



Sending photos as email attachments

You can use email to send one or more photos from your photo library or an album.

To send a photo in an email message:

1. Select a photo you want to mail by clicking on it. To select more than one photo, hold down the Command key (to the left of the space bar) as you click on each photo.

Note: You can send photos only from your photo library or an album, not photos from a slideshow, book, calendar, or card.

2. Choose Share > Email.
3. Choose a size in pixels for your emailed photos from the Size pop-up menu.
4. Choose whether to include titles and comments.
5. Click Compose.

iPhoto opens a New Message window in Mac OS X Mail with the photo or photos attached. (If you want to mail photos using Entourage, Eudora, or AOL, install the application on your computer, choose iPhoto > Preferences, click General at the top of the Preferences window, and then choose the application from the "Mail using" pop-up menu.)

6. Enter an address, a subject line, and the text of the message, then click Send.

IMPORTANT: If you send many large photos in a message, it will take longer for people to download it. It's a good idea to limit the size and number of photos you send.

Related Topics

[Selecting and deselecting photos](#)

[Photos I send by email are missing titles and comments](#)

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Making a QuickTime movie of your photos

You can make a slideshow movie of your photos and play it using QuickTime Player or any other application that supports QuickTime (such as a web browser or word processor).

To make a QuickTime movie:

1. Select the slideshow, album, or group of photos you want in your movie.
2. Choose File > Export.
3. Do one of the following:

If you selected a slideshow in step 1, type a name for your movie, choose where to save it, choose a size, and then click Export. Your QuickTime movie is saved with the same effects you chose for your iPhoto slideshow.

If you selected an album or group of photos in step 1, click the QuickTime button at the top of the Export Photos dialog and follow these steps:

4. In the QuickTime pane, change the desired options:

Images: Specify the maximum dimensions of your movie in pixels and set the display duration for each photo.

Background: To add a background color to your movie, click the Color button, then click the color preview box to select the color. To add a background image, click the Image button, then click Set to select an image.

Music: Choose whether to include the same background music selected in the Slideshow Settings window.

5. Click Export.
6. Type a name for your movie and choose where to save it.
7. Click Save.

To view your movie, open it from within QuickTime Player or any other application that supports QuickTime.

Related Topics

[Using QuickTime 7.0.4 or later for best results](#)

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Creating a slideshow

To create a slideshow:

1. Select an album or group of photos you want in your slideshow.
2. Click the Slideshow button.

After you create a slideshow, you can also add photos to it by dragging them directly from another album, a CD or DVD, or another location on your hard disk. When you add a photo to a slideshow from another location on your hard disk, iPhoto automatically imports it into your photo library.

3. Drag photos into the order you want in the photo browser at the top of the iPhoto viewing area.

You can choose music, specify the display duration for each slide, choose transition effects, display slideshow controls, and set other options (see Related Topics, below).

4. Click the Play button.

You can also view selected photos as a temporary slideshow without creating a slideshow in the Source list. To do this, select a folder, album, or group of photos and click the Play button (near the bottom-right corner of the iPhoto window). If you don't see the Play button, click the right-pointing arrows (>>) and choose Play from the menu that appears.

Related Topics

[Setting slideshow options](#)

[Playing and stopping slideshows](#)

[Using the onscreen slideshow controls](#)

[Sharing a slideshow over the Internet](#)

[Setting the pan and zoom effect for a slideshow photo](#)

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Sending photos as email attachments

You can use email to send one or more photos from an Event or album.

To send a photo in an email message:

1. Select a photo you want to send by clicking it.

You can send photos only from your photo library or an album, not photos from a slideshow, book, calendar, or card.

For tips on how to select more than one photo, see this topic:

[Selecting and deselecting photos](#)

2. Choose Share > Email.

3. Choose a size for your emailed photos from the Size pop-up menu. For more information on choosing the photo size, see Related Topics below.

NOTE: If you send many large photos in a message, it will take longer for your recipients to download the photos. It's a good idea to limit the size and number of photos you send in a single email.

4. Select the checkboxes to include Titles and Descriptions.

5. Select the "Location information" checkbox to include locations with your photos.

6. Click Compose Message.

iPhoto opens a New Message window in Mac OS X Mail with the photo or photos attached. (If you want to send photos using Entourage, Eudora, or AOL, install the application on your computer, choose iPhoto > Preferences, click General at the top of the preferences window, and then choose the application from the "Email photos using" pop-up menu.)

7. Enter an address, a subject line, and the text of the message, and then click Send.

Related Topics

[Selecting and deselecting photos](#)

[Including titles and descriptions with photos sent by email](#)

[About choosing the appropriate size for your photo](#)

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Exporting a slideshow project for viewing on your iPhone, iPod, Apple TV, or computer

You can export your slideshow project as a QuickTime movie, so that you can view it on your iPhone, iPod with color display, Apple TV, or computer display.

To export your slideshow:

1. Select a slideshow in your Source list.

2. Click the Export button.

You can also choose File > Export, and click the Slideshow tab.

3. Depending on the devices you want to show your slideshow on, select one or more sizes.

4. If you don't want iPhoto to send slideshows to iTunes, deselect the checkbox.

5. Click the Export button.

6. Choose a location to save your slideshow.

7. Click OK.

iPhoto saves your slideshow in the location you specify, sends the slideshow to iTunes, and then opens iTunes for you.

8. Sync your device.

For iPhone, iPod, or Apple TV, see these topics. For HDTV, see the manufacturer's instructions.

[Transferring photos to your iPhone or iPod](#)

[Showing your photos on your Apple TV](#)

If you want to specify a custom settings for your slideshow, click Custom Export in the dialog, type a name, choose a location for your slideshow, choose a format from the Export

pop-up menu, and then click Options to see your options.

For more information on syncing your device with iTunes, see the topics in iTunes Help, available when iTunes is open.

Related Topics

[Exporting your photo projects, albums, and movies to iDVD](#)

[Making a QuickTime movie of your photos](#)

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Creating a slideshow

There are two ways to create a slideshow in iPhoto.

To create an instant slideshow:

You can show any group of photos as an instant slideshow complete with a theme and music. If you select an Event, Faces or Places group, or an album, iPhoto stores your settings for the next time you want to show those photos.

To create an instant slideshow, see this topic:

[Showing selected photos as an instant slideshow](#)

To create a slideshow project:

If you want to fine-tune your slideshow by reordering the photos, changing transitions, or adding the Ken Burns effect, you can create a slideshow project, which appears in your Source list.

1. Select an Event, Faces or Places group, an album, or a group of photos that you want in your slideshow.
2. Click the Add (+) button in the bottom-left corner of the iPhoto window, and then click Slideshow in the dialog that appears.



3. Type a name for your slideshow.
4. If you want, deselect the “Use selected items in new slideshow” checkbox.
5. Click Create.
6. Drag photos into the order you want in the photo browser at the top of the viewing area.

After you create a slideshow project, you can add photos to it by dragging them directly from anywhere in your iPhoto library, a CD or DVD, or another location on your hard disk. When you add a photo to a slideshow from another location on your hard disk, iPhoto automatically imports it into your photo library.

You can choose music, specify the display duration for each slide, choose transition effects, display slideshow controls, and set other options.

You can also show an Event or album as a slideshow using iChat Theater. For more information, choose iChat Help when iChat is open.

To remove a slideshow project, select it in the Source list and drag it to the iPhoto Trash.

Related Topics

[Setting options for your slideshow project](#)

[Playing and stopping slideshows](#)

[Setting the pan and zoom effect for a photo in a slideshow project](#)

[Exporting a slideshow project for viewing on your iPhone, iPod, Apple TV, or computer](#)

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Export a photo

When you email, print, publish, or export a photo from your iPhoto library, iPhoto asks you to choose the size, also known as resolution. The settings you choose depend on what you want to do with the photo.

To change a photo's size or file format, you export the photo. You might want to export photos so that you can import them into another application.

To export photos:

1. Select the photo or photos you want to export.
2. Choose File > Export.
3. At the top of the Export Photos window, click the File Export button.
4. To specify the file type for the exported photo, choose an option from the Kind pop-up menu:

Original: Exports the photo as it was originally imported into iPhoto, before editing.

Current: Exports the photo in its current format. If you imported a RAW-format photo and then edited it in iPhoto, the photo is exported as a JPEG file.

JPEG: If you choose this format, choose an option from the JPEG Quality pop-up menu. The higher the quality, the bigger the photo. For example, if the photo will be used on a website where optimal quality for printing isn't required, you could choose Low to save storage space on the website.

TIFF: A lossless file format that works well for transferring

photos between computers and applications.

PNG: Another lossless file format popular for web images.

5. To change the size (resolution), choose an option from the Size pop-up menu:

- For photos to be emailed or mainly viewed onscreen, these settings compress the photos (making them smaller):
 - **Small:** Use for photos you email or publish to websites where you don't expect anyone to download and print your photos.
 - **Medium:** Use when you or your recipients have a reasonably fast Internet connection, such as DSL. This setting is not suitable for making prints.
 - **Large:** Use this setting when you and your recipients have a very fast connection. This size can be used to print small to standard-size photos (2 by 3, 3 by 5, and 4 by 6 inches).
- For photos to be printed or published for download, these settings provide maximum detail for final prints:
 - **Optimized:** Use for larger prints and for publishing photos to your MobileMe Gallery for others to download and print. With this setting, photos are slightly compressed to a smaller file size so that they download faster without compromising quality.
 - **Actual Size/Full Size:** Use to make high-quality prints in small to large sizes, or to upload photos to your Gallery so that others can download and print them. This setting matches the actual size of your photo, so it may take longer to upload or download.

6. Specify your other options:

Include checkboxes: If you choose JPEG or TIFF from the Kind

pop-up menu, you can include titles, keywords, and location information with the exported photos by selecting the checkboxes.

File Name: Choose whether to export photos in sequence, or by their filenames, iPhoto titles, or album name.

Prefix for sequential: If you choose Sequential from the File Name pop-up menu, you can specify text to appear before each number (for example, *Birthday01*, *Birthday02*, and so on). This step is optional.

7. Click Export.
8. Choose where to save the exported photo files, and then click OK.

iPhoto works best with JPEG files, the standard format for data compression of still pictures. If you experience problems working with a non-JPEG file in iPhoto, use a different image-editing application to convert the image to JPEG.

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Export a slideshow

If you want to view a slideshow in another application or on a device such as iPod or iPhone, you first export the slideshow as a [QuickTime movie](#).

To export a slideshow:

1. Select the slideshow in the [Source list](#). (If you're in full-screen view, first exit it by clicking Full Screen in the toolbar.)
2. Click the Export button in the toolbar.

You can also choose File > Export, and then click Slideshow.
3. Depending on the devices you'll use to view your slideshow, select one or more sizes. (For more information, see [Export a photo](#).)
4. If you don't want iPhoto to send your slideshow to iTunes (if you don't plan to use iTunes to sync the slideshow to a device), deselect "Automatically send slideshow to iTunes."

Sending a slideshow to iTunes enables you to sync the slideshow to a device, such as your iPhone or iPod. It also makes the slideshow available in the [Media Browser](#), so that you can easily insert the slideshow in documents you create in iLife and iWork.

5. Click the Export button.
6. Choose a location to save your slideshow and click OK.

If you selected the checkbox in step 4, iTunes opens for you.
7. To copy your slideshow to a device, see [View photos or slideshows on iPod, iPhone, iPad, or Apple TV](#). (For HDTV, see

the manufacturer's instructions.)

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Make a slideshow

You can create two kinds of slideshows in iPhoto:

- **Instant slideshows:** When you want to quickly show a selection of your photos—with a theme, music, and transitions—you can create an instant slideshow. If you show the same selection again, the same settings apply. However, you can't change the photos included or customize the slideshow further.
- **Saved slideshows:** For more control over your slideshow, you can save it and then make changes to it, such as reordering photos, changing transitions between photos, adding the Ken Burns effect, and more. A saved slideshow appears in your Source list, so you can play it and modify it any time.

Make an instant slideshow

1. Hold down the Command key as you click some photos, or drag across a range of photos, to select them for your slideshow.

You can also simply select an Event or album.

2. Click the Slideshow button in the toolbar at the bottom center of the iPhoto window.



The first slide opens in full-screen view.

3. Select a theme in the window that appears over the slide.

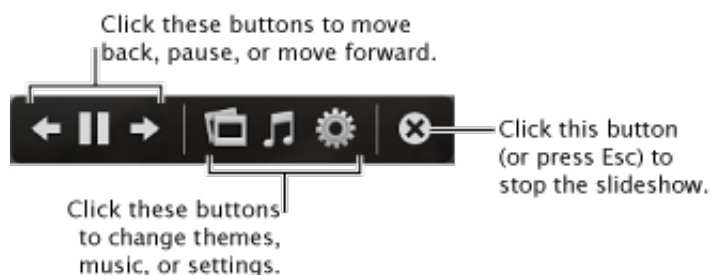
To see a preview of each theme, move your pointer over the thumbnail image.

4. If you want to set the slideshow to specific music, click Music at the top of the window, and then choose an item from the Source pop-up menu.

The Source pop-up menu features all the songs in your iTunes and GarageBand libraries.

If you want to turn off music for the slideshow, deselect the “Play music during slideshow” checkbox.

5. Click Play in the bottom-right corner of the window.
6. To control slideshow playback, do the following:
 - To jump ahead or back to a particular photo, move your pointer to the bottom of your screen. A series of thumbnail images appears, representing all the photos in your slideshow. Click a thumbnail to jump to that photo.
 - To pause or stop the slideshow, or to change themes, music, or settings, move the pointer anywhere on the screen to reveal the slideshow controls.



Make a saved slideshow

You create a saved slideshow when you want more control over the settings.

1. Hold down the Command key as you click some photos, or drag across a range of photos, to select them for your slideshow.

2. Click the Create button in the toolbar at the bottom of the iPhoto window, and then select Slideshow in the pop-up menu that appears.



A new slideshow appears below Slideshows in the Source list (along the left side of the iPhoto window). The first photo appears in the main viewing area of the iPhoto window. At the top of the iPhoto window, the photo browser opens, displaying thumbnail images of all the photos in your slideshow.

3. Double-click the placeholder title in the Source list, or double-click the text that appears over the first photo, and type a title for your slideshow. Click anywhere outside the text when you're done typing.
4. In the photo browser at the top of the iPhoto window, drag the photos into the order you want.
5. To select a theme for your slideshow, click the Themes button in the bottom-right corner of the iPhoto window.

In the Themes window that opens, you can preview each theme by holding your pointer over its thumbnail.

6. Click a theme, and then click Choose.
7. Click the Play button in the toolbar at the bottom center of the iPhoto window.

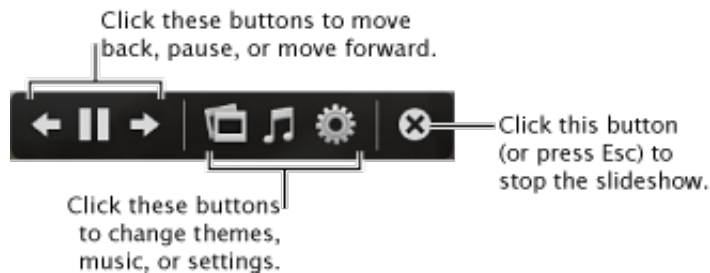


The slideshow plays in full-screen view.

8. To control slideshow playback, do the following:
 - To jump ahead or back to a particular photo, move your

pointer to the bottom of your screen. A series of thumbnail images appears, representing all the photos in your slideshow. Click a thumbnail to jump to that photo.

- To pause or stop the slideshow, or to change themes, music, or settings, move the pointer anywhere on the screen to reveal the slideshow controls.



You can always add more photos, change the music, add text over photos, and adjust slide transitions and speed.

For more information on creating, editing, or sharing your slideshows, click the Browse Help button above, click “Share photos digitally,” and see the topics in the Slideshows section.

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All About Digital Photos - The Myth of DPI

By Ken Watson

[All About Digital Photos - The Myth of DPI](#)

Many people seem to get hung up on DPI (dots per inch) as a measure of quality of their digital photos. To set the record straight, DPI has NOTHING to do with digital image quality!

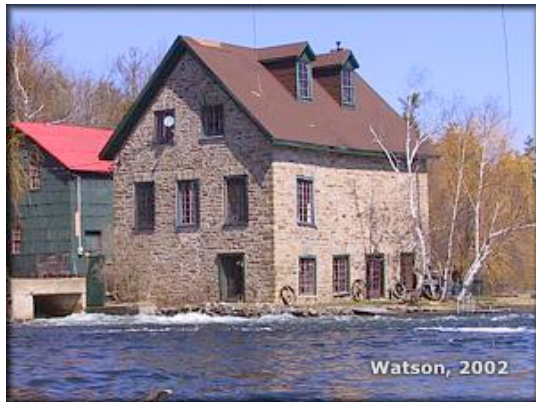


Photo set to 1000 dpi

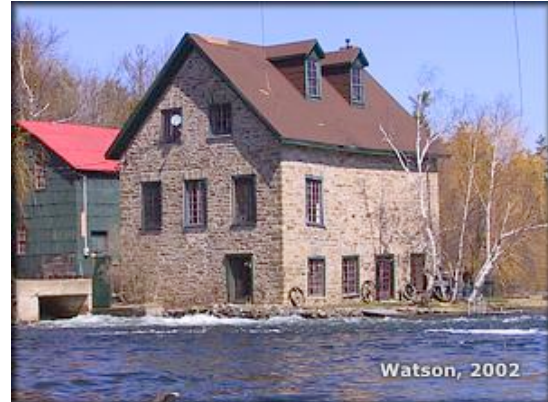


Photo set to 10 dpi

Can you tell the difference?

Answer: No you can't, because there is no difference

If you've read the section titled "[What is a Digital Photo](#)" you'll know that there are four main factors that determine image quality:

- 1) The quality of the recording device (camera's optics and sensor, scanner's sensor).
- 2) The size (in pixels) of the digital image.
- 3) The digital format it is stored in (lossless vs lossy compression).
- 4) The technical proficiency and the "eye" of the photographer.

Several other factors also come into play, but the above are the main factors that determine the overall quality of the original digital photo.

The size of a digital photo is measured in pixels (the smallest colour component in a photo). The two photos above are exactly the same size, 300 pixels in width by 225 in height, and both have been saved at 25% JPEG compression. Even though their DPI has been set to radically different values, the photos are identical in quality (the pixels don't change). So, what is DPI and why are so many people hung up about it?

DPI is a measure of how a image is printed to a medium such as paper (or conversely, scanned from paper). Many software programs call DPI a measure of "resolution" which leads to more confusion since it is the resolution of the printed output, not anything to do with the "resolution" of the digital image (see [Adobe Photoshop Image Size Dialog Box](#) for an example of this). In fact the software programs that use this setting are really just doing so because they lack WYSIWYG (what you see is what you get) output. If you do use WYSIWYG software such as most word processing, desk top publishing, photo printing programs or graphics programs such as Adobe Illustrator or Corel Draw, then DPI is really a meaningless figure - the quality of output will be determined by the pixel size of the original image, the paper dimensions you have chosen to print the image (i.e. 4" x 6") and the quality of the printer.

However, for programs that still kludge along with DPI (many older photo programs), the use of DPI is a method to determine the size of output on paper. In our example above, the photo set at 1000 dpi will print out from a non-WYSIWYG at 0.3 inches in width (300 pixels divided by 1000 dot per inch = 0.3 inches). Whereas the same photo set at 10 dpi will print out at 30 inches in width. The print previews of an 8.5" x 11" page below illustrate the effect:



Printed at 1000 dpi
(photo is only 0.3 inches in width)



Printed at 10 dpi
(only part of the photo shows since it is trying to print at 30 inches in width)

So - as can be seen DPI is really only used to set the size of the printed output from certain photo programs. If we wanted to print this photo (300 pixels in width) at say 5 inches in width using a program that used DPI to set the dimensions of the printed output, then we would set the DPI to 60 ($300\text{pixels}/60\text{dpi} = 5\text{ inches}$). If we took that same photo into say Word, Corel Draw or Adobe Illustrator at whatever DPI, we would simply size it to be 5 inches in width and the print result would be identical (no matter what the DPI of the photo is set to).

Photo software that comes with most recent digital cameras simply allows you to specify the output size you wish to use (i.e. 4" x 6", 5" x 7", etc.) and then automatically prints it at that size. Note that the internal DPI (which we now know is not relevant to digital image quality) of most digital camera photos is 72.

DPI vs PPI

Technically DPI means paper printer Dots Per Inch while PPI means digital Pixels Per Inch. But in many instances the term DPI is used when in fact PPI is what is really meant. Even in these articles there is crossover of terms, since many software programs continue to use the legacy term DPI to mean PPI. So, best to read the terms in context. When DPI is mentioned are they really talking about printer dots per inch or are they in fact talking about how many pixels per inch a digital photo is going to print out at? This too is where many print shops, graphic artists and magazines have it wrong when they are talking about required digital photo resolution, they mistakenly think the DPI setting in a photo has something to do with this, when in fact what they want is a certain PPI (see [What Print Shops Really Want](#)).

Some programs such as Adobe Photoshop are now calling the setting of what used to be shown as DPI as pixels/inch or pixels/cm. It's a bit of one step forward, two steps back since they still have it sitting in a section called "Resolution" leading people to mistakenly think that it has something to do with the digital resolution of the photo (see [Adobe Photoshop Image Size Dialog Box](#)). Some camera manufacturers such as Canon have it right, they properly refer to digital resolution as the pixel dimensions of the photo.

To be clear, neither the DPI or PPI setting in a digital photo changes the digital quality of that photo. The resolution of a digital photo is its pixel dimensions.

DPI/PPI - Another Definition

For some, it is easier to think of the DPI/PPI of a digital photo simply as a **conversion factor** that some software uses to set the paper output dimensions. This is basically all it is - it is a 5 byte (very tiny) string in the header of a digital photo file. It's not actually part of the image, it does nothing within the photo file (it doesn't change the digital photo in any way), but some software will use it to set the paper output dimensions (in inches or centimetres).

Some software will also (unfortunately) use it to re-sample an image (see "The Horrible DPI Mistake" - below). My general advice is to never change the DPI unless some silly photo shop / graphics designer asks for it to be changed - then change it using my [Change DPI instructions](#). When printing with a program such as Photoshop that uses the DPI to set paper output, print using the "Print with Preview" option, using the "Scale to fit media" selection to scale the photo to the print size you desire (without changing the DPI). If you must resize a photo, don't use DPI to do it, change the pixels (see the [Change Size section](#)).

The Horrible DPI Mistake

Here's the scenario - a print shop/graphics designer/magazine asks a client for a photo at 300 dpi. They wish to print it out at 5" x 7". The client already has a beautiful digital photo with pixel dimensions of 2048 x 1536. The client notices that the photo editing software is showing that the photo is set to 72 dpi. So, following orders, the client types in 300 to reset the dpi to 300. In doing so the image is resampled and is enlarged over 4 times to pixel dimensions of 8533 x 6400. The client sends this enlarged 300 dpi photo. The print shop/graphics designer/magazine reject it (too grainy, too colour blotched). The client is crushed. The sad thing is that the client already had the perfect photo (2048 x 1536 @ 72 dpi) which would have been beautifully printed at 5" x 7" (at 292.6

PPI). The print shop/graphics designer/magazine didn't know what they really wanted - see [What Print Shops Really Want](#) and the client didn't know how to change the DPI without resizing the image to give the print shop what they mistakenly think they need - [see how to change the DPI](#).

So - why should I care about DPI?

Well, if you are using an older photo program it may use DPI to set the the size of the printed output. With these programs you'll have to adjust the DPI in order to adjust the size of the printed output. This is becoming a thing of the past since most newer photo programs simply allow you to set a size output (i.e. 5" x 7") for the image, regardless of the DPI setting. Programs that use DPI to set the size of printed output are in fact using PPI, they aren't telling the printer how many dots per inch to print (DPI), rather they are sending the printer x number of pixels per inch (which the printer may well print at a much higher DPI).

Some programs such as Word Processors and Desk Top Publishing programs will use the DPI of an image to set the default size of the image. For example, a 1200 pixel wide image set to 200 dpi will load into such a program at a size of 6 inches. All modern programs allow you to easily visually resize such an image, but it can be convenient to set the DPI of images you plan to use in such programs to the DPI that will match the approximate paper size that you intend for that image. So if you have a 2100 pixel image that you want in a document at 3 inches in width, set the DPI to 700. Of note, always set the DPI without resampling the image. See the page titled [Changing the DPI of a Digital Photo](#).

Scanning - DPI Does Count

Scanning is the process of converting paper to digital and in this process DPI is used to adjust the amount of detail of the scan. The DPI setting of the scanner relates to the final pixel size of the scanned image. If you put a 5" x 7" photo on the scanner and scan it at 300 dpi, the resulting digital image will be 1500 x 2100 pixels in size (5" x 300 = 1500 and 7" x 300 = 2100). In this case, DPI does relate to quality, since the higher the scanner DPI setting the more information is being collected. Keep in mind though the 200 ppi = photo quality concept, a minimum of 200 dpi should be used in scanning. Best results for paper photos are generally achieved within a range of 300 dpi (sufficient for most photos) to 600 dpi (if you want to enlarge the image).

A Word of Warning

Some programs will resize a photo when the DPI is changed (see my example "The Horrible DPI Mistake"). Be very careful of this. To change the DPI without changing the pixel size of the photo you should click on the "maintain original size" (i.e. Corel Photopaint) or similar option that some programs offers, or click off "resample image" that other programs offer (i.e. Adobe Photoshop). See the page titled [Changing the DPI of a Digital Photo](#).