

May 2011

Email Design & Coding Recommendations

Advice on HTML, mobile and text email design, plus HTML coding guidelines.

responsys[®]

To be successful, marketers' email designs must constantly evolve to meet the shifting needs and behaviors of consumers and adjust to email platform changes.

Best practices are always changing, so we have assembled the following list of 2011 design and coding recommendations to help ensure that your HTML and text emails optimize the user experience and response, perform well on mobile devices, render properly in the widest array of email clients, and achieve higher inbox deliverability rates.

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HTML Email Design Recommendations

Great HTML email design varies tremendously, but there are standard elements used to create emails:

Preheader Text

Because of the prevalence of image blocking and growing use of mobile devices to read emails, we highly recommend including preheader text. Preheader text should be HTML text that appears at the top of the email above the header/logo. Ideally, preheader should be no longer than two lines.

- Include a preheader message that summarizes the main call-to-action of the email or builds on the subject line. The preheader message should link or include a link to the same landing page as the main call-to-action.
- Include a “view with images” link so subscribers can view a web-hosted version of the email.
- Depending on the percentage of your subscriber base that reads your emails on a mobile device, also consider including a “view on mobile” link so subscribers can view a simplified, largely text version of your email.
- With the exception of emails in your welcome series and other onboarding situations, we do not recommend including “add to address book” requests in preheader text.

Header & Navigation Bar

The header area of your email immediately follows the preheader.

- Place your logo on the left side of your header. It’s important for branding and for recognition of your emails.



- We highly recommend including a navigation bar that features the top five to six links in your website navigation bar. The nav bar should be positioned directly under or to the right of your logo. Consider periodically changing the links included in your nav bar and their order to maximize relevancy throughout the year.
- Use HTML text for your navigation bar links, if possible.

Preview Pane Optimization

Most email users read their email in preview panes, which limit the amount of the email that can be seen. Although the size of preview panes varies, we consider the first 300 pixels of an email relevant when designing for preview pane optimization. This is critical real estate because subscribers often look at what's in this space before deciding to engage further with an email.

“While there’s an accepted framework for emails that subscribers are accustomed to, there’s tons of room for experimentation. Testing is key to uncovering the designs that will resonate the most with your subscribers.”

**Lisa Harmon
Creative Services
Responsys**

- Be mindful of the height of your preheader, header and navigation bar, if you use one. While all of those elements are important, they allow less of your body copy to appear in the preview pane.
- Include your headline and primary call-to-action in the preview pane, if possible.
- If your emails are long and you include a table of contents, place at least a portion of it in the preview pane.

Body Copy

The body copy follows the header and navigation bar and contains your primary message, as well as any submessages.

- We recommend a single column format because it is easier to scan. If you use a sidebar, place it on the right-hand side of your design.
- Use headlines that stand out and communicate your message clearly.
- Use bullets to convey benefits, product features, and other important info quickly.
- Avoid blocks of text that are more than five lines long.
- Ensure readability by avoiding font sizes under 9 point, extensive reverse-type (white text on a black background) and running text across images with significant color variations.
- Use HTML text when possible.

- We recommend using buttons for primary calls-to-action and text links for secondary calls-to-action.
- Product grids should be no more than four units wide, with two or three being ideal in most cases.

Recovery Module

Recovery modules are optional content blocks that appear at the bottom of your body copy. They consist of lots of links to different product categories, clearance items, articles, or whatever makes sense for your business. If a subscriber has scrolled down through your email and hasn't found anything of interest, think of the recovery module as your last ditch attempt to spark the subscriber's interest.

FTAF, SWYN and Community Links

Forward-to-a-friend (FTAF) functionality allows subscribers to forward your email along to friends and family members. Share-with-your-network (SWYN) functionality lets subscribers share your email—or portions of it—with their friends and family members on Facebook, Twitter and other social networks. And community links direct subscribers to your Facebook page, Twitter stream and other social media pages.

- The optimal placement of FTAF, SWYN and community links varies across brands, so we recommend testing it.
- Consider using FTAF and SWYN links as secondary calls-to-action within the body copy, particularly when you have really compelling offers or content. Using URL-based status updates for Twitter while also using link sharing on Facebook (allowing the landing page meta data to fill in the appropriate title, caption, and thumbnail for the status post) helps customers to share only the content they want to share instead of an entire email.
- Leverage the brand equity of Facebook, Twitter and other social networks' icons and buttons by using them in your SWYN and community calls-to-action.
- Differentiate SWYN and community links. Preface SWYN links with "Share on:" and community links with "Join us:" or something similar. Consider placing your FTAF and SWYN links next to each other, since they're both used for sharing email content.
- Consider grouping your community links with your mobile app, SMS subscription, blog, and RSS subscription links.

Footer

The footer is the HTML text that appears after the body copy.

- Include disclaimers for promotions or special offers promoted in the email.
- Include an unsubscribe link. Use a subhead, bold text or a different color to make this link easy to find to prevent spam complaints. If you have included an “unsubscribe” link in your preheader or header, we recommend also having one in the footer as that’s where email users have been trained to look for it.
- Include other administrative links such as those to update preferences, change email address, and subscribe (for those who receive the email as a forward). These links should appear before the “unsubscribe” link to prevent folks who would like to change their email address from unsubscribing and then re-subscribing, for instance.
- For your links to unsubscribe, update preferences and take care of other administrative needs, avoid using “click here” or similar language as the call-to-action. Use descriptive link language.
- Consider placing an “add to address book” call-to-action in the footer.
- Include your mailing address (street address or P.O. Box).

Mobile-Friendly Design Recommendations

Mobile adoption among businesses and consumers has skyrocketed over the past few years, and it's only going to continue to rise as smartphones deliver increasingly stellar experiences. Driven by the adoption of iPhones and Android-powered phones, smartphones outsold PCs for the first time ever in February, according to IDC. And since reading email is the No. 1 activity on smartphones, it's only a matter of time before your emails need to be more mobile-friendly. Depending on your subscriber base, you may already be well past that point. A good first step is to check with your ESP to find out what your subscribers use to read their email.

Preheader & Hosted Versions

- Consider including a “view on mobile” link in the preheader of your emails that links to the text version of your email or an HTML “lite” version. The latter typically includes an image your logo and maybe a small hero image, but other minimizes image elements.

Optimizing HTML Emails for Mobile

Rather than minimizing your mobile subscribers' email experience, make intentional choices to “mobilize” it.

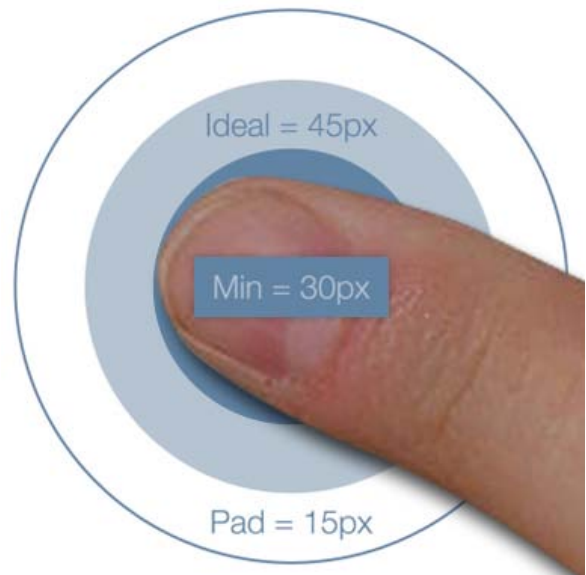
- Avoid using long subject lines, which will push the email content even farther down an already-small mobile screen.
- Reduce the width of your emails to 640 pixels or less.
While the newest smartphones can zoom out on wider emails to give users an overview, mobile-friendly widths have been shown to increase a user's interaction and click through rate. Held in vertical orientation, most smartphones have screens between 320 and 480 pixels wide, so if your email is 640 pixels wide, it can be seen on a mobile device zoomed out 25%-50%, so a subscriber can get a somewhat legible look at it prior to zooming in.
- Lighten your email file sizes. Mobile Internet speeds are slower than desktop connections, so try to keep your emails light. Some mobile email clients will require an additional button press to download the rest of the email when file weight is too big. The optimal email weight for mobile is 20K or less, and while that may not be a

“Unlike with mobile web design, users are accessing the exact same email on both their PC and phone, so we need to strike a balance that works for both environments.”

Rocky Thomas
Senior Designer
Responsys

realistic goal for most marketers, the more you can slim down the file weight, the better.

- Increase the size and padding of text link and button calls-to-action. When pressed against a screen, a finger covers 45 pixels. During a light, precise tap, it can target a 30 pixel area accurately, but most mobile email readers are on the go as they read. Make sure that your calls-to-action are padded at least 10-15 pixels to avoid frustrating tap errors. Your subscribers who are checking email as they walk down the street or step onto a bus will be grateful for the wiggle room. Be sure to factor in that your email may be zoomed out 25% to 50% depending on the width of your emails.



Mobile-Friendly Landing Pages

Mobile-friendly emails need mobile-friendly landing pages; otherwise, subscribers will be discouraged from clicking through.

- Along with narrowing the width of your emails, optimize your landing page widths to be more mobile-friendly.
- Keep landing page copy brief. Save the more expansive details for another page, deeper on your site. Mobile users who need to get the full scoop will visit when they get back to a computer.
- Remove Flash from landing pages. Replace it with HTML5, CSS3 or JavaScript. The iPhone and iPod Touch, which still represent the largest portion of mobile web traffic, don't support Flash yet, and neither does the still-prevalent BlackBerry. (Flash is supported for webpages on Android, but often has long load times and can be difficult for users to interact with by touch.)
- Remember that for touchscreen users, there is no hover-state for links; if they touch, they click.

Promoting Mobile Apps

- Include a link to download your mobile apps in your emails. These links are generally placed at the end of the body copy and typically grouped with community links, SMS subscriptions, blog and other links.
- Consider sending an email dedicated to encouraging mobile users to download your mobile app.
- Consider promoting your mobile app in your preference center, on your email opt-in confirmation page, in your welcome email series, and on your unsubscribe confirmation page.

As you peruse the guidelines above, keep in mind that the move toward mobile doesn't have to signal the death of feature-rich emails (at least not yet). Creating mobilized email versions is really a balancing act, where your shorter message should be comfortably consumable on a small screen if a user wants to see them while out and about...and possibly even hop into the store right after reading. Longer messages can be saved for when subscribers get home. That said, mobile users will remember which brands consistently deliver solid experiences—and that's a list your brand wants to be on.

Text Email Design Recommendations

The text part of your multipart MIME email had been declining in importance thanks to the growing adoption of smartphones like the iPhone and Android-powered phones, which can render HTML emails quite well. However, thanks to the recent launch of Facebook Messages, your text emails will be seen by more subscribers this year. That's because this new messaging platform displays the text part of your email by default.

Here are our recommendations for great-looking text emails:

- Shorter text files are better.
- Including all navigation links and submessages from the HTML version can become cumbersome in the text version. Consider dropping some or all those elements.
- The order of elements in the text file shouldn't match the HTML design exactly. The most important message should go at the top and navigation should go just above the footer info.
- All text files should include the company name and view with images link at the top.
- Keep line length to 70 characters or less so the text breaks in a controlled manner. It is okay if URLs are longer than 70 characters.
- Use capitalization for headlines if you can to help visually separate it from the body text.
- Separate each section with dashed lines.
- Each empty line should contain two spaces to keep Outlook from removing it.
- Use line breaks to separate headlines, body text and calls-to-action.
- Put URLs on the line below the actual call-to-action text.

"In order for Facebook Messages users to see the HTML version of an email, they have to click on an 'Expand' link. We expect very few users to do that."

**Chad White
Research Director
Responsys**

On the following page is an example of a well-designed text email:

REI GEARMAIL 2/25/11

See the online version of this email:
http://www.rei.com/email/gearmail/gm022511.html?cm_mmc=Email_com_gm-_-TechTrail-_-022511-_-bt_hostedhtml

The new 2011 BOB Strollers are in! Check 'em out:
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Coding Recommendations

You've mapped out your strategy, your message is clear, and your visual design is compelling. The last thing you want is to have a technical oversight negatively impact your email campaign's success. This section seeks to illustrate email coding best practices, focusing on methodology and typical challenges faced when creating HTML files designed for the inbox.

Following these guidelines can help ensure that your HTML emails render properly in the widest array of email clients, resulting in better user experiences and higher inbox deliverability rates.

Coding for the Inbox Environment

What works well for regular web development does not necessarily translate well when coding for the email channel. Despite the simplicity of the final product delivered to the inbox—a single HTML file with no interactive components—coding for email is a challenging discipline that requires highly specialized skills and industry knowledge.

“While there are HTML standards on the web, HTML and CSS standards among email clients are very spotty and change without notice.”

Jed Tank
Software Developer
Responsys

The primary challenge in coding email-friendly HTML revolves around the increased number of platforms developers must contend with. In regular web development, one must code for different web browsers and operating system platforms. Browsers and platforms must still be considered when coding for the email channel, but it is more important to consider how the different email service providers (such as Yahoo, Gmail, Hotmail and AOL) and desktop email clients (such as Outlook 2007 and 2010) interpret and render coded HTML.

HTML for email differs from HTML for standard web development in several significant ways:

- Suppression of images in the inbox environment is commonplace. Overcoming this challenge is one of the most important considerations when coding for the email channel.
- Support for standard CSS positioning is inconsistent across email platforms.
- Using table-based code is essential for achieving consistent and accurate email rendering.
- Some web-based email platforms (notably Gmail) strip out `<STYLE>` tags and/or anything in the `<head>` section of an HTML file.

- Standard interactive features of web development cannot be used, including
 - JavaScript
 - Flash
 - Embedded video
 - Forms

There are more platforms to be concerned with than in regular web development, and many of them are frequently updated with no notice. Working with a multitude of platforms means more opportunities for mistakes. What looks fine in one platform may look terrible in another.

Process: The Key to Success

Following a consistent end-to-end process from design hand-off to coding, and then thorough testing, helps ensure the best results and provides a framework for repeatable success.

Before Coding

Responsys recommends standardizing your design team on Photoshop, the tool of choice for web and email designers alike. Photoshop is the industry standard for working with graphics files, making it easy to share assets with both internal and external resources.

“Attention to detail is critical when coding. All the best practices in the world aren’t going to save you if you approach coding haphazardly, only following the technical requirements without respecting any sort of nuance or situational awareness.”

Tim Muir
Email and Web
Development Manager
Responsys

Review Assets

As you prepare to slice and export images from the Photoshop file, review the design to identify which areas of the design will be clickable, and determine which items will be HTML text (system fonts such as Arial, Verdana, etc.) and which will be graphical.

Create Slices in Photoshop and Export the Graphics

Keep the following in mind:

- GIF format is best for simple line art and purely graphical elements. GIF is preferred to PNG due to the lack of support for transparent PNG files in Internet Explorer 6 (which only works by applying a scripting method which isn’t possible in email).
- JPEG format is best for rich, multi-layered and photographic elements; images exported in JPEG format should normally be optimized at 60% quality, though in some rare cases you may need to increase the quality to as much as 75% to reduce aliasing artifacts.

- Use a consistent naming convention for image files (i.e., “title_main.gif” for the main title text). Although this may seem tedious, it is helpful when making templates that will be reused.

Organizing the Code

Focus on clean, organized code to avoid rendering errors and to make it easier to share files with other teammates. Because full CSS-based layouts are not supported in many email clients, you will need to use tables in your HTML. The following pages provide a number of tips for working with HTML in the email channel.

Unsupported HTML Features

Several common HTML features used on the web are not supported in email environments.

Scripts, Flash and Embedded Video

Virtually all email service providers and clients disable running JavaScript and other scripting elements within HTML email documents and often categorize emails containing scripts as spam. Because of this, JavaScript (and any other scripting language) should never be used in emails. Other items to avoid include any form of embedded object such as Flash or video files.

Cascading Style Sheets (CSS)

Externally linked CSS files—and anything else in the `<HEAD>` section of an HTML document—are commonly stripped out by email service providers. In addition, CSS class definitions defined in `<STYLE>` tags are not fully supported by some email service providers, most notably Gmail. Any CSS code should be included inline within HTML elements instead of in external files or `<STYLE>` tags.

Unnecessary Tags and Code

To keep the file size to a minimum and for more readable and maintainable code, always try to eliminate as many tags and attributes as possible. Here are some items that aren't necessary:

<i>META</i>	And other attributes commonly included the <code><HEAD></code> section should not be included (apart from the <code><TITLE></code> tag).
<i>BORDER="0"</i>	Not required in <code><TABLE></code> tags.
<i>VALIGN</i>	Only required when overwriting the default setting <i>MIDDLE</i> .

`<TBODY>` and `<TH>` Never required.

`NOWRAP` Not required (and causes display problems in some email clients).

Basic Layout: Working with Tables

Because we cannot use pure CSS for laying out the design of an email, we invariably rely on tables in combination with inline CSS to position and style elements.

- Utilize nested tables to create the desired combination of rows and columns for the layout of the email.
- It is crucial to specify widths accurately in `<TABLE>` and `<TD>` tags when positioning elements. Multiple columns should also add up correctly to the overall table width.
- Tables should always have `CELLPADDING` and `CELLSPACING` set to "0" and should also have a specific `WIDTH` value specified. Do not use any `BORDER` attribute other than "0"; Entourage and Gmail have spotty support for border values on tables.
- The `ROWSPAN` attribute should be used with caution. While it can be used to your advantage in certain coding circumstances, some email platforms do not accurately render the `ROWSPAN`, if not used correctly.
- Always ensure the `WIDTH` of the table is equal to the sum of the `<TD>` tags contained within the table; Outlook 2007, Internet Explorer 6, and Safari are all unforgiving of discrepancies between `TABLE` and `TD WIDTH` sums.

Use an outer table to encapsulate all content within a table

To make sure the design aligns correctly and to catch any unclosed table elements, an outer table should be used to enclose the entire HTML design.

Example: Container Table. The outer table in this example ensures the design is left aligned, and that everything within has a white background. It also encloses the rest of the design so that any broken/unclosed table elements won't spill over into the email browser window.

```
<BODY>
  <TABLE CELLPADDING="0" CELLSPACING="0" WIDTH="600" BGCOLOR="#FFFFFF" ALIGN="CENTER">
    <TR><TD ALIGN="LEFT">
      <!-- design is coded here -->

      <!-- end design -->
    </TD></TR>
  </TABLE>
</BODY>
```

ROWSPAN and COLSPAN Attributes

When using *ROWSPAN* and *COLSPAN* attributes:

- During the testing phase, pay extra attention to Outlook 2007, which is prone to rendering errors involving these tags.
- *COLSPAN* values must match exactly with the sum total of columns being merged. For example, if there are only three *TD*'s in a row, but a *COLSPAN* value of 4 is specified, Outlook 2007 will insert additional space into the table for the “fourth” column, which will throw off your table layout (the same holds true for *ROWSPAN* if you specify a value greater than the number of actual rows).
- Make sure the width of elements within a *COLSPAN* does not exceed the overall width of all columns included in the *COLSPAN*.

CSS Padding, Margin and Spacer.gifs

Inline CSS is complicated to get right across email platforms due to inconsistent implementation. For instance, this is true of padding and margin. However, if you use the right combination of margin and padding, inline CSS is preferred over table-based layouts utilizing spacer.gif's for padding where possible. The first example below uses a table row to create a horizontal dividing line, while the second example demonstrates using a margin to create space around text.

Using *<DIV>* tags can be extremely helpful when creating space around text. They should be used within the table structure, usually within a *<TD>* tag. A few things to take note of:

- Refrain from using the “margin-top” property, as it is not supported in Hotmail. Plan the structure and spacing of the code with this in mind.
- Use margins within *<DIV>* tags, but not within *<TD>* tags.
- Ensure that the margin being created fits within the overall width of the encasing *<TD>* or *<TABLE>*.
- Be careful to close *<DIV>* tags in the correct order, as incorrect closing will cause dramatic rendering issues in Gmail.

Example: Creating a horizontal rule.

```
<tr><td height="1" bgcolor="#dc6a2b"></td></tr>
```


Example: Creating space around text and an image.

```
<td align="left"><div style="line-height:18px; margin-left:10px;">It's tricky to keep  
up with constantly changing airfares...</div></td>  
<td width="300"><div style="margin-left:10px;"><img src="" width="300"  
height="176"></div></td>
```

Using padding values within a `<TD>` can also be helpful, but should be used with caution and a working knowledge of the interactions between the padding implementation and the rendering consequences across browser and email platform combinations. In general, the use of margin within a `<TD>` is more applicable, efficient and safe. However, padding is a coding tool to be aware of. The following are some guidelines:

- Use padding within `<TD>` tags, but not within `<DIV>` tags.
- Padding values cannot overlap with any `<TD>` sizing dimensions (i.e., if there is WIDTH specified in the `<TD>`, you cannot also use "padding-left").
- Padding-top and/or padding-bottom should not be used when there are adjacent `<TD>` tags in the same row, unless the same padding values are applied in each of the `<TD>` tags.
- Padding-top values do not always work in Outlook 2007 and Hotmail/Windows Live.
- Write out each of the padding properties rather than using the shorthand approach (*10px 10px 10px 10px*).

CSS Padding in TD tags

The examples below illustrate how inline CSS padding should be used within `<TD>` tags. Also note that each of the padding properties is identified rather than using the shorthand technique.

```
<table cellpadding="0" cellspacing="0" width="300">  
<tr>  
  <td style="padding-top: 10px; padding-bottom: 10px;">  
    <img />  
  </td>  
</tr>  
</table>  
<table cellpadding="0" cellspacing="0" width="600">  
<tr>  
  <td width="300" style="padding-top:10px; padding-right:10px; padding-left:10px">  
    This is not okay - Outlook 2007 will add 10 pixels of top padding to the image in the  
    adjacent TD tag. The left padding will add extra width to entire TD, breaking the table.  
  </td>  
  <td width="300"></td>  
</tr>  
</table>
```

Working with Images

Background images, *ALT* attributes and images in Gmail and Hotmail are areas of concern.

Background Images

Because not all email platforms support the `<BACKGROUND>` tag—most notably Outlook—care should be taken when using background images. Be sure to include a matching *BG**COLOR* value whenever using a background image so that any text overlaid on the section will still display for users without background images and/or with images disabled.

Graphics: *ALT* Attributes

Always use the *ALT* attribute within any `` tags that include text. The *ALT* attribute should match the contents of the image but not be overly long. In the case of long sentences or paragraphs, ellipses can be used to indicate that there is more text (and to encourage users to enable images).

Example: ALT Text for Graphical Paragraphs. In this example, the coder added an ellipsis at a logical breaking point. The *ALT* text should read: “Inspired by the glamour and sophistication of New York apartment style...”

Inspired by the glamour and sophistication of New York apartment style, our Penthouse furniture and accessories bring contemporary polish into any room.

Issues on Gmail and Hotmail

Images need to be displayed as block level items to ensure proper rendering on Gmail and Hotmail for users viewing with Firefox and Safari. Simply add `style="display:block;"` to each image.

```

```

For images inline with text (for example, arrow images next to text links) you should include `style="display:inline;"` instead of specifying “block”.

```
<a href="somewhere.com">Here is a link with an inline arrow at the end </a>
```

Graphics within `<TD>` Tags

There are two things to be aware of when an `` tag is contained within a `<TD>` tag:

(1) If the image is shorter than 12 pixels, you need to specify the height in the containing `<TD>` tag as well as in the image tag; and

```
<tr><td width="30" height="5"></td></tr>
```

(2) If an `` tag is the last element within a `<TD>` tag, the closing `</TD>` tag should immediately follow the `` tag with no spaces or breaks.

```
<tr><td width="250"></td></tr>
```

Image Maps & Embedded Links within Images

Image maps are not supported by all email platforms. For links embedded within a larger image, the image should be sliced in Photoshop so that the linkable area is a separate image file that can be coded with an anchor link in the HTML file.

(1) Determine image before slicing. The text “wshome.com” should be a link, but the rest of the paragraph should not.

Visit our online catalog at
[wshome.com](#) today to shop
the complete collection.

(2) The image is sliced into multiple files that will be coded in a table. The image outlined in yellow will be coded with an anchor link enclosing the image.

08	01	Visit our online catalog at
09	03	wshome.com today to shop
13	04	the complete collection.

Working with Text & Links

Define font size in pixels, not points. Pixel is the Web standard because it is relative to screen resolution. Points are absolute length, and different browsers and platforms may display these values differently. When scaled up or down, pixels may look worse than ems (another relative unit that depends on user’s browser settings). However, pixels are still preferred for HTML email.

Use the line-height style attribute to match line spacing to the design file.

Use one or two different font types maximum and provide a sufficient list of alternate fonts in the style sheet specification for a given class of text. The fonts should be listed in terms of: desired, acceptable, generic type (e.g. Arial, Verdana, Sans-serif).

Don’t use variants of the CSS shorthand “font” notation (i.e. “font: 12px arial;”). The font family, size, color and line-height should all be specified separately, similar to the example below. Gmail, in particular, has issues properly parsing shorthand font notation.

Using Web Safe Fonts

For serif fonts use Georgia, Times, or Times New Roman.

For sans-serif fonts use Arial, Verdana, or Tahoma.

 Versus <P>

Use
 tags instead of <P> tags, but be cautious when using the
 tag to force manual breaks in blocks of text. Some email clients, such as Outlook 2007 and the iPhone, render leading and font sizes larger than normal and may wrap text before the manual line breaks as in the example below. It is best to let text wrap based on the container in which it's placed whenever possible.

Web-based email client

Here is some text that has
manual
 line breaks
added to it. This may not
look as nice on an iPhone.

iPhone

Here is some text that
has
manual
 line
breaks
added to it. This may
not
look as nice on an
iPhone.

Use Hex Values for Color

Don't define colors using short-cut words (i.e., COLOR="RED"); always use the hexadecimal value as specified in the final creative file (i.e., COLOR="#bb0000").

Example: HTML Text Usage. In the example below a combination of standard font and style attributes are used for the best results across multiple email browsers.

```
<td STYLE="font-family: arial,verdana; font-size: 11px; color: #333333; line-height:  
15px;">  
Here is some example text that is being given the proper Style treatment.  
</td>
```

Special Characters

Special text characters should always use the proper HTML escape codes to ensure recipients on all platforms are able to view the text properly. For example, the character é should be coded using the HTML escape code &EACUTE;. For apostrophes, use the single quote escape code &RSQUO;. Other escape codes can be found by searching online for "HTML Escape Codes."

Links

With hyperlinks, we need to consider that many web-based email providers and client email programs have their own parsing engines and have widely varying methods for displaying text hyperlinks. Services such as Yahoo! and Hotmail will typically apply their own styling to text hyperlinks, which will often clash with the creative design of the EDM. A combination of anchor tag with style attributes provides the best results across a wide variety of email services (see example below).

Other considerations with hyperlinks are:

- Do not include commencing and ending spaces.
- Commas, periods and other punctuation should not be included within hyperlinks.
- URL addresses should always include *http://* at the beginning.
- Link URLs should not use dotted decimal addresses (i.e., 94.31.231.18) because many email service providers may categorize the email as spam.

Example: Hyperlink Formatting. Inline style attributes are used for the best results across multiple email browsers.

```
For best results <A HREF="http://www.somecompany.com..." STYLE="font-family: Verdana; font-size: 11px; color: #333333; text-decoration: underline">click here</A>.
```

Platform-Specific Fixes

Earlier in this document we mentioned `<STYLE>` tags are not supported by some of the major email platforms and that one shouldn't include CSS definitions with a `<STYLE>` tag since it won't always work. There are, however, a few cases where we do recommend including a few simple items within a `<STYLE>` tag to ensure proper rendering. The example below is used to fix issues with iPhone and iPads.

Example: Fix for iPhone and iPad Text Resizing. The `-WEBKIT...` line forces iPhone and iPads to render text at the pixel size specified in the HTML file instead of the minimum font size specified in the subscribers' iOS system preferences. That can dramatically increase the size of your preheader and footer text and any other small HTML text in your email. Include the code below, just after the `<BODY>` tag to keep your font sizes as specified.

```
<style>
  html { -webkit-text-size-adjust:none; }
</style>
```

By default, Yahoo currently applies a blue color to text links as well as to certain keywords identified by the platform. The first Yahoo example demonstrates a method to use for

intended links, while the second can be used if a generated link is causing a design or linking issue.

Example: Fix for Links in Yahoo. Include the code below with the `<A>` tag. The `` tag will prevent Yahoo mail from changing the color of text in your links for words the Yahoo platform automatically generates links for.

```
For best results <A HREF="http://www.somecompany.com..." STYLE="font-family: Verdana; font-size: 11px; color: #333333; text-decoration: underline"><SPAN style="color: #333333;">click here</SPAN></A>.
```

Example: Fix for Links Generated by Yahoo. If a word is being targeted by the Yahoo platform, the following fix can be applied after testing to maintain the intention of the text. Include the `<A>` tag, but leave out the `HREF`. We recommend applying this method only when necessary.

```
For best results <A STYLE="font-family: Verdana; font-size: 11px; color: #333333; text-decoration: none;"><SPAN style="color: #333333;">click here</SPAN></A>.
```

Outlook 2007 & 2010 Fixes

Microsoft Outlook 2007 and 2010 warrant special attention due to the poor support for standard HTML and CSS features, coupled with the fact that more than 40% of business email users use Outlook 2007. Outlook 2010 has recently been released and has been confirmed to have the same flaws as its predecessor.

The major issues to be aware of include:

- No support for background images.
- No support for animated GIFs.
- Limited support for CSS.
- Unpredictable rendering behavior.

Background Images

Background images are simply not supported on the platform, creating a conflict between using HTML text—which usually leads to higher click-through and conversion – and optimal design that will look the same on email platforms.

We recommend striving for a balance. In most cases, it's important to use HTML text when possible, but it's just as important to ensure the final coded files will still look attractive when they reach the inbox in Outlook 2007.

Example: Background Image with BGCOLOR. Try to limit the sections of HTML files that rely on background images. When you do use background images, always include a *BGCOLOR* value that closely matches the image so that the design will not have a glaring white block where the background image should be.

```
<td height="23" bgcolor="#cde9ff" background="images/111009_nbg.jpg">
```

Animated GIFs

Animated GIFs do not rotate in Outlook 2007—only the first frame of the animation displays. If you are using an animated GIF in your message, be sure that the first frame can stand on its own. For example, don't start an animated GIF with a fade-in from a solid color.

Limited support for CSS

Caution should be used when using CSS properties in Outlook 2007. Positioning properties such as padding and margin can be particularly problematic. A few dos and don'ts to keep in mind:

- The *margin-top* property rarely works correctly, so avoid using it in your code.
- *Padding-top* will always be applied to all *<TD>* tags within a single row, even when specified in only one of the *<TD>* tags. If you need to apply different padding-top values to cells that are next to each other, you will need to use a nested table for any section that requires a padding-top value.

Example: Applying *padding-top* in Outlook.

```
<tr>
  <td width="200">
    <table cellpadding="0" cellspacing="0">
      <tr>
        <td style="padding-top: 20px;">This text has 20 pixels of space before it starts</td>
      </tr>
    </table>
  </td>
  <td width="200">This text doesn't need top padding</td>
</tr>
```

Poor and Sometimes Unpredictable Rendering Behavior

A few other quirks to be aware of:

- Use extra caution when using *rowspan* and *colspan* values. For example if you specify more rows than actually exist in your *rowspan* value, Outlook 2007 will interpret that incorrectly and will make your table taller than it should be.

- Be careful of very long emails (over 1,800 pixels). Due to Outlook 2007 and 2010's dependency on the Word rendering engine and its page-break feature, it will create gaps in sections of the code around the 1,800-pixel mark. Depending on the coding context, the issue can sometimes be resolved, and sometimes not without completely recoding the HTML file from scratch.
- `<TD>` tags that contain images shorter than 12 pixels tall must always have the image height specified within the `<TD>` tag as well as the `` tag. Otherwise, Outlook 2007 will often add unexpected vertical padding below the image.

Example: Specify height for any `<TD>` tags containing images shorter than 12 pixels. In the example below, the `<TD>` tag has a height of 8, mirroring the height of the image contained within.

```
<td width="503" height="8"></td>
```

Testing: The Final Step before Launching

While not the most time intensive step, testing is arguably the most important. We've discussed above how the major email platforms all have different HTML rendering engines, creating more complex coding challenges for email than for regular web development. In addition, the major web-based email platforms are constantly rolling out modifications to their systems unannounced and these changes often have an impact on how messages will be rendered. Because of this, even if you are using a template that does not change, it's important to test your messages on an ongoing basis.

Code Validation

Make sure all your HTML code has been validated and ensure no nesting errors are present. Improper tag closing will cause rendering errors in many email clients. Most HTML editors such as Dreamweaver include built-in HTML validation capabilities. We recommend using XHTML 1.0 Transitional as the validator in Dreamweaver.

Render Testing

While there are great tools for previewing your emails across multiple platforms, nothing beats manually reviewing your campaigns on the major email platforms. Responsys recommends sending test messages to the major web-based email clients (Yahoo, Gmail, Hotmail and AOL) as well as reviewing how the message renders in Outlook. If you have the ability to check both PC and Mac platforms across a variety of browsers, that's even better.

Breaking the Rules

These are some of the safest and most reliable techniques for designing and coding your email messages, but you may find success ignoring a few of them. In fact, constant experimentation is good—and often necessary—when tackling new problems and making sure any email you make can render in the inbox. When using a practice for the first time, test it first to determine how your list responds. If the data, sales or responses you receive outweigh the potential functionality issues, proceed with caution and enjoy your success.

About Responsys

Responsys helps companies execute highly effective marketing campaigns across key interactive channels — email, mobile, social, and the web. With Responsys solutions, marketers can create, execute, and automate highly dynamic campaigns and lifecycle marketing programs that are designed to grow revenue, increase marketing efficiency, and strengthen customer loyalty.

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