Colour of Printing

“What would I do if I was you”

Who am I?

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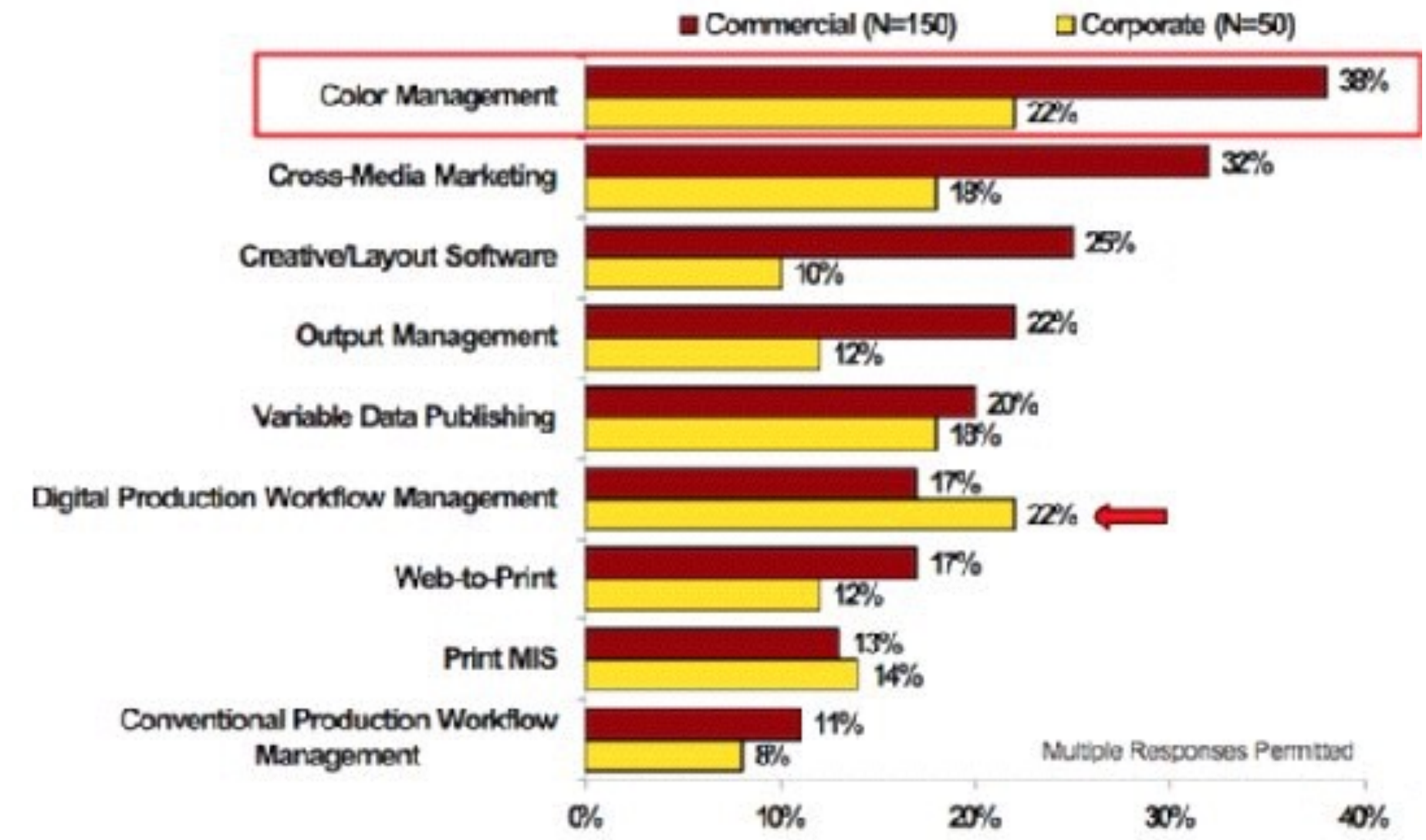
Top Purchasing Intentions



Source: *U.S. Production Software Investment Outlook*; InfoTrends 2014

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Where do you start?

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Data Collection

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Press-side Scanning Systems

X-Rite: Intellitrax

Techkon: SpectroDrive

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Press side Scanning Systems

GREATER Cost Savings

45 min	Average makeready minutes per job
6 jobs	Jobs per day (all shifts) per press
800	Sheets used per make-ready
$120	Value of 1000 sheets of paper
400	Hourly press rate
250	Working days per year
30%	Savings of make-ready time
50%	Savings of make-ready materials
$207,000	**Annual Savings**

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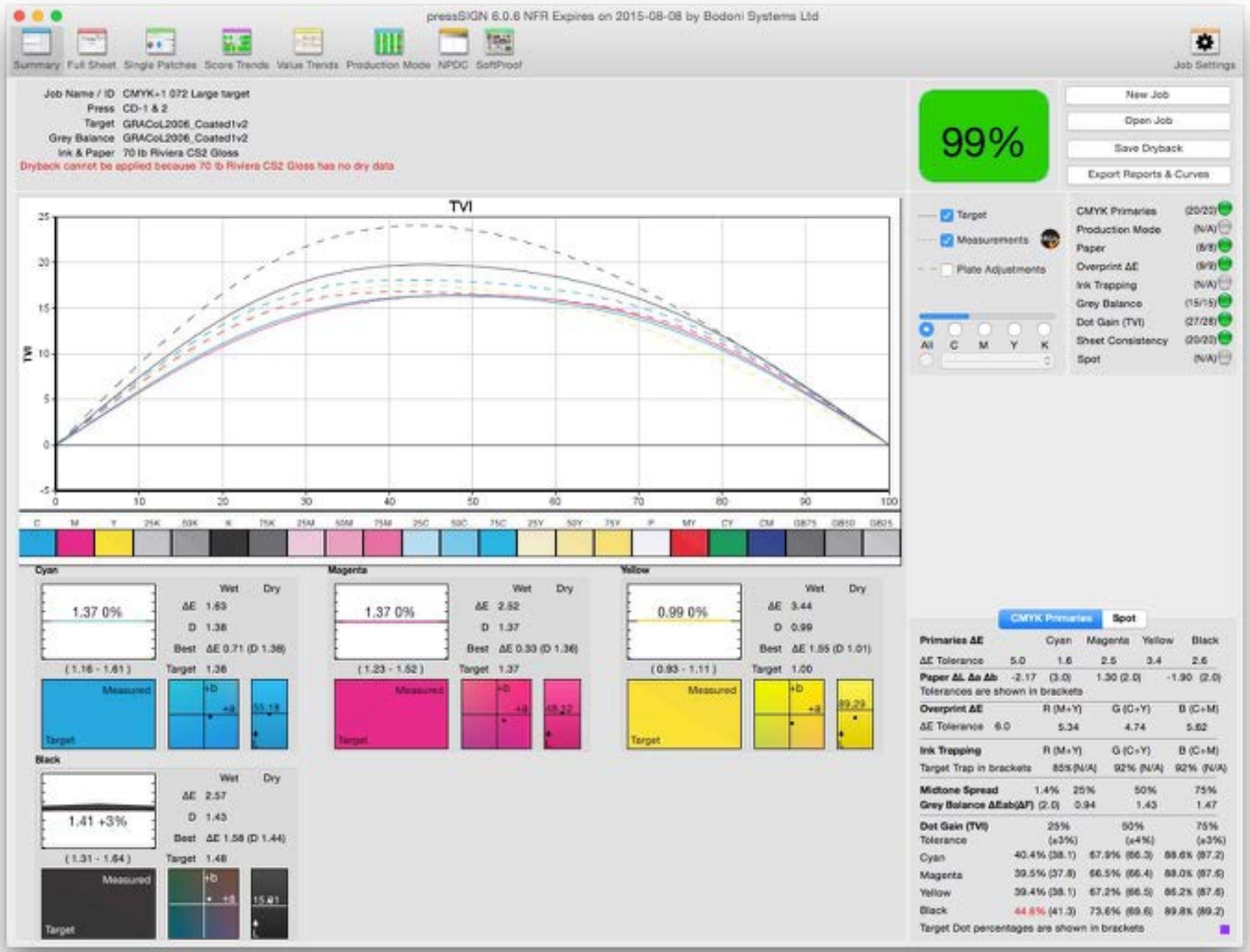
Collecting Data: Software



pressSIGN 6

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Collecting Data: Software

Standard vs Specification

- GRACoL, SWOP3 and SWOP5 are detailed **Specifications** based on the G7 calibration method.

- ISO 12647-2 is a **Standard** and more popular in Europe.

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What is G7?

- G7 is a **Method** of calibrating a printing process creating a common base of grey balance.

- “G” stands for Grey Values.
- “7” stands for the 7 core colours: C, M, Y, K, R, G & B

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What is G7?

The grey balance and neutral tone scales defined within the G7 Specification have been used as the basis for developing standardized characterization datasets including TR003 and TR005 (SWOP), TR006 (GRACoL) and TR007 (FIRST/Flexo). These and any other printing specifications that are based on G7 exhibit a ‘shared appearance’ that makes the exchange of image files and proofs between different imaging processes easier and more predictable.

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G7's Methodology

Photography and scanning have been using **grey balance** to ensure the images colour integrity for years. The same holds true for printing. When an image is grey balanced all the the colours fall in line.

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The Importance of Printing Neutral / Gray Balanced

Printed to Neutral
"Balanced"

Yellow Cast

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Like and Don't

- The issue I have with the G7 Certification is you can take all day or 10,000 sheets to get one sheet required to send in for certification.
- Wish that the logo was dated for that year
- What I do like is that it is a defined set of steps to achieve a goal.
- Defined steps will ensure more consistency.

Colour Servers

- Why convert images?
  - There seems to be a fear to convert a clients images.
- Harmonizing images that are set up with different colour spaces.
- Time for a story of the car catalog…

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Original CMYK Image

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Original No Conversion

Lots of CMY on the monochromatic areas

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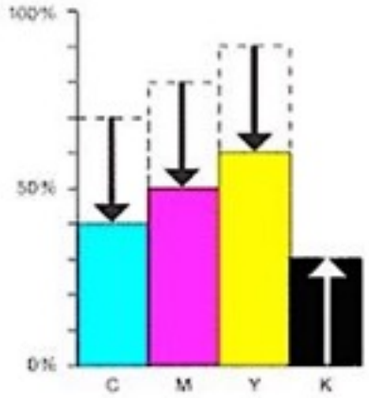
After With Conversion



Black is significantly Stronger

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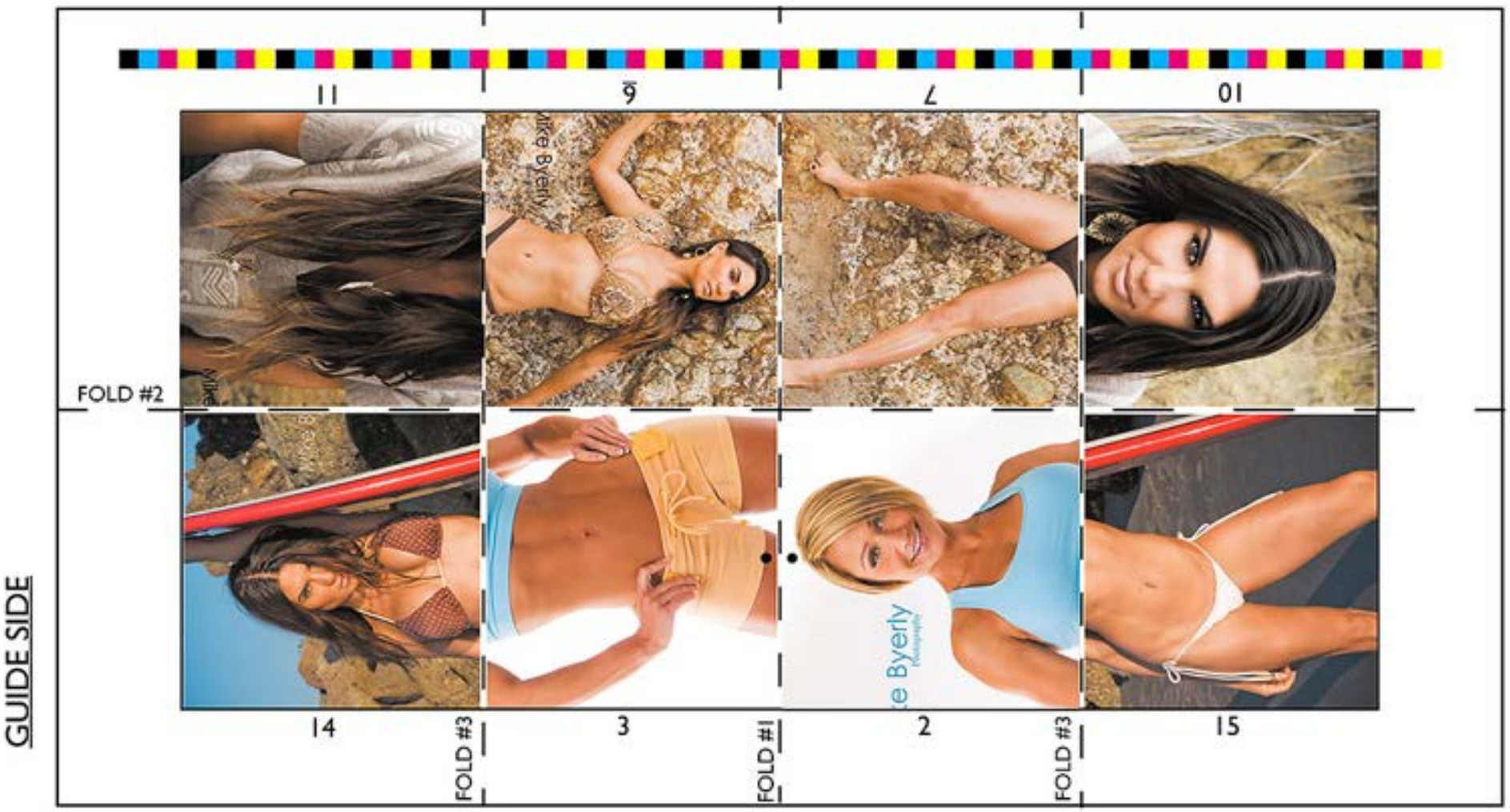
Harmonizing incoming files



BACK SIDE (8 pages) of PRESS SHEET - GRIPPER EDGE - PAGE NUMBERS LISTED BELOW POSITION

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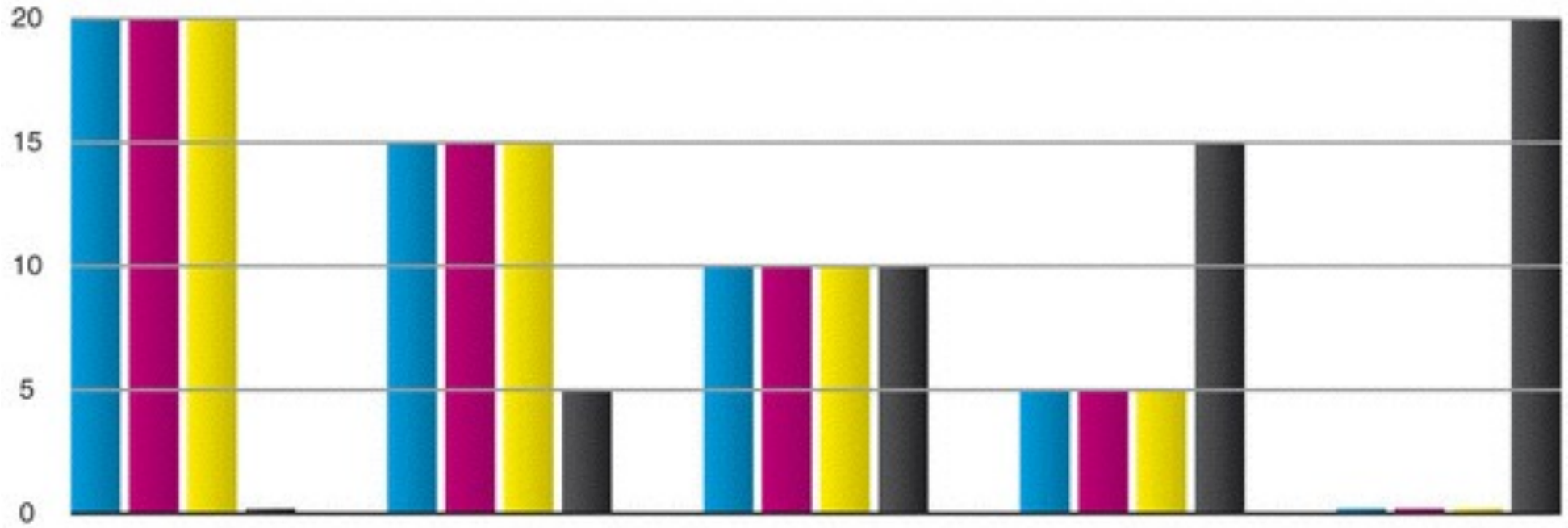
Ink Savings



TAC (%)	60	50	40	15	20
K	0	5	10	5	0
A	20	15	10	5	0
M	20	15	10	5	0
C	20	15	10	5	0

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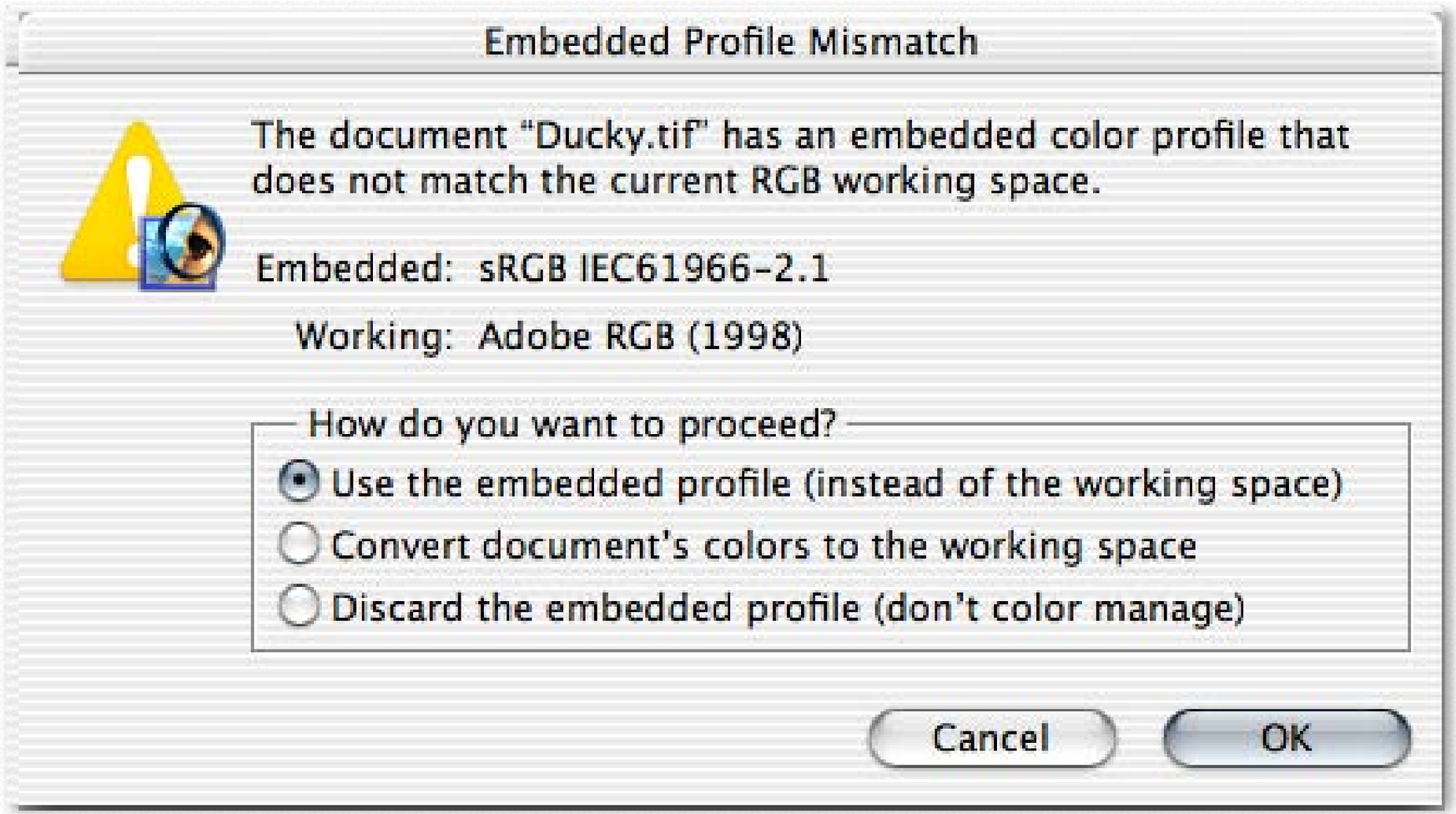
Profile Mismatch



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Always Use Embedded

Lighting

- Would you believe me if I told you, lighting can change colours by as much as 15%?
- When was the last time you changed the bulbs at your press? If so did you use Day Light bulbs?
- InkJet proofs are volatile.

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Lighting

Standard Office Lighting

5000k Lighting

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RHEM Lighting Indicator

The Light Indicator (simulated), as shown under a 5,000 K standard light source. Stripes do not appear

Stripes do appear when the Light Indicator (simulated) is viewed under nonstandard light sources, such as Incandescent.

Stripes also will appear when Light Indicator (simulated) is viewed under other nonstandard light sources, such as cool and warm white flouresent.

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SwatchMate Cube

Chroma Node

CHROMA
NODE
RGB: 255, 135, 125
CMYK: 0, 61, 40, 0
Lab: 75, 56, 34
scan color
collections
options

Nix Color Sensor

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Questions?

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