

The MASTERCLIPS Browser for Windows

User's Manual

Overview

Overview of The Browser

Supported Formats

Graphics formats supported by
The Browser.

Catalogs

Catalogs

Catalogs and their uses.

Cataloging Images

Cataloging images

Maintaining Catalogs

Maintaining catalogs

Viewing Images

Viewing Images

Viewing images

Thumbnail View

Thumbnail View and Slide Show

Editing and Manipulating Images

Editing Images

Editing options: cut, paste, crop, expand,
rotate mirror.

Creating New Image

Creating an new image.

Saving Images

Saving Images

Saving images; format
conversions.

Printing

Printing Images

Printing images.

Printing Catalog Entries

Printing selected or all entries in a catalog.

Object Embedding and Linking

Ole Server Operation

Using The Browser as an OLE
server.

Options and Miscellaneous Topics

- Run time options Runtime options affecting the operation of the program.
- Default options Default options effective upon start-up.
- Command line options Options that can be specified on the command line.
- Removable Media Configuring The Browser for removable media such as Bernoulli boxes and Optical-Magnetic drives.
- Profile Options WIN.INI and alternate BROWSER.INI option storage.

Overview

The Browser is designed to manage a collection of graphics images in the Microsoft Windows operating system so that they may be readily retrieved when desired. The program reads a variety of different graphics formats produced by many popular programs in addition to the Computer Graphics Metafile (CGM) format of this product.

The Browser is based on the concept of the "Catalog" which can be likened to a file index. It allows you to annotate catalog entries with your own comments by supplying keywords to an entry. As a result, searches can be made for images meeting selected search criteria, similar to an image database.

Because graphics images take up vast amounts of valuable and expensive disk space, it is often necessary to keep them on removable floppy disk media. In many cases, only a few images will fit on a floppy disk resulting in a modest sized graphics collection occupying dozens of diskettes. The Browser is able to keep track of these "off-line" copies; they are referred to as "backup" copies even though in many cases, the floppy disk copy may be the only storage location. When you want to view one of these copies, it is easy to locate the right diskette with The Browser.

There are many programs available which allow extensive editing of images using sophisticated techniques. The Browser possesses a basic set of editing tools for raster images only. Images can be rotated, resized, flipped about an axis, cropped and expanded. In addition, The Browser offers the ability to dither images, i.e. display images whose color resolution exceeds your video system's capacity.

The Browser dovetails with several Windows capabilities. It utilizes the Windows Clipboard so that graphics formats not directly supported by The Browser can be imported from or exported to another application via the clipboard. By utilizing the Microsoft Multiple Document Interface (MDI), it can display multiple images concurrently, plus one or more Thumbnail View Windows. And, using Microsoft's Object Embedding and Linking protocol as a server application, you can link or embed images supported by The Browser in any **OLE** client application such as Windows Write or Word For Windows 2.0. The Browser will also accept a file name "dropped" on it from File Manager.

Supported Formats

Graphic formats other than CGM which are supported by The Browser:

<u>BMP/DI</u>	Windows bitmap format.
<u>CLP</u>	Windows Clipboard file
<u>DRW/GRF</u>	Micrografx vector file formats (read only).
<u>EPS</u>	Encapsulated Postscript imbedded TIFF preview images.
<u>FLI/FLC/CEL</u>	Autodesk Animator FLI/FLC animation files. (<i>Read only</i>)
<u>GIF</u>	CompuServe Graphics Interchange Format. The Browser supports both the GIF87a and GIF89a standard. ("The Graphics Interchange Format (C) is the Copyright property of CompuServe Incorporated. GIF(sm) is a Service Mark Property of CompuServe ")
<u>JPG</u>	JFIF format JPEG compressed images.
<u>ICO</u>	Windows Icon
<u>IFF/LBM/CE</u>	Deluxe Paint II LBM & IFF files. The file extension "CE" is created by Digital Vision's Computer eyes video capture product.
<u>IMG</u>	GEM/IMG (Digital Research) format. (Read Only)
<u>MAC</u>	Macintosh MACPAINT files(Read Only)
<u>PCX</u>	Z-Soft Paintbrush files.
<u>RLE</u>	CompuServe Run Length Encoded file format.
<u>TGA</u>	Targa file format. (TrueVision Advanced Raster Graphics Array)
<u>TIFF</u>	Tagged Image format.
<u>WMF</u>	Windows Metafile.
<u>WPG</u>	WordPerfect Graphics WPG files. (<i>Read only</i>)

Additional formats can be supported by The Browser by utilizing the Graphics Import Filters that are supplied with Word for Windows and Aldus PageMaker. Some of the available formats include: HPGL, AutoCad DXF and Excel graphs. See Options for more details.

Catalogs and Their Uses

Simply defined, a catalog is a list of images. The content and scope is left to you to define. For example, you may wish to catalog images by project or usage, or by size, color resolution, graphics format, subject, or content. The Browser can easily catalog images based on your desired criteria. Catalog content does not have to be exclusive. A given image may be located in more than one catalog at a time.

Purchasers of Masterclips in 3.5" HD disk media receive 25 pre-built catalogs. The balance of the entire collection in pre-built catalogs is available for a nominal charge. Please refer to the Phone-In Order Form.

Purchasers of Masterclips on CD ROM media receive all 102 pre-built catalogs.

Creating Your Own Catalogs

The Browser always maintains at least one catalog. However, the user may add as many catalogs as the system's disk storage will permit. In order to assemble your own catalogs, open the **SELECT CATALOG** dialog box, Click on **Create New**, and enter the necessary information, i.e. a name for the new catalog, a filename and path, and a list of default file extensions. The Volume ID is optional.

Name Each catalog defined in The Browser has a name. The initial catalog is named "Default". You may choose any name you wish, and you may change the name of a catalog at any time.

Directory, Path, and File Name The directory, path and filename of a catalog are user-defined. It is suggested that the location of a catalog be in the same directory as the majority of the images contained in the catalog since the catalog's path also becomes the default path for accessing the images. Any filename of up to eight characters recognizable by DOS can be used. The Browser catalogs have filename extensions of "CAT" & "CIX" which cannot be changed by the user.

File extensions If a given catalog is to contain only certain graphics formats, the default file extensions for files displayed in the **File Open** dialog can be defined for each catalog.

Volume A volume name may be optionally specified for a catalog. If present, the volume name of the drive containing the catalog will be checked prior to opening a catalog. This option is useful when a catalog exists on a removable drive such as a Bernoulli box. If the correct volume is not mounted, you will be prompted to insert the proper volume.

Each catalog defined in The Browser is represented by a **Catalogx =** entry in the PIXFOLIO.INI file. These entries are automatically maintained by The Browser. However, the user might have to manually modify the PIXFOLIO.INI file entry to move or rename a catalog filename.

Changing Catalog Attributes

The name of a previously defined catalog may be changed along with the default file extensions by using the Catalog Select command. Also, the optional Volume ID may be changed.

Deleting a Catalog

A catalog may be deleted by using the Catalog Select command. Deleting a catalog has no affect on the images that were contained in the catalog.

Cataloging an Image

There are two methods of cataloging an image. Do so manually by selecting the Catalog Catalog command when an image is displayed. Automatically update a catalog from a list of image filenames via the Catalog Build command. It is more convenient to catalog manually if you are doing one image at a time. To establish a new catalog or to update a catalog with many images, the automatic method is preferred.

User Fields:

Title Enter the title of the image. The maximum number of characters that can be entered is 59, including carriage returns and line feeds. For Masterclips images the name MCLIPS 93 will appear.

Keywords Enter the desired keywords to be used for searching. These keywords can be used to select a list of files meeting requested search criteria. The maximum number of characters that can be entered is 87.

Description Enter any descriptive data concerning the file, up to a limit of 1200 characters. This field can be scrolled and edited using standard editing commands. If a GIF89a image has text data included with it, it will be placed here.

Catalog Select the catalog to be updated from the Dropdown combo listbox.

Program Fields:

Filename Lists the name of the file.

Pathname Displays the primary location (hard disk), pathname, volume label, and the backup (floppy disk) location. Therefore, there can be two access paths for the file.

Primary Vol Lists the volume name of the primary location.

Backup Vol & Path Displays the volume name and path of the backup floppy disk.

Size Lists the file size in bytes.

Date & Time Displays the creation date and time of the file.

Info Displays the height, width, number of colors, and file format in a box in the lower left corner.

Press the following buttons to perform these desired functions:

Catalog/Update Update the catalog; "Catalog" means that this is a new entry. If desired, the target catalog can be changed beforehand.

Uncatalog Delete the catalog entry. This button will be grayed if there is no catalog entry to delete. This option does not delete the file itself.

Cancel Cancels the dialog and returns you to the application.

Move Moves or copies the file to another location.

(image) The "thumbnail" image that is displayed is a smaller version of the original image file. If you are recataloging a file, the thumbnail will be recreated from the current file.

Note: The above buttons are redefined if the dialog is entered via the CATALOG_BUILD command.; "Catalog" or "Update" becomes "Next", Uncatalog becomes "Previous" and "Move" becomes "View".

Catalog Build Dialog

The **Select Items to Catalog** dialog box contains files that can be selected to be updated to the catalog. When a file (or files) is selected and the **BUILD** button is pressed, the image will be read in and cataloged. Selecting the **Auto Update** option allows for fully automatic updating of the selected files. Leaving it off requires the user to press the **CATALOG** button for each file after updating the keywords, description and title information. To facilitate building all the files for an application or on an entire CD-ROM volume, the **Follow Directory Tree** option can be turned on to list all files in subdirectories of the current directory.

When the **Show All** option is de-selected, the listbox will display only those files that are not cataloged in the selected catalog. The **Select all** option can be used to select all files at once; it will toggle on/off the selection status of all files displayed.

Stop On Error can be turned on to bypass prompts for error or warning messages such as when large 24 bit files are read.

When you use the Catalog Build command, images that are already cataloged will not be read to create a thumbnail but the catalog entry will be updated with backup volume and path information for files on floppy disk. If you wish to reconstruct the thumbnail for catalog entries that already exist, you can turn on the **Force Update** option. If a floppy disk containing images is processed and the floppy disk is not labeled, The Browser will prompt you and label the disk for you so the catalog entry can indicate the Volume ID.

Maintaining Catalog Information

Two broad categories of information are kept in the catalog entry for an image: **File Attribute Information** including file size, date created, format, and a thumbnail representation of the image which is used in various types of displays of catalog information and entries for Title, Description and Keywords. All of these elements, except for file size, date created and format, can be directly modified by the user. In most cases, this data must be supplied by the user. In a few cases such as for GIF89a images, the title and description are obtained from the image but can be edited by the user.

Accessing Catalog Information

You can access and change catalog information in the following ways:

1. Via the **Catalog Catalog** command, which creates or updates a catalog record for the currently displayed image.
2. Via the **Catalog Browse** command, which lets you view, sequentially, the contents of a catalog and accesses the Search function. The scope of entries displayed in a catalog can be modified by setting search criteria, which may include keywords, file size, format, number of colors or date. User supplied information such as title, description and keywords can be changed.
3. Via the **Catalog Build** command, which provides a convenient means of updating a catalog with a large number of entries, either automatically or pausing at each image to allow the user to update title, description or keyword information.
4. Via the **View Thumbnails** command, which displays as many thumbnail images of cataloged items as permitted. Scrolling commands, either from the keyboard or mouse, enable the user to scroll through all of the entries in the catalog. Clicking on a thumbnail image, displays a menu with options including a selection to display the current catalog entry. The user can update the title, description or keywords at this time.

Information other than user supplied title, description and keywords is automatically updated when exercising the **Catalog Catalog** or **Catalog Build** commands. The **Catalog Build** command is particularly useful for updating a catalog with the location of files. For example if you had previously copied images to floppy disks, the **Catalog Build** command could be used to update the catalog with the "backup" locations of the files.

Multi-Catalog Updating

Moving an image from one catalog to another is simple with The Browser.

1. Use the **Catalog Catalog** command to display the catalog entry. Select a new catalog using the catalog combo listbox. Press the catalog button. The catalog entry in the original catalog will remain and must be manually deleted if it is no longer desired. To continue working in The original catalog, select it again.
2. Use the **View Thumbnails** command to mark individual thumbnails

for some future action. Use the **Process Thumbnails** command to Move, Copy or Delete all of the marked thumbnails. Moving or copying thumbnails to another catalog does not entail replacing the current catalog selection so that operation can continue uninterrupted in the current catalog.

3. Display thumbnail views of both the "source" and "target" catalogs. Thumbnails in the "source" catalog can be dragged (by holding down with the left mouse button on the thumbnail's title) to the desired location in the target catalog. The original catalog entry will remain intact.

E x p o r t i n g C a t a l o g I n f o r m a t i

o n

The Browser can export catalog information for use in other programs via the Catalog Export command. The text data incorporated into a catalog entry is written to an ASCII, comma-delimited file that can be imported into many database or spreadsheet programs. If desired, you can omit the catalog entry's description field. An example of an ASCII comma-delimited item is shown below:

```
"386CMPTR.CGM", "", 667,482,"256","CGM","D:\PR2US\CLIPART\
COMPUTER\","DRIVE D", "", "", "", "3356", "05/22/1993", "03:00:00", ""
"4SEASONS.PCX", "", 1080,986,"2","PCX","G:\
PCX\","WORM0001", "", "", "CHRISTMAS SANTA
CLAUS", "92803", "08/04/1988", "12:00:00", ""
"5_25DISK.CGM", "", 667,482,"256","CGM","D:\PR2US\CLIPART\
COMPUTER\","DRIVE D", "", "", "", "1274", "05/22/1993", "03:00:00", ""
"9TO5.PCX", "", 1064,1137,"2","PCX","G:\PCX\","WORM0001", "", "", "CLIPART
9TO5", "58938", "08/03/1988", "12:00:00", ""
"A-MELLEA.TIF", "", 852,689,"2","TIFF","G:\
TIF\","WORM0001", "", "", "FUNGUS
DRAWING", "23548", "11/21/1993", "07:32:13", ""
```

The Fields in each item, separated by commas are, in sequence:

1. File Name.
2. Title.
3. Image width in pixels.
4. Image height.
5. color resolution: 2, 16, 256, >256.
6. Format: GIF89, PCX, TIFF, etc.
7. Primary pathname.
8. Primary Volume id.
9. Backup pathname.
10. Backup Volume id.
11. File size in bytes.
12. File modification/creation date.
13. File time.
14. Description (optional).

Restricting the Display of Catalog Entries

When dealing with large catalogs consisting of hundreds of images, it may be desirable to restrict the display of catalog entries to those meeting

certain criteria. Do this by using the **Catalog Browse** command to apply search criteria to the catalog list. Alternatively, individual catalog entries can be marked and hidden from the **Thumbnail View** screen.

The **Catalog Browse** command provides a dialog box listing the entries in a catalog. The target catalog can be changed by selecting another catalog from the Catalog combo listbox.

Catalog Browse

There are a number of functions that can be applied to a catalog entry:

Move /Copy File moves or copies a file to another location. The catalog is updated with the new location of the file.

Delete File deletes the file from the catalog and the hard disk.

View It/Load It opens and displays the file. **View It** will end the Browse Dialog; **Load It** will load the image but the dialog will remain active.

OK displays the catalog entry. When the catalog entry dialog is displayed, the **OK**, **Delete** and **Move** buttons are replaced by **Prev**, **Next** and **View** respectively.

Cancel cancels the dialog, returning you back to the main viewing window.

Uncatalog deletes the file from the catalog only.

Print Cat prints the selected catalog entry.

File Search

Four different search criteria can be applied to a catalog to restrict the catalog list to a subset:

1. Backup copy
2. File Format, e.g. GIF87a, TIFF, PCX, etc., as they appear in the "info" box on the catalog display.
3. Match on one or more keywords.
4. Match on special conditions, e.g. file size, width, height, number of colors or backup volume name.

The Search function can be accessed by pressing the Options >> button:

Catalog Browse: After a search operation.

To search, enter the desired search value(s) in either the Format edit box (29 characters max.), Special Conditions box (87 characters max) or the Keywords box (87 characters max). If no data is entered in a box, it will not be used in the search. The "Backup File" checkbox is a three-state control. If the box is gray, then it will have no affect on the search.

If an edit box is blank, then all catalog records that do not have a backup location will be selected. If the box is checked, only those catalog records with a backup file location will be selected. The three search criteria are ANDed to select a record, i.e. if search criteria 1 (Backup) is satisfied AND search criteria 2 (File Format) AND search criteria 3 (Special Conditions) AND search criteria 4 (keywords) are satisfied, the record will be selected.

Wild card characters "*" & "?" can be used in search arguments. For example, to select all "GIF" files, the search argument "GIF*" will select both GIF87a & GIF89a". Either spaces or commas may be used to separate search arguments. The underscore character "_" may be used in place of a space in a search argument if that space is significant. For example WATER_SPORTS will search for the string "Water Sports" while WATER SPORTS will hit on either "Water" or "Sports". Case is not significant in searches. A logical AND operator '&' can be used to separate two search criteria. In this case, both search tokens must be found in order for the record to be selected. To select the keywords, DOGS and ANIMALS, use DOGS&ANIMALS as the search criteria.

To include special conditions such as file size, and/or image width, The Browser has 5 special search arguments that can be used in the Format and Special Conditions boxes. The special codes all start with an "@" sign followed by a Code for the particular value to be tested for, an operator ("<" - less than, "=" - equal . "#" - not equal, or ">" - greater than) , followed by the value to be tested for. Do not use one of these special codes in the Keywords box!

The valid codes are:

- "B" - backup volume name.
- "C" - number of colors, 2, 16, 256.
- "D" - date in format mm-dd-yyyy
- "H" - height of image.
- "P" - primary path name

"S" - file size in bytes.

"W" - width of image.

Some examples:

@W=320	select images whose width is 320 pixels.
@D>01/01/1993	select all dates later than January 1, 1993.
@B=GIF0020 "GIF020"	select all images residing on backup volume
@C>16	select all images with more than 16 colors.
@P=C:\BROWSER	select all images in subdirectory "C:\BROWSER"

Press the **Search** button to seek records meeting the desired criteria. At the completion of the search, the new catalog list will be displayed in the list box. To change the search criteria, enter new search values and press **Search** again.

The modified catalog list will be in force until the **Show All** button is pressed, a new catalog is selected, or another search operation is performed. The **VIEW THUMBNAIL VIEW** command will display only the currently selected catalog entries.

Viewing Images

The method used for viewing an image depends upon whether the image is cataloged. If an image is not cataloged, view it by using the **File Open** command to locate the file, read it, and display the image. You can also display an image that is dropped from File Manager. Once an image is displayed, it can be edited or cataloged in the catalog of choice. If an image is cataloged, it can be viewed by several means:

1. Click on the **View** button in the **Catalog Browse** dialog box displays the image.
2. Click on the **View** button in the **View Catalog Entry** dialog box. The **View Catalog Entry** dialog is activated by double clicking on a file name in the **Catalog Browse** dialog or by pressing **OK**.
3. Double click with the left mouse button in the **View Thumbnails** display or click the right mouse button to bring up the pop-up menu and then select the **View** option from the popup menu.

View multiple images by selecting the **Mark** option from the pop-up menu and then selecting **Process Thumbnails**. This dialog permits several actions to be taken on marked thumbnails including opening an image for

viewing.

Center Image

If a window is expanded or a full screen view is selected, the image being displayed will be located in the upper left-hand corner of the window. Selecting the **Center Image** option will cause all images that are smaller than the size of the current window to be centered both vertically and horizontally in that window.

Color Resolution Formats

Images can be read in several resolutions:

1 BPP	1 bit per pixel or two colors, black & white.
4 BPP	4 bits per pixel or 16 colors.
8 BPP	8 bits per pixel or 256 colors.
24 BPP	24 bits per pixel or 16 million colors.

The number of colors displayed will be determined by the maximum number of colors that your video display and driver software can handle. The Browser will retain all color information in an image even if it can't be displayed properly. For example, if you are using the standard VGA driver that comes with Windows, you can only display the 16 colors that Windows uses. If you read an image that uses 256 colors, most of the colors will be displayed using the "nearest" color. The result in most cases could be described as awful. The Browser offers a work around for this situation with its **Auto Dither** option explained in the Dithering Section below.

Palette Operations

Each image that is displayed possesses a color palette. In most cases, the palette is limited to some particular value that is directly proportional to the color resolution of the image, generally 2, 16 or 256 colors. If your video display supports 24 bit color, the palette can contain more than 16 million colors. The majority of video displays are capable of displaying only 256 colors or less at a time, but these colors are not fixed. They can be any one of 256,000 different colors. The purpose of the palette is to tell the video display which 256 of the possible 256,000 colors will be used.

The palette makes it possible for you to change the colors in the image by adjusting the contrast and brightness of an image. Intensifying all of the

colors adjusts the brightness of the image. Adjusting the darker colors unequally affects the contrast of the image.

Many scanned images contain a wider range of color than can effectively be displayed by many video displays. If an image is too dark, brightening it or adjusting the contrast may bring out details that are not seen otherwise. The Browser can easily handle such adjustments utilizing the **View Change Palette** command. A complementary command is the **View Gray Scale** command which can be used to convert a color image to shades of gray.

Dithering

Dithering is a way of simulating the display of many colors by substituting various combinations of the 16 colors and fools your eyes so that the image appears to have more shades of color than can be displayed. Turning **Auto Dither** on will force The Browser to automatically dither images for display if they have more colors than the display can present.

Convert a 24 bit image to 8 bits using the **Palette Dither** command. While dithering can take a considerable length of time, the results can be quite good. Dithering initiated by the **Palette Dither** command as opposed to the **Auto Dither** option permanently changes the color resolution of the file. The **Auto Dither** option only dithers the image for display on a device that does not have the capability of displaying all of the colors in the image.

The degree of dithering is controlled by the palette selected:

1. **Black and white**. The dithered image will only contain 2 colors. This may be desirable in preparation for printing since many printers, except for color printers, can only print black or white and are confused by shades of gray. (Note that most of the print drivers distributed with Windows 3.1 do a good job of printing color images as halftones and do not require that the image be dithered to black and white first.)
2. **Color (use current palette)**. This option is available when a 24 bit image is displayed. This will most likely be a 256 color palette.
3. **16 Color palette**. This palette is good for displaying images on a 16 color video display and for saving images with 4 bits per pixel color resolution.

4. **20 color stock palette**. Use this palette to display images with the Windows standard 20 color palette and with video drivers such as the standard VGA driver.
5. **256 color Palette**. This palette has an even distribution of all colors. This palette may be used to provide a common palette for cutting and pasting several images that have different palettes.
6. **Clipboard palette**. You may use the palette of another image by copying it to the clipboard. This also copies the image's palette to the clipboard. A palette from the clipboard may be used to provide a common palette for cutting and pasting several images that do not have the same palette.

Background Color

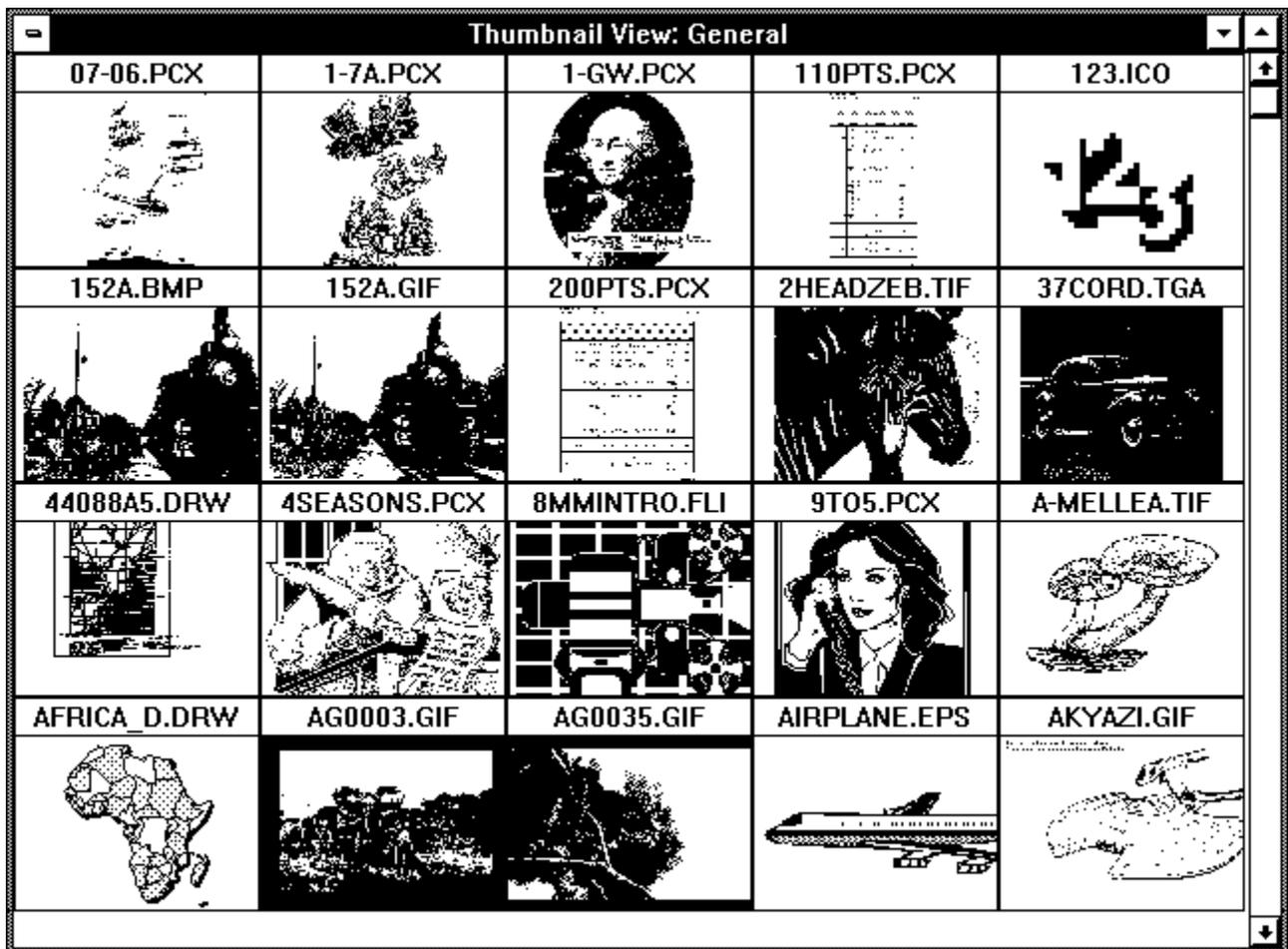
When the size of an image is increased, the additional area of the image will be painted to the background color that is set by the **Set Background Color**. The background color is also used to paint the surface of an image created with the **File New** command.

A dialog box is presented which enables the user to set the background color to whichever color is desired. An option (**Color Solid**) in this dialog box determines whether backgrounds will be painted with solid colors or dithered colors. The dithering option may give a wider apparent range of colors particularly if the palette is limited to say 16 colors by the video display.

You can define custom colors which will be saved for the next execution of The Browser.

Thumbnail View

Select **View Thumbnails** which displays thumbnail pictures created for each catalog entry. The Browser will display the maximum number of "thumbnails" which fit in the current window dimensions. The content of the display is dependent upon the selection criteria currently in effect, which is determined by the selections you make in the pop-up menu. For best results, expand the window to a full screen.



View Thumbnail View

The selected contents of a catalog can be browsed through by using the **Page-up** or **Page down** keys or the **up** and **down** arrows.

The pop-up menu is displayed by selecting and thumbnail and holding down the left mouse button.

Pop-up menu

Information displays the catalog entry for the image. User supplied data such as description, keywords and title can be changed if desired.

Hide Thumbnail removes the selected image from the display.

Mark Thumbnail marks or un-marks the thumbnail for some further

action using the Process Thumbnails command explained below. Marked thumbnails are checked and will have an asterisk "*" next to the file name in the title bar.

View Thumbnail displays a full size view of the image.

Add Thumbnail is only present when the **CATALOG - DISPLAY HIDDEN** option is on. It enables you to unhide a thumbnail that has been previously hidden or which was not selected by the **Catalog Browse** command.

Process Thumbnails permits one of the following actions on all previously marked thumbnails:

Move the catalog entries to another catalog.

Copy the catalog entries to another catalog.

Delete the catalog entries.

Hide the catalog entries.

Print the catalog entries.

Mark all catalog entries.

View the image(s).

Unmark all catalog entries.

Move/Copy Files moves or copies marked files to another drive or directory.

Delete and Uncatalog Files deletes files from the primary location and uncatalogs them.

Save Files to another Format saves a group of marked files to a new format.

Select **move** or **copy** in the initial dialog box when you select the target catalog. Check the option in the checkbox to avoid a prompt for each marked file and subsequent files will all be moved or copied to the same target location. If you are making copies of files for some external use, choose the option to not update the catalog with the new location of the files.

Process Thumbnails dialog

A target catalog must be selected only for the **Move** and **Copy** options; all other options operate on the currently selected catalog. For the **move**, **copy**, **print** and **Save-as** options, a checkbox can be checked to cause The Browser to avoid clearing the marks on the items. This is useful if you wish to perform multiple operations such as copying items to another directory, and then printing the same entries.

Launch Application starts another application using the selected image. You will be prompted for the program path/name and for any additional parameters.

A default for Program can be established for a particular file type, e.g. "GIF" or "PCX", etc., by adding an entry to The Browser section of WIN.INI as follows:

xxx=[drive][path]{program},[parameters] (where "xxx" is the file type: GIF, PCX, BMP, etc.)

Windows Notepad or SYSEDIT can be used to edit WIN.INI.

Slide Show

Slide Show displays all of the marked slides in the current catalog in full screen mode sequentially. Files to be displayed must exist on a non-removable drive. Several options can be set that will determine the operation of the Slide Show. These options can be set via the **Catalog Slide Show Options** dialog:

1. **Delay between slides** is the minimum amount of time that an image will be displayed. The image will be displayed an additional amount of time while the next image is loaded. The delay time is expressed in milliseconds; 10000 = 10 seconds.
2. **Number of animation passes** establishes how many times an animation sequence (FLIC or GIF89a) will repeat before going to the next slide.
3. **Display file name** checkbox marked displays the filename of the image in the upper left-hand corner of the screen.
4. **Pause between** checkbox marked prevents slides from automatically advancing. The right mouse button must be double-clicked to proceed.
5. **Repeat Show** selected starts over the slide show at the beginning when the list of marked slides has been displayed. To terminate the slide show, double click with the left mouse button.

6. **Display cursor during slide show** controls whether or not the cursor is displayed during the slide show.

During a slide show, double clicking with the left mouse button will terminate the slide show. GIF89a animations that require user input can be advanced to the next frame by clicking the right mouse button. To create the smoothest running slide show, it is suggested that all images be converted to Windows BMP format. This will result in the fastest load time for the individual slides.

Editing Images

The Browser possesses a modest set of tools that allow images to be edited and manipulated. Using these tools, it is possible to perform the following actions:

Cropping or Trimming an Image

1. Place the cursor at the desired location for the left hand corner of the image. Hold down the left mouse button and drag to the opposite corner of the desired portion of the image. A marquee is drawn on the screen. If the marquee is not in the desired location, repeat the process. When the marquee is properly located, release the left mouse button. Select **Edit Crop**. The image is trimmed to the area encompassed by the box.
2. If the image requires trimming only on the right side and/or bottom, the window borders can be moved by using the mouse to drag the borders to the desired place. Use the **Edit Expand** option to crop the image.

Expanding an Image

Expand the size of an image so that only the borders are extended by following one of these procedures:

1. To add area to the right side and bottom, drag the window borders out to the desired location and then select the Edit Expand option.
2. To add area evenly all around the image, first select the **Options Center Image** command. Next, drag the window borders to make the window the desired size. The image is centered in the middle of the new window. Finally, select **Edit Expand** to expand the image. The area added to the window will be set to the currently defined

background color. (See **Option Background** on how to set the background color.

3. To add area unevenly around an image, select the **Options Center Image** command. Next, drag the window borders to make the window larger than the desired size. The image is centered in the middle of the new window. Using the mouse, enclose the area desired in the image with a rectangle. Select the **Edit Crop** command. As in the preceding example, the area added to the image will be painted the current background color.

Resizing an Image

When cropping or expanding an image, the image itself does not change size; only the size of the window in which it is displayed changes. Resizing the image itself is done by replicating or eliminating pixels. The best results are obtained when the shrink or stretch factor is some integer multiple of the original image such as times 2 or divided by 2, etc. Using a fractional factor results in distortion of the image, although this affect could vary depending upon the details of the image. It could be particularly noticeable if the image contains a repeated pattern. To stretch or shrink an image, follow one of these procedures:

1. Select the **Edit Resize** command and enter the desired dimensions. Note that the default dimensions are those of the current window. Stretch the window frame to the desired size before selecting **Edit Resize**. Resizing can be done independently on either the X or Y axis; the resizing factor can be specified either as a percentage or in terms of absolute pixel dimensions.
2. Using the mouse and the left mouse button, draw a marquee encompassing the area to be resized. Then draw a marquee to delineate the new dimensions of the selected region using the right mouse button. When you release the right mouse button, the image will be overlaid with the stretched or shrunk region. Crop the resulting image as desired.

In order to stretch to dimensions larger than those of the current image, you should first expand the image so that there will be sufficient room for the stretched image.

Rotating and Flipping an Image

The **Edit Resize** command permits you to rotate an image in 90°

increments and to flip or mirror the image about its X(horizontal) or Y(vertical) axis.

Size Window to Image

Windows may alter the size of a window when the **Window Tile** or **Window Cascade** menu options are selected. To restore a window to the dimensions of the image, select the **Size Window to Image** selection from the **Window** menu.

Clipboard Operations

All of the preceding editing commands primarily affect an entire image. Additional editing operations using the Windows Clipboard can be used to cut or copy all or part of an image to the Clipboard. The data in the clipboard can then be pasted to another application or the current application. Likewise, other applications can copy data to the clipboard and it can then be pasted by The Browser. See **Edit Cut, Edit Copy, Edit Paste** commands.

The Browser will copy both a DIB and device dependent bitmap to the clipboard. The Browser can accept the same two formats from the Clipboard as well as a Windows Metafile format.

The Browser will automatically convert an image's palette and color resolution so that, for example, a 16 color image can be pasted onto a 256 color image without corrupting the colors. If the clipboard image being pasted has a different color resolution than that of the current image, you can either convert the current image to the higher resolution or dither the clipboard image to the lower resolution.

The clipboard permits you to combine several images into one image. See Creating a new image in the next section.

Creating a New Image

The Browser provides for the creation of a new images which can be edited. The following steps detail how to create a composite image using the clipboard.

1. Create a blank image of the desired size by utilizing the **File New**

command:

- a. The default dimensions shown in X Dimension and Y Dimension will be that of the window size before you select **File New**. You can manually enter the desired X and Y dimensions. The **Set to Window** and **Set to Clipboard** buttons will set or reset the X and Y values to that of the current window or Clipboard image (if any). Select **Clipboard** if you want the new image sized to be the same as the image in the clipboard.
 - b. The color resolution of the new image defaults to 1 bit per pixel. If you want more than two colors, select a value for the maximum number of colors for the image to contain.
2. You now may paste the contents the clipboard to the new image.
 3. Copy to the clipboard the remaining images that you want to combine.
 4. Repeat steps 2 and 3 above as often as necessary and then select **File Save** to save the new composite image.

Saving Images

Save edited or changed using the **File Save-As** command. In contrast to the **Move** and/or **Copy** options, **File Save** creates a disk file from the currently displayed image as it is currently displayed. **Move** and **Copy** do not interpret the image data as stored on disk.

The format of a saved image can be established in several ways. First, the extension provided for the output file can be used by The Browser to determine the desired format. Secondly, the **File Save** dialog offers a number of selections of graphics.

Format Conversions

The Browser can be used to change the format of an image. The Browser images may be saved in the following formats:

<u>GIF87a</u>	CompuServe Graphics Interchange Format
<u>TIFF</u>	Tagged Image Format
<u>PCX</u>	Windows paint
<u>TGA</u>	Targa
<u>BMP</u>	Windows bitmap format in either compressed or RLE format.
<u>IFF</u>	Amiga IFF. (Also Computer Eyes .CE)
<u>JPEG</u>	JFIF format JPEG compressed images
<u>WMF</u>	Windows Metafile
<u>CGM</u>	Computer Graphics Metafile

Color Resolution

Images are stored most efficiently when the number of colors used in the image is less than the color resolution and is greater than the next lowest color resolution value. Generally images are stored as 1 bit (2 colors), 4 bits (16 colors), 8 bits (256 colors) or 24 bit (16.8 million colors). Little is gained by reducing the color resolution of an image as this results in a loss of color information. Likewise, increasing the color resolution increases the storage space requirements while providing no additional color information.

Unless you have a 24 bit video display, do not retain the extensive color information contained in 24 bit images unless the end use, such as for commercial printing applications, requires it. The display of 24 bit images on the usual VGA or SVGA or even 8514 video display is very time consuming. For that reason, you may want to convert a 24 bit color

image to 8 bits to facilitate viewing it at a later time. The Browser can easily handle this conversion in **File Save**.

Sometimes images are written in 256 color format but only contain 16 colors or less. In this case, the disk space taken up by the image could be substantially reduced by reducing the color resolution to 16 colors (4 bits).

Print Catalog Dialog

This dialog allows you to select the range of entries to print. You may print all entries in the catalog, or a range of pages by selecting the appropriate option. The **Setup** button allows you to select a different printer and/or the page size and other printer options. The **Options** button allows you to select options such as the format (Complete entries or a Thumbnail only format) of the printed catalog entries and the size of the margins and printed thumbnail size.

The **Print Catalog using Thumbnails** option, if turned on, forces The Browser to utilize the Thumbnail image that is part of the catalog entry as opposed to reading in the original image. Otherwise, the image will be read from disk prior to printing. If this option is turned off, it will result in far superior picture resolution at the expense of the time necessary to read the images in. It also may be less convenient as you may have to repeatedly swap disks to read images that do not reside on your hard disk.

The **Dither when Printing** option should be turned on if the printer cannot print color or convert to gray scale. In that case, The Browser will perform the necessary dithering. This option affects both printing of whole images as well as of catalog entries.

The above options are saved in the WIN.INI file, by printer, so that when a new printer is selected, its options will be established automatically.

The **Complete Entries and Thumbnails** radio buttons allow the selection of an alternate "dense" print format when printing a catalog. When the **Thumbnails** format is selected, only the thumbnails and their file name will be printed. On 8 1/2" x 11" paper, you should be able to print 20 thumbnails per page, (assuming 3/4 inch top margins, 1/2 left, right and bottom margins and a 1.5 inch thumbnail.)

Margins

Setting the margins and changing the size of the thumbnail that is printed

formats the printed catalog to fit various paper sizes. To print on 5 1/4 x 8 1/2 paper, change the margins to 1/2 at top and bottom, left and right and the thumbnail size to 1 inch. The same number of thumbnails can be printed per page as if you set a 3/4 inch top margin, and 1/2 inch side and bottom margins and a 1.5 inch thumbnail on a 8 1/2 x 11 inch piece of paper.

Fonts

Pressing the **Fonts** button allows you to select a typeface and type size for the catalog print functions. Separate font information is established for each printer and will be used the next time that the printer is selected.

Please note that selecting a Font Style other than **Regular** will not result in that style being used. The Browser itself determines whether to print portions of the catalog printout in bold or underlined text.

Printing Images

An image or a selected portion of it may be printed via the File Print command. To print just a portion of an image, use the mouse to draw a marquee around the portion you wish to print. Then select the **File Print** option.

The **Options** dialog allows you to scale the picture to the desired size. To aid in selecting the correct size, the size of the image can be expressed as a percentage of the original or in pixels. Also, the resulting size in inches or centimeters is displayed. The Browser assumes that the image is comprised of square pixels and automatically scales the image accordingly to avoid distortion.

Printing Catalog Entries

Prior to selecting any options, a printer should be selected and the desired typeface and size should be selected. There are three ways to print a catalog entry:

1. **Select Print Catalog** from the **Catalog Browse** dialog. Only one entry, the currently selected item can be printed at a time.
2. Select the **Catalog Print** command from the **Catalog Menu**. This can be used to print all of the selected entries in the current catalog. The Catalog Browse search commands can be used prior to this to

narrow the scope of the request to those catalog entries meeting requested criteria. Up to 4 catalog items will be printed per page. Or, if the thumbnails only option is selected, as many as 20 or more entries, depending upon how page margins are set, can be printed per page.

3. Select the **Print** option from the **Process Thumbnails** menu command from the pop-up menu in **Thumbnail View**. This command will print only marked entries. It is the best way of printing specific items to print.

Note: There are two catalog print formats supported by The Browser. The default format will allow 2 to 4 entries to be printed per page. This format will print all keywords, the title, description and path information for the entry. The Alternate print format will print about 20 thumbnails per page. This option can be selected via the **File - Select Printer** function.

Object Embedding and Linking

Many Windows 3.1 applications support Microsoft's **Object Embedding and Linking (OLE)** protocol as a server, client or both. The Browser is an OLE server application and can supply images to an OLE Client application such as Windows Write or Word For Windows 2.0. To determine whether an application is an OLE client, look to see whether any of the following menu entries are present in your application's **Edit** menu:

Paste Special, Paste Link, Links, Object or Insert Object.

If your application is an OLE client, it can import images from The Browser using OLE. An image in The Browser can be included in your application by using a Link (via the Paste Link command) or embedding the image using the Insert Object command.

Links

In order to link to a The Browser image, The Browser must be started and the image viewed as you normally would. Copy the image to the clipboard. In your application, select **Paste Link**. The image is inserted into your application. Your application will maintain a link to The Browser so that if the image is changed, it will be automatically updated in your application.

Embedding

Select the **Insert Object** command on your application's **Edit** menu and then select **The Browser Image**. The Browser starts automatically. Start a **Thumbnail** view and then double click with the left mouse button on the desired Thumbnail to view the image. Select **Update** from the **File** menu to insert the image into your application. Double click on the embedded image in your application to start The Browser to edit the image.

Refer to your application's documentation for more specific information as to how OLE is implemented.

Run-time Options

The Browser offers several options that can be used to alter the operation of The Browser to suit the user.

DIB to Screen

The Browser normally will attempt to maintain both a device independent bitmap (DIB) and a device dependent bitmap (DDB) for any image being displayed. Display of DIBs is slower, especially when it is a 24 bit color images. However, initial creation of the DDB can also be time consuming. For this reason, it is best to allow The Browser to create a DDB. However, in situations where memory is low, there may not be enough memory to create a DDB. By selecting the **DIB to Screen** option, the user will forgo creation of a DDB and the DIB will be displayed directly to the screen.

Display Warnings

In some cases, it is necessary for The Browser to issue warning messages to the user. These messages, once the user becomes familiar with The Browser may be more of an irritation than a help. Therefore, the user can suppress all but the most serious errors and warnings by selecting this option.

Fix Tiff

This option allows a certain amount of relaxation of the TIFF standard for certain types of TIFF files that do not have the correct values for the Strip Byte Counts tag.

Play Step Rate

The Browser can display GIF animation sequences from GIF87a files. However, since the GIF file is not being decoded real-time, which in many cases is used to pace the display, an option is provided to the user to set the time delay between successive frames of the animation.

Startup Options

Default options can be specified which go into affect whenever The Browser is started. Some of these options are:

Initial Catalog

This option specifies which catalog will be selected initially.

Default Extensions

This option specifies the file extensions of all files that should be displayed on a file selection list. The value of this option is used in turn as a default for establishing a similar option whenever a new catalog is

created.

Default Path

If this option is utilized, it will specify the current path that will be displayed whenever the file open dialog is accessed. Otherwise, the path of the default catalog will be used.

Display Center

Determines whether images should be displayed centered or not.

DIB to Screen

Turns on the DIB to screen option. When this option is on, The Browser will not attempt to create a Device Dependent bitmap for display but will instead paint directly to the screen. This may be helpful if memory is limited and there is not enough memory to create a separate Device Dependent bitmap.

Background type

Determines whether backgrounds are solid or dithered.

Fix Tiff

Determines whether the special rules for TIFF files are put into effect.

Display Warnings

Determines whether warning messages are suppressed.

Auto Dither

Determines whether images will be automatically dithered if their color resolution is greater than that of the display.

Verify Catalog

If it is suspected that the catalog index has been corrupted, turning this option on temporarily will force the catalog index entries to be verified with the matching catalog record. Invalid indexes will then be removed.

Display Status Bar

This option controls whether the status bar will be displayed initially.

Stretch to Fit Window

This option controls whether images will be created with the "Stretch to Fit" option active. If active, the image will be stretched or shrunk (keeping the proper aspect ratio) to fit the current window's size.

Disable xxx

Several image formats supported by The Browser are also supported by Graphics Import Filters shipped with WINWORD and Aldus PageMaker. If you want to use these filters instead of the built in support for these formats, you can disable The Browser read routine. In this case, The Browser will utilize the graphics filters defined in WIN.INI in the section: [MS Graphics Import Filters]. An example is reproduced below:

[MS Graphic Import Filters]

**Windows Metafile(.WMF)=D:\WINDOWS\MSAPPS\GRPHFLT\
wmfimp.flt,WMF**
**DrawPerfect(.WPG)=D:\WINDOWS\MSAPPS\grphflt\
wpgimp.flt,WPG**
**Micrografx Designer/Draw(.DRW)=D:\WINDOWS\MSAPPS\grphflt\
drwimp.flt,DRW**
**AutoCAD Format 2-D(.DXF)=D:\WINDOWS\MSAPPS\grphflt\
dxfimp.flt,DXF**
**HP Graphic Language(.HGL)=D:\WINDOWS\MSAPPS\grphflt\
hpglimp.flt,HGL**
**HP Graphic Language(.PGL)=D:\WINDOWS\MSAPPS\grphflt\
hpglimp.flt,PGL**
**Computer Graphics Metafile(.CGM)=D:\WINDOWS\MSAPPS\
grphflt\.cgmimp.flt,CGM**
**Encapsulated Postscript(.EPS)=D:\WINDOWS\MSAPPS\grphflt\
epsimp.flt,EPS**
**Tagged Image Format(.TIF)=D:\WINDOWS\MSAPPS\grphflt\
tiffimp.flt,TIF**
**PC Paintbrush(.PCX)=D:\WINDOWS\MSAPPS\grphflt\
pcximp.flt,PCX**
**Lotus 1-2-3 Graphics(.PIC)=D:\WINDOWS\MSAPPS\grphflt\
lotusimp.flt,PIC**
**AutoCAD Plot File(.PLT)=D:\WINDOWS\MSAPPS\grphflt\
adimport.flt,PLT**
Excel Chart(.XLC)=d:\aldus\usenglish\filters\CHARTIMP.FLT,XLC

Note: in the example above, "HP Graphic Language" is listed twice because there are two file extensions in use for these files. You may have to edit WIN.INI to do this. However, the WIN.INI section should be automatically established whenever you install an application like WINWORD that includes the filters.

All of these options can be set via the **Options Default Options** command.

Command Line Options

Several command line options can be specified that affect the operation of The Browser. Options that can be specified are:

1. **Initial image to display**
2. **Initial catalog**
3. **Display thumbnail view**

The format of command line options is:

BROWSER.EXE <file name>, <catalog name> <-v>

"file name" is the fully qualified pathname of an image to display.

"catalog name" is the title of the catalog to be used initially. If present, it will override the default catalog.

"-v" or "/v" can be specified to start a thumbnail view.

Examples:

BROWSER.EXE abc.gif (load "abc.gif" on startup)

BROWSER.EXE ,Clipart -v ("Clipart" will be the initial thumbnail view)

BROWSER.EXE -v (the default catalog will be the initial view)

Removable Media

The Browser normally considers fixed media such as hard drives and network drives as primary storage media and "removable" drives such as floppy disks as "backup" locations. In some cases, for example when using a Bernoulli box, which DOS considers removable, you may wish to change the way that The Browser treats such drives.

If you wish to consider a particular drive as a primary storage location, with Notepad or some other text editor, add the following option to the [The Browser] section of your WIN.INI file:

Primary Drives=x... where "x" is the drive letter of the drive to be considered "fixed". More than one drive can be thus overridden; you do not need a comma after the last drive.

If you wish The Browser to treat a drive as "removable", for example, if you want to store backup copies on a network drive, add the following option to your WIN.INI file:

Backup drives=j... As is the above case, you do not need the comma after the last drive letter.

Example:

Bernoulli Drives E and F are to be considered as primary storage even though DOS says they are removable. Network drives J and K are to be considered "backup" drives.

Primary Drives=E,F
Backup Drives=J,K

The Catalog Select Catalog command provides for specification of a volume ID for a catalog. If present, the volume ID will be checked before opening the catalog.

Profile Options

The Browser will normally keep its configuration options following a [The Browser] header in your WIN.INI file. In some cases, this may not be desirable; for example in a network environment where several different users are using The Browser. As an option, The Browser may be configured to keep its options in an alternative location. If a file named "BROWSER.INI" exists in the subdirectory that The Browser is loaded from

or in some directory in the PATH, The Browser will maintain its options there and ignore WIN.INI. In this case, references to WIN.INI mentioned in this documentation will actually refer to BROWSER.INI.