

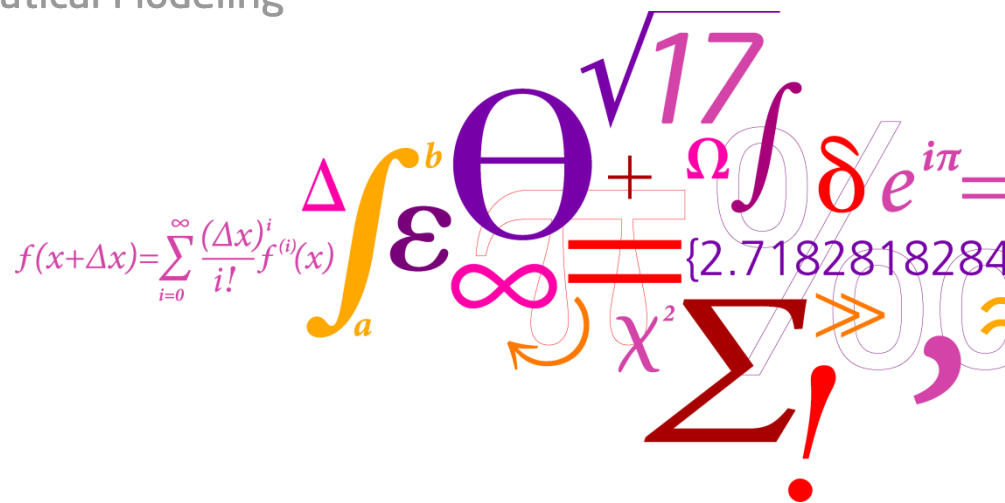
Software Engineering 2

A practical course in software engineering

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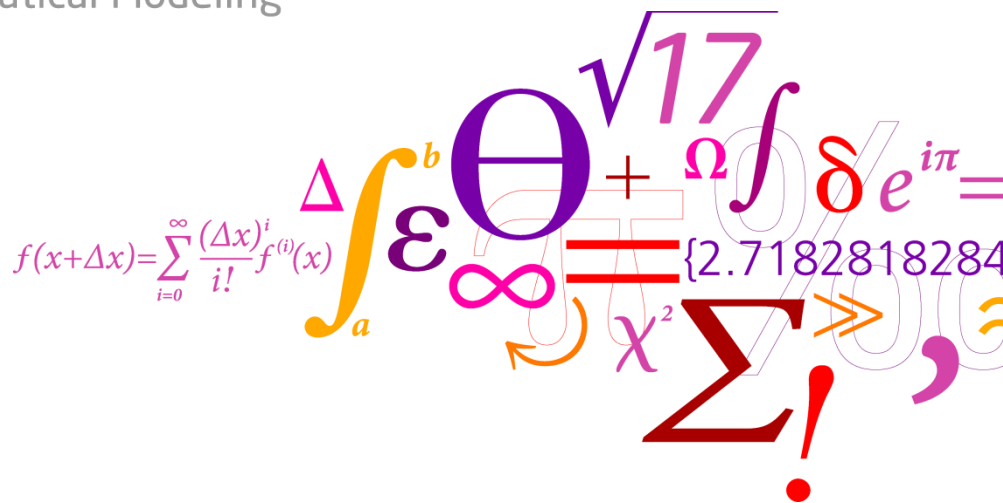


Writing Handbooks

DTU Informatics

Department of Informatics and Mathematical Modeling

And a bit more on writing!



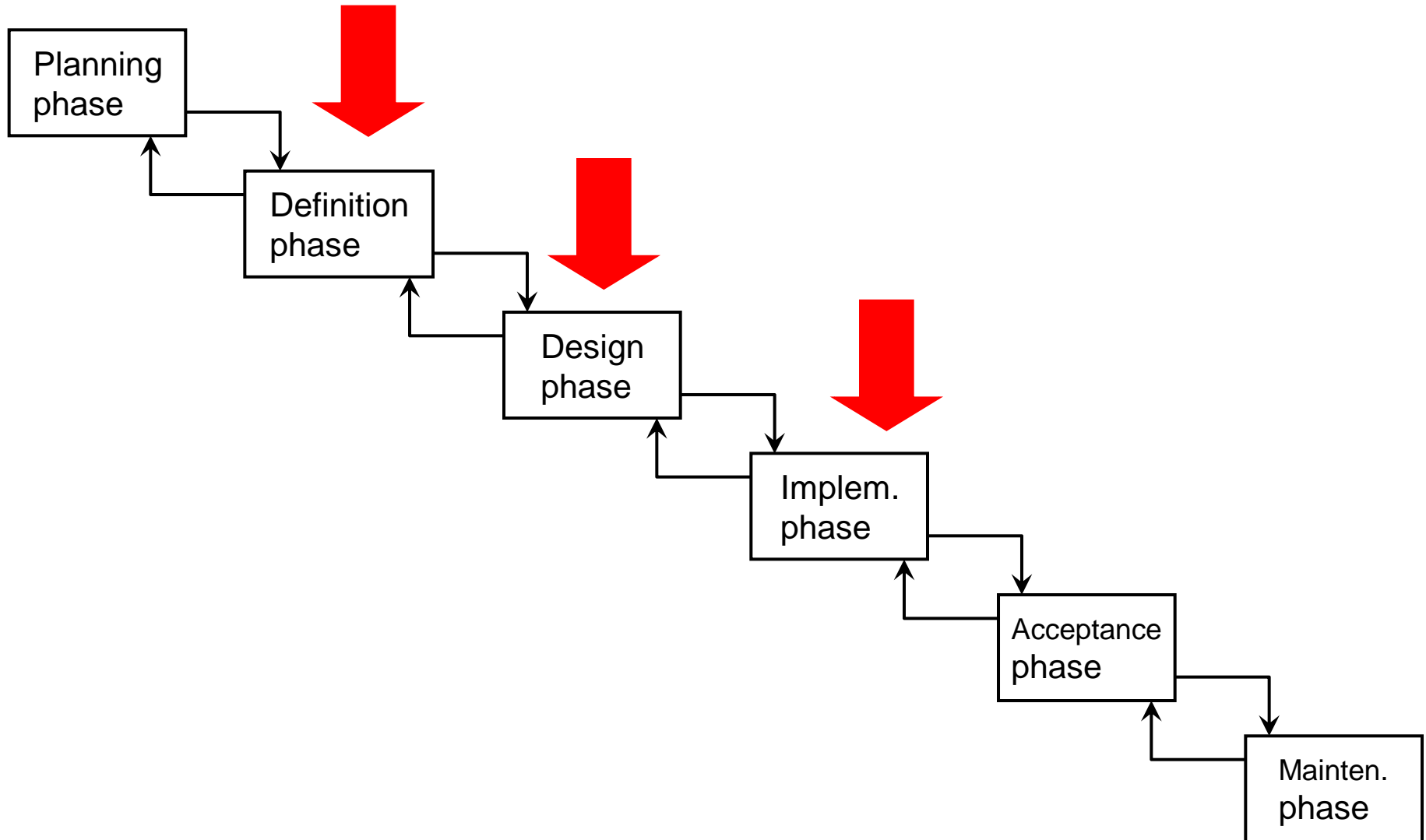
- Presents the product from the user's point of view **only**

Typically:
No UML in it!

In some cases, there could be some technical notations or diagrams in the handbook! When?

e.g.:

- Handbook for a UML tool
- For explaining concepts (abstract syntax) to a technical audience



- Presents the product from the user's point of view

Early version of handbook helps

- assuring that customer's and developer's understanding of the product coincide
- assuring the completeness of the product (in particular from the user point of view)
- defining acceptance tests

The responsibility for completeness remains with the engineer!

- On writing handbooks
 - Purpose
 - Kinds of handbooks
 - Principles

- On writing in general (again)
 - Principle
 - Guidelines
 - General rules

Purpose (originally):

Not exploiting the benefits during the development process.

Describes the behaviour and the use of the product from the user's perspective only

- complete
- accurate
- **comprehensible**
- entertaining

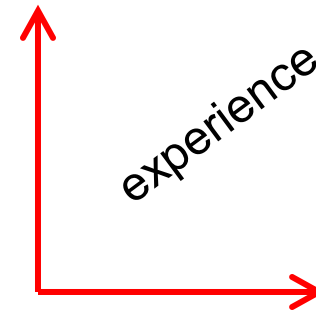
A user must be able to use the product without any other information.

Assuming some common places of course (pragmatics).

The user of a product:

- new user
- advanced user
- expert

field of
application



computer & tools

Different users (audience) have different needs!

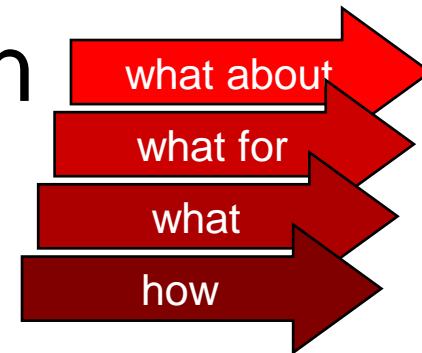
Be aware of (decide on) your audience!

- Tutorial
- User guide
- Reference manual
- Quick reference

- Must be worked through systematically
- Typically, worked through with the tool (“hands on”)
- Includes much motivation and explanation
- Subsequent parts build on each other

- Subsequent parts built on each other
- But, can also be read independently of each other
- A compromise between different needs

- Very detailed (all information covered)
- Cannot and will not be read from the first to the last page
- Parts need to be independent from each other
- Typically, almost no motivation (only what and how)



- Not very detailed
- Covers all important information on a glance
- No motivation
- Needs prior knowledge (of general structure of GUIs and of application area)

Application oriented:

Along the tasks (business processes)
the product is used for

Product oriented:

Along the structure of the product (functions
and parts of the product; e.g. systematically
explaining all elements on the GUI)

Application oriented:

- + good orientation for beginners
- + good readability
- Much redundancy (same function might occur in many use cases)

A user guide,
typically, combines
both structures.

Product oriented:

- + completeness can be easily achieved
- + no redundancy (every feature explained only once)
- user has no orientation and does not know how to put pieces together

- Preface
- Table of contents
- Introduction
- Installation
- Graphical user interface
- Product structure
- Tutorial
- Reference manual
- Bibliography
- Glossary
- Index

Context, motivation, purpose, ...

Note: There could be other adequate structures.

E.g. example section for running example

Most principles that apply for good talks apply to good writing too:

- Who is the audience?
- What is the goal?
- How do I achieve it?

Some problems are even more serious:
the reader cannot interact with the author

- Which questions could arise for the reader?
- What could be misunderstood?

Other problems are less serious than in talks:

- The reader can go back!
- The reader can skip parts
(if the document is well-structured)

A good index
helps with that!!

When is a text comprehensibility?

Are there criteria for comprehensibility?

See lecture 3 (Sect. 4)!

- Simplicity (-- - 0 + +++)
 - simple words
 - simple sentences
 - short sentences
 - concrete (e.g. by example)

- Structuring (-- - 0 + +++)
 - one idea after the other
 - form and content are coherent
 - conclusive

- Conciseness (-- - 0 + ++)
 - shortness
 - focussed on essentials
 - no empty words and sentences

- Inspiring Additions (-- - 0 + ++)
 - motivating
 - interesting
 - diversified

- Put important information first (early)
- Use short and simple sentences
- Use singular
- Use strong verbs
- Avoid nouns for actions
- Avoid using adjectives
- Think of good headlines
- Align inner and outer structure of the text (don't use one for the other)
- Build concepts on top of each other
- Address reader directly (do not use passive)

Rule of Thumb: If all headlines are deleted, is the text still readable.

Writing in "spirals" (not too tight, not too wide)

Note: some people claim that this is "unscientific"!

Old, simple, but very effective
rules for writing in English.
The 1918 version is online
<http://www.bartleby.com/141/>

W. Strunk and E.B. White:
The Elements of Style (1935).

William Zinsser:
On Writing Well (1976).