The Path to **Practical** FRP

Theory

Practice

What's next?

Concurrent FRP   Markdown   Extensible Records   PLDI Publication

Prezi

HTML/JS Integration   Debugging   Traditional GUIs

HTML embedding   Type-checker   Hot-swapping   Industry Talks   TodoFRP   Library Sharing

Functional

Reactive Programming

in **Elm**

Evan Czaplicki

github.com/evancz

@czaplic, Prezi

Functional Graphics   *Signals*

lift, foldp

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Theory

Functional Graphics
make graphics simple and declarative

Text and Lists | Layout | Free-form Graphics
Text | Elements | Forms

What if values changed over time?!?!

Functional Reactive Programming
in **Elm**

Evan Czaplicki

Signals
Values that change over time

Mouse.position : Signal (Int,Int)

Transforming Signals

lift : (a -> b) -> Signal a -> Signal b

lift2 : (a -> b -> c) -> Signal a -> Signal b -> Signal c

Depending on the past

foldp : (a -> b -> b) -> b -> Signal a -> Signal b

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Functional Graphics

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Text and Links

Text

Layout

Elements

Free-form Graphics

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What if values changed over time?!?!

Functional Reactive Animation, Elliott and Hudak, 1997

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What if values changed over time?

How has Elm changed over time?

Where is Elm going?

Theory

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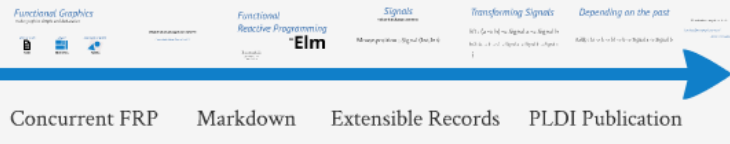
Theory

Practice

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Asana, Dropbox, OmniGroup, Google, Twitter

TodoFRP   Library Sharing

Practice

Prezi

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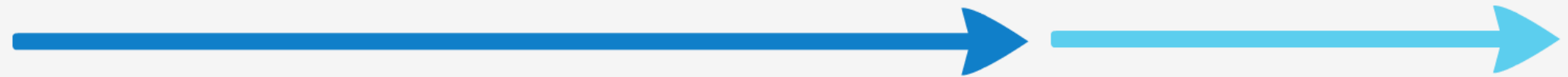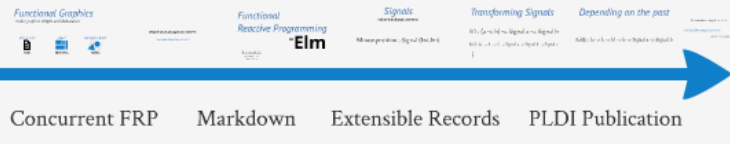
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