

Digital System Design 2nd edition

Errata

Modification date: June 15, 2011

Reference printing 1998, 5th printing, print-on-demand edition

Page 145

Line 17: Missing “a”. “not as synchronous” should read “not as a synchronous”.

Line 24: “configures the counter” should read “configures the flip-flop”.

Page 189 Figure 5.20 (a) Upper “n-channel” label should read “p-channel” as described in text.

Page 295 Table 9.1 “Data signaling-rake selector” should read “Data signaling-rate selector”

Page 386 Line 2: “each arc” should read “each node”.

Page 460 Line 5 “The symbol D denotes logic 0 ...” should read “The symbol \bar{D} denotes logic 0 ...”

Page 466 Line 33 “Diagnosis of Automat Failures” should read “Diagnosis of Automata Failures”

Page 514: Figure 15.10 is incorrect. Should be:

		CDE									
		000	001	011	010	110	111	101	100		
$\bar{A}BE$	AB	00	0	0	0	0	0	0	0		
		01	0	1	1	0	0	1	1	0	AD
		11	0	1	1	1	1	1	1	1	$AC\bar{D}\bar{E}$
		10	0	1	1	1	1	1	1	1	
			$\bar{A}DE$								

Hence the probability expression P_s should read:

$$P_s = AD + \bar{A}BE + \bar{A}DE + AC\bar{D}\bar{E}$$

Substituting values, we get the same result as previously (0.976625), i.e.:

$$\begin{aligned} P_s &= 0.95 \times 0.8 + 0.05 \times 0.9 \times 0.75 + 0.95 \times 0.2 \times 0.75 + 0.95 \times 0.85 \times 0.2 \times 0.25 \\ &= 0.76 + 0.03375 + 0.1425 + 0.040375 = 0.976625 \end{aligned}$$

Acknowledgment: I am very grateful for Bala Subramanian who identified this mistake.

Please contact me at abw@uncc.edu if you notice additional errors. Thank you.

Notes:

Page 15:

Another way of looking at 2's complement is to weight the digits: $-2^{n-1}, 2^{n-2}, 2^{n-3}, \dots, 2^1, 2^0$.

Page 243:

Unsigned arithmetic would be needed with memory address arithmetic (pointer arithmetic) as memory addresses are unsigned numbers.