



Communicating Responsive Web Design:
The Breakpoint Matrix

Presented at the 2013 Information Architecture Summit

Version 1
Published April 09, 2013
Created by James Melzer

Communicating Responsive Web Design

What is Responsive Web Design?

Responsive Web Design (RWD) is an alternative to providing separate 'mobile' and 'desktop' experiences. RWD enables a wide array of web-capable devices to view the same content. The design **responds** to the device that reads it, **optimizing the content** for that device's capabilities.

In practical terms, RWD adds two factors to 'normal' web design:

- **Multiple display sizes**
- **Multiple input methods**, particularly mouse+keyboard vs. touch

Why Communicating RWD Is Tricky

The design transforms depending on the device. Therefore, there are really multiple designs, intricately related but distinct.

Lack of Tools

The designers' toolbox lacks a tool to describe this design. We've got:



Wireframes and mockups are good for 'normal' designs. They are precise and stable. They can explain complex concepts.



HTML prototypes are great for experiencing RWD in action, but they are poor at documenting both details and the big picture.

View Proliferation

A key challenge of communicating a responsive design is managing the proliferation of views.

components X avg. # states X breakpoints = views

A typical non-responsive content page:

8 components X 2 states each = 16 views

The same page, made responsive:

8 components X 2 states X 5 breakpoints = 80 views!

We need a map to help manage this detail, part **spreadsheet** and part **blueprint**.

Proposed Solution

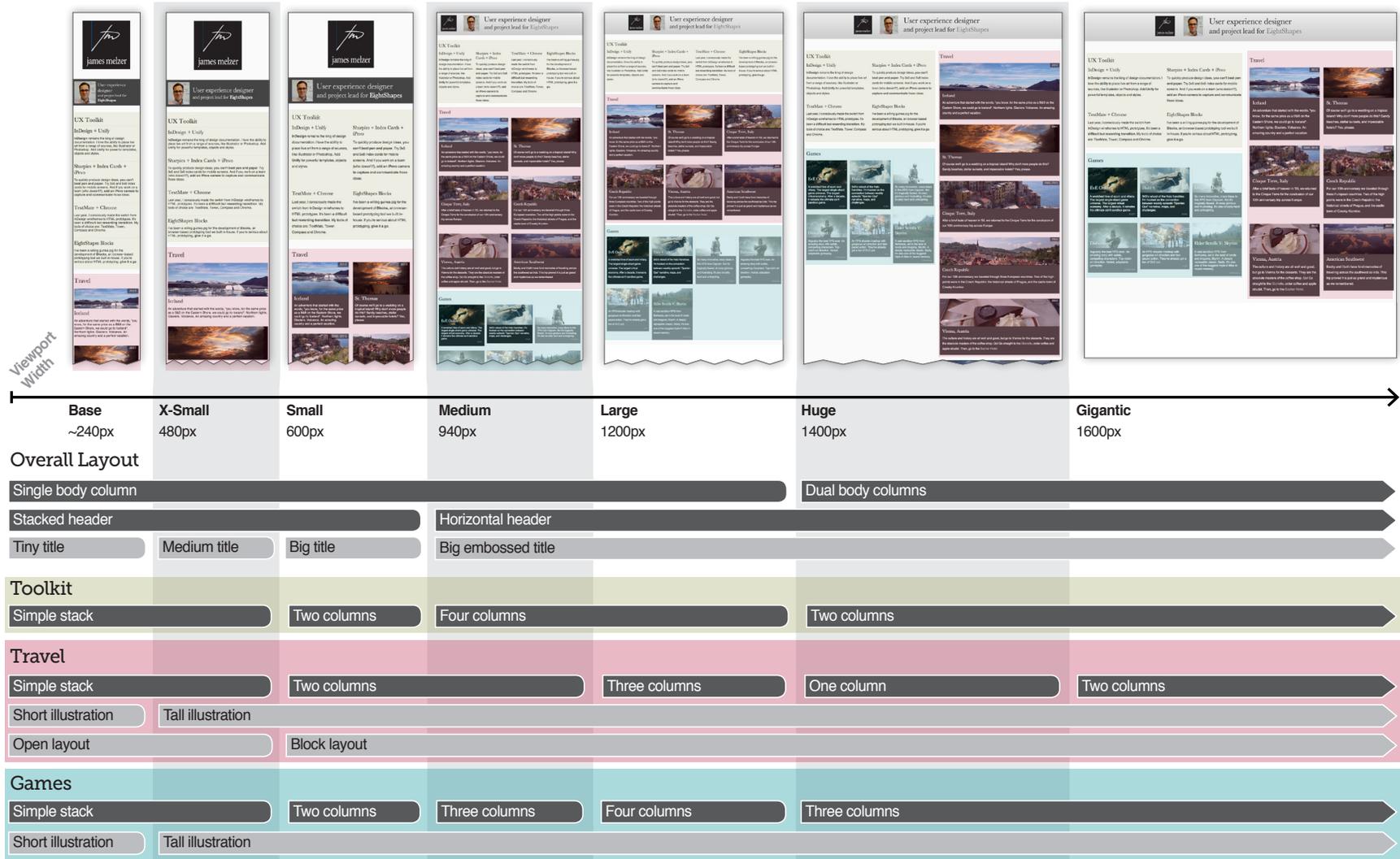
HTML Prototype +
Breakpoint Matrix +
Specs

The Breakpoint Matrix documents when the design transforms (called breakpoints), explaining the prototype's behavior in a stable, precise diagram. It also acts as a key for the specifications, outlining the breakpoints for each component.

What Is It Good For?

- High level outline, not detailed spec
- Display size, not input method
- Page-level and modular, not site-wide or monolithic

Breakpoint Matrix



Key to the Diagram

- Major Breakpoint**
A significant design transformation.
- Minor Breakpoint**
A detailed design transformation.

Exclusive
This design state covers **up to but not including** the stated viewport width, i.e. 940 to 1199px. Always paired next to an inclusive breakpoint.

Inclusive
This design state covers **up to and including** the stated viewport width, i.e. 1200px+. Always paired next to an exclusive breakpoint.

Infinite ∞
This design state covers **everything above** the stated viewport width. Always caps the right end of each row.