

# A Practical Guide to Hypermedia APIs

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I just saw a diff where someone converted their  
app + client (same repo) to a hypermedia api:  
+900, -5000 LOC

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# That was this project

Prepare yourself



Showing 150 changed files with 892 additions and 5,125 deletions.

**Please note that this has been  
heavily stripped down**

Don't want to give everything away

**But first**

Hypermedia Basics

**Resources  $\neq$  Models**

# **HTTP is your friend**

methods and status codes



**Client knows only one  
URL**

**"/"**

# Media types

HAL

# Sample HAL Response

```
{
  "status": "Processing",
  "_embedded": {
    "items": [
      {
        "name": "Book",
        "_links": { "self": { "href" => "http://example.com/items/1" } }
      }
    ]
  },
  "_links": {
    "self" => { "href" => "http://example.com/orders/1" }
  }
}
```

# Server

# Controllers

- Use `respond_to` and `respond_with`

# Models

- Doesn't have to be a subclass of ActiveRecord::Base

# Serializers

- Disable root
- Links
- Embedded resources
- Changing serializer representations

# Client



# Basics

- Uses Faraday
- Basic auth over SSL

# Resources

- Data only
- Convenience methods
- Links

# Loaders

- Pull data down from the API
- Only GETs

# Services

- Very similar to Loaders
- Push data back up

# **Integrating with Rails**

# Problems

- There are no ids
- Speed

# Resources

- Creating a Hypermedia Client
  - <http://blog.oestrich.org/2012/12/creating-a-hypermedia-client/>
- ActiveSupport::Serializers
  - [https://github.com/rails-api/active\\_model\\_serializers](https://github.com/rails-api/active_model_serializers)
- Abusing ActiveSupport::Serializers for HAL
  - <http://blog.oestrich.org/2012/10/abusing-active-model-serializers-for-hal/>
- <httpstatus.es>

# Useful gems for apis

- `rspec_api_documentation`
- `Raddocs`
- `letter`
- `json_spec`
- `vcr`
- `webmock`
- `cane`



# Hobostove

Campfire for the command line

<https://github.com/oestrich/hobostove>