

Corrections for the book:

"Distributed Algorithms for message_passing Systems"

By Michel Raynal

published by Springer (2013)

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-- page 3: second paragraph:

replace "this come from" by "this comes from"

-- page 6: line 7 from bottom: "sends" --> "sent"

-- page 10: line end -6: replace "received" by "delivered and propagated"

-- page 11: Figure 1.6: line 1: suppress $\setminus \text{setminus } \{k\}$

-- page 12: line end-4: suppress "res," in BACK(res, val \setminus _set)

-- page 13: line end -6:

replace "channels of tree" by "channels of the tree"

- page 20: lines 7-9: suppress

"a process at distance d od the root updates level \setminus _i d times"

and ".this means that"

so that we will have "channel) and (as in Fig. 1.12) among"

-- pa&ge 63, Figure 3.1, line 2: $r_i \setminus \text{leftarrow } r_{i+1}$;

-- page 38, Fig. 2.3, line 4: length \setminus _ik\$ instead of \$length \setminus _ik1"

-- page 90:

line end - 9: add "(1980)" after "Sinclair"

line end - 8: add "(1982)" after "Rodeh"

-- page 96, line end-8: replace "token" by "object"

-- page 98:
 line -12 and -13: suppress the sentence between parenthesis after "line 10)

-- page 105: paragraph "non-FIFO channels" line 8
 replace $|queue_i| \geq 1$ by $|queue_i| > 1$

-- page 124, paragraph 2, line 3-4:
 "that this causal relates" --> Should be "that this causal path relates"

-- page 134, paragraph 1 of 6.4.3. line 4:
 after $\delta: s_i^0$ should be σ_i^0 .

-- page 143,
 paragraph 2, line 2:
 "which explicitly represent" --> "which explicitly represents"

paragraph 3, line 3:
 "this distributed is obtained" --> "this distributed execution is obtained"

-- page 156,
 line 8: replace "clock_i" by "clock_i[i]"
 line -13: "according to the content" ("to" is missing)

-- page 157, Fig 7.7, line 13: "to p_k" (and not "to p_j")

-- page 158:
 lines 1,8, 10: replace " $to_partitionable_i$ " by " $to_deliverable_i$ "

-- page 158, paragraph 1, lines 7-8:
 "line 20" (end of line 7) and "line 21" (middle of line 8)
 must be interchanged

-- page 160, paragraph named "Vector Clock: Algorithm",
 last line: "line 5" has to be replaced by "line 6"

-- page 166:
 In figure 7.13 (bottom left) the consistent cut Σ_e should be Σ_c

- page 170, last paragraph of section 7.2.6, line end - 6:
 "Given a relevant e" --> "Given a relevant event e"

- page 173, second bullet, line 4:
 there are double left parentheses (twice) for the variables `imp_i[k]`
 suppress one

- page 183, 3rd bullet of the page, line 2:
 "`e.mc[j,j]=...=y`" should be "`e.mc[j,j]=...=z`"

- page 184, second bullet under "Property of Matrix Clocks"
 "`mc_i[k,i]....`" --> "`mc_i[1,i]....`"

- page 188, Exercise 5, lines 1 and 4 of bullet 3:
 $\langle (h_1, h_2), i \rangle$ ---> $\langle (h_1, h_2), j \rangle$

- page 195: paragraph 3, line 1:
 "preceding the reception ..." -->
 "immediately succeeding the reception ..."

- page 214:
 Fig 8.21, line 7 : one of the "`rec_known_i`" on the right
 should be "`rec_known`"

- section 8.5.3: line 5: "checkpoints it" --> "checkpoints is"

- page 218: line 2:
 the first $\$ \wedge \$$ should be $\$ \vee \$$
 "`pred(e)`" should be "`pred(c)`"
 "`zz'`" should be `zz`

- page 221: Fig. 9.2: last line : "`father_i`" --> "`parent_i`"

- page 225: line 9 from the bottom: "`it p_i`" --> "`p_i` is"

- page 226: line 4 of paragraph 2: "has happens" ---> "happens"
 line 4 from the bottom: "`MSG()`" ---> "`MSG(m)`"

-- page 227: line 7: "it to" --> "to"

-- page 269, figure 10.14:

Replace line 16 by:

(16) `{\bf else} $perm_here_i \leftarrow \mathit{true}$ \`

(17) `{\bf end if}`.

The indentation of lines 13-17 has to be the same as the one of lines 9-12.

-page 272: Figure 10.16

before line 11, after `{\bf do}` of the previous line : add the comment

`\%~ i \in R_j~\%`

before line 24, after `{\bf do}` of the previous line :

replace the comment `\%~ j \in R_i~\%` by the comment `\%~ i \in R_j~\%`

before line 27, after `{\bf do}` of the previous line :

replace the comment `\%~ j \in R_i~\%` by the comment `\%~ i \in R_j~\%`

replace line 31 by lines 31-32:

(31) `{\bf else} $perm_here_i \leftarrow \mathit{true}$ \`

(32) `{\bf end if}`.

The indentation of the `{\bf else}` statement at line 31 has to be the same as the one of the `{\bf then}` statement of line 28.

-- page 269, line end -4:

replace `"(such that $j \in R_j$)"` by `"(such that $i \in R_j$)"`

-- page 304:

paragraph 2, line 2: "their sending" --> "their sendings"

line 14 from the bottom: "It is assumes" --> "It assumes"

page 307,

paragraph 1 of the "Delivery Condition" part, line 4:

"sent to p_j " should be "co_sent by p_j to p_i "

paragraph 2 of the "Delivery Condition" part, lines 1-2:

replace "the message $CO(m, sent)$ from p_j " by

"the message $CO(m, sent)$ from p_j (sent is the value of $sent_j$ when the message was sent)"

paragraph 2 of the "Delivery Condition" part, line 3:

"co_(m)" --> "co_s(m)" (there is a missing s)

--page 310, paragraph 3:
in line 3 suppress (a)

-- page 311, second bullet, line 1: "an vector" --> "a vector"

-- page 312, figure 12.6:
line 6: replace "\$\langle k, \ell, x \rangle\$" by "\$\langle k, i, x \rangle\$"
line 9: "last_mod[i,j]" --> "last_mod[j,i]"
line 10: replace \$set_i\$ by \$set\$

-- page 314:
line 1: suppress "when" to have "that a process"

page 315, line 6:
that will be co_broadcast ("be" is missing)

-- pages 314-315;
Replace CO_BR (in capital letters) by {\sc co_br} (small capital letters):

in figure 12.10 line 1 and in the when statement
page 314 at lines: 7, 10, last line
page 315: lines 3, 8, 9, 10 and 11

-- page 314: line 8 from bottom: "broadcast[m]" --> "broadcast[k]"

-- page 317: Fig 12.13, line 3: sn_i[i] --> sn_i

-- page 319: line 5 from bottom: "is not co_delivered has not to" -->
"has not been co_delivered should not"

-- page 319: line 7: last paragraph, line 7: std --> sdt

-- page 320: Fig 12.16, line 8: std --> sdt
line 9: std --> sdt
line 11: sdt --> st
line 12: sdt --> st

-- page 320 : line 7 from bottom: "it repeated" --> "is repeated"

-- page 323 line 1: "invokes to_broadcast(m)" and not "co_broadcast(m)"

-- page 325

first bullet: clock_J --> clock_j

line 21: "has not yet been assigned" ("has" is missing)

-- page 325, paragraph 1 of "Delivery Condition", line 4:

"the message ms" --> "the message m"

- page 325: line 4: "is a bipartite" --> "is a complete bipartite"

line 21: "message ms" --> "message m has"

"pending_i --> "pending_j" (replace in four places)

"to_deliverable_i" --> "to_deliverable_j" (in one place)

line 9 from bottom:

date_i --> date (two occurrences)

date_{i^} --> date^{(two occurrences)}

-- page 326, Fig 12.21:

line 9: clock_i --> clock_j

lines 11, 15: pending_i --> pending_j

line 12: clock_i --> clock_j (two occurrence)

line 14: date_i --> date (two occurrences)

date_{i'} --> date'(two occurrences)

lines 6, 9, 11 from bottom: pending_i --> pending_j

-- page 330, line 1 and line 12:

replace three times "describe" by "described"

first paragraph, line 6:

"received and not year delivered" --> "received and not yet delivered"

first paragraph, line 6:

"The sequence numbers allows" --> "The sequence numbers allow"

-- page 338, line 20:

replace "followed by \$d\$" by "followed by \$b\$"

-- page 409, line end -7: replace \$sn_i[k]\$ by \$sn_i[k]\$

-- page 410, line end - 5:
 replace "and it is its the" by "and is the"

-- page:429: line 3, paragraph 1: "\$\leftarrow\$" --> "\$\rightarrow\$"
 "R.read() <-- v" has to be replaced by "R.read() --> v"

-- page 430: suppress the lines 3-4 ("The relation ... Figure 6.3.)"

-- page 432: line 2: "\$p_i\$ and \$p_j\$" ---> "\$p_i\$ and \$p_k\$"

-- page 434, paragraph 2 after the bullets, line 2:
 replace "\rightarrow_H" by a right arrow with "op" on top of it
 (\$\stackrel{op}{\rightarrow}\$ in latex)

-- page 435, line 4 of section 16.4:
 add "a" to have "(such a total order broadcast)."

-- page 436, line end -14:
 replace "that, due to the" by "that the"

-- page 439, line 21:
 replace "been written." by "been written into \$X\$."

-- page 442: Fig 16.12:
 line 18: hlw --> hlv
 line 19: "w" and not "W"
 paragraph 2: line 6: "hlw" --> "hlv"

page 449,
 17.1.2: line 9:
 The computation S (with a "hat"), should be
 Q.enqueue_j(b), Q.dequeue_j()-->b, Q.enqueue_i(a)

17.1.2: last mline of the pape
 The computation S' (with a "hat"), should be
 Q'.enqueue_i(b'), Q'.dequeue_i()-->b', Q'.enqueue_j(a')

-- page 450, paragraph 1, last line:

"Q.dequeue_j(a)" and "Q.dequeue_j(b)" should be denoted
"Q.dequeue_j()→a" and "Q.dequeue_j()→b" respectively)

17.1.3, paragraph 3, line 7:

"Let w_j(X,a) denotes the.." should be "Let w_j(X,a) denote the.."
"r_i(X)a denotes.." should be "r_i(X)a denote.."

-- page 450: end of the page: replace (six times)

$\stackrel{\text{rel}}{\text{po}} \rightarrow$ by $\stackrel{\text{rel}}{\text{op}} \rightarrow$

-- page 451, line 2:

"to capture the fact a sequential computation.." should be
"to capture the fact that a sequential computation.."

-- page 452, paragraph 3, line 4/paragraph 4, line 1:

Notation "w_j(X)a" should be "w_j(X,a)"

second bullet, line 2: there is an extra right parenthesis after w_x.

-- page 457, line 4: "a process contact p_{sm}" should be

"a process contacts p_{sm}"

-- page 456, line end -5:

replace "stack." by

"stack; q_i is the local copy of the queue at p_i."

-- page 458, figure 17.9:

lines 14 and 17 of the figure: replace h_w_{sm} by h_v_{sm}

-- page 460, figure 17.11:

line 4 of the figure: replace h_w by h_v

-- page 462, lines 5- 6:

replace

"But, then this write has to appear after the operation
X._{write}₂(4) issued by p₁, and consequently"

by

"But then the write operation X._{write}₂(4) appears after
the write operation Y._{write}₁(3) issued by p₁, and

consequently"

line 8: at the beginning of the line $y_2 \rightarrow 1$

line 9: replace "manager of X" by "manager of Y"

-- page 463, figure 17.15:

lines 15, 16 and 19 of the figure: replace hlw_X by hlv_X

-- page 465:

line 6 of "Definition"

add "and respects \widehat{OP} " after "is equivalent to $\widehat{OP_i}$ ".

-- page 465, Example 1:

The reads should be in the form "R.read_i() --> 0"

(according to Example 2 and Fig. 17.17)

-- page 465, Example 2:

The second sequence should be:

R.write_3(2), R.write_4(1), R.read_2()-->1 (according to Fig. 17.17)

-- page 466,

line 9: replace "two" by "three"

last line before section 17.5.2:

replace "R.read_3()--> 2" by "R.read_3()--> 1"

-- page 467: Fig. 17.19: line 1: replace x_i by v

-- page 469, line 10: replace "at most" by "at least"

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<http://www.springer.com/978-3-642-38122-5>

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2013, XXXI, 500 p., Hardcover

ISBN: 978-3-642-38122-5