Colorimetric scan, display, and print for archiving based on the ergonomic International Standard ISO 9241–306:2018 for work places

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Abstract

ISO 9241–306:2018 shows colorimetric methods for output optimization of displays and projectors at work places. The optimization for equal spacing of colour series, visibility and readability is intended.

There are input linearization methods for scanners and photography and output linearization methods for displays, printers, and offset print. By a start output of a digital ISO-test chart with 729 colours (9x9x9 $rgb*$ values) for example the loop "ISO standard film –> ISO print –> ISO scan –> ISO file" is closed and the $rgb*$ colour data of the original ISO file are approximately reproduced at the end of the loop. For any hue there is a linear relation in both directions between the $rgb*$ and the CIELAB $LCh*$ data. The closed loop and the linear relations are important properties for archiving.