

# React In A Design Process

Chris Williams

Senior Software Engineer, Direct Supply

[github.com/chriswxyz](https://github.com/chriswxyz)



Blueprint

v3

View on GitHub

Dark theme

D

Search...

S

BLUEPRINT

CORE

318.1

Accessibility

Classes new

Colors

Typography

Variables

COMPONENTS

Breadcrumbs

Button

Button group

Callout

Card

Elevation

Props

CSS

Collapse

Collapsible list

Divider new

Editable text

HTML elements new

HTML table

Hotkeys

Icon

Menu

Navbar

Non-ideal state

Overflow list new

## Card

Edit this page

A card is a bounded unit of UI content with a solid background color.

### Analytical applications

User interfaces that enable people to interact smoothly with data, ask better questions, and make better decisions.

Explore products

**Props**

☒ Interactive

Elevation

0 1 2 3 4

[View source on GitHub](#)

## Elevation

Apply an `elevation` value to a card to apply a drop shadow that simulates height in the UI. Five elevations are supported, from 0 to 4.

The `Classes.ELEVATION_*` constants can be used on any element (not just a `Card`) to apply the drop shadow.

## Props

This component is a simple stateless container for its children.

```
import { Button, Card, Elevation } from "@blueprintjs/core";

<Card interactive={true} elevation={Elevation.TWO}>
  <h5><a href="#">Card heading</a></h5>
  <p>Card content</p>
  <Button>Submit</Button>
</Card>
```

interface `ICardProps` extends `IProps`, `HTMLAttributes` @blueprintjs/core

Props	Description
-------	-------------

<code>className</code>	<b>string</b> A space-delimited list of class names to pass along to a child element. <code>Inherited from <code>IProps.className</code></code>
------------------------	---

Project Clarity

Documentation

Icons

Community

What's New

V3 is in pre-release. Install it using the @next tag from NPM.

VERSION V3

Component Status

Get Started

Patterns

Application Layout  
Color Palette  
Internationalization  
Navigation  
Themes  
Typography

Components

Accordion  
Alerts  
Badges

Buttons

Button Group  
Cards  
Checkboxes  
Datagrid  
Date Picker  
Dropdowns  
Forms  
Grid  
Header  
Inputs  
Labels  
Lists  
Login Page  
Modals  
Progress Bars  
Radio Buttons  
Select  
Sidenav  
Signposts  
Spinners  
Stack View  
Stepper  
Tables  
Tabs  
Textareas  
Toggle Switches  
Tooltips

## Buttons

Design Guidelines

Code & Examples

Buttons allow an application to communicate action and direct user intent.

### Three different types



Solid buttons look heavy on purpose. They direct the user's attention to the **primary action** the application is suggesting that the user take.



Outline buttons provide a lighter weight button style. They are used to indicate a **secondary action** that complements a primary action or to reduce visual noise when there are many action of **equal** importance on the page.



Flat buttons are used in multiple scenarios. They are used as **tertiary buttons**. They can also be used inline because they are different from content in style and recognizable as buttons alongside content.

**FLAT BUTTON**

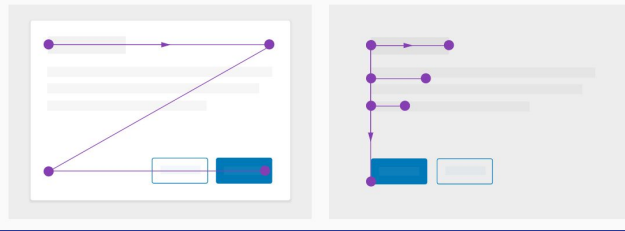
Use flat buttons when a user is expected to **take an action**.

**Link**

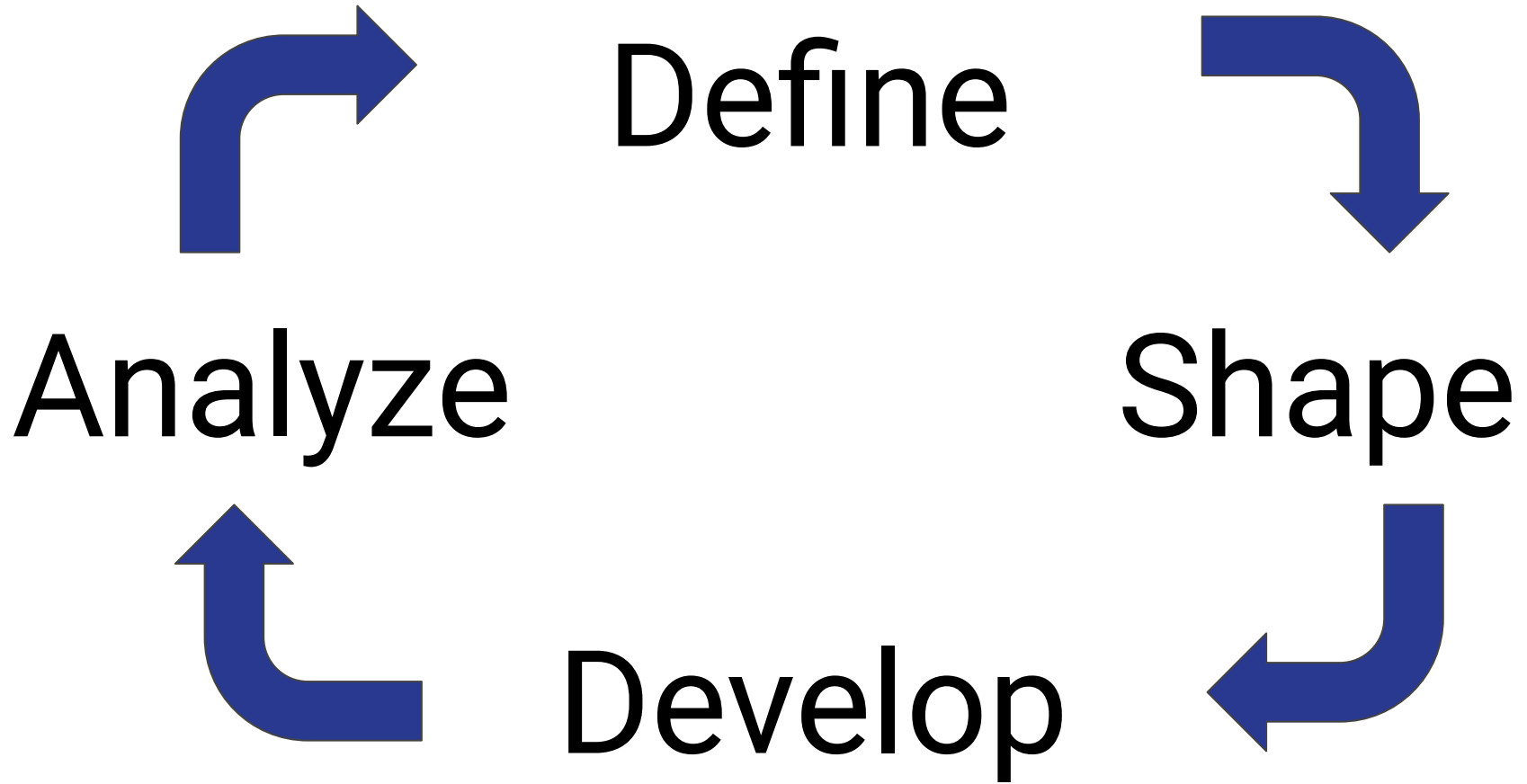
Use a link when a user is expected to be **taken to a different page**.

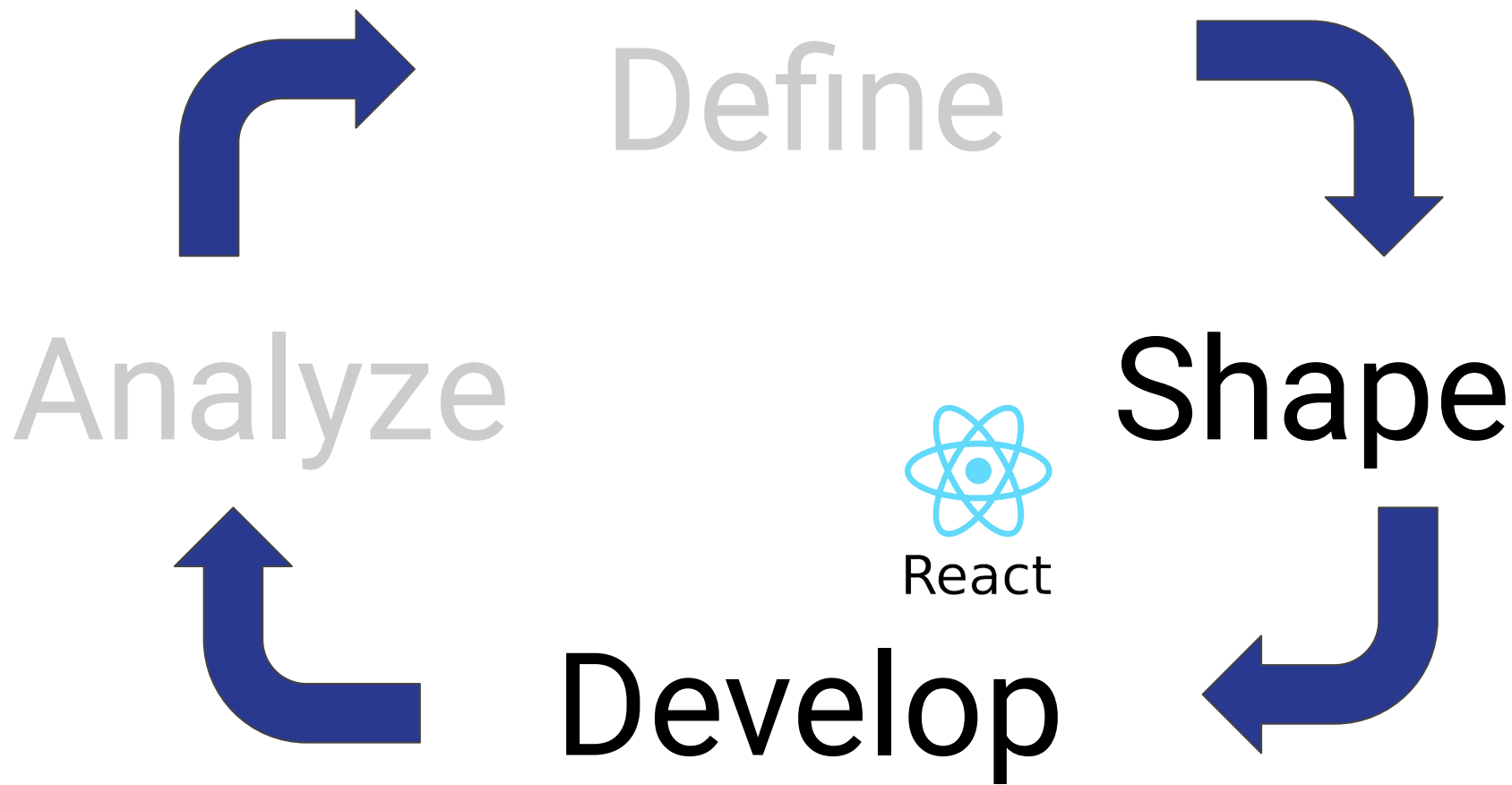
### Placement

There are two distinct patterns when it comes to the placement of a button.









# Shaping



An interactive, hands-on collaboration for devs and users



**Storybook**



# Welcome to the OGM3 Prototype Storybook.

This storybook provides a place  
to experiment with new OGM3  
experiences.  

Copy the `example.proto.tsx` file from  
the `_prototypes` folder to get started.



# Usability Tests



## 2. Test

### Facilitator

Describe the scenario to your first user, and let the magic happen.

"Let's say you receive an email from a customer asking you to *BLAH*. Where would you start?"

### Tip - Get Them To Think Out Loud

If the user asks what they are supposed to do, encourage them to think out loud instead of guiding them to your own answer.

"Am I supposed to click on BLAH?"

Responses:

"What do you think will happen when you click on BLAH?"

"Go ahead and try clicking on BLAH."

"Tell me more."

## Usability Session Worksheet - Activity Stream

Date of Test Session: 2019-07-31


Feature Name: Activity Stream + Descriptions

User Jobs enabled by this Feature: Working collaboratively with your analyst team to maintain a customer.

User Pains relieved by this Feature: Forgetting why things were changed or deleted.

Test Scenarios:

1. You want to leave the contact emails for YourNet in an obvious location, even for people who don't normally manage this customer.  
Doug: [doug@yournet.com](mailto:doug@yournet.com)  
Tom: [tom@yournet.com](mailto:tom@yournet.com)
2. Doug from "YourNet Care Systems" emailed you and wanted to know why his facilities are suddenly able to purchase Pumpkin Sauce. He says they started being able to purchase it 2 days ago.

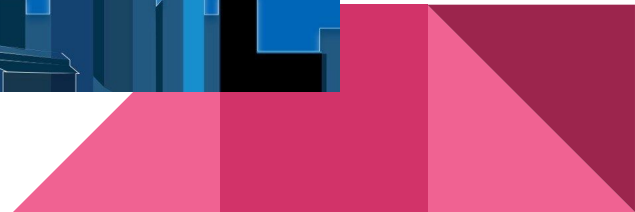


Use the tools you're  
comfortable with to  
drive fast iterations  
with direct evidence  
from users

# Develop

Making non-UI-wizards successful and happy

# TypeScript



```

return <Page title='Verify Onboarding' subtitle={subtitle} breadcrumbs={crumbs}>
  <PageSection title='Verify Locations'>
    <DataTable
      columns={columns}
      data={locationValidation}
      itemId={x => x.id}
      expandContent={x => <ValidationDetails row={x} />}
      onExpand={noop}
    />
  </PageSection>
</Page>;

```

🔑 actions

🔑 checked

🔑 children

🔑 density

(JSX attribute) actions?: ReactNode ×

# TypeScript

- Crucial for work as a team
- Communicate semantics and intent
- Bad data states fail to compile
- Java/C# devs feel a bit more at home

```
function StatusIcon(props: {  
    row: Duck.LocationVerification;  
}): JSX.Element
```

Type '{ rwo: LocationVerification; }' is not assignable to type

'IntrinsicAttributes & { row: LocationVerification; }'.

Property 'rwo' does not exist on type 'IntrinsicAttributes & { row: LocationVerification; }'. ts(2322)

[Peek Problem](#) No quick fixes available

⇒ `<StatusIcon rwo={x} />`

# Give Real Advice

- Real advice is straightforward and actionable
- Give devs concrete examples, not just theory
- Help them understand what NOT to do

## File Organization

### Folder-by-feature

Features are organized by placing the components, hubs, ducks, tests, and stories together in one folder. This helps a developer quickly locate and identify related code. This is the opposite of folder-by-type, which separates code files by technical category, and leads to jumping around trying to find a file.

### Filenames

Filenames have a segment that indicate what kind of file they are (when it's not obvious from the extension).

Kind	File
Component	<code>my-component.tsx</code>
Controller	<code>my-feature.page.tsx</code>
Duck	<code>my-feature.duck.ts</code>
Hub	<code>my-feature.hub.ts</code>
Test	<code>my-feature.spec.ts</code>

Filenames are lower-kebab-cased.

# Less is More

```
return <button style={{backgroundColor: '???'}}>Hello</button>;
```

```
return <MyButton text='Hello' color=' ' />;
```

☰ danger

☰ primary

☰ secondary

☰ warning



# Less is More

```
return <div style={{padding: '1.68rem'}}>Hello</div>;
```

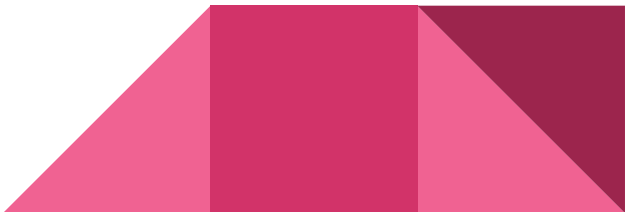
```
return <PageSection density=''>Hello</PageSection>;
```

compact

normal

touch

# Functional CSS

- Past experience and results
    - 👍 from developers that don't like UI
    - basics of CSS
    - Is not “magical” or “powerful”
  - You will write 99-100% less CSS
  - Best used in a component-based system
  - Easy to migrate bits and pieces
- 

```
const btn1 = <button className='home-page-cta'>Semantic</button>;  
const btn2 = <button className='bg-blue border-pink padding-3 rounded'>Functional</button>;
```



# Functional CSS


	CSS Written	Reuse
BEM	High	Low
Framework	Medium	Medium
f(css)	Low	High



**Storybook**



# Welcome to the OGM3 Storybook

This storybook is part component catalog, part visual development tool, part manual regression test, and  percent awesome.



## Component Catalog

Browse through existing components in OGM3 and see them in various states of action!



## Visual Development

Copy a page or component story out of the `_boilerplate` folder and start working on new UI!



## Regression Test


Changes to components are easier to verify since data can be experimented with, without running the site!

# Component-First Design

- Build a React component in Storybook
- Mock out the interaction with React.state
- Usability test
- Component Props  $\sim$  Your API





# Debugging - View, or State?

 Search (text or /regex/)

- CommonProvider DragDropContext
  - CommonProvider
    - IntlProvider
      - Provider
        - Context.Provider
          - Router
            - RouterContext
              - Layout InjectIntl +1
                - Layout Connect +1
                  - Context.Provider

Button

  <>

props



```
data-test-id: "mass-import-button"
dsxIcon: "upload"
isHidden: false
onClick: fn()
style: "primary-outline"
value: "Mass Upload"
new prop : ""
```

Inspector

filter... Commit

- @@INIT 3:12:13.78
- @@router/LOCATION\_CHANGE +00:00.00
- @ca:LOADED\_CUSTOMERS\_PAGE\_PEND... +00:00.02
- @loa:SET\_SIGN\_ON\_TYPE +00:00.01
- @ca:LOADED\_CUSTOMERS\_PAGE\_SUCC... +00:00.09
- @ca:SELECTED\_CUSTOMER\_PENDING +00:01.06
- @@router/LOCATION\_CHANGE +00:00.06
- @customers:HOME\_PAGE\_LOADED\_PE... +00:00.01
- LOADING\_BLUEPRINTS +00:00.00
- @ca:SELECTED\_CUSTOMER\_SUCCESS +00:00.03
- @customers:HOME\_PAGE\_LOADED\_SU... +00:00.03
- @ta:TIMER\_CLEAR +00:00.01
- @ta:TIMER\_START +00:00.00
- @ta:TIMEOUT\_REFRESH +00:00.00
- LOADING\_BLUEPRINTS\_SUCCESS +00:00.00

DSSI OGM

Diff Action State Diff Trace Test

Tree Raw

- blueprintManagement (pin)
  - blueprints (pin)
    - inProcess (pin): ~~true~~ => false
    - payload (pin): { 0: {...}, 1: {...}, 2: {...}, ... }
    - totalResults (pin): 0 => 8
    - totalPages (pin): 0 => 1



# Ducks



A "duck" is a file that contains

- a reducer
- actions that the reducer can handle
- functions that create the actions
- the state that the reducer operates on
- `customers.duck.ts`



# Explicit, useful tools that improve a dev's life

- Types
- Small, clear CSS
- Play and experiment with UIs
- Components drive API design
- Spatial awareness



# Question Time!

Or, ask me later:

[chris.williams@directsupply.com](mailto:chris.williams@directsupply.com)

[github.com/chriswxyz](https://github.com/chriswxyz)