Product Design: EmoViz

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Architectural Model

The same components are being reused for all the use cases. The application is written in web languages (HTML, CSS and Javascript) and it runs in a node.js environment on top of node-webkit, using Flot to perform the actual plotting.

node.js engine (V8)	The node.js environment, running on the V8 javascript engine provides a cross platform way to write javascript on the desktop using a stable, mature, optimized javascript engine.
node-webkit	node-webkit is an app runtime based on Chromium (open source web browser project) and node.js. It allows us to write node.js code and DOM interacting code in the same thread, allowing for efficient calls from one to the other.
reader.js	Internal component, uses node-wav to process the WAV file and store a sample in an array accessible to the JS running in the DOM
main.js	Internal component using the WAV frames array to render the plot in node-webkit using Flot.
Flot	Javascript plotting library.