



UVL Playground

Final Presentation | Jannis Dommer, Stefan Vill | 10.01.2024



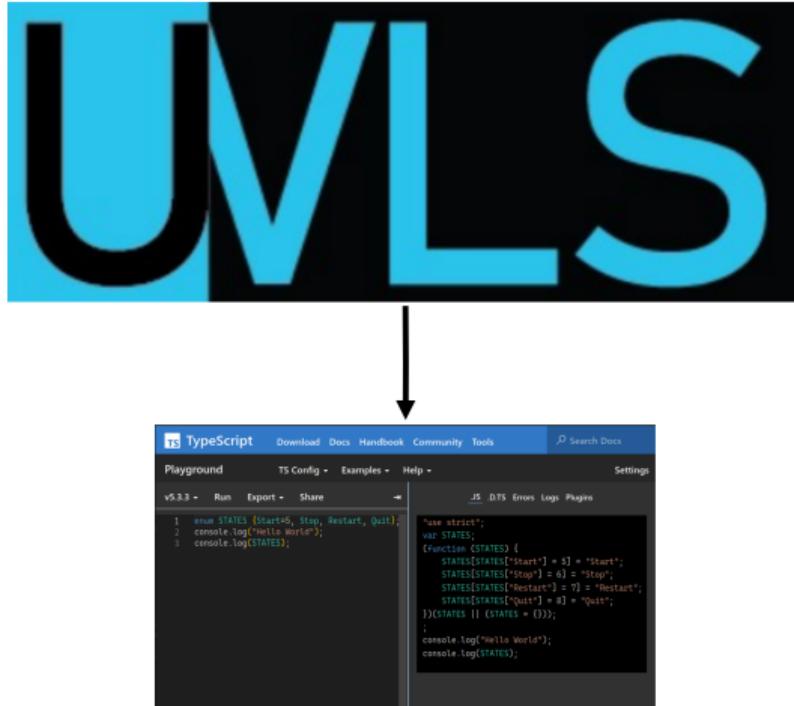
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Motivation

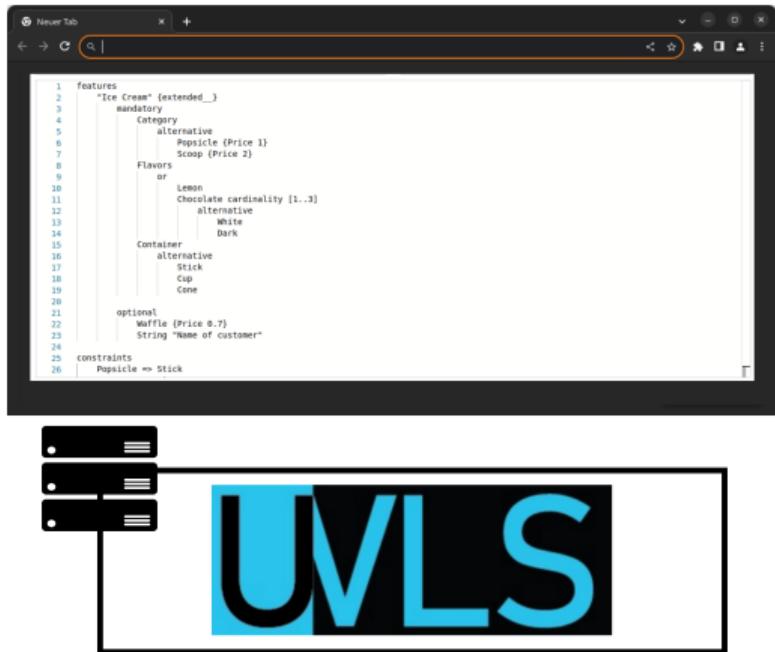
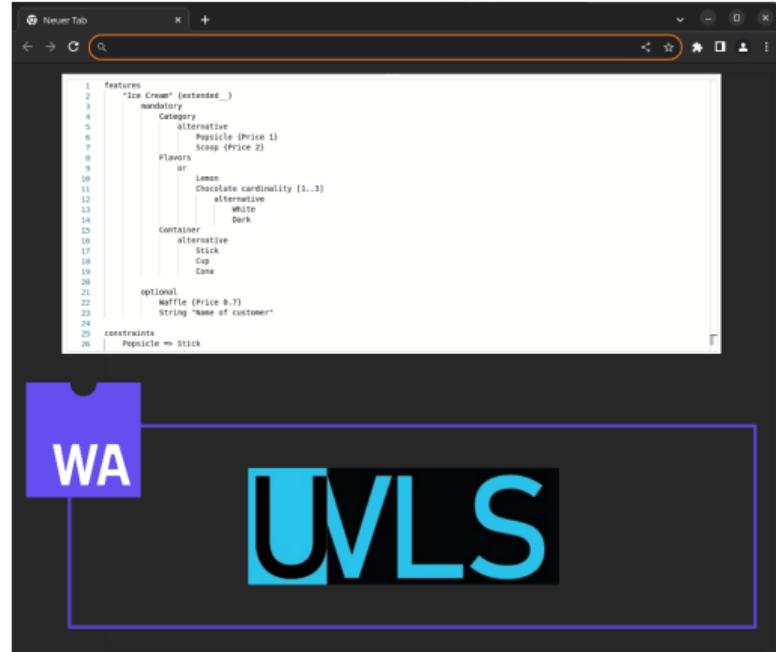
The image is a collage of four screenshots from different developer playgrounds:

- TypeScript Playground:** Shows a code editor with a TypeScript file containing a simple program that logs "Hello World" and defines a state object. Below the editor are tabs for JS, TS, Errors, Logs, and Plugins, and a sidebar with navigation links.
- Brainfuck Playground:** Shows a code editor with a Brainfuck program that prints "Hello world". It includes a "Run" button and a "Stepwise" button.
- UVL Playground:** Shows a code editor with a Brainfuck program. A sidebar on the right lists "UVL is cool" and "UVL is cool".
- Milkdown Playground:** Shows a code editor with a Milkdown editor interface. The editor has a toolbar with icons for bold, italic, underline, etc. A preview window shows a polar bear image. A sidebar on the right lists "Milkdown Playground v1.2.1" and "Milkdown".

Motivation



Architektur



Probleme mit WebAssembly

- Wenig WebAssembly kompatibel dependencies
- Systemaufrufe
- UVLS enthält Webserver für config
- Treesitter mit C-Schnittstelle
- Z3 mit stdin / stdout Schnittstelle
- Module stark gekoppelt
- Erzwingt fork

Dedizierter UVL Language Server

- Kommunikation auf Websockets umstellen
- Monaco mit Language Server Protocol ausgestattet
- Multi-User UVLS

Infrastruktur und Tooling

- Traefik Reverseproxy als TLS Endpoint
- CI / CD Pipeline
- Sonarqube Linter

