

Registration, Updates, and Support

Registration

Registering Lightning is quick and easy. Registered users of the latest Lightning release are entitled to prompt, free technical support via Email, and upgrades to all subsequent Lightning minor version updates (major version updates are provided to registered Lightning users for a small update fee).

A number of registration options are available to you:

Registering via Email

To register Lightning via Email, send a message to sales@firehand.com. Be sure to entitle your message "Lightning Registration," and include the following information in the message:

1. Your Visa, Mastercard, or American Express number.
2. Your credit card's expiration date.
3. Your name, as it appears on the credit card.
4. Your billing address where the statement for your credit card is mailed (for verification purposes only).
5. Your Email address.

Your credit card will be charged \$39.95 US and your registration key will be sent to you by return Email within a few hours.

Note that Email orders are processed continuously between 8:00 AM and 11:00 PM Central Time every day (including Saturday, Sunday, and legal US holidays).

Registering on the Web

To register Lightning on the World Wide Web, proceed to <http://www.firehand.com/register>, and then click the "secure registration page" link. Fill out and submit the resulting secure order form.

Your credit card will be charged \$39.95 US, and your registration key will be sent to you via Email within a few hours.

Note that Web orders are processed continuously between 8:00 AM and 11:00 PM Central Time every day (including Saturday, Sunday, and legal US holidays).

Registering by Phone

To register Lightning by telephone, call the Firehand Technologies registration line between 9:00 AM and 5:00 PM, Central Time, Monday through Friday, and speak to a customer service representative. If you're calling from the United States, dial toll-free (800) 227-3064. International callers please dial (918) 488-0588.

Your credit card will be charged \$39.95 US and your registration key will be given to you

immediately.

Registering by FAX

FAX your registration to (918) 488-8030 in the US. Please include the following information in your FAX:

1. Your Visa, Mastercard, or American Express number.
2. Your credit card's expiration date.
3. Your name, as it appears on the credit card.
4. Your billing address where the statement for your credit card is mailed (for verification purposes only).
5. Your telephone and FAX numbers.
6. Your Email address.

Your credit card will be charged \$39.95 US, and your registration key will be sent to you via Email within a few hours.

Note that FAX orders are processed continuously between 8:00 AM and 11:00 PM Central Time every day (including Saturday, Sunday, and legal US holidays).

Registering by Mail

To register Lightning through regular mail, send a money order or a check drawn on a US bank in the amount of \$39.95 US to:

Firehand Technologies Corporation
Attn: Software Registration
8177 S. Harvard, Suite 331
Tulsa, OK 74137
USA

Please include your Email address, if you have one, and your registration key will be sent to you at that address. If you do not include an Email address with your registration submission, your registration key will be sent to you by regular mail.

Note that money order registrations are processed the day they are received. Check registrations are processed immediately upon your funds reaching our bank (generally 5-7 days after we receive your order).

Confidentiality

We respect your privacy. We do not share or sell our mailing lists. All information you submit to us is held in the strictest confidence.

Site Licensing

Deeply discounted site licenses are available for organizations wishing to license multiple copies of Lightning. Please Email sales@firehand.com for pricing or consult <http://www.firehand.com/register>.

Receiving Lightning on diskette with the Lightning User's Guide

Firehand Technologies makes available a printed User's Guide along with a copy of Lightning on diskette for those users who desire these items. The price for US residents is \$15 US; for international users, the price is \$18 US. This price includes handling and first-class mailing.

Product Support

Technical support is offered free of charge to registered Lightning users via Email sent to member@firehand.com. At all times during regular business hours – and more often than not after hours and on weekends – one of our engineers is servicing this Email alias. If you do not receive an immediate answer to your support question, you can expect a response within a few hours.

Contact Information

Inquiries of a non-technical nature should be Emailed to contact@firehand.com. If you prefer, you can also call our offices during regular business hours at (918) 488-0588, or mail your questions or comments to:

Firehand Technologies Corporation
8177 S. Harvard, Suite 331
Tulsa, OK 74137
USA

File Menu: “New”

The “New” command is accessible via Lightning’s File menu. Invoking this command causes any currently-open Lightning file to be closed and a new, empty Lightning file to be created and opened in its place.

File Menu: “Open”

The “File Open” command is accessible via Lightning’s File menu. Invoking this command causes the standard Windows file selection dialog to be displayed, from which you can choose a Firehand Lightning archive (.FLF) file to open. Once an .FLF file is selected, any currently-open Lightning file is closed, and the newly-selected file is opened in its place.

File Menu: “Close”

The “Close” command is accessible via Lightning’s File menu whenever a file is open. Invoking this command causes the open file to be closed and any uncommitted changes to the file to be discarded. A new file can then be created via the *New* command, or an existing file can be opened via the *File Open* command. Note, however, that it is not necessary to close an open file before creating a new file or opening an existing file, since both the *New* command and the *File Open* command implicitly invoke *Close* as part of their operation.

File Menu: “Analyze”

The “Analyze” command is accessible via Lightning’s File menu whenever a file is open. Invoking this command causes Lightning’s file analyzer to be run on the open file.

The file analyzer scans the currently-open file for common authoring mistakes and oversights. If any defects are detected in the file, the analyzer halts and invites you to fix the defect (or offers to fix it for you) before proceeding with the analysis.

For example, one common authoring error when working with Lightning files is to specify image captions, but to fail to specify a caption font. In such a case, Lightning file players will not be able to display the captions you have specified. Though failure to specify a caption font may be intentional – it is a simple way of inhibiting caption display without actually removing captions from the archive – it is probably an oversight. The analyzer detects this condition and alerts you. It then gives you the opportunity to invoke the *Fonts* component to specify a caption font before proceeding with the analysis.

Another common error when authoring a Lightning file is to forget to invoke the *Optimize* command after making content changes to the archive – thus leaving the archive, potentially, much larger than it actually needs to be. The analyzer detects this condition too, and offers to launch the optimizer for you.

Though not essential, it’s a good idea to run the analyzer whenever readying a completed Lightning archive for distribution. Doing so will double-check the file to ensure that it is well-formed and optimally authored.

File Menu: “Optimize”

The “Optimize” command is accessible via Lightning’s File menu whenever a file is open. Invoking this command causes Lightning’s file optimizer to be run on the open file.

The file optimizer does three things: it compacts the current archive (to make it smaller), it optimizes its layout (to improve access performance), and it checks for (and repairs) file system corruption.

The optimizer should at least be run before an archive is exported or distributed. But running the optimizer frequently is a good idea. It is important to note that during authoring, as data is imported into an archive file, rearranged within the file, and deleted from the file, large areas of unused space appear, making the archive much larger on disk than it actually needs to be. Running the optimizer ensures that all dead space is “squeezed out” of the archive. Among other things, this enables you during the authoring process to get a truer picture of the actual size of the file with which you are working.

File Menu: “Save”

The “Save” command is accessible via Lightning’s File menu whenever a file is open and changes have been made to the file which have not been committed. Invoking this command causes uncommitted changes to the currently-open file to be saved. Closing an open Lightning file without saving its uncommitted changes causes those changes to be lost.

File Menu: “Save As”

The “Save As” command is accessible via Lightning’s File menu whenever a file is open. Invoking this command causes the standard Windows “Save As...” dialog to appear, through which you may specify a new target filename for the currently-open Lightning file. When the “Save” button on the “Save As...” dialog is clicked, the currently-open Lightning file and any uncommitted changes are written to the new target. The currently-open file is then closed – discarding any uncommitted changes – and the newly-written file is opened in Lightning.

File Menu (Extract Sub-Menu): “Images”

The “Extract Images” command is accessible via Lightning’s File menu whenever a Lightning archive is open and at least one image preview is selected in Lightning’s Preview Pane. The *Extract Images* command allows you to extract the images associated with the selected previews and export them in JPEG format to a destination directory of your choice.

Invoking the *Extract Images* command causes the Extract Images dialog to be displayed. The Extract Images dialog contains a number of fields that control the behavior of the extraction operation.

The “Destination Directory” field allows you to specify the directory to which you wish to write the extracted images. You can type in a path specification, or click the “Browse...” button and navigate within the resulting folder selection dialog to the desired target directory to select it.

The “Preamble String” field allows you to specify text which will constitute the initial portion of the name of each JPEG file created by the *Extract Images* command.

For example, if you specify “img” as the preamble string for an extraction operation, the first three characters of each file generated by the extraction operation will be “img.”

Selecting the “Construct names from captions” radio button causes that portion of the name of each JPEG file after the preamble string, if any, created by the *Extract Images* command to be constructed from the captions of the selected images in the Lightning file.

For example, if an image in a particular file is to be extracted whose caption is “my black dog,” and the “Construct names from captions” radio button is selected, and no preamble string has been specified, the name of the resulting file will be “my black dog.jpg.”

NOTE: The “Construct names from captions” radio button is available for selection only if all of the images associated with the selected previews have captions.

Selecting the “Construct names from indices” radio button causes that portion of the name of each JPEG file after the preamble string, if any, created by the *Extract Images* command to be constructed from the indices of the selected images in the Lightning file.

For example, if the third image in a particular file is to be extracted, and the “Construct names from indices” radio button is selected, and no preamble string has been specified, the name of the resulting file will be “3.jpg.”

Selecting the “Construct names from sequential numbers starting with:” radio button causes that portion of the name of each JPEG file (after the preamble string, if any)

created by the *Extract Images* command to be constructed from an index into a sequence of numbers beginning with the specified number. (The index into the number sequence used to generate each filename is the same as the associated image's position within the extraction set.)

For example, if the “Construct names from sequential numbers starting with:” radio button is selected, and the number “7” is specified as the starting number for the extraction (and no preamble string has been specified), then the first image in a set extracted from the Lightning file will be named: “7.jpg.” The second image in the extraction set will be named “8.jpg” – regardless of its index in the Lightning file itself – and so forth.

The “Pad and justify numbers” checkbox on the Extract Images dialog affects how the numbers used to generate the names of the extracted files are “aligned” if either the “Construct names from indices” or “Construct names from sequential numbers starting with:” radio button is selected. If the “Pad and justify numbers” checkbox is checked, all numbers are left-padded with zeros and right justified. This ensures that an alphabetical directory listing of extracted files will show the files in the “expected” order.

For example, if the “Pad and justify numbers” checkbox is not checked, and ten images are extracted from an archive, and their names are constructed from sequential numbers starting with 1 (and no preamble string has been specified), the resulting JPEGs will be named “1.jpg” through “10.jpg.” However, when viewing an alphabetical listing of these files, they will be ordered “1.jpg”, “10.jpg”, “2.jpg”, and so forth, through “9.jpg.” To ensure that these files appear in a more “natural” order when viewed alphabetically – ie, with “10.jpg” appearing last in the listing, rather than in the second position – simply check the “Pad and justify numbers” checkbox before extracting the images. The extracted files, then, will bear the names “01.jpg” through “10.jpg” and will appear in an alphabetical listing in precisely the same order as they were generated.

NOTE: When “Construct names from indices” is selected, checking the “Pad and justify numbers” checkbox causes indices used to generate extracted filenames to be padded and justified to the maximum number of digits required for the maximum index in the source archive. In other words, if there are 1000 images in the archive, but only images number 3, 10, and 12 are being extracted, each of the indices used to generate the extracted filenames is justified to four digits (enough digits to represent the number 1000) – not two, though only two digits are required to represent the maximum index that is actually used in any of the extracted filenames. By contrast, when “Construct names from sequential numbers starting with:” is selected, all numbers used to generate extracted filenames are justified to the number of digits actually required by the largest sequential number used in that particular extraction set. For example, if three images are being extracted, and the starting sequential number used in the extracted filenames is 9, all numbers are justified to only two digits (to accommodate the last sequential number used in the extraction set: 11), though there may be 1000 images in the source archive.

Checking the “Overwrite files without prompting” checkbox causes files in the destination directory to be overwritten without a confirmation prompt if their names conflict with the names of the files generated by the extraction operation. If this checkbox is not checked, each file overwrite must be separately authorized via a confirmation dialog that appears when a name conflict is detected by Lightning during the extraction process.

File Menu (Extract Sub-Menu): “Previews”

The “Extract Previews” command is accessible via Lightning’s File menu whenever a Lightning archive is open and at least one preview is selected in Lightning’s Preview Pane. The *Extract Previews* command allows you to extract the previews from the open archive and export them in JPEG format to a destination directory of your choice.

Invoking the *Extract Previews* command causes the Extract Previews dialog to be displayed. The Extract Previews dialog has a number of fields that control the behavior of the extraction operation.

The “Destination Directory” field allows you to specify the directory to which you wish to write the extracted previews. You can type in a path specification, or click the “Browse...” button and navigate within the resulting folder selection dialog to the desired target directory to select it.

The “Preamble String” field allows you to specify text which will constitute the initial portion of the name of each JPEG file created by the *Extract Previews* command.

For example, if you specify “pvue” as the preamble string for an extraction operation, the first three characters of each file generated by the extraction operation will be “pvue.”

Selecting the “Construct names from captions” radio button causes that portion of the name of each JPEG file after the preamble string, if any, created by the *Extract Images* command to be constructed from the associated captions in the Lightning file.

For example, if a preview in a particular file is to be extracted whose associated caption is “my black dog,” and the “Construct names from captions” radio button is selected, and no preamble string has been specified, the name of the resulting file will be “my black dog.jpg.”

NOTE: The “Construct names from captions” radio button is available for selection only if all of the images associated with the selected previews have captions.

Selecting the “Construct names from indices” radio button causes that portion of the name of each JPEG file after the preamble string, if any, created by the *Extract Previews* command to be constructed from the indices of the selected previews in the Lightning file.

For example, if the third preview in a particular file is to be extracted, and the “Construct names from indices” radio button is selected, and no preamble string has been specified, the name of the resulting file will be “3.jpg.”

Selecting the “Construct names from sequential numbers starting with:” radio button causes that portion of the name of each JPEG file (after the preamble string, if any)

created by the *Extract Previews* command to be constructed from an index into a sequence of numbers beginning with the specified number. (The index into the number sequence used to generate each filename is the same as the preview's position within the extraction set.)

For example, if the “Construct names from sequential numbers starting with:” radio button is selected, and the number “7” is specified as the starting number for the extraction (and no preamble string has been specified), then the first preview in a set extracted from the Lightning file will be named: “7.jpg.” The second preview in the extraction set will be named “8.jpg” – regardless of its index in the Lightning file itself – and so forth.

The “Pad and justify numbers” checkbox on the Extract Previews dialog affects how the numbers used to generate the names of the extracted files are “aligned” if either the “Construct names from indices” or “Construct names from sequential numbers starting with:” radio button is selected. If the “Pad and justify numbers” checkbox is checked, all numbers are left-padded with zeros and right justified. This ensures that an alphabetical directory listing of extracted files will show the files in the “expected” order.

For example, if the “Pad and justify numbers” checkbox is not checked, and ten previews are extracted from an archive, and their names are constructed from sequential numbers starting with 1 (and no preamble string has been specified), the resulting JPEGs will be named “1.jpg” through “10.jpg.” However, when viewing an alphabetical listing of these files, they will be ordered “1.jpg”, “10.jpg”, “2.jpg”, and so forth, through “9.jpg.” To ensure that these files appear in a more “natural” order when viewed alphabetically – ie, with “10.jpg” appearing last in the listing, rather than in the second position – simply check the “Pad and justify numbers” checkbox before extracting the previews. The extracted files, then, will bear the names “01.jpg” through “10.jpg” and will appear in an alphabetical listing in precisely the same order as they were generated.

NOTE: When “Construct names from indices” is selected, checking the “Pad and justify numbers” checkbox causes indices used to generate extracted filenames to be padded and justified to the maximum number of digits required for the maximum index in the source archive. In other words, if there are 1000 images/previews in the archive, but only previews number 3, 10, and 12 are being extracted, each of the indices used to generate the extracted filenames is justified to four digits (enough digits to represent the number 1000) – not two, though only two digits are required to represent the maximum index that is actually used in any of the extracted filenames. By contrast, when “Construct names from sequential numbers starting with:” is selected, all numbers used to generate extracted filenames are justified to the number of digits actually required by the largest sequential number used in that particular extraction set. For example, if three previews are being extracted, and the starting sequential number used in the extracted filenames is 9, all numbers are justified to only two digits (to accommodate the last sequential number used in the extraction set: 11), though there may be 1000 images/previews in the source archive.

Checking the “Overwrite files without prompting” checkbox causes files in the destination directory to be overwritten without a confirmation prompt if their names conflict with the names of the files generated by the extraction operation. If this checkbox is not checked, each file overwrite must be separately authorized via a confirmation dialog that appears when a name conflict is detected by Lightning during the extraction process.

File Menu: “Page Setup”

When the “Page Setup” command is invoked from Lightning’s File menu, the standard Windows Page Setup dialog is displayed through which you can specify the paper size and source, orientation, and page margins you wish to use when printing full-sized images and preview contact sheets from Lightning.

File Menu: “Print”

The “Print” command is accessible via Lightning’s File. This command is available when at least one preview is selected in the Preview Pane. When invoked, the Print command displays Lightning’s Print dialog. Lightning’s Print dialog provides a number of fields that control your print job.

The Printer section of the Print dialog provides standard “Name” and “Properties” controls that allow you to configure the printer to be used for the print job.

The Options section of the Print dialog allows you to specify whether captions (if present) are printed with the images or previews, and whether or not each printed page includes a descriptive text header. Check the “Include captions” checkbox to print captions as part of the print job. Check the “Include page header” checkbox to print a text header at the top of each printed page.

The Content section of the Print dialog allows you to select whether full-sized images or previews are printed.

If the “Print previews” radio button is selected, the selected previews themselves (rather than the images from which they are derived) are printed when the print job is sent to the printer. The previews are printed in “contact sheet” format. Lightning derives the “best” layout for the contact sheet based on the size of the previews themselves, the dimensions of the page, and whether or not titles and captions have been included in the print job.

If the “Print images” radio button is selected in the Content section of the Print dialog, the print job outputs the full-sized images associated with the selected previews— one per page – rather than the previews themselves. Select the “Stretch/shrink to fit” checkbox to stretch or shrink each image to best fit the page on which it is printed (within the margins specified on the Page Setup dialog). If the “Stretch/shrink to fit” checkbox is not checked, each image is printed in its native dimensions – adjusted for the resolution of the print device.

File Menu: Most Recently Used Folder List

Lightning “remembers” the last five files that were opened, and displays their names on the File menu. You may quickly reopen any of these files by selecting its name from the menu.

File Menu: “Exit”

The “Exit” command, accessible via Lightning’s File menu, terminates a session with Lightning and closes the program.

Edit Menu: “Undo/Redo”

The “Undo” command, accessible via Lightning’s Edit menu, is available whenever the last authoring action is one which can be “undone.” The “Redo” command replaces the *Undo* command on Lightning’s Edit menu whenever the last authoring action undertaken is an *Undo* operation.

Most authoring actions that alter the content of a Lightning archive can be undone/redone. This includes deleting images from the archive; adding images to the archive; reordering images within the archive; cut operations; paste operations; adding, removing or editing captions; adding, removing, or editing keywords; and adding, removing, or editing audio annotations. Note, though, that changes to component settings cannot be undone/redone.

Edit Menu: “Import”

The “Import” command, accessible via Lightning’s Edit menu, is available whenever an archive file is open for authoring. Invoking this command causes the standard Windows file selection dialog to appear through which you can select image files of various formats for import into the current .FLF file. Note that this dialog supports multiple file selection, so you can select several files at once for import.

When the “Open” button on the Import dialog is selected, Lightning imports the selected files into the current .FLF file and places them at the current insertion point (indicated by the position of the caret in the Preview Pane), constructs previews for them, and compresses the imported images according to the current compression component settings for the file.

Note that imported images are not actually written to the .FLF file until the *Save* command is invoked. Note also that *Import* is an authoring command which may be “reversed” via the *Undo* command.

Edit Menu: “Cut”

The “Cut” command, accessible via Lightning’s Edit menu, is available whenever a Lightning file is open and at least one image preview is selected. When invoked, this command cuts the images (and other data) associated with the selected previews from the Lightning file and places them on the system clipboard. They may be subsequently pasted back into the Lightning file (presumably in some new location), or pasted into some other Lightning file.

For enhanced interoperability with other Windows applications, when a single image is cut from the Lightning file, Lightning places it on the system clipboard not just in its own proprietary clipboard format, but in standard Windows bitmap format too. This enables the image to be pasted into many different kinds of Windows applications – including nearly all imaging applications, and most word processors. Lightning also places native JPEG data on the clipboard when a single image is cut from a Lightning file. Applications – like Firehand Ember – that can accept the pasting of such compressed data avoid the image quality loss inherent in accepting uncompressed Windows bitmap data and then recompressing it before writing it to disk.

Note that the *Cut* command may be “reversed” via the *Undo* command.

Edit Menu: “Copy”

The “Copy” command, accessible via Lightning’s Edit menu, is available whenever a Lightning file is open and at least one image preview is selected. When invoked, this command copies the images (and other data) associated with the selected previews onto the system clipboard. They may be subsequently pasted back into the source Lightning file, or into some other Lightning file.

For enhanced interoperability with other Windows applications, when a single image is copied from a Lightning file, Lightning places it on the system clipboard not just in its own proprietary clipboard format, but in standard Windows bitmap format too. This enables the image to be pasted into many different kinds of Windows applications – including nearly all imaging applications, and most word processors. Lightning also places native JPEG data on the clipboard when a single image is copied from a Lightning file. Applications – like Firehand Ember – that can accept the pasting of such compressed data avoid the image quality loss inherent in accepting uncompressed Windows bitmap data and then recompressing it before writing it to disk.

Edit Menu: “Paste”

The “Paste” command is accessible via Lightning’s Edit menu. This command is available only when a Lightning file is open for authoring and data of a format suitable for pasting into the Lightning file is available on the system clipboard.

Lightning can paste data in a variety of standard image formats; it can also paste data placed on the clipboard in its own proprietary clipboard format.

When the *Paste* command is invoked, the data on the clipboard is pasted into the open .FLF file at the current insertion point (indicated by the position of the caret in the Preview Pane). Lightning then constructs previews for each pasted image, and compresses the image data according to the current compression component settings for the file.

Note that pasted data is not actually written to the .FLF file until the next *Save* command is invoked. Note also that the *Paste* command may be “reversed” via the *Undo* command.

Edit Menu: “Delete”

The “Delete” command, accessible via Lightning’s Edit menu, is available whenever a Lightning file is open and at least one image preview is selected. When invoked, this command deletes the images (and other data) associated with the selected previews from the Lightning file.

Note that the *Delete* command may be “reversed” via the *Undo* command.

Edit Menu: “Select All”

The “Select All” command, accessible via Lightning’s Edit menu, is available whenever a Lightning file is open and not all of its previews are selected. When invoked, the *Select All* command causes all previews to be selected.

Note that the *Select All* command may be “reversed” via the *Undo* command; the previous selection state in the Preview Pane is restored.

Edit Menu: “Unselect All”

The “Unselect All” command, accessible via Lightning’s Edit menu, is available whenever a Lightning file is open and at least one preview is selected. When invoked, the *Unselect All* command causes all selected previews to be unselected.

Note that the *Unselect All* command may be “reversed” via the *Undo* command; the previous selection state in the Preview Pane is restored.

Edit Menu: “Find”

The “Find” command, accessible via Lightning’s Edit menu, is available whenever a Lightning file is open. When invoked, the *Find* command causes the Find dialog to be displayed. The Find dialog has two tabs – “Caption” and “Keywords.”

The “Captions” tab within the Find dialog provides fields used to locate (and select) images in the open Lightning file by matching their captions (or portions thereof). Simply input into the provided edit control a caption (or portion of a caption) to be matched, and click the OK button. Lightning proceeds to scan the open Lightning file and select any images with “matching” captions.

The “Match whole caption only” checkbox affects the way matches are determined. If this checkbox is checked, only captions of the same length as the supplied search text can be matches. In other words, if this checkbox is checked, and the search text is “my caption,” an image with the caption “my caption” is considered a match; however, an image with the caption, “this is my caption” is not considered a match. If this checkbox is clear, both “my caption” and “this is my caption” are matches because both captions contain the search text, “my caption.”

The “Match case” checkbox also affects the way matches are determined. If this checkbox is checked, only captions wherein the search text is capitalized *exactly* as it is in the Find dialog’s edit box are considered matches. In other words, if the “Match case” checkbox is checked (and the “Match whole caption only” checkbox is clear) and the search text is “my caption,” an image with the caption “This is my caption,” will be considered a match; however, an image with the caption, “This is MY caption,” will *not* be considered a match.

The “Keywords” tab within the Find dialog provides fields used to locate (and select) images in the open Lightning file by matching their associated keywords. Simply select a keyword or set of keywords from the provided keyword list, and click the OK button. Lightning proceeds to scan the open Lightning file and select matching images.

The radio button set beneath the keyword list box affects the way matches are determined. By default, the “Use keyword union” radio button is selected. This causes Lightning to consider any image in the open file to be a match if it is associated with *at least one* of the selected keywords. By contrast, if the “Use keyword intersection” radio button is selected, Lightning only considers those images in the open file to be matches that are associated with *all* of the selected keywords.

NOTE: Whether a caption or keyword search is used, all images in the open Lightning file that meet the search criteria will be selected when the *Find* command completes; the caret will be placed at the first selected image, and the Preview Pane will be appropriately scrolled to display the first selection. To quickly advance the cursor (adjusting the scroll position, if necessary) from one selection to the next, simply tap the F3 key. To quickly move the cursor (adjusting the scroll position, if necessary) back to

the previous selection, simply hold down the Shift key and tap the F3 key.

View Menu: “Toolbar”

Checking the “Toolbar” item on Lightning’s View menu causes the toolbar to be displayed at the top of the main application window. Though the toolbar is a useful convenience, removing it from the main application window provides some additional room in which to display image previews.

View Menu: “Component Pane”

Checking the “Component Pane” item on Lightning’s View menu causes the Component Pane to be displayed along the left-hand side of the main application window. The Component Pane provides a means of opening the various options dialogs through which component settings for the current .FLF file can be specified. (Note that these dialogs can also be opened via Lightning’s “Component” menu.) The Component Pane can be removed from the display to provide additional room in which to display image previews.

View Menu: “Status Bar”

Checking the “Status Bar” item on Lightning’s View menu causes the status bar to be displayed at the bottom of the main application window. The status bar displays the current size of the open .FLF file, the number of selected previews, the total number of images in the .FLF file, and also displays status messages during lengthy operations. Though the status bar provides some useful information, removing it from the main application window provides additional room in which to display image previews.

View Menu: “Options”

When invoked, the “Options” command on Lightning’s View menu opens the Options dialog whereby you can set various preferences that affect the way Lightning behaves. The state of these options is saved from session to session.

Reload last file at start-up

When checked, this option causes Lightning to “remember” the currently-open .FLF file each time it is closed. Then, when Lightning is launched again, that file is reopened.

Confirm image deletions

When checked, this option causes a confirmation dialog to appear whenever you attempt to delete an image from the current .FLF file. When this item is unchecked, files are deleted immediately – without the opportunity for confirmation.

Play sound effects

When checked, this option causes sound effects to be played whenever a preview is selected or de-selected, whenever the caret is moved, whenever the Preview Pane is scrolled, whenever an image is opened in a pop-up, and whenever an image pop-up is closed. Clearing this checkbox inhibits these sound effects.

Enable Undo

When checked, this option causes Lightning to track undoable editing actions and take appropriate actions in the background to enable these actions to be undone. Note that there is considerable processing overhead involved in enabling certain actions to be undone; clearing this option can result in significant performance improvements when editing .FLF files.

Initialize captions using file names

When this option is checked, the caption of each image imported into the current .FLF file is initialized to the root name of the file from which the image was derived. In other words, if this option is enabled and an image is imported from a file named “c:\windows\desktop\blackdog.jpg,” its caption will be initialized to “blackdog.” This option is very useful when using Lightning to archive sets of images for later extraction. For example, “blackdog.jpg” can be stored in an FLF file with an automatically-generated caption of “blackdog,” and then later easily extracted back to a file called “blackdog.jpg” using Lightning’s image extraction capabilities.

Make default viewer for .flf files

This option is automatically checked whenever Lightning is registered with your system as the “default viewer” for .FLF files – in other words, when Lightning is configured such that it is launched by Windows whenever an .FLF file is double-clicked from the Windows shell. If Lightning is configured as the default viewer for .FLF files on your system and you clear this checkbox, Lightning will no longer be the default viewer for .FLF files on your system (indeed, *no* application will be configured as the default viewer for .FLF files on your system). If Lightning is *not* currently configured as the default viewer for .FLF files on your system (and the “Make default viewer for .flf files”

checkbox is clear), checking this checkbox will cause Lightning to update your system registry to configure itself as the default viewer for .FLF files.

Hide captions (Pop-up Images section)

When this option is checked, captions are not displayed under their associated images when the images are opened in pop-up windows.

Float on Top (Pop-up Images section)

When this option is checked, pop-up image display windows “float on top” of the main Lightning application Window, even when the main Lightning window has the input focus. Moreover, when the main Lightning application window is minimized, all floating pop-ups are minimized as well. By contrast, when the “Float on top” checkbox is cleared, pop-up image display windows move behind the main Lightning application window when it takes input focus, and remain open when the main Lightning application window is minimized.

Auto-play audio on single open (Pop-up Images section)

When this option is checked and an image has an associated audio annotation, that audio annotation is played automatically whenever the image is opened in a pop-up display window, so long as only that image is invoked to open – in other words, so long as the image in question is not one of several images being opened in pop-ups simultaneously.

Initially scale to: (Pop-up Images section)

When this radio button is selected, the initial scale drop-list (directly to the right) is enabled and initialized with values between 25% and 300%. The value selected from this drop-list determines the scale factor of each image subsequently opened in a pop-up display window. Selecting 100% causes each image to be opened in its “native” or “raw” dimensions. Selecting a lesser scale factor causes each image to be descaled to some smaller size; selecting a greater scale factor causes each image to be scaled to some larger size.

Descale to fit: (Pop-up Images section)

When this radio button is selected, each image opened in a pop-up display window is displayed in its native dimensions *unless* the image is too large, natively, to fit entirely within the computer monitor’s display area. In that case, the image is descaled to such an extent that it *does* fit within the monitor’s display area.

None (Mouse-Over Display section)

When this radio button is selected, no pop-up text is displayed when the mouse cursor pauses over a preview in the Preview Pane.

Size/Dimensions (Mouse-Over Display section)

When this radio button is selected, the disk size and native display dimensions of the associated image are displayed in a pop-up “tip window” whenever the mouse cursor pauses over an image preview in the Preview Pane.

Caption (Mouse-Over Display section)

When this radio button is selected, the caption (if any) associated with a particular image is displayed in a “tip window” whenever the mouse cursor pauses over its preview in the Preview Pane.

Keywords (Mouse-Over Display section)

When this radio button is selected, the keywords (if any) associated with a particular image are displayed in a “tip window” whenever the mouse cursor pauses over its preview in the Preview Pane.

Image Menu: “Open”

The “Image Open” command, accessible via Lightning’s Image menu, is available whenever a file is open and at least one image preview is selected in the Preview Pane. When invoked, this command causes the images associated with any selected previews to be opened in pop-up display windows.

Image Menu: “Caption”

The “Caption” command, accessible via Lightning’s Image menu, is available whenever a file is open and at least one image preview is selected in the Preview Pane. When invoked, this command opens the Caption dialog.

If a single preview is selected and a caption has been specified for the associated image, that caption appears in the Caption dialog; if no caption has been specified, the Caption dialog will be empty. In either event, text may be entered into or deleted from the Caption dialog. When the OK button is clicked, any text displayed in the Caption dialog becomes the new caption for the image associated with the selected preview. If no text appears in the Caption dialog when the OK button is clicked, any extant caption for the image associated with the selected preview is deleted.

If multiple previews are selected when the Caption dialog is opened, Lightning examines the captions, if any, specified for the associated images. If each of the associated images has a caption, and if all of the captions are identical, the shared caption for all of the images is displayed in the Caption dialog; otherwise, the Caption dialog is empty. In either event, text may be entered into or deleted from the Caption dialog. When the OK button is clicked, any text displayed in the Caption dialog becomes the new caption for each of the images associated with the selected previews. If no text appears in the Caption dialog when the OK button is clicked, any extant captions for the images associated with the selected previews are deleted.

NOTE: The *Caption* command, and the associated Caption dialog, are the means by which captions are added to and removed from images in Lightning. Those images in a Lightning file which have captions can be spotted at a glance by the “Tee” icon that appears beneath their previews in the Preview Pane.

Image Menu: “Keywords”

The “Keywords” command, accessible via Lightning’s Image menu, is available whenever a file is open and at least one image preview is selected in the Preview Pane. When invoked, this command opens the Keywords dialog.

If a single preview is selected and keywords have been specified for the associated image, those keywords appear in the Keywords dialog; if no keywords have been specified, the Keywords dialog will be empty. In either event, keywords can be entered into and removed from the Keywords dialog. When the OK button is clicked, any keywords in the Keywords dialog become the new keywords for the image associated with the selected preview. If no keywords appear in the Keywords dialog when the OK button is clicked, any extant keywords for the image associated with the selected preview are deleted.

If multiple previews are selected when the Keywords dialog is opened, Lightning examines the keywords, if any, specified for the associated images. If each of the associated images has keywords, and if all of the keyword sets are identical, the shared keyword set for all of the images is displayed in the Keywords dialog; otherwise, the Keywords dialog is empty. In either event, keywords may be entered into and removed from the Keywords dialog. When the OK button is clicked, any keywords displayed in the Keywords dialog become the new keywords for each of the images associated with the selected previews. If no keywords appear in the Keywords dialog when the OK button is clicked, any extant keywords for the images associated with the selected previews are deleted.

NOTE: The *Keywords* command, and the associated Keywords dialog, are the means by which keywords are added to and removed from images in Lightning. Those images in a Lightning file which have keywords can be spotted at a glance by the “Key” icon that appears beneath their previews in the Preview Pane.

Image Menu: “Audio Annotation”

The “Audio Annotation” command, accessible via Lightning’s Image menu, is available whenever a file is open and at least one image preview is selected in the Preview Pane. When invoked, this command opens the Audio Annotation dialog.

The Audio Annotation dialog features a row of control buttons along its top. These buttons allow you to import wave files, cut the current audio clip to the system clipboard, copy the current audio clip to the clipboard, paste an audio clip from the clipboard, clear the current clip, and set the recording format (by choosing from a list of supported formats).

The middle of the Audio Annotation dialog features a set of display fields that describe the current audio clip. The “Source” field specifies where the current clip “came from.” It can be the name of a file (if the current clip was imported from a wave file), or “Recording” (if the current clip is a recording), or “Lightning file” (if the current clip is an annotation already associated with an image and stored in the open .FLF file), or “Clipboard” (if the current clip is wave audio data that was pasted from the system clipboard). The “Format” field on the Audio Annotation dialog describes the bit depth, frequency, and number of channels in the current audio clip. The “Duration” field displays the length of the audio clip (in seconds). The “Size” field displays the size of the audio clip (in bytes).

Below the static fields describing the current audio clip, the Audio Annotation dialog features a set of media controls. These allow you to play, pause, and stop playback of the current audio clip, and to choose a particular position within the audio clip. There is also a record button that allows you to record a new audio clip.

IMPORTANT: When recording through the Audio Annotation dialog, use your computer’s audio mixer control to select a recording “source” – ie, your microphone, or CD drive, or some other audio source – and to set the recording volume. If your .FLF file uses a background audio score, be sure to set the audio annotation recording volume high enough that your annotations aren’t “lost” in the background audio score during playback.

If a single preview is selected and an audio annotation has been specified for the associated image, that annotation is loaded into the Audio Annotation dialog when it is opened; if no annotation has been specified, the Audio Annotation dialog will be empty when it opens. In either event, a new annotation can be pasted from the clipboard or recorded or imported using the controls in the Audio Annotation dialog (and any current audio annotation can be cleared). If an annotation is present when the OK button is clicked, it is compressed according to the compression component settings for the current .FLF file, and then set as the audio annotation for the image associated with the selected preview. If no annotation is present when the OK button is clicked, any extant annotation for the image associated with the selected preview is removed.

If multiple previews are selected when the Audio Annotation dialog is opened, Lightning examines the associated audio annotations, if any. If each of the associated images has an annotation, and if all of the audio annotations are identical, the annotation shared by all of the images is displayed in the Audio Annotation dialog; otherwise, the Audio Annotation dialog is empty when opened. In either event, a new annotation can be pasted from the clipboard or recorded or imported using the controls in the Audio Annotation dialog (and any current audio annotation can be cleared). If an annotation is present when the OK button is clicked, it is compressed according to the compression component settings for the current FLF file, and then set as the audio annotation for each of the images associated with a selected preview. If no annotation is present when the OK button is clicked, all extant annotations for the images associated with the selected previews are removed.

NOTE: The *Audio Annotation* command, and the associated Audio Annotation dialog, are the means by which audio annotations are added to and removed from images in Lightning. Those images in a Lightning file which have annotations can be spotted at a glance by the “Speaker” icon that appears beneath their previews in the Preview Pane.

Image Menu: “Properties”

The “Properties” command, accessible via Lightning’s Image menu, is available whenever a file is open and at least one image preview is selected in the Preview Pane. When invoked, this command opens the Properties Dialog.

The Properties Dialog displays statistics for the image or images associated with the selected preview or previews, as well as statistics for any associated caption, keyword, and audio annotation data.

Component Menu: “General Attributes”

The “General Attributes” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the General Attributes dialog.

The General Attributes dialog permits you to specify a number general settings for the open Lightning file.

To specify a title for the current Lightning file, simply enter the title into the “File Title” edit box. This title will appear on the title page for the file when it is displayed in a Lightning file player (if a banner font has been specified for the file on the Fonts component dialog, and if title page display is enabled and title text rendering on the title page is enabled on the Title Page component dialog). This title will also appear at the top of the main display canvas when the file is displayed in a Lightning file player (if a title font has been specified for the file on the Fonts component dialog).

The slider control in the Auto-Playback Timing section of the General Attributes dialog allows you to provide display timing information for the current file. This timing information is utilized when the file is played back in Lightning file players, like the Lightning Slideshow Player. Note that this timing information is not in any sort of “absolute” units, but rather constitutes a sort of relative timing “hint.” How this timing value is interpreted depends on the particular file player utilizing this value.

The “Annotation duration drives timing” checkbox provides an additional timing “hint” to Lightning file players playing the file. When checked, file players that automatically advance through the images in the file will adjust their playback timing such that the advance from one image to the next is governed by the duration of any associated audio annotation associated with the image – rather than by the timing value specified with the Auto-Playback Timing slider control. If a particular audio annotation is “shorter” than the specified playback timing, the playback timing will be shortened for the associated image – so that the transition to the next image occurs immediately upon completion of the audio annotation. If a particular audio annotation is “longer” than the specified playback timing, the playback timing will be lengthened for the associated image – again, so that the transition to the next image occurs immediately upon completion of the audio annotation. If a particular image in the file does not have an audio annotation, the playback timing value will be relied upon to determine the pause before the next image transition is triggered.

The Playback Restrictions section of the General Attributes component dialog contains three checkboxes – “Inhibit image export,” “Inhibit image printing”, and “inhibit image copying.” These checkboxes allow certain capabilities of Lightning file players to be inhibited selectively – to help protect the images in your archive file from unauthorized duplication and distribution. Note, however, that these playback restrictions do not prevent an individual from taking a “screenshot” of images in your archive and duplicating and distributing that screenshot. Use of the Playback Restrictions

checkboxes simply make the unauthorized duplication and distribution of your images somewhat less convenient.

Component Menu: “Title Page”

The “Title Page” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Title Page dialog. The Title Page dialog permits you to specify settings for an introductory “title” or “splash” page for your archive file.

The “Show title page on file open” checkbox at the top of the Title Page dialog determines whether Lightning file players will actually display a title page when playing this file; only if this checkbox is checked will a title page appear.

The Title Placement section of the Title Page dialog contains a set of radio buttons that determine whether the title text specified on the General Attributes dialog appears on the title page and, if it does appear, *where* it appears on the page.

NOTE: title text is displayed on the title page only if three separate criteria are met: 1) a title has been specified on the General Attributes dialog 2) a radio button other than “None” is selected in the Title Placement section of the Title Page dialog and 3) a banner font (used to draw the title text on the title page) has been specified on the Fonts dialog.

Input into the edit box in the Caption/Copyright Notice section of the Title Page dialog text you want to appear at the bottom of the title page.

NOTE: the text entered into the Caption/Copyright Notice edit box on the Title Page dialog appears at the bottom of the title page only if a caption font (used to draw the text) has been specified on the Fonts dialog.

The Background Image section of the Title Page dialog contains controls used to specify a background image for the title page, and its placement on the page. To add a background image to the title page, first select the radio button corresponding to the placement you want for the image. Select “Center” to cause the background image to be centered on the title page. Select “Stretch” to cause the background image to be stretched to totally cover the title page. Select “Constrained Stretch” to cause the background image to be stretched to best fit the title page while maintaining its relative dimensions. Select “Tile” to cause the background image to be replicated on the title page in a tiled pattern until the page is totally covered. Once you have selected a position for your background image, select the “Import” button to open a standard Windows file open dialog which will allow you to select the image you wish to use as your background image on the title page. Alternatively, you can drag an image directly from Windows (or from another application, like Firehand Ember) and drop it on the Title Page dialog to set the background image.

The Background Color section of the Title Page dialog contains a color swatch, showing the currently-selected background color for the title page, and a “Set...” button – which, when clicked, opens the standard Windows color picker dialog and allows you to specify

a background color (which is then displayed in the color swatch control).

The final control on the Title Page dialog is the Display Duration control, through which you specify the length of time (in seconds) you wish the title page to be displayed by Lightning file players.

NOTE: the specified display duration for the title page can always be overridden by the end-user viewing your file in a Lightning file player – he has only to double-click his mouse on the title page or tap the Escape key on his keyboard while the title page is displayed to close the title page and trigger a transition to the main content of the file.

Component Menu: “Previews”

The “Previews” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Previews dialog.

The Previews dialog permits you to specify the size of previews to be associated with images in the current file – by means of the slider control – and also whether previews are actually stored persistently in the file (or simply generated as needed). If the “Store previews in Lightning file” checkbox is checked, image previews are stored in the Lightning archive file with the images from which they are derived. Storing previews persistently increases the size of the Lightning file to some degree, but results in significantly faster preview display both by Lightning and by Lightning file players that display preview images (like the Lightning Photo Album Viewer).

Component Menu: “Audio Score”

The “Audio Score” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Audio Score dialog. The Audio Score dialog provides a means for including a background audio track in your Lightning file. Typically, whereas audio annotations attached to individual images in the file are used for sound effects and narration, the background audio track is used to play a continuous musical background for the file.

The Audio Score dialog features a row of control buttons along its top. These buttons allow you to import wave and MIDI files, cut the current audio clip to the system clipboard, copy the current audio clip to the system clipboard, paste an audio clip from the clipboard, clear the current clip, and set the recording format (by choosing from a list of supported formats).

The middle of the Audio Score dialog features a set of display fields that describe the current audio clip. The “Source” field specifies where the current clip “came from.” It can be the name of a file (if the current clip was imported from a wave or MIDI file), or “Recording” (if the current clip is a wave recording), or “Lightning file” (if the current clip is a background audio clip already stored in the open .FLF file), or “Clipboard” (of the current clip is audio data that was pasted from the system clipboard). The “Format” field on the Audio Score dialog describes the audio format of the current audio clip. The “Duration” field displays the length of the audio clip (in seconds). The “Size” field displays the size of the audio clip (in bytes).

Below the static fields describing the current audio clip, the Audio Score dialog features a set of media controls. These allow you to play, pause, and stop playback of the current audio clip, and to choose a particular position within the audio clip. There is also a record button that allows you to record a new waveform audio clip.

IMPORTANT: When recording through the Audio Score dialog, use your computer’s audio mixer control to select a recording “source” – ie, your microphone, or CD drive, or some other audio source – and to set the recording volume. In general, you should use a relatively low volume when recording a new background score – to ensure that the background audio doesn’t “overpower” any audio annotations you might include in your archive.

If a background score already exists for the file, it is loaded into the Audio Score dialog when it is opened; if no background score has yet been included, the Audio Score dialog will be empty when it opens. In either event, a new score can be pasted from the system clipboard or recorded or imported using the controls in the Audio Score dialog (and any current audio score can be cleared). If an audio clip is present when the OK button is clicked, it is compressed according to the compression component settings for the current .FLF file, and then set as the background score for the archive. If no clip is present in the Audio Score dialog when the OK button is clicked, any extant

background score in the archive is deleted.

Click the “Loop runtime playback” checkbox to cause the background score to restart at its beginning after playing through to its end when the archive is open in a Lightning file player. If this checkbox is clear, the score will play through to its end and then simply stop when the archive is open in a Lightning file player.

Component Menu: “Fonts”

The “Fonts” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Fonts dialog. The Fonts dialog provides a means for specifying the fonts used to draw various text elements when the archive is displayed in a Lightning file player. The banner font is used by Lightning file players to draw the title text on the title page – if a title string exists for the file, and if a title page exists for the file, and if the title page is authored to display the title string. The title font is used by Lightning file players to draw the title text at the top of the main display canvas. The caption font is used by Lightning file players to draw image captions, and also the copyright/caption string on the title page, if such a string is specified (and if a title page exists for the file).

IMPORTANT: A font must be specified for each text element type in order for text of that type to be rendered by the Lightning file players. In other words, if a banner font is not specified for the file, then no title text will be rendered on the title page – regardless of the settings on the Title Page dialog. Similarly, if no caption font is specified, image captions will not be rendered by Lightning file players – even if captions exist in the file. This fact yields a simple means of selectively inhibiting display of text elements without removing the text elements themselves from the file.

Clicking the “Embed Font” checkbox on the Fonts dialog causes the associated font to actually be stored in the Lightning file. This is useful when you will be distributing your Lightning file and you do not know whether or not the specified font will actually exist on a particular end-user’s computer. If you specify a particular font, but you do not embed it in the file, and the end user’s computer does *not* have the referenced font installed on it, the Lightning file player displaying the file on the end-user’s computer will attempt to substitute a font that *is* installed and which is similar to the referenced font. Unfortunately, oftentimes no truly similar font is available and so the substitution may appear somewhat random. By contrast, if a referenced font is embedded in the .FLF file, the Lightning file player displaying the file will be able to draw text in that font even if it is not installed on the end-user’s computer – by using the embedded copy of the font – so you are guaranteed that the text will display as authored. The drawback of embedding fonts in your file is that each embedding adds considerable size to the file (typically between 50K and 100K per embedding).

IMPORTANT: Not all font manufacturers license their fonts for embedding. Consequently, Lightning does not permit all fonts to be embedded in a Lightning file. When you attempt to embed a font, Lightning checks the licensing information for the font. If it cannot be embedded, Lightning alerts you to this fact.

NOTE: If you use a particular font face in your file more than once – for example, you use Pepita 72-point bold as your banner font and Pepita 36-point italic as your title font – it need only be embedded once: Lightning will automatically map all uses of the font to the single embedding.

Component Menu: “Canvas”

The “Canvas” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Canvas dialog. The Canvas dialog provides a means for specifying attributes for the main display canvas upon which Lightning file players render the main content of your file.

The Background Image section of the Canvas dialog contains controls used to specify a background image for the canvas, and its placement. To add a background image, first select the radio button corresponding to the placement you want for the image. Select “Center” to cause the background image to be centered on the canvas. Select “Stretch” to cause the background image to be stretched to totally cover the canvas. Select “Constrained Stretch” to cause the background image to be stretched to best fit the canvas while maintaining its relative dimensions. Select “Tile” to cause the background image to be replicated on the canvas in a tiled pattern until the canvas is totally covered. Once you have selected a position for your background image, select the “Import” button to open a standard Windows file open dialog which will allow you to select the image you wish to use as your background image. Alternatively, you can drag an image directly from Windows (or from another application, like Firehand Ember) and drop it on the Canvas dialog to set the background image.

The Background Color section of the Canvas dialog contains a color swatch, showing the currently-selected background color for the canvas, and a “Set...” button – which, when clicked, opens the standard Windows color picker dialog and allows you to specify a background color (which is then displayed in the color swatch control).

Component Menu: “Framing”

The “Framing” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Framing dialog. The Framing dialog provides a means for specifying a frame style and color used by Lightning file players when rendering previews from the current file.

The Preview Frame Style section of the Framing dialog allows you to select a frame style. The control above the Preview Frame Style section displays a sample preview image framed in the selected style.

The Preview Frame Color section of the Canvas dialog contains a color swatch, showing the currently-selected frame color, and a “Set...” button – which, when clicked, opens the standard Windows color picker dialog and allows you to specify a frame color (which is then displayed in the color swatch control).

Component Menu: “Security”

The “Security” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Security dialog. The Security dialog provides the means for specifying an authoring and/or display password for the current Lightning file. This dialog also permits file encryption to be enabled and disabled.

Checking the “Use Authoring Password” checkbox causes the password specification dialog to appear through which you can set and confirm an authoring password for the current file. If an .FLF file features an authoring password, that password must be entered whenever the file is opened in Lightning. This permits the creator of a file to limit the ability of those to whom he distributes the file to make changes to the file in their own copies of Lightning without inhibiting their ability to view the file in a Lightning file player.

Checking the “Use Display Password” checkbox causes the password specification dialog to appear through which you can set and confirm a display password for the current file. If an .FLF file features a display password, that password must be entered whenever the file is opened in either Lightning or any Lightning file player. This permits the creator of a file to limit the ability of unauthorized individuals to view it.

The “Save Encrypted” checkbox is enabled whenever a display password has been specified for the file. When this checkbox is checked, and the OK button on the Security dialog is clicked, the file is encrypted for additional security.

Component Menu: “Compression”

The “Compression” command, accessible via Lightning’s Component menu (and from Lightning’s Component Pane), is available whenever a file is open. When invoked, this command opens the Compression dialog.

The Image Compression section of the Compression dialog features two controls which affect the compression of images in the .FLF file. The slider control sets the compression level. The farther to the right this control is moved, the greater the compression. The “Recompress imported JPEG images” checkbox controls whether JPEG images added to the .FLF file are “recompressed” (to the level set with the slider control) by Lightning’s image compressor. If this checkbox is checked, all images imported into the .FLF file are compressed according to the current image compression level. If this checkbox is clear, all image types except JPEG are compressed according to the current image compression level; JPEG images are imported and written to the .FLF file unchanged.

NOTE: In general, it is best to leave the “Recompress imported JPEG images” checkbox unchecked. JPEG compression is “lossy.” This is to say that each time a JPEG image is recompressed it loses progressively more of its original picture information – and, consequently, progressively more quality – without necessarily getting proportionately smaller. Since Lightning’s internal image storage format is a JPEG derivative, applying Lightning’s compression settings to JPEG images will necessarily cause them to lose quality – but, depending on how they were originally compressed, may not cause them to get much smaller until the compression level is pushed to a very high level. In short, if possible, it is better either to import non-JPEG image formats and use Lightning’s internal compressor to compress them, or import JPEG images and store them without recompression. (Images should only be compressed *once*, if possible.)

The Stored Preview Compression section of the Compression dialog features a slider control to set the compression level for previews stored in the .FLF file. The farther to the right this control is moved, the greater the compression. This setting has no effect if the “Store previews in Lightning file” checkbox on the Previews component dialog is not checked.

The Background Audio Compression section of the Compression dialog features a set of radio buttons used to set the compression level applied to the waveform background audio score, if any. This setting has no effect on MIDI background scores – MIDI music streams are typically quite compact to begin with and are always stored uncompressed in Lightning files.

The Audio Annotation Compression section of the Compression dialog features a set of radio buttons used to set the compression level applied to audio annotations stored in the .FLF file.

When the “Apply” button on the Compression dialog is clicked, three things happen. First, the dialog is closed. Second, the new compression settings are stored so that they can be subsequently applied to any images, previews, background waveform tracks, or audio annotations added to the Lightning file. Third, all extant data streams in the Lightning file are scanned to determine if any could be made smaller (potentially) by application of the new compression settings. If any streams are found that might be made smaller, you are asked if you would like to apply the current compression settings to the existing data in the Lightning file. If you say yes, the streams that might be made smaller by application of the new compression settings are recompressed. If you say no, the extant streams in the Lightning file are left as they are.

Export Menu

The Export menu provides access to the currently-installed set of Lightning export modules. The items that appear on this menu are available whenever a file is open in Lightning.

A base set of export modules is installed by the Lightning setup application. This base set includes exporters that create stand-alone Lightning slideshows, photo albums, and screensavers from .FLF files. Other Lightning export modules may be obtained and installed separately.

All export modules work on the currently open Lightning archive file, and export the contents of this file in some other format.

Run Menu

The Run menu provides access to the currently-installed set of Lightning file players. The items that appear on this menu are available whenever a file is open in Lightning.

A base set of file players is installed by the Lightning setup application. This base set includes the Lightning Slideshow Player, the Lightning Photo Album Viewer, and the Lightning Screensaver module. Other Lightning file players may be obtained and installed separately.

When a player is selected from the Run menu, Lightning launches the currently-open file in that player and minimizes itself to the Windows task bar. When the launched file player is closed, Lightning restores itself so that authoring work may proceed.

