Errata for
Principles of Constraint Programming
Krzysztof R. Apt
April 14, 2005

page viii, 7.1.3
Replace 'cartesian' by 'Cartesian'.

page 6, line -2 of **Principle 2**
Replace 'This explain our decision' by 'This explains our decision'.

page 7, lines 11-12
Replace 'allow us achieve' by 'allow us to achieve'.

page 11, line 5 of Example 2.1
Remove '***alphametic problem***'.

page 12, line -12
Replace $\{S, E, N, D, MO, R, Y\}$ by $\{S, E, N, D, M, O, R, Y\}$.

page 18
Replace all occurrences of '$*$' by '$\cdot$'.

page 26, lines -11 and -12
Replace $[\![\texttt{REAL} - \texttt{OVERLAP}]\!](J, W)$ by $[\![\texttt{REAL-OVERLAP}]\!](J, W)$.

page 44, lines 3 and 4
Replace 'the first two of which are classic examples of NP-complete problems.' by 'the first being a classic example of an NP-complete problem.'

page 64, line -2 and page 66, line 15
Remove 'binary'.

page 86, 2nd line above the *VARIABLE ELIMINATION* rule.
Replace 'Another example is following rule' by 'Another example is the following rule'.

page 94, line 12
Replace $[1, n]$ by $[1..n]$.

page 119, line 11
Replace 'The variable x_3' by 'The variable x_2'.

page 125
Remove $0 \leq 0$ from the third set of inequalities and delete the following sentence below it:
'The first inequality can be deleted using the *DELETION* rule.'

page 126
Remove $0 \leq 9$ from the first set of inequalities and replace 'three' by 'two' in the sentence below it.

page 129, lines 5-10
Replace 'Case 2' (three times) by 'Case 1' and 'Case 3' by 'Case 2'.

page 140, line 3

Replace ‘incompatible’ by ‘incomparable’.

page 142, circle 4 in Figure 5.5.
Replace HEEL $c:1$ by HEEL $d:1$ and KEEL $c:1$ by KEEL $d:1$.

page 148, line 16
Replace $x+y>2$ by $x+y\neq 2$.

page 163, line 12 of Example 5.35
Replace $[1..2]\times[1..2]$ by $[1..2]\times[2..4]$.

page 223, line -1
Replace $[-2..1]\cap[-5..5]=[0..2]$ by $[-2..1]\cap[-5..5]=[-2..1]$.

page 250, line 11
Remove ‘indexbox consistency’ (in `\index{box consistency}` the ‘`\`’ is missing).

page 256, line -2
Change ‘*antisymmetric*’ to ‘***antisymmetric***’.

page 257, line 8
Change ‘a irreflexive’ to ‘an irreflexive’.

page 257, middle of the page
Replace $(Y_1,\ldots,Y_1)$ by $(Y_1,\ldots,Y_n)$.

page 266
In the DICD algorithm add the line
‘$G := G - \{g\};$’
after ‘choose $g \in G$;’

page 305, line -1
Change $\Pi_{j=1}^{i}|D_j|$ to $\Pi_{k=1}^{j}|D_k|$.

page 322.
Figure 8.15 should be replaced by Figure 1 below.

page 327, line 1
Replace $O(\Pi_{i=1}^{n}|D_i|)$ by $O(\sum_{i=1}^{n}|D_i|)$.

page 327, lines -13 till -10
Replace
“ the procedure call `prop(j,D, failure)` modifies the domains `D[j+1], ..., D[n]` and sets the variable `failure` to `TRUE` (independently of its initial value) if one of these domains becomes empty.”

by

“ the procedure call `prop(j,D, failure)` creates a local copy `D’` of `D`, modifies the domains `D[j+1], ..., D[n]` and if one of these domains becomes empty, it sets the variable `failure` to `TRUE` (independently of its initial value) and copies `D’` back to `D`. “

page 336, line -2
Replace ‘sequences of sets:’ by ‘sequences of sets denoted by $\bar{E}_1$ and $\bar{E}_2$:’

page 369, in the program in Section 9.5
Replace `XM` by `XB` in the line

```
subject to Time:  (1/200) * XM + (1/140) * XC <= 40;
```

page 370, line 8
Replace ‘modified’ by ’constrained’.

page 376
Replace

$$\texttt{Start[task}_1] + \texttt{Duration[task}_1] \leq \texttt{Start[task}_2] \lor$$
$$\texttt{Start[task}_2] + \texttt{Duration[task}_2] \leq \texttt{Start[task}_1]$$

by

$$\texttt{Start[task}_1\texttt{]} + \texttt{Duration[task}_1\texttt{]} \leq \texttt{Start[task}_2\texttt{]} \lor$$
$$\texttt{Start[task}_2\texttt{]} + \texttt{Duration[task}_2\texttt{]} \leq \texttt{Start[task}_1\texttt{]}$$

(The `]` brackets should be in the teletype font.)

Acknowledgments

I would like to thank Chen Chunqing, Radosław Cymer, Karen Chong Sau Leng, Rosella Gennari, Victor Marek, Pedro Meseguer, Cristina Mota, Kazunori Ueda and Roland Yap for sending me the corrections.

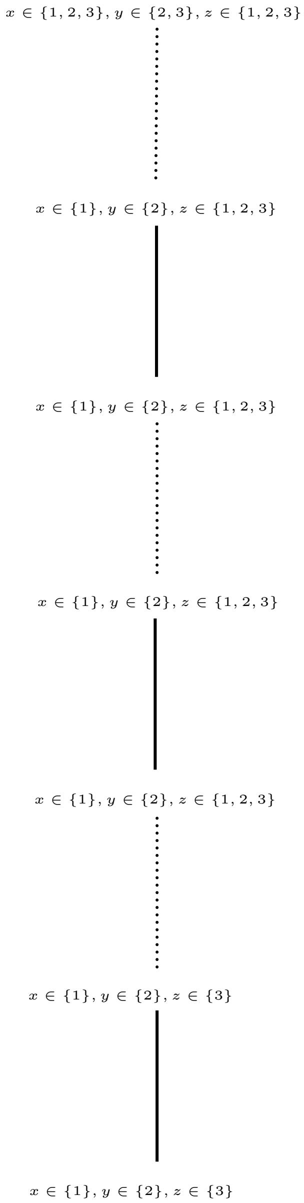
$x \in \{1,2,3\}, y \in \{2,3\}, z \in \{1,2,3\}$
$x \in \{1\}, y \in \{2\}, z \in \{1,2,3\}$
$x \in \{1\}, y \in \{2\}, z \in \{1,2,3\}$
$x \in \{1\}, y \in \{2\}, z \in \{1,2,3\}$
$x \in \{1\}, y \in \{2\}, z \in \{1,2,3\}$
$x \in \{1\}, y \in \{2\}, z \in \{3\}$
$x \in \{1\}, y \in \{2\}, z \in \{3\}$

Figure 1: