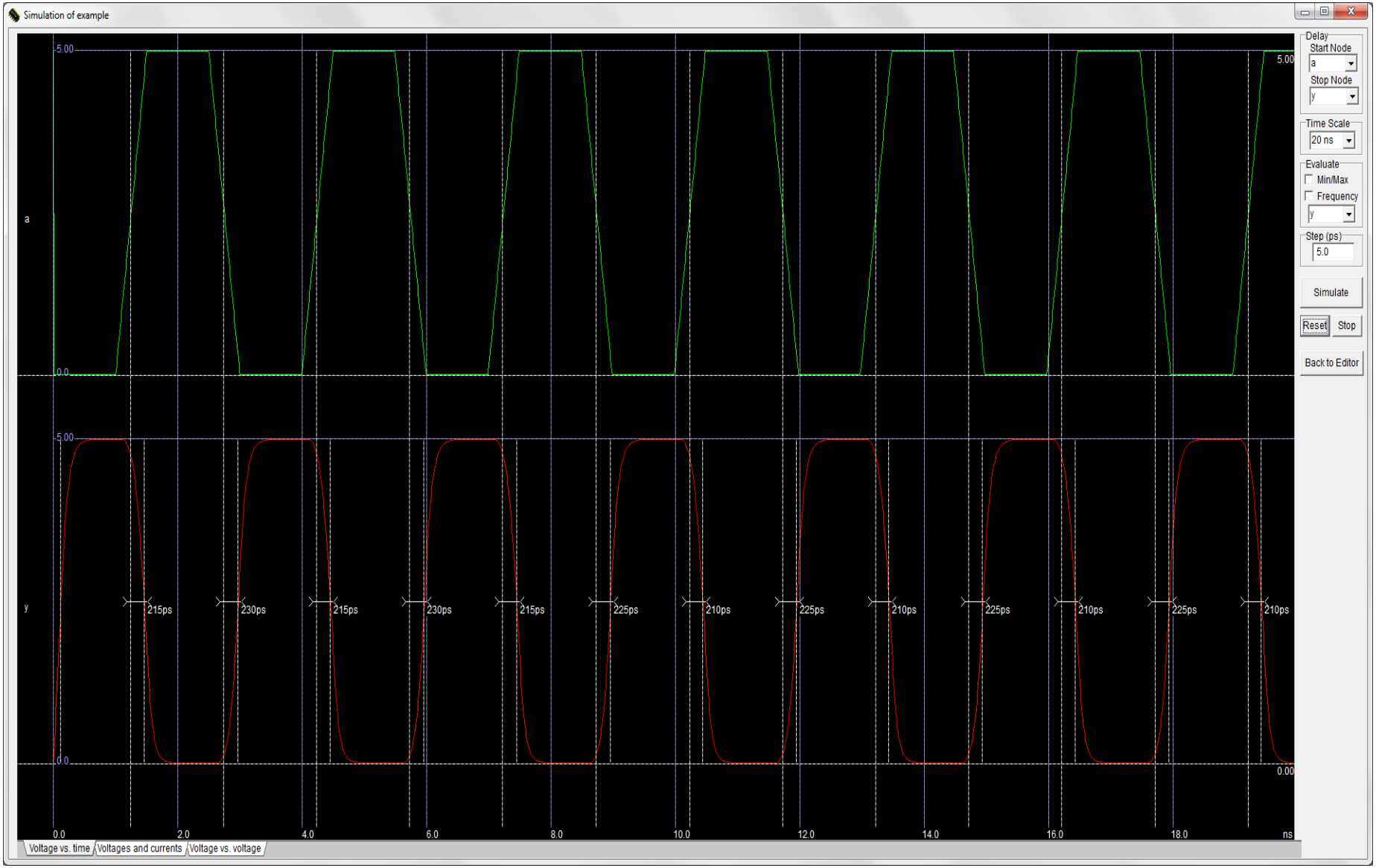
Simulare în Microwind

Nicolau Adrian

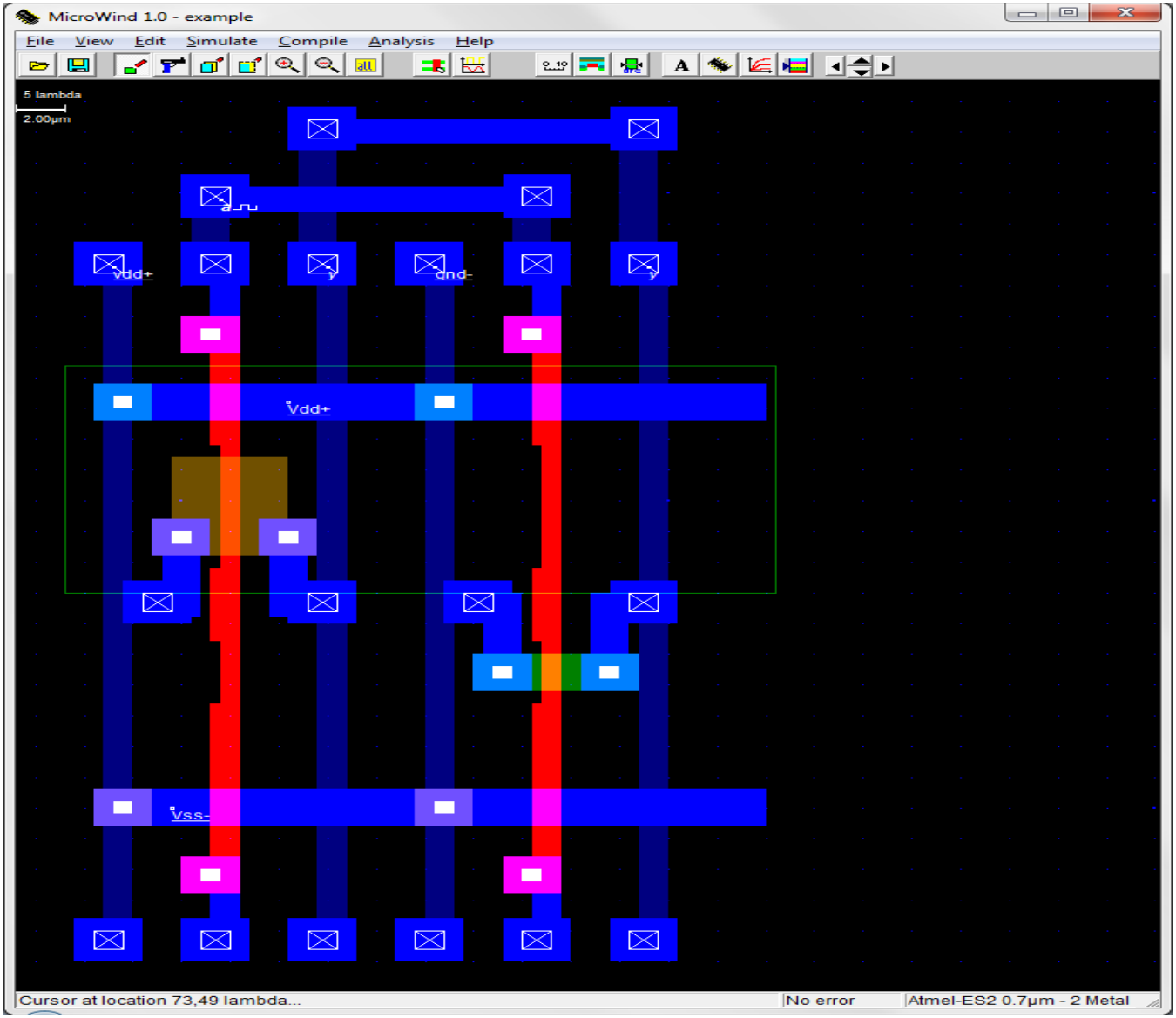
Nistor Valeri

342C1

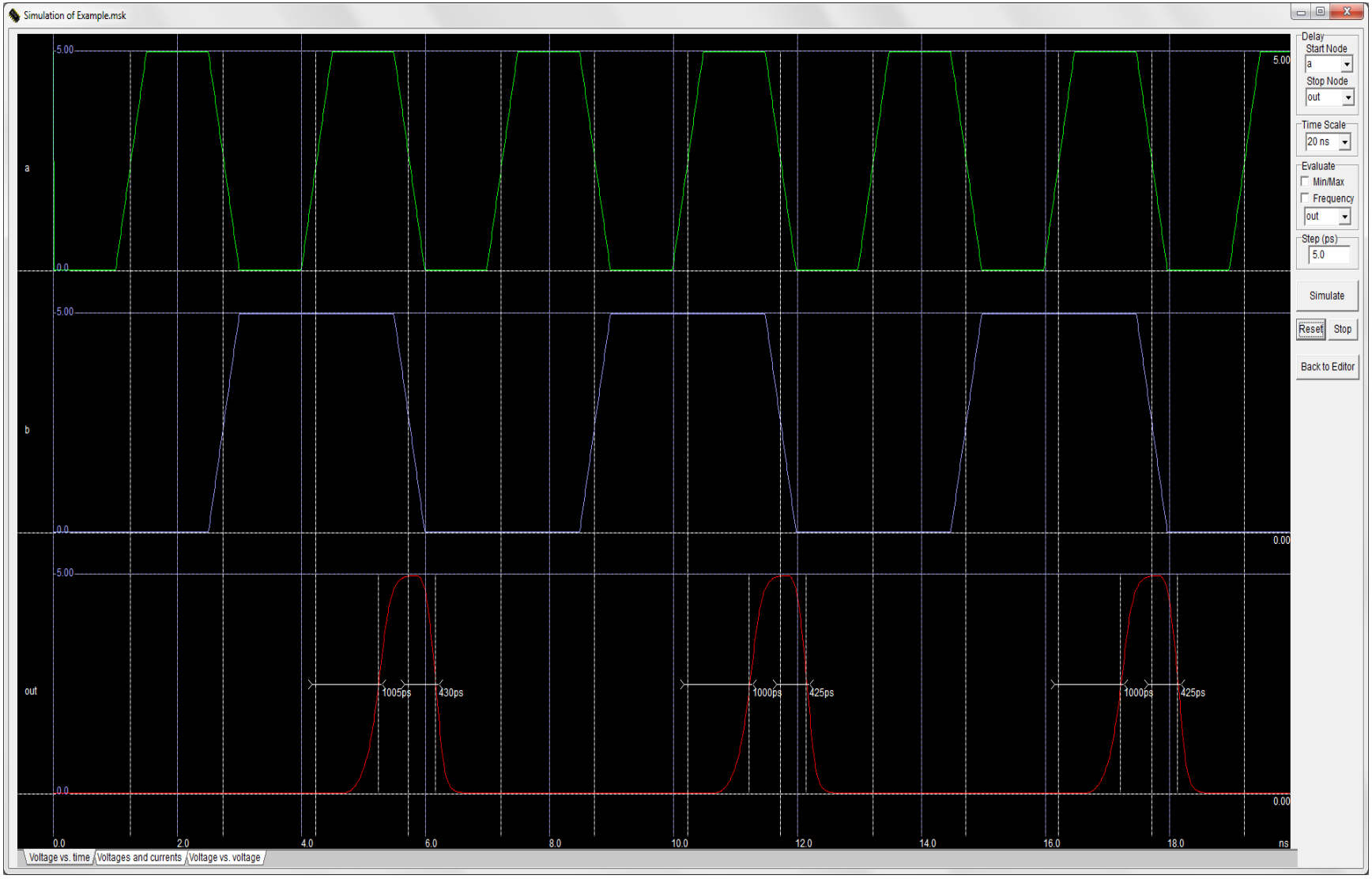
Inversor - simulare



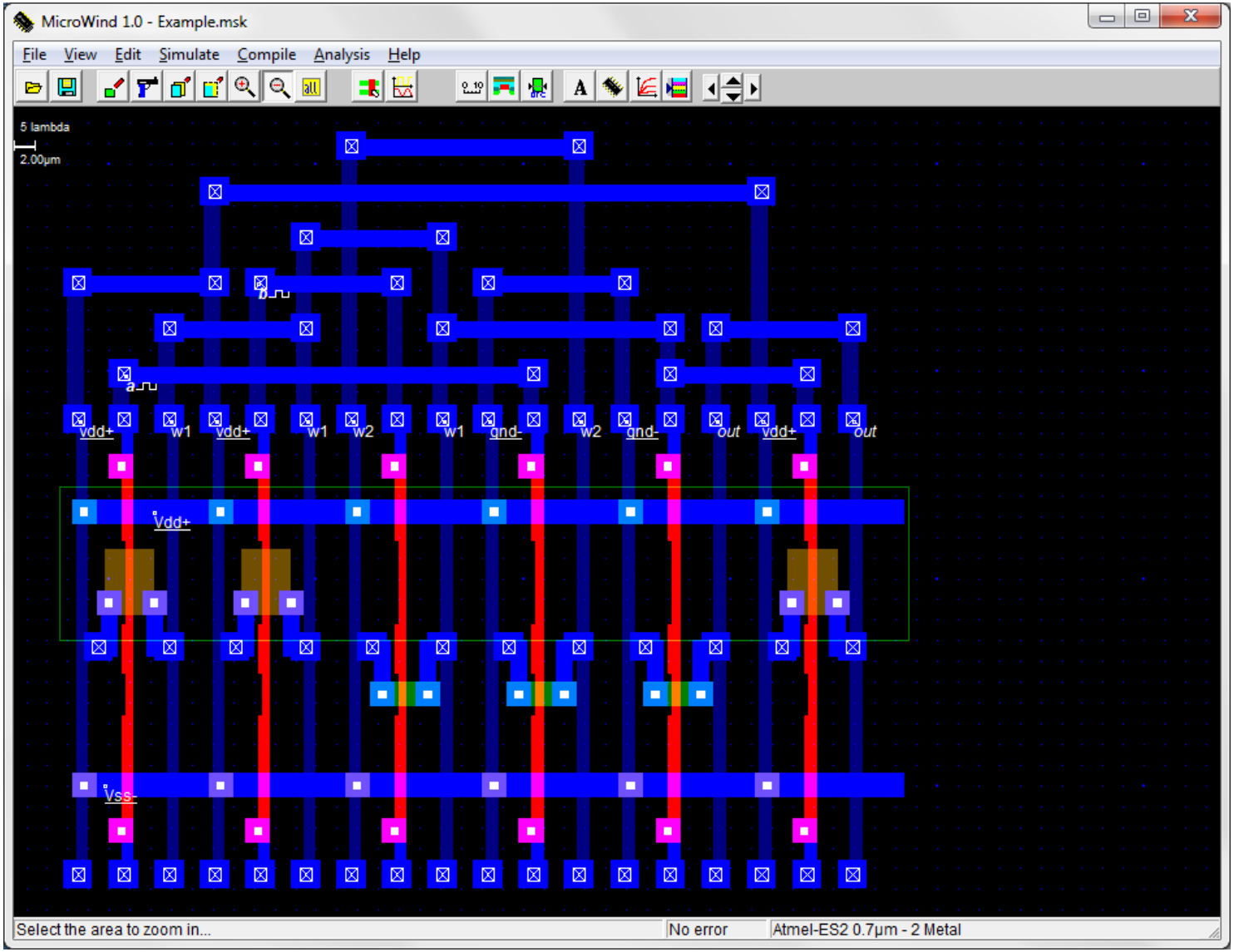
Inversor - design



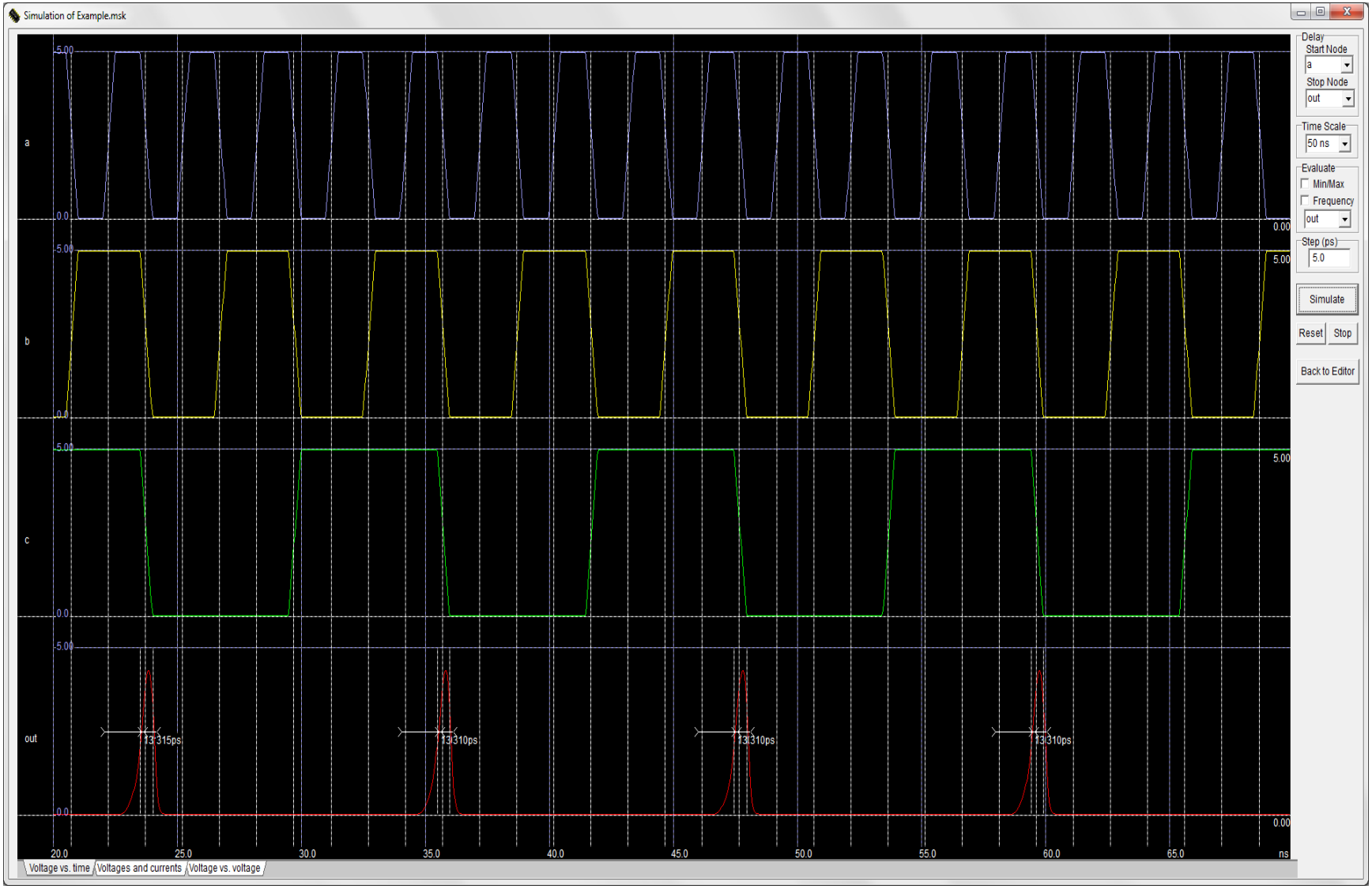
AND2 - simulare



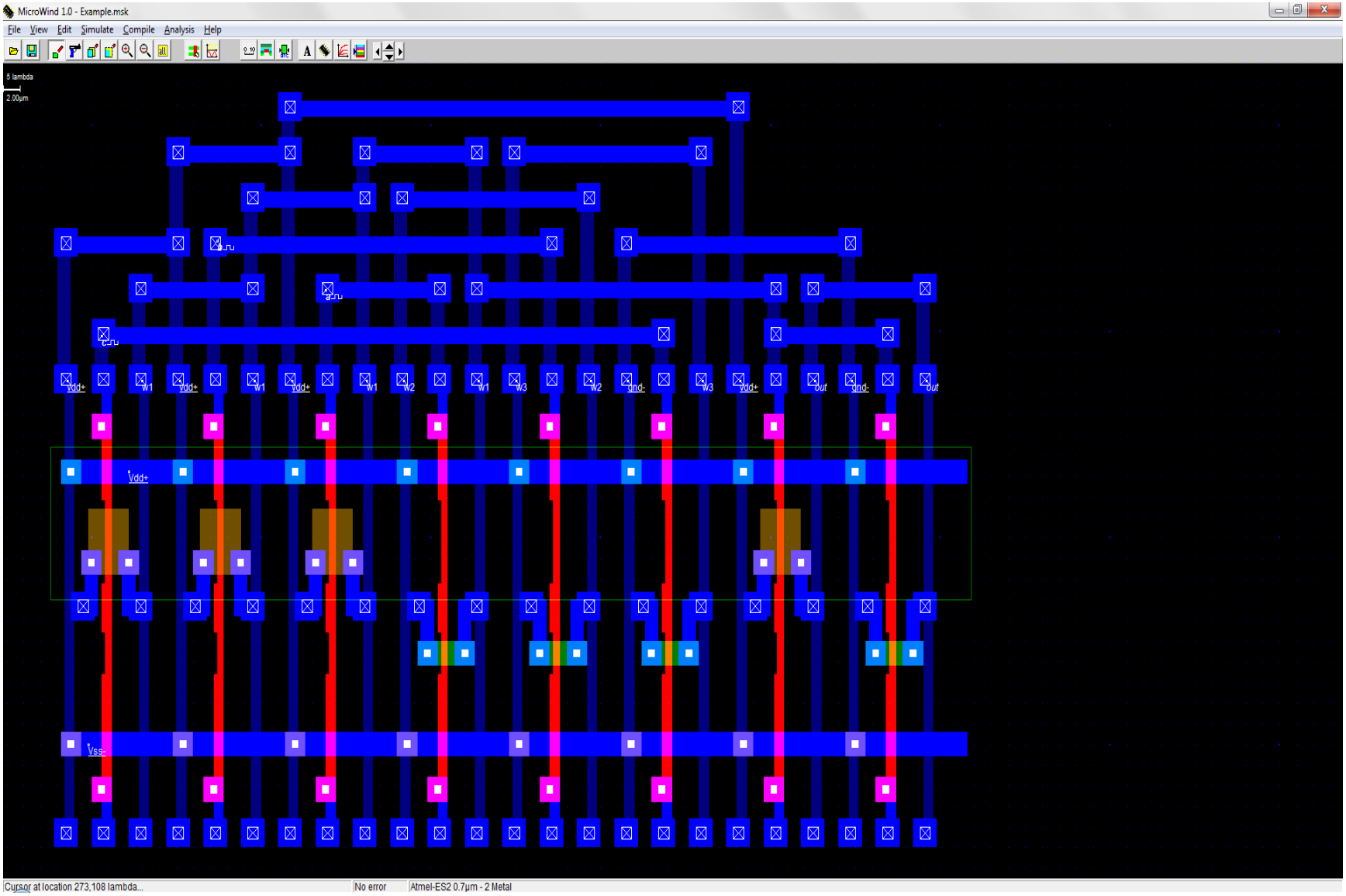
AND2 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
b
a
vdd+ w1 vdd+ w1 w2 w1 gnd- w2 gnd- out vdd+ out
Vdd+
Vss-
Select the area to zoom in...
No error
Atmel-ES2 0.7µm - 2 Metal

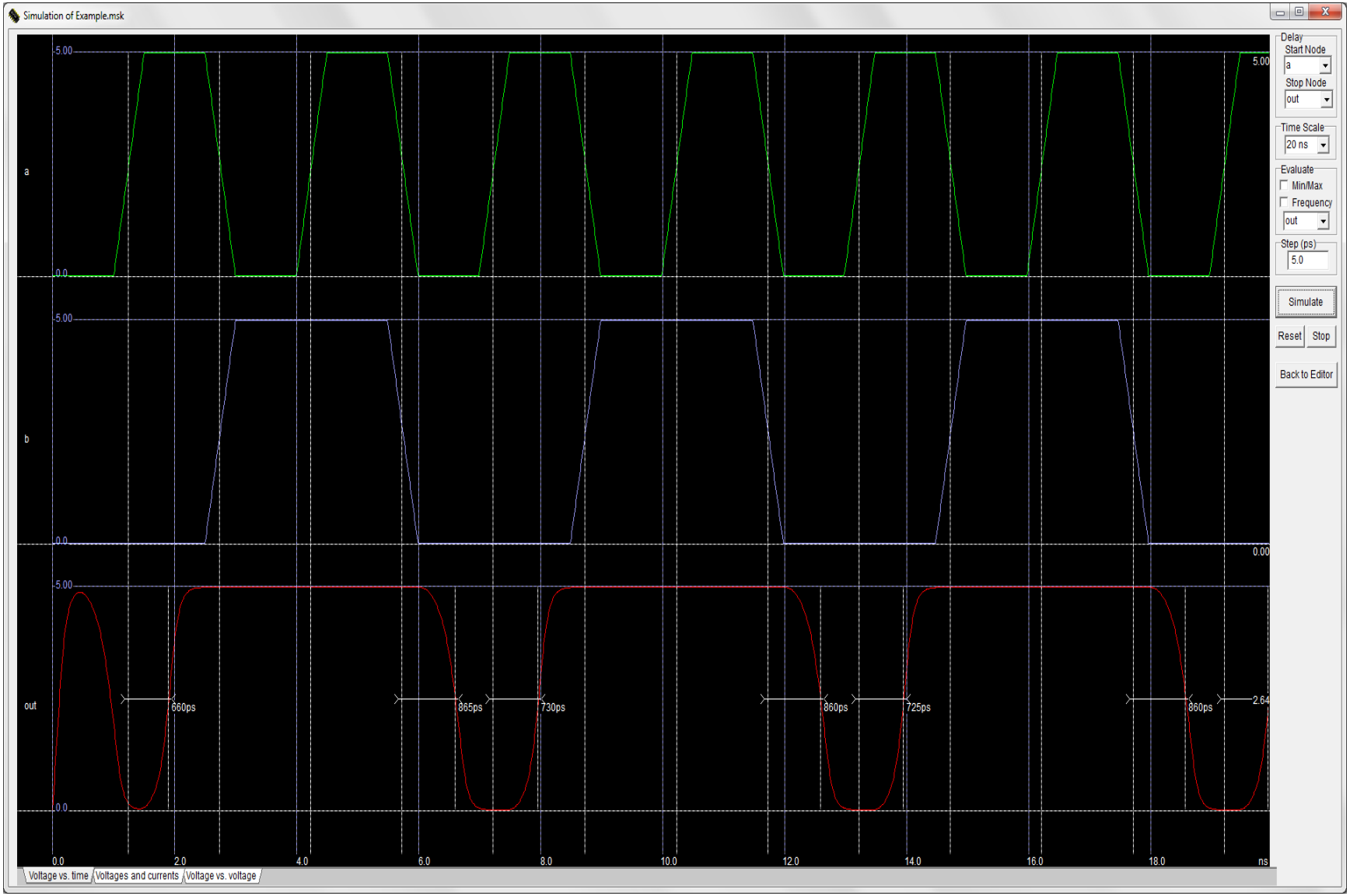
AND3 - simulare



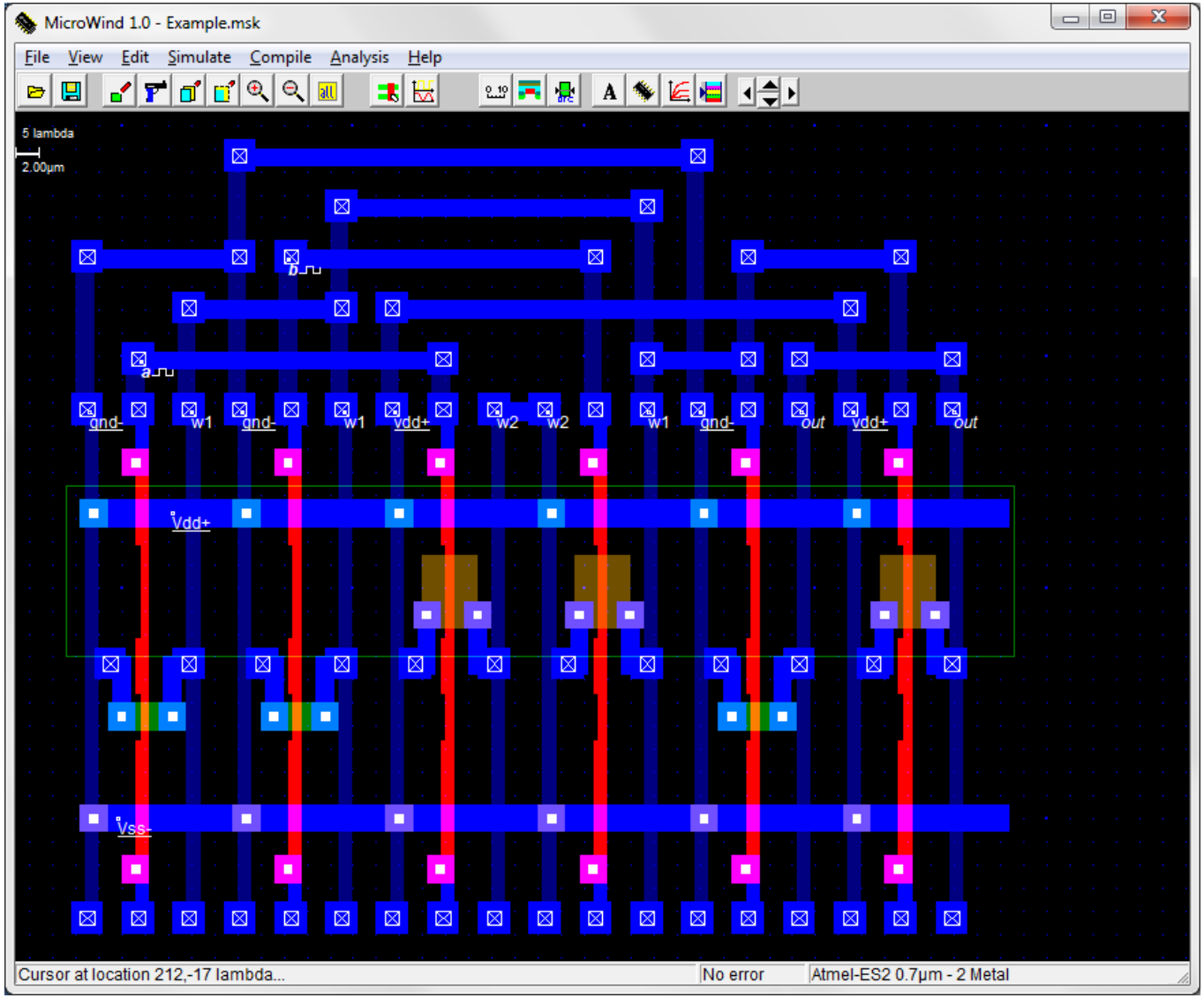
AND3 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
Vdd+
Vss-
Cursor at location 273,108 lambda...
No error
Atmel-ES2 0.7µm - 2 Metal

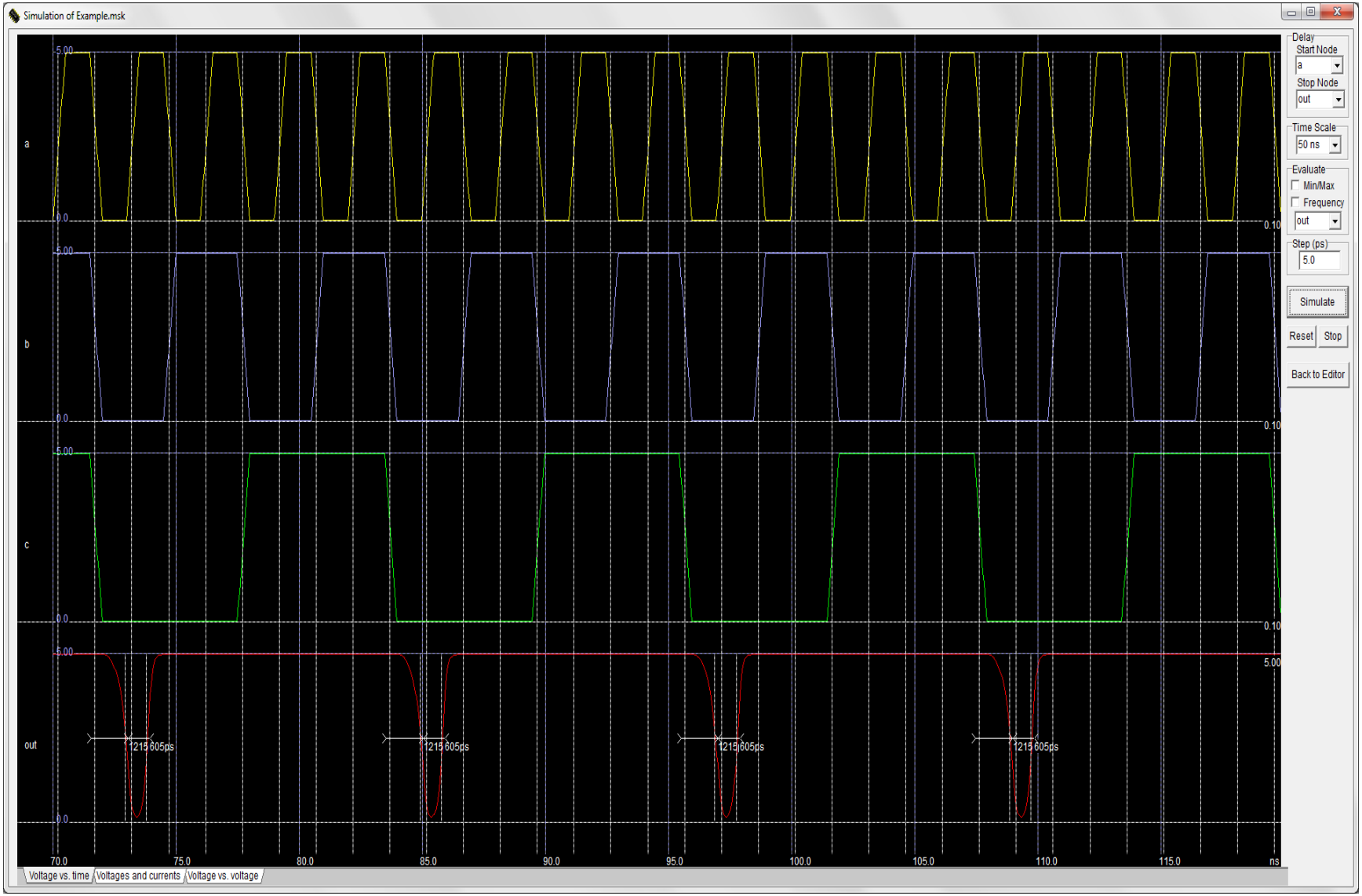
OR2 - simulare



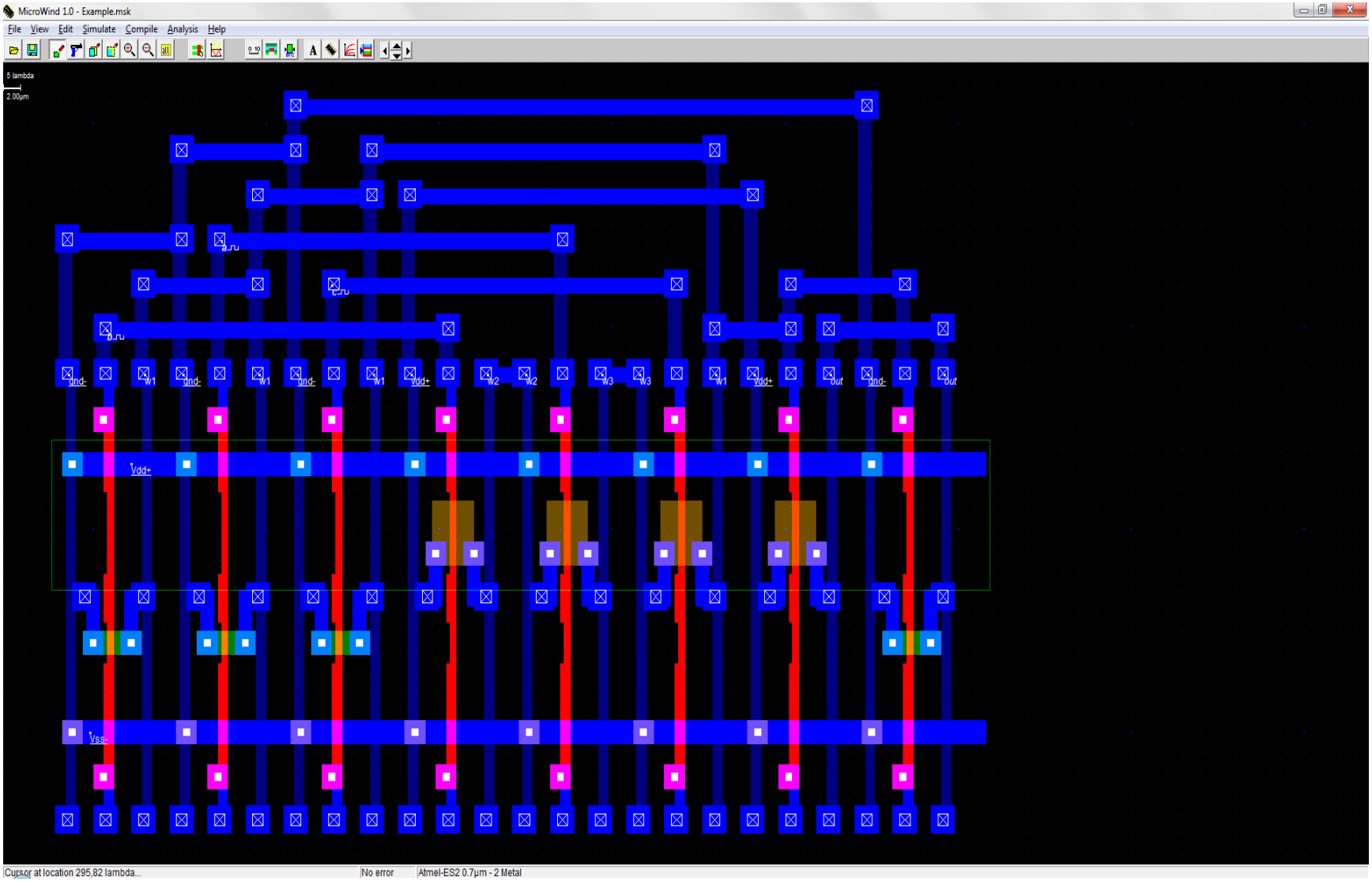
OR2 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
b
a
gnd-
w1
gnd-
w1
vdd+
w2
w2
w1
gnd-
out
vdd+
out
Vdd+
Vss-
Cursor at location 212,-17 lambda...
No error
Atmel-ES2 0.7µm - 2 Metal

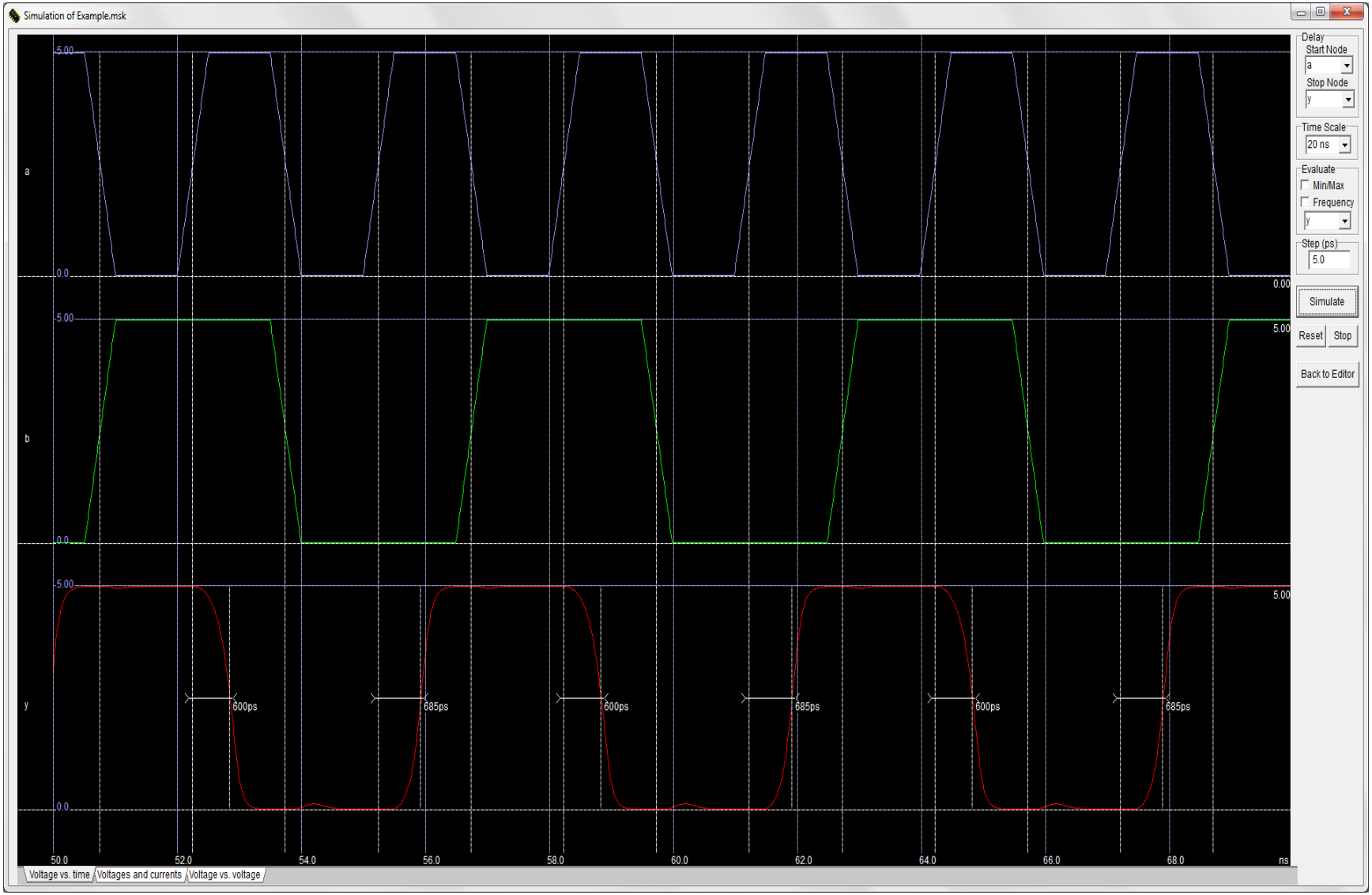
OR3 - simulare



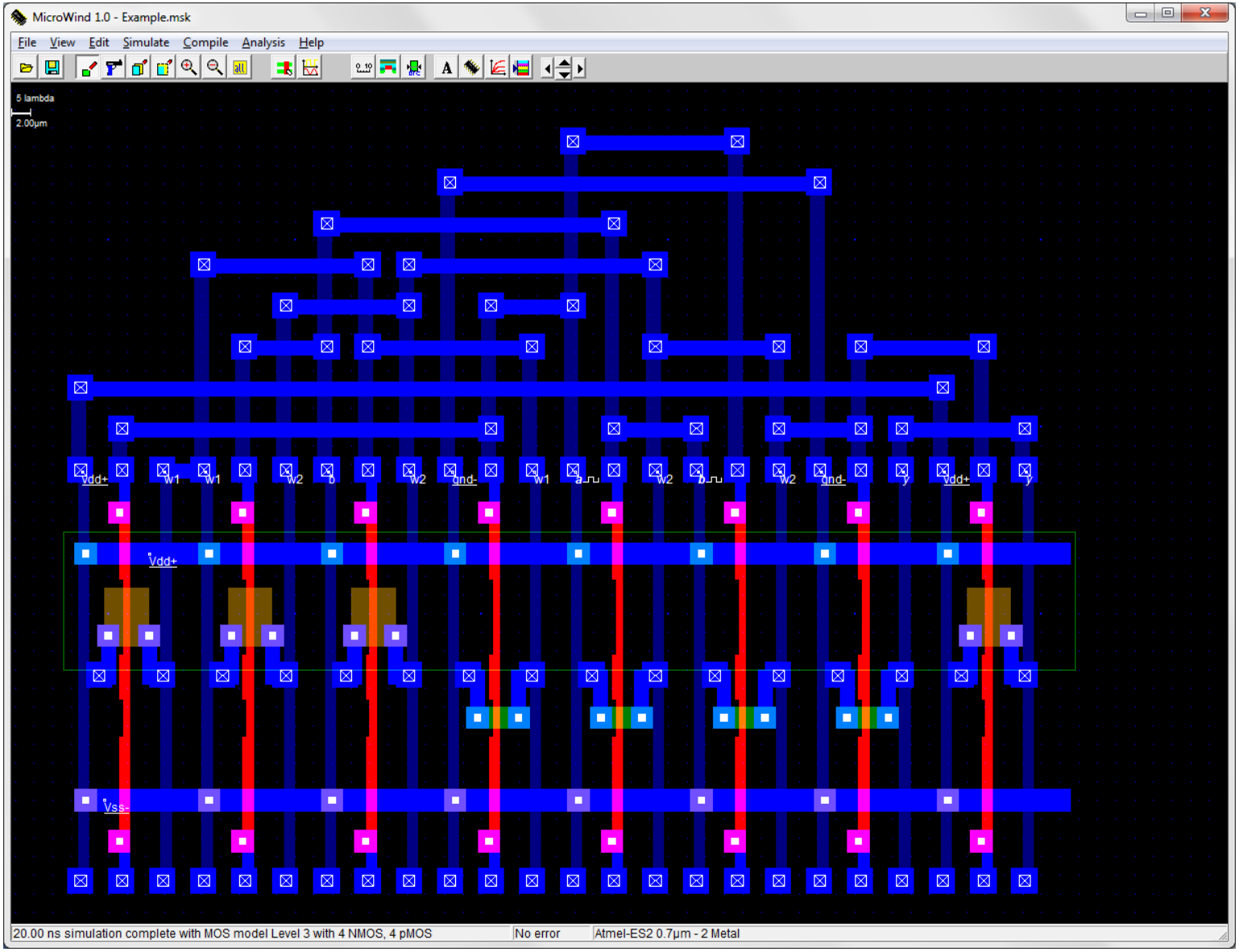
OR3 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
gnd-
w1
gnd-
w1
gnd-
w1
vdd+
w2
w2
w3
w3
w1
vdd+
out
gnd-
out
Vdd+
Vss-
Cursor at location 295,82 lambda...
No error
Atmel-ES2 0.7µm - 2 Metal

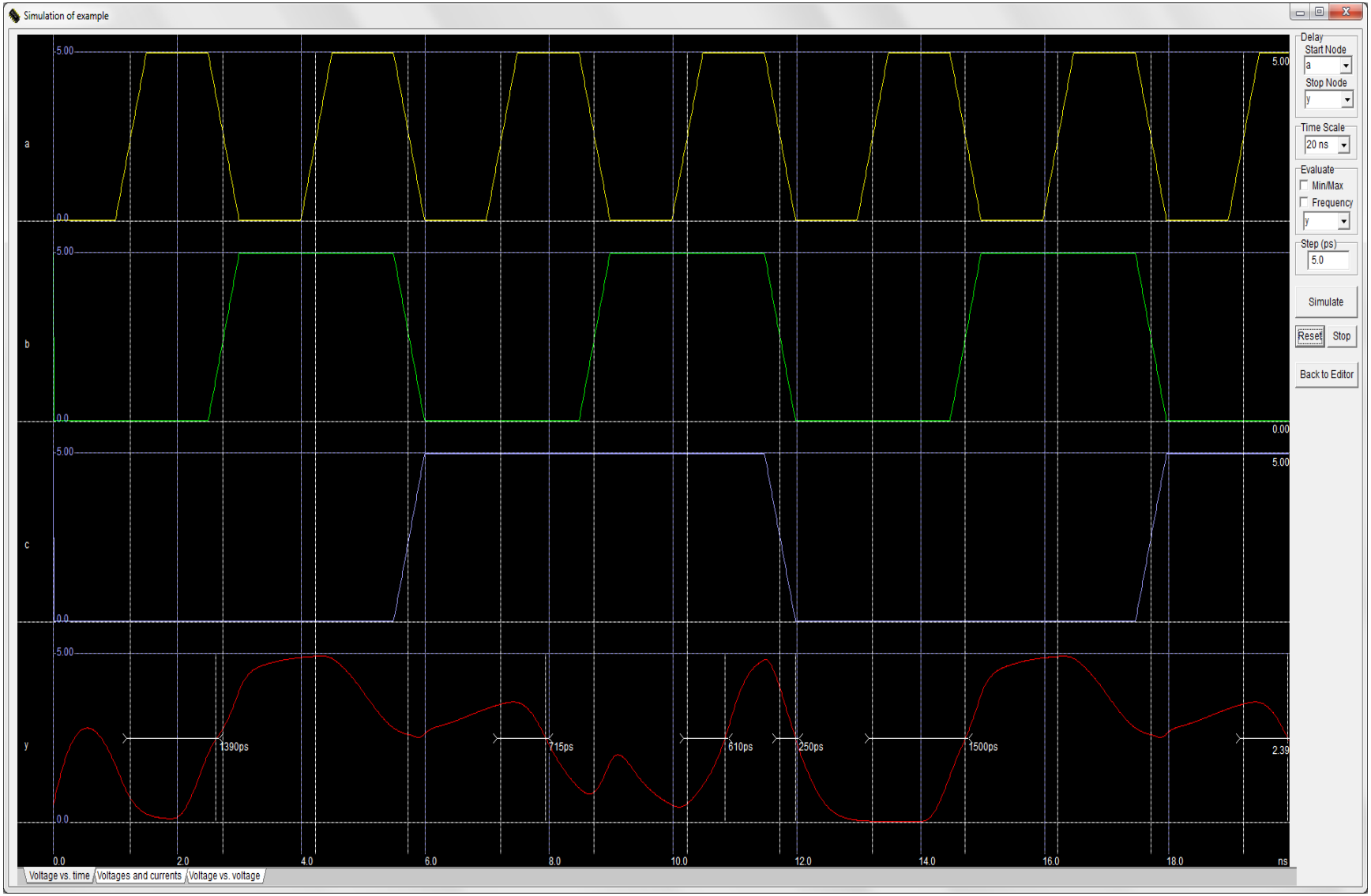
XOR2 - simulare



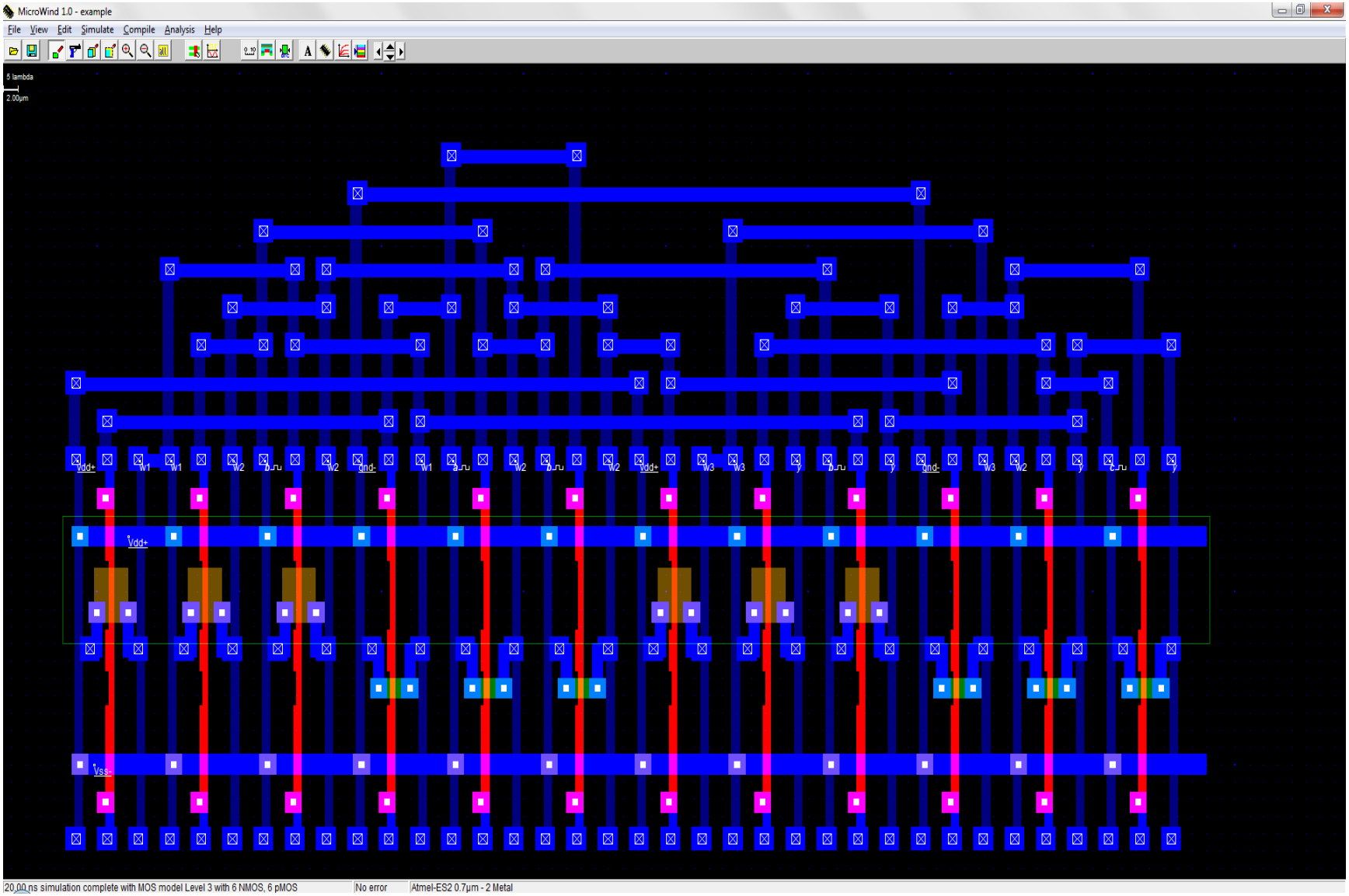
XOR2 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
Vdd+
Vss-
20.00 ns simulation complete with MOS model Level 3 with 4 NMOS, 4 pMOS
No error
Atmel-ES2 0.7µm - 2 Metal

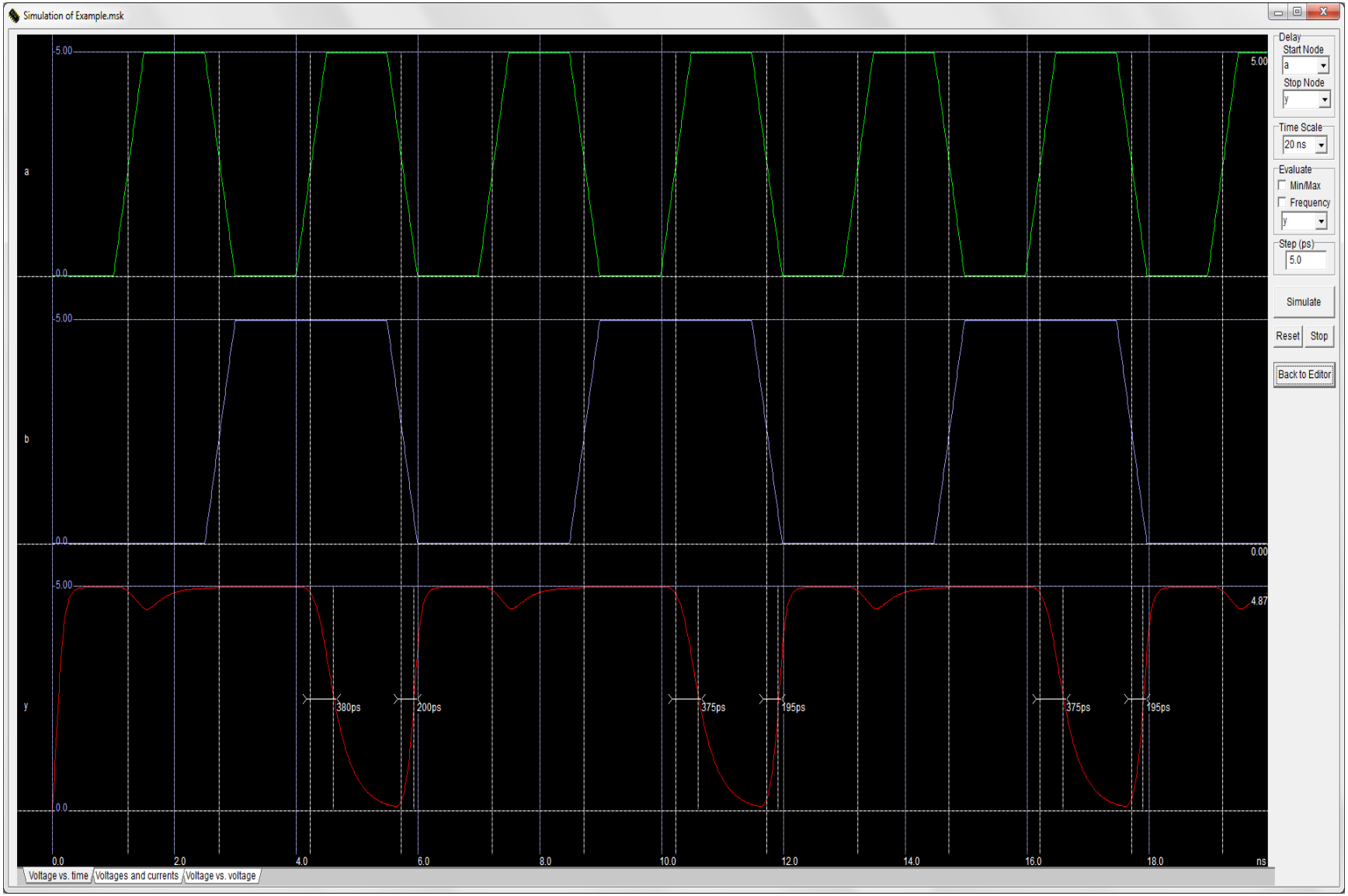
XOR3 - simulare



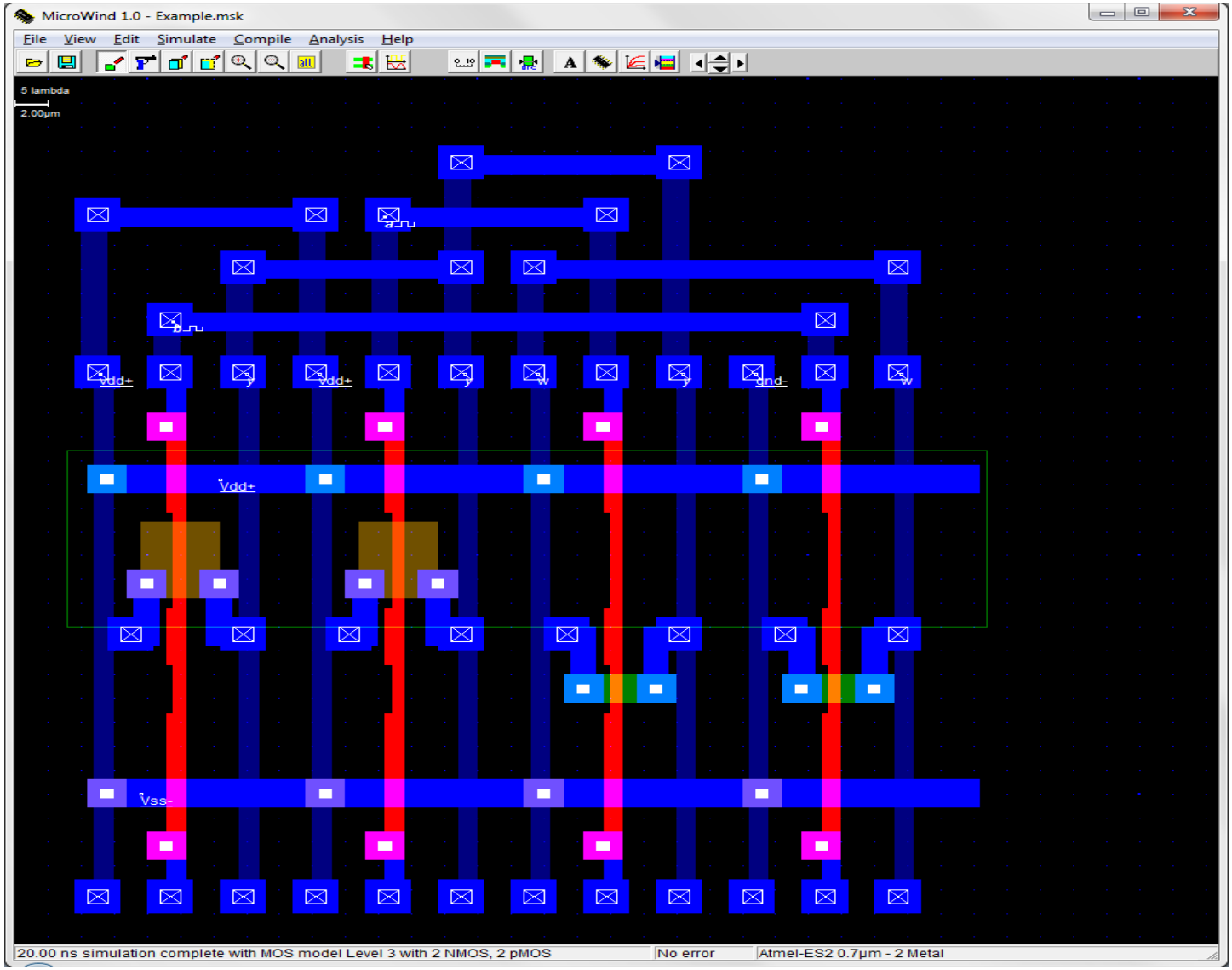
XOR3 - design


MicroWind 1.0 - example
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
Vdd+
Vss-
20.00 ns simulation complete with MOS model Level 3 with 6 NMOS, 6 pMOS
No error
Atmel-ES2 0.7µm - 2 Metal

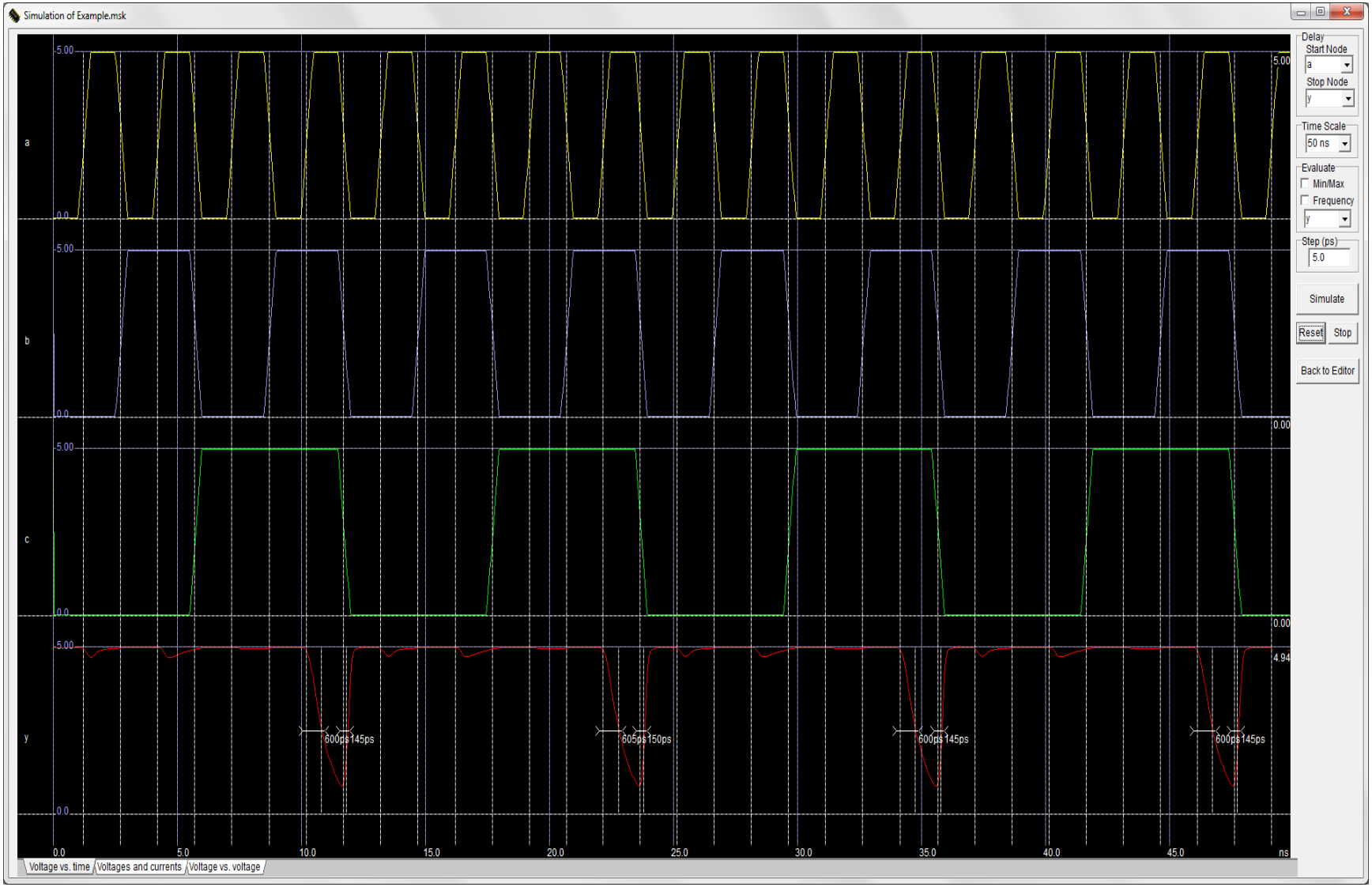
NAND2 - simulare



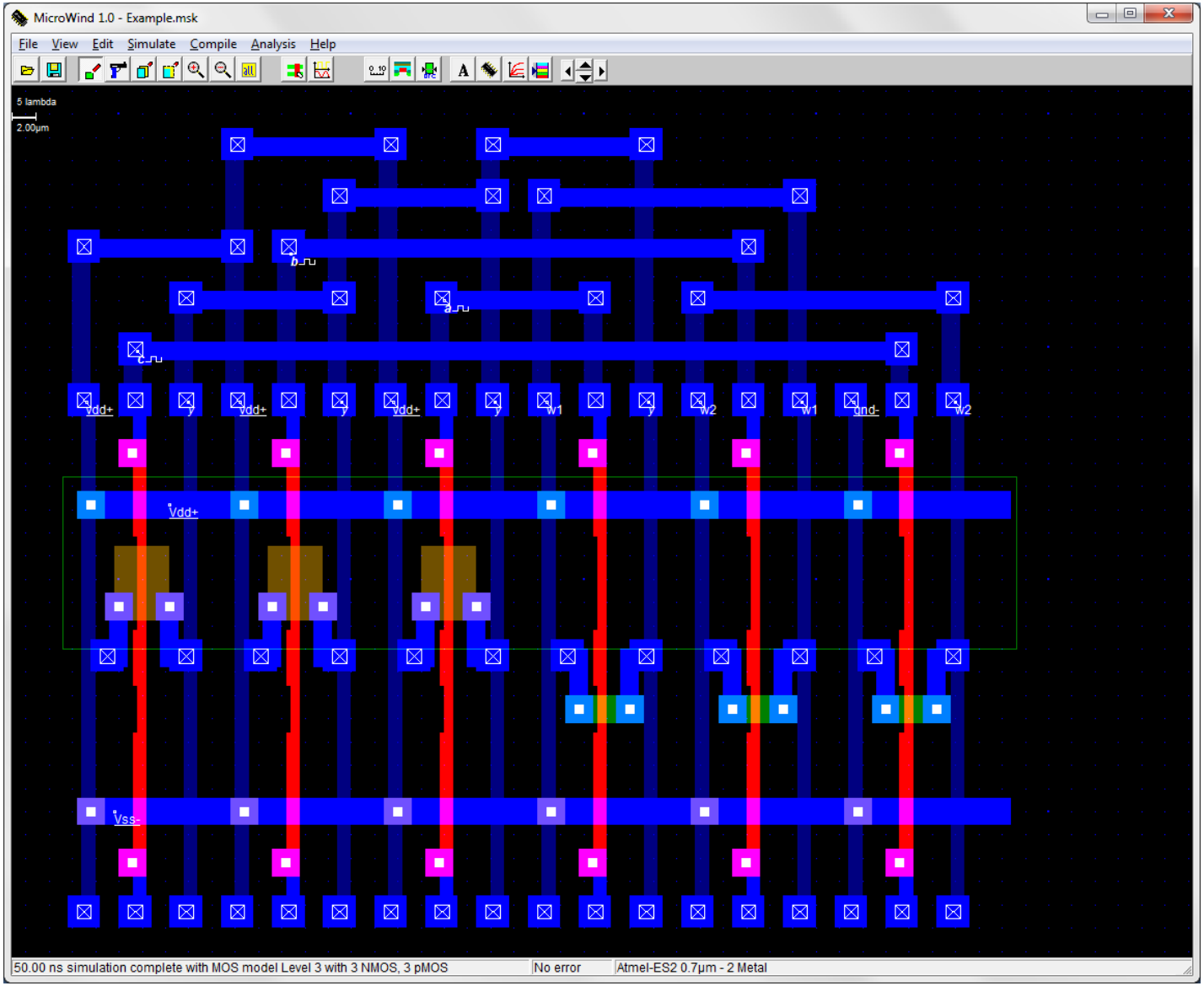
NAND2 - design



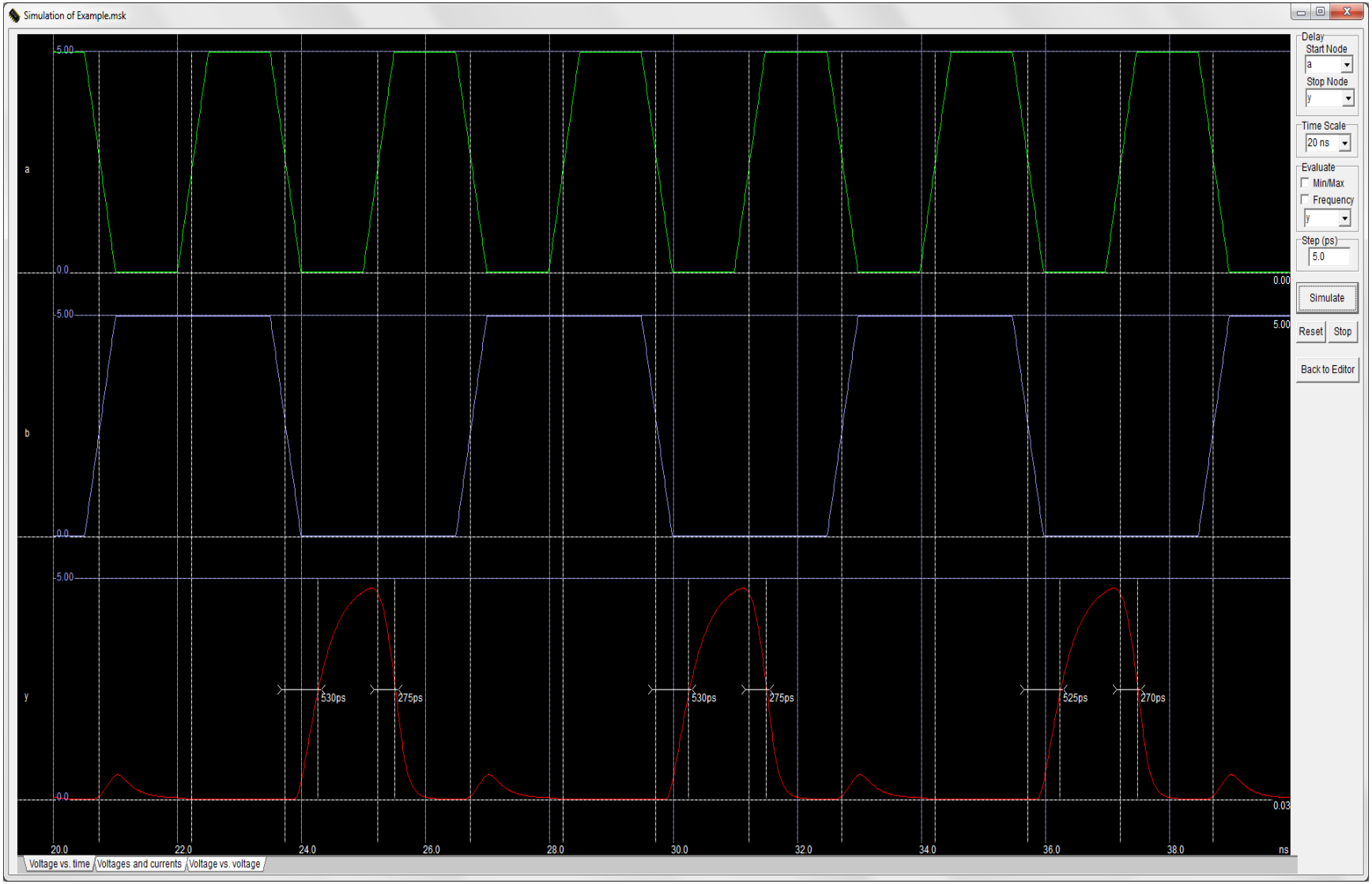
NAND3 - simulare



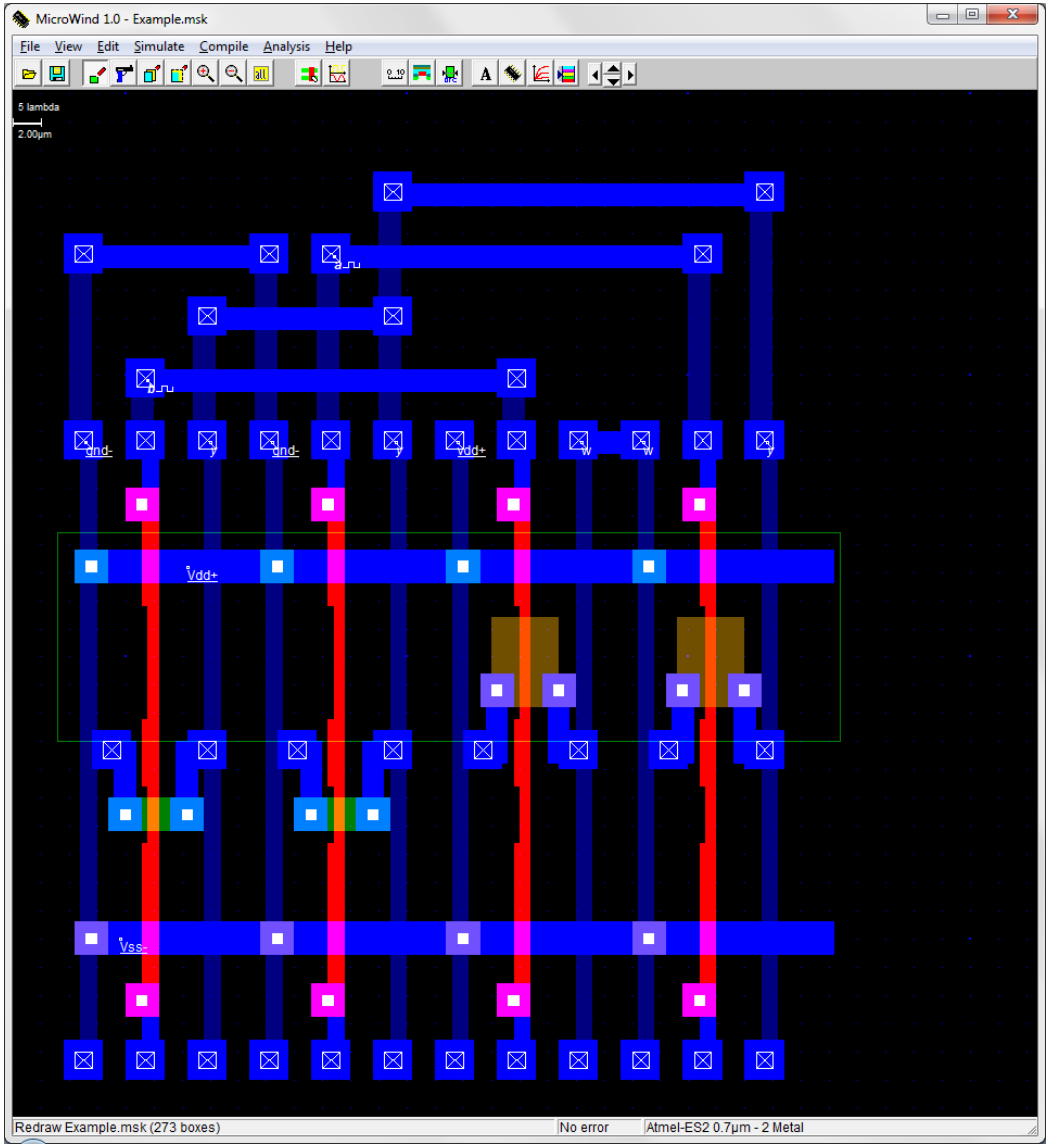
NAND3 - design



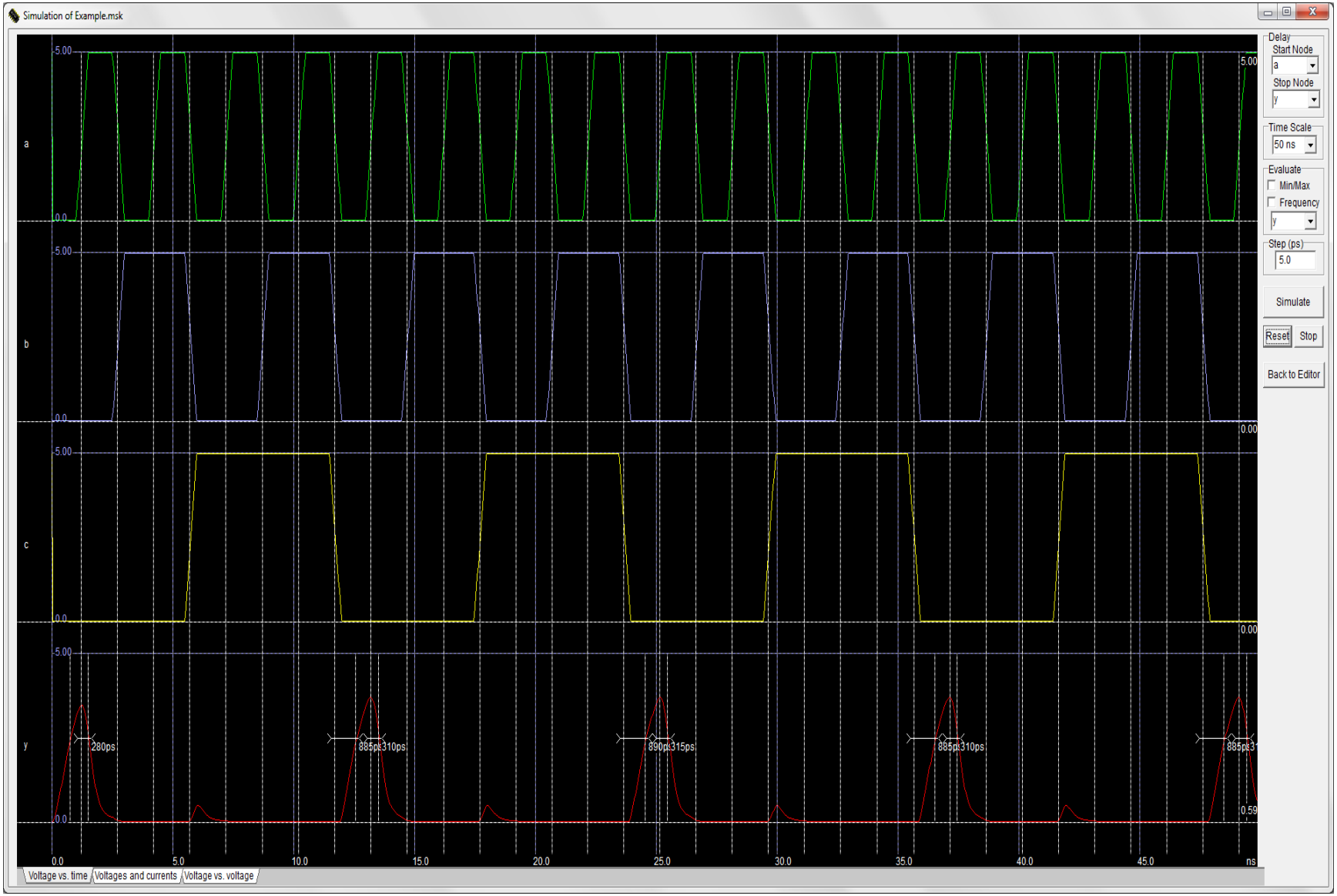
NOR2 - simulare



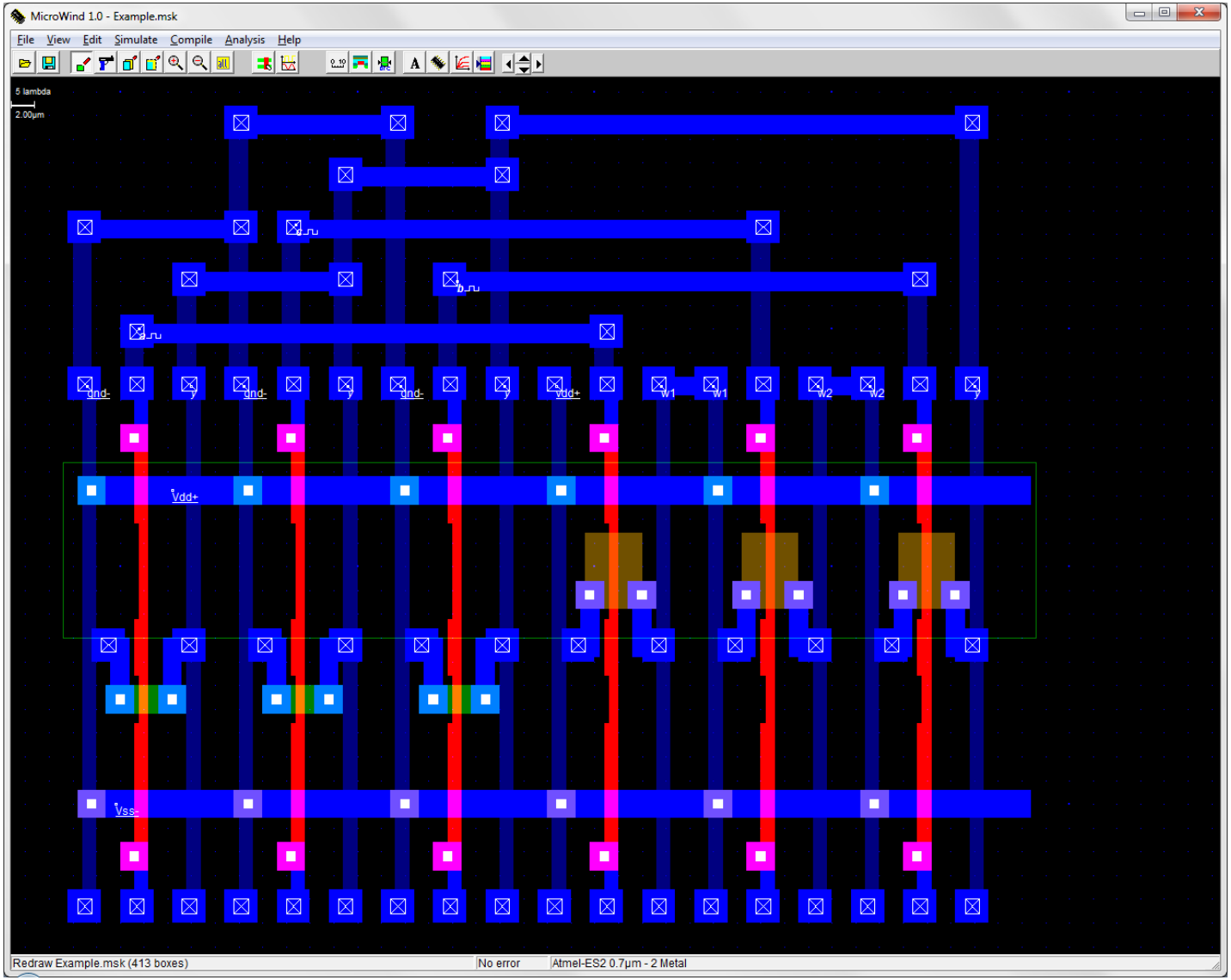
NOR2 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
gnd-
gnd-
Vdd+
Vdd+
Vss-
Redraw Example.msk (273 boxes)
No error
Atmel-ES2 0.7µm - 2 Metal

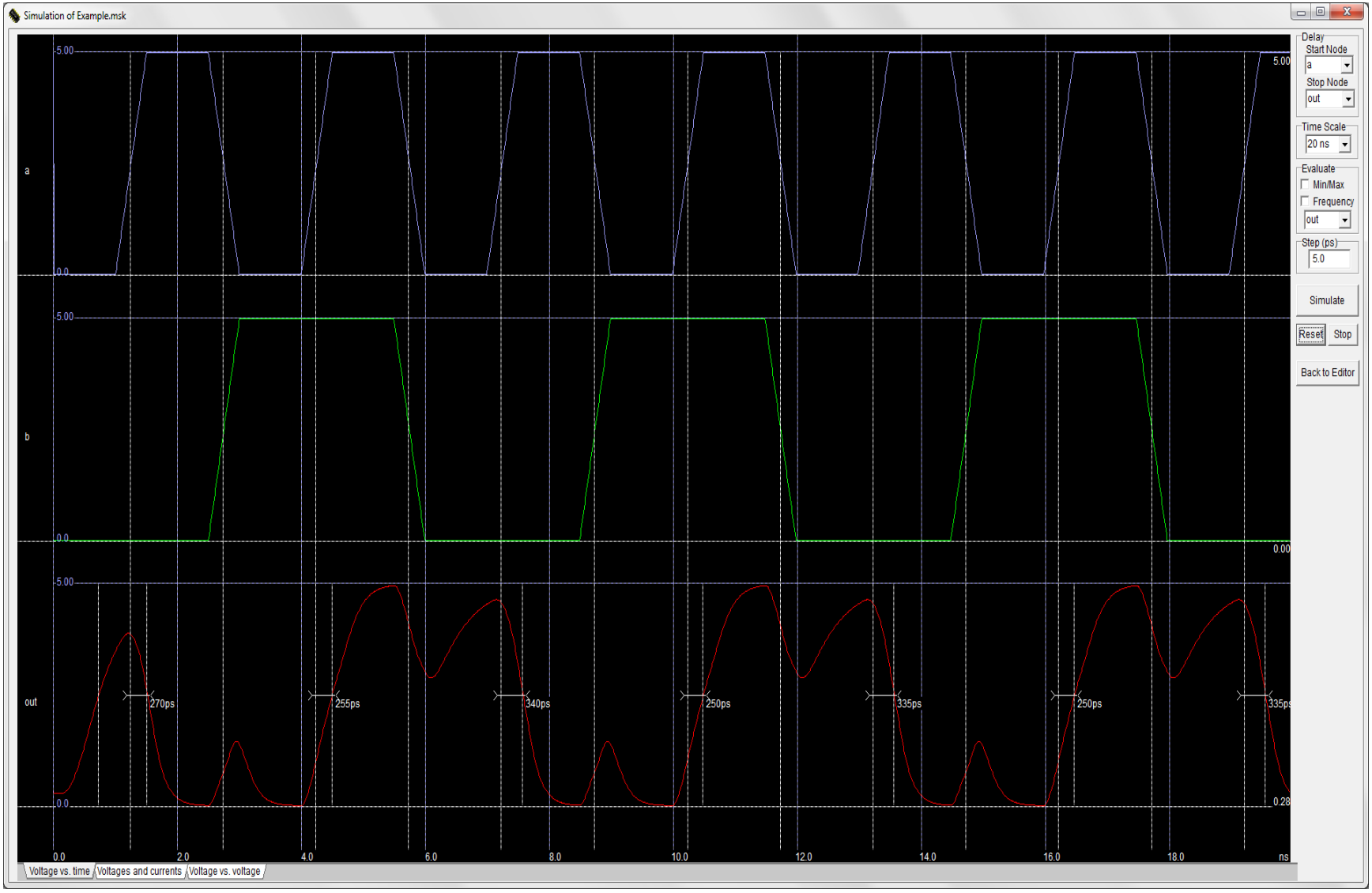
NOR3 - simulare



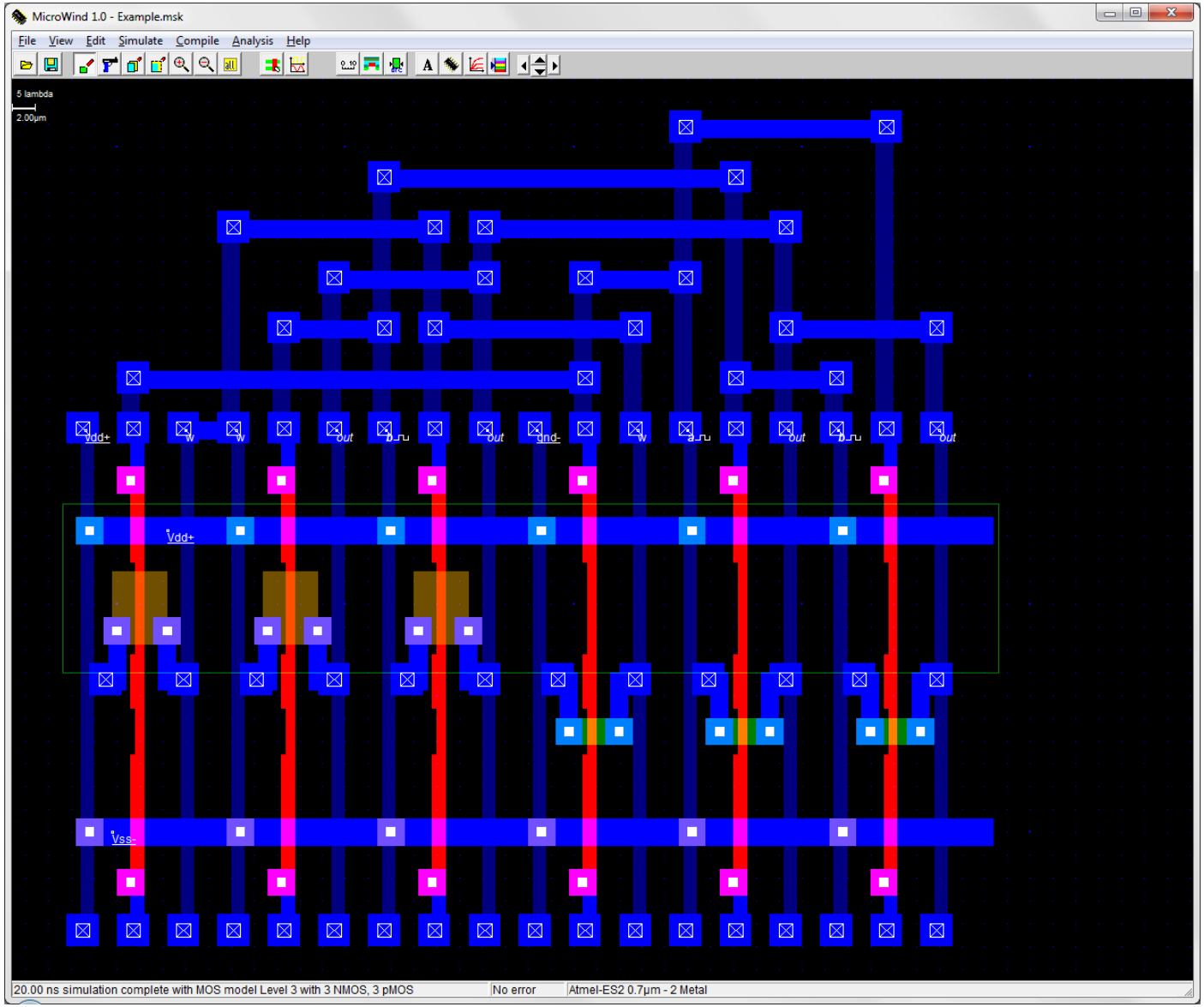
NOR3 - design


MicroWind 1.0 - Example.msk
File View Edit Simulate Compile Analysis Help
5 lambda
2.00µm
gnd-
y
gnd-
y
gnd-
y
vdd+
w1
w1
w2
w2
y
Vdd+
Vss-
Redraw Example.msk (413 boxes)
No error
Atmel-ES2 0.7µm - 2 Metal

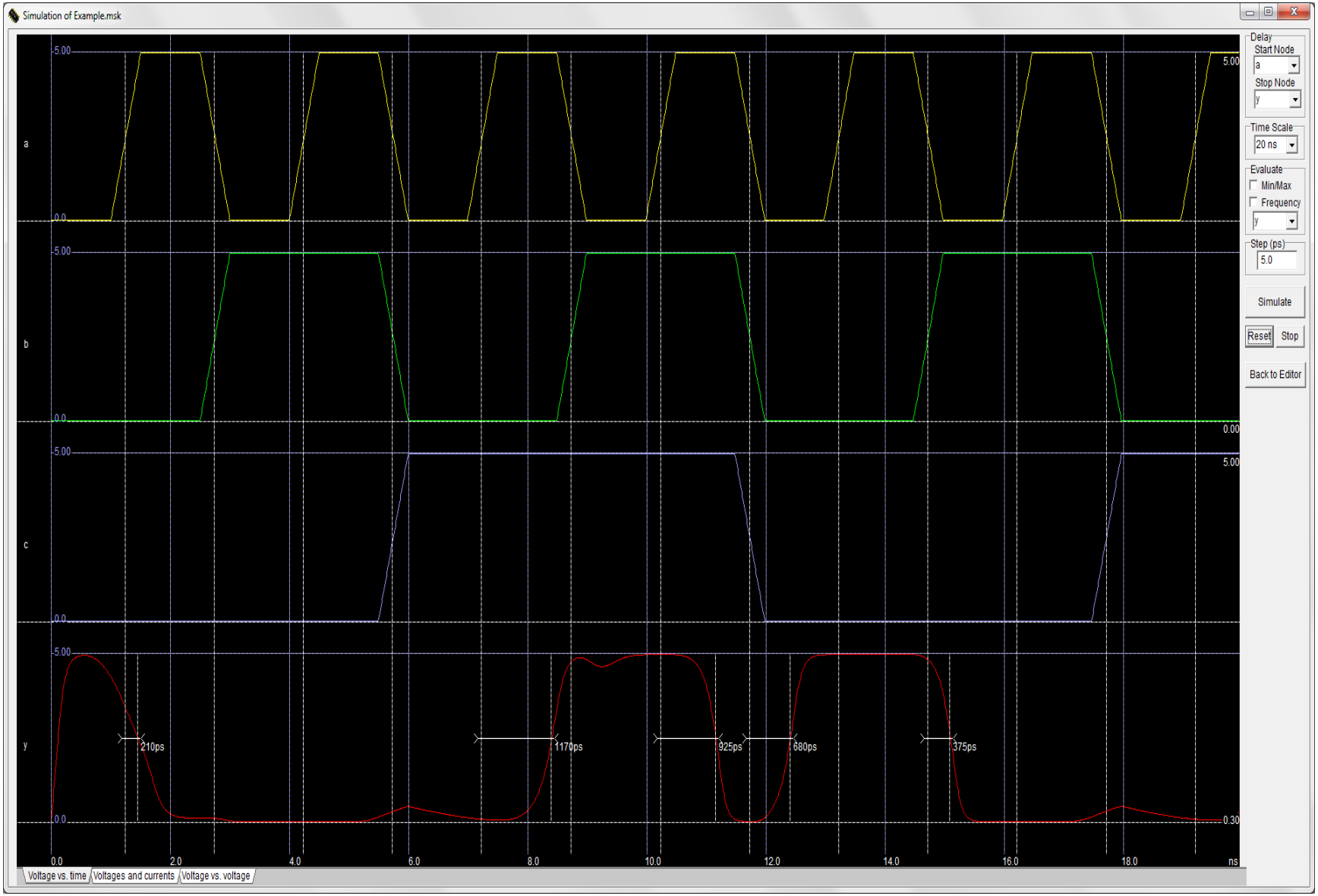
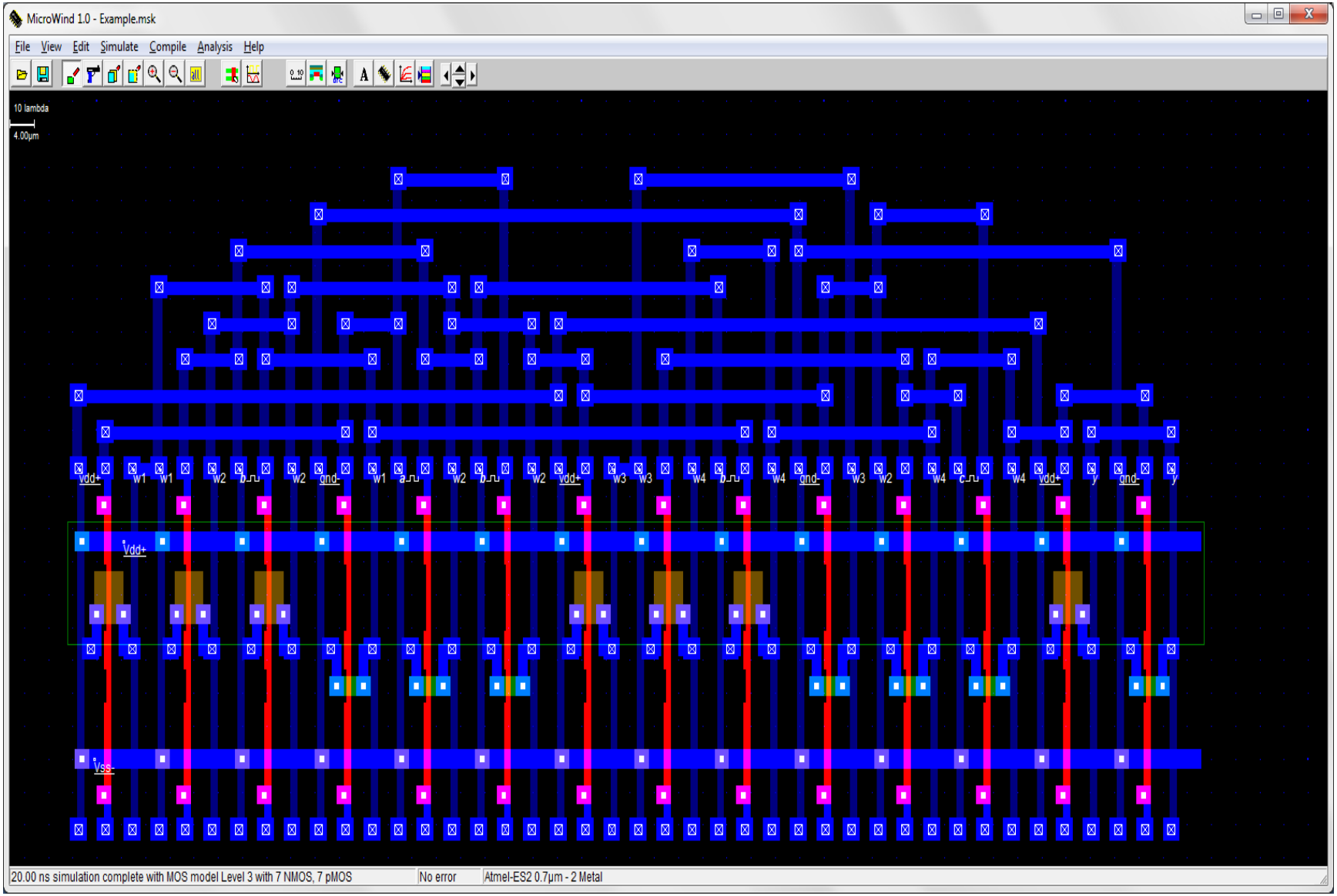
XNOR2 - simulare



XNOR2 - design



XNOR3 - simulare



XNOR3 - design