Building cross platform desktop applications with Electron and Scala.js

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electron

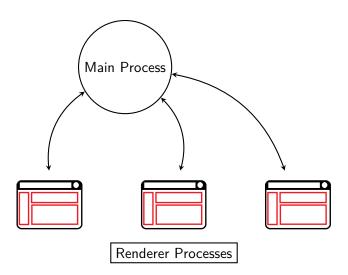


The big picture

Electron is like a minimal browser, with the ability of interacting with the local file system, having access to native operating system API's such as notifications, or create UDP sockets...

Exactly like a browser, the user interface is made with HTML and CSS. The back-end uses JavaScript.

Main and Renderer Processes



Scala.js Interoperability

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You just need to tell Scala the things that exist in these JavaScript libraries, so that you get a type-safe access and use it as any other Scala data structure.

Goal

Today, we want to begin constructing one of these Scala.js facades for using electron with Scala.

We will follow the electron quick start guide, and translate it to Scala.

electron training

If you want to get more familiar with electron with Scala.js, you can try to reproduce the Electron API Demos.

Pentagon Bullets

Pentagon Bullets is a 2D multi-player battle arena game made with Scala.js and electron.

Pentagon Bullets features

- electron with Scala.js
- user interface in the menus made in HTML and CSS
- game logic in pure Scala and using functional programming
- UDP messages with node.js and the boopickle Scala library for message serialization
- **pixi,js** (with webgl under the hood) for graphics
- currently exclusively multi-player (although I would love if someone makes an AI for the game)

The end

Thank you for your attention!