Ergonomic Color Image Technology with High Visual and Material Efficiency based on Elementary (unique) Hues

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Input	Output	Input and output media and applications			Technical Report (TR) or Standard
		Input media	Output media	Application	
–	–	–	–	**Basis**	**ISO/IEC TR 24705**
analog	**analog**	ISO/IEC-test chart (hardcopy)	Hardcopy	**Copier**	**ISO/IEC 15775**
analog	**digital**	ISO/IEC-test chart (hardcopy)	File	**Scanner**	**ISO/IEC TR 24705**
digital	**analog**	ISO/IEC-test chart (file)	Hardcopy	**Printer**	**ISO/IEC TR 24705**
			Softcopy	**Monitor**	**ISO/IEC TR 24705**

YE900−7

Table: International standard documents of image technology for office devices *(editor K. Richter)*

New DIN-test charts for monitor and printer output are available, see www.ps.bam.de/33872E

A new analog and digital color atlas the "Relative Elementary Color System RECS" is available and serves as reference in image technology for input and output, see www.ps.bam.de/RECS

The Elementary Colour Connection Space ECCS connects the different devices of image technology by *rgb** equations instead of profiles. The devices should be linearized in CIELAB, which is approximately the case for standard offset printing and a standard *sRGB* monitor.

Summary “Ergonomic Color Image Technology”

- **New DIN-test charts for monitor and printer output, see tests at the poster and see www.ps.bam.de/33872E**
- **Relative Elementary Color System RECS as reference color atlas in an analog and digital version, see www.ps.bam.de/RECS**
- **High visual efficiency with linear spacing in CIELAB for *rgb** data.**
- **High material efficiency with intelligent separation technology *(cmyn6*)* with the following advantages:**

  Possible reduction of toner and emissions by 30%

  More stable output for achromatic colours.
- **Implementation example of the Elementary Colour Connection Space ECCS by *rgb** equations instead of profiles by use of standard software *Adobe Acrobat Distiller.***

Take at the poster an example output with additional information and see

Examples of DIN-test chart outputs on old classical and 2008 printers.

The RECS color atlas is available (16-step elementary hue circle, 5- and 16-step color scales,1080 standard colors, and ISO/IEC-test charts).