n-bit asynchronous (ripple) counter

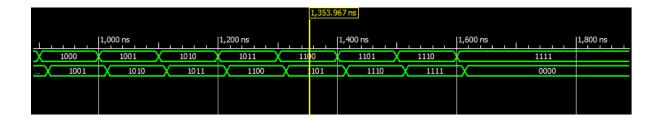


4 bit synchronous counter (using combinational next state logic)

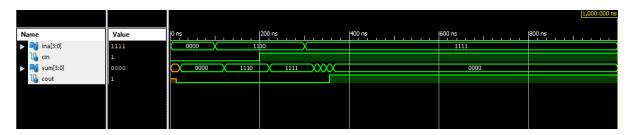


Next state logic

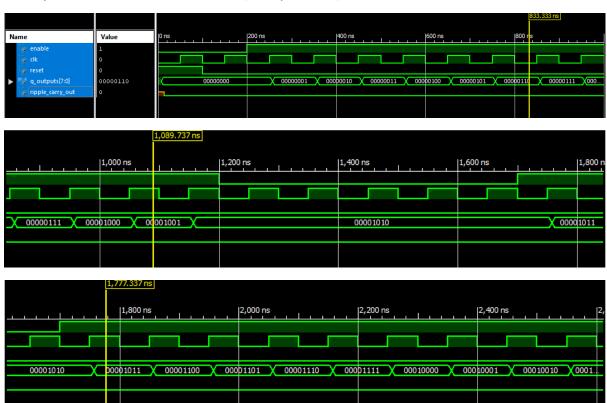
										1,000.000 ns
Value	0 ns		200 ns		400 ns		600 ns		800 ns	
1001	(UUUU)	0000	0001 X	0010	0011	0100	0101 X	0110	0111	1000
1001	UUUU	0001	0010	0011	0100	0101	X 0110	0111	1000	1001
	Value 1001 1001	1001 UUUU X	1001 UUUU X 0000	1001 UUUU 0000 0001	1001 UUUU X 0000 0001 X 0010	1001 UUUU X 0000 0001 X 0010 0011 X	1001 UUUU X 0000 0001 X 0010 0011 X 0100	1001 UUUU X 0000 0001 X 0010 0011 X 0100 0101 X	1001 UUU 0000 0001 0010 0011 0100 0101 0110	1001 0000 0001 0001 0011 0100 0101 0110



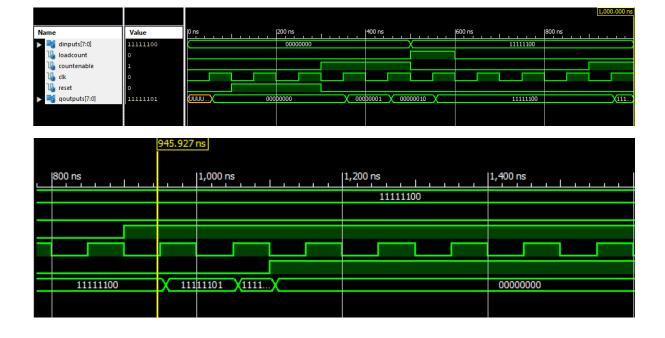
N bit incrementer circuit



n-bit synchronous counter with enable (code provided)



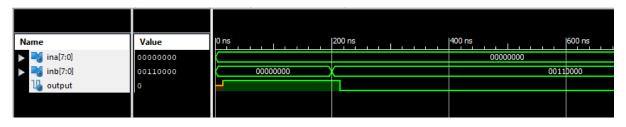
n-bit synchronous counter with parallel load input



4-bit synchronous up/down counter



8-bit Comparator



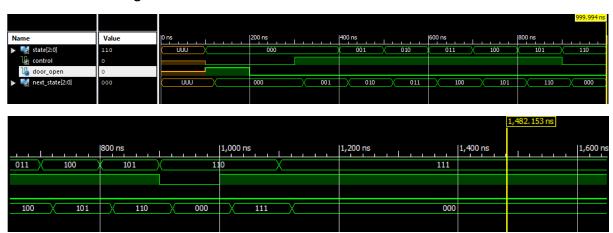
8-bit modulo-m counter with asynchronous reset



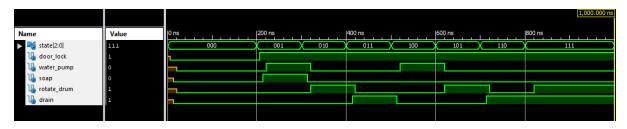
8-bit modulo-m counter with synchronous reset



Washernext state logic



Washer output logic



Controller state machine for a clothes washer(top level)

