

Functional programming with Elm

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FRP

FRP

Signal

FRP

Signal - mutable value that changes over time.

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```
pressedKey = Signal.map direction Keyboard.arrows
```

Elm

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Elm - fast (faster than many JS frameworks) functional programming language for browsers.

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4x faster than AngularJS

3x faster than ReactJS

Records

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```
point =                                -- create a record
  { x = 3, y = 4 }

point.x                                -- access field

List.map .x [point,{x=0,y=0}]          -- field access function

{ point | x = 6 }                      -- update a field

{ point |
  x = point.x + 1,
  y = point.y + 1
}                                       -- update many fields

dist {x,y} =                           -- pattern matching on fields
  sqrt (x^2 + y^2)

type alias Location =                 -- type aliases for records
  { line : Int
  , column : Int
  }
```

Elm Architecture

- Model — the state of your application
- Update — a way to update your state
- View — a way to view your state as HTML

Elm 0.17

Elm 0.17 was released few days ago, and now it's not pure FRP.
Now instead of signals it uses Commands and Subscriptions.

Effects in Elm

- Command - we demand some effect (eg. Randomize a number)
- Subscription - we subscribe to changes (eg. Time change)

Source code

In source.elm file.

Extra

Extra



Extra



Elm debugger!

Homework

Homework

Game! *More info on KNO...*

Questions

???

End

The End.