



How to Build Clojerl Applications

Clojerl

The *Clojure* language running on the **BEAM**

Brief Intro to Clojure

```
(function arg1 arg2 ... argn)
```

Clojure

Namespaces

Vars

BEAM

Modules

Functions

```
(namespace/var arg1 arg2 ... argn)
```

```
(module/function arg1 arg2 ... argn)
```

List $()$

Vector $[]$

Map $\{ \}$

Set $\# \{ \}$

Macros

Metaprogramming

Protocols

Dispatch on type

Multimethods

Arbitrary dispatch

BEAM

interoperability

Clojure

BEAM

Namespace `(ns example)`

`-module(example) .`

Function `(defn id [x] x)`

`id(X) -> X.`

Anonymous
Function

`(fn [x] x)`

`fun(X) -> X end`

clj->erl



Clojure

BEAM

List

()

#erl()

Vector

[]

#erl[]

Map

{}

#erl{}

Clojure

BEAM



erl->clj

PATTERN MATCHING

let fn defn case loop



let*

fn*

defn*

case*

loop*

MeSSaGe PaSSiNG

`erlang/spawn`

`erlang/send`

`receive*`

Development Environment

Erlang/OTP 18+ + `rebar3`

rebar3_clojerl

```
$ less .config/rebar3/rebar.config  
{plugins, [rebar3_clojerl]}.
```




clojure-mode
paredit-mode
rainbow-delimiters-mode

lsp-mode (erlang-ls)



Rainbow Brackets
Paredit

Elang LS

+ REPL

Our First Application:

echo HTTP server

Our First Escrip: countdown

Existing Applications



Try Clojerl Online

Cowboy HTTP
+ Websockets

OTP Release
+ Dockerized

Try Clojerl

Fork me on GitHub

```
WebSocket connection established
Erlang/OTP 22 [erts-10.4.3] [source] [64-bit] [smp:1:1] [ds:1:1:10] [
async-threads:1] [hipe]
Clojerl 0.7.0
-----
Welcome to Try Clojerl!
-----

This is a console where you can try out the language.

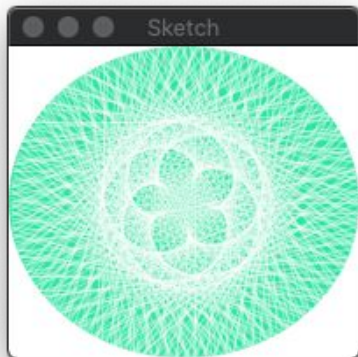
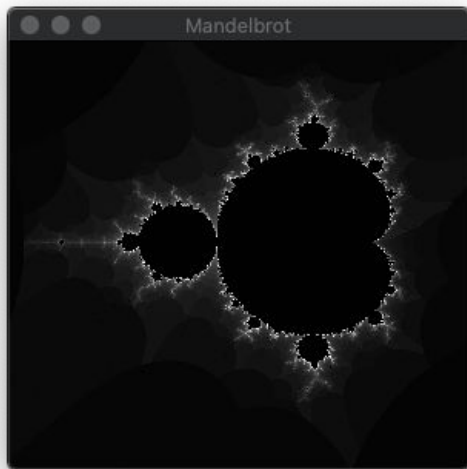
If you want to start with the default tutorial just type "(tutorial/s
tart)".

Or if you would like to get some help enter "(tutorial/help)".

clje.user-5090=>
```

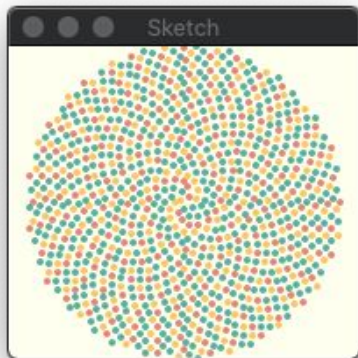
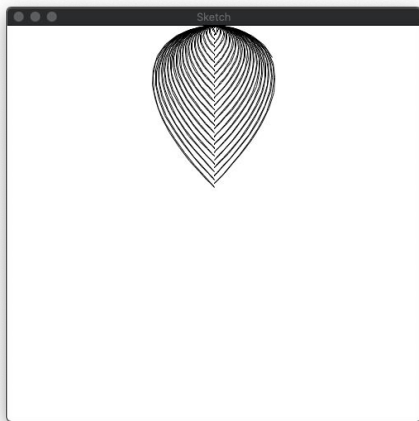
Home About Clojerl

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Doodler

Create drawings
with code.



Heavily inspired in
the Clojure library
Quil.

Existing Libraries *(ported from Clojure JVM)*

clojure.test-check

Property-Based Testing

hiccup

HTML generation

criterion

Benchmarking

Questions? 🤔
Thoughts? 💭

Final Words

Thank You! 🙏