A Look at Flash tools for the Linux environment

FLASH IN LINUX

Flash is today's tool of choice for animated, interactive web content. But Flash and Linux are worlds colliding. We'll show you the current crop of Open Source Flash authoring solutions. **BY JENS FRANKE**

Sasan Saidi, www.sasan.tv

Flash began in 1995, when Future-Wave presented a forerunner known as FutureSplashAnimator. One year later, Macromedia acquired FutureWave, publishing the first version of Flash in 1997.

Most Flash movies are created in the Macromedia Flash authoring environment. The file format used with Flash movies is known as Small Web Format (SWF). The Macromedia Flash Player [1] has a virtual monopoly on playing SWF files; according to Macromedia, the figure is about 98 percent. Of course, these figures can vary depending on the kind of users you ask. There is no genuine alternative to the Macromedia player at present. The only hopes of that changing in the future lie with the free GPLFlash-Player, where work is currently under-way on Version 2.

Flash Today

Flash has continued to advance for eight years, and it is generally regarded as today's market leader in the field of multimedia authoring. For many, Flash is still the tool that can't do anything apart from create annoying intros and flashing banners, but that's a pity, because Flash has come of age. Major IT players are implementing tools for creating Flash-based user interfaces, such as such as SAP's next version of NetWeaver [2].

And IBM chose Flash as the output format for displaying the content of so-called Rich Internet Applications on its OpenLaszlo open source platform.

You may be wondering about some of the problems associated with Flash, as enumerated by usability guru Jakob

Flash Teething Trouble

Giving the back button its usual function back: *http://www.actionscripts.org/tutorials/intermediate/Enabling_a_back_button_within_in_flash/index.shtml http://weblogs.macromedia.com/cantrell/archives/2005/06/deep_linking_in.cfm#more*

Mouse wheel support: *http://www.communitymx.com/content/article.cfm?cid=E81CE*

Right click menu: *http://www.metamorphozis.com/tutorials/flash_customized_right_click_menu_in_flash_mx_2004_tutorial.shtml*

Show your code to the open source community: *http://weblogs.macromedia.com/mesh/archives/2005/04/adding_a_view_s.cfm*

Search engine friendly Flash pages: *http://codeazur.com.br/stuff/fugsp/*

Flash accessibility support heading in the right direction: *http://www.macromedia.com/macromedia/accessibility/features/flash/*

Flash and CSS support, a promising start: *http://www.actionscript.org/tutorials/beginner/css_in_flash/index.shtml*

W3C compliant integration of SWF files: *http://www.alistapart.com/articles/flashsatay/*

Printing content from Flash pages: *http://www.actionscript.org/tutorials/beginner/the_printjob_class/index.shtml*

Changing the font size of an application: *http://www.asual.com/enflash/demos.html*

Figure 1: The most widespread developer environment for Flash right now is Macromedia Flash MX 2004 Professional.

Nielsen in his article at [3]. Many people do not realize that Macromedia and Nielsen entered a strategic partnership to remove the continuing usability problems with Flash applications.

See the box titled "Flash Teething Trouble" for a summary of some Flash problems and links to sources on the web for more information. And read on for a summary of the some of the Flash tools available for Linux users.

KToon Animation Toolkit

KToon [4] is an animation toolkit from Toonka Films. It was released under the General Public License (GPL) and the current version is 0.7 Beta. The tool requires QT 3.3.2 [5], the cross-platform C++ framework by Norwegian software manufacturers Trolltech.

KToon has the ambitious aim of combining traditional and digital animation techniques within a single tool. If you prefer a traditional approach, you will feel at home working in the illustration module; those of you who prefer to work in a digital environment will choose the animation module.

When you launch KToon, you will note that it is a palette oriented program (Figure 2) with movable palettes for colors, brushes, scenes, and the exposure sheet. The exposure sheet (Figure 3) is only shown in the illustration module and follows the onion skin principle. Depending on whether you have selected the previous or subsequent frames, you see a slightly transparent version of the elements, which is a big help in creating frame-by-frame animations.

The Future of Flash

Macromedia has signed a memorandum of understanding with Adobe that will form the basis for the sale of Macromedia in fall of this year. There is no risk of the deal collapsing, and equally no danger of the Flash platform being discontinued. Flash is definitely one major reason for Adobe's interested in Macromedia. Version eight of the authoring environment and player are expected in the fall. Macromedia currently has the ambitious goal of establishing itself on the mobile device market. Agreements on the implementation of a Flash Lite player were signed with Samsung and Nokia this spring with an eye to promoting the propagation of Flash technology.

Figure 2: The KToon interface uses a number of palettes.

Figure 3: The KToon exposure sheet gives you a clear overview of layers and animation steps.

for the Windows platform – for Linux. They reached the final of the contest after 3 months' development work. But ever since, things have been fairly quiet down at F4L [6]. This said, the analyses and studies published recently look quite promising. The user interface looks more like Macromedia Flash than KToon and feels more intuitive from the user's point of view.

Unfortunately, the only publication thus far has been a Beta version 0.2. It has very little in the way of productive functionality and does not support the creation of key frames or SWF file exports. Thus, the program can hardly be viewed as a genuine alternative to KToon at present, although the beginnings look promising.

FAME – for Experts Only

Open source is a very big topic among Flash developers at present. In many

The animation module (Figure 4) has a timeline instead of an exposure sheet, just like the one you might be familiar with from Macromedia Flash. You'll also find a toolbox, and let's not forget the drawing area itself. The menu entries include a bar with icons for cross-module functions, such as opening and saving files. The second part of the bar changes to reflect the current module.

The interface creates a good initial impression, except for the fact that some icons look overdone, and the fact that it can be difficult to guess the functions hiding behind the icons at first glance. Thankfully, KToon has useful tooltips to help you out. Version 0.7 gives you a choice of interface languages from Spanish, French, and English.

If you feel up to adding a localized version, the developers will certainly appreciate your help. You'll find a language template (file extension *.ts*) on the KToon website. The template is actually an XML file that you can edit yourself. Although you can't actually integrate the localized file yourself, you can send it to the KToon development team, and chances are it will be in the next version.

KToon has a fairly rudimentary feature set at present. For example, the tool's ability to create complex vectors, one of Flash's major strengths, is very limited. Also, KToon can export the Flash programming language Actionscript.

Although KToon can store files in SWF format, the tool actually exports the ani-

mation frame by frame in bitmap format, which has a nasty impact on the size of the resulting files. The KToon team promises many improvements and advances for the coming version. Among other things, the aim is to add an effects module to KToon and to improve the tool's ability to work with vectors.

F4L – Flash for Linux

In 2003, IBM initiated a programming competition for Linux. A small team centered around Özkan Pakdil set the target of programing a useful animation tool – something similar to Macromedia Flash
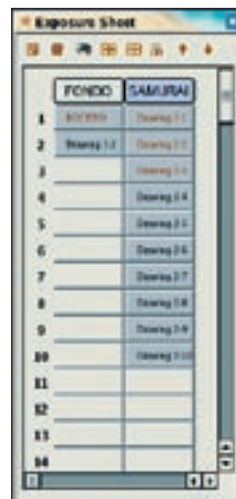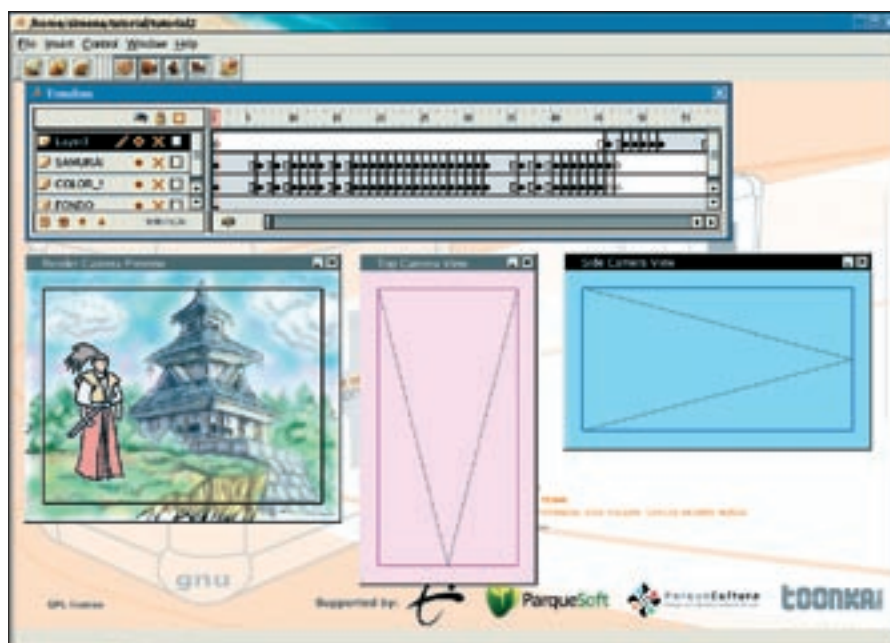

Figure 4: Use the animation module to organize the flow of the animation.

blogs, the FAME [7] acronym leads to information concerning a platform independent developer environment for Flash. Decrypted, FAME refers to the following components: Flashout + ASDT + MTASC + Eclipse.

Most users have heard by now of Eclipse, an open development platform that is customizable using plug-ins. ADST is the Actionscript Development Tool for Eclipse. Actionscript, the programming language of the Macromedia Flash developer environment, is based on the ECMA 4 standard. MTASC is the abbreviation for Motion Twin Actionscript 2 Compiler, the first open source compiler for Actionscript. MTASC offers benefits such as extremely quick compilation of Actionscript classes and direct generation of SWF files without requiring Macromedia Flash. The gang of four is completed by Flashout. The Flashout Eclipse plug-in supports viewing of compiled SWFs within the Eclipse development platform. Additionally, the Flashout plugin provides more in the line of debugging options than you'll find with the the Macromedia authoring environment.

The FAME developer environment already supports authoring of web applications at the professional level. Many Flash developers use the Open Source FAME package as a supplement or alternative to Macromedia products. However, the FAME environment is not suitable for graphic artists or end users at present. There is no GUI plug-in to support non-programmers, so you must seek FAME at your own risk. However, thanks to the increased popularity of FAME, it is just a matter of time until a suitable

Figure 6: The AOL Top 11 (http://music.channel.aol.com/top11/main.adp) uses Flash to combine video content, information, and interactive elements.

front-end for the FAME environment is released.

Alternatives: CrossOver Office

CodeWeavers CrossOver Office [8] launches Windows programs on Linux. This gives you a workaround that will at least run Macromedia Flash MX relatively reliably. Until native Linux solutions such as KToon or F4L are brought up to scratch, CrossOver Office may be the only genuine alternative for Linux users without programming skills to create meaningful Flash animations

Conclusions

The current Flash Player version 7 can combine text, sound, images, and video in a very impressive way to create new realms of experiences. Today's Internet is both a source of information and a presentation platform. Regardless of whether you approve of this development, there are no signs of turning back, as the Internet gives manufacturers a new and speedy means of advertising their products.

Of course, I must emphasize that Flash is definitely not the key to the success of your web site. If you only use Flash for window dressing, without having anything to back up the show, the whole thing is likely to backfire, and you are likely to annoy your visitors. But Flash is so feature-rich that it is up to concept designers, graphic artists, and developers to put Flash to meaningful and targeted use.

With the exception of the FAME package, Linux lacks a mature Flash tool, and non-programmers will have a hard time with Flash authoring on Linux. Like many other Open Source projects, KToon and F4L need ambitious and skilled helpers to drive development onward. ∎

INFO

[1] Flash Player: *http://www.macromedia. com/go/getflashplayer*

[2] SAP: *http://www.sap.com//company/ press/press.epx?PressID=4519*

[3] Flash – 99% Bad: *http://www.useit. com/alertbox/20001029.html*

[4] KToon: *http://ktoon.toonka.com*

[5] QT: *http://www.trolltech.com/ products/qt/index.html*

[6] Flash For Linux: *http://f4l.sourceforge.net*

[7] FAME: *http://www.osflash.org/doku. php?id=fame*

[8] CrossOver Office: *http://www. codeweavers.com/products/cxoffice/*

[9] Flash-Plattform: *http://www. macromedia.com/platform/*

Figure 5: The virtual knee operation by Edheads (www. edheads.org/activities/knee/) demonstrates the interactive potential of Flash.