



Roadmap Series

Issue #15

Designing for the iPhone

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Recommended Experience Level

1

Beginner

2

Intermediate

3

Advanced

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Introduction

Mobile devices are becoming increasingly more capable. The iPhone and iPod Touch are 2 such devices that are gaining wide spread usage. These devices have the ability to display full webpages using their built in Safari web browser with very few limitations. Your current website will likely render just fine on an iPhone, but why not improve the experience even more for any visitors using these mobile devices? This roadmap is an introduction on designing a webpage for the iPhone.

Detecting the iPhone Browser

Just like any web browser, the iPhone Safari web browser has a unique user agent string. You can check the user agent using PHP and print out a conditional CSS include that just the iPhone should use.

```
<?php if(strpos($_SERVER['HTTP_USER_AGENT'], 'iPhone') !== false) { ?>
<link media="all" href="small-device.css" type="text/css" rel="stylesheet">
<?php } else { ?>
<link media="all" href="not-small-device.css" type="text/css" rel="stylesheet">
<?php } ?>
```

If you want to use a client side solution, you can add some conditional code into the link tag for your external CSS style sheets. For example, to specify a style sheet for iPhone OS, use an expression similar to the following:

```
<link media="only screen and (max-device-width: 480px)" href="small-device.css"
type="text/css" rel="stylesheet">
```

To specify a style sheet for devices other than iPhone OS, use an expression similar to the following:

```
<link media="screen and (min-device-width: 481px)" href="not-small-device.css"
type="text/css" rel="stylesheet">
```

Alternatively, you can use this format inside a CSS block in an HTML file, or in an external CSS file:

```
@media screen and (min-device-width: 481px) { ... }
```

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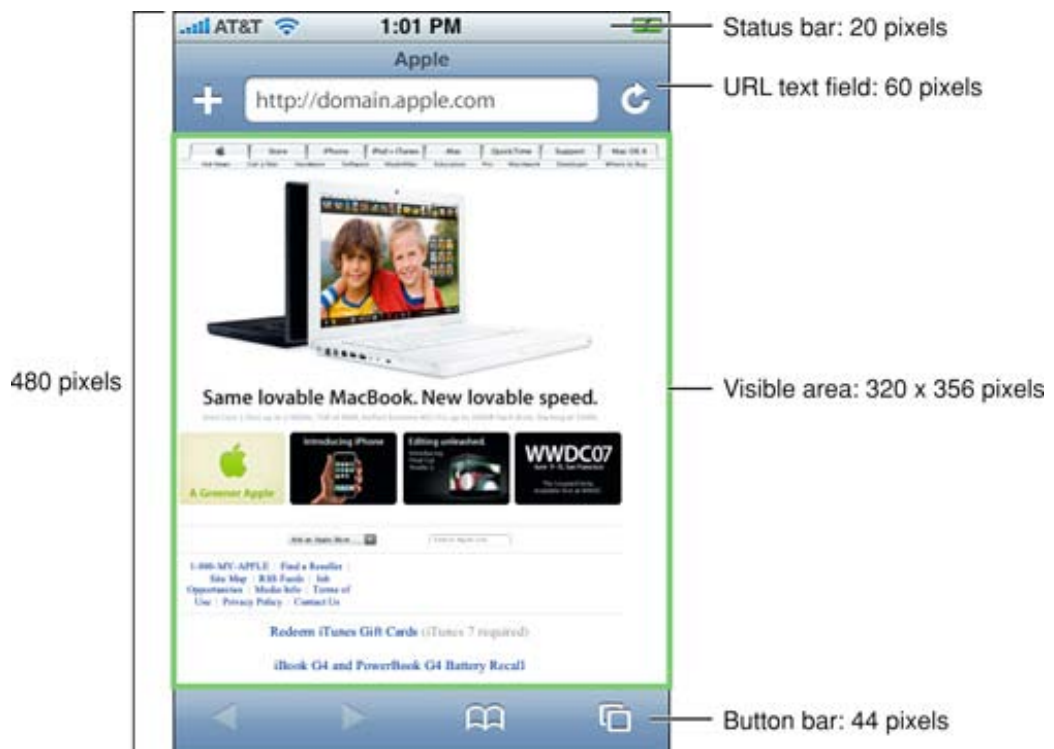


The Viewport

The viewport is the area in the iPhone Safari web browser that determines how a webpage is laid out. The viewport can be larger than the size of the screen. When you have to scroll to see more of a page, that is an example where the viewport is larger than the screen.

It is a much cleaner user experience if the viewport matches the dimensions of the iPhone screen. You might have seen iPhone formatted sites before and they just seem to fit the screen better and behave more like a native application. Check out <http://m.digg.com> and <http://i.tuaw.com> on your iPhone for some examples.

When creating your iPhone specific CSS, it's important to understand the layout of the iPhone screen. The image below shows the dimensions of the various components in the iPhone browser. The two most important things to note are that the screen is 320px wide in portrait mode and 480px wide in landscape mode.



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Creating a basic iPhone formatted page

In order to make your webpage a fixed width similar to the sites above, add this meta tag in the head of the page.

```
<meta name="viewport" content="width=device-width; initial-scale=1.0; maximum-scale=1.0; user-scalable=0;"/>
```

This code will set the viewport to the width of the device, so that means 320px when in portrait mode and 480px in landscape mode.

Combining this meta tag along with the conditional CSS include, we can construct a basic webpage that will fit nicely on the iPhone screen and give the user a great experience.

Here is the HTML:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>iPhone Text</title>
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1" />
<meta name="viewport" content="width=device-width; initial-scale=1.0; maximum-scale=1.0; user-scalable=0;"/>
<link media="only screen and (max-device-width: 480px)" href="small-device.css"
type="text/css" rel="stylesheet">
<link media="screen and (min-device-width: 481px)" href="not-small-device.css"
type="text/css" rel="stylesheet">
</head>

<body>
<div id="header">
  
</div>
<h1>Latest Releases</h1>
<div class="row">HTML Editor</div>
<div class="row">CSS Sculptor 3</div>
<div class="row">CSS Form Builder</div>
</body>

</html>
```

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And here is what the small-device.css would look like:

```
body {
  font-family: Arial, Helvetica, sans-serif;
  margin: 0;
  padding: 0;
}
#header {
  padding: 10px;
  text-align: center;
}
h1 {
  background-color: #285f99;
  color: #fff;
  font-size: 20px;
  margin: 0;
  padding: 10px;
  border-top: solid 1px #000;
  border-bottom: solid 1px #000;
}
.row {
  font-size: 20px;
  padding: 10px;
  border-bottom: solid 1px #000;
  background-color: #fbfbfb;
}
```



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Here is what the page looks like in portrait and landscape modes. As you can see, the page adjusts nicely for either orientation and gives the user a usable version of your website.



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Testing your page

There are few options available to test your iPhone formatted page. The first option is to use an actual **iPhone** or **iPod Touch** device. Simply open up the Safari application and navigate to your page.

If you have access to a Mac, you have a few other options as well. Check out the free **iPhoney** (<http://www.marketcircle.com/iphoney/>) application. iPhoney taps into your full Safari browser on your computer, but simulates how the page will look on an iPhone or iPod Touch. Check out their website to download this application and for a full feature list.

Another option is using the iPhone simulator that comes with the iPhone SDK. Head over to the **iPhone Dev Center** (<http://developer.apple.com/iphone>) to download the SDK. It's free to sign up for an account if you don't already have one. The dev center has lots code samples and help documents relating to iPhone development.

Further Resources

This Roadmap will give you a starting point for formatting your site for the iPhone, but there are lots of great resources out there to provide more insight into this design process.

Apple has excellent documentation on how to design for the iPhone browser. Check out this link for the complete documentation:
http://developer.apple.com/safari/library/documentation/AppleApplications/Reference/SafariWebContent/Introduction/Introduction.html#//apple_ref/doc/uid/TP40002079-SW1

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