

Errata for Part I

As of March 25, 2014

Errata added since March 3, 2013: pp 118, 151, 152, 245, 341, and 353.

Errata added since December 28, 2011: pp 105, 278, 279, 434, 456, 467, and Solutions 10.3.

Page xv, Sidebar 1.2

Page number should be 7, not 6.

Page 29, caption of figure 1.3:

The first sentence of the caption should read “How analog gain and non-linearity restore levels and thus create a digital component”.

Page 71, 3rd example under “Explicit context reference”:

Macintosh hd:projects:CSE 491
should be

Macintosh HD:projects:CSE 496

Page 76, 3rd line from bottom:

“programs are written” should be “procedures are written”.

Page 86, 3rd paragraph, sixth line:

“exasperation at the” should be “exasperation about the”.

Page 95, paragraph beginning “The version 6...”

“67,329” should be “67,328”.

ERRATA-1

Page 98, procedure `PATH_TO_INODE_NUMBER` should read as follows:

```

1  procedure PATH_TO_INODE_NUMBER (character string path, integer dir) returns integer
2    if PLAIN_NAME (path) then return NAME_TO_INODE_NUMBER (path, dir)
3    else
4      dir ← LOOKUP (FIRST (path), dir)
5      path ← REST (path)
6      if path = "" then return dir
7      else return PATH_TO_INODE_NUMBER (path, dir)

```

Page 99, top-most paragraph:

At the end of the sentence beginning “The function `FIRST...`” add the following words:
 ...with the leading separators removed. (Multiple consecutive “/” are usually interpreted as a single “/”; for example, “projects////paper” is the same name as “projects/paper”.)

In the next sentence (which begins “Thus, for example,...”) both instances of the procedure name `PATH_TO_NAME` should be `PATH_TO_INODE_NUMBER`.

The declaration of procedure `CHDIR` should read:

```
procedure CHDIR (character string path)
```

Page 101, first sentence of the first complete paragraph:

“the file system reserves” should be “the UNIX file system reserves”.

Page 102, procedure `GENERALPATH_TO_INODE_NUMBER`:

line 2 should read

```
2  if path[0] = "/" then return PATH_TO_INODE_NUMBER (STRIP (path, '/'), 1)
```

and insert the following paragraph after that procedure:

If the pathname starts with a separator, `GENERALPATH_TO_INODE_NUMBER` uses the inode number for the root directory (1), otherwise it uses the inode number of the current working directory. In the first case, it strips off the leading separators, because it has processed the leading “/” that indicates the root directory.

Page 105, pseudocode lines 5 and 6 should read: (errata line 6 added 3/2/2013)

```

5    if i.type = SYMLINK then
6      i ←- PATHNAME_TO_INODE (COERCE_TO_STRING (i.blocknumbers))

```

Page 109, pseudocode line 6 should read:

```
6  inode.atime ← NOW ()
```

and pseudocode lines 8 and 9 should read:

```
8   for i from 0 to m - 1 do
9     b ← INODE_NUMBER_TO_BLOCK (i, file_table[file_index].inode_number)
```

Page 109, pseudocode line 10 should read:

```
10    COPY (b, buf + i, MINIMUM(m - i, BLOCKSIZE))
```

Also, in the paragraph following the pseudocode, the next-to-last sentence should begin “Lines 8 through 11...” and the last sentence should begin “Line 12 updates...”

Page 110, first line:

“maintain” should be “maintains”

Page 118, third complete paragraph, line 5: (errata added 3/25/2014)

“...numbered 2 in Figure 3.2” should read “...numbered 2 in Figure 3.4”

Page 151, Figure 4.2: (errata added 3/25/2014)

Lines 148–164 should read:

```
148: SUB 8, SP      // pop argument and return address off stack
152: SUB 4, SP      // move stack pointer to saved R2
156: MOV SP, R2     // restore content of R2
160: SUB 4, SP      // move stack pointer to saved R1
164: MOV SP, R1     // restore content of R1
```

Page 152, step 4 (errata added 3/25/2014)

In the sketch of the stack, the number 144 should be 148

Page 174, bullet labeled “Atomicity”:

“Section 4.1.6” should be “Section 4.1.5”

Page 219, Caption of Figure 5.6:

“Section 5.25” should be “Section 5.2.5”

Page 245, Section 5.4.2, last line of first paragraph: (errata added 3/25/2014)

“might need 2^{72} bytes” should say “might need $2^{64} \times 8 = 2^{67}$ bytes”

Page 278, Figure 5.29: (errata added 3/2/2013)

Line 6 should read

```
6    AWAIT (p.out, READ (p.in) - N) // wait till there is space in the buffer
```

and line 10 should read

```
10   AWAIT (p.in, READ (p.out))    // wait till something in the buffer
```

Page 278, eleventh line from the bottom: (errata added 3/2/2013)

The eventcount variable “sent” should be “p.in” (two instances)

Page 279, Figure 5.30: (errata added 3/2/2013)

Line 8 should read

```
8    AWAIT (p.in, t - 1)           // wait till previous slots are filled
```

Page 282, sixth line from the bottom:

The second word, “flip-flip”, should be “flip-flop”

Page 291, Caption of figure 5.34:

“guest operating with” should be “guest operating system with”

Page 293, Section 5.8.3, first paragraph, line 5:

“operating system by” should be “operating systems by”

Page 293, Section 5.8.3, second paragraph, lines 4 and 5

delete “and virtual machine”

“translate” should be “translates”

“virtual machine addresses” should be “machine virtual addresses”

Page 317, pseudocode line 2:

The comment on line 2 should say “writing”, not “reading”

```
2 out ← OPEN ('out' WRITE)        // open "out" for writing
```

Page 339, Table 6.5:

Column 4 contains an error that propagates to columns 5 and 6. The table should read:

Table 6.5. The LRU page-removal policy with a three-page primary device.

time	1	2	3	4	5	6	7	8	9	10	11	12	
reference string	0	1	2	3	0	1	4	0	1	2	3	4	
primary device contents	-	0	0	0	1	0	0	0	0	0	0	3	Pages brought in
	-	-	-	2	3	3	3	4	4	4	2	1	
remove	-	-	-	0	1	2	3	-	-	4	0	1	
bring in	0	1	2	3	0	1	4	-	-	2	3	4	10

Page 341, second paragraph, line 6: (errata added 3/25/2014)

“at times 8, 9, 11, and 12” should say “at times 8, 9, and 12”

Page 353, Table at bottom of page, column 7 header: (errata added 3/25/2014)

“Wait Time” should be “Waiting Time”

Page 431, problem set 3, figure 1:

Line 4 of FSD_READ and line 4 of FSD_CLOSE should both begin

```
if host = "" then...
```

Page 434, problem set 4, question 4.1:(errata added 3/2/2013)

The RELEASE that Alyssa added after line 7 should be indented to match the ACQUIRE that Alyssa added after line 2.

Page 456, problem set 10, procedure at top of page: (errata added 3/2/2013)

lines 33–36 should each be indented one step further.

Page 461, problem set 11, procedure "Web server using events":

There should be another line at the end of the procedure that reads

```
doneCnt ← doneCnt + 1 //D
```

and in the procedure "Network manager using events"(at the bottom of the page) the two lines of that procedure should end with the comments "//E" and "//F", respectively.

Page 463, problem set 12:

In procedure INTERRUPT, the last line should read

UP (*port.n*)

In procedure RECEIVE_MESSAGE, the second and third lines should read

DOWN (*port.n*)

$m \leftarrow port_buffer[port.out \bmod NMSG]$

Page 467, problem set 15: (errata added 3/2/2013)

In the paragraph beginning “ISPRESENT looks up...”, “it returns 1.” should read “it returns -1.”

Solutions, problem 10.3: (errata added 3/2/2013)

For “A” read “B”.