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## Overview

Image'n'Bits is a unique imaging application that perfectly complements your existing applications. Using Image'n'Bits from within your applications adds sophisticated image editing and manipulation facilities to your word processing, desktop publishing, spreadsheet, or other program. Once an image is inserted into your documents, you can easily edit it without leaving your application. This allows you to concentrate on getting your work done, not on how to operate your applications.

Image'n'Bits provides full cross-application integration with object linking and embedding (OLE) 2.0 technology. Image files with extensions supported by Image'n'Bits can be inserted into any application that supports OLE containers. In addition, various objects (such as spreadsheets, movie files, and text documents) from other applications can be inserted into Image'n'Bits.

Image'n'Bits depends on object linking and embedding technology, a process by which applications under Windows can share different kinds of data, or objects, in a variety of ways.

## More Information

Object linking and embedding
In-place activation

## Object linking and embedding

Objects are bundled into documents. An object can be virtually any form of data; a document can be made up of objects from many different applications. For example, you can prepare a document that incorporates as objects:

- Text from your word processor
- Data from your spreadsheet
- A graphic image of your company logo
- Charts and graphs of sales projections

And, with OLE, you can ensure that the information is instantly updated whenever any changes are made to objects in those applications by others. Or you can edit those objects from your document and they will be updated immediately in the other applications.
To edit an object, you simply double-click on the object within your word processor. There is no need to exit your word processor, start your drawing program, make your changes, save the graphic program, restart your word processor, and re-insert the new graphic object. Image'n'Bits allows you to work more quickly and effectively by letting you concentrate on your document, not on your applications.
You can insert an object into a document in two ways: by linking the object to the document or by embedding the object into the document.

## More Information

Linking
Embedding
OLE containers
OLE servers

## Linking

When you link an object into your document, you create a link between two applications, the source document is the application that created to object, the destination document is the application that contains the object. Although the object appears in the destination document and can be printed as part of that document, the data that makes up the object resides in the source document.
When you make changes to the linked object, you are changing the source document. When you make changes in the source document, your changes appear in the destination document by updating the destination document.

You should link objects into your document when you want to keep your files as small as possible. Linking an object into a document only stores a reference to the source document in the target document.

## Embedding

When you embed an object into your document, you are creating a copy of the source document that is stored inside your destination document. After it is embedded, the object is no longer connected to the source document.

When you make changes to the embedded object from within your destination document, you activate the application that created the object and make your changes. Only the copy of the object that is contained in your destination document is changed. Your original source document remains unchanged.

You should embed objects into your document when you want to work on your file on different PCs, when you want to keep all of the target document information in one place, or when you want to modify the object without updating it in the source document.

## OLE containers

Image'n'Bits is an OLE container. This means that Image'n'Bits is an application that can accept an embedded or linked object. You can link or embed objects from other applications into Image'n'Bits.

## OLE servers

Image'n'Bits Imaging Server is an OLE server. This means that Image'n'Bits is an application that creates objects that can be embedded or linked into other applications. You can link or embed objects created or imported into Image'n'Bits into any other OLE container application. The native objects "served up" by Image'n'Bits happen to be images.

## In-place activation

An object is in-place activated if you are able to edit it and yet it still appears to reside inside the container application. The alternative to in-place activation is to open an object which will launch it as a separate window.

You can in-place activate an image by double-clicking on it. The Image'n'Bits menu and toolbar appear but the container document remains visible around the Image'n'Bits image.

## Image'n'Bits Features

Image'n'Bits provides the following major features:

- Complete integration with all applications that support OLE 2.0
- Full image editing facilities of standalone, linked or embedded images
- Simultaneous display of multiple images
- Import and export of a wide variety of image file formats
- Full clipboard support
- Bitmap format conversion for 1, 48 , and 24 bit images
- A wide selection of image manipulation facilities, including edge detection, blurring, sharpening, tuning and special effects
- Drag and drop support

Image'n'Bits release 2.0 adds the following major enhancements:

- Enhanced control over histograms
- Paint and star funhouse filters
- Image mirroring
- False coloring
- Conversions to 16,32 , and 64 shades of gray
- Adding border to images
- Right mouse button short cuts
- Customizable, unlimited Undo
- Full support for TWAIN-compatible scanners


## System Requirements

Image'n'Bits runs on all Pcs capable of running Windows 3.1. The precise requirements for your system will depend on the amount of graphics processing you do. There are some minimum requirements for both software and hardware.

## More Information

Necessary hardware
Necessary software
Performance considerations

## Necessary hardware

The following are minimum hardware requirements to use Image'n'Bits:

- You will need a PC with a 386,486 , or Pentium microprocessor.
- You will need a hard disk with at least 5 megabytes of free disk space to store the Image'n'Bits program.
- A minimum of 4 MB of RAM since OLE applications are memory intensive.

Since graphic images can be very large, you should allows sufficient hard disk space to store your images.

## Necessary software

The following are minimum software requirements to use Image'n'Bits:

- DOS version 5.x or later
- Microsoft Windows 3.1 or later, or Microsoft Windows for Workgroups 3.11 or later
- Software supplied with your scanner if you plan to scan images


## Performance considerations

Obviously, the more powerful your computer, the faster any application will run. If you work primarily with images you will find that the following enhancements to your system will dramatically improve your system performance.

- Increasing the amount of RAM on your machine will improve the overall performance of all your applications.
- A math coprocessor will speed up certain conversion and manipulation operations.
- A true color video device driver ( 32,000 colors or more) will produce the best color results

See the README file that accompanies this release for information about specific hints to improve performance under special considerations.

## Running the Program

If you are familiar with Windows programs, Image'n'Bits is simple and easy to use. If you are not familiar with the Windows interface, you should review your Windows documentation for information about using the mouse, shortcut keys and the like.

## More Information

Registering the server
Finding out if an application supports OLE
Launching Image'n'Bits

## Registering the server

Image'n'Bits automatically registers itself during installation. Registration means simply that applications that support OLE will be made aware of the presence of Image'n'Bits as an object type.

After installation, you can ensure that Image'n'Bits is registered by checking the Insert >> Object... dialog box from within an OLE application such as Microsoft Word for Windows. Image'n'Bits will be listed as an object type.

## Finding out if an application supports OLE

Many older applications do not yet support OLE 2.0. To find out if an application that you are using supports OLE, check your documentation. Alternatively, you can check the menu entries. If your application has an Insert >> Object... or Edit>>Insert New Object... menu selections, it probably supports OLE.
After installation, you can ensure that Image'n'Bits is supported by your application by again checking the Insert >> Object... dialog box. Image'n'Bits will be listed as an object type.

## Launching Image'n'Bits

You can launch Image'n'Bits in two different ways, depending on what you are doing:

- You can launch Image'n'Bits as a separate application to edit, convert or scan an image
- You can launch Image'n'Bits from within another application to edit an image as part of your multicomponent document


## More Information

Launching Image'n'Bits as a separate application
Launching Image'n'Bits from within another application

## Launching Image'n'Bits as a separate application

To launch Image'n'Bits as a separate application:

- Click on the Image'n'Bits icon.

The Image'n'Bits window is displayed.

## Launching Image'n'Bits from within another application

- Double-click on the Image'n'Bits image in your application.

Your application menus are replaced with the Image'n'Bits menus.

## Working with Graphic Images

Graphic images are stored in a wide variety of file formats. Image'n'Bits provides support for most of these formats. Image'n'Bits allows you to display images without concern for the format in which they are stored. You can also easily convert images from one format to another (see Converting Images).
You can edit images using Image'n'Bits as a standalone application or from within another application when it is activated in place. When an image is activated from within another application, the Image'n'Bits menu is merged with that application's menu.

More Information
Supported formats

## Supported formats

The following table lists the formats that can be imported and exported from Image'n'Bits:

| Format | Extensio <br> n | Export to | Import from |
| :---: | :---: | :---: | :---: |
| Bitmap files | BMP | $\checkmark$ | $\checkmark$ |
| Compuserve files | GIF | $\checkmark$ | $\checkmark$ |
| Windows Metafiles | WMF | $\checkmark$ | $\checkmark$ |
| CCIT Group 4 files | CAL | $\checkmark$ | $\checkmark$ |
| GEM Files | IMG | $\checkmark$ | $v$ |
| JPEG Files | JPG | $\checkmark$ | $\checkmark$ |
| JFIF Files | JFF | $\checkmark$ | $\checkmark$ |
| JTIF Files | JTF | $\checkmark$ | $\checkmark$ |
| MacIntosh Picture files | PCT | $\checkmark$ | $\checkmark$ |
| MacPaint files | MAC | $v$ | $\checkmark$ |
| Microsoft Paint files | MSP | $\checkmark$ | $\checkmark$ |
| Paintbrush files | PCX | $\checkmark$ | $\checkmark$ |
| Postscript Raster files | EPS | $\checkmark$ | $\checkmark$ |
| SUN Raster files | RAS | $v$ | $v$ |
| Targa files | TGA | $\checkmark$ | $\checkmark$ |
| TIFF files | TIF | $\checkmark$ | $\checkmark$ |
| Windows Clipboard files | CLP |  | $\checkmark$ |
| Kodak Photo CD | PCD |  | $\checkmark$ |
| DKB Trace Dump files | DIS |  | $\checkmark$ |
| WordPerfect files | WPG | $\checkmark$ | $\checkmark$ |
| Windows Cursor files | CUR |  | $\checkmark$ |
| Windows Icon files | ICO |  | $\checkmark$ |

## How to Display an Image

You can display an image for editing in two ways depending on whether you are using Image'n'Bits as a standalone image editor or as an OLE server from within another application.

## More Information

How to display a standalone image

How to edit an activated image
Saving a file
Closing a file
Printing a file

## How to display a standalone image

To display a standalone image:

1. Launch Image'n'Bits.
2. Create a new window by selecting File>>New.
3. Select Edit>>Insert New Object or use the toolbar shortcut provided to display the Insert Object dialog box.
4. Press the Create From File button and select the file you want to open.
5. Press OK.

The image will appear surrounded by selection handles. At this point you can edit the image, cut or copy it to the clipboard, or print it.

## How to edit an activated image

To edit an image from within another application:

1. Double click on the image.
2. The Image'n'Bits server places a hatched border around the image to indicate that the image is active.

Notice that the menu of your application changes to the Image'n'Bits menu. You can now edit the image as if Image'n'Bits were running as a standalone application.

You can use the right mouse button to pop up a shortcut menu of editing actions that you can perform. Click the right mouse button on any activated image to see the shortcut menu.

## Saving a file

As you make changes to an image in Image'n'Bits as a standalone application, you should save them to a file. If you are making changes to an image from within another application, you will be prompted to update an image that has been changed.

To save a file:

1. Select File>>Save from the menu.

This replaces the original album with the edited version. The image itself will remain unchanged. To save the image independently of the album, see Exporting Files.
2. If you are working with a new album and have not yet named the album, you will be prompted for the directory and filename to save the album to.

To save a file with a new name:

1. Select File>>Save As... from the menu.
2. You will be prompted for the directory and filename to save the file to.

This saves a copy of the original album with the displayed image.
3. You will be prompted for the directory and filename to save the file to.

This saves a copy of the original album with the displayed image.

## Closing a file

To close an active file:

1. Select File>>Close from the menu.
2. If you are working with a new album and have not yet named the album, you will be prompted for the directory and filename to save the album to.

## Printing a file

To print a document that includes an Image'n'Bits image, simply print as you normally would from that application.

To print a file with Image'n'Bits running as a standalone application:

1. Select File>>Print... from the menu to display the Print dialog box.
2. Make any appropriate changes to the dialog box to indicate number of copies, resolution, and the like.
3. Click on OK.

You can preview the page as it will appear on paper prior to printing by selecting Print Preview from the File menu. You can also use the File>>Print Setup menu to set up your printer as you would in most Windows applications.

## Inserting Objects into a Document

The power of Image'n'Bits lies in the ability to integrate graphic images fully into a document from any application that supports OLE 2.0. You can insert a new Image'n'Bits image object into the document or you can insert the contents of that document into Image'n'Bits object container.

## More Information

Inserting a new object
Pasting one image onto another

## Inserting a new object

Inserting a new image into a document means to insert, or link, the contents of the selected file into your document so that any future changes to the source image will be reflected in the document as well.

To insert a new Image'n'Bits image object into a document:

1. Select Insert>>Object... or Edit>>Insert New Object... from the application menu to display the Insert Object dialog box (Image'n'Bits provides a toolbar shortcut for this frequent operation).
2. Select Create From File. The dialog box will change to allow you to enter the image file you want to embed or link. Notice that if use the Browse button to select your file and the file's extension is supported by Image'n'Bits the dialog box will update itself with Image'n'Bits 2.0 Image.
3. If you wish to create a link to the source file, click on the Link to File check box. This selection allows you to edit the image from either the Image'n'Bits image editor or from the application. Linking allows you ensure that the image is updated.

If you wish to insert, or embed, the contents of the file into the document so that it will only be updated from within the application, ensure that the Link to File check box is NOT selected.
4. If you wish to display the image as an icon in your application rather than the full image, click on the Display as Icon check box.
5. Click on OK to insert a new Image'n'Bits into the document.

You can change the icon that is displayed in your application if you select Display as Icon by clicking on the Change Icon button that appears when you click on the check box.

## Pasting one image onto another

Image'n'Bits allows you to combine two or more images into a single image by pasting one on top of another.

To paste one image onto another:

1. Activate the image by double-clicking so that the hatched border appears.
2. You can select a portion of the image area within which to place the pasted image by dragging the cursor from the upper right to the lower left of the desired area. If you do not select an area in which to paste the new image, it will appear in the upper left corner of the existing image.
3. Select Edit>>Paste From File... to display the Paste From File dialog box.
4. Select the image you want to paste from the dialog box and click on OK.
5. The pasted image can be moved to the desired location on the open image by dragging it with the left mouse button.
6. To complete the paste operation, double click the left mouse button on the pasted image. You can cancel the paste operation by clicking the right mouse button or by pressing the Esc key.

While the paste operation is in progress, all menu selections are disabled.

Performing the paste operation make the resulting image device dependent.

## Moving Objects Between Applications

Image'n'Bits allows you to move images between applications with ease. If both applications support OLE 2.0 , then you can simply drag and drop an object from one to the other. If one of the application does NOT support OLE 2.0 then the applications involved have to share an in-depth knowledge about each other 's data. In that case, the data transfer may become limited.

## More Information

Using drag and drop
Using the Clipboard
Importing a scanned image

## Using drag and drop

With drag and drop you can either move or copy an image between applications.
Moving an object with drag and drop:

1. Launch the source and target applications and arrange them so that both applications are visible on the screen
2. With the pointer on the Image'n'Bits object, press and hold down the left mouse button.
3. Move the image from the source application until it is in the desired position in the target application and release the mouse button.

Copying an object with drag and drop:

1. Launch the source and target applications and arrange them so that both applications are visible on the screen
2. With the pointer on the Image'n'Bits object, press and hold down the Control (CtrI) key and the left mouse button.
3. Move the image from the source application until it is in the desired position in the target application and release the mouse button.

## Using the Clipboard

To copy an object with the Windows clipboard:

1. From the source application, select the object you wish to copy by clicking on it.
2. Select Edit>>Copy or Edit>>Cut menu selection. Image'n'Bits provides the right mouse button shortcut for this operation.
3. In the target application, place the cursor in the intended location of the object.
4. From the target application menu, select Edit>>Paste to insert the object into your document.

## Importing a scanned image

To import a scanned image using a TWAIN compatible device:

1. Ensure that the correct device is selected by selecting File>>Select Source.
2. Select the correct device from the list and click OK.
3. Select File>>Acquire... to display the TWAIN dialog box specific to your scanner.
4. Make the appropriate selections in the dialog box according to the instructions in your device documentation.
5. Click on OK and the image will be imported into Image'n'Bits.

## Shortcuts

Image'n'Bits is designed to make your work quicker and easier. When an object is selected (any object) pressing the right mouse button pops up a menu of commonly used functions.
The following table briefly describes the popup menu functions:

| Menu Item | Function |
| :--- | :--- |
| Cut | Removes the selected item and places it on the clipboard. |
| Copy | Copies the selected item and places it on the clipboard |
| Delete | Removes the selected item without placing it on the clipboard |
| Reset Size | Sets the scaling of the selected item to its original size |
| Clone | Creates a duplicate of the selected item in the document. |
| Display Content | Displays the image content. |
| Display as Icon | Displays an icon of the image. |
| Change Icon... | Allows you to change the displayed icon of the image. <br> Banana Image Object>> |
|  | Displays a submenu that allows you to Edit, Open or Convert an <br> Image'n'Bits object. |

When the Image'n'Bits object is activated in place pressing the right mouse button pops up a menu of commonly used functions specific to images.
The following table briefly describes the popup menu functions:

| Menu Item | Function |
| :--- | :--- |
| Image Info | Displays image resolution and color depth |
| Cut | Removes a portion of the image and places it on the clipboard. |
| Copy | Copies a portion of the image and places it on the clipboard |
| Delete | Deletes a portion of the image without placing it on the clipboard |
| Export | Saves out image to a particular file format |
| About Image'n'Bits Server | Displays Image'n'Bits version and system information |

## Overview

To create useful documents, you will often need to use information of several types simultaneously. Image'n'Bits uses object linking and embedding (OLE) technology to enable you to combine multiple types of information in your documents. This section provides several working examples of how to use Image'n'Bits with some common applications.

## More Information

Terms used in OLE
Using Image'n'Bits with Word for Windows 6.0
When to link and when to embed
Using Image'n'Bits with Visio 3.0

## Terms used in OLE

It is useful to describe the meaning of several terms that are used in working with OLE applications.
More Information
Object
Document
Embedding
Linking
Updating an embedded Image'n'Bits object
Updating a linked Image'n'Bits object

## Object

An object is any imported information that can be placed in an application. Objects are bundled into documents. An object can be virtually any form of data, usually data that is a different kind than is normally produced by the importing application; a document can be made up of objects from many different applications.

## Document

A document is a file made up of more than one type of object. A source document is the application that created to object, a destination document is the application that contains the object. For example, a Microsoft Excel spreadsheet document could be residing in Ami Pro word processor document.

## Embedding

Embedding an object means making a copy of the object and inserting it in a destination document. The object is not stored in a file that belongs to the application that created it. All editing changes which you might apply to the object affect only your copy of it and do not affect the original.

## Linking

A link is a connection between two documents. A link in a destination document connects the destination document to the source document. The destination document does not store a linked object. Rather it stores the information that is necessary to find the source document that contains the object and for displaying and printing the object as part of the destination document.
Links can be either manual or automatic in an OLE application. A manual link changes an object only when you request that the link be updated. An automatic link, as the name implies, updates the object in the destination document when it is changed in the source document. When you are editing a linked object you are editing the original.

## Updating an embedded Image'n'Bits object

Updating an embedded object means that the source document sends the new or edited object to the destination document.

To update an embedded Image'n'Bits object:

1. Select the Image'n'Bits object in the destination document.
2. Select Edit>>Banana Image Object>>Open to activate the image.
3. Edit the image as desired.
4. Select File>>Update [filename], where [filename] is the name of the destination document.
5. Select File>>Exit \& Return to [filename], where [filename] is the name of the destination document.

## Updating a linked Image'n'Bits object

Updating a linked object means that the source document displays the new or edited object in the destination document. Automatic updating requires no action on your part.

To manually update a linked object:

1. Select the Image'n'Bits object in the destination document.
2. Select Edit>>Link... to display the Links dialog box.
3. Choose the desired link that you want to update from the list box.
4. Click on the Update Now button.

You can switch between Image'n'Bits and your destination document while leaving Image'n'Bits open by pressing the Alt+Tab keys until your destination document is active.

## Using Image'n'Bits with Word for Windows 6.0

This section covers using Image'n'Bits as a source document with Word for Windows 6.0 as the destination document. Because Windows provides most OLE services, many of the procedures described in this section are similar to the ones that you will use with any word processor. It is assumed that you are familiar with the basics of Word for Windows.

## More Information

Inserting images with Image'n'Bits
Pasting an image from Image'n'Bits
Embedding an image from Image'n'Bits
Linking an image from Image'n'Bits

## Inserting images with Image'n'Bits

You can insert an image from Image'n'Bits into a Word for Windows document in three ways. You can:

- Paste an image with the Edit>>Paste command. This operation places a copy of the image into the Word for Windows document as a bitmap that maintains no connection to Image'n'Bits. If you double click on the object to edit it you will be placed in the standard Windows bitmap editor.
- Embed an image from Image'n'Bits into the Word for Windows document. This operation causes the image to become an embedded object that is stored in Word for Windows for later editing. Double clicking on the object will open Image'n'Bits to allow you to edit the image.
- Link an image into a Word for Windows document. This operation causes the image to remain stored as an Image'n'Bits file while the link information is stored in Word for Windows.


## Pasting an image from Image'n'Bits

To paste an image from Image'n'Bits into Word for Windows:

1. Start Image'n'Bits as a standalone application.
2. Open en existing image.
3. Activate the image by double-clicking on it and select Edit>>Copy to place a copy of the image on the clipboard.
4. Open your Word for Windows document and position the insertion cursor where you want to paste the image.
5. In Word for Windows, select Edit>>Paste to insert the image into your document.

After the paste operation is complete, the image appears in your document but it has no connection to Image'n'Bits. This method is quick and easy but leaves you with little capability to edit the image further.

## Embedding an image from Image'n'Bits

To embed an image from Image'n'Bits into Word for Windows:

1. In your Word for Windows document, select Insert>>Object... to display the Object dialog box.
2. Select the Create from File tab in the Object dialog box.
3. Select an image file you wish to import.
4. Select OK to insert the image into your Word for Windows document.

You can later edit the image by double-clicking on it.
If you turn on Word for Windows field codes, the embedded object appears as an EMBED field similar to the following:
\{ EMBED ImaSrv.Img. 2 \}

## Linking an image from Image'n'Bits

To link an image into Word for Windows:

1. In Word for Windows, select Insert>>Object to display the Object dialog box.
2. Click on the Create from File tab.
3. Select the Link to File check box.
4. Select the file that you want to link into your document from the File Name list.
5. Click on OK.

The image is displayed in your document and a connection is retained to Image'n'Bits so that you can edit the image later.
If you turn on Word for Windows field codes, the linked image appears as a LINK field similar to the following:
\{ LINK ImaSrv.Img. 2 "C:IIIMA20\IFLOWER.BMP" "" \a \p \}

## When to link and when to embed

You should link objects into your document when you want to keep your files as small as possible. Linking an object into a document only stores a reference to the source document in the target document.

You should embed objects into your document when you want to work on a file on different PCs, when you want to keep all of the target document information in one place, or when you may want to modify the object without updating it in the target document.

## More Information

A simple Word for Windows example

## A simple Word for Windows example

In this example you will capture a portion of the screen and embed it in a Word for Windows document. You will also extract the Word for Windows icon from WINWORD.EXE and make it a part of the document as well.

1. From Program Manager, double click on the Word for Windows icon to start the application.
2. In Word for Windows, select File>>New to start a new document and select Normal as the template.
3. Type several lines of text and after it, enter several blank paragraph markers.
4. Start Image'n'Bits as a standalone application and click on File>>New to open a blank album.
5. Select Capture!>>Area and then select an area of your screen to capture by dragging from the upper left to the lower right of a portion of the screen. The captured screen area is placed in the blank album.
6. Hold down the Control key and drag the captured image to your Word for Windows document, placing it against one of the blank paragraph markers. This places a copy of the image in your Word for Windows document. Notice that you don't have to explicitly save your screen capture to an Image'n'Bits file since a copy of the captured piece is going to be saved in the Word for Windows file.
7. Click on File>>New to open another blank album. Note that the album name is provided for you with an automatic name. This saves you from having to name files if you are processing a number of images at one time.
8. Click on Capture!>>EXE File... to display the File Extractor dialog box.
9. Select Icons radio button.
10. Click on the Browse... button and select WINWORD.EXE in your Word for Windows directory.
11. Press Extract... button
12. Select the entry in the list that is labeled "MONO Icon $32 \times 32,2$ Color" and click on OK. The icon is placed in the blank Image'n'Bits album.
13. Drag the icon to the desired place in your Word for Windows document.

## Using Image'n'Bits with Visio 3.0

Visio 3.0 is a popular drawing application that can be used to create graphics simply and easily. Image'n'Bits can be used to add sophisticated imaging capability to this application.. It is assumed that you are familiar with the basic operation of Visio 3.0.

## More Information

Linking Image'n'Bits images into Visio 3.0
A simple Visio example

## Linking Image'n'Bits images into Visio 3.0

To link an image into Visio 3.0:

1. In Visio, select Page>>Insert Object to display the Insert Object dialog box.
2. Click on the Create from File selection.
3. Click on the Browse... button to display a list of files.
4. Select the file that you want to link into your document from the File Name list.
5. Select the Link check box.
6. Click on OK.

## A simple Visio example

In this example you will create a Visio 3D chart with the Image'n'Bits sample image, FLOWER.BMP, linked as the background.

1. From Program Manager, double click on the Charting icon in the Visio program group to start a blank drawing page.
2. In Visio, drag the 3D Axis icon to the center of the blank drawing page.
3. In Visio, select Page>>Insert Object to display the Insert Object dialog box.
4. Click on the Create from File selection.
5. Click on the Browse... button to display a list of files to select.
6. Select FLOWER.BMP located in the Image'n'Bits directory.
7. Select the Link check box.
8. Click on OK to link the bitmap into the Visio drawing.
9. Resize the bitmap so that it fits against the rear of the 3D Axis and place it in position against the rear of the chart to provide a background for the chart.
10. Select the chart and the bitmap and select Shape>>Group.
11. Drag two or three Vertical 3D icons and place them on the chart axis. You can color the bars to make them stand out against the axis.
12. Save the Visio drawing to a file.

When you group the bitmap, you temporarily lose the link to Image'n'Bits. To edit the image, ungroup the image and double click on it as you would normally.

## How to Edit an Image

This section describes the options available to you for manipulating and changing images. These editing options are found on the Image'n'Bits Image menu.
To display an image file as a standalone image to be edited, follow the steps listed in How to display a standalone image. To launch Image'n'Bits from within an application, follow the steps listed in How to edit an activated image. Once an image is open, you can perform any of the editing operations described in this section.

You can undo any editing change that you make by selecting Edit>>Undo. Many of the options discussed in this section allow you to see the change before it is made.

The following bitmap image, distributed with your Image'n'Bits software, is used to illustrate the various editing and image manipulation techniques available to you in Image'n'Bits.


## More Information

How to display a standalone image
How to edit an image
Affected image area
Opening multiple images

## How to display a standalone image

To display a standalone image:

1. Launch Image'n'Bits.
2. Create a new window by selecting File>>New.
3. Bring up the Insert Object dialog box by selecting Edit>>Insert New Object.
4. Press the Create From File button and select the file you want to open.
5. Press OK.

The image will appear surrounded by selection handles. At this point you can edit the image, cut or copy it to the clipboard, or print it.

## How to edit an image

To edit an image from within another application:

1. Double click on the image to activate it.
2. The Image'n'Bits server places a hatched border around the image to indicate that it is in-place active.

Notice that the menu of your application changes to the Image'n'Bits menu.

## Affected image area

Image'n'Bits can operate on an entire image or specific portions of an image. Each menu selection that changes the image, such as Image>>Convert To>>Negative/Solarization, indicates the image area that will be affected.

A particular algorithm will take into account the size and location of the clipping rectangle if a partial conversion is possible.

In general, only true color (24 bits) images can be operated on piecemeal.

## Opening multiple images

Image'n'Bits allows you to open multiple albums at the same time. Each album can contain multiple images and other data objects.

To open more than one image, simply follow the steps for opening a single image outlined above.

## Histograms

Histograms provide a graph of the distribution of pixel intensity for an image or a portion of an image. Simply put, a histogram of an image is a count of each color occurrence in an image. The histogram is a useful tool to judge and modify the brightness and contrast of an image.

The Image'n'Bits histogram tool can show the histogram of each color channel or all three channels (red, green, blue) at the same time. When displaying all three channels Image'n'Bits performs on the fly gray scale conversion using Maximum Gray Scale conversion. If you want better control over the image (and a more accurate histogram) convert your image to gray scale yourself using the gray scale algorithm of your choice.

Image'n'Bits displays the histogram for the whole image and ignores the clipping rectangle if one is present. However, the brightness and contrast adjustment operations are applied to the clipping area if one is present, and to the whole image otherwise.

## More Information

How to read a histogram

## How to read a histogram

If the histogram graph lines are located mostly on the left, the image is too dark. If the graph lines are located mostly on the right, the image is too light. When the graph lines are occupying a narrow range, that is, the histogram lines are bunched up together, the image has a low contrast. Look at different images and display their histograms to get a feeling for histograms. They can be a great tool in improving your images.

You can adjust image brightness and contrast right from the histogram dialog box and preview the results.

## More Information

Adjusting image brightness
To apply contrast stretching

## Adjusting image brightness

To adjust brightness:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Histogram... to display the Histogram dialog box.
3. Enter a percent value in the Brightness field.
4. Click on Apply to preview the result.
5. You can click on Reset to return to the original value or click on OK to change the image.

## To apply contrast stretching

To change contrast:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Histogram... to display the Histogram dialog box.
3. Drag the contrast thumbtacks to the color/pixel intensity range you want to stretch.
4. Click on Apply to preview the result.
5. You can click on Reset to return to the original value or click on OK to change the image.

For best results, apply the brightening operation first, leaving contrast stretching thumbtacks in their initial positions of 0 and 255. After the image has been brightened (and the histogram has been changed to reflect this) apply contrast stretching.

## Flipping Images

The Flip menu selection allows you to turn an image upside down (vertical flip) or left to right (horizontal flip). Flipping the image twice in the same direction produces the original image.
To flip an image:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Flip and choose either vertical or horizontal.

## Mirroring Images

The Mirror menu selection produces an interesting effect by "reflecting" a portion of the image on to itself. You have a choice of reflecting

- The upper half of your image
- The lower half of your image
- The left side of your image
- The right side of your image

To mirror an image:

1. In-place activate the image by double-clicking on it..
2. Select Image $\gg$ Mirror and choose the portion of the image that you wish to mirror.

## Tuning Images

Image'n'Bits provides a variety of tuning options that allow you great flexibility in improving the appearance of individual graphic images.

More Information
Gamma correction
Color adjustment
Posterize
False color

## Gamma correction

Gamma correction is a compensation for the monitor's non linearity. For example, assume that all gray colors can be represented by numbers from 0 to 255 where 0 is black and 255 is white and all the gray scales are between those two colors. If the brush you were using was gray with a numerical value of 128 and you wanted that color to be just a little grayer you would probably intuitively make it 129 or 130 .
Computer monitors don't work in this "linear" fashion. Instead, the monitor's color values tend to jump in steps. The gamma correction factor takes "this is what I want" color value and returns "this is what you should use to get what you want" color value.

Gamma correction is applied to the entire image. Specific gamma correction factors may differ depending on your monitor and should be included in the documentation supplied by the manufacturer.

To make gamma corrections:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Tune>>Gamma Correction... to display Gamma Correction dialog box.
3. Enter the correction factor, a number between 1.8 and 2.6. The default is 2.222 .
4. Click on OK.

## Color adjustment

The Image>>Color Adjustment menu selection allows you to increase or reduce image color components. For example, leaving the red component intact and reducing the green and blue components by $100 \%$ produces a shades of red image.
You can use this selection to produce interesting image effects such as creating an old-fashioned, sepialike photographic effect.
To make color adjustments:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Tune>>Color Adjustment... to display the Image Color Adjustment dialog box.
3. Select the red, green and blue values that you desire for the image.
4. Click on Apply to see the effect on the image and re-adjust as necessary. You can use the Reset button to start over.
5. Click on OK to adjust the image.

## Posterize

The Posterize menu selection allows you to reduce the number of colors in an image. The possible number of colors varies from 8 ( 1 bit per channel) to 2 million ( 7 bits per channel).
To posterize an image:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Tune>>Posterize... to display the Posterize dialog box.
3. Enter the number of bits per channel, from 1 to 7 .
4. Click on OK to change the image.

## False color

The False Color menu selection allows you to substitute any color within an image with another color of your choice.

False color operation can be applied to palette based images only (16 and 256 colors). The menu entry will appear gray if you cannot use false color mapping on the activated image.

Initially, the "false color" set is equal to the "original color" set. Select one or more of the "original" colors. Note that the "false" colors are automatically selected for you. Clicking in the color picker on the right will complete the remapping process.

To re-map colors in an image:

1. In-place activate the image by double-clicking on it.
2. Select Image>>Tune>>False Color... to display the Color dialog box.
3. Click on a color to change in the Original column. Note that initially the Original and False color columns are identical. When you select a color in the Original column, the corresponding False color is selected for you.
4. Use the color palette on the right to adjust the false color value as desired.
5. Click on Apply to see the effect on the image and re-adjust as necessary. You can use the Reset button to start over.
6. Click on OK to change the image.

You can save a false color set to a file so that it can be re-used to consistently change color sets across several of your images
When loading a false color map from a file the number of colors in it must equal the number of colors in the image you are currently modifying

## Filtering Images

Image'n'Bits allows you to filter images in a variety of ways.

## More Information

Smoothing filters
Sharpening filters
Special filters
Funhouse Filters

## Smoothing filters

Smoothing filters allow you to eliminate the jagged appearance that often occurs in raster images. These filters can also be used to produce interesting effects on your images. There are three levels of smoothing that you can apply to an image:

- Smooth
- Smooth More
- Blur

The figures below show the different levels of smoothing.
[Three pictures side by side]
To smooth an image:

1. In-place activate the image by double-clicking on it..
2. Select one of the Image>>Smoothing Filters menu selections.

## Sharpening filters

Sharpening filters allow you to enhance the crispness and clarity of an image by enhancing the contrast around the edges of portions of the image. The Sharpening Filters menu provides the following options:

- Sharpen
- Sharpen more
- Real sharp
- Edge enhancement
- Find edge
- Find edge and insert
- More edge enhancement

The More Edge Enhancement dialog box offers additional edge detection algorithms.

- $\quad$ Shift and difference edge enhancement
- Sobel edge enhancement
- Matched filter edge enhancement

The Sobel edge detection algorithm is visually the most interesting of the three algorithms since it allows you to overlay the "detected" edges on top of the original image.

## Special filters

The special filters allow you to clean up and enhance your images by filtering different image elements.
More Information
Minimum filter
Median filter
Maximum filter
Pixelize
Gradient edge
Embossing

## Minimum filter

Minimum image filter emphasizes the darker colors of the image.

## Median filter

Median image filter emphasizes the mid-tones of your image. This filter can also be used to clean up single stray pixels which showed up in the image as a result of scanning noise.

## Maximum filter

Maximum image filter emphasizes the highlights of the image.

## Pixelize

The Pixelize filter creates a blocky look frequently associated with digital images. By rotating the blocks you can produce many interesting effects, although the image may become barely recognizable.

## Gradient edge

The results of the Gradient Edge menu selection are similar to the results produced by the embossing command. Gradient edge is directional, that is, you can control which way the shadows fall by selecting a particular direction i.e. north, east, etc.

## Embossing

The Embossing filter adds a carved look to an image by creating a shadow effect. Since the embossing algorithm is directional you can control which way the shadows fall by selecting a particular direction, that is, north, east, and the like.

## Funhouse Filters

Funhouse filters add unusual display effects to an image. In combination with other effects, these filters provide almost unlimited possibilities for manipulating and creating unique artistic images since they can be applied cumulatively to any image. The best way to understand the effects of these filters is to experiment with them.

The Wavy filter creates an effect similar to looking through a distorted mirror.
The fisheye filter makes an image appear as if looking through a photographic fisheye lens.
The Spiral filter creates an effect similar to swirling colors in a can of paint.
The Pinch filter produces an image that appears to be pulled in towards the center and expanded at it's edges

The Star filter imposes a star like effect on top of your image. You can apply this filter multiple times with different radii to produce startling effects.

The Paint filter creates a 'blobby', impressionistic effect to an image, as if it were painted with a broad palette knife rather than a brush.

The Melting filter, as the name implies, gives an image the appearance of having been melted.

## More Information

Melting

## Melting

To create a melted image:

1. In-place activate the image by double-clicking on it..
2. Select Image $\gg$ Funhouse Filters $\gg$ Melting... to display the Melt dialog box
3. Select the color channel or channels that you wish to melt. You can choose to melt red, green, blue, or all three channels. All three channels is the default.
4. Select the direction of the melting distortion. An image can be melted vertically (that is, downward) or horizontally (that is, to the right).
5. If your image is a grayscale image, check the grayscale image box to speed up processing.
6. Click on OK.

Melting 1 channel is faster than melting all three and melting a grayscale image is faster than melting a color image. When you are melting a grayscale image, mark it as such using Image is a grayscale image button. This will speed up the melting process.

## Adding Text

Image'n'Bits allows you to add text to an image. Alternatively, you can use another program, such Microsoft WordArt, to embed text in the Image'n'Bits album or an image. You can add text in any font that your system supports.

To add text to an image:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Add Text... to display the Add Text dialog box.
3. Select the properties of the text that you wish to add as described in the following table.
4. Enter the text that you wish to place on the graphic.
5. Select the effects and color, if any, that you want to add.
6. Rotate the text, if desired, by clicking on the Rotate Text button and completing the settings in the Rotate Text dialog box.
7. Text background transparent is turned on by default. When this option is on, the background image is visible through the text. When this option is turned off, text is placed on the image with an opaque background.
8. Click OK to accept the text you have typed in. The text will appear on top of the image.
9. Move the text to a new position by clicking on it once and dragging.
10. When you are satisfied with the text location, double-click on it to permanently position it in-place.

| Attribute | Range | Description <br> Font |
| :--- | :--- | :--- |
| True Type fonts <br> Fefines the font family for <br> the text |  |  |
| Font Style | Selection shown | Defines bold, italic, and other <br> such font style properties |
| Size | Determined by | Defines the size of the |


|  | system | added text |
| :--- | :--- | :--- |
| Effects | Strikeout | Adds the named effect to the |
|  | Underline | text, Strikeout or Underline |

You can abort adding text at any time by clicking on it with the right mouse button.
When the Text background transparent option is checked, text cannot be fitted into the selection rectangle. Text will be placed on the image as if the selection rectangle was not defined.
When rotating text, portions of the first and last letters can get clipped. If that is the case, pad the text using spaces.

## Adding Borders

Image'n'Bits allows you to add borders to an image using Image>>Add Border... menu selection.
To add a border around an image:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Add Border... to display the Add Border dialog box.
3. Select the properties of the border that you wish to add as described in the following table.
4. Select the colors for the properties that you have selected by clicking on the appropriate color button.
5. Click on OK.

| Attribute | Range | Description <br> Add backdrop |
| :--- | :--- | :--- |
| Adds a background for the remaining elements of <br> the border |  |  |
| Add immediate | $0-5$ | Adds an immediate border line around the image |
| Add shadow | $0-5$ | Adds a shadow to the image |
|  | You can pick whatever colors you like for the image's border only if the <br> image is a true color (24 bit) image. Otherwise, your border color <br> selection is limited to the colors that are already a part of the image. |  |

## Introduction to File Formats

Converting images includes conversion of an existing image to a different form in the same format (for example, changing a color image to black and white) and exporting files to a different format.

More Information
Exporting files
Conversion methods

## Exporting files

To export a file:

1. In-place activate the image by double-clicking on it.
2. Click the right mouse button within the image area and select Export... menu selection.
3. Enter a name for the exported file.
4. Select the export file type.
5. Click on OK.

Image ' $n$ Bits supports the following export formats:

## Format

Bitmap files
Compuserve files GIF
Windows Metafiles WMF
CCIT Group 4 files CAL
GEM Files IMG

JPEG Files JPG
MacIntosh Picture files PCT
MacPaint files MAC
Microsoft Paint files MSP
Paintbrush files PCX
Postscript Raster files EPS
SUN Raster files RAS
Targa files TGA
TIFF files TIF
WordPerfect files WPG

Extension
BMP

CAL
IMG

## Conversion methods

You can use the Image>>Convert to... menu selection to change a file, then save it under another name.
The Image>>Convert to... menu selection contains the following options:

- Binary (B\&W)
- Colors
- Million Colors
- Other
- Dither
- Negative/Solarization
- Gray Scale


## More Information

Binary (B\&W)...

256 colors
16 million colors
Other
Dither
Negative/solarization
Gray Scale

## Binary (B\&W)...

The Convert To>>Binary (B\&W) selection divides all colors in an image into two categories: low intensity and high intensity. A threshold value that you set determines which colors go into which category.

For a gray scale image, this operation produces black (low intensity) and white (high intensity) images. For a color image, this operation produces garish 8 color images.

To convert an image to binary (B\&W):

1. In-place activate the image by double-clicking on it..
2. Select Image>>Convert to display the conversion submenu.
3. Select Binary (B\&W)... to display the Line Art Image Conversion dialog box.
4. Enter a threshold value between 0 and 255
5. Click on OK

## 256 colors

When an image is converted from a format with fewer colors to a format with more colors, the color content of the image stays the same. Therefore you should not encounter any surprises when converting from a monochrome ( 1 bit) or a 16 color ( 4 bits) image to a 256 color image ( 8 bits).

When an image is converted from a format with more colors to a format with fewer colors, a color reduction operation is applied. For best color results, experiment with the various palette algorithms provided.
To convert an image to 256 colors:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Convert to display the conversion submenu.
3. Select $\mathbf{2 5 6}$ Colors to display the Select Color Palette dialog box.
4. Select one of the following palette algorithms and click on OK:

- Uniform Spectrum Distribution 884
- Uniform Spectrum Distribution 666
- Gray Colors
- Most Popular Colors
- Median Cut


## 16 million colors

When an image is converted from a format with fewer colors to a format with more colors, the color content of the image stays the same. Therefore you should not encounter any surprises when converting from a 16 or 256 color image to a true color image.

If the color content of the image stays the same, why bother converting it to a 24 bit image? The answer is that many operations apply to 24 bit images only. For example, you want to gray scale a portion of a 256 color image. Image'n'Bits can perform piecemeal operations on 24 bit images only. In this case, you would convert the source image to a 24 bit flavor and gray scale a portion of the new image.
To convert an image to 16 million colors:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Convert to display the conversion submenu.
3. Select $\mathbf{1 6}$ Million Colors.

## Other

The Convert To Other dialog box converts grayscale images to 16 colors or to 16,32 , or 64 shades of gray.

To convert an image to other:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Convert to display the conversion submenu.
3. Select Other...
4. Click on OK

## Dither

Image'n'Bits supports two dithering algorithms: Floyd-Steinberg and Stevenson-Arce. One algorithm is not better than the other - they are simply different and the dithering results are image specific. The Stevenson-Arce algorithm is inherently slower than the Floyd-Steinberg algorithm.

Dithering is a process applied to images in order to compensate for color errors introduced when the color content of an image exceeds that of the device it is being displayed on. In general, if the image you are displaying does not look like it is supposed to, dither it. You will be amazed at how good it can look with fewer colors

To dither an image:

1. In-place activate the image by double-clicking on it..
2. Select Image>>Convert to display the conversion submenu.
3. Select Dither... to display the Dither Image Conversion dialog box.
4. Select the desired dithering algorithm, either Floyd-Steinberg or Stevenson Arce.
5. Select the desired scaling factor. Applying a scaling factor when dithering produces an unexpected result: the new image looks as if it contains more detail than the original image. A scale factor of 2 (double image width and height) requires 4 times more memory than the original image. A scale factor of 3 (triple image width and height) requires 9 times more memory than the original image.
6. If the image you are dithering is grayscale, marking it as such using Image is a grayscale image will speed up calculations.
7. Expand contrast slightly adjusts image contrast to make the image colors more pronounced
8. Click on OK

Dithering works on 24 bit ( 16 million colors) images only.

An image cannot be partially dithered. Therefore, the entire area of the image will be affected by this operation.

Applying dithering makes sense on VGA (16 colors) systems only. Since the dithering algorithm works the same way regardless of the system's color capabilities, an image dithered on a 256 color system is not going to look any richer in color than if it was dithered on a 16 color system.

## Negative/solarization

The Negative/Solarization operation, as the name implies, makes a negative of an image. Applying negative operation to the same image twice will produce the original image.

Image solarization is similar to the negative image operation, but the colors and visual effect is more interesting. Image solarization is achieved by setting the image threshold to a value other than 0 (a value of 200 is a good start). By experimenting with the threshold value you can produce an image that is partially intact and partially solarized.

A maximum threshold value of 255 (highest intensity) will leave the image untouched.

To solarize an image:

1. In-place activate the image by double-clicking on it.
2. Select Image>>Convert to display the conversion submenu.
3. Select Negative/Solarization... to display the Negative/Solarization Image Conversion dialog box.
4. Enter the desired threshold, from 0 to 255.
5. Click on OK.

## Gray Scale

The Gray Scale selection converts image colors to shades of gray. Image'n'Bits supports three methods of grayscaling:

- Maximum, which produces lighter images
- Mean, which produces darker images
- Weighted mean, where the results depend on the percentage of each color channel (red, green, and blue).you assigned to be used in the gray scaling calculation. The percentage values of 0.30 for red, 0.59 for green, and 0.11 for blue are the recommended defaults. The sum of percentages should equal 1.

To grayscale an image:

1. In-place activate the image by double-clicking on it.
2. Select Image>>Convert to display the conversion submenu.
3. Select Gray Scale... to display the Gray Scale Image Conversion dialog box.
4. Select the desired conversion method: Maximum, Mean, or Weighted Mean.
5. If you have selected Weighted Mean, enter the desired Red, Green and Blue values.
6. Click on OK.

## Overview

Image'n'Bits allows you to capture screens and store them to a file, to the clipboard or place them directly into a document. In addition, you can capture icons, bitmaps and cursors that are stored in existing executable files (*.EXE and *.DLL) for use in your documents. This makes illustrating technical documents easier, faster and makes them more understandable for your audience.
Before capturing an image, you can select a number of preferences for the appearance and destination of the captured image.

## More Information

After Capture Options
Capture Preferences
How to Capture Screens
How to Extract Images from an EXE File
Importing a scanned image

## After Capture Options

You can set options for borders that will automatically be applied to an image after it has been captured.
To add a border around a captured image:

1. Select Capture!>>After Capture... to display the Add Border dialog box.
2. Select the properties of the border that you wish to add as described in the following table.
3. Select the colors for the properties that you have selected by clicking on the appropriate color button.

| Attribute | Range | Description <br> Add backdrop |
| :--- | :--- | :--- |
| $0-5$ | Adds a background for the remaining <br> elements of the border |  |
| Add immediate | $0-5$ | Adds an immediate border line around the <br> image |
| Add shadow | $0-10$ | Adds a shadow to the image |

- You can pick whatever colors you like for the image's border only if the image is a true color ( 24 bit ) image. Otherwise, your border color selection is limited to the colors that are already a part of the image.


## Capture Preferences

You can set options for what to do with the captured image after it has been captured.
To set capture options:

1. Select Capture!>>Capture Preferences... to display the Capture Options dialog box.
2. Select the action for what to do with the captured image.
3. Select the destination for the captured image.
4. If capturing windows, select whether to capture the contents of a window or to include the windows border and title as well. If you are planning many screen captures to a file, turn on the Auto Increment check box. This will auto generate file names for you by combining the file name in the File Name field and an internal file counter. For example, captur01.bmp, captur02.bmp, etc.
5. Click on OK.

## How to Capture Screens

1. Select Capture!>>Desktop to capture the entire screen.

OR

1. Select Capture!>>Window to capture a window displayed on the screen.
2. The cursor changes to

3. 

Place the cursor in the window that you want to capture and click the left mouse button.
OR

1. Select Capture!>>Area to capture any rectangular region of the screen.
2. The cursor changes to

Drag the cursor from the upper left to the bottom right of the area that you want to capture.
Image'n'Bits handles all images in the same fashion regardless of the origination of the image. If capturing to a window, notice that the captured piece has selection handles around it just like any image loaded from the disk The captured portion of the screen can be edited by double-clicking on it or drag'n'dropped to another application.

## How to Extract Images from an EXE File

You can extract any icon, bitmap, or cursor that is stored in a Windows executable file. Since Windows Dynamic Link Libraries (DLLs) are a form of executable file that often contain image resources, images can be extracted from them as well.

How to extract an image from an executable file:

1. Select Capture!>>EXE File... to display the EXE Extractor dialog box.
2. Enter a file name in the Filename field or click on Browse to find the file from which you want to extract an image. *.EXE is the default, but you can enter *.DLL to search through those files as well.
3. Press the Extract... button
4. Click on Icons, Bitmaps and Cursors radio buttons to view various resources.
5. Select an image from the list. Note that bitmaps are previewed for you in a separate image box. Cursors and Icons are depicted in the image list. The size and type of image are also displayed.
6. Click on OK.
7. You can now manipulate the image as you would any other file.

## Importing a scanned image

To import a scanned image using a TWAIN compatible scanner or other device:

1. Ensure that the correct device is selected by selecting File>>Select Source...
2. Select the correct device from the list and click on OK.
3. Select File>>Aquire... menu selection to display the device specific Acquire dialog box.
4. Make the appropriate selections in the dialog box according to the instructions in your device documentation.
5. Click on OK and the image will be imported into Image'n'Bits.

Image'n'Bits handles all images in the same fashion regardless of the origination of the image. Notice that the acquired image has selection handles around it just like any image loaded from the disk The scanned in image can be edited by double-clicking on it or drag'n'dropped to another application .

## Customizing Image'n'Bits

Image'n'Bits allows you to customize the application to make it easy for you to work the way that you want to work.

More Information
Setting Image'n'Bits Color Options
Setting Image'n'Bits Default Preferences

## Setting Image'n'Bits Color Options

You can select the color scheme for your Windows display.
To change your default color scheme:

1. Select Options>>Color Scheme... to display the Select Color Scheme dialog box.
2. Select the scheme that you want to be your default Windows color scheme.
3. Click on OK.

Note that his selection will effect your Windows display as if you had selected the color scheme from the Windows Control Panel.

## Setting Image'n'Bits Default Preferences

You can set a number of defaults to determine the way that Image'n'Bits works, including:

- Metafile size and storage preferences
- Number and location of undo operations allowed
- Gamma Correction default values
- Kodak Photo CD default sizes

To set default preferences:

1. In-place activate the image by double-clicking on it.
2. Select Options $\gg$ Preferences... to display the Preferences dialog box.
3. Click on the tab that you wish to set defaults for an set the desired defaults.
4. Click on OK.

## More Information

Metafile options
Undo Options

## Metafile options

Metafiles come in two flavors: with header (placeable) and without header. The problem with the headerless metafiles is they have no `inherent` size. Metafile options tab allows you to set a `finite` image size when a headerless metafile is being imported.

When exporting images you have a choice of exporting them with/without a header. Metafiles with header are more `acceptable` to various applications.

## Undo Options

Undo to memory is faster than undo to disk, but is obviously more limited in the number of undo levels. If your undo behavior is configured for disk the number of undo levels is limited only by your hard disk space.

