

# CodeParadise

Running Smalltalk apps in a JavaScript environment

Erik Stel (aka ErikOnBike) - ESUG 2024 - July 10th 2024

# Topics

## And some demos

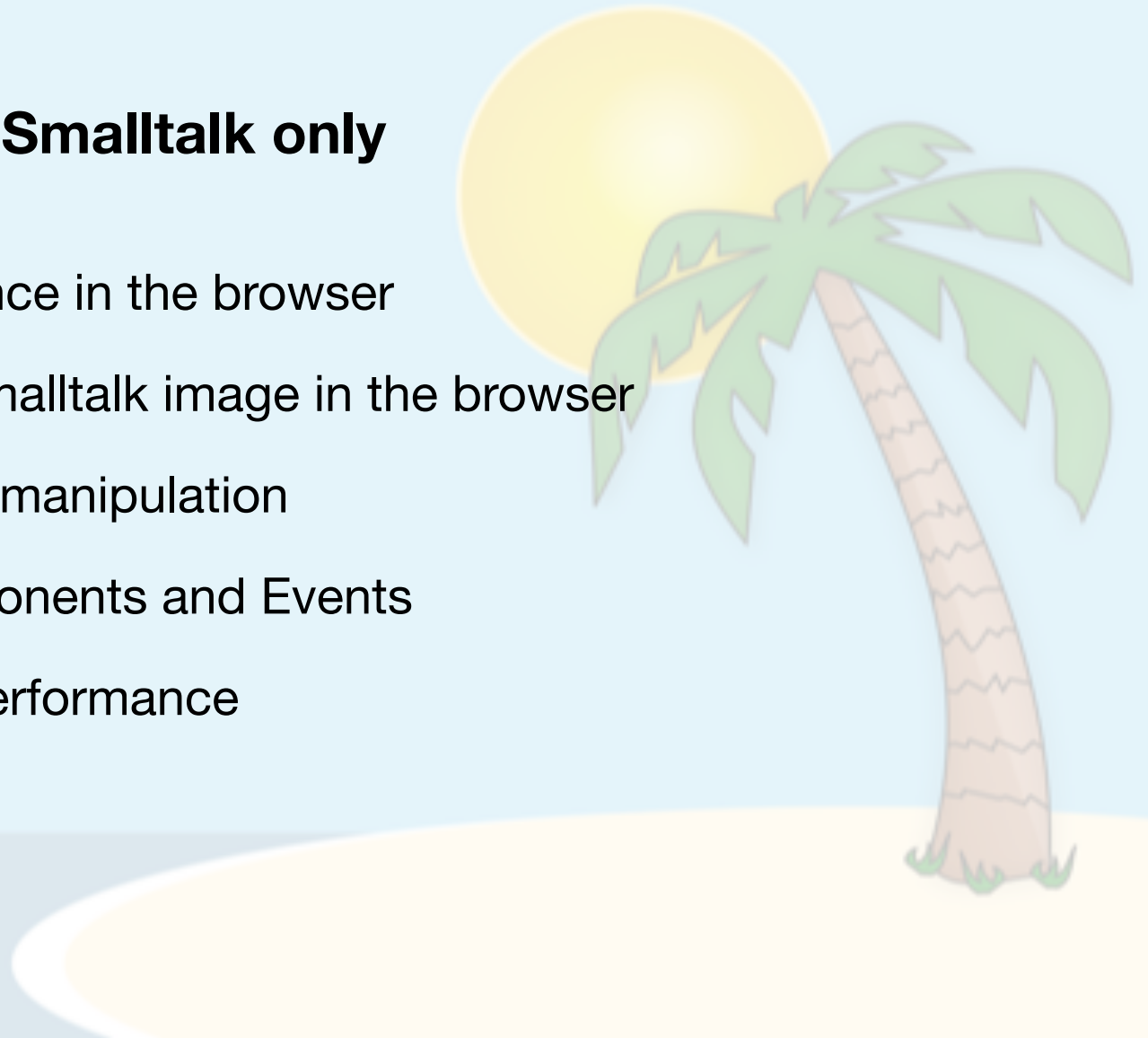
- How it started
- Ease of development
- Implementation
- From WebApps to ServerApps
- Status



# How it started

## Creating WebApps with Smalltalk only

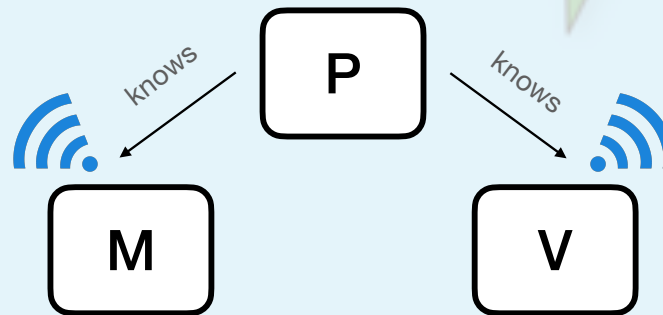
- Live programming experience in the browser
- Approach based on tiny Smalltalk image in the browser
- Most important part: DOM manipulation
- DOM elements, WebComponents and Events
- Fine grained control and performance



# Ease of development

## The MVP pattern

- Personal preference: thin UI/glass layer
- MVP with a Passive View
- Views are WebComponents
- Server side state
- No 'sealing' possible



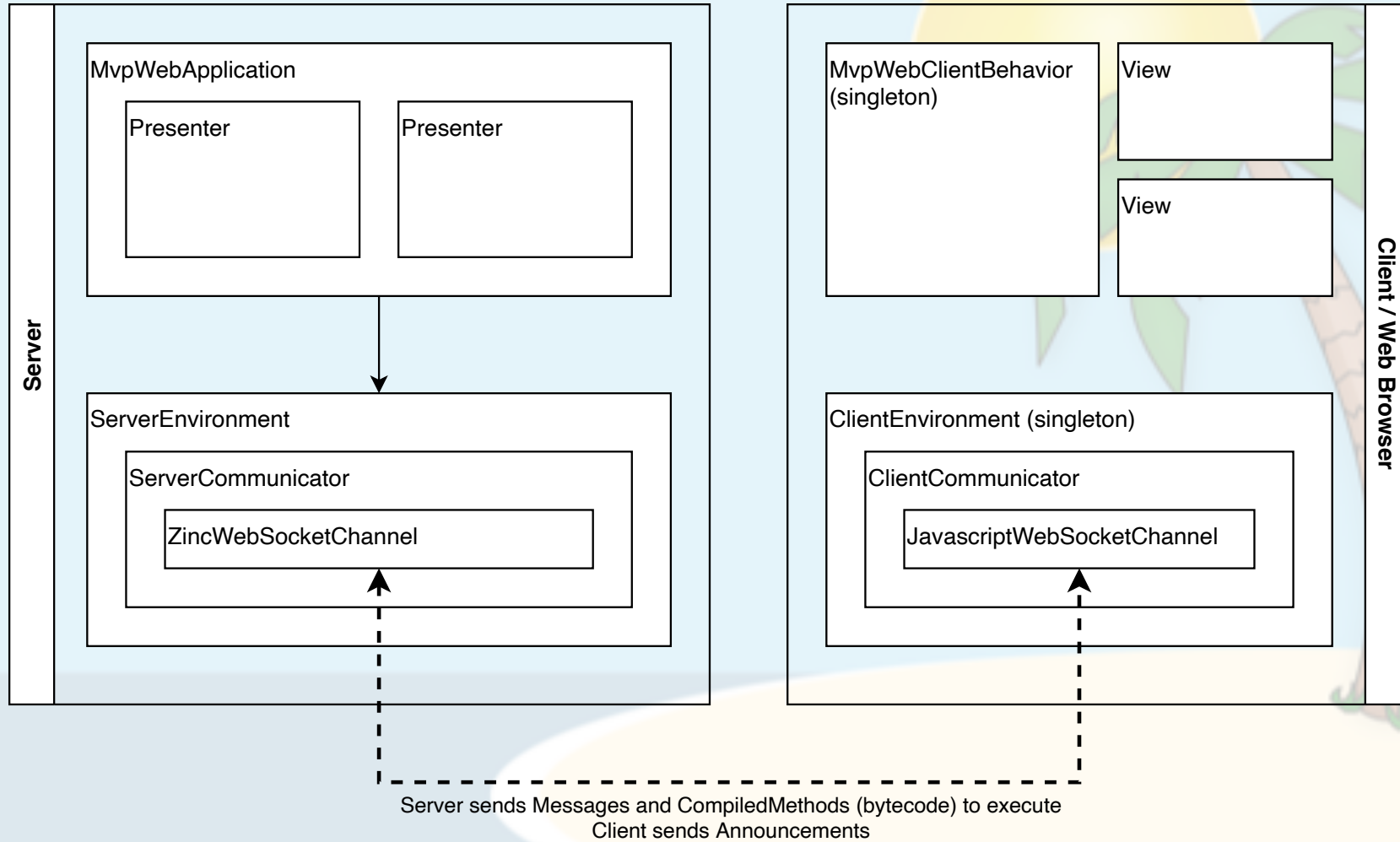
# Implementation

## Let's keep it tiny

- Tiny (218kb) Smalltalk image in the browser  
Client Environment
- Regular Smalltalk image on the 'server'  
Server Environment
- SqueakJS VM
- Class definitions and CompiledCode (no compiler)
- WebSockets



# Architecture



# Demo

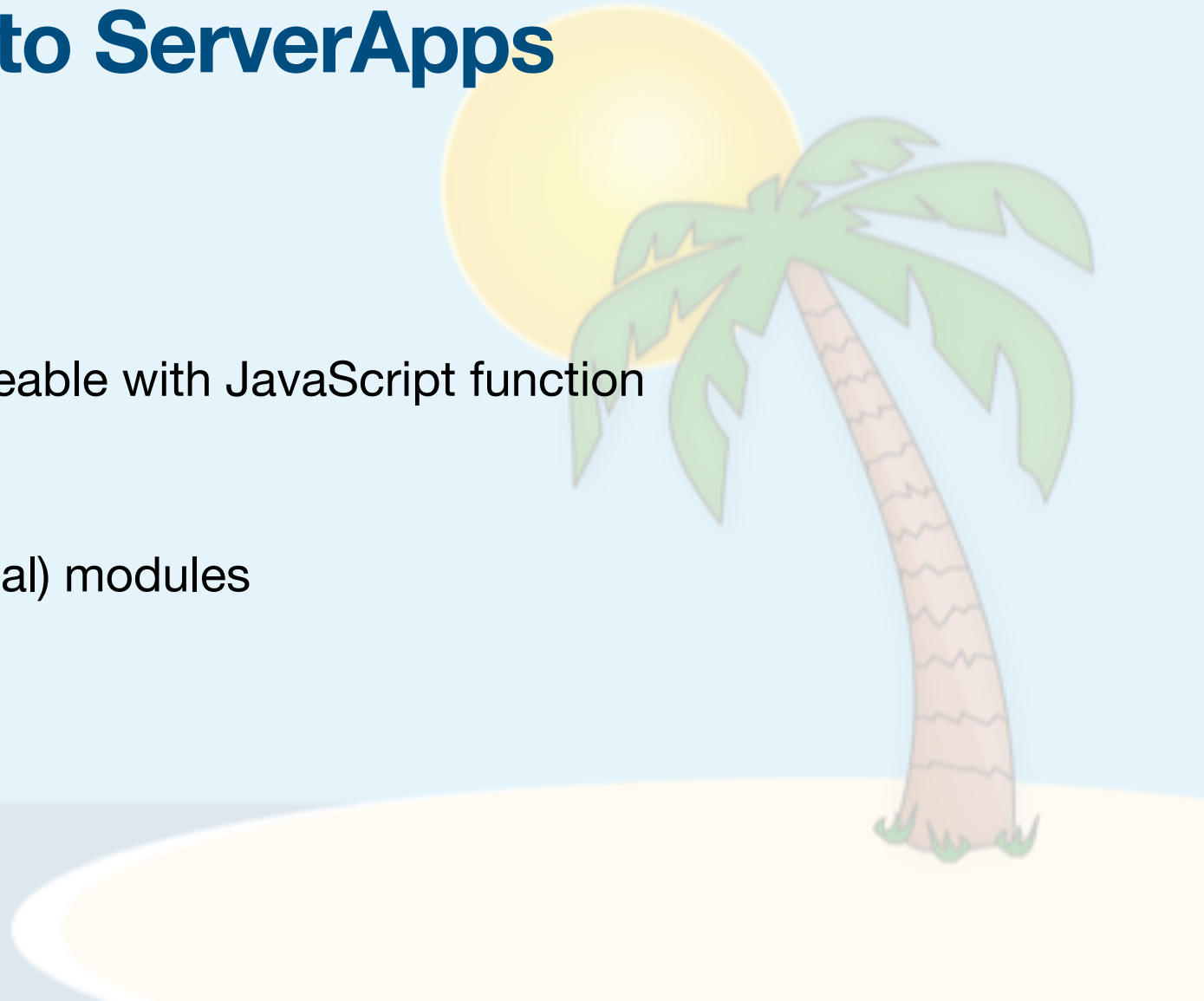
Talk is cheap



# From WebApps to ServerApps

## Or CLI tools

- Generic proxy mechanism
- Smalltalk Block interchangeable with JavaScript function
- Promises
- Node.js (built-in and external) modules
- Also 'sealable'





# Demo

**REST assured**



# Status

200 / OK

- In use at
  - 'residential biologist'
  - one Cycling Without Age 'chapter'
- Room to evolve
  - Documentation/examples/tests
  - UI builder
  - Node.js debugger
  - Morph changed object (instances)
  - ...many more...



# Questions!

## Remarks?

- You can find CodeParadise at [github.com/ErikOnBike/CodeParadise](https://github.com/ErikOnBike/CodeParadise)
- You can find me on Discord/Slack as ErikOnBike

