

- Hints & Tips
- Awesome PowerPoint Tutorials
- Third Party Tutorials
- Links
- PowerPoint FAQ
- Powerpoint Glossary

search

Quick Links...

Translate



Deutsch Japan Italiano
Français Español
Português Dutch
Greek Korean Chinese

FREE Newsletter

E-mail a friend about this page
mate@work.cc



Tutorial about graphics, bitmaps, scanning & digital cameras for on-screen or projected presentations

This tutorial guides you through how to get the best from bitmap graphics for "On-screen" or projected PowerPoint® presentations.
It's great for:



- Reducing the file size of presentations and hence keep them to a manageable size
- Shrinking presentations from 10mb to 1mb
- Speeding up the display of graphics
- Speeding the loading and saving of presentations
- Learning about all the common different graphic file formats
- If you use a scanner or digital camera then this tutorial is for you
- If you're asking "what's the best dpi for powerpoint" this tutorial is also for you
- **FREE** Downloadable files available at the end to see the quality and filesizes
- This is OUR original powerpoint graphics tutorial - often imitated but never bettered

Visit our other site "www.presentationpictures.com" if you want [powerpoint graphics](#)

Theory:

You can insert most types of graphics files into powerpoint.

- This tutorial deals with the type of graphics commonly called "bitmaps". These graphic files are all made up of dots. They can come from all sorts of places, digital camera, scanners, photo libraries & paint packages
- The other sort of graphic files are "vector" graphics, these commonly come from powerpoint clip-art or Corel Draw clip-art. This tutorial is not for this type of graphic

The tutorial is based on using Photoshop as the graphics editor. But don't be put off by this, the principle is the same no matter what graphics software you use. It works with all the common graphics software such as:

- Photoshop
- PaintShop Pro
- Corel PhotoPaint
- Microsoft Photo Editor

Basically you need to get the right quality of bitmap into powerpoint for an "on-screen" show.

Pixels:

Pixels, dots, those little square that make up a bitmap image. This is the important thing. Remember the name. PIXELS. Forget anything else anyone has told you about "Dots Per Inch" or DPI or "Lines Per Inch" LPI. Forget DPI remember Pixels!

A computer screen is made up of pixels. The more pixels the better the quality.

MORE PIXELS = MORE QUALITY
But. . .
MORE PIXELS = BIGGER FILES

Show me the Money

To see what quality or how many pixels your computer is set to:

- Right click on a blank area on your Windows Desktop
- Select "Properties"



- Click the "Settings" tab along the top edge of the new window that popped up
- The two important bits are "Screen area" and "Colors" (more on colors later)

The most common screen areas are (width x height):

640 x 480	VGA	Low quality
800 x 600	SVGA	Think of this as a medium quality
1024 x 768	XGA	High quality, this is what we will use for this tutorial

Imagine that you have a scanned image that is 2000 pixels wide. If you display this image on a computer monitor (or project the image), that can only display 1024 pixels wide, then some of these pixels have got to go somewhere. They can either be cropped or lost!

You could quite easily insert this image into powerpoint and display it. Job Done! But...by doing this you're wasting PIXELS and making your files unnecessarily BIG. There are toooooo many pixels for the resolution of your computer.

So what we need to do is reduce the number of pixels that are in that image. But I hear you say "Pixels = Quality". Yes, that's true but if your computer (or projector) has 1024 pixels wide and you reduce the number of pixels in our image to 1024 . . .

**THERE WILL BE NO LOSS OF QUALITY!
The powerpoint files will be smaller!**

Sounds complicated? Then follow this step by step tutorial:

Quick Links:

[What to aim for](#)
[Reducing the Pixels](#)
[Digital Cameras](#)
[Powerpoint - how to insert an image](#)
[Powerpoint - I've got a presentation that's too big, how do I make it smaller](#)
[Scanning](#)
[Colour / Color](#)
[Change the picture to 256 Colours](#)
[Graphic File Formats](#)

Step by Step Tutorial:

What to aim for:	
1	If your computer (or projector) is running at a resolution of 1024 pixels wide x 768 pixels tall, then it's no point having any images with more pixels than this.
2	If you are going to be displaying the image full screen, i.e. occupying the whole page area in powerpoint, then aim for about 1000 pixels wide. Why 1000 and not 1024...it's easier to remember! Also it doesn't have to be exactly 1000 pixels, just over or just under, doesn't really matter. If you are only showing a picture that will occupy half the width of the screen then half it. e.g. aim for about 500 pixels wide. Landscape images:



3 If your particular image is "portrait" e.g. it's taller than it is wider, then aim for an image that is about 750 pixels tall, or for a half size image about 375 pixels tall.

Portrait images:



Bullet List

- To use this template first save this presentation using
 - File, Save As
 - Then give it a new name
- Then simply copy each page that you need before you edit it
- So if you need another bullet list
 - Click on the "Insert" menu above
 - Click on "Duplicate Slide"
- The same applies for the Bars, Pies etc



4 If your computer is set to a different resolution:

640 x 480	Aim for:	640 pixels wide for a full screen landscape image 480 tall for portrait
800 x 600	Aim for:	800 pixels wide for a full screen landscape image 600 tall for portrait

Adjust these sizes if the image will appear smaller on the finished powerpoint "on-screen" page

Reducing the Pixels:

To resize your bitmap pictures use your favourite graphics software. These instructions are for Photoshop

- 1 Load your image into Photoshop
- 2 Click on the "Image" menu
- 3 Select "Image Size" and adjust the "Width" size. The Height will adjust automatically. If the pixels numbers are grayed out then tick the "resample image" tick box. (In PaintShop Pro this is labelled "Re-size")
- 4 Then click OK
- 5 Save it as a .PNG ([See graphic formats](#))

Digital Cameras

- 1 Most cameras have a setting for resolution. Some common ones are 640x480, 800x600, 1024x768, 1280x960, 2048x1536. Some cameras have a quality setting, this is normally just how much .JPG "compression" to apply. Generally the more compression the more information is lost with .JPG files.
- 2 Think pixels. Set it to 1024x768 as this is the closest to what your computer is set to.
- 3 If you are going to be cropping the images or you cannot get close enough to the subject when you take the picture, then set the resolution to something higher, so you can still crop the image but still end up with enough pixels.
- 4 Copy the images to your computer (see the instructions that came with your digital camera)

- 5 Manipulate them using your graphics software, applying the same principles as ["What to aim for"](#)
- 6 Save it as a .PNG ([See graphic formats](#))

Powerpoint - How to insert an image

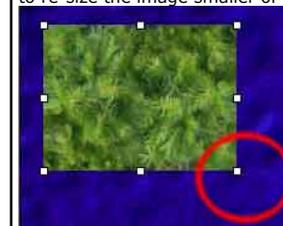
- 1 First load up your presentation
- 2 Click on the "Insert" menu
- 3 Select "Picture", "From File..."
- 4 Navigate to where your image is located, and click on the filename. e.g. awesome-background.png
- 5 Click "Insert"

- 6 PowerPoint will insert the image slap bang in the middle of the page. Sometimes it will be too big and fill the screen (This is normally caused by too many pixels in the bitmap).



If it does this then click on the page zoom button and choose a really small number. You will then be able to zoom out to see the whole image.

- 7 To scale the image without distorting it, click and hold with the left mouse button on any one of the corner "handles" and drag the handle to re-size the image smaller or bigger.

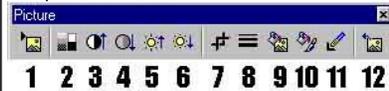


If you want to distort the image then click and drag any of the side "handles"

- 8 If you want to manipulate the image further it's generally better to do it using your graphics software, e.g. Photoshop, PaintShop pro etc. But for some basic options you need the "Picture Toolbar". Right click the image and choose "Show Picture Toolbar"



9 The picture toolbar:



Starting from left to right:

1	A quick way to insert a picture from a file without going through all the menus
2	Some pre-set tricks to alter the look of the image
3 & 4	More/Less Contrast
5 & 6	More/Less Brightness
7	Crop tool. Tip: It's always better to crop the image using the original bitmap and your graphics software. Otherwise you're making your powerpoint file contain pixels you're not using
8	Add a border color
9	Re-color image. Only works for images with 64 colors or less
10	Pops up the "Format Picture" menu
11	Sets a transparent color. Click this and then select one color in your bitmap, it will then appear see-through. Useful for making a bitmap not a rectangle. Tutorial all about transparency and transparent images in powerpoint
12	Resets the bitmap back to normal

10 By copying an image in powerpoint onto another page in the same presentation will not make your presentation filesize much bigger. So the more images you can re-use the better

11 Job Done!

Powerpoint

- I've got a presentation that's too BIG how do I make it smaller?

1	Load the massive presentation
2	Make sure you're on the slide view
3	Press the PageDown (PgDn) key to advance through the presentation one slide at a time
4	If you notice one particular bitmap/picture/image takes a fraction of a second to display, then chances are this is the offending item. It's got TOO MANY PIXELS in it. To make doubly sure this is the offending item. Display the "picture toolbar" and "Reset" the bitmap to its original size. If the bitmap is guilty it will reveal itself by growing to an enormous size, most probably off the page! If this is the case then continue....
5	First of all you need to get that bitmap out of powerpoint at the best quality, before we reduce the number of pixels in it
6	a) Select the image b) Copy it to the clipboard c) Load up Microsoft Photo Editor (You may have to install it from the original powerpoint or Office CD) d) Click the "Edit" menu and click "Paste" e) Save it as a .PNG (see graphic formats)
7	Load up your favourite graphics software, Photoshop, PaintShop pro etc. Open the bitmap you saved using MS Photo Editor. Select the menu that displays how many pixels the image contains (info, image size etc) You will probably find that it contains lots and lots of pixels. ie. more than 600 (See Reducing the Pixels)
8	Select the menu that will change the image size (re-size, re-sample, image size or similar) And make the number of pixels the correct amount. (See What to Aim for)
9	To make the presentation even small consider changing the bitmaps to 256 colors (see changing the pictures to 256 colors)
10	Save it as a .PNG (see graphic formats)

Scanning:

Because we cannot show all the different scanning software screens. We'll tell you about it.

1	Put your photo/image etc on the scanner and do a preview using your scanning software
2	On most scanning software there is normally an option called resolution or Dots Per Inch/DPI. If you are lucky it will also show you how many PIXELS the image will contain
3	If your scanning software does not show you how many pixels the scan

	will be then you'll have to get the ruler out and do some basic maths
4	Before you scan it you need to adjust the "Resolution" or "DPI". As you adjust it hopefully the number of pixels displayed will also change
5	Another bit of theory. Lets say our original image on the scanner is 5 inches wide. We want to end up with an image about 1000 pixels wide, as we are going to fill the powerpoint screen with our scanned image If we set the scanner to scan at 300 DPI (Think of it as Pixels Per Inch!) we will end up with a bitmap image that is 1500 pixels wide. Too many. (5 x 300 = 1500) (Physical size x DPI = pixels)
6	So set the scanner at 200 DPI. So for every inch we will end up with 200 pixels. (5 x 200 = 1000)
7	Draw around the image you require
8	Scan it We should end up with an image that is 1000 pixels wide. Great for a full screen landscape image. Tip: It's always better to scan the image at the correct pixel size in the first place, as re-sizing the image (especially bigger) will produce bad results
9	Save it as a .PNG (see graphic formats)

Colour / Color

In the beginning there was only black & white. Then came 4 colors. Then there was 16 colors. Then 256 colors. Then 16,000 colors, Then 64,000 colors. Then 16 million colors. Then even more colors than the eye can see.

1 It's the same rules as pixels really. See what your computer is set to, then make your images the same. To see what your computer is set to by using the same method as finding out the resolution. ([Click here if you missed it](#))

Number of colors	Name	Comments
16	4 bit	Don't even go there
256	8 bit	Awful for powerpoint, most old laptops will be set to 256 colors
65536	16 bit or Hi-Color	Probably the optimum setting for powerpoint presentations
16 million	24 bit or True Color	Overkill - Looks great but it sure as hell slows things down

2 So if your computer is set to 16 bit color (the most common setting). Then reduce the number of colors in your images to the same number of colors. As you will not gain any quality advantage by having more colors in your images than the computer or projector can display.

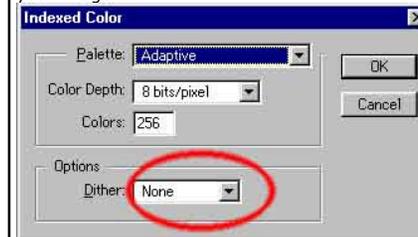
Or you can take it a lot further...
If filesize is crucial to your presentations then read on...

Change the pictures to use 256 colors.

Commonly called "Indexed" or "8 bit" color

Reducing your graphics to use less colors will dramatically reduce the file sizes:
We've had them reduced to 10% of their original size, but typically 40%
And you will probably not notice any difference to the look of the images in powerpoint.
It also speeds everything up, from display images with wipes, to loading and saving

- Using Photoshop (or similar) open your image
- Click on "Image"
- Select "Mode", "Indexed color" and a menu will pop up. Make sure the Palette is set to "Adaptive", this makes Photoshop choose a set of 256 colors to best represent your image, so if your image is predominately red, then it will choose a nice set of red colors based on your image.



(In PaintShop Pro, this is under "Decrease color depth - 256 colors". Make sure the Palette is set to optimised)

- Click "OK" and see what your image looks like. If it looks acceptable then save it as a .PNG ([see graphic formats](#))
- If the original picture contained lots of the same color e.g. a graduated blue, then probably the image now looks awful. Click on the "Edit" menu and choose "Undo"

Repeat from step 2, but this time change the "Dither" option to "Diffusion" and Click "OK"
(In PaintShop Pro, this is called "Error Diffusion"
Chances are your image will now look acceptable. Remember that powerpoint smoothes images out when they are inserted into it, so this will make the image look even better.

Save it as a .PNG ([see graphic formats](#))

Graphic File Formats

There's loads of them. We'll concentrate on the main ones.
BMP.JPG.PNG.GIF

.PNG - Portable Network Graphic

- Our Favourite for powerpoint. The BEST!
- Does not lose any information
- Works with all the different numbers of colors (256, 16 bit, 24 bit, grayscale)
- A Compressed file (smaller filesize, especially 256 color files)
- Widely compatible
- Takes very little time to de-compress in powerpoint

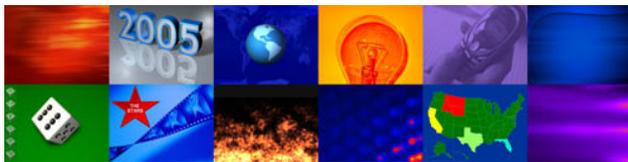
- .JPG** - Joint Photographic Expert Group (Pronounced JAYPEG)
- OK for powerpoint (even better for email and websites!)
- Loses information. But you do have control when you save it how much information is lost
- Only works with 24 bit colors (16 million)
- A highly compressed file (very small files)
- Widely compatible
- Takes longer to de-compress in powerpoint than .PNGs
- Also puts a higher load onto the processor to de-compress

- .BMP** - Windows Bitmap
- OK for powerpoint (even better for windows wallpaper!)
- Does not lose any information
- Works with all the different number of colors
- Can be compressed but not 24 bit colors. Very BIG files
- Widely compatible
- Very fast to load and display in powerpoint

- .GIF** - Graphics Interchange Format
- OK for powerpoint (even better for web pages)
- Loses information as it can only have a maximum of 256 colors
- Only works with 256 colors
- Compressed format
- Widely compatible
- Doesn't take anytime to de-compress as it's not compressed

Note: Although we recommend .PNG files throughout this tutorial, you can of course use any. We use .PNG because....well because....**WE JUST DO - ALRIGHT!**

Buy and Download awesome backgrounds for powerpoint



The following assumptions were made for this tutorial:

- You are using powerpoint 97 or above. For powerpoint 2000 and XP the principle is the same except some of the menus will look slightly different.
- Photoshop 4.0 or PaintShop Pro 4.15 was used
- All your presentations should have the page size set to "on-screen"
- This tutorial is best for "on-screen" presentations and not printed presentations

- The same rules apply if you are projecting your presentations using an LCD Projector.
See what resolution the projector can cope with and use this as a guide.

To download the files used in this tutorial right click the image below, then choose "Save target as" (IE), or "Save Link As" (Netscape).



- The file downloaded is a Zipped file which will need unzipping.
- It contains a good example of this tutorial. Filesize 0.8mb (800k)

filename	size	comments
coffee1.png	233KB	(16m color bitmap) 24 bit. Taken with a digital camera
coffee2.png	100KB	(256 color dithered bitmap) Reduced to 256 colors
graphics.ppt	497KB	(contains both coffee1 & coffee2) So you can compare the quality
readme.txt	1KB	Some important info regarding the files

both coffee graphics files are the same 600 pixels tall.

When powerpoint saves a presentation with just the coffee2.png in the filesize is 263KB

When powerpoint saves a presentation with just the coffee1.png in the filesize is 397KB

That's a third improvement in filesize for no improvement in quality

Have Fun!

Please Note: Although we have made every effort to check the files against viruses at all stages of production. It is always wise to run a virus checker on any software before running it. By Default! cannot accept responsibility for any loss, disruption or damage to your data or computer system which may occur while using either the CD-Rom or downloaded files. It is assumed that by downloading the files you accept these conditions. Otherwise do not use the awesome backgrounds for powerpoint.

We hope you liked this tutorial. As well as making such great tutorials we also design and sell powerpoint backgrounds at <http://www.awesomebackgrounds.com>

You can [order](#) and download, within minutes, individual sets of 10 backgrounds, or if you prefer buy [everything we make](#) on 8 CD-ROMs. See the [new](#) awesome backgrounds for powerpoint





[| Home](#) | [Products](#) | [More Info](#) | [Order](#) | [Contact](#) | [PowerPoint Tips](#) | [Site Map](#) |

The software product "awesome" made by the company "By Default" are not affiliated, connected or associated with Microsoft Corporation. PowerPoint® are either registered trademarks or trademarks of [Microsoft](#) Corporation in the United States and/or other countries.

Send email to presentations@awesomebackgrounds.com with questions or comments about this web site.

Copyright © 1999-2006 "By Default" All Rights Reserved - Last modified: May 24, 2004
