Digital Eyelite Production Guide

1st September 2007

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Introduction

This document is a Guide to the design and production of Macromedia Flash animations for the Digital Eyelite standalone advertising units. This Guide is primarily for the use of Flash designers and animators, and as such is focused on the design specifications for this platform. However some additional technical information is provided as background, since the platform has some differences that vary from the typical PC platforms that web based Flash designers may be used to.

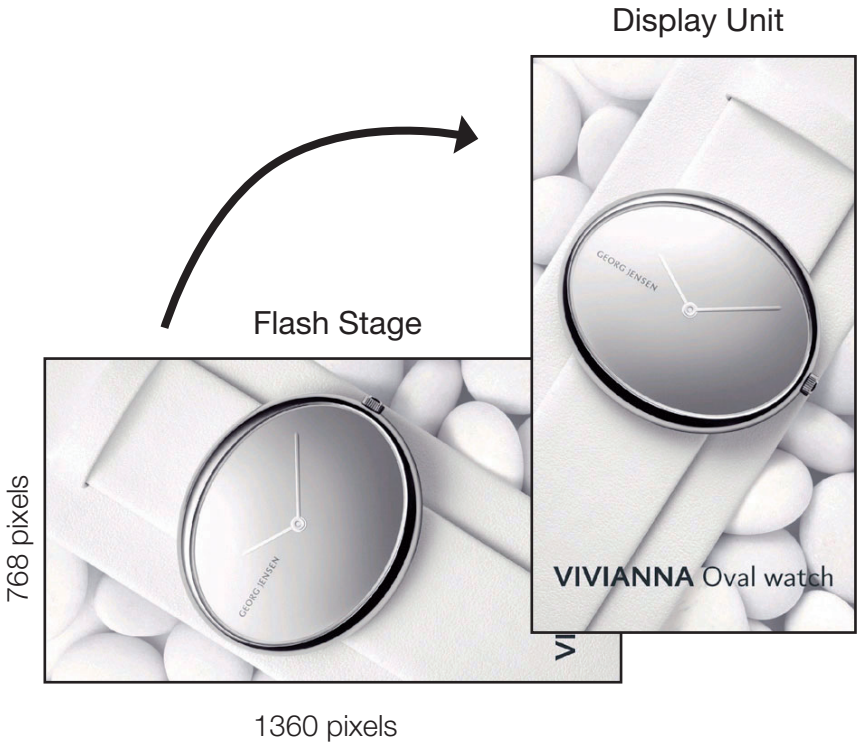
Deployment overview

Flash Advertising Media is delivered to standalone digital monitors. The monitor is rotated 90° in a clockwise direction from its 'native' position in order to achieve a portrait format.

It is a large digital monitor without any surrounding marketing collateral. The Flash movie loops continuously and generally carries both tactical and brand information.

Setting up the stage

The stage dimensions should be set to 1360 x 768. All production work is rotated 90° counter-clockwise, so that it will display upright in portrait format when the display monitor is rotated 90° in a clockwise direction. (Make sure you give your neck a regular break!)



Scaling Movie

The Flash movie should be scaled to full screen. This is achieved by placing the following code in the first frame in the root of the movie:

```
fscommand("fullscreen", true);
fscommand("allowscale", true);
```

Frame rate

The Frame rate can be set to 25 frames per second. When choosing a frame rate, consider the length of the movie (see below).

Looping

The Flash movie is set to loop indefinitely. Therefore consider how the beginning and end of the movie will connect, to ensure a smooth shift into the next cycle. While the content is most likely to appear as part of a schedule on occasions it may run solus.

Movie length

The length of the movie needs to be set at 7 seconds. The schedule will be set to move to the next content item after 7 seconds or in the instance of solus operation will repeat after 7 seconds.

Flash export settings

The Flash movie is exported to SWF format for Flash Player v6.

Graphics and Animation

Because the Flash Player is better suited to rendering vector as opposed to bitmap images, animating large bitmaps should be avoided, particularly if they fill the stage area (see Tech Note below). Bitmaps can be used as still backgrounds, and cross-fading using alpha channel tweens is supported. But complex multi-bitmap motion animations should be avoided.

The animations work best if the animated graphics are vector based.
If bitmaps are to be used, try avoiding large 24bit PNG files with alpha transparencies tweening over the top of other bitmaps.

Text

When adding text to the movie, remember: KEEP IT BIG. These screens are viewed from a distance, and often at a glance. So the information should be kept bite-sized and as large as possible.
Animating the text elements is a good way to add appeal, particularly if they are in vector format.

Optimising Graphics for Flash

When dealing with files for delivery in Flash, be sure to “compress” your files to play back at a faster rate. This can be achieved in programs such as Adobe Image Ready® or in Adobe Photoshop® by using the option File –Save for Web. This will give full control over the reduction of the file and maintain the quality of the image.

Note: Use *.gif for flat colour with or without Transparency (non-anti-alias).
Use *.jpeg for photos and beware of noise (artefacts) in images.
Use *.png for full colour with an alpha channel. (The best image quality but at a higher file size.)

Designing Content

Be careful not to fade between large images, this effects the play rate of Flash files (and ultimately the duration of the content). Keep graphics to half or quarter of the available size of the stage or screen size.
Use masks over images for transitions; animate vector shapes for smoother animation.
Use Fonts instead of bitmaps for logos, which use typography. Try to get the original font for ease of use.
The more you re-use in Flash the better the playback will be.

Be creative with your images. Remember this is an animated Digital sign, not television. Use “simple vector shapes” and reduce bitmaps to grey scale, or keep colours to a monotone or a simpler palette range. If you want your Digital Signs images to be effective, then think; “bold, simple, by using colour in bold ways and reuse vector objects to give complexity yet create more interest and desire”.
NB: Remember Macromedia Flash Player® is a real-time player and should be treated as streaming content, streaming live though software. Care and attention on your behalf will make for better content on this platform. See Tech notes for more detail.

File Sizes

Typical Shockwave files should be around 500 to 600kb. A small file size will ensure optimised content playback.

Approvals

Where approvals are required prior to postings content will need to be submitted for approval and conformance testing 5 days prior to commencement of media contract.

Content delivery

All content will need to be delivered to Eye at least 48 hours prior to commencement of the media contract for conformance testing and scheduling.

Content Email Address

All content to be emailed to the following address :danharman@eyecorp.com

Macromedia Flash Playback

The frames-per-second you set in both Flash and Shockwave determines the top speed at which a piece will play. In both Shockwave and Flash, the calculation costs of displaying a frame can make it play slower than this top frame rate, but you're guaranteed that it will never play faster than the rate you set, but may play slower.

Due to variations in the CPU of the computer playing back the animation.

QuickTime, in contrast, uses a strict time-based approach. If you specify 30fps then QuickTime will drop frames to keep synch. Shockwave and Flash are event-based; therefore, you won't drop frames. It may take longer to play the same number of frames on slower machines.

Content has a major impact on playback speed

There are several factors that can slow frame rates. The number of things to animate, the number of sprites, and the number of curves all affect the frame rate. For Flash, the total pixel area of the area to be rendered will directly affect the number of rendering calculations needed.
NB: Transparency adds to the required number-crunching. It's faster to use opaque pixels than to calculate how they blend together. Scaling or rotating or otherwise transforming pixel-based graphics imposes more costs than just displaying them at their normal orientation.
There are many things which can increase calculation costs, but these are some of the common ones.
http://www.macromedia.com/support/general/ts/documents/sw_flash_speed.htm