



## Flash Developer Toolbox

By: [Paul Newman](#)

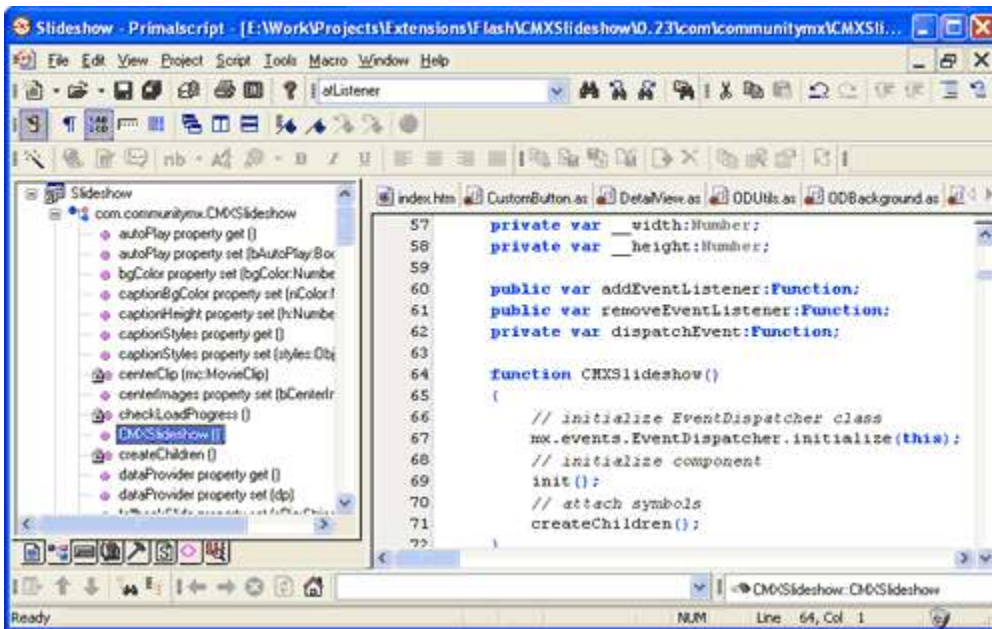
These days, Flash users fall into two main categories: designers, who can dream up amazing Flash user interfaces, and developers, who spend most of their time pressing Ctrl+Enter. The Flash developer is a relatively new moniker. It describes someone who prefers to interact with Flash using a text editor, rather than manipulating movie clips on the stage. This article is an overview of must-have tools for Flash developers. Most of them are free, some are not. But all of them can save you time and effort.

### ActionScript Editors

The following text editors offer features, such as code hinting, that are superior to Flash's built-in text editor. Some features, such as class browsing, aren't even available in Flash MX 2004.

#### **PrimalScript**

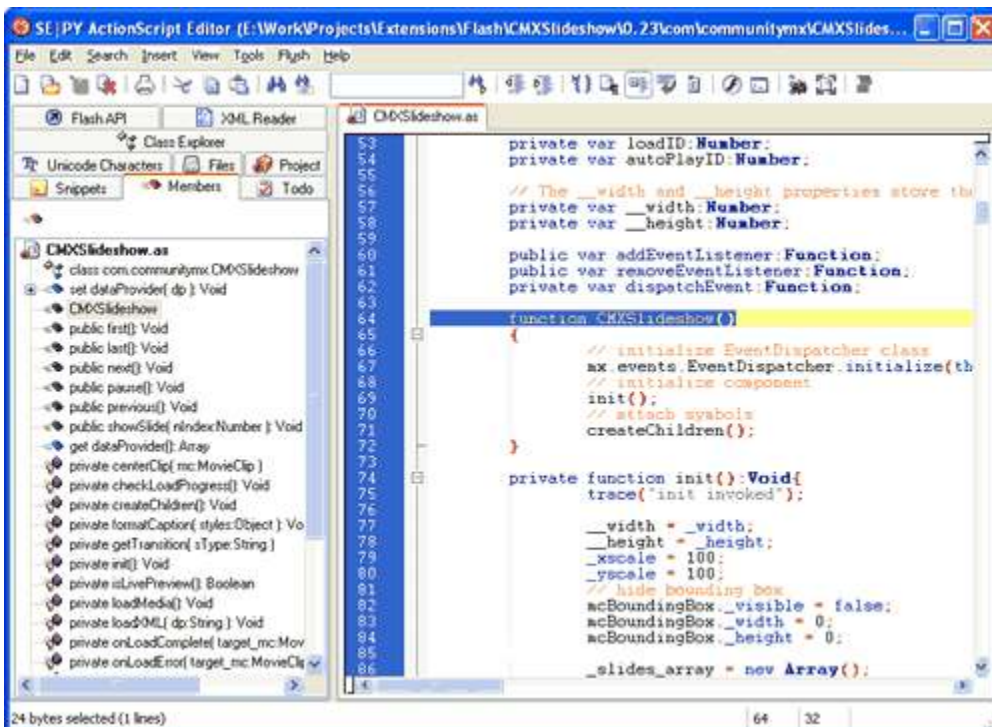
Of the many available third-party ActionScript editors, [PrimalScript](#) (<http://www.sapien.com/primalscript.aspx>) arguably offers the most features in a single package. It'll set you back almost 200 bucks, but it's worth it. The best feature of PrimalScript is its code hinting. Unlike Flash MX 2004, PrimalScript offers code hinting for custom ActionScript classes, as well as a class browser that provides a quick reference to classes' properties and methods. It's also possible to compile Flash movies directly from PrimalScript using a JSFL command or a third-party tool such as [MTASC](#) (<http://www.mtasc.org/>). The only real drawback is the lack of CVS integration — currently, PrimalScript only supports MSSCCAPI-compliant source control systems such as Perforce, Visual SourceSafe, PVCS and StarTeam — but hopefully this will be added in a future release.



For more information, see the free Community MX article and videos, "[Coding for Flash with PrimalScript](http://www.communitymx.com/abstract.cfm?cid=ABA93) (<http://www.communitymx.com/abstract.cfm?cid=ABA93>)."

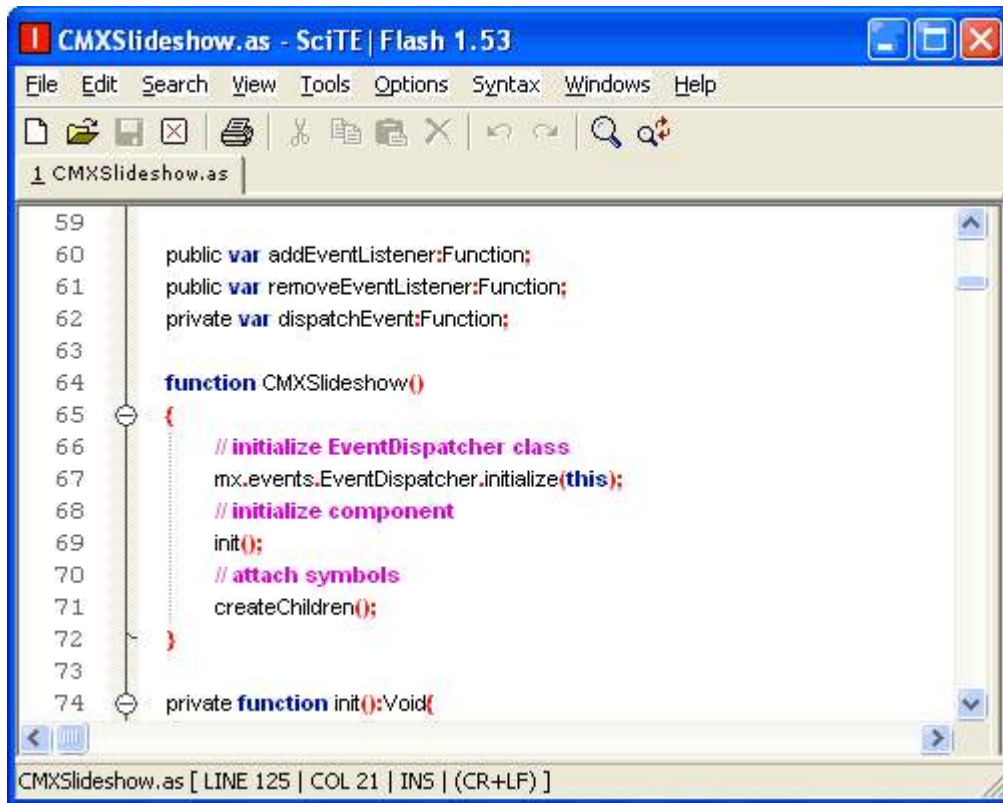
## SE|PY ActionScript Editor

SE|PY ActionScript Editor (<http://www.sephiroth.it/python/sepy.php>) is free and offers many of the features available in PrimalScript, and even some that aren't, such as word wrap, auto-complete, and collapsible code ("code folding"). If you want to move beyond Flash's built-in text editor and don't want to spend the money on PrimalScript, SE|PY is a good place to start.



## SciTE|Flash

SciTE|Flash (<http://www.bomberstudios.com/sciteflash/>) is a little geekier, and not as feature-rich as PrimalScript or SEIPY, but it does offer limited code hinting, auto-complete, code folding, and (like SEIPY) built-in support for the Flash compiler [Flush](http://www.debreuil.com/flush/) (<http://www.debreuil.com/flush/>). Visit the following link to download the [SciTE|Flash installer](http://www.bomberstudios.com/sciteflash/dl.php) (<http://www.bomberstudios.com/sciteflash/dl.php>).



```
CMXSlideshow.as - SciTE|Flash 1.53
File Edit Search View Tools Options Syntax Windows Help
CMXSlideshow.as
59
60 public var addEventListener:Function;
61 public var removeEventListener:Function;
62 private var dispatchEvent:Function;
63
64 function CMXSlideshow()
65 {
66     // initialize EventDispatcher class
67     mx.events.EventDispatcher.initialize(this);
68     // initialize component
69     init();
70     // attach symbols
71     createChildren();
72 }
73
74 private function init():Void{
```

## Eclipse

If you're not familiar with [Eclipse](http://www.eclipse.org/) (<http://www.eclipse.org/>), it's a top-notch, Java-based IDE. Because it's open source and extensible, Eclipse boasts a huge number of free plugins that enable it to edit almost anything, from ActionScript to PHP to XML. The most popular ActionScript plugin is [AS Development Tool](http://sourceforge.net/projects/aseclipseplugin/) (<http://sourceforge.net/projects/aseclipseplugin/>) (ASDT), although it still has a way to go before it replaces the tools mentioned above. Eclipse also integrates with CVS and command-line compilers such as MTASC.

## Utilities

In this section, we look at a number of utilities— some built specifically for Flash, some not — that help you get your work done faster.

## Screen Ruler

[Screen Ruler](http://www.microfox.com/) (<http://www.microfox.com/>) is a \$25 shareware utility that enables you to measure anything on

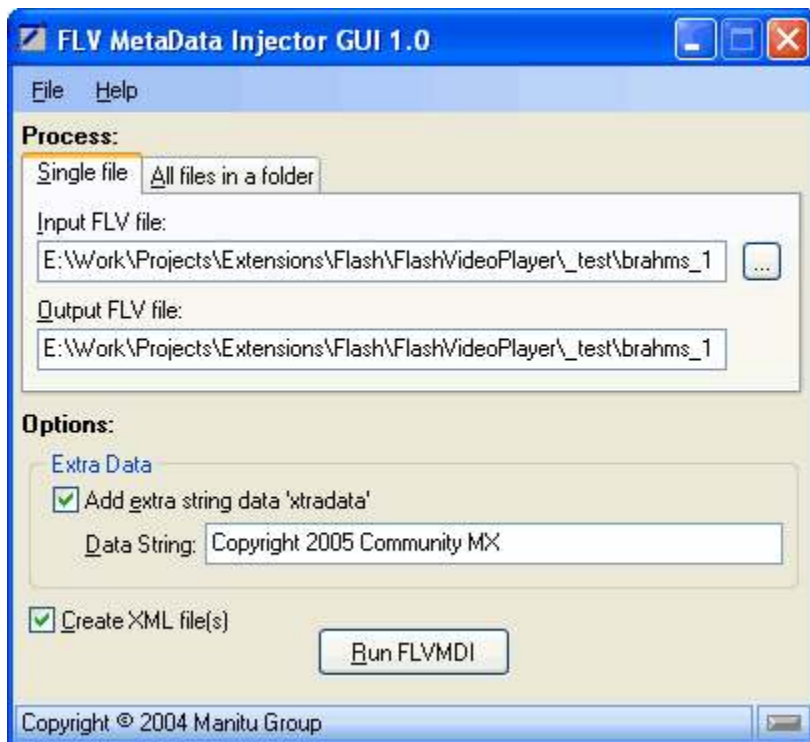
your screen, vertically and horizontally, in pixels, inches, picas, and other units. Screen Ruler is especially useful if you're working from comps or wireframes and need to extract the dimensions of an image and its elements.

## Eyedropper

[Eyedropper \(http://www.inetia.com/eng/eyedropper\\_eng.php\)](http://www.inetia.com/eng/eyedropper_eng.php), like Screen Ruler, is one of those simple utilities that should be bundled with Windows but isn't. Once you use it, you'll wonder how you ever lived without it. With Eyedropper, you can point your cursor at any object on the screen and get its color information in Hex, RGB, or CMYK format.

## FLV MetaData Injector (FLVMDI)

[FLVMDI \(http://www.buraks.com/flvmdi/\)](http://www.buraks.com/flvmdi/) is a free command-line tool that enables you to add metadata information to your Flash video (FLV) files. A visual interface, FLVMDI GUI, is also available:



With FLVMDI, you can select one or more FLVs on your computer and it inserts the correct metadata. This is a lifesaver if your client encodes FLVs with a tool that doesn't insert metadata (metadata properties, such as duration, are required by many Flash video components). You can also use FLVMDI to correct metadata generated by Sorenson Squeeze ([see blog \(http://www.sti-media.com/blog/archives/000072.html\)](http://www.sti-media.com/blog/archives/000072.html)).

## FLV Player

Martijn de Visser's [FLV Player \(http://www.martijnvisser.com/archives/000021.php\)](http://www.martijnvisser.com/archives/000021.php) is a free Windows executable that registers itself as the default handler for Flash video (FLV) files. Once installed, it enables you to double-click any FLV on your computer and watch the video. You can also get additional

information about the video, such as width, height, and duration, by right-clicking the player and choosing **Media Properties**. If you do any work with Flash video, this one is indispensable.

## NetConnection Debugger

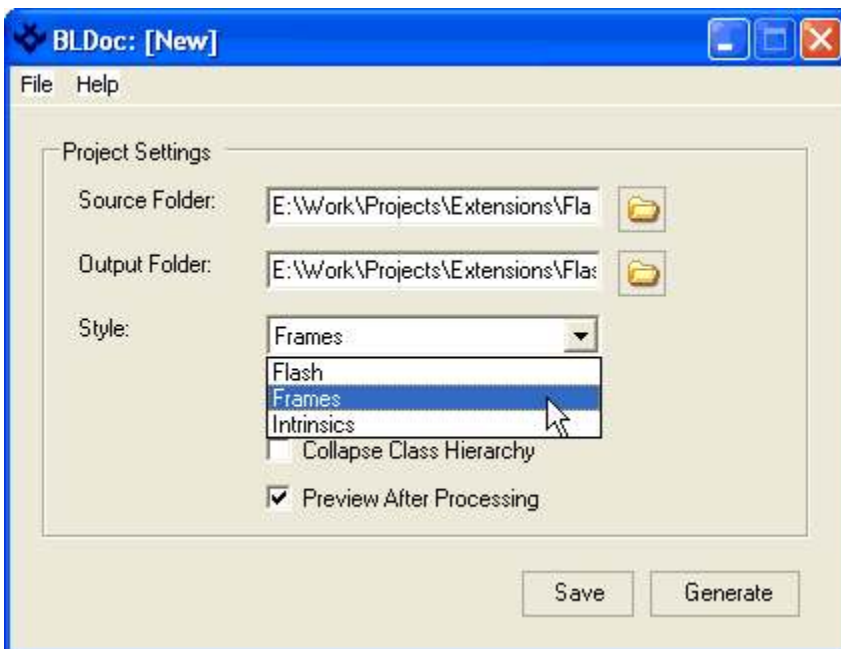
This panel is added to Flash MX 2004 when you install [Flash Remoting for Flash MX 2004 ActionScript 2.0](http://www.macromedia.com/software/flashremoting/downloads/components/) (<http://www.macromedia.com/software/flashremoting/downloads/components/>). What many Flash users don't realize is that you can also run NCD outside of the Flash IDE (thanks to Tom Muck for this tip). Simply create a shortcut to the SWF file. On Windows XP Pro, you'll find it here:

**C:\Documents and Settings\[Username]\Local Settings\Application Data\Macromedia\Flash MX 2004\[Language]\Configuration\WindowSWF\NetConnection Debugger.swf**

You can use NetConnection Debugger to debug Flash Remoting applications in the test player, the standalone Flash Player, and the browser.

## BLDoc Community Edition

[BLDoc](http://www.blinex.com/products/bldoc/) (<http://www.blinex.com/products/bldoc/>) is a documentation generator for ActionScript 2.0. The free community edition is available if you join the beta program.



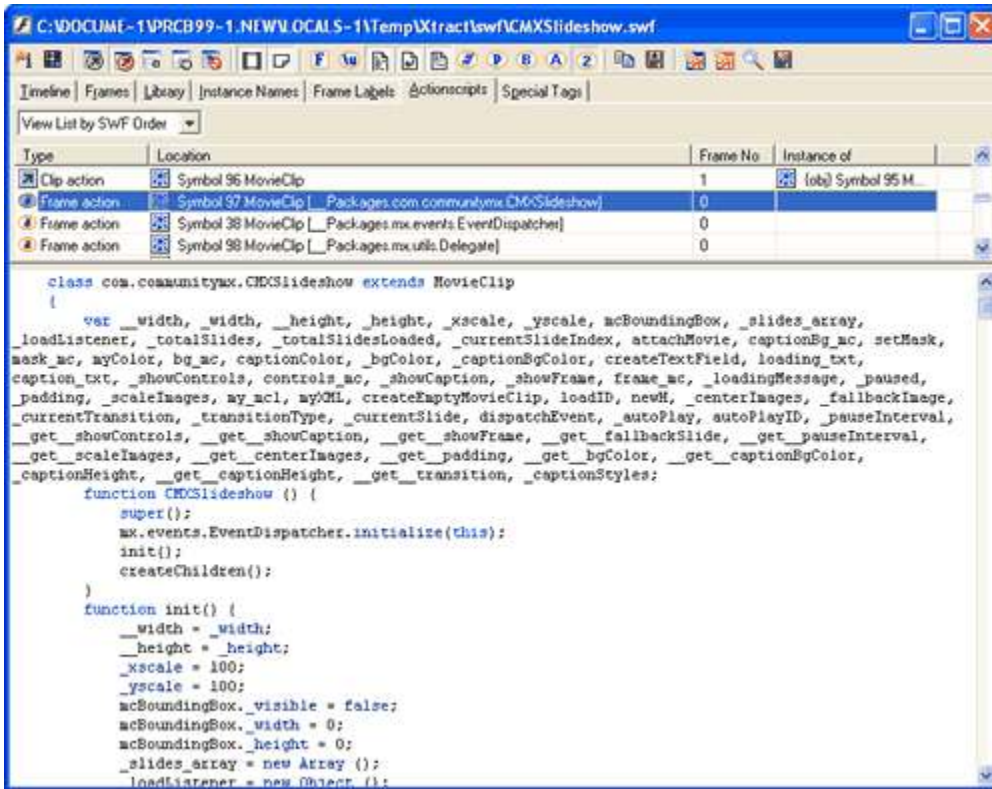
BLDoc generates docs in one of three formats: a Javadoc-style framed HTML interface, a Flash (SWF) interface with a table of contents and index, and intrinsic class files for third-party IDEs. For the best results, you must use Java-style comments in your ActionScript, which enforces good coding habits.

## Applications

In this section, we look at some more advanced Flash development tools to assist you with compiling, debugging, and source code management.

## ActionScript Viewer (ASV)

In addition to being a Flash decompiler, [ActionScript Viewer](http://www.buraks.com/asv/) (ASV) offers additional tools, such as SOL Viewer and Editor, a plugin that enables you to read and edit local shared objects generated by Flash. ASV is most useful when you need to recover Flash code but no longer have access to the original FLA source file. It can also be a useful learning tool when you want to see how another developer achieved a certain result.



I've used it mainly to convert components to external ActionScript classes — this is often easier than remembering to tell other developers on your team to install an extension — and to find undocumented methods and properties in Flash and Central.

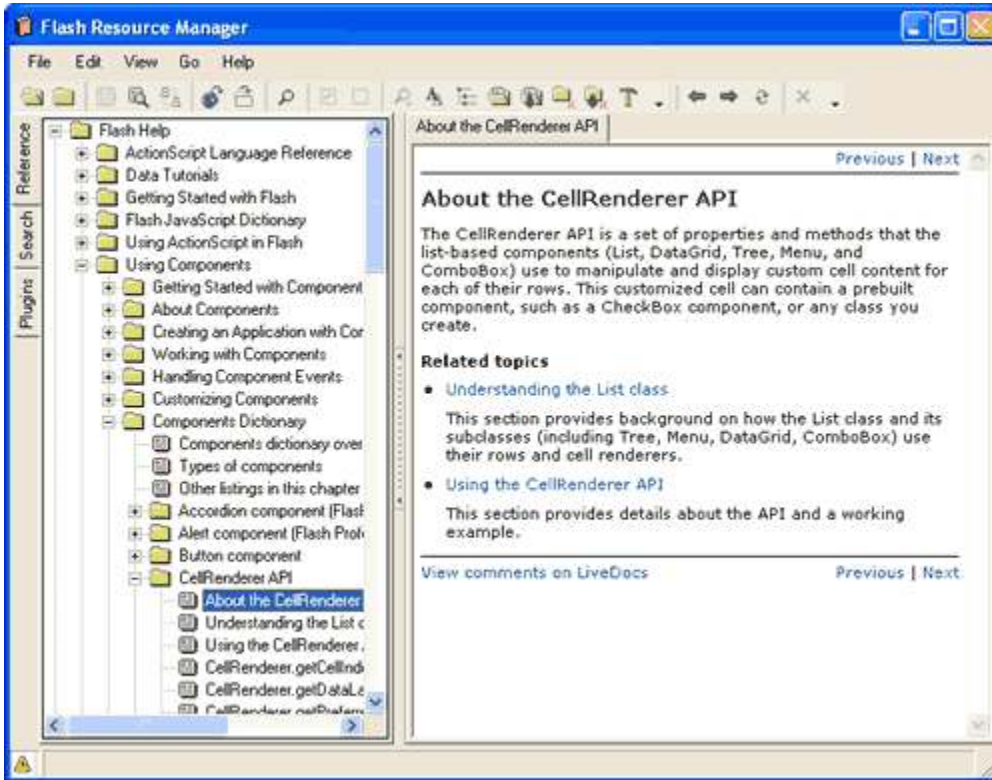
## AdminTool

[AdminTool](http://acmewebworks.typepad.com/admintool/) (<http://acmewebworks.typepad.com/admintool/>) is a unique third-party Flash debugger that uses the [LocalConnection](http://livedocs.macromedia.com/flash/mx2004/main_7_2/00001421.html) ([http://livedocs.macromedia.com/flash/mx2004/main\\_7\\_2/00001421.html](http://livedocs.macromedia.com/flash/mx2004/main_7_2/00001421.html)) class to display "trace" statements outside of the Flash IDE. But that just scratches the surface. The free AdminTool also enables you to take a snapshot of your application and inspect and manipulate movie clips and other objects in real time — even audio and video. You can think of AdminTool as a remote control for your Flash movies. Currently, AdminTool can be implemented via a Flash component, or an external ActionScript class, so it's easy to add to an application.

For more information, see "[Debugging Flash Applications with AdminTool](http://www.communitymx.com/abstract.cfm?cid=B82D5)" (<http://www.communitymx.com/abstract.cfm?cid=B82D5>) " on Community MX.

## Flash Resource Manager

Flash Resource Manager ([http://weblogs.macromedia.com/mesh/archives/2004/07/new\\_version\\_of\\_4.cfm](http://weblogs.macromedia.com/mesh/archives/2004/07/new_version_of_4.cfm)), created by Mike Chambers, aggregates information from Flash help into a single application. It's particularly useful if you author and compile Flash applications without the Flash IDE. You can also search Flash community sites, and add additional help files in [Macromedia LiveDocs](http://livedocs.macromedia.com/) (<http://livedocs.macromedia.com/>) format, such as ColdFusion 7 and Flex.



For more information, see "[Using Flash Resource Manager](http://www.communitymx.com/content/article.cfm?cid=B613C) (<http://www.communitymx.com/content/article.cfm?cid=B613C>)" on Community MX.

## Motion-Twin ActionScript 2 Compiler (MTASC)

What sets [MTASC](http://www.mtasc.org/) (<http://www.mtasc.org/>) apart from other Flash compilers such as [Flush](http://www.debreuil.com/flush/) (<http://www.debreuil.com/flush/>) and [FlashCommand](http://weblogs.macromedia.com/mesh/archives/2003/11/flashcommand_fl.cfm) ([http://weblogs.macromedia.com/mesh/archives/2003/11/flashcommand\\_fl.cfm](http://weblogs.macromedia.com/mesh/archives/2003/11/flashcommand_fl.cfm)) is that Flash MX 2004 doesn't have to be running — or even installed — to compile SWF files. However, MTASC is a command-line compiler and not for the faint of heart. Similar to Java, the compiler expects a static entry point method called `main()` and is much stricter than Flash MX 2004, so you may have to do more debugging before your app compiles successfully. The upside is that MTASC compiles much, much faster than Flash. For more information, see the "[Usage](http://www.mtasc.org/#usage) (<http://www.mtasc.org/#usage>)" and "[Tutorial](http://www.mtasc.org/#tutorial) (<http://www.mtasc.org/#tutorial>)" sections.

## TortoiseCVS

[TortoiseCVS \(http://www.tortoise cvs.org/\)](http://www.tortoise cvs.org/) is a free [CVS \(http://www.cvshome.org/\)](http://www.cvshome.org/) version control client for Windows. If you're working on a team with multiple Flash developers, TortoiseCVS enables you to check out a remote repository, add files, commit them back to the repository, and update your local copy when other developers make changes. What's nice about TortoiseCVS is that it integrates with the Windows Explorer shell, so you can right-click files to perform CVS operations, and you can tell at a glance if a file has been added or committed to CVS. TortoiseCVS also offers built-in support for [WinMerge \(http://winmerge.sourceforge.net/\)](http://winmerge.sourceforge.net/). This means you can right-click an ActionScript file, choose **CVS Diff**, and WinMerge launches to display your current file and the previous version side-by-side. This is useful when you're committing a new version and need to make comments about the latest changes.

For more information, see Arman Danesh's excellent five-part series, "[Using Source Code Management \(http://www.communitymx.com/abstract.cfm?cid=AC471\)](http://www.communitymx.com/abstract.cfm?cid=AC471)," on Community MX.

## Conclusion

We hope you enjoyed this article. If you would like to recommend additional Flash-related tools for inclusion in this article, please use the feedback form below.

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### Keywords

Flash MX 2004, developer, ActionScript 2.0, class, PrimalScript, SciTE|Flash, SE|PY, FLV Meta Data Injector, Mike Chambers, text editor, IDE, eyedropper, NetConnection Debugger, BLDoc, Motion-Twin ActionScript 2 Compiler, MTASC, Flush, TortoiseCVS, CVS, WinMerge, Eclipse, AS Development Tool, ASDT

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