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An introduction to the Foster Freeman Video Spectral Comparator: VSC8000HS

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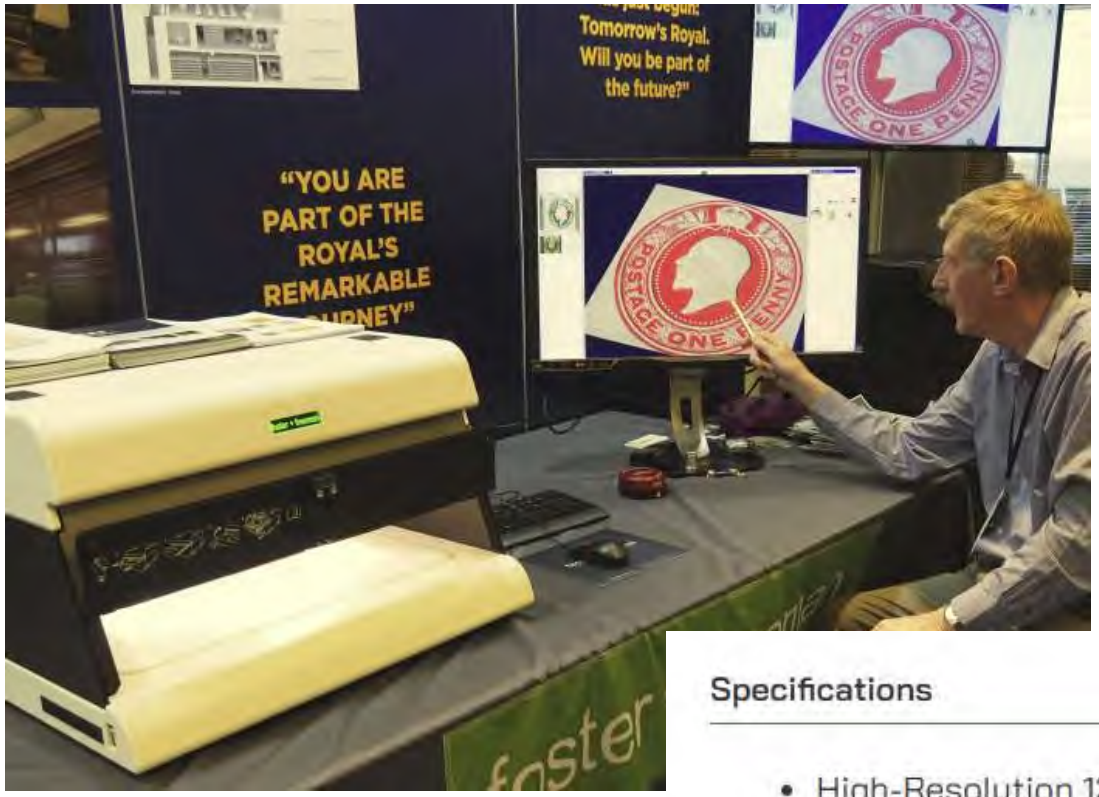
A Zoom Presentation to the NZ GB Philatelic Society,
29th April 2023



Forensic philately at Stockholmia 2019

Specifications

- High-Resolution 12MP camera
- Super Resolution Imaging (**SRI**) up to 127MP
- 250x magnification
- 15 Modes of advanced UV-Vis-IR imaging
- 3D document imaging
- Integrated microspectrometer
- Motorized XY document positioning stage
- Calibration and self-test diagnostic tools

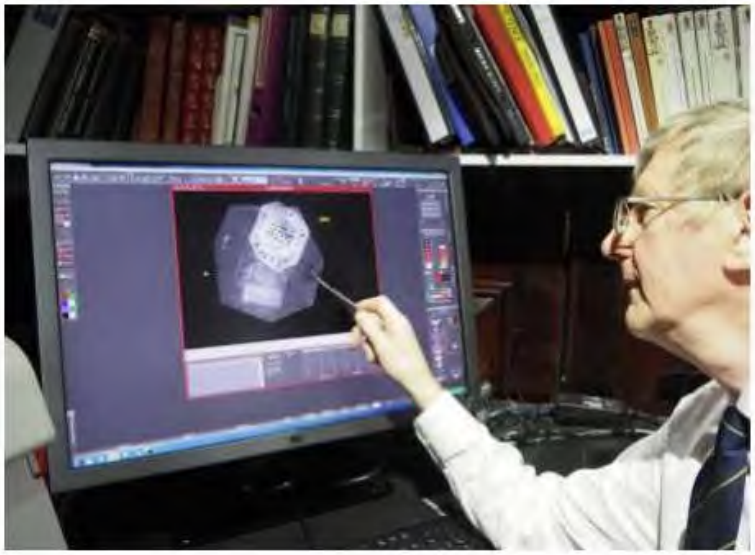
Outline of the Presentation:

- Expertising challenges & the use of forensic techniques
- The VSC8000HS
- A couple of NZ examples
- Conclusions
- Questions

Operations of the Expert Committee : The main challenges to the expertiser

- Cleaned used stamps masquerading as unused
- Coloured and distinctive postmarks (for example the Great Britain Maltese Cross)
- Stamps with margins or corners added
- Stamps on cover that did not originate on the cover
- Creation of rare separations – roulette / pin perforations

Expertising in Action



26 November 2019

Expert Committee ~ Facilities

- Good eyes, extensive knowledge and reference collections .
- Ultra violet lamps with short (254nm) & long wave (315nm)
- Video Spectral Comparator (VSC8000HS)
    - Examination of digital images under high magnification
    - Use of different light sources such as side-light or back-light
    - Ability to overlay a live image on a fixed image and to allow a strobe between the two
    - Wide range of wavelengths from ultra-violet to infra-red to measure ink absorption against a white reference
    - Colour tagging to emphasise colour differences not obvious to the human eye
    - Ability to repeat tests under the same conditions to build a picture of a range of reference points
    - Storage of test results that can be used again for other patients
- A Leica electronic microscope gives greater resolution e.g. for paper abnormalities

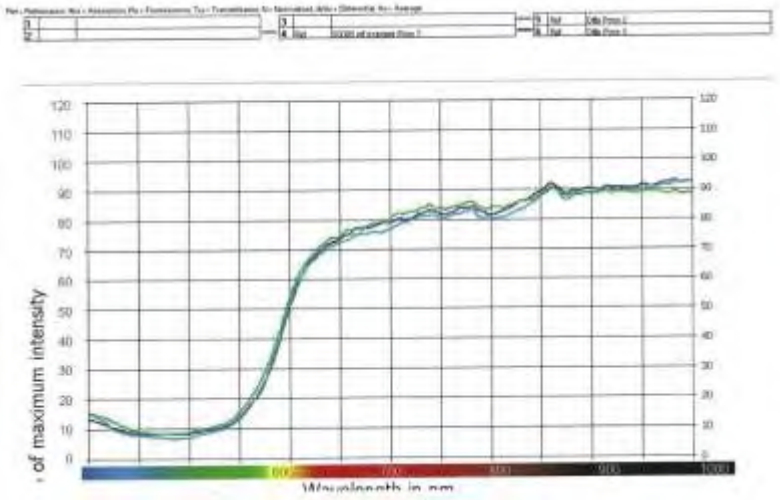
Can you just …….. A couple of NZ examples on the use of the VSC at the Royal Philatelic Society, London

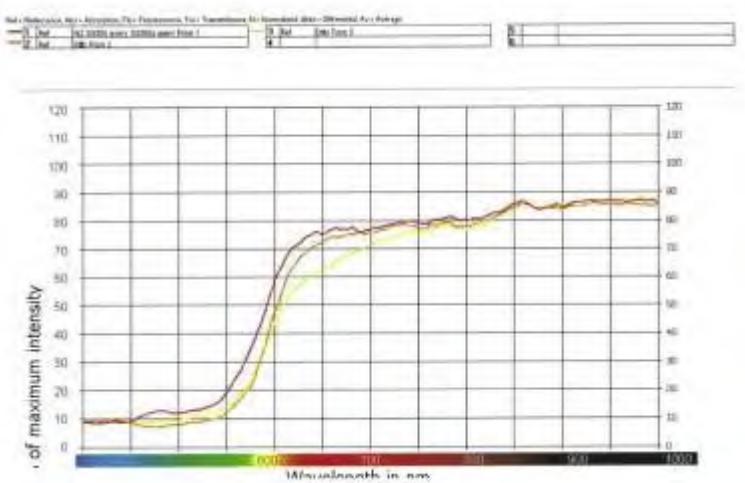
NZ SG385 or SG385a (or SG381~ orange brown ?)
Orange red or deep orange brown?

SG385 ? Magnifcation x 32

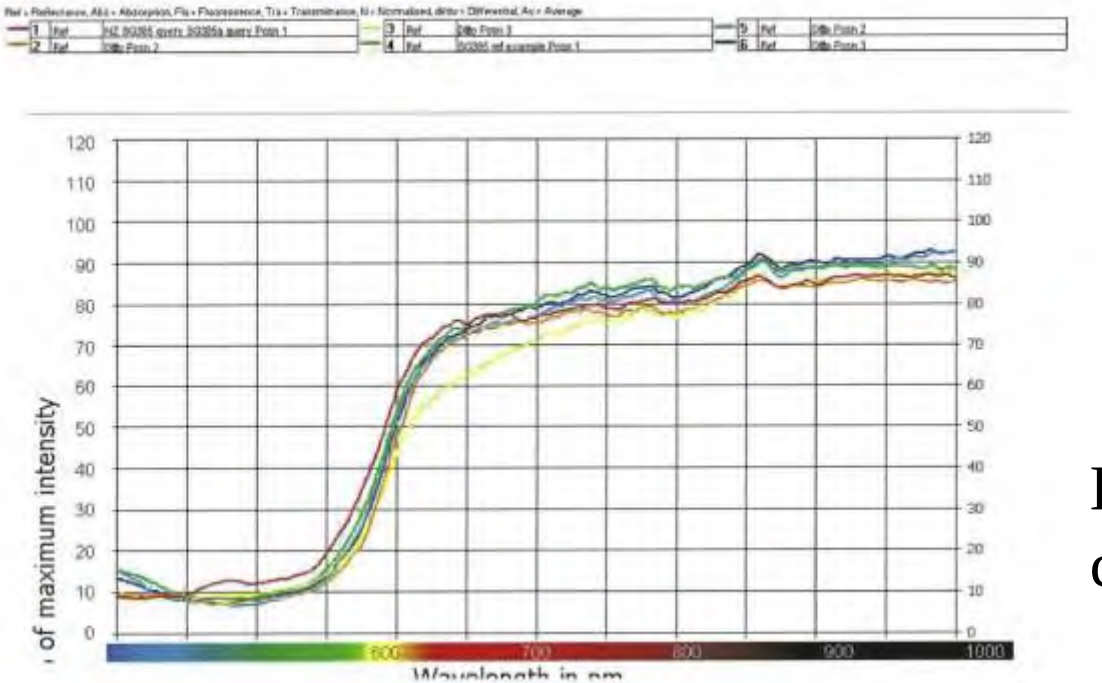

VSC8000HS Thu 20/04/2023 13:27:04
1: CAMERA (LIVE)
1S.
AND REV
ONE SH
, Default, VSC8000HS, Serial Number 43529
13:27:04 20/04/2023 Lights=Flood (VIS), Longpass=VIS, Mag=31.89, White Balance=139(R) 238(B)
Auto Exposure (Integration=77ms, Iris=50%), Brightness=50, Gamma=Off, Imaged width=11.6 mm

SG385a ?



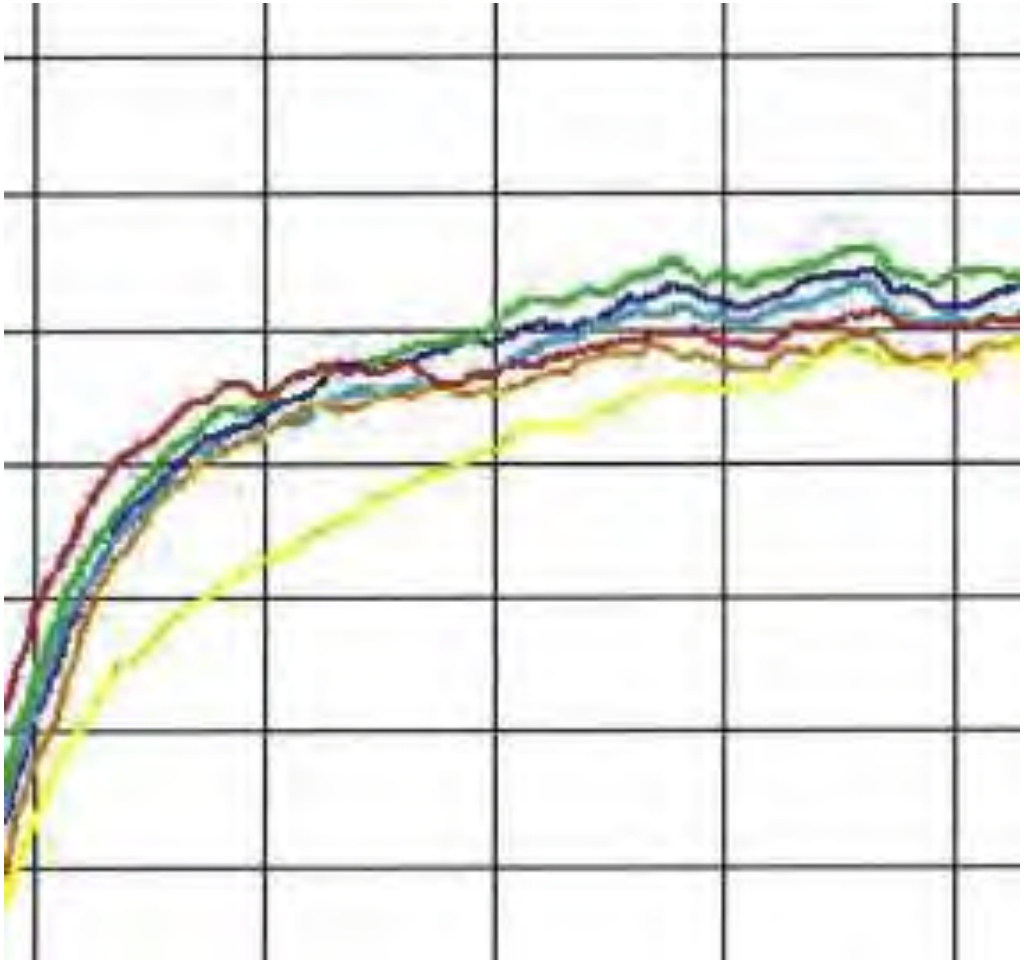


SG385 ?



SG385a ?

Data combined



Combining data for the ‘red’ area of the spectrum c. 600 – 800nm

1888 RPS NZ

THE NEW ZEALAND STAMP COLLECTOR

The Journal of The Royal Philatelic Society of New Zealand

In this issue:

Vol 103 (1) March 2023

The New Zealand Stamp Collector

Sideface Corner

Active Sideface collectors continue to make new discoveries

by Robin Gwynn RDP FRPSL FRPSNZ

In recent months members of our Society have made significant findings amongst both the Print and Second Sidefaces.

For the earlier issue, a truly notable discovery was made in the unexpected location of Stockholm, in an accumulation purchased by Klem Ryan in 2021. His later examination suggested that he had found a copy of the one penny Blue with perforation 'nearly 12' all round, SG 158, CP C1e, and this has subsequently been confirmed by the RPSNZ Expert Committee.

This is an important discovery because previously there was only one known copy. As Ken McNaught pointed out nearly forty years ago in the *New Zealand Stamp Collector* for September 1984, collectors can sometimes be faced by problematic examples in their search to distinguish between fine perforations 'nearly 12' stamps and those with comb perforator '12 x 11½'. Measurement alone does not suffice.

The different characteristics produced by the comb and line perforating machines are critical in making a definitive judgement. Both the copies of the 1d that have now been certified provide unchallengeable evidence to show they were perforated by the line machine. In both cases the opposite perforation holes do not align, as would be the case with the comb machine. Both show fourteen clear perforation holes between the horizontal rows of perforations.

Enlarged 116%

Further supporting evidence in the case of Dr Ryan's new find has its earliest date of use in Auckland, 3 April 1878. Tony Thackery's *New Zealand First Day and Early Use Covers and Stamps 1855-2003* (RPSNZ, 2004, p.53) records 2d stamps with the line perforation 'nearly 12' used in the first quarter of 1878. The earliest use of any comb perforation stamp in my collection of First Sidefaces was dated 27 April, and the earliest covers was dated 1 May - both cases involved the 2d stamp. It follows that such an early date of use in the first week of April 1878 would be either impossible or improbably early for comb perf 12 x 11½.

Turning to the Second Sidefaces, in the September 2021 number of this journal John Stimson and I tabulated 26 "double errors" on Advertisement stamps – stamps which had both watermark and advertisement inverted. Thanks to further work by John, and reports from Stephen Jones and Robert Lyon, four more 1d stamps can be added to the table:

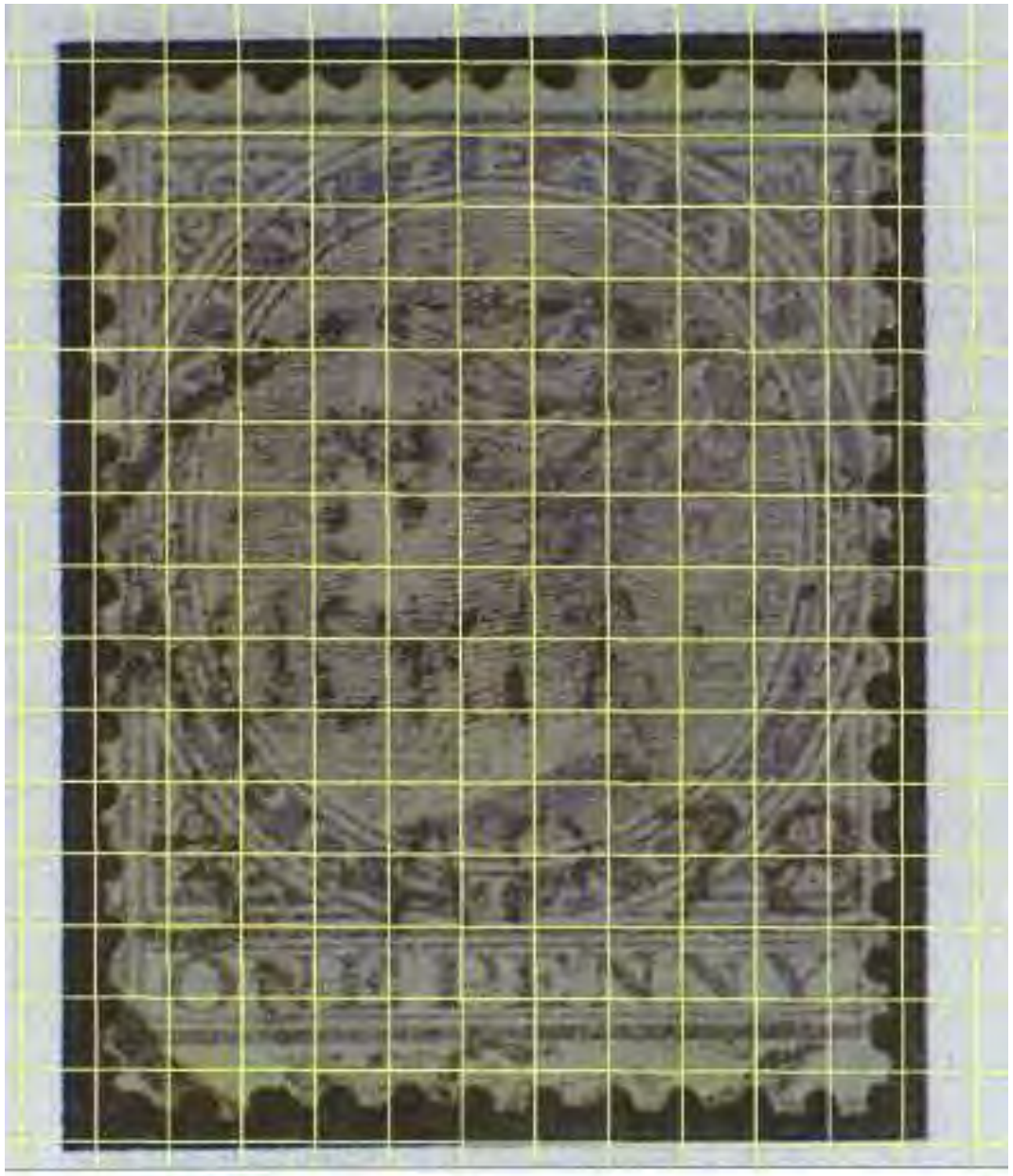
1d second setting in green - 30 SP 93, Bast Tiers
1d second setting in mauve - 30 SP (PO not clear)
1d second setting in mauve – two copies both used at Invercargill - one 9 SP 93, the other used on an unknown date in August '93.

John remarks that these new reports could easily have come from the same sheets as stamps we already knew about.

Robin Gwynn advises that in 2021, Klem Ryan discovered a one penny lilac with perforation ‘nearly 12’ all round, SG158, CP C1e, that was confirmed by the RPSNZ Expert Committee.

Robin comments on the use of comb & line perforating machines. The latter being deemed the machine used, as the perforations do not align.

Image was enlarged @ 150%



Application of a grill to show the misalignment

Conclusions

- The VSC8000HS can aid the Expert Committee in providing scientific information to aid the conclusion of an opinion.
- The VSC8000 should not be used to determine shades
- The VSC8000HS is able to show differences in perforations

Submitting your Material

By post to: Lucy Caulfield, Expert Committee, RPSL Limited, 15 Abchurch Lane, London EC4N 7BW.

E – mail : experts@rpsl.limited

Web site: www.rpsl.limited

Members of the RPSL and PTS can receive discounted certificates.

QUESTIONS?