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HTML5 INTEGRATION GUIDE

Converting existing Flash creative to HTML5 using Google Swiffy, developing new HTML5 creative using Adobe Edge Animate, and using the Trueffect HTML5 / JavaScript API.

Trueffect, Inc. - August, 2015

Introduction

To ensure HTML5 support, Trueffect has built integration solutions for Adobe Edge Animate, Google Swiffy, and Generic HTML, or HTML created with other tools. Adobe Edge Animate is Adobe's alternative to Flash for generating HTML5 applications and more specifically, new banner creatives. Google Swiffy allows users to upload an existing SWF file and convert it into an HTML5 file. This integration guide will outline the steps for each of these options.

How It Works

HTML5 banners served through the Trueffect platform will be served inside their own IFRAME that will include all information required to render and operate. Trueffect provides a JavaScript API that manages the processing of that information and exposing it to the creative with a standard interface to simplify the development of the creative. When the creative is ready to be imported into your campaign, simply ZIP the files and the platform will do the rest.

The current HTML5/JavaScript API allows for the following functionality:
- ‣ Click tracking support
- ‣ Geographical location data
- ‣ Cookie and Dynamic Value data
- ‣ Event tracking

Please refer to the HTML5 API Reference Section for more details about these additional functions.

Support

Questions regarding information included in this guide? Reach out to our support team at any time: **support@trueffect.com**.

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PART 1
GOOGLE SWIFFY
FOR EXISTING SWF CREATIVE

Introduction - Swiffy

Swiffy is a tool developed by Google that can be used to convert SWF files directly into HTML5 compliant applications and banners. These banners can seamlessly be imported into the Trueffect trafficking system. The following steps outline this process.

Converting and Testing SWF Banners

Swiffy was built as a web service and is not open source at this time. There are two methods of accessing Swiffy - via a public web page or with an Adobe Flash Plugin.

Using a Web Browser

The application can be accessed at:
https://developers.google.com/swiffy/convert/upload

Upon launching Swiffy:
1. Upload the preferred SWF to convert
2. Accept the terms and conditions
3. Click the **UPLOAD** button

Upload a SWF   ☆ ☆ ☆ ☆ ☆

1. **Select your SWF**

    Google Swiffy only supports single SWF file conversions at the moment. Your file needs to be below 1MB.

    [Choose File] standard_lea..._728x90.swf

2. **Accept the terms and conditions**

    ☑

    By selecting the checkbox, you understand that you may not convert content unless you have the right to do so. Uploading content that you do not have the right to convert into HTML5 is a violation of copyright law and against the Google terms of service.

3. **Upload and convert**

    [UPLOAD]

Your file is then uploaded to the Google service and converted on their server. Once processed, the content in the Preview section will update with a button labeled **VIEW CONVERSION** which prompts a new tab and allows you to preview and test the basic functionality of the banner.

Preview

Previews are live for 15 minutes.

Swiffy conversion 10.13 KB (gzipped)

[VIEW CONVERSION]

(To save: Right click & hit "Save as")

Messages

⚠ The ActionScript class flash.external.ExternalInterface is not supported.

ℹ Security features are not implemented. Swiffy uses standard JavaScript sandboxing and ignores Flash security domains.

The Preview section will also outline any errors encountered during the conversion process. Errors will likely impact the functionality of the banner and review of those details is critical. In the above example, the Flash banner used the **ExternalInterface** functionality to prompt a JavaScript call out to the browser, which is not supported by Swiffy.

To access the HTML file that represents the banner you must right click on the **VIEW CONVERSION** button and select Save As with the filename swiffy.html.

Known Issue: Click Handling

There is a known issue in Flash where traditional AS3 code that opens a new window is blocked by Internet Explorer's built-in pop-up blocker tool. Trueffect developed a unique work around that uses the **ExternalInterface** function (as shown in the example above). This function is not supported by the Swiffy conversion tool, and, upon conversion, you will see an error under the Preview section. This Internet Explorer workaround is not required for HTML5 banners. If your banner contains this coding, it should be removed, and changed to a more standard click-through function which uses the clickTAG variable, before it is converted using the Swiffy tool.

Using Adobe Flash CS6

There is a plugin available for Adobe Flash Professional (CS6) that adds an option to the menu to convert a project to HTML5 using Swiffy without exiting the tool. It can be accessed at:
https://developers.google.com/swiffy/convert/flash-extension

When saving the resulting HTML file, please use the filename swiffy.html.

Note: As of July 2015, the Flash plugin is only available for Adobe Flash Professional (CS6). If your company has updated to the Adobe Creative Cloud Suite, the plugin will not work and you will need to use the online tool instead.

Saving and Packaging Swiffy Banners for Trueffect

Once the process is complete, you will need to package the required files together into a ZIP file similar to the process for Flash banners. The ZIP should contain:
- The converted HTML file created above and named **swiffy.html**
- The backup GIF image for the banner that has the same filename as the ZIP file

You can name the ZIP file accordingly but the HTML file must remain **swiffy.html** in order for the Trueffect platform to recognize how the banner will be served.

swiffy.html
TE_Test_IMU_300x250.gif
TE_Test_IMU_300x250.zip

Once the ZIP file is created, you can add it to any of your campaigns similar to the process for adding Image and Flash banners today.

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PART 2
ADOBE EDGE ANIMATE
FOR NEW HTML5 CREATIVE

Introduction - Adobe Edge Animate

Adobe Edge Animate (Edge) is a tool that can be used to create new, native HTML5 creatives to be imported into the Trueffect trafficking system. The following steps outline this process.

Creating the Edge File

Upon launching Edge, you are presented a splash screen with multiple options. If you have already developed an Edge creative, you may open that, or create a new file from this menu.
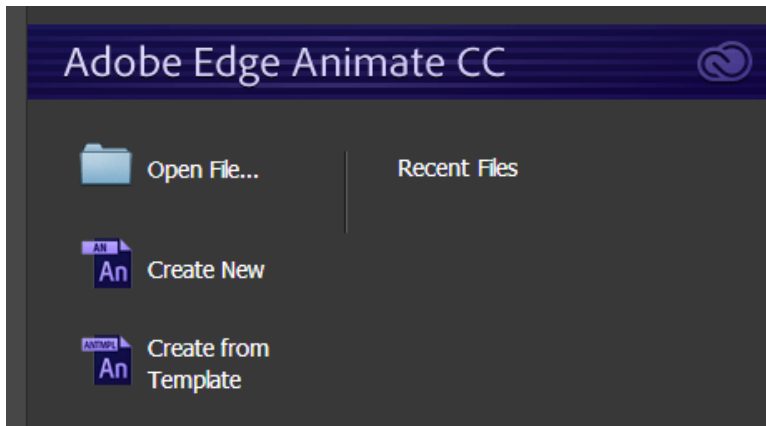
If you are creating a new file, it is recommended that you save your project to a specific location (File > Save), then check the Publish Settings panel (File > Publish Settings) to ensure it is set to publish to a /web folder within the folder where the project is saved:
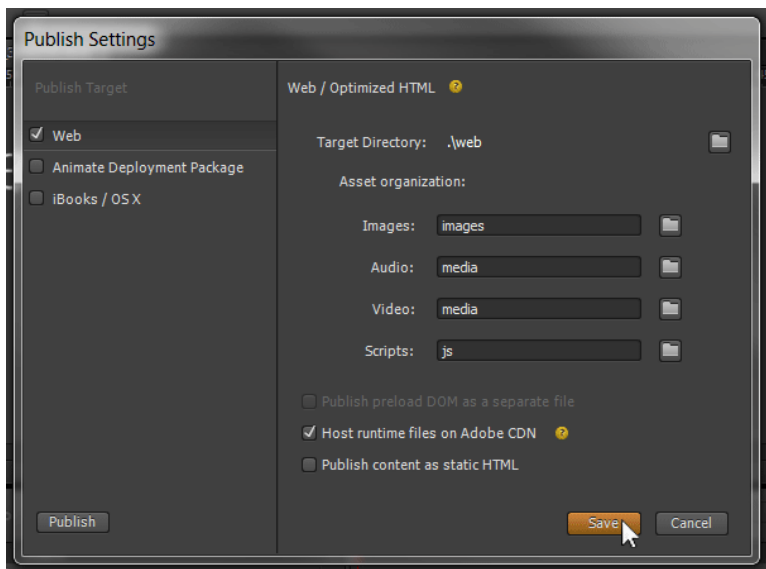

Web publishing settings are the only requirement for our instructions. You can maintain all asset directories (Images, Audio, Video, and Scripts) as their default, or rename them to your preference.

Note: Host runtime files on Adobe CDN should always be checked. This will ensure the fastest loading for the creatives when the ad is served.

## Adding Trueffect Click-Tracking Functionality

To ensure clicks are tracked in the Trueffect system. An external JavaScript file will need to be added to the Edge creative.

To add this call to the Edge creative, locate the **Library** panel (typically to the right of the creative Stage). In that panel, there is a menu item for **Scripts**. Click the plus (+) symbol on the right side of that menu item, then select, **Add JS File from URL**.
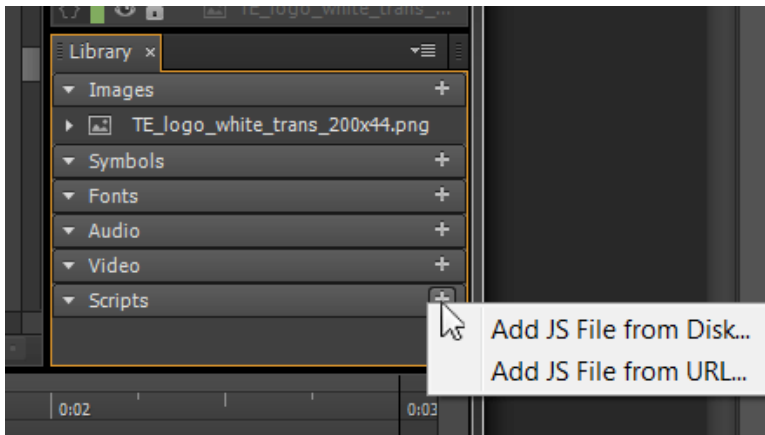
A dialog box will appear and you will need to implement the following URL:

`http://ad.adlegend.com/cdn/trueffect/te_html.min.js`
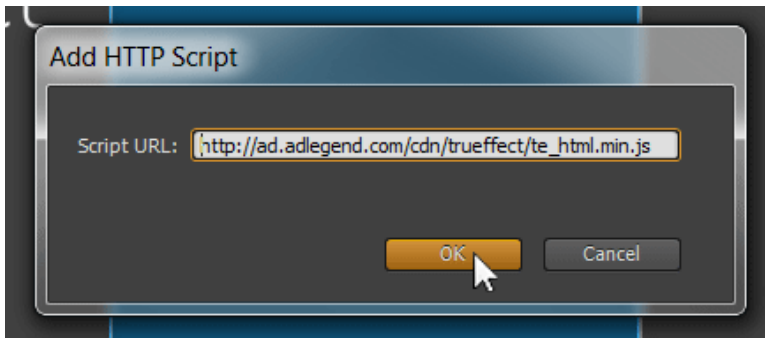
After clicking OK, you should see the URL under **Scripts** in the **Library** panel.

If you do not see the **Scripts** menu item in the **Library** panel, it is possible that you have an outdated version of Adobe Edge Animate and you will need to upgrade your software.

Adding a Clickable Area

It is recommended to add a large clickable area that covers the entire banner, in addition to any physical buttons that you have featured in the banner. This is easily created by using the rectangle tool and changing the fill to transparent, then ensuring it is on the top layer of the creative, just under the stage and any buttons that will need to be clicked.
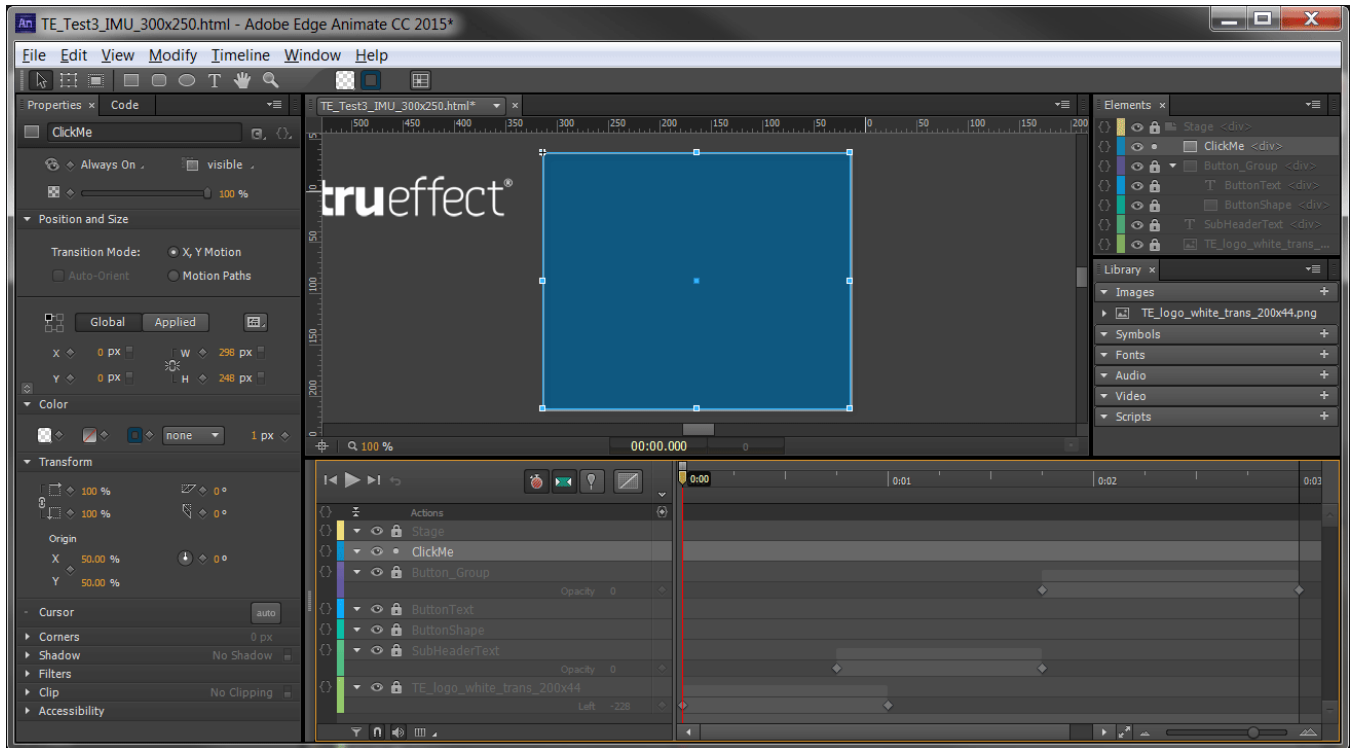
To make this object (or any button) clickable, simply right-click on the object and then click, **Open Actions for [OBJECT NAME]** (in the example below, the object is called ClickMe).
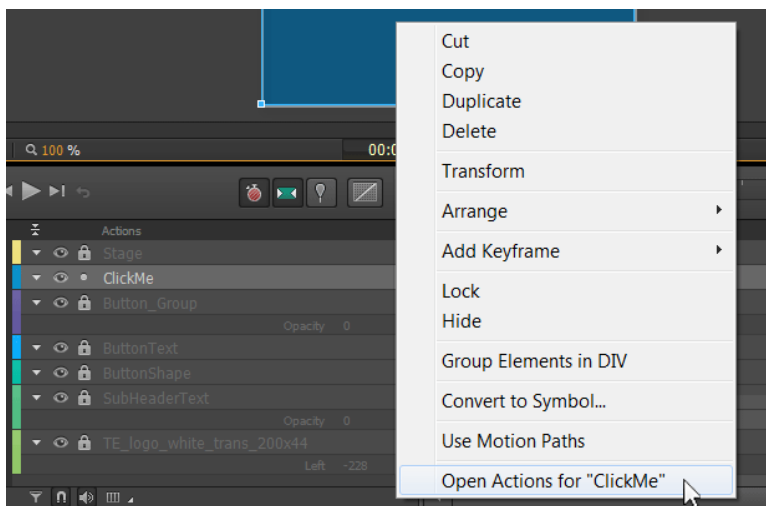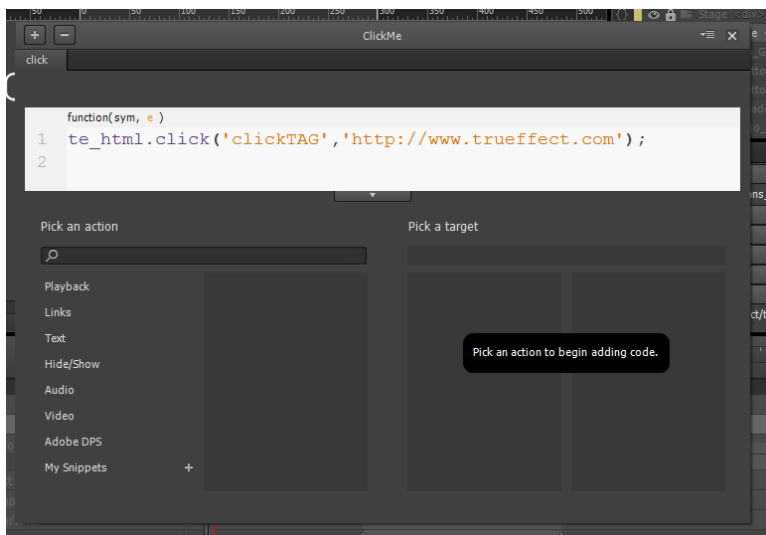

This will prompt the Actions dialog box and display the triggers that Edge has available. Click on the **Click** trigger to display that area.
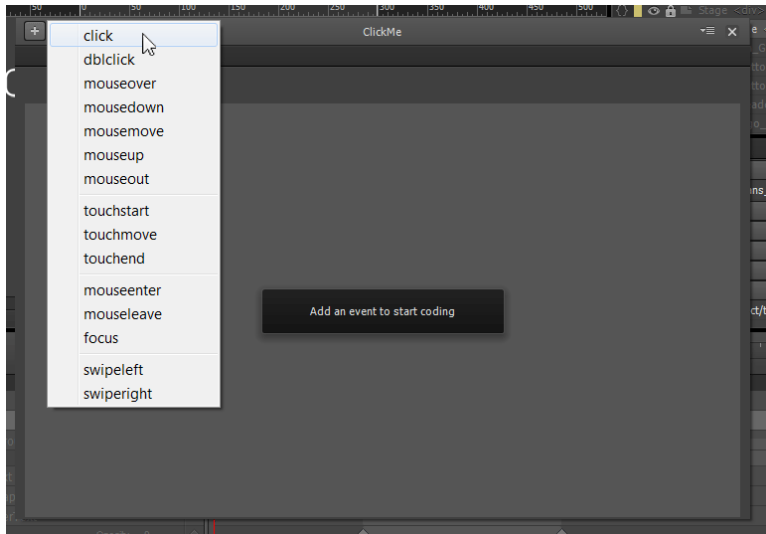
In the **Click** area, you do not need to use any of the pre-defined actions, but instead, use the following code:

```
te_html.click('clickTAG','http://www.trueffect.com');
```

Then replace http://www.trueffect.com to the proper click-through URL.

Note: you must use straight single quotes in the code and not "smart apostrophes" or "smart quotes" as you would see in standard documents. You will know if your code is correct when the color coding displays orange text within the parenthesis as demonstrated in the example above. If you do not see orange text within the parenthesis, you may consider removing the "smart quotes" and replacing them with straight single quotes.

Once you have copied the code in and replaced the URL with the proper URL, you can click the "X" in the upper right corner of the box to close the Actions box.

Changing the Cursor for Clickable Areas

To change the type of cursor that the user sees when they mouse over the clickable items in your creative, With the clickable item selected, view the properties panel to the left of the Stage. Look for the section **Cursor**. It is most likely set to **auto** currently.
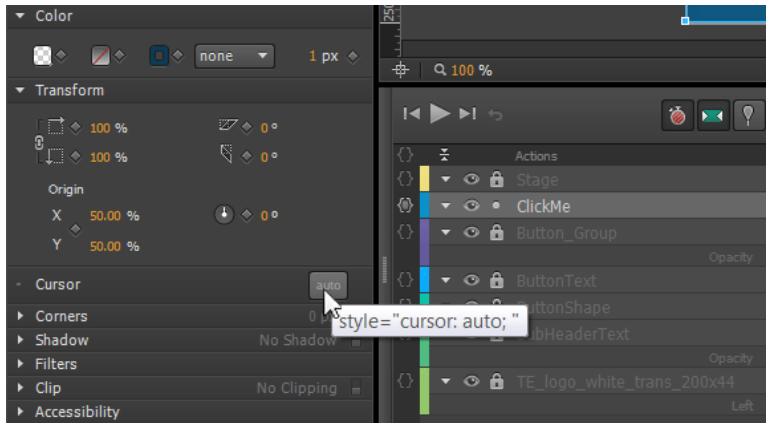

Click on the button **auto** which will prompt a panel of alternative cursor options to assign to the clickable item.
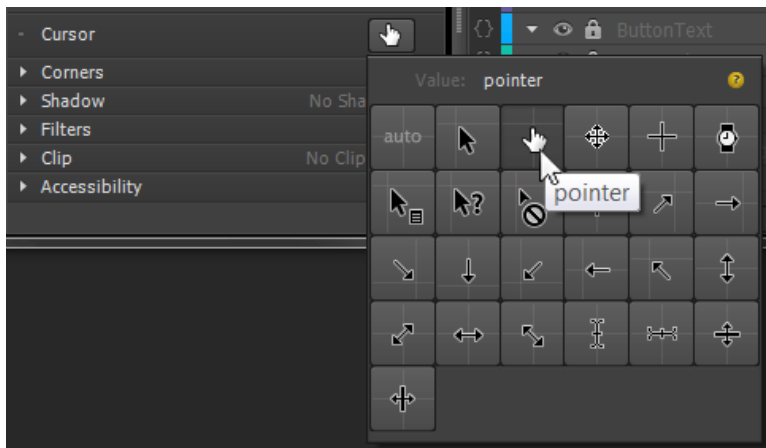
Click on the **Pointer** cursor (commonly known as the "hand" cursor, which is associated with clickable items within a browser window). This will change the cursor whenever the user hovers over the clickable item.

Saving and Publishing Your Creative

After saving the creative, it is now time to publish it for the web and prepare the ZIP file that will be uploaded in to the Trueffect system. Click File > Publish to publish your files into a sub-folder under your project folder. When you open that sub-folder on your system, you should see something similar to this:
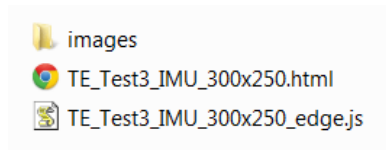
Double-click on the file to test it. The click-through should also work, so be sure to test that, as well. If it is not rendering properly, you may have an error in the click code mentioned earlier.

Similar to Flash, HTML5 files will also need to have a backup image in instances where the standard creative cannot be served (the user has JavaScript turned off, etc.). The backup GIF will also need to be named the same as the primary creative.
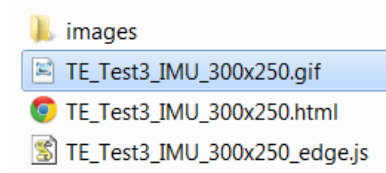
Once all necessary files are in the folder, you can select all of them and create a ZIP file and then rename it to the same name as the main creative name.
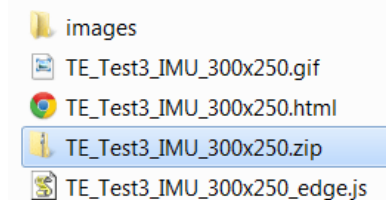
Finally, ensure that all necessary files are at the root of the ZIP file, just as you would with a Flash creative. You are now ready to upload the creative into the Trueffect system.

---
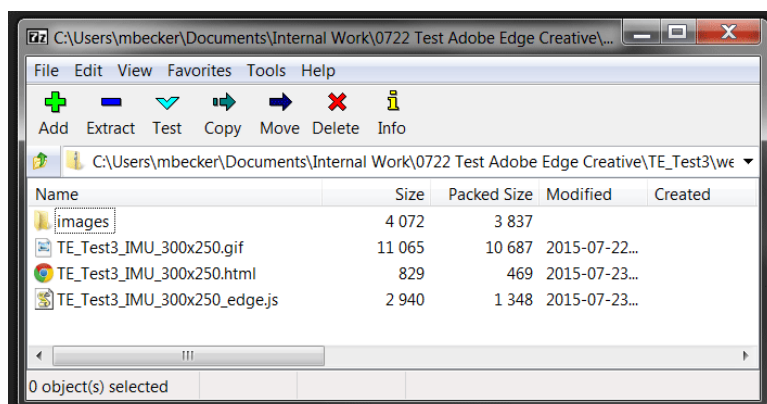
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PART 3
GENERIC HTML5 TOOLS
FOR CODING FROM SCRATCH
OR OTHER HTML5 TOOLS

Introduction - Generic HTML5

There may be times when you need to build a creative using a tool other than Adobe Edge or even build one from scratch due to some complication with how the banner should operate.

Integrating the API

You will need to have a base HTML file that will control how the banner renders, named **frame.html**. Inside the <HEAD> section of this HTML file you need to add the following reference to make the API available to your creative:

```
<script type="text/javascript"
src="//ad.adlegend.com/cdn/trueffect/te_html.min.js"></script>
```

Once that script call is included in the <HEAD> section of your creative, you can use the API to handle clicks by adding the following line to your **click** event handler:

```
te_html.click('clickTAG','http://www.yourdomain.com');
```

Replace "http://www.yourdomain.com" with whatever the generic click-through URL should be. The URL in this call will ONLY be used if a click-through URL has not been designated in the Trueffect system.

It is important to note that you should be using straight single quotes and straight double quotes in the code, and NOT "smart apostrophes" or "smart quotes" as you would see in documents. If you are having issues with your click-throughs working properly while testing the creative, you may want to go through and remove the "smart quotes" and replace them with straight single quotes.

Please refer to the HTML5 API Reference Section for more details about managing clicks.

Importing the Creative into the TruAdvertiser Platform

After you have completed testing the creative you will need to package the required files together into a ZIP file just like you do for Flash banners. The ZIP should contain:

- ‣ The base HTML file created above and named **frame.html**
- ‣ The backup GIF image for the banner that has the same filename as the ZIP file

The ZIP file can be named anything you like but the HTML file must remain **frame.html** in order for the Trueffect platform to know how to handle it when the banner is served. Once the ZIP file is created you can add it to any of your campaigns just like you add Image and Flash banners today.

Adding Other Functionality to HTML5 Creatives

The current HTML5/JavaScript API allows for the following functionality:

- ‣ Click tracking support
- ‣ Geographical location data
- ‣ Cookie and Dynamic Value data
- ‣ Event tracking

Please refer to the HTML5 API Reference Section for more details about these additional functions.

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PART 4
HTML5 API REFERENCE
ADDITIONAL INFORMATION ON INTEGRATION

Introduction - HMTL5/JavaScript API

Trueffect provides an HTML5/JavaScript API that manages the implementation of the information your creative needs, then exposing it to your creative with a standard interface to simplify the development of your creative.

Implementing the API

Inside the head section of your HTML file, you need to add the following reference to make the API available to your creative:

```
<script type="text/javascript"
src="//ad.adlegend.com/cdn/trueffect/te_html.min.js"></script>
```

Once that file is included, you can use the API to perform the following functions.

Adding Click Support

In your creative, add the following JavaSscript code where the click event is handled:

```
te_html.click('clickTAG','http://www.yourdomain.com');
```

Note: Inside the creative you need to ensure that you are always triggering a click-through based on a "click" event in the HTML document or some browsers will block the click as a pop-up.

JavaScript notation:

```
te_html.click('clickTAG','[default URL]');
```

"clickTAG" refers to which click-through URL you want to use for this click event. If you only have a single click-through on your creative then this will always be **clickTAG**, but if you set up more than one in the tool, then you just add a number starting at **clickTAG2** and increasing to the number of clicks you have defined.

"default URL" allows you to optionally pass in a default URL in the event the lookup fails for the requested **clickTAG**. This ensures that the banner always clicks to your web site but also provides a way to test your banners with the API before importing it into your campaign.

Example:

```
<script type="text/javascript">
function doClick1() {
te_html.click('clickTAG','http://www.yourdomain.com');
}
</script>

<a href="javascript:void(0);" onClick="doClick1();return
false;">Linked Text Here</a>
```

Using Geographic Location Information

In your creative, add the following JavaScript code where you want to use the geographic location:

```
te_html.getParam('IPstate','Colorado');
```

JavaScript Notation:

```
te_html.getParam('[name]','[default value]');
```

"name" refers to the name of the parameter that you are requesting. This can be any of these values:

- ▸ IPcity - the City name
- ▸ IPstate - the State name
- ▸ IPdma - the DMA area
- ▸ IPzip - the ZIP code
- ▸ height - the height of the creative
- ▸ width - the width of the creative

"default value" allows you to optionally pass in a default value in case the lookup fails for the requested parameter.

Example:

```
<script type="text/javascript">
document.write("Find car dealers in " +
te_html.getParam('IPstate','your state'); + "today!");
</script>
```

Using Cookie Value Information

You can personalize your creative by using user-specific data that is being collected from those users who have seen previous creative, visited your site, or performed specific actions within your domain. In the tool you need to ensure there is a **Targeting Cookie** set up that references the cookie you want to use in your creative, and that the **Dynamic Cookie Enabled** checkbox is selected. In your creative, add the following JavaScript code where you want to use the cookie's information:

```
te_html.getDynamicValue('CookieName','Generic Information');
```

JavaScript Notation:

```
te_html.getDynamicValue('[name]','[default value]');
```

"name" refers to the name of the cookie that you are requesting. This can be any **Targeting Cookie** that is set up with the option **Dynamic Cookie Enabled** checked.

"default value" allows you to optionally pass in a default value in case the lookup fails for the requested parameter.

Example:

```
<script type="text/javascript">
document.write("Still thinking about " +
te_html.getDynamicValue('LastItemViewed','this item'); + "? Take 10%
off with code SAVE10 today!");
</script>
```

Creating an Event Tracker

There may be events that you would like to track in the Trueffect system, then report on at a later time. Examples of these may be interactions with the banner, such as starting or stopping a video, opening an informational panel, et al. In your creative, add the following JavaScript code where you want to track an event:

```
te_html.measure('StartVideo');
```

JavaScript Notation:

```
te_html.measure('[event]');
```

"event" refers to the event for which you want Trueffect to create a record.

Example:

```
<script type="text/javascript">
function startVideo() {
var video = document.getElementById("Video1");
video.play();
te_html.measure('Advertiser_StartVideo');
}
</script>
<a href="javascript:void(0);" onClick="startVideo();return
false;">Click here to play the video</a>
```

Note: It is highly recommended to create a meaningful naming convention for event trackers and share those with anyone who will be developing HTML5 creative for you. By doing so, you can easily manage the data that will be collected on the back end.

For example, you may want to map out a set of standard events that you would like to use in a set of creative:

- ‣ CompanyName_Video_Play
- ‣ CompanyName_Video_Stop
- ‣ CompanyName_Panel1_View
- ‣ CompanyName_Panel2_View
- ‣ CompanyName_Disclaimer_View
- ‣ CompanyName_ExpandedPanel_View
- ‣ CompanyName_ExpandedPanel_Hide
- ‣ Etc.