

How to start

Document Inspections

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Problems with development

- It takes too long
- It is not immediately right
- It costs more than necessary

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Goal

- The right product
- The right quality
- Within agreed time and budget
- Pleasantly for all stakeholders (including you)

Quality On Time

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Defects

- Errors do not emerge
- A design does not have *bugs*, it has *defects*
- Designers make errors and thus cause defects
- Changing requirements causes a lot of defects
 - Solve the requirements paradox

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Do you ever make a mistake?

1. Making mistakes is human
2. We are humans

*If we think we are done
there are still defects*

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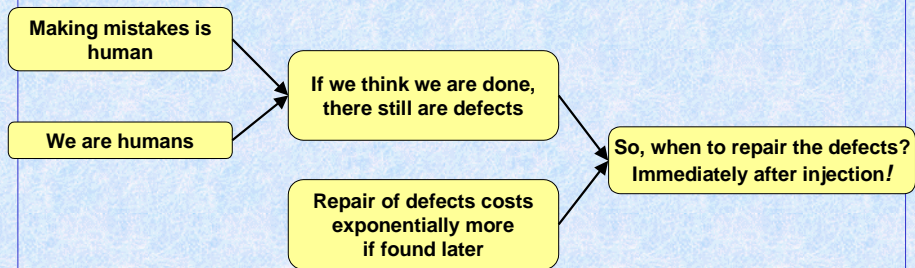
Costs of defects

**The longer a defect stays in the system,
the more it costs to repair**

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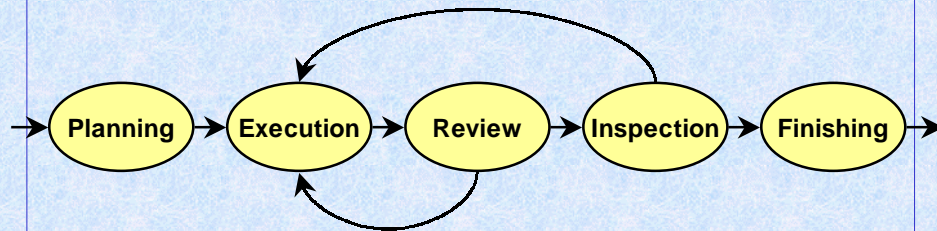
Inevitable consequence



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Sub-phases in every part of a project:

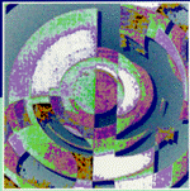


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Software Inspection

Tom Gilb
Dorothy Graham



ADDISON-WESLEY

A ready to use recipe ...

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Who is doing Inspections?

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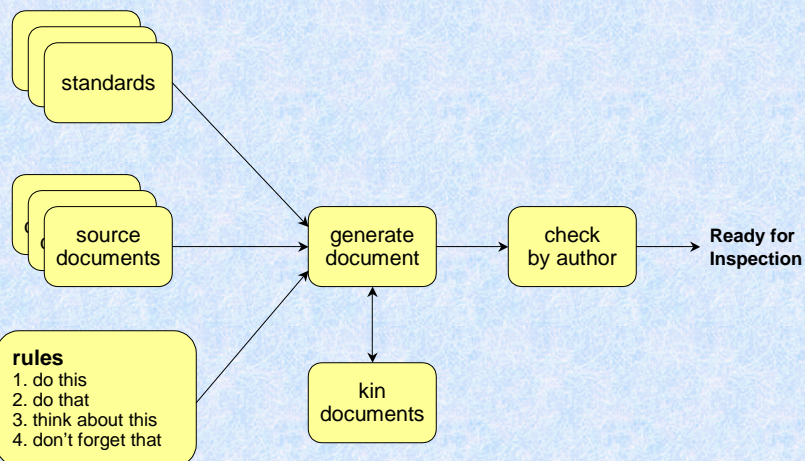
Inspection

- **Pioneered by Fagan (IBM), 1974**
- **Introduction of Inspection economics: Gilb (Software Inspections, 1993):**
- **Is *not* the same as review**
- **Use:**
 - **walkthroughs for transmission of contents**
 - **reviews for consensus**
 - **Inspections to improve the quality of the document and its process**

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Document generation



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Inspection goals and effects

1. **Identify and correct major defects**
2. **(most important)**
Identify and remove the source of defects
3. **(consequence)**
Education and interaction:
How should we generate documents
in the first place?
4. **Interesting side-effect:**
People get to know each others documents
efficiently

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Discipline

- **Control of wrong inclinations**
(beheersing van verkeerde neigingen)
- **Discipline is very difficult**
- **We must help each other**

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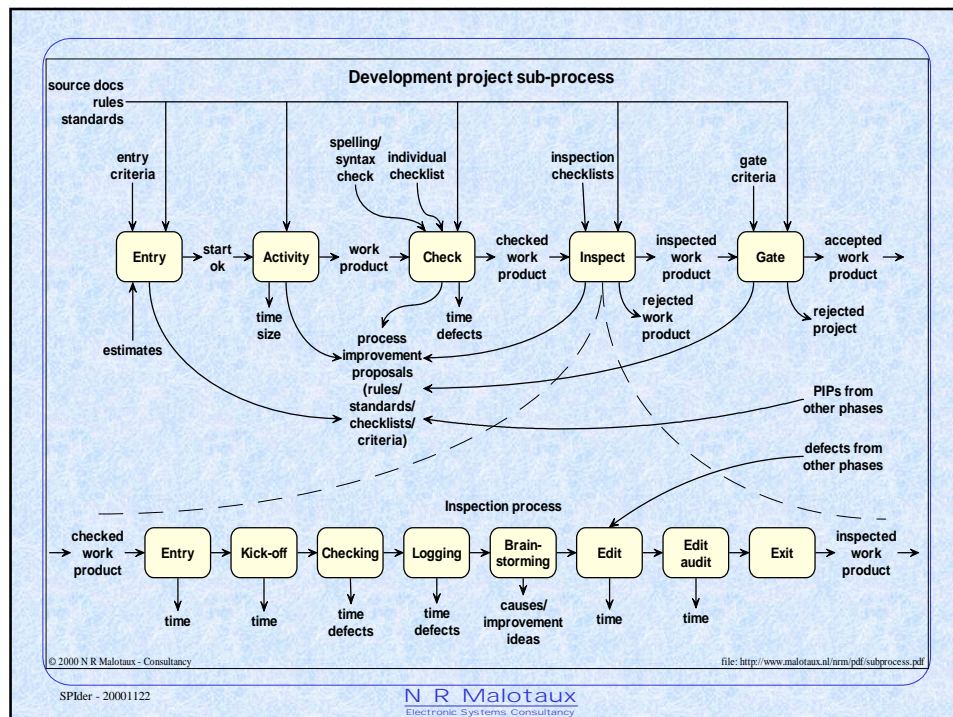
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Inspection process

- **Entry**
- **Planning**
- **Kickoff**
- **Checking**
- **Logging meeting**
- **Process brainstorming**
- **Edit**
- **Follow-up (edit audit)**
- **Exit**

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6 hour initial Inspection process

- **2 hr Kickoff**
 - Why
 - How
 - What
- **2 hr Individual checking**
 - 1 hr Whole document
 - 1 hr 2 selected pages
- **2 hr Logging meeting**
 - 1 hr Logging issues
 - ½ hr Discussion about Inspection process
 - ½ hr Discussion about what should have been in the document

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Essentials to keep them smile

or, what is the difference between
conventional reviews (“yes, we do reviews”)
and Formal Inspections

- **Introduction**
- **Rules**
- **Trained Inspection Leader**

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Trained Inspection Leader

- **Must manage the process**
- **Must protect the process**
- **Must protect the author**
- **Must protect the Inspection economics**
- **Don't let you lure into an Inspection on an immature document**

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Generic engineering rules

- | |
|------------|
| Entry |
| Planning |
| Kick-off |
| Checking |
| Logging |
| Brainstorm |
| Edit |
| Edit audit |
| Exit |
- GE1 (relevant) Relevant to the subject**
 - GE2 (complete) No significant omissions**
 - GE3 (consistent) Consistent with all related documents, including self**
 - GE4 (unambig) Unambiguous to intended readership**
 - GE5 (note) Comment, note, suggestion, not official part of document shall be clearly marked ("", ital, !**/)**
 - GE6 (brief) As brief as possible (but not less), to support purpose**
 - GE7 (clarity) Cristal clear (burden is on author, not reader)**
 - GE8 (elementary) Statements shall be broken into elementary form**
 - GE9 (unique) Specifications shall have single instance in entire project doc**
 - GE10 (source) Statements shall have source info (spec ← source)**
 - GE11 (risk) Uncertainty or risk indicated {<vaguely defined>, ?, ??, 70% ±20}**
 - GE12 (verifiable) All statements must be verifiable**
 - GE13 (not untrue) Any statement shall not be untrue (actually a review issue)**

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If you need a trick to get them do it

- **Keep your informal review way if you want**
- **For some “crucial” documents Formal Inspection is mandatory**

(Erik van Veenendaal)

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How about a general introduction ?

- **In the kick-off meeting some did not attend the general introduction**

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Logging rate

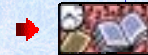
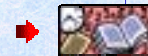
- **Why is the logging rate a metric?**
 - Issue logging rate should be between 0.5 and 2 issues per minute
- **Many process elements are meeting efficiency techniques**

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What do you need

- **Trained Inspection leader**
- **Inspection Manual**
 - Rules, Procedures
- **Documents + owners**
- **Checkers**
- **Inspection Master Plan template**
 - Who, What, Where
- **Presentation for the Kick-off meeting**
 - Why, How, What
- **Inspection metrics template**
 - Data collection
 - Issue collection
 - (Brainstorm fruits collection)



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When are you going to do it?

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