

Hello!

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Routing

Past and future of client-side routing

We've only seen one player. Is there any innovation going on? (...) Innovation already happened a few years before. And it happened in the Ember community

Christopher Chedeaux, React Europe keynote 2015

Is routing a solved problem?

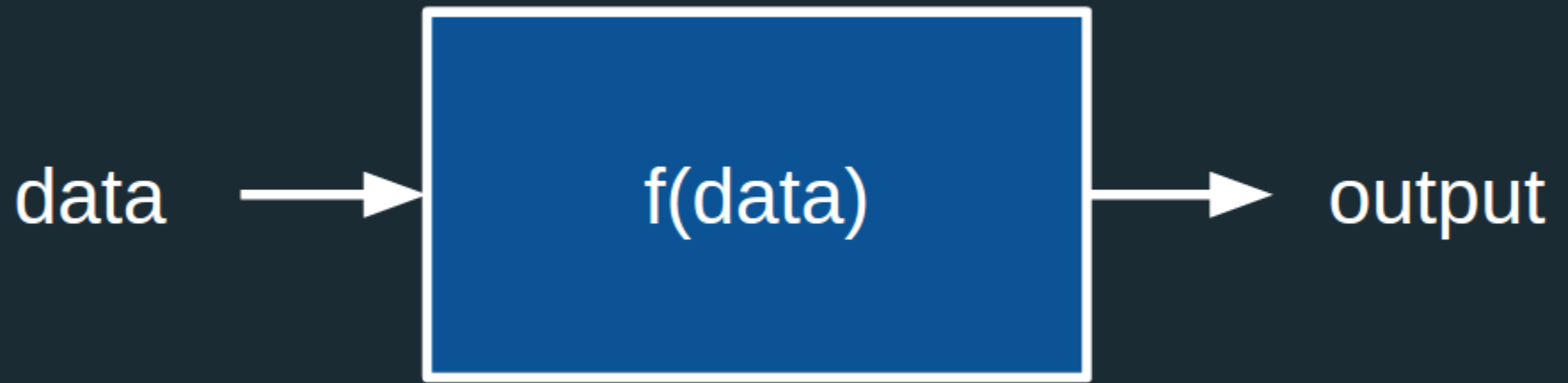


LET ME THINK, HMM

NO, THAT'S NOT RIGHT

Today is all about components





Components are data-driven (state)

```
function Button({ children, onClick, disabled }) {  
  return (  
    <button type='button' onClick={ onClick } disabled=  
      { children }  
    </button>  
  );  
}
```

```
function LoggedUser({ user }) {  
  return user  
    ? <div>Hello { user.name }!</div>  
    : <a href='/login'>Log in</a>  
}
```

We compose components together
in trees of components

But when it comes to routing...

```
function App({ route }) {  
  if (route === 'dashboard') {  
    return <Dashboard />;  
  }  
  
  if (route === 'profile') {  
    return <Profile />;  
  }  
}
```

Why do we treat routing differently?

We have been influenced by
server-side routing

Django

```
router.register(r'users', UserViewSet)
```

Laravel

```
Route::get('/users', function () {  
    /* ... */  
});
```

Ruby on Rails

```
get '/users', to: 'users#list'
```

Play

```
GET /users controllers.Users.list()
```

Express

```
app.get('/users', function(req, res) {  
    res.send('Users list');  
});
```

request → response

route → action

Stateless routing

We transposed the same mental model
to stateful browsers

Angular 1.x

```
$stateProvider.state({  
  name: 'users',  
  url: '/users',  
  controller: UsersController,  
  templateUrl: '/users/list.html'  
});
```

React-router

```
<Route path="users" component={ Users }>
```

Page.js

```
page('/users', function() {  
  /* MUTATE THE DOM HERE */  
})
```

Routers became responsible for
rendering components...

...transitioning between them...

...and what about code splitting?

Routers are made more complex by being tied to a component library or framework

Routing has been mystified

What about view / state separation?



router5

github.com/router5/router5

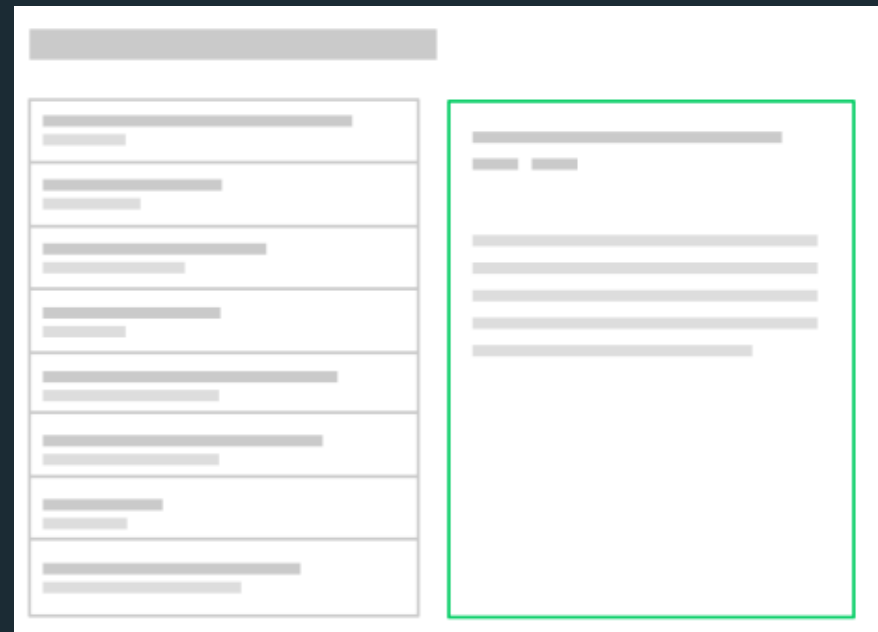
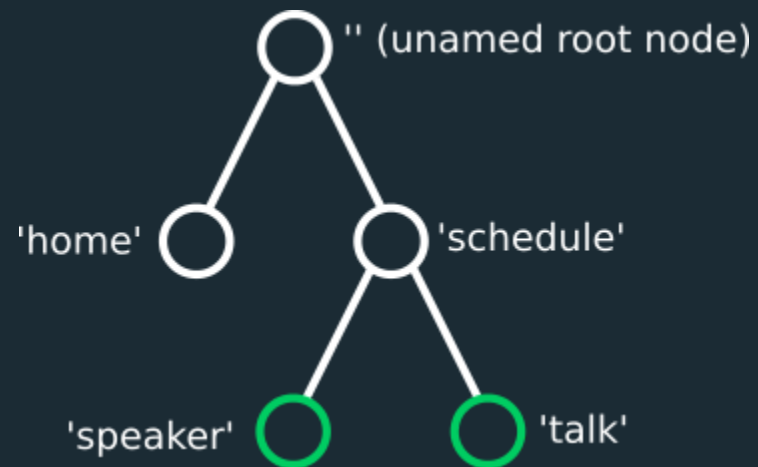
[Demo video 1]

[Demo video 2]

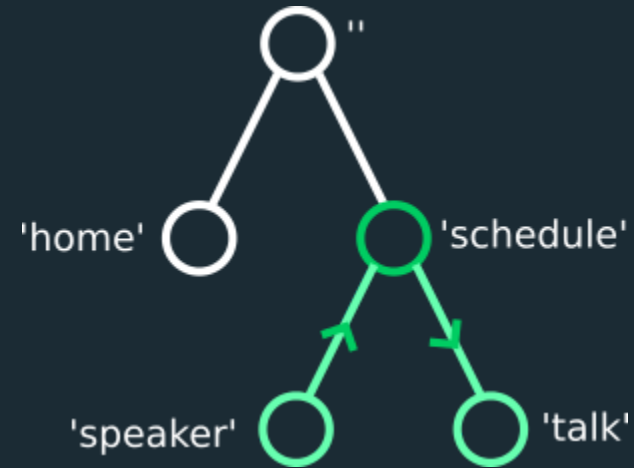
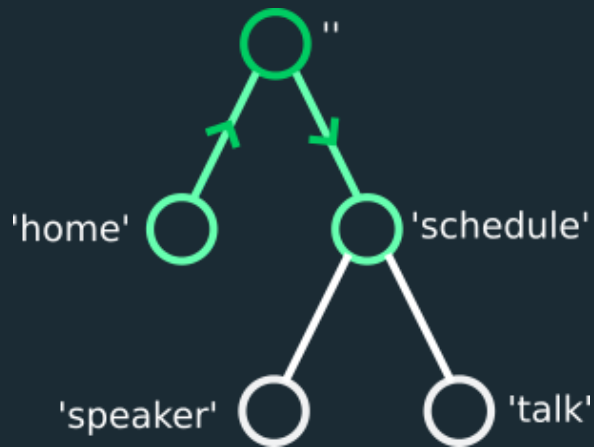
router5 has advanced features

- Nested routes
- canActivate / canDeactivate
- Middleware functions
- Plugins

Linking nodes to your UI



Detecting the changing node



```
import React from 'react'
import { routeNode } from 'react-router5'

router.addNodeListener('', (state) => {
  /* ... */
});

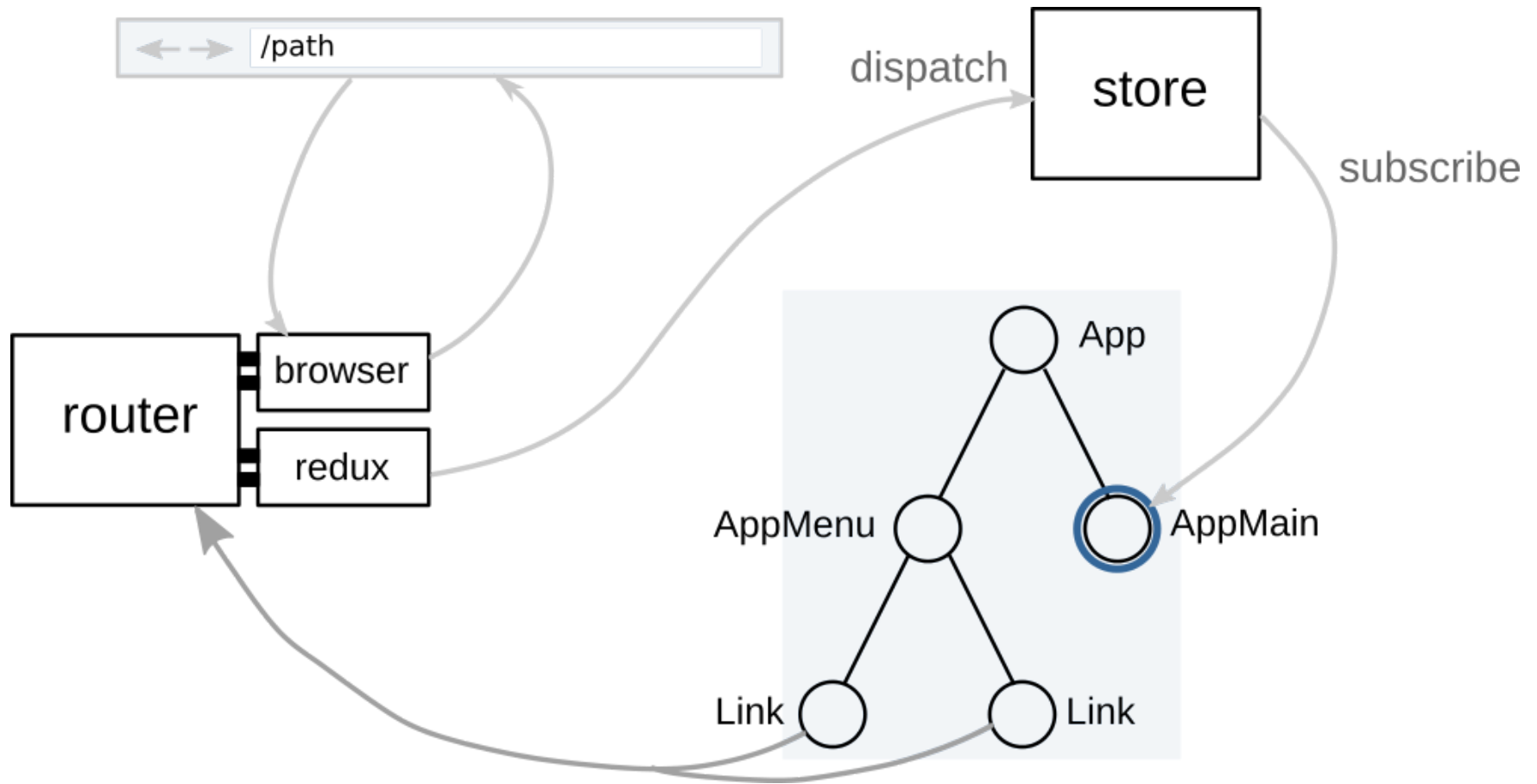
const AppMainRouteNode = routeNode('')(AppMain)
```

Middleware functions

- Delay a transition
- Prevent a transition
- Hook

Integration becomes straight forward

Integration with redux



Observables

```
import createRouter from 'router5'
import createObservables from 'rxjs-router5'
import routes from './routers'

const router = createRouter(routes);
const {
  route$,
  routeNode,
  transitionError$,
  transitionRoute$
} = createObservables(router)
```

Routing state / view separation

- Easier to integrate
- Leveraging existing component layers
- Code splitting
- Simpler universal architecture
- Native?

FanDuel



Offices in Edinburgh and Glasgow
UK product: react, redux and router5

A screenshot of the FanDuel website's football team selection interface. The top navigation bar is blue with white text for 'FANDUEL' and links for 'Contests', 'Upcoming', 'Live', 'Settled', 'How to play', 'Help', and 'Log in'. Below the navigation bar, a header section displays '£5,000 Fan Favourite (£750 to top)', '1047 of 1176 ENTRIES LEFT', '£5000 TOTAL PRIZES', and '£5 PER ENTRY'. The main content area is divided into two parts. On the left, a list of players is shown with their names, team logos, positions (GK, DEF, MID, FWD), and prices. On the right, a football pitch diagram shows the selected players in their respective positions. The selected players are: Robinson (GK), Bardsley (DEF), Dawson (DEF), Cattermole (MID), Ferdinand (MID), Browne (MID), Oriola (FWD), Rooney (FWD), and Sakho (FWD). The budget remaining is £36.9M.

www.fanduel.com/careers

Thank you!

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