

## **Tracking Macromedia Flash (SWF) Movies**

This tracking kit instructs ad developers how to prepare Macromedia Flash (SWF) files so that ad serving networks can dynamically assign click codes to Macromedia Flash advertisements. Historically, ad developers had to create individual Macromedia Flash advertisements for each domain that the banner would be served on. By adhering to this standard ad developers now only need to create one Macromedia Flash advertisement for an entire campaign.

The leading ad serving networks-DoubleClick, Engage, L90, TargetNet, and 24/7Media have come together to support this standard for tracking Macromedia Flash movies.

### [Designer's Guide how to build Macromedia Flash banners with tracking capabilities](#)

By adopting this standard ad agencies and designers can implement a one time solution for tracking their creative units. Advertisers will have better data to determine the ROI of their campaigns.

### [Ad Serving Network's Guide to trafficking Macromedia Flash banners](#)

By adopting this standard methodology to implement click tags for Macromedia Flash advertisements, ad serving networks will reduce deployment time and engineering costs in addition to increasing deployment times for rich media campaigns.

For more tips on how to improve your campaign read Macromedia's rich media recommendations.

For source codes and documentation of the examples in this guide, download the Rich Media Tracking Kit for [PC](#) or [Mac](#).

Please note: These files must be posted on an http:// web server in order to function correctly.

## **Designer's Guide how to build Macromedia Flash banners with tracking capabilities**

By adopting this standard ad agencies and designers can implement a one-time solution for tracking their creative units and advertisers will have better data to determine the ROI of their campaigns. Prior to starting any campaign we recommend contacting the ad-serving network you will be working with to ensure you are using the most current specifications.

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## How to insert click throughs into a Flash Banner

Click able elements in Flash are most commonly assigned to buttons. Buttons are a special type of symbol that contains 4 frames. Each frame of a button symbol represents a different "state" for the button: Up, Over, Down, and Hit. How a button visually behaves when the mouse is rolled over it or when the user clicks on the button is determined by these four states. This document explains how to create a basic button.

### To create a new button, do the following:

1. Select Insert > New Symbol, or press Control+F8 (Windows) or Command+F8 (Macintosh).

**Note:** In Flash 3 and earlier, deselect everything on the stage and choose Insert > Create Symbol

2. In the Symbol Properties dialog box, enter a name for the new button symbol and choose Button as the Behavior option. Click Ok.

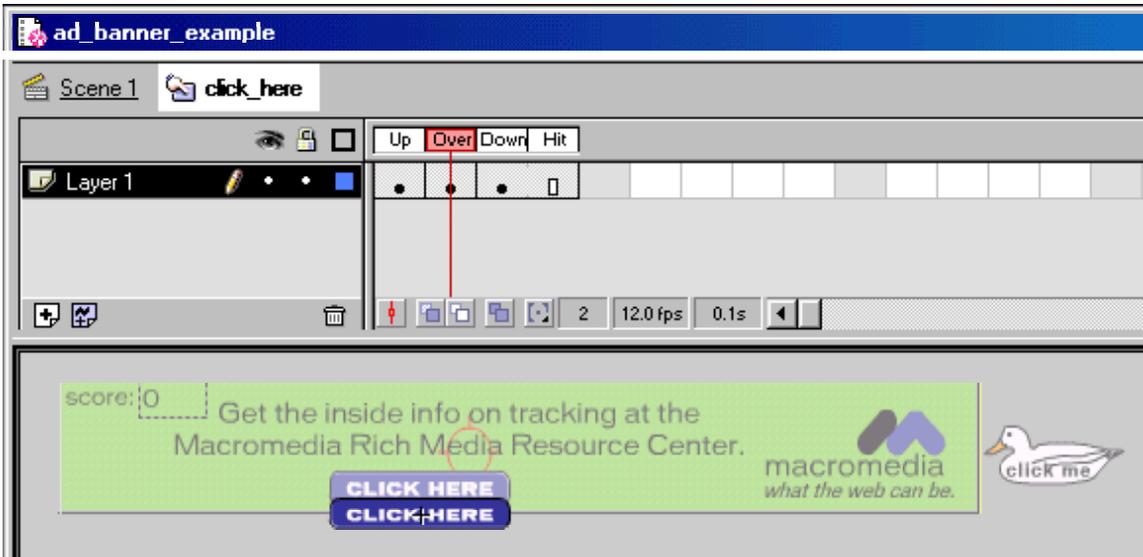
Flash switches to symbol-editing mode. The Timeline header changes to display four consecutive frames labeled Up, Over, Down, and Hit. The first frame, Up, is a blank key frame.

3. To create the Up state button image, use the drawing tools, import a graphic, or place an instance of another symbol on the Stage. You can use either a movie clip or graphic symbol in a button, but you cannot use another button in a button. Use movie clip symbols if you want to create an animated button.

4. Select the second frame, labeled Over, and choose Insert > Key frame. The button image from the first frame appears on the Stage.

5. Change the button image for the Over state; repeat steps 4 and 5 for the Down frame and the Hit frame.

**Note:** The Hit frame is not visible on the Stage on playback, but it defines the area of the button that responds when clicked. Make sure that the graphic for the Hit frame is a solid area large enough to encompass all the graphic elements of the Up, Down, and Over frames. It can also be larger than the visible button. If you do not specify a hit frame, the objects in the Up state are used as the hit frame.



6. After defining the images of the four button states, choose Edit > Edit Movie to exit Symbol Edit mode.
7. Open the Library window by choosing Window > Library. Locate the button in the Library window and then drag the button symbol out of the Library onto the Stage. This creates an instance of the button in the movie.

For information on assigning actions to the button instance refer to the documentation that applies the version of Flash that you are using. The documentation follows below:

**To assign a simple action to a button (Flash 4 and earlier):**

1. In Edit Movie mode, select the button instance created in Step 7 above.
2. Make sure that Enable Buttons from the Control menu is unchecked.
3. Double-click the button to get the Instance Properties dialog box.
 

**Note:** In Flash 2 this was the Link Properties: Button dialog box
4. Assign the action by selecting the Action tab in the Instance Properties dialog box. Then, click the plus (+) button and double-click on the appropriate action.
 

**Note:** In Flash 2 assign the action using the Action pop-up menu in the Link Properties: Button dialog box. Only one action may be assigned to the button.
5. Make sure that Enable Buttons in the Control menu is checked, so that option is toggled back on.

If the selected action has any associated parameters, those parameters will appear in the Parameter panel on the right side of the Actions panel. Choose or type the parameters appropriate for that action.

**To assign a simple action to a button (Flash 5):**

1. In Edit Movie mode, select the button instance created in Step 7 above.
2. Choose Window > Actions to open the Actions panel.
3. In the Toolbox list on the left side of the panel, click the Basic Actions category to display the basic actions.
4. To assign an action, do one of the following:
  - Double-click an action in the Basics Actions category.
  - Drag an action from the Basic Actions category on the left to the Actions list on the right side of the panel.
  - Click the Add (+) button and choose an action from the pop-up menu.
5. If the chosen action has any associated parameters, those parameters will appear in the Parameter pane at the bottom of the Actions panel. (If the Parameter pane is not visible click the small triangle in the lower right corner of the panel.) Choose or type the parameters appropriate for that action. For example, the `getURL` action shown below contains three parameters: `URL`, `Window`, `Variables` and an option for `Expression`.

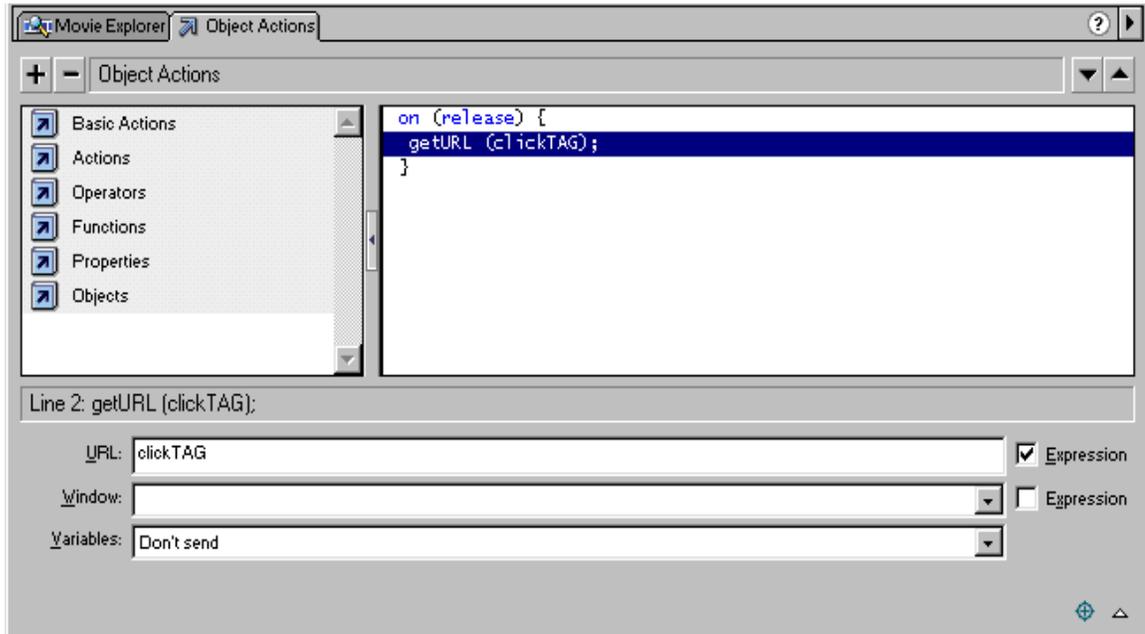
## Learn how to assign a clickTAG for your advertisement

The **clickTAG** is the tracking code assigned by the ad-serving network to an individual ad. The **clickTAG** allows the network to register where the ad was displayed when it was clicked upon. This click through data is reported to the ad-serving servers so advertisers may determine the effectiveness of their campaign.

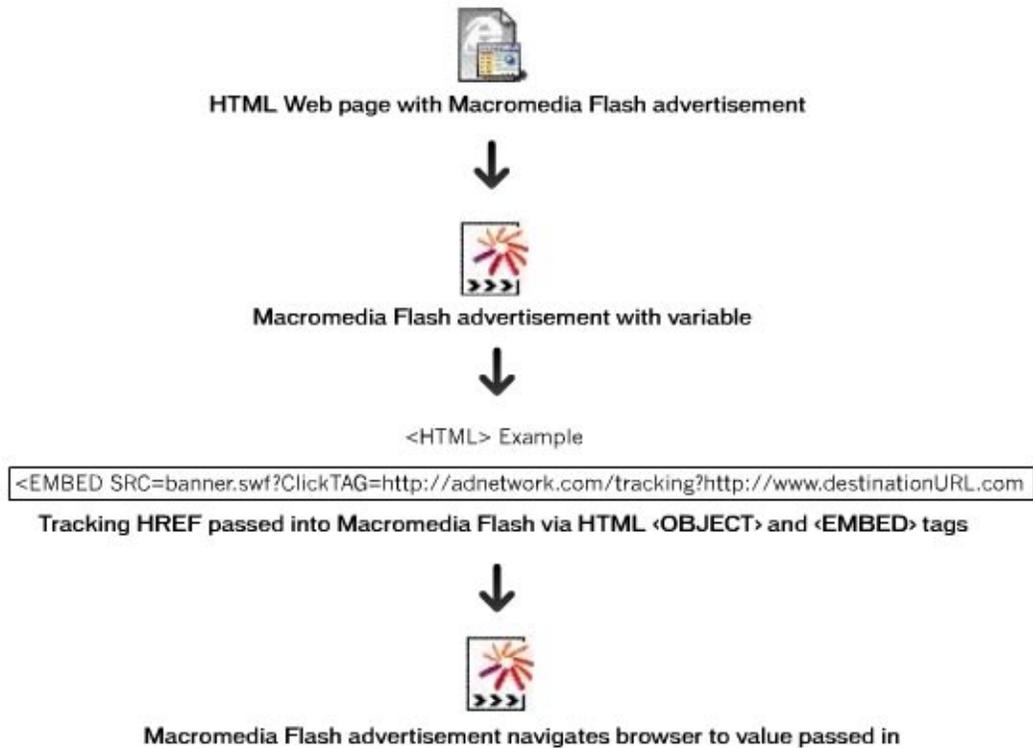
By using the code below, designers will provide ad serving networks the ability to dynamically assign a **clickTAG** to their ad.

 In this example a `getURL` action is being assigned to a button that will navigate the browser to ["**clickTAG**"]. The "`getURL(clickTAG)`" statement appends the variable data passed in via the OBJECT EMBED tag and navigates the browser to that location. It is the tracking code assigned by the ad-serving network, which allows them to register a users click on that advertisement.

```
<EMBED src="ad_banner_example.swf?clickTAG=  
http://adnetwork.com/tracking?http://www.destinationURL.com" >
```



Below is a workflow diagram of how the variable is passed from the Macromedia Flash advertisement to ad serving network, then redirected to the URL.



#### Additional information

A good way to learn more about buttons and their construction is to study the buttons included as samples with Flash. In Flash 5, these sample buttons are available from the Windows > Common Libraries > Buttons menu. Flash 4 users can access these buttons by choosing Libraries > Buttons. For Flash 2, the libraries of sample buttons are accessible from the Xtras menu.

A walkthrough of creating a button is also available in the Lessons that come with Flash 5. Choose Help>Lessons>06 Buttons from within Flash to access this lesson.

For more details about buttons, see [Flash button resources](#) (TechNote 14427).

## Ad Serving Network's Guide to trafficking Macromedia Flash banners

Macromedia Flash movies can be made trackable using GET URL () and variables.

### Example



The example above has dynamic click through variables added to the <OBJECT> and <EMBED> tags of the HTML source file after publishing.

This works if the user has the Macromedia Flash Player version 4 or above.

After the HTML source files are published, a variable is added. This variable is called "clickTAG" in the example, because it is a click code and destination URL that are being passed in.

The "clickTAG" variable is a click code and destination URL read by the Macromedia Flash (SWF) file, then passed to a GetURL() command in the file, which navigates the browser to the <http://www.destinationURL.com> page.

### Example of a JavaScript OBJECT EMBED tag (key areas in red)

This tag passes in a clickTAG variable with the value "http://adnetwork.com/tracking?http://www.destinationURL.com". The JavaScript within the page will pass a variable named "clickTAG" into the Macromedia Flash (SWF) file.

```
<OBJECT classid="clsid:D27CDB6E-AE6D-11cf-96B8-444553540000  
codebase="http://download.macromedia.com/pub/shockwave/cabs/  
flash/swflash.cab#version=4,0,0,0"
```

```
ID=ad_banner_example1 WIDTH=468 HEIGHT=60>
```

```
<PARAM NAME=movie VALUE="ad_banner_example.swf?clickTAG  
=http://adnetwork.com/tracking?http://www.destinationURL.com">
```

```
<PARAM NAME=loop VALUE=false>
```

```
<PARAM NAME=menu VALUE=false>
```

```
<PARAM NAME=quality VALUE=medium> <PARAM NAME=bgcolor  
VALUE=#FFFFFF>
```

```
<EMBEDsrc="ad_banner_example.swf?clickTAG=http://adnetwork.com/tracking  
?http://www.destinationURL.com" loop=false menu=false quality=medium  
bgcolor=#FFFFFF swLiveConnect=FALSE WIDTH=468 HEIGHT=60  
TYPE="application/x-shockwave-flash">
```

```
</EMBED>
```

```
</OBJECT>
```

## Get best results with Macromedia's rich media recommendations

Macromedia suggests the following guidelines when creating a rich media campaign. Although guidelines may vary between sites and ad management systems, we have found that these are the most generally accepted.

- [Size of banner ad](#)
- [Looping animations](#)
- [Testing](#)
- [Delivering banner ads to ad serving networks](#)
- [Delivering both Macromedia Flash SWF and default GIF banner ads](#)
- [HTML Publish settings](#)
- [GIF Publish settings](#)
- [Frame Inspector setting](#)

### Size

Width	468 pixels
Height	60 pixels
SWF file size, maximum	15k
Default GIF file size, maximum	12k
Animation loops, maximum	3

When passing data between Macromedia Flash and a Web server, use the "Get" command rather than the "Post" command.

### Looping

In a Macromedia Flash movie (unlike in a GIF animation) you can add a loop (repeat the movie) without adding to the size overhead. Nevertheless, the Macromedia Flash banner specifications recommend a maximum of 3 loops.

### Testing

Before launching, test your banner ad on all browsers that Macromedia Flash currently supports. If you use JavaScript to detect the presence of the Macromedia Flash Player, make sure that the script fails elegantly when it encounters a browser that does not support either Macromedia Flash or JavaScript.

For more detailed information, please refer to the [Macromedia Flash Deployment Kit](#).

## Delivering banners to ad serving networks

When you have finished making your Macromedia Flash banner ad, you will have four end deliverables: a Macromedia Flash SWF file, a default GIF image file, the encapsulating HTML, and a JavaScript code block that displays the default GIF banner ad if the Macromedia Flash Player is not detected.

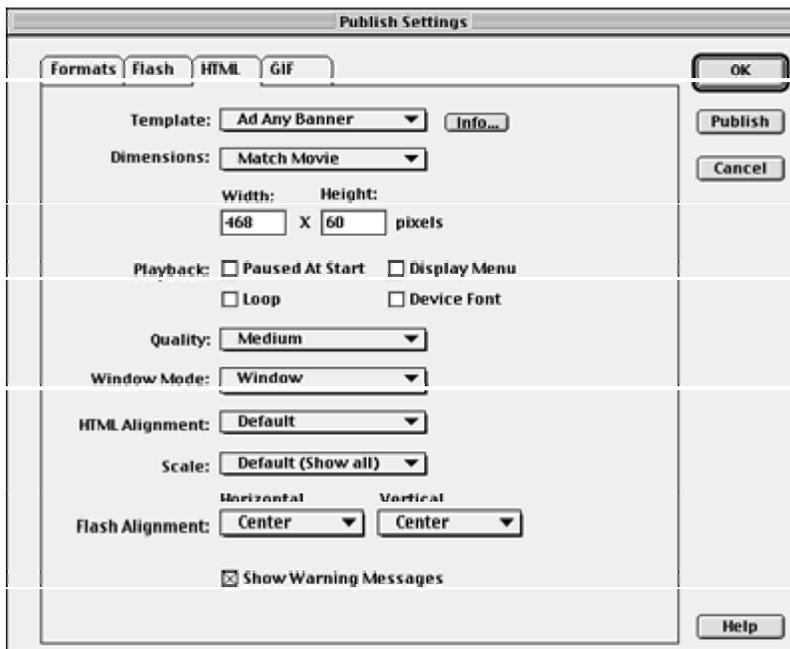
## Delivering both Macromedia Flash SWF and default GIF banners

Macromedia Flash's "File>Publish Settings" command automatically publishes both your Macromedia Flash SWF banner ad and the default GIF version of your banner ad. The GIF is will appear if the user doesn't have the Macromedia Flash Player. When using HTML publishing settings and setting the template to "Ad Any Banner" it will output HTML with JavaScript, which contains a block of JavaScript code that allows you to deliver both the SWF and the GIF files.

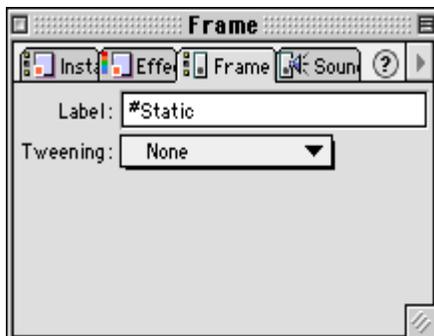
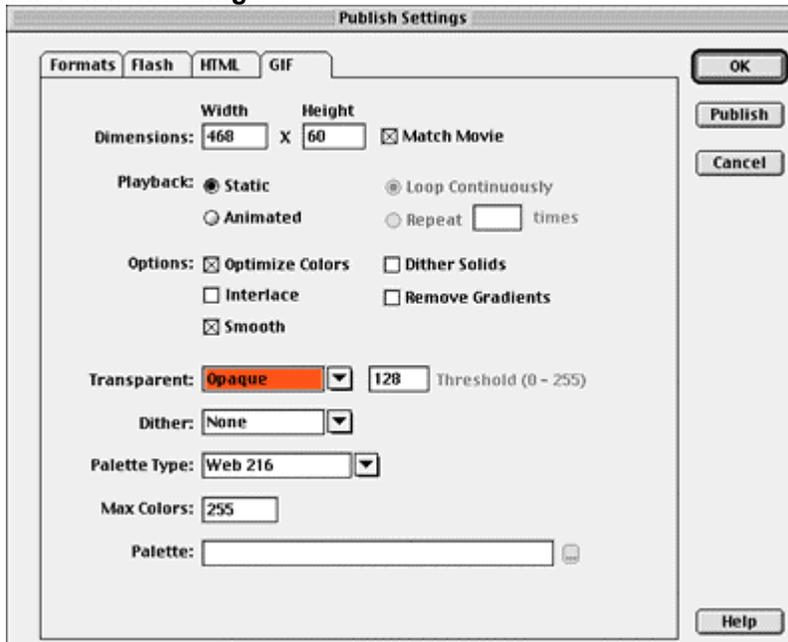
The default GIF banner will be a static image. It will be of the first frame of your movie, unless you specify a different frame by labeling it "#Static".

If you would like the default GIF banner to be animated, go to GIF > Publish and choose Animated. The animated GIF will include all the frames of your movie, unless you specify a range of frames by labeling the appropriate ones "#First" and "#Last".

## HTML Publish settings



## GIF Publish settings



Enter the label "#Static" for the frame you want to export as a GIF.