



# MALPHAS

by Rastislav Patak  
Piotr Wyrwas

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# 1 Abstract

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The aim of this document is to outline the architecture and design choices that were made during the development process of the second revision of Malphas. Malphas is a digital logic simulation software implemented as a web-application. It allows users to visually model and simulate logic circuits. In the second revision, we focused on improving the performance of the circuit editor, implementing a wide range of quality-of-life improvements, as well as fixing various bugs. This paper also touches on the various design challenges that were encountered during the development, as well as the solutions we presented.

## 2 Known Bugs

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*“It deletes more than it should, but in the context of its functionality, that’s better than deleting too little.”*

– Rasti, 2025

The above quote demonstrates just one of the many known bugs in the first version of Malphas. This section aims to document the issues that we discovered when testing said version, which we aim to fix in the second revision.

### 3 Architecture

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