

# CJ1 Report

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Web App that Generates Electric Circuit LaTeX Code

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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 of the Faculty of Engineering and Computer Science 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 . . .

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#### Thema des Projekts

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

#### Stichworte

Leben, Universum, Alles

#### Kurzzusammen fassung

Arthur Dents Reise in eine neue Zukunft ...

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# 1 Introduction

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

#### 1.1 Phases

This project execution was divided into three distinct phases:

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

#### 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 LaTeX documents 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 LaTeXexpert to draw circuits.

Since any person who is writing a LATEX document 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 LATEX documents using a GUI so that I do not require any LATEX knowledge.

#### 2.2 Other test

dssg

# 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 LATEX code that represents the circuit they draw using a GUI.

#### What's Considered Done

- Users are able to draw basic circuits using a GUI.
- $\bullet$  The app converts the circuit into  $\LaTeX$  Code.

## Milestones/Deliverables

Milestone	Deliverable	Due Date
1	2	3

# Risks

What c	ould go	Chances of it hap-	Impact if it does	What should be
wrong		pening	happen	done about it
1		2	3	4

# B Appendix: Project Plan

Task	Assigned To	Start	End	Status
sdasdfadfgawgawgasdg as-	AAA	YY-MM-DD	YY-MM-DD	Completed
dgasdgasdgasdgasdg				

# 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	$\operatorname{Date}$	${\bf Signature}$
City	Date	Signature
City	Date	Signature