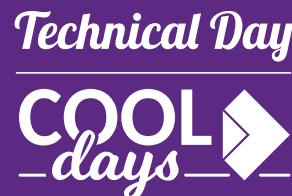
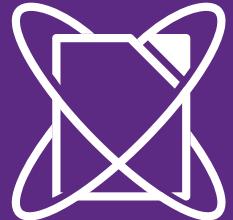


Headless PDF Conversion in Web Assembly

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Headless PDF Conversion in Web Assembly
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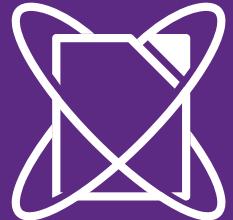
Headless conversion with LibreOffice

Building LibreOffice in WASM with Emscripten

Building it without the Qt5 framework

A soffice.html executable file is created by Emscripten which can be modified in any way we want

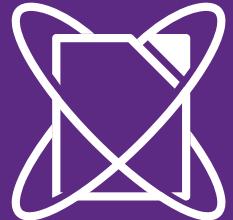
We are using the --convert-to argument for the headless conversion



About Web Assembly and Emscripten technology

Emscripten is a complete Open Source compiler toolchain to WebAssembly

- Compile C and C++ code, or any other language that uses LLVM (Low Level Virtual Machine), into WebAssembly, and run it on the Web, Node.js, or other wasm runtimes.
- Practically any portable C or C++ codebase can be compiled into WebAssembly using Emscripten, ranging from high-performance games that need to render graphics, play sounds, and load and process files, through to application frameworks like Qt. Emscripten has already been used to convert a very long list of real-world codebases to WebAssembly, including commercial codebases like the Unreal Engine 4 and the Unity engine.

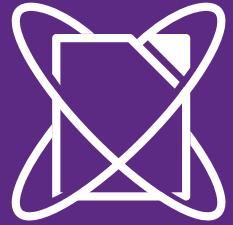


Emscripten Toolchain

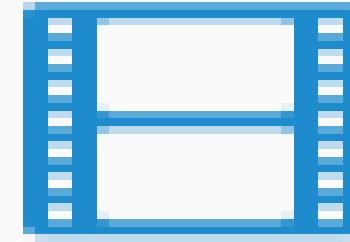
Emscripten Compiler Frontend (emcc)

- The main tool is the Emscripten Compiler Frontend (emcc). This is a drop-in replacement for a standard compiler like gcc or clang.
- Emcc uses Clang and LLVM to compile to WebAssembly. Emcc also emits JavaScript that provides API support to the compiled code. That JavaScript can be executed by Node.js, or from within HTML in a browser.
- The Emscripten SDK is used to install the entire toolchain, including emcc and LLVM and so forth. The Emscripten SDK (emsdk) can be used on Linux, Windows or MacOS

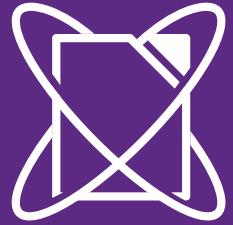
Technical Day



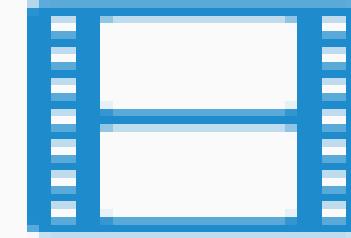
LibreOffice Technology



Technical Day



LibreOffice Technology



Thank you!

By Balázs Varga



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