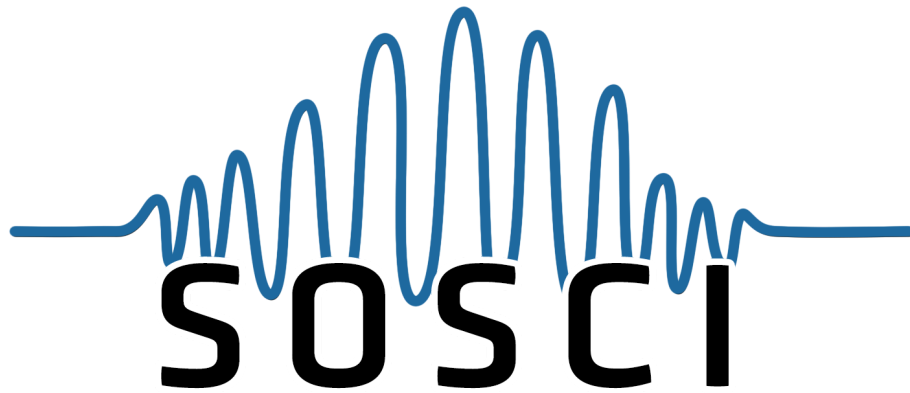


Software Architecture Documentation



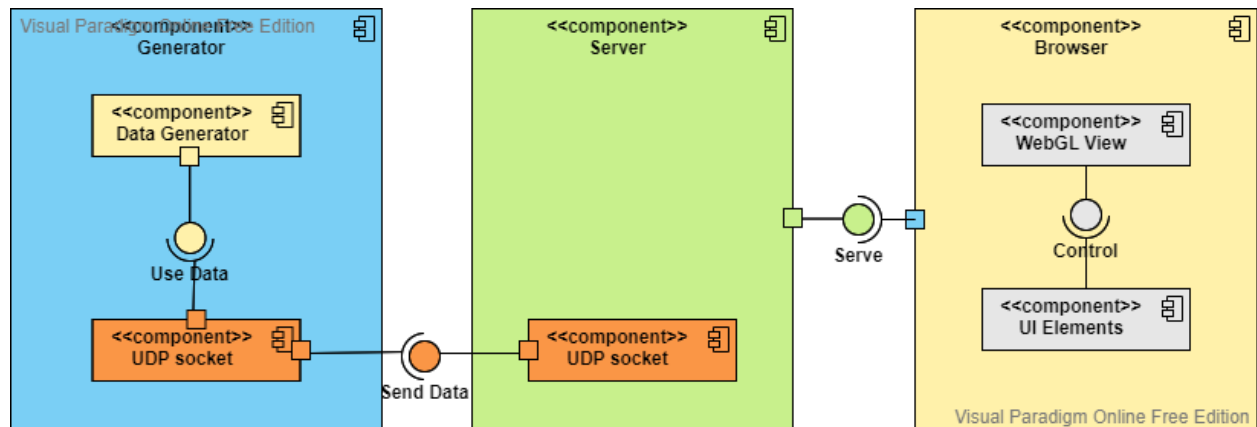
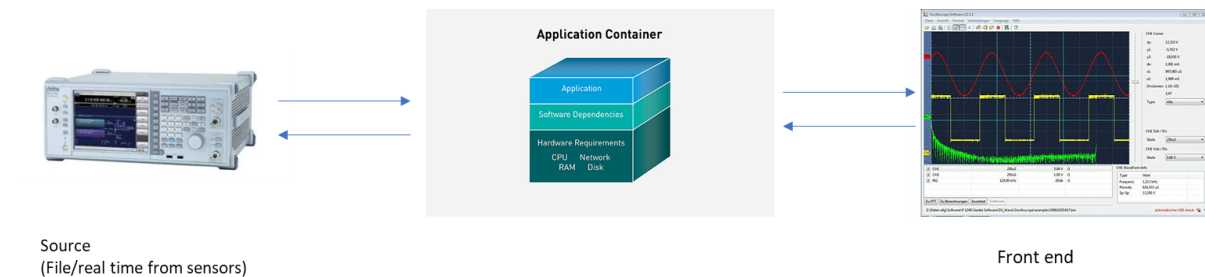
Software Oscilloscope

AMOS Wise 2022/2023

Table of Contents

Runtime Components	3
Code Components	4
Technology Stack	4

Runtime Components



Description:

There are two different runtime components: Front end, the data source

The source data is transmitted to the docker through a UDP stream and it is processed and further sent for visualization at the front end (web page) which can be viewed through any internet browser.

Code Components

A user will be able to perform the following functionalities:

View a plot with 10 channels of data stream on a cartesian plot. Also, the user can zoom in and zoom out of the field. The user can change between channels to view or have multiple channels on the plot at the same time.

Technology Stack summary

To avoid run environment issues such as platform dependencies Docker was used for deployment.

Front end uses WebGL for visualization.

Development	
Source code hosting	Github
Web framework	Svelte
API	WebGL-Plot
UDP Generator	Rust with Tokio
Deployment	Docker
Testing	Cypress