can:scan

Functionality:

Multispectral color-measurement for:

1. Pigment-formulation systems

• spectral readings even from complex patterned samples for dyeing and spot color formulation

2. ICC-profiling for digital printers

• even complex substrates that cannot be measured with X/Y-spectrophotometer-tables

3. Digitizing customer samples

4. Generating color accurate digital samples

• as digital color reference for online color-assessments
• as digital color reference for color retouchment of studio shots
• as digital color reference for CGI-aplications

1.0 Introduction

This document explains the benefits of multispectral technology versus spectrophotometric technology.

2.0 Examples illustrating the problem of spectrophotometry

Example 1: complex colour-patterned surfaces

Spectrophotometers do not allow the measurement of complex, color-patterned surfaces (example 1), since their aperture inevitably record several spectra, while determining the average of them, i. e. „single-uni-color" spectral readings. For example, spectrophotometric measurements on different surfaces such as the 2) "leopards-pattern" and the 3) "yellow checkered pattern" may result in the same spectral value.
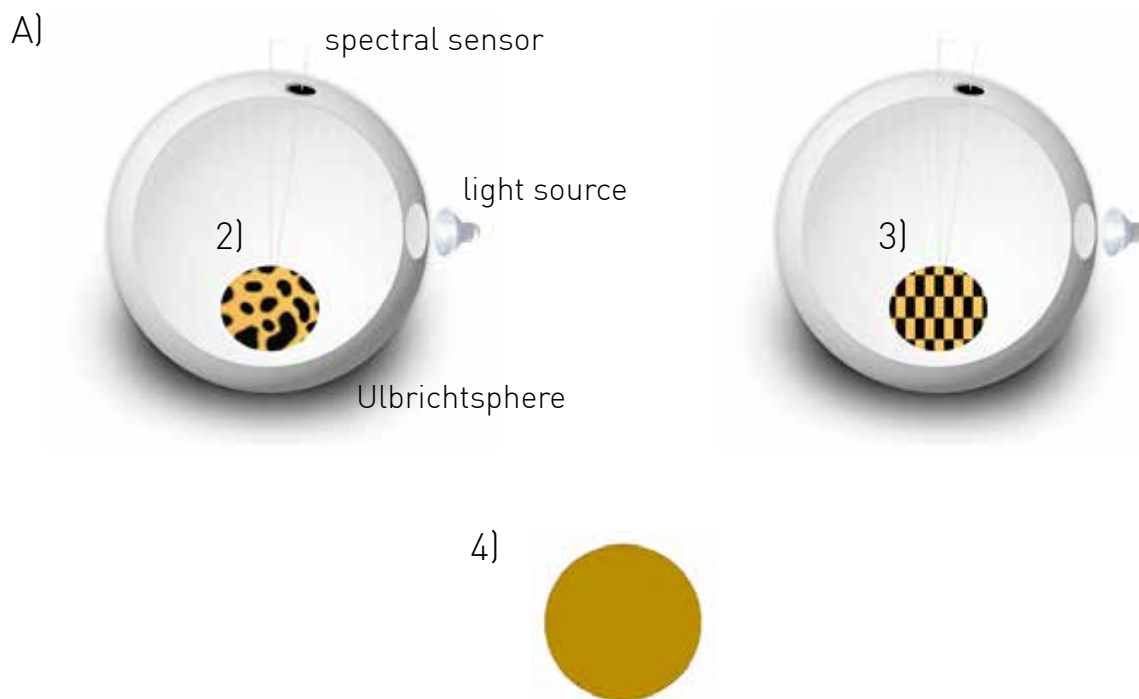
A) schematic representation of a spectrophotometer

2) „leopards-pattern"

3) „yellow checkered pattern"

4) identical spectral value on both patterns (by coincidence)

In addition, the visual impressions that people perceive often cannot be verified through measurements with a spectrophotometer, since a person's subjective visual impression is greatly affected by influences such as contrasts in colour and brightness, which can't be recorded in a spectral measurement (examples 2 and 3).

Example 2: measure-points 1) and 2) on blue colored fields

A)

1)

2)

B)

1) ≠ 2)

C)

=

D)

1) = 2)
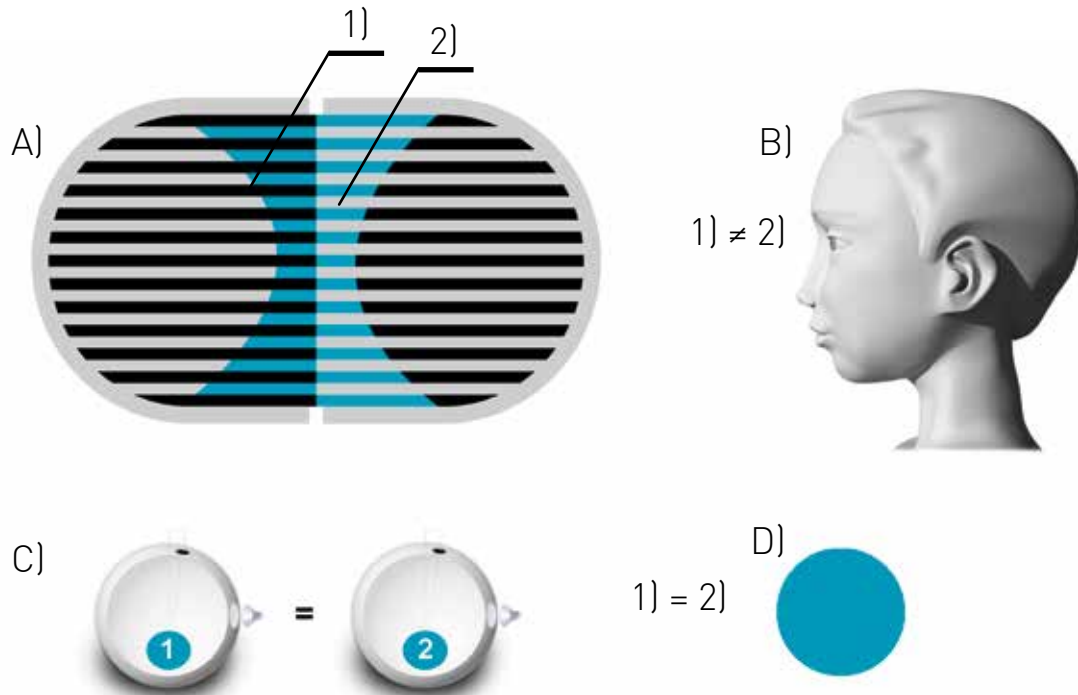
A) testpattern simultaneous color contrast

1) measuring point 1

2) measuring point 2

B) observers impression A ≠ B

C) schematic representation of a spectrophotometer

D) spectral value of 1) and 2)

Example 3: „measurement" on grey fieldB

1)

2)

A ≠ B

3)

=

4)

A = B