

Panorama Maker 4 Pro



User Manual



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1. Introduction

Installation

System Requirements

Key Features

Chapter 1: Introduction

Welcome to ArcSoft Panorama Maker® Pro, a powerful digital imaging application that transforms digital images into spectacular panoramic fine art photographs.

This Introduction covers the installation and system requirements and provides an overview of the key features. The rest of the user manual covers the Panorama Maker Pro menus and workflow, showing you how to make your photos look picture perfect through Selecting, Arranging, Fine-Tuning, and Sharing. Tips for shooting great looking panoramas are included at the end.

1.1 Installation

Windows:

- 1. Insert the CD into your CD-ROM drive.
- 2. The installer should start automatically.
- Follow the on-screen instructions to complete the installation.

Take note as to where the program is installing, and where it can be found in the Start menu.

Note: If the installer does not start automatically, you will need to run it manually:

- 1. Insert the CD into your CD-ROM drive.
- 2. Click Start>Run.
- 3. In the Run dialog, type "X:/setup.exe". ("X" is the drive letter associated with your CD-ROM drive. This letter will vary from system to system.)
- Click OK.
- Follow the on-screen instructions to complete the installation.

Macintosh:

- 1. Insert the CD into your CD-ROM drive.
- 2. Double-click on the CD icon.
- 3. In the window, click the program installer icon to start the installation.

1.2 System Requirements

PC:

Minimum System Requirements

OS Windows 2000/XP/Vista

CPU Pentium III / AMD Athlon processor or equivalent

(Pentium 4 / AMD Athlon XP or equivalent

recommended)

Memory 128 MB RAM (768 MB recommended)

Minimum space

required for installation

50 MB available hard disk space

Display 800 x 600 pixels, 16-bit color monitor (1024 x 768

or higher recommended)

Macintosh:

Minimum System Requirements

OS Mac OS X 10.3, 10.4

CPU PowerPC G4 processor or equivalent (PowerPC G5

or Intel Core Duo processor recommended)

Memory 512 MB RAM (768 MB recommended)

Minimum space

required for installation

50 MB available hard disk space

Display 800 x 600 pixels, 16-bit color monitor (1024 x 768

or higher recommended)

1.3 Key Features

Built-in Photo Albums

Provides you with quick, easy access to your photos from right within the program

Auto-Select by Group

Allows you to select an entire group of related photos with just one click

4 Stitching Styles

Lets you choose between horizontal, 360°, vertical, and tile style panoramas

Auto-Ordering

Conveniently puts your photos into the proper sequence for stitching

Auto-Stitching

Ensures quick and seamless blending of each segment of your panorama

Full-Screen Preview

Lets you view your panoramas without any distracting UI elements

Crop

Enables you to trim away photo edges for a clean, elegant result

Straighten

Lets you correct a tilted horizon line from right within the program

Frame

Lets you add frame, title, and copyright information to the panorama

Manual Fine-Tune

Allows you to manually adjust the "gap" between images in order to make the panorama appear seamless

Chapter 1: Introduction

Print

Allows you to print your panoramas across multiple pieces of paper or on banner stock

• Multiple Save Options

Allows you to save your panorama as an image, HTML, or interactive QuickTime movie

Chapter 1: Introduction

2. Main Menus

File

View

Extras

Register

Help

Chapter 2: Main Menus

The Panorama Maker Pro main menus appear in the upper lefthand corner of the workspace. Some of the program's options and controls are available from the main menus.

2.1 File

New Panorama (Ctrl+N)

Start making a new panorama.

Open Panorama (Ctrl+O)

Open a previously created panorama.

Save Panorama (Ctrl+S)

Launches the Save As dialog box to save the panorama you create.

Printer Setup

Launches the Printer Setup window to select printer, paper size, and print orientation. Click Properties to change printer settings. Refer to your hardware documentation for more details on setting up your printer.

Print (Ctrl+P)

Starts printing.

Exit

Closes the program.

* Options in this menu may differ in different program modes.

2.2 View

Zoom In (Ctrl++)

Zooms in to view more image details.

Zoom Out (Ctrl+-)

Zooms out to view image on a larger scale.

Full Screen Preview

Launches the Preview screen and enables you to view the panorama in full screen mode.

File Properties

View general and EXIF information of the selected file.

Show Tooltip

Select this option to show tips when you position the cursor over user interface elements. Uncheck it to disable this feature.

* Options in this menu may differ in different program modes.

2.3 Extras

The Extras menu provides valuable information on ArcSoft services and products. To access these menu options, a live Internet connection is required.

More ArcSoft Products

Get special deals on other software.

Updates and Patches

Check to see if a free update or patch is currently available, and if it is, it will be automatically downloaded and installed.

Available Upgrades

Learn about the latest upgrade options for your software.

Send Us Feedback

Tell us what you think about our software.

Visit ArcSoft.com

Go to www.arcsoft.com to learn more about our company and products.

2.4 Register

Register Product

Register your software online. More information about registration benefits is in the Reference chapter at the end of this manual. This menu disappears once you have registered your software.

2.5 Help

Help (F1)

Launches the Online Help.

How to Shoot Photos for Great Looking Panoramas

Offers tips for making great-looking panoramas.

Print a Photo Shooting Checklist

Provides a list of photo-shooting tips that you can carry with you.

About Panorama Maker

Launches the splash screen which contains the software version number and copyright information.

Chapter 2: Main Menus

3. Selecting

Browse and Select Photos

Select Stitching Mode

Select Output Size

Chapter 3: Selecting

Browse through your photos and select which ones to use in your panorama. Panorama Maker Pro supports JPEG, TIF, and RAW files.

3.1 Browse and Select Photos

Folder Tree

The Folder Tree appears on the left side of the screen. Click a folder to view its contents as thumbnails in the Thumbnail Area.

To adjust the size of the Folder Tree area, click and drag the line that divides it from the Thumbnail Area.

To hide/show the Folder Tree, click the small arrow icon.

Thumbnail Area

The Thumbnail Area displays thumbnail images for the photos contained in the active folder. Roll over a thumbnail to see a popup window containing EXIF information.

To select a photo thumbnail, click on it – a check mark is added.

To select multiple photo thumbnails, drag a selection marquee around the thumbnails or hold the CTRL or SHIFT key as you click.

Selected Tag - The checkmark appears next to selected thumbnails. Un-check it to deselect the current photo.

Auto-Select by Group

With this unique feature turned ON (checked), the program intelligently selects an entire sequence of photos when one thumbnail is clicked. Because panorama photos are usually shot in quick order (less than 40 seconds apart), the program uses shot times (EXIF data) to create panorama groups. By selecting one photo in a group, the entire panorama group is selected.

View Mode

There are several viewing options available to help you select the photos for your panorama.

Rotate Left 90 - Rotates selected photos to the left at a 90-degree increment.

Rotate Right 90 - Rotates selected photos to the right at a 90-degree increment.

Note: Functions to rotate images may not be available while processing RAW files.

Small Thumbnails - Makes the thumbnails appear small in size - so you can see many at once.

Large Thumbnails - Makes the thumbnails appear large in size - so you can distinguish from others.

Full-Size Thumbnails - Makes the thumbnails appear full size - so you can see details.

3.2 Select Stitching Mode

You can create four different styles of panorama with Panorama Maker Pro. For each style of panorama that can be created with the software, there is a corresponding Stitch Mode. Choose the one that will work for the photos selected:



Horizontal - Stitch photos as a horizontal row.



360° - Stitch photos as a horizontal set that completes a full circle around the photographer's position.



Vertical - Stitch photos as a vertical column.



Tile - Stitch a group of images and line them up as tiles, up to 16 photos can be stitched at one time.

3.3 Select Output Size

Output Size - Select an output size for the panorama you want to create from the drop-down list. The options include Original Size, 1/4 Size, and 1/16 Size.

For printing, select Original Size. For digital display and web sharing, select a smaller size.

After selecting photos, choosing the proper stitch mode, and selecting output size, click the **Next** button to go to the next step, Arranging.

4. Arranging

Confirm Sequence

Chapter 4: Arranging

Make sure that the photos are in the proper sequence before stitching them together.

4.1 Confirm Sequence

Confirm that the photos are in the proper sequence before stitching them together. You can use the photo tray and related controls to edit your photo sequence.

Photo Tray - Displays the thumbnails in the sequence that they will be stitched. To change the order, simply drag and drop the thumbnails into their proper positions. The full-size photos can also be dragged.

Auto-order - Automatically sorts selected photos in order for easy stitching.

Add - Enables you to insert a photo into the sequence without having to go back to Selecting Photos.

Remove - Removes the selected photo from the sequence. The original file is not deleted from your computer.

After confirming that the photos are in their proper sequence, click **Stitch** to begin the stitching process and go to the next step, Fine-Tuning.

Chapter 4: Arranging

5. Fine-Tuning

Crop & Straighten

Enhance

Fine-Tune

Add Frame, Title, Copyright

Chapter 5: Fine-Tuning

This section describes how to make your panorama more visually appealing using Crop, Straighten, Brightness/Contrast, and Manual Fine-Tune controls.

5.1 Crop & Straighten

Crop off unwanted edges and use Straighten controls to adjust your panorama.

Crop

Checking the "Crop" option displays a red crop indicator box over the stitched image. Define the crop area by clicking and dragging the red box (dragging on the corners of the red box).

When you preview or save the panorama, the area inside the crop box is kept. Uncheck "Crop" to preview or save the entire panoramic image as-is.



Straighten

Click the arrow beside this icon to display the Straighten control:



The Straighten control enables you to rotate the panorama image so it appears level. Click the buttons or drag the scroll bar to rotate the panorama until the horizon line (or other indicator) appears parallel with the lines on the grid.

Apply – Applies the current Straighten settings to the panorama.

Cancel – Exits the Straighten control without saving changes.

5.2 Enhance

Use simple tools to enhance the photos in your panoramic image.

Brightness/Contrast – Use the Brightness and Contrast sliders to change the brightness or color contrast of the panorama.



Brightness – Drag the slider to the right to gradually brighten the panorama, to the left to darken it.



Contrast – Drag the slider to the right to gradually make the image sharper, to the left to make it look flatter.

Apply – Applies all the current Brightness and Contrast settings to the panorama.

Cancel – Exits the Brightness and Contrast controls without saving changes.

5.3 Manual Fine-Tune

The Manual Fine-Tune screen allows you to manually adjust the "gap" between images in order to make the panorama appear seamless.

Manual – Click to go to the Manual Fine-Tune screen, which has two primary options: Align Points and Adjust Blend.

Align Points

Click **Align Points** to manually set stitching points.

The overlapped areas of the photos are marked by orange boxes.





Chapter 5: Fine-Tuning

Click on one of the boxes to see three pairs of numbered points: these points indicate where on the image needs to be adjusted.



Click and drag one of the numbered points in the left window to the area where the "gap" is, and drag the point with the same number in the right window to where the first numbered point was placed.

For example, drag point "1" in the left window to a particular feature in the left photo (such as a tree branch). Then drag point "1" in the right window to the place in the right photo where that same feature appears. Repeat for points "2" and "3", then click **Apply**.

Note: Although you can place numbered points at completely separate locations on the panorama, Panorama Maker Pro will not acknowledge this change even if you click **Apply**.

Auto Match – Click this and Panorama Maker Pro will automatically pair the numbered points. You can skip Auto Match if you prefer to manually pair these points.

Adjust Blend

Click **Adjust Blend** to see the stitching paths (borders) between the images outlined in orange.



Click on an orange path to add a point. Drag the point to move the path. To adjust the path more precisely, add more points.



Note: The orange paths can only be dragged within the overlapped areas.

Right-click on the points to restore the original stitching path.

Click Restore to clear points added to the path.

Chapter 5: Fine-Tuning

Show Guides – If this option is checked, the overlapped areas between photos are marked with red boxes on the **Align Points** screen, and the seams are marked with orange lines on the **Adjust Blend** screen.

To see if your panorama is properly adjusted, uncheck the **Show Guides** option to hide both the boxes and the lines. (Note that the **Align Points** and **Adjust Blend** functions will not work when the **Show Guides** option is unchecked.)

Click ${\bf Done}$ when you are finished manually fine-tuning your panorama.

5.4 Add Frame, Title, Copyright

From the main screen, click to add a frame, title, or copyright to your panorama.

Add a Frame

Check the **Frame** option to add a frame. Click on the square below the **Frame** option to display a color palette and select the frame color for your panorama.

Add a Title

New – Click this button to add a new title to your panorama. You can input the text in the pop-up window. You can also select font, font color, font size (drag the slider), text style, and alignment. Click **OK** to add the text to the image or **Cancel** to exit.

To edit the title again, double-click on it and edit the text in the pop-up window.

Click on the added title to select it. A red box will outline the selected title. With the title selected, you can drag it and place it anywhere you want on the panorama.

Remove – Click on the title you want to remove to select it. Click **Remove** to delete it.

Add Copyright

Check the **Copyright** option to add your own copyright announcement to the panorama. You can use the provided copyright template, or delete it and write your own copyright announcement from scratch.

Chapter 5: Fine-Tuning

6. Sharing

Preview

Save

Print

Chapter 6: Sharing

Preview your panorama, then save and print it for sharing with your favorite photo enthusiasts.

6.1 Preview

View your panorama full screen and see how it will look before it is saved.



Zoom Out – Zooms out to show more of the panorama.



Zoom In - Zooms in to show more detail.

Actual Size – Preview the panorama at 100% of its final size. A navigator box appears if the actual panorama size is larger than your screen size. Drag the red box inside the Zoom Navigator to move the current viewing area.

Fit In – Fits the panorama into the preview area. This icon appears after the Actual Size icon is clicked.

360° Preview –Toggles between Regular Preview Mode and 360° Preview Mode. This option does not appear for vertical panoramas.

- Regular Preview Mode Click and drag to pan around the image when zoomed in.
- 360° Preview Mode Click and hold to rotate the view as if you are looking around.

- Exits the preview screen.

6.2 Save

You may save your panorama to one of the supported file formats.

Save As – Launches the Save As dialog box so you can save the panorama file.

Save options include: JPEG, TIF, BMP, TGA, QuickTime (.mov), Flash (.htm, .html), or PTViewer (.htl, .html).

The Flash option is only available in the Windows version of Panorama Maker Pro.

Vertical style panoramas cannot be saved as QuickTime movies or html files.

In order for the QuickTime output option to appear, Apple QuickTime must be installed.

PTViewer is a free and popular html panorama viewer. It is available on the web.

6.3 Print

Print your panorama.

Printer – Select a printer to print out your panorama.

Paper Size – Select a paper size to print (the paper size you select must be supported by your printer).

Page Layout – Choose how you want your panorama to be printed (on one or across multiple sheets of paper, etc.). Select a page layout from the drop-down list. Layout options are generated automatically based on the resolution of the panorama.

Size – Move the slider to change the print size of the panorama.

Printer Setup – Launches the Printer Setup window where you can select a printer, paper size, and orientation. Consult your printer's manual to learn how to optimize settings for photo printing.

Print – Starts printing.

Note: Print quality is determined by many factors (photo quality, photo resolution, print size, printer settings, ink, paper, print nozzle condition, etc.). For best results, consult your printer's manual to learn how to get the best results from your printer. It is always best to use the ink and paper recommended for your printer.

Chapter 6: Sharing

7. How to Shoot Great-Looking Panoramas

Ideal Camera Settings

Using a Tripod

Photo Overlap

Creating Photo Groups

General Tips

Photo Shooting Checklist

Chapter 7: Great-Looking Panoramas

The guidelines and technical information in this section remove the mystery about issues associated with taking photos for panoramas.

7.1 Ideal Camera Settings

Set Exposure Manually*

Meter the scene in Aperture-priority or Shutter-priority mode. Read your meter in the brightest section to avoid overexposure, and manually lock the Aperture and Shutter Speed for the entire set of shots.

Why: When the camera automatically adjusts the exposure for each shot, seemingly subtle changes in light can make the corresponding areas of two overlapping photos look completely different. When this happens, the final panorama can have big bands of light and dark.

Turn Auto Focus Off*

Turn off Auto Focus. Use the same focal length for all photos in the panorama sequence.

Why: Using different focal lengths can present inconsistencies that cannot be overcome during the stitching process.

Turn Auto White Balance Off*

Turn the camera's auto white balance feature OFF. Manually set the most appropriate white balance and use that same setting for all of the shots in the panorama.

Why: When the auto white balance setting is on, slight changes in lighting conditions can cause the colors in one photo to differ greatly from the colors in the next.

Use One Exposure Setting*

Before you begin shooting, use the camera's light meter to find an exposure that works well for the entire range of shots. Use it. If it's absolutely necessary to shoot some shots using other exposures (because of dramatic changes in light), keep the other exposure settings as close as possible to the first.

Why: In general, panorama images stitch better in more even light. Changes in exposure setting can make the exact (overlapping) areas of two photos look completely different. When this happens, the final panorama can show banding.

Chapter 7: Great-Looking Panoramas

Turn Off the Flash

Do not use a flash. Turn off the camera's auto-flash feature if it has one.

Why: A camera's flash has a limited range and a limited field of coverage and can create shadows that change shape and position from shot to shot. These inconsistencies make it difficult for the software to recognize corresponding parts of adjacent photos.

Do Not Change Size or Quality Setting

Use the same photo size (resolution) and photo quality (e.g. fine) for all shots.

Why: Photos of different sizes cannot be stitched.

* Your camera model may not include this feature or option.

7.2 Using a Tripod

Use a Tripod Whenever Possible

When shooting photos for a panorama, it is critical to keep the camera on the same plane throughout all of the shots. The easiest way to do this is to use a tripod.

When shooting for a 360° degree panorama, a level tripod ensures that the first and last shots line up with each other.

If your tripod does not have a built-in level, you can buy a spirit level at your local camera shop that fits in your camera's hot shoe.*

Go Without A Tripod Only If You Must

If a tripod is not available, act as one yourself by locking your elbows into your body and pivoting on one foot to turn in place. Pay close attention to the frame of each shot (horizon line), keeping the camera level as you turn.

If you cannot find a level spot for your tripod, collapse the legs to create a monopod so you can steady the camera to take pictures.

Use the camera's viewfinder (instead of the LCD) to frame and shoot your photos.

* Your camera model may not include this feature or option.

7.3 Photo Overlap

Use 25% to 50% Overlap

Shoot the photos using between 25% and 50% overlap. You do not need the same amount of overlap for each shot – estimating the amount of overlap is fine.

For wide angle lenses, use more overlap (50%).

7.4 Creating Photo Groups

By using one or both of the following methods to create photo groups, building a panorama in the software will be a little easier.

Shoot Sequential Photos in Less Than 40 Seconds Time

The program has a unique feature that, with just one click, intelligently selects all of the photos that belong to the same panorama sequence. Because panorama photos are usually shot in quick order (less than 40 seconds apart), the program uses shot times (EXIF data) to create groups. By selecting one photo in a group, the entire group is selected. (This feature can be disabled by unchecking the "Auto-Select by Group" option; see section 3.1.)

Insert Divider Shots Manually

A simple way to divide one sequence of panorama photos from another is to insert (shoot) a black photo between them. Before beginning a new sequence, use the lens cap or a piece of cardboard to cover the camera and take a shot. After you transfer the photos to your computer, it will be easy to see where one sequence ends and the next begins.

7.5 General Tips

- When stitching photos that have obvious value differences, noticeable banding effects may appear in the stitched result. If you have this problem, use a photo editing application such as ArcSoft® PhotoStudio® to adjust the brightness and contrast of the photos before they are stitched.
- Do not use extreme wide-angle lenses (i.e. fisheye) when taking panoramic shots. Extreme wide-angle lenses create distortion at the edges of each photo, making them difficult to stitch.
- When shooting photos for horizontal panoramas, make sure the tallest object in the scene fits into the picture at the current zoom level. It's wise to leave extra space for cropping the panorama after it has been stitched.
- When shooting photos for horizontal panoramas, take an extra shot on each end (far left and far right), so you'll have more room from which to crop.
- To create taller horizontal-style panoramic images, shoot the entire sequence with the camera turned 90 degrees (portrait).
- Turn your camera's Grid Display feature on. Showing grid lines in the viewfinder makes it easier for you to keep your camera level as you shoot a series of panorama shots – especially if you're not using a tripod. Grid Display is also useful for determining the correct amount of overlap.
- 50% overlap usually works best for stitching. If you need help determining the proper amount of overlap, turn your camera's Grid Display feature on.
- To avoid object duplication in the panorama, do not use more than 80% overlap. Turn your camera's Grid Display feature on if you need help determining the proper amount of overlap.

Chapter 7: Great-Looking Panoramas

- Make people magically appear in the same panorama several times by shooting them in different areas of the shot and at a different distance.
- Check to see if your printer supports banner paper. If so, try printing your panoramic creations on long sheets of photo banner paper – great for framing.

7.6 Photo Shooting Checklist

- Turn Auto-Exposure OFF
- Turn Auto White Balance OFF
- Turn the flash OFF
- Use the same exposure setting (slight variations if necessary)
- Use one focal length for all shots in the sequence
- Use one size/quality for all shots in the sequence
- Use a tripod whenever possible especially when objects are near to the camera
- If a tripod is not available, lock elbows and pivot on one spot, keeping the camera level
- Use at least 25% overlap for each shot
- Use 50% overlap when using a wide angle lens
- Go beyond 360 degrees when shooting for a 360° panorama – mark your tripod with a piece of tape
- Create time-based groups wait no more than 40 seconds between shots
- Insert visual dividers (black shots) between sequences use a lens cap or piece of cardboard
- Be aware that an object in motion may cause problems when stitching
- Be aware that scenes without much detail (cloudless sky over flat sea) are more difficult to stitch

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About ArcSoft

ArcSoft, Inc. is an industry leading software developer of multimedia technologies and applications across desktop and embedded platforms. Working closely with major OEM manufacturers, ArcSoft offers a full line of imaging and video solutions that enhance the features, performance, and user experience of mobile phones, digital cameras, optical drives, personal computers, and consumer electronics devices.

Established in 1994, ArcSoft is headquartered in Fremont, California, with regional commercial and development facilities in Europe and the Far East. For further details, please visit us at our corporate web site: www.arcsoft.com.

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