

# Adobe® SVG Viewer for Macintosh

## Release Notes

**Version 2.0 (Build 53)**

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### About the SVG Viewer

The Adobe SVG Viewer supports much of the **Candidate Recommendation** draft specification of SVG published on 11/2/00. Please keep in mind that the specification is under development, and will continue to evolve until it is made a recommended specification.

### How to install the SVG Viewer

1. Before installing, please close any application which you have used to view SVG with an old version of the plug-in.
2. Run the installer. The latest released installers can be downloaded from <http://www.adobe.com/svg/viewer/install>.

### How to copy Netscape plug-ins into other Browsers

If you install another copy of Netscape or Internet Explorer which is supported by the Netscape plug-in, you can copy the following files into your plug-ins folder to view SVG from within that browser:

- SVG Plugin
- SVGViewer.zip

### How to view SVG files in your Web browser

Once you install the Adobe SVG Viewer, you should be able to view supported SVG files in any supported Web browser.

## How to turn artwork into SVG

You can export SVG from Illustrator 9. If you wish to incorporate JavaScript into your SVG you can create your artwork in Illustrator and link to JavaScript functions with the JavaScript Interactivity Pallet and then export it as SVG, or export from Illustrator and add any JavaScript interactivity animation or filter effects by hand.

## Tips and Hints

- Style attributes (or style attributes that use entity references) render more quickly than embedded stylesheets.
- Use tightly-bound percentages on the `x`, `y`, `width`, and `height` attributes on `filter` elements in order to minimize the area over which the filter effect needs to be calculated. This will result in graphics which display much more quickly.
- You can retrieve the SVG document object from within SVG event handlers by calling `getTarget` on the `evt` object which is passed in. For example:

```
// Retrieve the SVG document object:
var directTarget = evt.getTarget();
var svgDocument;
if( directTarget.getNodeType() != 9 ) // if not DOCUMENT_NODE
    svgDocument = directTarget.getOwnerDocument();
else
    svgDocument = directTarget;
```

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## System Requirements

- System 8.5 through 9.0 (System 10 is not supported)
- Netscape Navigator or Communicator versions 4.07 through 4.75, or Internet Explorer 5.0 or higher (unscripted SVG only). Netscape 6 is not supported.
- 10 MB of hard disk space
- 48 MB of RAM recommended

**Note:** The SVG Viewer installer increases the memory partitions for supported browsers so that you can view SVG correctly. If you decrease the browser memory partitions, you might not be able to view some SVG graphics any more. The following table lists the memory required for each browser:

	Virtual Memory On		Virtual Memory Off	
	Minimum	Preferred	Minimum	Preferred
Internet Explorer	11MB	15MB	11MB	17MB
Netscape	19MB	23MB	19MB	23MB

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## Known Problems with the SVG Viewer

### All Browsers

1. If you upgrade from Adobe SVG Viewer 1.0 and you are using OS 9, you will need to remove the Adobe SVG Viewer 1.0 plug-in files from your Internet Explorer plug-ins folder before you will be able to use Version 2.0 of the Adobe SVG Viewer in Internet Explorer.
2. It's possible for elements near the edge of an SVG graphic to not receive a mouseout event.
3. The SVG specification's support for masks has changed significantly since Illustrator 9 shipped, so Adobe SVG Viewer 2.0 might not display SVG masks exported from Illustrator 9.
4. The Mac Viewer is unable to handle very short audio clips. To help insure that a short audio clip is not dropped, it's best to include some leading silence (or some other snippet of audio which can be dropped), and then adjust the timing accordingly.
5. There is a bug in the Mac OS 9.1 Finder which prevents the Adobe SVG Viewer's installer from increasing the memory partition of the browser as outlined in the [System Requirements](#) section.

## Internet Explorer

1. Internet Explorer on the Macintosh does not provide JavaScript access to plug-ins. This means that the Adobe SVG Viewer plug-in for the Macintosh can't use JavaScript, and so SVG viewed in Internet Explorer for the Macintosh won't be interactive (although declarative animation still works). Additional side-effects of this are that the "View Source" command is not supported on Internet Explorer on the Mac, and the "About Adobe SVG Viewer" command goes to the SVG page at Adobe.com instead of displaying the about box graphic.
2. Internet Explorer may crash if you view complex SVG files. You can usually work around this problem by increasing Internet Explorer's memory partition.
3. Do not use the deprecated `align` attribute on the `embed` tag when embedding SVG files in HTML. Internet Explorer on the Mac will often not draw or print plug-ins that are embedded with these attributes.
4. Internet Explorer will sometimes fail to pass the SVG file on to the Viewer (it will pass an empty file, instead) if the SVG file has a `<script>` element in it, and no XML prolog. Instead, Internet Explorer will try to interpret the SVG file as HTML, even if the server is sending the correct MIME type for SVG. To work around this problem, make sure you always include an XML prolog in all SVG files.
5. If you want to drag and drop an SVG file from the Finder into Internet Explorer 5, you must make sure that the Mac file type is 'svg ' ("svg" followed by a space), or else Internet Explorer 5 will try to parse the SVG file itself instead of passing the file to the Adobe SVG Viewer (and Internet Explorer 5 does not know how to display SVG files).

## Netscape

1. Netscape 4.x plug-ins cannot execute `onunload` scripts because at the time the plug-in receives notification from Netscape that the plug-in is being unloaded, the plug-in's script environment has already been closed down.
2. Netscape 6.0 reports errors when printing pages with plug-ins, and then fails to print embedded contents. Netscape will report two plugin error alerts. Dismissing the alerts presented will then result in Netscape printing the HTML page, but with blank area for the SVG content.
3. When you leave a Web page, Netscape can often unload the Adobe SVG Viewer plug-in before Netscape terminates all scripts running in the HTML. Therefore you should be careful when writing scripts to check to see if the plug-in is still loaded before you attempt to access the SVG DOM from `setTimeout` or `setInterval` callbacks in your HTML JavaScript.
4. Due to design limitations of Netscape, avoid using HTML with the following form:

```
<a href="#" onclick="myScriptWhichModifiesSVG()">
```

The problem is that JavaScript responds to the onclick event and begins executing the script, but then Netscape also responds to the fact that you clicked on a link, and interrupts JavaScript to re-load the current page. This conflict can be avoided by re-writing the code as follows:

```
<a href="javascript:myScriptWhichModifiesSVG()">
```

5. If a JavaScript event handler contains an error, any subsequent JavaScript will fail to execute. This is due to a bug in Netscape's handling of scripts executed by plug-ins.
6. Due to Netscape script limitations, you can't change the URL of another frame from an SVG event handler.
7. Due to Netscape script engine limitations, calling the `alert()` function from within an SVG event handler might not work, and it might cause subsequent JavaScript to no longer execute. Similar problems occur for any Netscape modal window, including the security privileges window. This bug appears to have been partially fixed by Netscape in Netscape 4.75, but not on Windows 98.
8. There is a bug in Netscape involving plug-ins that use JavaScript. If you load a page with a plug-in that uses JavaScript and then disable Java and quit the browser, Netscape will crash.
9. Netscape does not always allow you to access the `document.embeds[]` array from within an SVG script. To work around this, use `document.mySVG`, where `mySVG` is the name of your embed object.
10. Netscape 4.x will crash if a plug-in invokes a link to a JPEG file. To work around this problem, embed your JPEG file in HTML or SVG before you link to it from your SVG file.
11. After loading a page with plug-ins, the Netscape 4.x toolbar will be grayed out until you click on the content of the page.
12. Currently, you must increase your Netscape memory partition to at least 35 MB to be able to print SVG.
13. There is a bug in the Netscape plug-in API involving frames. To work around it, do not use the `<a href="some.svg" target="some-frame">` format to display SVG content in another frame which is already displaying SVG. Instead, use the "setSrc(url)" method of the SVG Plugin in the target frame.
14. If you try to view multiple SVG files at once, you may run into Netscape memory limitations, resulting in a failure to load the SVG file. In this case, you can increase Netscape's memory partition to allow you to view more SVG files at once.
15. Netscape has a fatal bug in its code for handling full-page printing of plug-ins on the Mac. We have implemented a temporary work-around which does not yet allow you to cancel full-page SVG printing on the Mac--in this case the system will be unresponsive until the page has printed.
16. Netscape 4.05 for the Mac has a bug in the plug-in API such that it will not load some plug-ins, falsely indicating that there is insufficient memory.
17. Netscape has a bug with the way it handles plug-ins in tables, and the bug becomes more obvious the deeper you nest the tables. Netscape tells the plug-in to draw on the wrong part of the page, and there's no way for the plug-in to know that it's the wrong part. Therefore we recommend that you avoid using tables with the Adobe SVG Viewer on the Mac. Netscape has fixed this bug in Netscape 4.75.
18. All Netscape 4.x versions on the Mac have a bug involving printing pages that contain embedded plug-ins. If you print a Web page from one of these browsers and then hit the "back", "home", and "back" buttons several times, Netscape will eventually crash. If you wait about ten seconds after printing, Netscape is sometimes able to recover and avoid the crash.
19. Netscape on the Mac reloads pages in frames when you resize the window. Because of this, any SVG DOM object that JavaScript holds on to will point to an old version of the document once the window is re-sized. To work around this problem, do not cache SVG DOM objects in JavaScript variables between event handler, `setTimeout`, or `setInterval` calls.

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## Revision History

## Changes since version 1.0 of the Adobe SVG Viewer

- Updated to support the **Candidate Recommendation** draft specification of SVG published on 11/2/00. The 2.0 Viewer retains backward compatibility with the 1.0 Viewer where possible, and therefore supports much of the 3/3/00 draft specification of SVG. However, some features of the specification (such as the handling of CSS units) have changed so significantly that it was not possible to retain backward compatibility.
- Elements and Attributes:
  - Added support for the following elements: `altGlyph`, `altGlyphDef`, `font`, `font-face`, `glyph`, `glyphRef`, `hkern`, `missing-glyph`, `mpath`, `pattern`, `switch`, and `vkern`.
  - Added support for the SVG Presentation Attributes.
  - Finished support for use element use of `symbol` elements.
  - Added support for the `spreadMethod` attribute on gradients.
  - Added support for the new attribute `primitiveUnits` on filter effects.
  - Added support for "discrete" mode for `feComponentTransfer`.
- CSS properties:
  - Added support for the following CSS properties: `alignment-baseline`, `color-interpolation`, `direction`, `dominant-baseline`, `flood-color`, `flood-opacity`, `kertering`, `lighting-color`, `pointer-events`, and `unicode-bidi`. Support for the `pointer-events` property does not include support for transparency on raster elements.
  - Added support for the `font-variant` property, but only when applied to SVG fonts.
  - Removed support for the `baseline-identifier` property, which has been replaced with the `alignment-baseline` property in the most recently supported specification.
  - Changed the default values for the properties `clip-rule` and `fill-rule` from `even-odd` to `non-zero` to reflect the changes in the most recently supported specification.
  - The latest Candidate Recommendation draft specification for SVG changes the way CSS units are handled. They are now converted to user space on parse, rather than being converted at display time. This significantly changes the way the "Zoom" command works.
- DOM:
  - The Viewer's DOM Level 2 support now conforms to the Candidate Release specification for DOM 2, except for the `KeyEvent` interface, which is not specified in the DOM 2 Candidate Release specification. Support for the `KeyEvent` interface conforms to the last DOM 2 published version of that interface, in the 9/99 draft specification.
  - Added support for the `SVGRect` interface.
  - Added support for the `SVGPoint` interface, except for the method `matrixTransform`.
  - Added support for the `SVGTextContentElement` interface, except for the `getTextLength` and `getLengthAdjust` properties.
  - Added support for `rootElement`, `getRootElement`, `currentScale`, `getCurrentScale`, `setCurrentScale`, `currentTranslate`, `getCurrentTranslate`, and `setCurrentTranslate` on the `SVGDocument` interface.
  - Added support for the DOM2 methods `hasAttribute` and `hasAttributeNS` on the `Element` interface.
  - Added support for a new, non-standard, method on the `Document` object called `garbageCollect`. This method takes no parameters and returns no results. Calling this method will free up any Node objects that have previously been removed from the tree. If a script has performed an operation that results in the removal of a node from the tree, once the script has no further use for the removed (and returned) node, the script should call `garbageCollect` on the SVG document. Once called, any reference a script has to a node which was not part of the document when `garbageCollect` was called will always fail when its methods are accessed. This is only of benefit for Netscape browsers, since Netscape's LiveConnect does not offer weak reference support. For easy cross-

platform support, this call can be made under Internet Explorer, but it will do nothing on that platform.

- Other Changes:

- To conform to the latest Candidate Recommendation draft specification for SVG, support for `userSpace` units has been dropped.
- Added support for user stylesheets. The SVG Viewer looks for a file named `SVG-User-Styles.css`, according to the following search strategy:

Operating System	Paths Searched
Windows 2000	<ol style="list-style-type: none"> <li>1. My Documents</li> <li>2. \Documents And Settings\<user>\Application Data</user></li> <li>3. \Documents And Settings\<user>\Local Settings\Application Data</user></li> <li>4. \Documents And Settings\All Users\Application Data</li> </ol>
Windows 98	<ol style="list-style-type: none"> <li>1. My Documents</li> </ol>
Windows NT	<ol style="list-style-type: none"> <li>1. \WINNT\Profiles\<user>\Personal</user></li> <li>2. \WINNT\Profiles\<user>\Application Data</user></li> </ol>
Macintosh OS 8.x	<ol style="list-style-type: none"> <li>1. System Folder:Preferences</li> <li>2. Startup Volume:Documents</li> </ol>
Macintosh OS 9.x (single-user)	<ol style="list-style-type: none"> <li>1. System Folder:Preferences</li> <li>2. System Folder:Users:&lt;user&gt;</li> <li>3. Startup Volume:Documents</li> </ol>
Macintosh OS 9.x (multi-user)	<ol style="list-style-type: none"> <li>1. Startup Volume:Users:&lt;user&gt;:Preferences</li> <li>2. Startup Volume:Documents</li> </ol>

- The Adobe SVG Viewer now has its own color management support built in. This support will attempt to locate a suitable device profile for your display. If your computer has color management software installed and a monitor profile has been selected, then this monitor profile will also be used by the Viewer. If you do not have color management installed, or you have disabled it, the Viewer will look for an Adobe Monitor Settings profile on your system. This profile is created by the Adobe Gamma tool (installed with other Adobe products), and is usually stored in the same directories as other color profiles on the host system. Failing to find any suitable device profile, the Viewer will fall back on the standard sRGB profile and use that for all rendering.
- The Netscape plug-in now supports DOM access from Java clients.
- The ActiveX control now supports non-JavaScript (e.g. Visual Basic) event handlers.
- Modifications for Windows 2000 compatibility.
- Added an alternate way to pan SVG graphics with the keyboard for accessibility. If the scroll-lock is on, the arrow keys will pan the SVG graphic that has the focus.
- Performance enhancements involving multiple simultaneous animations within the same SVG file. SVG files with small, widely-spaced simultaneous animations should generally display faster in the current version than in Version 1.0.
- Mac plug-in performance enhancements.
- Improved support for vertical text.
- Added support for bi-directional text.

- General performance optimizations.
  - Modified `feImage` to work like the `use` element.
  - Updated support for PNG images.
  - Memory usage optimizations.
  - Added support for animating paths.
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## Contact Information

To report bugs and/or provide feedback, please go to the [SVG Zone](#) on Adobe.com.

## Copyright Notice

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