
smartAD Expanding

1. Overview

smartAD is an advertisement network with its own information system for creating and managing online ad spaces. Therefore the technical requirements of banners are dictated by smartAD, not individual web sites. The smartAD Expanding is a flash banner type that is overlaid on top of the participating web site, and is fixed to a certain location in the browser window (usually the bottom right corner). At first user is presented with static banner which would be changed for bigger interactive banner if user moves mouse over static banner. Transition from static banner to bigger banner can only be made horizontally or vertically, not into both directions. As such, banners are not bound by strict space requirements and it leaves much flexibility for the designer.

Due to the limitations of common web browsers, the Expanding consists of two separate .swf files:

1. The static banner, which frees up most of the space, but remains clickable:
 - Small size in order not to disturb the user; height up to 220 pixels and width 220 pixels.
 - Background is not transparent
2. The splash banner, which is a bigger banner attracting the viewer's attention:
 - Horizontally opening banner can be up to 600 pixels wide, but height must be equal to static banner's height
 - Vertically opening banner can be up to 500 pixels high, but width must be equal to static banner's width
 - If banner has no background, then it should be made transparent so as to not obscure the user's view

The distinction between static and splash banner is necessary because many browsers do not support clicking "through" the transparent areas in flash clips. These clips will be placed and switched by JavaScript provided by smartAD. Both clips will be placed to the corner of the browser window, so they overlap and allow for a smooth transition.

smartAD information system does not put any restrictions upon the capacity of the banner but it should be optimized for the use on web. Banner with capacity to 50 kB respects webpage visitor, up to 100 kB is tolerable. The recommended summed capacity of 2 banners is up to 125 kB. In case banner capacity exceeds recommended limit it should be clarified and agreed on with smartAD team.

2. Technical requirements

2.1 Flash version

Flash clip has to be exported as SWF version 8 in order to use ExternalInterface API through which banner will communicate with smartAD system. SmartAD script checks that webpage visitor would have at least flash player of version 8 installed.

2.2 ActionScript

Due the limitations of smartAD solution banner code should be written using ActionScript 2.0. Examples provided in this guideline are also considered to be used with ActionScript 2.0.

2.3 Allowing JavaScript control

Because smartAD's JavaScript is executing in the context of the participating web site, it does not have control over Flash clips due to cross-site scripting restrictions. To bypass these restrictions, flash clip must explicitly allow control from other domains immediately after loading:

ActionScript code example:

```
System.security.allowDomain("*");
```

2.4 Responding to clicks

The flash clip must recognize three parameters passed in “flashvars”:

- “clickTAG” specifies the destination URL of the click. URL can be unsecure (http) or secure (https);
- “target” specifies the target browser window, similar to the HTML target attribute;
- “id” specifies which banner is used.

The banner must respond to the users click by opening up the given URL in “clickTAG” in the “target” browser window. Also banner has to launch JavaScript function “smartad_click” right after opening landing page. “smartad_click” function will let JavaScript know that clicking has occurred and will remove banner from website or make some additional actions. Parameter “id” is passed to flash through flashvars.

In ActionScript this can be implemented simply using:

```
on (release){
    getURL(_root.clickTAG, _root.target);
    flash.external.ExternalInterface.call("smartad_click", _root.id);
}
```

3. Additional possibilities

3.1 Passing variables

smartAD system has ability to send variables from banner to landing page. Variables which are passed should be added to clickTAG variable. Variables are passed by GET protocol as POST is not supported.

ActionScript example where var1 is flash variable which would be passed to landing page as custom_var1 variable:

```
var path = _root.clickTAG + "?custom_var1=" + _root.var1;
```

Responding to clicks code with custom variables

```
on (release){
    var path = _root.clickTAG + "?custom_var1=" + _root.var1;
    getURL(path, _root.target);
    flash.external.ExternalInterface.call("smartad_click", _root.id);
}
```

3.2 More than one landing page

In case there is more than one landing page campaign manger should be notified and landing page should be added dynamically to clickTAG by banner creator. This is very useful if landing page depends on the action done with banner.

ActionScript example – visitor will be redirected to address website.com

```
var path = _root.clickTAG + "http://website.com";
```

Responding to clicks code with custom landing page

```
on (release){
    var path = _root.clickTAG + "http://website.com";
    getURL(path, _root.target);
    flash.external.ExternalInterface.call("smartad_click", _root.id);
}
```

4. Sending banner

Banner should be sent to smartAD team for testing purposes at least 2 days before campaign start.

In order to put the banners to the smartAD information system, the following information must accompany flash clips:

1. Dimensions of the splash SWF file (height and width in pixels)
2. Dimensions of the static SWF file (height and width in pixels)