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Graphic technology — Guidelines for schema writers — Template for colour quality management

iTeh STANDARD PREVIEW
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 130, *Graphic technology*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document specifies requirements for certification schemes for certifying the production of printed products. Quality and repeatability are ensured by applying total quality control according to ISO 9001 as the overarching method, coupled with print specific ISO standards.

A certification can be centred around any ISO standard related to print production. It will therefore use the term THE REFERENCED STANDARD as a pointer to the actual standard that is referenced in the certification scheme. Digital presses that can match an output condition of THE REFERENCED STANDARD are also intended to be included for certification.

While this scheme assumes familiarity and adoption of a quality management systems based on the requirements of ISO 9001, it doesn't intend to assess or audit an organization's conformity to a complete implementation of ISO 9001.

The use of this document should make it easier to compare certifications worldwide.

A scheme developed according to this document can be validated by accreditation organisations to produce verifiable results.

In this document:

— "shall" indicates a requirement;

— "should" indicates a recommendation;

— "may" indicates a permission;

— "can" indicates a possibility or a capability.

Information marked "NOTE" is for guidance in understanding or clarifying the associated requirement.

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1 Scope

This document provides a framework that organisations can follow, and that can be used as the structure for market or sector specific schemes. It is intended to be a process certification.

The goal of this document is to have comparable attestations or certifications worldwide.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3664, *Graphic technology and photography — Viewing conditions*

ISO 12646, *Graphic technology — Displays for colour proofing — Characteristics*

ISO 13655, *Graphic technology — Spectral measurement and colorimetric computation for graphic arts images*

ISO/IEC 17011, *Conformity assessment — Requirements for accreditation bodies accrediting conformity assessment bodies*

ISO/IEC 17065, *Conformity assessment — Requirements for bodies certifying products, processes and services*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
product
final output (printed matter) supplied to the customer

Note 1 to entry: In the context of an attestation or certification this means that the emphasis is on a specific compliant print production process, and not on the organisation as such.

3.2
colour quality and production management system
range of processes, including those of a quality management system, as outlined in this document, which are required to consistently produce printed products compliant with ISO colour quality standards

3.3
accredited body
authoritative body that performs accreditation

Note 1 to entry: The authority of an accreditation body is generally derived from government.

3.4
certification
third party attestation related to products, processes, systems, or persons

[SOURCE: ISO/IEC 17000:2004, 5.5]

4   Template for requirements of colour quality and production management system of the organization

4.1   General

To achieve and maintain certification, the organization shall be in accordance with the requirements of this scheme.

4.2   Colour quality and production management system requirements

Requirements for the colour quality and production management system are as specified in ISO 9001, but with a scope specified for the colour quality system.

The scope shall be defined according the following:

— **Tone and colour reproduction to** < THE REFERENCED STANDARD > : < PRODUCTION METHOD(s), (as applicable); <PROCESS>, (as applicable); < CUSTOMISED PRINTING CONDITION > , (as and if applicable).

— **Outsourced tone and colour reproduction** to < THE REFERENCED STANDARD > : < PRODUCTION METHOD(s) > , (as applicable); <PROCESS>, (as applicable) < CUSTOMISED PRINTING CONDITION > , (as and if applicable).

Any change to the scope of the certification shall be agreed to by the certification body.

Site locations of the certified organization shall be defined within the scope. Site locations can only be included if the colour quality system applies at a particular site to be included, and an audit product test has been successfully conducted at that site.

Processes which can be included in the scope of the certification are the following:

— pre-press, proofing and PDF file submission to an agreed printing conditions;

— press* only, including plate calibration and TVI curves;

— proofing and press*, including plate calibration and TVI curves;

— pre-press, proofing and press*;

— outsourced printing in any of the above categories.

Organisations are deemed to provide pre-press services when some or all of the following activities are undertaken by the organization itself.

— Process and correct and/or colour manage clients application files.

— Process, colour manage and/or retouch images.

— Pre-flight and correct and/or colour manage PDF or other file formats.

— Scan analogue colour originals, if required.

*A press for the purposes of this scheme is any conventional printing device or printing press covered by THE REFERENCED STANDARD and digital printing devices outputting to THE REFERENCED STANDARD conditions. For presses with other TVI, or no TVI, than assumed by this document, for

example digital presses, adjustments to or simulation of the expected TVI in this document shall be implemented to ensure that the tone levels are reproduced in the same way.

Compliant product claims

Certified organisations shall only make compliant claims relating to specific printed products, via invoices and delivery notes, and other product specific documents, to customers, where it is documented that those products meet the requirements of the certification scheme, and when the organization has an existing valid accredited certification under this scheme at the time of production.

Organisations shall not claim to be in accordance to THE REFERENCED STANDARD, other than in relation to a specific printed product.

Customised printing

Customised printing conditions involving the use of non-THE REFERENCED STANDARD or amended THE REFERENCED STANDARD colour data sets and profiles including digital printing.

It is recognized that there are cases of customer requirements, including non- standard papers, processes including digital printing, papers, boards and other substrates, inks, etc. may require the use of printing conditions and ICC profiles which are not covered within THE REFERENCED STANDARD colour quality standards.

A customised printing condition is defined as: A printing condition that uses a combination of substrates, inks and printing methods that are not referenced by current THE REFERENCED STANDARD standard printing conditions.

In this case, any printing company can be certified to these customised printing conditions by demonstrating that the same controls, systems, policies and measurement tolerances required by this scheme and the associated ISO standards are adhered to, where it is demonstrated that it is possible and appropriate to do so. Any proposed certification for a customised printing condition, and relevant aim values, shall be agreed by the printer seeking certification in advance with the certifying body for this certification scheme.

4.3   Additional requirements

In addition to the requirements of 5.1, the organization shall:

a)   maintain records needed to provide evidence that individual printed products meet the referenced ISO colour quality standard requirements;

b)   where appropriate, ensure adequate control over outsourced printing processes through identification and use of suppliers with valid certification through this scheme, when printing products intended to be compliant with the requirements of this scheme and THE REFERENCED STANDARD;

c)   determine if the customer requires a product to be printed in accordance with a specific ISO standard and that the organization is capable of producing a complaint product (e.g. the printed matter) according to this standard. Where product requirements are such that the organization cannot meet the requirements of THE REFERENCED STANDARD, this shall be communicated and explained to the customer prior to order acceptance;

d)   determine and implement effective methods for communicating with customers and suppliers in relation to:

   — acceptability of artwork and/or proofs supplied (for example by providing artwork guides and references to referenced standards), and

   — printed product being in accordance claims on delivery notes, invoices and other customer related documentation.

e) ensure that only authorized and competent personnel have access to systems and files, and that only authorized users are able to access and manipulate data files. All changes to data files should be documented and fully attributed to those making the changes;

f) ensure the provision and maintenance of necessary and appropriate controlled lighting conditions, and access to and use of appropriate colour measuring equipment and software.

4.4   Print(s) being in accordance and certification claims

4.4.1   Claims of conformity

Where the printed matter is claimed to be in accordance with THE REFERENCED STANDARD as defined by this scheme, the organization can make a claim to the customer, and if so, then shall use only the following wording:

"this print is <ISO STANDARD> in compliance (accredited certification: certification body name; certificate number)"*

The wording shall be legible and shall be used on invoices, delivery notes, quotations, and other customer related documentation, and will distinguish between compliant products and others identified on the documentation.

*in this example the language is English, but this can of course be in the local language.

4.4.2   Certification marks

The organization may make use of the relevant marks and logos supplied by the certification body as proof of being certified, but only in the way specified by that body.

Claims regarding certification shall only be made in terms that state that:

— the certified organization is capable of consistently printing to meet the requirements of THE REFERENCED STANDARD (s).

— the certified organization operates a colour quality and production management system, to ensure that, where required, products are compliant with THE REFERENCED STANDARD(s).

4.5   Outsourced printing

For organisations which outsource the printing of a product(s) and intend to claim that the print(s) are in accordance, there shall be assurance of that printed matter being in accordance. The organization shall ensure that:

— a procedure for ensuring the accurate identification of the validity of the certification of the outsourced supplier is documented and implemented;

— the organization providing the printed product has a valid, accredited and current certification to THE REFERENCED STANDARD under this scheme and for the relevant printing process at the time of production;

— records are kept of the validation of the certification of the relevant outsourced suppliers;

— other relevant scheme requirements are met.

4.6 Colour quality policy

The colour quality policy represents the quality policy as far as the colour quality system is concerned. Senior management shall ensure that the colour quality policy covers, where applicable:

— the ISO standards, and methods of production, within the scope of the certification and the method of demonstrating to be in accordance;

— the development and maintenance of the competence of all personnel within the scope of the colour quality and production management system;

— the provision of the necessary infrastructure and equipment necessary for the production of compliant products and the review of the capabilities of such infrastructure and equipment in the light of technological and other changes;

— the method for external publication of the Colour quality policy to interested parties.

4.7 Colour champion

The organization shall ensure that there is a colour champion, or equivalent, who fulfils the role of management representative in relation to the colour quality system, appointed with authority to manage, monitor, evaluate and coordinate the colour quality and production management system. The colour champion may also be the organization's management representative, but shall have responsibility and authority which includes:

— ensuring that processes needed for the colour quality system are established, implemented and maintained,

— periodic reporting to senior management on the performance of the colour quality system and any need for improvement or additional resources,

— ensuring the promotion of awareness of the requirements of THE REFERENCED STANDARD through the organization

— ensuring that necessary training is provided and adequately resourced, keeping up to date with technology and market developments which can have an impact upon the effectiveness or currency of the organization's methodologies to be in accordance;

— advising senior management of developments relevant to being in accordance, or to improving working methods,

— maintaining contact with production and customer services (or equivalent) staff in order to monitor customer relations, and

— making recommendations for customer communications to help customers improve the quality of data files delivered for compliant production workflows.

4.8 Press and digital output device maintenance

The organization should ensure maintenance and servicing in accordance with the manufacturer's recommendations, records of maintenance are kept, and appropriate checks are carried out for colour quality control.

Products utilized, and batch numbers shall be recorded, including information relevant to the fulfilment of THE REFERENCED STANDARD, for example for:

— ink;

— substrate;

— toners;