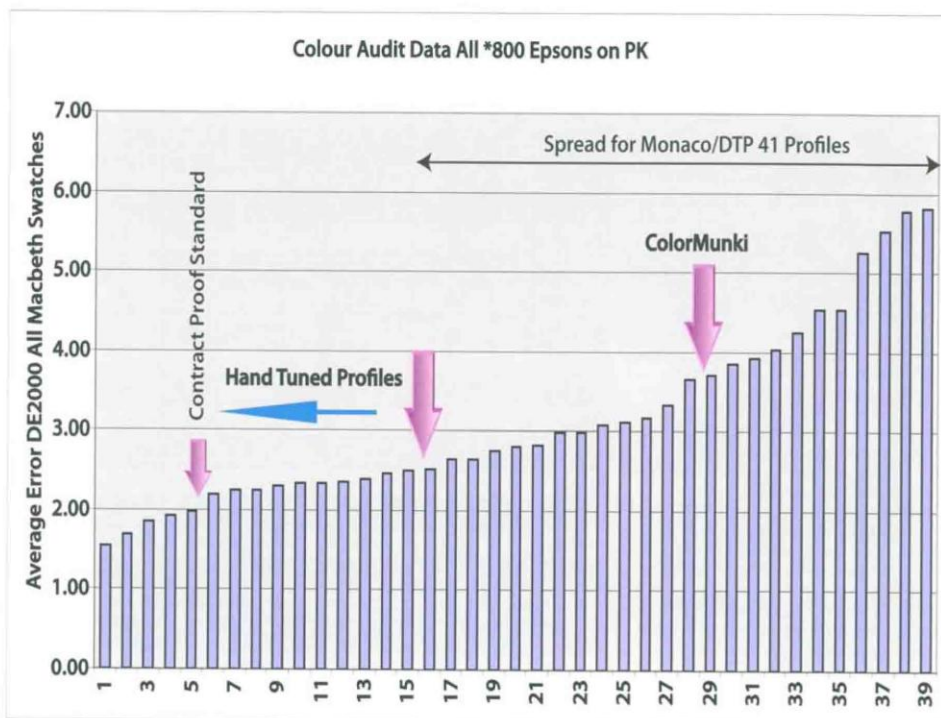


PRESS CUTTINGS

Publication: Imagemaker
Subject: Colour Munki
Date: June 2008

REVIEW:  ColorMunki

ColorMunki



Screen Calibration

The ColorMunki seemed to make a reasonable job of calibrating our second (LCD) screen. Although there is no radio button for calibrating a CRT screen, we went ahead and used the LCD setting to create a reasonable profile. We were unable to audit the result, but the 'before' and 'after' views showed that the profile was actually working (they don't always!). The profile was also correctly logged as the default for both the Windows system and Adobe Photoshop. Subjectively, we would describe the match between screen and print as very good.

Conclusion

This review is unfinished work, although we can confirm that ColorMunki does a good job on its core task of bringing your printer and screen into line, and with a minimum of effort. We have to make the assumption that the software issues will be sorted out. Our experience with it is certainly better than that endured by some of the bloggers on the web, who failed to make even half-decent prints - we have no way of telling whether this was incompetence or ill-fortune.

As far as we can see, the missing bits (ie the ones we could not get to work) are very similar to Adobe Kuler, which is free-to-use on the web, so you might not even miss them. The Digital Pouch, we understand, enables you to send a group of files and the 'envelope' to the files warns the downstream user if they are not working on a calibrated system. As this merely detects the presence of monitor profiles, and not how good they are, it is of dubious benefit to the user.

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performs compared with the in-built Epson profiles, installed by the driver. This is certain to be mismatched as Kirkland is unlike any Epson product (that is why we chose it). We can compare the ColorMunki profile with one made by Monaco Profiler (out of the industry-standard DTP41 spectrophotometer), a combination from which we have many hundreds of audits. Finally we can compare the result against a hand-tuned profile made with Monaco Profiler Editor and the DTP 41, normally used to tune a printer to contract proofing standards.

ColorMunki performed very well, turning in an average error of 3.69ΔE 2000 which is just above the average for all Epson *800 series printers (the current average for which is 3.13 with a range from 1.56 to 5.80). This summary data does include hand-tuned profiles. That ability to tune profiles is only provided on the higher-end profiling software and is an 'experts only' procedure anyway.

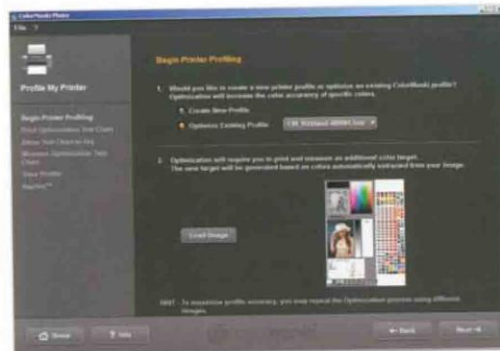
The qualitative look of the audit print was excellent. The blacks were separated down to 10RGB points (better than average), the whites were separated up to 250RGB points (average but good!). The Granger Chart was smooth over almost all the gamut with just a slight hint of banding in the deep greens. The dominant error was in the lightness channel for both the neutrals and the flesh tones. The flesh tone saturation was down by about 4% on optimum, with a rotation towards yellow in the high-saturation skin tones and towards magenta in the low-saturation skin tones. This is an effect of the profile mapping the colours to the base tone of the paper (as it should do). It is a result of the use of OBAs in the Kirkland product. The mid-saturation skin tones were almost perfect in both hue and saturation, only lacking in precision because they were 6% too dark.

Overall, from the limited number of patches, the results were remarkably good. ColorMunki uses 50 patches initially and then, after measurement, it calculates the second 50 patches, taking account of what it has learned from the first sheet. It even asks you to wait 10 minutes before measuring and starts a countdown for you. Measuring was really easy as the target patches are quite big and the instructions are very clear. This 2x50 iterative process is claimed to make the 100 patches about four times more useful. Our standard for audit profile-making is 729 patches, the real heroes sometime use 5,000! Using 400 patches-equivalent is therefore about right for this class of product.

The software has limited abilities to refine a profile once it has been created. This feature was not working and so we cannot comment on it.

ERROR BREAKDOWN BY MACBETH SWATCH COLOUR						
Colour	ColorMunki		Monaco/DTP41		Epson PGPP	
	Lab ΔE	ΔE 2000	Lab ΔE	ΔE 2000	Lab ΔE	ΔE 2000
dark skin	2.1	2.00	4.6	3.80	5.5	4.69
light skin	5.2	4.79	5.5	4.09	7.7	6.29
blue sky	4.7	3.31	5.7	4.69	8.1	6.71
foliage	5.9	2.97	6.2	4.07	10.1	5.95
blue flower	6.5	4.22	6.9	6.46	9.5	8.97
bluish green	7.0	3.99	6.4	4.29	10.1	7.20
orange	4.8	5.20	7.7	4.90	6.8	4.72
purplish blue	7.0	2.24	8.2	6.34	15.2	11.28
moderate red	4.9	4.82	7.2	5.29	7.4	5.54
purple	2.5	0.95	5.7	4.16	4.1	2.31
yellow green	9.2	4.57	12.0	4.93	15.5	5.92
orange yellow	5.8	4.81	7.4	3.23	8.6	4.14
blue	11.6	1.51	11.6	7.15	21.6	13.92
green	9.8	3.65	11.8	4.97	11.4	6.29
red	6.3	4.87	6.8	3.98	7.7	3.87
yellow	5.8	4.37	10.6	4.99	17.7	6.01
magenta	8.1	5.12	6.8	4.72	8.5	4.80
cyan	3.0	2.24	7.1	4.64	7.6	6.10
white	8.2	6.03	9.1	6.51	9.7	6.96
neutral 8	6.3	4.98	4.6	3.46	6.3	4.61
neutral 6.5	4.9	4.25	3.9	3.39	6.1	5.18
neutral 5	3.7	4.05	3.2	3.43	4.8	5.05
neutral 3.5	2.5	2.37	4.0	3.41	4.9	4.78
black	1.3	1.33	2.6	2.13	3.8	3.07
Mean	5.70	3.69	6.91	4.54	9.11	6.02
Std Deviation	2.53	1.41	2.62	1.20	4.43	2.49
Biggest	11.60	6.03	11.96	7.15	21.57	13.92
Smallest	1.34	0.95	2.63	2.13	3.77	2.31

ERROR ANALYSIS Kirkland Gloss				
Colours	Error Type	ColorMunki	Monaco/DTP41	Epson PGPP
MACBETH	Lab ΔE	5.7	6.9	9.1
	ΔE 2000	3.7	4.5	6.0
GREYS	Lab ΔE	4.8	4.6	5.0
	ΔE 2000	3.8	3.7	4.0
FLESH TONES	Lab ΔE	4.8	5.0	6.6
	ΔE 2000	4.2	4.5	5.8
EARTH TONES	Lab ΔE	6.5	7.8	8.0
	ΔE 2000	3.7	4.1	4.5



PRESS CUTTINGS

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Subject: Colour Munki

Date: June 2008

REVIEW: X-Rite ColorMunki

ColorMunki



Having initially heard good things about this device we were looking forward to giving it a full test. The basics were covered in the last issue so it is sufficient to say, by way of introduction, that the ColorMunki provides an all-round calibration process from image to output. It does not include either camera or scanner calibration, but it does include spot measurement for surfaces, textiles, swatch books and the like. At the time of writing there were issues with the software and so our enthusiasm for the 'system' is tempered by the fact that we were quite unable to get all of it going. As we delved into the various web blogs, some rather rude things were being said, so we can at least set the record straight on certain aspects.

Installation

For reason beyond our imagination, X-Rite have seen fit to provide the software CD with just a 'stub application' that toddles off to the web and downloads the real application, which runs to 277MB. While this allows the user access to the latest versions of the software, they were only marginal improvements on the earlier versions, and all that this tactic does is tic off the punters – are you listening X-Rite? Do not do this, finish the software, test it, validate it and then give us a CD with a working version!

It is hardly worth relating all the issues that we had with the installation, as the product will have to be sorted or it will simply have to be withdrawn. Setting up was like wading through treacle only slightly less tasty. In order to get access to the remainder of the program (the bit from Pantone that they keep bragging about) we had to register. Now apart from filling out our life history, the returning emails said that we were registered, while the software kept saying that we were not registered, but it would not then let us register, a complete Catch 22! After an overnight rest and reboot the software partly kicked into life and at least gave us access to the Help files. The fact that some of the Help file ASCII characters were gobbledegook did not instill confidence. Neither did the program crash gracefully; each time we had to do a hard reboot before we could get started again. After consulting the helpful people at Colour Confidence we uninstalled the entire application, waited for an upgraded software version (1.0.2 for the record). Even the un-installation was not graceful and we had to go looking around to annihilate some remnants of the original version. The new one was better in that more lights flashed on the spectro itself, the Digital Pouch also worked, but the PhotoColor Picker winked at us on the opening screen but did nothing else. At this stage we retired hurt and concentrated on the bits that were working.

Monitor and Printer Profiling

Despite all the frustrations listed above, we actually got to make some profiles which is, in fact, the key function of the software. The system was smart enough to know that we had two monitors attached. No mention is made of CRT profiling only LCD or projectors. Once profiled we attempted to use Monaco Profiler, another X-Rite product to audit the result of the screen profile. It



was unable to do this as the correct 'profile tags' were not present. We were offered the option of making the profiles the defaults for Adobe Creative Suite and/or QuarkXPress. We chose not to, we had had quite enough trouble for one day!

Printer Profiling

We built a profile on an Epson 4800, printing to Costco's Kirkland Gloss (deliberately chosen as a non-Epson product). The profile was then used to print, then audit the quality of the output. We were unable to work within our normal D50 regime as only D65 is offered. This is probably not an issue for most users other than pre-proofing professionals and ColorMunki is not intended as a proofing-quality tool. Following, as it did upon a catalogue of woes, the resulting print was gratifyingly good. There are a number of comparisons that you can make after colour auditing an output result. You can compare how the profile

ABOVE: The ColorMunki is also available in white.

