HAW HAMBURG

# CJ1 Report

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## Web App that Generates Electric Circuit LaTeX Code

*Faculty of Computer Science and Engineering*
*Department of Information and Electrical Engineering*

*Fakultät Technik und Informatik*
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# Web App that Generates Electric Circuit LaTeX Code

CJ1 Report based on the examination and study regulations
for the Bachelor of Engineering degree programme
*Bachelor of Science Information Engineering*
at the Department of Information and Electrical Engineering
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of the University of Applied Sciences Hamburg
Supervising examiner: Prof. Dr.-Ing. Martin Lapke

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**Title of Project**

Web App that Generates Electric Circuit LaTeX Code

**Keywords**

Life, Universe, Everything

**Abstract**

Arthur Dents travel to a new future ...

**Andre Alves, Divyesh Joshi, Myungjun Kim**

**Thema des Projekts**

Web-App, die LaTeX-Code für elektrische Schaltkreise generiert

**Stichworte**

Leben, Universum, Alles

**Kurzzusammenfassung**

Arthur Dents Reise in eine neue Zukunft ...

# Contents

# 1 Introduction

We forked the *draw.io* software by JGraph Ltd [2].

## 1.1 Phases

This project execution was divided into three distinct phases:

1. **P**hase 1: Team of four.
2. **P**hase 2: Agile (Scrum) with three-member team.
3. **P**hase 3: Replace Agile with Project Management Lite [1].

### 1.1.1 Phase 1

This project began around October 2021 with a team of four students. After beginning the project, Frances Joy Poblete disenrolled from HAW. Her disenrollment caused the team to reevaluate the scope of the project.

### 1.1.2 Phase 2

Follow Ms. Poblete's disenrollment, the remaining team members decided to adopt an Agile (Scrum) approach to project management.

### 1.1.3 Phase 3

# 2 Requirements Analysis

sadf

## 2.1 User Stories

There were two viable user stories for this project:

1. As a *researcher/student/educator/engineer*, I want to draw circuits for LaTeXdocuments using a GUI so that I can draw the circuits more quickly than I can code them.
2. As a *researcher/student/educator/engineer*, I want to draw circuits for LaTeXdocuments using a GUI so that I do not need to be a LaTeX*expert* to draw circuits.

Since any person who is writing a LaTeXdocument must have some level of coding knowledge, expecting users to slightly modify circuit code is a reasonable expectation. Therefore, the following user story was considered, but ultimately not included in the planning process:

- As a researcher/student/educator/engineer, I want to draw circuits for LaTeXdocuments using a GUI so that I do not require any LaTeXknowledge.

## 2.2 Other test

dssg

# Bibliography

[1] Juana Clark Craig. *Project Management Lite*. CreateSpace Independent Publishing Platform, 2012.

[2] JGraph Ltd. drawio, 2022.

# A Appendix: Project Charter

## Project Name

Web App that Generates Electric Circuit LaTeX Code

## Project Manager

Andre Alves

## Sponsor

HAW Hamburg

## Customer

Prof. Dr.-Ing. Martin Lapke

## Timeframe

**S**tart: **E**nd: 2022-01-01

## Known Critical Constraints

### Time

### Money

€400

### People

## Reason for the Project

Drawing circuits with LaTeXis difficult due to the coding requirements. It is much easier to draw those circuits in a GUI.

## Project Goal

Complete a program that allows users to obtain LaTeXcode that represents the circuit they draw using a GUI.

## What's Considered Done

- Users are able to draw basic circuits using a GUI.
- The app converts the circuit into LaTeXcode.

## Milestones/Deliverables

| Milestone | Deliverable | Due Date |
|---|---|---|
| 1 | 2 | 3 |

## Risks

| What could go wrong | Chances of it happening | Impact if it does happen | What should be done about it |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

# B Appendix: Project Plan

| Task | Assigned To | Start | End | Status |
|---|---|---|---|---|
| sdasdfadfgawgawgasdg asdgasdgasdgasdgasdgasdg | AAA | YY-MM-DD | YY-MM-DD | Completed |

# C Appendix: Lessons Learned

The following are lessons learned during each step of the project, divided by steps.

### Define what you're trying to do

### Come up with a plan to do it

### Get focused

### Make sure the work gets done

### Handle the problems

### Deal with any changes

### Keep everyone informed

### Manage the team

### Wrap it up

### Celebrate

## Declaration

We declare that this CJ1 Project has been completed by ourselves independently without outside help and only the defined sources and study aids were used.

| City | Date | Signature |
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| City | Date | Signature |
| City | Date | Signature |