



# What's new in **Elm 0.17 ?**



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# Elm 0.17 **isn't** FRP anymore

“Elm **was never** about FRP”

*Evan Czaplicki (lead designer and developer of Elm)*

<http://elm-lang.org/blog/farewell-to-frp>

# Syntax

## module declaration

0.16

```
module Hello (..) where
```

```
module Hello (world) where
```

0.17

```
module Hello exposing (..)
```

```
module Hello exposing (world)
```

# packages

moved / renamed

0.16

```
"evancz/elm-html"  
"evancz/elm-svg"  
"evancz/virtual-dom"  
"evancz/start-app"  
"evancz/elm-effects"  
"Graphics.*"
```

0.17

```
"elm-lang/html"  
"elm-lang/svg"  
"elm-lang/virtual-dom"  
"elm-lang/html"  
"elm-lang/core" (Platform.*)  
"evancz/elm-graphics"
```

# Html.App

previously StartApp

0.16

```
import StartApp.Simple as StartApp

main : Signal Html.Html
main =
  StartApp.start
    { model = model
    , view = view
    , update = update
    }
```

0.17

```
import Html.App as Html

main : Program Never
main =
  Html.beginnerProgram
    { model = model
    , view = view
    , update = update
    }
```

# Html.App

previously StartApp

0.16

```
import StartApp

app : StartApp.App Model
app =
  StartApp.start
    { init = ( init, Effects.none )
    , update = update
    , view = view
    , inputs = []
    }

main : Signal Html
main =
  app.html
```

0.17

```
import Html.App as Html

main : Program Never
main =
  Html.program
    { init = ( init, Cmd.none )
    , view = view
    , update = update
    , subscriptions = subscriptions
    }
```

# Msg (message)

previously Action

0.16

```
type Action  
= Reset  
| Show Model
```

0.17

```
type Msg  
= Reset  
| Show Model
```

# Subscriptions

## and Commands (previously Effects)

```
type Msg
  = MouseMsg Mouse.Position
```

```
subs : Model -> Sub Msg
subs model =
  Mouse.clicks MouseMsg
```

```
update : Msg -> Model -> ( Model, Cmd Msg )
update msg model =
  case msg of
    MouseMsg position ->
      ( model + 1, Cmd.none )
```

```
main : Program Never
main =
  Html.program
  { init = init, update = update, view = view, subscriptions = subs }
```



# no more Signals (Mailboxes, Addresses)

0.16

```
view : Address Action -> Model -> Html
view address model =
  div []
    [ button [ onClick address (Show forecast_hh) ]
          [ text "Show forecast" ]
    ]
```

0.17

```
view : Model -> Html Msg
view model =
  div []
    [ button [ onClick (Show forecast_hh) ]
          [ text "Show forecast" ]
    ]
```

# Ports

outgoing (Elm to JS)

0.16

```
port helloToJS : Signal String
```

0.17

```
port helloToJS : String -> Cmd msg
```

# Ports

incoming (from JS to Elm)

0.16

```
port helloFromJS : Signal String
```

0.17

```
port helloFromJS : (String -> msg) -> Sub msg
```

# Some more...

(grabbed from <http://elm-lang.org/blog/farewell-to-frp>)

- Faster HTML renderer
- Libraries for geolocation, page visibility and web sockets
- EffectManager
- Generated JS is smaller + compatible with RequireJS / CommonJS + works with Google's Closure Compiler
- Features in place for services like GraphQL and Elixir Phoenix

# Acknowledge

## **A Farewell to FRP**

<http://elm-lang.org/blog/farewell-to-frp>

## **Upgrading to 0.17**

<https://github.com/elm-lang/elm-platform/blob/master/upgrade-docs/0.17.md>

## **Elm Tutorial**

<http://www.elm-tutorial.org/en/>

## **An Introduction to Elm**

<http://guide.elm-lang.org/>

## **Elm (language) FAQ**

<http://elm-community.github.io/elm-faq/17.html>

## **Migrating from Elm 0.16 to 0.17 - from StartApp**

<http://www.lambdacat.com/migrating-from-elm-0-16-to-0-17-from-startapp/>



# Thanks!

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