

Fractal Imager

Iterated Systems Web Page: <http://www.iterated.com>

Ready?

Load *Fractal Imager* and "Join The Club."

[System Requirements](#)
[Fractal Imager Setup](#)
[License Agreement](#)
[Join The Club \(Register\)](#)

Set?

Start *Fractal Imager* and learn basic tools.

[Start Viewing Images](#)
[Set Image Information](#)
[Set Progressive Display](#)
[Set Size Options](#)
[Set Dithering and Palette](#)
[Index of Menus and Tools](#)

Go!

View, zoom, print, create and convert images.

[Zoom and Edit](#)
[Create Fractal Images](#)
[Fractal Compression](#)
[Options](#)
[Convert to Other Formats](#)
[Print](#)
[Supported File Formats](#)

Cruise!!

Get Fractal with all your images on the Web.

[Batch Process Images](#)
[Add FIFs to Web Pages](#)

For Help on using Help, press F1 now.

System Requirements

The minimum system requirements for *Fractal Imager* are:

- ☐ Intel based PC 486/33 or higher.
- ☐ Windows 95, Windows NT or Windows 3.X. (Windows 3.X requires Win32s version 1.30.166, which can be installed from the *Fractal Imager* Web site or CD.)
- ☐ 8 MB RAM.
- ☐ Windows-compatible VGA or SVGA card.
- ☐ For installation, either access to the World Wide Web (<http://www.iterated.com>) or a CD drive and Iterated's software CD.

Optimal Configuration

To get the best performance from *Fractal Imager*, the following optimal configuration is recommended, in addition to the requirements listed above:

- ☐ 20 MB free disk space for handling images.
- ☐ A 24-bit, true-color video card.
- ☐ 16 MB RAM.

Fractal Imager Setup

If you can read this, then chances are that you have already successfully set up *Fractal Imager*. Anyway, here are the setup instructions for your reference.

From Our Web Site (<http://www.iterated.com>)

1. Follow the Web screens to download the appropriate self-extracting file. The actual file that you download will depend upon your platform and operating system.
2. Move the self-extracting file to a temporary directory (such as `C:\FTEMP`), by itself.
3. Run the self-extracting file to create the *Fractal Imager* setup files.
4. Run the setup program, `C:\FTEMP\SETUP.EXE`. Follow the steps of the setup program.

From Our CD

1. Insert Iterated's CD into your CD drive.
2. Assuming that your CD drive is `D:`, run the program `D:\FRACTIMG\SETUP.EXE`. Follow the steps of the setup program.

Start Viewing Images



You can start *Fractal Imager* by double-clicking a FIF filename or icon under Windows. Try it with our sample image, SKIER.FIF.

--OR--



If *Fractal Imager* is already running, click the File Open tool and select SKIER.FIF in your *Fractal Imager* directory. (You can also use **File > Open** or Ctrl+O.)

[More about File Open](#)

Know Your Desktop

Your work area in *Fractal Imager* is called the **desktop**.



[Show Me the Desktop](#)

To Control How Images Display

[Set Image Information](#)

[Set Progressive Display](#)

[Set Size Options](#)

[Set Dithering and Palette](#)

Set Image Information

Turn Image Information on or off with **Options > Image Information**.

When Image Information is on, every [image window](#) will include a few lines of information about the displayed image.

Image information includes display dimensions, actual dimensions, image file name, file format, and image file size in bytes.



[Show Me Image Information](#)

Set Progressive Display

Use these options to simulate the World Wide Web as you view your images. They appear on the **Options** menu.

Choose only one of these three:

[Normal Decompression](#) for an instant, non-progressive display.

[Progressive Focus](#) to watch images come into focus. Set your display speed with [Simulated Baud Rate](#).

[Progressive Expansion](#) to watch images expand from a thumbnail. Set your display speed with [Simulated Baud Rate](#).

Set Size Options

These options control the size and resolution of displayed or printed images. They appear on the **Options** menu.

[Preserve Physical Size](#) will display FIF images at their intended physical resolution (when available). You must set your [Monitor Size](#) for best results.

[Print to Fit Page](#) controls the size of an image when it is printed.

[Photo CD Resolution...](#) applies if you are viewing Photo CD (PCD) files.

To Control the Size of a Displayed Image

FIF is a *resolution-independent* file format. So, unlike other formats, you control the size of the displayed or printed image.

FIF files do contain information on their original (pixel-based) dimensions. They may also contain physical size information in inches, meters or an arbitrary unit.

By default, *Fractal Imager* displays each image at the largest possible size to fit your [desktop](#). You can make the display larger or smaller by changing the size of your desktop.

If the [Preserve Physical Size](#) option is on, *Fractal Imager* will display at a zoom factor of 1:1, or it will use the physical size in the FIF file, if present.

Of course, you can [zoom](#) an image after it is displayed.

Set Dithering and Palette

These options will help you to work with images if you have a display or a printer that provides only 256 or fewer colors.

[Dither](#)

[Use Embedded Palette](#)

Zooming and Editing Tools

Zoom In



Zoom in on one spot. The [zoom factor](#) doubles.



Zoom in on a rectangular area. The zoomed area fills the [image window](#).

Zoom Out

Click the right mouse button to zoom back to the original zoom factor.

Select a Portion



Select a rectangular area to copy to the Clipboard.

Select All

Edit > Select All or [Ctrl+A](#) selects the entire image to copy to the Clipboard.

Copy and Paste



Copies the selected area to the Clipboard. (Also: **Edit > Copy** or [Ctrl+C](#).)



Pastes an image from the Clipboard to a new [image window](#). (Also: **Edit > Paste** or [Ctrl+V](#).)

Create Fractal Images

Any image that you can [view](#) in *Fractal Imager* can be compressed to a fractal image.

1. View the image in *Fractal Imager*.
2. Click  to select a FIF filename.
3. Select the [Fractal Compression Options](#) for your new FIF file.

The new FIF image will display in a new [image window](#).

Convert to Other Formats

Any file that you can [view](#) in *Fractal Imager* can be converted to any of the [file formats](#) that *Fractal Imager* can output.

1. View the image in *Fractal Imager*.
2. Click  to select a format and filename.
3. If you select the FIF format, then the [Fractal Compression Options](#) dialog will appear.

The new image will display in a new [image window](#).

Printing

Use these options and tools to print an image.

Preview Select **File > Print Preview** at any time to see how the image will print on the page.
[More about Print Preview options](#)

Size of Image **Options > Print to Fit Page** will expand or reduce the image to fit the page.

For FIF files, **Options > Preserve Physical Size** will print a FIF at its physical dimensions, even if the image is cropped.
[More about Preserve Physical Size](#)

Orientation Select **File > Print Setup** to change the paper orientation and other printing options.

Ready to Print?  or **File > Print**.

Batch Process Images

Use batch mode to compress many files while the computer is unattended, or to compress the same set of files repeatedly. Batch jobs can be saved to a file, edited and reloaded.

Start by selecting **File > Batch** to bring up the Batch dialog.

[Create a batch job](#), or [load and edit a batch job](#) from a batch file.

Once a batch job is listed in the Batch dialog, simply click [Run Batch...](#) and let *Fractal Imager* do the rest!

Create a New Batch Job

Hint: Organize your batch job into sets of files that are in one directory and will be converted to the same format. Then repeat these steps to add additional files in other directories or other formats.

1. By default, all new files will be written to the same directory from which the input files are read. To change the target directory, use [Target Dir...](#) before you select files to convert.
2. Click on [Select Files...](#) to select one or more files to process. The Batch Select dialog appears.
Hint: Use the Shift key to click on a range of files, or the Ctrl key to select and deselect individual files from one directory.
3. The "Select Target File Type" dialog appears. Select the output file format from the list of [supported formats](#).
4. If you selected one file in step 2, then a dialog appears to let you specify the output file name. Otherwise, all output files are named with the default extension for the output file format.
5. Click [Save Batch...](#) to write the batch job to a file, if you will want to load and run it in later sessions of *Fractal Imager*.

Load and Edit a Batch Job

Load an Existing Batch Job

Simply click [Load Batch...](#) and select the name of a batch file (.IIC) that you have previously saved.

Edit a Batch Job

1. **Insert additional items:** Click on the item *above* where you want to insert more items (or **<end>**, if at the end). Then either add more items with [Select Files](#), or insert a previously saved batch file with [Load Batch](#).
2. **Remove items:** Click [Remove](#) to remove one selected item, or [Remove All](#) to erase the entire list.
3. Click [Save Batch...](#) to write the batch job to a file, if you will want to load and run it in later sessions of *Fractal Imager*.

Menus and Tools

(Some of the following menus will not appear on the menubar unless an image is currently displayed.)

[File Menu](#)

[Edit Menu](#)

[View Menu](#)

[Options Menu](#)

[Window Menu](#)

[Help Menu](#)

[Toolbar](#)

[Status Bar](#)

File Menu

Commands in the File Menu allow you to view, convert and manage image files.

Some of these commands will not be available if there is no image currently displayed.

[Open](#)

[Close](#)

[Save As...](#)

[Compress](#)

[Batch](#)

[Print](#)

[Print Preview](#)

[Print Setup](#)

[Exit](#)

Open

 or Ctrl+O or **File > Open**

Opens an existing file and displays it in an [image window](#).

List Files of Type: lists the [file formats](#) that *Fractal Imager* can read. Select one format, or select **All Files (*.*)** to see a list of all files in the currently selected directory.

Preview

The Preview option lets you see an image before you open it. Whenever you select a file, the Preview button becomes active. Toggle this button to display the Preview window. Select a file to see its preview, plus its width and height.

Close

When image window is active, **File > Close** or Windows Close options

Closes the currently active [image window](#). *Fractal Imager* will prompt you to save this file if it is Untitled (i.e., it is new and has not been saved).

Save As...

 or Ctrl+S or **F**ile > **S**ave **A**s...

Save As changes the name and/or format of an image that is currently displayed in an image window. (You must display a file in order to convert the format.)

Use the **Save File as Type:** scroll list to select the output file format. This list includes all [file formats](#) that *Fractal Imager* can create.

If you select a FIF file type, then the [Fractal Compression Options](#) dialog appears.

If you specify the name of a file that already exists, *Fractal Imager* will prompt you before overwriting the file.

Compress



or Ctrl+F or **File > Compress...**

Compress is a shortcut to saving an image to the Fractal Image Format (FIF).

Select the name of the FIF file that you want to create (or overwrite). Then, the [Fractal Compression Options](#) dialog appears.

Fractal Compression Options

This dialog appears when you compress an image to a FIF file.



[Illustration of Fractal Compression Options](#)

How the Quality Factor Works

A high quality factor (up to 100) will give you:

-  a sharper image,
-  a larger file (with a lower compression ratio), and
-  a longer processing time.

A low quality factor (down to 1) will give you:

-  a less detailed image,
-  a smaller file (with a higher compression ratio), and
-  a shorter processing time.

The actual quality, file size (compression ratio), and processing time that you achieve depends not only upon the size of your image, but on its fractal qualities. Test your images with the preset quality factors to find the best results for your needs.

Batch

The batch dialog allows you to set up a series of image conversion tasks in one operation. You can perform a batch job repeatedly without re-entering filenames and parameters, or you can set up a long job to run unattended.

The Batch Commands window displays the batch job as you build it. When an item is selected, you can remove it, or the next items that you add to the job will be inserted above it.

Use these commands to create and use batch jobs.

[Load Batch...](#)

[Save Batch...](#)

[Target Dir...](#)

[Select Files...](#)

[Remove](#)

[Remove All](#)

[Run Batch](#)

Save Batch...

Save this batch job to a batch file. If you will want to perform the same batch job again, save it to a file for future use.

The default extension for batch files is `.IIC`.

Load Batch...

Load a previously saved batch job from a file. If there are already items in the batch Commands window, the items from the batch file will be inserted into the list.

The default extension for batch files is `.IIC`.

Target Dir

By default, converted files are saved in the target directory. Use this dialog to specify a different output directory. This directory will be the output directory for the next files that you add to the batch job. It does not change the output directory of items already in the batch job.

Hint: You can change the target directory while building a single batch job to write files to different directories. The target directory is in effect until you change it.

Select Files

A dialog similar to the Open dialog appears, allowing you to select one or a group of existing files that you want to convert. Select multiple files by pressing the Shift key as you click on the file names.

When you click OK, the Select Target File Type dialog appears. Select one output file format to which you want to convert the file(s) that you selected.

Hint: Use **Select Files...** for each group of files that you want to output to a single format. Output files to a different format in the same batch job by using **Select Files...** again.

If only one file was selected, the Target File Name dialog appears, allowing you to specify an output file name other than the default. If a group of files was selected, then the default output file name will be used for each file.

Remove

Removes the selected item from the batch job.

Remove All

Removes all items from the batch job, and empties the Batch Commands window.

Run Batch...

Runs the batch job that is loaded in the Batch Commands window. Image windows will open and close on the desktop as the batch job is running.

Print

 or Ctrl+P or **F**ile > **P**rint...

This command prints the image in the active [image window](#).

The size of the printed image is determined by the [zoom factor](#) in the active image window. To change the printed size, [zoom](#) the image in the image window before printing it.

Use [Print Preview](#) to see how *Fractal Imager* will print the image.

Use [Print Setup](#) to change the parameters of the printer and the print job.

Print Preview

Use Print Preview to see how *Fractal Imager* will print an image, before you send the job to the printer.

In the Print Preview window, the following options are available.

Print...

Opens the [Print](#) dialog.

Next Page and Prev Page

Allow you to scroll through a multi-page printout.

One Page/Two Page

Toggles to show a single page or facing pages in the Print Preview window.

Zoom In and Zoom Out

Magnify and reduce the display of the printout.

Close

Closes the Print Preview window and returns to the *Fractal Imager* desktop.

Print Setup

This dialog allows you to specify a different printer, and select parameters for this print job.

The contents and options within this dialog will depend upon the printer that you have selected.

Exit

Quits this session of *Fractal Imager*. You will be prompted to save files in any open image windows that have temporary filenames.

Edit Menu

The Edit Menu is available when an image is displayed.

Use these commands with the [Select Cursor](#) . This tool allows you to select a rectangular area of any image in an image window for copy and paste operations.

Copy

Copies the selected area to the Windows Clipboard, leaving the original part of the image in place. The copy can be pasted to a new image window with the Paste command.

Paste

Inserts the contents of the Windows Clipboard into a new [image window](#).

Select All

Selects the entire image as it appears in the [image window](#).

If the image window has scroll bars, then the entire image will be selected.

If the image is cropped in the window (the image window has no scroll bars), only the visible area will be selected.

Copy

Copies the selected area to the Windows Clipboard, leaving the original part of the image in place. The copy can be pasted to a new image window with the [Paste](#) command.

Paste

Inserts the contents of the Windows Clipboard into a new [image window](#).

View Menu

The options on the View Menu allow you to toggle these features of the desktop.

[Toolbar](#)

[Status Bar](#)

[Zoom Cursor](#)

[Select Cursor](#)

[Zoom selection](#)

[Zoom Out](#)

Options Menu

[Image Information](#)

[Dither](#)

[Preserve Physical Size](#)

[Print to Fit Page](#)

[Use Embedded Palette](#)

[Photo CD Resolution...](#)

[Monitor Size](#)

[Normal Decompression](#)

[Progressive Focus](#)

[Progressive Expansion](#)

[Simulated Baud Rate](#)

Dither

If you are using *Fractal Imager* on a system that does not have 24-bit video, then dithering the displayed images may make them easier to view. Dithering is a color correction technique that uses dots of a few colors to simulate many colors.

The Dither option is only enabled if you are using a 256-color display, or if you are viewing an image with an [embedded palette](#).

Setting the Dithering Option

If there is no image window displayed, then setting the Dither option will change the default setting for any subsequently opened images.

If an image is displayed, then setting the Dither option will change the display of the current image window. The image will redisplay at its original zoom factor.

Dithering New Image Files

Dithering does not change the contents of the original file. However, if you dither an image on the screen, and then convert it (with the [Save As](#) tool ) or compress it (with the [Compress](#) tool



), the new image will have dithering built into the file.

Preserve Physical Size

With this option on, images are displayed at their original physical size.

Note: You cannot zoom with Preserve Physical Size on.

FIF files may contain physical size information--width, height, and a unit of measure. (You have the option to add this info to FIFs that you create. See [Fractal Compression Options](#).)

With this option on, these images will display at their physical size. For accurate results, be sure that your [monitor size](#) is set correctly.

If **Preserve Physical Size** is on, then...

-  FIF files that contain physical size information display or print at their physical sizes.
-  Files in other formats and FIF files that contain no physical size information display or print at a zoom factor of 1:1.
-  When printing, Preserve Physical Size overrides the [Print to Fit Page](#) option.
-  Zooming tools are off.

If **Preserve Physical Size** is off, then...

-  Each image displays at the largest possible size to fit the desktop (in power-of-two multiples, such as 1:1, 1:2, 1:4, etc.)
-  Zooming tools are on.

Setting the Preserve Physical Size Option

If there is no image window displayed, then setting the Preserve Physical Size option will change the default setting for any subsequently opened images.

If an image is displayed, then setting the Preserve Physical Size option will change the display of the current image window.

Print to Fit Page

When this option is on, the displayed image will be printed to a size that fills an entire page.

When this option is off, the image will be printed at its displayed size.

Use [Print Preview](#) to see how an image will fit on a page before it is printed.

Use Embedded Palette

Some FIF files contain an embedded palette (colormap) that can be used to display or print images to devices with less than 24-bit color. If such a colormap is present in the file, then the Use Embedded Palette option will be enabled.

If there is no image window displayed, then setting the Use Embedded Palette option will change the default setting for any subsequently opened images.

If an image is displayed, then setting the Use Embedded Palette option will change the display of the current image window. The image will redisplay at its original zoom factor.

Using the embedded colormap does not change the contents of the original file. However, if you view an image with its colormap on the display, and then convert it (with ) or compress it (with ) it to a new format, the output will be as it appears on the display.

Photo CD Resolution

Each Photo CD file (PCD) includes several copies of one image, each at a different resolution.

Use this dialog to select the image size that best suits your needs. When you open subsequent PCD files, the copy at the selected resolution will be displayed.

Monitor Size

Use this dialog to specify your monitor size. The monitor size is used to display FIF image at its appropriate physical size when the [Preserve Physical Size](#) option is turned on.

Normal Decompression

When this option is checked, FIF images will display non-progressively. In other words, the image will display at once when the image is completely loaded into memory. This is the default setting.

For comparison, try the [Progressive Focus](#) and [Progressive Expansion](#) options, which demonstrate *Fractal Imager's* progressive display capabilities for online FIF image viewing.

Progressive Focus

Use this option to demonstrate the capability of FIF images to display progressively by coming into focus. This progressive display simulates how the FIF file would be displayed as it is downloaded from the Internet.

Use the [Simulated Baud Rate](#) menu to select a speed for progressive display.

See also [Progressive Expansion](#) for another style of progressive display. Or, select [Normal Decompression](#) to turn progressive display off.

NOTE: Some FIF files are structured for progressive display, but others are not. Those that are not will display non-progressively (all at once).

Progressive Expansion

Use this option to demonstrate the capability of FIF images to display progressively by expanding from a thumbnail. This progressive display simulates how the FIF file would be displayed as it is downloaded from the Internet.

Use the [Simulated Baud Rate](#) menu to select a speed for progressive display.

See also [Progressive Focus](#) for another style of progressive display. Or, select [Normal Decompression](#) to turn progressive display off.

NOTE: Some FIF files are structured for progressive display, but others are not. Those that are not will display non-progressively (all at once).

Simulated Baud Rate

Use this menu to select the speed for progressive decompression. This menu is enabled if you have either the [Progressive Focus](#) or [Progressive Expansion](#) option turned on.

Window Menu

Use this menu to arrange and manage the [image windows](#) on your [desktop](#).

Tile

Arranges all open image windows in a side-by-side fashion.

Cascade

Arranges all open image windows in an overlapping diagonal pattern.

Arrange Icons

Arranges the icons of any image windows that are minimized on your desktop.

Resize Frame to Fit

Resizes the current image window to fit on the desktop.

Close All

Closes all open image windows.

Help Menu

Contents

Displays the [Contents page](#) of this Help file.

Using Help

Displays help on how to use this Help utility.

License

Displays the *Fractal Imager* License Agreement.

Registration

Provides information on registering your copy of *Fractal Imager*.

When you register, you "Join The Club" and are entitled to special offers, upgrades, and future product information.

About *Fractal Imager*...

Displays a dialog box that verifies the version number and copyright information for this copy of *Fractal Imager*.

Toolbar

Click on any of the icons below for help on that tool.

 Open

 Save As

 Print

 Copy

 Paste

 Select Cursor

 Zoom Cursor

 Zoom Selection

 Help

 Compress

Zoom Cursor

The Zoom Cursor is the magnifying glass . It allows you to magnify or reduce a displayed image.

Click the icon so that the mouse pointer becomes a magnifying glass.

With the Zoom Cursor on:

Use the **left** mouse button to **zoom in** (magnify) to the nearest power of two.

Use the **right** mouse button to **zoom out** (reduce) to the image's default size.

To deactivate the Zoom Cursor, click on the [Select Cursor](#) .

Select Cursor

Use the Select Cursor  to delineate a rectangular area that you can [copy](#) to the Clipboard.

Click the icon so that the mouse pointer becomes an arrow.

With the Select Cursor on, draw a rectangle by dragging from the upper left to the lower right corner of the desired area.

Zoom Selection

Use the Zoom Selection cursor  to zoom a specific rectangle within the displayed image.

Click the icon so that the mouse cursor becomes the crosshairs.

With the Zoom Selection cursor on, draw a rectangle by dragging from the upper left to the lower right corner of the desired area. That rectangle will zoom to fill the current [image window](#).

At any time, click the right mouse button to return the image to its default size.

Zoom Out

Redisplays a zoomed image window to the original display size.

BEGIN POPUPS / GLOSSARY

Desktop:

your entire work area in *Fractal Imager*.

Help:



or **Help > Contents** displays the [Contents page](#) of this Help file.

Image Information:

is a list of additional information about each displayed image. You can toggle Image Information on and off with **Options > Image Information**.

[More about Image Information](#)

Image Windows:

The smaller windows on the desktop where images appear.

An image window is **active** if you have clicked on it (its title bar is highlighted and it is "on top" of other image windows). Operations such as Compress and Print are performed on the active image window.

Use  to open an image window. You may have as many open image windows as memory allows.

Menubar

The strip of *Fractal Imager* commands on the desktop.

[More about each Menubar Command](#)

Quality Factor

A number from 1 to 100 that controls the quality of a fractal compressed image, as well as the file size and the processing time.

A higher quality factor (up to 100) results in better quality, larger FIF files and longer processing time.

[More about Quality Factor](#)

Status Bar

Displays helpful messages as you move the cursor and perform operations.

If you point to a tool or menu command without clicking on it, a brief description of that function appears on the Status Bar.

The Status Bar will also tell you what *Fractal Imager* is doing if there is a pause during an operation, such as compressing or zooming an image.

Toolbar

The strip of *Fractal Imager* command icons on the desktop.

[More about each Tool](#)

Zoom Factor:

A ratio to show how far an image is zoomed. It always appears in the title bar of the image window.

The zoom factor is the ratio of the image's displayed size to the image's original size. Since FIF files are resolution independent, the pre-compression size is used as the basis for the zoom factor.

Add FIFs to Web Pages

To make your Web pages truly wonderful with fractal images, there are three things you must do:

1. **Create FIFs with *Fractal Imager*.** That's what this manual is all about.
2. **Embed your new FIFs into your HTML files.** For instructions, see:
<http://www.iterated.com/fracview/help/html/fvhembed.htm>
3. **Link your Web page to our Web page,** so that your readers can get *Fractal Viewer*. We'll also link our site to yours - just give us your URL! We even provide a *Fractal Viewer* button for your Web page. All the info is on:
<http://www.iterated.com/fractimg/info/fi-links.htm>

Do you have *Fractal Viewer*? See:

<http://www.iterated.com/fracview/info/fv-info.htm>

Fractal Imager License Agreement

Note: *Fractal Imager contains Iterated's Encoder software, for creating fractal images, and its Decoder software for viewing and converting fractal images. The Encoder and Decoder are licensed to you under separate terms, as described in this License Agreement.*

When you set up *Fractal Imager* with Iterated's SETUP.EXE program, you agreed to the following License Agreement.

END USER LICENSE AGREEMENT - FRACTAL IMAGE ENCODER AND DECODER

DISTRIBUTION OF THE ENCODER SOFTWARE IS NOT PERMITTED UNLESS A SEPARATE DISTRIBUTION AGREEMENT IS SIGNED BY ITERATED SYSTEMS, INC. ("ITERATED") AND YOU AND DISTRIBUTION FEES ARE PAID BY YOU.

YOU MUST PAY THE APPLICABLE LICENSE FEES TO ITERATED PRIOR TO USING THE ENCODER SOFTWARE FOR REVENUE-GENERATING PURPOSES, OR WITHIN THIRTY (30) DAYS AFTER FIRST USING THE ENCODER SOFTWARE TO COMPRESS OR ENCODE IMAGES, WHICHEVER OCCURS FIRST, OR YOU MUST STOP USING THE ENCODER SOFTWARE.

ENCODER SOFTWARE GRANT: When you pay the applicable license fees of Iterated, then Iterated grants you a limited, nontransferable, terminable, non-exclusive license subject to the following to use its accompanying computer software product known as the Fractal Image Encoder [including 32-bit and Macintosh versions ("Encoder Software")] for individual use only as described below on a single user Personal Computer. Prior to paying such license fees, you are permitted to use the Encoder Software for evaluation and educational purposes only, and not for any revenue-generating purposes. Except as permitted in a fully signed and paid up Distribution Agreement, you may NOT distribute the Encoder Software or place the Encoder Software on networks or online systems or allow download or copying of the Encoder Software except for the exclusive purpose of allowing downloading and copying of the Encoder Software for archival and installation purposes (but not for purposes of execution by the network or online system) provided any such copy must contain all of the original proprietary, license and copyright notices. This Encoder Software Grant paragraph only applies to the image compression Encoder Software described above and does not grant any rights to any other Iterated software, even if related to the Encoder Software, including the Decoder Software described below.

DECODER SOFTWARE GRANT: Iterated grants you a limited, nontransferable, terminable, non-exclusive license subject to the following to use its accompanying computer software product known as the Fractal Image Decoder [including 16-bit, 32-bit and Macintosh versions ("Decoder Software")] for individual use only on a Personal Computer as described below. You may place the Decoder Software on networks and online systems exclusively for the purpose of allowing downloading and copying of the Decoder Software for archival, distribution and installation purposes provided any such copy must contain all of the original Decoder Software and text files including this License Agreement and any proprietary, license and copyright notices on the original. This Decoder Software Grant paragraph only applies to the image decompression Decoder Software, described in this paragraph above and does not grant any rights to any other Iterated software, even if related to the Decoder Software, including the Encoder Software and any other software that encodes or compresses data or images in any way. The Decoder Software and Encoder Software are also collectively referred to as "Software".

You may use the Decoder Software only on a single user personal computer that: (a) has one Intel 386, 486 or Pentium processor, Motorola 68030 or 68040 processor or IBM Power PC processor; (b) operates only the Microsoft DOS and Windows operating system or the Macintosh operating system; (c) contains at least 4 megabytes of random access memory; (d) contains at least 80 megabytes of internal hard disk storage; (e) contains a keyboard (not an infrared remote) and monitor (not a television set); (f) is able to produce printed output on a local printer; and (g) does not act as a server on any network (including a local

area network, wide area network or Internet) or otherwise allow operation of the Decoder Software from a remote or separate computer or terminal ("Personal Computer"). For the avoidance of doubt, and without limitation of the foregoing, "Personal Computer" does not include game players, television set-top boxes or so-called "Internet Appliances".

You may not permit other individuals to use, operate or copy the Software (except as permitted above). You may not use or allow the use of the Decoder Software on any computer or other device that is not a Personal Computer (as defined above). You may not modify, translate, reverse engineer, decompile, disassemble, (except to the extent applicable laws prohibit such restriction), or create derivative works, based on the Software, copy the Software (except as specified above), rent lease, transfer, license or otherwise transfer rights to, the Software, or remove any proprietary notices, licenses, displays, installation procedures or labels on or in the Software, whether set forth in text files or on media. You may not use the Software in a service bureau, online service or in any way for the benefit of third parties, regardless of whether such third parties pay for such service.

DISCLAIMER OF WARRANTY: THE SOFTWARE IS LICENSED ON AN AS-IS BASIS, WITHOUT WARRANTY OR CONDITION OF ANY KIND AND ITERATED DISCLAIMS ALL WARRANTIES AND CONDITIONS, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. The entire risk as to the quality and performance of the Software is borne by you. Should the Software prove defective, you and not Iterated assume the entire cost of any service and repair. This Disclaimer of Warranty constitutes an essential part of the License Agreement. **SOME STATES DO NOT ALLOW EXCLUSIONS OF AN IMPLIED WARRANTY, SO THIS DISCLAIMER MAY NOT APPLY TO YOU AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY FROM STATE TO STATE OR BY JURISDICTION.**

LIMITATION OF LIABILITY: UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT, CONTRACT, OR OTHERWISE, SHALL ITERATED OR ITS SUPPLIERS, LICENSORS OR RESELLERS BE LIABLE TO YOU OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY TYPE INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, LOSS OF DATA, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES. IN NO EVENT WILL ITERATED BE LIABLE FOR ANY DAMAGES IN EXCESS OF ITERATED'S LIST PRICE LICENSE FEE FOR THE SOFTWARE, IF ANY, EVEN IF ITERATED SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.

TITLE: Title, ownership rights, and intellectual property rights in and to the Software shall remain in Iterated and/or its licensors or suppliers. The Software is protected by copyright laws of the United States and international copyright treaties. You are permitted to use only one copy of the Software, even if you receive multiple copies, whether via download or magnetic media. Title, ownership rights, and intellectual property rights in and to the content accessed through the Software is the property of the applicable content owner, and may be protected by copyright or other applicable law. This License gives you no rights to such content.

TERMINATION: This License will terminate automatically if you fail to comply with the limitations described above, including the requirement to timely pay license fees. On termination, you must destroy all copies of the Software and documentation.

MISCELLANEOUS: This Agreement represents the complete agreement concerning this license between the parties and supersedes all prior agreements and representations between the parties with respect to the subject matter of this license. This Agreement may be amended only by a writing executed by both parties. **THE ACCEPTANCE OF ANY PURCHASE ORDER PLACED BY YOU IS EXPRESSLY MADE CONDITIONAL ON YOUR ASSENT TO THE TERMS SET FORTH HEREIN, AND NOT THOSE CONTAINED IN YOUR PURCHASE ORDER.**

If any provision of this Agreement is held to be unenforceable for any reason, such provision shall be reformed only to the extent necessary to make it enforceable. This Agreement shall be governed by and construed under Georgia substantive law as such applies to agreements between Georgia residents entered into and performed within Georgia, except as governed by United States Federal law. You consent to the jurisdiction of the state and federal courts in the State of Georgia, U.S.A. The application of the United Nations Convention on Contracts for the International Sale of Goods is expressly excluded.

U.S. GOVERNMENT RESTRICTED RIGHTS: The Software and documentation are provided with RESTRICTED RIGHTS. Use, duplication, or disclosure by or for the U.S. Government is subject to restrictions set forth in DFARS 252.227-7013 (c)(1)(ii), FAR 52.227-19, and Clause 18-52.227-86(d) of NASA Supplement to the FAR, as applicable. Contractor/manufacturer is Iterated Systems, Inc., 3525 Piedmont Road, Seven Piedmont Center, Suite 600, Atlanta, Georgia, U.S.A. 30305-1530.

Fractal Imager Registration

Join The Club! [Show Registration Form](#)

When you register Fractal Imager, you "Join The Club." You'll be updated about our new products and releases.

Fractal Imager is a shareware product, licensed by Iterated Systems, Inc. As an end-user, you are honor-bound to make sure that this copy of *Fractal Imager* is registered.

Under the terms of the License Agreement, you must register before using Fractal Imager for commercial purposes, or before evaluating its fractal encoding features for 30 days, whichever comes first.

There are two ways to Join The Club:

1. Go to our Web site, <http://www.iterated.com>, and use your MasterCard, Visa or American Express (if you are in the U.S. or Canada).
2. Print the [registration form](#), fill in the blanks and mail it or fax it to us, along with a check, money order or credit card information (US dollars only).

Fractal Imager Shareware via WWW: **US\$39.00**

Fractal Imager CD and Hardcopy Manual **US\$69.00**
plus shipping charge

Residents of Georgia, USA must add applicable sales tax.

Fractal Imager Registration Form



Iterated Systems, Inc.
Fractal Imager Registration
3525 Piedmont Road
Building Seven, Suite 600
Atlanta, Georgia 30305 USA

World Wide Web Registration:
<http://www.iterated.com>
Telephone Orders (Credit Card Only):
+1 (800) 646-7210
Facsimile Orders (Credit Card Only):
+1 (404) 264-8300

Name _____ Title _____
Company _____
Address _____

City/State _____ Zip/Postal Code _____

Email address _____
(necessary for email confirmation of registration, and Club membership)

Daytime Telephone _____
Facsimile Number _____

Enclose or authorize payment as follows (check one):

- Fractal Imager: Electronic Version (WWW) US \$39.00
or
 Fractal Imager CD Version with Manual US \$69.00
plus shipping (UPS Ground) US \$7.50

Residents of Georgia, USA must add applicable sales tax.

If paying by credit card:

Type of Card: _____ [] MasterCard [] Visa [] AmEx
Your Name on Card: _____
Card Number: _____
Expiration: _____ Signature: _____

File Formats

Input File Types

Fractal Imager can read and write all of the file types listed below, with exceptions as noted.

Format	Gray Scale	256-Color	True Color
Fractal Image Format (FIF)	✓	✓	✓
Windows Bitmap (BMP)	✓	✓	✓
GIF	✓	✓	✓
JPEG (JPG)	✓		✓
Photo CD (PCD)			
PCX			
Sun Raster (RAS)			
TARGA (TGA)			
TIFF (TIF)			

FIF Support

FIF (Fractal Image Format) is a resolution-independent format defined by Iterated Systems. *Fractal Imager* can read FIF files that were produced by all publicly released versions of *Images Incorporated*, *POEM ColorBox* and the *Hi-Res Compressor*.

The FIF files created by *Fractal Imager* can be read by *Fractal Imager* 1.1 or later, or by applications written with version 1.1 or later of the *Fractal Image Encoder Developer's Kit*.

PCX Support

Fractal Imager supports Versions 2, 3, 5 and 10, 1-plane PCX files.

PCD Read Only

Fractal Imager can read Photo CD files, but does not write them.

Raster Limitations

Fractal Imager supports only RT_STANDARD type Raster files.

Targa Limitations

Fractal Imager supports only uncompressed Targa files.

Fractal Representation is Larger than Original

If you have converted any of these to the Fractal Image Format:

- ☐ a GIF file,
- ☐ a file in any other colormapped format (such as 256 color, 16 color, or monochrome), especially if it is dithered, or
- ☐ computer-generated artwork (any image with few colors and many sharp edges)

...then the Fractal Image Format (FIF) will give you resolution independence and Web zoomability, but in some cases not a reduced file size.

Try converting the non-colormapped original directly to FIF, if possible. Image quality will be better, the file size in most cases will be comparable to compressed formats, and your image will be more useful and fun to view on the Web.

Fractal Image Files (FIFs) are quite good at rendering computer-generated artwork, but they are most effective with real-world images from photographs, digitized to true color (24-bit) files, which tend to contain patterns and textures that lend themselves to fractals.

If you must convert a colormapped file to FIF, your actual results will depend upon the complexity and content of your image, the number of colors used, and the color tables. The best way to find out how well a colormapped image will convert to FIF is to try it. Experiment with the quality factor, and with embedding a color palette to find the best results to suit your needs.

How does *Fractal Imager* handle my colormapped image?

To fractally encode a colormapped file, *Fractal Imager* internally expands the image to a true color format, in which each pixel is represented by red, green and blue intensity values (or with a gray intensity value if it is gray scale). Then, *Fractal Imager* converts the true color image to FIF. The FIF may then be larger than the original colormapped file.

The "compression ratio" that you can see in the Image Info is the ratio of the size of that internal true color image to the new fractal image that is saved to the FIF file.

Why don't fractals and color maps mix?

FIF files are inherently "true color," in the sense that they encode an image based on its true, continuous-tone intensity values (whether those intensity values are RGB or gray scale). The Fractal Transform™ reduces file size by finding redundant patterns in continuous data.

Colormapped images such as GIFs, on the other hand, are encoded like paint-by-number pictures--textures are lost, colors are grouped together, and non-continuous numbers are often used to represent related tones. If a colormapped image is also dithered, then it has artificial textures that make it even less suited to fractal encoding.

Even when *Fractal Imager* creates its own true-color representation, the fractal textures are still lost by colormapping, and possibly confused by dithering. Conversely, the higher the quality of your original image, the better the compression and quality that can be achieved in the FIF file.

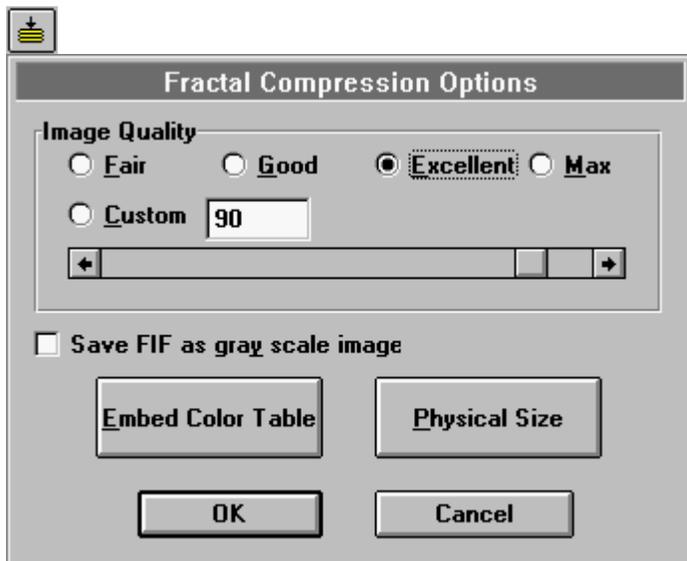
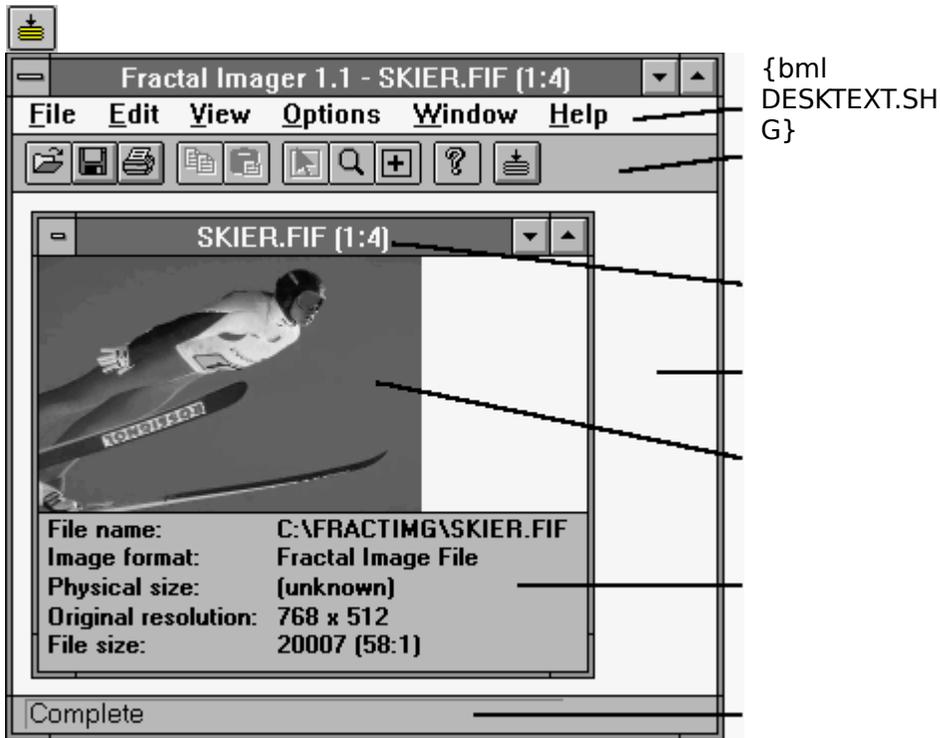


Image Quality:

Set the quality factor using the preset levels, or select any value from 1 to 100.

Save FIF as gray scale image:

Check this box to save this image in 8-bit gray scale (rather than in 24-bit color).

Embed Colormap... Use this option to store a color table with the FIF file. This color table can be used whenever the FIF file is displayed or converted.

Physical Size... Use this option to store the image's physical dimensions in the FIF file. The physical size can be used later, whenever this image is displayed or printed. See [Preserve Physical Size](#) for info on how this is used.

 Here's what Image Information can tell you about a FIF image:

File name:	C:\HIRES50\IMAGES\FLOWER.FIF
Image format:	Fractal Image File
Physical size:	10.000000 x 6.250000 "
Original resolution:	320 x 200
File size:	35362 (5:1)

File name: the full path and name of the file.

Image format: the type of image file.

Physical size: If available, dimensions in inches, meters or arbitrary units.

Original resolution: The pixel dimensions of the FIF image before it was compressed.

File size: The file size, in bytes, and its compression ratio. The compression ratio shows you how small the FIF image is, compared to its pixel-based source image.

And about other image files:

File name:	C:\HR60DOC\IMGINC\HELP\IMGINFO.BMP
Image format:	BMP Uncompressed
Resolution:	381 x 98 x 8
File size:	38710

File name: the full path and name of the file.

Image format: the type of image file.

Resolution: The pixel dimensions of the image and its color depth (**w x h x d**).

File size: The file size of the image, in bytes.

