Error corrections and setup procedures for Sabin Book, 5 May 2010

See page 7 in the User Guide for setup instructions.

Getting the Program Started for the first time:

There are two steps needed to get the program ready initially for use:

1) the program must be registered with PTC company.
   the computer must be on-line so that PTC can communicate with the computer.
   place the disk into the disk drive and start the Install Sequence,
   when requested, obtain the Product Code that is on the back of the disk envelope.
   input the Product Code.
   complete the installation.
   this is a one-time procedure for the computer that is being used.
2) PTC must license the owner to operate the software.
   after the progam installation is complete, stay on-line and Run the program.
   the computer is automatically connected to PTC.
   PTC authorizes the use of the Program
   a password will be assigned to the single-user.
   Write down and save this password for future reference in case the program has to be re-installed..
   This is a one-time procedure for the computer that is being used.
3) to verify that the program is working, perform a simple math exercise, such as (1 + 2)^3 = 27

p. 2. *Introductory in depth* level.
p. 15. Fig 1-2 caption should read as follows:
Figure 1-2 Time Sequence (a) is converted to spectrum (b) and reconverted to time (c).
(a) 64-point sequence, time plus dc bias. (b) two-sided spectrum sequence, showing frequency values. (c) spectrum values reconverted to time values.
p. 16. (ω) replaced by (k)
p. 29. first line Fig 2-1c.
p. 30, last line. "real sine" replaced with "–j cosine"
p. 36, Eq. 2-3 is OK for certain amplifying devices, but needs refinement for others. A pentode tube or MOSFET may have very little plate/drain current sensitivity to small plate/drain voltage changes. Eq 2-3 can be modified, using a circuit simulation program that measures the actual Iout vs Vin. Eq 2-3 can become as follows: Iout(n) = $[K1 \cdot Vin(n) + K2 \cdot Vout(n)]^{K3}$ where K1, K2 and K3 approximate the simulation results. This equation then replaces Eq 2-3 in some discrete–signal operations. Ref. "Radio Electronics" Seely, S., 1956 chapter 2.

p. 37, upper graph, Vdc refers to the -8v location on the vertical scale

p. 93 part (h) $z(n) = \sum_{k=0}^{N-1} \left(Z(k) \cdot exp\left(j2\pi k \frac{n}{N} \right) \right)$

p. 102, variance = average of the square – square of the average

p. 110. Eq 6-15 should be $C_{ccv}(\tau) = \frac{1}{N} \sum_{n=0}^{N-1} \left(\left[(x+\varepsilon_x)_n - \langle n_x \rangle \right] \left[(y+\varepsilon_y)_{(n+\tau)} - \langle n_y \rangle \right] \right) \qquad (6-15)$

p. 113. et al.,1971] (see also the Appendix in this book for examples),
p. 129. About the Hilbert Transform.

In mathematics and in signal processing, the **Hilbert transform** is a linear operator which takes a function, *u*(*t*), and produces a function, $\mathcal{H}(u(t))$, with the same domain (*t*); the symbol $\mathcal{H}$ denotes Hilbert. See the text in chapter 8 for further insight for discrete-signal operations. An example of a Hilbert Transform is in Fig 8-1(f). Review Eq 8-4. See Google for very interesting information about David Hilbert.

p. 133. Fig.8-1g disappear in Fig 8-2h.
p. 136. "LaPlace" should be "Laplace"
p. 138. The sum of the *time sequence* *x*(*n*) and the *time sequence* $\pm j\hat{x}(n)$ has a *spectrum* that occupies only one-half of the two-sided *phasor* spectrum.

p. 141. Fig 8-3 part (f) $xh(n) := \sum_{k=0}^{N-1} \left[XH(k) \bullet \exp\left(j2\pi \frac{k}{N} n \right) \right]$

p. 142. "is represented as phasors, it is a two-sided SSB phasor spectrum, one"