

walkthrough

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# Part I

## How To

This document should provides a recommendation on how to read the documentation. Every document is independet and can be read and understand as so, however the Author thinks that there is a certain order so that the project and all the documentats are as easy to understand as possible. In the next section the recommended order is provided as well as a short summary on what to expect from each document.

## Part II

### Recommended reading order

The Recommended reading order is as follows.

- Lastenheft/Pflichtenheft
- Dokumentation der Anforderungen, ,Spezifikation, Architektur, Komponenten (Arbeitsaufteilung) und der Integration
- Modelle des Entwurfs in grafischer Form
- Schaltpläne und Verdrahtungspläne, Erläuterungen des Schaltungsentwurfs
- Dokumentation des elektrischen Aufbaus der Schnittstellen
- Dokumentation von Test und Verhalten
- Dokumentierter Code

# Part III

## Explanations

# Lastenheft/Pflichtenheft

These documents are exactly the same because there was no real customer in this project. They give an introduction about the initial situation and the idea for the project and the major specifications and problems.

**Dokumentation der Anforderun-  
gen, Spezifikation, Architektur,  
Komponenten (Arbeitsaufteilung)  
und der Integration**



# Modelle des Entwurfs in grafischer Form

# Schaltpläne und Verdrahtungspläne, Erläuterungen des Schaltungs- entwurfs

This document provides a detailed look on the architecture of the system. All the graphs that are shown within the project are created with the Netlist-Viewer of VHDL which directly creates a scheme of the architecture based on the code. Furthermore this document gives explanations to all the parts of the architecture and the idea why it was chosen the way it is demonstrated.

# Dokumentation des elektrischen Aufbaus der Schnittstellen

This document is the step from architecture model to signals. It explains the relevant signals down to the unit level and shows the most important timestamps and changes by using graph snippets of the Altera ModelSim simulated environment.

# Dokumentation von Test und Verhalten

In this document you can find all the important tests that were created during the project. Furthermore the concept of Testbenches is explained and the major parts are pointed out in more detail.

# Dokumentierter Code

This document gives a little bit background information of the code. However this is all about the two folders containnig all the produced code. At this point you should be able to run and try to understand the code.