

**Digital Oasis Client**  
**Phase I Design Specification**

**DRAFT**

Prepared for **Knight-Ridder, Inc.**

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*Knight-Ridder Confidential*

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## Digital Oasis Overview

This document details the design specifications for the Digital Oasis client (DOC) application, a tool that enables users to easily view and manipulate compressed images on the Macintosh. DOC encompasses the entire feature set of Harvey 1.0, and, in addition, permits users to query AppleSearch information sources located on remote servers.

Since DOC functionality is a superset of Harvey, it allows users to efficiently "monitor" the contents of folders on their hard disks. As files are added to or removed from a monitored folder, the Browser window in DOC updates dynamically to reflect those changes. A user might typically select several thumbnails on PressLink to download to a folder on his Macintosh. Once the downloading process has begun, he can switch into DOC, select the same folder to monitor, and view the thumbnails as they arrive.

DOC also includes features that do not exist in Harvey 1.0 - specifically, the ability to connect to an AppleSearch server and issue a full-text query against one or more of the info sources contained in that server. Once the query has been processed by the server, thumbnails appear in the DOC Browser window in relevance-ranked order.

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## Requirements Summary

Since DOC is positioned as one of a set of tools which provide a "virtually integrated" environment for the user, it is crucial that DOC adhere to all applicable standards and conventions of the Macintosh platform.

DOC requires a Macintosh running System 7.1 or later with QuickTime 1.6 or later. It is important to note that users may or may not be running the "drag-and-drop-aware" Finder. This means that any operation which is accomplished via drag-and-drop (between DOC and other apps or DOC and the Finder) should have an alternate method (e.g., standard file dialog) for such users.

DOC can run in a memory partition under 800K.

DOC must yield to user events at all times. This allows users to interrupt any operation that may be in process (e.g., redrawing the thumbnails in the Browser window).

DOC should take advantage of direct manipulation techniques wherever possible to make the user's experience even more intuitive.

DOC should allow the user to configure his own environment as much as possible.

DOC must support the AXS concatenated file format with JPEG compression. These AXS-type files must have a valid thumbnail as part of the image file (early versions may not). Files without thumbnail data will require re-validation with an application utility such as IronMike Norman.

## Human Interface Functional Specifications

### *Launching DOC*

DOC can be launched from the Finder in three different ways: opening the application directly, opening one or more DOC documents, and via drag-and-drop over the application.

When a user opens the application directly, DOC launches in the same configuration in which the user last left it. This allows a user to continue monitoring the same set of folders in exactly the same manner as he is accustomed to.

When a user opens one or more DOC documents or drags one or more DOC documents over the application, the appropriate project windows appear in front of any windows which were left open during the user's last session.

When the user drags one or more folders over the application, DOC opens with the Info Source window in front of any windows which were left open during the user's last session. The appropriate folders will appear in the Info Source window at the top of the list, with any other folders in the list deactivated (unchecked).

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## The Browser Window

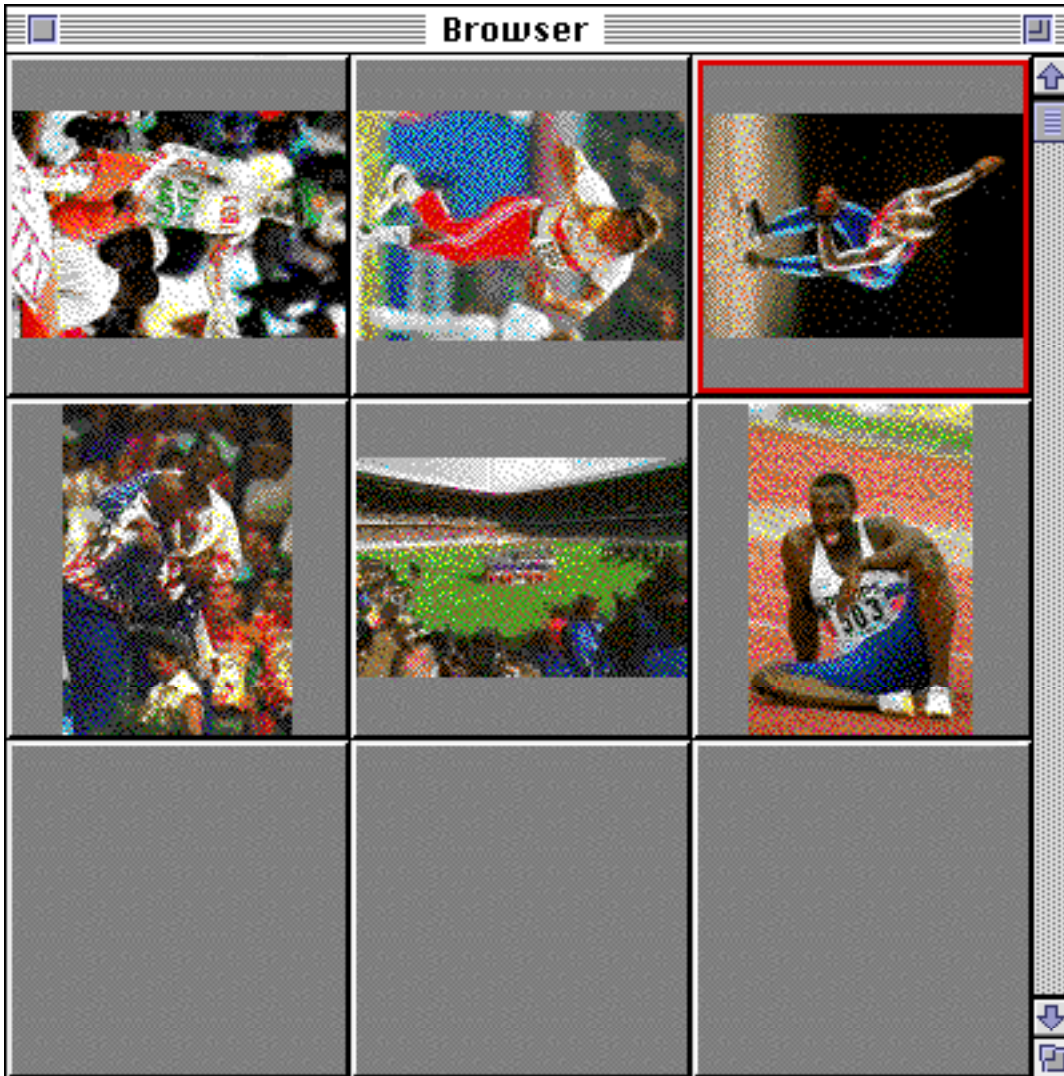


Figure 1. The Browser window

The Browser window is a configurable grid where images from the monitored folders (active info sources) are displayed. There is only one Browser window, and it is always displayed with "Browser" in the title bar. Images are dynamically updated as the sources' contents change.

JPEG support for viewing compressed images is accomplished using QuickTime.

If a file in one of the active info sources does not contain a viewable thumbnail, the document file type icon is displayed in the cell (scaled to display at the current cell size).

Images can be dragged to Project window or Shared Services Library (SSL), leaving Browser window unchanged. The dragging operation follows the human interface as specified by the Apple Drag Manager documentation.

### *The Project Window*

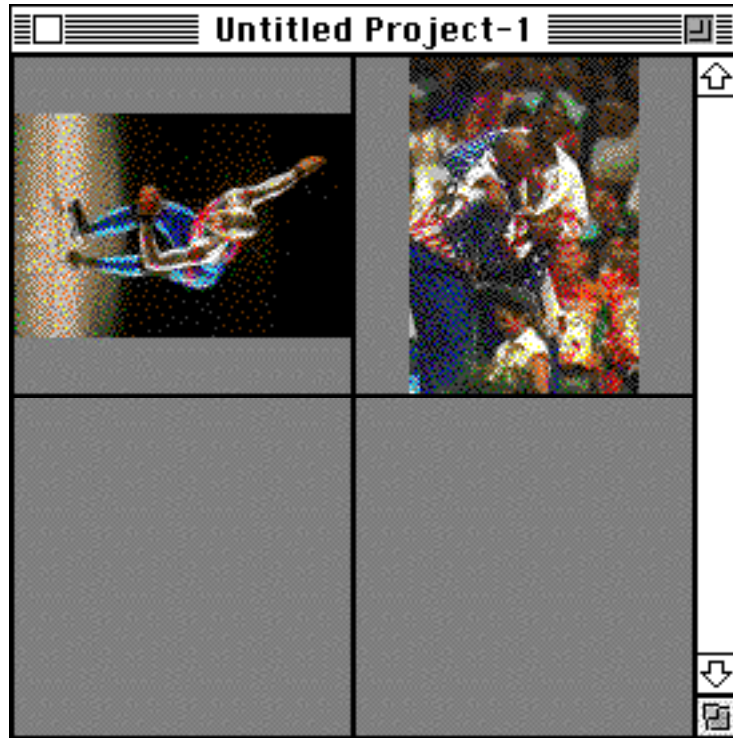


Figure 2. The Project window

Displays group of static images which can be saved as a Project document.

When the user creates a new project, the window initially appears with "untitled" in the title bar (if there is already an "untitled" window present, it should be named "untitled 2", etc.).

Once the window is saved as a Project document, the saved name appears in the title bar.

Any number of project windows can be open simultaneously (constrained only by the memory partition that the client is running in).

Images can be dragged from the Project window to the SSL.

Images are added to a project by dragging them from the Browser window to the appropriate project window.

Images are removed from a project by dragging them to the Finder's Trash icon or by choosing "Clear" from the Edit menu.

Images can be dragged from one Project to another leaving the first Project unchanged.

Saved projects (DOC documents) containing items found on an remote volume will not be viewable unless that volume is mounted.

### *Functionality in the Browser/Project windows*

Retention of settings between sessions:

- window position
- window size
- cell size in grid (if set in Preferences)
- information sources and their state (checked, sort)
- list/thumb display (text list, cell list)

### Zooming

Clicking the first time in the zoom box expands the window to the size of the screen that it is located on.

Clicking again in the zoom box (if the window has not been moved or resized since the first click) reverses the operation.

Clicking again in the zoom box (if the window has been moved or resized since the first click) expands the window to the size of the screen that it is located on.

### Viewing

Images can be viewed as thumbnails or as a textual list.

The heading are as follows: file name, creation date, file size, slug

### Sorting

Images in the Browser or Project windows can be sorted by choosing "Sort..." from the Edit menu, which brings up the following dialog:

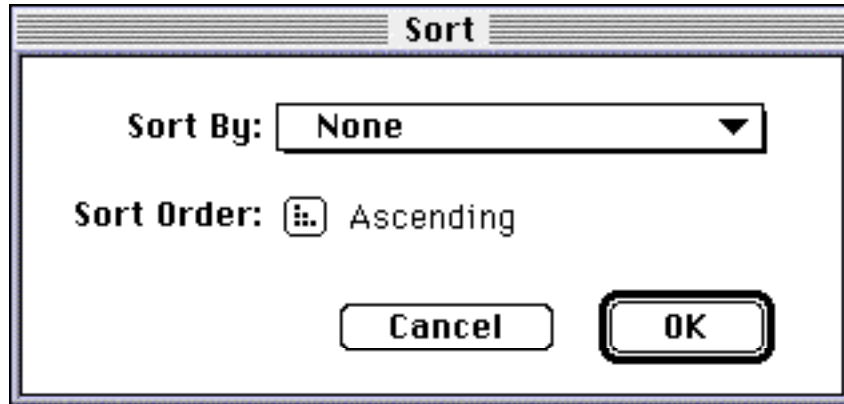


Figure 3. The Sort dialog

The user can click on the pop-up menu to choose a new sorting criterion, as shown below. Note that if the user chooses "Info Source" as the sorting criterion, the items are sorted by relevance within each info source.

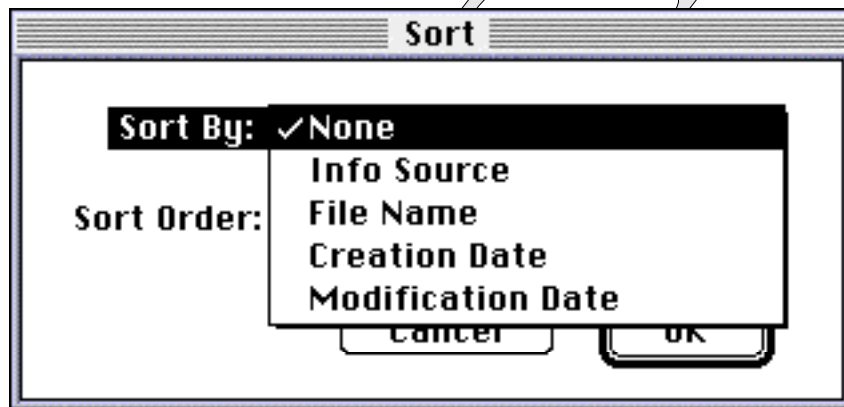


Figure 4. The Sort By pop-up menu

The user can also click on the sort order button to toggle between ascending and descending sort order, as shown below:

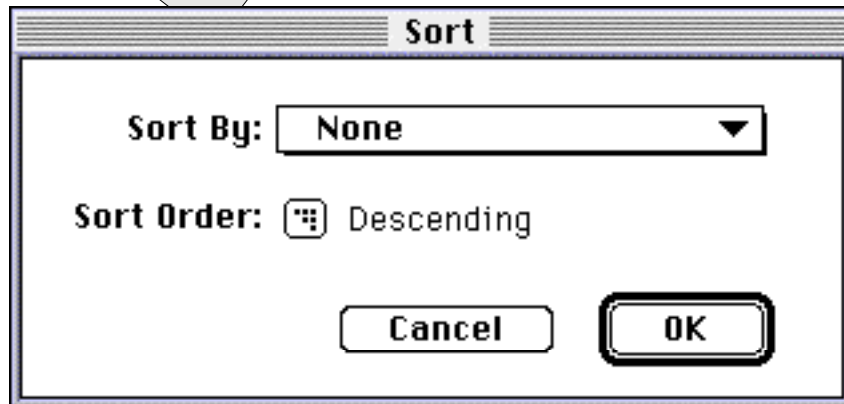


Figure 5. The Sort Order button

## Printing

Use a standard proofing template (8.5 x 11 paper size) which would offer either a horizontal or vertical grid of thumbnails with 2 or 3 lines of image info beneath each thumbnail.

Always default thumbnail sizes to 128 x 128 when printing.

## Selection

Image is selected by clicking on it once; it is deselected by shift-clicking on it once.

Groups of images are selected by shift-clicking.

2-pixel wide selection box for cells.

Command-double-clicking on an image launches the document in its native application.

## Cell Sizing

Cells can be resized by dragging the border of any cell or by choosing "Resize Cells..." from the Edit menu, which displays the following dialog:

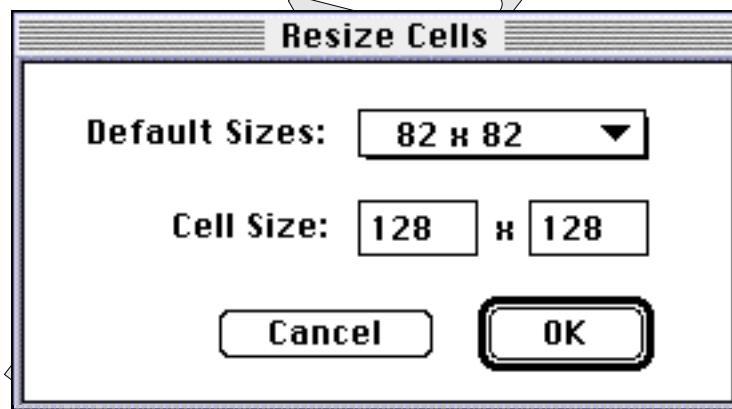


Figure 6. The Resize Cells dialog

The user may enter numerical values in the editable cell size fields or may choose a default size from the pop-up menu as shown below. If "Fit to Window" is chosen, DOC calculates what the cell size would be to make all images fit in the current boundaries of the window. The calculated size is then placed in the editable cell size fields.

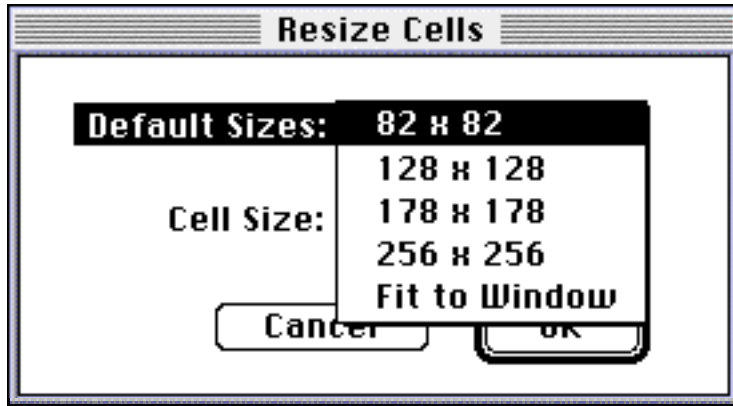


Figure 7. The Default Sizes pop-up menu

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## The Shared Services Library Window

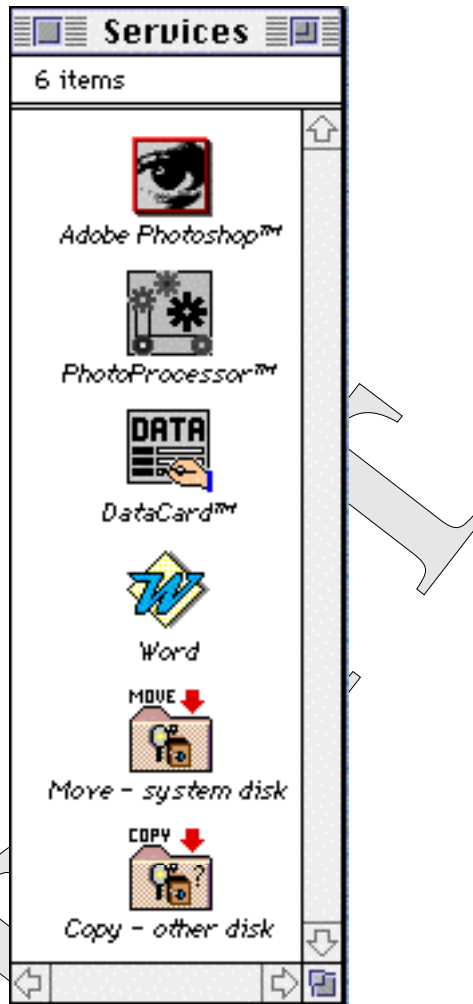


Figure 8. The Shared Services Library window

Icons are snapped to an invisible grid in the window.

User can change the display order by moving icon to desired location.

Icons are displayed in as many columns as the window's width allows.

The window is scrollable and resizable.

Zooming expands the window so that all icons or names can be viewed or, if that is impossible, so that the window occupies the entire length of the screen.

User must be able to arbitrarily select and edit contents of SSL. To load services into the window, the user may drag applications (or their aliases)

from the Finder into the SSL window. Alternately, the user can choose "Add Service..." from the File menu to choose an application.

To remove a service, the user may drag it from the SSL to the Finder's Trash icon. Alternately, the user may select a service and choose "Clear" from the Edit menu.

When an image is dragged over a service in the SSL from Browser or Project window, the service is highlighted.

DOC sends an "odoc" AppleEvent message to the service when image or group of images are dropped on the it.

Retention of settings between sessions

- window visible/invisible
- window position
- window size
- services and their position within the window

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## The Info Sources Window

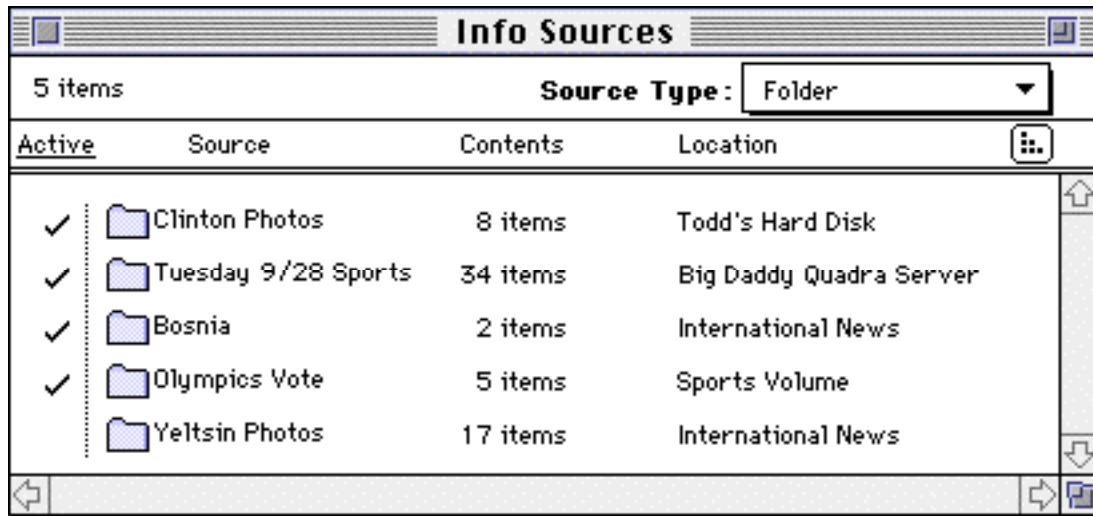


Figure 9. The Info Sources window

The Info Sources window displays a list view - the window is scrollable and resizable.

Clicking on any of the four column headers (Active, Source, Contents, Location) causes the list to be sorted by that column and underlines the column header that was clicked on. Clicking on the sort button toggles the sort order between ascending and descending.

There can be only one reference to a particular source in the list at any time.

Sources can be clicked or shift-clicked for selection and deselection.

Sources are movable to indicate sort order of images in the Browser.

An indicator (check mark) to the left of each source designates its status. Checked sources are "active" (their contents are monitored in the Browser), while unchecked sources are "inactive" (their contents are not monitored).

Sources are grayed out if not available (e.g., a folder on an AppleShare volume that is not mounted on the user's desktop).

To add folder sources, the user may drag folders (or their aliases) from the Finder into this window. Alternately, the user may choose "Add Source..." from the File menu to choose a folder.

To remove folder sources, the user may drag folders to the Finder's Trash icon. Alternately, the user may select sources and choose "Clear" from the Edit menu.

Number of items is displayed beside source.

If an info source is double-clicked, a new project window is created which contains all the Browser images from that source. The title of this project window should be the same as the name of the selected information source.

The user may choose either "Folder" or "AppleSearch Server..." from the Source Type pop-up menu, as shown below:

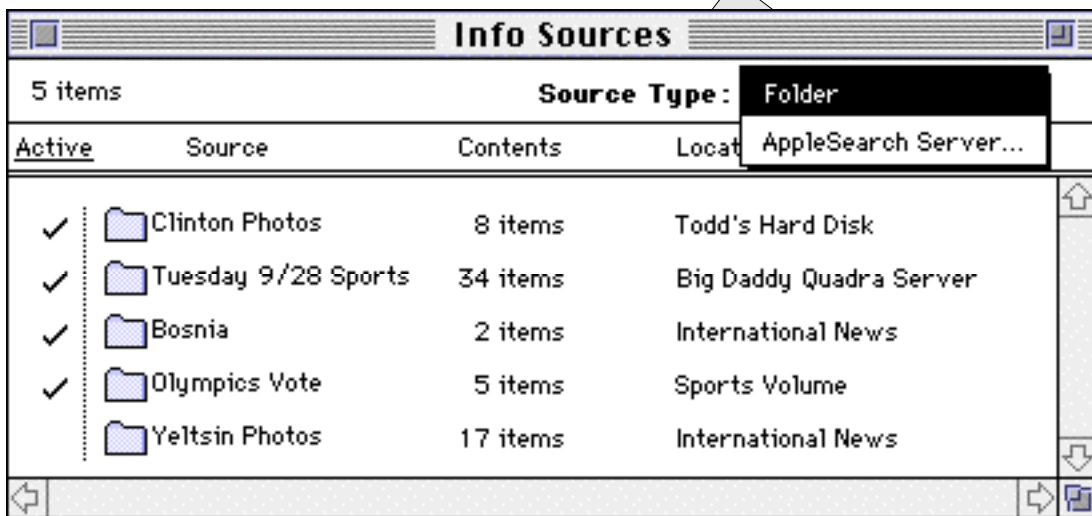


Figure 10. The Source Type pop-up menu

If "AppleSearch Server..." is chosen, the standard PPCBrowser and security dialogs are displayed to allow the user to select a server and gain authorized access to it.

Once the connection is complete, the server's info sources are shown in the window and the pop-up menu changes to include the name of the AppleSearch Server, as shown below:

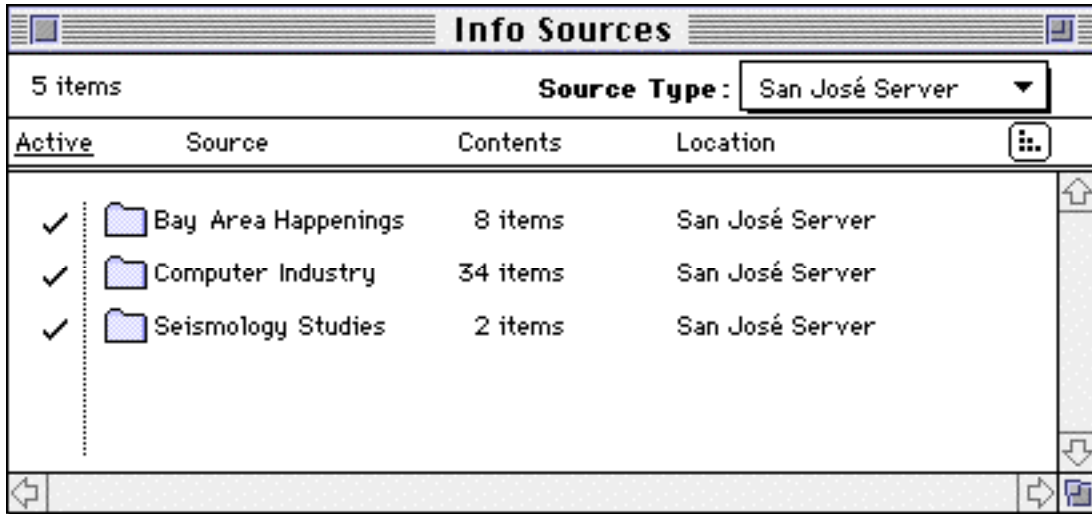


Figure 11. The Info Sources window displaying sources from an AppleSearch Server

If "AppleSearch Server..." is chosen again, the connection with the first AppleSearch server is broken, and the PPCBrowser and security dialogs are again displayed.

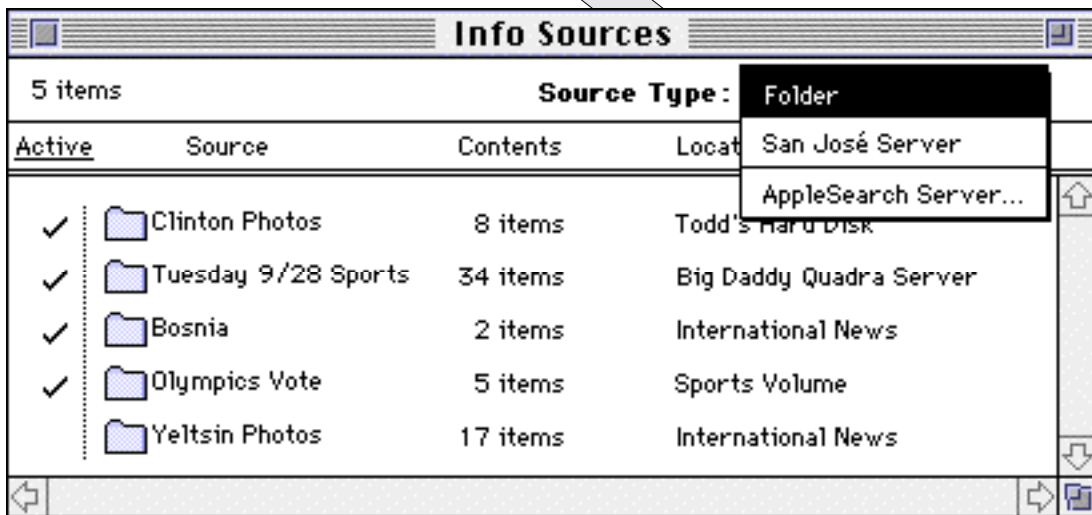


Figure 12. The Source Type menu after connection to an AppleSearch Server

The user may use the Select All menu item to select all the sources in the window.

The user may use the Activate Source menu item to activate (check) the selected source(s).

Retention of settings between sessions

- window visible/invisible

- window position
- window size
- all sources - active/inactive status - position in the list

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## The Image Info Window

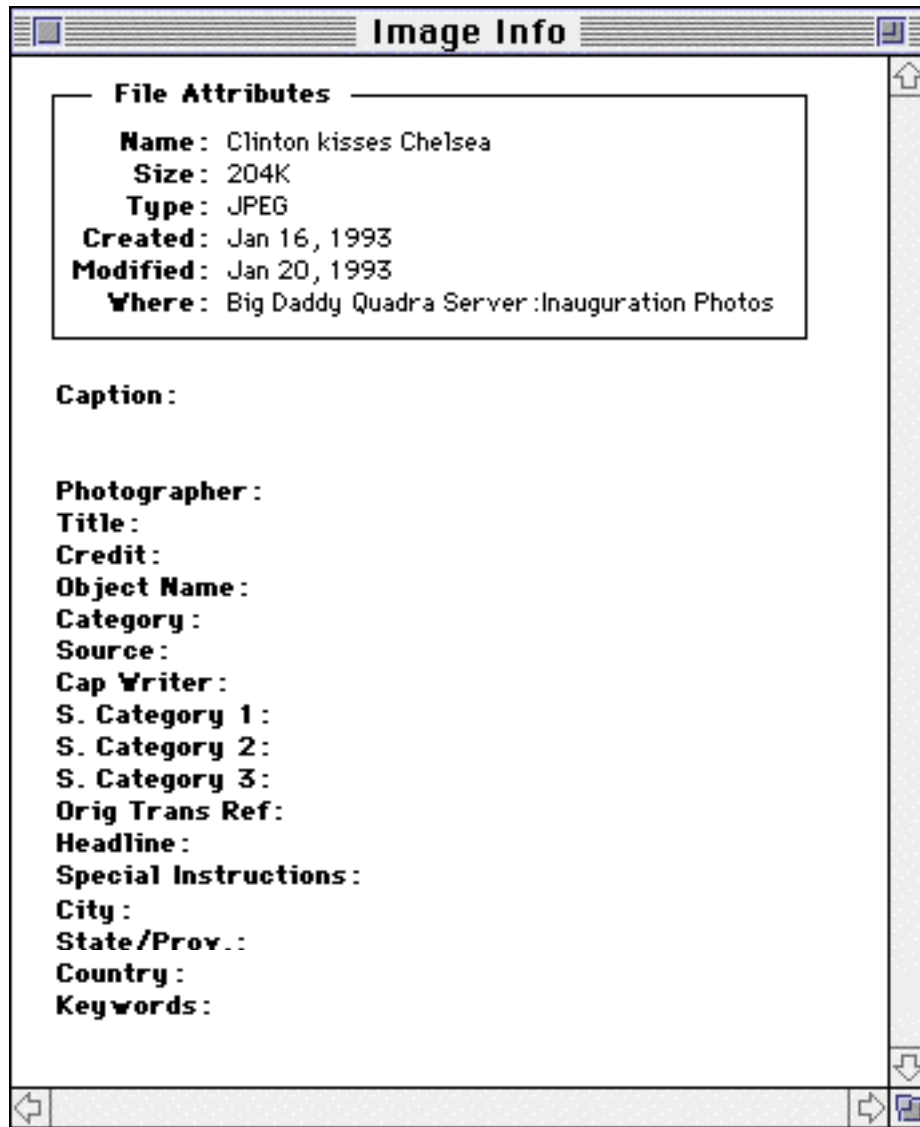


Figure 13. The Image Info window

If no image in Browser/Project is selected, displays attributes (file name, source name, file type, file size, etc.) of the image that the cursor is moving over.

If an image in Browser/Project is selected, displays metadata (as unstructured text) of that image in addition to its attributes.

If more than one image in Browser/Project is selected, displays metadata/attributes of the first image that was selected.

Support copy/paste of any text in the window.

Retention of settings between sessions

- window visible/invisible
- window position
- window size
- order, position of fields within window

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## The Query Palette



Figure 14. The Query Palette

The user types in a query and hits the "Find button". During the search process the cursor changes to the following:



The first applicable image in the frontmost image window (Browser or Project window) is selected. The user can then choose "Find Again" from the Edit menu or from the palette to select the next found item. Once the user changes the query text, the palette reverts back to its initial state. If nothing is found a "timed dialog" stating that fact appears for 2 seconds.



Figure 15. The Query Palette after a local "find" has been completed

If the user chooses the "More Choices" button, the palette changes to allow AppleSearch queries (if a connection to an AppleSearch server has not been made in the Info Sources window, the More Choices button is disabled).



Figure 16. The Query Palette after "More Choices" has been chosen

In the "More Choices" mode of the Query Palette, the user may tab to the different fields of the palette in the following order: query field, rank, returns, month, day, and year. When one of these fields is activated (by either clicking on it or tabbing to it, the contents of the field are highlighted. In each case except the query field, up/down arrow controls are placed beside the active field. The user may click on these arrows to increase/decrease the value in the field. The user may also type a number (in the rank field, the numbers 1 through 5 translate to the appropriate number of stars in the field).

The user's entry in the numerical fields is validated and, if necessary, coerced to a "legal" value. Legal values are as follows: 1 to 5 for the rank, 1 to 99 for the returns, and any valid date for the month/day/year.

*Preferences dialog*

Same preferences as Harvey...

## Menus

### Apple Menu



Figure 17. Apple menu

About Agent Orange... will bring up some snazzy dialog with a QuickTime video of Miles Waldron.

### File Menu

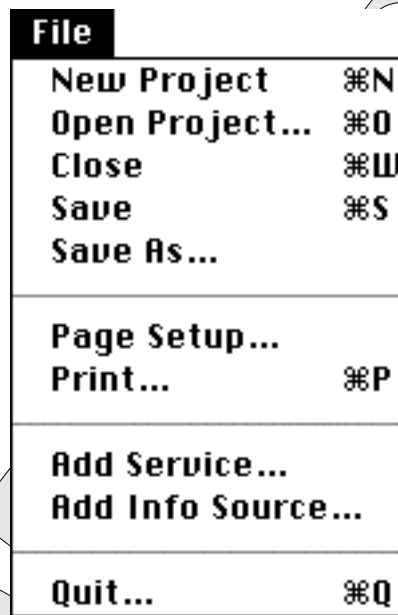


Figure 18. File menu

New Project creates a new, untitled project window.

Open Project... displays a standard get file dialog as shown below.

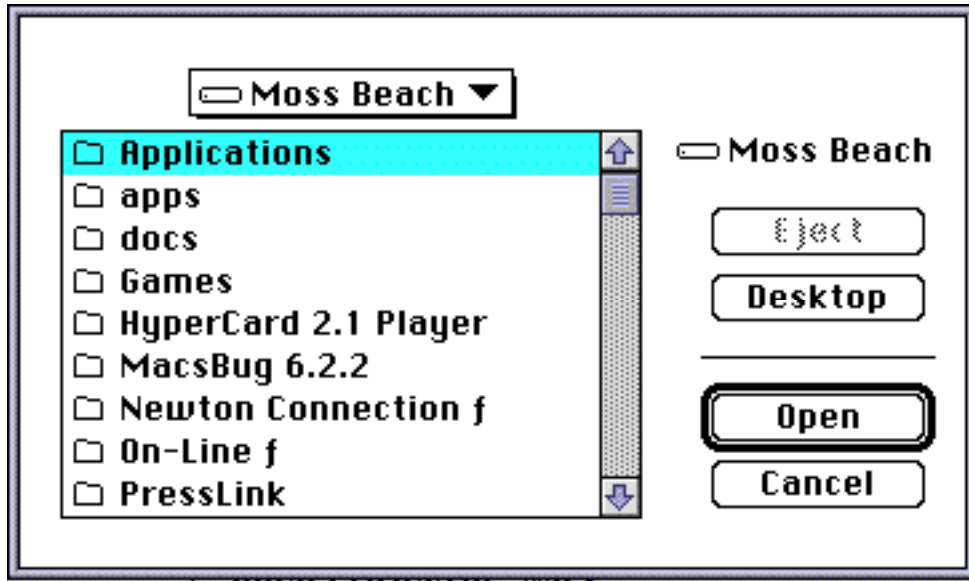


Figure 19. Standard Get File dialog

Close closes the active window

Save saves the active project window

Save As... displays a standard save file dialog as shown below.

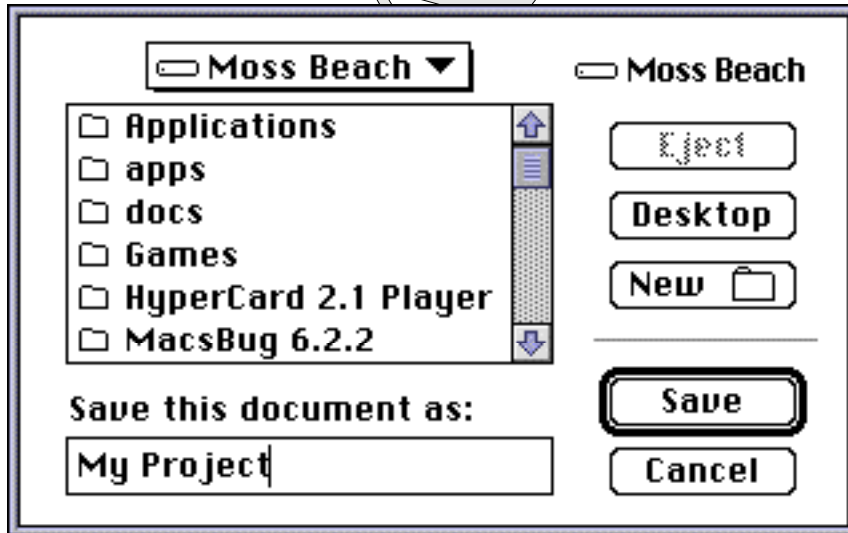


Figure 20. Standard Save File dialog

Clicking on the "New Folder" button in this dialog displays the "New Folder" dialog shown below.



Figure 21. New Folder dialog

When the user clicks on the "Create" button in this dialog, a new folder is created in the directory currently displayed in the save file dialog. The user is then returned to the Save File dialog, which now displays the newly created directory.

Page Setup... displays a standard Setup dialog as shown below.

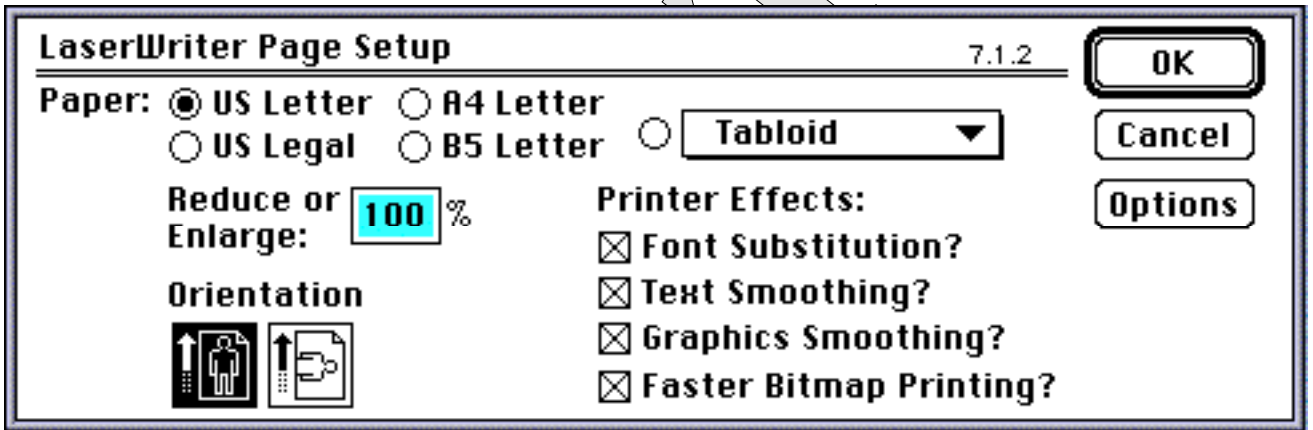


Figure 22. The Page Setup dialog

Print... displays a standard Print dialog as shown below.

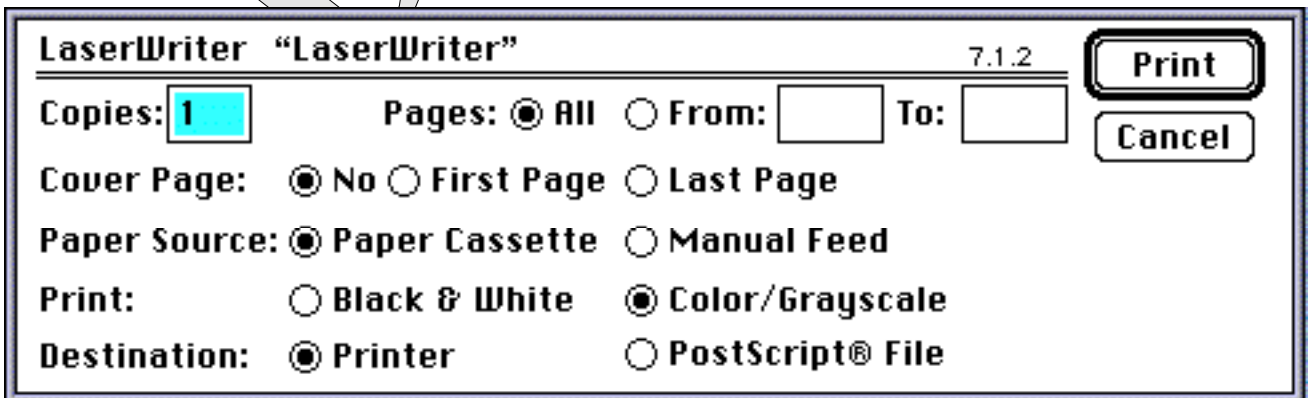


Figure 23. The Print dialog

Add Service... displays a get file dialog as shown in Figure 19. When the user selects an application or an alias of an application, it is added to the Shared Services Library window.

Add Info Source... displays a get file dialog as shown below. When the user selects a folder, it is added to the Info Sources window as an active source. If a folder-type info source is selected in the Info Sources window, this menu item changes to "Delete Info Source...". When chosen, a confirmation dialog appears which asks "Are you sure you wish to delete the info source 'Photos Folder'?", to which the user must respond by clicking on the "Delete" button or the "Cancel" button.

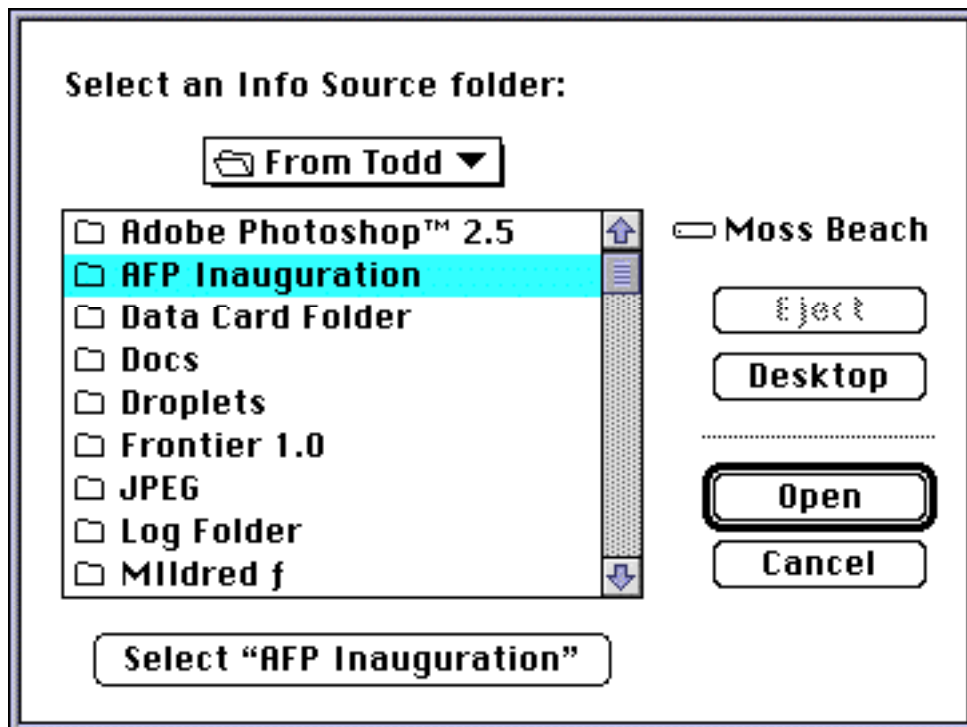


Figure 24. Standard Get Folder dialog

Activate Source... activates the selected source(s) in the Info Sources window. This item is only enabled when the Info Sources window is frontmost. This item changes to Deactivate Source... if the selected source(s) are already activated.

Quit

Edit Menu

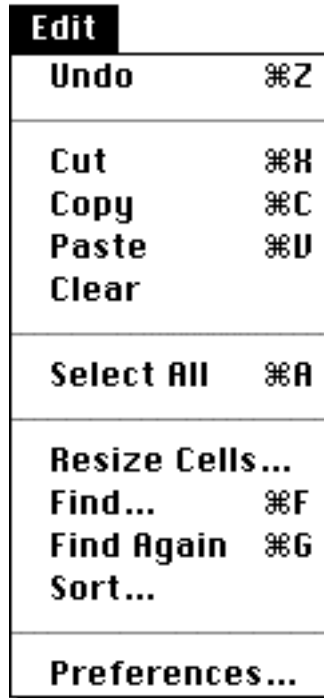


Figure 25. Edit menu

Resize Cells... displays the Resize Cells dialog

Find... displays the Find dialog

Find Again repeats the last Find command

Sort... displays the Sort dialog

Preferences... displays the Preferences dialog

View

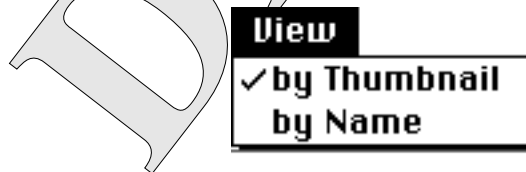


Figure 26. View menu

by Thumbnail - applies to the active project window or Browser

by Name - applies to the active project window or Browser

Window



Figure 27. Window menu

The first four items activate the appropriate window if it is visible. If not, it becomes visible and the active window.

List of open Project windows - Selecting one of the project windows makes it the active window.

The active window is checked.

#### *Help*

Balloon help for all menus and buttons.

Should include all special command key sequences.

## API Specifications

*AppleSearch Client Toolkit API*

*Supported AppleEvents*

4 required events

*DOC document file format*

list of alias records?

*DOC Preferences file format*

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