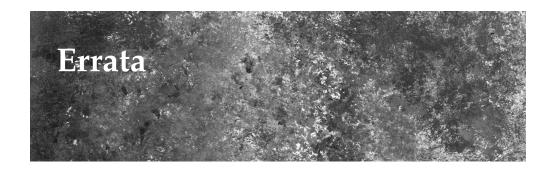# Errata
Flexible, Reliable Software
Using Patterns and Agile Development
First printing
CRC Press 2010

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Errata

This document contains errors in the book *Flexible, Reliable Software* by CRC Press 2010, first printing, found up until the date marked on the front page.

Note that some reported errors concern the software engineering contents and not just spelling and grammar. These errors are marked with a ☞ symbol in the text.

Front Matter

The description of the cover picture, second last line:

...design that has stood the test of time from an architect who was a deified—worthy role model for all who create designs and realize them.

should be changed to

...design that has stood the test of time from an architect who was deified—worthy role models for all who create designs and realize them.

Preface

Chapter 0, page xxi, second paragraph, first line:

a practical as well as an theoretical

should be changed to

a practical as well as a theoretical

Chapter 0, page xxi, second paragraph, line 4:

Practical because the solution that I choose works well in practice

should be changed to

Practical because the solutions that I choose work well in practice

Chapter 0, page xxi, second paragraph, second-last line:

you get a better pay-check

should be changed to

you get a better paycheck

Chapter 0, page xxi, third paragraph, line 6:

will never be maintained as is the case

should be changed to

will never be maintained, as is the case

Chapter 0, page xxii, second paragraph, first line:

It does so by story telling

should be changed to

It does so by storytelling

Chapter 0, page xxii, third paragraph, line 4:

use as a stepping stone

should be changed to

use as a stepping-stone

Chapter 0, page xxii, section *A Tour of the Book*, third paragraph, line 6:

Thus software development techniques are introduced

should be changed to

Thus, software development techniques are introduced

Chapter 0, page xxv, section *Conventions*, line 2:

Generally definitions *and* principles *are*

should be changed to

Generally, definitions *and* principles *are*

Chapter 0, page xxv, section *Conventions*, line 3:

I use side bars to present

should be changed to

I use sidebars to present

Chapter 0, page xxv, section *Conventions*, line 5:

single page side bar

should be changed to

single page sidebar

Chapter 0, page xxv, section *Conventions*, second paragraph, first line:

I use type faces

should be changed to

I use typefaces

Chapter 0, page xxvi, section *Web Resources*, second-last line:

in folder chapter/tdd/iteration-0 in the zipfile

should be changed to

in folder chapter/tdd/iteration-0 in the zip file

Chapter 0, page xxvii, section *Acknowledgments*, second paragraph, third-last line:

My collegues at Department of Computer Science, Aarhus University

should be changed to

My colleagues at Department of Computer Science, Aarhus University

---

Chapter 1

Chapter 1, page 5, line 3:

is treated is greater detail.

should be changed to

is treated in greater detail.

Chapter 1, page 7, line 4:

it is written by practitioning software developers

should be changed to

it is written by practicing software developers

Chapter 1, page 8, second paragraph, first line:

Bjarne Stoustrup, the inventor of the C++ programming language

should be changed to

Bjarne Stroustrup, the inventor of the C++ programming language

---

Chapter 1, page 8, second paragraph, line 5:

If these matter have to

should be changed to

If these matters have to

Chapter 1, page 8, third paragraph, line 4:

the plan should be revised as experience accumulate.

should be changed to

the plan should be revised as experience accumulates.

Chapter 1, page 8, fifth paragraph, line 3:

the price of the product which again correlates

should be changed to

the price of the product which correlates

Chapter 1, page 9, first paragraph, third-last line:

examples of projects, that did not deliver in time,

should be changed to

examples of projects that did not deliver in time,

Chapter 1, page 9, second bullet-point, last line:

aspects that serves the user's need best.

should be changed to

aspects that serve the users' needs best.

Chapter 1, page 10, bullet-point *Courage*, line 2:

However, keep developing based on a bad design or keep fixing defects

should be changed to

However, continuing development based on a bad design or fixing defects

---

Chapter 1, page 10, last paragraph, fifth-last line:

used with ever growing functionality.

should be changed to

used with ever-growing functionality.

Chapter 1, page 10, last paragraph, fourth-last line:

the development effort of each pair programming team are continuously added

should be changed to

the development efforts of each pair programming team are continuously added

---

Chapter 1, page 10, last line:

Integration testing is on of the learning foci

should be changed to

Integration testing is one of the learning foci

Chapter 1, page 11, first paragraph, second-last line:

it is further broken down as will be describe in

should be changed to

it is further broken down as will be described in

Chapter 1, page 11, second paragraph, line 2:

each with a well defined focus.

should be changed to

each with a well-defined focus.

Chapter 1, page 11, second paragraph, line 6:

It is light-weight

should be changed to

It is lightweight

Chapter 1, page 12, Discussion of Exercise 1.2, line 5:

More people also means more coordination

should be changed to

More people also mean more coordination

Chapter 2

Chapter 2, page 14, second paragraph, third-last line:

many other qualities becomes irrelevant

should be changed to

many other qualities become irrelevant

Chapter 2, page 15, third paragraph, first line:

to calculate the week day it represents.

should be changed to

to calculate the weekday it represents.

Chapter 2, page 16, second paragraph, first line:

this date was indeed a monday.

should be changed to

this date was indeed a Monday.

Chapter 2, page 17, line 2:

the Date *class is part of a calender program*

should be changed to

the Date *class is part of a calendar program*

Chapter 2, page 19, section 2.4, line 4:

programs that takes care

should be changed to

programs that take care

Chapter 2, page 20, line 2:

The two imports in the source code listing is all I need for now.

should be changed to

The two imports in the source code listing are all I need for now.

Chapter 2, page 25, Discussion of Exercise 2.1, first line:

the implementation of the spell checking unit

should be changed to

the implementation of the spell-checking unit

Chapter 2, page 25, Disussion of Exercise 2.1, line 2:

a defect making spell checking fail

should be changed to

a defect making spell-checking fail

Chapter 2, page 25, Discussion of Exercise 2.1, line 3:

one user that never uses the spell checking feature

should be changed to

one user that never uses the spell-checking feature

Chapter 2, page 26, Exercise 2.4, part 2:

Write an implementation that passes all test.

should be changed to

Write an implementation that passes all tests.

Chapter 3

Chapter 3, page 29, section 3.1, first line:

it defines a well known, everyday, concept.

should be changed to

it defines a well-known, everyday concept.

☞ **Chapter 3, page 29, Listing: chapter/maintainability/example1/X.java:**

private static int y;

should be changed to

private int y;

☞ **Chapter 3, page 30, Listing: chapter/maintainability/example2/X.java:**

private static int y;

should be changed to

private int y;

Chapter 3, page 30, fourth paragraph, line 3:

This is a substantial 35%.

should be changed to

This is a substantial difference of 35%.

Chapter 3, page 32, line 5:

search the web for the The International Obfuscated C Code Contest.

should be changed to

search the web for The International Obfuscated C Code Contest.

Chapter 3, page 32, section 3.2.2, third-last line:

It is a well known golden rule in programming

should be changed to

It is a well-known golden rule in programming

Chapter 3, page 35, last paragraph, first line:

consider that we want to sell the point of sale system in a third state?

should be changed to

consider that we want to sell the point of sales system in a third state.

Chapter 4

Chapter 4, page 43, second paragrraph, line 2:

will experience additional and changing requirements which allows us

should be changed to

will experience additional and changing requirements which allow us

---

Chapter 4, page 43, section 4.1, line 4:

from my home town Aarhus

should be changed to

from my hometown Aarhus

Chapter 4, page 44, Story 3, line 2:

By mistake, he enters a 1 euro coin

should be changed to

By mistake, he enters a 1-euro coin

Chapter 4, page 45, section 4.2, second paragraph, line 3:

The PayStationHardware *class encapsulate all hardware related behavior*

should be changed to

The PayStationHardware *class encapsulates all hardware related behavior*

☞ **Chapter 4, page 48, Figure 4.4:**

recipt:ReciptImpl (object created in the diagram)

should be changed to

receipt:ReceiptImpl

Chapter 5

Chapter 5, page 49, last paragraph, second-last line:

apply them in pratice in your program development.

should be changed to

apply them in practice in your program development.

Chapter 5, page 50, second paragraph, line 5:

Failures in sofware were often seen

should be changed to

Failures in software were often seen

Chapter 5, page 50, third paragraph, line 3:

it is achieved by having a well structured programming process

should be changed to

it is achieved by having a well-structured programming process

---

Chapter 5, page 50, fourth paragraph, line 9:

After implementing a small parts of the feature

should be changed to

After implementing a small part of the feature

Chapter 5, page 50, last paragraph, fourth-last line:

In TDD you concentrate on one step at the time—even if it means writing code that will only be used temporarily .

should be changed to

In TDD you concentrate on one step at a time—even if it means writing code that will only be used temporarily.

Chapter 5, page 51, second paragraph, line 3:

I have a need to produce a implementation

should be changed to

I have a need to produce an implementation

Chapter 5, page 51, section 5.2, second paragraph, third-last line:

weird failures begins to surface.

should be changed to

weird failures begin to surface.

Chapter 5, page 51, Before the Test List box:

A simple suggesting is:

should be changed to

A simple suggestion is:

Chapter 5, page 54, sidebar 5.1, second paragraph, first line:

The contents of the folder shows the production and testing code

should be changed to

The contents of the folder show the production and testing code

Chapter 5, page 56, fourth paragraph, line 2:

Still, this principle appears odd as first sight,

should be changed to

Still, this principle appears odd at first sight,

Chapter 5, page 57, second paragraph, line 8:

the pay station cannot accept 5 cent coins.

should be changed to

the pay station cannot accept 5-cent coins.

Chapter 5, page 57, second paragraph, line 9:

the 5 cent test case would fail

should be changed to

the 5-cent test case would fail

Chapter 5, page 57, second paragraph, line 9:

the 25 cent test case would pass.

should be changed to

the 25-cent test case would pass.

Chapter 5, page 60, section 5.5, line 5:

We do not have that many 17 cent coins around

should be changed to

We do not have that many 17-cent coins around

Chapter 5, page 62, sidebar 5.2, line 2:

The software operated a pen based plotter

should be changed to

The software operated a pen-based plotter

Chapter 5, page 62, last paragraph, last line:

For instance I chose a 17 cent coin as illegal coin,

should be changed to

For instance I chose a 17-cent coin as illegal coin,

Chapter 5, page 62, line 4:

the buy story states that 5, 10, and 25 cent coins are valid

should be changed to

the buy story states that 5, 10, and 25-cent coins are valid

Chapter 5, page 62, line 5:

my implementation using a switch treats each coin seperately.

should be changed to

my implementation using a switch treats each coin separately.

Chapter 5, page 68, third paragraph, third-last line:

such a straight forward implementation

should be changed to

such a straightforward implementation

Chapter 5, page 70, third-last paragraph, line 2:

introduce a instance variable timeBought

should be changed to

introduce an instance variable timeBought

Chapter 5, page 70, third-last paragraph, last line:

used in both readDisplay *and* buy .

should be changed to

used in both readDisplay *and* buy.

Chapter 5, page 75, second-last bullet-point, second-last line:

keep their value through-out the project's life time.

should be changed to

keep their value throughout the project's lifetime.

Chapter 5, page 76, line 3:

In my own 20 year professional life

should be changed to

In my own 20-year professional life

Chapter 5, page 76, section 5.13, second paragraph, first line:

The TDD process is structured by the five step rhythm

should be changed to

The TDD process is structured by the five-step rhythm

Chapter 5, page 77, in the source code listing:

@return A Dictionary object. . . The dictionary object is never null. . .

should be changed to

@return A map object. . . The map object is never null. . .

Chapter 5, page 78, exercise 5.3, step 2:

Document your TDD process in a log book

should be changed to

Document your TDD process in a logbook

Chapter 5, page 78, Exercise 5.4, first line:

Breakthrough is a two person game

should be changed to

Breakthrough is a two-person game

Chapter 5, page 78, Exercise 5.4, second paragraph, first line:

The roles of movement is simple.

should be changed to

The rules of movement are simple.

Chapter 5, page 78, exercise 5.4, step 2:

Document your TDD process in a log book

should be changed to

Document your TDD process in a logbook

Chapter 5, page 78, Exercise 5.5, first line:

verify if an email adress is well-formed.

should be changed to

verify if an email address is well-formed.

Chapter 5, page 78, exercise 5.5, step 2:

Document your TDD process in a log book

should be changed to

Document your TDD process in a logbook

Chapter 6

Chapter 6, page 81, section *Learning Objectives, line 6:*
As example of a concrete tools I will introduce
should be changed to
As example of a concrete tool I will introduce

Chapter 6, page 81, second paragraph, line 3:
are as import in building Ant scripts
should be changed to
are as important in building Ant scripts

Chapter 6, page 82, definition Build description, first line:
managing and constructing an executable software.
should be changed to
managing and constructing an executable software system.

Chapter 6, page 84, section 6.3.1, line 4:
can be put in seperate packages.
should be changed to
can be put in separate packages.

Chapter 6, page 84, section 6.3.1, third paragraph, first line:
the five steps that defines each iteration
should be changed to
the five steps that define each iteration

Chapter 6, page 86, second-last paragraph, line 2:
all the tasks that must be executed to fulfil the target.
should be changed to
all the tasks that must be executed to fulfill the target.

Chapter 6, page 89, second paragraph, line 2:
I will no longer writing them in full
should be changed to

I will no longer write them in full

Chapter 6, page 90, first line:

Finally the `test` *targets executes cleanly*

should be changed to

Finally the `test` *target executes cleanly*

Chapter 6, page 90, second-last paragraph, last line:

I want to get rid of these duplication.

should be changed to

I want to get rid of this duplication.

Chapter 6, page 91, line 4:

that both execute as intented.

should be changed to

that both execute as intended.

Chapter 6, page 91, fourth-last line:

by refering to this path

should be changed to

by referring to this path

Chapter 6, page 92, section 6.3.6, line 7:

and simply clutters my overview of the source code.

should be changed to

and simply clutter my overview of the source code.

Chapter 6, page 93, third paragraph, line 2:

I have to update the classpath that before refered

should be changed to

I have to update the classpath that before referred

Chapter 6, page 94, third paragraph, first line:

there is another way that enhance overview even more:

should be changed to

there is another way that enhances overview even more:

Chapter 6, page 94, key point, line 3:

makes it easy to make a customer release without testing code.

should be changed to

makes it easy to make a customer release without test code.

Chapter 6, page 95, third paragraph, first line:

the source files in the new source code tree is not compiled.

should be changed to

the source files in the new source code tree are not compiled.

Chapter 6, page 96, section 6.3.9, line 4:

I can use the UNIX "/" as a directory seperator;

should be changed to

I can use the UNIX "/" as a directory separator;

Chapter 6, page 96, section 6.3.9, line 5:

Ant will automatically convert to the relevant seperator

should be changed to

Ant will automatically convert to the relevant separator

Chapter 6, page 98, section 6.4.1, first line:

need a lot of auxilary files to be deployed

should be changed to

need a lot of auxiliary files to be deployed

Chapter 6, page 100, sidebar 6.1, line 2:

One of the aspects that shows LaTeX's age

should be changed to

One of the aspects that show LaTeX's age

Chapter 6, page 100, sidebar 6.1, second paragraph, first line:

The LaTeX tool box includes programs

should be changed to

The LaTeX toolbox includes programs

Chapter 6, page 100, section 6.6, second paragraph, line 2:

Build tools takes a build description as input parameter

should be changed to

Build tools take a build description as input parameter

Chapter 6, page 101, discussion of Exercise 6.1, line 3:

This means that conversion is straight forward.

should be changed to

This means that conversion is straightforward.

Chapter 6, page 101, discussion of Exercise 6.1 / The Ant code:

refid="_classpath"

should be changed to

refid="class-path"

Chapter 7

Chapter 7, page 109, section 7.1, line 3:

We is contacted by the municipality

should be changed to

We are contacted by the municipality

Chapter 7, page 110, after the iteration-9 code listing:

The only change in the the

should be changed to

The only change in the

Chapter 7, page 111, definition Variability point:

A variability point is a well defined section

should be changed to

A variability point is a well-defined section

Chapter 7, page 116, second paragraph, line 6:

If the the amount of variant switching code,

should be changed to

If the amount of variant switching code,

Chapter 7, page 116, second paragraph, line 7:

outnumbers the the code associated

should be changed to

outnumbers the code associated

Chapter 7, page 119, definition Change by addition:

Change by addition *is behavioral changes that are are introduced*

should be changed to

Change by addition *is behavioral changes that are introduced*

Chapter 7, page 122, second paragraph, first line:

source-tree copy and parametric proposals has the property

should be changed to

source-tree copy and parametric proposals have the property

Chapter 7, page 122, second paragraph, line 4:

serves the other responsibilities we has no other

should be changed to

serves the other responsibilities I have no other

Chapter 7, page 123, second paragraph, line 2:

let some one else do the dirty job!

should be changed to

let someone else do the dirty job!

Chapter 7, page 128, exercise 7.5, second bullet-point:

identify and design an compositional solution

should be changed to

identify and design a compositional solution

Chapter 8

Chapter 8, page 131, section 8.1, line 6:

all too often we over estimate the steps we can take

should be changed to

all too often we overestimate the steps we can take

Chapter 9

Chapter 9, page 150, section 9.2, line 8:

he first had to define what is quality in architecture,

should be changed to

he first had to define what quality is in architecture,

Chapter 10

Chapter 10, page 157, line 5:

in essense this class encapsulate the package

should be changed to

in essence this class encapsulates the package

Chapter 10, page 159, first paragraph, third-last line:

who is the secretary reponsible

should be changed to

who is the secretary responsible

Chapter 10, page 160, exercise 10.1, second paragraph, line 3:

relying on a specific order of initialisation,

should be changed to

relying on a specific order of initialization,

Chapter 11

Chapter 11, page 178, line 3:
I will make the testing semi automatic
should be changed to
I will make the testing semi-automatic

Chapter 11, page 179, section 11.8, bullet-point *Reliability*, third-last line:
I can do semi automatic testing of it
should be changed to
I can do semi-automatic testing of it

Chapter 11, page 181, section 11.10, line 4:
only when a traveller inserts a coin.
should be changed to
only when a traveler inserts a coin.

Chapter 12

Chapter 12, page 188, second paragraph, second-last line:
The right hand object, denoted DOU, symbolises
should be changed to
The right hand object, denoted DOU, symbolizes

Chapter 12, page 191, second paragraph, line 2:
return what ever value the testing code has set.
should be changed to
return whatever value the testing code has set.

Chapter 12, page 195, sidebar 12.2, line 7:
so an trivial summation and average algorithm is incorrect.
should be changed to
so a trivial summation and average algorithm is incorrect.

Chapter 12, page 198, first line:
Define an Java interface for the die throwing algorithm,
should be changed to
Define a Java interface for the die throwing algorithm,

Chapter 13

Chapter 13, page 210, section 13.5, second bullet-point:
PayStationFactory *expressed this reponsibility.*
should be changed to
PayStationFactory *expressed this responsibility.*

Chapter 15

Chapter 15, page 233, fifth paragraph, line 2:
note the concepts "Acccount" and "Owner"
should be changed to
note the concepts "Account" and "Owner"

Chapter 15, page 236, first line:
I take the bag of garbage out from under the kichten sink,
should be changed to
I take the bag of garbage out from under the kitchen sink,

Chapter 15, page 236, fifth paragraph, first line:
behavior is the "nuts-and-bolts" of a program
should be changed to
Behavior is the "nuts-and-bolts" of a program

Chapter 15, page 237, third paragraph, first line:
behavior is defined by methods on objects
should be changed to
Behavior is defined by methods on objects

Chapter 15, page 237, last paragraph, first line:
In the pay station, there is are five responsibilities
should be changed to
In the pay station, there are five responsibilities

Chapter 15, page 238, last paragraph, first line:

Sometimes roles are invented to make an organisation work better.

should be changed to

Sometimes roles are invented to make an organization work better.

Chapter 15, page 241, third paragraph, first line:

Shalloway and Trott (2004) presents a nice story

should be changed to

Shalloway and Trott (2004) present a nice story

Chapter 15, page 244, first line:

A key point is that the SelectionHandler *is a self contained role*

should be changed to

A key point is that the SelectionHandler *is a self-contained role*

Chapter 15, page 245, second paragraph, last line:

objects that have no real world concept counter part.

should be changed to

objects that have no real world concept counterpart.

Chapter 16

Chapter 16, page 248, point (2) in 3-1-2 description:

I stated a well defined responsibility

should be changed to

I stated a well-defined responsibility

Chapter 16, page 250, line 2:

The classic example it the Comparable *interface,*

should be changed to

The classic example is the Comparable *interface,*

Chapter 16, page 250, fourth paragraph, line 7:

Some examples is for methods to have undocumented

should be changed to

Some examples are for methods to have undocumented

Chapter 16, page 251, third paragraph, last line:

Inheritance, however, also comes with a number of liabilities that must be considered.

should be changed to

Below, I will describe liabilities of class inheritance, followed by a few for object composition.

Chapter 17

Chapter 17, page 259, section 17.2, first line:

Analysing the problem, it is apparent

should be changed to

Analyzing the problem, it is apparent

Chapter 17, page 261, first paragraph, second-last line:

Cohesion suffers as does analysability.

should be changed to

Cohesion suffers as does analyzability.

Chapter 17, page 261, third paragraph, line 3:

I might just as well have choosen

should be changed to

I might just as well have chosen

Chapter 18

Chapter 18, page 266, definition "Design pattern (Role view)", line 2:

by a well defined protocol between these roles.

should be changed to

by a well-defined protocol between these roles.

Chapter 18, page 269, second paragraph, second-last line:

all the jigsaw pieces form a understandable picture.

should be changed to

all the jigsaw pieces form an understandable picture.

Chapter 22

Chapter 22, page 299, first paragraph, line 4:

Another benefit of the separation is a well known consequence

should be changed to

Another benefit of the separation is a well-known consequence

---

Chapter 25

Chapter 25, page 316, section 25.6, point (1):

Enhance the ProxyDemo *with such a image protection proxy.*

should be changed to

Enhance the ProxyDemo *with such an image protection proxy.*

Chapter 25, page 317, problem section, line 2:

or we need diffent types of housekeeping

should be changed to

or we need different types of housekeeping

Chapter 29

Chapter 29, page 337, line 7:

These presents a palette of figures:

should be changed to

These present a palette of figures:

Chapter 29, page 338, section 29.2, line 3:

A well established solution to this challenge

should be changed to

A well-established solution to this challenge

Chapter 30

Chapter 30, page 351, line 4:

(not show in the listing).

should be changed to

(not shown in the listing).

Chapter 30, page 351, section 30.3, line 4:

ensure that they always points to the middle

should be changed to

ensure that they always point to the middle

Chapter 30, page 355, third paragraph, line 3:

that takes an GIF image name as constructor parameter.

should be changed to

that takes a GIF image name as constructor parameter.

Chapter 31

☞ **Page 364: Listing starting at end of page**

```
class Class {
  private HookInterface hook;

  [rest of the code, continuing on p. 365]
}
```

should be changed to

```
class Class {
  private HookInterface1 delegate1; private HookInterface2 delegate2;
  public void setHook( HookInterface1 del1, HookInterface2 del2) {
    delegate1 = del1; delegate2 = del2;
  }
  public void templateMethod() {
    [fixed code part 1]
    delegate1.step1();
    [fixed code part 2]
    delegate2.step2();
    [fixed code part 3]
  }
}
interface HookInterface1 {
  public void step1();
}
```

```
interface HookInterface2 {
  public void step2();
}
class ConcreteHook1 implements HookInterface1() {
  public void step1() {
    [step 1 specific behavior]
  }
class ConcreteHook2 implements HookInterface2() {
  public void step2() {
    [step 2 specific behavior]
  }
}
```

☞ **Page 366: The design pattern box**

should be changed to

Intent   Define the skeleton of an algorithm in an operation, deferring some steps to subclasses or delegates. Template Method lets the behavior of certain steps of an algorithm be varied without changing the algorithm's structure.
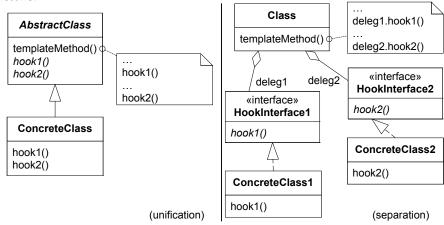
Problem   There is a need to have different behaviors of some steps of an algorithm but the algorithm's structure is otherwise fixed.

Solution   Define the algorithm's structure and invariant behavior in a template method and let it call hook methods that encapsulate the steps with variable behavior. Hook methods may either be abstract methods in the same class as the template method, or they may be called on delegate object(s) implementing one or several interfaces defining the hook methods. The former variant is the *unification* variant, the latter the *separation* variant.

Structure:

(unification)   (separation)

Roles The roles are method abstractions: the **template method** defines the algorithm structure and invariant behavior. **Hook methods** encapsulate variable behavior. The **HookInterface** interfaces define the method signatures of the hook methods.

Cost - Benefit The benefits are that the *algorithm template is reused* and thus avoids multiple maintenance; that the *behavior of individual steps, the hooks, may be changed*; and that *groups of hook methods may be varied independently* (separation variant only). The liability is *added complexity of the algorithm* as steps have to be encapsulated.

Chapter 32

Chapter 32, page 367, section 32.1, first line:

If you lookup the term "framework" in a dictionary

should be changed to

If you look up the term "framework" in a dictionary

Chapter 32, page 369, last paragraph, first line:

a framework requires an substantial initial investment in training

should be changed to

a framework requires a substantial initial investment in training

Chapter 32, page 370, first paragraph, line 1:

a terminology introduce by

should be changed to

a terminology introduced by

Chapter 32, page 370, last paragraph, line 2:

the code that defines the specialisation of the variability points

should be changed to

the code that defines the specialization of the variability points

Chapter 32, page 376, second paragraph, line 6:

have a well defined variability point in the framework

should be changed to

have a well-defined variability point in the framework

Chapter 34

Chapter 34, page 403, first line:

The first column describes the condition that has lead to partitioning,

should be changed to

The first column describes the condition that has led to partitioning,

---

Chapter 34, page 408, second paragraph, second-last line:

it has lead to only three extra test cases.

should be changed to

it has led to only three extra test cases.

Chapter 34, page 412, section 34.3, last paragraph, line 6:

otherwise a 8% interest rate is deducted.

should be changed to

otherwise an 8% interest rate is deducted.

Chapter 34, page 414, section 34.5, second paragraph, line 6:

Finding ECs is a iterative and heuristic process:

should be changed to

Finding ECs is an iterative and heuristic process:

☞ **Chapter 34, page 404, Section 34.2.2, the test case tabel:**

ECs covered	Test case	Expected output
[1]	$x = -37$	$+37$
[2]	$x = 42$	$+42$

should be changed to

ECs covered	Test case	Expected output
[1]	$x = 42$	$+42$
[2]	$x = -37$	$+37$

Chapter 34, page 408, second paragraph, second-last line:
it has lead to only three extra test cases.
should be changed to
it has led to only three extra test cases.

Chapter 34, page 412, section 34.3, last paragraph, line 6:
otherwise a 8% interest rate is deducted.
should be changed to
otherwise an 8% interest rate is deducted.

Chapter 34, page 414, section 34.5, second paragraph, line 6:
Finding ECs is a iterative and heuristic process:
should be changed to
Finding ECs is an iterative and heuristic process:

Chapter 35

Chapter 35, page 426, second paragraph, first line:
that is, an location that is empty,
should be changed to
that is, a location that is empty,

Chapter 35, page 436, exercise 35.17 description:
for configuring all your your supported HotGammon variants.
should be changed to
for configuring all your supported HotGammon variants.

Chapter 35, page 445, exercise 35.39 description:
*The following interface defines a **Observer** role*
should be changed to
*The following interface defines an **Observer** role*

Chapter 35, page 449, exercise 35.47 description:
for the development of your HotCiv source code
should be changed to
for the development of your HotGammon source code

Chapter 36

Chapter 36, page 454, line 2:

The game takes place in a earth-like "board" or world

should be changed to

The game takes place in an earth-like "board" or world

Chapter 36, page 459, third paragraph, first line:

Finally, Position *is a concrete class the allows*

should be changed to

Finally, Position *is a concrete class that allows*

Chapter 36, page 468, section 36.4.3, line 7:

and the two mountains (totalling 4 tiles)

should be changed to

and the two mountains (totaling 4 tiles)

Chapter 36, page 469, list-point 3 at top of page:

analysability, changeability, and stability.

should be changed to

analyzability, changeability, and stability.

Chapter 36, page 473, exercise 36.30:

BLUE changes work force focus

should be changed to

BLUE changes workforce focus

Chapter 36, page 475, exercise 36.34, list-point 2:

Discuss how the Game *interface should be refactored to use this pattern.*

should be changed to

Discuss if the Game *interface should be refactored to use this pattern.*

Chapter 36, page 475, section 36.7.1, line 2:

The requirements to the interfaces is

should be changed to

The requirements to the interfaces are

Chapter 36, page 483, exercise 36.48 description:

systematic black-box testing techniques equivalent classes.

should be changed to

systematic black-box testing technique equivalence class partitioning.

Chapter 36, page 484, exercise 36.50 description:

systematic black-box testing techniques equivalent classes.

should be changed to

systematic black-box testing technique equivalence class partitioning.

Chapter 36, page 485, exercise 56.52 description:

Make an short oral presentation of black-box testing

should be changed to

Make a short oral presentation of black-box testing

Acknowledgements