

How we deliver
the right experience
to the right device

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What we're already doing

Progressive Enhancement:

We start with plain, well structured, semantic HTML and a minimal stylesheet to format content into a basic, legible hierarchy. Then we layer on functionality and more complex CSS to provide an enhanced experience to capable browsers.

Why it's important

- Enables us to develop web applications for the broadest audience possible.
- Uses one code base.
- Keeps things accessible, search-friendly, and flexible; all good things.

Prog. Enhancement in Apps

At Filament, roughly 80% of our work is complex web applications. Building these apps with progressive enhancement has introduced some unique challenges and pushed us to find some elegant solutions.

Widget Example: Slider

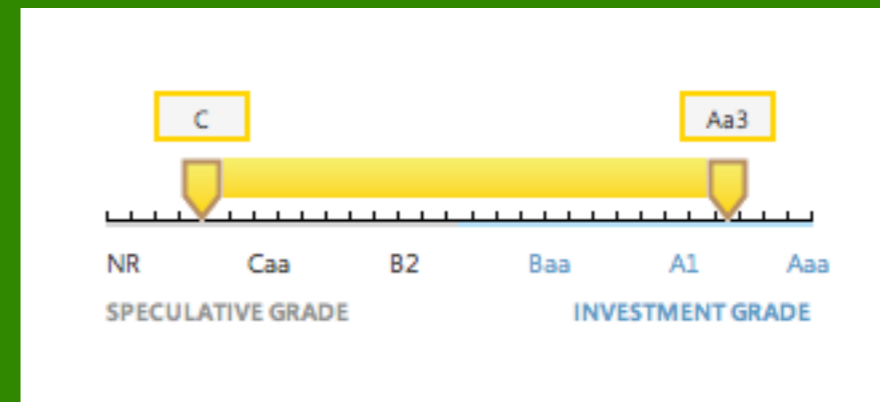
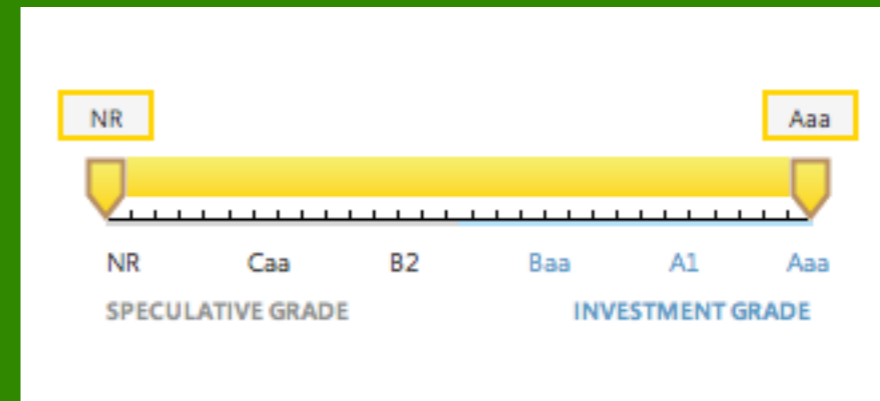
From: To:

Speculative Grade

- NR
- WR
- SG
- IG
- C
- Ca
- Caa
- Caa3
- Caa2
- Caa1
- B
- B3
- B2
- B1
- Ba

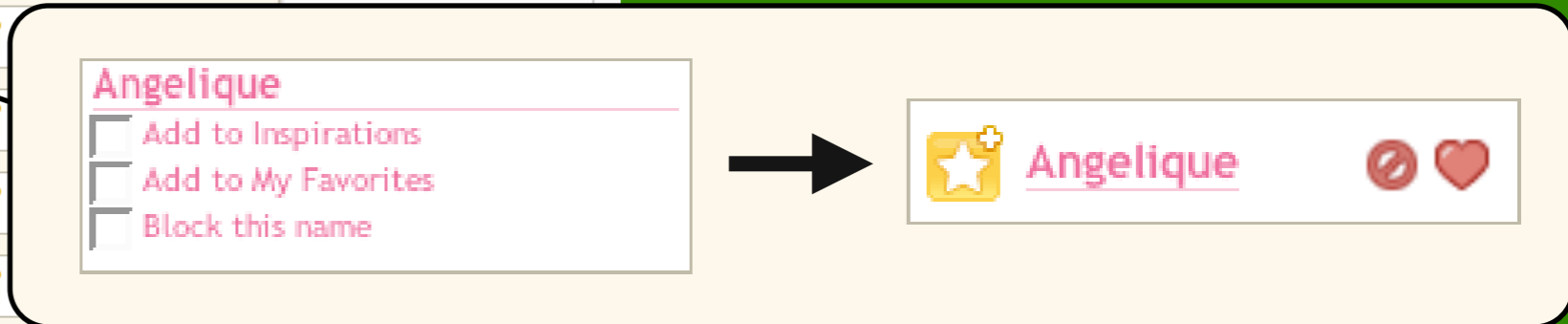
Investment Grade

- Ba3
- Ba2
- Ba1



App Example: Nymbler

The screenshot displays the Nymbler website interface. At the top left is the Nymbler logo, a blue bird holding a bag, with the text "Nymbler™ Your personal baby name assistant". To the right are navigation links: "Nymbler Blog", "How it works", and "Helpful hints". Below the logo is a section titled "Inspirations" with the instruction "Choose up to 6 names to influence name suggestions." It contains input fields for "Dominique" and "Angela", a "Girls" dropdown menu, and a "Find Names" button. A "Clear Inspirations" link is also present. Below this is a list of generated names: Ariana, Lashonda, Danae, Kayla, Angelique, Kirstie, Leonora, Delphine, Mallory, Priscilla, and Tatyana. A callout menu is shown over the "Angelique" name, listing "Add to Inspirations", "Add to My Favorites", and "Block this name". To the right of the callout is a "My Favorites" section showing "Aaron" and a "Clear My Favorites" link. At the bottom, there is a copyright notice for 2007-2008 Icosystem and social media sharing options.



Where to draw the line

How do we know where to draw the line between a basic or enhanced experience?



Raising our Standards

Simply testing for Javascript support is not enough

- Unqualified devices are being let in.
- These devices may improperly handle the advanced layout and scripting required for a usable Ajax application.

What we really need

- A better way to evaluate a device's capabilities before providing an enhanced experience
- The security of knowing that our application is usable to all who visit
- **testUserDevice.js !!**



What is testUserDevice.js?

- A library-agnostic script that tests a device's ability with CSS and Javascript in order to support an advanced UI
- A painfully descriptive filename

So how does it work?

We start with simple, well structured markup. As soon as the `<body>` is ready, the test script:

- inserts elements into the DOM
- manipulates the elements by applying CSS
- tests to see if the device rendered the CSS properly

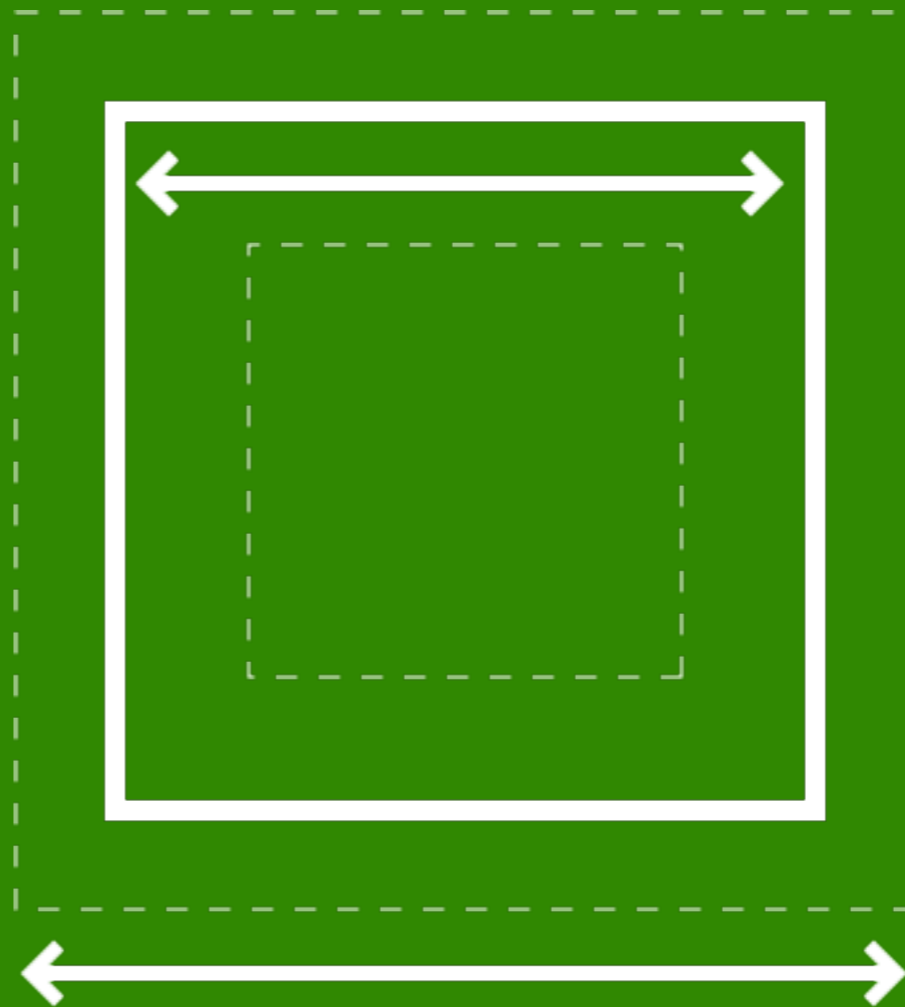
Like object detection for CSS

But this test is all or nothing!

```
if( you_can_handle_this_kung_fu ){  
    //Flying sidekick  
}
```

What does it test?

- ✓ **Box Model**
- ✓ **Positioning**
- ✓ **Floats**
- ✓ **Clears**
- ✓ **Overflow**
- ✓ **Line-height**
- ✓ **Object-detection**



What if it fails?

The device renders a basic experience

- The page works as-is without further enhancements.
- **Javascript can still be used!** The test just allows for a better divide between simple and advanced functionality.

What happens if it passes?

Enhanced functionality layers over the basic experience.

1) A class of 'enhanced' is added to the <body> element for CSS scoping

```
body.enhanced div#content {float: left;}
```



What happens if it passes?

- 2) Any alternate links to stylesheets with a class of 'enhanced' are enabled

This:

```
<link class="enhanced" type="text/css" rel="alternate stylesheet" href="styles.css" />
```

Becomes this:

```
<link class="enhanced" type="text/css" rel="stylesheet" href="styles.css" />
```

What happens if it passes?

3. Any links to stylesheets with a class of 'basicNoCascade' are disabled

This:

```
<link class="basicNoCascade" type="text/css" rel="stylesheet" href="basic.css" />
```

Becomes this:

```
<link class="basicNoCascade" type="text/css" rel="alternate stylesheet" href="basic.css" />
```

What happens if it passes?

4. Scripts passed as an argument are run on DOM ready
5. A cookie is set so the browser auto-passes the test on future pages.

This can be used on the back-end to really speed things up!

```
<?  
  if($_COOKIE["enhanced"]){  
    // Link to styles and scripts with everything enhanced already  
  }  
?>
```

How do I use it?

To run the test, simply link to the Javascript file and call it:

```
enhancedDomReady();
```

Enhanced scripting can be passed as an argument:

```
enhancedDomReady({  
    buildSuperSlickInterface();  
});
```

More info

More info and script source available here:

<http://www.filamentgroup.com/lab/>



Thanks. *Questions?*

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