

Understanding Flash graphic file types

Before you start working in Adobe Flash Professional, be sure you understand the file types associated with the application. You use several file types to create and manage Flash content. You can import a variety of media objects into a Flash document to use as the artwork and sound for Flash movies. Also, you can export several types of files from Flash to share a finished movie or to use in developing other applications, such as mobile apps and games.

Adobe Flash Professional file types

In Adobe Flash Professional, you can work with a variety of file types, each of which has a distinct purpose:

- *FLA files* are the primary files you work with in Adobe Flash Professional. They contain the media, timeline, and script information for a Flash document. *Media objects* are the graphic, text, sound, and video objects that comprise the content of your Flash document. You use the timeline to tell Flash when specific media objects should appear on the Stage. You can add ActionScript code to FLA documents to control the behavior of media objects and to determine how media objects interact with viewers.
- *Uncompressed XFL files* are similar to FLA files. An XFL file and any associated files inside the same folder are the uncompressed equivalent of a FLA file. Using uncompressed XFL files, individuals can work on different elements of the same Flash project.
- *SWF files*, the compiled versions of FLA files, are the files you display on a web page. When you publish your FLA file, Flash creates a SWF file. The Flash Pro SWF file format is an open standard other applications support.
- *AS files* are ActionScript files—you can use these to keep some or all of your ActionScript code outside of your FLA files, which is helpful for code organization and for projects that have individuals working on different parts of the Flash content.
- *SWC files* contain reusable Flash components. Each SWC file contains a compiled movie clip, ActionScript code, and any other assets the component requires.
- *ASC files* store ActionScript that will be executed on a computer running Flash Media Server. These files enable the implementation of server-side logic that works in conjunction with ActionScript in a SWF file.
- *JSFL files* are JavaScript files that add new functionality to Adobe Flash Professional CS6.

Best practices for adding media objects to a FLA document

Most Flash content includes a wide variety of artwork and sound you import as the building blocks of your finished movie. Adobe Flash Professional CS6 can use artwork created in other applications. You can import vector graphics and bitmaps in a variety of file formats.

- Any graphic in a file you import into Flash must be at least 2 pixels by 2 pixels.
- You can use ActionScript code (*the loadMovie method*) to produce a SWF file that loads an external JPEG file at runtime (when someone plays the movie). Storing JPEG files outside the SWF file results in a smaller and faster loading movie.
- Flash offers the following options when you import vector graphics, bitmaps, and sequences of images:
 - When you import Adobe Illustrator and Adobe Photoshop files into Flash, you can specify import options that preserve most of your artwork's visual data and maintain the editability of certain visual attributes.
 - When you import vector images into Flash from Adobe FreeHand, you can select options for preserving FreeHand layers, pages, and text blocks.
 - When you import PNG images from Adobe Fireworks, you can import files as editable objects to modify in Flash or as flattened files to edit and update in Fireworks.

Note: If you import a PNG file from Fireworks by cutting and pasting, the file is converted to a bitmap.

- Keep in mind the following behaviors when you import vector graphics, bitmaps, and sequences of images:
 - Vector images from SWF and Windows Metafile Format (WMF) files you import directly into a Flash document (instead of into a library) import as a group in the current layer.
 - Bitmaps (scanned photographs, BMP files) you import directly into a Flash document import as single objects in the current layer. Flash preserves the transparency settings of bitmaps. Because importing a bitmap can increase the file size of a SWF file, consider compressing imported bitmaps.
 - Bitmap transparency might not be preserved when you import bitmaps by dragging and dropping from an application or desktop into the FLA document. To preserve transparency, use the File > Import > Import To Stage or File > Import > Import To Library command for importing.
 - Any sequence of images (for example, a PICT or BMP sequence) you import directly into a Flash document imports as successive keyframes in the current layer.

Acceptable file types for use in a Flash document

You can import the following vector or bitmap file formats into Adobe Flash Pro CS6, regardless of whether QuickTime 4 is installed:

- Adobe Illustrator files (AI)
- Adobe Photoshop (PSD)
- AutoCad (DXF)
- Bitmap (BMP)
- Enhanced Windows Metafile (EMF)—Windows only
- FutureSplash Player (SPL)
- GIF and animated GIF (GIF)
- JPEG (JPG)
- PNG (PNG)
- Flash Player (SWF)
- Windows Metafile (WMF)
- Adobe XML graphic file (FXG)

You can import the following bitmap file formats into Flash Pro only if QuickTime 4 or later is installed:

- QuickTime Image (QTIF)
- TIFF (TIF)

Flash can import the following audio formats:

- Wave (WAV)
- Audio Interchange File Format (AIFF)
- MP3 (MP3)

Viewing and working with XFL files

When you save a file in Flash, the default format is FLA, but the internal format of the file is XFL. You can open and work with XFL files in Flash the same way you would open a FLA file. When you open an XFL file in Flash, you can then save the file as a FLA file or as an uncompressed XFL file.

You can choose to work with your Flash files in uncompressed XFL format. With this format you can see each of the separate parts, or sub-files, that make up the Flash file. These parts include:

- An XML file that describes the Flash file as a whole
- Separate XML files to describe each library symbol
- Additional XML files containing publish settings, mobile settings, and others
- Folders containing external assets, such as bitmap files, used by the Flash file

When using the uncompressed XFL format, multiple people can work on different parts of the Flash file. You can also use a source control system to manage the changes made to each file within your uncompressed XFL file. Together these capabilities allow for much easier collaboration on large projects with multiple designers and developers.

Other Adobe Creative Suite applications such as Adobe After Effects can export files in XFL format. These files have the XFL filename extension instead of the FLA extension. Adobe InDesign can export directly in FLA format, which internally is XFL. This means you can work on a project in After Effects or InDesign first and then continue working with it in Flash.

Adding XMP metadata to a FLA document

You can include Extensible Metadata Platform (XMP) data such as title, author, description, and copyright in your FLA files. XMP is a metadata format certain other Adobe applications can understand. The metadata is viewable in Adobe Flash Professional CS6.

When you embed metadata, web-based search engines can return more meaningful search results for Flash content. The search metadata is based on the XMP (Extensible Metadata Platform) specifications and is stored in the FLA file in a W3C-compliant format.

A file's metadata contains information about the contents, copyright status, origin, and history of the file. You view and edit the XMP metadata in Adobe Flash Professional CS6 by choosing File > File Info and entering information in the Info dialog box.

Depending on the selected file, the following types of metadata may appear:

- *Description*: Contains author, title, copyright, and other information.
- *IPTC*: Displays editable metadata. You can add captions to your files, as well as copyright information.
- *Camera Data (Exif)*: Displays information assigned by digital cameras, including the camera settings used when the image was taken.
- *Video Data*: Displays metadata for video files, including pixel aspect ratio, scene, and shot.
- *Audio Data*: Displays metadata for audio files, including artist, album, track number, and genre.
- *Mobile SWF*: Lists information about SWF files, including title, author, description, and copyright.
- *History*: Keeps a log of changes made to images with Photoshop.

Note: The History Log preference must be turned on in Photoshop to save the log with the file's metadata.

- *Version Cue*: Lists any Version Cue file-version information.
- *DICOM*: Displays information about images saved in the Digital Imaging and Communications in Medicine (DICOM) format.