



Getting Started

Adobe Photoshop[®] version 4.0



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Adobe Photoshop 4.0 Getting Started for Macintosh and Windows

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Introducing Adobe Photoshop 4.0

Welcome to the Adobe Photoshop® program—software that brings the world of digital image editing and professional prepress production to the desktop.

Adobe Photoshop lets you retouch scanned photographs, edit images, and create painted artwork and special effects. Whether you're an art director, photographer, graphic designer, multimedia author, Web page designer, animator, or printer, the variety of built-in painting, editing, and color-correction tools that Adobe Photoshop offers ensures that you'll get the professional-quality results that you need. The large selection of file formats that Adobe Photoshop supports lets you easily import and export most image files. With the new adjustment layers feature, you can apply color and tonal adjustments without permanently affecting your image. The new Actions palette lets you automate sequences of tasks and apply the same task sequence to a batch of files.

Adobe Photoshop also features the ability to work in multichannel images and use the internal color separator to convert RGB images to CMYK images. You can even preview and edit images in CMYK color mode. You can then print separations from the program or save them for use in page-layout and illustration programs.

About this guide

Adobe Photoshop Getting Started is for first-time Adobe Photoshop users, as well as for users upgrading to version 4.0 from an earlier version.

Before you begin using Adobe Photoshop, be sure to read this guide for installation instructions and other important information. This cross-platform booklet addresses both Macintosh and Windows users, and notes any instructional differences between platforms in the text. This guide contains the following information:

- Instructions for installing the Adobe Photoshop software
- A summary of new features in Adobe Photoshop 4.0
- Instructions on using the Digimarc™ digital watermarking filter
- Information on the Adobe Type Manager® (ATM®) utility


Macintosh system requirements

To use Adobe Photoshop, you need the following hardware and software:

- An Apple® Macintosh® computer with a 68030 processor (or later model) or a Power Macintosh®
- At least 16 MB of random-access memory (RAM) available for the application

- Apple system software 7.1 or later (7.1.2 for Power Macintosh). Adobe Photoshop 4.0 won't run under System 6.
- A color monitor with an 8-bit (256-color) or better video display card
- A hard drive with at least 25 MB of free space. You'll need additional disk space if you work with very large image files.
- A CD-ROM drive (required to use the Adobe Photoshop CD-ROM Set)

For the best performance, Adobe Systems recommends the following hardware and software:

- A Power Macintosh
- Apple system software 7.5 or later
- At least 32 MB of RAM
- A 24-bit (millions of color) video display card
- A Macintosh-compatible scanner
- A PostScript® printer
- Acceleration products bearing the  logo


Adobe Photoshop performance improves with more RAM, faster CPUs, and faster and larger hard disk drives.

Windows system requirements

To use Adobe Photoshop, you need the following hardware and software:

- An Intel® 80486, Pentium®- or Pentium Pro - based or faster PC
- Microsoft® Windows® 3.1 with MS-DOS® 5.0 or later, Windows 95, or Intel-based Windows NT™ version 3.5.1 or later
- At least 16 MB of random-access memory (RAM) available for the application
- A hard drive with at least 25 MB of free space. You'll need additional disk space if you work with very large image files.
- An 8-bit (256-color) display adapter card
- A mouse or other compatible pointer device
- A CD-ROM drive and a sound card (required to use the Adobe Photoshop CD-ROM Set)

For the best performance, Adobe Systems recommends the following hardware and software:

- A Pentium or Pentium Pro processor
- Windows 95 or Windows NT 3.5.1 or later
- At least 32 MB of RAM
- A 24-bit (millions of color) video display card
- A PostScript printer
- Acceleration products bearing the  logo

Adobe Photoshop performance improves with more RAM, faster CPUs, and faster and larger hard disk drives.

The Adobe Photoshop package contents

The Adobe Photoshop software package includes the following software and documentation:

- The Adobe Photoshop CD-ROM Set consisting of the Application and Tutorial CD-ROM discs. (For a description of their contents, see the following sections.)
- *Adobe Photoshop Getting Started*
- *Adobe Photoshop User Guide*
- *Adobe Photoshop Quick Reference Card*
- Registration card (The card is not included in upgrades from previous versions.)

Contents of the Adobe Photoshop Application CD-ROM

The Application CD-ROM contains the following software:

- *The Adobe Photoshop software package.* This package includes everything needed to install Adobe Photoshop 4.0 on your hard drive—the installer, the Adobe Photoshop program, gamma control panel (Macintosh only), plug-in modules, the Adobe Photoshop tutorial files, the Adobe Type Manager utility, and numerous sample files.
- *Other Goodies (Macintosh)/Goodies (Windows).* This folder includes textures for use with the Lighting Effects plug-in filter, third-party plug-in modules, the HSL and HSB filter for converting Adobe Photoshop RGB images to HSL or HSB mode (Macintosh only), the Filter Factory plug-in which lets you create your own plug-in filters, and

the Adobe PS™ Printer driver. Documentation is included in Adobe Acrobat® electronic format (PDF).

- *QuickTime® software (Apple QuickTime 2.1 for the Macintosh, QuickTime for Windows version 2.1.1).* Installing this software enables you to view the movies included in the Adobe Photoshop CD-ROM Set.
- *Adobe Technical Library.* Written by the Adobe technical staff, this information appears on-screen as Acrobat PDF files. You can print the sections you refer to regularly.
- *Stock art.* Included are many high-resolution digitized images, backgrounds, and textures from a variety of vendors for your personal, non-commercial use.
- *Tryout versions of other Adobe applications.*

Adobe Acrobat Reader® software. This software lets you view PDF files online and is required to use the Tutorial CD-ROM.

- *Adobe Photoshop Overview.* These interactive movies give an overview of the Photoshop interface along with tips and techniques on using Photoshop both alone and with other Adobe products. A digital art show also is included.

Contents of the Adobe Photoshop Tutorial CD-ROM

The Tutorial CD-ROM contains the following:

- *Photoshop Quick Tour.* This movie gives a basic overview of Adobe Photoshop's features. A step-by-step description of the techniques shown in this movie is in Chapter 1 of the *Adobe Photoshop User Guide*.

- *New Features Tour*. This movie introduces and demonstrates the new features in Adobe Photoshop 4.0, including guides, grids, adjustment layers, and actions.
- *Fundamentals and Beyond the Basics*. These movies teach you how to use the basic features of Adobe Photoshop (Fundamentals) and master more advanced techniques (Beyond the Basics). You can view and print the accompanying PDF files with step-by-step instructions for the movies' procedures. These lessons are designed for use with the Tutorial CD-ROM's tutorial files.

Registration

We are confident that you will find that the Adobe Photoshop program greatly increases your productivity. So that we can continue to provide you with the highest-quality software, offer technical support, and inform you about new Photoshop software developments, please register your copy using the online registration software (if you have a modem) or fill out and return the enclosed warranty registration card. Installing Photoshop installs online registration files on your hard drive for online registration (on the Macintosh, the Adobe Photoshop® Registration files at your hard drive's root level; in Windows, the /photoshp/Reg-Files). You can delete these files on registering.

If you're upgrading from an earlier version of Adobe Photoshop, you use your serial number from the earlier version (and original registration card) when installing Photoshop. You do not need to reregister the product.

Using online help

The Adobe Photoshop Help system contains all the information in the *Adobe Photoshop User Guide*, optimized for use online, and a description of new features and Photoshop shortcuts.

To get online help on the Macintosh:

- 1 Choose Balloon Help > Help Contents.

To get online help in Windows:

Do one of the following:

- Press F1 to display the Help Contents menu.
- Choose Help > Contents or choose a topic from the menu.

About Adobe products and services

For more information about Adobe products and services, you can use forums on CompuServe® and America OnlineSM, the Adobe Home Page on the World Wide Web, or Adobe's own bulletin board system.

To use the Adobe bulletin board, call 206-623-6984. Forums and availability vary by country.

To open the Adobe Home Page, from the World Wide Web, use the URL <http://www.adobe.com>. To launch the Adobe Photoshop Home Page from within Photoshop, with links to the Adobe site, choose Adobe Photoshop Home Page from the Balloon Help menu (Macintosh) or from the Help menu (Windows).

Installing and Starting Adobe Photoshop

This section describes how to install the software included in the Adobe Photoshop software package.

You must install the application from the Application CD-ROM onto your hard drive; you cannot run the program from the CD-ROM. Note that 3.5-inch floppy disks are optional. To purchase a set of 3.5-inch disks, send in the fulfillment form in the Adobe Photoshop box or contact Adobe.

For tips on installing the software, see “Before you call Adobe Technical Support” in the *Adobe Photoshop User Guide*.

Installing Adobe Photoshop on the Macintosh

Use the following procedure to install the Adobe Photoshop program files.

The Adobe Photoshop Installer includes three versions of the Adobe Photoshop program: one for the 68000 series of the Macintosh, one for the Power Macintosh, and a universal version that runs on both types of Macintosh and is suitable for computers that have upgrade cards.

If you're upgrading from Adobe Photoshop 3.0.5 or earlier, the installer creates a new folder containing the new Adobe Photoshop files. Your current Adobe Photoshop files are not affected, but startup items in the System Folder such as QuickTime and Adobe Type Manager are updated.

To install the Adobe Photoshop program on the Macintosh:

- 1 Turn off or remove any virus-protection software, and restart your Macintosh.
- 2 Choose one of two options:
 - If you are installing the program from the Application CD-ROM, insert the Adobe Photoshop Application CD-ROM disc into your CD-ROM drive.
 - If you are installing the program using floppy disks, insert the Installer disk.
- 3 Double-click the Install Adobe Photoshop icon to install the application and its support files onto your hard drive. The Adobe Photoshop installer banner appears.
- 4 Click Continue.
- 5 From the Install Adobe Photoshop dialog box, set up how you want to install the Adobe Photoshop program:

- Choose Easy Install from the pop-up menu to install everything from all the disks onto your hard drive. This option selects the appropriate version of the program for your system (68K Macintosh or Power Macintosh) and installs system support files, such as ATM, QuickTime, Type Reunion, and Kodak® Photo CD support files. (QuickTime 1.6 or later is required to play the CD-ROM movies and to show previews when opening images.)

- Choose Custom Install option to install the version of the program corresponding to your system or to install individual items.

6 If you choose Custom Install in step 5, select the items you want to install including one of the following program versions:

- Adobe Photoshop 4.0 68K if your computer is a 68000-series Macintosh.
- Adobe Photoshop 4.0 PPC if your computer is a Power Macintosh.
- Universal if your computer is a 68K Macintosh with a Power Macintosh upgrade card installed, or if you plan to transport the application between dissimilar types of systems.

For more information about an item to install, click the **I** icon to its right.

7 To specify where to install the program, choose Select Folder from the pop-up menu in the Install Location box, and use the standard dialog box to select a location.

8 Click Install, and follow the on-screen instructions. When installation is complete, a message appears indicating that installation was successful.

9 Click Quit to exit the installer and return to the Finder.

10 If you installed the Electronic Registration module, have a modem, and want to register the application online, follow the on-screen instructions to register.

If you choose to delay registering the application, you'll be reminded to do so in 14 days by the registration program.

11 Turn on or replace any virus-protection software that you turned off or removed in step 1.

12 Restart your computer.

13 Choose one of two options:

- If you have SuperMatch®, ColorMatch™, or another monitor calibration utility installed, do not install the Gamma control panel device. Using two monitor calibration utilities at the same time miscalibrates the monitor. For more information on monitor calibration, see “Step 1: Calibrate Your Monitor” in Chapter 5 of the *Adobe Photoshop User Guide*.

- If you do not have another monitor calibration utility installed, open the Calibration folder in the Goodies folder within the Adobe Photoshop folder, and drag the Gamma control panel icon to your *closed* System Folder.

14 If desired, create folders and aliases within the Plug-ins folder to plug-in modules that may be located elsewhere. You can use aliases to access frequently used plug-ins or to share modules with other applications that use the same format of plug-ins.

Installing Adobe Photoshop in Windows

In Adobe Photoshop for Windows, the Installer determines which version of Windows you are using and installs the appropriate version of Adobe Photoshop, either for the 32-bit operating environment of Windows 95 or Windows NT, or for use with Windows 3.1 and Windows for Workgroups 3.11.

To install the Adobe Photoshop program in Windows:

- 1 Start Windows, if necessary.
- 2 Choose from the following options:
 - If you are installing the program from the Application CD-ROM, insert the Adobe Photoshop Application CD-ROM disc into your CD-ROM drive. If you are running Windows 95 or Windows NT 4.0, a startup screen appears automatically.
 - If you are installing the program using floppy disks, insert the Installer disk.
- 3 Choose from the following options:
 - In Windows 95 or Windows NT 4.0, if a startup screen appeared in step 2, choose Install Adobe Photoshop and skip to step 5.
 - In Explorer (Windows 95 or NT 4.0) or File Manager (Windows 3.1, 3.11, or NT 3.5.1), locate the Adobe Photoshop directory on the Adobe Photoshop Application CD-ROM, and open Disk1. (For example, d:\photoshp\disk1, where d: is the CD-ROM drive letter.)

- If you are installing from floppy disks open Disk1.

Note: If you're using a program launcher other than Program Manager, first run the Program Manager application progman.exe, and then follow step 3. Running the installer from a program launcher other than Program Manager may produce unexpected results.

4 Double-click the Setup.exe file. The Installer dialog box appears.

5 Click Next.

6 Follow the on-screen instructions, entering your name, company, and serial number. The Adobe Photoshop serial number appears on the Registration Card and on the inside front cover of the *Adobe Photoshop User Guide*. If you're upgrading from a previous version, use its serial number.

(If you're upgrading from the LE version, use the serial number that you received with the upgrade. Your original LE serial number won't work. If you did not receive a new serial number, contact Adobe Systems.)

7 Click Next, and then click Yes to confirm your registration information.

Important: If you're upgrading from an earlier version, the installer by default overwrites the directory containing the previous Adobe Photoshop version. To keep the earlier version installed, select a different destination directory (e.g., to c:\Ps40).

8 Choose the installation setup you prefer from the following options:

- Choose Typical for the most common options.
- Compact for the minimum required options.
- Choose Custom to choose the options you want to install. The installer displays the amount of disk space required to install each set of program files, the total amount of disk space required for the selected files, and the amount of available disk space. Select the desired files, and click Next.
- If necessary, use the Browse button to locate a directory and a drive for the installation, typing a new drive and directory.

9 Create a program folder or select an existing one for the application icon. Click Next.

10 Click Next to confirm your selections and to begin the installation, following the on-screen instructions. A message appears when installation is complete.

11 If you installed the Electronic Registration module, have a modem, and want to register the application online, follow the on-screen instructions to register. If you choose to delay registering the application, you'll be reminded to do so in 14 days by the registration program.

12 If prompted, close all other applications so the installer can restart Windows.

Note: To view the movies in the Adobe Photoshop CD-ROM Set, you also must install QuickTime for Windows. The QuickTime installer is located on the Application CD-ROM.

Starting Adobe Photoshop

Follow these steps to start the program.

To start Adobe Photoshop on the Macintosh:

1 Open the Adobe Photoshop folder, and double-click the Adobe Photoshop program icon. A dialog box appears asking you to personalize your copy of the program.

2 Type your name and your organization name.

3 Type the serial number of your Adobe Photoshop program exactly as it appears on the registration card or on the inside front cover of the user guide (including the hyphen). If you're installing Adobe Photoshop for the first time, the serial number is located on the Read This First card, the registration card, and the first page of the *Adobe Photoshop User Guide*.

If you're upgrading to Adobe Photoshop 4.0 from an earlier version, the serial number is also located on the first page of your original user guide.

Note: If you're upgrading from the LE version, use the serial number that you received with the upgrade. Your original LE serial number won't work. If you did not receive a new serial number, contact Adobe Systems.

4 Click OK.

The Adobe Photoshop window appears. You can now open an image and start working.

To start Adobe Photoshop in Windows:

Choose one of two options:

- In Windows 3.1, 3.11, or Windows NT 3.5.1, in the Program Manager, open the program folder you specified in step 10 of the previous procedure. Then double-click the Adobe Photoshop program icon.
- In Windows 95 or Windows NT 4.0, choose Start > Programs > Adobe > Adobe Photoshop 4.0. (If you installed the program in a folder other than Adobe, choose that folder from the Start > Programs menu.)

The Adobe Photoshop window appears. You can now open an image and start working.

Making installation floppy disks from the CD-ROM installer files

If you need floppy disks as backup or for installing the Adobe Photoshop program on a computer that doesn't have a CD-ROM drive, follow this procedure to make a set of installation floppy disks from the Application CD-ROM installer files. This procedure assumes that you have access to another computer with a CD-ROM drive for copying the files.

To make a set of installation floppy disks from the CD-ROM installer files:

- 1 Insert the Adobe Photoshop Application CD-ROM disc into your CD-ROM drive.
- 2 Choose from the following options:
 - On the Macintosh, open the Adobe Photoshop 4.0 folder and the Disk Images folder.
 - In Windows, open the Photoshop folder.
- 3 Insert a formatted, high-density floppy disk into your floppy disk drive. Select and copy the contents of the Disk1 folder onto the floppy disk, and label each disk as follows:
 - On the Macintosh, name the floppy disk exactly the same as the folder containing the files you just copied (e.g., Disk 1).
 - In Windows, label each disk with the proper number. During installation, you will be prompted for the disks by number.
- 4 Eject the disk. Repeat step 3 for the remaining disk folders on the CD-ROM disc.
- 5 To install Adobe Photoshop from the floppy disks, follow the instructions in "Installing Adobe Photoshop on the Macintosh" on page 5 and "Installing Adobe Photoshop in Windows" on page 7.

What's New in Adobe Photoshop 4.0

Adobe Photoshop 4.0 includes new features for automating task sequences on a single file or a batch of files, creating color separation tables based on printer profiles, viewing and magnifying images, moving and copying selections, marking images with digital watermark protection, applying transformation effects, using guides and grids, and applying tonal and color-correction effects, plus a collection of new creative filters. This version of Adobe Photoshop also enhances support for file formats and includes many new commands, palette features, and keyboard shortcuts that simplify common tasks.

Interface enhancements

The user interface for Adobe Photoshop 4.0 on the Macintosh has a new three-dimensional look. Icons and buttons now appear raised in palettes, dialog boxes, and the toolbox, and appear depressed when clicked, simulating the look and feel of actual buttons. On both the Macintosh and in Windows, some palette icons now are buttons, letting you do more tasks by simply clicking, rather than choosing commands from menus. New tool tips and context menus help you quickly identify different interface elements and choose commonly used commands.

Tool tips for on-screen descriptions

When you position the mouse pointer over a tool in the toolbox or over a palette item, Adobe Photoshop 4.0 displays a tool tip with a short description of the tool's name or palette item's function. You can turn the display of tool tips on or off.

To turn off the display of tool tips:

- 1 Choose File > Preferences > General.
- 2 Deselect Show Tool Tips, and click OK.

Context-sensitive menus for related commands

You can now display various context menus with subsets of commands relevant to the active tool, selection, or palette item. On the Macintosh, you display context menus by pressing Control and holding down the mouse button; in Windows, you click with the right mouse button.

Actions for automating tasks

Using the new Actions palette, you can now record a script of commands and tasks, called an *action*, and apply it to another file or to a batch of files at once. When playing an action, you can have Adobe Photoshop pause after specified tasks, letting you enter new values in the dialog boxes for those

tasks. The button mode of the Actions palette replaces the Commands palette in previous versions of Photoshop. For more information on these features, see Chapter 15, “Automating Tasks,” in the *Adobe Photoshop User Guide*.

Note: *Command sets that appeared in the Commands palette in earlier versions of the program do not transfer to the Actions palette. If you’re upgrading to Adobe Photoshop 4.0 from an earlier version, you must recreate the command sets.*

Adjustment layers for tonal and color-correction effects

In Adobe Photoshop 4.0, you can now add a new type of layer, called an *adjustment layer*, to your image. Adjustment layers let you apply tonal and color-correction effects, such as brightness or curves adjustments, to specific parts of your image without changing it permanently. You can try out different effects and then cancel them by hiding or deleting the adjustment layer.

For example, if you create an adjustment layer for deepening the contrast, the new contrast setting affects only the layers that lie beneath the adjustment layer in the Layers palette. By changing the stacking order of the adjustment layer or including it in a clipping group, you can further control which layers are affected by the adjustment. Because the adjustment layer also has a layer mask, you can paint it to modify the adjustment mask and confine the effect to just selected areas of the underlying layers. For more information on this feature, see “Using adjustment layers” in Chapter 11 of the *Adobe Photoshop User Guide*.

Digital watermarking for copyright protection

The new Digimarc filter lets you attach a digital signature to your image to provide authorship information and help protect against unauthorized reproduction of the image. This digital watermark does not appear when the image is printed or displayed online, and leaves the quality of the image intact. For more information on this feature, see “Using the Digimarc filters” on page 16.

Guides and grids for aligning artwork

To help you place artwork precisely in your image, Adobe Photoshop 4.0 includes guides and grids. You create horizontal and vertical guides by dragging from the rulers into the image. Using the move tool, you can easily adjust the position of guides or remove them from the image altogether.

You can also display a grid to divide your image into evenly spaced sections. You can have tool pointers and moved selections snap to guides and the grid, and you can hide guides and grids when you want to view just the image. Guides and grids do not print with the image.

New selecting and editing features

This version of Photoshop contains new features to help simplify selecting and editing. You can now use the selection tools—the marquee, lasso, polygon lasso, and magic wand tools—to select areas and to move selection borders only. To move a

selection border using a selection tool, you position the pointer inside the border and drag. This new behavior lets you adjust selection borders without inadvertently moving the pixels out of position. To move the pixels in a selection or layer, you now must use the move tool. You can activate the move tool when any other tool is selected by pressing Command (Macintosh) or Ctrl (Windows).

When you paste a selection using the Edit > Paste command or by dragging, Adobe Photoshop 4.0 automatically pastes the selection as a new layer in the image, rather than as a floating selection. You can also convert a selection directly into a new layer, using the Layer > New > Layer Via Copy and Layer Via Cut commands. This version of Photoshop also preserves pixels that have been moved off the visible canvas.

New zooming and viewing features

You can now change the magnification of an image by specifying an exact percentage (for example, 200% to double the magnification). You can enter the desired value in the zoom percentage box at the lower left corner of the window, or in the Navigator palette (see “New palettes and palette enhancements” on page 13).

The new View menu contains commands for viewing and zooming in or out on an image. The Fit on Screen command adjusts the zoom percentage of the image window so that it fills the screen. The Actual Pixels command returns the image to a 100% view, while the Print Size command lets you view the physical size of the image as it would appear if printed.

New layer and layer mask features

In addition to the ability to create adjustment layers, this version of Adobe Photoshop includes new and enhanced features for working with layers. The commands in the new Layer menu let you create new layers, adjustment layers, and layer masks, rearrange the stacking order of layers, merge and flatten layers, and convert selections into layers. You can also create a clipping group from a set of linked layers and select layers at any time using a context menu.

Several new features simplify your ability to work with layer masks. Now you can have a layer mask hide or reveal the entire layer, or, if you have an existing selection, make the mask hide or reveal the selection. In addition, black on a layer mask now indicates hidden areas always, while white always indicates revealed areas.

New gradient capabilities

Adobe Photoshop 4.0 greatly expands your ability to add gradient fills to an image. With the new Gradient Editor dialog box, you can now create and edit your own custom gradients and save them for future use. You can specify the starting and ending colors of your blend and add one or more intermediate colors to the gradient. In addition, each gradient contains a transparency mask, which lets you control the opacity of the gradient at different points.

New transformation features

Several new transformation commands let you easily modify selections, layers, or multiple linked layers. The Layer > Free Transform command lets you apply a series of transformations to a selection or layer by dragging handles that appear around the targeted area. The Layer > Transform > Numeric command lets you apply a combination of transformations by entering specific numeric values.

The new Layer > Transform submenu now contains the transformation commands that previously were in the Image > Flip, Image > Rotate, and Image > Effects submenus. You can choose multiple transformation commands and preview the cumulative effect before applying the transformation permanently (this applies to the Layer > Transform > Scale, Rotate, Skew, Distort, and Perspective commands only). When you apply multiple transformations in this way, Photoshop resamples your image only once, thus better preserving the original image quality.

The commands in the new Image > Rotate Canvas submenu let you rotate or flip the entire work canvas.

Modified Image Size command

The Image > Image Size command includes a Resample Image option, which replaces the Constrain File Size option in earlier versions. When Resample Image is selected, you can change an image's pixel dimensions—the width and height of the image in pixels. This feature gives you greater control over the file size of an image and

over the display size of an image intended for on-screen distribution. You can also choose the interpolation method used to resample an image.

New palettes and palette enhancements

This version of Adobe Photoshop includes two new palettes—the Actions palette and the Navigator palette—as well as new and revised features in the Layers, Channels, and Paths palettes that let you easily work with layers, layer masks, channels, and paths. The icons at the bottom of these three palettes have been converted to buttons, which you can click for such tasks as creating or deleting layers. The button mode of the Actions palette replaces the Commands palette, and the Scratch palette has been removed. The Show/Hide commands for all the palettes now appear directly under the Window menu.

- The new Actions palette lets you record and apply a series of tasks to one or more files. For more information, see “Actions for automating tasks” on page 10.
- The new Navigator palette lets you easily change the view and zoom level of an image. You can monitor and control the area of the image you want to view using the thumbnail preview, and you can change the magnification of the view using the zoom sliders and zoom buttons, or by entering a zoom percentage.
- The Layers palette lets you easily create adjustment layers (see “Adjustment layers for tonal and color-correction effects” on page 11), and features a new button for creating layer masks. You can link

and unlink layers and their respective layer masks by clicking the new link icon. Some commands previously found in the Layers palette menu now appear in the new Layer menu, which also includes a number of additional commands (see “New layer and layer mask features” on page 12).

- The Channels palette adds the ability to load and save selections as alpha channels with a click of a button at the bottom of the palette.
- The Paths palette contains a new button for converting selections to work paths. The path tools have been moved to the toolbox.
- The Color palette is the new name for the Picker palette.
- The Info palette displays expanded information for a selection or layer that is being transformed.

New tools and tool enhancements

Additions and enhancements include the following:

- The program identifier at the top of the toolbox lets you display information about the Adobe Photoshop program and contains a link to the Adobe Photoshop home page on the World Wide Web.
- Hidden tools—such as the burn and sponge tools under the dodge tool—can now be accessed through tool pull-out menus. Pull-out menus are indicated by a small triangle to the right of a visible tool icon.

- The program features two new tools—the polygon lasso tool for making straight-edged and freehand selections and the type mask tool for creating selections in the shape of type characters.
- The move tool is now the only tool you can use to move pixels in an image. The move tool can be activated when any other tool is selected by pressing Command (Macintosh) or Ctrl (Windows). For more information, see “New selecting and editing features” on page 11.
- The path tools—the pen, direct-selection, add-anchor-point, delete-anchor-point, and convert-anchor-point tools—now appear in the toolbox.
- The crop tool is now located as a hidden tool under the marquee tool.
- The gradient tool now offers the ability to create and edit custom gradients (see “New gradient capabilities” on page 12).

New blending modes, filters, and filter capabilities

Adobe Photoshop 4.0 includes three new blending modes—Color Dodge, Color Burn, and Exclusion (for a detailed description, see Chapter 9, “Painting,” in the *Adobe Photoshop User Guide*). This version also includes numerous new filters for creating and retouching images. For detailed information on each of the filters, see the Adobe Photoshop online help.

New and modified menu commands

Some of the commands in the command menus have been rearranged to reflect the new menu organization in Photoshop. Here are some of the new and modified commands:

- File > Import replaces File > Acquire.
- The new Edit > Copy Merged command copies pixels using data from all visible layers in an image.
- New commands in the Edit > Purge submenu clear information stored by the Undo command, the Clipboard, and the Pattern and Snapshot buffers, and free memory.
- The new commands in the Image > Rotate Canvas submenu rotate or flip an entire image.
- The new Layer menu includes various commands for working with layers (see “New layer and layer mask features” on page 12).
- The new Layer > Free Transform command and Layer > Transform commands apply transformation effects to selections and layers (see “New transformation features” on page 13).
- The Float and Float Controls commands have been removed. You can now convert selections directly into new layers using the Layer > New > Layer Via Cut and Layer Via Copy commands.
- The new View menu has various new and existing commands for viewing images; see “New zooming and viewing features” on page 12. The Zoom Factor command has been removed. The new View > Show/Hide Path commands turn on and off the display of paths in an image. In addition, the View menu has new commands for controlling the display of guides and grids.

- The Window > New Window command has been replaced by the View > New View command.

New keyboard shortcuts and modifier keys

Adobe Photoshop 4.0 features many new keyboard shortcuts and modifier keys to simplify common tasks. They include:

- To reposition a marquee while drawing it, hold down the spacebar as you drag the rectangle or ellipse marquee.
- To subtract from an existing selection, press Option (Macintosh) or Alt (Windows) as you select the area you want to subtract; to select part of an existing selection, press Option+Shift (Macintosh) or Alt+Shift (Windows) as you make the selection.
- To fill a selection or layer with the foreground color, press Option+Delete (Macintosh) or Alt+Backspace (Windows); to fill with the background color, press Command+Delete (Macintosh) or Ctrl+Backspace (Windows).
- To fill a selection or layer with the foreground color and preserve transparent areas; press Option+Shift+Delete (Macintosh) or Alt+Shift+Backspace (Windows); to fill with the background color and preserve transparent areas, press Command+Shift+Delete (Macintosh) or Ctrl+Shift+Backspace (Windows).

For a detailed list of shortcuts, see the Adobe Photoshop Quick Reference Card.

Using the Digimarc filters

The Digimarc filters let you add copyright and authorship information to images in Photoshop and notify users that an image is copyright-protected via a digital watermark that uses Digimarc PictureMarc™ technology. The watermark—a digital code added as noise to the image's lightness channel—can be virtually invisible, and does not affect image integrity. Most filter and image operations—including color corrections, printing, and cropping—don't affect the watermark.

To use the technology, you first register for a fee with Digimarc Corporation—which maintains a database of artists, designers, and photographers and their contact information—to get a unique creator ID. You can then embed the creator ID in your images along with information on the image use such as royalty-free or restricted use using the Embed Watermark filter. Copying an image with an embedded watermark also copies the watermark and any information associated with it.

If you install the Detect Watermark filter, Photoshop will automatically scan for a watermark on opening or acquiring an image. If the filter detects a watermark, a copyright (©) symbol appears in the image's title bar and status bar, to alert users to use the Read Watermark filter to determine the image's owner.

Installing Adobe Photoshop 4.0 using the Easy Install option (Macintosh) or Typical (Windows) option installs the Embed Watermark and Read Watermark filters automatically in the Photoshop

Plug-ins folder. You must install the Detect Watermark filter manually, by copying the plug-in from the Application CD-ROM (located in the Other Goodies (Macintosh) or Goodies (Windows)/Optional plug-ins/Digimarc/Detect Watermark folder) to the Photoshop Plug-ins folder. For more information about the filters, see the Read Me file in the Digimarc folder.

Note: *To use the Digimarc filter on a 68000-based Macintosh computer, you must have a floating point unit (FPU) installed.*

To embed a watermark:

- 1 Open the image you want to watermark. You can embed only one watermark in an image. The Embed Watermark filter won't work on an image that has been previously marked.

If you're working with a layered image, you should flatten the image before marking it. If you do not flatten the image, the filter applies the watermark to the current layer.

Note: *You can add a watermark to an indexed color image by first converting the image to RGB mode, embedding the watermark, and then converting the image back to indexed color mode. However, the results may be inconsistent. To make sure that the watermark was embedded, run the Digimarc > Read Watermark filter.*

- 2 Choose Filter > Digimarc > Embed Watermark.

3 If you are using the filter for the first time, click the Personalize button. Get a creator ID by clicking Register to launch your Web browser and visit the Digimarc Web site at www.digimarc.com, or by contacting Digimarc at the telephone number listed in the dialog box. Enter the ID number in the Creator ID text box, and click OK.

(Once you have entered a Creator ID, the Personalize button becomes a Change button, allowing you to enter a new Creator ID.)

4 For Type of Use, choose Restricted to limit the use, or Royalty Free for unlimited free use.

5 Check the Adult Content option to label the image contents for adults only.

(Within Photoshop, this option does not limit access to adult-only images, but future versions of other applications may limit their display.)

6 For Watermark Durability, drag the slider or enter a value (where values of 1 or 2 are intended for high-end printing, and values of 3 and 4 are best for multimedia or online display) as follows:

- Choose 1 to produce near invisible watermarking for screen or print output and to embed picture usage and artist information only.
- Choose 2 for all general-purpose printing needs. This setting has been optimized for 133 lines per inch (lpi) to 155 lpi output for halftone printing.
- Choose 3 to add a more visible grain to the image than a value of 2, and to retain the watermark over various bit depths of an image.

- Choose 4 for the most visible and durable watermark. You should first apply this setting to a proxy or duplicate of the image first, to determine whether the watermark quality is appropriate.

Low values are less visible in an image, but less durable, and may be damaged by applying filters or by performing some image-editing operations, printing, and scanning operations. High values are more durable but may display some visible noise in the image.

7 Click OK.

To read a watermark:

1 Choose Filter > Digimarc > Read Watermark. If the filter finds a watermark, a dialog box displays the creator ID, type of use, and whether the image has adult content.

Note: A message may appear that “a watermark was found but not readable” if you’re reading a scanned image from an inkjet printer or if you’re reading a small selection of an image. This message means that the PictureMarc technology was unable to decode the creator ID and usage information. For more information, contact Digimarc or visit its home page at www.digimarc.com.

2 Click OK, or for more information choose from the following options:

- If you have a Web browser installed, click Web Lookup to launch the browser, link to the Digimarc Web site, and display the artist’s contact information corresponding to the creator ID.
- Call the phone number listed in the Watermark Information dialog box to get information faxed back to you.

Using the ATM Program

Adobe Type Manager (ATM) is a font utility that generates sharp, clear characters of any size on-screen and on non-PostScript printers.

Adobe Photoshop 4.0 comes with ATM version 3.9 for the Macintosh and version 3.02 for Windows, along with fonts you can install. The following sections describe how to add and remove fonts, and how to remove ATM, as well as how to customize ATM and create multiple master fonts.

Note: ATM 3.02 does not work with Windows NT.

Using ATM on a Macintosh

You can use ATM to add fonts to your system.

To add fonts on the Macintosh:

- 1 Drag the fonts you want to install from the source drive (e.g., hard drive, floppy disk, or CD-ROM disc) onto your closed System Folder.
- 2 When prompted to copy the fonts to the Fonts folder, click Yes.

Using ATM with Windows 95 and Windows 3.1

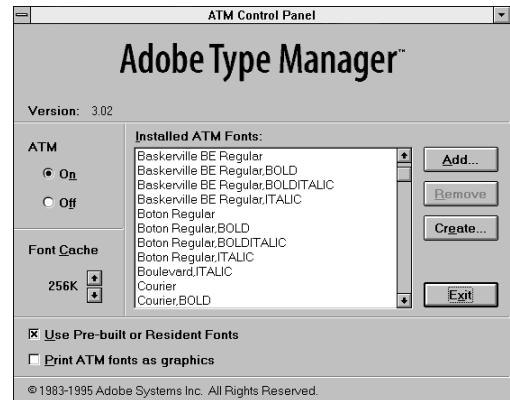
You can use ATM to add fonts from a source other than Adobe Photoshop, or to remove fonts.

You can remove the ATM program from your Windows system by deleting several program and font files and by editing the System.ini file.

To add fonts in Windows:

- 1 Choose from the following options:

- In Windows 95, choose Start > Programs > Main > Adobe Type Manager Control Panel.
- In Windows 3.1 or Windows for Workgroups 3.11, double-click the ATM icon in the Main program group.



- 2 Click Add.
- 3 Use the Directories list box to locate the desired fonts from the Application CD-ROM. Locate the folder that contains the font files you want, and open the folder
- 4 Select the fonts you want to add.

Note: If you add a multiple master instance, ATM also adds the base multiple master font file. See “Creating multiple master fonts” on page 21 for more information.

5 Choose from the following options:

- Install Without Copying Files updates Atm.ini and Win.ini with the names of the font files without copying their files. This is useful if you use a large number of fonts from a CD-ROM or network drive. Usually, this box is left unchecked.
- Autodownload for PostScript driver installs the font and updates the Win.ini file so that Windows downloads the font to your PostScript printer each time you print a document that uses the font. Usually, this box is checked. However, if you manually download a font to the printer, deselect this option so that Windows does not download the font with every print job.
- Click Browse to select a target directory for the PostScript outline fonts and the font metric files. Adobe recommends the default settings for these directories.

6 Select the names of the fonts you want to add. Click to select one font, Control-click to select several individual fonts, or Shift-click to select (or deselect) a group of contiguous fonts.

Note: When adding a multiple master font, you can add the base multiple master font and its primary instances separately. If you choose not to install the primary instances now, you may need to add them later. See “Creating multiple master fonts” on page 21 for more information about primary instances.

7 Click Add.

To remove fonts from Windows:

- 1 Double-click the ATM icon in the Main program group.
- 2 Select the fonts you want to remove.

3 Click Remove.

4 Click Yes to remove the font. To remove the fonts permanently from your hard drive, select Delete Font Files from Disk. To remove the remaining fonts without confirmation, select No Confirmation to Remove.

To remove ATM from Windows:

- 1 Follow the previous procedure to remove Type 1 fonts from your system.
- 2 Make a backup of the System.ini file in your \Windows directory. Name it something that does not conflict with an existing file.
- 3 Use Notepad or another text-editing program to open the System.ini file.
- 4 Remove the following two lines located in the Boot section of the System.ini file:

```
system.drv=atmsys.drv
atm.system.drv=system.drv
```

Replace the two removed lines with this single line:

```
system.drv=system.drv
```

See the file Techref.wri for more information.

- 5 Save the System.ini file as a plain text file. (The Notepad program does this automatically.)
- 6 Quit Notepad, and exit Windows.
- 7 Delete Atm16.dll, Atm32.dll, and Atmsys.drv from your \Windows\System directory. If your system contained ATM version 1.x, you may also need to delete Atm.dll.
- 8 Delete Atm.ini and Atmcntrl.exe from your \Windows directory.

9 Delete the Atmfonts.qlc file from the directory that contained the .pfb files. The default directory is \Psfonts.

Customizing ATM on a Macintosh or a computer running Windows

ATM includes features that ensure you get the font you want on-screen and from the printer. You can customize these and other features to suit your work style.

To customize ATM:

- 1 Open ATM in one of the following ways:
 - On a Macintosh, double-click the ATM icon in the Control Panels window.
 - In Windows 95, choose Start > Programs > Main > Adobe Type Manager Control Panel.
 - In Windows 3.1 or Windows for Workgroups 3.11, double-click the ATM icon in the Main program group.
- 2 Select ATM options. (See the following procedure.)
- 3 Click OK (Macintosh) or Exit (Windows).
- 4 If you turned ATM on or off or changed the cache size, restart your Macintosh or restart Windows for changes to take effect.

To select options:

Choose from the following options:

- Click On or Off to turn the ATM software on and off. By default ATM is turned on upon installation. However, you can turn it off at any time. For example, you might want to turn off ATM when trying to troubleshoot a system problem.

- Adjust the Font Cache to set the amount of system memory ATM uses to store font data. A large font cache may speed up scrolling and other screen displays of fonts but can limit the amount of memory available to other applications. The default cache size is 256K. If you typically use many different fonts on a single page, you may want to experiment with a larger cache size.

- (Macintosh only) Select Preserve Line Spacing (the default) to slightly compress descenders and ascenders (such as accented characters) to fit in the same space as unaccented characters. Alternatively, choose Preserve Character Shapes to increase the line height to accommodate accented characters.

- (Macintosh only) Select Substitute for Missing fonts to generate high-quality replacement fonts when a document's fonts are not installed on your system. This option appears only if you have previously installed SuperATM. For more information about this option, contact your Adobe dealer.

- (Windows only) Select Use Pre-Built or Resident Fonts to use bitmap fonts installed in Windows for screen fonts and bitmap fonts resident in the printer for printing. Bitmap fonts take up hard-disk space but can help certain applications display and print documents more quickly.

- (Windows only) Select Print ATM Fonts as Graphics to send fonts to the printer as graphic images rather than downloading the font file itself. This setting may help older PCL printers that cannot use downloadable fonts or when printing documents with mixed text and graphics that don't print correctly. Printing time may increase.

Creating multiple master fonts

The Create MM Instances option in the ATM control panel lets you create customized renditions of fonts. Depending on their design, multiple master fonts have one or more controls to vary certain attributes, such as width, height, or weight. You can use multiple master fonts as you would any other PostScript Type 1 font.

About multiple master font designs

A multiple master font consists of one or more *instances* of the font. An instance is a particular rendition of the font that varies from other instances in one or more attributes.

Each multiple master font includes ready-to-use *primary instances* that constitute a complete typeface family. The typeface designer or manufacturer determines the selection of primary instances to provide a useful palette of fonts.

Each multiple master has one or more *design axes* (which you can see in ATM once the font is installed). A design axis is a variable typeface attribute, such as weight, width, style, or optical size.

Multiple master instances are named in the format *Family_design coordinates*, where *Family* is the name of the typeface and *design coordinates* identifies a particular instance by a string of numbers and letters. For example, the name of a Tekton® multiple master instance is TektoMM_240 RG 564 NO.

The design coordinates consist of alphanumeric combinations for each design axis in the font. If the font has a single design axis, there is a single alpha-

numeric combination (for example, 240 RG for Regular weight). If there are two design axes, there will be two alphanumeric combinations, and so on.

Within the design coordinate name, the numbers indicate the position of the instance along the design axis. The letters indicate style (regular, bold, condensed) for a primary instance, or the design axis (weight, width, optical size) for a custom instance.

The labels for primary instances included in a multiple master font package use uppercase abbreviations (*XL* for Extra-Light), while custom instances use generic lowercase abbreviations (*wt* for weight and *wd* for width).

Note: Some font menus and lists in applications are limited in width. Longer instance names may appear clipped.

Creating and removing custom instances

You create *custom instances* by using controls in ATM to modify design axes of primary instances.

On the Macintosh, ATM automatically adds the custom instance to its multiple master suitcase.

To create a custom instance:

1 Choose from the following options:

- On the Macintosh in the ATM control panel, click Create MM Instances.
- In Windows in the ATM control panel, click Create. From the Typeface Font menu, choose the multiple master font you want to work with.

2 If you want to start from one of the base font's primary instances, choose from the following options:

- On the Macintosh, select a primary instance, or a previously created custom instance from the pop-up menu on the right.
- In Windows 95, click Primaries. Make sure that Show Primary Instances is selected. Double-click an instance to display a sample of it in ATM. Click Close.

- In Windows 3.1 or 3.11, click Primary Instance. You can type one or more words in the text box to use as the sample display, and select a point size for the sample.

3 Use the slider controls to modify the instance. Different fonts have different controls. The sample text changes as you move the sliders.

4 When you are satisfied with the new instance, choose from the following options:

- On the Macintosh, click Create. The custom instance appears in the list of fonts for the specified multiple master suitcase.
- In Windows, click the Add button or click Add All Styles. Click Yes.

5 Close the Font Creator, and close the ATM control panel.

To remove a primary or custom instance on the Macintosh:

1 In the ATM control panel, click Create MM Instances.

2 Select the instance using the pop-up menu on the right; click Remove. The instance is removed from the suitcase on the hard drive.

If you removed a primary instance from the font list, you can restore the primary instances by clicking the Primary button, selecting the primary instances and clicking Create.

3 Click OK.

To remove a primary or custom instance in Windows:

Remove custom instances you no longer need as you would any other Type 1 font. Follow the steps in "To remove fonts from Windows" on page 19.

Automatic creation of instances

If you receive a file with a primary instance that you don't have on your system or a custom instance that you haven't created, ATM will automatically create the instance when you open the file, as long as you have the correct multiple master suitcase (Macintosh) or multiple master base font (Windows) and your application supports automatic creation. ATM doesn't store instances that have been created automatically. To store an instance permanently, you must create it using the Multiple Master Creator.

Applications vary in how they handle these automatic instances. Some put the instance name in the application Font menu, some display and print the instance correctly but don't put place it in the menu, and some alert you to the presence of the instance in a file so that you can create it yourself.