

Errata and Clarifications
Digital Image Processing
3rd Edition

Gonzalez and Woods
 Prentice Hall
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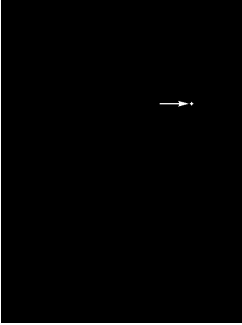
October 12, 2008

CORRECTIONS

[[[NOTE: Some or all of these corrections may have been implemented in your book, depending on which printing you have.]]]

Page	Reads	Should Read
88, Table 2.2, 3rd row, 3rd col	$y = v \cos \theta + w \sin \theta$	$y = v \sin \theta + w \cos \theta$
120, 7th line from top	$p(r_k) = r_k / MN$	$p(r_k) = n_k / MN$
133, 2nd line from bottom	$s_4 = 7$	$s_4 = 6$
159, Fig. 3.36(c)	The 8th black dot (counting from the left) should be located on the horizontal axis instead of at -1.	
185, Eq. (3.8-20)	$\dots, M\}$	$\dots, N\}$
186, 3 lines above Eq. (3.8-21)	$\mu_{\text{NOT}(A)} =$	$\mu_{\text{NOT}(A)}(z) =$
189, 7th line from top	\dots levels (talk \dots)	\dots levels (tall \dots)
203, 2nd line	$\sqrt{3}$	$\sqrt{5}$
220, Eq. (4.3-12)	$\dots \text{sinc}[(t - n\Delta T) / n\Delta T]$	$\dots \text{sinc}[(t - n\Delta T) / \Delta T]$
285, Table 4.5, 1st column	$\begin{cases} 1 \\ 0 \end{cases}$	$\begin{cases} 0 \\ 1 \end{cases}$
299, 4th line below Eq. (4.11-3)	\dots multiplying this result	\dots dividing this result
374, Eq. (5.11-11)	$G(\cdot, \cdot) =$	$G(\cdot, \cdot) =$
385, 5th line from bottom	$D \sin \gamma$	$D \sin n\gamma$
563, line above Ex 8.12	11000000 and 01000000, respectively.	01000000 and 11000000, respectively.
751, 5th line	If T is set to the maximum value of \dots	If T is set to any value less than the minimum value of \dots
751, 6th line	\dots will consists of all 0s.	\dots will consist of all 1s.
870, Eq. (12.2-8)	Replace Eq. (12.2-8) with the following: $\gamma(x, y) = \frac{\sum_s \sum_t [w(s, t) - \bar{w}] [f(x + s, y + t) - \bar{f}_{xy}]}{\left\{ \sum_s \sum_t [w(s, t) - \bar{w}]^2 \sum_s \sum_t [f(x + s, y + t) - \bar{f}_{xy}]^2 \right\}^{\frac{1}{2}}}$	
870, 2nd and 3rd lines below Eq. (12.2-8)	\dots and $\bar{f}(x + s, y + t)$ is the average value of f in the region coincident with w .	\dots and \bar{f}_{xy} is the average value of f in the region coincident with w .
921, 12th reference from top	Eng, H.-L. and Ma, K.-K. [2006] \dots	Ng, P.-E. and Ma, K.-K. [2006] \dots

CLARIFICATIONS

Page	Clarifications	
59, last sentence, 2nd paragraph.	It is assumed also that the physical dimensions of the chips are the same.	
117, 2nd paragraph of Ex 3.3.	Figure 3.12(c) was generated with a transformation function of the <i>form</i> shown in Fig. 3.11(b), but with the value of the constant part of the curve set to 0 instead of the high value shown in Fig. 3.11(b) .	
661, Fig. 9.31(c).	Although the image appears as a uniform black rectangle (all 0s), there are 1-valued points along its boundary that are difficult to see at the image scale shown and also because the background (page) is white (i.e., 1-valued). See the 3rd sentence in the first paragraph of page 661.	
694, Fig. 10.2(a).	The image in Fig. 10.2(a) should have the dot shown. In some printings of the book the dot is barely visible, while in others it shows perfectly, as in the image shown on the right. Also, small, random printing imperfections that sometimes show in white or gray can be confusing, and should be ignored. [Note: If you're using a low resolution monitor you may need to magnify this document in order to see the dot.]	
697, Fig. 10.4(d)	The image in Fig. 10.4(d) should have the single dot shown. The image is black (0) elsewhere. In some printings of the book the dot is barely visible, while in others it shows perfectly, as in the image shown on the right. Also, small, random printing imperfections that sometimes show in white or gray can be confusing, and should be ignored. The correct image consists of a single white dot on a uniform black background.	
872, Fig. 12.9(d).	The image in Fig. 10.9(d) should have the single white dot shown. The image is black (0) elsewhere. In some printings of the book the dot is barely visible, while in others it shows perfectly, as in the image shown on the right. Also, small random printing imperfections that sometimes show in white or gray can be confusing, and should be ignored. The correct image consists of a single white dot on a uniform black background.	