

HTML5 creatives are a type of display creative that must follow the same guidelines as display creatives in terms of content, security, and restricted products with some additional requirements specific to HTML5.

The IAB Display Advertising Guidelines delineate HTML5 creative specifications.

SUPPORTED AD TYPES

HTML5 Containing:

**HTML / JS / CSS / JPG
JPEG / GIF / PNG / SVG**

Initial: 200 KB max

Max Initial File Load Count: 15 files

Subsequent/Polite Load: 1 MB max

User-Initiated Load: 2.2 MB max recommended

BEST PRACTICES

- **JavaScript and CSS Libraries:** JavaScript and CSS libraries (such as jQuery) need to be included with the creative.
- **Image Sprite:** To help increase performance from HTML ads, include image sprites instead of many images to decrease the number of file requests made by your creative. See the IAB list of sprite tools for details.
- **Video Tags:** We do not recommend the use of video tags in HTML5.
- **Audio Tags:** Audio tags should only play if a user intentionally starts the audio.

ADDITIONAL RESOURCES

- **HTML5 For Digital Advertising: Guidance for Ad Designers and Creative Technologists**
- **HTML5 for Digital Advertising Resources Wiki**

GRACEFUL DEGRADATION

Different browsers have different subsets of HTML5 features enabled. Your creative may fail on a browser if it attempts to use a feature that is not enabled on the browser. It is your responsibility to ensure that your creative “gracefully degrades” in case the browser it is viewed on doesn’t support the features it uses.

The IAB suggests that you use feature detection to determine if a browser has the features your creative needs to be rendered. Feature detection is usually performed on the customer’s browser when the creative is shown. This is the most reliable way to determine if a feature is present on a given user’s browser. The Modernizr feature detection tool as specifically mentioned as an option. Details about Modernizr can be found at modernizr.com. Use of Modernizr is outside the scope of the Knowledge Portal.

There are several options for displaying an ad when the browser it is running on a browser that does not support a feature, including:

- **Shim/Polyfill:** There are many polyfills and shims available for older browsers to emulate HTML5-like. These are usually provided through Flash, CSS and JavaScript libraries.

One important HTML5 feature that may be missing is the Canvas feature. This is especially true in earlier versions of Internet Explorer prior to Internet Explorer 9. IAB suggests using the Excanvas JavaScript library (<http://code.google.com/p/explorercanvas/>) to polyfill those versions of Internet Explorer. According to the IAB, this file can be added by including the following line of code in your HTML document before any JavaScript or code using Canvas: `<!--[if lt IE 9]> <script src="excanvas.js"></script> <![endif]-->`

- **Ignoring the Feature:** If a browser does not have a feature you need to display an ad, we suggest that you remove the need for that feature. One example provided by the IAB is to have a user input their Postal Code if their browser does not support geolocation.
- **Backup Image:** If all else fails, the IAB suggests displaying a backup image instead of the HTML5 creative.

TOOLS

The IAB HTML5 conversion/creation:

- **Your browser's developer tools:** Quickly scan HTML code & look for non-secure calls
- **HTML editor (Notepad++,HTML Kit):** Manually add in/test the code and make reading the code much easier.
- **Online HTML editor** (<http://htmledit.squarefree.com>): Check if tags are behaving properly in a non-secure environment (vs https preview pages)

Adobe Flash Professional Toolkit for Create JS <https://goo.gl/qxUoo8> This plugin allows easy transition from Adobe Flash development to HTML5 and directly saves your Flash files as an HTML5 creative.

- **Adobe Edge** creatives typically include a supporting js query that has linked click instructions. The naming conventions used in the html file needs to line up with what's in the supporting file. This link is between the 'stage' in the html and the 'Symbol bindElementAction' in the JS file.

UPLOAD METHODS

- All information for serving the creative should be in the HTML file.
- Maximum size of any automatically started video: **<1.1 megabytes**
- Maximum size of any individual file: **2.2 megabytes**
- Maximum size of the HTML file: **100 kilobytes**

CREATIVE DESIGN

- **Single Page Design:** In alignment with IAB guidelines, we will be displaying HTML5 creatives as a full HTML page displayed in an iframe. These creatives should be submitted as a single HTML file. Commonly used JavaScript and CSS libraries may be served from an external server/CDN (for example, Amazon S3). All other assets and information must be provided as part of the creative submission.
- **Constraints:** Under IAB guidelines, dynamic creatives are not to be used. Because they will be served inside an iframe, expandable creatives are not allowed because they are confined to the size of the creative.
- **Graceful Degradation:** You are responsible for ensuring that your creative gracefully degrades for browsers or devices that do not support HTML5 features used in your creative.
- **Static Backup Image:** It is required to upload a static backup image. This image will be used to display the ad if a user has JavaScript disabled.

BACKUP/DEFAULT CLICKTHROUGH PARAMETER

To correctly call the clickthrough page through the backup ad image, you must supply a clickthrough parameter for that purpose. If you wish to also use that clickthrough URL in your HTML5 creative, you can configure the creative to use the Backup Clickthrough URL as the Default Clickthrough URL.

CLICK TAG PARAMETER

Click Tag parameter is provided to the HTML file as a URL parameter. The name of the URL parameter is customizable at the time of creative upload or during editing. This system is similar to how we provide Click Tracking information for Hosted Flash ads.

We suggest using JavaScript to read the parameter from the document location URL and using it to set up the landing page for your clicks.

RETRIEVING THE CLICK TAG PARAMETER

The Click Tag URL can be retrieved from using the following code:

```
function getParameterByName(name) {  
    name = name.replace(/[\[]/, "\\[").replace(/[\]]/, "\\]");  
    var regex = new RegExp("[\\?&]" + name + "=(\\^&#[*]*)"),  
        results = regex.exec(location.search);  
    return results === null ? "" :  
        decodeURIComponent(results[1].replace(/\\+/g, " "));  
}  
  
var clickTag = getParameterByName(<Your Parameter Name>);
```

By appending a URL escaped landing page to the click tag URL, our system will track the click and redirect the request to the given landing page. If no landing page is provided, we will track the click and redirect the result to the default landing page.

```
var clickTag = getParameterByName(<Your Parameter Name>) +  
encodeURIComponent(<Your Landing Page>);
```

Different landing pages can be used for different actions. Please see the IAB's Guidance for Ad Designers and Creative Technologists for more suggestions on implementing multiple landing pages.

SIZE DEFINITION

The IAB has suggested that the dimensions of your creative be added to your HTML document in a meta tag inside of the head section of your document. The IAB has defined the dimension meta tag as:

```
<meta name="ad.size"  
content="width=300,height=250"/>
```

Replace the width and height values with your creative's dimensions.

If an ad size meta tag is not provided in the HTML document, you will be prompted to enter dimensions when you submit the creative.

USING MULTIPLE CLICKTHROUGH URLS

By appending a URL escaped landing page to the click tag URL, our system will track the click and redirect the request to the given landing page.

```
var clickTag = getParameterByName(<Your Parameter Name>) +  
encodeURIComponent(<Your Landing Page>);
```

Different landing pages can be used for different actions. Please see the IAB's Guidance for Ad Designers and Creative Technologists for more suggestions on implementing multiple landing pages.

USING THE CLICK TRACKING PARAMETER

When the advertisement is clicked on, the creative must direct the user to the correct click tag page in a new window. Please see the IAB's Guidance for Ad Designers and Creative Technologists for more suggestions on implementing clicks in HTML5 ads.

SAMPLE CREATIVE HTML USING CLICKTAG

The following code block shows one way to retrieve and implement a creative with a clickthrough URL that has been specified in The Trade Desk platform.

In this example, a single image is wrapped with an anchor tag which, when clicked, opens a new window with the address stored in the creative's clickTAG URL query parameter. The URL to open the window with is stored in window.clickTAG at line 11. A creative may use any number of ways to open a new window to that address on click. This is one just one example.

```
<html>
  <head>
    <script type="text/javascript" charset="utf-8">
      function getParameterByName(name){
        name=name.replace(/[\/, "\\["].replace(/[\/, "\\]/, "\\");
        var regex = new RegExp("[\\?&]" + name + "=[^&#]*"),
            results = regex.exec(location.search);
        return results === null ? "" :decodeURIComponent(results[1].replace(/\\+/g, " "));
      }
      //This is a 1 in square brackets, sometimes this can be copy/pasted incorrectly with the 1 in superscript OR without brackets
      var clickTAG = getParameterByName("clickTAG");
      //At this point, the value for the clickthrough URL is stored in the variable "window.clickTAG"
      //clickTAGs are case-sensitive, so make sure TAG/Tag/tag is uniform throughout the creative and any supporting files
    </script>
  </head>
  <body>
    <a href="javascript:window.open(window.clickTAG);void(0);">
      
    </a>
  </body>
</html>
```