
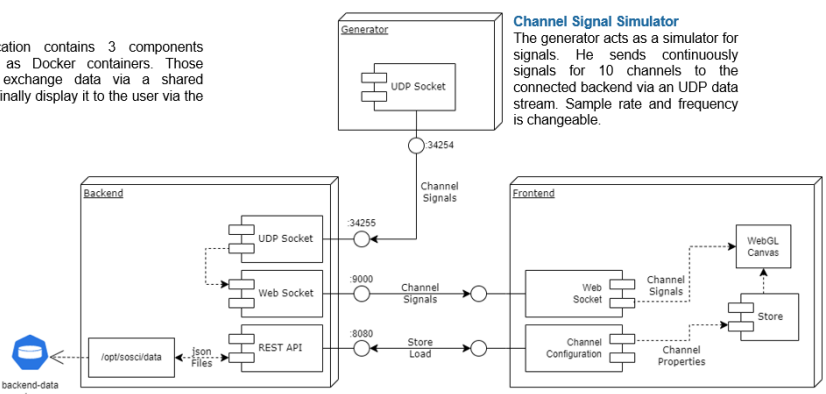



AMOS WS22 Project Software Oscilloscope

Project name	SOSCI – Software Oscilloscope
Project mission	Our mission is to provide a comprehensive, user-friendly solution for oscilloscope users, enabling them to achieve their goals more efficiently and effectively. We strive to deliver innovative and intuitive software that exceeds industry standards and elevates the user experience. Our commitment to performance drives us to continuously improve our product, and to always put the needs of our customer first.
Industry partner	Siemens Healthineers
Team logo	
Project summary	SOSCI is a web-based application designed to enhance the capabilities of oscilloscope users. By using modern technologies such as Svelte, Rust, NodeJS, WebGL, and a microservice architecture, SOSCI simplifies the work of engineers and provides them with new opportunities for productivity.
Project illustration	<p>Overview The application contains 3 components which run as Docker containers. Those containers exchange data via a shared network to finally display it to the user via the frontend.</p>  <p>Channel Signal Simulator The generator acts as a simulator for signals. He sends continuously signals for 10 channels to the connected backend via an UDP data stream. Sample rate and frequency is changeable.</p> <p>Oscilloscope Backend The backend accepts the incoming channel data from the generator and prepares it for transmission to the frontend. It also provides a REST API for loading & storing channel configurations like enabled channels, offset and amplitude settings.</p> <p>Oscilloscope User Interface The frontend provides a graphical user interface including the plotted channels and detailed information about min & max values. Via the control panel it's also possible to adapt the sweep speed, amplitude and offset for each individual channel. The settings page provides access to pre-configured channel properties and gives also the ability to create new presets.</p>
Team photo	 <div> <div>Not dev</div> <div>Dev</div> <div>Lightsaber</div> <div>Mirobert</div> <div>Refactorer</div> <div>CICDegen</div> <div>Tooltip</div> <div>Nico</div> <div>Video</div> <div>Creator</div> <div>Critical</div> <div>Eye</div> <div>WebGL</div> <div>Expert</div> <div>Bouncing</div> <div>Leander</div> <div>Review</div> <div>Master</div> </div> <div> <div>Dev</div> <div>Darshan</div> <div>Saber</div> <div>Jelodari</div> <div>Robert</div> <div>Balink</div> <div>Marcel</div> <div>Schöckel</div> <div>Jan</div> <div>Degen</div> <div>Nicolas</div> <div>Kolbenschlag</div> <div>Ingrid</div> <div>Münch</div> <div>Jens</div> <div>Wächtler</div> <div>Leon</div> <div>Jünemann</div> <div>Leander</div> <div>Tolksdorf</div> <div>Philipp</div> <div>Kramer</div> </div>
Project repository	amosproj/amos2022ws03-software-oscilloscope (github.com)