G7 for every print device?

Martin Habekost, Ryerson University
Vanessa Blum, Ryerson University
Overview

- Introduction
- Equipment Used
- Results
- Conclusion
Introduction

- This project was carried out to take a snapshot of the compliance of inkjet and toner-based print devices representing the following markets:
  - Consumer
  - Home office/small office
  - Professional use

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Introduction


- They used the gray finder target for their research, since they didn’t have the Curve software.

- The RGB input values were modified to achieve the desired aim points.
Equipment Used

Print Devices:
- Canon MX522
- HP OfficejetPro 8600
- Epson 3880
- Xerox Phaser 7800

Software & Hardware:
- i1Profiler
- X-Rite i1iSis
- Curve3
- InDesign CS6
- Apple MacBook Pro with OSX 10.10.2 and 10.9.4

Materials:
- Husky offset, 20lb, 75g/m²
- Epson Presentation Paper Matte, 27lb, 102g/m²
Test Target – P2P25X
Test Target – IT8.7/4 & iSis default RGB
Print parameters for the Canon MX 522
Print parameters for the OfficejetPro 8600

Printer: Officejet Pro 8600 [C40679]
Presets: Default Settings
Copies: 1
Two-Sided

Pages: All
From: 1 to: 1

Color Matching

ColorSync
Vendor Matching

Profile: HP Officejet Pro 8600 Glossy Brochure
Select a custom profile that matches your printer model and paper/media type.
Print parameters for the Epson 3880
Print parameters for the Xerox Phaser 7880

- **Printer:** Phaser 7800GX
- **Presets:** Default Settings
- **Color Matching:**
  - ColorSync In printer
- **Profile:** Automatic

[Image of a printer settings screen showing the above parameters]
Results
Results for the Canon MX522

Results from the standard unchanged print dialogue for color settings
Results for the Canon MX 522

- Over 25 different settings for color matching were tried
- Settings through the print dialogue from InDesign, leaving the printer driver settings alone
- No changes to the color settings in InDesign, changes done at the printer driver level
Results for the Canon MX 522

- On plain paper the best results were achieved with an intensity setting of 20
- Notice the crossover at 55%
Results for the Canon MX 522

Results on plain paper with intensity set to 20.
Results for the Canon MX 522

- After experimenting with the various print setting on plain paper, just a few settings were tested with the available presentation paper.
- The results on presentation paper gave a better results in regards to gray balance.
- The paper type was changed in the printer driver and the brightness setting in the color dialogue was set to dark.
Results for the Canon MX 522

Based on the previous test these were the chosen settings for testing on presentation paper:

- Standard settings, paper type: presentation paper
- Standard settings, paper type: presentation paper, intensity 20
- Standard settings, paper type: presentation paper, contrast 30
- Standard settings, paper type: presentation paper, brightness: dark
Results for the Canon MX 522

Results on presentation paper, brightness set to dark
The first print was using the standard settings without any changes being done in the printer driver.

The following results are from prints done on plain paper.
Results for the OfficejetPro 8600

Results for standard print settings (no changes)
Results for the OfficejetPro 8600

Results with “Preserve RGB numbers” from the color management options in InDesign

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Results for the OfficejetPro 8600

- Prints on the presentation paper with the correct paper selection in the printer driver did not result in any improvement in regards to the obtainable gray balance.
Results for the Epson 3880

- The first prints were done on plain paper with no changes done to the default settings of the printer driver.
Results for the Epson 3880

Plain paper

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Results for the Epson 3880

Presentation paper
Results for the Phaser 7800

Plain paper

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Results for the Phaser 7800

- Results on presentation paper did not differ much from the print results on plain paper.
- Without the use of color management the printer driver for the Phaser 7800 offers a slew of options to influence the color output in the “Xerox features, color options” settings.
Phaser color change menus
Phaser color change menus
Phaser color change menus

![Phaser color change menus](image-url)
Phaser color change menus

- All these options were not explored in this project
- We wanted to rely solely on some standard presets in the printer driver or any option the color management dialogue in InDesign offers.
Conclusions and outlook

- Why should the consumer care about this?
- Consumers should be given the option to adjust their printers for a more gray balance print result
- Could a gray card finder be developed?
- Consumer will print out a test chart from the printer driver and do an adjustment like it can be done for a nozzle check/nozzle alignment test chart.
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Contact information

**Martin Habekost**
- Ryerson University
- 350 Victoria Street
- Toronto, ON, M5B 2K3
- [mhabekos@ryerson.ca](mailto:mhabekos@ryerson.ca)

**Vanessa Blum**
- Ryerson University
- 350 Victoria Street
- Toronto, ON, M5B 2K3
- [vanessa.blum@ryerson.ca](mailto:vanessa.blum@ryerson.ca)