

Mechatronic System Design with Mind Maps

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<http://www.hs-merseburg.de/~lohoefen/Brno05/Lecture-10-Add-2.pdf>

Mechatronic System Design with Mind Maps

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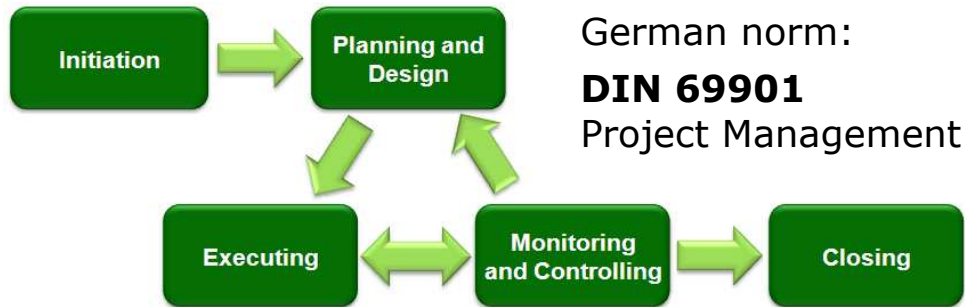
1. Project Management
2. Gantt Charts
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Project Management

Project management is the discipline of planning, organizing, securing and managing resources to bring about the successful completion of specific engineering project goals and objectives.

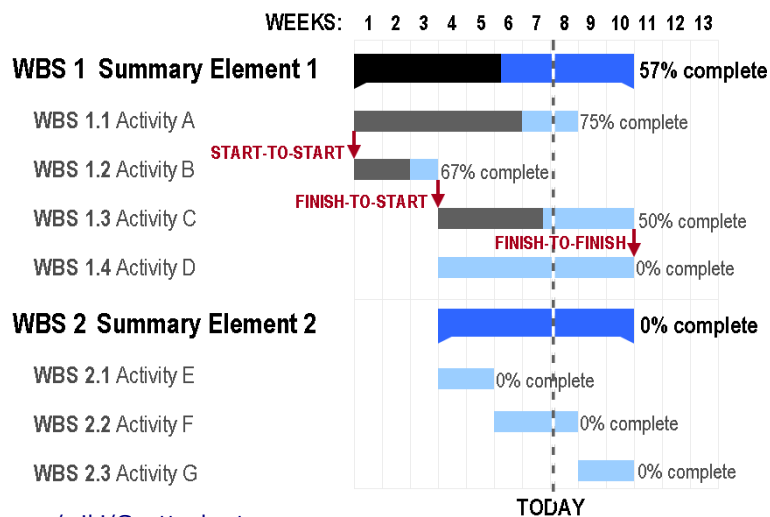


German norm:
DIN 69901
Project Management

© http://en.wikipedia.org/wiki/Project_management

Gantt Charts

An important project management tool is the use of Gantt charts.

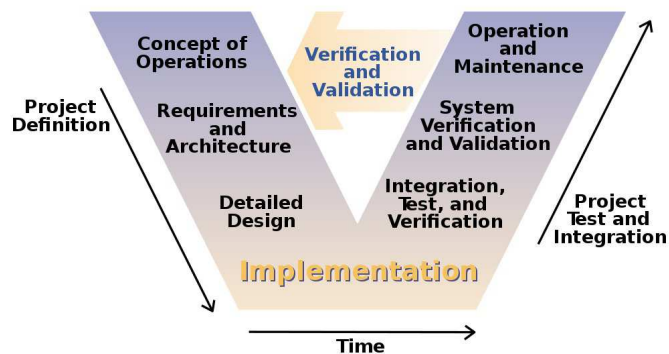


© http://en.wikipedia.org/wiki/Gantt_chart

V-Model

In systems engineering the V-model is used to define a uniform procedure for product or project development.

In the **VDI guideline 2206** it was adapted to the design of mechatronic systems



Requirements are usually described in a functional specification.

© <http://en.wikipedia.org/wiki/V-Model>

Functional Specifications Document (FSD)

Table of Contents

1. Introduction
- 1.1 Purpose
- 1.2 Definitions, acronyms, and abbreviations
- 1.3 References
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- 2.1 Product perspective
- 2.2 Product components
- 2.3 Product constraints
- 2.4 Proposed future requirements
3. Specific requirements
- 3.1 Specific requirement #1
- 3.2 Specific requirement #2
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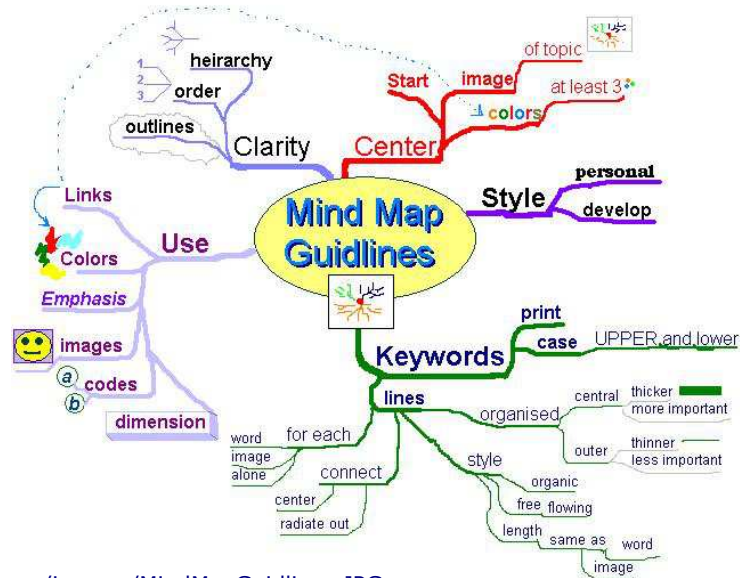
A functional specification (also, functional spec, specs, functional specifications document (FSD), or Program specification) in systems engineering and software development is the documentation that describes the requested behavior of an engineering system.

© http://en.wikipedia.org/wiki/Functional_specification

<http://www.stcsig.org/mgt/docs/uncspectempl.pdf>

Mind Maps

The term *mind mapping* is related to British psychologist Tony Buzan. In Buzan's context, mind map is a tree with many colours, pictures and personal expression.



© <http://www.ismckenzie.com/images/MindMapGuidelines.JPG>

FreeMind

FreeMind is a premier free mind-mapping software written in Java.

- ◆ Maintainer: FreeMind Community
- ◆ Operating system: Cross-platform
- ◆ License: GPL
- ◆ Version: 0.9.0 RC 10



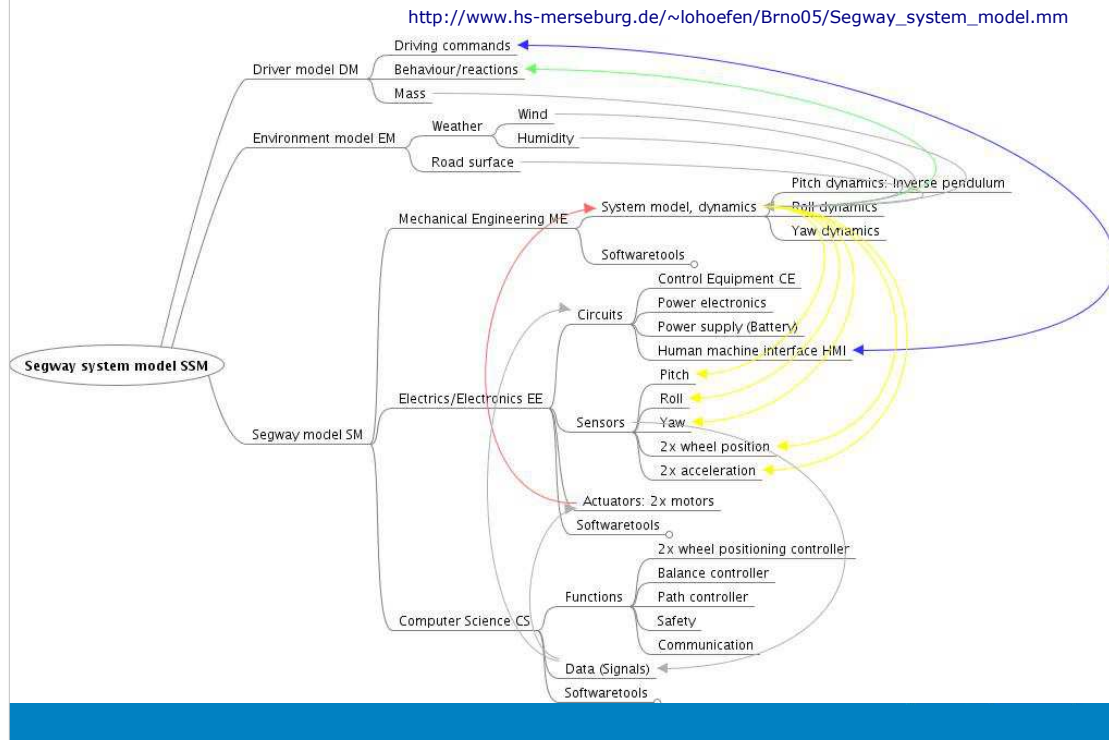
Current users of FreeMind use it for the following purposes:

- ◆ Keeping track of projects, including subtasks, state of subtasks and time recording
- ◆ Project workplace, including links to necessary files, executables, source of information and of course information

◆ ...

© http://freemind.sourceforge.net/wiki/index.php/Main_Page#Uses_of_FreeMind

Example: Segway



Conclusion

(TBD)

(ditto)