



User Guide
for Windows® and Macintosh®

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Credits

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Welcome to KPT 5

Kai's Power Tools is a collection of image filters that let you alter images from a host application. With Kai's Power Tools, you'll produce incredible effects in seconds.

What's New?

The new version of KPT is a collection of new filters that can turn any image into a work of art. You'll find filters that make fractals, filters that provide vast improvements over standard image processing effects, and all new filter that explore technology you just won't find anywhere else.

Listed below are descriptions of just some of the filters you'll find in KPT 5.

KPT[®] ShapeShifter

KPT ShapeShifter creates shapes and objects with refracting glass edges, 3D light sources on beveled metallic surfaces, soft, curved and lit Web buttons, and text. Resulting elements carry their masks with them, which makes compositing a snap.

Refer to ["KPT ShapeShifter" on page 119](#) for a complete explanation of this filter.

KPT[®] Orb-It

KPT Orb-It explodes a source image into thousands of spheres with variations in size, density, and realistic 3D lighting. Produce fields of bubbles, raindrops, and giant lenses, incredible text effects, and mind-boggling distortions.

Refer to ["KPT ORB-IT" on page 108](#) for a complete explanation of this filter.

KPT[®] FiberOptix

KPT FiberOptix creates anything from furry text, green shag carpet, pink plastic silly string, to lush creeping vines. Every strand and fiber is a true 3D object. Masks are generated from the 3D data, enabling easy compositing.

Refer to ["KPT FiberOptix" on page 64](#) for a complete explanation of this filter.

KPT[®] Blurrrr

KPT Blurrrr is a professional suite of filters including the classic zoom, spin, and other indispensable blurs updated with real-time previews, pro-precision 64-bit color, and 128-bit math with new algorithms and variations.

Refer to ["KPT Blurrrr" on page 54](#) for a complete explanation of this filter.

KPT[®] FraxPlorer

KPT FraxPlorer is the new, definitive Fractal Explorer featuring real-time fly-throughs, 1000% larger previews, and never-before-seen fractal styles.

Refer to ["KPT KPT FraxPlorer" on page 82](#) for a complete explanation of this filter.

About Your User Guide

This guide provides all the information you'll need to get the most out of Kai's Power Tools. It will help you learn the application and serve as a reference as you attempt more sophisticated techniques.

This guide assumes you are already familiar with basic Macintosh® and Windows® concepts—menus, dialogs, and mouse operations, such as clicking and dragging. If you need more information on these subjects, or on the Macintosh Finder or the Windows desktop, refer to the Macintosh User's Manual or the Microsoft Windows User's Guide, respectively.

Conventions

The KPT Users Guide is for both Macintosh and Windows. By convention, Macintosh commands precede Windows commands in the text. For example, Command/Ctrl+I, is equivalent to the Macintosh Command-I and the Windows Ctrl+I. For simplicity, the term “folder” refers to directories as well as folders. The KPT interface for Macintosh and Windows platforms is identical, unless otherwise specified.

There are also several conventions used to identify paths to certain tools and controls. The convention to a menu follows the rules of the **menu name> menu item**.

Modifier Keys

When a modifier key differs between the Macintosh and Windows platform, the Macintosh modifier is listed first followed by a slash and the Windows modifier key. Option/Alt means Macintosh users press the Option key and Windows users press Alt.

Customer Support

Technical support is free* to registered users of KPT. There are two easy ways to contact technical support for questions about installation, configuration or functionality. These options are: Web, and phone support.

* MetaCreations does not currently charge for technical support for KPT. The only expense to the user is telephone toll charges.

You will find the answers to most of your questions within the pages of this User Guide. If you need further assistance, you can contact MetaCreations' Technical Support in the following ways:

Web Support

Many of the answers to your questions are available 24 hours a day on our Web site:

<http://www.metacreations.com/support>

In addition to frequently asked questions (FAQs), the Web site provides troubleshooting techniques, late breaking product news, and other resources to help you get the most out of KPT.

Phone Support

Phone support hours are Monday–Friday, 8:00 AM–5:00 PM Pacific Standard Time, excluding holidays.

Call (831) 430-4066. Please have your serial number handy and be at the computer where you need assistance.

Who Is MetaCreations?

MetaCreations is a major force in 2D and 3D graphic software, developing and marketing next generation products that unite traditional art and design techniques with digital technology. MetaCreations products are engineered to deliver real-time interaction, intuitive functionality, and creativity to design professionals, graphics hobbyists, and consumers who work on desktop computers.

MetaCreations' focus is maintained by three product values:

- Faithfully replicate Natural-Media and real world looks in the digital medium.
- Facilitate and extend the range of creativity by allowing artists to do things they couldn't do before.
- Capture human expression and allow the artist's perspective and intent to show through.

For More Information

For more information about MetaCreations' products, see our Web site on the Internet:

<http://www.metacreations.com>

Installing KPT 5

Kai's Power Tools 5 requires a host application to run. The host application can be any program that fully supports Adobe® Photoshop®-compatible plug-ins.

KPT 5 must be installed in the same folder where your host application looks for plug-ins. In the case of Photoshop, this is the Plug-ins folder within the Photoshop application folder.

Windows 95/98/NT 4 Installation

System Requirements

The following are necessary to run KPT 5 on your PC:

- Pentium 166 MHz (or compatible) or faster. Pentium 266 MHz or faster recommended
- Windows 95/98/NT4
- Photoshop 3/4/5 or 100% compatible host
- 32MB RAM. 64MB or greater recommended
- 50MB free hard disk space
- 24-bit color video, color monitor
- CD-ROM drive

Installation

Installing Kai's Power Tools:

- 1 Insert the Kai's Power Tools 5 CD into your CD-ROM drive.

- 2 Choose Start menu> Run.
- 3 Type the letter that corresponds to your CD-ROM drive followed by “:\setup”. For example if your CD-ROM drive is drive D, type d:\setup.
- 4 Click OK and follow the instructions displayed.
- 5 The installer prompts you to locate your Adobe Photoshop Plug-ins folder. This folder can be a part of the Photoshop application, or any application that accepts 100% compatible Photoshop plug-ins.
- 6 Click Install.
When the install is complete, you can access the plug-ins from within the host application.

Installation Tips

Make sure that:

- Your operating system is Win95/98/NT 4. Kai's Power Tools will not run in Win 3.x. or NT 3 x.x.
- Your display is set to a minimum of 24-bit color (true color).
- You are using a Pentium processor or Pentium class processor. Kai's Power Tools will not run on a 486.
- There are no open applications.
- There are NO applications running in the background. This includes anti-virus, crash-monitoring software, or system diagnostic software.

Troubleshooting

Win 95/98

Closing applications running in the background is very important for a successful install.

To make sure all background programs are closed:

- 1 Press Ctrl + Alt + Delete once.
Don't press the key combination twice in a row as this will reboot your computer.
The Close Program window appears.
 - The basic Windows 95 components are Explorer and Systray. All other items you see on the list are the result of installing hardware or software.
- 2 You can close all unnecessary background programs by selecting one item at a time and clicking the End Task button. This does not change any settings on your system. If you reboot your machine, all the programs will return.
 - Don't select Explorer, (or Systray if you see it on the list).
 - Don't hit the Shut Down button as this will reboot your system.

Once you close an item, the Close Program window disappears. You'll have to hit Ctrl + Alt + Delete again to get it back.

A dialog that says: "This program is not responding. It may be busy " may appear. Press the End Task button to finish closing the program.

By design you should be able to close all background applications this way.

However, your system may reboot when you press End Task, or a program may not close the way it should. If this happens, try leaving it on the Close Program list and install anyway.

Win NT 4

Closing applications running in the background is very important for a successful install.

To make sure all background programs are closed:

- 1 Press Ctrl + Alt + Delete and choose the Task Manager.
Do not hit this key combination two times in a row as this will reboot your computer.
- 2 You can close all unnecessary background programs by clicking the Applications tab, selecting all the items on the list and then clicking the End Task button.
This does not change any settings on your system. If you reboot your machine, all the programs will return.
A dialog that says: " This program is not responding. It may be busy" may appear. Press the End Task button to finish closing the program.

Power Macintosh Installation

System Requirements

The following requirements are needed to run KPT 5 on your Macintosh:

- PowerPC based Macintosh
- MacOS 7.6.1 or later

- Photoshop 3/4/5 or 100% compatible host
- 32MB RAM. 64MB host application RAM or greater recommended.
- 50MB hard disk space
- 24-bit color video, color monitor
- CD-ROM drive

Installation

Installing KPT 5:

- 1 Insert the Kai's Power Tools 5 CD into your CD-ROM drive.
- 2 Double-click the Kai's Power Tools 5 Installer icon.
- 3 The installer prompts you to locate your Plug-ins folder. This folder can be a part of the Photoshop application, or any application that accepts 100% Photoshop-compatible plug-ins.
- 4 Click Install.

When the install's done, you can access the plug-ins from within the host application.

Installation Tips

Make sure that:

- Your operating system is System 7.6.1 or higher.
- Your display is set to minimum of 24-bit color (true color).
- You're not running Virtual Memory or any RAM-enhancing programs like RAM Doubler.

Troubleshooting

If you're having problems installing, you may be having an extension conflict. Try installing with a limited extension set. Try using only the extensions you need for your CD-ROM. Then go back to your regular extension set after the install.

Installing KPT 5 with Painter® 5

If you want to use KPT 5 with Painter 5, you have 2 choices:

- If you've already installed KPT 5 in the Photoshop Plug-ins folder, you can direct Painter to look to this folder for plug-ins. Refer to page 37 of the Painter 5 User Guide for instructions.
- If you want to install KPT 5 for use with Painter 5 only, you should make a new folder before beginning the install.

Give the folder a unique name and place it wherever it's convenient. If you want to make it a sub-folder of Painter, make sure you give it a unique name, like "raster plugins".



Don't install KPT 5 to the Other Plugins or Plugin Brushes folders.

A Little Theory....

To help you get the most out of KPT, there are two topics you should know a little bit about: Masks and Fractals.

Many of the filters in KPT use masks extensively to determine how the filter is applied to your image. So to get the most out of these filters, you should know how to create and apply masks.

Several of the filters deal exclusively with Fractals. These are the filters with Frax in their title. Knowing something about what fractals are, and how they work, will help you when you're using these filters.

What are Masks?

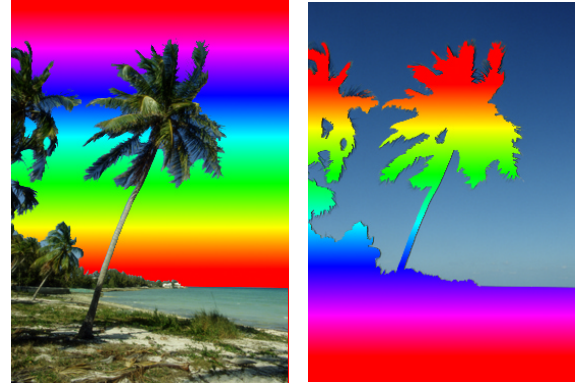
Basically, a mask is a black and white image that defines which areas of your image can be changed and which areas can't.



An image and its mask.

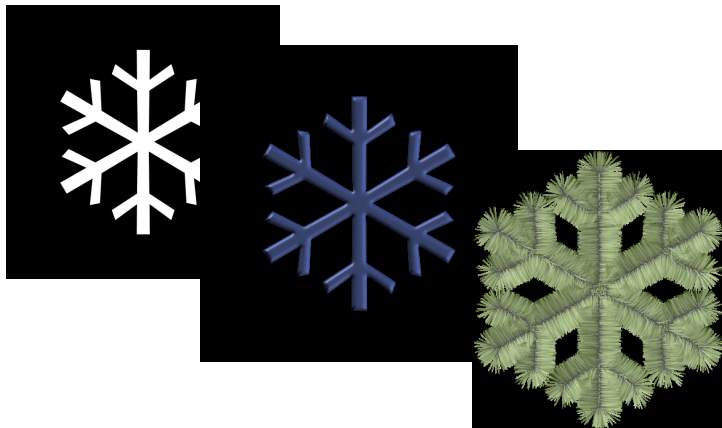
Masks are usually used to protect areas of your image while editing. In this case, any changes you make to your image are applied everywhere except the area inside the mask.

Masks can also be used to define the area where an image effect is applied. When you use it this way, the mask actually protects everything outside the mask area.



A mask used to protect an area and to limit an effect.

In KPT, masks are used to create shapes and to define which areas of your image are affected by the filter.



A mask used with two of the KPT 5 filters.

Masks and Alpha Channels

An alpha channel is an additional channel in an image (i.e. in addition to the RGB channels) that stores a mask or a selection. In KPT, you can use the alpha channel to create a selection before entering a filter, or make a mask image out of the alpha channel and then import it into a filter.

Creating Masks

Creating a mask can be as easy as creating a 32-bit black and white image. However, in most cases you'll want to create a mask from an existing image. Most image-editing applications let you convert selections into masks and then store them as an additional channel with the file.

Creating Masks in Painter 5

In Painter, you can save a selection using the Save Selection button in the **Objects: Mask List** palette. Refer to the Painter 5 User Guide for more information on creating masks.

Using Masks in Painter 5

Masks work differently in Painter than they do in Photoshop. In Painter, the white areas are considered the background while the black areas are used to define the shape. Since KPT uses the white areas to create shapes and define areas, you'll need to invert the mask before entering a KPT filter.

To invert a grayscale image in Painter:

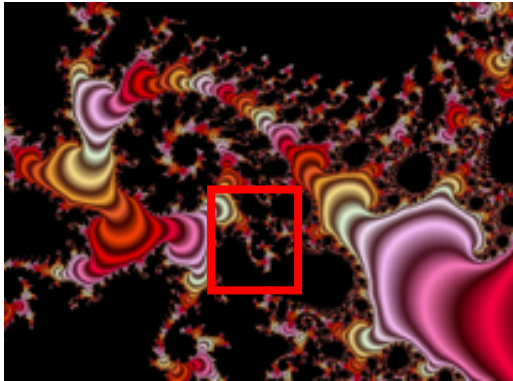
- 1 Load the mask image into Painter.
- 2 Choose **Effects menu> Tonal Control> Negative**.

What are Fractals?

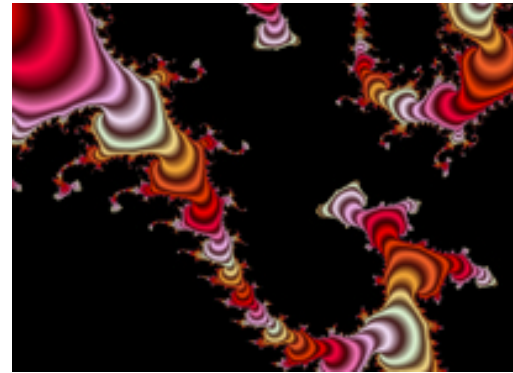
Fractals are mathematical equations that result in incredibly beautiful patterns when they're mapped out on a computer.

One of the distinguishing features of a fractal is self-similarity; this means that reduced versions of the fractal appear throughout a fractal's pattern.

Most fractals are infinitely detailed, so you can zoom in closer and closer to see more detail. As you zoom, you'll see the same patterns recurring.



A Mandelbrot fractal.



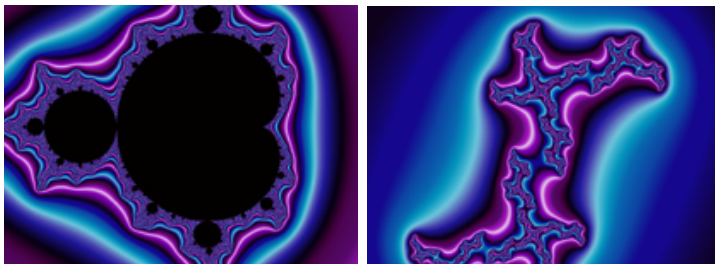
A zoomed in view of the fractal. Notice that the pattern here is similar to the larger view.

KPT's fractal filters, like KPT FraxPlorer, are designed to help you see these repeating patterns. The filter lets you explore fractals by zooming into their pattern. The further in you go, the more patterns you'll see. Normally, this requires a large number of calculations that takes a long time to process, but with KPT you can zoom into any fractal in real-time.

Fractal Types

Over the years, several brilliant mathematicians and scientists have studied fractals and have advanced the knowledge of these patterns. Several of these pioneers created their own formulas for generating fractals, which resulted in different fractal types.

For example, Benoit B. Mandelbrot, sometimes called the father of fractals, created a formula that generated fractals with bulb-like patterns. The Julia Set of fractals are produced by a specific type of chaotic function named after Gaston Julia for his work in this field.



A Mandelbrot and Julia Set fractal.

Besides these two, there are several other types of fractals. Each creates a breath-taking array of infinite patterns.