

Year 10 - ICT

Task 1

Background information

Whilst you may sometimes want to convert a file from 72dpi to 300dpi to create a version for printing, you may also sometimes need to do the reverse, and generate a low-resolution version of a graphics file for use on the internet.

Many digital cameras will now happily capture images at more than 10 Megapixels, storing them as RAW, TIFF or JPG format. An original high quality image would be unsuitable for web use – even with high speed broadband connections it would take time to download or show on screen, the screen cannot physically show the resolution the image contains, and file size would be considerable.

A practical example where a low-resolution file might be used would be selling an item on an auction website. The 72dpi image would be suitable to show the item as a thumbnail or small image when users are scrolling through many listings, and a link could be provided to a higher resolution, larger image if the user wants to see it.

Task 1a

Download a high-resolution image copyright free image from the internet and open it in a suitable graphics software (<https://www.gimp.org/>)

(You can use search.creativecommons.org to find copyright free images. You can also use <https://pixlr.com/> for online image editing.)

If you look at the image properties you will see that it is saved at 300dpi, and has a file size of 7,396kb, (or over 7Mb).

Alter the graphic to make it 72dpi, and save it as a jpg.

Record the new file size here _____.

Task 1b

Now repeat this process of resizing and resaving for some more images and try to achieve a final file which is smaller than 300kb.

File size can be altered by more than just a change to the image resolution. When saving a file as a jpg you can also alter the amount by which the file is compressed. Increasing the file compression will reduce the final file size. Try changing the file compression size on some of your jpg files as you save them and see what impact it has on the file size.

Complete the tables on the following page as you work.

Properties	Original file	Repurposed file
File name		
File type / format		
File size		
Physical dimensions		
dpi		
Screenshot of image properties or image size dialogue box		

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