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Extending Fireworks

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CHAPTER 1
Extending Fireworks Overview

To extend Macromedia Fireworks MX 2004, you must write JavaScript code. You can use JavaScript to write your own objects and commands that affect Fireworks documents and the elements within them. To accomplish these tasks, you must be proficient in JavaScript and in Fireworks.

This guide introduces the Fireworks Object Model, explains how to write cross-product extensions (extensions written in, or for, other Macromedia applications), and discusses the JavaScript Auto Shape construction. The final chapter is a reference to the Fireworks JavaScript application programming interface (API)—the custom JavaScript functions that are built into Fireworks.

Prerequisites

Because Fireworks extensions must be written in JavaScript, this guide assumes that readers are familiar with JavaScript syntax and with basic programming concepts such as functions, arguments, and data types. It also assumes that readers understand the concept of working with objects and properties. This guide does not attempt to teach programming in general or JavaScript in particular.

Anyone who wants to extend Fireworks should have a good JavaScript reference to help with syntax questions (for example, is it `substring()` or `subString()`?). Useful JavaScript references include *JavaScript Bible* by Danny Goodman (IDG), *JavaScript: The Definitive Guide* by David Flanagan (O'Reilly), and *Pure JavaScript* by R. Allen Wyke, Jason D. Gilliam, and Charlton Ting (Sams). For a free JavaScript reference, see: http://devedge.netscape.com/library/manuals/2000/javascript/1.5/reference.

Installing an extension

As you start learning the process of writing extensions, you might want to explore the extensions and resources already available through the Macromedia Exchange website (www.macromedia.com/exchange). By installing an existing extension, you will become familiar with some of the tools that you need to work with your own extensions.

To install an extension:

1. Download and install the Extension Manager, which is available on the Macromedia Downloads website (www.macromedia.com/software/downloads).
2. Log on to the Macromedia Exchange website (www.macromedia.com/exchange).
3. Click the Fireworks Exchange link.
4. From the available extensions, select one that you want to use. Click the Download link to download the extension package.
5. Save the extension package in a directory on your machine.
6. In Fireworks, choose Commands > Manage Extensions to start the Extension Manager (or, you can start Extension Manager, located in the Macromedia program group, independently from Fireworks).
7. In the Extension Manager, choose File > Install Extension, and choose the extension package you just saved.

   The Extension Manager automatically installs the extension into Fireworks.

You cannot begin using some extensions until you restart Fireworks. If you are running Fireworks when you install the extension, you might be prompted to quit and restart the application.

To view basic information on the extension after its installation, go to the Extension Manager (Commands > Manage Extensions) in Fireworks.

What's new in Extending Fireworks MX 2004

Fireworks MX 2004 includes the following new features and interfaces that you can use to develop extensions for the product:

- **Cross-product JavaScript communication**

  Cross-product JavaScript communication allows any application to control Fireworks by sending JavaScript instructions directly to Fireworks encoded in XML through a local socket. Through this connection, Fireworks can do anything that is supported in the Fireworks API.
- **Event handling for SWF panels**

  Third-party command panels developed in Flash for Fireworks (SWF command panels) can listen and respond to events that happen inside Fireworks MX 2004. So, if you develop a SWF command panel that creates a specific object for the user (such a spiral pattern), you can also leverage the new Fireworks event handling so the user can inspect the object and adjust the object properties.
- **Auto Shapes**

  Along with the new Auto Shapes implementation, the Fireworks M X 2004 API lets you define an Auto Shape entirely in JavaScript. (For information about working with Auto Shapes in Fireworks, see Using Fireworks Help.)

Conventions used in this guide

The following typographical conventions are used in this guide:

- `Code` font indicates code fragments and API literals, including class names, method names, function names, type names, scripts, SQL statements, and HTML and XML tag and attribute names.
- *Italic code* font indicates replaceable items in code.
- The continuation symbol (¬) indicates that a long line of code has been broken across two or more lines to fit on the page. When copying the lines of code, eliminate the continuation symbol and type the code as one line.
- Curly braces ({ }) around a function argument indicate that the argument is optional.

The following naming conventions are used in this guide:

- *You* refers to the developer who is responsible for writing extensions.
- *The user* refers to the person using Fireworks.
- *The visitor* refers to the person who views the graphic that the user created.

Additional resources for extension writers

To communicate with other developers who are writing extensions, you can visit the Fireworks Online Forums. The Fireworks Online Forums are available through www.macromedia.com/support/fireworks/ts/documents/fwnewsgroup.htm.

CHAPTER 2
The Fireworks Object Model

If you want to extend the functionality of Macromedia Fireworks MX 2004 by writing or modifying a JavaScript extensibility file, you must become familiar with the objects that Fireworks makes available through JavaScript. The hierarchy of these objects makes up the Fireworks Object Model, containing the following major components:

- Five global methods that are available from any part of the application and need not be declared as methods of a particular object. These methods are described in "Global methods" on page 12.
- Four core objects: Document, Errors, Files, and Find. These objects and their properties and methods are described in detail in "Core objects" on page 12. (The App object that was used in Fireworks 3 is supported for backward compatibility, but its use is deprecated in favor of the Fireworks object.)
- The Fireworks object, which is described in "The Fireworks object" on page 22.
- Numerous objects associated with Fireworks documents, such as ExportOptions, Guides, Path, Image, and Text. These objects and their properties are described in "Objects within Fireworks documents" on page 26.
- A set of objects that you can use to specify the format of HTML code when exporting from Fireworks. These are described in "HTML export objects" on page 64.

Using the Fireworks Object Model

When scripting extensions for Fireworks, you write JavaScript commands that send calls to the Fireworks Object Model to determine or change the current settings for a Fireworks document. For example, the following command calls the Fireworks object (`fw`) to obtain the path to the Export Settings directory (`appExportSettingsDir`), which is expressed as a file://URL. In other words, `fw` references the Fireworks global object, of which `appExportSettingsDir` is a property (see "The Fireworks object" on page 22), so a JavaScript command can assign the resulting value to a variable, as follows:

```
var expSetDir = fw.appExportSettingsDir;
```

Accessing a Fireworks document

All the functions listed in "Document functions" on page 104 are methods of the Document object, which represents a Fireworks document. To perform a function on a Document object, you must first get the Document Object Model (DOM) of the document. You then call the functions as methods of that DOM.

Note: You can use methods that operate on a document's DOM only on open documents.

- To use a DOM function with a document other than the active document, use the following syntax; note that *documentIndex* is a zero-based index that specifies which document the command will affect.

  ```
  fw.documents[documentIndex].functionName();
  ```

- To use a DOM function with the active document, use `fw.getDocumentDOM().functionName()`, see `fw.getDocumentDOM()`.

Passing values

For all properties that are not read-only, you can pass values to change elements of a document. For example, the following command sets the fifth brush in the third open document to a square shape:

```
fw.documents[2].brushes[4].shape = "square";
```

The preceding example includes the following properties:

- `documents` is a property of the Fireworks object and contains an array of Document objects.
- `brushes` is a property of the Document object and contains an array of Brush objects.
- `shape` is a property of the Brush object.

Note: Throughout this manual, optional arguments are enclosed in {braces}.

Fireworks Object Model calls and API calls

In some cases, you can use Fireworks Object Model calls or API calls to perform the same operations. In other cases, a certain function might be available in either the Fireworks Object Model or the API, but not in both.

For example, if the first open document is the current document, the first code fragment has the same effect as the second and third code fragments. The `fw.getDocumentDOM()` function references the current document (see "Accessing a Fireworks document" on page 10).

```
fw.getDocumentDOM().setDocumentResolution({pixelsPerUnit:72, units:"inch"});
fw.documents[0].resolution =72;
fw.documents[0].resolutionUnits ="inch";
```

Formatting nonstandard data types

In addition to the standard data types that can be passed to functions as arguments, or used as properties, such as integer, string, and so on, Fireworks accepts other data types.

- Some functions accept values that are Fireworks objects. For an explanation of these objects, see "The Fireworks Object Model" on page 9.
- Some functions accept a string in a specific format. Others accept value types that are not Fireworks objects but are JavaScript object types that are specific to Fireworks. These types of arguments are described next, in alphabetical order.

Color string data type

Functions that accept colors as arguments use the HTML syntax `"#rrggbb"`. You can specify a color with an alpha (transparency) component by passing a longer string of the form `"#rrggbbaa"`.

Mask data type

The format for a mask is `{maskBounds: rectangle, maskKind: string, maskEdgeMode: string, featherAmount: int, maskData: hex-string}`.

- `maskBounds` specifies the bounding rectangle of the mask area.
- Acceptable values for `maskKind` are `"rectangle"`, `"oval"`, `"zlib compressed"`, `"rle compressed"`, or `"uncompressed"`.
- If the value of `maskKind` is `"rectangle"` or `"oval"`, the `maskData` string is ignored, and a mask of the right shape is constructed that fills `maskBounds` and that has the edge specified by `maskEdgeMode` and `featherAmount`.
- If the value of `maskKind` is `"zlib compressed"`, `"rle compressed"`, or `"uncompressed"`, the `maskData` string is presumed to contain 8-bit mask data in hexadecimal format that precisely matches the `maskBounds` to define the mask.

Matrix data type

The format for a matrix is `{matrix: [float, float, float, float, float, float, float, float, float]}`. This guide assumes that you know how to use these nine values to construct a three-by-three transformation matrix; discussion of the construction of transformation matrices is beyond the scope of this manual.

Point data type

The format for a point is `{x: float, y: float}`. For instance, `dom.addNewLine(startPoint, endPoint)` could look like the following example:

```
fw.getDocumentDOM().addNewLine({x:64.5, y:279.5}, {x:393.5, y:421.5});
```

Rectangle data type

The format for a rectangle is `{left: float, top: float, right: float, bottom: float}`. For instance, `dom.addNewOval(boundingRectangle)` could look like the following example:

```
fw.getDocumentDOM().addNewOval({left:72, top:79, right:236, bottom:228});
```

Resolution data type

The format for resolution is `{pixelsPerUnit: float, units: string}`. Acceptable values for units are "`inch`" or "`cm`". For instance, `dom.setDocumentResolution(resolution)` could look like the following example:

```
fw.getDocumentDOM().setDocumentResolution({pixelsPerUnit:72, units:"inch"});
```

Global methods

The following table lists the global Fireworks methods, along with their argument data types and, where appropriate, acceptable values and notes.

Method	Data type	Notes
`alert(message)`	string	Displays a string in a modal alert box, along with an OK button. Returns nothing.
`confirm(message)`	string	Displays a string in a modal alert box, along with OK and Cancel buttons. Returns `true` if OK is clicked, `false` if Cancel is clicked.
`prompt(caption, text)`	string, string	Prompts the user (with the string that is specified by text) to enter a string in a modal dialog box; the dialog box is titled with the string that is specified by caption. Returns the string entered if OK is clicked, `null` if Cancel is clicked.
`write(arg1, arg2, ..., argN)`	string	Same as `WRITE_HTML`; `WRITE_HTML` was created to let you differentiate HTML output calls from other JavaScript calls in your code.
`WRITE_HTML(arg1, arg2, ..., argN)`	string	Available only when exporting. Converts each argument to a string and writes it to the HTML output file. To enter an end-of-line character, use "`\n`"; this is converted to the correct line ending for your platform. For more information, see "HTML export objects" on page 64.

Core objects

This section describes the four core objects that are always available: Document, Errors, Files, and Find.

Note: For information on how to format nonstandard data types, such as rectangle or point, see "Formatting nonstandard data types" on page 11.

Document object

The following table lists the properties of the Document object, along with their data types, acceptable values and notes. Read-only properties are marked with a bullet (•). You can also use many API calls to work with documents. For more information, see "Document functions" on page 104.

Property	Data type	Notes
`backgroundColor`	string	A color string that specifies the document canvas color (see "Color string data type" on page 11).
`backgroundURL`	string	Sets a general URL for a document that uses a Hotspot. Everything that is not covered by the Hotspot has the background URL.
`brushes` •	array	Array of Brush objects that are available for use in the document (see "Brush object" on page 26).
`currentFrameNum`	zero-based index	The index of the current frame.
`currentLayerNum`	zero-based index	The index of the current layer.
`defaultAltText`	string	Default Alt text for the output images. It works for single and sliced images. Sliced images get the default, unless specific text is specified for a slice. Corresponds to the text that is specified in File › HTML Properties › ImageMap › AltImageDescription.
`docTitleWithoutExtension`	string	The title of the document file, without any file extension. If the document has not been saved, this string is empty.
`exportFormatOptions`	object	Identical to `exportOptions`. Included for backward compatibility with Fireworks 2.
`exportOptions`	object	ExportOptions object (see "ExportOptions object" on page 46).
`exportSettings`	object	ExportSettings object (see "ExportSettings object" on page 49).
`filePathForRevert`	string	The path to the file from which this document was opened, which is expressed as *file:// URL*, or `null` if created from scratch.
`filePathForSave`	string	The location to which this document was saved, which is expressed as *file://URL*, or `null` if never saved.
`fills` •	array	Array of Fill objects that are available for use in the document (see "Fill object" on page 51).
`frameCount`	integer	The number of frames in the current document.

Property	Data type	Notes
`frameLoopingCount`	integer	-1 – don't repeat 0 – repeat forever › 0 – repeat this number of times
`frames` •	array	Array of Frame objects in the document (see "Frame object" on page 52).
`gammaPreview`	Boolean	If set to `true`, the document should be previewed in opposite-platform gamma. If set to `false`, the document colors are unadjusted.
`gradients` •	array	Array of Gradient objects that are available for use in the document (see "Gradient object" on page 53).
`gridColor`	string	A color string that specifies the color of the grid display (see "Color string data type" on page 11).
`gridOrigin`	point	Used to set the origin of the grid. Corresponds to the point set when dragging the ruler origin from the upper left of the document when rulers are visible.
`gridSize`	point	`gridSize.x` is the horizontal grid size; `gridSize.y` is the vertical grid size.
`guides` •	object	Guides object (see "Guides object" on page 53).
`height`	integer	Total height of the document, in pixels. To find the bottom edge of the document, use document. `top + document.height`.
`isDirty`	Boolean	Set to `true` if the document was modified since the last ti me it was saved.
`isPaintMode` •	Boolean	Set to `true` if the document is currently in paint-mode editing, `false` otherwise.
`isSymbolDocument` •	Boolean	Set to `true` if the document is a Symbol or Button document, `false` if it is an ordinary document. You might see this when looking through the list of open documents and one is a symbol-editing window.
`isValid`	Boolean	Set to `true` if the document is open in Fireworks; `false` otherwise. (Occasionally the JavaScript object that is associated with a document lingers after the document closes; this property lets you check for that eventuality.)

Property	Data type	Notes
`lastExportDirectory`	string	The path to the last directory to which the file was exported, which is expressed as *file:// URL*, or `null` if the file was never exported. For instance, if the document was last exported to `"file:///files/current/logo.gif"`, it returns `"file:///files/current"`.
`lastExportFile`	string	The name that was used the last time the file was exported, or `null` if the file was never exported. For instance, if the document was last exported to `"file:///files/current/logo.gif"`, it returns `"logo.gif"`.
`layers` •	array	An array of `Layer` objects in the document (see "Layer object" on page 54).
`left`	integer	Coordinate of the left edge of the document, in pixels. To find the right edge of the document, use `document.left + document.width`.
`mapType`	string	Acceptable values are `"client"`, `"server"`, and `"both"`. Corresponds to the image-map type selected in File › HTML Properties › ImageMap.
`matteColor`	string	A color string that corresponds to the matte color specified in the Optimize panel (see "Color string data type" on page 11). This string is used by the `useMatteColor` property.
`onionSkinAfter`	integer	Number of frames after the current frame to show through onion skinning. Corresponds to the onion-skin controls in the left edge of the Frames panel. A value of `0` indicates no onion skinning; a very large value (such as `99,999`) indicates onion skinning of all frames after the current frame.
`onionSkinBefore`	integer	Similar to the `onionSkinAfter` property, but refers to the number of frames to show through onion skinning before the current frame.
`patterns` •	object	List of internal pattern names.
`pathAttributes`	object	PathAttrs object (see "PathAttrs object" on page 54). This object specifies default attributes that will be applied to all newly created objects.
`pngText`	object	A structure that can be used to store various chunks of text in a well-known format. For more information, see "The pngText object" on page 16.

Property	Data type	Notes
`resolution`	float	Document resolution, in pixels per unit (see `resolutionUnits`). The range is 1 to 5000.
`resolutionUnits`	string	The units to be used with the `resolution` property. Acceptable values are `"inch"` and `"cm"`.
`textures` •	array	Array of Texture objects that are available for use in the document (see "Texture object" on page 44).
`top`	integer	Coordinate of the top edge of the document, in pixels. To find the bottom edge of the document, use `document.top + document.height`.
`useMatteColor`	Boolean	If set to `true`, the `matteColor` property is used when exporting documents with transparent backgrounds. If set to `false`, the `matteColor` property is ignored in this situation, and the exported file is matted against the document's canvas color.
`width`	integer	The width of the document, in pixels. To find the right edge of the document, use `document.left + document.width`.

The pngText object

Fireworks maintains the following fields for use with the pngText object:

Field name	Value
`CreationTime`	The date and time the document was created.
`Software`	The software used to create the document. The current version of Fireworks always sets this value to "Macromedia Fireworks MX 2004."

You can edit these or add your own fields, and they will be preserved across file saves.

The pngText object corresponds directly to the `'tEXt'` chunk of the document's PNG structure.

Errors object

All `Errors` object properties are read-only strings that are used to simplify the localizing of scripts. They return localized error messages appropriate to the specific error. For example, the English version of Fireworks returns `"Memory is full."` for the `EOutOfMem` property.

Here is an alphabetical list of the properties of the Errors object:

```
EAppAlreadyRunning, EAppNotSerialized, EArrayIndexOutOfBounds,
  EBadFileContents, EBadJsVersion, EBadNesting, EBadParam, EBadParamType,
  EBadSelection, EBufferTooSmall, ECharConversionFailed, EDatabaseError,
  EDeletingLastMasterChild, EDiskFull, EDuplicateFileName, EFileIsReadOnly,
  EFileNotFound, EGenericErrorOccurred, EGroupDepth, EIllegalThreadAccess,
  EInternalError, ELowOnMem, ENoActiveDocument, ENoFilesSelected,
  ENoNestedMastersOrAliases, ENoNestedPasting, ENoSliceableElems,
  ENoSuchElement, ENotImplemented, ENotMyType, EOutOfMem, EResourceNotFound,
  ESharingViolation, EUnknownReaderFormat, EUserCanceled, EUserInterrupted,
  EWrongType
```

Files object

The following table lists the methods of the Files object, along with their data types and, where appropriate, acceptable values and notes.

Method	Data type	Notes
`close()`	none	Closes the file referred to by this Files object. You are not required to use this method (the file is closed when the Files object is destroyed), but it is useful for controlling access to a file.
`copy(`*`docname1`*`,` *`docname2`*`)`	string, string	Copies the file specified in the first argument to the file specified in the second argument. Each argument must be the name of a file, which is expressed as *file://URL*. Only files (not directories) can be copied. The files do not need to reside on the same drive, and the method does not overwrite a file if it already exists. Returns a value of `true` if the copy is successful; `false` otherwise.
`createDirectory(dirname)`	string	Creates the specified directory. Returns `true` if successful; `false` otherwise.
`createFile(fileURL, fileType, fileCreator)`	string, string, string	Creates the specified file. The file must not already exist. The first argument is the name of the file, which is expressed as *file://URL*. The last two arguments let you specify the file type and file creator strings. The *`fileType`* and *`fileCreator`* strings should each be strings of exactly four characters in length, for example: `Files.createFile(newFile,".txt","FWMX");`
`deleteFile(docOrDir)`	string	Deletes the specified file or directory. Returns `true` if successful; `false` if the file or directory does not exist or cannot be deleted. Compare with `deleteFileIfExisting()`.

Method	Data type	Notes
`deleteFileIfExisting (docOrDir)`	string	Deletes the specified file or directory. Returns `true` if successful; `false` if the file or directory cannot be deleted. Unlike `deleteFile()`, this method returns `true` if the file or directory does not exist.
`enumFiles(docOrDir)`	string	Returns an array of file URLs. If *`docOrDir`* is a directory, the array contains an entry for every file or directory that is contained in the specified directory. If *`docOrDir`* is a file, the array contains a single entry (the file passed in).
`exists(docOrDir)`	string	Returns `true` if *`docOrDir`* refers to a directory or file that exists; `false` otherwise.
`getDirectory(docname)`	string	Returns only the directory name from *`docname`*, which is expressed as *file:///URL*. For example, `Files.getDirectory("file:///work/logo.png")` returns `"file:///work"`.
`getExtension(docname)`	string	Returns the filename extension, if any, of docname. For example, `Files.getExtension("birthday.png")` returns `".png"`. If the filename has no extension, an empty string is returned. A filename that is expressed as *file:///URL* is acceptable.
`getFilename(docname)`	string	Returns just the filename from *`docname`*, which is expressed as *file:///URL*. For example, `Files.getFilename("file:///work/logo.png")` returns `"logo.png"`.
`getLastErrorString()`	none	If the last call to a method in a Files object resulted in an error, returns a string that describes the error. If the last call succeeded, returns `null`.
`getTempFilePath ({dirname})`	string	The argument, if used, must be expressed as *file:///URL*. Returns a file URL in the Temporary Files directory or in the specified directory. This method does not create a file; it simply returns a unique file URL that does not conflict with existing files in the directory. If *`dirname`* is passed and is not `null`, the URL that is returned indicates a file in the specified directory rather than in the Temporary Files directory.
`isDirectory(dirname)`	string	The argument must be expressed as *file:///URL*. Returns `true` if the specified URL refers to a directory that exists; `false` otherwise.

Method	Data type	Notes
`makePathFromDirAndFile(dirname, plainFilename)`	string, string	The first argument must be expressed as *file:///URL*. Concatenates the two arguments to return a file URL that references the specified filename in the specified directory. For example, `Files.makePathFromDirAndFile("file:///work/reports", "logo.png")` returns `"file:///work/reports/logo.png"`.
`open(docname, bWrite)`	string, Boolean	The first argument must be expressed as *file:///URL*. Opens the specified file for reading or writing. If the second argument is `true`, the file opens for writing; otherwise it opens for reading. If the file cannot be opened, returns `null`; otherwise, returns a Files object.
`readline()`	none	Reads the next line from the file that is referred to by the current Files object and returns it as a string. The end-of-line character(s) are not included in the string. Returns `null` if end-of-file is reached or if the line is more than 2048 characters.
`rename(docname, newPlainFilename)`	string, string	The *`docname`* argument is a file path or a file URL to the file that you want to rename. The *`newPlainFilename`* argument is the new name to assign to the file. The `rename` method returns a URL path of the newly renamed file if successful; otherwise Fireworks returns `null`.
`setFilename(docname, newPlainFilename)`	string, string	The first argument must be expressed as *file:///URL*. Returns a file URL with *`docname`* replaced by *`newPlainFilename`*. For example, `Files.setFilename("file:///work/logo.png", "oldlogo.png")` returns `"file:///work/oldlogo.png"`. This method does not affect the file on disk; it simply provides a convenient way to manipulate file URLs. To change the name on disk, use `rename()`.
`swap(docname1, docname2)`	string, string	Each argument must be expressed as a file:// URL. Swaps the contents of the two specified files, so that each file contains the contents of the other file. Only files (not directories) can be swapped, and both files must reside on the same drive. Returns `true` if the swap is successful; `false` otherwise.
`write(textString)`	string	Writes the specified string to the file that is referred to by the current Files object. No end-of-line characters are appended; to include one, use `"\n"`.

Find object

There are several ways to specify a Find object, depending on what you want to find and replace. Use the `whatToFind` property to specify the type of find operation, along with the properties that are associated with each legal value for `whatToFind`. These properties are listed in the following tables. Read-only properties are marked with a bullet (•).

Finding and replacing text

Property	Data type	Notes
`whatToFind`	string	In the format: `"text"`
`find`	string	Text to find.
`matchCase`	Boolean	If set to `true`, the search is case-sensitive. Defaults to `false`.
`regExp`	Boolean	If set to `true`, the find and replace text is interpreted as a regular expression. The default is `false`.
`replace`	string	Text to use as replacement text.
`wholeWord`	Boolean	If set to `true`, only whole words matching the search text are found. The default is `false`.

Finding and replacing fonts and styles

Property	Data type	Notes
`whatToFind`	string	In the format: `"font"`
`find`	string	Name of font to find.
`replace`	string	Name of font to use as replacement.

`findStyle`	integer	Number that represents the style to find:
		`AnyStyle = -1`
		`Plain = 0`
		`Bold = 1`
		`Italic = 2`
		`BoldItalic = 3`
		`Underline = 4`
		`BoldUnderline = 5`
		`ItalicUnderline = 6`
		`BoldItalicUnderline = 7`

`replaceStyle`	integer	Number that represents the style to be used as replacement.
`findMinSize`	integer	0 to 9999
`findMaxSize`	integer	0 to 9999
`replaceSize`	integer	0 to 9999, or pass `-1` to leave size as is

Finding and replacing colors, fills, strokes, and effects

Property	Data type	Notes
`whatToFind`	string	In the format: `"color"`
`find`	string	A color string that specifies the color to find (see "Color string data type" on page 11).
`replace`	string	A color string that specifies the color to use as a replacement (see "Color string data type" on page 11).
`fills`	Boolean	If set to `true`, fills that match the specified colors are replaced.
`strokes`	Boolean	If set to `true`, strokes that match the specified colors are replaced.
`effects`	Boolean	If set to `true`, effects that match the specified colors are replaced.

Finding and replacing URLs

Property	Data types	Notes
`whatToFind`	string	In the format: `"url"`
`find`	string	URL to find, which is expressed as *file:// URL*.
`replace`	string	URL to use as replacement text, which is expressed as *file://URL*.
`wholeWord`	Boolean	If set to `true`, only whole words that match the search text are found. The default is `false`.
`matchCase`	Boolean	If set to `true`, the search is case sensitive. Defaults to `false`.
`regExp`	Boolean	If set to `true`, the `find` and `replace` text is interpreted as a regular expression. The default value is `false`.

Finding and replacing non-websafe colors with the closest websafe color

Property	Data type	Notes
`whatToFind`	string	In the format: `"nonwebcolor"`
`effects`	Boolean	If set to `true`, colors in effects are replaced. The default value is `false`.
`fills`	Boolean	If set to `true`, colors in fills are replaced. The default value is `false`.
`strokes`	Boolean	If set to `true`, colors in strokes are replaced. The default value is `false`.

The Fireworks object

The Fireworks object is a global object, which you can use to set or retrieve properties that relate to the current operating environment. (The App object that was used in Fireworks 3 is supported for backward compatibility, but its use is deprecated in favor of the Fireworks object.)

The following table lists the properties of the Fireworks object, along with their data types and, where appropriate, acceptable values and notes. Read-only properties are marked with a bullet (•).

Note: For information on how to format nonstandard data types, such as rectangle or point, see "Formatting nonstandard data types" on page 11.

Refer to the Fireworks object by using `fw.propertyName` or `fireworks.propertyName`. Note that `fireworks` must be lowercase.

Property	Data type	Notes
`activeViewScale`	float	The scaling (zoom value) of the active view. 1.0=100% of the normal view.
`appBatchCodeDir` •	string	The path to the Batch Code directory, which is expressed as *file://URL*.
`appDir` •	string	The path to the directory that contains the Fireworks application, which is expressed as *file://URL*.
`appExportSettingsDir` •	string	The path to the Export Settings directory, which is expressed as *file://URL*. In Fireworks, this folder is stored on a per-user basis on multiuser systems. Even on single-user systems, this folder is not inside the Fireworks installation directory.
`appFavoritesDir` •	string	The path to the URL Libraries directory, which is expressed as *file://URL*. In Fireworks, this folder is stored on a per-user basis on multiuser systems. Even on single-user systems, this folder is not inside the Fireworks installation directory.
`appHelpDir` •	string	The path to the directory that contains the Fireworks help file, which is expressed as *file://URL*.
`appHtmlCodeDir` •	string	The path to the HTML Code directory, which is expressed as *file://URL*.
`appJsCommandsDir` •	string	The path to the Commands directory, which is expressed as *file://URL*.
`appJsExtensionsDir` •	string	The path to the JSExtensions directory, which is expressed as *file://URL*.
`appMacCreator` •	string	`In the format: "MKBY"`
`appMacJsfFileType` •	string	`In the format: "TEXT"`

Property	Data type	Notes
`appName` •	string	The name of the application (`"Fireworks MX 2004"`). This attribute is part of the common API, so it also appears as `app.appName` (as implemented in Macromedia Dreamweaver).
`appPatternsDir` •	string	The path to the Patterns directory, which is expressed as *file:///URL*.
`appPrefsDir`	string	The path to the Preferences directory, which is expressed as a file:///URL.
`appPresetsDir` •	string	The path to the Presets directory, which is expressed as *file:///URL*. In Fireworks, this folder is stored on a per-user basis on multiuser systems. Even on single-user systems, this folder is not inside the Fireworks installation directory.
`appSettingsDir` •	string	The path to the Settings directory, which is expressed as *file:///URL*.
`appSmartShapesDir`	string	The path to the application's Auto Shapes directory, which is expressed as *file:///URL*.
`appSmartShapeToolsDir`	string	The path to the application's Auto Shape Tools directory, which is expressed as *file:///URL*.
`appStylesDir` •	string	The path to the Styles directory, which is expressed as *file:///URL*. In Fireworks, this folder is stored on a per-user basis on multiuser systems. Even on single-user systems, this folder is not inside the Fireworks installation directory.
`appSwfCommandsDir`	string	The path to the SWF Commands directory, which is expressed as a file:///URL.
`appSymbolLibrariesDir` •	string	The path to the Libraries directory, which is expressed as *file:///URL*.
`appTexturesDir` •	string	The path to the Textures directory, which is expressed as *file:///URL*.
`appXtrasDir` •	string	The path to the Xtras directory, which is expressed as *file:///URL*.
`batchStatusString`	string	The string that currently appears in the Batch Progress dialog box. Set this property to change the string being displayed. Use with `progressCountCurrent` and `progressCountTotal`.

Property	Data type	Notes
currentScriptDir	string	The path to the directory of the currently running script, which is expressed as a file:// URL (or could be null). This path goes to the directory in which the script resides, not a full file path to the script itself (it excludes the script's filename).
currentScriptFileName	string	The filename of the currently running script (or could be null). This name is the script's filename, not the full path.
documentList •	array	Array of the current open Document objects (see "Document object" on page 13). If no document is open, it returns an array of length zero.
documents •	array	Array of the current open Document objects (see "Document object" on page 13). If no document is open, returns an array of length zero.
ellipseBCPConst •	float	A fixed value of 0.55229187012 used to calculate the distance between a point and its predecessor/successor for a perfect circle. For example, for a circle with a radius of 100 px, the predecessor/successor is 100*fw.ellipseBCPConst pixels away from the point itself.
files •	object	The FilesClass object used to perform file operations (open, close, delete, and so on).
getDynamicSWFURL •	string	Returns the location of the SWF file.
historyPalette •	object	History panel object. There are no DOM properties for the History panel, only API calls. For more information, see "History panel functions" on page 278.
mruRecentList •	array	Array of the most recently used documents.
platform •	string	The string "mac" if Fireworks is running on the Macintosh, or "win" if running on Microsoft Windows.
progressCountCurrent	integer	The first number (*x*) that appears in the Batch Progress dialog box, in the "File x of y" field. Set this property to change the number.
progressCountTotal	integer	The second number (*y*) that appears in the Batch Progress dialog box, in the "File x of y" field. Set this property to change the number.
screenRect •	rectangle	The size of the main screen on this computer, in pixels. Useful for positioning windows or panels.

Property	Data type	Notes
`selection`	array	Array of the selected objects in the active document. If nothing is selected, it returns an array of length zero. If no document is open, it returns `null`.
`selectedMask`	object	If a single item is selected and that item is a mask, this property returns an ElementMask object (see "ElementMask object" on page 45); otherwise, it returns `null`.
`styles` •	array	Array of the Style object that is currently loaded in the Style panel (see "Style object" on page 61).
`textOutputEncoding`	string	The default text encoding for any text file that the JavaScript interpreter generates. Use `"iso-8859-1"` for ASCII or `"utf-8"` for Unicode.
`userJsCommandsDir`	string	The path to the user-level Commands directory, which is expressed as a file://URL. In Fireworks, this folder is stored on a per-user basis on multiuser systems. Even on single-user systems, this folder is not inside the Fireworks installation directory.
`userSmartShapesDir` •	string	The path to the user's Auto Shapes directory, which is expressed as a file://URL
`userSmartShapeToolsDir` •	string	The path to the user's Auto Shape Tools directory, which is expressed as a file://URL.
`userSwfCommandsDir`	string	The path to the user-level SWF Commands directory, which is expressed as a file://URL. In Fireworks, this folder is stored on a per-user basis on multiuser systems. Even on single-user systems, this folder is not inside the Fireworks installation directory.
`xhtmlFormat`	Boolean	Determines whether the JavaScript interpreter should output XHTML formatted files or HTML formatted files; XHTML (`true`) or HTML (`false`).

Objects within Fireworks documents

This section describes the objects that can get or set the properties of elements in a Fireworks document. For syntax on accessing Fireworks documents and elements within them, see "Accessing a Fireworks document" on page 10 and "Passing values" on page 10.

Note: For information on how to format nonstandard data types, such as rectangle or point, see "Formatting nonstandard data types" on page 11.

Behavior object

The following table lists the properties of the Behavior object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`call`	string	The JavaScript call for the behavior. For legal values, see "Using the dom.addBehavior() function" on page 105.
`event`	string	Acceptable values are `"onMouseOver"`, `"onClick"`, `"onMouseOut"`, `"onLoad"`, and `"**ANY**"` (the `**ANY**` argument is used as a wildcard value in some situations).

Brush object

The following table lists the properties of the Brush object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`alphaRemap`	string	Acceptable values are `"none"`, `"white neon"`, `"harsh wet"`, `"smooth neon"`, `"wavy gravy"`, and `"white neon edge"`.
`angle`	integer	0 to 360
`antiAliased`	Boolean	If set to `true`, the brush edges are anti-aliased.
`aspect`	float	0 to 100
`blackness`	float	0 to 100
`category`	string	Determines in which subsection of the Stroke panel the brush will appear (for example, Pencil, Airbrush, and so on).
`concentration`	float	0 to 100
`dashOffSize1, dashOffSize2, dashOffSize3`	integer	The lengths in pixels of spaces for a dotted line, these values control the first, second, and third spaces, respectively.
`dashOnSize1, dashOnSize2, dashOnSize3`	integer	The lengths, in pixels, of dashes for a dotted line, these values control the first, second, and third dashes, respectively.

Property	Data type	Notes
diameter	integer	0 to 1000
feedback	string	Acceptable values are "none", "brush", and "background".
flowRate	float	0 to 100
maxCount	integer	0 to 64
minSize	float	0 to 100
name	string	The name of the brush, which is visible in the Stroke panel.
numDashes	integer	0 to 3
sense_hdir_angle	float	The sense* properties map directly to the values on the Stroke Options › Advanced dialog › Sensitivity tab (accessible through the Brush property inspector stroke settings); where hdir is the horizontal value and vdir is the vertical value, and blackness is the build-up of black pixels as some tools brush over the same spot repeatedly (like the felt tip).
sense_hdir_blackness	float	
sense_hdir_hue	float	
sense_hdir_lightness	float	
sense_hdir_opacity	float	
sense_hdir_saturation	float	
sense_hdir_scatter	float	
sense_hdir_size	float	
sense_pressure_angle	float	
sense_pressure_blackness	float	
sense_pressure_hue	float	
sense_pressure_lightness	float	
sense_pressure_opacity	float	
sense_pressure_saturation	float	
sense_pressure_scatter	float	
sense_pressure_size	float	
sense_random_angle	float	
sense_random_blackness	float	
sense_random_hue	float	
sense_random_lightness	float	
sense_random_opacity	float	
sense_random_saturation	float	
sense_random_scatter	float	

Property	Data type	Notes
sense_random_size	float	
sense_speed_angle	float	
sense_speed_blackness	float	
sense_speed_hue	float	
sense_speed_lightness	float	
sense_speed_opacity	float	
sense_speed_saturation	float	
sense_speed_scatter	float	
sense_speed_size	float	
sense_vdir_angle	float	
sense_vdir_blackness	float	
sense_vdir_hue	float	
sense_vdir_lightness	float	
sense_vdir_opacity	float	
sense_vdir_saturation	float	
sense_vdir_scatter	float	
sense_vdir_size	float	
sensitivity_x_y	integer	0 to 100, where *x* is a value of pressure, speed, hDir, vDir, or random; and *y* is a value of: size, angle, opacity, blackness, scatter, hue, lightness, or saturation. For example, sensitivity_pressure_size.
shape	string	Acceptable values are "circle" and "square".
softenMode	string	Acceptable values are "bell curve" and "linear".
softness	float	0 to 100
spacing	float	0 to 500 (a percentage, as much as 500 percent)
textureBlend	float	0 to 100
textureEdge	float	0 to 100
tipColoringMode	string	Acceptable values are "random", "uniform", "complementary", "hue", and "shadow".
tipCount	integer	1 to 32
tipSpacing	float	0 to 100

Property	Data type	Notes
tipSpacingMode	string	Acceptable values are "random", "diagonal", and "circular".
type	string	Acceptable values are "natural" and "simple".

Contour object

The following table lists the properties of the Contour object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
isClosed	Boolean	If set to true, the path is closed by connecting the final point in the contour with the first point.
nodes	array	Array of ContourNode objects on the contour (see "ContourNode object" on page 29).

ContourNode object

The following table lists the properties of the ContourNode object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
dynamicInfo	array	Array of ContourNodeDynamicInfo objects on this ContourNode object (see "ContourNodeDynamicInfo object" on page 31).
isCurvePoint	Boolean	If set to true, this point's control points are constrained to be linear with the main point, which forces a smooth curve. If set to false, there are no constraints on the control points.
isSelectedPoint	Boolean	If set to true, this point was subselected (for example, by the subselection tool).
name	string	A unique name assigned to the object.
predX	float	The *x* coordinate of the contour node's preceding control point.
predY	float	The *y* coordinate of the contour node's preceding control point.
randomSeed	integer	0 to 65,535
succX	float	The *x* coordinate of the contour node's following control point.

Property	Data type	Notes
succY	float	The *y* coordinate of the contour node's following control point.
x	float	The *x* coordinate of the contour node's main control point.
y	float	The *y* coordinate of the contour node's main control point.

The following table lists the methods of the ContourNode object, along with their parameters.

Method	Parameter	Definition
RegisterMove()	object	The RegisterMoveParms object containing the move parameters. Use smartShape.GetDefaultMoveParms() to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.
RegisterLinearMove()	point	A point, which in combination with the node point, defines the line to move along.
	object	The RegisterMoveParms object containing the move parameters. Use smartShape.GetDefaultMoveParms() to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.
RegisterCircularMove()	point	The center point for the circular movement.
	object	The RegisterMoveParms object containing the move parameters. Use smartShape.GetDefaultMoveParms() to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.
RegisterPolygonMove()	point	The center point for the polygon.
	object	The RegisterMoveParms object containing the move parameters. Use smartShape.GetDefaultMoveParms() to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.

ContourNodeDynamicInfo object

The following table lists the properties of the ContourNodeDynamicInfo object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`duration`	float	0.0 to 65,535.0 milliseconds
`pressure`	float	0.0 to 1.0
`velocity`	float	0.0 to 255.9999 pixels per millisecond

ControlPoint object

The following table lists the properties of the ControlPoint object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`hiliteDragOverObject`	Boolean	If `true`, Fireworks highlights an object when a control point is dragged over it.
`index` •	integer	Index for the control point.
`name`	string	Assigned name of the control point.
`toolTip`	string	Text to display when the user rolls the pointer (mouse) over the control point.
`toolTipTracksDrag`	Boolean	If `true`, the tooltip drags with the mouse.
`type`	string	Determines the way the control point draws. Values are: `"default"`, `"defaultInverted"`, `"crossHair"`.
`visible`	Boolean	If `true`, the control point is visible to the user.
`x`	float	Value of the *x* coordinate.
`y`	float	Value of the *y* coordinate.

The following table lists the methods of the ControlPoint object, along with their parameters.

Method	Parameter	Definition
`RegisterMove()`	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefaultMoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.
`RegisterLinearMove()`	point	A point, which in combination with the node point, defines the line to move along.

Method	Parameter	Definition
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefaultMoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.
`RegisterCircularMove()`	point	The center point for the circular movement.
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefaultMoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56
`RegisterPolygonMove()`	point	The center point for the polygon.
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefaultMoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56.
`RegisterInsertBBoxMove()`	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefaultMoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 56 .

Effect object

Each Fireworks Effect (bevel, drop shadow, etc.) has a unique set of attributes. So, each Effect object has its own set of properties that can be set (instead of a common set of properties for all Effect objects). The properties for various Effect objects are listed in the following tables, in alphabetical order.

Note: In addition to the listed properties, each Effect object has two optional string properties: `category` and `name`.

Bevel object

Property	Data type	Notes
`AngleSoftness`	integer	Specifies the blur, or feather amount, for the shadow and highlight colors of the bevel.
`BevelContrast`	integer	0 to 100 percent

Property	Data type	Notes
BevelType	integer	Sets a bevel as inner, outer, raised embossed, inset embossed, or glow effect, as follows: InnerBevel = 0 OuterBevel = 1 RaiseEmboss = 2 InsetEmboss = 3 GlowEffect = 4
BevelWidth	integer	The width of the bevel, in pixels.
ButtonState	integer	BevelButtonUp = 0 BevelButtonOver = 1 BevelButtonDown = 2 BevelButtonHit = 3
DownBlendColor	string	A color string that specifies the color that is blended on top of the image if ButtonState = 2 (BevelButtonDown) (see "Color string data type" on page 11).
EdgeThreshold	integer	Controls the opacity at which the edge of the effect is defined. Use 1 if BevelType = 4 (for GlowEffect); otherwise, use 0.
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.
EffectMoaID	string	"{7fe61102-6ce2-11d1-8c76000502701850}"
EmbossFaceColor	string	A color string that specifies the color that is blended onto the face of the object when embossing (see "Color string data type" on page 11).
GlowStartDistance	integer	Specifies how far away from the object the glow starts, in pixels. Specify a negative value to create "ring" glows and a positive value to create "halo" glows.
GlowWidth	integer	The width of the glow, in pixels.
HiliteColor	string	A color string that specifies the color that is blended to provide the spectral lighting type effect (see "Color string data type" on page 11). Used by beveling only. Currently white is always used for internally created effects (although any value should work). This is the complement of ShadowColor.
HitBlendColor	string	A color string that specifies the color that is blended on the face of the image if ButtonState = 3 (BevelButtonHit) (see "Color string data type" on page 11).
LightAngle	integer	The light angle, in degrees, that is used to create the light and shadow effects for the bevel.

Property	Data type	Notes
MaskSoftness	integer	The feather amount on the glow edge, in pixels.
OuterBevelColor	string	A color string that specifies the color of the outer bevel effect (see "Color string data type" on page 11).
ShadowColor	string	A color string that specifies the color that is blended to provide the bevel shadow effect (see "Color string data type" on page 11). Currently black is always used for internally created effects (though any value should work). This is the complement of HiliteColor.
ShowObject	Boolean	The default value is false.
SlopeMultiplier	float	A multiplier that is used to calculate the magnitude of the bevel slope. Default effects all use 1, but other values should work. For example, 0.5 gives a more subtle slope and 2.0 gives a sharper slope.
SlopeType	integer	flat slope = 0 smooth slope = 1 inverted smooth slope = 2 frame 1 slope = 3 frame 2 slope = 4 ring slope = 5 ruffle slope = 6

Blur object

Property	Data type	Notes
EffectMoaID	string	"{f1cfce41-718e-11d1-8c8200a024cdc039}"
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.

Blur More object

Property	Data type	Notes
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.
EffectMoaID	string	"{f1cfce42-718e-11d1-8c8200a024cdc039}"

Brightness/Contrast object

Property	Data type	Notes
brightness_amount	integer	-100 to 100
contrast_amount	integer	-100 to 100

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{3439b08c-1921-11d3-9bde00e02910d580}"`

Convert to Alpha object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{2932d5a2-ca48-11d1-8561000502701850}"`

Curves object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{3439b08e-1923-11d3"-9bde00e02910d580}"`

`rgb_points`
`red_points`
`green_points`
`blue_points`
	vector of points	Each of these properties is a vector of points where *x* = input level and *y* = output level. All *x* and *y* values must be between 0 and 255, and the points must be sorted in ascending order of the points' *x* coordinate values.

Drop Shadow object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{a7944db8-6ce2-11d1-8c76000502701850}"`
`ShadowAngle`	float	The angle of the shadow, in degrees.
`ShadowBlur`	integer	The feathering amount of the shadow edges, in pixels.
`ShadowColor`	string	A color string that specifies the color of the shadow (see "Color string data type" on page 11).
`ShadowDistance`	integer	The offset of the shadow, in pixels.
`ShadowType`	integer	`0 = normal shadow` `1 = knockout shadow`

Find Edges object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{fc7093f1-f95c-11d0-8be200a024cdc039}"`

Gaussian Blur object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{d04ef8c0-71b3-11d1-8c8200a024cdc039}"`
`gaussian_blur_radius`	float	0.1 to 250

Hue/Saturation object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{3439b08d-1922-11d3-9bde00e02910d580}"`
`hue_amount`	integer	-180 to 180 if `hls_colorize` is `false`; 0 to 360 if `hls_colorize` is `true`.
`saturation_amount`	integer	-100 to 100 if `hls_colorize` is `false`; 0 to 100 if `hls_colorize` is `true`.
`lightness_amount`	integer	0 to 100
`hls_colorize`	Boolean	Specifies whether the effect should automatically colorize. Default value is `false`.

Inner Shadow object

Property	Data type	Notes
`EffectIsVisible`	Boolean	If set to `false`, the effect is included but temporarily hidden. The default value is `true`.
`EffectMoaID`	string	`"{5600f702-774c-11d3-baad0000861f4d01}"`
`ShadowAngle`	integer	The angle of the shadow, in degrees.
`ShadowBlur`	integer	The feathering amount of the shadow edges, in pixels.
`ShadowColor`	string	A color string that specifies the color of the shadow (see "Color string data type" on page 11).

Property	Data type	Notes
ShadowDistance	integer	The offset of the shadow, in pixels.
ShadowType	integer	0 = normal shadow 1 = knockout shadow

Invert object

Property	Data type	Notes
EffectMoaID	string	"{d2541291-70d6-11d1-8c8000a024cdc039}"
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.

Levels object

Property	Data type	Notes
EffectMoaID	string	"{d04ef8c1-71b4-11d1-8c8200a024cdc039}"
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.
source_low_rgb* source_high_rgb* source_low_red* source_high_red* source_low_green* source_high_green* source_low_blue* source_high_blue*	integer	These source* values are all input levels to the filter, with values of 0 to 255.
dest_low_rgb dest_high_rgb dest_low_red dest_high_red dest_low_green dest_high_green dest_low_blue dest_high_blue	integer	These dest* values are all output levels to the filter, with values of 0 to 255.

Property	Data type	Notes
gamma_rgb	float	These gamma* values are all gamma levels to the filter, with values of 0.1 to 10.0.‹
gamma_red		
gamma_green		
gamma_blue		

Sharpen object

Property	Data type	Notes
EffectMoaID	string	"{c20952b1-fc76-11d0-8be700a024cdc039}"
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.

Sharpen More object

Property	Data type	Notes
EffectMoaID	string	"{1f2f2591-9db7-11d1-8cad00a024cdc039}"
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.

Unsharp Mask object

Property	Data type	Notes
EffectMoaID	string	"{f1cfce44-718e-11d1-8c8200a024cdc039}"
EffectIsVisible	Boolean	If set to false, the effect is included but temporarily hidden. The default value is true.
unsharp_mask_amount	integer	1 to 500
unsharp_mask_radius	float	0.1 to 250
unsharp_mask_threshold	integer	0 to 255

EffectList object

The following table lists the properties of the EffectList object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
category	string	Specifies which subheading in the Effects panel to use.
effects	array	Array of Effect objects (see "Effect object" on page 32).
name	string	The name that appears in the Effects panel.

Element object

Element is an abstract or base class; nothing of class Element ever exists. However, it is useful for simplifying the other class descriptions. Read-only properties are marked with a bullet (•).

Property	Data type	Notes
`blendMode`	string	Acceptable values are `"normal"`, `"multiply"`, `"screen"`, `"darken"`, `"lighten"`, `"difference"`, `"hue"`, `"saturation"`, `"color"`, `"luminosity"`, `"invert"`, `"tint"`, and `"erase"`.
`customData`	struct	Assign any objects (array, integer, string, and so on).
`effectList`	object	EffectList object (see "EffectList object" on page 38).
`height` •	float	Read-only in the base class; other properties or API calls are used to resize specific types of elements.
`isSmartShape` •	Boolean	Confirms whether the element is an Auto Shape.
`left`	float	Can round to an integer.
`mask`	object	ElementMask object (see "ElementMask object" on page 45). Returns `null` if the element has no element mask.
`name`	string	Can be `null` (removes any existing name).
`opacity`	float	Acceptable values, 0 to 100, represent percent opacity.
`rawLeft`	float	Leftmost space occupied by the pixels (not the left location of the bounding box).
`rawTop`	float	Top space occupied by the pixels (not the top location of the bounding box).›
`top`	float	Can round to an integer.
`pixelRect`	rect	Rectangle of the area occupied by the pixels. For example, the pixelRect of a text object is smaller than what the property inspector reports, since the actual pixels are inside the bounding box.
`visible`	Boolean	If set to `false`, the element is hidden. The default value is `true`.
`width` •	float	Read-only in the base class; other properties or API calls are used to resize specific types of elements.

The following table lists the methods of the Element object, along with their parameters.

Method	Parameter	Definition
`generateSmartShapeCode`	root	The root parameter is a string value that is prefixed to each line of output.

Group object

Group is a subclass of the base class Element and contains the following properties in addition to those in Element (see "Element object" on page 39).

Property	Data type	Notes
`baseColors` •	array	Array of color strings.
`controlPoints` •	array	Array of control points defined for the Auto Shape object.
`elements`	array	Array of Element objects in the group (see "Element object" on page 39).
`groupType`	string	Acceptable value is `"normal"`. (`"mask to image"` and `"mask to path"` were deprecated in Fireworks MX.)
`smartShapeCode`	string	The body of code in the JavaScript file that defines the Auto Shape object.
`transformMode`	string	Can be one of the following: `"AlwaysTransform"` If the Auto Shape is transformed in any way (scale, skew, rotate) the transformation matrix is modified. `"DontTransformUniformScale"` If the Auto Shape is scaled in uniformly, the actual points are moved; otherwise, the transformation matrix is modified. `"DontTransformAnyScale"` If the Auto Shape is scaled (even nonuniformly), the actual points are moved; otherwise, the transformation matrix is modified.

The following table lists the methods of the Group object, along with their parameters.

Method	Parameter	Definition
`generateSmartShapeCode()`	string	Generates JavaScript code for creating an Auto Shape. You can specify a string to prefix each line of output.
`globalToSmartShapeCoords()`	point	When an Auto Shape is transformed (moved, rotated, or other manipulation), the Auto Shape object does not contain the new location until `group.globalToSmartShapeCoords()` changes the object to the new coordinates.

Method	Parameter	Definition
`RegisterForEvent()`	string	Call this to receive notification of the string specifying a Fireworks event. `smartShape.operation` will be the name of the event triggered. Returns the total number of events registered after adding the specified event.
`removeTransformation()`	none	Undoes the previous transformation.
`smartShapeToGlobalCoords()`	point	Converts the smartshape object's space into global (transformed) space, see `globalToSmartShapeCoords()` above..
`unRegisterAllEvents()`	none	Call this to stop receiving notification of all previously registered events.
`UnRegisterForEvent()`	string	Call this to stop receiving notification of a single previously registered event.

Image object

Image is a subclass of the base class Element (see "Element object" on page 39). It contains no properties or methods other than those in Element.

Instance object

Instance is a subclass of the base class Element and contains the following properties in addition to those in Element (see "Element object" on page 39). Read-only properties are marked with a bullet (•).

Property	Data type	Notes
`altText`	string	The alternate text description.
`instanceType` •	string	The type of element, for example `"graphic"`, `"button"`, or `"animation"`.
`symbolID` •	string	An arbitrary string that uniquely identifies the symbol that owns this instance.
`targetText`	string	The target.
`transformMode`	string	Acceptable values are `"paths"` and `"pixels"`.
`urlText`	string	The link text.

Hotspot object

A Hotspot converts to an image map during HTML export. Hotspot is a subclass of the base class Element and contains the following properties in addition to those in Element (see "Element object" on page 39).

Property	Data type	Notes
`altText`	string	Text that is written into the HTML Alt tag when exporting.
`behaviors`	array	Array of Behavior objects for the Hotspot (see "Behavior object" on page 26).
`color`	string	Color in which the Hotspot is drawn in the Document window. Default value is `"#00FFFF"`.
`contour`	object	Contour object for the Hotspot (see "Contour object" on page 29). Used only if `shape="polyline"`; otherwise `null`.
`shape`	string	Acceptable values are `"rectangle"`, `"circle"`, and `"polyline"`.
`targetText`	string	Text that is written into the HTML `Target` tag when exporting.
`urlText`	string	Text that is written into the HTML `Href` tag when exporting.

SliceHotspot object

A slice Hotspot converts to an image slice during HTML export. SliceHotspot is a subclass of the base class Hotspot and contains the following properties in addition to those in Hotspot (see Hotspot object). Read-only properties are marked with a bullet (•).

Property	Data type	Notes
`baseName`	string	Base name for slice filenames, or `null` for automatic name.
`exportOptions`	object	ExportOptions object (see "ExportOptions object" on page 46); `null` if using current document defaults.
`htmlText`	string	If `sliceKind` is set to `"empty"`, this text is exported instead of the image. The default is an empty string.
`sliceID` •	string	An arbitrary string that uniquely identifies this slice.

Property	Data type	Notes
sliceKind	string	If set to "image", generates an image; if set to "empty", generates the text specified by htmlText.
tdTagText	string	This string contains all the attributes of a table cell except the colspan and rowspan values. An example value is "bgcolor=ff0000" valign="top".

Path object

Path is a subclass of the base class Element and contains the following properties in addition to those in Element (see "Element object" on page 39).

Property	Data type	Notes
contours	array	Array of Contour objects on this Path object (see "Contour object" on page 29).
pathAttributes	object	PathAttrs object (see "PathAttrs object" on page 54).
randSeed	float	A 32-bit integer. JavaScript integers hold only 31-bit numbers, so it is stored as a floating-point number.
textureOffset	point	If the path has a textured brush or fill, specifies the offset of the texture's origin.

Text object

Text is a subclass of the base class Element and contains the following properties in addition to those in Element (see "Element object" on page 39).

Property	Data type	Notes
antiAliased	Boolean	If set to true (the default), anti-aliases the text.
antiAliasMode	string	Acceptable values are "smooth", "crisp", and "strong". This value is ignored if the antiAliased property is set to false.
autoExpand	Boolean	If set to true, the bounding box will expand automatically to fit a line of text to prevent word wrapping.
autoKern	Boolean	If set to true, uses pair-kerning information in the fonts to kern the text. If set to false, pair-kerning information in the fonts is ignored. Default value is true.

Property	Data type	Notes
orientation	string	Acceptable values are "horizontal left to right" (the default), "vertical right to left", "horizontal right to left", and "vertical left to right".
pathAttributes	object	PathAttrs object (see "PathAttrs object" on page 54).
randSeed	float	A 32-bit integer. JavaScript integers hold only 31-bit numbers, so it is stored as a floating-point number.
textRuns	object	TextRuns object (see "TextRuns object" on page 63).
textureOffset	point	If the text has a textured brush or fill, specifies the offset of the texture's origin.
transformMode	string	Acceptable values are "paths" and "pixels".
rawTop	float	Top space occupied by the pixels (not the top location of the bounding box).
rawLeft	float	Leftmost space occupied by the pixels (not the left location of the bounding box).
rawWidth	float	Width of the area occupied by the pixels (not the area of the bounding box).
rawHeight	float	Height of the area occupied by the pixels (not the area of the bounding box).

Texture object

Texture is a subclass of the base class Element and contains the following read-only property in addition to those in Element (see "Element object" on page 39).

Property (read-only)	Data type	Notes
name	string	The name that appears in the Brush or Fill panels.

ElementMask object

The following table lists the properties of the ElementMask object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`autoExpandImages`	Boolean	If set to `true`, and the element mask is an image, the image is automatically expanded to fill the entire document, with areas "outside" the image showing through. If set to `false` (or if the element mask is not an image), areas "outside" the element mask are knocked out.
`element`	object	Element object (see "ElementMask object" on page 45).
`enabled`	Boolean	If set to `true`, the mask applies to the element. If set to `false`, the mask remains present but does not visually affect the element in any way. Default value is `true`.
`linked`	Boolean	If set to `true`, moving the mask moves the element that owns it, and vice versa. If set to `false`, moving the mask does not affect the element that owns it (and moving the element does not affect the mask). Default value is `true`.
`mode`	string	Acceptable values are `"mask to image"` and `"mask to path"`.
`owner`	object	The element (image, path, text, and so on) that owns the mask.
`showAttrs`	Boolean	If set to `true`, and `mode` is `"mask to path"`, the mask element's fill and stroke (if any) are drawn. If set to `false`, the mask element's fill and stroke are ignored.

ExportFrameInfo object

The following table lists the properties of the ExportFrameInfo object, along with their data type and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`delayTime`	integer	For GIF animations, the delay time between frames, in 1/100ths of a second. For example, if you set `delayTime` to `200`, two seconds elapse before the next frame in the animation appears. Default value is `7`.
`frameHidden`	Boolean	If set to `false` (the default), the frame is exported. If set to `true`, the frame is hidden and not exported.

Property	Data type	Notes
frameName	string	The name of the frame displayed in the Frames panel. Default is null.
gifDisposalMethod	string	GIF89a frame disposal method. See the GIF89a specification for details. Acceptable values are "unspecified" (the default), "none", "background", and "previous".

ExportOptions object

Note: When this object is used to set properties, the only required property is exportFormat. If other properties are not specified, their default values are used.

Use the following information to understand the rules for determining scaling in this object.

If useScale is set to true (the default), percentScale is used to uniformly scale the object on export, and applyScale is ignored.

If useScale is set to false and applyScale is set to false (the default), no scaling is performed on the object when it is exported.

If useScale is set to false and applyScale is set to true, then xSize and ySize determine scaling as follows:

- If the value is positive, specifies the exact size for the axis.
- If the value is zero, specifies that the axis varies without limit.
- If the value is negative, specifies that the axis varies but can be no larger than "abs(value)"

If one value is positive and one is negative, the positive value is always used. This gives the following possibilities:

- xSize < 0, ySize < 0 – use min(xSize, ySize) scaling
- xSize < 0, ySize = 0 – use xSize scaling
- xSize < 0, ySize > 0 – use ySize scaling
- xSize = 0, ySize < 0 – use ySize scaling
- xSize = 0, ySize = 0 – illegal; use scale of 1.0
- xSize = 0, ySize > 0 – use ySize scaling
- xSize > 0, ySize < 0 – use xSize scaling
- xSize > 0, ySize = 0 – use xSize scaling
- xSize > 0, ySize > 0 – do not use; instead, use useScale = true and percentScale = 0 to 100

The following table lists the properties of the ExportOptions object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
animAutoCrop	Boolean	The default value is true.
animAutoDifference	Boolean	The default value is true.
applyScale	Boolean	The default value is true.

Property	Data type	Notes
colorMode	string	Acceptable values are "indexed" (the default), "24 bit", and "32 bit".
crop	Boolean	The default value is false.
cropBottom	integer	The default value is 0.
cropLeft	integer	The default value is 0.
cropRight	integer	The default value is 0.
cropTop	integer	The default value is 0.
ditherMode	string	Acceptable values are "none" (the default), "diffusion", and "2 by 2".
ditherPercent	integer	0 to 100; default value is 100.
exportFormat	string	Acceptable values are "GIF", "JPEG", "PNG", "custom", and "GIF animation". There is no default; this value must be specified.
frameInfo	array	Array of ExportFrameInfo objects (see "ExportFrameInfo object" on page 45); can be null (the default).
interlacedGIF	Boolean	The default value is false.
jpegQuality	integer	1 to 100; the default value is 80.
jpegSmoothness	integer	0 to 8; the default value is 0.
jpegSubsampling	integer	0 to 4; the default value is 1.
localAdaptive	Boolean	The default value is true.
lossyGifAmount	integer	0 to 100; the default value is 0.
macFileCreator	string	The default value is "" (an empty string).
macFileType	string	The default value is ""(an empty string).
name	string	The default value is "" (an empty string).
numCustomEntries	integer	0 to 256; default value is 0.
numEntriesRequested	integer	0 to 256; default value is 128.
numGridEntries	integer	0 to 256; default value is 6.
optimized	Boolean	Default value is true.
paletteEntries	array	Array of color strings (see "Color string data type" on page 11); default value is null.
paletteInfo	array	Array of ExportPaletteInfo objects, or null if all entries in the array are default values (see "ExportPaletteInfo object" on page 48); default value is null.

Property	Data type	Notes
paletteMode	string	Acceptable values are "adaptive" (the default), "custom", "grid", "monochrome", "Macintosh", "Windows", "exact", and "Web 216".
paletteTransparencyType	string	Acceptable values are "none" (the default), "index", "index alpha", and "rgba".
percentScale	integer	1 to 100,000; default value is 100.
progressiveJPEG	Boolean	The default value is false.
savedAnimationRepeat	integer	The default value is 0.
sorting	string	Acceptable values are "none" (the default), "luminance", and "popularity".
transparencyIndex	integer	-1 to 255; pass -1 to use the background color's index; default value is -1.
useScale	Boolean	The default value is true.
webSnapAdaptive	Boolean	The default value is true.
webSnapTolerance	integer	The default value is 14.
xSize	integer	-100,000 to 100,000; default value is 0. See "ExportOptions object" on page 46 for details on using xSize and ySize.
ySize	integer	-100,000 to 100,000; default value is 0. See "ExportOptions object" on page 46 for details on using xSize and ySize.

ExportPaletteInfo object

The following table lists the properties of the ExportPaletteInfo object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
colorLocked	Boolean	Set to true if the color is locked in the panel. The default value is false.
colorModified	Boolean	Set to true if the color was edited. The default value is false.
colorSelected	Boolean	Set to true if the color is selected in the panel (selection is a temporary attribute). The default value is false.
colorTransparent	Boolean	Set to true if the color is exported as transparent. The default value is false.
newColorValue	string	If colorModified is set to true, specifies the color that will actually be used. The default value is "#000000".

ExportSettings object

The following table lists the properties of the ExportSettings object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`baseName`	string	The name from which all automatically named slice names are derived.
`discardUnspecifiedSlices`	Boolean	If set to `true`, omits undefined slices from export operations.
`docHtmlEncoding`	string	Determines the encoding standard for the HTML file that Fireworks generates during export. Use `"iso-8859-1"` for ASCII or `"utf-8"` for Unicode.
`docXHTMLFormat`	Boolean	Determines whether Fireworks outputs XHTML formatted files (`true`) or HTML formatted files (`false`) when the user exports a file.

`exportFileStyle`	string	Acceptable values are:
		`“HTML and Images”`
		`“Images Only”`
		`“Dreamweaver LBI”`
		`"Director HTML"`
		`"CSS Layers"`
		`"Layers to Files"`
		`"Frames to Files"`
		`"Lotus Domino"`
		`"Macromedia Flash SWF"`
		`"Illustrator"`
		`"Photoshop"`

`fileExtensions`	string	Defines the extension to append to the filename.
`generateDemoHtml`	Boolean	If set to `true`, generates multiple HTML pages for button export.
`htmlDestination`	string	Acceptable values are `"same"`, `"custom"`, and `"clipboard"`.
`setByUser`	Boolean	If set to `true`, the user specifies the export settings. If set to `false`, the first time the file is exported, Fireworks chooses settings based on the data.
`shimGeneration`	string	Acceptable values are `"none"` (no shims), `"transparent"` (one-pixel transparent shims), and `"nested tables"` (no shims, but nested tables).
`sliceAlongGuides`	Boolean	If set to `true`, use guides for slicing (and `sliceUsingUrls` should be set to `false`).

Property	Data type	Notes

`sliceAutoNaming1` through `sliceAutoNaming6`	string	Used to generate a name by concatenating six strings. If you need fewer than six strings, fill in the remaining strings with `"none"`.
		Acceptable values are:
		`"none"` – generates nothing.
		`"row_col"` – generates a unique row and column index; `0_0` is first, `0_1` is second, and so on.
		`"ALPHA"` – generates a unique uppercase letter: `A` is first, `B` is second, and so on.
		`"alpha"` – generates a unique lowercase letter: `a` is first, `b` is second, and so on.
		`"numeric1"` – generates a unique number: `1` is first, `2` is second, and so on.
		`"numeric01"` – generates a unique two-digit number: `01` is first, `02` is second, and so on.
		`"doc.name"` – name of the file being exported, without a path or extension, such as `"image"`.
		`"slice"` – the string `"slice"`.
		`"underscore"` – the underscore character (_)
		`"period"` – the period character (.)
		`"space"` – the space character ( )
		`"hyphen"` – the hyphen character (-)
		For example, to generate names of `"image_slice01"`, `"image_slice02"`, and so on from a document named `"image"`, set the following properties:
		`sliceAutoNaming1: "doc.name"`
		`sliceAutoNaming2: "underscore"`
		`sliceAutoNaming3: "slice"`
		`sliceAutoNaming4: "numeric01"`
		`sliceAutoNaming5: "none"`
		`sliceAutoNaming6: "none"`

Property	Data type	Notes
`sliceFrameNaming1` and `sliceFrameNaming2`	string	Used to generate a name by concatenating two strings; the resulting string is concatenated to the name specified by `sliceAutoNaming`. If you need fewer than two strings, fill in the remaining string with `"none"`. Acceptable values are: `"none"` – generates nothing. `"frameNumber"` – generates frame number preceded by `f`, for example, `f2`. `"number"` – generates frame number, for example, `2`. `"state"` – generates frame state, for example, `"over"`, `"down"`, or `"overdown"`. `"abbreviation"` – generates abbreviated state, for example, `"o"`, `"d"`, or `"od"`. `"underscore"` – the underscore character (_) `"period"` – the period character (.) `"space"` – the space character ( ) `"hyphen"` – the hyphen character (-)
`sliceUsingUrls`	Boolean	If set to `true`, use slice objects for slicing (and `sliceAlongGuides` should be set to `false`).
`templateName`	string	HTML style to be used during export. Acceptable values are `"Dreamweaver"`, `"Generic"`, `"FrontPage"`, `"GoLive"`, or a user-created HTML style.

Fill object

The following table lists the properties of the Fill object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`category`	string	Specifies where this fill appears in the Fill panel.
`ditherColors`	array	Array of two color strings (see "Color string data type" on page 11).
`edgeType`	string	Acceptable values are `"hard"` and `"antialiased"`.
`feather`	integer	0 to 1000, which represents the feathering value in pixels (0 means no feathering).
`gradient`	object	Gradient object (see "Gradient object" on page 53).
`name`	string	The name that appears in the Fill panel.
`pattern`	object	Pattern object (see "Pattern object" on page 55).

Property	Data type	Notes
shape	string	Acceptable values are "solid", "linear", "radial", "conical", "satin", "pinch", "folds", "elliptical", "rectangular", "bars", "ripple", "waves", "pattern", and "web dither".
stampingMode	string	Acceptable values are "blend" and "blend opaque".
textureBlend	float	0 to 100
webDitherTransparent	Boolean	If set to true (and shape is set to "web dither"), then the second color in the ditherColors array is ignored and transparent is used instead.

Frame object

The following table lists the properties of the Frame object, along with their data types and, where appropriate, acceptable values and notes. Read-only properties are marked with a bullet (•).

Property	Data type	Notes
delay	integer	Hundredths of a second.
disposal	string	Acceptable values are "unspecified", "none", "background", and "previous".
layers •	array	Array of FrameNLayerIntersection objects in the document (see FrameNLayerIntersection object on page 52).
visible	Boolean	If set to false, this frame is hidden. Default value is true.

FrameNLayerIntersection object

The following table lists the properties of the FrameNLayerIntersection object, along with their data types and, where appropriate, acceptable values and notes. Read-only properties are marked with a bullet (•).

Property	Data type	Notes
elements •	array	Array of Element objects (see "Element object" on page 39).
locked	Boolean	If set to true, this FrameNLayerIntersection is locked. Default value is false.
visible	Boolean	If set to false, this FrameNLayerIntersection is hidden. Default value is true.

Gradient object

The following table lists the properties of the Gradient object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`name`	string	The name that appears in the Fill panel.
`nodes`	array	Array of GradientNode objects (see "GradientNode object" on page 53).
`opacityNodes`	array	Array of GradientNode objects (see "GradientNode object" on page 53), that identify the opacity ramp associated with a gradient.

GradientNode object

The following table lists the properties of the GradientNode object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`color`	string	A color string that specifies the color at this position in the gradient (see "Color string data type" on page 11).
`isOpacityNode`	Boolean	If set to `true`, this node is part of the gradient's opacity ramp.
`position`	float	0.0 to 1.0

Guides object

The following table lists the properties of the Guides object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`color`	string	A color string that specifies the color used for the guides (see "Color string data type" on page 11).
`hGuides`	array	Array of floating-point numbers that specify horizontal guide locations.
`locked`	Boolean	If set to `true`, the user cannot select or move the guides. The default value is `false`.
`vGuides`	array	Array of floating-point numbers that specify vertical guide locations.

Layer object

The following table lists the properties of the Layer object, along with their data types and, where appropriate, acceptable values and notes. Read-only properties are marked with a bullet (•).

Property	Data type	Notes
`disclosure`	Boolean	If set to `true`, the Layers list displays all the objects in the layer. If set to `false`, only the name of the layer appears.
`frames` •	array	An array of FrameNLayerIntersection objects (see "FrameNLayerIntersection object" on page 52).
`layerType` •	string	Acceptable values are `"normal"` and `"web"`.
`name`	string	Might be `null` (removes any existing name).
`sharing`	string	Acceptable values are `"shared"` and `"not shared"`.

PathAttrs object

The following table lists the properties of the PathAttrs object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`brush`	object	Brush object (see "Brush object" on page 26).
`brushColor`	string	A color string that specifies the color that is used for rendering the Brush object, if any (see "Color string data type" on page 11).
`brushPlacement`	string	Acceptable values are `"inside"`, `"center"`, and `"outside"`.
`brushTexture`	object	Texture object (see "Texture object" on page 44).
`fill`	object	Fill object (see "Fill object" on page 51).
`fillColor`	string	A color string that specifies the color that is used for rendering the Fill object, if any (see "Color string data type" on page 11).
`fillHandle1`	point	The three `fillHandle` properties are used by Gradient and Pattern fills to set the angle and size of the gradient/pattern.
`fillHandle2`	point	
`fillHandle3`	point	
`fillOnTop`	Boolean	If set to `true`, the fill is drawn on top of the brush; if set to `false` (the default), the fill is drawn beneath the brush.
`fillTexture`	object	Texture object (see "Texture object" on page 44).

Pattern object

The following table lists the property of the Pattern object, along with its data type and notes.

Property	Data type	Notes
`name`	string	The name that appears in the Fill panel.

RectanglePrimitive object

The following table lists the properties and methods of the RectanglePrimitive object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`roundness`	float	A floating-point value between `0` and `1` that specifies the "roundness" to use for the corners (`0` is no roundness, `1` is 100% roundness).
`originalSides`	rectangle	A rectangle that specifies the original sides of the primitive (see "Rectangle data type" on page 11). Because rectangle primitives remember transformations, the user might see something different from the original sides.
`transform`	matrix	A matrix that indicates all the transformations that were applied to the primitive (see "Matrix data type" on page 11).
`pathAttributes`	object	A PathAttrs object that indicates the path attributes of the primitive (see "PathAttrs object" on page 54).

RegisterMoveParms object

The following table lists the properties of the RegisterMoveParms object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`constrainAngles`	Boolean	Determines whether dragging the control point constrains the angles to the `minAngle` and `maxAngle` values.
`constrainRotateKey`	string	Pass in the key that you want to use to constrain the rotation. A value of `"none"` means that rotation will not be constrained. A value of `"shiftKey"` means that when the user holds downs the Shift key while dragging the mouse, rotation will be constrained. The value can be one of the following: `"none"`, `"shiftKey"`, `"ctrlCmdKey"`, `"altOptKey"`. ***Note:*** these points are set with `minAngle` and `maxAngle`.
`constrainX`	float	The value to constrain the x coordinate. ***Note:*** the method `constrainXKey` must be used in conjunction with this method.
`constrainXKey`	string	Pass in the key that you want to use to constrain the x-coordinate value. A value of `"none"` means that x will not be constrained. A value of `"shiftKey"` means that when the user holds downs the shift key while dragging the mouse, x will be constrained. The value can be one of the following: `"none"`, `"shiftKey"`, `"ctrlCmdKey"`, `"altOptKey"`.
`constrainY`		The value to constrain the y coordinate. ***Note:*** the method `constrainYKey` must be used in conjunction with this method.
`constrainYKey`		Pass in the key that you want to use to constrain the *y*-coordinate value. A value of `"none"` means that y will not be constrained. A value of `"shiftKey"` means that when the user holds downs the Shift key while dragging the mouse, the value of *y* will be constrained. The value can be one of the following: `"none"`, `"shiftKey"`, `"ctrlCmdKey"`, `"altOptKey"`.

Property	Data type	Notes
`constrain45Key`	string	The key value that you want to use to constrain movement to the nearest 45º increment. Can be one of the following: `"none"`, `"shiftKey"`, `"ctrlCmdKey"`, `"altOptKey"`. A key value of `"none"` means dragging will not be constrained, `"shiftKey"` (or other value) means that when the user holds downs Shift key (or other value) while dragging, movement will be constrained.
`constrain90Key`	string	The key value that you want to use to constrain movement to the nearest 90º increment. Can be one of the following: `"none"`, `"shiftKey"`, `"ctrlCmdKey"`, `"altOptKey"`. A key value of `"none"` means dragging will not be constrained, `"shiftKey"` (or other key) means that when the user holds downs the Shift key (or other key) while dragging, movement will be constrained.
`deltaLinearToLinear`	float	Determines the ratio of mouse movement to point movement along the line. For example, a value of `1.0` means that if the mouse moves 1 pixel, the point moves 1 pixel along the line specified in the method `RegisterLinearMove`.
`deltaRtoR`	float	Determines the mouse radius change relative to the point radius change. For example, a value of `1.0` means that as the mouse moves 1 pixel away from the center of the object, the point also moves 1 pixel away from the center of the object.
`deltaShortestSideToX`	float	The ratio of shortest mouse movement to the movement of referenced point's *x* coordinate.
`deltaShortestSideToY`	float	The ratio of shortest mouse movement to the movement of referenced point's *y* coordinate.
`deltaLongestSideToX`	float	The ratio of longest mouse movement to the movement of referenced point's *x* coordinate.
`deltaLongestSideToY`	float	The ratio of longest mouse movement to the movement of referenced point's y coordinate.

Property	Data type	Notes
`deltaXtoX`	float	The ratio of mouse movement to the movement of the referenced point's *x* coordinate. For example, `1.0` means that when the mouse moves 1 pixel to the right, the referenced point also moves 1 pixel to the right.
`deltaXtoY`	float	The ratio of mouse movement on the x-axis to the movement of the referenced point's *y* coordinate. For example, `1.0` means that when the mouse moves 1 pixel to the left, the referenced point moves 1 pixel towards the top of the document.
`deltaYtoX`	float	The ratio of mouse movement on the y-axis to the movement of the referenced point's *x* coordinate. For example, `1.0` means that when the mouse moves 1 pixel to the top of the document, the refenced point moves 1 pixel to the left.
`deltaYtoY`	float	The ratio of mouse movement to the movement of the referenced point's *y* coordinate. For example, `1.0` means that when the mouse moves 1 pixel toward the bottom of the document, the referenced point also moves 1 pixel toward the bottom of the document.
`disableRotateKey`	string	Pass in the key that you want to use to disable rotating around the center. The value can be one of the following: `"none"`, `"shiftKey"`, `"ctrlCmdKey"`, `"altOptKey"`. A value of "`none`" means rotation will not be constrained. A value of `"shiftKey"` means that when the user holds downs the Shift key while dragging the mouse, rotation is not constrained.
`incrementRadius`	float	Constant value that is added to the radius.
`incrementX`	float	This amount is added to the x movement of the mouse when calculating the total movement.
`incrementY`	float	This amount is added to the y movement of the mouse when calculating the total movement.
`maxAngle`	point	The maximum angle that can be set.
`maxLinear`	float	Determines the maximum amount the point can move along a line.
`maxRadius`	float	The maximum radius value.

Property	Data type	Notes
maxX	float	The maximum value the *x* coordinate can move.
maxY	float	The maximum value the *y* coordinate can move.
minAngle	point	The minimum angle that can be set.
minLinear	float	The minimum amount the point can move along a line .
minMaxRelative	Boolean	Determines whether the min and max values are relative or absolute. For example, if max.x=100 and minMaxRelative is true, then x can move up 100 points to the right. If minMaxRelative is set to false then the maximum x can be set to is 100.
minX	float	The minimum value the *x* coordinate can move.
minY	float	The minimum value the *y* coordinate can move.
minRadius	float	The minimum radius value.
movePred	Boolean	Determines whether the predecessor point should be moved as the user moves the mouse›.
movePt	Boolean	Determines whether the point itself should be moved as the user moves the mouse.
moveSucc	Boolean	Determines whether the successor point should be moved as the user moves the mouse.
rotate	Boolean	Determines whether the point should rotate along with the mouse rotation.

SingleTextRun object

The following table lists the properties of the SingleTextRun object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
changedAttrs	object	TextAttrs object (see "TextAttrs object" on page 62).
characters	string	The text that is contained in this run.

SmartShape object

The following table lists the properties of the SmartShape object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
`altOptKeyDown` •	Boolean	Indicates whether the Alt/Option key is pressed (`true` if pressed, otherwise `false`).
`constrainDragInsertAspect`	Boolean	Determines if, while dragging a shape on the canvas, the aspect ratio is constrained (`true` if constrained, otherwise `false`).
`constrainDragInsertAspectKey`	string	The key value that will cause the aspect ratio to be constrained during a `DragInsert` operation.
`ctrlCmdKeyDown` •	Boolean	Indicates whether the Control/Command key is pressed (`true` if pressed, otherwise `false`).
`currentControlPoint` •	object	Returns the current control point object.
`currentControlPointIndex` •	integer	Returns the index number of the current control point.
`currentControlPointName` •	string	Returns the name of the current control point.
`currentMousePos`	point	Location of the mouse during the current drag message.
`elem` •	object	Objects defined as part of the current Auto Shape.
`getsDragEvents`	Boolean	Sets notification for drag events (`true` notifies the smartshape for every mouse movement, `false` sets no notification).
`livePreview`	Boolean	Sets live preview. A value of `true` enables live preview, and disables wire-frame preview handled by Fireworks. Live preview is slower than wire-frame preview. If you want the user to set this value, write a function handling the DragControlPoint message from Fireworks (see "Fireworks messages" on page 98.
`mouseDownPos` •	point	Location of the mouse during a mouse click.
`operation` •	string	Message received from Fireworks, see "Fireworks messages" on page 98 for possible messages.
`prevMousePos` •	point	Location of the mouse at the previous drag message.
`shiftKeyDown` •	Boolean	Indicates whether the Shift key is pressed.

The following table lists the method of the SmartShape object, along with its parameter.

Method	Parameter	Definition
`GetDefaultMoveParms()`	object	Returns an object that has all of the default move parameters set.

Style object

The following table lists the properties of the Style object, along with their data types and, where appropriate, acceptable values and notes. All Style object properties are read-only.

Property (read-only)	Data type	Notes
`effectList`	object	EffectList object (see "EffectList object" on page 38).
`name`	string	The name displayed in the Style panel.
`pathAttributes`	object	PathAttrs object (see "PathAttrs object" on page 54).
`tdTagText`	string	A string that contains all the attributes of a table cell except `colspan` and `rowspan`. Should be in a format similar to the following: `"bgcolor="ff0000" valign="top""`
`textBold`	Boolean	Whether to make the specified text bold; used only if `use_textStyles` is set to `true`.
`textFont`	string	The font to apply to text; used only if `use_textFont` is set to `true`.
`textItalic`	Boolean	Whether to make the affected text italic; used only if `use_textStyles` is set to `true`.
`textSize`	string	String of the form `"#pt"`, where `#` is a numeric value.
`textUnderline`	Boolean	Whether to underline the affected text; used only if `use_textStyles` is set to `true`.
`use_brush`	Boolean	If set to `true`, applies the `brush` property of the pathAttrs object when applying the style. If set to `false`, ignores the `brush` property. The default value is `false`.
`use_brushColor`	Boolean	If set to `true`, applies the `brushColor` property of the pathAttrs object when applying the style. If set to `false`, ignores the `brushColor` property. The default value is `false`.
`use_effectList`	Boolean	If set to `true`, applies the `effects` property of the EffectList object when applying the style. If set to `false`, ignores the `effects` property. The default value is `false`.

Property (read-only)	Data type	Notes
use_fill	Boolean	If set to true, applies the fill property of the pathAttrs object when applying the style. If set to false, ignores the fill property. The default value is false.
use_fillColor	Boolean	If set to true, applies the fillColor property of the pathAttrs object when applying the style. If set to false, ignores the fillColor property. The default value is false.
use_textFont	Boolean	If set to true, applies the textFont property of the pathAttrs object when applying the style. If set to false, ignores the textFont property. The default value is false.
use_textSize	Boolean	If set to true, applies the textSize property of the pathAttrs object when applying the style. If set to false, ignores the textSize property. The default value is false.
use_textStyles	Boolean	If set to true, applies the textStyles property of the pathAttrs object when applying the style. If set to false, ignores the textStyles property. The default value is false.

TextAttrs object

The following table lists the properties of the TextAttrs object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
alignment	string	Acceptable values are "left", "center", "right", "justify", and "stretch".
baselineShift	integer	The number of pixels above (positive numbers) or below (negative numbers) the baseline by which the characters are shifted.
bold	Boolean	Set to true for bold text, false for normal text.
face	string	The name of the font, such as Arial.
fillColor	string	A color string that specifies the color of the text (see "Color string data type" on page 11).
horizontalScale	float	The relative width of the characters. 1.0 – normal width ‹ 1 – thinner than normal › 1 – wider than normal
italic	Boolean	Set to true for italic text, false for normal text.

Property	Data type	Notes
kerning	float	Also known as pair kerning, kerning specifies the percentage of an em square by which to separate two characters, in addition to the amount the font specifies. Applies to only one pair or characters. To specify kerning for a range of text, use the rangeKerning property. 0 – normal kerning ‹ 0 – move the two characters closer together › 0 – move the two characters farther apart
leading	float	The spacing between two lines of text, measured from baseline to baseline. Larger numbers place more space between lines of text. Smaller numbers move the lines closer together. The exact effect of this property number depends on the value of the leadingMode property.
leadingMode	string	The only acceptable value is "percentage", which specifies that the leading property is a percentage of the text's point size. A leading property of 1.0 means 100 percent or single-spaced, 2.0 means 200 percent or double-spaced, and so on.
rangeKerning	float	The same as the kerning property, but applies to a range of text, not only two characters.
size	string	String of the form "#pt", where # is a numeric value.
underline	Boolean	Set to true for underlined text, false for normal text.

TextRuns object

The following table lists the properties of the TextRuns object, along with their data types and, where appropriate, acceptable values and notes.

Property	Data type	Notes
initialAttrs	object	TextAttrs object (see "TextAttrs object" on page 62).
textRuns	array	Array of SingleTextRun objects on this TextRuns object (see "SingleTextRun object" on page 59).

HTML export objects

Fireworks provides several object types that support the output of HTML and sliced images from Fireworks. These objects let you write JavaScript scripts that create templates to output the type of HTML that suits your specific requirement (generic HTML, Dreamweaver-compatible HTML, and so on). For each HTML template, use a Slices.htt file that generates the HTML for that particular template. For more information, see the Slices.htt and Metafile.htt files that are installed with Fireworks.

Note: For information on how to format nonstandard data types, such as rectangle or point, see "Formatting nonstandard data types" on page 11.

BehaviorInfo object

The BehaviorInfo object describes a behavior that is assigned to an element. There are seven behaviors: Status Message, Swap Image, Button Down, Swap Image Restore, Button Highlight, Button Restore, and Popup Menu (new in Fireworks 4). The following table lists the properties of the BehaviorInfo object, along with their data types and, where appropriate, acceptable values and notes. All BehaviorInfo object properties are read-only.

Property (read-only)	Data type	Notes

`action`	integer	Specifies the type of behavior: 1 is `Status Message`, 2 is `Swap Image`, 4 is `Button Down`, 5 is `Swap Image Restore`, 6 is `Button Highlight`, 7 is `Button Restore`, and 9 is `Popup Menu`. In the standard (default) templates, the following values are defined:
		`var kActionStatusMessage = 1;`
		`var kActionSwapImage = 2;`
		`var kActionButtonDown = 4;`
		`var kActionSwapImageRestore = 5;`
		`var kActionButtonHighlight = 6;`
		`var kActionButtonRestore = 7;`
		`var kActionPopupMenu = 9;`

`downHighlight`	Boolean	For button highlight behaviors, set to `true` if there is a down highlight image.

`event`	integer	Specifies the type of event: 0 is `Mouse Over`, 1 is `On Click`, 2 is `Mouse Out`, and 3 is `On Load`. In the standard (default) templates, the following values are defined:
		`var kEventMouseOver = 0;`
		`var kEventOnClick = 1;`
		`var kEventMouseOut = 2;`
		`var kEventOnLoad=3;`

`hasHref`	Boolean	For swap-image behaviors, set to `true` if the an external file is swapped in. The value of `hasHref` is always the opposite of `hasTargetFrame`; you cannot swap from two sources.
`hasStatusText`	Boolean	For status message behaviors, `true` if the status text is not empty.

Property (read-only)	Data type	Notes
`hasTargetFrame`	Boolean	For swap image behaviors, `true` if the swap image swaps in another frame in the Fireworks file. The value of `hasTargetFrame` is always the opposite of `hasHref`; you cannot swap from two sources.
`horzOffset`	integer	If `action` is set to 9 (Popup Menu), `horzOffset` specifies the horizontal pixel offset for the menu.
`href`	string	A link, which is expressed as *file://URL*. For swap-image behaviors, it's the file URL for an external swap image file.
`preload`	Boolean	For swap-image behaviors, `true` if the image is to be preloaded.
`restoreOnMouseout`	Boolean	If set to `true`, the original image for a swap-image behavior is restored on mouse out.
`statusText`	string	For status message behaviors, the status message text.
`targetColumnNum`	zero-based index	For swap-image behaviors, the column in the slices table that is swapped.
`targetFrameNum`	zero-based index	For swap-image behaviors, this frame number is swapped if `hasTargetFrame` is set to `true`.
`targetRowNum`	zero-based index	For swap-image behaviors, the row in the slices table that is swapped.
`vertOffset`	integer	If `action` is set to 9 (Popup Menu), `vertOffset` specifies the vertical pixel offset for the menu.

BehaviorsList object

The BehaviorsList object is an array of BehaviorInfo objects that describe the behaviors in an image map (see "BehaviorInfo object" on page 64). The BehaviorsList object does not occur by itself. That is, all occurrences of BehaviorsList objects are members of other objects. In the following example, `behaviors` is an object of type BehaviorsList, and `curBehavior` is an object of type BehaviorInfo.

```
var curBehavior = slices[i][j].behaviors[k];
```

The BehaviorsList object has only one property, which is read-only and is shown in the following table.

Property (read-only)	Data type	Notes
`numberOfBehaviors`	integer	The number of BehaviorInfo objects in the BehaviorsList array (0 or more) (see "BehaviorInfo object" on page 64).

exportDoc object

The following table lists the properties of the exportDoc object, along with their data types and, where appropriate, acceptable values and notes. All `exportDoc` properties are read-only.

Note: This object type does not start with a capital letter.

Property (read-only)	Data type	Notes
`altText`	string	The alternate text description for the Fireworks document.
`backgroundColor`	string	The hex color of the document canvas, without the # character; for example, `"FF0000"` for red background.
`backgroundIsTransparent`	Boolean	Set to `true` if the Fireworks canvas color is transparent or if the export settings specify a transparent GIF format; `false` otherwise.
`backgroundLink`	string	The background URL, which is expressed as *file://URL*.
`docID`	integer	A number that is assigned to a document to help identify HTML generated from it. The `docID` does not change when you change the name of a file. However, if you use File › Save As, you can get multiple files with the same `docID`.
`docSaveFolder`	string	Contains the path of the directory into which the document was last saved. If the document has not yet been saved, this is an empty string.
`docSaveName`	string	The filename used when the document was saved, without path information, such as `"nav.gif"`.
`emptyCellColor`	string	A color string that specifies the color of empty table cells (see "Color string data type" on page 11).
`emptyCellContents`	integer	Specifies what to put into empty cells. Acceptable values are 1 (nothing), 2 (spacer image), and 3 (nonbreaking space).
`emptyCellUsesCanvasColor`	Boolean	If set to `true` (the default), empty cells are set to the `backgroundColor` property. If set to `false`, they are set to the `emptyCellColor` property.
`filename`	string	URL for the exported image, relative to the HTML output; for example, `"images/Button.gif"`. In the Slices.htt file, it is the base image name plus the base extension. Unless there is only one slice, the Slices.htt file produces filenames such as `"Button_r2_c2.gif"`.

Property (read-only)	Data type	Notes
`generateHeader`	Boolean	Set to `true` if an HTML file is generated; `false` if the output goes to the Clipboard.
`hasAltText`	Boolean	Set to `true` if the Fireworks document has an alternate text description.
`hasBackgroundLink`	Boolean	Set to `true` if the Fireworks document has a background URL.
`height`	integer	Height of the image that is being exported, in pixels. In the Slices.htt file, it is the total height of the output images.
`htmlEncoding`	string	Determines the encoding standard for the HTML file that Fireworks generates during export. Use `"iso-8859-1"` for ASCII or `"utf-8"` for Unicode.
`htmlOutputPath`	string	File that the HTML is being written to, including the filename, which is expressed as *file://URL*; for example, `"file:///C|/top/nav/navbar.htm"`.
`imagename`	string	Name of the image that is being exported, without the extension; for example, `"Button"`.
`includeHTMLComments`	Boolean	The value of the Include HTML Comments preference, which the export script interprets as appropriate. For example, if this value is `false`, the Dreamweaver export script removes all nonessential comments.
`numFrames`	integer	Number of frames that are being exported from the Fireworks document. This value is not zero-based; the value is 1 or more.
`pathBase`	string	Path of the image that is being exported; for example, `"images/Button"`.
`pathSuffix`	string	Filename extension of the image that is being exported, including a period; for example, `".gif"`.
`startColumn`	integer	Used only in the Metafile.htt file for generating HTML for one slice. Specifies the column of the slice.
`startRow`	integer	Used only in the Metafile.htt file for generating HTML for one slice. Specifies the row of the slice.
`style`	string	The HTML style that is used to export the data, such as `"Dreamweaver"`, `"Generic"`, or `"FrontPage"`.

Property (read-only)	Data type	Notes
`tableAlignment`	string	A string that contains the alignment of the table. If the table is left-aligned, the string is simply a space (this is used for writing the HTML table). If the table is center-aligned, the string is `"align="center""`. If the table is right-aligned, the string is `"align="right""`.
`width`	integer	Width of the image being exported, in pixels. In the Slices.htt file, it is the total width of the output images.
`xhtmlFormat`	Boolean	Determines whether Fireworks outputs XHTML-formatted files (`true`) or HTML-formatted files (`false`) when the user exports a file.

ImageMap object

The following table lists the properties and methods of the ImageMap object, along with their data types and, where appropriate, acceptable values and notes. All ImageMap object properties are read-only.

Property (read-only) or Method	Data type	Notes
`altText`	string	The alternate text description for this slice, if any.
`behaviors`	object	BehaviorsList object that contains the behaviors for this slice (see "BehaviorsList object" on page 65).
`hasAltText`	Boolean	Set to `true` if the slice has an alternate text description.
`hasHref`	Boolean	Set to `true` if the slice has a URL.
`hasTargetText`	Boolean	Set to `true` if the target text is not empty.
`href`	string	The URL link for this slice, which is expressed as *file://URL*.
`numCoords`	integer	Number of coordinates in the area. A circle always has 1 (the center), a rectangle has 2 (top left and bottom right), and a polygon has 1 or more.
`radius`	integer	Radius of the area, if `shape` is `"circle"`.
`shape`	string	Acceptable values are `"circle"`, `"poly"`, and `"rect"`.
`targetText`	string	Target text for this image, if any.

Property (read-only) or Method	Data type	Notes

`xCoord(index)`	zero-based index	Returns the *x* coordinate for the specified point, in pixels. For example, the following commands return the coordinates for the first point:
		`var x = imagemap.xCoord(0);`
		`var y = imagemap.yCoord(0);`
		It is possible to have negative values if the image map area is drawn so that it crosses the left or top sides of the image (or sliced image).

`yCoord(index)`	zero-based index	Returns the *y* coordinate for the specified point, in pixels. See `xCoord()`.

ImagemapList object

The ImagemapList object is an array of ImageMap objects that describe the areas in an image map (see "ImageMap object" on page 68). To access ImageMap objects, use the ImagemapList array, as shown below:

```
var curImagemap = ImagemapList[i];
```

The ImagemapList object has only one property, which is read-only and shown in the following table. i

Property (read-only)	Data type	Notes
`numberOfURLs`	integer	The number of image map areas in the image map list (`0` or more).

SliceInfo object

The following table lists the properties and methods of the SliceInfo object, along with their data types and, where appropriate, acceptable values and notes. All SliceInfo object properties are read-only.

Property (read-only) or method	Data type	Notes
`altText`	string	The alternate text description for this slice.
`behaviors`	object	BehaviorsList object that contains the behaviors for this slice (see "BehaviorsList object" on page 65).
`cellHeight`	integer	Height of this table row, in pixels.
`cellWidth`	integer	Width of this table column, in pixels.
`downIndex`	zero-based index	The index for the frame of the down state for button slices.

Property (read-only) or method	Data type	Notes
`getFrameFileName (frameIndex)`	zero-based index	Returns a string that is the filename for the slice on the specified frame, without directory or extension information. For example, when exporting a file base named `Button`, `Slices[0][0].getFrameFileName(0)` returns `"Button_r1_c1"`. Generally all slices that have images have a frame filename. For frames 1 and higher, only slices that are rollovers or that are targeted by a swap image have names.
`hasAltText`	Boolean	Set to `true` if the slice has an alternate text description.
`hasHref`	Boolean	Set to `true` if the slice has a URL.
`hasHtmlText`	Boolean	Set to `true` if the cell is a text-only slice.
`hasImage`	Boolean	Set to `true` if this cell has an image. For text-only slices, this is set to `false`.
`hasImagemap`	Boolean	Set to `true` if there are image map Hotspots in this image slice.
`hasTargetText`	Boolean	Set to `true` if the target text is not empty.
`height`	integer	Height of the image in pixels, including row spans.
`href`	string	The URL link for this slice, which is expressed as *file://URL*.
`htmlText`	string	Text for a text-only slice.
`imagemap`	object	ImagemapList object containing the image map information for this slice (see "ImagemapList object" on page 69).
`imageSuffix`	string	Extension for the image in this cell, including a period (.); for example, `".gif"`.
`isUndefined`	Boolean	Set to `true` if the slice does not have a slice object drawn over it. If you draw two slices that don't cover your document, Fireworks automatically generates slices to cover the rest of the document. These slices are undefined.
`left`	integer	Left side of the cell in pixels. The left starts at `0`.
`nestedTableSlices`	object	A Slices object that describes a nested table occupying the current table cell (see "Slices object" on page 71). Set to `null` if the cell does not contain a nested table.

Property (read-only) or method	Data type	Notes
`setFrameFileName (frameIndex)`	zero-based index	Sets the filename for the slice on the specified frame, without directory or extension information. You can stop an image from being exported by setting its name to `""` (an empty string).
`skipCell`	Boolean	Set to `true` if this cell in the table is covered by a previous row span or column span.
`tableAlign`	string	The table alignment for the table in the current cell.
`tableBorder`	integer	The table's border width.
`tablePadding`	integer	The table's padding value.
`tableSpacing`	integer	The table's spacing value.
`tableTagText`	string	Text that contains table tag info that does not have a direct correlation in Fireworks.
`tableWidth`	integer	Percentage width if the table in the current cell has a percentage width.
`targetText`	string	Target text for this image, if any.
`top`	integer	Top of the cell in pixels. The top starts at `0`.
`width`	integer	Width of the image in pixels, including column spans.

Slices object

Slices is an object that has some properties and is also a two-dimensional array of SliceInfo objects (see "SliceInfo object" on page 69). For example, `Slices[0][0]` is the slice information for the first cell at row 0, column 0. The first array is rows; the second is columns.

The following example shows a common way to access the table:

```
var curRow;
var curCol;
for (curRow = 0; curRow<slices.numRows; curRow++) {
    for (curCol=0; curCol<slices.numColumns; curCol++) {
        var curSlice = slices[curRow][curCol]; // curSlice is the slice info
  for the cell at this row &
   column.
        // do whatever processing with curSlice.
    }
}
```

The following table lists the properties of the Slices object, along with their data types and, where appropriate, acceptable values and notes. All Slices object properties are read-only.

Property (read-only)	Data type	Notes
`demoIndex`	zero-based index	Index for each file generated for multiple file button export.
`doDemoHTML`	Boolean	Corresponds to the Export Multiple Nav bar HTML Files check box in the Document Specific tab of the HTML Setup dialog box. Setting this property to `true` produces n+1 HTML pages where n is the number of buttons. A value of `false` produces a single HTML page.
`doShimEdges`	Boolean	Set to `true` if table shims are set to Transparent Image in Document properties.
`doSkipUndefined`	Boolean	Set to `true` if Export Undefined Slices is not selected in Document Properties.
`imagesDirPath`	string	Relative URL to the images folder. For example, `"images/"`, or `"../site_images"`, or `""` (an empty string) if the images and the HTML are in the same directory.
`numColumns`	integer	Number of columns in the HTML table. Does not include shim column.
`numRows`	integer	Number of rows in the HTML table. Does not include shim row.
`shimPath`	string	Relative URL to the shim GIF file; for example, `"images/shim.gif"`.

Working with selected objects

When an object is selected, either programmatically (for example, using the `dom.selectAll()` function) or by a user, you can return (get) or set the value of that object's properties using common notation that will work on various objects. In other words, you can write a command that will get or set the value of an object's properties whether the user selects a Text object, or an Image object, or any other recognized object. In Fireworks, a recognizable object is classified as one of the following element types:

- `Hotspot`
- `SliceHotspot` (basically, a slice)
- `Path`
- `Group`
- `Instance`
- `Text`
- `RectanglePrimitive`
- `PathAttrs`
- `Image`

To test whether a text block is selected, type the following code:

```
firstSelection = fw.selection[0];
if (firstSelection == "[object Text]"){
alert("I am a text block");
}
```

You can use the information in the following sections to return or set property values.

Note: The return value for a property may be `null`.

Working with properties for any selected object

You can return and set the following properties of any type of selected object:

- `top`
- `left`
- `width`
- `height`
- `visible`
- `opacity`
- `blendMode`
- `name`
- `mask`

To return the name of the selected object, type the following code:

```
objectName=fw.selection[0].name;
```

The following properties contain other properties that you can return or set:

elementMask

- `element`
- `linked`
- `enabled`
- `mode`
- `showAttrs`
- `autoExpandImages`

effectList

- `name`
- `effects`

To return the name of the first effect that is applied to the selected object, type the following code:

```
effectName=fw.selection[0].effectList.effects[0].name;
```

Working with specific properties for selected elements

Some elements have specific properties that can be returned and set in addition to those that can be set for selected objects (see "Working with properties for any selected object" on page 73). These specific properties are available for each of the following elements when the elements are selected.

Hotspot

- `shape`
- `urlText`
- `altText`
- `targetText`
- `contour`
- `behaviors` (returns an array of behaviors)
- `color`

To return the `alt` tag that has been applied to the currently selected Hotspot, type the following code:

```
altTag = fw.selection[0].altText;
```

SliceHotspot

SliceHotspot is a subclass of Hotspot. A slice has all Hotspot properties, plus the following properties:

- `baseName`
- `htmlText`
- `tdTagText`
- `sliceKind` (`"image"` or `"empty"`)
- `exportOptions`
- `sliceID` (read-only)

To return the name of the currently selected slice, type the following code:

```
sliceName = fw.selection[0].baseName;
```

Path

- `pathAttributes`

Note: For the complete list of path attributes properties, see "pathAttributes" on page 76.

- `randSeed`
- `textureOffset`
- `contours`

To return the value of the fill color for the currently selected path, type the following code:

```
fillColor = fw.selection[0].pathAttributes.fillColor
```

Group

- elements
- groupType

To return the number of objects in a selected group, type the following code:

```
numOfObjectsinGroup = fw.selection[0].elements.length;
```

Instance

- symbolID
- transformMode
- instanceType
- urlText
- altText
- targetText

To return the instanceType for the currently selected instance, type the following code:

```
instance = fw.selection[0].instanceType;
```

Text

- antiAliased
- antiAliasMode
- autoKern
- orientation
- pathAttributes

Note: For the complete list of pathAttributes properties, see "pathAttributes" on page 76.

- randSeed
- textRuns
- textureOffset
- transformMode

To return the antiAliasMode setting for the currently selected text block, type the following code:

```
antiAliasedSetting = fw.selection[0].antiAliasMode;
```

RectanglePrimitive

- `Roundness`
- `pathAttributes`

Note: For the complete list of path attributes properties, see "pathAttributes" on page 76.

- `originalSides`
- `transform`

To return the roundness setting for the currently selected rectangle, type the following code:

```
roundness = fw.selection[0].roundness;
```

pathAttributes

Several objects have the `pathAttributes` property. The following list is the valid set of `pathAttributes` subproperties that can be returned or set:

- `brushColor`
- `fillColor`
- `brush`
- `fill`
- `brushTexture`
- `fillTexture`
- `fillHandle1`
- `fillHandle2`
- `fillHandle3`
- `brushPlacement`
- `fillOnTop`

To return the name of brush on the current path, type the following code:

```
brush = fw.selection[0].pathAttributes.brush.name;
```

CHAPTER 3
Cross-Product Extensions

Cross-product extensions include any Fireworks-related extensions developed for, or in, another Macromedia application. These cross-product extensions include those written for other tools, such as Macromedia Dreamweaver MX 2004 that leverage existing Fireworks MX 2004 functionality. They may use JavaScript APIs for adding image-editing functionality to those applications, as well as custom Fireworks panels developed in Macromedia Flash MX 2004 to enhance the functionality of Fireworks. For example, a developer may want to create an ActionScript command so that a user can replace text in an image without leaving the current movie. Similarly, a Flash developer may create a panel so that a Fireworks user can easily create spirals and other nonstandard shapes repeatedly.

Cross-product architecture

The Fireworks cross-product communication architecture provides a new way for extension developers to create Fireworks-related features for other applications. With this new architecture, your extensions allow a user to perform common image-editing operations (cropping, rotating, adjusting color, blurring, and almost all Fireworks operations) without leaving the current application or opening Fireworks.

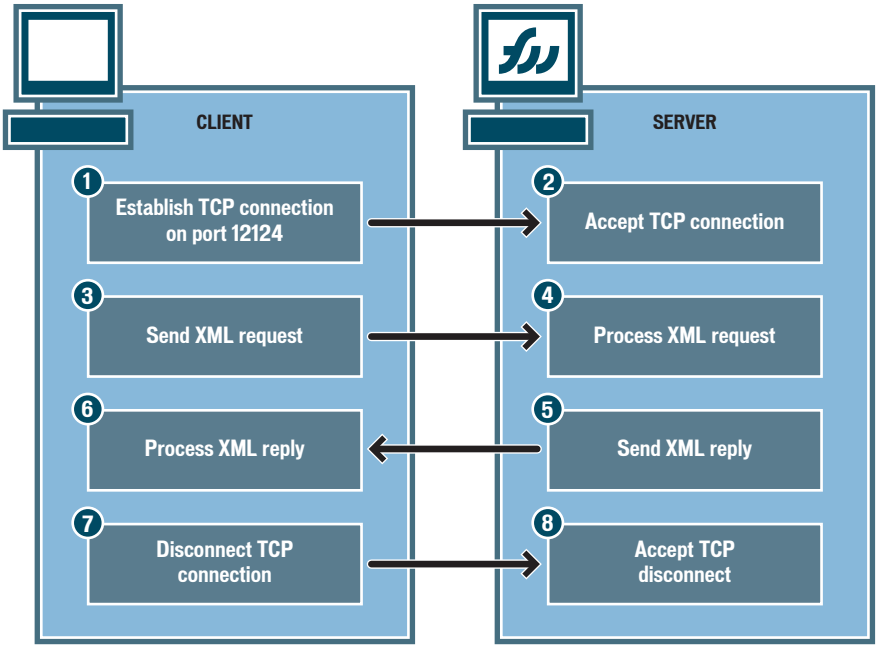
XML and remote procedure calls (RPC)

Applications written with Flash Actionscript 2.0 or C++ applications can control Fireworks MX 2004 by sending JavaScript instructions (called remote procedure calls, or RPC) encoded in XML through a local socket. The Fireworks RPC gives other applications access to functionality previously restricted to JavaScript programs running inside Fireworks. The RPC mechanism exposes the Fireworks JavaScript DOM through XML and a TCP socket connection. In this way, an application (written with Actionscript 2.0 or C++) running on the same machine as Fireworks (only local connections are allowed to the loopback address) can be used to open Fireworks documents, slice them, optimize them, and then export them. Users can also create a new Fireworks document through another application, draw in the document, and preview it in the browser. Nearly anything that can be accomplished with a JavaScript program running in Fireworks can now be done through remote procedure calls.

Currently, Dreamweaver MX 2004 does not have the Flash Player 7 plug-in supporting ActionScript 2.0 and Fireworks remote procedure calls. Dreamweaver extensions that use remote procedure calls need to be written in a combination of JavaScript communicating with C++.

Note: Fireworks excludes functionality related to starting other applications or manipulating non-Fireworks related files (for more information, see "Security" on page 85).

Fireworks RPC transactions pass XML between an RPC client and the Fireworks RPC server built into Fireworks MX 2004. The RPC client is any supported program that connects to Fireworks through a TCP stream on port 12124. The Fireworks RPC server is the internal code that listens on TCP port 12124 and then handles client requests. During the RPC transaction, information flows from client to server:



Note: The RPC client is not required to disconnect after each XML request. The RPC client can keep the connection open and send additional XML requests. However, only one XML request can be outstanding at one time. In other words, the RPC client cannot send a second request until it receives a reply to the first request.

RPC client XML requests

The XML request contains four pieces of information for Fireworks:

- The type of operation to perform
- The name of the operation to perform
- The object on which the operation is performed
- Any parameters the operation needs

Note: XML requests are specially formatted XML document fragments, not full XML documents. XML requests are sent to the server in UTF-8 encoding and terminated with the null (0) character.

Logically, requests contain two parts: the envelope and the parameters. The envelope specifies the the requested operation (for instance, `get` or `set`) and the object that the operation is performed on. The parameters (strings, integers, arrays, and so on) specify how the operation happens. The envelope tag contains the parameter tag, as follows:

```
<envelope><parameter /></envelope>
```

The RPC client sends four types of requests, specified in the XML tag name of the envelope:

- `get`

  The `get` operation retrieves the current object properties. The `get` operation can contain only the `obj` and `name` attributes and no subelements. In this example, the client requests the value of the `appDir` property of the object whose ID is 1:

  ```
  <get obj="1" name="appDir" />
  ```

- `set`

  The `set` operation sets the object properties. The `set` operation can contain only the `obj` and `name` attributes and exactly one parameter. The parameter must be the same data type as the data type of the property being set, or Fireworks will return an error. In this example, the client sets the property of "name" (a string providing a directory path) to the value `file://hd/foo/stuff`:

  ```
  <set obj="1" name="appDir"><string order="1" value="file://foo/stuff" /></
    set>
  ```

- `func`

  The `func` operation calls a method that operates on the specified object. The number and type of parameters vary according to the method called by the `func` operation. In the following example, the client calls the `undo` method to operate on the object with object ID 1:

  ```
  <func obj="1" name="undo" />
  ```

- `release`

  The `release` operation informs the server that the client has finished working on the specified object. A `release` request must specify only an `obj` attribute and no subelements. For example, in this example the client tells the server that it is has finished working on the object with ID 1:

  ```
  <release obj="1" />
  ```

Note: Each type of request requires an `obj` attribute, and all but the `release` request require a `name` attribute. Requests can be only of types `get`, `set`, `func`, or `release`. The RPC server rejects all other types.

Object IDs

RPC clients reference objects on the server by their object IDs. Because all functionality is exposed by means of objects, every client request must contain a valid object ID. When an object that can be accessed through RPC is created, it is assigned a unique object ID. The object retains that ID for its entire lifetime. This happens for all RPC server objects, whether they are created directly by an RPC call or by an internal Fireworks function. The object IDs maybe re-used after the corresponding object is destroyed.

Note: The object ID number should be treated as a string data type that *could* contain non-numbers, (do not treat the object ID as an integer data type).

Fireworks has four reserved object IDs:

- `"0"`

  This is the Invalid Object ID, used for nonexistent or invalid objects. It is not frequently used for the RPC client, but it is used in several places for the RPC server.

- `"fw"`

  This is the Fireworks Application Object ID. The Fireworks Application Object ID references the main application object in Fireworks and is of the Fireworks class.

  This object is used to open and create documents. In JavaScript, it is the object referenced by `App` or `fw`.

- `"smartShape"`

  This is the SmartShape Object ID. This object id references the global JavaScript variable `smartShape` and is used to create an manipulate smart shapes.

- `"Document"`

  This is the Fireworks Document Compatibility Object ID (it is deprecated, like its JavaScript counterpart). It was used in Fireworks 2 for cleaning up file paths, and is included here only for completeness.

- `"Errors"`

  This is the Fireworks Errors Object ID, used mainly for reporting and determining when errors occur in Fireworks. Its JavaScript counterpart is `Errors`.

All other object IDs are generated when the object is created, and may or may not have the same IDs between application invocations.

Data node

The data node is the most important type of XML node in RPC. Methods (called through the `func` operation) need to act on actual data or references to server objects identified in data nodes. The data nodes are used as parameters and parts of replies. There are several types of data nodes, as described in the following table.

Data type	Node name	Example	Description
array	`array`	`<array><string value="stuff" /><int value="50" /></array>`	An array data type. It is simply a container node for the other data nodes. There are no restrictions on how many subelements it can contain or which types it can contain. The contained data nodes may be of the same type or of different types. No additional attributes have to be added to the contained nodes.
Boolean	`bool`	`<bool value="true" />`	The Boolean data type. It can contain either `true` or `false` and nothing else. Note that the values are case sensitive.

Data type	Node name	Example	Description
dictionary	`dict`	`<dict><double key="foo" value="5.0" /><string key="bar" value="fred" /></dict>`	A dictionary data type. Like the array data type, it is simply a container for other data nodes. Each direct child node of a dictionary node must contain an additional `key` attribute. The `key` attribute is a string and must be unique for the given dictionary node. The key string must start with a letter or an underscore (_) and may followed by numbers, letters, or underscores. Dictionary nodes can be used to pass objects by value.
float	`double`	`<double value="1.2345" />`	The floating-point data type. It can contain any floating-point (real) number within the range 1.7e +/- 308.
integer	`int`	`<int value="50" />`	The integer data type. It can contain any signed integer in the range -2,147,483,648 through 2,147,483,647.
null	`null`	`<null />`	The null type has only one value: null. The null type automatically coerces into the string type, array type, dictionary type, and the server object type. The null type cannot have any attributes or sub-elements.
server object	`obj`	`<obj value="fw" class="Fireworks" />`	The server object data type. The `value` attribute is set to the object ID. The `class` attribute is optional. The server always specifies the object class when sending replies to the client. The client, however, is not required to specify the class when sending server object nodes to the server. The `class` attribute tells the client what properties and methods are available on an object.
string	`string`	`<string value="foo" />`	A string data type. It can contain a UTF-8-encoded string. If you include special characters, you must “escape” them (indicate that they are part of the string) according to the method described in the XML Data Model (from http://www.w3.org/XML/Datamodel.html). Most XML writing packages automatically do this.
void	`void`	`<void />`	No value; no type. Cannot have any attributes or subelements.

Parameters

Parameters are simply data nodes with an `order` attribute. The `order` attribute identifies the order in which the parameters should be processed for the server. In this way, the RPC client can use any XML client library to build parameters in any order, and the RPC server retains the correct parameter order. The first parameter should have the `order` attribute set to 0; the second, to 1; and so on, as in this example:

```
<string order="1" value="bob" />
```

The `set` operation requires only one parameter, and the `func` operation may have zero or more parameters.

RPC server XML replies

After the RPC server processes an XML request, it packages the result as an XML fragment and sends it back to the client. If an error occurred during processing, the server returns an error code in the result XML. Otherwise, the reply node contains a single data node with the result of the operation. If the request doesn't require a return value, the reply node contains either a single void data node or no children nodes.

For example, here is a successful reply:

```
<return><string value="file://hd/foo/stuff/mydoc.png" /></return>
```

Here is a successful reply with a server object:

```
<return><obj value="23467" class="FireworksDocument" /></return>
```

Note: When the server returns a server object, it automatically retains the object on the client's behalf. That is, the object returned to the client is not destroyed until the client releases it with a `release` request, or until the client disconnects from the server. Therefore, the client should release a server object as soon as the client has finished sending requests related to that object (when the client is done "using" the object).

Error codes

If the server encounters an error when processing a request, the reply node (with the node name `return`) contains at most one `error` attribute, as in this example:

```
<return error="5" />
```

The `error` attribute can contain one of the values listed in the following table.

Error code	Description
0	No error occurred, and the request completed successfully. The client should never receive an error attribute with this value. If no error occurred, then no error attribute will be present.
1	An unknown, generic error occurred. The RPC server could not make enough sense of the request to give a specific error. Check the name of the XML nodes and attributes.
2	No such object, invalid object ID. The object specified by the client does not exist or the object ID is invalid.
3	No such method. The method that the client requested does not exist on the specified object.

Error code	Description
4	No such property. The property that the client requested does not exist on the specified object.
5	Read-only property. The `set` request cannot be completed because the specified property is read only.
6	Wrong number of parameters. The request did not specify the correct number of parameters. Either more or fewer parameters are needed.
7	Wrong parameter type. One or more of the parameters given is of the wrong type.

RPC and the Fireworks JavaScript DOM

The RPC server does not allow for self-discovery of the server classes and their methods. Instead the client must know the methods and properties of a given class of objects beforehand. If the client is written in ActionScript or C++, then the client can use the generated client stubs provided by Macromedia, Inc. Client stubs generated by Macromedia know about all methods and properties of every class accessible through RPC. These stubs are available for download at the Macromedia website: www.macromedia.com/support/fireworks/documentation.html.

Generating stubs for nonstandard client types

If the client is not written in one of the languages for which Macromedia provides a client RPC library, the client implementer must create or generate the stubs. For information about how to do this, see Chapter 2, "The Fireworks Object Model," on page 9. The application object (with object ID fw) is of the `Fireworks` class (see "Object IDs" on page 79 for other objects with reserved IDs). All objects returned by the server contain the class name as an attribute. Given an object's class, the client can determine what methods and properties it has based on the Fireworks JavaScript DOM. The DOM document also gives the prototypes of the methods and properties of a class. The client can use the DOM document to determine the number and types of method parameters. The DOM document uses more types in its prototypes than the RPC mechanism defines. So, several of the documented types collapse to one RPC type.

In addition to static properties, objects of certain classes can also have dynamic properties. Chapter 2, "The Fireworks Object Model," on page 9 documents dynamic properties and specifies whether the dynamic properties are read only. Most dynamic properties are on lists (for example, the `BehaviorsList` class). The properties take an integer or string as a property name, and return a value based on the element associated with the property name.

The following table shows the mapping between the Fireworks Object Model data types and the RPC data types.

DOM data type	RPC data type	Example	Description
array	array	`<array></array>`	Types map identically.
Boolean	Boolean	`<bool value="true" />`	Both types are identical. Both contain only two values: `true` or `false`.
color	string	`<string value="#7788CCFF" />`	A color is a string with nine characters. It has the format #RRGGBBAA.

DOM data type	RPC data type	Example	Description

date	dictionary	`<dict>`
		`<int key="year"`
		`value="2002" />`
		`<int key="month"`
		`value="9" />`
		`<int key="day"`
		`value="3" />`
		`<int key="hour"`
		`value="20" />`
		`<int key="minutes"`
		`value="15" />`
		`<int key="seconds"`
		`value="32" />`
		`</dict>`
			A date is a dictionary with the following subelement keys: year, month, day, hour, minutes, and seconds. All six elements are integer data types.

dictionary	dictionary	`<dict></dict>`	Types map identically.
float	float	`<double value="5.132" />`	Types map identically.
integer	integer	`<int value="7" />`	Types map identically.

matrix	dictionary	`<dict>`
		`<array key="matrix">`
		`<double value="1.0" />`
		`<double value="0.0" />`
		`<double value="0.0" />`
		`<double value="0.0" />`
		`<double value="1.0" />`
		`<double value="0.0" />`
		`<double value="0.0" />`
		`<double value="0.0" />`
		`<double value="1.0" />`
		`</array>`
		`</dict>`
			A matrix is a dictionary that contains one subelement key: `matrix`. A matrix is an array of nine float elements. The elements start at the top row and go in row-major order.

null	null	`<null />`	Types map identically.
object	server object, or dictionary	`<obj value="1" />`	For an object type, the client can simply specify a server object. However, for certain objects (such as objects of the `Effect` class) a dictionary can be constructed and then used. If the client creates a dictionary, all properties of the class must be added to the dictionary with the correct type.

point	dictionary	`<dict>`
		`<double key="x"`
		`value="300.4" />`
		`<double key="y"`
		`value="234.0" />`
		`</dict>`
			A point is a dictionary with two subelement keys: `x` and `y`. Both subelements are float data types.

rect	dictionary	`<dict>`
		`<double key="top"`
		`value="300.4" />`
		`<double key="left"`
		`value="234.0" />`
		`<double key="bottom"`
		`value="500.6" />`
		`<double key="right"`
		`value="564.0" />`
		`</dict>`
			A rect is a dictionary with four subelement keys: `top`, `left`, `bottom`, and `right`. All four subelements are float data types.

DOM data type	RPC data type	Example	Description

resolution	dictionary	`<dict>`
		`<string key="units"`
		`value="inch" />`
		`<double`
		`key="pixelsPerUnit"`
		`value="72.0" />`
		`</dict>`
			A resolution is a dictionary with two subelement keys: `units` and `pixelsPerUnit`. The `units` key can be any of these strings: `inch`, `cm`, or `pixels`.The `pixelsPerUnit` key is a float data type.

string	string	`<string value="foo" />`	Types map identically.
URL	string	`<string` `value="file://hd/www" />`	A URL is a string. It usually starts with `file://`.
void	void	`<void />`	Types map identically.

Security

The RPC server restricts some operations to make sure that a client cannot use the RPC server maliciously to damage the user's system. The first security mechanism is that the RPC server binds to the loopback address, 127.0.0.1. This means all clients must run on the same machine as the RPC server and must connect to that machine through the loopback address. The second security mechanism prevents the exposure of "dangerous" classes that are normally on the Fireworks Javascript DOM, such as the JavaScript `Files` classes. However, the client can still have Fireworks open, and export and save PNG and other image files. Third, certain methods and properties that could be used maliciously are not permitted in remote procedure calls (including all methods of the File object, see "Files object" on page 17 and the functions `fw.launchApp` and `fw.findApp`). The RPC server returns an invalid method error to the client if it attempts to use these methods or properties. Finally, clients can release only those objects that have been retained on their behalf. Additionally, when a client disconnects, all the server objects that have been retained on that client's behalf are released.

Note: Objects are not destroyed until the client releases them or until the client that created them disconnects from the server.

RPCMethods class

To use remote procedure calls, Flash developers need to create an instance of a Fireworks object and thereafter manage Fireworks objects carefully to save memory. In ActionScript, you should create blocks of code where you will access the Fireworks DOM, assign a group ("pool") of objects to variables, and then release those objects when you are finished. Fireworks provides the following series of memory-management functions to support ActionScript developers working with Fireworks objects. To learn more about using these functions, see "Creating auto-release blocks" on page 87 and "Accessing proxy objects" on page 88. These functions are defined in the supporting RPCMethods.as stubs file available for download from the Macromedia website.

Note: ActionScript Remote Procedure Calls for Fireworks are not ActionScript 1.0 compatible, and must be written in ActionScript 2.0 (using Flash MX 2004).

RPCMethods.CreateAutoReleasePool()

Usage

```
RPCMethods.CreateAutoReleasePool()
```

Arguments

None.

Returns

Nothing.

Description

Starts the auto-release block.

RPCMethods.DestroyAutoReleasePool()

Usage

```
RPCMethods.DestroyAutoReleasePool()
```

Arguments

None.

Returns

Nothing.

Description

Ends the auto-release block and frees all allocated remote objects in the current auto-release block function.

RPCMethods.AddToAutoReleasePool()

Usage

```
RPCMethods.AddToAutoReleasePool(proxyObject)
```

Arguments

proxyObject

The object to add to the current pool.

Returns

Nothing.

Description

Adds an object to the current auto-release pool. This function is called by the auto-release block. If no object pool exists, this function does nothing.

RPCMethods.RemoveFromAutoReleasePool()

Usage

```
RPCMethods.RemoveFromAutoReleasePool(proxyObject)
```

Arguments

proxyObject

The object to remove from the current pool.

Returns

Nothing.

Description

Removes an object from the current auto-release pool so that it can be used in another code block.

RPCMethods.ReleaseObject()

Usage

```
RPCMethods.ReleaseObject(Object)
```

Arguments

Object The name of the object to release from memory.

Returns

Nothing.

Description

Releases an object from memory. This function searches the specified object and all its properties for proxy objects. If proxy objects are found, they are released from memory.

Creating auto-release blocks

Rather than constantly tracking which objects to release and how to relase them, you can define blocks of code where you access the Fireworks DOM. In these blocks of code, the ActionScript stubs can keep track of all the proxy objects allocated. Then, at the end of the block of code, a single command will automatically release all objects allocated in the block.

Here is an example:

```
RPCMethods.CreateAutoReleasePool();
  var selObject = fw.selection.get(0);
RPCMethods.DestroyAutoReleasePool();
```

Calling the `CreateAutoReleasePool()` function marks the beginning of the auto-release block, and calling the `DestroyAutoReleasePool()` function marks the end. Any object allocated between these two calls is released by calling `DestroyAutoReleasePool()`. Using these two functions, you can write ActionScript code and not worry about memory management.

Accessing proxy objects

If you want to access a proxy object outside of an auto-release block, you must use the `RemoveFromAutoReleasePool()` function. The `RemoveFromAutoReleasePool()` function manually removes an object reference from the auto-release pool before exiting the auto-release block.

In this example, the reference to the object defined as `selObject` is removed:

```
RPCMethods.CreateAutoReleasePool();
  var selObject = fw.selection.get(0);
  RPCMethods.RemoveFromAutoReleasePool(selObject);
RPCMethods.DestroyAutoReleasePool();
```

Now you can use the selObject object outside the auto-release block.

Note: You must remember to release the selObject object when you are done with it.

Additionally, you can nest auto-release blocks, that is, you can create an auto-release block and then call a function that creates its own auto-release block. The `ReleaseObject()` function iterates through an object's properties and releases any proxy objects it finds.

A simple RPC example

This example creates a 200 x 200 pixel rectangle in Fireworks when a button in a Flash application is pressed.

To build a Flash application that uses RPC to create a Fireworks object:

1. Download the supporting ActionScript stub files (a series of supporting ActionScript files) from the Macromedia website, you need to put them in your working directory (where the new FLA file will reside).
2. Then, in Flash MX 2004 or Flash MX Professional 2004, open a new document.
3. In the first frame, add the following in the Actions panel to link the general fireworks stub file to the movie when it is published:

   ```
   #include "fwstubs.as"
   ```

4. Create a simple button which will activate the RPC script.
5. Insert the button in the first Frame, in the middle of the stage.
6. Attach the following ActionScript code to the button to activate the RPC code when the button is pressed:

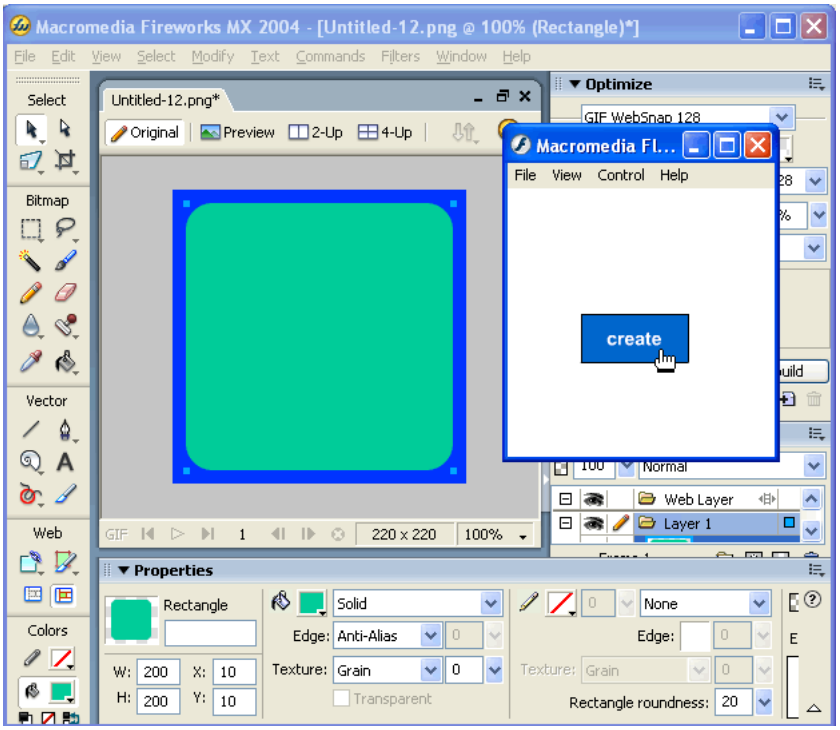
   ```
   on(press){
     RPCMethods.CreateAutoReleasePool();

     var fw = new Fireworks();
     //Hide all panels - this function commented out as it will crash if run
     from inside Fireworks
     //fw.setHideAllFloaters(true);

     //Define the document objects the long way
     var res = new Object();
     res.units = "inch";
     res.pixelsPerUnit = 72;
     var size = new Object();
     size.x = 220;
     size.y = 220;
   ```

```
    //Create new doc
    var fwdoc = fw.createFireworksDocument(size, res, "#0033FF");

    //Define a rectangle object the short way
    var rect = {left:10, top:10, right:210, bottom:210};
    //Add Rectangle
    fwdoc.addNewRectanglePrimitive(rect,0.20);
    //Set its color
    fwdoc.setFillColor("#00CC99");


    RPCMethods.DestroyAutoReleasePool();
}

RPCMethods.DestroyAutoReleasePool();
```

7 Publish the SWF file.

When you publish the SWF file, make sure the stubs files are in the same directory as your FLA file.

The SWF creates a new Fireworks document, and draws a 290 x 290 pixel green rectangle in Fireworks:



Flash panels

Fireworks contains Macromedia Flash Player, which plays Shockwave files as panels and commands in the Fireworks interface. You can also add a Macromedia API wrapper extension to Macromedia Flash for creating Shockwave files that communicate with the Fireworks API. By leveraging the new API communication between Macromedia Flash and Fireworks, Fireworks extension developers can create command interfaces and dialog boxes that go beyond the `alert()` and `prompt()` dialog boxes supported in previous versions. You can add command panels to Fireworks for image enhancements, object manipulation, or other custom functionality.

How Flash panels and commands work

Macromedia Flash developers can create interactive movies that contain a combination of ActionScript and calls to the Fireworks API for two types of deployment: interactive panels or modal commands. Basically, while writing ActionScript, you can embed commands for the Fireworks API in the `MMExecute()` function, or you can embed them using the API wrapper extension for Macromedia Flash (download the API wrapper from the Macromedia website at www.macromedia.com/support/fireworks/documentation.html). You can construct these Macromedia Flash animations as interactive panels that work just as the Layers panel, the Frames panel, and other built-in panels do.

Shockwave files that are published to the Fireworks MX installation directory, Configuration\Command Panels subfolder, act as panels in the Fireworks interface at runtime and are available through the Window menu.

Shockwave files that are published to the Configuration\Commands subfolder act as modal commands and are available through the Commands menu in the Fireworks interface.

Note: On multiuser systems, Fireworks supports a Command Panels folder inside of each user's Configuration folder, so users can save favorite panels.

At runtime, Fireworks starts Flash Player, which either plays Shockwave animations or runs commands (if the user selects the custom command options). The Align panel (Window > Align menu option) is an example of how Flash panels work in the Fireworks interface.

Embedding API commands

You can call any part of the Fireworks API by embedding the API commands in the following functions. These functions communicate directly with Macromedia Flash Player, which is distributed with Fireworks MX 2004.

MMExecute()

Usage

`MMExecute(`*`jsToPass`*`)`

Arguments

`jsToPass` A string of JavaScript for Fireworks to execute.

Returns

Nothing.

Description

Declares a set of JavaScript code to pass to the Fireworks API, allowing Flash authors to embed Fireworks API commands in a frame of a Flash movie.

Note: `MMExecute` supersedes the `FWJavascript` command. However, the `FWJavascript` command still works in the current version of Fireworks.

The commands should be embedded in the same way that you would write separate JavaScript code blocks to perform similar operations, and you can concatenate lines of JavaScript code into one `MMExecute()` function.

Example

The following example concatenates two lines of JavaScript code into one command:

```
MMExecute("dom=fw.getDocumentDOM();dom.addNewRectanglePrimitive({left:47,
  top:26, right:102, bottom:87}, 0");
```

MMEndCommand()

Usage

`MMEndCommand(`*`endStatus, notifyString`*`)`

Arguments

`endStatus` A Boolean value: `true` to commit changes; `false` otherwise. If it is set to `false`, any pending changes are discarded. To commit the changes, *`endStatus`* must be set to `true`.

`notifyString` A string to notify the user of errors. If the value of *`endStatus`* is `false`, this argument holds a string used to notify the user of the error. If *`endStatus`* is set to `true`, *`notifyString`* is an empty string.

Returns

Nothing.

Description

This function should be called whenever the user clicks the OK or Cancel buttons provided in the Flash content to execute or cancel a command. This function is used only for modal commands, not for Flash panels.

Note: `MMEndCommand` supersedes the `FWEndCommand` command. However, `FWEndCommand` still works in the current version of Fireworks.

Using the API wrapper extension in Macromedia Flash

You can install a special extension that was developed specifically for writing Fireworks functions in ActionScript (currently, only ActionScript 1.0) either as a replacement for the `MMExecute()` and `MMEndCommand()` functions or to be used in conjunction with them. After it is installed, the API wrapper appears in the Macromedia Flash interface. This wrapper simplifies the writing of Fireworks commands. Instead of having to embed every Fireworks function in `MMExecute()`, you can use a series of `fwapi` functions in the ActionScript. Then, when it is published, the wrapper translates the `fwapi` functions into the expanded Fireworks functions. You can also mix the `fwapi` functions with `MMExecute()` statements.

To install the API wrapper, make sure you have the Macromedia Extension Manager installed and double-click the Extension file. In Macromedia Flash, the wrapper appears in the Components window as FWCommandComponents.

The following example shows a command without the wrapper:

```
var path = MMExecute("fw.appPatternsDir;");
```

The following example shows the same command using the wrapper:

```
var path =fwapi.getAppPatternsDir();
```

Working with ActionScript (AS) files

You can simplify the editing task by keeping a separate AS file for ActionScript; in this way, you don't need to open and edit the FLA file directly. Your FLA file must have a `#include myStringFile.as` statement in the first frame (where *myStringFile* is the name of your AS file) to ensure that the ActionScript strings are complied at publishing time.

Note: The FLA and AS files should reside in the same folder so that the AS file can be easily found for compiling.

Guidelines for creating panels and commands

- You need to surround nested quotation marks need with backslash (\). The following example prints: `John's example is really "complex"!`

  ```
  MMExecute('alert("John\'s example is really \"complex\"!")');
  ```

- The movie size set in Flash is used in Fireworks as the minimum and default size of the command panel.
- To improve the appearance and positioning of a modeless panel, turn off scaling and align the panel contents with the upper left corner of the stage. You can make these changes with the following ActionScript code:

  ```
  Stage.align = "TC";
  Stage.scaleMode = "noScale";
  ```

Events

Fireworks events for Flash panels allow developers to write event handlers for specific user interaction. For example, a panel for creating a customized shape can respond to the user changing the stroke attribute, and make changes to the lines in the shape accordingly.

How event handlers work

When a panel is launched and the Flash movie starts, Fireworks will scan the movie script for the presence of event handlers. If a handler is present, Fireworks automatically registers the function to receive the corresponding event. Fireworks only looks at the SWF file to see if it needs any of these events when the panel opens (when the SWF file runs).

Creating event handlers

To create an event handler, implement a function with the corresponding event name. Currently, Fireworks supports the following events for Flash panels:

Event	Description
onFwStartMovie	Sent to the SWF file right after Fireworks has started (or restarted) the SWF file.
onFwStopMovie	Sent to the SWF file right before Fireworks stops the file (and possibly unloads it).
onFwUnitsChange	Sent when the user changes the type of units (inches, pixels, centimeters) in the Info panel.
onFwPICollapseOrExpand	Sent when the user switches the PI between two rows high and four rows high.
onFwDocumentNameChange	Sent when the name of the current document changes (for example, when the user performs a save).
onFwCurrentFrameChange	Sent when the user selects a different frame.
onFwCurrentLayerChange	Sent when the user selects a different layer.
onFwHistoryChange	Sent when the user creates an non-scriptable history step.
onFwApplicationDeactivate	Sent when the Fireworks application loses focus.
onFwApplicationActivate	Sent when the Fireworks application gains focus.
onFwSymbolLibraryChange	Sent when the symbol library changes in some way.
onFwURLListChange	Sent when a new URL is added to the document.
onFwFavoritesChange	Sent when the favorite urls list is modified.
onFwPreferencesChange	Sent when the preferences are changed.
onFwDocumentSizeChange	Sent when the document is resized.
onFwActiveViewChange	Sent when the active view changes. This happens when the user changes focus in 2- or 4-Up view.
onFwPixelSelectionChange	Sent when the pixel selection changes.
onFwActiveSelectionChange	Sent when the selection changes in a document.
onFwActiveDocumentChange	Sent when the user creates a new document, closes a document, opens a document, or switches between open documents.
onFwActiveToolParamsChange	Sent when the user changes the tool stroke or fill attributes.
onFwActiveToolChange	Sent when the user changes tools.
onFwZoomChange	Sent when the zoom setting for the current document changes.
onFwObjectSettingChange	Sent when a stroke or fill setting is changed for the selected object.

Note: The event handler must be implemented in the global namespace. Any events that are in the SWF file but aren't global, or are only read after Fireworks checks for events, will not work correctly.

Example

```
function onFwDocumentNameChange()
{
// your code goes here
}
```

Example

```
_global.onFwDocumentNameChange = function ()
{
// your code goes here
}
```

Both examples show how to implement a handler for the document name changed event. However, the second example will only work if the assignment executes before or during the `onFwStartMovie` handler.

Publishing

When testing your script, use the File > Publish menu option in Macromedia Flash MX. The Shockwave file is in the same place as the FLA file after publishing.

Debugging

Fireworks provides two functions to help debug Flash panel ActionScript (see "fw.enableFlashDebugging()" on page 247 and "fw.disableFlashDebugging()" on page 247). Use the Flash debugging functions to show or hide everything that the Shockwave file passes to the Fireworks API during execution. Place these debug functions around the suspect code in your Macromedia Flash ActionScript to turn the debugging functions on or off as needed. Be careful to use these functions only around "suspect" code; otherwise, you might encounter a long series of dialog box statements.

CHAPTER 4
Auto Shapes

Auto Shapes are vector objects that contain information about how the user can interact with them onscreen. Auto Shapes appear in the Macromedia Fireworks MX 2004 user interface as "Auto Shapes" but are programmatically called "smartShape" objects in the JavaScript code that constructs them. For example, a spiral shape consists of relationships among several smaller objects. A spiral Auto Shape contains additional properties that enable the user to adjust the appearance (stretch, distort, tighten the curve) of the whole spiral by clicking and dragging control points. For more information about user interaction with Auto Shapes, see Using Fireworks Help. "

How Auto Shapes work

You can define an Auto Shape entirely in JavaScript. Auto Shapes installed with Fireworks are located in the Configuration/Auto Shapes folder and the Configuration/Auto Shape Tools folder of the installation directory. The JSF files in this directory contain the JavaScript for each Auto Shape. You can open the files in an editor to see the script for each shape. The Auto Shape file contains a collection of functions that handle the communication between Fireworks and the Auto Shape object (see "Handling the user interaction" on page 97), define the properties of the Auto Shape, and provide supporting functionality (like adding other shape objects or performing calculations) as the Auto Shape is manipulated by the user. The Auto Shape file also contains control points and properties (stroke, fill, color, and so on) that define the shape's behaviors, appearance, and effects. The points and functions defined in an Auto Shape file use the SmartShape Class and its properties and methods (see "SmartShape object" on page 60).

Auto Shapes are made up of any number of vector objects including open and closed paths and text (currently, nested Auto Shapes are not supported). An Auto Shape can control a bitmap that has been imported into the document; however, Fireworks cannot save a bitmap graphic as an Auto Shape on the user's drive.

You can create Auto Shape icons for the Tools panel or Auto Shapes panel in PNG, JPG, or GIF format. For the Tools panel, the icon image should be 16 x 16 pixels (if the image is larger than 16 x 16 pixels, Fireworks scales the image to fit in the Tools panel). For the Auto Shapes panel, the Auto Shape icon should be 60 x 60 pixels. If the image for the Auto Shapes panel is smaller, or larger, than 60 x 60 pixels, Fireworks will not scale the image—the icon will appear centered in its cell, but not sized to fit, so it may appear cropped if it is too large.

Note: If the icon is missing (or named incorrectly) then Fireworks does not display an icon. However, if the Auto Shapes folder has an icon with the same name as a shape in the Auto Shape Tools folder, then that icon will be used in the Tools panel.

Creating an Auto Shape

To create an Auto Shape, you need to define a series of properties for the shape, define the shape's control points, and write functions that tell Fireworks how to handle the Auto Shape as the user interacts with the object (see "Handling the user interaction" on page 97).

Defining the shape

The following code creates the initial shape, a rectangle (a more concise way of creating an initial shape follows this example):

```
function InsertSmartShapeAt()
{
  smartShape.elem.elements[0] = new Path;
  smartShape.elem.elements[0].contours[0] = new Contour;
  smartShape.elem.elements[0].contours[0].nodes[0] = new ContourNode;
  smartShape.elem.elements[0].contours[0].nodes[0].predX = 0;
  smartShape.elem.elements[0].contours[0].nodes[0].predY = 0;
  smartShape.elem.elements[0].contours[0].nodes[0].x = 0;
  smartShape.elem.elements[0].contours[0].nodes[0].y = 0;
  smartShape.elem.elements[0].contours[0].nodes[0].succX = 0;
  smartShape.elem.elements[0].contours[0].nodes[0].succY = 0;
  smartShape.elem.elements[0].contours[0].nodes[1] = new ContourNode;
  smartShape.elem.elements[0].contours[0].nodes[1].predX = 200;
  smartShape.elem.elements[0].contours[0].nodes[1].predY = 0;
  smartShape.elem.elements[0].contours[0].nodes[1].x = 200;
  smartShape.elem.elements[0].contours[0].nodes[1].y = 0;
  smartShape.elem.elements[0].contours[0].nodes[1].succX = 200;
  smartShape.elem.elements[0].contours[0].nodes[1].succY = 0;
  smartShape.elem.elements[0].contours[0].nodes[2] = new ContourNode;
  smartShape.elem.elements[0].contours[0].nodes[2].predX = 200;
  smartShape.elem.elements[0].contours[0].nodes[2].predY = 125;
  smartShape.elem.elements[0].contours[0].nodes[2].x = 200;
  smartShape.elem.elements[0].contours[0].nodes[2].y = 125;
  smartShape.elem.elements[0].contours[0].nodes[2].succX = 200;
  smartShape.elem.elements[0].contours[0].nodes[2].succY = 125;
  smartShape.elem.elements[0].contours[0].nodes[3] = new ContourNode;
  smartShape.elem.elements[0].contours[0].nodes[3].predX = 0;
  smartShape.elem.elements[0].contours[0].nodes[3].predY = 125;
  smartShape.elem.elements[0].contours[0].nodes[3].x = 0;
  smartShape.elem.elements[0].contours[0].nodes[3].y = 125;
  smartShape.elem.elements[0].contours[0].nodes[3].succX = 0;
  smartShape.elem.elements[0].contours[0].nodes[3].succY = 125;
  smartShape.elem.elements[0].contours[0].isClosed = true;
}
```

The Auto Shape is an array of ContourNode objects (see "ContourNode object" on page 29). You can write a "helper" function to simplify the code and assign ContourNode properties, as follows:

```
function addPathPoint(contour, i, x, y)
{
  var theNodes = contour.nodes;

// Increase the length to add a new point
    if (i > 0)
    theNodes.length++;

// get the new point
    var node = theNodes[theNodes.length - 1];
```

```
// Set the new point's values
     node.x = node.predX = node.succX = x;
     node.y = node.predY = node.succY = y;
}
```

You can then simplify the `InsertSmartShapeAt()` function with the new helper function:

```
function InsertSmartShapeAt()
{
  var elem = smartShape.elem;
  var newPath = new Path;
  elem.elements[0] = newPath;
  newPath.contours[0] = new Contour;
  var contour = newPath.contours[0];
  var i = 0;
  addPathPoint(contour, i++, 0, 0);
  addPathPoint(contour, i++, 200, 0);
  addPathPoint(contour, i++, 200, 125);
  addPathPoint(contour, i++, 0, 125);
  contour.isClosed = true;
}
```

Adding control points

After selecting an Auto Shape in a document, the user can click its control points to adjust the object. You must define the control points for your Auto Shape before you can define what happens to the object when the user manipulates them.

The following code adds a single control point to the coordinates (0, 0):

```
smartShape.elem.controlPoints.length++;

// Establish the new control point
var cp=smartShape.elem.controlPoints[smartShape.elem.controlPoints.length-1];

// Place the Control Point
cp.x = 0;
cp.y = 0;
```

Handling the user interaction

After you define the Auto Shape properties and control points, you need to tell Fireworks how to handle user interactions with the Auto Shape. To facilitate the interaction of the user with the Auto Shape, Fireworks sends a series of messages to the Auto Shape object as the user performs certain operations on the Auto Shape. You can write a series of functions to respond to these messages.

Fireworks messages

Fireworks passes the following messages to the SmartShape object as the user interacts with (inserts, moves, or changes) the shape:

- `"InsertSmartShapeAt"`

  Fireworks sends this message when the user selects the shape from the Tools panel and clicks on the canvas, or drags the shape from the Auto Shapes panel to the canvas.

- `"BeginDragInsert"`

  Fireworks sends this message when the user drags an Auto Shape onto the canvas. This message defines a more specific action than the "InsertSmartShapeAt" message.

- `"DragInsert"`

  Fireworks sends this message every time the mouse moves during a drag operation (as long as smartshape.getsDragEvents is set to `true`). See "SmartShape object" on page 60.

- `"EndDragInsert"`

  Fireworks sends this message on a `mouseUp` event after a drag operation.

- `"BeginDragControlPoint"`

  Fireworks sends this message when the user clicks and holds the mouse button on a control point.

- `"DragControlPoint"`

  Fireworks sends this message every time the mouse moves during a drag operation (as long as smartshape.getsDragEvents is set to `true`). See "SmartShape object" on page 60.

- `"EndDragControlPoint"`

  Fireworks sends this message when the drag operation is complete.

- `"SmartShapeEdited"`

  Fireworks sends this message when any change has been made to the Auto Shape (for example, when the user deletes a node).

Message handler functions

Because Fireworks sends interaction messages as the user interacts with the Auto Shape, you can write functions to define, edit, and delete the Auto Shape and its properties. Specifically, you write functions defining the effect of manipulating the control points on the shape properties. You can define object properties at various stages of a drag operation: at the beginning of the operation, during the operation, and at its end. (If you define only the properties for the end result, Fireworks waits until the drag operation ends to show the changes to the user.) For example, to have your Auto Shape respond to an "EndDragControlPoint" message, you would write the following function:

```
function EndDragControlPoint(){
  cp.x = smartShape.currentMousePos;
  cp.y = smartShape.currentMousePos;
}
```

The following table lists all of the available Fireworks message handler functions you can create (although, you don't have to write a response to every Fireworks message, only the ones important to your Auto Shape):

Function	Description
`InsertSmartShapeAt()`	Draws the initial shape. This function is called when the user selects the shape from the Tools panel and clicks on the canvas, or drags the shape from the Auto Shapes panel to the canvas. Define all initial properties of the Auto Shape in this function.
`BeginDragInsert()`	Tells Fireworks what to do when the user drags an Auto Shape on the canvas. You can define movements for control points and nodes that you defined in `InsertSmartShapeAt()`.
`DragInsert()`	This function is called every time the mouse moves during a drag operation (as long as `smartshape.getsDragEvents` is set to `true`). See "SmartShape object" on page 60.
`EndDragInsert()`	This function is called on a mouse-up event after a drag operation.

`BeginDragControlPoint()`	Tells Fireworks what to do when the user clicks and holds the mouse button on a control point. Fireworks can change the object as the user moves the mouse (for example, using the RegisterMove method of the SmartShape object, see "ContourNode object" on page 29 for more information about how to get the properties of a smartShape object), or wait until after a mouse event to change the object.
	The following example uses the RegisterMove method to set the properties for the object on the mouse-down event so that the user can preview changes during the drag operation:
	
	`function BeginDragControlPoint()`
	`{`
	`switch (smartShape.currentControlPointIndex) {`
	`case 0:`
	`var parms = smartShape.GetDefaultMoveParms();`
	`smartShape.elem.controlPoints[0].RegisterMove(parms);`
	`smartShape.elem.elements[0].contours[0].nodes[0].RegisterMove(parms);`
	`break;`
	`}`
	`}`

`DragControlPoint()`	This function is called every time the mouse moves during a drag operation. Fireworks can change the object as the user moves the mouse or wait until the mouse event ends to change the object. If the `BeginDragControlPoint()` function specifies control points or other points, Fireworks will not call the `DragControlPoint()` function .
`EndDragControlPoint()`	Tells Fireworks how to draw the final Auto Shape, after a drag operation is complete. If Fireworks handled shape changes through the `BeginDragControlPoint()` function, then you can use the end result of that function as a starting point. In that case, the code need not reflect every change in shape, but just the changes that aren't handled by `BeginDragControlPoint()`.
`SmartShapeEdited()`	This function is called when any changes have been made to the Auto Shape that might change the shape's behavior (such as removing a node inside an Auto Shape object).

These functions correspond directly with the messages listed in "Fireworks messages" on page 98. To invoke your own function names in response to Fireworks messages, you need to write a `switch()` statement.

Switch Statements

If you take a look at some existing Auto Shapes (in the Configuration/Auto Shapes folder and in the Configuration/Auto Shape Tools folders), you'll notice a `switch()` statement near the beginning of the file. The Auto Shape JavaScript code in these files uses a `switch()` statement as the initial message handler in the file. The `switch()` statement sorts the messages sent by Fireworks so each message (that is useful to the particular Auto Shape) invokes a corresponding function.

You can see this `switch` statement in each of the Auto Shape JavaScript files. Again, a single Auto Shape object may not need to process every message Fireworks sends, so only the useful messages are written into the JavaScript file using the `case` qualifier. Effectively, the JavaScript file states *in case of a certain message, or messages, perform the following function*.

In the Frame Auto Shape, this code is used to call `PlaceControlPoints()` when Fireworks sends a `"SmartShapeEdited"` message:

```
switch(smartShape.operation) {

  case "BeginDragInsert":
  case "InsertSmartShapeAt":
    InsertSmartShapeAt(true);
    break;

  case "BeginDragControlPoint":
    BeginDragControlPoint();
    break;

  case "DragControlPoint":
    DragControlPoint();
    break;

  case "EndDragControlPoint":
    EndDragControlPoint();
    break;

  case "SmartShapeEdited":
    PlaceControlPoints();
    break;
}
```

You don't need a response for every message Fireworks sends; but you do need to make sure the `switch` statement handles the responses required by your shape.

You can also invoke a single function for several messages:

```
case "BeginDragInsert":
case "InsertSmartShapeAt":
  InsertSmartShapeAt(true);
  break;
```

Supporting functions and methods

Since the Auto Shape file is written in JavaScript, your functions can use global variables, common functions, and the Fireworks JavaScript API. The Auto Shape JavaScript file contains the definition of the shape's points, and a series of functions to handle the Fireworks messages as the user interacts with the shape. The file also includes a series of commands and functions defining the shape's properties and other functionality. These functions are often separate from the message handling functions so they can be used by multiple message handling functions. For example, the Cog Auto Shape JavaScript file (Configuration/Auto Shapes/Cog.jsf) contains user-defined functions near the bottom of the file. These functions perform calculations and create shapes that are useful for the message handling functions. The top of the file contains a series of variable statements that define useful values for tooltips, global variables, and constants used throughout the Auto Shape JavaScript file.

You can use the Fireworks JavaScript API and the Fireworks Object Model, along with efficient JavaScript coding practices, to create effective Auto Shapes (and continue to reuse the most useful functions from each Auto Shape JavaScript file). For more information, see "Fireworks JavaScript API" on page 103 and the "The Fireworks Object Model" on page 9.

CHAPTER 5
Fireworks JavaScript API

This chapter lists JavaScript functions supported by Macromedia Fireworks MX 2004 that enable you to create useful Fireworks extensions and customized Fireworks menus. Almost any task that the user can accomplish in Fireworks with the menus, tools, or floating panels can be done programmatically using JavaScript.

Using Fireworks API functions

Three categories of API functions are described in this chapter: Document functions, History panel functions, and Fireworks functions. The following rules apply to all functions.

Zero-based indexes

Some functions take an *index* argument which is a zero-based, one-dimensional array. That means a value of `0` represents the first item in the array, `1` represents the second item, and so on. For example, the following command deletes the second layer of the active Fireworks document:

```
fw.getDocumentDOM().deleteLayer2;
```

Functions that take a *frameIndex* argument can be passed `-1` to indicate the current frame. Similarly, functions that take a *layerIndex* argument may be passed `-1` to indicate the current layer.

Passing null values

In general, passing a `null` value to a function causes an exception to be thrown. A few functions do allow `null` as an argument; such cases are noted in the function descriptions.

Working with selected elements

Many API functions in this chapter refer to a "selection" or to "selected items." These terms refer to Fireworks elements, such as text boxes or images, that are currently selected. In most cases, the functions work even if only one item is selected. If a function requires more than one selected item, this is noted in the description of the function.

Palette or panel

Several API functions reference the History panel (see "History panel functions" on page 278). Throughout the Fireworks documentation and online help, the term "palette" is reserved for discussions of a color palette, and the term "panel" is used to refer to the floating windows that are available within Fireworks. Therefore, when the function name contains "palette," the descriptions refer to a "panel."

Document functions

As discussed in an earlier section,, you get and set document properties by calling functions as methods of the document's Document Object Model (DOM) (see "Accessing a Fireworks document" on page 10). Methods that operate on a document's DOM are listed in this section as `dom.functionName()`. However, you cannot simply type `dom.functionName()`. In place of `dom`, you must type `fw.getDocumentDOM()` or `fw.documents[documentIndex]`. For example:

- How a function looks in this manual: `dom.addNewHotspot()`
- How you must type it:

```
fw.getDocumentDOM().addNewHotspot(); // operates on active document
```

or

```
fw.documents[documentIndex].addNewHotspot(); // operates on specified
  document
```

dom.addBehavior()

Availability

Fireworks 3.

Usage

`dom.addBehavior(`*`action`*`, `*`event`*`, `*`eventIndex`*`)`

Arguments

`action` A string that specifies the behavior to be added, such as `"MM_swapImageRestore()"`. For a list of all the behaviors that can be added, see "Using the dom.addBehavior() function" on page 105.

`event` The event that triggers the behavior. Acceptable values are `"onMouseOver"`, `"onMouseOut"`, `"onLoad"`, and `"onClick"`.

`eventIndex` An integer value that specifies the location where the behavior should be added, starting with `0` (although, to specify the end location, pass `-1` here).

Returns

Nothing.

Description

Adds a specified behavior to the selected Hotspots and slices.

Example

The following command adds a simple rollover behavior at the end of the selected slice or Hotspot.

```
fw.getDocumentDOM().addBehavior("MM_simpleRollover()", "onMouseOver", -1);
```

See also

`dom.removeBehavior()`

Using the dom.addBehavior() function

The following code shows the syntax for `dom.addBehavior()`:

```
fw.getDocumentDOM().addBehavior(action, event, eventindex);
```

The first argument is a string that specifies the behavior to be added; see "dom.addBehavior()" on page 104. The information in this section describes the acceptable values for the *action* argument that is passed to `dom.addBehavior()`.

MM_nbGroup [down]

Availability

Fireworks 3.

Arguments

type, *barName*, *target*, *swapFrame*, *fileName*, *preload*

- Pass `"down"` for *type*.
- Pass `"navbar1"` for the name of the navigation bar.
- *target* specifies the slice to which the behavior is attached. Pass `-1` for this value; all other values are used internally by Fireworks.
- *swapFrame* is an integer value that specifies the frame to swap, starting with `0` (although, to use *fileName* as a URL, pass `-1` here).
- *fileName* specifies the frame or file to swap. If you specified a frame to use in *swapFrame*, pass an empty text string. If you want to specify a filename and you passed `-1` for *swapFrame*, pass the string for the relative URL of the image.
- *preload* is a binary value that specifies whether to preload the swapped image (pass `1`) or not (pass `0`).

Description

Sets a navigation bar "down" behavior.

Example

```
fw.getDocumentDOM().addBehavior("MM_nbGroup(\'down\',\'navbar1\',-
  1,2,\"\",1)", "onClick", -1);
```

MM_nbGroup [highlight]

Availability

Fireworks 3.

Arguments

type, *target*, *swapFrame*, *fileName*, *preload*, *downHighlight*, *downHighlightFrame*, *downHighlightFilename*

- Pass "over" for *type*.
- *target* specifies the slice to which the behavior is attached. Pass -1 for this value; all other values are used internally by Fireworks.
- *swapFrame* is an integer value that specifies the frame to swap, starting with 0 (although, to use *fileName* as a URL, pass -1 here).
- *fileName* specifies the frame or file to be swapped. If you specified a frame to use in *swapFrame*, pass an empty text string. If you want to specify a filename and you passed -1 for *swapFrame*, pass the string for the relative URL of the image.
- *preload* is a binary value that specifies whether to preload the swapped image (pass 1) or not (pass 0).
- *downHighlight* is a binary value that specifies whether an image should be used for highlighting on mouse down (pass 1) or not (pass 0). If you pass 1, use the next two arguments to specify the frame or image to be used.
- *downHighlightFrame* is an integer value that specifiesthe frame to use as a highlight image, starting with 0 (although, to use *downHighlightFrame* as a URL, pass -1 here).
- *downHighlightFilename* specifies the frame or file to be used as the highlight image. If you specified a frame to use in *downHighlightFrame*, pass an empty text string. If you want to specify a filename and you passed -1 for *downHighlightFrame*, pass the string for the relative URL of the image.

Description

Sets a navigation bar highlight behavior.

Example

```
fw.getDocumentDOM().addBehavior("MM_nbGroup(\'over\',-1,1,\"\",1,0,3,\"\")",
  "onMouseOver", -1);
```

MM_nbGroup [image]

Availability

Fireworks 3.

Arguments

type, *downHighlight*, *initiallyDown*

- Pass "all" for *type*.
- *downHighlight* is a binary value that specifies whether the image should be highlighted on a mouse down action (pass 1) or not (pass 0).
- *initiallyDown* is a binary value that specifies whether the image should initially appear as in the “down” state (pass 1) or not (pass 0).

Description

Sets a navigation bar image behavior.

Example

```
fw.getDocumentDOM().addBehavior("MM_nbGroup(\'all\',1,0)", "onMouseOver", -1);
```

MM_nbGroup [out]

Availability

Fireworks 3.

Arguments

type

Pass `"out"` for *type*.

Description

Sets a navigation bar restore behavior.

Example

```
fw.getDocumentDOM().addBehavior("MM_nbGroup(\'out\')", "onMouseOut", -1);
```

MM_simpleRollover

Availability

Fireworks 3.

Arguments

None.

Description

Adds a simple rollover behavior.

Example

```
fw.getDocumentDOM().addBehavior("MM_simpleRollover()", "onMouseOver", -1);
```

MM_statusMessage

Availability

Fireworks 3.

Arguments

message

message is a string that specifies the status message to appear.

Description

Sets a status bar message.

Example

```
fw.getDocumentDOM().addBehavior("MM_statusMessage(\"Status Message!\")",
  "onMouseOver", -1);
```

MM_swapImage

Availability

Fireworks 3.

Arguments

target, *swapFrame*, *fileName*, *preload*, *restoreOnMouseOut*

- *target* specifies the slice to which the behavior is attached. Pass -1 for this value; all other values are used internally by Fireworks.
- *swapFrame* is an integer value that specifies the frame to swap, starting with 0 (although, to use *fileName* as a URL, pass -1 here).
- *fileName* specifies the frame or file to swap. If you specified a frame to use in *swapFrame*, pass an empty text string. If you want to specify a filename and you passed -1 for *swapFrame*, pass the string for the relative URL of the image.
- *preload* is a binary value that specifies whether to preload the swapped image (pass 1) or not (pass 0).
- *restore* is a binary value that specifies whether to restore on a mouse out action (pass 1) or not (pass 0).

Description

Adds a swap image behavior.

Example

```
fw.getDocumentDOM().addBehavior("MM_swapImage(-1,1,\"\",1,1)", "onMouseOver",
  -1);
```

MM_swapImgRestore

Availability

Fireworks 3.

Arguments

None.

Example

```
fw.getDocumentDOM().addBehavior("MM_swapImgRestore()", "onMouseOut", -1);
```

Description

Adds a swap image restore behavior.

dom.addElementMask()

Availability

Fireworks 4.

Usage

```
dom.addElementMask(mode, {bEnterMaskEditMode})
```

Arguments

mode Acceptable values for *mode* are `"reveal all"`, `"hide all"`, `"reveal selection"`, and `"hide selection"`. If the user is not in bitmap mode, or if there is no pixel selection, `"reveal selection"` and `"hide selection"` operate the same as `"reveal all"` and `"hide all"`, respectively.

bEnterMaskEditMode If *bEnterMaskEditMode* (optional) is se to `true`, Fireworks enters mask-edit mode on the newly added mask; if omitted, it defaults to `false`.

Returns

Nothing.

Description

Adds a new empty mask to the selected element. If the selection already has an element mask, it is replaced with the new one. Only one element can be selected when calling this function. If selecting more than one element (or none) at the time this function is called, Fireworks throws an exception.

dom.addFrames()

Availability

Fireworks 3, enhanced in Fireworks 4.

Usage

```
dom.addFrames(howMany, where, {bAdvanceActiveFrame})
```

Arguments

howMany An integer that specifies how many frames to add.

where The location where frames should be added. Acceptable values for *where* are `"beginning"`, `"before current"`, `"after current"`, and `"end"`.

bAdvanceActiveFrame Added in Fireworks 4, specifies whether to change the active frame. If it is omitted or `true`, this function sets the active frame to the first frame added. If `false`, the active frame does not change. For example, if the user is adding frames at the end of a document that has two frames and *bAdvanceActiveFrame* is omitted or `true`, then the third frame becomes the active frame.

Returns

Nothing.

Description

Adds one or more frames to the document.

Example

The following command adds one frame after the current frame but does not change the active frame.

```
fw.getDocumentDOM().addFrames(1, "after current", false);
```

dom.addGuide()

Availability

Fireworks 3.

Usage

```
dom.addGuide(float position, guidekind)
```

Arguments

position A floating-point value that specifies the *x* or *y* coordinate at which to add the guide.

guidekind Acceptable values for *guidekind* are `"horizontal"` and `"vertical"`. If *guidekind* is `"horizontal"`, it is assumed that *position* is a *y* coordinate; if `"vertical"`, it is an *x* coordinate.

Returns

Nothing.

Description

Adds a guide to the document. If a guide already exists at the specified position, this function has no effect.

Example

The following command adds a vertical guide at the *x* coordinate of 217.

```
fw.getDocumentDOM().addGuide(217, "vertical");
```

dom.addNewHotspot()

Availability

Fireworks 3.

Usage

```
dom.addNewHotspot(hotspot-kind, hotspot-shape, boundingRectangle)
```

Arguments

hotspot-kind Acceptable values are `"hotspot"` and `"slice"`.

hotspot-shape Acceptable values are `"rectangle"` and `"oval"`.

boundingRectangle A rectangle that specifies the bounds within which the Hotspot is placed (see "Rectangle data type" on page 11).

Returns

Nothing.

Description

Adds a new Hotspot that fits into the specified bounding rectangle.

Example

The following command adds a new rectangle slice with the specified coordinates.

```
fw.getDocumentDOM().addNewHotspot("slice","rectangle",{left:0, top:0,
  right:50, bottom:100});
```

dom.addNewImage()

Availability

Fireworks 3.

Usage

```
dom.AddNewImage(boundRectangle, bEnterPaintMode)
```

Arguments

boundingRectangle A rectangle that specifies the bounds of the image to be added (see "Rectangle data type" on page 11). You cannot create an image that is larger than the document; therefore, if you pass in a rectangle with bounds larger than the document size, you can create an image that is constrained to the document size.

bEnterPaintMode If *bEnterPaintMode* is `true`, the application immediately enters bitmap mode for the new image.

Returns

Nothing.

Description

Adds a new empty (transparent) image to the document.

Example

The following command adds an empty image that is 500 by 500 pixels in size, and then enters bitmap mode.

```
fw.getDocumentDOM().addNewImage({left:0, top:0, right:500, bottom:500}, true);
```

dom.addNewImageViaCopy()

Availability

Fireworks MX.

Usage

```
dom.addNewImageViaCopy()
```

Arguments

None.

Returns

Nothing.

Description

Adds a new image to the document containing the contents of the current paint-mode selection. The new image is placed directly above the active bitmap. You must have a current pixel selection for this to succeed. The new bitmap appears with Fireworks in paint mode.

dom.addNewImageViaCut()

Availability

Fireworks MX.

Usage

```
dom.addNewImageViaCut()
```

Arguments

None.

Returns

Nothing.

Description

Adds a new image to the document that contains the contents of the current paint mode selection. The new image is placed directly above the active bitmap. You must have a current pixel selection for this to succeed. The selection is cut from the previously active bitmap. The new bitmap appears with Fireworks in paint mode.

dom.addNewLayer()

Availability

Fireworks 3.

Usage

```
dom.addNewLayer(name, bshared)
```

Arguments

name A string that specifies the name for the new layer. If *name* is `null`, a new layer name is generated.

bShared A Boolean value that specifies whether the new layer is shared.

Returns

A string value that contains the name of the new layer.

Description

Adds a new layer to the document and makes it the current layer.

Example

The following command adds a new unshared layer with a default name that is generated by Fireworks.

```
fw.getDocumentDOM().addNewLayer(null, false);
```

dom.addNewLine()

Availability

Fireworks 3.

Usage

```
dom.addNewLine(startPoint, endPoint)
```

Arguments

startPoint and *endPoint* Points that specify the *x,y* coordinates between which the path is added (see "Point data type" on page 11).

Returns

Nothing.

Description

Adds a new path between two points. The new path uses the document's current default path attributes and is added to the current frame and layer.

Example

The following command adds a new line between the specified coordinates.

```
fw.getDocumentDOM().addNewLine({x:64.5, y:279.5}, {x:393.5, y:421.5});
```

dom.addNewOval()

Availability

Fireworks 3.

Usage

```
dom.addNewOval(boundingRectangle)
```

Arguments

boundingRectangle A rectangle that specifies the bounds of the oval to be added (see "Rectangle data type" on page 11).

Returns

Nothing.

Description

Adds a new oval fitting into the specified bounding rectangle. The oval uses the document's current default path attributes and is added on the current frame and layer.

Example

The following command adds a new oval within the specified coordinates.

```
fw.getDocumentDOM().addNewOval({left:72, top:79, right:236, bottom:228});
```

dom.addNewRectangle()

Availability

Fireworks 3.

Usage

```
dom.addNewRectangle(boundingRectangle, roundness)
```

Arguments

boundingRectangle A rectangle that specifies the bounds within which the new rectangle is added (see "Rectangle data type" on page 11).

roundness A floating-point value between 0 and 1 that specifies the "roundness" to use for the corners (0 is no roundness, 1 is 100% roundness).

Returns

Nothing.

Description

Adds a new rectangle or rounded rectangle fitting into the specified bounds. The rectangle uses the document's current default path attributes and is added on the current frame and layer.

Example

The following command adds a new rectangle with no round corners within the specified coordinates.

```
fw.getDocumentDOM().addNewRectangle({left:0, top:0, right:100, bottom:100},
  0);
```

See also

dom.addNewRectanglePrimitive()

dom.addNewRectanglePrimitive()

Availability

Fireworks 4.

Usage

```
dom.addNewRectanglePrimitive(boundingRectangle, roundness)
```

Arguments

boundingRectangle A rectangle that specifies the bounds within which the new rectangle primitive is added (see "Rectangle data type" on page 11).

roundness A floating-point value between 0 and 1 that specifies the "roundness" to use for the corners (0 is no roundness, and 1 is 100% roundness).

Returns

Nothing.

Description

Adds a new rectangle primitive that fits in the specified bounds. The rectangle primitive uses the document's current default path attributes, is added on the current frame and layer, and has several editable properties, such as corner roundness and transformation. The difference between a rectangle and a rectangle primitive is that a rectangle is a path that is shaped like a rectangle, and a rectangle primitive preserves its rectangular quality; that is, if you drag a corner, it remains a rectangle rather than becoming a quadrilateral.

Example

The following command adds a new rectangle primitive with no round corners within the specified coordinates.

```
fw.getDocumentDOM().addNewRectanglePrimitive({left:0, top:0, right:100,
  bottom:100}, 0);
```

See also

`dom.addNewRectangle()`, `fw.ungroupPrimitives()`

dom.addNewSinglePointPath()

Availability

Fireworks 3.

Usage

`dom.addNewSinglePointPath(`*`controlPointFirst`*`, `*`controlPointLast`*`, `*`bCopyAttrs`*`)`

Arguments

`controlPointFirst`, *`mjainPoint`*, and *`controlPointLast`* Points that specify the *x,y* coordinates of the preceding control point, the main point, and the following control point of the Bézier path (see "Point data type" on page 11).

`bCopyAttrs` If *`bCopyAttrs`* is `false`, the path's stroke and fill are copied directly from the document's current stroke and fill settings. If it is `true`, the path's fill is set to None, and the brush is set to something other than None.

Returns

Nothing.

Description

Adds a new path that consists of a single Bézier point. The path uses the default fill, stroke, and so on, and is added on the current frame and layer. The point is selected after it is added.

Example

The following command adds a new path that consists of a single Bézier point at the specified coordinates and copies the path's stroke and fill from the document's current stroke and fill settings.

```
fw.getDocumentDOM().addNewSinglePointPath({x:150, y:63}, {x:150, y:63},
  {x:150, y:63}, false);
```

dom.addNewStar()

Availability

Fireworks 3

Usage

`dom.AddNewStar(numSides, spikiness, bIsStar, centerPoint, outsidePoint)`

Arguments

numSides An integer that specifies the number of sides of the new path.

spikiness A floating-point value that controls the regularity of the star or polygon. Pass `-1` to have Fireworks calculate a good value, or pass a value between 0 and 1 for manual control.

bIsStar If *bIsStar* is `true`, a star with the specified number of points is created. If it is `false`, a regular polygon with the specified number of sides is created.

centerPoint Specifies the center point of the star or polygon (see "Point data type" on page 11).

outsidePoint Specifies a point on the radius of the star or polygon.

Returns

Nothing.

Description

Adds a new star- or polygon-shaped path.

Example

The following command adds a five-sided star.

```
fw.getDocumentDOM().addNewStar(5, -1, true, {x:186, y:72}, {x:265, y:89});
```

dom.addNewSymbol()

Availability

Fireworks 3.

Usage

`dom.addNewSymbol(type, name, bAddToDoc)`

Arguments

type Acceptable values are `"graphic"`, `"button"`, or `"animation"`.

name A string that specifies the name of the symbol.

bAddToDoc If *bAddToDoc* is `true`, an instance of the symbol is inserted into the center of the document. If `false`, the symbol is created in the document's library, but no instance of the symbol is inserted into the document.

Returns

Nothing.

Description

Adds a new symbol to the library and opens the symbol document for editing. Optionally adds an instance of the symbol to the document.

Example

The following command adds a new graphic symbol called `text` to the library and places an instance of it in the document.

```
fw.getDocumentDOM().addNewSymbol("graphic", "text", true);
```

dom.addNewText()

Availability

Fireworks 3.

Usage

`dom.AddNewText(`*`boundingRectangle`*`, `*`bInitFromPrefs`*`)`

Arguments

`boundingRectangle` A rectangle that specifies the bounds within which to place the new text box (see "Rectangle data type" on page 11).

`bInitFromPrefs` If *`bInitFromPrefs`* is `false`, the default values for all style properties are used. If it is `true`, the most recent values set by the user are used.

Returns

Nothing.

Description

Adds a new empty text block within the specified bounding rectangle. (To place text in the box, use `dom.setTextRuns()`.)

Example

The following command adds a text box with the most recently used style properties.

```
fw.getDocumentDOM().addNewText({left:43, top:220, right:102, bottom:232},
  true);
```

dom.addSwapImageBehaviorFromPoint()

Availability

Fireworks 3.

Usage

`dom.AddSwapImageBehaviorFromPoint(`*`where`*`)`

Arguments

`where` A point that specifies the *x,y* coordinates of the Hotspot or slice that contains the swap image behavior to be added (see "Point data type" on page 11).

Returns

`true` if the swap image behavior was added; `false` if no suitable Hotspot was at the specified location.

Description

If a single Hotspot or slice is selected, this function adds to it a swap image behavior from the Hotspot or slice located at *`where`* in the document.

dom.adjustExportToSize()

Availability

Fireworks 3.

Usage

```
dom.AdjustExportToSize(sizeInBytes, bOkToIncreaseSize)
```

Arguments

`sizeInBytes` An integer that specifies the size to be used for exporting. It is used as described in the following list:

- If a document has no slices, *`sizeInBytes`* adjusts the export settings for the current frame so that the image is less than or equal to *`sizeInBytes`*.
- If a document has slices, *`sizeInBytes`* adjusts the size of all exported images so that the sum of the sizes is greater than or equal to *`sizeInBytes`*.

`bOkToIncreaseSize` Specifies whether the export file size can be increased.

- If *`bOkToIncreaseSize`* is `true`, and the current size is less than *sizeInBytes*, the argument increases the quality of the export settings as much as possible, making the export size larger if necessary.
- If *`bOkToIncreaseSize`* is `false`, the argument increases the quality of the export settings as much as possible without increasing the export size.

Description

Adjusts the export settings as specified.

dom.adjustFontSize()

Availability

Fireworks MX.

Usage

```
dom.adjustFontSize(amount)
```

Arguments

`amount` The amount, specified in points, by which to change the font size. Positive values (such as `"2pt"`) increase the size, while negative values (such as `"-1pt"`) decrease the size.

Returns

Nothing.

Description

Increases (positive values) or decreases (negative values) the font size of selected text elements. If a text element has multiple font sizes, each size is adjusted independently.

dom.align()

Availability

Fireworks 3.

Usage

`dom.align(alignmode)`

Arguments

`alignmode` Acceptable values are `"left"`, `"right"`, `"top"`, `"bottom"`, `"center vertical"`, and `"center horizontal"`.

Returns

Nothing.

Description

Aligns the selection.

dom.appendPointToHotspot()

Availability

Fireworks 3.

Usage

`dom.appendPointToHotspot(pt, tolerance)`

Arguments

`pt` A point that specifies the *x,y* coordinates of the point to be added (see "Point data type" on page 11).

`tolerance` A floating-point value > = 0 that specifies the tolerance between the new point and the starting point of the polyline path. If the new point is within *`tolerance`* of the starting point, the polyline path is closed.

Returns

Nothing.

Description

Appends a point to the selected unclosed polygon Hotspot. If an unclosed polygon Hotspot is not selected, a new polygon Hotspot is created with the single point that passed in.

dom.appendPointToPath()

Availability

Fireworks 3.

Usage

```
dom.appendPointtoPath(ontourIndex, ptToInsertBefore, controlPointFirst,
  mainPoint, controlPointLast)
```

Arguments

contourIndex An zero-based index value that specifies the contour to which the Bézier point is appended. For paths with multiple contours, the contours are in an arbitrary order.

ptToInsertBefore A zero-based index value that specifies where on the path the new point should be placed. The new point is appended in front of the point that this integer represents. To add a point to the beginning of the path, pass `0`; to add a point to the end of the path, pass a large number.

controlPointFirst, *mainPoint*, and *controlPointLast* Points that specify the *x,y* coordinates of the preceding control point, the main point, and the following control point of the new point (see "Point data type" on page 11).

Returns

Nothing.

Description

Appends a Bézier point to the selected path.

See also

`dom.insertPointInPath()`

dom.appendPointToSlice()

Availability

Fireworks 3.

Usage

```
dom.appendPointToSlice(pt, tolerance)
```

Arguments

pt A point that specifies the *x,y* coordinates of the point to be added (see "Point data type" on page 11).

tolerance A floating-point value > = 0 that specifies the tolerance between the new point and the starting point of the polyline path. If the new point is within *tolerance* of the starting point, the polyline path is closed.

Returns

Nothing.

Description

Appends a point to the selected unclosed polygon slice. If an unclosed polygon slice is not selected, then a new polygon slice is created with the single point that passed in.

dom.applyCharacterMarkup()

Availability

Fireworks 3, enhanced in 4.

Usage

```
dom.applyCharacterMarkup(tag)
```

Arguments

tag Acceptable values for *tag* are `"b"`, `"i"`, and `"u"`, for bold, italic, and underline: and `"fwplain"`, which was added in Fireworks 4, for text with no character markup.

Returns

Nothing.

Description

Applies the specified character markup to the selected text.

dom.applyCurrentFill()

Availability

Fireworks 3.

Usage

```
dom.applyCurrentFill(NoNullFills)
```

Arguments

bNoNullFills If *bNoNullFills* is `true` and the current fill is None, then a default fill is applied instead of no fill.

Returns

Nothing.

Description

Applies the document's current fill to the selection.

Example

The following command applies the current fill to the selection.

```
fw.getDocumentDOM().applyCurrentFill(true);
```

dom.applyEffects()

Availability

Fireworks 3.

Usage

```
dom.ApplyEffects(effectList)
```

Arguments

effectList An EffectList object (see "EffectList object" on page 38). If *effectList* is `null`, this function removes all effects from the selection.

Returns

Nothing.

Description

Applies the specified effects to the selection.

Example

The following command applies a drop shadow with an angle of 315, a blur of 4, a color of black, and a distance of 7 (see "Drop Shadow object" on page 35).

```
fw.getDocumentDOM().applyEffects({category:"Untitled", effects:[ {
  EffectIsVisible:true, EffectMoaID:"{a7944db8-6ce2-11d1-8c760005027018 50}",
  ShadowAngle:315, ShadowBlur:4, ShadowColor:"#000000a6", ShadowDistance:7,
  ShadowType:0, category:"Shadow and Glow", name:"Drop Shadow" } ],
  name:"Untitled" });
```

dom.applyFontMarkup()

Availability

Fireworks 3.

Usage

```
dom.applyFontMarkup(fontAttribute, value)
```

Arguments

fontAttribute Acceptable values for *fontAttribute* are `"size"` and `"face"`.

value If *fontAttribute* is `"size"`, *value* must be of the form `"XXXpt"` to specify a point size; a simple numeric value is not allowed.

Returns

Nothing.

Description

Applies the specified font markup attribute to the selected text.

dom.applyStyle()

Availability

Fireworks 3.

Usage

```
dom.applyStyle(styleName, styleIndex)
```

Arguments

styleName A string that specifies the style name to be applied.

styleIndex An index to the style to apply. This is usually zero. However, if there are multiple styles with the same name, *styleIndex* is used to resolve the ambiguity (0 references the first style with that name, 1 references the second, and so on).

Returns

Nothing.

Description

Applies the specified style to the selection.

Example

The following command applies the first style that Fireworks encounters named "Style 7", which, in this case, is a default style.

```
fw.getDocumentDOM().applyStyle("Style 7", 0);
```

dom.arrange()

Availability

Fireworks 3.

Usage

```
dom.arrange(arrangemode)
```

Arguments

arrangemode Acceptable values for *arrangemode* are `"back"`, `"backward"`, `"forward"`, and `"front"`.

Returns

Nothing.

Description

Arranges the selection.

Example

The following command brings the selected items to the front.

```
fw.getDocumentDOM().arrange("front");
```

dom.attachTextToPath()

Availability

Fireworks 3.

Usage

```
dom.attachtTextToPath()
```

Arguments

None.

Returns

Nothing.

Description

Attaches the selected text to the selected path. If no text and path are selected, no action occurs.

Example

When two items are selected (one a text block and the other a shape), the following command attaches the text block to the shape's path.

```
fw.getDocumentDOM().attachTextToPath();
```

dom.changeGuide()

Availability

Fireworks 3.

Usage

```
dom.changeGuide(currentPosition, newPosition, guidekind)
```

Arguments

currentPosition A floating-point value that specifies the current position of the guide.

newPosition A floating-point value that specifies the new position of the guide.

guidekind Acceptable values for *guidekind* are `"horizontal"` and `"vertical"`. If *guidekind* is `"horizontal"`, it is assumed that the specified positions are *y* coordinates; if *guidekind* is "vertical", it is assumed that the specified positions are *x* coordinates.

Returns

Nothing.

Description

Moves a guide's position to a new location.

Example

The following command moves a vertical guide from position 135 to position 275.

```
fw.getDocumentDOM().changeGuide(135, 275, "vertical");
```

dom.changeSliceGuide()

Availability

Fireworks MX.

Usage

`dom.changeSliceGuide(currentPosition, newPosition, guidekind, isMagneticDrag)`

Arguments

currentPosition A floating-point value that specifies the current position of the slice guide to be moved.

newPosition A floating-point value that specifies the new position of the slice guide.

guidekind Acceptable values are `"horizontal"` and `"vertical"`. If the value of *guidekind* is "`horizontal`", Fireworks assumes that the specified positions are *y* coordinates; if `"vertical"`, the specified positions are *x* coordinates.

isMagneticDrag A Boolean value that determines whether to move other slice guides between the old and new positions. If *isMagneticDrag* is `true`, Fireworks also moves slice guides between the old guide position and the new position. This action resizes and possibly deletes rectangular slices that do not abut the slice guide at *currentPosition*.

Returns

Nothing.

Description

Moves a slice guide's position to a new location, which resizes any rectangular slices that abut the guide. An argument controls whether slice guides that exist between the old position and the new one are also moved.

If a slice is resized so that it has zero width or height, the slice is deleted.

This function does not change slices that are not rectangular.

Example

The following command moves a vertical slice guide from position 135 to position 275, and moves all vertical slice guides between 135 and 275 to 275.

```
fw.getDocumentDOM().changeGuide(135, 275, "vertical", true);
```

dom.clearJPEGMask()

Availability

Fireworks 4.

Usage

`dom.clearJPEGMask()`

Arguments

None.

Returns

Nothing.

Description

Clears the "Selective JPEG mask" for the document.

dom.clipCopy()

Availability

Fireworks 3.

Usage

```
dom.clipCopy()
```

Arguments

None.

Returns

Nothing.

Description

Copies the selection to the Clipboard.

Example

The following command copies the selected items to the Clipboard.

```
fw.getDocumentDOM().clipCopy();
```

dom.clipCopyAsPaths()

Availability

Fireworks MX.

Usage

```
dom.clipCopyAsPaths()
```

Arguments

None.

Returns

Nothing.

Description

Copies the selection to the Clipboard in Adobe Illustrator format.

Example

The following command copies the selected items to the Clipboard in Adobe Illustrator format.

```
fw.getDocumentDOM().clipCopyAsPaths();
```

dom.clipCopyFormats()

Availability

Fireworks MX.

Usage

```
dom.clipCopyFormats(format)
```

Arguments

format The graphics format for the selection. For example, `"AICB"` is the Adobe Illustrator format.

Returns

Nothing.

Description

Copies the selection to the Clipboard using the specified format.

dom.clipCut()

Availability

Fireworks 3.

Usage

```
dom.clipCut()
```

Arguments

None.

Returns

Nothing.

Description

Cuts the selection to the Clipboard.

Example

The following command cuts the selected items and places them on the Clipboard.

```
fw.getDocumentDOM().clipCut();
```

dom.clipPaste()

Availability

Fireworks 3, enhanced in 4.

Usage

```
dom.clipPaste({whatIfResolutionDifferent}, {whatIfPastingIntoElementMask})
```

Arguments

whatIfResolutionDifferent An optional string that specifies how resampling should be done if the resolution of the Clipboard contents doesn't match the resolution of the document. Acceptable values for *whatIfResolutionDifferent* are "resample", "do not resample", and "ask user" (displays a dialog box to let the user decide). If *whatIfResolutionDifferent* is omitted or null, "ask user" is assumed.

whatIfPastingIntoElementMask An optional argument, added in Fireworks 4, that applies only if the user is editing an element mask, and that element mask is an empty image mask. In this case, the pasted elements replace the existing mask (because it is essentially a mask that doesn't mask anything). If the image mask isn't empty, the pasted elements are added to the existing mask, rather than replacing it. Acceptable values for *whatIfPastingIntoElementMask* are "image", "vector", and "ask user". If *whatIfPastingIntoElementMask* is omitted or null, "ask user" is assumed.

Returns

Nothing.

Description

Pastes the Clipboard contents into the document.

Example

The following command pastes the Clipboard contents into the document. If there is a need for resampling, Fireworks asks the user to decide how to resample.

```
fw.getDocumentDOM().clipPaste();
```

dom.clipPasteAsMask()

Availability

Fireworks 4.

Usage

```
dom.clipPasteAsMask(whatIfResolutionDifferent, masktype, maskReplaceOptions)
```

Arguments

whatIfResolutionDifferent A string that specifies how resampling should be done if the resolution of the Clipboard contents doesn't match the resolution of the document. Acceptable values for *whatIfResolutionDifferent* are "resample", "do not resample", and "ask user" (displays a dialog box to let the user decide). If *whatIfResolutionDifferent* is omitted or null, "ask user" is assumed.

masktype Specifies how to paste the mask. Acceptable values are "image" (always paste as an image mask), "vector" (always paste as a vector mask), and "ask" (displays a dialog box to let the user decide). If the Clipboard contains a single image, it is pasted as an image mask, even if you pass "vector".

maskReplaceOptions Acceptable values for *maskReplaceOptions* are "replace" (if an element mask already exists, replace it with the pasted one), "add" (if an element mask already exists, add the pasted mask to it), and "ask" (displays a dialog box to let the user decide).

Returns

Nothing.

Description

Pastes the Clipboard contents into the document as an element mask. Only one element can be selected when calling this function. If more than one element (or none) is selected when this function is called, Fireworks throws an exception. An exception is also thrown if there is nothing on the Clipboard.

dom.clipPasteAttributes()

Availability

Fireworks 3.

Usage

```
dom.clipPasteAttributes()
```

Arguments

None.

Returns

Nothing.

Description

Pastes the attributes from the Clipboard onto the selection.

Example

The following command applies the attributes that were copied to the Clipboard onto the selected items.

```
fw.getDocumentDOM().clipPasteAttributes();
```

dom.clipPasteFromChannelToChannel()

Availability

Fireworks MX.

Usage

```
dom.clipPasteFromChannelToChannel(fromChannel, toChannel)
```

Arguments

fromChannel If the current selection is not a single bitmap, a new opaque bitmap is created and the *fromChannel* is pasted in to all three color channels of the new bitmap, resulting in a grayscale image. This first argument is ignored if the current selection is not a single bitmap.

toChannel If the currently selected element is a bitmap, the *toChannel* argument is used to specify where to paste the color data.

Returns

Nothing.

Description

Pastes the specified color channel on the Clipboard into each of the RGB channels of a new image or into the specified channel of the selected image, if any.

Example

The following command copies the red data from the Clipboard into the red channel:

```
fw.getDocumentDOM().clipPasteFromChannelToChannel("red", "red");
```

The following command copies the green data from the clipboard into the alpha channel:

```
fw.getDocumentDOM().clipPasteFromChannelToChannel("green", "alpha");
```

dom.clipPasteInside()

Availability

Fireworks 3, deprecated in 4 in favor of `dom.clipPasteAsMask()` (see "dom.clipPasteAsMask()" on page 128).

Usage

```
dom.clipPasteInside({whatIfResolutionDifferent})
```

Arguments

`whatIfResolutionDifferent` An optional string that specifies how resampling should be done if the resolution of the Clipboard contents doesn't match the resolution of the document. Acceptable values for *`whatIfResolutionDifferent`* are `"resample"`, `"do not resample"`, and `"ask user"` (displays a dialog box to let the user decide). If *`whatIfResolutionDifferent`* is omitted or `null`, `"ask user"` is assumed.

Returns

Nothing.

Description

Pastes the Clipboard contents into the selection, and makes the selected element into the element mask for the pasted element(s). If the selected element already has a mask, this function groups the pasted elements with the selected element and applies the existing element mask to the group.

Example

The following command pastes the Clipboard contents inside the selected items. If the resolution of the Clipboard doesn't match the resolution of the document, Fireworks resamples the Clipboard contents to match the document.

```
fw.getDocumentDOM().clipPasteInside("resample");
```

dom.cloneSelection()

Availability

Fireworks 3.

Usage

```
dom.cloneSelection()
```

Arguments

None.

Returns

Nothing.

Description

Makes exact duplicates of the selection, placing the duplicated items directly on top of the original items.

Example

The following command copies the selected items on top of the original items.

```
fw.getDocumentDOM().cloneSelection();
```

See also

dom.duplicateSelection()

dom.close()

Availability

Fireworks 3.

Usage

```
dom.close(bPromptToSaveChanges)
```

Arguments

bPromptToSaveChanges If *bPromptToSaveChanges* is `true`, and the document was changed since the last time it was saved, the user is prompted to save any changes to the document. If *bPromptToSaveChanges* is `false`, the user is not prompted, and changes to the document are discarded.

Returns

Nothing.

Description

Closes the document.

dom.convertAnimSymbolToGraphicSymbol()

Availability

Fireworks 4.

Usage

```
dom.converAnimSymbolToGraphicSymbol()
```

Arguments

None.

Returns

Nothing.

Description

If a single animation symbol is selected, this function converts it from an animation symbol to a graphics symbol.

See also

`dom.convertToAnimSymbol()`, `dom.convertToSymbol()`

dom.convertToAnimSymbol()

Availability

Fireworks 4.

Usage

```
dom.convetToAnimSymbol(name, numFrames, offsetDistPt, rotationAmount,
  scaleAmount, startOpacity, endOpacity)
```

Arguments

name A string that specifies a name for the new animation symbol.

numFrames An integer that specifies the number of frames through which the symbol animates.

offsetDistPt A point that specifies the distance the animation will move in pixels (see "Point data type" on page 11). For example, passing ({*x*:100, *y*:25}) animates the symbol to the right 100 pixels and down 25 pixels.

rotationAmount A floating-point value that specifies the degrees of rotation to be applied to the animation symbol. For example, passing a value of 720 specifies an animation that does two complete clockwise rotations. To rotate the animation counter-clockwise, pass a negative number.

scaleAmount A positive floating-point value that specifies the amount of scaling to be applied to the animation symbol. For example, passing a value of 50 scales the symbol to 50% of its current size, and passing 200 scales it to twice its current size. To specify no scaling, pass 100.

startOpacity and *endOpacity* Float values between 0 and 100 that specify the starting and ending opacity for the animation symbol.

Returns

Nothing.

Description

Converts the selected item(s) to a new animation symbol.

See also

`dom.convertAnimSymbolToGraphicSymbol()`, `dom.convertToSymbol()`, `dom.setAnimInstanceNumFrames()`

dom.convertToPaths()

Availability

Fireworks 3.

Usage

```
dom.convertToPaths()
```

Arguments

None.

Returns

Nothing.

Description

Converts the selected text items into editable paths.

Example

The following command converts the selected text items into editable paths.

```
fw.getDocumentDOM().convertToPaths();
```

dom.convertToSymbol()

Availability

Fireworks 3.

Usage

```
dom.convertToSymbol(type, name)
```

Arguments

type Acceptable values are `"graphic"`, `"button"`, and `"animation"`.

name A name for the new symbol.

Returns

Nothing.

Description

Converts the selected item(s) to a new symbol.

Example

The following command creates a graphic symbol from the selected item and names it “star”.

```
fw.getDocumentDOM().convertToSymbol("graphic", "star");
```

See also

dom.convertToAnimSymbol(), dom.convertAnimSymbolToGraphicSymbol()

dom.convolveSelection()

Availability

Fireworks MX 2004.

Usage

```
dom.convolveSelection( kernelWidth, kernelHeight, kernelValues, affectsAlpha)
```

Arguments

`kernelWidth` An integer that defines the width of the filter coefficients.

`kernelHeight` An integer that that defines the height of the filter coefficients.

`kernelValues` An array of integers that defines the values for specific filter patterns.

`affectsAlpha` A Boolean value: `true` means the convolution filter affects the transparency of the bitmap; `false` means that the bitmap transparency isn't affected by the filter.

Returns

Nothing

Description

Applies convolution, or irregular, filters to the selected bitmap based on the pattern defined by the argument values.

Example

The following example applies an edge-detection filter to the bitmap:

```
// width of convolution kernel
var w = 3;
// height of convolution kernel
var h = 3;
// Edge detection kernel
var k = new Array(0, 1, 0, 1, -4, 1, 0, 1, 0);

fw.getDocumentDOM().convolveSelection(w, h, k, false);
```

dom.copyHtmlWizard()

Availability

Fireworks MX.

Usage

```
dom.copyHtmlWizard()
```

Arguments

None.

Returns

Nothing.

Description

Opens the Copy HTML Wizard dialog box.

Example

The following command opens the Copy HTML Wizard dialog box:

```
fw.getDocumentDOM().copyHtmlWizard();
```

dom.copyToHotspot()

Availability

Fireworks 3.

Usage

```
dom.copyToHotspot(hotspotType, {whatIfMultipleSelected})
```

Arguments

hotspotType Acceptable values are `"hotspot"` and `"slice"`.

whatIfMultipleSelected An optional string that specifies how to create Hotspots if multiple items are selected. Acceptable values for *whatIfMultipleSelected* are `"single"` (creates a single Hotspot that has the same bounding rectangle as the selection), `"multiple"` (creates one Hotspot for each item), and `"ask user"` (displays a dialog box to let the user decide). If *whatIfMultipleSelected* is omitted or `null`, `"ask user"` is assumed.

Returns

Nothing.

Description

Creates one or more Hotspots from the selection.

Example

The following command adds a Hotspot to the selected item. If more than one item is selected, Fireworks creates one Hotspot for each item.

```
fw.getDocumentDOM().copyToHotspot("hotspot", "multiple");
```

dom.cropSelection()

Availability

Fireworks 3.

Usage

```
dom.cropSelection(boundingRectangle)
```

Arguments

boundingRectangle A rectangle that specifies the bounds within which the selection should be cropped (see "Rectangle data type" on page 11).

Returns

Nothing.

Description

Crops the selection to the specified rectangle.

dom.deleteAllInDocument()

Availability

Fireworks MX.

Usage

```
dom.deleteAllInDocument()
```

Arguments

None.

Returns

Nothing.

Description

Deletes all the objects in the document.

dom.deleteFrames()

Availability

Fireworks 3.

Usage

```
dom.deleteFrames(frameIndex, howMany)
```

Arguments

frameIndex An integer value that specifies the location at which to begin deleting frames, starting with `0` (although, to specify the current frame, pass `-1`).

howMany Specifies how many frames to delete.

Returns

Nothing.

Description

Deletes one or more frames.

dom.deleteLayer()

Availability

Fireworks 3.

Usage

```
dom.deleteLayer(layerIndex)
```

Arguments

layerIndex An integer value that specifies the the layer to be deleted, starting with 0 (although, to specify the current layer, pass -1 here).

Returns

Nothing.

Description

Deletes a layer.

Example

The following command deletes the current layer.

```
fw.getDocumentDOM().deleteLayer(-1);
```

dom.deletePointOnPath()

Availability

Fireworks 4.

Usage

```
dom.deletePointOnPath(contourIndex, pointIndex)
```

Arguments

contourIndex An integer value that specifies the contour that contains the point to be deleted, starting with 0 (although, to specify the current contour, pass -1 here).

pointIndex An integer value that specifies the point to be deleted, starting with 0 (although, to specify the current point, pass -1 here).

Returns

Nothing.

Description

Deletes the specified point on the currently selected path. If the point is the only one on its contour, the entire contour is deleted. If the point is the only one in the path, the entire path is deleted. The specified point does not need to be selected.

Example

The following command deletes the currently selected point.

```
fw.getDocumentDOM().deletePointOnPath(-1, -1);
```

dom.deleteSelection()

Availability

Fireworks 3.

Usage

```
dom.deleteSelection(bFillDeletedArea)
```

Arguments

bFillDeletedArea This argument is ignored if Fireworks is not in bitmap mode. If Fireworks is in bitmap mode and *bFillDeletedArea* is `true`, the deleted pixels are filled with the current fill color. If `false`, the deleted pixels are filled to transparent.

Returns

Nothing.

Description

Deletes the selection, or the pixel selection if Fireworks is in bitmap mode.

Example

If Fireworks is not in bitmap mode, the following command deletes the selected items.
If Fireworks is in bitmap mode, the following command fills the selected items to transparent.

```
fw.getDocumentDOM().deleteSelection(false);
```

dom.deleteSymbol()

Availability

Fireworks 3.

Usage

```
dom.deleteSymbol(symbolName)
```

Arguments

symbolName The name of the symbol to delete from the library. If more than one symbol exists with this name, only the first symbol is deleted.

- To delete all the selected symbols from the library (not document), pass `null`.
- If the deleted symbols contain any active instances in the document, the instances are also deleted.

Returns

Nothing.

Description

Deletes the specified symbols from the library.

Example

The following command deletes the selected symbols from the library as well as any active instances from the document.

```
fw.getDocumentDOM().deleteSymbol(null);
```

dom.detachInstanceFromSymbol()

Availability

Fireworks 3.

Usage

```
dom.detachInstanceFromSymbol()
```

Arguments

None.

Description

Breaks the links between the selected instances and the owning symbols.

Returns

Nothing.

dom.detachTextFromPath()

Availability

Fireworks 3.

Usage

```
dom.detachTextFromPath()
```

Arguments

None.

Returns

Nothing.

Description

Splits the selected text-on-a-path items into its original text and path items.

dom.distribute()

Availability

Fireworks 3.

Usage

```
dom.distribute(dimension)
```

Arguments

dimension Acceptable values are `"vertical"` and `"horizontal"`.

Returns

Nothing.

Description

Distributes the selection along a vertical or horizontal dimension.

dom.distributeLayerToFrames()

Availability

Fireworks 3.

Usage

```
dom.distributeLayerToFrames(layerIndex)
```

Arguments

layerIndex An integer value that specifies the layer that contains the items to be distributed, starting with `0` (although, to specify the current layer, pass `-1` here).

Returns

Nothing.

Description

Distributes the items on the specified layer to the frames of the document, adding frames if necessary. The first item on the layer goes to the first frame, the second item to the second frame, and so on. New frames are added to the document, if necessary. If there is only one item in the specified layer, this function has no effect.

dom.distributeSelectionToFrames()

Availability

Fireworks 3.

Usage

```
dom.distributeSelectionToFrames()
```

Arguments

None.

Returns

Nothing.

Description

Distributes the selected items to the frames of the document, adding frames if necessary. The first item goes to the current frame, the second item to the next frame, and so on. If only one item is selected, this function has no effect.

dom.dragControlPoint()

Availability

Fireworks MX 2004.

Usage

```
dom.dragControlPoint(index, newLoc, shiftKeyDown, ctrlCmdKeyDown,
  altOptKeyDown)
```

Arguments

index The index of the control point to move.

newLoc Specifies the new location of the point.

shiftKeyDown Specifies whether the Shift key is pressed.

ctrlCmdKeyDown Specifies whether the Ctrl key (Windows) or Command key (Macintosh) is pressed.

altOptKeyDown Specifies whether the Alt key (Windows) or Option key (Macintosh) is pressed.

Returns

Nothing.

Description

Drags the specified control point to the new location.

dom.duplicateFrame()

Availability

Fireworks 3.

usage

```
dom.duplicateFrame(frameIndex, howMany, where, bDupeSelectionOnly)
```

Arguments

frameIndex An integer value that specifies the frame to duplicate, starting with `0` (although, to specify the current frame, pass `-1` here).

howMany An integer that specifies how many copies of the frame to make.

where Acceptable values are `"beginning"`, `"before current"`, `"after current"`, and `"end"`.

bDupeSelectionOnly If *bDupeSelectionOnly* is `true`, only items in the specified frame that are selected are duplicated to the new frame.

Returns

Nothing.

Description

Duplicates a frame.

Example

The following command makes one copy of the current frame and places the new frame after the current frame.

```
fw.getDocumentDOM().duplicateFrame(-1, 1, "after current", false);
```

dom.duplicateLayer()

Availability

Fireworks 3.

Usage

```
dom.duplicateLayer(layerIndex, {howMany}, {where})
```

Arguments}

layerIndex An integer value that specifies the layer to duplicate, starting with `0` (although, to specify the current layer, pass `-1` here).

howMany An optional integer that specifies how many times to duplicate the layer. If omitted, the layer is duplicated once.

where An optional argument that specifies where to put the new layer(s) in relation to the source layer. Acceptable values are `"beginning"`, `"before current"`, `"after current"`, and `"end"`. If omitted, `"before current"` is assumed.

Returns

Nothing.

Description

Duplicates a layer.

Example

The following command places three copies of the current layer at the end of the document.

```
fw.getDocumentDOM().duplicateLayer(-1, 3, "end");
```

dom.duplicateSelection()

Availability

Fireworks 3.

Usage

```
dom.duplicateSelection()
```

Arguments

None.

Returns

Nothing.

Description

Makes a duplicate of the selection, offsetting it slightly from the original.

Example

The following command duplicates the selected items.

```
fw.getDocumentDOM().duplicateSelection();
```

See also

dom.cloneSelection()

dom.duplicateSelectionToFrameRange()

Availability

Fireworks 3.

Usage

```
dom.duplicateSelectionToFrameRange(frameIndexFirst, frameIndexLast)
```

Arguments

frameIndexFirst and *frameIndexLast* Integer values that specify the range of frames (inclusive) to which the items should be copied, starting with `0` (although, to specify the current frame, pass `-1` here).

- If both arguments are the same, duplicates are placed only on that frame.
- If the range includes the current frame, duplicates are not placed on that frame.

Returns

Nothing.

Description

Duplicates the selection to a range of frames of the document.

dom.duplicateSelectionToFrames()

Availability

Fireworks 3.

Usage

```
dom.cuplicateSelectionToFrames(whichFrames)
```

Arguments

whichFrames Acceptable values are `"all"`, `"previous"`, `"next"`, and `"end"`. Note that `"end"` means the last frame of the document; it does not add a new frame.

Returns

Nothing.

Description

Duplicates the selection to specified frames of the document.

dom.duplicateSymbol()

Availability

Fireworks 3.

Usage

```
dom.duplicateSymbol(symbol)
```

Arguments

symbol The symbol to duplicate.

- To duplicate all selected symbols in the library (not the document), pass a `null` value.
- Duplicating a linked symbol results in a nonlinked duplicate.

Returns

Nothing.

Description

Duplicates the specified symbol.

dom.duplicateSymbolForAlias()

Availability

Fireworks 3.

Usage

```
dom.duplicateSymbolForAlias()
```

Arguments

None.

Returns

Nothing.

Description

If any symbol instances are selected, this function makes duplicate symbols of all the symbols that are pointed to by those instances. The selected instances are updated to point to the new duplicate copies of the symbols. Duplicate symbols always result in nonlinked duplicates. (The use of the word “alias” in the function name corresponds to an “instance” in a Fireworks document.)

dom.elementsAt()

Availability

Fireworks MX 2004.

Usage

```
dom.elementsAt(where)
```

Arguments

where Specifies which rectangle to check for elements. To find the elements under a single point (similar to selecting with the Subselection tool), set left equal to right and top equal to bottom. To find elements within a rectangle (similar to drag-selecting with the Pointer tool), set the values to the desired rectangle.

Returns

An array of zero of more elements.

Description

Returns a list of zero or more elements at the given location. Similar to selecting with the Subselection tool or drag-selecting with the Pointer tool.

dom.enableElementMask()

Availability

Fireworks 4, updated with new arguments in Fireworks MX.

Usage

```
dom.enableElementMask(enable, selectAndEnterPaintModeIfPossible,
  newSelectionMask)
```

Arguments

enable A Boolean value that toggles the element mask between enabled (`true`) and disabled (`false`).

selectAndEnterPaintModeIfPossible A Boolean value that determines the mode for the mask. If *selectAndEnterPaintModeIfPossible* is `true`, and the mask is a bitmap mask, then bitmap mode is entered for the mask. It is `false` by default.

newSelectionMask An optional bitmap selection mask. If *newSelectionMask* is not `null`, and *selectAndEnterPaintModeIfPossible* is `true`, the selection will be set on the mask after entering paint mode. This argument is `null` by default.

Returns

Nothing.

Description

Enables or disables the element mask on the selected element. If more than one element (or no elements) are selected when this function is called, Fireworks throws an exception.

dom.enableTextAntiAliasing()

Availability

Fireworks MX.

Usage

```
dom.enableTextAntiAliasing(antiAlias)
```

Note: To set the level of anti-aliasing, call the function `dom.setTextAntiAlisasing()` (see "dom.setTextAntiAliasing()" on page 230.

Arguments

antiAlias A Boolean value to turn anti-aliasing on (`true`) or off (`false`).

Returns

Nothing.

Description

Turns anti-aliasing on or off for the selected blocks of text.

dom.enterElementMaskEditMode()

Availability

Fireworks 4.

Usage

```
dom.enterElementMaskEditMode()
```

Arguments

None.

Returns

Nothing.

Description

Places Fireworks in element-mask edit mode for the selection. If the selection contains no mask elements, Fireworks throws an exception.

dom.enterPaintMode()

Availability

Fireworks 3, with the argument `newSelectionMask` added in Fireworks MX.

Usage

```
dom.enterPaintMode(newSelectionMask)
```

Arguments

newSelectionMask An optional bitmap selection mask. When *newSelectionMask* is not null, the selection is set on the currently selected bitmap after entering paint mode. This argument is `null` by default.

Returns

Nothing.

Description

Enters image edit mode on the selected items. Has no effect if nothing is selected or if a nonimage item is selected.

dom.exitElementMaskEditMode()

Availability

Fireworks 4.

Usage

```
dom.exitElementMaskEditMode()
```

Arguments

None.

Returns

Nothing.

Description

Takes Fireworks out of element-mask edit mode. If Fireworks is not in this mode, this function has no effect.

dom.exitPaintMode()

Availability

Fireworks 3.

Usage

```
dom.exitPaintMode()
```

Arguments

None.

Returns

Nothing.

Description

Leaves bitmap mode. Has no effect if Fireworks is not in bitmap mode.

dom.exportOptions.loadColorPalette()

Availability

Fireworks 3.

Usage

```
dom.exportOptions.loadColorPalette(fileURL)
```

Arguments

fileURL A string, which is expressed as a file://URL, that specifies the GIF or ACT file that is used to replace the color panel.

Returns

`true` if the file is read successfully; `false` if the file is not the expected format or is not read successfully for any other reason.

Description

Replaces the values in `dom.exportOptions.paletteEntries` with those in the specified GIF or ACT file. This function also sets `dom.exportOptions.paletteMode` to `"custom"`. For more information, see "ExportOptions object" on page 46.

dom.exportOptions.saveColorPalette()

Availability

Fireworks 3.

Usage

`dom.exportOptions.saveColorPalette(`*`fileURL`*`)`

Arguments

`fileURL` A string, which is expressed as a file://URL, that specifies the name of the file to which the color panel should be saved. Do not specify a file extension; the .act extension is added automatically.

Returns

Nothing.

Description

Saves the values in `dom.exportOptions.paletteEntries` to the specified color panel (ACT file). This function does not modify the document. For more information, see "ExportOptions object" on page 46.

dom.exportTo()

Availability

Fireworks 3.

Usage

`dom.exportTo(`*`fileURL`*`, {`*`exportOptions`*`})`

Arguments

`fileURL` A string, which is expressed as a file://URL, that specifies the name of the exported file.

`exportOptions` An ExportOptions object (see "ExportOptions object" on page 46). This argument is optional. If this argument is omitted or `null`, the document's current Export Options settings are used. If values are passed in with *`exportOptions`*, they are used for this export operation only; they do not change the document's `exportOptions` property.

Returns

`true` if the file is successfully exported; `false` otherwise.

Description

Exports the document as specified.

dom.fillSelectedPixels()

Availability

Fireworks 3.

Usage

```
dom.fillSelectedPixels(clickPt, p1, p2, p3, bFillSelectionOnly, tolerance,
  edgemode, featherAmt)
```

Arguments

clickPt A point that specifies the *x,y* coordinates of the pixel to be filled or generated (see "Point data type" on page 11).

p1, *p2*, and *p3* Points that specify the fill-vector. These arguments are ignored if the current fill does not use a fill-vector.

bFillSelectionOnly If *bFillSelectionOnly* is `true`, the remaining arguments are ignored. If it is `false`, the current pixel selection is ignored, and a new one is generated using the values passed for *tolerance*, *edgemode*, and *featherAmt*. (This behavior is the same as if the Magic Wand tool were used at the *clickPt* location.)

tolerance An integer between 0 and 255, inclusive, that specifies the tolerance for selecting pixels.

edgemode Acceptable values for *edgemode* are `"hard edge"`, `"antialias"`, and `"feather"`.

featherAmt An integer between 0 and 32,000, inclusive, that specifies the number of pixels to feather. This value is ignored if the value of *edgemode* is not `"feather"`.

Returns

Nothing.

Description

When the selection is an image and Fireworks is in bitmap mode, this method fills the selected pixels with the current fill or generates a new pixel selection.

Example

The following command fills the selection with a hard edge, and the tolerance set to 32.

```
fw.getDocumentDOM().fillSelectedPixels({x:207, y:199}, {x:207, y:199}, {x:207,
  y:199}, {x:207, y:199}, false, 32, "hard edge", 0);
```

dom.filterSelection()

Availability

Fireworks 3.

usage

`dom.filterSelection(LiveEffect)`

Arguments

LiveEffect An Effect object (see "Effect object" on page 32).

Returns

Nothing.

Description

Applies the specified pixel filter to the selection. Items that are not images are converted into images before the filter is applied. Only external filters that are capable of also being Live Effects can be applied using this function. To apply other types of external filters, use `dom.filterSelectionByName()`.Example

The following command runs the selected pixels through the hue/saturation filter and then sets hue to 30 and saturation to 20.

```
fw.getDocumentDOM().filterSelection({
  EffectMoaID:"{3439b08d-1922-11d3-9bde00e02910d580}",
  hls_colorize:true, hue_amount:30, lightness_amount:0, saturation_amount:20
});
```

dom.filterSelectionByName()

Availability

Fireworks 3.

Usage

`dom.filterSelectonByName(category, name)`

Arguments

category A string that specifies the category of the pixel filter to be applied. Acceptable values depend on which filters you have installed.

name A string that specifies the name of the pixel filter to be applied. Acceptable values depend on which filters you have installed.

Returns

Nothing.

Description

Applies the specified pixel filter to the selection as a permanent action, not as a Live Effect. (To apply filters that can also be Live Effects, you can use `dom.filterSelection()`.) This function always displays a dialog box.

dom.findExportFormatOptionsByName()

Availability

Fireworks 3.

Usage

```
dom.findExportFormatOptionsByName(name)
```

Arguments

name A string that specifies the name of the set of export settings to find.

Returns

If there is a set of export settings with the specified name, the argument returns an object that represents it; otherwise, it returns `null`.

Description

Looks for a set of export settings that were saved with the specified name.

dom.findNamedElements()

Availability

Fireworks 4.

Usage

```
dom.findNamedElements(name)
```

Arguments

name A case-sensitive string that specifies the exact element name to find. To specify elements that have no name, pass `null`.

Returns

An array of elements that have the specified name, or `null` if no objects have the specified name.

Description

Looks for elements that have the specified name.

See also

`dom.setElementName()`

dom.flattenDocument()

Availability

Fireworks 3.

Usage

```
dom.flattenDocument()
```

Arguments

None.

Returns

Nothing.

Description

Flattens the entire document into a single pixel image. This is the same behavior as the Merge Layers command.

dom.flattenSelection()

Availability

Fireworks 3.

Usage

```
dom.flattenSelection()
```

Arguments

None.

Returns

Nothing.

Description

Flattens the selection into a single pixel image. This action is the same behavior as the Merge Images command.

dom.getFontMarkup()

Availability

Fireworks 3.

Usage

```
dom.getFontMarkup(fontAttribute)
```

Arguments

fontAttribute Acceptable values for *fontAttribute* are `"size"`, `"color"`, and `"face"`.

Returns

A string that specifies the markup value. Returns `null` if the text has multiple attributes or if the selection contains no text.

Description

Gets a font markup attribute for the selected text.

dom.getPixelMask()

Availability

Fireworks 3, deprecated in 4.

Usage

```
dom.getPixelMask()
```

Arguments

None.

Returns

The mask for the current pixel selection. Returns `null` if Fireworks is not in bitmap mode, or if there is no pixel selection. For information on the format of mask variables, see "Mask data type" on page 11.

Description

Gets the current pixel-selection mask. The result of this call could be used to call "dom.enableElementMask()" on page 145 or "dom.enterPaintMode()" on page 146.

dom.getSelectionBounds()

Availability

Fireworks 3.

Usage

```
dom.getSelectionBounds()
```

Arguments

None.

Returns

A rectangle (see "Rectangle data type" on page 11). Returns `null` if nothing is selected.

Description

Gets the bounding rectangle of the selection.

dom.getShowGrid()

Availability

Fireworks 3.

Usage

```
dom.getShowGrid()
```

Arguments

None.

Returns

`true` if the grid is visible; `false` otherwise.

Description

Determines whether the grid is visible.

dom.getShowRulers()

Availability

Fireworks 3.

Usage

```
dom.getShowRulers()
```

Arguments

None.

Returns

`true` if the rulers are visible; `false` otherwise.

Description

Determines whether the rulers are visible.

dom.getSnapToGrid()

Availability

Fireworks 3.

Usage

```
dom.getSnapToGrid()
```

Arguments

None.

Returns

`true` if the Snap to Grid function is active; `false` otherwise.

Description

Determines whether the Snap to Grid function is active.

dom.getTextAlignment()

Availability

Fireworks 3.

Usage

```
dom.getTextAlignment()
```

Arguments

None.

Returns

One of the following strings: `"left"`, `"center"`, `"right"`, `"justify"`, `"stretch"`, `"vertical left"`, `"vertical center"`, `"vertical right"`, `"vertical justify"`, or `"vertical stretch"`. Returns `null` if the text has multiple alignments or if the selection contains no text.

Description

Gets the alignment of selected text.

dom.group()

Availability

Fireworks 3, argument deprecated in 4.

Usage

```
dom.group({type})
```

Arguments

type An optional string that specifies how to group the items. Acceptable values are `"normal"`, `"mask to image"`, and `"mask to path"`. If the argument is omitted, `"normal"` is assumed. In Fireworks 4, `"mask to image"` and `"mask to path"` are deprecated.

Returns

Nothing.

Description

Groups the selection. To ungroup elements use `dom.ungroup()` (see "dom.ungroup()" on page 241).

Example

The following command sets the selected group to mask to the image.

```
replace with fw.getDocumentDOM().group("normal");
```

dom.hasCharacterMarkup()

Availability

Fireworks 3, enhanced in 4.

Usage

```
dom.hasCharacterMarkup(tag)
```

Arguments

tag Acceptable values are `"b"`, `"i"`, and `"u"`, for bold, italic, and underline; and `"fwplain"`, which was added in Fireworks 4, for text without character markup.

Returns

`true` if the text has the specified character markup; `false` if it does not or if only part of the text has the markup.

Description

Determines whether the selected text has the specified character markup.

dom.hideSelection()

Availability

Fireworks 3.

Usage

```
dom.hideSelection()
```

Arguments

None.

Returns

Nothing.

Description

Hides the selection. To redisplay it, use `dom.showAllHidden()` on page 238.

dom.importFile()

Availability

Fireworks 3.

Usage

```
dom.importFile(fileURL, boundingRectangle, bMaintainAspectRatio)
```

Arguments

`fileURL` The filename of the file to be imported, which is expressed as a file://URL.

`boundingRectangle` A rectangle that specifies the size to make the imported file (see "Rectangle data type" on page 11). If *`boundingRectangle`* is specified with `left == right` and `top == bottom`, the file is brought in unscaled with its top-left corner at the specified location, and the third argument is ignored.

`bMaintainAspectRatio` If *`bMaintainAspectRatio`* is `true`, the file is scaled to the largest size that fits within *`boundingRectangle`* while retaining the file's current aspect ratio. (This is a handy option for creating thumbnails.) If it is `false`, the file is scaled to fill *`boundingRectangle`*.

Returns

Nothing.

Description

Imports the specified file at the specified location.

Example

The following command imports the specified file and maintains its aspect ratio.

```
fw.getDocumentDOM().importFile("file:///C|/images/foo.psd", {left:25, top:50,
  right:100, bottom:250}, true);
```

dom.importSymbol()

Availability

Fireworks 3.

Usage

```
dom.importSymbol(fileURL, bAddToDoc, bAllowUI)
```

Arguments

fileURL The name of the file to be imported into the library, which is expressed as a file:// URL.

bAddToDoc If *bAddToDoc* is `true`, the symbol is added to the library and an instance of the symbol is inserted into the center of the document. If it is `false`, the symbol is added only to the library.

bAllowUI If *bAllowUI* is `true`, and *fileURL* is a Fireworks document that contains symbols, then a dialog box lets the user specify which symbols to import from the external file. If it is `false`, all the symbols in the external file are imported.

Returns

Nothing.

Description

Imports the specified external graphics file (for example, GIF, JPEG, or Fireworks document) into the library of the document.

dom.importSymbolButNotAsAlias()

Availability

Fireworks MX.

Usage

```
dom.importSymbolButNotAsAlias(filepath, whichSymbol)
```

Arguments

filepath The *fileURL* of the file that contains the symbol to be copied.

whichSymbol The index of the symbol within the document, which is specified in the *filepath*.

Returns

Nothing.

Description

Extracts the component elements from the selected symbol and places copies of those elements in the document.

This function is similar to the `dom.importSymbol` API. `dom.importSymbol` places an instance of a symbol in your document—for example, when you select Edit > Libraries > Buttons, and `dom.importSymbolButNotAsAlias` extracts the component elements from the selected symbol and places copies of those elements in the document. `dom.importSymbolButNotAsAlias` does not place in an instance in the document.

dom.inLaunchAndEdit()

Availability

Fireworks MX.

Usage

```
dom.inLaunchAndEdit()
```

Arguments

None.

Returns

A Boolean value: `true` if opened by a launch-and-edit operation; `false` otherwise.

Description

Specifies whether document was opened by a launch-and-edit operation.

dom.insertPointInPath()

Availability

Fireworks 3.

Usage

```
dom.insertPointInPath(contourIndex, ptToInsertBefore, tParameter,
  controlPointFirst, mainPoint, controlPointLast)
```

Arguments

`contourIndex` A zero-based index that specifies the contour into which the Bézier point is inserted. For paths with multiple contours, the contours are in an arbitrary order.

`ptToInsertBefore` A zero-based index that specifies where the new point should be placed on the path. The new point is appended in front of the point that this integer represents: To add a point to the beginning of the path, pass `0`; to add a point to the end of the path, pass a large number.

`tParameter` A floating-point value between 0 and 1 that specifies where to insert the new point in the Bézier segment.

`controlPointFirst`, *`mainPoint`*, and *`controlPointLast`* Points that specify the *x,y* coordinates of the preceding control point, the main point, and the following control point of the new point (see "Point data type" on page 11).

Returns

Nothing.

Description

Inserts a Bézier point in the selected path. This function is similar to `dom.appendPointToPath()` but includes a *`tParameter`* argument, which lets you control where the point is inserted.

See also

`dom.appendPointToPath()`

dom.insertSmartShapeAt()

Availability

Fireworks MX 2004.

Usage

`dom.insertSmartShapeAt(`*`name`*`, `*`location`*`, `*`useToolBlendModeOpacity`*`)`

Arguments

`name` A string specifying the name of the Auto Shape.

`location` The upper left point of the Auto Shape.

`useToolBlendModeOpacity` Determines whether the new shape object should have the blend mode and opacity settings set for the Auto Shape Tools (set by the user in the Property inspector), or use standard values. The *`bUseToolBlendModeOpacity`* argument is a Boolean value: `true` if the shape will use the blend mode and opacity set for the Auto Shape Tools; `false` if the shape will use the standard values (alpha blend mode and 100% opacity).

Returns

Nothing.

Description

Inserts an Auto Shape at the specified location.

dom.isSelectionDirectlyAboveBitmapObject()

Availability

Fireworks MX.

Usage

`dom.isSelectionDirectlyAboveBitmapObject()`

Arguments

None.

Returns

A Boolean value: `true` if the selected objects are directly above an image element; `false` otherwise.

Description

Tests to see if the selected object(s) are directly above a bitmap object. The selection does not need to be contiguous, although at least one item in the selection must be directly above a bitmap.

dom.joinPaths()

Availability

Fireworks 3.

Usage

```
dom.joinPaths()
```

Arguments

None.

Returns

Nothing.

Description

Joins the selected paths.

dom.knifeElementsFromPoint()

Availability

Fireworks 3.

Usage

```
dom.knifeElementsFromPoint(from, tolerance)
```

Arguments

from A point that specifies the *x,y* coordinates of the point that the user clicked (see "Point data type" on page 11).

tolerance A floating-point value > = 0 that specifies the tolerance within which items are cut.

Returns

Boolean value: `true` if anything was cut; `false` otherwise.

Description

When the user clicks a single point while using the Knife tool, this function cuts paths within the specified tolerance. This action is similar to using the Knife tool with a single click.

See also

`dom.knifeElementsFromPoints()`

dom.knifeElementsFromPoints()

Availability

Fireworks 3.

Usage

```
dom.knifeElementsFromPoints(from, to, tolerance)
```

Arguments

from A point that specifies the *x,y* coordinates of the point where the user clicked and started to drag (see "Point data type" on page 11).

to A point that specifies the *x,y* coordinates of the point where the user ended the drag operation.

tolerance A floating-point value > = 0 that specifies the tolerance within which items are cut.

Returns

`true` if anything is cut; `false` otherwise.

Description

When the user drags while using the Knife tool, this function cuts additional items within the specified tolerance. This action is similar to using the Knife tool with a drag operation.

See also

`dom.knifeElementsFromPoint()`

dom.linkElementMask()

Availability

Fireworks 4.

Usage

```
dom.linkElementMask(frame, layer, element, bLink)
```

Arguments

frame An integer value that specifies the frame that contains the element, starting with `0` (although, to specify the current frame, pass `-1` here).

layer An integer value that specifies the layer that contains the element, starting with `0` (although, to specify the current layer, pass `-1` here).

element An integer value that specifies the element, starting with `0` (although, to specify the current element, pass `-1` here).

bLink If *bLink* is `true`, the element masks are linked to their elements; if `false`, they are unlinked from their elements.

Returns

Nothing.

Description

Links or unlinks the element mask on the selected element. If more than one element (or no elements) are selected when this function is called, Fireworks throws an exception. An exception is also thrown if the element has no element mask.

dom.makeFind()

Availability

Fireworks 3.

Usage

`dom.MakeFind(`*`findSpec`*`)`

Arguments

`findSpec` A Find object (see "Find object" on page 20).

Returns

A Find object.

Description

Creates an object of class Find to perform a search-and-replace operation in a document.

dom.makeGoodNativeFilePath()

Availability

Fireworks 3.

Usage

`dom.makeGoodNativeFilePath(`*`fileURL`*`)`

Arguments

`fileURL` The name of the file, which is expressed as a file:///URL, whose extension should be changed to .png.

Returns

A string that contains the file URL with a .png extension.

Description

Ensures that the specified file URL ends in a .png extension. Does not affect the name of the file on disk.

Example

The following command returns "`file:///My Documents/image01.png`".

```
fw.getDocumentDOM().makeGoodNativeFilePath("file:///My Documents/image01.png")
```

dom.makeActive()

Availability

Fireworks 3.

Usage

```
dom.makeActive()
```

Arguments

None.

Returns

Nothing.

Description

Makes the selected document active for editing.

dom.mergeDown()

Availability

Fireworks MX.

Usage

```
dom.MergeDown()
```

Arguments

None.

Returns

Nothing.

Description

Merges selected objects to the bitmap directly below the selected objects. Succeeds only if the object immediately below the selection is a bitmap. See "dom.isSelectionDirectlyAboveBitmapObject()" on page 159.

dom.modifyPointOnPath()

Availability

Fireworks 3.

Usage

```
dom.modifyPointOnPath(ontourIndex, ptToModify, controlPointFirst, mainPoint,
  controlPointLast, dReapplyAttrs, bClosePath)
```

Arguments

contourIndex A zero-based index that specifies the contour into which the Bézier point is inserted. For paths with multiple contours, the contours are in an arbitrary order.

ptToModify A zero-based index that specifies the point to be modified.

controlPointFirst, *mainPoint*, and *controlPointLast* Points that specify the *x,y* coordinates of the preceding control point, the main point, and the following control point of the new point (see "Point data type" on page 11).

dReapplyAttrs If *dReapplyAttrs* is `true`, the path has the document's current fill, stroke, and so on reapplied to it. If it is `false`, the path attributes are not changed.

bClosePath If *bClosePath* is `true`, the path is marked as closed after modifying the point. If it is `false`, the path retains its original open or closed value.

Returns

Nothing.

Description

Modifies an existing point on the selected path.

dom.motionBlurSelection()

Availability

Fireworks MX 2004.

Usage

```
dom.motionBlurSelection(typeStr, angle, distance, samples)
```

Arguments

typeStr A string that specifies the type of blur to apply. Valid values are `"linear"`, `"radial"`, and `"zoom"`.

angle An integer between 0 and 359 that specifies in degrees the direction of the blur, similar to the drop shadow effect angle.

distance A floating-point value between 0 and 400 that specifies in pixels how far from the original image the blur effect will extend.

samples An integer that defines the number of times the original image is cloned and blurred to produce the desired effect.

Returns

Nothing.

Description

Applies the Motion Blur effect (same as selecting the Filters > Blur > Motion Blur menu option) to the selection.

dom.moveBezierHandleBy()

Availability

Fireworks 3.

Usage

```
dom.moveBezierHandleBy(whichPath, contourIndex, ptToModify,
  deltaControlPointFirst, deltaControlPointLast)
```

Arguments

whichPath A zero-based index that specifies an index into the list of selected items, indicating which item contains the Bézier handles to move.

contourIndex A zero-based index that specifies the contour that contains the handles to move. For paths with multiple contours, the contours are in an arbitrary order.

ptToModify A zero-based index that specifies the point whose handles are moved.

deltaControlPointFirst and *deltaControlPointLast* Points that specify the *x,y* coordinate values by which the preceding control point and the following control point of *ptToModify* are moved. For example, passing ({*x*:1,*y*:2}) specifies a location that is right by 1 pixel and down by 2 pixels.

Returns

Nothing.

Description

Moves the specified point's Bézier handles by a certain amount.

dom.moveElementMaskBy()

Availability

Fireworks 4.

Usage

```
dom.moveElementMaskBy(delta)
```

Arguments

delta A point that specifies the *x,y* coordinate values by which the element masks are moved (see "Point data type" on page 11). For example, passing ({*x*:1,*y*:2}) moves the element masks 1 pixel to the right and 2 pixels down.

Returns

Nothing.

Description

For all the elements in the selection that have element masks (linked or unlinked), it moves the element masks by the specified amount. Elements without element masks are ignored. If no elements in the selection have element masks, an exception is thrown.

dom.moveFillVectorHandleBy()

Availability

Fireworks 3.

Usage

```
dom.moveFillVectorHandleBy(delta, whichHandle, bConstrain, bMoveJustOne)
```

Arguments

delta A point that specifies the *x,y* coordinate values by which the handle is moved (see "Point data type" on page 11). For example, passing `({x:1,y:2})` specifies a location that is right by 1 pixel and down by 2 pixels.

whichHandle Specifies which handle to move and can be one of the following values: `"start"`, `"end1"`, `"end2"`, `"rotate1"`, or `"rotate2"`. (Some fills ignore `"end2"`.) Use `"rotate1"` or `"rotate2"` to rotate the `end1` or `end2` point around the start point.

bConstrain If the value of *bConstrain* is `true`, movement is constrained to 45º increments.

bMoveJustOne If the value of *bMoveJustOne* is `true`, only the specified handle moves. If it is `false`, other handles might move in sync when the specified handle is moved.

Returns

Nothing.

Description

If the selection has a fill that uses a fill vector (for example, a gradient fill), this function adjusts the handles of the fill vector. If the selection does not, this function has no effect.

dom.moveMaskGroupContentsBy()

Availability

Fireworks 3.

Usage

```
dom.moveMaskGroupContentsBy(delta)
```

Arguments

delta A point that specifies the *x,y* coordinate values by which the element is moved (see "Point data type" on page 11). For example, passing ({*x*:1,*y*:2}) moves the element 1 pixel to the right and 2 pixels down.

Returns

Nothing.

Description

If the selection is a mask group, this function moves the contents within the mask group by the specified amount. If the selected element has an element mask, this function moves the element (not the element mask) by the specified amount.

See also

`dom.moveElementMaskBy()`

dom.movePixelMaskBy()

Availability

Fireworks 4.

Usage

```
dom.movePixelMaskBy(delta)
```

Arguments

delta A point that specifies the *x,y* coordinate values by which the bitmap mode selection is moved (see "Point data type" on page 11). For example, passing ({*x*:1,*y*:2})moves the bitmap mode selection 1 pixel to the right and 2 pixels down.

Returns

Nothing.

Description

Moves a bitmap mode selection by the specified amount, without moving the pixels that are within the selection.

dom.movePointOnHotspotBy()

Availability

Fireworks 3.

Usage

```
dom.movePointOnHotspotBy(ptToModifyIndex, delta)
```

Arguments

ptToModifyIndex A zero-based index that specifies which point on the path is to move.

delta A point that specifies the *x,y* coordinate values by which the point is moved (see "Point data type" on page 11). For example, passing ({*x*:1,*y*:2}) moves the point 1 pixel to the right and 2 pixels down.

Returns

Nothing.

Description

If the selection is a Hotspot or slice of the polyline variety, this function moves a point on the Hotspot's path by the specified amount.

dom.movePointOnHotspotByWithFlags()

Availability

Fireworks MX.

Usage

```
dom.MovePointOnHotspotByWithFlags(ptToModifyIndex, delta, flags)
```

Arguments

ptToModifyIndex A zero-based index that specifies which point on the path is to move.

delta A point that specifies the *x*-,*y*-coordinate values by which the point is moved (see "Point data type" on page 11). For example, passing `({x:1,y:2})` moves the point 1 pixel to the right and 2 pixels down.

flags A Boolean value that determines whether this slice or Hotspot will be duplicated. This argument is important for giving slices a unique name so their behaviors remain unaffected.

Returns

Nothing.

Description

If the selection is a Hotspot or slice of the polyline variety, this function moves a point on the Hotspot's path by the specified amount.

dom.moveSelectedBezierPointsBy()

Availability

Fireworks 3.

Usage

```
dom.moveSelectedBezierPointsBy(delta)
```

Arguments

delta A point that specifies the *x,y* coordinate values by which the selected Bézier points are moved (see "Point data type" on page 11). For example, passing `({x:1,y:2})` moves the Bézier points 1 pixel to the right and 2 pixels down.

Returns

Nothing.

Description

If the selection contains at least one path with at least one Bézier point selected, this function moves all selected Bézier points on all selected paths by the specified amount.

dom.moveSelectionBy()

Availability

Fireworks 3.

Usage

```
dom.moveSelectionBy(delta, bMakeCopy, doSubSel)
```

Arguments

delta A point that specifies the *x,y* coordinate values by which the selection moved (see "Point data type" on page 11). For example, passing `({x:1,y:2})` moves the selection one pixel to the right and two pixels down.

bMakeCopy The items that are copied instead of moved.

doSubSel If *doSubSel* is set to `true`, the function moves only the subselected parts of a path. If the argument is set to `false`, the function moves the whole object.

Returns

Nothing.

Description

Moves the selected items by the specified amount or makes a copy of them and offsets them from the original by the specified amount.

Example

The following command moves the selected items right by 62 pixels and down by 84 pixels.

```
fw.getDocumentDOM().moveSelectionBy({x:62, y:84}, false, false);
```

dom.moveSelectionMaskBy()

Availability

Fireworks 4.

Usage

```
dom.moveSelectionMaskBy(delta)
```

Arguments

delta A point that specifies the *x-,y-*coordinate values by which the mask is moved (see "Point data type" on page 11). For example, passing `({x:1,y:2})` moves the mask 1 pixel to the right and 2 pixels down.

Returns

Nothing.

Description

Moves the current pixel mask by the specified amount. If there is no pixel selection, an exception is thrown.

dom.moveSelectionTo()

Availability

Fireworks 3.

Usage

```
dom.moveSelectionTo(location, bMakeCopy, doSubSel)
```

Arguments

location A point that specifies the *x*-,*y*-coordinate values of the location to which the selection is moved or copied (see "Point data type" on page 11).

bMakeCopy Specifies copying instead of moving the selection.

doSubSel If *doSubSel* is set to `true`, the function moves only the subselected parts of a path. If the argument is set to `false`, the function moves the whole object.

Returns

Nothing.

Description

Moves or copies the selection to the specified location.

Example

The following command copies only the selected parts of a path to the specified coordinates:

```
fw.getDocumentDOM().moveSelectionTo({x:163, y:0}, true, true);
```

dom.moveSelectionToFrame()

Availability

Fireworks 3.

Usage

```
dom.moveSelectionToFrame(frameIndex, bMakeCopy)
```

Arguments

frameIndex An integer value that specifies the frame to which the selection is moved or copied, starting with 0 (although, to specify the current frame, pass `-1` here).

bMakeCopy If *bMakeCopy* is `true`, the selection is copied instead of moved.

Returns

Nothing.

Description

Moves or copies the selection to the specified frame.

dom.moveSelectionToLayer()

Availability

Fireworks 3, enhanced in 4.

Usage

```
dom.moveSelectionToLayer(layerIndex, bMakeCopy, {whatIfMultipleSelected},
  {elementIndex})
```

Arguments

layerIndex An integer value that specifies the layer to which the selection should be moved or copied, starting with 0 (although, to specify the current layer, pass –1 here).

bMakeCopy If *bMakeCopy* is `true`, the selection is copied instead of moved.

whatIfMultipleSelected An optional string that is used only if the destination is a web layer and *bMakeCopy* is `true`. It specifies how to create Hotspots if multiple items are selected. Acceptable values for *whatIfMultipleSelected* are `"single"` (creates a single Hotspot that has the same bounding rectangle as the selection), `"multiple"` (creates one Hotspot for each item), and `"ask user"` (displays a dialog box to let the user decide). If *whatIfMultipleSelected* is omitted or `null`, `"ask user"` is assumed.

elementIndex A zero-based index, added in Fireworks 4, that specifies the element before which the moved or copied selection should be inserted. If *elementIndex* is omitted, the selection is placed at the top of the layer (before any other elements). Otherwise, it is an index within the existing elements in the layer, where `0` is the topmost, and `(n-1)` is the last element (for a layer with *n* elements). The maximum value is the number of elements previously in the layer—meaning that the elements are moved to the bottom of the specified layer.

Returns

Nothing.

Description

Moves or copies the selection to the specified layer.

dom.moveSelectionToNewLayer()

Availability

Fireworks 3.

Usage

```
dom.moveSelectionToNewLayer(bMakeCopy)
```

Arguments

bMakeCopy If *bMakeCopy* is `true`, the selected items are copied instead of moved.

Returns

Nothing.

Description

Makes a new layer with a default name, then moves or copies the selection to that new layer.

dom.pathCrop()

Availability

Fireworks 3.

Usage

```
dom.pathCrop()
```

Arguments

None.

Returns

Nothing.

Description

Performs a crop operation on the selected paths.

dom.pathExpand()

Availability

Fireworks 3.

Usage

```
dom.pathExpand(width, miter, cap, join)
```

Arguments

width A floating-point value that specifies the new width of the selected paths, in pixels.

miter A floating-point value that specifies the new miter angle of the selected paths, in pixels. This argument is ignored if the value of *join* is not `"miter"`.

cap Acceptable values are `"butt"`, `"square"`, and `"round"`.

join Acceptable values are `"bevel"`, `"round"`, and `"miter"`.

Returns

Nothing.

Description

Performs an expand operation on the selected paths.

dom.pathInset()

Availability

Fireworks 3.

Usage

```
dom.pathInset(width, miter, join)
```

Arguments

width A floating-point value that specifies the new width of the selected paths, in pixels.

miter A floating-point value that specifies the new miter angle of the selected paths, in pixels. This argument is ignored if the value of *join* is not `"miter"`.

join Acceptable values are `"bevel"`, `"round"`, and `"miter"`.

Returns

Nothing.

Description

Performs an inset operation on the selected paths.

dom.pathIntersect()

Availability

Fireworks 3.

Usage

```
dom.pathIntersect()
```

Arguments

None.

Returns

Nothing.

Description

Performs an intersect operation on the selected paths.

dom.pathPunch()

Availability

Fireworks 3.

Usage

```
dom.pathPunch()
```

Arguments

None.

Returns

Nothing.

Description

Performs a punch operation on the selected paths.

dom.pathSimplify()

Availability

Fireworks 3.

Usage

```
dom.pathSimplify(limit)
```

Arguments

limit is a floating-point value that specifies how much to simplify. This value corresponds to the value in the Modify > Alter Path > Simplify dialog box.

Returns

Nothing.

Description

Performs a simplify operation on the selected paths.

dom.pathUnion()

Availability

Fireworks 3.

Usage

```
dom.pathUnion()
```

Arguments

None.

Returns

Nothing.

Description

Performs a union operation on the selected paths.

dom.previewInBrowser()

Availability

Fireworks MX.

Usage

```
dom.previewInBrowser(primaryBrowser)
```

Arguments

primaryBrowser A Boolean value that specifies which browser Fireworks should start: the primary browser (`true`) or the secondary browser (`false`).

Returns

Nothing.

Description

Previews the document in the primary or secondary browser.

dom.rebuildColorTable()

Availability

Fireworks 3.

Usage

```
dom.rebuildColorTable()
```

Arguments

None.

Returns

Nothing.

Description

Rebuilds the color table for the current export settings of the document. This is the same behavior as choosing Rebuild Color Table from the Color Table panel.

dom.redo()

Availability

Fireworks 3.

Usage

```
dom.redo()
```

Arguments

None.

Returns

Nothing.

Description

Reinstates the last action that was undone in the document.

dom.redraw()

Availability

Fireworks MX.

Usage

```
dom.redraw()
```

Arguments

None.

Returns

Nothing.

Description

Forces the document to redraw itself immediately. This function is useful for providing feedback during complicated commands.

dom.reflectSelection()

Availability

Fireworks 3.

Usage

```
dom.reflectSelection(bHoriz, bVert, opts)
```

Arguments

bHoriz If *bHoriz* is `true`, the items are reflected horizontally.

bVert If *bVert* is `true`, the items are reflected vertically.

opts Acceptable values are `"transformAttributes"`, `"autoTrimImages"`, and `"autoTrimImages transformAttributes"`.

Returns

Nothing.

Description

Reflects the selection vertically, horizontally, or both.

dom.removeAllGuides()

Availability

Fireworks 3.

Usage

```
dom.removeAllGuides(guidekind)
```

Arguments

guidekind Acceptable values are `"horizontal"` and `"vertical"`.

Returns

Nothing.

Description

Removes all guides of the specified type.

dom.removeBehavior()

Availability

Fireworks 3.

Usage

```
dom.removeBehavior({event}, {eventIndex})
```

Arguments

event An optional argument specifying the event that triggers the behavior. This argument is ignored by Fireworks.

eventIndex An integer value that specifies the location of the behavior to be removed, starting with 0 (although, to specify the end location, pass –1 here). This argument is optional.

If you omit both optional arguments this function removes all events from selected Hotspots and slices.

Returns

Nothing.

Description

Removes one or all behavior events from the selected Hotspots and slices.

See also

dom.addBehavior()

dom.removeBrush()

Availability

Fireworks 3.

Usage

```
dom.removeBrush()
```

Arguments

None.

Returns

Nothing.

Description

Sets the brush of the selection to None.

dom.removeCharacterMarkup()

Availability

Fireworks 3.

Usage

`dom.removeCharacterMarkup(tag)`

Arguments

tag Acceptable values are `"b"`, `"i"`, and `"u"`, for bold, italic, and underline.

Returns

Nothing.

Description

Reapplies the default value for the specified markup type to the text in the selection.

dom.removeElementMask()

Availability

Fireworks 4.

Usage

`dom.removeElementMask(whatIfElementIsAnImage)`

Arguments

whatIfElementIsAnImage This argument is used only if the element (not the element mask) is an image. Acceptable values for *whatIfElementIsAnImage* are `"apply"` (apply the element mask to the image before discarding the element mask), `"discard"` (discard the element mask), and `"ask"` (displays a dialog box to let the user decide). If you pass `"ask"` and the user cancels the dialog box, Fireworks returns an error.

Returns

Nothing.

Description

Removes the mask from the selected element. If more than one element (or no elements) are selected when this function is called, Fireworks throws an exception.

dom.removeFontMarkup()

Availability

Fireworks 3.

Usage

`dom.removeFontMarkup(fontAttribute)`

Arguments

fontAttribute Acceptable values are `"size"`, `"color"`, and `"face"`.

Returns

Nothing.

Description

Reapplies the default value for the specified font attribute to the text in the selection.

dom.removeFill()

Availability

Fireworks 3.

Usage

```
dom.removeFill()
```

Arguments

None.

Returns

Nothing.

Description

Sets the fill of the selection to None.

dom.removeGuide()

Availability

Fireworks 3.

Usage

```
dom.removeGuide(position, guidekind)
```

Arguments

position A floating-point value that specifies the position of the guide to be removed.

guidekind Acceptable values are `"horizontal"` and `"vertical"`. If *guidekind* is `"horizontal"`, it is assumed that *position* is a *y* coordinate; if *guidekind* is `"vertical"`, it is assumed that *position* is an *x* coordinate.

Returns

Nothing.

Description

Removes the specified guide. If no guide is at that position, this function has no effect.

dom.removeTransformation()

Availability

Fireworks 3.

Usage

```
dom.removeTransformation()
```

Arguments

None.

Returns

Nothing.

Description

Removes the transformations, if any, from the selected text or instances.

dom.reorderFrame()

Availability

Fireworks 3.

Usage

```
dom.reorderFrame(frameToMove, frameToPutItBefore, bMakeCopy)
```

Arguments

frameToMove A zero-based index that specifies which frame to move or copy.

frameToPutItBefore A zero-based index that specifies where to place the frame that is to be moved or copied. For example, if you pass `1` for *frameToMove* and `0` for *frameToPutItBefore*, the second frame is placed before the first frame.

bMakeCopy If *bMakeCopy* is `true`, the specified frame is copied instead of moved.

Returns

Nothing.

Description

Moves or copies the specified frame before another specified frame.

Example

The following command moves the third frame before the first frame.

```
fw.getDocumentDOM().reorderFrame(2, 0, false);
```

dom.reorderLayer()

Availability

Fireworks 3.

Usage

```
dom.reorderLayer(layerToMove, layerToPutItBefore, bMakeCopy)
```

Arguments

layerToMove A zero-based index that specifies which layer to move or copy.

layerToPutItBefore A zero-based index that specifies where to place the layer to be moved or copied. For example, if you pass `1` for *layerToMove* and `0` for *layerToPutItBefore*, the second layer is placed before the first layer.

bMakeCopy If *bMakeCopy* is `true`, the specified layer is copied instead of moved.

Returns

Nothing.

Description

Moves or copies the specified layer before another specified layer.

dom.replaceButtonTextStrings()

Availability

Fireworks 3.

Usage

```
dom.replaceButtonTextStrings(newString, uniformAttrs)
```

Arguments

newString Specifies the string to be used as replacement text.

uniformAttrs If *uniformAttrs* is `false`, each character retains the attributes of the character that was formerly in its position; that is, Fireworks preserves the existing formatting. If *uniformAttrs* is `true`, all characters assume the attributes of the first character in the string that is being replaced.

Returns

Nothing.

Description

Replaces all text items (selected and unselected) within the document that are defined as Button Text items with the specified string. (Button Text items are defined as the topmost text items on each frame.)

See also

`dom.replaceButtonTextStringsInInstances()`

dom.replaceButtonTextStringsInInstances()

Availability

Fireworks 3.

Usage

`dom.replaceButtonTextStringsInInstances(`*`newString`*`, `*`uniformAttrs`*`)`

Arguments

`newString` Specifies the string to be used as replacement text.

`uniformAttrs` If *`uniformAttrs`* is `false`, each character retains the attributes of the character that was formerly in its position; that is, Fireworks preserves the existing formatting. If *`uniformAttrs`* is `true`, all characters assume the attributes of the first character in the string that is being replaced.

Returns

Nothing.

Description

Replaces selected button text items with the specified string. (Button text items are defined as the topmost text items on each frame.)

See also

`dom.replaceButtonTextStrings()`

dom.replaceTextString()

Availability

Fireworks 3.

Usage

`dom.replaceTextString(`*`newString`*`, `*`uniformAttrs`*`)`

Arguments

`newString` Specifies the string to be used as replacement text.

`uniformAttrs` If *`uniformAttrs`* is `false`, each character retains the attributes of the character that was formerly in its position; that is, Fireworks preserves the existing formatting. If *`uniformAttrs`* is `true`, all characters assume the attributes of the first character in the string that is being replaced.

Returns

Nothing.

Description

Replaces the text of all selected text items with the specified string.

dom.resizeSelection()

Availability

Fireworks 3.

Usage

```
dom.resizeSelection(width, height)
```

Arguments

width and *height* Integers that specify the new width and height, in pixels.

Returns

Nothing.

Description

Resizes the selection to the specified pixel width and height, keeping the top-left corner of the selection in place.

dom.restoreJPEGMask()

Availability

Fireworks 4.

Usage

```
dom.restoreJPEGMask()
```

Arguments

None.

Returns

Nothing.

Description

Restores the selection that is specified in `dom.saveJPEGMask()`.

See also

`dom.saveJPEGMask()`

dom.restoreSelection()

Availability

Fireworks 4.

Usage

```
dom.restoreSelection()
```

Arguments

None.

Returns

Nothing.

Description

Restores the selection that is specified in `dom.saveSelection()`.

See also

`dom.saveSelection()`

dom.reversePathTextDirection()

Availability

Fireworks 3.

Usage

```
dom.reversePathTextDirection()
```

Arguments

None.

Returns

Nothing.

Description

For all text-on-a-path items in the selection, it reverses the direction of the text along the path.

dom.rotateDocument()

Availability

Fireworks 3.

Usage

```
dom.rotateDocument(rotationAmount)
```

Arguments

`rotationAmount` Acceptable values for *`rotationAmount`* are 90, 180, and 270.

Returns

Nothing.

Description

Rotates the entire document 90º, 180º, or 270º clockwise. Rotating 270º is the same behavior as rotating 90º counterclockwise.

dom.rotateSelection()

Availability

Fireworks 3.

Usage

```
dom.rotateSelection(rotationDegrees, opts)
```

Arguments

rotationDegrees A floating-point value that specifies the number of degrees to rotate the selection.

opts Acceptable values are `"transformAttributes"`, `"autoTrimImages"`, and `"autoTrimImages transformAttributes"`.

Returns

Nothing.

Description

Rotates the selection clockwise by the specified number of degrees. Rotating 270º is the same behavior as rotating 90º counterclockwise.

dom.save()

Availability

Fireworks 3.

Usage

```
dom.save({bOkToSaveAs})
```

Arguments

bOkToSaveAs If this optional argument is `true` or omitted and the file was never saved, then the Save As dialog box appears. If *bOkToSaveAs* is `false` and the file was never saved, the file is not saved.

Returns

`true` if the save operation is successful; `false` otherwise.

Description

Saves the document in its default location. After a successful save operation, the document's `isDirty` property is cleared.

dom.saveCopyAs()

Availability

Fireworks 3.

Usage

`dom.saveCopyAs(`*`fileURL`*`)`

Arguments

`fileURL` A string, which is expressed as a file://URL, that specifies the directory and name under which the copy should be saved.

Returns

`true` if the save operation is successful; `false` otherwise.

Description

Saves a copy of the document in a specified directory with a specified name. This function does not affect the document's `filePathForSave` or `isDirty` properties.

dom.saveJPEGMask()

Availability

Fireworks 4.

Usage

`dom.saveJPEGMask()`

Arguments

None.

Returns

Nothing.

Description

Stores the current selection in bitmap mode as the "Selective JPEG mask". Use `dom.restoreJPEGMask()` to restore the JPEG mask.

See also

`dom.restoreJPEGMask()`

dom.saveSelection()

Availability

Fireworks 4.

Usage

`dom.saveSelection()`

Arguments

None.

Returns

Nothing.

Description

Stores the current selection in bitmap mode as the saved selection. Use `dom.restoreSelection()` to restore the selection.

See also

`dom.restoreSelection()`

dom.scaleSelection()

Availability

Fireworks 3.

Usage

`dom.scaleSelection(`*`xScaleAmount`*`, `*`yScaleAmount`*`, `*`opts`*`)`

Arguments

`xScaleAmount` and *`yScaleAmount`* Float values that specify the amount to scale the selection in the horizontal and vertical axes. Acceptable values are 0.0 or greater; a value of 1 represents 100%, 2 represents 200%, and so on.

`opts` Acceptable values are `"transformAttributes"`, `"autoTrimImages"`, and `"autoTrimImages transformAttributes"`.

Returns

Nothing.

Description

Scales the selection in the horizontal and vertical axes.

Example

The following command scales the selected items to approximately two-thirds (67%) and automatically trims the images and transforms the attributes.

```
fw.getDocumentDOM().scaleSelection(0.67, 0.67, "autoTrimImages
  transformAttributes");
```

dom.selectAdjustPixelSel()

Availability

Fireworks 3.

Usage

`dom.selectAdjustPixelSel(`*`whatToDo`*`, `*`amount`*`)`

Arguments

whatToDo Acceptable values are "expand", "contract", "border", and "smooth".

- Use "expand" to expand the pixel selection outward by the number of pixels that are specified by *amount*.
- Use "contract" to reduce the pixel selection inward by the number of pixels that are specified by *amount*.
- Use "border" to select a band of pixels the width of *amount* around the edge of the pixel selection.
- Use "smooth" to smooth out the edge of the pixel selection by *amount*.

amount An integer specifying the amount by which to adjust. Any integer is acceptable.

Returns

Nothing.

Description

Expands or reduces the pixel selection by the specified number of pixels, selects a border of pixels, or smooths the edge of the pixel selection.

dom.selectAll()

Availability

Fireworks 3.

Usage

```
dom.selectAll()
```

Arguments

None.

Returns

Nothing.

Description

Selects all the items in the current layer and frame. If single layer editing is enabled, all the items in the current layer are selected; otherwise, all elements on all layers are selected.

dom.selectAllOnLayer()

Availability

Fireworks MX.

Usage

```
dom.selectAllOnLayer(layerIndex)
```

Arguments

layerIndex A long integer that identifies the layer on which to select the element.

Returns

Nothing.

Description

Selects all the items on the given layer in the current frame. This function deselects objects on other layers. If the only element on the layer is a bitmap, Fireworks will enter paint mode on the bitmap.

dom.selectChildren()

Availability

Fireworks 3.

Usage

```
dom.selectChildren()
```

Arguments

None.

Returns

Nothing.

Description

Selects the children, if any, of the selection. For example, if a group is selected, the selection changes from the group to the individual members of the group.

See also

`dom.selectParents()`

dom.selectFeather()

Availability

Fireworks 3.

Usage

```
dom.selectFeather(featherAmount)
```

Arguments

featherAmount An integer that specifies the number of pixels by which to feather the selection.

Returns

Nothing.

Description

If Fireworks is in bitmap mode and a pixel selection is active, this function feathers the selection by the specified number of pixels.

dom.selectInverse()

Availability

Fireworks 3.

Usage

```
dom.selectInverse()
```

Arguments

None.

Returns

Nothing.

Description

If Fireworks is in bitmap mode and a pixel selection is active, this function inverts the pixel selection.

dom.selectNone()

Availability

Fireworks 3.

Usage

```
dom.selectNone()
```

Arguments

None.

Returns

Nothing.

Description

Deselects any selected items. If Fireworks is in image edit mode, has a pixel selection, and has a Selection tool selected, then this function deselects the pixels and exits image edit mode.

dom.selectParents()

Availability

Fireworks 3.

Usage

```
dom.selectParents()
```

Arguments

None.

Returns

Nothing.

Description

Selects the parents, if any, of the selection. That is, if all the members of a group are selected, the individual members are deselected, and the group is selected.

See also

`dom.selectChildren()`

dom.selectSimilar()

Availability

Fireworks 3.

Usage

`dom.selectSimilar(`*`tolerance`*`, `*`edgemode`*`, `*`featherAmt`*`, `*`combinemode`*`)`

Arguments

`tolerance` An integer between 0 and 255, inclusive, that specifies the tolerance for selecting pixels.

`edgemode` Acceptable values are `"hard edge"`, `"antialias"`, and `"feather"`.

`featherAmt` An integer that specifies the number of pixels to feather. This value is ignored if *`edgemode`* is not `"feather"`.

`combinemode` Specifies how to combine the new selection mask with the existing mask. Acceptable values are `"replace"`, `"add"`, `"subtract"`, and `"intersect"`.

Returns

Nothing.

Description

If Fireworks is in bitmap mode and a pixel selection is active, this function selects all pixels in the current image that are within the specified tolerance of the average color in the current pixel selection.

See also

`dom.selectSimilarFromPoint()`

dom.selectSimilarFromPoint()

Availability

Fireworks 3.

Usage

```
dom.selectSimilarFromPoint(where, tolerance, edgemode, featherAmt,
  combinemode)
```

Arguments

where A point that specifies the *x,y* coordinates of the pixel whose color is used to calculate the new mask (see "Point data type" on page 11).

tolerance An integer between 0 and 255, inclusive, that specifies the tolerance for selecting pixels.

edgemode Acceptable values are `"hard edge"`, `"antialias"`, and `"feather"`.

featherAmt An integer that specifies the number of pixels to feather. This value is ignored if *edgemode* is not `"feather"`.

combinemode Specifies how to combine the new selection mask with the existing mask. Acceptable values are `"replace"`, `"add"`, `"subtract"`, and `"intersect"`.

Returns

Nothing.

Description

Behavior is almost identical to `dom.selectSimilar()`, except that the new mask is calculated from the color at the specified location in the image, rather than from the average color in the selection.

See also

`dom.selectSimilar()`

dom.sendEmail()

Availability

Fireworks MX 2004.

Usage

`dom.sendEmail(`*`fileAttachment`*`)`

Arguments

fileAttachment A string, which is expressed as *file:///URL*, denoting the location of a file to send by e-mail.

Returns

Nothing.

Description

Creates a new e-mail with the specified file as an attachment.

Example

The following example opens a new e-mail in the default e-mail program and attaches the file foo.png to the message:

```
fw.getDocumentDOM().sendEmail("file:///Users/andy/Documents/foo.png");
```

dom.setAllLayersDisclosure()

Availability

Fireworks 4.

Usage

`dom.setAllLayersDisclosure(bDisclosed)`

Arguments

`bDisclosed` If *`bDisclosed`* is `true`, all the elements on all layers appear in the Layers list. If `false`, only layer names appear on the list.

Returns

Nothing.

Description

Specifies whether all the elements in all layers appear in the Layers list.

See also

`dom.setLayerDisclosure()`

dom.setAnimInstanceLoopCount()

Availability

Fireworks 3, deprecated in 4 in favor of `dom.setAnimInstanceNumFrames()`.

Usage

`dom.setAnimInstanceLoopCount(loopCount)`

Arguments

`loopCount` An integer that corresponds to the loop count value that appears in the Objects panel when a multiframe image instance is selected.

Returns

Nothing.

Description

Sets the loop count of the selected instances of multiframe image symbols.

dom.setAnimInstanceNumFrames()

Availability

Fireworks 4.

Usage

`dom.setAnimInstanceNumFrames(numFrames)`

Arguments

`numFrames` An integer that specifies the number of frames through which the symbol animates.

Returns

Nothing.

Description

Sets the number of frames to animate the currently selected animation element.

See also

`dom.convertToAnimSymbol()`

dom.setAnimInstanceOffsetDist()

Availability

Fireworks 4.

Usage

`dom.setAnimInstanceOffsetDist(`*`offsetDistPt`*`)`

Arguments

`offsetDistPt` A point that specifies the distance the animation moves in pixels. For example, passing ({*x*:100, *y*:25}) animates the symbol to the right by 100 pixels and down by 25 pixels.

Returns

Nothing.

Description

Sets the distance, in pixels, to animate the currently selected animation element.

See also

`dom.convertToAnimSymbol()`

dom.setAnimInstanceRotationAmount()

Availability

Fireworks 4.

Usage

`dom.setAnimInstanceRotationAmount(`*`rotationAmount`*`)`

Arguments

`rotationAmount` A floating-point value that specifies the degree of rotation to be applied to the animation symbol. For example, passing `720` specifies an animation that does two complete clockwise rotations. To rotate the animation counter-clockwise, pass a negative number.

Returns

Nothing.

Description

Sets the rotation amount, in degrees, to animate the currently selected animation element.

See also

dom.convertToAnimSymbol()

dom.setAnimInstanceScaleAmount()

Availability

Fireworks 4.

Usage

dom.setAnimInstanceScaleAmount(*scaleAmount*)

Arguments

scaleAmount A positive floating-point value that specifies the amount of scaling to be applied to the animation symbol. For example, pass 50 to scale the symbol to 50% of its current size, and pass 200 to scale it to twice its current size. To specify no scaling, pass 100.

Returns

Nothing.

Description

Sets the scale amount to animate the currently selected animation instance.

See also

dom.convertToAnimSymbol()

dom.setAnimInstanceStartEndOpacity()

Availability

Fireworks 4.

Usage

dom.setAnimInstanceStartEndOpacity(*startOpacity*, *endOpacity*)

Arguments

startOpacity and *endOpacity* Float values between 0 and 100 that specify the starting and ending opacity of the animation symbol.

Returns

Nothing.

Description

Sets the starting and ending opacity of the currently selected animation symbol.

See also

dom.convertToAnimSymbol()

dom.setAnimInstanceStartFrame()

Availability

Fireworks 3, deprecated in 4 in favor of placing the animation symbol on the frame in which it should start.

Usage

`dom.setAnimInstanceStartFrame(`*`startFrame`*`)`

Arguments

`startFrame` An integer that corresponds to the starting frame value that appears in the Objects panel when a multiframe image instance is selected.

Returns

Nothing.

Description

Sets the start frame of the selected instances of multiframe image symbols.

dom.setBlendMode()

Availability

Fireworks 3.

Usage

`dom.setBlendMode(`*`mode`*`)`

Arguments

`mode` Acceptable values are `"normal"`, `"multiply"`, `"screen"`, `"darken"`, `"lighten"`, `"difference"`, `"hue"`, `"saturation"`, `"color"`, `"luminosity"`, `"invert"`, `"tint"`, and `"erase"`.

Returns

Nothing.

Description

Specifies the blend mode of the selection.

dom.setBrush()

Availability

Fireworks 3.

Usage

`dom.setBrush(`*`brush`*`)`

Arguments

`brush` A Brush object (see "Brush object" on page 26).

Returns

Nothing.

Description

Sets the selection to the specified brush.

See also

`dom.setBrushColor()`, `dom.setBrushName()`, `dom.setBrushNColorNTexture()`, `dom.setBrushPlacement()`

dom.setBrushColor()

Availability

Fireworks 3.

Usage

```
dom.setBrushColor(color)
```

Arguments

color A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the brush color of the selection to the specified color.

See also

`dom.setBrushNColorNTexture()`

dom.setBrushName()

Availability

Fireworks 3.

Usage

```
dom.setBrushName(category, currentName, newName)
```

Arguments

category A string that specifies the category of the brush to be renamed.

currentName A string that specifies the current name of the brush.

newName A string that specifies the new name of the brush.

Returns

Nothing.

Description

Renames a brush. Does not change the brush category.

dom.setBrushNColorNTexture()

Availability

Fireworks 3.

Usage

```
dom.setBrushNColorNTexture(brush, color, texture-name)
```

Arguments

brush A Brush object (see "Brush object" on page 26).

color A color string (see "Color string data type" on page 11).

texture-name The name of the texture to be applied.

Returns

Nothing.

Description

Sets the selection to the specified brush, brush color, and brush texture.

See also

`dom.setBrushColor()`

dom.setBrushPlacement()

Availability

Fireworks 3.

Usage

```
dom.setBrushPlacement(placement)
```

Arguments

placement Acceptable values are `"inside"`, `"center"`, and `"outside"`.

Returns

Nothing.

Description

Specifies the brush placement of the stroke on the selection.

dom.setButtonAutoSlice()

Availability

Fireworks 3.

Usage

```
dom.setButtonAutoSlice(bAutoSlice)
```

Arguments

bAutoSlice If *bAutoSlice* is `true`, automatic slicing is turned on. If *bAutoSlice* is `false`, it is turned off.

Returns

Nothing.

Description

If the user is editing a Button document, this function turns automatic slicing on or off.

dom.setButtonIncludeDownState()

Availability

Fireworks 3.

Usage

```
dom.setButtonIncludeDownState(bIncludeDownState)
```

Arguments

bIncludeDownState If *bIncludeDownState* is `true`, the Down state is included in the button. If *bIncludeDownState* is `false`, it is not.

Returns

Nothing.

Description

If the user edits a Button document, this function specifies whether to include the Down state in a button.

dom.setButtonIncludeOverWhileDownState()

Availability

Fireworks 3.

Usage

```
dom.setButtonIncludeDownState(bIncludeOverWhileDownState)
```

Arguments

bIncludeOverWhileDownState If *bIncludeOverWhileDownState* is `true`, the Over-While-Down state is included in the button. If *bIncludeOverWhileDownState* is `false`, it is not.

Returns

Nothing.

Description

If the user edits a Button document, this function specifies whether to include the Over-While-Down state in a button.

dom.setButtonShowDownOnLoad()

Availability

Fireworks 3.

Usage

```
dom.setButtonShowDownOnLoad(bShowDownOnLoad)
```

Arguments

bShowDownOnLoad If *bShowDownOnLoad* is `true`, the Down-State-on-Load is shown in the button. If *bShowDownOnLoad* is `false`, it is not.

Returns

Nothing.

Description

If the user edits a Button document, this function specifies whether to show the Down-State-on-Load in a button.

dom.setButtonOptions()

Availability

Fireworks 3.

Usage

```
dom.setButtonOptions(exportOptions, URLString, altTagString, targetTagString,
  sliceName, statusMessage)
```

Arguments

exportOptions An ExportOptions object (see "ExportOptions object" on page 46).

URLString A string that specifies the URL for the button(s).

altTagString and *targetTagString* Specify the text for the button alt tag and target tag.

sliceName A string that specifies the name to be assigned to the slice that is associated with the button. If it is `null`, the slice is set to be named automatically.

statusMessage A string that specifies a status message to appear in the browser status line. If an empty string or `null` is passed, no status message appears.

Returns

Nothing.

Description

Sets the Button Export options. If the user edits a button, it sets options for the button being edited; if the user edits a normal document, it sets options for all the selected buttons.

dom.setDefaultBrushAndFillColors()

Availability

Fireworks 3.

Usage

```
dom.setDefaultBrushAndFillColors()
```

Arguments

None.

Returns

Nothing.

Description

Resets the document's brush and fill color to the default.

dom.setDefaultFillVector()

Availability

Fireworks 3.

Usage

```
dom.setDefaultFillVector()
```

Arguments

None.

Returns

Nothing.

Description

Sets the fill-vector on the selection to the default.

dom.setDocumentCanvasColor()

Availability

Fireworks 3.

Usage

```
dom.setDocumentCanvasColor(color)
```

Arguments

color A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the canvas color of the document to the specified color.

Example

The following command sets the canvas color to blue.

```
fw.getDocumentDOM().setDocumentCanvasColor("#0000ff");
```

dom.setDocumentCanvasSize()

Availability

Fireworks 3.

Usage

```
dom.setDocumentCanvasSize(boundingRectangle)
```

Arguments

boundingRectangle A rectangle that specifies the new canvas size for the document, in pixels (see "Rectangle data type" on page 11). Any items outside the specified rectangle are removed.

Returns

Nothing.

Description

Sets the document's canvas size to the specified rectangle.

Example

The following command sets the canvas to a size of 200 by 200 pixels.

```
fw.getDocumentDOM().setDocumentCanvasSize({left:150, top:150, right:350,
  bottom:350});
```

dom.setDocumentCanvasSizeToDocumentExtents()

Availability

Fireworks 3.

Usage

```
dom.setDocumentCanvasSizeToDocumentExtents(bGrowCanvas)
```

Arguments

bGrowCanvas If *bGrowCanvas* is `true`, the canvas can expand or shrink in size. If *bGrowCanvas* is `false`, it only shrinks.

Returns

Nothing.

Description

Calculates the size of all the items in the document and resizes the document canvas to that size. This action is the same behavior as Modify > Trim Canvas.

Example

The following command resizes the canvas to include all the items in the document, enlarging the canvas if necessary.

```
fw.getDocumentDOM().setDocumentCanvasSizeToDocumentExtents(true);
```

See also

dom.setDocumentCanvasSizeToSelection()

dom.setDocumentCanvasSizeToSelection()

Availability

Fireworks 3.

Usage

```
dom.setDocumentCanvasSizeToSelection()
```

Arguments

None.

Returns

Nothing.

Description

Calculates the size of all the items in the selection and resizes the document canvas accordingly.

See also

dom.setDocumentCanvasSizeToDocumentExtents()

dom.setDocumentImageSize()

Availability

Fireworks 3.

Usage

```
dom.setDocumentImageSize(boundingRectangle, resolution)
```

Arguments

boundingRectangle A rectangle that specifies the size to which the document should be scaled (see "Rectangle data type" on page 11).

resolution Specifies the resolution for the scaled document (see "Resolution data type" on page 12).

Returns

Nothing.

Description

Scales the document to fit in the specified rectangle at the specified resolution.

dom.setDocumentResolution()

Availability

Fireworks 3.

Usage

```
dom.setDocumentResolution(resolution)
```

Arguments

resolution Specifies the resolution for the document (see "Resolution data type" on page 12).

Returns

Nothing.

Description

Sets the resolution of the document.

dom.setEffectName()

Availability

Fireworks MX.

Usage

```
dom.setEffectName(category, oldName, newName)
```

Arguments

category A string that defines the name of the category of the effect.

oldName The existing name of the effect.

newName The new name to give to the effect.

Returns

Nothing.

Description

Sets the name for the current effect.

dom.setElementMaskMode()

Availability

Fireworks 4.

Usage

```
dom.setElementMaskMode(mode)
```

Arguments

mode Acceptable values are `"mask to image"` and `"mask to path"`.

Returns

Nothing.

Description

Sets the rendering mode on the selected element's element mask. Only one element can be selected when calling this function. If more than one element (or no elements) are selected when this function is called, Fireworks throws an exception. Fireworks also returns an error if the selected element has no element mask.

dom.setElementMaskShowAttrs()

Availability

Fireworks 4.

Usage

```
dom.setElementMaskShowAttrs(bShow)
```

Arguments

bShow If *bShow* is `true`, the vector mask fill and stroke are visible. If `false`, they are hidden.

Returns

Nothing.

Description

Specifies whether the currently selected vector mask shows the fill and stroke.

dom.setElementName()

Availability

Fireworks 3.

Usage

```
dom.setElementName(name)
```

Arguments

name A string that specifies the name to be assigned to the selected element(s). To specify that no name should be assigned or that an existing name should be removed, pass `null`.

Returns

Nothing.

Description

Sets the name of the selected element(s).

See also

`dom.findNamedElements()`

dom.setElementVisible()

Availability

Fireworks 4.

Usage

```
dom.setElementVisisble(frameIndex, layerIndex, elementIndex, bShow)
```

Arguments

frameIndex An integer value that specifies the frame that contains the element(s) to be shown or hidden, starting with `0` (although, to specify the current frame, pass `-1` here).

layerIndex An integer value that specifies the layer that contains the element(s) to be shown or hidden, starting with `0` (although, to specify the current layer, pass `-1` here).

elementIndex An integer value that specifies the element(s) to show or hide, starting with `0` (although, to show or hide all the elements in the specified layer, pass `-1` here).

bShow If *bShow* is `true`, the element(s) are visible. If *bShow* is `false`, they are hidden.

Returns

Nothing.

Description

Shows or hides the specified element(s).

Example

The following command hides all the elements in the current frame and layer.

```
fw.getDocumentDOM().setElementVisible(-1, -1, -1, false)
```

See also

`dom.setElementVisibleByName()`

dom.setElementVisibleByName()

Availability

Fireworks 4.

Usage

```
dom.setElementVisibleByName(name, bShow)
```

Arguments

name A string that specifies the name of the element(s) to be shown or hidden. If more than one element has the same name, this function shows or hides all of them.

bShow If *bShow* is `true`, the elements are visible. If *bShow* is `false`, they are hidden.

Returns

An array of the elements(s) for which visibility was set.

Description

Shows or hides all the elements with the specified name. If no element has the specified name, an exception is thrown. If the elements are hidden because they are on a hidden layer or frame, for example, this function does not show them.

See also

`dom.findNamedElements()`, `dom.setElementName()`, `dom.setElementVisible()`

dom.setExportOptions()

Availability

Fireworks 3.

Usage

`dom.setExportOptions(`*`exportOptions`*`)`

Arguments

`exportOptions` An ExportOptions object (see "ExportOptions object" on page 46).

Returns

Nothing.

Description

Sets the document Export Options.

dom.setExportSettings()

Availability

Fireworks 3.

Usage

`dom.setExportSettings(`*`exportSettings`*`)`

Arguments

`exportSettings` An ExportSettings object (see "ExportSettings object" on page 49).

Returns

Nothing.

Description

Sets the document export settings.

dom.setFill()

Availability

Fireworks 3.

Usage

`dom.setFill(`*`fill`*`)`

Arguments

fill A Fill object (see "Fill object" on page 51).

Returns

Nothing.

Description

Sets the selection to the specified fill.

dom.setFillColor()

Availability

Fireworks 3.

Usage

```
dom.setFillColor(color)
```

Arguments

color A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Changes the fill color of the selection to the specified color.

dom.setFillEdgeMode()

Availability

Fireworks 3.

Usage

```
dom.setFillEdgeMode(edgemode, featherAmt)
```

Arguments

edgemode Acceptable values are `"hard edge"`, `"antialias"`, and `"feather"`.

featherAmt An integer that specifies the number of pixels to feather. This value is ignored if *edgemode* is not `"feather"`.

Returns

Nothing.

Description

Sets the edge type for selected items with fills.

dom.setFillNColor()

Availability

Fireworks MX.

Usage

```
dom.setFillNColor(fill, color)
```

Arguments

fill A Fill object (see "Fill object" on page 51).

color A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the selection to the specified fill and fill color.

dom.setFillNColorNTexture()

Availability

Fireworks 3.

Usage

```
dom.setFillNColorNTexture(fill, color, texture-name)
```

Arguments

fill A Fill object (see "Fill object" on page 51).

color A color string (see "Color string data type" on page 11).

texture-name The name of the texture to be applied.

Returns

Nothing.

Description

Sets the selection to the specified fill, fill color, and fill texture.

Example

The following command sets the selected items to a linear fill with a feather edge and no texture.

```
fw.getDocumentDOM().setFillNColorNTexture({ category:"fc_Linear",
  ditherColors:[ "#000000", "#000000" ], edgeType:"antialiased", feather:10,
  gradient:{ name:"cn_WhiteBlack", nodes:[ { color:"#ffffff", position:0 }, {
  color:"#000000", position:1 } ] }, name:"fn_Normal", pattern:null,
  shape:"linear", stampingMode:"blend opaque", textureBlend:0,
  webDitherTransparent:false }, "#666666", "Grain");
```

dom.setFillPlacement()

Availability

Fireworks 3.

Usage

```
dom.setFillPlacement(placement)
```

Arguments

placement Acceptable values are `"top"` and `"bottom"`.

Returns

Nothing.

Description

Sets the fill placement for selected items with fills.

dom.setFillVector()

Availability

Fireworks 3.

Usage

```
dom.setFillVector(p1, p2, p3)
```

Arguments

p1, *p2*, and *p3* Points that specify the *x,y* coordinates of the three points used to calculate the fill vector (see "Point data type" on page 11).

Returns

Nothing.

Description

Sets the fill vectors of the selection to the specified absolute values.

dom.setFillVectorStart()

Availability

Fireworks 3.

Usage

```
dom.setFillVectorStart(p1)
```

Arguments

p1 A point that specifies the *x,y* coordinates of the fill start point (see "Point data type" on page 11).

Returns

Nothing.

Description

Modifies the fill vectors of the selection by moving the fill start to the specified point and then moving the two fill end handles to the same relative position.

dom.setGradientName()

Availability

Fireworks 3.

Usage

```
dom.setGradientName(urrentName, newName)
```

Arguments

currentName A string that specifies the current name of the gradient.

newName A string that specifies the new name of the gradient.

Returns

Nothing.

Description

Renames a gradient.

dom.setGridOrigin()

Availability

Fireworks 3.

Usage

```
dom.setGridOrigin(gridOrigin)
```

Arguments

gridOrigin A point that specifies the *x,y* coordinates of the document's grid origin (see "Point data type" on page 11).

Returns

Nothing.

Description

Sets the grid origin for the document.

dom.setGridSize()

Availability

Fireworks 3.

Usage

```
dom.setGridSize(gridSize)
```

Arguments

gridSize A point that specifies the *x,y* coordinates that are used for the document's grid size (see "Point data type" on page 11).

Returns

Nothing.

Description

Sets the grid size for the document.

dom.setGridColor()

Availability

Fireworks 3.

Usage

```
dom.setGridColor(gridColor)
```

Arguments

gridColor A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the color used to display the grid.

dom.setGroupType()

Availability

Fireworks 3, argument deprecated in 4.

Usage

```
dom.setGroupType({type})
```

Arguments

type An optional string that specifies how to group the items. Acceptable values are `"normal"`, `"mask to image"`, and `"mask to path"`. If the argument is omitted, `"normal"` is assumed. (`"mask to image"` and `"mask to path"` are deprecated in Fireworks 4.)

Returns

Nothing.

Description

Changes the group type of the currently selected groups.

dom.setGuideColor()

Availability

Fireworks 3.

Usage

```
dom.setGuideColor(guideColor)
```

Arguments

guideColor A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the color that is used to display normal (nonslice) guides. To set the color of slice guides, use `dom.setSliceGuideColor()`.

See also

`dom.setSliceGuideColor()`

dom.setHotspotAltTag()

Availability

Fireworks 3.

Usage

```
dom.setHotspotAltTag(whatToSet, altTagString)
```

Arguments

whatToSet Acceptable values are `"hotspots"`, `"slices"`, and `"hotspots and slices"`.

altTagString A string that specifies the text to be used for the alt tag.

Returns

Nothing.

Description

Sets the alt tag text to the specified value for the Hotspots and slices in the selection.

Example

The following command sets the text attributes of the alt tag of the selected slices to `"This is my alt tag"`.

```
fw.getDocumentDOM().setHotspotAltTag("slices","This is my alt tag");
```

dom.setHotspotColor()

Availability

Fireworks 3.

Usage

`dom.setHotSpotColor(`*`whatToSet`*`, `*`color`*`)`

Arguments

`whatToSet` Acceptable values are `"hotspots"`, `"slices"`, and `"hotspots and slices"`.

`color` A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the color to the specified value for the Hotspots and slices in the selection.

Example

The following command sets the color of the selected Hotspots to red.

```
fw.getDocumentDOM().setHotspotColor("hotspots", "#ff0000");
```

dom.setHotspotRectangle()

Availability

Fireworks 3.

Usage

`dom.setHotspotRectangle(`*`boundingRectangle`*`, `*`bMakeCopy`*`)`

Arguments

`boundingRectangle` A rectangle that specifies the size of the new Hotspot or slice (see "Rectangle data type" on page 11).

`bMakeCopy` A Boolean value; if it is `true`, the selection is copied and resized instead of moved and resized.

Returns

Nothing.

Description

If the selection is a single Hotspot or slice, this function moves or copies it to the specified location at the specified size.

dom.setHotspotShape()

Availability

Fireworks 3.

Usage

```
dom.setHotspotShape(whatToSet, shape)
```

Arguments

whatToSet Acceptable values are `"hotspots"`, `"slices"`, or `"hotspots and slices"`.

shape Acceptable values are `"rectangle"`, `"oval"`, or `"polyline"`.

Returns

Nothing.

Description

Sets the specified Hotspots and slices in the selection to the specified shape.

dom.setHotspotTarget()

Availability

Fireworks 3.

Usage

```
dom.setHotspotTarget(whatToSet, targetTagString)
```

Arguments

whatToSet, targetTagString

whatToSet Acceptable values are `"hotspots"`, `"slices"`, or `"hotspots and slices"`.

targetTagString A string that specifies the text to be used for the target tag.

Returns

Nothing.

Description

Sets the target tag text to the specified value for the Hotspots and slices in the selection.

Example

The following command links the currently selected slices to the parent window.

```
fw.getDocumentDOM().setHotspotTarget("slices", "_parent");
```

dom.setHotspotText()

Availability

Fireworks 3.

Usage

```
dom.setHotspotText(whatToSet, textString, urlToMatch, bUpdateAttributes)
```

Description

Sets the Hotspot text to the specified value for the Hotspots and slices in the selection.

Arguments

whatToSet Acceptable values are "hotspots", "slices", or "hotspots and slices".

textString A string that specifies the text to be used for the Hotspot or slice.

urlToMatch A string that specifies a URL that is already assigned to one or more Hotspots in the document. If this value is not null, the URLs of all Hotspots or slices in the document that have *urlToMatch* as their URL are changed to *textString*. Note: The URLs of both selected and unselected Hotspots or slices are changed.

bUpdateAttributes If *bUpdateAttributes* is true, changed Hotspots inherit the color, target, and alt tag text that were most recently associated with the new text value. For example, suppose *textString* is "http://www.mywebsite.com", and the last time "http://www.mywebsite.com" was used, it was used with a color of blue, a target of none, and an alt tag of "Link to My Home Page". If *bUpdateAttributes* is true, any Hotspot or slice whose text is now being changed to "http://www.mywebsite.com" will also have a color of blue, a target of none, and an alt tag text of "Link to My Home Page".

Returns

Nothing.

Description

Sets the Hotspot text to the specified value for the Hotspots and slices in the selection.

Example

The following command creates a slice and inserts the HTML text, "I am HTML text".

```
fw.getDocumentDOM().setHotspotText("Slice ","I am HTML text", null, true);
```

dom.setLayerDisclosure()

Availability

Fireworks 4.

Usage

```
dom.setLayerDisclosure(layerIndex, bDisclosed)
```

Arguments

layerIndex An integer value that specifies the layer that contains the elements to be displayed or hidden, starting with 0 (although, to specify the current layer, pass –1 here).

bDisclosed If *bDisclosed* is true, all elements on the specified layer are displayed in the Layers list. If *bDisclosed* is false, only the layer name appears on the list.

Returns

Nothing.

Description

Specifies whether the elements on a specified layer appear in the Layers list. Disclosure affects the layer, regardless of which frame appears.

See also

`dom.setAllLayersDisclosure()`

dom.setLayerLocked()

Availability

Fireworks 3.

Usage

`dom.setLayerLocked(`*`layerIndex`*`, `*`frameIndex`*`, `*`bLock`*`, `*`bAllLayers`*`)`

Arguments

`layerIndex` An integer value that specifies the layer to be locked or unlocked, starting with `0` (although, to specify the current layer, pass `-1` here). To lock or unlock all the layers on a frame, use the *`bAllLayers`* argument.

`frameIndex` An integer value that specifies the frame that contains the layer that is to be locked or unlocked, starting with `0` (although, to specify the current frame, pass `-1` here).

`bLock` If *`bLock`* is `true`, the layer is locked. If *`bLock`* is `false`, it is unlocked.

`bAllLayers` If *`bAllLayers`* is `true`, all the layers on the specified frame are locked or unlocked, and any value passed for *`layerIndex`* is ignored.

Returns

Nothing.

Description

Locks or unlocks one or all the layers on the specified frame.

Example

The following command locks all the layers on the first frame.

```
fw.getDocumentDOM().setLayerLocked(1, 0, true, true);
```

dom.setLayerName()

Availability

Fireworks 3.

Usage

`dom.setLayerName(`*`layerIndex`*`, `*`layerName`*`)`

Arguments

`layerIndex` An integer value that specifies the layer to be renamed, starting with `0` (although, to specify the current layer, pass `-1` here).

`layerName` A string that specifies the new name for the layer.

Returns

Nothing.

Description

Renames the specified layer. Layers aren't required to have unique names, so no duplicate checking occurs.

dom.setLayerSharing()

Availability

Fireworks 3.

Usage

```
dom.setLayerSharing(layerIndex, sharedStatus, bUnshareCopiesToAllFrames,
  bWarnUser)
```

Arguments

layerIndex An integer value that specifies the layer to be shared or not shared, starting with `0` (although, to specify the current layer, pass `-1` here).

sharedStatus Acceptable values are `"shared"` or `"not shared"`.

bUnshareCopiesToAllFrames A Boolean value used only if *sharedStatus* is `"not shared"` and the document has multiple frames. If these conditions are met and *bUnshareCopiesToAllFrames* is `true`, the items on the layer are duplicated to all the frames of the layer; if `false`, the items are placed only on the current frame.

bWarnUser If *bWarnUser* is `true` and *bUnshareCopiesToAllFrames* is enabled, the user is asked to confirm that data on other frames can be overwritten. If *bWarnUser* is `false`, data on other frames of the layer is overwritten without warning.

Returns

Nothing.

Description

Changes the Shared layer status of a layer.

Example

The following command sets the selected layer to `Shared` and displays a warning that data loss is possible.

```
fw.getDocumentDOM().setLayerSharing(-1, "shared", false, true);
```

dom.setLayerVisible()

Availability

Fireworks 3.

Usage

```
dom.setLayerVisible(layerIndex, frameIndex, bShow, bAllLayers)
```

Arguments

layerIndex An integer value that specifies the layer that should be shown or hidden, starting with 0 (although, to specify the current layer, pass -1 here). To show or hide all the layers on a frame, use the *bAllLayers* argument.

frameIndex An integer value that specifies the frame that contains the layer to be shown or hidden, starting with 0 (although, to specify the current frame, pass -1 here). A zero-based integer specifying the frame that contains the layer to be shown or hidden.

bShow If the value of *bShow* is set to true, the layer is visible. If *bShow* is false, it is hidden.

bAllLayers If *bAllLayers* is true, all the layers on the specified frame are shown or hidden, and any value that is passed for *layerIndex* is ignored.

Returns

Nothing.

Description

Shows or hides a layer on the specified frame.

dom.setMatteColor()

Availability

Fireworks 3.

Usage

```
dom.setMatteColor(bUseMatteColor, matteColor)
```

Arguments

bUseMatteColor If *bUseMatteColor* is true, the document's matte color is set to the value that is specified by *matteColor*. If *bUseMatteColor* is false, any matte color is removed from the document, and the second argument is ignored.

matteColor A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets or removes the document's matte color that is used for exporting.

Example

The following command sets the matte color to blue.

```
fw.getDocumentDOM().setMatteColor(true, "#0033ff");
```

dom.setPixelMask()

Availability

Fireworks 3, deprecated in 4 in favor of `dom.setSelectionMask()`.

Usage

`dom.setPixelMask(`*`mask`*`, `*`howToCombineMasks`*`)`

Arguments

`mask` A mask variable that specifies the mask to be applied (see "Mask data type" on page 11). If *`mask`* is `null`, any existing pixel-selection mask is removed.

`howToCombineMasks` If there was previously a mask and the new mask is also not `null`, then *`howToCombineMasks`* specifies how the two masks should be combined. Acceptable values for *`howToCombineMasks`* are `"replace"`, `"add"`, `"subtract"`, and `"intersect"`.

Returns

Nothing.

Description

If Fireworks is in bitmap mode, this function sets the pixel-selection mask of the current image to the specified mask.

See Also

`dom.setSelectionMask()`

dom.setOnionSkinning()

Availability

Fireworks 3.

Usage

`dom.setOnionSkinning(`*`before`*`, `*`after`*`)`

Arguments

`before` and *`after`* Integers that specify the number of frames to display before and after the current one. To disable onion skinning, pass `0` for both arguments. To enable onion skinning for all frames, pass `0` for `before` and a large number (for example, `99,999`) for `after`.

Returns

Nothing.

Description

Sets the onion-skinning options for the document.

Example

The following command turns on onion skinning two frames before the selected frame and zero frames after it.

```
fw.getDocumentDOM().setOnionSkinning(2, 0);
```

dom.setOpacity()

Availability

Fireworks 3.

Usage

```
dom.setOpacity(opacity)
```

Arguments

opacity A float variable between 0 and 100, inclusive.

Returns

Nothing.

Description

Sets the opacity of the selection to the specified value.

Example

The following command sets the selected item to an opacity of 55%.

```
fw.getDocumentDOM().setOpacity(55);
```

dom.setQuadrangle()

Availability

Fireworks 3.

Usage

```
dom.setQuadrangle(pTopLeft, pTopRight, pBottomRight, pBottomLeft, options)
```

Arguments

pTopLeft, *pTopRight*, *pBottomRight*, and *pBottomLeft* Points that specify the *x,y* coordinates of the top left, top right, bottom right, and bottom left points of the bounding rectangle (see "Point data type" on page 11).

options Acceptable values are `"transformAttributes"`, `"autoTrimImages"`, and `"autoTrimImages transformAttributes"`.

Returns

Nothing.

Description

Transforms the selection within the specified bounding quadrangle. The effect is the same as performing a transform operation within Fireworks, and then replaying the Transform step from the History panel while other items are selected.

Example

The following command performs the transform operation on the selection within the specified points:

```
fw.getDocumentDOM().setQuadrangle({x:-0.300884962, y:0.207964599}, {x:1,
  y:0.207964599}, {x:1, y:0.792035401}, {x:-0.300884962, y:0.792035401},
  "autoTrimImages transformAttributes");
```

dom.setRectRoundness()

Availability

Fireworks 4.

Usage

```
dom.setRectRoundness(roundness)
```

Arguments

roundness A floating-point value between 0 and 1 that specifies the roundness to use for the corners (0 is no roundness, 1 is 100% roundness).

Returns

Nothing.

Description

Modifies the corner roundness of all the selected rectangle primitives.

See also

dom.addNewRectanglePrimitive(), dom.setRectSides()

dom.setRectSides()

Availability

Fireworks 4.

Usage

```
dom.setRectSides(newSides)
```

Arguments

newSides A rectangle that specifies the new untransformed sides of the rectangle primitive (see "Rectangle data type" on page 11). Rectangle primitives remember their transformations, so the user sees the transformed result of *newSides* in the document.

Returns

Nothing.

Description

Modifies the untransformed sides of all selected rectangle primitives.

See also

dom.addNewRectanglePrimitive(), dom.setRectRoundness()

dom.setSelectionBounds()

Availability

Fireworks 3.

Usage

`dom.setSelectionBounds(`*`boundingRectangle`*`, `*`opts`*`)`

Arguments

`boundingRectangle` A rectangle that specifies the new location and size of the selection (see "Rectangle data type" on page 11).

`opts` Acceptable values are `"transformAttributes"`, `"autoTrimImages"`, and `"autoTrimImages transformAttributes"`.

Returns

Nothing.

Description

Moves and resizes the selection in a single operation.

dom.setSelectionMask()

Availability

Fireworks 4.

Usage

`dom.setSelectionMask(`*`mask`*`, `*`howToCombineMasks`*`)`

Arguments

`mask` Specifies the mask to be applied (see "Mask data type" on page 11). If *`mask`* is `null`, an existing pixel-selection mask is removed.

`howToCombineMasks` If there was previously a mask and *`mask`* is not `null`, *`howToCombineMasks`* specifies how the two masks should be combined. Acceptable values are `"replace"`, `"add"`, `"subtract"`, and `"intersect"`.

Returns

Nothing.

Description

If Fireworks is in bitmap mode, this function sets the pixel-selection mask of the current image to the specified mask.

dom.setShowEdges()

Availability

Fireworks 3.

Usage

`dom.setShowEdges(`*`bShowEdges`*`)`

Arguments

`bShowEdges` If *`bShowEdges`* is `true`, the Show Edges option is turned on. If *`bShowEdges`* is `false`, the option is turned off.

Returns

Nothing.

Description

Specifies whether the Show Edges option is on or off.

dom.setShowGammaPreview()

Availability

Fireworks 3.

Usage

`dom.setShowGammaPreview(`*`bPreviewGamma`*`)`

Arguments

`bPreviewGamma` If *`bPreviewGamma`* is `true`, the Preview Gamma option is turned on. If *`bPreviewGamma`* is `false`, the option is turned off.

Returns

Nothing.

Description

Specifies whether the Preview Gamma option is on or off.

dom.setShowGrid()

Availability

Fireworks 3.

Usage

`dom.setShowGrid(`*`bShow`*`)`

Arguments

`bShow` If *`bShow`* is `true`, the grid is visible. If *`bShow`* is `false`, it is not visible.

Returns

Nothing.

Description

Specifies whether the grid is visible.

dom.setShowGuides()

Availability

Fireworks 3.

Usage

```
dom.setShowGuides(bShow)
```

Arguments

bShow If *bShow* is `true`, the normal guides are visible. If *bShow* is `false`, they are not visible.

Returns

Nothing.

Description

Specifies whether normal guides are visible.

dom.setShowRulers()

Availability

Fireworks 3.

Usage

```
dom.setShowRulers(bShow)
```

Arguments

bShow If *bShow* is `true`, the rulers are visible. If *bShow* is `false`, they are not visible.

Returns

Nothing.

Description

Specifies whether rulers are visible.

dom.setShowSliceGuides()

Availability

Fireworks 3.

Usage

```
dom.setShowSliceGuides(bShow)
```

Arguments

bShow If *bShow* is `true`, the slice guides are visible. If *bShow* is `false`, they are not visible.

Returns

Nothing.

Description

Specifies whether slice guides are visible.

dom.setShowSliceOverlay()

Availability

Fireworks 3.

Usage

```
dom.setShowSliceOverlay(bShow)
```

Arguments

bShow If *bShow* is `true`, the slice overlay is visible. If *bShow* is `false`, it is not visible.

Returns

Nothing.

Description

Specifies whether the slice overlay is visible.

dom.setSliceAutonaming()

Availability

Fireworks 3.

Usage

```
dom.setSliceAutonaming(bAutoname)
```

Arguments

bAutoname If *bAutoname* is `true`, automatic naming is turned on for the slice. If *bAutoname* is `false`, it is turned off.

Returns

Nothing.

Description

If a single slice is selected, this function turns automatic naming on or off for the slice.

dom.setSliceExportOptions()

Availability

Fireworks 3.

Usage

```
dom.setSliceExportOptions(exportOptions)
```

Arguments

exportOptions An ExportOptions object (see "ExportOptions object" on page 46).

Returns

Nothing.

Description

Sets the export options for the selected slices.

dom.setSliceFilename()

Availability

Fireworks 3.

Usage

```
dom.setSliceFilename(fileURL)
```

Arguments

fileURL A string, which is expressed as a file://URL, that specifies the name to be given to the slice.

Returns

Nothing.

Description

If a single slice is selected, this function turns off automatic naming for the slice and sets its filename to the specified URL.

dom.setSliceGuideColor()

Availability

Fireworks 3.

Usage

```
dom.setSliceGuideColor(color)
```

Arguments

color A color string (see "Color string data type" on page 11).

Returns

Nothing.

Description

Sets the color that is used to display slice guides. To set the color of normal guides, use `dom.setGuideColor()`.

See also

`dom.setGuideColor()`

dom.setSliceHtml()

Availability

Fireworks 3.

Usage

`dom.setSliceHtml(`*`htmlText`*`)`

Arguments

`htmlText` A string that specifies the HTML text for the slice.

Returns

Nothing.

Description

If a single slice is selected, this function sets the slice's HTML text.

dom.setSliceIsHtml()

Availability

Fireworks 3.

Usage

`dom.setSliceIsHtml(`*`bHtml`*`)`

Arguments

`bHtml` If *`bHtml`* is `true`, sets the slices as HTML. If *`bHtml`* is `false`, sets the slices as Image.

Returns

Nothing.

Description

Sets the selected slices as HTML or Image.

dom.setSnapToGrid()

Availability

Fireworks 3.

Usage

`dom.setSnapToGrid(`*`bSnap`*`)`

Arguments

bSnap If *bSnap* is `true`, the tools snap to the grid. If *bSnap* is `false`, they do not.

Returns

Nothing.

Description

Specifies whether tools snap to the grid.

dom.setSnapToGuides()

Availability

Fireworks 3.

Usage

```
dom.setSnapToGuides(bSnap)
```

Arguments

bSnap If *bSnap* is `true`, the tools snap to all guides. If *bSnap* is `false`, they do not.

Returns

Nothing.

Description

Specifies whether tools snap to guides.

dom.setSymbolProperties()

Availability

Fireworks 3.

Usage

```
dom.setSymbolProperties(currentName, symbolType, newName)
```

Arguments

currentName Specifies the current name of the symbol in the library. If more than one master exists with a name of *currentName*, only the first master is changed. If `null` is passed in for *currentName*, the name property is set for all selected symbols in the library (not the document).

symbolType Acceptable values are `"graphic"`, `"button"`, and `"animation"`.

newName Specifies the new name for the symbol.

Returns

Nothing.

Description

Sets the name and symbol type of the specified symbol.

dom.setTextAlignment()

Availability

Fireworks 3.

Usage

```
dom.setTextAlignment(alignment)
```

Arguments

alignment Acceptable values *alignment* are `"left"`, `"center"`, `"right"`, `"justify"`, `"stretch"`, `"vertical left"`, `"vertical center"`, `"vertical right"`, `"vertical justify"`, and `"vertical stretch"`.

Returns

Nothing.

Description

Sets the alignment of the selected text items.

dom.setTextAntiAliasing()

Availability

Fireworks 3.

Usage

```
dom.setTextAntiAliasing(level)
```

Arguments

level Acceptable values are `"crisp"`, `"smooth"`, and `"strong"`.

Returns

Nothing.

Description

Sets the anti-aliasing level for the selected blocks of text.

Note: To turn anti-aliasing on or off, call dom.enableTextAntiAliasing.

See also

`dom.enableTextAntiAliasing()`

dom.setTextAutoKern()

Availability

Fireworks 3.

Usage

```
dom.setTextAutoKern(bKern)
```

Arguments

bKern If *bKern* is `true`, automatic kerning is on for the selected text items. If *bKern* is `false`, it is off.

Returns

Nothing.

Description

Specifies whether automatic kerning is on or off for the selected text items.

dom.setTextCharSpacing()

Availability

Fireworks MX.

Usage

```
dom.setTextCharSpacing(charSpace)
```

Arguments

charSpace A floating-point percentage of the default space to add to (positive values) or remove from (negative values) two adjacent characters. To increase the spacing by 15%, for example, pass `0.15`.

Returns

Nothing.

Description

Adjusts the kerning of text.

dom.setTextCustomAntiAliasOverSample()

Availability

Fireworks MX 2004.

Usage

```
dom.setTextCustomAntiAliasOverSample(overSample)
```

Arguments

overSample The integer 4, 8 or 16 that specifies the amount of oversampling used to anti-alias text in custom mode.

Returns

Nothing.

Description

Sets the oversampling used to anti-alias text in custom mode.

dom.setTextCustomAntiAliasSharpness()

Availability

Fireworks MX 2004.

Usage

```
dom.setTextCustomAntiAliasSharpness(sharpness)
```

Arguments

sharpness An integer from 0 to 255.

Returns

Nothing.

Description

Sets the sharpness value used to anti-alias text in custom mode.

dom.setTextCustomAntiAliasStrength()

Availability

Fireworks MX 2004.

Usage

```
dom.setTextCustomAntiAliasStrength(strength)
```

Arguments

Strength An integer value, from 0 to 255, for the amount of anti-aliasing to apply.

Returns

Nothing.

Description

Sets the strength value used to anti-alias text in custom mode.

dom.setTextFlow()

Availability

Fireworks 3.

Usage

```
dom.setTextFlow(flowDirection)
```

Arguments

flowDirection Acceptable values are `"left to right"` and `"right to left"`.

Returns

Nothing.

Description

Sets the horizontal flow direction of the selected text items.

dom.setTextHorizontalScale()

Availability

Fireworks MX.

Usage

```
dom.setTextHorizontalScale(horizScale)
```

Arguments

horizScale A floating-point number that describes how much to scale the text characters horizontally. A value of `1.0` is normal. Values greater than `1.0` make the characters wider, and values less than `1.0` make the characters narrower.

Returns

Nothing.

Description

Sets the horizontal scaling of text. For vertical text mode, this function stretches or compresses the height of the characters.

dom.setTextLeading()

Availability

Fireworks MX.

Usage

```
dom.setTextLeading(leadingValue, leadingMode)
```

Arguments

leadingValue A floating-point number that determines the spacing between two lines of text. The meaning of `leadingValue` depends on `leadingMode`.

leadingMode Acceptable values are `"exact"` or `"percentage"`. If set to `"exact"`, `leadingValue` is the number of pixels between two lines of text. If set to `"percentage"`, `leadingValue` is a percentage of the default leading; 1.0 is the default leading, 0.5 is half the default leading, and 2.0 is double the default leading.

Returns

Nothing.

Description

Sets the leading between lines of text. For vertical text mode, the leading is the space between two adjacent columns of text.

dom.setTextOnPathMode()

Availability

Fireworks 3.

Usage

```
dom.setTextOnPathMode(mode)
```

Arguments

mode Acceptable values are `"rotate"`, `"vertical"`, `"skew vertical"`, and `"skew horizontal"`.

Returns

Nothing.

Description

Determines how the selected text-on-a-path items are displayed.

dom.setTextOnPathOffset()

Availability

Fireworks 3.

Usage

```
dom.setTextOnPathOffset(offset)
```

Arguments

offset A floating-point value that specifies the offset distance, in pixels.

Returns

Nothing.

Description

Sets the offset value between the items in the selected text-on-a-path.

dom.setTextOrientation()

Availability

Fireworks 3.

Usage

```
dom.setTextOrientation(orientation)
```

Arguments

orientation Acceptable values are `"horizontal left to right"`, `"vertical right to left"`, `"horizontal right to left"`, and `"vertical left to right"`.

Returns

Nothing.

Description

Sets the horizontal/vertical text orientation of the selected text items.

dom.setTextParaIndent()

Availability

Fireworks MX.

Usage

```
dom.setTextParaIndent(paraIndent)
```

Arguments

paraIndent The number of pixels by which to indent the first line of a paragraph.

Returns

Nothing.

Description

Sets the paragraph indention of text, in pixels.

dom.setTextParaSpacingAfter()

Availability

Fireworks MX.

Usage

```
dom.setTextParaSpacingAfter(paraSpaceAfter)
```

Arguments

paraSpaceAfter The number of pixels to place after a paragraph before starting the next paragraph.

Returns

Nothing.

Description

Sets the after-paragraph spacing for text; that is, the number of pixels to move down before starting the next paragraph. For vertical text mode, this function defines the vertical distance between paragraphs.

dom.setTextParaSpacingBefore()

Availability

Fireworks MX.

Usage

```
dom.setTextParaSpacingBefore(paraSpaceBefore)
```

Arguments

paraSpaceBefore The number of pixels to move down before starting a new paragraph.

Returns

Nothing.

Description

Sets the before-paragraph spacing for text; that is, the number of pixels to move down from the previous paragraph before starting the new paragraph. For vertical text mode, this function defines the vertical distance between paragraphs. If you apply `dom.setTextParaSpacingAfter()` in one paragraph, and `dom.setTextParaSpacingBefore()` in the second paragraph, the space between the two paragraphs would be the sum of both spacing arguments.

dom.setTextRuns()

Availability

Fireworks 3.

Usage

```
dom.setTextRuns(textRuns)
```

Arguments

textRuns A TextRuns object (see "TextRuns object" on page 63).

Returns

Nothing.

Description

Replaces the text in the selected text blocks with the styled text that is described by the TextRuns object passed in the argument.

dom.setTransformMode()

Availability

Fireworks 3.

Usage

```
dom.setTransformMode(mode)
```

Arguments

mode Acceptable values are "paths" and "pixels".

Returns

Nothing.

Description

Sets the transform mode for the selected text, instance items, or both.

dom.setTextRectangle()

Availability

Fireworks 3.

Usage

```
dom.setTextRectangle(boundingRectangle)
```

Arguments

boundingRectangle A rectangle that specifies the new size within which the text item should flow (see "Rectangle data type" on page 11).

Returns

Nothing.

Description

Changes the bounding rectangle of the selected text item to the specified size. This function causes the text to reflow inside the new rectangle; the text item is not scaled or transformed. Text that does not fit in the new rectangle is not visible.

dom.setTextRectangleAuto()

Availability

Fireworks 3.

Usage

```
dom.setTextRectangleAuto()
```

Arguments

None.

Returns

Nothing.

Description

Recalculates the bounding rectangle of the selected text item, setting the rectangle to the smallest box that encloses the text.

See also

dom.setTextRectangleAutoFromPoint()

dom.setTextRectangleAutoFromPoint()

Availability

Fireworks 3.

Usage

```
dom.setTextRectangleAutoFromPoint(anchorPoint)
```

Arguments

anchorPoint A point that specifies the *x,y* coordinates of the location at which the text box should be anchored (see "Point data type" on page 11). How the point is used depends on the left-to-right and up-to-down orientation of the text flow in the text block.

- Left-justified horizontal text is placed with its top and left edges at *anchorPoint*, and the text expands to the right.
- Centered horizontal text is centered horizontally around *anchorPoint* and expands equally to the left and right.
- Centered vertical text is centered vertically around *anchorPoint* and expands equally up and down.

Returns

Nothing.

Description

Performs the same function as `dom.setTextRectangleAuto()`, but lets you pass a point to specify where the rectangle should be located.

See also

`dom.setTextRectangleAuto()`

dom.showAllHidden()

Availability

Fireworks 3.

Usage

```
dom.showAllHidden()
```

Arguments

None.

Returns

Nothing.

Description

Shows all the items that were hidden through `dom.hideSelection()`.

See also

`dom.hideSelection()`

dom.splitPaths()

Availability

Fireworks 3.

Usage

```
dom.splitPaths()
```

Arguments

None.

Returns

Nothing.

Description

Splits the selected paths. Compound paths are split into separate contours.

dom.swapBrushAndFillColors()

Availability

Fireworks 3.

Usage

```
dom.swapBrushAndFillColors()
```

Arguments

None.

Returns

Nothing.

Description

Swaps the current brush color and current fill color. This function has no effect on any selected items.

dom.transformSelection()

Availability

Fireworks 3, enhanced in 4.

Usage

```
dom.transformSelection(matrix, options)
```

Arguments

matrix A three-by-three transformation matrix (see "Matrix data type" on page 11).

options Acceptable values, some of which were added in Fireworks 4, are `""`, `"transformAttributes"`, `"autoTrimImages"`, `"autoTrimImages transformAttributes"`, `"rememberQuad"`, `"transformAttributes rememberQuad"`, `"autoTrimImages rememberQuad"`, and `"autoTrimImages transformAttributes rememberQuad"`.

Returns

Nothing.

Description

Transforms the selection using the specified three-by-three matrix.

dom.tween()

Availability

Fireworks 3.

Usage

```
dom.tween()
```

Arguments

numSteps An integer that specifies how many new instances are generated.

bDistribute If *bDistribute* is `true`, the new instances are distributed to frames.

Returns

Nothing.

Description

Tweens between the two selected instances.

dom.undo()

Availability

Fireworks 3.

Usage

```
dom.undo()
```

Arguments

None.

Returns

Nothing.

Description

Undoes the most recent step performed, as long as that step is actually undoable; meaning, if you use a command that contains multiple JavaScript instructions, then you can undo the command (all 10 JavaScript instructions) and not just one JavaScript instruction within that command. Most (but not all) JavaScript functions create an undoable action to be executed.

dom.updateSymbol()

Availability

Fireworks 3.

Usage

```
dom.updateSymbol(name)
```

Arguments

name The name of a symbol in the library. If more than one symbol exists with a name of *name*, then only the first symbol with that name is updated. If `null` is passed in for *name*, then all the selected linked symbols in the library (not the document) are updated.

Returns

Nothing.

Description

Updates the specified linked symbol.

dom.ungroup()

Availability

Fireworks 3.

Usage

```
dom.ungroup()
```

Arguments

None.

Returns

Nothing.

Description

Ungroups any grouped items in the selection. To group items, use `dom.group()`.

See also

`dom.group()`

Fireworks functions

In Fireworks MX, `fw` is synonymous with the Fireworks object. All methods of the Fireworks object can be referred to as `fireworks.functionName()` or as `fw.functionName()`.

fw.browseDocument()

Availability

Fireworks 3.

Usage

```
fw.browseDocument(URL)
```

Arguments

URL The URL of the page appear in the browser. Any legal URL (including http://, ftp://, and so on) can be passed. Fireworks does not check this argument for syntax; if you pass an illegal value, the browser does not open the URL.

Returns

Nothing.

Description

Opens the user's primary browser and displays the specified URL.

fw.browseForFileURL()

Availability

Fireworks 3.

Usage

```
fw.browseForFileURL(browseType, title, previewArea)
```

Arguments

browseType Acceptable values are `"open"`, `"select"`, and `"save"`. The first two values display an Open dialog box; each is acceptable for compatibility with Macromedia Dreamweaver. The third value displays a Save dialog box.

title and *previewArea* Ignored by Fireworks but are accepted for compatibility with Dreamweaver.

Returns

The file URL selected by the user, or `null` if the dialog box was canceled.

Description

Displays an Open or Save dialog box to the user.

fw.browseForFolderURL()

Availability

Fireworks 3.

Usage

```
fw.browseForFolderURL({title}, {startFolder})
```

Arguments

title An optional string that specifies a title for the dialog box that appears. If it is omitted or `null`, a default title appears.

startFolder An optional string that serves as the root directory for the dialog box that appears. If it is omitted or `null`, the browse dialog box displays an unspecified directory, depending on your system configuration. Generally, it is the last directory used.

Description

Displays a dialog box that lets a user select a particular directory.

fw.browseHelp()

Availability

Fireworks MX.

Usage

`fw.browseHelp(`*helpID*`)`

Arguments

helpID The index number of the help topic to view.

Returns

Nothing.

Description

Opens the specified help topic in the help viewer.

fw.checkFwJsVersion()

Availability

Fireworks 3.

Usage

`fw.checkFwJsVersion(`*version*`)`

Arguments

version An integer that is reserved for future use; only a value of 0 is supported at this time. To use this function, put a call to *fw.checkFwJsVersion(0)* in your script.

Returns

Nothing.

Description

Checks the JavaScript API for incompatibilities.

fw.chooseBrowser()

Availability

Fireworks MX.

Usage

`fw.chooseBrowser(primaryBrowser)`

Arguments

primaryBrowser A Boolean value that indicates which browser to select. If *primaryBrowser* is `true`, Fireworks prompts the user to set the primary browser; if the argument is `false`, Fireworks prompts the user to set the secondary browser.

Returns

Nothing.

Description

Displays a dialog box that lets the user select a primary or secondary browser.

fw.chooseScriptTargetDialog()

Availability

Fireworks 4.

Usage

`fw.chooseScriptTargetDialog(formatlist)`

Arguments

formatlist A list of target documents for an operation. Its use is similar to that in `fw.locateDocDialog()`, except that *formatlist* is required, and you cannot specify a maximum number of documents

Returns

An array of file://URLs, or `null` if the dialog box is canceled.

Description

Displays a dialog box that lets the user choose the target documents for an operation. The dialog box lets the user specify currently open files, files in the project list, or files that are explicitly selected.

See also

`fw.locateDocDialog()`

fw.closeDocument()

Availability

Fireworks 3.

Usage

```
fw.closeDocument(document, {bPromptToSaveChanges})
```

Arguments

document A Document object that specifies the document to close (see "Document object" on page 13).

bPromptToSaveChanges An optional Boolean argument. If *bPromptToSaveChanges* is `true` or omitted and the document has changed since the last time it was saved, the user is prompted to save changes to the document. If *bPromptToSaveChanges* is `false`, the user is not prompted, and any changes to the document are discarded.

Returns

Nothing.

Description

Closes the specified document.

fw.createDocument()

Availability

Fireworks 3.

Usage

```
fw.createDocument().
```

Arguments

None.

Returns

The Document object for the newly created document (see "Document object" on page 13).

Description

Opens a new document and selects it. Values for size, resolution, and color are the same as the current defaults. To specify values other than the defaults, use `fw.createFireworksDocument()`.

See also

`fw.createFireworksDocument()`

fw.createDocumentWithDialog()

Availability

Fireworks MX 2004.

Usage

```
fw.createDocumentWithDialog()
```

Arguments

None.

Returns

The Document object for the newly created document (see "Document object" on page 13).

Description

Shows the New Document dialog box and allows the user to create a new document.

fw.createFireworksDocument()

Availability

Fireworks 3.

Usage

```
fw.createFireworksDocument(size, res, backgroundColor)
```

Arguments

size A point whose *x* value specifies the document's width and whose *y* value specifies the document's height. Both values are in pixels.

res Specifies the resolution for the scaled document (see "Resolution data type" on page 12).

backgroundColor A color string (see "Color string data type" on page 11).

Returns

The Document object for the newly created document (see "Document object" on page 13).

Description

Opens a new document and selects it. Values for size, resolution, and color are explicitly specified. To open a new document with the current default values, use `fw.createDocument()`.

Example

The following command creates a new document that is 500 by 500 pixels in size, with a resolution of 72 dpi and a solid white background color.

```
fw.createFireworksDocument({x:500,y:500},{pixelsPerUnit:72,units:"inch"},
  "#ffffff");
```

See also

`fw.createDocument()`

fw.disableFlashDebugging()

Availability

Fireworks MX

Usage

```
fw.disableFlashDebugging()
```

Arguments

None.

Returns

Nothing.

Description

Turns off debugging messages for Flash commands. For a description of the Flash debugging capabilities, see `fw.enableFlashDebugging()` on page 247. For more information about constructing Flash command panels for Fireworks, see "Flash panels" on page 90.

Note: The debugging commands work even if you are running a JavaScript file.

fw.dismissBatchDialogWhenDone()

Availability

Fireworks 4.

Usage

```
fw.dismissBatchDialogWhenDone(autoClose)
```

Arguments

`autoClose` A Boolean value. If set to `true`, the Batch Progress dialog box closes automatically (without user intervention) when the script finishes.

Returns

Nothing.

Description

Closes the Batch Progress dialog box automatically when the script finishes. This function has no effect if the Batch Progress dialog box does not appear.

Note: This function is used mostly for backward compatibility with Fireworks 2.

fw.enableFlashDebugging()

Availability

Fireworks MX

Usage

```
fw.enableFlashDebugging()
```

Arguments

None.

Returns

Nothing.

Description

Turns on debugging messages for Flash commands. When Flash debugging is enabled, Fireworks displays the command string in a dialog box every time a Flash command calls `MMExecute()`. The `fw.enableFlashDebugging()` function is particularly useful for monitoring which commands are executed in a command panel. See "fw.disableFlashDebugging()" on page 247 for details on how to turn off Flash debugging. See "Flash panels" on page 90 for more information about constructing Flash command panels for Fireworks.

Note: This debugging command works even if you are running a JavaScript file.

fw.exportAndCopyHTMLCode()

Availability

Fireworks MX.

Usage

`fw.exportAndCopyHTMLCode(`*`document`*`)`

Arguments

`document` A Document object (for example, `fw.documents[2]`) that specifies the document to export. If *`document`* is `null`, the active document is exported.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Displays the export dialog box, which is preconfigured to export HTML and images and to copy the HTML code to the Clipboard.

fw.exportDirectorAsLayers()

Availability

Fireworks MX.

Usage

`fw.exportDirectorAsLayers(`*`document, fileURL`*`)`

Arguments

`document` A Document object—for example `fw.documents[2]`—that specifies the document to export. If *`document`* is `null`, the active document is exported.

`fileURL` Specifies the filename for the exported file. If *`fileURL`* is `null`, Fireworks displays the Export dialog box.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports the specified document to the specified file as layers to be imported into Macromedia Director.

fw.exportDirectorAsSlices()

Availability

Fireworks MX.

Usage

```
fw.exportDirectorAsSlices(document, fileURL)
```

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to export. If *`document`* is `null`, the active document is exported.

`fileURL` Specifies the filename for the exported file. If *`fileURL`* is `null`, Fireworks displays the Export dialog box.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports the specified document to the specified file as Macromedia Director images.

fw.exportDocumentAs()

Availability

Fireworks 3.

Usage

```
fw.exportDocumentAs(document, fileURL, exportOptions)
```

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to be exported. If *`document`* is `null`, the active document is exported.

`fileURL` A string, which is expressed as a file://URL, that specifies the filename for the exported file. If `fileURL` is `null`, the Save As dialog box is displayed.

`exportOptions` An ExportOptions object (see "ExportOptions object" on page 46). If *`exportOptions`* is `null`, the document's current export options are used. If the file format specified by `exportOptions` conflicts with the file format specified by *`fileURL`*, then the extension of *`fileURL`* is changed to match the format specified by *`exportOptions`*.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports the specified document to the specified file.

See also

`fw.exportHtmlAndImages()`

fw.exportFrames()

Availability

Fireworks 4.

Usage

`fw.exportFrames(`*`docObject`*`, `*`directoryURL`*`)`

Arguments

`docObject` A Document object that specifies the document that contains the frames to export (see "Document object" on page 13). To export frames from the current document, pass `null`.

`directoryURL` The directory where the images will be placed, which is expressed as a file:// URL.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports a document's frames as individual images. The image names are based on the names in the Frames panel.

Example

The following command exports the frames in the current document to the C:\images directory.

```
fw.exportFrames(null, "file:///C|/images");
```

fw.exportHtmlAndImages()

Availability

Fireworks 4.

Usage

`fw.exportHtmlAndImages(`*`doc`*`, `*`htmlUrl`*`, `*`imagesUrl`*`)`

Arguments

`doc` A Document object that specifies the document to be exported (see "Document object" on page 13). If *`doc`* is `null`, the active document is exported.

`htmlUrl` The filename of the exported HTML file, which is expressed as a file://URL. If *`htmlUrl`* is `null`, no HTML is generated.

`imagesUrl` The name of the file containing the exported image(s), which is expressed as a file:/ /URL, and might not be `null`. If a single image is generated, this function uses *`imagesUrl`* as the name of the image file. If multiple sliced images are exported, it uses *`imagesURL`* to generate automatically named images, and all images are placed in this directory.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports one image if the document contains no slice objects and multiple images if the document contains one or more slice objects. It also optionally exports HTML. The document is exported using the current export settings and export options.

Example

The following command exports the current document as HTML and as one or more images.

```
fw.exportHtmlAndImages(null, "file:///C|/mysite/nav.htm", "file:///C|/mysite/
  images/nav.gif");
```

See also

`fw.exportDocumentAs()`

fw.exportIllustrator()

Availability

Fireworks MX.

Usage

`fw.exportIllustrator(`*`document, fileURL`*`)`

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to export. If *`document`* is `null`, the active document is exported.

`fileURL` Specifies the filename for the exported file. If *`fileURL`* is `null`, Fireworks displays the Export dialog box.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports the specified document to the specified file in Adobe Illustrator format.

fw.exportLayers()

Availability

Fireworks 4.

Usage

`fw.exportLayers(`*`docObject, directoryURL`*`)`

Arguments

docObject A Document object that specifies the document that contains the layers to export (see "Document object" on page 13). To export layers from the current document, pass `null`.

directoryURL The directory in which the images will be placed, which is expressed as a file:// URL.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports a document's layers as individual images. The image names are based on the names in the Layers panel. The layers from the current frame are exported.

Example

The following command exports the layers in the third open document to the C:\images directory.

```
fw.exportLayers(fw.documents[2], "file:///C|/images");
```

fw.exportPSD()

Availability

Fireworks 4.

Usage

```
fw.exportPSD(docObject, PSDDocumentURL)
```

Arguments

docObject A Document object that specifies the document to export (see "Document object" on page 13). To export the current document, pass `null`.

PSDDocumentURL The name of the Photoshop document to be created, which is expressed as a file://URL.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports a Fireworks document as a Photoshop document.

Example

The Photoshop writer is controlled by the values of several preferences. See the following example for allowed values. A well-behaved script should restore the original values after exporting the file.

```
var prevWarn = fw.getPref("PsdExport_Warn100"); // bool
fw.setPref("PsdExport_Warn100", false);  // don't warn.

var kObjToLayer = 1;
var kFlatten = 2;
var prevLayers = fw.getPref("PsdExport_Layers");
fw.setPref("PsdExport_Layers", kObjToLayer);  // flatten layers or not.

var kEffectEditable = 1;
var kEffectRender = 2;
var prevEffects = fw.getPref("PsdExport_Effects");
fw.setPref("PsdExport_Effects", kEffectEditable);

var kTextEditable = 1;
var kTextRender = 2;
var prevText = fw.getPref("PsdExport_Text");
fw.setPref("PsdExport_Text", kTextRender);

fw.exportPSD(null, "file:///C|/new folder/test.psd");

// Put the prefs back.
fw.setPref("PsdExport_Warn100", prevWarn);
fw.setPref("PsdExport_Layers", prevLayers);
fw.setPref("PsdExport_Effects", prevEffects);
fw.setPref("PsdExport_Text", prevText);
```

fw.exportSWF()

Availability

Fireworks 4.

Usage

`fw.exportSWF(`*`docObject`*`, `*`FlashDocumentURL`*`)`

Arguments

`docObject` A Document object that specifies the document to be exported (see "Document object" on page 13). To export the current document, pass `null`.

`FlashDocumentURL` The name of the Macromedia Flash document to be created, which is expressed as a file://URL.

Returns

A Boolean value: `true` if successful; `false` otherwise.

Description

Exports a Fireworks document as a Macromedia Flash document.

Example

The Macromedia Flash writer is controlled by the values of several preferences. See the following example for allowed values. A well-behaved script should restore the original values after exporting the file.

```
var prevMaintainObjEditable = fw.getPref("SwfMaintainObjEditable");
fw.setPref("SwfMaintainObjEditable", true);
  // maintain non-text editability
  //at expense of appearance or not
var prevMaintainTextEditable = fw.getPref("SwfMaintainTextEditable");
fw.setPref("SwfMaintainTextEditable", false);
  // maintain text editability
  // at expense of appearance or not
var prevExportAllFrames = fw.getPref("SwfExportAllFrames");
fw.setPref("SwfExportAllFrames", true);
  // if true all frames are exported
var prevExportFromFrame = fw.getPref("SwfExportFromFrame");
fw.setPref("SwfExportFromFrame", 1);
  // from frame; only used ifSwfExportAllFrames is false
var prevExportToFrame = fw.getPref("SwfExportToFrame");
fw.setPref("SwfExportToFrame", 5);
  // from frame; only used if SwfExportAllFrames is false
var prevJpegQualit = fw.getPref("SwfJpegQuality");
fw.setPref("SwfJpegQuality", 85);  // JPEG quality
var prevFrameRate = fw.getPref("SwfFrameRate");
fw.setPref("SwfFrameRate", 5);  // frame rate
fw.exportSWF(null, "file:///C|/new folder/test.swf");
// Put the prefs back.
fw.setPref("SwfMaintainObjEditable", prevMaintainObjEditable);
fw.setPref("SwfMaintainTextEditable", prevMaintainTextEditable);
fw.setPref("SwfExportAllFrames", prevExportAllFrames);
fw.setPref("SwfExportFromFrame", prevExportFromFrame);
fw.setPref("SwfExportToFrame", prevExportToFrame);
fw.setPref("SwfJpegQuality", prevJpegQualit);
fw.setPref("SwfFrameRate", prevFrameRate);
```

fw.findApp()

Availability

Fireworks MX.

Usage

`fw.findApp(`*`macAppSignature or winExeRegistryName`*`)`

Arguments

`macAppSignature` A Macintosh-specific string that identifies the signature of the application to find, such as "`MKBY`".

`winExeRegistryName` A Windows-specific string that identifies the name of an executable to find in the Windows registry, such as "`Fireworks.exe`".

Returns

A URL to the application. This URL can be passed as an argument to `fw.launchApp()`. If no such application can be found, the URL is empty.

Description

Attempts to find the path to the requested application. On the Macintosh, Fireworks looks for the application using a four-character signature code. In Windows, Fireworks looks in the Windows registry under `HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\App Paths`.

See also

`fw.launchApp()`

fw.findNext()

Availability

Fireworks 3.

Usage

```
fw.findNext()
```

Arguments

None.

Returns

The number of items that are replaced if the search is completed, or `-1` if there are items in the document that remain to be searched.

Description

Finds the next instance of the current search string and selects that section of the document. To begin a search, use `fw.setUpFindReplace()`.

See Also

`fw.setUpFindReplace()`

fw.findOpenDocument()

Availability

Fireworks 3.

Usage

```
fw.findOpenDocument(docname)
```

Arguments

docname A string that specifies the name of the document, which is expressed as a file://URL.

Returns

If the document is open, returns the Document object; otherwise, returns `null` (see "Document object" on page 13).

Description

Determines whether the specified file is open in a Fireworks Document window.

fw.getDocumentDOM()

Availability

Fireworks 3.

Usage

```
fw.getDocumentDOM({which-string})
```

Arguments

which-string An optional string that is included for compatibility with Dreamweaver. If specified here, it must be "*document*".

Returns

The Document object for the active document, or `null` if no document is open.

Description

Gets the Document object for the active document (see "Document object" on page 13).

fw.getDocumentPath()

Availability

Fireworks 3.

Usage

```
fw.getDocumentPath(document)
```

Arguments

document A Document object, for example, `fw.documents[2]`, that specifies the document whose path and filename should be retrieved. If *document* is `null`, information about the active document is retrieved.

Returns

The file URL for the document if it was saved or an empty string if it has not been saved.

Description

Gets the path and filename of the specified document.

fw.getFloaterGroupings()

Availability

Fireworks 3.

Usage

```
fw.getFloatGroupings()
```

Arguments

None.

Returns

An array like the one in the following example:

```
[ [ "stroke", "fill", "effect" ], [ "layers", "frames", "object" ], [ "mixer",
  "options", "swatches", "info" ], [ "styles", "library" ], [ "find", "project
  log" ], [ "url" ], [ "optimize", "optimized colors" ], [ "behaviors" ], [
  "history" ] ]
```

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

Description

Gets an array of arrays that indicates the tab-grouping of the panels (even hidden ones).

fw.getFloaterPosition()

Availability

Fireworks 3.

Usage

`fw.getFloaterPosition(`*`panelName`*`)`

Arguments

`panelName` Acceptable values are `"find"`, `"project log"`, `"object"`, `"info"`, `"url"`, `"effect"`, `"history"`, `"mixer"`, `"fill"`, `"stroke"`, `"swatches"`, `"layers"`, `"frames"`, `"behaviors"`, `"optimize"`, `"library"`, `"styles"`, `"optimized colors"`, `"options"`, and `"toolbox"`.

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

Returns

A rectangle that specifies the bounds of the panel (see "Rectangle data type" on page 11).

Description

Gets the screen position and size of the specified panel.

fw.getFloaterVisibility()

Availability

Fireworks 3.

Usage

`fw.getFloaterVisibility(`*`panelName`*`)`

Arguments

panelName Acceptable values are `"find"`, `"project log"`, `"object"`, `"info"`, `"url"`, `"effect"`, `"history"`, `"mixer"`, `"fill"`, `"stroke"`, `"swatches"`, `"layers"`, `"frames"`, `"behaviors"`, `"optimize"`, `"library"`, `"styles"`, `"optimized colors"`, `"options"`, and `"toolbox"`.

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

Returns

A Boolean value: `true` if the specified panel is visible, `false` otherwise.

Description

Determines whether a specified panel is visible.

fw.getHideAllFloaters()

Availability

Fireworks 3.

Usage

```
fw.getHideAllFloaters()
```

Arguments

None.

Returns

A Boolean value: `true` if the panels are hidden; `false` otherwise.

Description

Returns the hidden or visible status of the panels.

fw.getHTMLFileForScript()

Availability

Fireworks MX.

Usage

```
fw.getHTMLFileForScript()
```

Arguments

None.

Returns

A file URL.

Description

Returns an HTML file.

fw.getNumberOfTables()

Availability

Fireworks MX.

Usage

`fw.getNumberOfTables(`*`filename`*`)`

Arguments

`filename` The name of the file that contains the tables to be counted.

Returns

A long integer that represents the number of tables in the document.

Description

Returns the number of top-level (that is, non-nested) tables in a document.

fw.getPref()

Availability

Fireworks 3.

Usage

`fw.getPref(`*`prefkey`*`)`

Arguments

`prefkey` A string that specifies the Preference value to return. A complete list of these values is beyond the scope of this documentation, but the format of *`prefkey`* exactly matches that in the Fireworks Preferences file. To set a Preference value, use `fw.setPref()`.

Returns

A string or numeric Preference value.

Description

Returns the Preference value (string or numeric) that is associated with the specified Preference key.

See also

`fw.setPref()`

fw.launchApp()

Availability

Fireworks MX.

Usage

`fw.launchApp(`*`appPath, filePathsToOpen`*`)`

Arguments

appPath A file URL that specifies the executable to start. Typically, this value can be obtained by calling `fw.findApp()`.

filePathsToOpen An array of file URLs to open in the executable to start. It is safe to pass an empty array.

Returns

A Boolean value that indicates whether the application started successfully.

Description

Starts an application using a file URL that is returned by `fw.findApp()`. You can specify, optionally, files to open in the application.

See also

`fw.findApp()`

fw.launchBrowserTo()

Availability

Fireworks MX.

Usage

```
fw.launchBrowserTo(url)
```

Arguments

url The URL to open in the primary web browser.

Returns

Nothing.

Example

The following command starts a browser that opens to the Macromedia website:

```
fw.launchBrowserTo("http://www.macromedia.com");
```

Description

Starts Fireworks' primary web browser to open a URL.

fw.locateDocDialog()

Availability

Fireworks 4.

Usage

```
fw.locateDocDialog(maxnumdocs, formatlist)
```

Arguments

maxnumdocs Specifies the maximum number of documents to choose.

formatlist A list of acceptable file types to open. The *formatlist* argument is an array of strings such as the ones shown in the following example:

```
["formatname1","formatname2","formatname3",…"formatnameN"]
```

The following table lists acceptable values for `formatname` and the file type each value represents.

Value	File type
`"ADOBE AI3"`	Adobe Illustrator
`"Fireworks JavaScript"`	Fireworks JSF
`"kMoaCfFormat_BMP"`	Bitmap
`"kMoaCfFormat_FreeHand7and8"`	Macromedia FreeHand 7 or 8
`"kMoaCfFormat_GIF"`	GIF
`"kMoaCfFormat_JPEG"`	JPEG
`"kMoaCfFormat_PICT"`	Macintosh PICT
`"kMoaCfFormat_RTF"`	Rich text
`"kMoaCfFormat_Text"`	Plain text
`"kMoaCfFormat_TIFF"`	TIFF
`"PNG"`	PNG
`"PS30"`	Photoshop PSD

Returns

An array of file:// URLs, or `null` if the dialog box is canceled.

Description

Displays a dialog box that lets the user select one or more files.

fw.openDocument()

Availability

Fireworks 3, enhanced in 4.

Usage

```
fw.openDocument({fileURL}, {bOpenAsNew})
```

Arguments

fileURl A string or an array of strings, each expressed as a file://URL, that specifies the files to be opened. This argument is optional. If *fileURL* is omitted or `null`, the Open Document dialog box appears.

bOpenAsNew If *bOpenAsNew*, which was added in Fireworks 4, is `true`, the files are opened as unsaved and untitled documents. If *bOpenAsNew* is `false` (the default value), they are opened with their original names. This argument is optional.

Returns

If any of the files can be opened, returns the Document object for each file. Returns `null` if none of the documents can be opened.

Description

Opens the specified files in new document windows. If a file is already open, it opens again; to avoid redundant open operations, call `findOpenDocument()` first.

See also

`fw.findOpenDocument()`

fw.popupColorPicker()

Availability

Fireworks MX.

Usage

`fw.popupColorPicker(`*`screenLoc, initialColor, allowTransparent, forceWeb216`*`)`

Arguments

`screenLoc` The location at which the dialog box appears, in the form of a point {*x:* `float`, *y:* `float`} (see "Point data type" on page 11 for syntax details).

`initialColor` The initially selected color in the dialog box, in the form `#rrggbbaa` (see "Color string data type" on page 11 for syntax details).

`allowTransparent` A Boolean value that lets the user select a transparent color; set to `true` for transparent, `false` otherwise.

`forceWeb216` A Boolean value that forces the chosen color to fall within the web216 panel; set to `true` to force the color change, `false` otherwise.

Returns

The chosen color in `#rrggbbaa` format (see "Color string data type" on page 11 for syntax details).

Description

Opens the pop-up color swatches dialog box to let the user select a color.

fw.popupColorPickerOverMouse()

Availability

Fireworks MX.

Usage

`fw.popupColorPickerOverMouse(`*`initialColor, allowTransparent, forceWeb216`*`)`

Arguments

`initialColor` A color string in `#rrggbbaa` format, which is the color initially selected in the dialog box. (For syntax details, see "Color string data type" on page 11.)

allowTransparent A Boolean value that lets the user select a transparent color; set to `true` for transparent, `false` otherwise.

forceWeb216 A Boolean value that forces the chosen color to fall within the web216 panel; set to `true` to force the color change, `false` otherwise.

Returns

The chosen color in `#rrggbbaa` format (For syntax details, see "Color string data type" on page 11).

Description

Opens the color pop-up window at the current mouse location to let the user select a color.

fw.quit()

Availability

Fireworks 4.

Usage

```
fw.quit()
```

Arguments

None.

Returns

Nothing.

Description

Quits Fireworks, but prompts the user to save any changed documents before exiting. Identical to `fw.quitApplication()`.

fw.quitApplication()

Availability

Fireworks 3.

Usage

```
fw.quitApplication()
```

Arguments

None.

Returns

Nothing.

Description

Quits Fireworks, but prompts the user to save any changed documents before exiting.

fw.readNthTable()

Availability

Fireworks MX.

Usage

```
fw.readNthTable(filename, tablenumber)
```

Arguments

filename A *fileURL* for the file that contains the desired table.

tablenumber A long integer that specifies the desired table; the tables are zero-indexed.

Returns

A database that is constructed from the table data.

Description

Reads the specified table. The tables are zero-indexed.

fw.readPanelStateFromFile()

Availability

Fireworks MX.

Usage

```
fw.readPanelStateFromFile(filepath)
```

Arguments

filepath The location of the panel state file as a string in the format file://URL.

Returns

Nothing.

Description

Reads in a panel state file, which is generated by "fw.writePanelStateToFile()" on page 274, and moves the panels, Property inspector, and toolbox to the appropriate locations.

fw.replace()

Availability

Fireworks 3.

Usage

```
fw.replace()
```

Arguments

None.

Returns

The number of items that are replaced, or `-1` if there are items in the document that remain to be searched.

Description

Verifies that the selection matches the current search string and replaces it with the replacement string.

See also

`fw.setUpFindReplace()`

fw.replaceAll()

Availability

Fireworks 3.

Usage

```
fw.replaceAll()
```

Arguments

None.

Returns

The number of items replaced, or `-1` if the search is not yet complete.

Description

Performs a replace all operation on the active document using the current search-and-replacement strings.

See also

`fw.setUpFindReplace()`

fw.revertDocument()

Availability

Fireworks 3.

Usage

```
fw.revertDocument({document})
```

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to be reverted. This argument is optional. If *`document`* is omitted or `null`, the active document is reverted.

Returns

Nothing.

Description

Restores the specified document to its previously saved version.

fw.runScript()

Availability

Fireworks 3.

Usage

```
fw.runScript(filename)
```

Arguments

filename The name of the script file to execute. If *filename* is not a file URL (that is, if it does not begin with "file:///"), it is assumed to be the name of a file in the Fireworks MX/Configuration/Commands folder.

Returns

Result of script.

Description

Executes a JavaScript file.

Example

The following command runs a script found in the Align Center to Document.jsf file, which is located in the Commands folder.

```
fw.runScript("Align Center to Document.jsf");
```

fw.saveAll()

Availability

Fireworks 3.

Usage

```
fw.saveAll()
```

Arguments

None.

Returns

Nothing.

Description

Saves all open documents, displaying the Save As dialog box for any documents that were not previously saved.

fw.saveDocument()

Availability

Fireworks 3.

Usage

`fw.saveDocument(`*`document`*`, {`*`fileURL`*`})`

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to be saved. If *`document`* is `null`, the active document is saved.

`fileURL` The name of the saved document, which is expressed as *file:///URL*. This argument is optional. If *`fileURL`* is `null` or omitted, the document is saved with its current name; if the document has not been saved, the Save As dialog box appears.

Returns

Nothing.

Description

Saves the specified document as a native Fireworks PNG file with the specified name. To save a document to another format, such as GIF or JPEG, use `fw.exportDocumentAs()`.

See also

`fw.exportDocumentAs()`

fw.saveDocumentAs()

Availability

Fireworks 3.

Usage

`fw.saveDocumentAs(`*`document`*`)`

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to save. If *`document`* is `null`, the active document is saved.

Returns

The file URL for the saved document, or `null` if the dialog box was canceled.

Description

Displays the Save As dialog box for the specified document, so that it can be saved as a native Fireworks PNG file with the specified name. To save a document to another format, such as GIF or JPEG, use `fw.exportDocumentAs()`.

See also

`fw.exportDocumentAs()`

fw.saveDocumentCopyAs()

Availability

Fireworks 3.

Usage

`fw.saveDocumentCopyAs(`*`document`*`, `*`fileURL`*`)`

Arguments

`document` A Document object, for example, `fw.documents[2]`, that specifies the document to be saved. If *`document`* is `null`, the active document is saved.

`fileURL` The filename for the saved file, which is expressed as a file:///URL. If *`fileURL`* is `null`, the Save As dialog box appears.

Returns

The file URL for the saved document, or `null` if the dialog box was canceled.

Description

Saves a copy of the specified document as a native Fireworks PNG file with the specified name. To save a document to another format, such as GIF or JPEG, use `fw.exportDocumentAs()`.

See also

`fw.exportDocumentAs()`

fw.saveJsCommand()

Availability

Fireworks 3.

Usage

`fw.saveJsCommand(`*`jscode`*`, `*`filename`*`)`

Arguments

`jscode` The string of code to be saved as a JSF command file.

`filename` The name under which the file should be saved. If *`filename`* is not a file URL (that is, if it does not begin with `"file:///"`), the file is saved in the Fireworks MX/Configuration/Commands folder.

Returns

Nothing.

Description

Saves the specified string of JavaScript code as a JSF command file.

fw.setActiveViewScale()

Availability

Fireworks MX.

Usage

```
fw.setActiveViewScale(scale, center)
```

Arguments

scale A floating-point number where 1.0 is 100%, or normal view, and 1.5 is 150%. Default is 6%.

center A point that defines the location in the document at which the view should be centered. This argument can be used to navigate around different parts of the document.

Returns

Nothing.

Description

Sets the zoom amount and the center of the view for the current document.

fw.setActiveWindow()

Availability

Fireworks 3.

Usage

```
fw.setActiveWindow(document, {trueFalse})
```

Arguments

document A Document object, for example, `fw.documents[2]`, that specifies which document should be made active.

trueFalse This optional argument is ignored by Fireworks. It is included only for Dreamweaver compatibility.

Returns

Nothing.

Description

Sets the specified document as the active document.

Example

The following command makes the fourth document the active document.

```
fw.setActiveWindow(fw.documents[3]);
```

fw.setFloaterGrouping()

Availability

Fireworks 3.

Usage

`fw.setFloaterGrouping(`*`panelNameToMove`*`, `*`panelNameToReceive`*`)`

Arguments

`panelNameToMove` A lowercase string that specifies the panel to be moved.

`panelNameToReceive` A lowercase string that specifies the panel into which the *`panelNameToMove`* panel should move. If *`panelNameToReceive`* is `null`, the *`panelNameToMove`* panel moves into its own panel. Acceptable values are `"find"`, `"project log"`, `"object"`, `"info"`, `"url"`, `"effect"`, `"history"`, `"mixer"`, `"fill"`, `"stroke"`, `"swatches"`, `"layers"`, `"frames"`, `"behaviors"`, `"optimize"`, `"library"`, `"styles"`, `"optimized colors"`, `"options"`, and `"toolbox"`.

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

Returns

Nothing.

Description

Moves the specified panel into another panel, changing it to a tab within that panel. This is the same behavior as dragging a tab from one panel to another or to its own panel.

Example

The following command moves the Stroke tab from its current location into the panel named Object. Although the panel name might be capitalized onscreen, it must be passed as lowercase.

```
fw.setFloaterGrouping("stroke", "object");
```

fw.setFloaterPosition()

Availability

Fireworks 3.

Usage

`fw.setFloaterPosition(`*`panelName`*`, `*`boundingRectangle`*`)`

Arguments

panelName Acceptable values are `"find"`, `"project log"`, `"object"`, `"info"`, `"url"`, `"effect"`, `"history"`, `"mixer"`, `"fill"`, `"stroke"`, `"swatches"`, `"layers"`, `"frames"`, `"behaviors"`, `"optimize"`, `"library"`, `"styles"`, `"optimized colors"`, `"options"`, and `"toolbox"`.

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

boundingRectangle A rectangle that specifies the size of the panel (see "Rectangle data type" on page 11). Some panels ignore the specified size but place the upper left corner of the panel at the upper left of the specified rectangle.

Returns

Nothing.

Description

Sets the position and size of a panel.

fw.setFloaterVisibility()

Availability

Fireworks 3.

Usage

`fw.setFloaterVisibility(`*panelName*`, `*bVisible*`)`

Arguments

panelName Acceptable values are `"find"`, `"project log"`, `"object"`, `"info"`, `"url"`, `"effect"`, `"history"`, `"mixer"`, `"fill"`, `"stroke"`, `"swatches"`, `"layers"`, `"frames"`, `"behaviors"`, `"optimize"`, `"library"`, `"styles"`, `"optimized colors"`, `"options"`, and `"toolbox"`.

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

bVisible If *bVisible* is `true`, the specified panel is visible. If *bVisible* is `false`, the panel is hidden.

Returns

Nothing.

Description

Shows or hides the specified panel.

fw.setHideAllFloaters()

Availability

Fireworks 3.

Usage

`fw.setHideAllFloaters(bHide)`

Arguments

bHide If *bHide* is `true`, the panels are hidden. If *bHide* is `false`, the panels are visible.

Returns

Nothing.

Description

Shows or hides the panels. This behavior is the same as the Tab key behavior.

fw.setPref()

Availability

Fireworks 3.

Usage

`fw.setPref(prefname, prefval)`

Arguments

prefname and *prefval* A complete list of these values is beyond the scope of this documentation, but the format of *prefname* and *prefval* exactly matches those in the Fireworks Preferences file. To return the value that is associated with a Preference key, use `fw.getPref()`.

Returns

Nothing.

Description

Sets the value that is associated with the specified Preference key.

See also

`fw.getPref()`

fw.setUpFindReplace()

Availability

Fireworks 3.

Usage

`fw.setUpFindReplace(findSpec)`

Arguments

findSpec A Find object (see "Find object" on page 20).

Returns

Nothing.

Description

Sets up a search.

fw.toggleFloater()

Availability

Fireworks 3.

Usage

```
fw.toggleFloater(panelName)
```

Arguments

panelName Acceptable values are `"find"`, `"project log"`, `"object"`, `"info"`, `"url"`, `"effect"`, `"history"`, `"mixer"`, `"fill"`, `"stroke"`, `"swatches"`, `"layers"`, `"frames"`, `"behaviors"`, `"optimize"`, `"library"`, `"styles"`, `"optimized colors"`, `"options"`, and `"toolbox"`.

Note: Any panels *not* specified in the list of valid arguments (like those in the Command Panels folder which are "outside" the Fireworks application) should be named exactly as they appear in the file system without their file extension. For example, the valid argument name for the Align panel (Align.swf) is `"Align"`, and a valid name for a custom panel file mypanel.swf would be `"mypanel"`.

Returns

Nothing.

Description

Shows or hides the specified panel, or makes it topmost.

- If the panel is not visible, this function makes it visible and topmost.
- If the panel is topmost, this function hides it.
- If the panel is visible but not topmost, this function makes it topmost.

fw.ungroupPrimitives()

Availability

Fireworks 4.

Usage

```
fw.ungroupPrimitives()
```

Arguments

None.

Returns

Nothing.

Description

Replaces selected primitive objects with their equivalent paths. The new objects have all the attributes (mask, stroke, fill, and so on) of the replaced ones.

See also

`dom.addNewRectanglePrimitive()`

fw.updateHTML()

Availability

Fireworks 4.

Usage

`fw.updateHTML(`*`doc`*`, `*`htmlUrl`*`, `*`bRecoverFromError`*`)`

Arguments

`doc` A Document object that specifies the document to be used for updating the HTML (see "Document object" on page 13). If *`doc`* is `null`, the active document is used.

`htmlUrl` The filename of the HTML file to update, which is expressed as a file://URL. To force Fireworks to display the Update HTML dialog box, pass `null` for *`htmlUrl`*. If you pass `null` for *`htmlUrl`*, *`bRecoverFromError`* is ignored.

`bRecoverFromError` If *`bRecoverFromError`* is `true` and the HTML update encounters an error, Fireworks displays a Confirmation dialog box and attempts to recover. If it is `false`, Fireworks fails without notifying the user if it encounters an error.

Returns

A Boolean value: `true` if the HTML was updated; `false` otherwise.

Description

Updates the HTML that was previously exported from Fireworks.

Example

The following command updates the images in an HTML file, using the current document.

```
fw.updateHTML(null, "file:///C|/mysite/nav.htm", true);
```

fw.writePanelStateToFile()

Availability

Fireworks MX.

Usage

`fw.writePanelStateToFile(`*`filepath`*`)`

Arguments

`filepath` A string that identifies the destination XML file in the format file://URL.

Returns

Nothing.

Description

Writes out the panel states (location, size, open or closed, and so on), toolbox state, and Property inspector state to an XML file that is specified by the argument.

fw.yesNoDialog()

Availability

Fireworks MX.

Usage

```
fw.yesNoDialog(promptString)
```

Arguments

promptString The prompt message that appears in the dialog box.

Returns

A Boolean value: `true` if the user selected the Yes button; `false` otherwise.

Description

Displays a dialog box that contains buttons labeled Yes and No.

Example

The following code displays a dialog box with Yes and No buttons and the message "Would you like to duplicate the element?"

```
var shouldDuplicate = fw.yesNoDialog("Would you like to duplicate the
  element?");
```

Property inspector functions

These functions control the Property inspector window, which shows details about the current document or selected object.

fw.showPIWindow()

Availability

Fireworks MX.

Usage

```
fw.showPIWindow()
```

Arguments

None.

Returns

Nothing.

Description

Opens the Property inspector.

fw.hidePIWindow()

Availability

Fireworks MX.

Usage

```
fw.hidPIWindow()
```

Arguments

None.

Returns

Nothing.

Description

Makes the Property inspector window invisible.

fw.isPIExpanded()

Availability

Fireworks MX.

Usage

```
fw.isPIExpanded()
```

Arguments

None.

Returns

A Boolean value: `true` if expanded; `false` otherwise.

Description

Determines whether the Property inspector window is currently expanded or minimized

fw.isPIVisible()

Availability

Fireworks MX.

Usage

```
fw.isVisible()
```

Arguments

None.

Returns

A Boolean value: `true` if visible; `false` otherwise.

Description

Determines whether the Property inspector window is currently hidden or shown.

fw.growPIWindow()

Availability

Fireworks MX.

Usage

```
fw.growPIWindow()
```

Arguments

None.

Returns

Nothing.

Description

Expands the Property inspector window.

fw.shrinkPIWindow()

Availability

Fireworks MX.

Usage

```
fw.shrinkPIWindow()
```

Arguments

None.

Returns

Nothing.

Description

Minimizes the Property inspector window.

fw.setPIPosition()

Availability

Fireworks MX.

Usage

```
fw.setPIPosition(pt)
```

Arguments

pt A point in screen coordinates.

Returns

Nothing.

Description

Moves the upper left corner of the Property inspector window to the specified location.

fw.getPIPosition()

Availability

Fireworks MX.

Usage

```
fw.getPIPosition()
```

Arguments

None.

Returns

A point object that is formatted as {*x:* `float`, *y:* `float`} (see "Point data type" on page 11 for syntax details), which contains the location of the Property inspector.

Description

Retrieves the location, in screen coordinates, of the upper left corner of the Property inspector window.

History panel functions

These functions control the History panel.

fw.historyPalette.clearSteps()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.clearSteps()
```

Arguments

None.

Returns

Nothing.

Description

Clears the undo and redo stack.

fw.historyPalette.copySteps()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.copySteps(array of indexes)
```

Arguments

array of indexes A zero-based array that specifies which steps from the History panel should be copied. If it is `null`, the currently selected steps are used.

Returns

Nothing.

Description

Copies history steps to the Clipboard.

fw.historyPalette.getSelection()

Availability

Fireworks 3.

Usage

```
fw.history.Palette.getSelection()
```

Arguments

None.

Returns

A zero-based array that represents which History panel steps are selected.

Description

Determines which steps in the History panel are selected.

fw.historyPalette.getStepCount()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.getStepCount()
```

Arguments

None.

Returns

The number of steps in the History panel (not a zero-based value).

Description

Gets the number of steps in the History panel.

fw.historyPalette.getStepsAsJavaScript()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.getStepsAsJavaScript(rray of indexes)
```

Arguments

array of indexes A zero-based array that specifies which steps from the History panel should be returned as JavaScript. If the argument is `null`, the currently selected steps are returned.

Returns

A JavaScript string.

Description

Gets the JavaScript equivalent of the specified steps.

See also

`fw.historyPalette.replaySteps()`

fw.historyPalette.getUndoState()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.getUndoState()
```

Arguments

None.

Returns

The string to use with `fw.historyPalette.setUndoState()`.

Description

Returns a string that indicates the current undo state to be used for later calls to `fw.historyPalette.setUndoState()`. This string is designed to be used internally by Fireworks only and might change format in the future. Do not try to parse this string or construct a custom string to pass to `fw.historyPalette.setUndoState()`.

See also

`fw.historyPalette.setUndoState()`

fw.historyPalette.replaySteps()

Availability

Fireworks 3.

Usage

`fw.historyPalette.replaySteps(`*`array of indexes`*`)`

Arguments

`array of indexes` A zero-based array that specifies which steps from the History panel should be returned as JavaScript and executed. If the argument is `null`, the currently selected steps are used.

Returns

A JavaScript string.

Description

Gets the JavaScript equivalent of the specified steps and executes them.

See also

`fw.historyPalette.getStepsAsJavaScript()`

fw.historyPalette.saveAsCommand()

Availability

Fireworks 3.

Usage

`fw.historyPalette.saveAsCommand(`*`array of indexes`*`, {`*`filename`*`})`

Arguments

array of indexes Indicates which steps from the History panel should be saved. For example, to save the first, third, and sixth steps in the History panel, pass [0, 2, 5]. If this argument is null, the currently selected steps are used.

filename An optional string that specifies a name for the JSF command file. It can be any string, including a file:// URL. If *filename* is omitted or null, the user is prompted for a filename. If *filename* is not a file://URL, the file is saved in the Fireworks MX/Configuration/Commands folder with the specified filename.

Returns

Nothing.

Description

Gets the JavaScript equivalent of the specified steps and saves them as a JSF command file.

fw.historyPalette.setSelection()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.setSelection(array of indexes)
```

Arguments

array of indexes Specifies which steps in the History panel are selected. Values are zero-based. For example, to select the first, third, and sixth steps in the History panel, pass [0, 2, 5].

Returns

Nothing.

Description

Sets the portion of the History panel that is selected.

fw.historyPalette.setUndoState()

Availability

Fireworks 3.

Usage

```
fw.historyPalette.setUndoState(undoStateString)
```

Arguments

undoStateString The string returned by fw.historyPalette.getUndoState().

Returns

Nothing.

Description

Performs the correct number of undo or redo operations to arrive at the selected state.

See Also

`fw.historyPalette.getUndoState()`

Using the common API

You can use the common Macromedia API if you want commands to use a common syntax (and thus run a single command in multiple applications). You can access this API using `app.methodName()`.The following methods are currently supported in Fireworks and Dreamweaver to let developers easily create commands for both applications.

app.toggleFloater()

Identical to `fw.toggleFloater()`.

app.setFloaterVisibility()

Identical to `fw.setFloaterVisibility()`.

app.getRootDirectory()

Identical to the Fireworks object property `appDir •`.

app.browseDocument()

Identical to `fw.browseDocument()`.

Note: The app.getRootDirectory() function is useful if you want to use `app.browseDocument()` to view files within the applications's folder.

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