IMPLEMENTING AN ENTERPRISE DESIGN SYSTEM THE RED HAT WAY

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Derek "tachyon" Reese is a developer at Red Hat.

blurb: Derek Reese is a self-directed full-stack developer experienced with enterprise software and pipeline development and has been working with Drupal since Drupal 5. Derek has experience speaking at both Drupal Camps and to private audiences.

He's helped present everything from new technology pipelines to film pitches.

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PREREQUISITES

BUILDING DRUPAL SITES WITH COMPONENTS

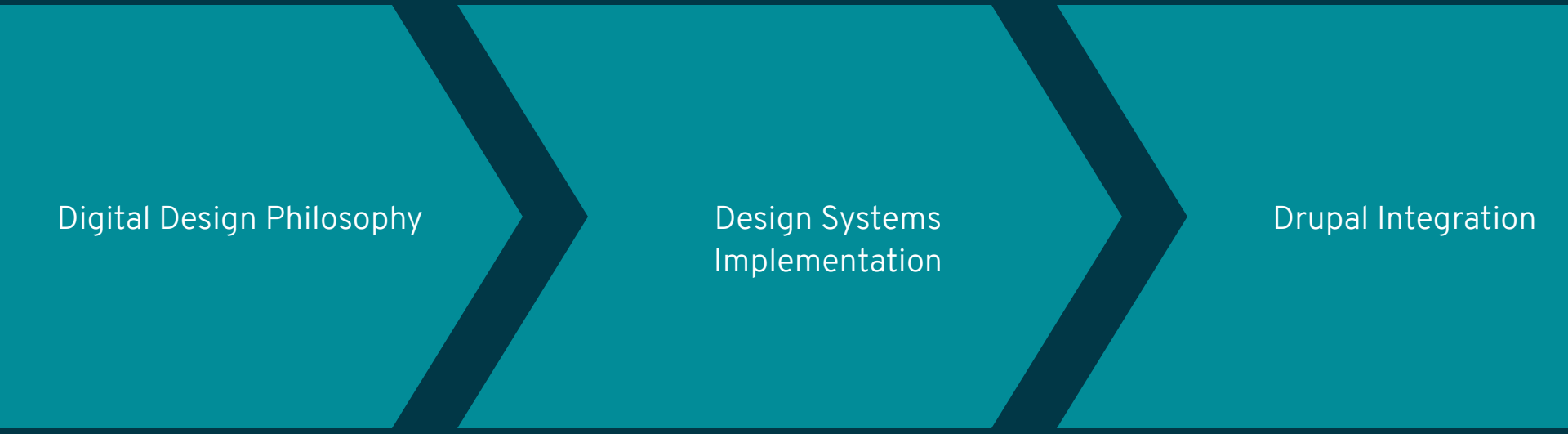
https://www.slideshare.net/DerekReese1/building-drupal-sites-with-components
https://www.youtube.com/watch?v=SJVGNpOovJw

IMPLEMENTING AN ENTERPRISE DESIGN SYSTEM THE RED HAT WAY

A DRUPAL STORY

DESIGN SYSTEMS

The Red Hat Way



DIGITAL DESIGN PHILOSOPHY

DIGITAL DESIGN PHILOSOPHY

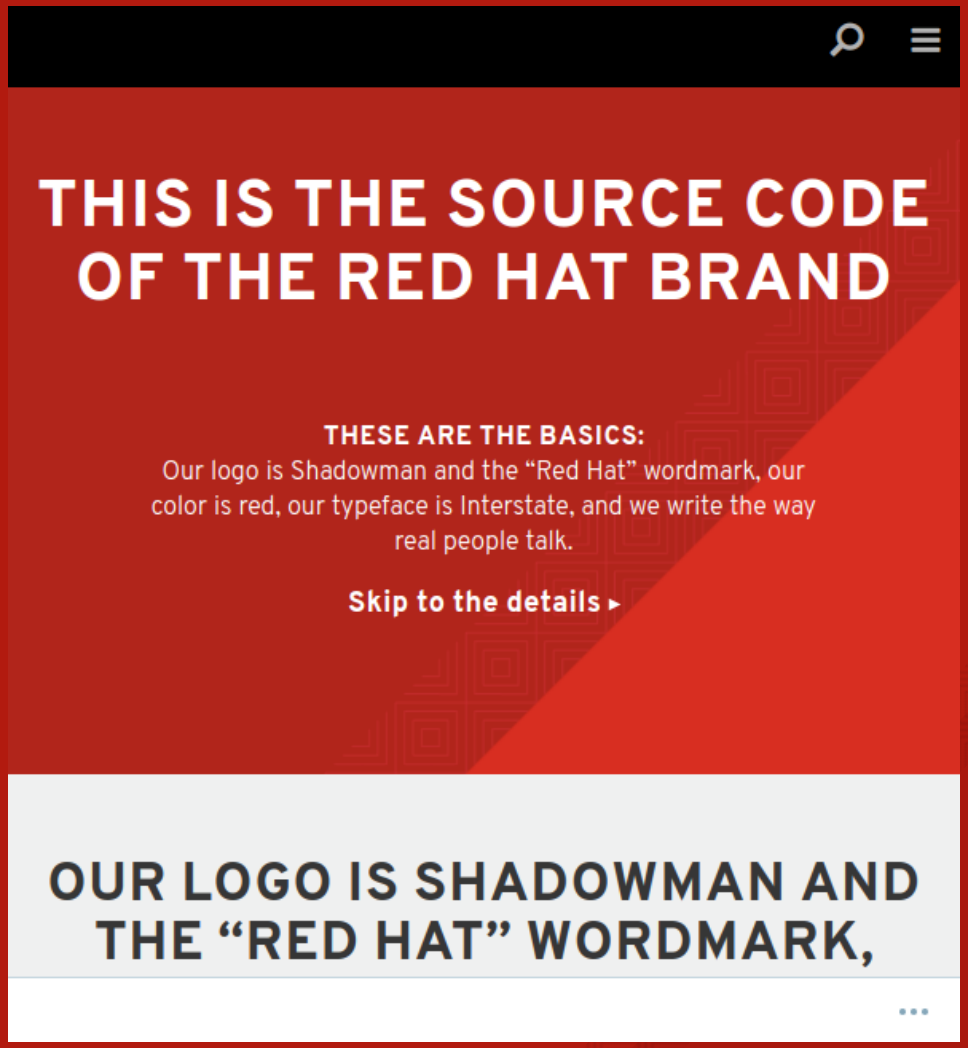
BRANDING
MARKETING
UX

redhat

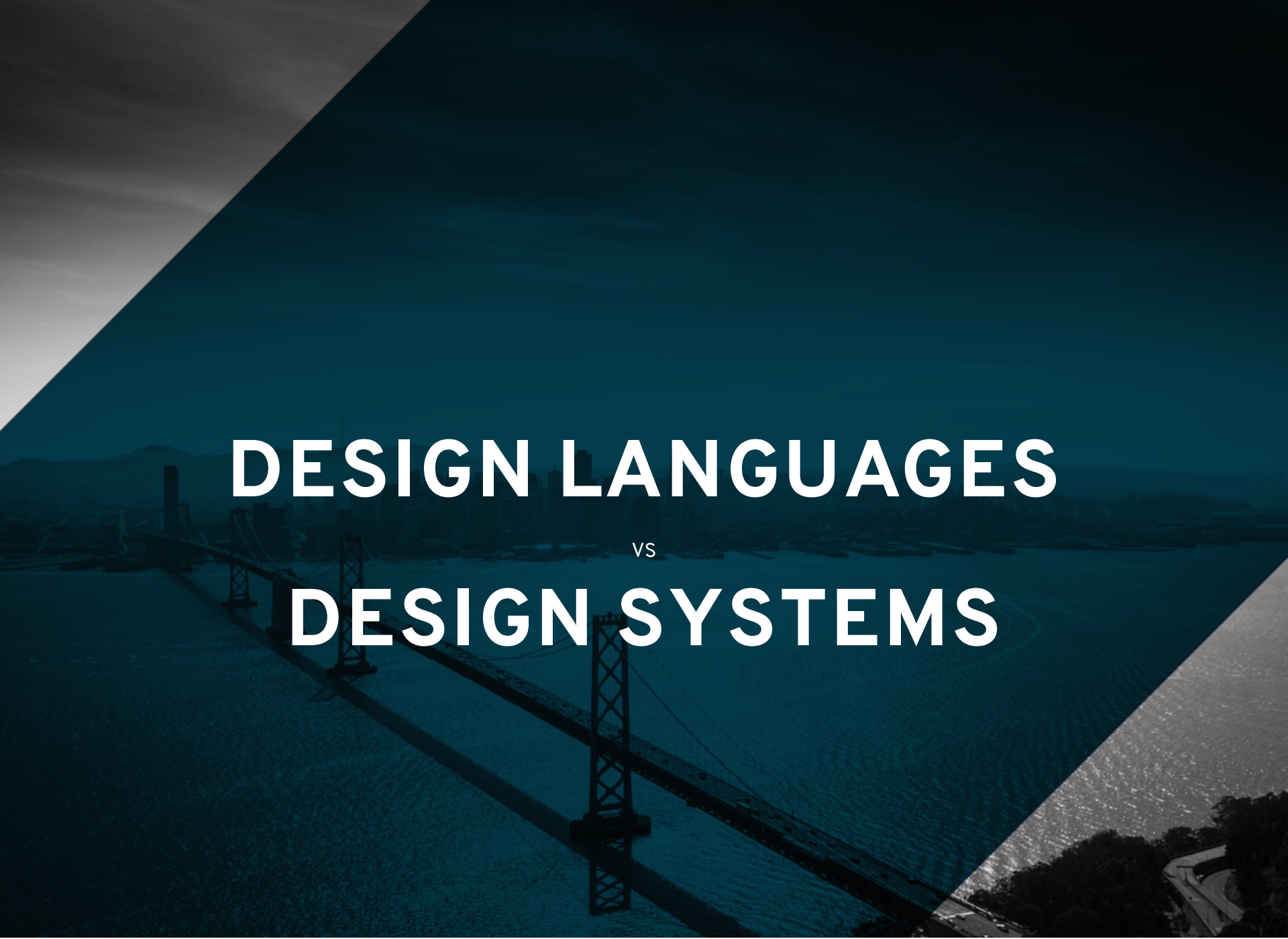
BRANDING

2017

OPEN, AUTHENTIC, HELPFUL, BRAVE



IN ORDER TO TALK
ABOUT DESIGN SYSTEMS,
WE NEED TO TALK
ABOUT...


DESIGN LANGUAGES
VS
DESIGN SYSTEMS

DESIGN (VISUAL) LANGUAGES

- Communication
- Graphical

EXAMPLES

(past, present, & future)

DESIGN (VISUAL) LANGUAGES

- Skeuomorphic Design

Infographic by Edward Korcheq, via
http://glasscanopy.com/flat-design-vs-skeuomorphism-pros-cons/

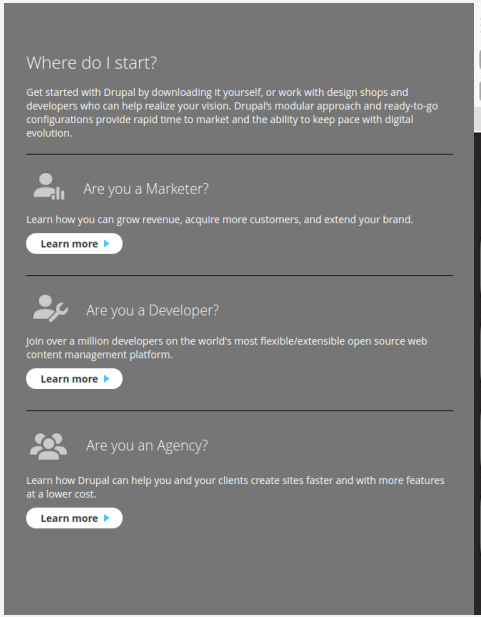
DESIGN (VISUAL) LANGUAGES

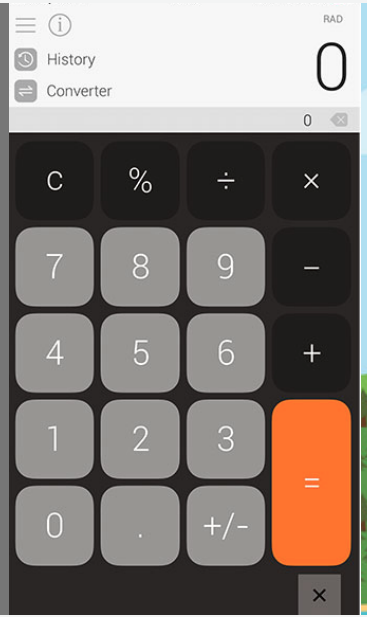
- Skeuomorphic Design
- Flat Design

via drupal.com

and

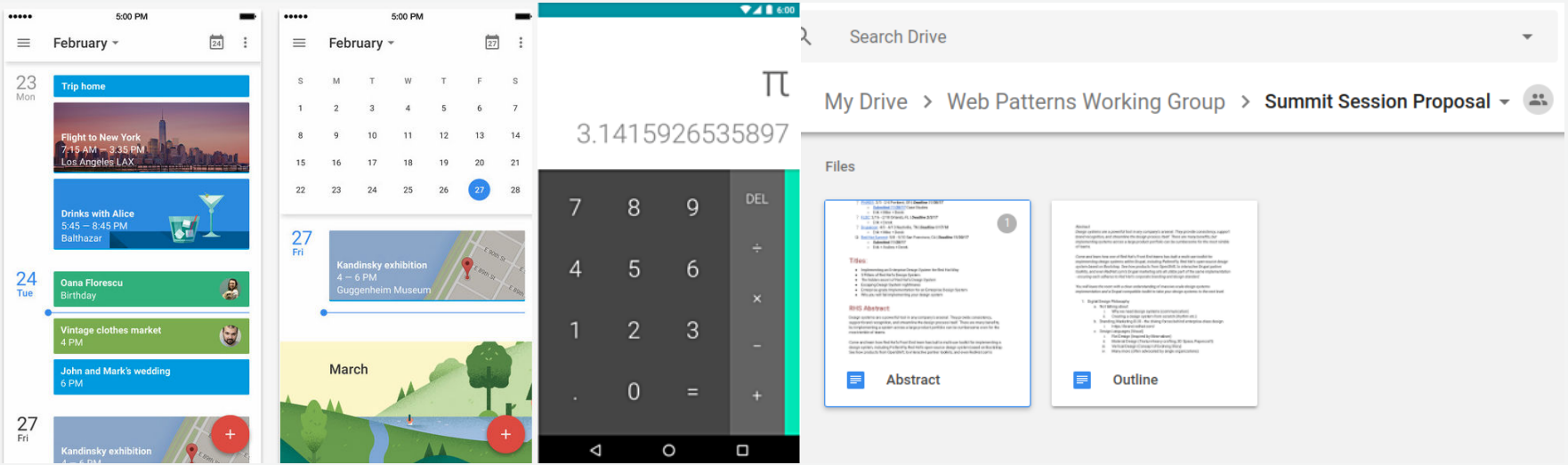
https://www.tillamook.com/our-story/our-story.html





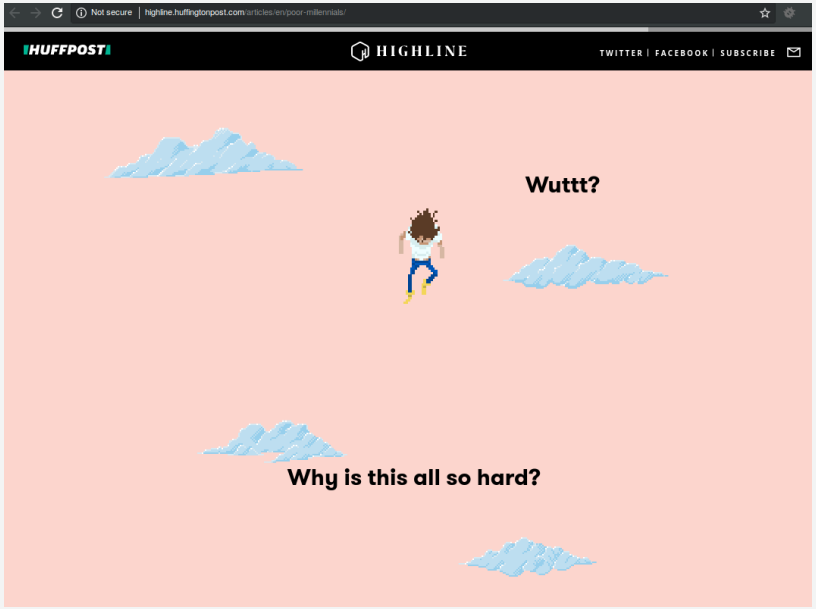
DESIGN (VISUAL) LANGUAGES

- Skeuomorphic Design
- Flat Design
- Material Design



DESIGN (VISUAL) LANGUAGES

- Skeuomorphic Design
- Flat Design
- Material Design
- Vertical Design



via http://highline.huffingtonpost.com/articles/en/poor-millennials/

DESIGN (VISUAL) LANGUAGES

- Skeuomorphic Design
- Flat Design
- Material Design
- Vertical Design
- ...and more! (US Web, AirBnB, Microsoft, etc.)

(you can google any of these for tons of examples)

DESIGN (ORGANIZATIONAL) SYSTEMS

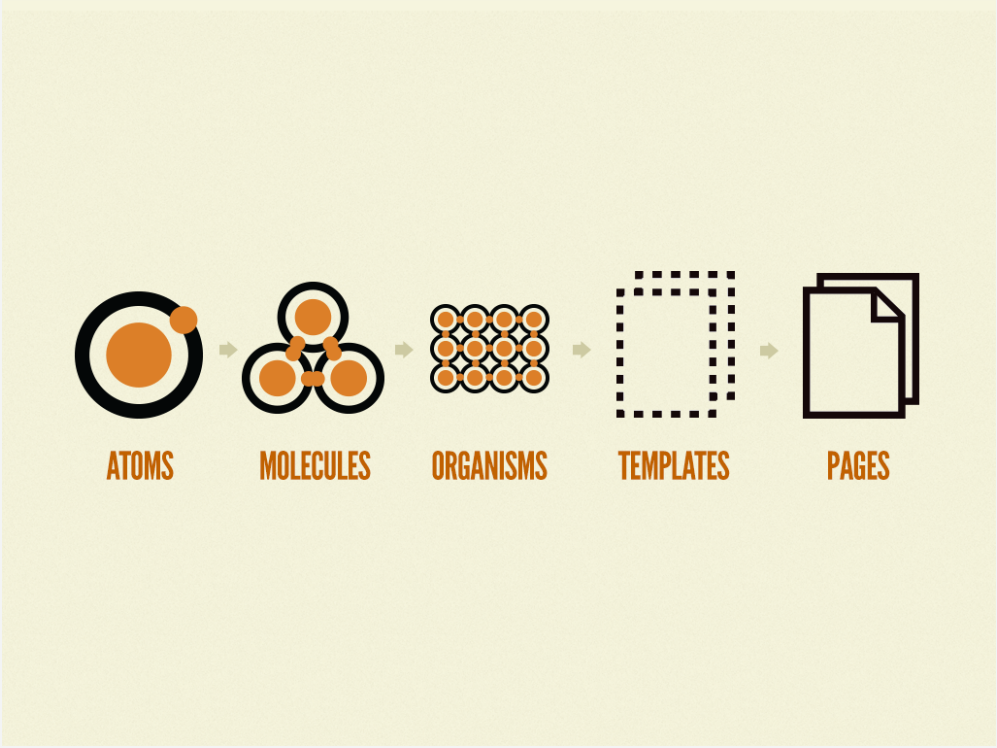
- Work with other developers
- Structural

EXAMPLES

(past, present, & future)

DESIGN (ORGANIZATIONAL) SYSTEMS

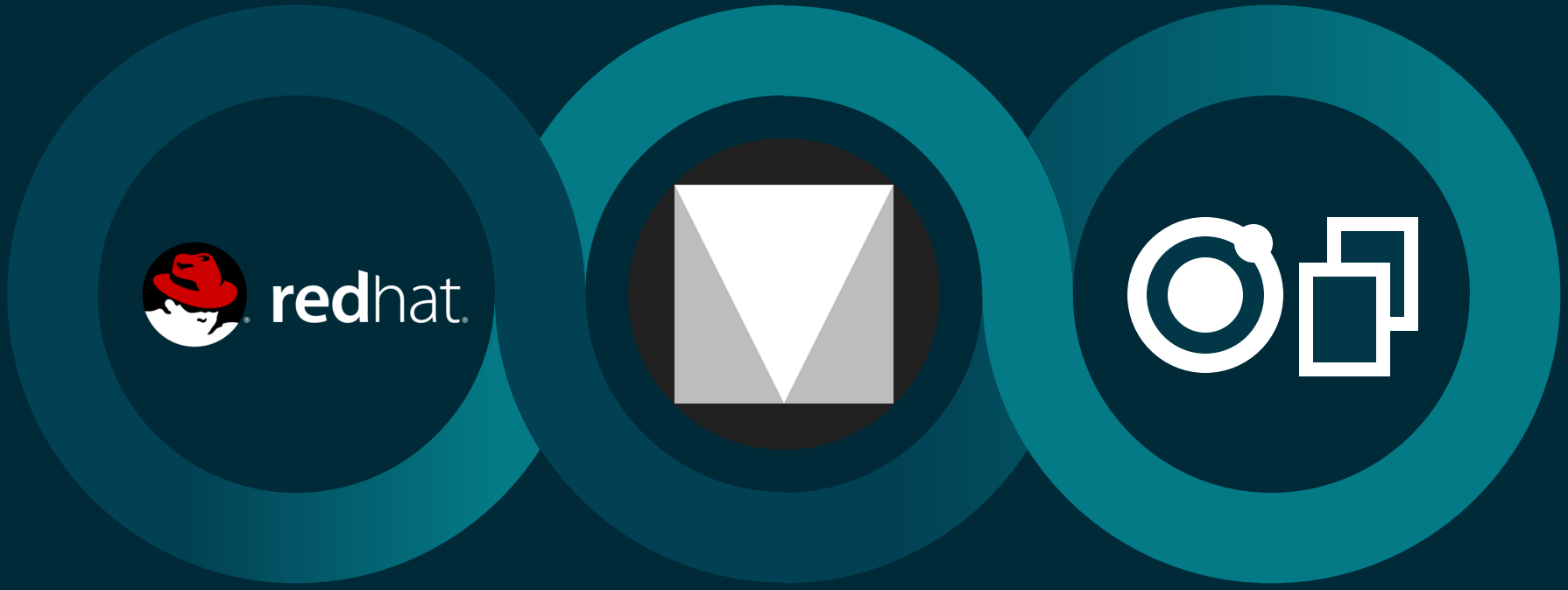
- Monolithic Design
- Modular Design
- **Atomic Design**
  / Style Tiles



via http://atomicdesign.bradfrost.com/chapter-2/

DIGITAL DESIGN PHILOSOPHY

all together now



Branding, Marketing, & UX

Design Languages

Design Systems

DESIGN DELIVERABLES

- Mood Boards
- Design Specification PDF
- Initial CSS / HTML Mockups

...BUT HOW DO WE GET FROM OUR
DESIGN DELIVERABLES
TO A
WORKING
IMPLEMENTATION
ACROSS MULTIPLE
ENTERPRISE-SCALE
WEB PROPERTIES?

DESIGN SYSTEMS IMPLEMENTATION

THE IMPLEMENTATION LIST

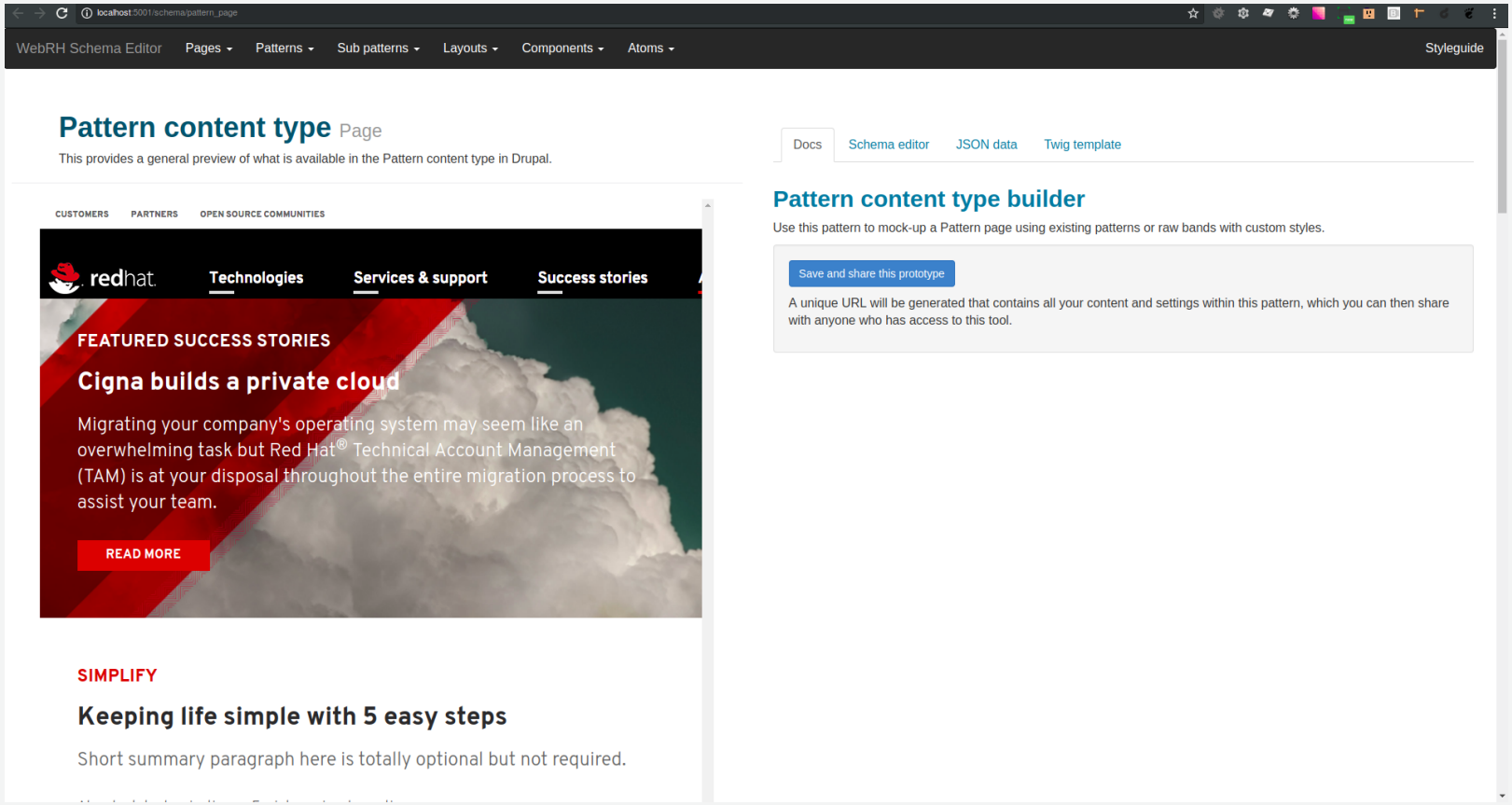
- Rulesets
  - Design Spec Docs
  - Style Guides
- Design Guides / Full Implementations
  - Pattern Libraries
  - Frameworks

RED HAT'S DESIGN SYSTEM FRAMEWORKS

WEBRH

- Style Ruleset & Implementation
  - SASS / CSS
  - Twig Patterns, JSON Schema, YAML Docs
  - Complicated
- Editors & builders
- Tightly coupled
- Multiple properties @ Red Hat

WEBRH


localhost:3001/schema/pattern_page
WebRH Schema Editor
Pages
Patterns
Sub patterns
Layouts
Components
Atoms
Styleguide
Pattern content type Page
This provides a general preview of what is available in the Pattern content type in Drupal.
CUSTOMERS
PARTNERS
OPEN SOURCE COMMUNITIES
redhat.
Technologies
Services & support
Success stories
FEATURED SUCCESS STORIES
Cigna builds a private cloud
Migrating your company's operating system may seem like an overwhelming task but Red Hat® Technical Account Management (TAM) is at your disposal throughout the entire migration process to assist your team.
READ MORE
SIMPLIFY
Keeping life simple with 5 easy steps
Short summary paragraph here is totally optional but not required.
Docs
Schema editor
JSON data
Twig template
Pattern content type builder
Use this pattern to mock-up a Pattern page using existing patterns or raw bands with custom styles.
Save and share this prototype
A unique URL will be generated that contains all your content and settings within this pattern, which you can then share with anyone who has access to this tool.

WEBRH

Hero *

REMOVE

Hero Height *

Full Height will stretch hero to fill the browser window

content

BACKGROUND

Background Color

rich-black

Fixed Background

Checking this box will make the image stay in place while you scroll

Desktop Background Image

If omitted, background color will be used at desktop breakpoint

header-detail-tech-industry_media-2000x941.jpg

REMOVE EDIT

Mobile Background Image

If omitted, background color will be used at mobile breakpoint

BROWSE

Reordering patterns? Show row weights

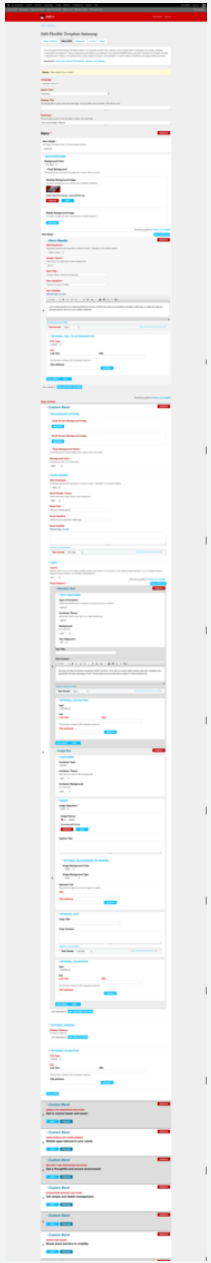
Hero Body *

COLLAPSE ALL

Hero Header

REMOVE

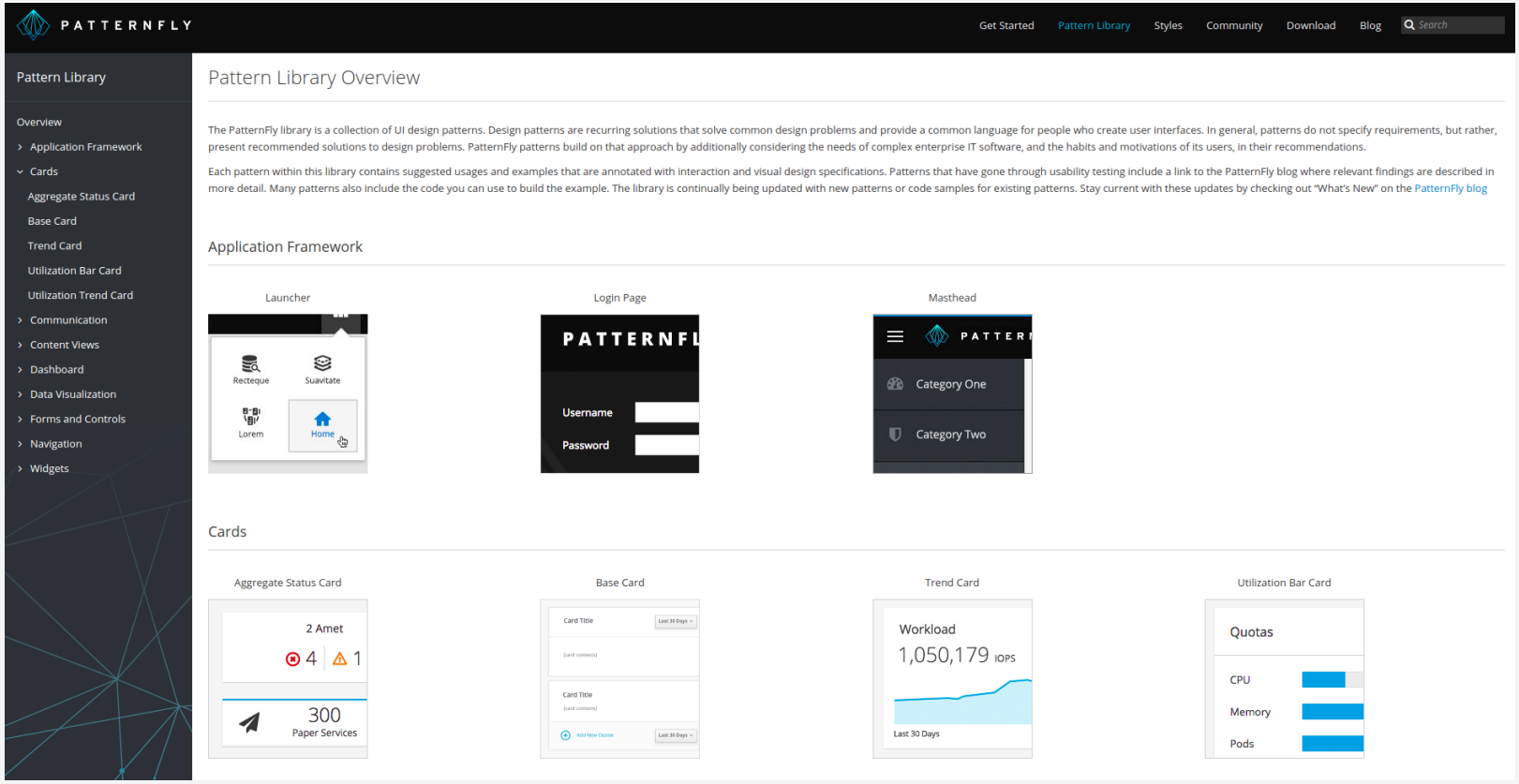
SEO Emphasis *



PATTERNFLY

- Style Ruleset & Guide
  - SASS / CSS
  - Documentation
- Bootstrap
- Scalable
- Skinnable: RCUE
- Openshift

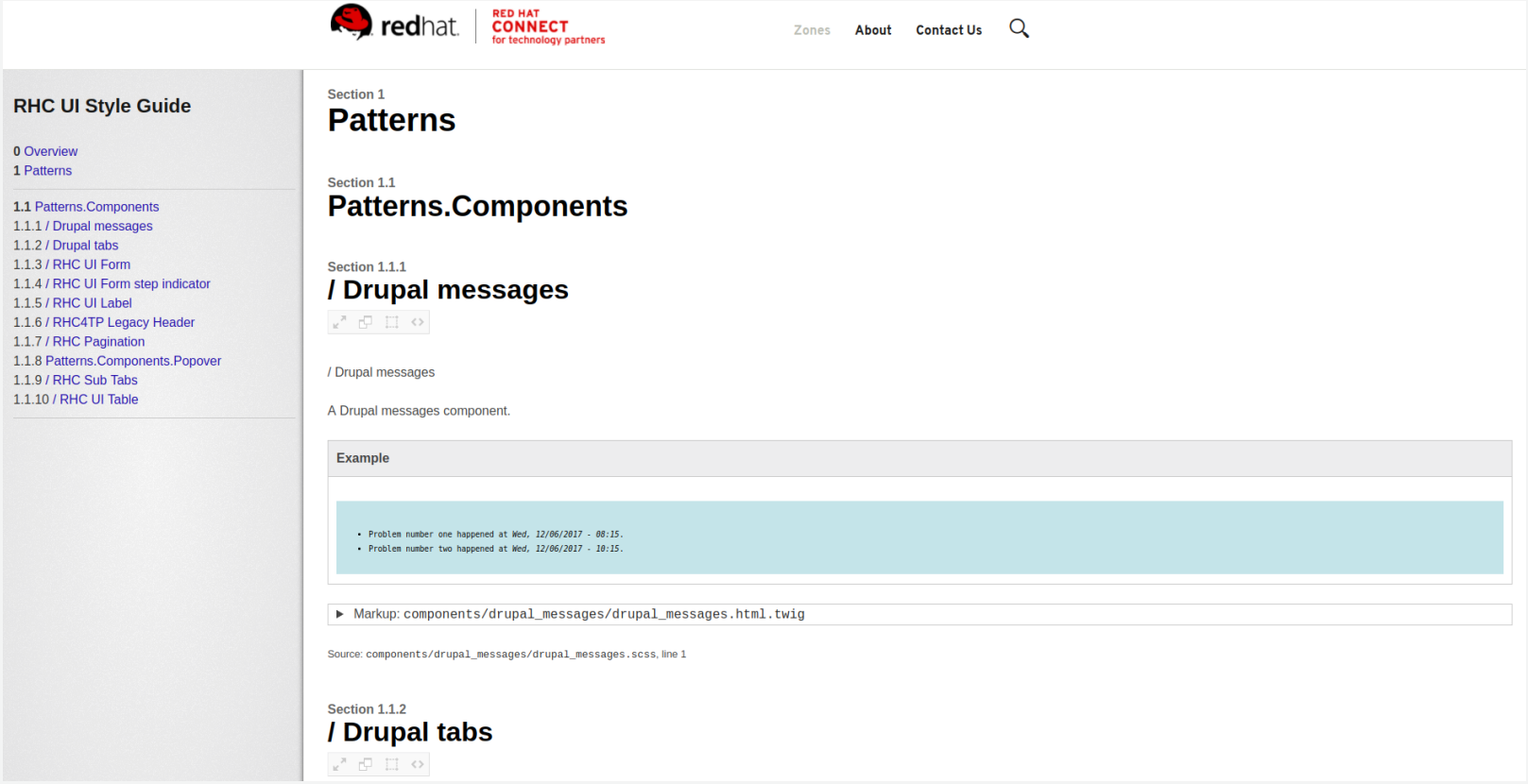
PATTERNFLY


PATTERNFLY
Get Started
Pattern Library
Styles
Community
Download
Blog
Search
Pattern Library
Overview
Application Framework
Cards
Aggregate Status Card
Base Card
Trend Card
Utilization Bar Card
Utilization Trend Card
Communication
Content Views
Dashboard
Data Visualization
Forms and Controls
Navigation
Widgets
Pattern Library Overview
The PatternFly library is a collection of UI design patterns. Design patterns are recurring solutions that solve common design problems and provide a common language for people who create user interfaces. In general, patterns do not specify requirements, but rather, present recommended solutions to design problems. PatternFly patterns build on that approach by additionally considering the needs of complex enterprise IT software, and the habits and motivations of its users, in their recommendations.
Each pattern within this library contains suggested usages and examples that are annotated with interaction and visual design specifications. Patterns that have gone through usability testing include a link to the PatternFly blog where relevant findings are described in more detail. Many patterns also include the code you can use to build the example. The library is continually being updated with new patterns or code samples for existing patterns. Stay current with these updates by checking out "What's New" on the PatternFly blog
Application Framework
Launcher
Recteque
Suavitate
Lorem
Home
Login Page
PATTERNFL
Username
Password
Masthead
Category One
Category Two
Cards
Aggregate Status Card
2 Amet
4
1
300
Paper Services
Base Card
Card Title
Trend Card
Workload
1,050,179 IOPS
Last 30 Days
Utilization Bar Card
Quotas
CPU
Memory
Pods

MY TEAM (CONNECT)'S FRAMEWORK

- Style Ruleset, Implementation
  - SASS / CSS
  - Twig Patterns, JSON Schema, YAML Docs
- WebRH & PatternFly
- Dev-centric

MY TEAM (CONNECT)'S FRAMEWORK



IMPLEMENTATION PT. 2

Adoption, Education, Tooling

ADOPTION

- Selling it to the business
  - Cost Studies & Comparisons
- Selling it to developers
  - Scrum of Scrums
  - Learn from other teams

DOCUMENTATION

- Include w/ Style Guides
- Not just local: Hosted
- Knowledge Shares

TOOLING

- Current Status:
  - PatternKit REST Server + Composer + Grunt + Bower / Pattern Builder Importer module or PatternKit modules
  - KSS + Composer + Gulp / Custom Twig Presenters
  - PatternFly Custom App + Custom Implementation
  - Testing out WebComponents Lib
- WIP:
  - PatternLab + Composer + Gulp & PatternKit
  - Twig Patterns w/ Web Component Compatibility
- Unify Dev Tools, Train & Maintain

DRUPAL INTEGRATIONS

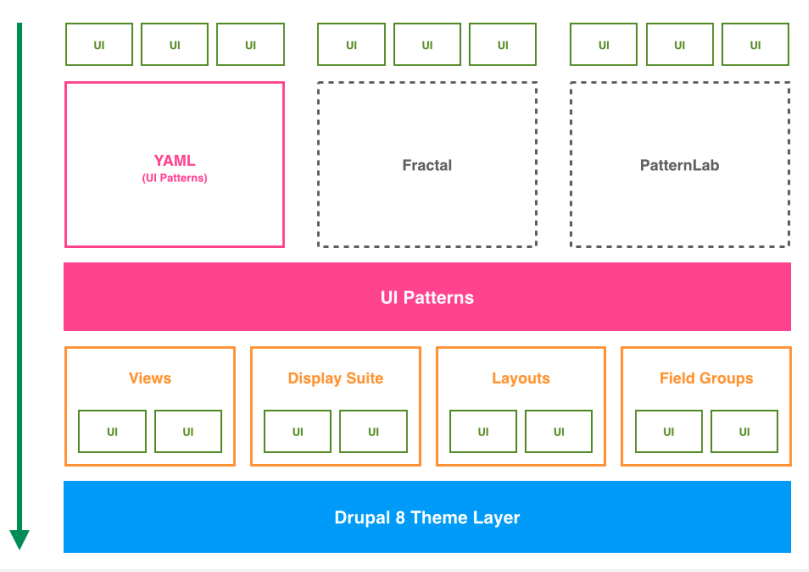
TWIG PRESENTERS (MVP-STYLE)

```
{%
include '@mypatternlibrary/atoms/image/image.twig' with {
  'src': item.image.src,
  'alt': item.image.alt,
  'attributes': item.image['#attributes'],
  'sources': item.image['#sources'],
} only
%}
```

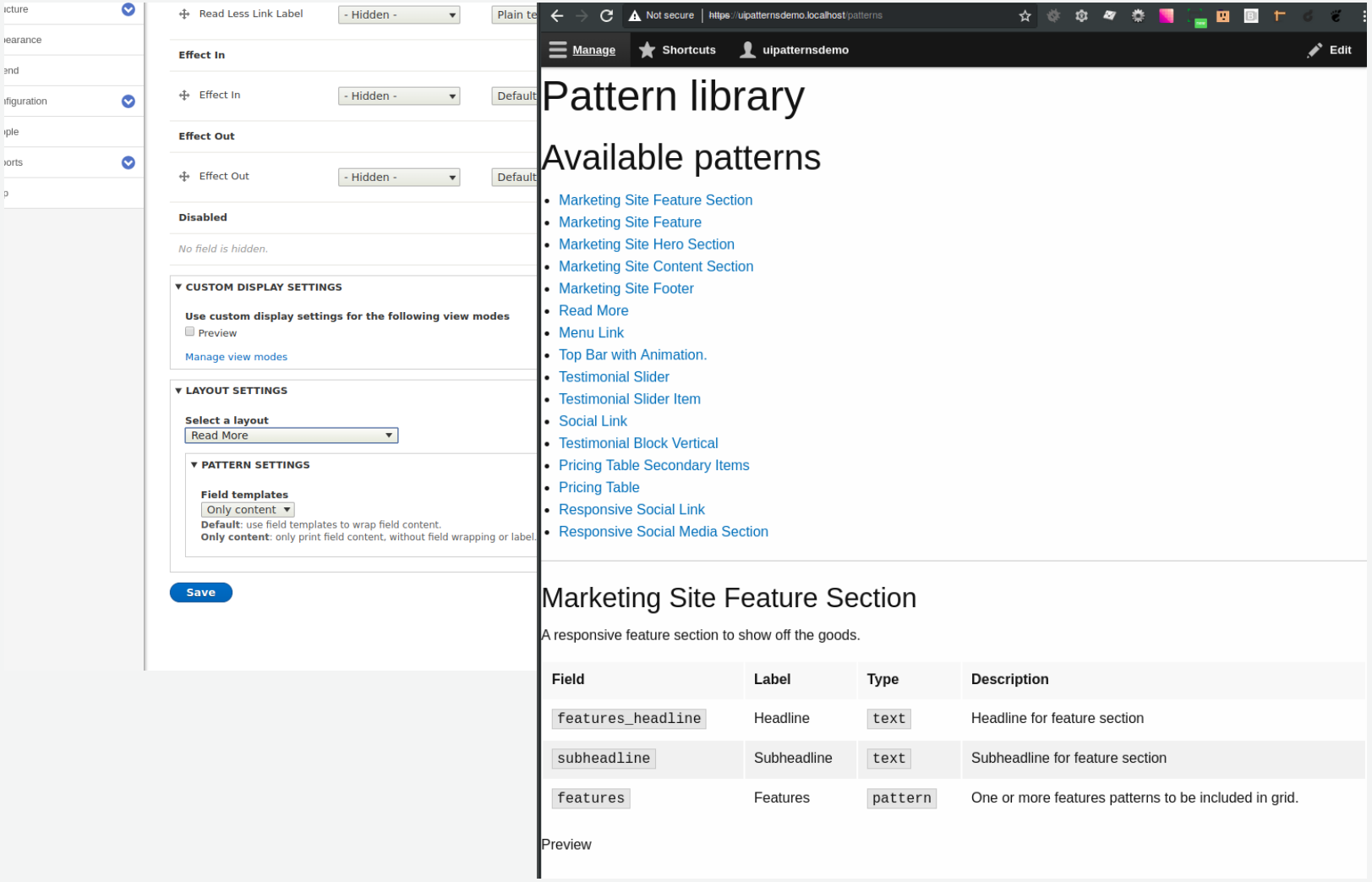
UI PATTERNS (DRUPAL 8)

https://www.drupal.org/project/ui_patterns

- Multiple Integrations
- Views
- 1:1 Mapping
- Works with PatternLab

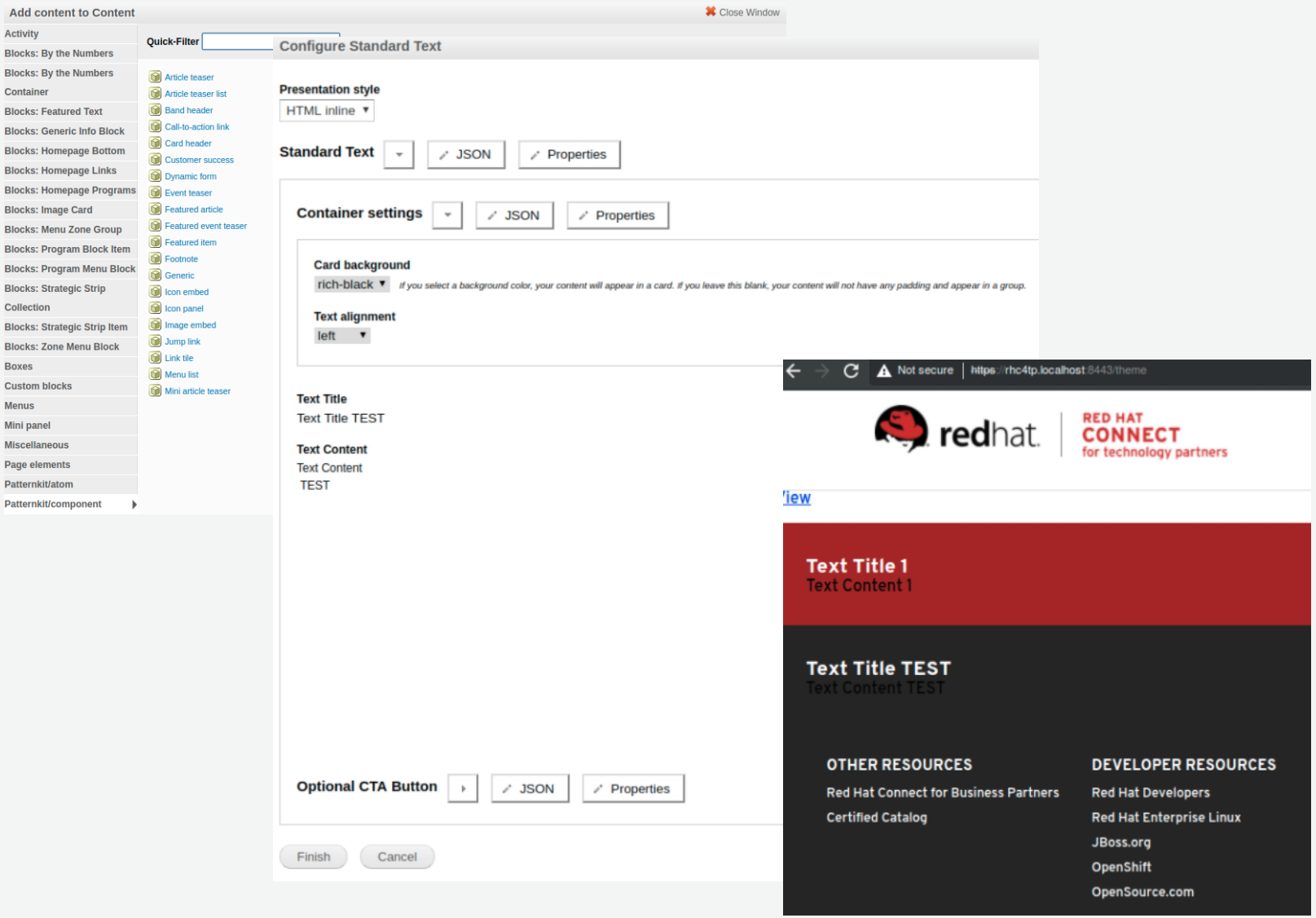


UI PATTERNS (DRUPAL 8)



PATTERNKIT (DRUPAL 7)

- Panels
- Data Mapping
- TFD7-beta3 + namespaces patch


Add content to Content
Close Window
Activity
Blocks: By the Numbers
Blocks: By the Numbers
Container
Blocks: Featured Text
Blocks: Generic Info Block
Blocks: Homepage Bottom
Blocks: Homepage Links
Blocks: Homepage Programs
Blocks: Image Card
Blocks: Menu Zone Group
Blocks: Program Block Item
Blocks: Program Menu Block
Blocks: Strategic Strip
Collection
Blocks: Strategic Strip Item
Blocks: Zone Menu Block
Boxes
Custom blocks
Menus
Mini panel
Miscellaneous
Page elements
Patternkit/atom
Patternkit/component
Quick-Filter
Article teaser
Article teaser list
Band header
Call-to-action link
Card header
Customer success
Dynamic form
Event teaser
Featured article
Featured event teaser
Featured item
Footnote
Generic
Icon embed
Icon panel
Image embed
Jump link
Link tile
Menu list
Mini article teaser
Configure Standard Text
Presentation style
HTML inline
Standard Text
JSON
Properties
Container settings
JSON
Properties
Card background
rich-black
If you select a background color, your content will appear in a card. If you leave this blank, your content will not have any padding and appear in a group.
Text alignment
left
Text Title
Text Title TEST
Text Content
Text Content
TEST
Optional CTA Button
JSON
Properties
Finish
Cancel
Not secure
https://rhc4tp.localhost:8443/theme
redhat
RED HAT
CONNECT
for technology partners
iew
Text Title 1
Text Content 1
Text Title TEST
Text Content TEST
OTHER RESOURCES
Red Hat Connect for Business Partners
Certified Catalog
DEVELOPER RESOURCES
Red Hat Developers
Red Hat Enterprise Linux
JBoss.org
OpenShift
OpenSource.com

DEMO

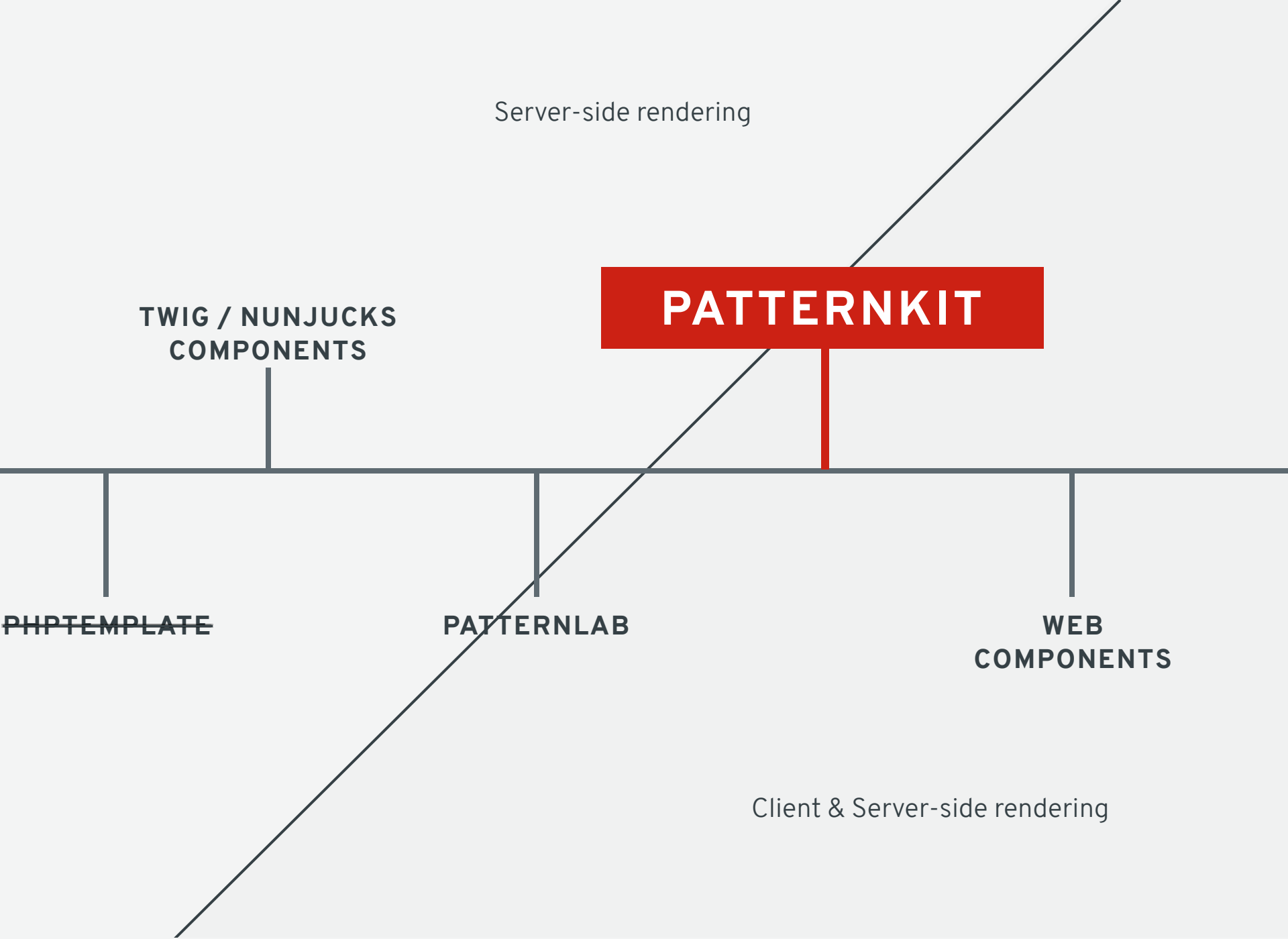
CAVEATS

- TFD7 issues - patches needed
  beta3,
- Zurb Foundation node-sass issues
  Base theme is outdated, needs updating
- Drupal theme builds are still complicated

not everything is "npm run build"

... or "./configure; make"

THE FUTURE


Server-side rendering
PATTERNKIT
TWIG / NUNJUCKS
COMPONENTS
~~PHPTEMPLATE~~
PATTERNLAB
WEB
COMPONENTS
Client & Server-side rendering

IMPLEMENTING A DESIGN SYSTEM

YOUR ACTION CHECKLIST

BRANDING/MARKETING/UX + DESIGN LANGUAGE + DESIGN SYSTEM

Start with the Visual Language of your Design

STYLEGUIDE + LIBRARY + FRAMEWORKS

Choose the option that best fits your timeline, system, and deliverables

DRUPAL INTEGRATION

Invest in a pattern-based system & the Twig/Nunjucks + JSON Schema + YAML Stack

GET INVOLVED

START HERE

https://github.com/drupal-pattern-lab/roadmap/issues/8

PatternLab

https://github.com/pattern-lab/patternlab-php-core/issues/116

RESOURCES

PatternFly

https://patternfly.org

PatternKit

https://www.drupal.org/project/patternkit

UI Patterns

https://www.drupal.org/project/ui_patterns

PatternLab

https://patternlab.io/

Twig for Drupal (7)

https://www.drupal.org/project/tfd7

TFD7 Namespace Patch

https://www.drupal.org/project/tfd7/issues/2904991

ThemeKey

https://www.drupal.org/project/themekey

Nunjucks

https://mozilla.github.io/nunjucks/

COMMAND REFERENCE

Start a local docker

```
npm install -g generator-docker4drupal
yo docker4drupal
```

Create a new Drupal install

```
composer create-project drupal-composer/drupal-project:8.x-dev
some-dir --stability dev --no-interaction
```

Install UI Patterns Drupal Module

```
composer require drupal/ui_patterns
```

Install PatternKit Drupal Module

```
drush en -y patternkit
```

redhat

SPECIAL THANKS

JOHN ALBIN

ERIK BALDWIN

ROB COFFMAN

BRENT DUNN

MICAH GODBOLT

ZACK HAWKINS

MIKE NIELSON

CASS ROBERTS

JASON SMITH

KENDALL TOTTEN

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as well as the Drupal community

redhat

Q&A

THANKS!