

# Photo software in philately

## Introduction

1. Software ranges from automated photo-retouch apps to complex and versatile programs such as Photoshop, which will do a great deal once you master them.
2. Photoshop is pricey, but free programs generally won't do as much (GIMP is an exception). But there are decent programs which don't cost a lot (eg Affinity Photo 2 at under £50).
3. Using photo software you can:
  1. Change brightness, colour balance and sharpen your image
  2. Measure distances accurately
  3. Measure diameters of partial cancels
  4. Draw by tracing over images – useful for cancels.
  5. Measure colours

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## Measure small distances accurately

It is possible to measure small distances accurately to within 0.3mm using Photoshop or GIMP

1. Scan the material in question at 400 dpi and open in your software
2. Either
  1. use the line drawing tool in conjunction with the Info window to draw a 2px line between the points in question and, having set units to mm, read off the line length as the L value in the Info window **OR** (more accurate)
  2. rotate your image until a line between your two points would be vertical (or horizontal), then use the select tool to draw a rectangle with side joining the two points. Read the distance as the Y (or X) co-ordinate from the Info window

*Hands on demonstration using Niger Coast SG65 examples showing a genuine stamp in which the frame height is slightly different (by about 0.4mm) from a forged example based on a later-printed stamp.*

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## Measure the diameter of partial cancels

*'I can see only half the cancel but I want to know its diameter'*. It is difficult and inaccurate to estimate by eye, but using Harris rings it's easy

1. Scan the cancel in question at 400 dpi and open in your software
2. Download a copy of the Harris rings .png file from <https://www.wasc.org.uk/Measuring%20cancel%20diameters.html> , open it and copy it as a layer above the cancel
3. Move the Rings transparency layer around until you see a match between the arc of the cancel edge and the curvature of the circles on the transparency. The result is reliable to within 0.3mm.

*Hands-on demonstration using Southern Nigeria TPO cancels as example*

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## Make drawings of cancels

A more complex task using layers and several tools but capable, with a little patience, of producing accurate drawings.

1. Scan the material in question at 400 dpi and open in your software. Enlarge your view (ctr+spacebar)
2. Rotate until the cancel is upright. Create three new transparent layers (1, 2, 3) above the cancel.
3. Measure the cancel diameter (see previous slide). Go to layer 2 and use the select / ellipse tool to outline a circle of that diameter. Then use the 'stroke' tool at a suitable width (say 10px) to draw the circle
4. Go to layer 3, and using the brush tool set to (say 6px) to draw over each letter and number of the cancel showing through the layer. Curved letters ( O for example) will need tidying up using the eraser tool.
5. Go to layer 1 and fill with white. Voilà! Save with layers intact then merge layers and save again as .jpg

*Hands-on demonstration using Nigeria stamp on piece with a clear type J2 cancellation*

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## Measuring colour

Colour is a complex subject, and assigning colour to a stamp or paper can be really tricky. We are advised to 'examine in good north-facing natural light', and compare with, for example, the 200 swatches in the Gibbons Stamp Colour Key. It requires a good eye, good light and is still pretty subjective.

Using IT can help, but there are plenty of pitfalls, not least because your scanner and computer screen may not show the stamp colour exactly as you would see it with the unaided eye.

Ray Harris wrote an article in the London Philatelist describing a method he devised which overcame the vagaries of scanner and screen to give a mathematically sound estimate of the correct colour value.

Using his method requires a sophisticated spreadsheet of his devising, then time spent in calibration, so will not be demonstrated here, but the method is described, and the spreadsheet available on the WASC website at <https://www.wasc.org.uk/ExtendingColourKey.html>