ADOBE® FIREWORKS® CS3

EXTENDING FIREWORKS

Contents

Chapter 1: Extending Fireworks Overview

To extend Adobe® Fireworks® CS3, 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 Adobe 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).

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 Adobe Exchange website (www.adobe.com/go/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 Adobe Downloads website (www.adobe.com/exchange/em_download/).

2 Log on to the Adobe Exchange website (www.adobe.com/go/exchange).

3 Click the Fireworks Exchange link.

4 From the available extensions, choose 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 Adobe 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 CS3

Fireworks CS3 includes the following new features and interfaces that you can use to develop extensions for the product:

New page object Fireworks CS3 makes it easy to build complex multi-page web prototypes using a single PNG file. A new object has been added to control this feature. In addition, a number of functions have been added to support sharing layers across pages, adding and reordering pages, setting a master page, renaming pages, and resizing the canvas or image for a single page rather than for the entire document.

Rich symbols Fireworks CS3 introduces new and enhanced symbol features. You can create graphic symbols that can be intelligently scaled and given specific attributes using a JavaScript (JSF) file. A new `widget` object has been added to support this feature.

9-slice scaling Fireworks CS3 introduces a dynamic new feature called 9-slice scaling, which allows you to intelligently scale vector or bitmap symbols. By positioning a set of guides over your artwork, you can define exactly how each part of a symbol is scaled. Any of nine different regions can be specified to scale only horizontally, scale only vertically, scale both horizontally and vertically, or to not scale at all. A number of new functions have been added to support this feature.

Hierarchical layers In Fireworks CS3 the structure of layers in a document can be as simple or as complex as required and all hierarchical layers are preserved. When creating a new file, all items are organized at the same level, in a non-hierarchical manner. You can create new sub layers as needed and move items into them, or move elements from one layer to another at any time. A number of new functions have been added to support this feature.

MXML export In Fireworks CS3 you can create Flex ™application layouts and export the MXML for loading into Flex™ Builder™. A new chapter provides some background information on this process.

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 Adobe online forums at www.adobe.com/support/forums/.

Chapter 2: The Fireworks Object Model

If you want to extend the functionality of Adobe Fireworks CS3 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 comprises the Fireworks Object Model, which contains the following major components:

- Six global methods that are available from any part of the application and need not be declared as methods of a particular object. For more information, see "Global methods" on page 11.
- Core objects: Dialogs, Document, pngText, Errors, Files, Find, and System. For more information, see "Core objects" on page 13 and "The Document object" on page 20. (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 (for more information, see "The Fireworks Object" on page 170).
- Numerous objects associated with Fireworks documents, such as ExportOptions, Guides, Path, Image, and Text. For more information, see "Objects within Fireworks documents" on page 208.
- A set of objects that you can use to specify the format of HTML code when exporting from Fireworks. For more information, see "HTML export objects" on page 247.

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 `appExportSet-tingsDir` is a property (for more information, see "The Fireworks Object" on page 170), 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 "Property inspector functions" on page 294 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:

- 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()` (for more information, see `"fw.getDocumentDOM()" on page 188`).

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 (for more information, see "Accessing a Fireworks document" on page 4).

```
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 more information, see "The Fireworks Object Model" on page 4.
- 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`, *`featherA-mount:`*` 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"});
```

Using Fireworks API functions

Three categories of API functions are described in this book: 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 297). 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.

Using the common API

You can use the common Adobe 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()” on page 204.

app.setFloaterVisibility()

Identical to “fw.setFloaterVisibility()” on page 203.

app.getRootDirectory()

Identical to the Fireworks object property “`appDir` •” on page 170.

app.browseDocument()

Identical to “fw.browseDocument()” on page 174.

***Note:** The app.getRootDirectory() function is useful if you want to use app.browseDocument() to view files within the applications’s folder.*

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 get values for the following read-only 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 read-only properties that you can return:

elementMask

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

effectList

- `nameC`
- `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 in addition to those that can be returned for any selected object (for more information, see “Working with properties for any selected object” on page 8). 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 98.*

- `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 98.*

- `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 98.*

- `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` sub properties 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;
```

```
(b
```

Global methods

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

alert(message)

Availability

Fireworks 3.

Usage

`alert(`*`message`*`)`

Arguments

`message` A string containing the message to display.

Returns

Nothing.

Description

Displays the message in a modal alert box, along with an OK button.

confirm(message)

Availability
Fireworks 3.

Usage
`confirm(message)`

Arguments
`message` A string containing the message to display.

Returns
True if OK is clicked, false if Cancel is clicked.

Description
Displays a string in a modal alert box, along with OK and Cancel buttons.

prompt(caption, text)

Availability
Fireworks 3.

Usage
`prompt(caption, text)`

Arguments
`caption` A string containing the title of the dialog box.

`text` A string containing the prompt for the user.

Returns
The string entered if OK is clicked, null if Cancel is clicked.

Description
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.

write(arg1, arg2, ..., argN)

Availability
Fireworks 3.

Usage
`write(arg1, arg2, ..., argN)`

Arguments
`arg1, arg2, ..., argN` Srings containing content for output.

Returns
An output file.

Description

Same as WRITE_HTML; WRITE_HTML was created to let you differentiate HTML output calls from other JavaScript calls in your code.

WRITE_CSS

Availability

Fireworks 3.

Usage

```
WRITE_CSS
```

Arguments

None.

Returns

An output file.

Description

Available only when exporting. Writes the CSS as an external file.

WRITE_HTML(arg1, arg2, ..., argN)

Availability

Fireworks 3.

Usage

`WRITE_HTML(`*`arg1, arg2, ..., argN`*`)`

Arguments

`arg1, arg2, ..., argN`	Srings containing content for output.

Returns

An output file.

Description

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 247.

Core objects

This section describes the set of core objects that are always available: Errors, Files, Find, and System. The Document object is described within its own chapter: see “The Document object” on page 20.

Note: *For information on how to format nonstandard data types, such as rectangle or point, see “Formatting nonstandard data types” on page 5.*

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.

The following list contains the properties of the Errors object alphabetically:

`EAppAlreadyRunning, EAppNotSerialized, EArrayIndexOutOfBounds, EBadFileContents, EBadJsVersion, EBadNesting, EBadParam, EBadParamType, EBadSelection, EBufferTooSmall, ECharConversionFailed, EDatabaseError, EDeletingLastMasterChild, EDiskFull, EDuplicateFileName, EFileIsReadOnly, EFileNotFound, EGenericErrorOccurred, EGroupDepth, EIllegalThreadAccess, EInternalError, ELowOnMem, ENoActiveDocument, ENoActiveSelection, 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
`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()`.
`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.

Method	Data type	Notes
`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.getDirec-tory("file://work/logo.png")` returns `"file:///work"`.
`getExtension(docname)`	string	Returns the filename extension, if any, of `docname`. For example, `Files.getExten-sion("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.getFile-name("file:///work/logo.png")` returns `"logo.png"`.
`getLanguageDirectory()`	string	Returns the URL of the language directory associ-ated with the currently running language.
`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.
`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 file-name in the specified directory. For example, `Files.makePathFromDirAnd-File("file:///work/reports", "logo.png")` returns `"file:///work/reports/logo.png"`.

Method	Data type	Notes
`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 File Reference object.
`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.

File Reference object

The File Reference object is used to refer to a specific open file. The following table lists the methods of the File Reference object, along with their data types and, where appropriate, acceptable values and notes.

Method	Data Type	Notes
`close()`	none	Closes the current File Reference 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.
`readline()`	none	Reads the next line from the current File Reference 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 longer than 2048 characters.
`write(textString)`	string	Writes the specified string to the current File Reference 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 (for more information, see “Color string data type” on page 5).
`replace`	string	A color string that specifies the color to use as a replacement (for more information, see “Color string data type” on page 5).
`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`.

System object

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

Property (read-only)	**Data type**	**Notes**
`osName`	string	Returns the name of the operating system under which Fireworks is running.
`controlFaceColor`	string	Returns the system color used for the control and panel faces (Windows-only property).
`controlHilightColor`	string	Returns the system color used for control highlights (Windows-only property).
`controlShadowColor`	string	Returns the system color used for control shadows (Windows-only property).
`controlDarkShadowColor`	string	Returns the system color used for control dark shadows (Windows-only property).
`hilightItemColor`	string	Returns the system color used for highlighting selections (Windows-only property).
`hilightTextColor`	string	Returns the system color used for highlighting selected text (Windows-only property).
`textColor`	string	Returns the system color used for text (Windows-only property).
`menuColor`	string	Returns the system color used for menu backgrounds (Windows-only property).
`menuTextColor`	string	Returns the system color used for text in menus (Windows-only property).

Chapter 3: The Document object

This chapter describes the Fireworks Document object and functions.

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 "Property inspector functions" on page 294.

Property	**Data type**	**Notes**
`backgroundColor`	string	A color string that specifies the document canvas color (for more information, see "Color string data type" on page 5).
`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 (for more information, see "Brush object" on page 208).
`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 (for more information, see "ExportOptions object" on page 227).
`exportSettings`	object	ExportSettings object (for more information, see "ExportSettings object" on page 230).
`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 (for more information, see "Fill object" on page 233).
`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 (for more information, see “Frame object” on page 234).
`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 (for more information, see “Gradient object” on page 235).
`gridColor`	string	A color string that specifies the color of the grid display (for more information, see “Color string data type” on page 5).
`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; `grid-Size.y` is the vertical grid size.
`guides` •	object	Guides object (for more information, see “Guides object” on page 235).
`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.)
`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 docu-ment 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"`.

Property	Data type	Notes
`layers` •	array	An array of `Layer` objects in the document (for more information, see “Layer object” on page 236).
`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 (for more information, see “Color string data type” on page 5). 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.
`pageName`	string	Returns back the page name of the current page.
`patterns` •	object	List of internal pattern names.
`pathAttributes`	object	PathAttrs object (for more information, see “PathAttrs object” on page 236). 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 property” on page 23.
`resolution`	float	Document resolution, in pixels per unit (for more information, 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"`.
`savedSelections`	object	Array of the saved bitmap selections in the active document.
`textures`	array	Array of Texture objects that are available for use in the document (for more information, see “Texture object” on page 226).

Property	Data type	Notes
`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 property

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

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 "Adobe Fireworks CS3."

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.

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 4). 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 24.

`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 23. 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 specifies the 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` 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 set 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.addMasterPageLayer()

Availability

Fireworks CS3.

Usage

`dom.addMasterPageLayer()`

Arguments

To add a master page layer, the document must already have a master page in it. Include the level where the master page layer should be inserted. For example:

```
fw.getDocumentDOM().addMasterPageLayer(-1)
```

Returns

Nothing.

Description

Adds a master page layer to the bottom of the layer hierarchy for the current page.

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 6).

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 6). 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 6).

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 6).

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.addNewPage()

Availability
Fireworks CS3.

Usage
`dom.addNewPage()`

Arguments
None

Returns
Nothing.

Description
Adds a new page to the current document.

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 6).

`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 6).

`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 Bezier path (see "Point data type" on page 6).

`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 Bezier 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 Bezier 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 6).

`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.addNewSubLayer()

Availability

Fireworks CS3.

Usage

`dom.addNewSubLayer(`*`index, name, shared`*`)`

Arguments

`index` A long value that specifies the index of the parent layer for the new sub layer.

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

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

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

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

Example
The following command adds a new unshared sub layer to layer index 0 with a default name that is generated by Fireworks:

```
fw.getDocumentDOM().addNewSubLayer(0, null, false);
```

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 6).

`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 6).

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. Align to canvas parameter is only available in Fireworks 8.

Usage
`dom.align(alignmode, alignToCanvas)`

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

`alignToCanvas` Boolean. Determines if the alignment is to the canvas or items. The default value is `false`.

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 6).

`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 Bezier 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 6).

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 6).

`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, updated in Fireworks 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 221). 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 217):

```
fw.getDocumentDOM().applyEffects({category:"Untitled", effects:[ { EffectIsVisible:true,
EffectMoaID:"{a7944db8-6ce2-11d1-8c76000502701850}", 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.changeCurrentPage()

Availability

Fireworks CS3.

Usage

`dom.changeCurrentPage(`*`pageNum`*`)`

Arguments

`pageNum` An long value that specifies the page number of the page that will become the active page.

Returns

Nothing.

Description

Changes the currently active page to the specified page number. The page number is in an array and the first page is numbered 0.

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.changeNineScaleGuide()

Availability

Fireworks CS3.

Usage

`dom.changeNineScaleGuide(`*`oldpos, newpos, guidekind`*`)`

Arguments

`oldpos` A double precision value that specifies the current position of the guide.

`newpos` A double precision 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 9-slice scaling guide's position to a new location.

Example

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

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

dom.changeSliceGuide()

Availability
Fireworks MX.

Usage
`dom.changeSliceGuide(`*`currentPosition, newPosition, guidekind, isMagneticDrag, isSingleDrag`*`)`

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`*.

`isSingleDrag` A Boolean value that determines whether the operation is performed only on the selected slice or on all slices that are affected by the slice guide. If *`isSingleDrag`* is `true`, Fireworks performs only the *`changeSliceGuide()`* action on the selected slice.

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, updated in Fireworks 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 48).

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.convertMarqueeToPath()

Availability

Fireworks 7.

Usage

`dom.convertMarqueeToPath()`

Arguments

None.

Returns

Nothing.

Description

Converts marquee selection to path.

dom.convertPathToMarquee()

Availability

Fireworks 7.

Usage

`dom.convertPathToMarquee(`*`mode, featherAmount`*`)`

Arguments

`mode` Sets the mode. Acceptable values are `"hard edge"`, `"antialias"`, and `"feather"`.

`featherAmount` Sets the amount of feathering for the marquee selection. This value is ignored if *`mode`* is not set to `"feather"`.

Returns

Nothing.

Description

Converts path to marquee selection.

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 6). For example, passing ({*x*:`100`, *y*:`25`}) animates the symbol to the right 100 pixels and 25 pixels down.

`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 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`*`}, {`*`makeRectangular`*`})`

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.

`makeRectangular` An optional Boolean value that determines if the slice for the Hotspot will be a rectangle or polygon. If `true` (the default), Fireworks creates a rectangular slice; otherwise, the slice is a polygon if the shape being copied to the slice is a polygon.

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 6).

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 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.deletePageAt()

Availability
Fireworks CS3.

Usage
`dom.deletePageAt(`*`pageNum`*`)`

Arguments
`pageNum` A long value that indicates the page number of the page to be deleted.

Returns
Nothing.

Description
Deletes a specified page from the current document. For example:

```
fw.getDocumentDOM().deletePageAt(0)
```

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.deleteSavedSelection()

Availability
Fireworks 3.

Usage

`dom.deleteSavedSelection(`*`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.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.detachSharedLayer()

Availability
Fireworks CS3.

Usage
`dom.detachSharedLayer(`*`layerNum, pageNum`*`)`

Arguments
`layerNum` A long value that specifies the layer number for the layer that is to be detached.

`pageNum` A long value that specifies the page number of the page from which the layer will be detached.

Returns
Nothing.

Description
Detaches the specified shared layer from the specified page. You can only detach a parent layer, not a sub layer. When the parent later is detached, the sub layers are automatically detached as well.

Example:

```
fw.getDocumentDOM().detachSharedLayer(1, 1)
```

dom.distribute()

Availability
Fireworks 3, updated with `distributeToCanvas` parameter in Fireworks 8.

Usage
`dom.distribute(`*`distmode, distributeToCanvas`*`)`

Arguments
`distmode` Acceptable values are `"vertical"` and `"horizontal"`.

`distributeToCanvas` A Boolean value that determines whether items are distributed to the canvas. Default value is `"false"`.

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 Control 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.duplicatePage()

Availability

Fireworks CS3.

Usage

`dom.duplicatePage(`*`pageNum`*`)`

Arguments

`pageNum` An long value that specifies the page number of the page to be duplicated.

Returns

Nothing.

Description

Duplicates a page. For example:

```
fw.getDocumentDOM().duplicatePage(1)
```

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.enableNineScale()

Availability

Fireworks CS3

Usage

`dom.enableNineScale(`*`status`*`)`

Arguments

`status` A Boolean value that toggles 9-slice scaling between enabled and disabled.

Returns

Nothing.

Description

Enables or disables 9-slice scaling for the selected symbol.

Example

The following command enables 9-slice scaling for the selected symbol:

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

dom.enableTextAntiAliasing()

Availability

Fireworks MX.

Usage

`dom.enableTextAntiAliasing(antiAlias)`

Note:

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 non-image 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 227.

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 227.

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 227). 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 6).

`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 214).

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.filterSelectionByID()

Availability
Fireworks 8.

Usage
`dom.filterSelectionByID(ID)`

Arguments
`ID` The `EffectMoaID` of the filter you want applied.

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.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.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.getParentLayerNum()

Availability
Fireworks CS3.

Usage
`dom.getParentLayerNum(`*`currentLayer`*`)`

Arguments
`currentLayer` A long value that specifies the index of the current layer.

Returns
The layer index number of the parent layer. If the specified layer is a top-level layer, it returns a value of -1.

Description
Gets the parent layer index number for the specified layer.

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 5.

Description
Gets the current pixel-selection mask. The result of this call could be used to call "dom.enableElementMask()" on page 67 or "dom.enterPaintMode()" on page 69.

dom.getSelectionBounds()

Availability
Fireworks 3.

Usage
`dom.getSelectionBounds()`

Arguments
None.

Returns
A rectangle (see "Rectangle data type" on page 6). 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.getShowGuides()

Availability
Fireworks 8.

Usage
`dom.getShowGuides()`

Arguments
None.

Returns
`true` if the guides are visible; `false` otherwise.

Description
Determines if the guides are 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.getSnapToGuides()

Availability
Fireworks 8.

Usage
```
dom.getSnapToGuides()
```

Arguments
None.

Returns
`true` if the Snap to Guides function is available; `false` otherwise.

Description
Determines if the Snap to Guides function is available.

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 168).

Example
The following command sets the selected group to mask to the image:

```
replace with fw.getDocumentDOM().group("normal");
```

dom.hasCharacterMarkup()

Availability
Fireworks 3, updated in Fireworks 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.hasMasterPage()

Availability
Fireworks CS3.

Usage
`dom.hasMasterPage()`

Arguments
None.

Returns
A Boolean value of `true` if the current document has a master page, or `false` if there is no master page.

Description
Indicates whether or not a master page exists for the specified document. For example:

```
fw.getDocumentDOM().hasMasterPage()
```

dom.hideSelection()

Availability
Fireworks 3.

Usage
`dom.hideSelection()`

Arguments
None.

Returns
Nothing.

Description
Hides the selection. To redisplay it, use “dom.showAllHidden()” on page 165.

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 6). 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

`E`xtracts 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 6).

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()” on page 39

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.insertSymbolAt()

Availability
Fireworks 8.

Usage

`dom.insertSymbolAt(uiName, locationPoint)`

Arguments

`uiName` The name of the symbol in the library. If more than one symbol exists with the specified name, Fireworks inserts the first symbol named.

`locationPoint` The center of the symbol expressed as x, y coordinates.

Returns

Nothing.

Description

Inserts a symbol instance at the specified location.

dom.isMasterPageLayer()

Availability

Fireworks CS3.

Usage

`dom.isMasterPageLayer(layerNum)`

Arguments

`layerNum` A long value that specifies the layer number.

Returns

A Boolean value: `true` if the specified layer is a master page layer; `false` otherwise.

Description

Indicates whether or not the specified layer is a master page layer. For example:

```
fw.getDocumentDOM().isMasterPageLayer(0)
```

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 6).

`tolerance` A floating-point value > = 0 that specifies the tolerance within which items are cut.

Returns
A 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 6).

`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.lockNineScale()

Availability

Fireworks CS3

Usage
`dom.lockNineScale(`*`status`*`)`

Arguments
`status` A Boolean value that toggles 9-slice scaling between locked and unlocked.

Returns
Nothing.

Description
Locks or unlocks 9-slice scaling guides for the selected symbol.

Example
The following command locks 9-slice scaling guides for the selected symbol:

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

dom.lockSelection()

Availability
Fireworks 8.

Usage
`dom.lockSelection()`

Arguments
None.

Returns
Nothing.

Description
Locks the selection.

dom.makeFind()

Availability
Fireworks 3.

Usage
`dom.MakeFind(`*`findSpec`*`)`

Arguments
`findSpec` A Find object (see “Find object” on page 17).

Returns
A Find object.

Description
Creates an object of class Find to perform a search-and-replace operation in a document.

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. For more information, see “dom.isSelectionDirectlyAboveBitmapObject()” on page 83.

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 6).

`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 6). 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 6). 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 45° 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 6). 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()” on page 89

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 6). 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 6). 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 6). 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 6). 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 6). For example, passing `({x:1,y:2})` moves the selection 1 pixel to the right and 2 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 84 pixels down:

```
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 6). 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 6).

`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, updated in Fireworks 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 *`whatIfMultiple-Selected`* 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.pageName()

Availability

Fireworks CS3.

Usage

`dom.pageName()`

Arguments

None.

Returns

A string specifying the name of the current page.

Description

Indicates the name of the current page. For example:

```
fw.getDocumentDOM().pageName
```

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.redrawSmartShape()

Availability
Fireworks 8.

Usage
`dom.redrawSmartShape()`

Arguments
None.

Returns
Nothing.

Description
Forces the Auto Shapes in the document to redraw. This method is useful when modifying a Auto Shape outside a tool.

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()” on page 23

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.removeNineScale()

Availability
Fireworks CS3

Usage
`dom.removeNineScale(`*`status`*`)`

Arguments
None.

Returns
Nothing.

Description
Removes 9-slice scaling from the selected symbol.

Example
The following command removes 9-slice scaling from the selected symbol:

```
fw.getDocumentDOM().removeNineScale();
```

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, new arguments added in CS3.

Usage
`dom.reorderLayer(layerToMove, layerToPutItBefore, bMakeCopy, posInLayer, aboveBelowInto)`

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.

`aboveBelowInto` A zero-based index that specifies whether the layer being moved or copied will be a parent layer or a sub layer. A value of 0 indicates that the layer goes above the destination layer; a value of 1 indicates that the layer goes below the destination later, a value of 2 indicates that the layer goes into the destination layer to become a sub layer.

Returns
Nothing.

Description
Moves or copies the specified layer before another specified layer.

dom.reorderPages()

Availability
Fireworks CS3.

Usage
`dom.reorderPages(origPos, newPos)`

Arguments
`origPos` A long value that indicates the page number (position) of the page to be moved.

`newPos` A long value that indicates the new position of the page within the document.

Returns
Nothing.

Description
Moves a specified page to a different location within the current document.

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.resetNineScale()

Availability

Fireworks CS3

Usage

`dom.resetNineScale(`*`status`*`)`

Arguments

None.

Returns

Nothing.

Description

Resets 9-slice scaling for the selected symbol back to default.

Example

The following command resets 9-slice scaling for the selected symbol:

```
fw.getDocumentDOM().resetNineScale();
```

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(`*`selectionName, fromDocument`*`, {`*`operation`*`}, {`*`invert`*`})`

Arguments

`selectionName` User-specified name of the selection to restore. If selection name is not specified, the selection named `"default"` will be restored.

`fromDocument` Index of a currently open document from which to load the selection. If the from document is not specified, the selection will be restored from the active document.

`operation` Operation to perform on the selection and on the document being loaded. Acceptable values are `"new or replace"`, `"add"`, `"subtract"`, and `"intersect"`. This parameter is optional. If the operation is not specified, Fireworks will behave as if `"new or replace"` is specified.

`invert` A Boolean value that determines if the selection should be inverted before performing the operation on it. This parameter is optional. If `invert` is not specified, defaults to `false`.

Returns

`true` if the selection is inverted; otherwise `false`.

Description

Restores the selection that is specified in `dom.saveSelection()`.

See also

`"dom.saveSelection()" on page 111`

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 counter-clockwise.

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({`*`selectionName`*`}, {`*`toDocument`*`}, {`*`operation`*`})`

Arguments
`selectionName` User-specified name of the selection to save. This parameter is optional. If *`selectionName`* is not specified, Fireworks will save the selection with the name `"default"`.

`toDocument` Index of a currently open document where the selection will be saved. This parameter is optional. If *`toDocument`* is not specified, Fireworks will save the selection to the active document.

`operation` The operation to be performed on the selection and on the selection being loaded from the `selectionName` parameter. Acceptable values are `"new or replace"`, `"add"`, `"subtract"`, and `"intersect"`. This parameter is optional. If *`operation`* is not specified, Fireworks treats it as if it were specified as `"new or replace"`.

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.scalingGridRect()

Availability
Fireworks CS3

Usage
`dom.scalingGridRect(`*`left, top, right, bottom`*`)`

Arguments
`left` Specifies the left coordinate of the 9-slice scaling grid rectangle.

`top` Specifies the top coordinate of the 9-slice scaling grid rectangle.

`right` Specifies the right coordinate of the 9-slice scaling grid rectangle.

`bottom` Specifies the bottom coordinate of the 9-slice scaling grid rectangle.

Returns
Nothing.

Description
Sets the positions of the 9-slice scaling guides by specifying the size of the rectangle they surround.

Example
The following command sets the 9-slice scaling grid rectangle to -50, -50, 50, 50:

```
fw.getDocumentDOM().scalingGridRect(-50, -50, 50, 50);
```

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, bRememberSelection, bToggleSelection)`

Arguments

`layerIndex` A long integer that identifies the layer on which to select the element.

`bRememberSelection` A Boolean value. If `true`, all the elements on the layer are appended to the current selection.

`bToggleSelection` A Boolean value. Toggles the selection of elements instead of simply selecting them. This parameter is useful only if *`bRememberSelection`* is `true`.

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 6).

`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()" on page 118.

Usage
`dom.setAnimInstanceLoopCount(`*`loopCount`*`)`

Arguments
`loopCount` An integer that corresponds to the loop count value that appears in the Objects panel when a multi-frame image instance is selected.

Returns
Nothing.

Description
Sets the loop count of the selected instances of multi-frame 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 25 pixels down.

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 multi-frame image instance is selected.

Returns
Nothing.

Description
Sets the start frame of the selected instances of multi-frame 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 208).

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 5).

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.setBrushNColor()

Availability
Fireworks 3.

Usage
`dom.setBrushNColor(`*`brush, brushColor`*`)`

Arguments
`brush` A Brush object (see “Brush object” on page 208).

`brushColor` A color string (see “Color string data type” on page 5).

Returns
Nothing.

Description
Sets the selection to the specified brush and brush color.

dom.setBrushNColorNTexture()

Availability
Fireworks 3.

Usage
`dom.setBrushNColorNTexture(`*`brush, color, texture-name`*`)`

Arguments
`brush` A Brush object (see “Brush object” on page 208).

`color` A color string (see “Color string data type” on page 5).

`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 227).

`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 5).

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, with new argument added in Fireworks CS3

Usage

`dom.setDocumentCanvasSize(`*`boundingRectangle, currentPageOnly`*`)`

Arguments

`boundingRectangle` A rectangle that specifies the new canvas size for the document, in pixels (see “Rectangle data type” on page 6). Any items outside the specified rectangle are removed.

`currentPageOnly` A Boolean value that specifies whether the change in canvas size applies to all pages or only the current page. If the value is `true`, only the current page is resized. If it is `false`, all pages of the document are resized. The default value is `true`.

Returns

Nothing.

Description

Sets the document’s canvas size to the specified rectangle and apply the change to the current page or all pages.

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, with additional argument added in Fireworks CS3.

Usage

`dom.setDocumentImageSize(`*boundingRectangle, resolution, currentPageOnly*`)`

Arguments

`boundingRectangle` A rectangle that specifies the size to which the document should be scaled (see “Rectangle data type” on page 6).

`resolution` Specifies the resolution for the scaled document (see “Resolution data type” on page 6).

`currentPageOnly` A Boolean value that specifies whether the change in document size applies to all pages or only the current page. If the value is `true`, only the current page is resized. If it is `false`, all pages of the document are resized. The default value is `true`.

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 6).

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.setElementLocked()

Availability
Fireworks 8.

Usage
`dom.setElementLocked(`*`frameNum, layerNum, objectIndex, bLock, bAllLayers, bLockLayers`*`)`

Arguments
`frameNum` A zero-based integer that specifies the frame that contains the element or elements to be locked. To specify the current frame, pass -1.

`layerNum` A zero-based integer that specifies the layer that contains the element or elements to be locked. To specify the current layer, pass -1.

`objectIndex` A zero-based integer that specifies the element or elements to lock or unlock. 0 represents the topmost element in the specified layer. To lock or unlock all the elements in the specified layer, pass -1.

`bLock` A Boolean value. If `true`, the element or elements are to be locked; if `false`, the elements are unlocked.

`bAllLayers` A Boolean value. If `true`, all layers are specified; `false` otherwise.

`bLockLayers` A Boolean value. If `true`, locks all layers; `false` otherwise.

Returns
Nothing.

Description
Sets the name of the selected element or elements.

dom.setElementLockedByName()

Availability
Fireworks 8.

Usage
`dom.setElementLockedByName(`*`name, bLock`*`)`

Arguments
`name` A string that specifies the name of the element or elements to be locked or unlocked. If more than one element has the same name, the function locks or unlocks all of them.

`bLock` A Boolean value. If `true`, the element or elements are locked; if `false`, they are unlocked.

Returns
An array of the elements for which the lock status is set.

Description

Locks or unlocks all the elements with the specified name. If no element has the specified name an exception is thrown. If elements are hidden (for example, if they are on a hidden layer or frame), the function will not lock them.

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 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 227).

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 230).

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 233).

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 5).

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 233).

`color` A color string (see “Color string data type” on page 5).

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 233).

`color` A color string (see “Color string data type” on page 5).

`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 6).

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 6).

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 6).

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 6).

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 5).

Returns
Nothing.

Description
Sets the color used to display the grid.

dom.setGroupType()

Availability
Fireworks 3, arguments deprecated in Fireworks 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. (The `"mask to image"` and `"mask to path"` values 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 5).

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()” on page 153

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 5) .

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 6).

`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` 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.setMasterPage()

Availability
Fireworks CS3.

Usage
`dom.setMasterPage(PageNum)`

Arguments
`PageNum` An long value that specifies the zero-based index of the page number to be set as the master page.

Returns
Nothing.

Description
Sets the specified page to be the document's master page. For example:

```
fw.getDocumentDOM().setMasterPage(0)
```

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 5).

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 5). 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()” on page 149

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.setPageName()

Availability

Fireworks CS3.

Usage

`dom.setPageName(`*`index, name`*`)`

Arguments

`index` An long value that specifies the page number of the page to be renamed.

`name` A string that specifies the new name for the page.

Returns

Nothing.

Description

Renames a page. For example:

```
fw.getDocumentDOM().setPageName(0, “new name”)
```

dom.setQuadrangle()

Availability
Fireworks 3.

Usage
`dom.setQuadrangle(pTopLeft, pTopRight, pBottomRight, pBottomLeft, options)`

Arguments
pTopLeft, pTopRight, pBottomRight, and *pBottomLeft* Relative coordinates of a quadrangle expressed as percentages of an arbitrary square. These are not specific *x, y* coordinates.

options Acceptable values are `"transformAttributes"`, `"autoTrimImages"`, and `"autoTrimImages transformAttributes"`.

Returns
Nothing.

Description
Creates a bounding quadrangle based on percentages of an arbitrary square, and then transforms the selection within the 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 6). 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 6).

`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 5). 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 227).

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 5).

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()” on page 139

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:

See also
"dom.enableTextAntiAliasing()" on page 68

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.setTextParaSpacing-Before()` 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 244).

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 6).

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 6). 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.setWebObjectsVisibility()

Availability
Fireworks CS3.

Usage
`dom.setWebObjectsVisibility(value)`

Arguments
`value` A Boolean value that specifies the visibility of web objects. If the value is `true`, the web objects are visible. If the value is `false` the web objects are hidden.

Returns
Nothing.

Description
Sets the visibility of web objects on the current page.

dom.shareLayerToPages()

Availability
Fireworks CS3.

Usage
`dom.shareWebLayerToPages(layerNum, addToPages, deleteFromPages)`

Arguments
`layerNum` A long value that indicates the layer number for the layer that is to be shared across pages.

`addToPages` A comma-separated string value that specifies the names of all pages that are adding the specified layer.

`deleteFromPages` A comma-separated string value that specifies the names of all pages that are removing the specified layer.

Returns
Nothing.

Description
Shares or removes a specified foreground layer for specified pages.

dom.shareWebLayerToPages()

Availability
Fireworks CS3.

Usage
`dom.shareWebLayerToPages(`*`layerNum, addToPages, deleteFromPages`*`)`

Arguments
`layerNum` A long value that indicates the layer number for the web layer that is to be shared across pages.

`addToPages` A comma-separated string value that specifies the names of all pages that are adding the specified layer.

`deleteFromPages` A comma-separated string value that specifies the names of all pages that are removing the specified layer.

Returns
Nothing.

Description
Shares or removes a specified web layer for specified pages.

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()" on page 79

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, updated in Fireworks 4.

Usage
`dom.transformSelection(`*`matrix, options`*`)`

Arguments
`matrix` A three-by-three transformation matrix (see “Matrix data type” on page 6).

`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 able to be undone; 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 cause an action to be executed that cannot be undone.

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()" on page 78

dom.unsetMasterPage()

Availability

Fireworks CS3.

Usage

`dom.unsetMasterPage()`

Arguments

None

Returns

Nothing.

Description

Resets the document’s master page. Makes the current master page into a normal page. For example:

```
fw.getDocumentDOM().unsetMasterPage()
```

Chapter 4: 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 5.*

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

Property	Data type	Notes
`activeTool`	string	The active tool in the application.
`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 CS3"`). This attribute is part of the common API, so it also appears as `app.appName` (as implemented in Adobe 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`.
`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.

Property	Data type	Notes
`dialogs•`	object	Provides access to an instance of the Dialogs class, which opens specific dialog boxes.
`dismissBatchDialogWhen-Done`	Boolean	If set to `true`, Fireworks will automatically close the Batch Process dialog box when the script finishes. This function has no effect if the Batch Process dialog box does not appear.
`documentList•`	array	Array of the current open Document objects (for more information, see "The Document object" on page 20). If no document is open, it returns an array of length zero.
`documents•`	array	Array of the current open Document objects (for more information, see "The Document object" on page 20). 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 pixels, the predecessor/successor is `100*fw.ellipseBCPConst` pixels away from the point itself.
`errorReportingOK`	Boolean	If set to `true`, Fireworks will allow posting an error while a script is running .
`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.
`getEndBackgroundColor•`	color	Returns the end color for the background gradient. This function is only useful for the Windows platform.
`getStartBackgroundColor•`	color	Returns the start color for the background gradient. This function is only useful for the Windows platform.
`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 297.
`isConnectedToInternet`	integer	Returns whether the operating system is connected to the Internet. The Start Page has a dynamic content panel that loads content from the Internet. The Start Page queries this property before attempting to download the dynamic content.
`mruRecentFilesList•`	array	Array of recent open files. If there are no open files, returns an array length of zero.
`mruRecentFileNames•`	array	Array of recent open file names. If there are no open files, returns an array length of zero.
`platform •`	string	The string `"mac"` if Fireworks is running on the Macintosh, or `"win"` if running on 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.

Property	Data type	Notes
`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.
`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 (for more information, see “ElementMask object” on page 226); otherwise, it returns `null`.
`styles`•	array	Array of the Style object that is currently loaded in the Style panel (for more information, see “Style object” on page 242).
`textInsertionIndex`•	integer	Insertion index into the current active text object. If there is no text selected, returns a value of -1.
`textInsertionLength`•	integer	Insertion length into the current active text object. If there is no text selected, returns a value of -1.
`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.
`userSymbolLibrariesDir`•	string	The path to the user’s Symbol Libraries, which is expressed as 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`).

Fireworks functions

In Fireworks CS3, `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 Adobe 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()" on page 193

fw.closeDocument()

Availability
Fireworks 3.

Usage
`fw.closeDocument(document, {`*`bPromptToSaveChanges`*`})`

Arguments

`document` A Document object that specifies the document to close (see "The Document object" on page 20).

`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 "The Document object" on page 20).

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()" on page 178

fw.createDocumentWithDialog()

Availability

Fireworks MX 2004.

Usage

`fw.createDocumentWithDialog()`

Arguments

None.

Returns

The Document object for the newly created document (see "The Document object" on page 20).

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 6).

`backgroundColor` A color string (see "Color string data type" on page 5).

Returns

The Document object for the newly created document (see "The Document object" on page 20).

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()" on page 177

fw.dialogs.runEditGrids()

Availability

Fireworks 3.

Usage

`fw.dialogs.runEditGrids()`

Arguments

None.

Returns

Opens the Edit Grids dialog box.

fw.dialogs.runEditGuides()

Availability
Fireworks 3.

Usage
```
fw.dialogs.runEditGuides()
```

Arguments
None.

Returns
Opens the Edit Guides dialog box.

fw.dialogs.runNumericTransform()

Availability
Fireworks 3.

Usage
```
fw.dialogs.runNumericTransform()
```

Arguments
None.

Returns
Opens the Numeric Transform dialog box.

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 180. For more information about constructing Flash command panels for Fireworks, see "Flash panels" on page 269.

Note:

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:

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. For information on how to turn off Flash debugging, see “fw.disableFlashDebugging()” on page 179. For more information about constructing Flash command panels for Fireworks, see “Flash panels” on page 269.

***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 Adobe 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 Adobe 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 227). 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 “The Document object” on page 20). 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 “The Document object” on page 20). 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 “The Document object” on page 20). 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 “The Document object” on page 20). 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 “The Document object” on page 20). To export the current document, pass `null`.

`FlashDocumentURL` The name of the Adobe 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 Adobe Flash document.

Example

The Adobe 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()” on page 192

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()” on page 204

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 “The Document object” on page 20).

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 “The Document object” on page 20).

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 6).

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()" on page 204

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()" on page 187

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 Adobe website:

```
fw.launchBrowserTo("http://www.Adobe.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_FreeHand7and 8"`	Adobe 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, updated in Fireworks 4 and Fireworks 8.

Usage
`fw.openDocument({fileURL}, {bOpenAsNew}, bOpenWithWindowHidden)`

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.

`bOpenWithWindowHidden` Boolean. If *`bOpenWithWindowHidden`*, which was added in Fireworks 8, is `true`, and if there is only one document to open, the document will be hidden when opened. If more than one document is being opened, this parameter is ignored. The default value is `false`. This parameter was added to enhance the Batch Process feature.

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()" on page 188

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}` (for syntax details, see "Point data type" on page 6).

`initialColor` The initially selected color in the dialog box, in the form `#rrggbbaa` (for syntax details, see "Color string data type" on page 5).

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 specified color to fall within the web216 panel; set to `true` to force the color change, `false` otherwise.

Returns

The specified color in `#rrggbbaa` format (for syntax details, see "Color string data type" on page 5).

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 5.)

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 specified color in `#rrggbbaa` format (For syntax details, see "Color string data type" on page 5).

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()" on page 196.

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 206, 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-replace 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 /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()" on page 182

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()" on page 182

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()" on page 182

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 /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 6). 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 (such as 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()” on page 191

fw.setUpFindReplace()

Availability
Fireworks 3.

Usage
`fw.setUpFindReplace(`*`findSpec`*`)`

Arguments
`findSpec` A Find object (see “Find object” on page 17).

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 hidden, this function shows it and makes it topmost.
- If the panel is topmost, this function hides it.
- If the panel is shown but is 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 “The Document object” on page 20). 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?");
```

Chapter 5: Objects within Fireworks documents

This chapter 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 4 and “Passing values” on page 4.

Note: *For information on how to format nonstandard data types, such as rectangle or point, see “Formatting nonstandard data types” on page 5.*

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 24.
`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

Property	Data type	Notes
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.
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	

Property	Data type	Notes
`sense_random_opacity`	float	
`sense_random_saturation`	float	
`sense_random_scatter`	float	
`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

Property	Data type	Notes
`tipSpacing`	float	0 to 100
`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 (for more information, see “ContourNode object” on page 211).

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 (for more information, see “ContourNodeDynamicInfo object” on page 212).
`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.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 238.
`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.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 238.
`RegisterCircularMove()`	point	The center point for the circular movement.
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 238.
`RegisterPolygonMove()`	point	The center point for the polygon.
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 238.

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.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see “RegisterMoveParms object” on page 238.
`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.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see “RegisterMoveParms object” on page 238.
`RegisterCircularMove()`	point	The center point for the circular movement.
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see “RegisterMoveParms object” on page 238

Method	Parameter	Definition
`RegisterPolygonMove()`	point	The center point for the polygon.
	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 238.
`RegisterInsertBBox-Move()`	object	The RegisterMoveParms object containing the move parameters. Use `smartShape.GetDefault-MoveParms()` to obtain this object, then adjust properties as needed. For a list of properties, see "RegisterMoveParms object" on page 238.

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

`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` (Bevel-ButtonDown) (for more information, see "Color string data type" on page 5).

Property	Data type	Notes
`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 (for more information, see "Color string data type" on page 5).
`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 (for more information, see "Color string data type" on page 5). Used by beveling only. Currently white is always used for internally created effects (although any value should work). This is the complement of `Shadow-Color`.
`HitBlendColor`	string	A color string that specifies the color that is blended on the face of the image if `ButtonState = 3` (BevelButtonHit) (for more information, see "Color string data type" on page 5).
`LightAngle`	integer	The light angle, in degrees, that is used to create the light and shadow effects for the bevel.
`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 (for more information, see "Color string data type" on page 5).
`ShadowColor`	string	A color string that specifies the color that is blended to provide the bevel shadow effect (for more information, see "Color string data type" on page 5). Currently black is always used for internally created effects (though any value should work). This is the complement of `HiliteColor`.

Property	Data type	Notes
`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
`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`	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.
`red_points`		
`green_points`		
`blue_points`		

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 (for more information, see "Color string data type" on page 5).
`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.

Property	Data type	Notes
`ShadowColor`	string	A color string that specifies the color of the shadow (for more information, see “Color string data type” on page 5).
`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*`	integer	These source* values are all input levels to the filter, with values of 0 to 255.
`source_high_rgb*`		
`source_low_red*`		
`source_high_red*`		
`source_low_green*`		
`source_high_green*`		
`source_low_blue*`		
`source_high_blue*`		

Property	Data type	Notes
`dest_low_rgb`	integer	These dest* values are all output levels to the filter, with values of 0 to 255.
`dest_high_rgb`		
`dest_low_red`		
`dest_high_red`		
`dest_low_green`		
`dest_high_green`		
`dest_low_blue`		
`dest_high_blue`		
`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 (for more information, see "Effect object" on page 214).
`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 (for more information, see "EffectList object" on page 221).
`height` •	float	Read-only in the base class; other properties or API calls are used to resize specific types of elements.
`isLayer`	Boolean	Always false for an element.
`isSmartShape` •	Boolean	Confirms whether the element is an Auto Shape.
`left`	float	Can round to an integer.
`mask`	object	ElementMask object (for more information, see "ElementMask object" on page 226). 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.

Property	Data type	Notes
`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 (for more information, see “Element object” on page 221).

Property	Data type	Notes
`controlPoints •`	array	Array of control points defined for the Auto Shape object.
`elements`	array	Array of Element objects in the group (for more information, see “Element object” on page 221).
`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	Changes an object to the new coordinates after an Auto Shape is transformed (scaled, skewed, or rotated) so that the Auto Shape object contains the new location.
`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 a transformed (scaled, skewed, or rotated) SmartShape object's space into global space. (For more information, see `globalToSmartShape-Coords()` 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 (for more information, see "Element object" on page 221). 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 (for more information, see "Element object" on page 221). 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 (for more information, see “Element object” on page 221).

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 (for more information, see “Behavior object” on page 208).
`color`	string	Color in which the Hotspot is drawn in the Document window. Default value is `"#00FFFF"`.
`contour`	object	Contour object for the Hotspot (for more information, see “Contour object” on page 211). 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 (for more information, see “Hotspot object” on page 224). 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 (for more information, see “ExportOptions object” on page 227); `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.
`sliceKind`	string	If set to `"image"`, generates an image; if set to `"empty"`, generates the text specified by `html-Text`.
`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 (for more information, see "Element object" on page 221).

Property	Data type	Notes
`contours`	array	Array of Contour objects on this Path object (for more information, see "Contour object" on page 211).
`isEvenOddFill`	Boolean	`true` if the path uses an even/odd fill.
`pathAttributes`	object	PathAttrs object (for more information, see "PathAttrs object" on page 236).
`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 (for more information, see "Element object" on page 221).

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 `anti-Aliased` 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`.
`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 (for more information, see "PathAttrs object" on page 236).
`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 (for more information, see "TextRuns object" on page 244).
`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).

Property	Data type	Notes
`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

The Texture object has the following read-only property.

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 (for more information, see "Element object" on page 221).
`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.
`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`.
`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 (for more information, see “ExportFrameInfo object” on page 227); 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`.

Property	Data type	Notes
paletteEntries	array	Array of color strings (for more information, see "Color string data type" on page 5); default value is `null`.
paletteInfo	array	Array of ExportPaletteInfo objects, or `null` if all entries in the array are default values (for more information, see "ExportPaletteInfo object" on page 229); default value is `null`.
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`. For details on using `xSize` and `ySize`, see "ExportOptions object" on page 227.
ySize	integer	-100,000 to 100,000; default value is `0`. For details on using `xSize` and `ySize`, see "ExportOptions object" on page 227.

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`.

Property	Data type	Notes
`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.
`discardUnspecified-Slices`	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"`
		`"Adobe Flash SWF"`
		`"Illustrator"`
		`"Photoshop"`

`fileExtension`	string	Defines the extension to append to the filename.

Property	Data type	Notes
`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, Fire-works 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 5).
`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 235).
`name`	string	The name that appears in the Fill panel.
`pattern`	object	Pattern object (see “Pattern object” on page 237).

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 234).
`topLayers`	array	Array of top layers returned as FrameNLayerIntersection objects.
`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 221).

Property	Data type	Notes
`elemsandsublayers`	array	Array of elements and sublayers obtained from topLayers.
`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 235).
`opacityNodes`	array	Array of GradientNode objects (see “GradientNode object” on page 235), 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 5).
`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 5).
`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.
`elems`	array	Array of elements inside a layer which also include sublayers.
`frames` •	array	An array of FrameNLayerIntersection objects (see “FrameNLayerIntersection object” on page 234).
`isLayer`	Boolean	Always true for a layer.
`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 208).
`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 5).
`brushPlacement`	string	Acceptable values are `"inside"`, `"center"`, and `"outside"`.

Property	Data type	Notes
`brushTexture`	object	Texture object (see "Texture object" on page 226).
`fill`	object	Fill object (see "Fill object" on page 233).
`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 5).
`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 226).

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 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 6). 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 6).
`pathAttributes`	object	A PathAttrs object that indicates the path attributes of the primitive (see "PathAttrs object" on page 236).

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 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 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"`.
`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.

Property	Data type	Notes
`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.
`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 referenced 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.

Property	Data type	Notes
`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"`, `"ctrlCm-dKey"`, `"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.
`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 243).
`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. Read-only properties are marked with a bullet (•).

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 278.

Property	Data type	Notes
`mouseDownPos` •	point	Location of the mouse during a mouse click.
`operation` •	string	Message received from Fireworks, see “Fireworks messages” on page 278 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 221).
`name`	string	The name displayed in the Style panel.
`pathAttributes`	object	PathAttrs object (see “PathAttrs object” on page 236).
`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`.

Property (read-only)	Data type	Notes
`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`.
`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 5).

Property	Data type	Notes
`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.
`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 243).
`textRuns`	array	Array of SingleTextRun objects on this TextRuns object (see “SingleTextRun object” on page 241).

Widget object

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

Property	**Data type**	**Notes**
`element.visible`	Boolean	Set the visibility of an element to true or false.
`element.opacity`	integer	Sets the opacity of an element.
`element.pathattrs.brushColor`	string	A color string that specifies the brush color for the path attributes of the primitive (see “Color string data type” on page 5 and “PathAttrs object” on page 236).
`element.pathattrs.brush.diameter`	long	A value that specifies the brush diameter for the path attributes of the primitive (see “PathAttrs object” on page 236).
`element.pathattrs.fillColor`	string	A color string that specifies the fill color for the path attributes of the primitive (see “Color string data type” on page 5 and “PathAttrs object” on page 236).
`element.pathattrs.fill.feather`	long	A value that specifies the fill feather attribute for the path attributes of the primitive (see “PathAttrs object” on page 236).
`element.pathattrs.fill.gradient.nodes`	object	A GradientNode object (see “GradientNode object” on page 235).
`element.pathattrs.fill.gradient.opacityNodes`	object	A GradientNode object (see “GradientNode object” on page 235), that identifies the opacity ramp associated with a gradient.
`element.pathattrs.fill.gradient.color`	string	A color string that specifies the color at the specified position in the gradient (see “Color string data type” on page 5).
`element.pathattrs.fill.gradient.position`	integer	A value that specifies a position within the gradient fill.
`element.pathattrs.fill.gradient.isOpacityNode`	Boolean	If set to `true`, this node is part of the gradient’s opacity ramp.
`text.textChars`	string	A string containing the text characters.
`text.italic`	Boolean	Set to `true` for italic text, `false` for normal text.
`text.underline`	Boolean	Set to `true` for underlined text, `false` for normal text.
`text.bold`	Boolean	Set to `true` for bold text, `false` for normal text.
`text.font`	String	The name of the font, such as Arial.
`text.fontsize`	integer	The size of the font in points, such as 10.
`text.alignment`	string	Acceptable values are `"left"`, `"center"`, `"right"`, `"justify"`, and `"stretch"`.

The following table lists a method of the Widget object, along with its parameters.

Method	Parameter	Definition
`GetObjectByName()`	`elemName`	The `elemName` value specifies the element name for the object as it is specified in the Layers panel. This method returns the JavaScript type for the specified element name. For example: `var bound_rect = Widget.GetObjectByName(elemName);`

Chapter 6: 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 5.*

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;`

`behaviorText`	string	For roundtrip HTML from Dreamweaver, the JavaScript behaviors that don't have an equivalent in Fireworks.
`borderColor`	string	If `action` is set to 9 (Popup Menu), specifies the border color of the menu in hexidecimal.
`borderSize`	integer	If `action` is set to 9 (Popup Menu), specifies the size of the menu border in points.
`cellOverColor`	string	If `action` is set to 9 (Popup Menu), specifies the cell color for the Over state.
`cellUpColor`	string	If `action` is set to 9 (Popup Menu), specifies the cell color for the Up state.

Property (read-only)	Data type	Notes
`creationDate`	date	Specifies the date the document was created.
`dhHref`	string	If `action` is set to 6 (Button Highlight), specifies the URL of the highlight image used for the Down button state.
`dhTargetFrame`	integer	If `action` is set to 6 (Button Highlight), specifies the target frame number for the down highlight state.
`downHighlight`	Boolean	If `action` is set to 6 (Button Highlight), specifies if there is an image highlight for the Down button state.
`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;`
`hasDhTargetFrame`	Boolean	If `action` is set to 6 (Button Highlight), specifies if the highlight image for the Down button state has a target frame.
`hasDhHRef`	Boolean	If `action` is set to 6 (Button Highlight), specifies if the highlight image for the Down button state has an href.
`hasHref`	Boolean	If `action` is set to 2 (Swap Image), specifies if an external file is swapped in. The value of `hasHref` is always the opposite of `hasTargetFrame`; you cannot swap from two sources.
`hasStatusText`	Boolean	If `action` is set to 1 (Status Message), `specifies` if the status text is not empty.
`hasTargetFrame`	Boolean	If `action` is set to 2 (Swap Image), specifies if the swap image swaps is in another frame in the Fireworks file. The value of `hasTargetFrame` is always the opposite of `hasHref`; you cannot swap from two sources.
`hideOnMouseout`	Boolean	If `action` is set to 9 (Popup Menu), specifies if the menu is hidden on a Mouse Out event.
`horzOffset`	integer	If `action` is set to 9 (Popup Menu), `horzOffset` specifies the horizontal pixel offset for the menu.
`href`	string	If `action` is set to 2 (Swap Image), specifies the file URL for an external swap image file. Value is expressed as *file://URL*.
hiliteColor	string	If `action` is set to 9 (Popup Menu), specifies the highlight color at the upper-left of the menu cells.
`menuFontFamily`	string	If `action` is set to 9 (Popup Menu), specifies the name of the font family to use for the menu.
`menuHeight`	integer	If `action` is set to 9 (Popup Menu), specifies the height in points of the menu cell.

Property (read-only)	Data type	Notes
`menuImagePath`	string	If `action` is set to 9 (Popup Menu), specifies the path to the first image.
`menuImagePath2`	string	If `action` is set to 9 (Popup Menu), specifies the path to the second image.
`menuItems`	array	If `action` is set to 9 (Popup Menu), specifies an array that lists the items in the menu.
`menuItemPadding`	integer	If `action` is set to 9 (Popup Menu), specifies the cell padding for the menu items.
`menuItemSpacing`	integer	If `action` is set to 9 (Popup Menu), specifies the spacing between menu items in points.
`menuWidth`	integer	If `action` is set to 9 (Popup Menu), specifies the width in points of the menu cell.
`opaqueBackground`	Boolean	If `action` is set to 9 (Popup Menu), specifies if the menu cell background is opaque.
`preload`	Boolean	If `action` is set to 2 (Swap Image), specifies if the image is to be preloaded.
`restoreOnMouseout`	Boolean	If `action` is set to 2 (Swap Image), specifies if the original image is restored on mouse out.
`shadowColor`	string	If `action` is set to 9 (Popup Menu), specifies the shadow color at the lower-right of the menu cells.
`statusText`	string	If `action` is set to 1 (Status Message), specifies the status message text.
`targetColumnNum`	zero-based index	If `action` is set to 2 (Swap Image), specifies the column in the slices table that is swapped.
`targetFrameNum`	zero-based index	If `action` is set to 2 (Swap Image), specifies the frame number to be swapped if `hasTargetFrame` is set to `true`.
`targetRowNum`	zero-based index	If `action` is set to 2 (Swap Image), specifies the row in the slices table that is swapped.
`targetTable`	object	If `action` is set to 2 (Swap Image), specifies the table of slices in the target swap frame.
`textAlignment`	string	If `action` is set to 9 (Popup Menu), specifies the alignment for the menu text. Acceptable values are `"left"`, `"center"`, and `"right"`.
`textBold`	Boolean	If `action` is set to 9 (Popup Menu), `true` if the menu text is bold.
`textFamily`	string	If `action` is set to 9 (Popup Menu), specifies the font family to use for the menu text.
`textIndent`	integer	If `action` is set to 9 (Popup Menu), specifies the left indent in points of the menu text.
`textItalic`	Boolean	If `action` is set to 9 (Popup Menu), `true` if the menu text is italic.
`textOnly`	Boolean	If `action` is set to 9 (Popup Menu), `true` if the pop-up menu is to be text only.

Property (read-only)	Data type	Notes
`textOverColor`	string	If `action` is set to 9 (Popup Menu), specifies the menu text color for the over state.
`textSize`	integer	If `action` is set to 9 (Popup Menu), specifies the point size for the menu text.
`textUpColor`	string	If `action` is set to 9 (Popup Menu), specifies the menu text color for the Up state.
`vertical`	Boolean	If `action` is set to 9 (Popup Menu), specifies whether the menu is vertical.
`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 247). 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 247).

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.

Property (read-only)	Data type	Notes
`backgroundLink`	string	The background URL, which is expressed as *file://URL*.
`cssPopupMenus`	Boolean	If this value is `true`, Fireworks will output combined CSS/JavaScript pop-up menus; if `false`, Fireworks outputs JavaScript-only pop-up menus.
`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 5).
`emptyCellContents`	integer	Specifies what to put into empty cells. Acceptable values are 1 (nothing), 2 (spacer image), and 3 (nonbreaking space).
`emptyCellUsesCanvas-Color`	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.
`externalCSS`	Boolean	If set to `true`, Fireworks will output an external CSS file.
`externalCSSFileName`	string	The name of the external CSS file.
`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"`.
`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"`.

Property (read-only)	Data type	Notes
`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"`.
`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 250).
`hasAltText`	Boolean	Set to `true` if the slice has an alternate text description.
`hasHref`	Boolean	Set to `true` if the slice has a URL.

Property (read-only) or Method	Data type	Notes
`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.

`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 252). 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.

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 250).
`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.
`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 253).
`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 255). 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 253). 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"`.

Chapter 7: Cross-Product Extensions

Cross-product extensions include any Fireworks-related extensions developed for, or in, another Adobe application. These cross-product extensions include those written for other tools, such as Adobe Dreamweaver that use existing Fireworks functionality. They may use JavaScript APIs for adding image-editing functionality to those applications as well as custom Fireworks panels developed in Adobe Flash 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

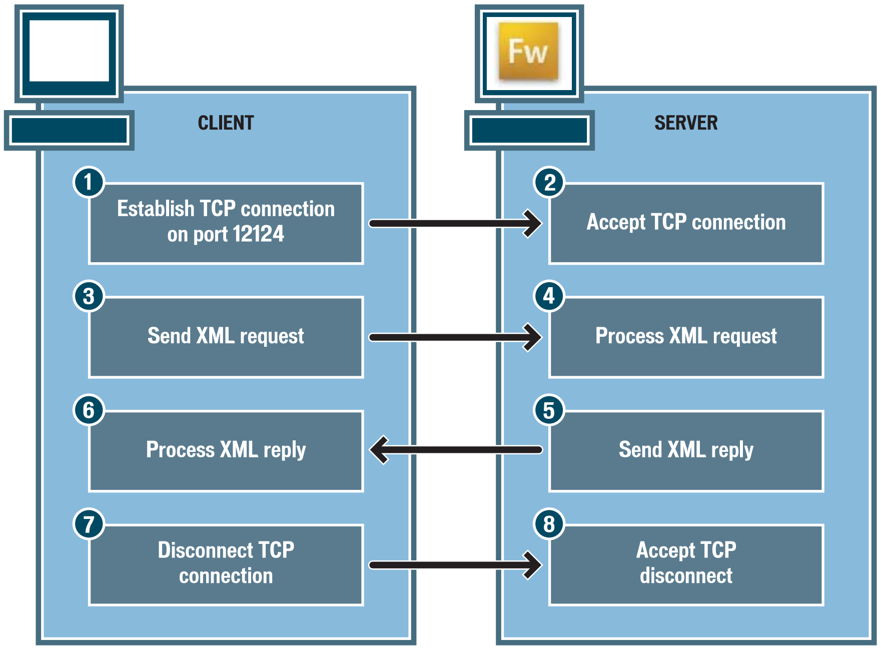
The Fireworks cross-product communication architecture provides a new way for extension developers to create Fireworks-related features for other applications. With this new architecture, your extensions allow a user to perform common image-editing operations (cropping, rotating, adjusting color, blurring,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

XML and remote procedure calls

Applications written with Flash ActionScript 2.0 or C++ applications can control Fireworks by sending JavaScript instructions, called *remote procedure calls* (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 computer 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.

***Note:** Fireworks excludes functionality related to starting other applications or manipulating non-Fireworks related files (for more information, see "Security" on page 110).*

Fireworks RPC transactions pass XML between an RPC client and the Fireworks RPC server built in to Fireworks. 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 (the TCP resubmission timeout is 30 seconds). However, only one XML request can be outstanding at a time. In other words, the RPC client cannot send a second request until it receives a reply to the first request, because there is no queueing mechanism to hold pending requests.*

RPC client XML requests

The XML request contains the following 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 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 the following four types of requests, specified in the XML tag name of the envelope:

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

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

- 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 the following 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>
  ```

- 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" />
  ```

- 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. In the following 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 can be reused 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 the following 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" 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" is the SmartShape Object ID. This object id references the global JavaScript variable `smartShape` and is used to create an manipulate Auto Shapes.

"Document" 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" 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.
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.

Data type	Node name	Example	Description
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.
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.
8	Security violation. The method is not allowed in RPC.

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 Adobe. Client stubs generated by Adobe know about all methods and properties of every class accessible through RPC. These stubs are available for download at the Adobe website: www.adobe.com/go/fireworks_documentation.

Generating stubs for nonstandard client types

If the client is not written in one of the languages for which Adobe provides a client RPC library, the client implementer must create or generate the stubs. For information about how to do this, see "The Fireworks Object Model" on page 4. The application object (with object ID fw) is of the `Fireworks` class (for other objects with reserved IDs, see "Object IDs" on page 259). 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. "The Fireworks Object Model" on page 4 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.
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.

DOM data type	RPC data type	Example	Description
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.
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 computer as the RPC server and must connect to that computer 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 14 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 266 and “Accessing proxy objects” on page 267. These functions are defined in the supporting RPCMethods.as stubs file available for download from the Adobe website at www.adobe.com/go/fireworks_documentation.

***Note:** ActionScript remote procedure calls for Fireworks are not ActionScript 1 compatible, and must be written in ActionScript 2.0 (using Flash MX 2004 or later).*

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 release 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 clicked.

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 Adobe website, you need to put them in your working directory (where the new FLA file will reside).

2 Open a new document in Flash.

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 clicked:

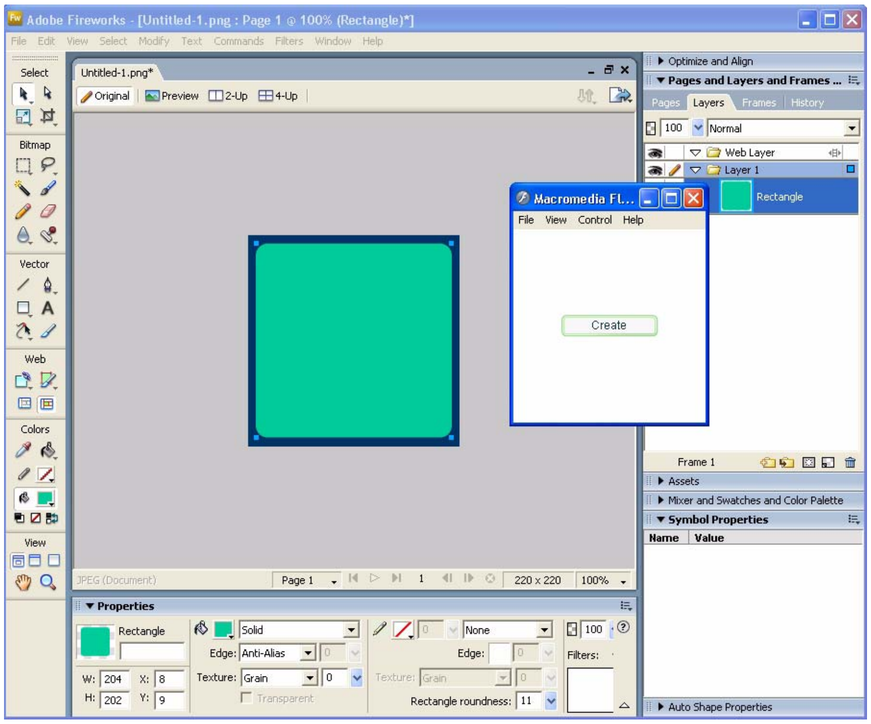
```
on(press){

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 200 x 200 pixel green rectangle in Fireworks:


Adobe Fireworks - [Untitled-1.png : Page 1 @ 100% (Rectangle)*]
File Edit View Select Modify Text Commands Filters Window Help
Untitled-1.png*
Original Preview 2-Up 4-Up
Macromedia Fl...
File View Control Help
Create
Pages and Layers and Frames
Pages Layers Frames History
Web Layer
Layer 1
Rectangle
Frame 1
Assets
Mixer and Swatches and Color Palette
Symbol Properties
Properties
Rectangle
Auto Shape Properties

Flash panels

Fireworks contains Adobe Flash Player, which plays Shockwave files as panels and commands in the Fireworks interface. You can also add a Adobe API wrapper extension to Adobe Flash for creating Shockwave files that communicate with the Fireworks API. By leveraging the new API communication between Adobe 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

Adobe 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 Adobe Flash (download the API wrapper from the Adobe website at www.adobe.com/go/fireworks_documentation). You can construct these Adobe 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 installation directory, Configuration\Command Panels folder, 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 folder 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 Adobe Flash Player, which is distributed with Fireworks.

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 Adobe 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 Adobe 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 Adobe Extension Manager installed and double-click the Extension file. In Adobe 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 files

You can simplify the editing task by keeping a separate ActionScript 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 ActionScript file) to ensure that the ActionScript strings are complied at publishing time.

***Note:** The FLA and ActionScript files should reside in the same folder so that the ActionScript 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.
onFwIdle0	Sent when Fireworks is in the first of a sequence of idle states. Because Fireworks may often go through a sequence of idle states, triggering functions by this event may impair application performance.
onFwIdle1	Sent when Fireworks is in the second of a sequence of idle states. Because Fireworks may often go through a sequence of idle states, triggering functions by this event may impair application performance.
onFwIdle2	Sent when Fireworks is in the third of a sequence of idle states. Because Fireworks may often go through a sequence of idle states, triggering functions by this event may impair application performance.
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.

Event	Description
onFwDocumentOpen	Sent when the document is opened.
onFwDocumentClosed	Sent when the document is closed.
onFwDocumentSave	Sent when a `save` action is performed in the document.
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 read only 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 Adobe Flash. 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 (for more information, see “fw.enable-FlashDebugging()” on page 180 and “fw.disableFlashDebugging()” on page 179). 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 Adobe 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 8: Auto Shapes

Auto Shapes are vector objects that contain information about how the user can interact with them on the screen. Auto Shapes appear in the Adobe Fireworks user interface as “Auto Shapes” but are programmatically called smart-Shape 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. You can also find articles about using autoshapes on the Fireworks Developer Center at www.adobe.com/go/fireworks_devnet.

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 (for more information, see “Handling the user interaction” on page 278), define the properties of the Auto Shape, and provide supporting functionality (such as adding other shape objects or performing calculations) as the user manipulates the Auto Shape. 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 (for more information, see “SmartShape object” on page 241).

Auto Shapes comprise 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 (for more information, see “Handling the user interaction” on page 278).

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 211). You can write a “helper” function to simplify the code and assign ContourNode properties, as shown in the following example:

```
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`). For more information, see “SmartShape object” on page 241.

- `"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`). For more information, see “SmartShape object” on page 241.

- `"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 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 241.
`EndDragInsert()`	This function is called on a mouse-up event after a drag operation.

Function	Description

`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; for more information about how to get the properties of a smartShape object, see "ContourNode object" on page 211), 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 278. 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

Because 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 tool tips, 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 “Additional Fireworks Functions” on page 294 and the “The Fireworks Object Model” on page 4.

Chapter 9: Rich symbols

Rich symbols allow you to create graphic symbols that can be intelligently scaled and given specific attributes using a JavaScript (JSF) file. Quickly mock up a user interface by dragging these symbols on to the document and editing the parameters associated with them using the Symbol Properties panel.

Beginning with Fireworks CS3, you can also export common library assets as known components for use in Adobe Flex™ Builder.™ The MXML export feature allows you to create a Flex application layout in Fireworks, leveraging Flex common library assets as MXML for loading into Flex Builder.

How Rich symbols work

When a symbol is saved as a rich symbol, a PNG file is saved by default in the <user settings>\Application Data\Adobe\Fireworks 9\Common Library\Custom Symbols folder (Windows), or <user name>/Application Support/Adobe/Fireworks9/Common Library/Custom Symbols (Macintosh).

To create a rich symbol, a JavaScript file must be created and saved with a .JSF extension in the same location and with the same name as the symbol. For example, mybutton.graphic.png would have a JavaScript file named mybutton.jsf.

The Create Symbol Script panel allows non-programmers to assign some simple symbol attributes and create the JavaScript file automatically. To open this panel, select Create Symbol Script from the Commands menu.

The JavaScript file

Two functions in the JavaScript file must be defined in order to add editable parameters to the symbol:

- `function setDefaultValues()` –defines the parameters that can be edited and the default values of these parameters.
- `function applyCurrentValues()` –applies the values entered through the Symbol Properties panel to the graphic symbol.

The following is a sample .JSF file for creating a custom symbol:

```
function setDefaultValues()
{
    var currValues = new Array();
//to build symbol properties
    currValues.push({name:"Selected", value:"true", type:"Boolean"});
    Widget.elem.customData["currentValues"] = currValues;
}
```

```
function applyCurrentValues()
{
    var currValues = Widget.elem.customData["currentValues"];
// Get symbol object name
    var Check = Widget.GetObjectByName("Check");
    Check.visible = currValues[0].value;
}
switch (Widget.opCode)
{
    case 1: setDefaultValues(); break;
    case 2: applyCurrentValues(); break;
    default: break;
}
```

This sample JavaScript shows a rich symbol that can change colors:

```
function setDefaultValues()
{
    var currValues = new Array();
//Name is the Parameter name that will be displayed in the Symbol Properties Panel
//Value is the default Value that is displayed when Rich symbol loads first time. In this
case, Blue will be the default color when the Rich symbol is used.
//Color is the Type of Parameter that is displayed. Color will invoke the Color Popup box
in the Symbol Properties Panel.
    currValues.push({name:"BG Color", value:"#003366", type:"Color"});
    Widget.elem.customData["currentValues"] = currValues;

}

function applyCurrentValues()
{
    var currValues = Widget.elem.customData["currentValues"];
//color_bg is the Layer name in the PNG that will change colors
    var color_bg = Widget.GetObjectByName("color_bg");
    color_bg.pathAttributes.fillColor = currValues[0].value;
}

switch (Widget.opCode)
{
    case 1: setDefaultValues(); break;
    case 2: applyCurrentValues(); break;
    default: break;
}
```

To better understand how the .JSF file can be used to customize symbol properties, explore the sample components that have been included with the software.

Supported attributes for rich symbols

The following attributes are available in the Create Symbol Script panel (Commands > Create Symbol Script) for customizing rich symbols.

Attributes	Type
element.left	integer
element.width	integer
element.height	integer
element.pixelRect	rect(left,top,roght,bottom)
element.visible	boolean
element.opacity	integer
element.blendmode	string
element.effectList	object
element.name	string
element.mask	object
element.pathattrs.burshColor	color
element.pathattrs.fillColor	color
element.pathattrs.brush	object
element.pathattrs.fill	object
element.pathattrs.brushTexture	object
element.pathattrs.fillTexture	object
element.pathattrs.fillHandle1	point
element.pathattrs.fillHandle2	point
element.pathattrs.fillHandle3	point
element.pathattrs.setDefaultFillHandles	point
element.pathattrs.brushPlacement	string
element.pathattrs.fillOnTop	boolean
element.pathattrs.pathattributes	object
element.pathattrs.randSeed	object
element.pathattrs.textureOffset	point
element.pathattrs.contours	object
element.pathattrs.isEvenOddFill	boolean
element.pathattrs.fill.category	string
element.pathattrs.fill.name	string
element.pathattrs.fill.textureBlend	integer
element.pathattrs.fill.stampingMode	string
element.pathattrs.fill.edgeType	string
element.pathattrs.fill.feather	long

Attributes	Type
element.pathattrs.fill.ditherColors	object
element.pathattrs.fill.webDitherTransparent	boolean
element.pathattrs.fill.shape	string
element.pathattrs.fill.gradient	object
element.pathattrs.fill.pattern	object
element.pathattrs.fill.gradient.name	string
element.pathattrs.fill.gradient.nodes	object
element.pathattrs.fill.gradient.opacityNodes	object
element.pathattrs.fill.gradient.color	color
element.pathattrs.fill.gradient.position	integer
element.pathattrs.fill.gradient.isOpacityNode	boolean
element.pathattrs.fill.pattern.name	string
element.pathattrs.fill.pattern.image	object
element.pathattrs.brush.category	string
element.pathattrs.brush.name	string
element.pathattrs.brush.angle	long
element.pathattrs.brush.aspect	integer
element.pathattrs.brush.diameter	long
element.pathattrs.brush.maxCount	long
element.pathattrs.brush.minSize	integer
element.pathattrs.brush.softness	?
element.pathattrs.brush.softenMode	string
element.pathattrs.brush.shape	string
element.pathattrs.brush.blackness	integer
element.pathattrs.brush.concentration	integer
element.pathattrs.brush.alphaRemap	string
element.pathattrs.brush.type	string
element.pathattrs.brush.feedback	string
element.pathattrs.brush.flowRate	integer
element.pathattrs.brush.tipCount	long
element.pathattrs.brush.antiAliased	boolean
element.pathattrs.brush.spacing	integer
element.pathattrs.brush.textureBlend	integer

Attributes	Type
element.pathattrs.brush.textureEdge	integer
element.pathattrs.brush.tipSpacing	integer
element.pathattrs.brush.tipSpacingMode	string
element.pathattrs.brush.tipColoringMode	string
element.pathattrs.brush.numDashes	long
element.pathattrs.brush.dashOnSize1	long
element.pathattrs.brush.dashOffSize1	long
element.pathattrs.brush.dashOnSize2	long
element.pathattrs.brush.dashOffSize2	long
element.pathattrs.brush.dashOnSize3	long
element.pathattrs.brush.minSize	integer
element.pathattrs.brush.dashOffSize3	long
element.pathattrs.mask.element	object
element.pathattrs.mask.owner	object
element.pathattrs.mask.linkled	boolean
element.pathattrs.mask.enabled	boolean
element.pathattrs.mask.mode	string
element.pathattrs.mask.showAttrs	boolean
element.pathattrs.mask.autoExpandImages	boolean
rect.roundness	integer
rect.pathAttributes	integer
rect.originalSides	integer
rect.transform	matrix
text.antiAliased	boolean
text.antiAliasMode	string
text.autoKern	boolean
text.orientation	string
text.pathAttributes	object
text.randSeed	argLong
text.textChars	string
text.textureOffset	point
text.transformMode	string
text.rawTop	integer

Attributes	Type
text.rawLeft	integer
text.rawWidth	integer
text.rawHeight	integer
text.autoExpand	boolean
text.italic	boolean
text.underline	boolean
text.bold	boolean
text.justify	string
text.font	string
text.fontsize	integer
text.alignment	string

MXML Export

The Flex application framework consists of MXML, ActionScript 3.0, and the Flex class library. Developers use MXML to declaratively define the application user interface elements and use ActionScript for client logic and procedural control. Developers write MXML and ActionScript source code using the Adobe Flex Builder™ IDE or a standard text editor.

MXML is the XML-based language that developers use to lay out components in Flex applications. It provides a declarative approach to controlling an application's visual appearance. Using MXML, developers can position components and specify constraints to enable a more “liquid” user interface. Developers can also use View States and Transitions to control how the application should respond to different user actions and application events.

Using Fireworks, you can export Flex code (MXML) in order to easily create a Flex application layout in Fireworks, leveraging Flex common library assets, and export it as MXML for loading into Flex Builder.

To export MXML data

1 Choose File > Export.

2 Choose MXML and Images in the Export pop-up menu.

3 Select the Put images in subfolder option if you want to save the images in a separate folder from the MXML code.

4 Select the Current page only option to export only the currently selected page.

5 Click Save to complete the export.

Flex Component Definitions for MXML and Images Export

When exporting a Fireworks document with the MXML and Image export, Fireworks checks each element's `customData` property for definitions that dictate how that element should appear in the resulting MXML. If no MXML-related definitions are found, the element is exported as an image. Each Flex component found in the Fireworks common library already has unique `customData` definitions that allow it to be exported as MXML. If you wish to have elements within your document export as their own custom MXML tags you can do so with the following `customData` definitions.

flexClassName

Flex component symbols are associated as being Flex Components by the MXML and Images import through a `customData` property called `flexClassName`.

Format

```
flexClassName = "WhichClass";
```

When this property is present in a Fireworks element, the MXML and Images export process exports the element as a specific MXML tag and not as an image. Its value indicates the tag name of the MXML class generated.

Example

```
element.customData["flexClassName"] = "ComboBox";
```

The above line indicates that the element object is a Flex component whose MXML class is ComboBox. For rich symbols this code should be placed within the `setDefaultValues` block of code (`Widget.opCode == 1`) that initially defines the rich symbol.

Example

```
function setDefaultValues() {
    Widget.elem.customData["flexClassName"] = "ComboBox";
    // additional code...
}

switch (Widget.opCode) {
    case 1: setDefaultValues();  break;
    // additional code...
}
```

All Flex widgets provided with Fireworks already have this property defined. The class name used determines the behavior of each of those components as determined internally within the MXML and Images export.

When you create a custom rich symbol, you must define the `flexClassName` property if you want the MXML and Images export to treat the rich symbol as an MXML tag and not an exported image. The class name you decide to use will be used in the resulting MXML tag. For example, if you defined `flexClassName` as "Foo" the resulting MXML tag is `<mx:Foo … />`.

flexClassDefinition

In addition to the `flexClassName` property, there is an additional, optional `customData` property `flexClassDef-inition`, which can be used to further influence the resulting MXML export.

Format

```
flexClassDefinition = classDefinitionObject;
```

Example

```
classDefinition = new Object();
element.customData["flexClassDefinition"] = classDefinition;
```

A `flexClassDefinition` object includes any number of the following properties, all of which are themselves optional.

margin

Rectangle. Defines the area around the element that is not part of the Flex component shape but takes up space in Fireworks (for example, the Panel component in Flex has a drop shadow that is not included as part of the panel's size in Flex but is included when recreated in Fireworks). It consists of four integer properties measured in pixels: top, right, bottom, and left.

Example

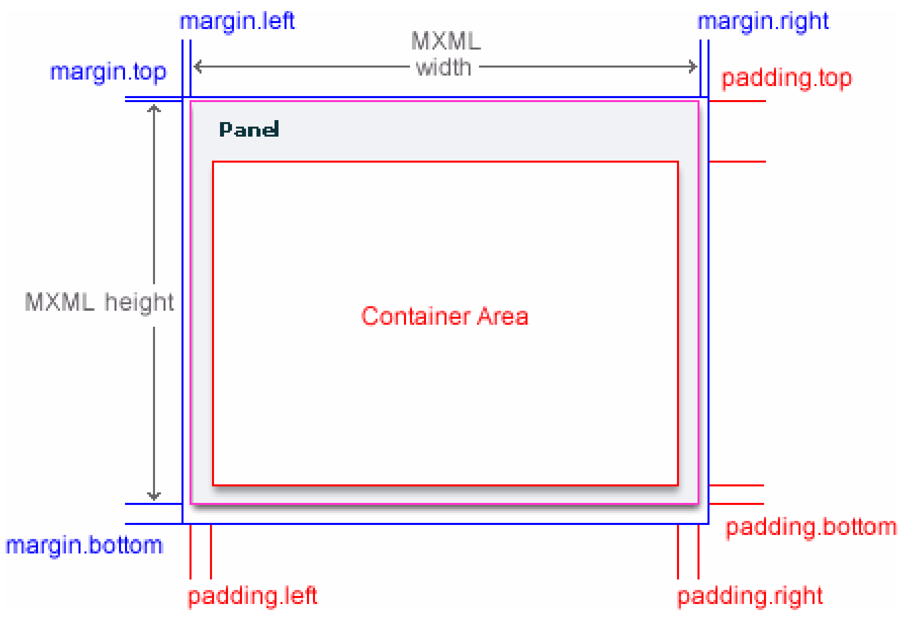
```
margin = {top:5, right:5, bottom:5, left:5};
```

padding

Rectangle. Defines the area within the element that determines if another element can be seen as being a child of that element. If defined, any other element whose bounds are completely within the area marked by padding and arranged above the current element will be a child element within the resulting MXML. It consists of four integer properties measured in pixels: top, right, bottom, and left; and is calculated after the margin.

Example

```
padding = {top:5, right:5, bottom:5, left:5};
```



Margin and padding relationships in respect to a panel component

sizeOffset

Object. Defines a size offset to apply to the MXML definition of the exported element. It consists of two integer properties, width and height, which are measured in pixels and are added to the MXML width and height attributes. This does not have any affect on margin or padding properties. It simply consists of values that will be added to the final width and height attributes of the MXML tag produced.

Example

```
sizeOffset = {width:10, height:10};
```

customValues

Object. Contains custom name-value pairs that are available to the MXML export but not accessible as visible properties within Fireworks. During export these are translated directly to MXML attributes or styles in combination with any properties defined within `customData currentValues`.

Example

```
customValues = {myNum:10, click:"clickHandler();"};
```

attributeProperties

Array. A list of property names that will become attributes in the exported MXML tag. By default, all rich symbol properties (defined as `currentValues` or `customValues`) are considered attribute properties. By defining this list, you can restrict which properties are used as attributes. Those not provided will not be included as attributes of the resulting MXML tag.

Example

```
attributeProperties = ["label", "enabled"];
```

styleProperties

Array. A list of property names which are to be defined in the CSS style tag for this class. If any of these properties are also attribute properties (implicit or explicit), they will instead become style properties.

Example

```
styleProperties = ["color", "textSelectedColor"];
```

defaultProperties

Array. A list of the names of automatic attribute properties created for the MXML tag. Automatic attributes are those properties which are not listed as `currentValues` or `customValues` but are automatically determined and generated by the MXML export. This includes the following properties:

- `x`: x position of the element on the screen
- `y`: y position of the element on the screen
- `width`: width of the element
- `height`: height of the element
- `alpha`: transparency of the element
- `id`: ID tag (based on the element name)
- `source`: source location of the image for objects exported as images
- `styleName`: reference to the style that applies to this element, if applicable

If this list is not defined, all default properties are added to the attribute list (where applicable). If defined, only those listed will be provided.

***Note:** `defaultProperties` cannot be style properties. Omitting `styleName` from `defaultProperties` will not prevent a style from being created for the object if it has style properties.*

Example

```
defaultProperties = ["x", "y", "width", "height"];
```

namespace

Object. The namespace to be used in the MXML tag. This object should contain one key representing the namespace prefix whose value is the namespace URI. If this is not provided, the default namespace of `mx` is used.

Example

```
namespace = {ns:"http://www.example.com/2007/mxml"};
```

textOnly

String. If defined, this represents the entire MXML output to be used for the export. If this is defined, no other properties need to be set within the definition. Any properties set are ignored.

Example

```
textOnly = "<mx:ColorPicker id=\"cp\" selectedColor=\"#FFFFFF\"/>";
```

ignored

Boolean. If true, the object is completely ignored during export; no MXML is created and no image is exported. If this is set to true, no other properties need to be set within the definition. Any properties set are ignored.

***Note:** The `ignored` property has precedence over `textOnly`.*

Example

```
ignored = true;
```

Example script

The following is an example of a custom symbol script using a custom definition object to determine the output created by the Fireworks MXML and Images export.

```
function setDefaultValues() {
    var currValues = new Array();

    currValues.push({ name:"name",    type:"Text",    value:"star name" });
    currValues.push({ name:"label",   type:"Text",    value:"Star"      });
    currValues.push({ name:"color",   type:"Color",   value:"#FFFFFF"   });
    currValues.push({ name:"enabled", type:"Boolean", value:"true"      });

    Widget.elem.customData["currentValues"] = currValues;

    Widget.elem.customData["flexClassName"] = "Star";
    var classDef = new Object();
    classDef.margin = {top:0, right:3, bottom:10, left:3};
    classDef.padding = {top:30, right:10, bottom:10, left:10};
    classDef.sizeOffset = {width:10, height:0};
    classDef.customValues = {staticValue:"static"};
    classDef.attributeProperties = ["staticValue", "name"];
    classDef.styleProperties = ["color"];
    classDef.defaultProperties = ["x","y","width","height"];
    classDef.namespace = {ns:"http://www.example.com/2007/mxml"};

    Widget.elem.customData["flexClassDefinition"] = classDef;
}

function applyCurrentValues() {
    var vals = Widget.elem.customData["currentValues"];

    Widget.GetObjectByName("label").textChars = vals[1].value;
    Widget.GetObjectByName("label").pathAttributes.fillColor = vals[2].value;
    Widget.GetObjectByName("disabled").visible = !vals[3].value;
}

switch (Widget.opCode) {
    case 1: setDefaultValues();   break;
    case 2: applyCurrentValues(); break;
}
```

A document containing this rich symbol that is exported using the MXML and Images export would result in the following MXML document.

```
<?xml version="1.0" encoding="utf-8"?>
<mx:Application xmlns:mx="http://www.adobe.com/2006/mxml" width="660" height="440"
layout="absolute" backgroundGradientColors="[#FFFFFF]"
xmlns:ns="http://www.example.com/2007/mxml">
    <mx:Style>
        Star {
            color:#FFFFFF;
        }
    </mx:Style>
    <ns:Star x="146" y="120" width="157" height="138" name="star name"
staticValue="static"/>
</mx:Application>
```

With the definition of `flexClassName`, the element in Fireworks exports as a `Star` MXML tag. Notice how the properties defined within `attributeProperties` became attributes and the property (color) defined within `styleProperties` became part of the `Star` style. The only default properties created were those defined in `defaultProperties`; `x`, `y`, `width`, and `height`. Because a namespace was defined, the tag was given the correct prefix and it's URI was defined within the `Application` tag.

In Fireworks, the star in this example was 147 x 138 but exported with a width and height of 157 x 138 in MXML because of `sizeOffset`. Though not apparent in this example, margin and padding would also play a part in how this element is exported.

Chapter 10: Additional Fireworks Functions

This chapter lists additional JavaScript functions supported by Adobe Fireworks that let you 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.

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 6 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.historyPalette.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(`*`array 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.setUn-doState()`. 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()" on page 300

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 /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()" on page 299

Static Document Functions

Fireworks has an older static Document object that has been deprecated in favor of the Document object in the DOM. The static Document object is only accessed by two methods. You can access this API using `document.methodName()`.

document.findExportFormatOptionsByName()

Availability
Fireworks 3.

Usage
`document.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.

document.makeGoodNativeFilePath()

Availability
Fireworks 3.

Usage
`document.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`".

document.makeGoodNativeFilePath("file:///My Documents/image01.png")

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