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Lab 03: CAD downloading and testing
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Preparation

Car Alarm UCF

NET Alarm LOC = "J14";
NET Seat LOC = "L13";
NET Key LOC = "N17";
NET Door LOC = "R17";

Car alarm truth tables simulation vs download

Seat	Key	Door	Alarm (simulate)	Alarm(Download)
0	0	0	0	0
0	0	1	0	0
0	1	0	1	1
0	1	1	1	1
1	0	0	0	0
1	0	1	0	0
1	1	0	1	1
1	1	1	0	0

Procedure

Alarm Fan UCF

NET "fan" LOC = "J14";
NET "alarm" LOC = "J15";
NET "high_temp" LOC = "L13";
NET "low_bat" LOC = "N17";
NET "cord" LOC = "R17";

Alarm Fan truth tables simulation vs download

Cord	Low bat	High temp	Alarm (sim)	Alarm (real)	Fan (sim)	Fan (real)
0	0	0	0	0	0	0
0	0	1	0	0	1	1
0	1	0	1	1	0	0
0	1	1	1	1	0	0
1	0	0	0	0	0	0
1	0	1	0	0	1	1
1	1	0	0	0	0	0
1	1	1	0	0	1	1

Problem 2.1 UCF

NET "f1_simple" LOC = "J14";
NET "f1" LOC = "J15"; JD9/LD1
NET "d" LOC = "L14";
NET "c" LOC = "L13";
NET "b" LOC = "N17";
NET "a" LOC = "R17";

Problem 2.1 Truth tables sim vs real							
A	B	C	D	(AB+C)'D(AB+C+D) (Simulation)		Physical	
				Orig	Simple	Orig	Simple
0	0	0	0	0	0	0	0
0	0	0	1	1	1	1	1
0	0	1	0	0	0	0	0
0	0	1	1	0	0	0	0
0	1	0	0	0	0	0	0
0	1	0	1	1	1	1	1
0	1	1	0	0	0	0	0
0	1	1	1	0	0	0	0
1	0	0	0	0	0	0	0
1	0	0	1	1	1	1	1
1	0	1	0	0	0	0	0
1	0	1	1	0	0	0	0
1	1	0	0	0	0	0	0
1	1	0	1	0	0	0	0
1	1	1	0	0	0	0	0
1	1	1	1	0	0	0	0

Problem 2.2 UCF

NET "output_simplified" LOC = "J14";
NET "output_1" LOC = "J15";
NET "D" LOC = "L14";
NET "C" LOC = "L13";
NET "B" LOC = "N17";
NET "A" LOC = "R17";

Problem 2.2 Truth tables sim vs real							
A	B	C	D	(AB+C)'D(AB+C+D) (Simulation)		Physical	
				orig	simple	Orig	Simple
0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0
0	0	1	0	1	1	1	1
0	0	1	1	1	1	1	1
0	1	0	0	0	0	0	0
0	1	0	1	1	1	1	1
0	1	1	0	1	1	1	1
0	1	1	1	1	1	1	1
1	0	0	0	1	1	1	1
1	0	0	1	1	1	1	1
1	0	1	0	1	1	1	1
1	0	1	1	0	0	0	0
1	1	0	0	1	1	1	1
1	1	0	1	1	1	1	1
1	1	1	0	0	0	0	0
1	1	1	1	0	0	0	0

Anomalies

Everything was pretty simple in this lab. The hardest part was figuring out the tables in word. And making the columns so that it is easier to read.