

Re: Do I understand how Word deals with graphics?

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<http://www.tech-archive.net/Archive/Word/microsoft.public.word.drawing.graphics/2006-01/msg00195.html>

- *From:* CyberTaz <onlygeneraltaz1@xxxxxxxxxxxxx>
 - *Date:* Tue, 31 Jan 2006 15:14:36 -0500
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Hi Ed –

Just some further annotation to your annotation;

>> A couple of tidbits to throw in:

>>

>> 1. Word's default resolution for imported pictures is accessible on Tools

>>

>> Options > General : Web options. (For later versions of Word. Prior to > ?2000

>> it was fixed at 96 dpi.)

> I checked mine (Word 2000) – it's actually 120 dpi. But if I copy a graphic

> and paste it into a graphics program, the new graphic is usually 72 or 96

> dpi.

What Jezebel is referring to is the resolution at which Word stores the graphic for print purposes. It is always displayed at 72/96 ppi (not dpi, which is a printer measurement which does not correlate on a 1:1 basis) because that is all the monitors are capable of – 72 ppi on Mac, 96 ppi on Windows. If you copy & paste, you are copying the displayed (low res) image, not the stored image whose res may be higher.

>> 2. The displayed size of an imported picture is the effectively the

>> picture

>> size in pixels divided by Word's display resolution (which is sort of what >> you describe). There is no increase in memory involved.

> Maybe "memory" is the wrong word. I'm talking about when you import a 200k

> graphic andf your document size balloons up by a few megs! The space

> required for the document has now increased.

Actually, 'file size' is what you are referring to, and yes, Word does have a tendency to bloat when graphics are inserted. How much will vary based on numerous factors, such as the points made in #1, above. The more Pixels Per Inch, the larger the image file size.

>> 3. Word is lousy at manipulating graphics. By far the best approach to

>> handling graphics is to prepare them using a graphic editor: make any

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>> display adjustments like contrast and brightness, then set the size and
>> resolution that you want to end up with in your finished document, then
>> save
>> the graphic as a gif or jpg, then import that into Word. Never put a
>> picture
>> into Word by copy-and-paste from another application.
> Actually, that's part of what this is supposed to do – get management to
> realize that we need a separate graphics program. But while those wheels
> slowly turn, at least my coworkers can understand some of what's going on and
> what not to do.

Based on your original post, my impression is that print quality is not as much a concern as file size, so have them follow Jezebel's advice here – she knows whereof she speaks... JPGs for photographic images which have a wide range of tones, GIFs or PNGs for images of mostly solid color areas (as they are limited to 256 colors, JPGs are 'unlimited'). And always use Insert>Picture>From File, not Copy & Paste. To extend on my note on point #2, at any given res (ppi), more inches means more pixels means larger files. If the intended space in the doc will be .75 x .5, supplying an image intended to print as 4" x 6" at the same res is like stuffing the doc at Krispy Kreme.

>>> A Test Director will take a 6 inch wide by 4 inch high
>>> digital photo at 600 dpi, making the image 3600 pixels wide by 2400
>>> pixels high.

Digital Cameras don't set the print dimensions as a part of the image format, they simply capture a certain number of pixels based on the resolution setting used for the shot. The total number of pixels captured determines how large a print can be made without losing detail/quality. Most in-house printing requires no more than 240–300 ppi, commercial output considerably higher (600–2400+ ppi), screen display considerably lower (72–96 ppi).

>>> When imported into Word, which defaults to either 72 or 92 dpi, that
>>> photo (at 72 dpi) is still 3600 by 2400 pixels, but is now 50 inches
>>> wide by 33 inches high!

A per above, the number of pixels remain the same, but the print dimensions aren't influenced in any way.

>>> Word will dutifully increase the memory required by
>>> the document by enough memory space to contain the full-size photo. After
>>> cropping and resizing by the writer, Word has now also saved all the
>>> metadata required to show the photo at the adjusted size.

Cropping & Resizing in Word don't change anything about an image, itself. The first essentially 'masks' the peripheral part of the image which the user doesn't want to display or print, but doesn't _remove_ any of the image content – you can stretch it back again with the Cropping Tool to display

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the whole image any time you want. Likewise, 'resizing' would be more accurately termed 'scaling' as it also simply determines what amount of display space the image is allowed to occupy in the doc. It doesn't change the size of the image, either.

Regards |:>)

- **Follow-Ups:**

- ◆ **[Re: Do I understand how Word deals with graphics?](#)**
◇ From: Ed

- **References:**

- ◆ **[Do I understand how Word deals with graphics?](#)**
◇ From: Ed
- ◆ **[Re: Do I understand how Word deals with graphics?](#)**
◇ From: Jezebel
- ◆ **[Re: Do I understand how Word deals with graphics?](#)**
◇ From: Ed

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