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# **BUSINESS PLAN FOR ISO/IEC JTC 1/SC 28 OFFICE EQUIPMENT**

**PERIOD COVERING:** 2013 – 2014

**SUBMITTED BY:** SC 28 Chairman and Secretary

## **1.0 MANAGEMENT SUMMARY**

### **1.1 CHAIRMAN'S REMARKS**

SC 28 is one of the few product or hardware oriented subcommittees in the JTC 1 community. As such fundamental output of this group has been standards on product specification descriptors, methods for measurement of productivity of hardcopy devices, quality of hardcopy output and yield of consumables (ink and toner cartridges).

#### **WG 2 Areas**

A complementary project on printer cartridges characterization was done. The related three International Standards have been published in March, 2013. Under the circumstances it is a challenge for WG 2 to define new work items in this plan period except for usual maintenance work.

#### **WG 3 Areas**

Among standards on productivity measurement (printing, copying and scanning throughput) coming under the responsibility of WG 3 major projects on printing and copying productivity have been done. Immediate remaining projects are Method for measuring digital printing productivity (CD), Method for measuring first page out time for digital printing devices (CD) and Method for Measuring Scanning Productivity of Digital Multifunctional Devices (WD). The latter will be worked out in a way to satisfy requirements of ISO/TC 171/SC 1 as well as of SC 28.

#### **WG 4 Areas**

The activities of conversion from TS 24790 to IS 24790 is in process. WG 4 has participated in the Joint Working Group 14 under TC 130 since December 2012, to develop multi-part technical specification ISO TS 18621 “Measurement of visual attributes of printed materials”.

#### **WG 5 Areas**

Default Letter Ballot on Extension request for approval to JTC 1 National Bodies is in process regarding the development schedule on ISO/IEC NP 17823 “Colour Terminology for Office Colour Equipment” by one year from its original schedule.

#### **SC 28 General**

SC28 resolved to revise ISO/IEC 10779 “Office equipment accessibility guidelines for elderly persons and persons with disabilities” to align with updated US Section 508.

FDIS voting on Revision of specification descriptors standards (ISO/IEC11160-2 on printers) is in process.

As energy efficiency is one of JTC 1 focus themes SC 28 should look into this area in collaboration with IEC/TC100 and other related groups beyond passive dependency on Energy Star Program.

AG empowered to maintain the SC 28 Road Map and make recommendations on other cross-SC 28 strategic issues is expected to lead SC 28 in strategically viable directions.

## 1.2 JTC 1/SC 28 STATEMENT OF SCOPE

**Title:** Office Equipment

**Scope:**

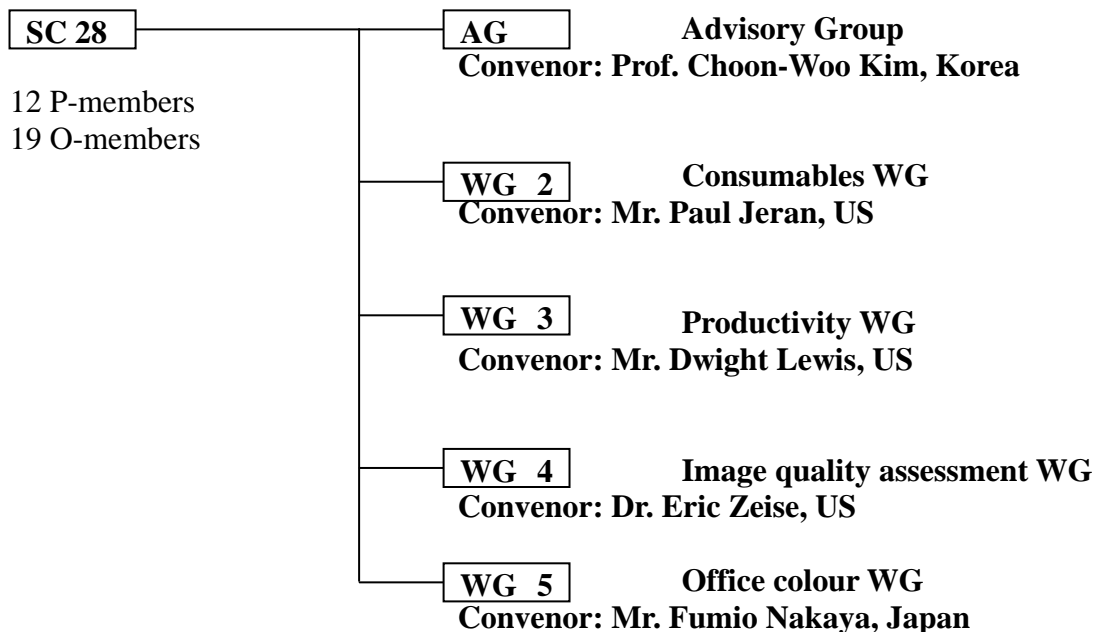
Standardization of basic characteristics, test methods and other related items, excluding such interfaces as user system interfaces, communication interfaces and protocols, of office equipment and products such as Printers, Copying Equipments, Digital scanners, Facsimile equipment and systems composed of combinations of office equipment.

### Formation of SC 28

SC 28 is organized as follows as of August , 2013.

**Chair:** Mr. Akira Saito, Japan

**Secretary:** Mr. Moto Sugiyama, Japan



## 1.3 PROJECT REPORT

### 1.3.1 Ongoing projects of SC 28

Project ref	Project editor/ Co-editor	Project title	Reg. date	Stage date	Target date
ISO/IEC CD 24734 (**) (id63751)	Mr. Dwight Lewis	Method for measuring digital printing productivity	2013-03-15	2013-05-21	IS 2015-09-15
ISO/IEC FDIS 11160-2 (**) (id61520)	Mr. Takashi Ito	Minimum information to be included in specification sheets – Printers – Part 2: Class 3 and Class 4 printers	2012-02-08	2013-04-09	IS 2015-02-08
ISO/IEC CD 17629 (id60200)	Mr. Jason Quintana	Method for measuring first page out time for digital printing devices	2011-11-25	2013-06-03	IS 2014-11-25
ISO/IEC NP 17991 (id61239)	Mr. Takashi Ito	Method for Measuring Scanning Productivity of Digital Multifunctional Devices	2012-04-26	2012-04-26	IS 2015-04-26
ISO/IEC NP 17823 (id60611)	Mr. Etsuo Morimoto Mr. Xiping Zhang (*)	Colour Terminology for Office Colour Equipment	2012-01-13	2012-01-13	IS 2015-01-13

(\*) Co-editor    (\*\*) Revision

### 1.3.2 (Reference): Inventory of published standards

The following table indicates inventory of standards published by SC 28 *in 1995 onward*. As for standards released before 1995 categorized as under the responsibility of SC 28, they can be viewed at Catalogue of ISO Livelink.

ISO/IEC Numbers	Titles
29142-1:2013	Print cartridge characterization Part 1: General: terms, symbols, notations and cartridge characterization framework
29142-2:2013	Print cartridge characterization Part 2: Cartridge Characterization Data Reporting
29142-3:2013	Print cartridge characterization Part 3: Environment
21118:2012	Information to be included in specification sheets – Data projectors
24711:2007 /CD Cor 1:2012	Method for the determination of ink cartridge yield for colour inkjet printers and multi-function devices that contain printer components – Technical Corrigendum 1
19798:2007 /CD Cor 1:2012	Method for the determination of toner cartridge yield for colour printers and multi-function devices that contain printer components – Technical Corrigendum 1

19752:2004 /CD Cor 1:2012	Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components – Technical Corrigendum 1
TS 24790:2012	Measurement of Image quality attributes for hardcopy output - Monochrome text and graphic images
TS 29112:2012	Test chart and method for measuring printer resolutions of monochrome laser printers
TR 29186:2012	Test Method of Colour Gamut Mapping Algorithm for Office Colour Equipment
24735:2012	Method for Measuring Digital Copying Productivity
21117:2012	Copying machines and Multi-function devices – Information to be included in specification sheets and related test methods
28360:2012	Determination of chemical emission rates from electronic equipment
29102:2011	Method for the determination of ink cartridge photo yield for colour printing with inkjet printers and multi-function devices that contain inkjet printer components
29103:2011	Colour photo test pages for measurement of ink cartridge yield for colour photo printing
29183:2010	Digital Copying Productivity of a Single, One-Sided Original
24735:2009	Method for measuring digital copying productivity
24734:2009 Cor 1:2009	Method for measuring digital printing productivity
10779:2008	Office equipment accessibility guidelines for elderly persons and persons with disabilities
28360:2007	Cor 1:2008
28360:2007	Determination of chemical emission rates from electronic equipment
19799:2007	Method of measuring gloss uniformity on printed pages
24712:2007	Colour test pages for measurement of office equipment consumable yield
24711:2007	Method for the determination of ink cartridge yield for colour ink jet printers and multi-function devices that contain printer components
19798:2007	Method for the determination of toner cartridge yield for colour electrophotographic printers and multi-function devices that contain printer components
18050:2006	Print Quality Attributes for Machine Readable Digital Postage Marks
21117:2005	Copying machines and Multi-function devices -- Information to be included in specification sheets and related test methods
24700:2005	Quality and performance of office equipment that contains reused components
TR 24705: 2005	Machines for colour image reproduction -- Method of specifying image reproduction of colour devices by digital and analog test charts
21118: 2005	Information to be included in specification sheets -- Data projectors
15775:1999 Amd 1: 2005	Method of specifying image reproduction of colour copying machines by analog test charts -- Realization and application
TR 19797: 2004	Device output of 16 colour scales, output linearization method (LM) and specification of the reproduction properties
19752: 2004	Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components
13660: 2001	Measurement of image quality attributes for hardcopy output -- Binary monochrome text and graphic images
15404: 2000	Minimum information to be included in specification sheets -- Facsimile equipment
14473: 1999	Minimum information to be specified for image scanners
10561: 1999	Printing devices -- Method for measuring throughput -- Class 1 and Class 2 printers
14545: 1998	Method for measuring copying machine productivity

11160-1: 1996	Minimum information to be included in specification sheets -- Printers -- Part 1: Class 1 and Class 2 printers
11160-2: 1996	Minimum information to be included in specification sheets -- Printers -- Part 2: Class 3 and Class 4 printers
11159: 1996	Minimum information to be included in specification sheets -- Copying machines

### 1.3.3.(Reference): Stage 0 item

Revision of ISO/IEC 10779:2008 “Office equipment accessibility guidelines for elderly persons and persons with disabilities” is being considered as a possible project to be added to SC28 program of work. The Ad Hoc group was reconstituted for the purpose. A main driver for the revision is harmonization with US section 508 update

Note: Efforts to update road map of SC28 will continue in AG.

## 1.4 COOPERATION AND COMPETITION

### 1.4.1 Liaisons to/from SC 28 are as follows.

Liaison Group	Title	Category	Representative from SC 28	Representative to SC 28
Ecma International TC38	Product-related environmental attributes	A	Mr. Paul Menard	Mr. Onno Elizinga
CIE Division 1	International Commission on Illumination Division 1	A	Prof. Hirohisa Yaguchi	N/A
CIE Division 8	International Commission on Illumination Division 8	A	Mr. Fumio Nakaya (P) Dr. Klaus Richter (S)	Dr. Klaus Richter
ICC	International Color Consortium	A	Mr. Fumio Nakaya	Mr. Fumio Nakaya
TC 42	Photography	(Internal)	Dr. Eric Zeise: WG 18 (P) Mr. Toshihiko Inagaki: WG 18 (S) Dr. Susan Farnand: WG 5	Dr. Klaus Richter
IEC/TC 100 /TA 2	Audio, video and multimedia systems and equipment	(Internal)	Mr. Fumio Nakaya	Mr. Fumio Nakaya
ISO/TC 130 WG 2/WG 3	Graphic technology	(Internal)	Mr. Makoto Fujino: WG 2	Mr. Andreas Kraushaar

			Mr. Frans Gaykema: WG 5 (P) Dr. Eric Zeise: WG 5 (S)	
ISO/TC 171/ SC 1/SC 2/SC 3	Document management applications	(Internal)	Mr. Takashi Ito	Mr. Nobuaki Usui: SC 1/SC 2 N/A: SC 3

(P): Primary liaison officer (S): Secondary liaison officer

### Related SC 28 2013 Vienna Plenary resolutions

Note 1: SC 28 resolves to recommend Mr. Fumio Nakaya to JTC 1 as a HoD of JTC 1 Representatives to ISO SCIT (ISO/TAG 14) for 2013 – 2014 following 2012 – 2013.

Note 2: SC 28 instructs project editors to review technical terms used in manuscripts at CD stage to verify consistency with the existing data base in j28n1539. SC 28 resolves to accept AG proposal to discontinue the position of SC 28 terminology coordinator.

Note 3: SC 28 resolves to accept AG proposal to discontinue activities of AG/PWG6.

Note 4: SC 28 resolves that SC 28 terminates the Ambassador function.

### **1.4.2 Potential areas of cooperation or competition**

- SC 28/WG 3 to continue dialog with ISO/TC 171/SC 1 on the subject of standardization of performance and productivity of scanning devices, via new liaison officer.
- SC 28 to participate in a Joint Working Group 14 under ISO/TC 130, to develop multi-part technical specification ISO TS 18621 “Measurement of visual attributes of printed materials”. This TS is to supplement ISO 15311 “Requirements for printed matter utilizing digital printing technologies for the commercial and industrial production”. Additional participation in the JWG 14 is being requested by ISO/TC 42.

## **2.0 PERIODIC REVIEW**

### **2.1 MARKET REQUIREMENTS**

*Major types of equipment in the current market subject to SC 28 undertaking are classified as follows.*

- Copying machines
- Printers
  - Inkjet printers - colour
  - Laser (electrophotographic) printers - monochrome and colour

- Image scanners
- Facsimiles
- Data projectors
- MFP (Multi-function Peripherals: scanner + copier + printer + facsimile + email)

*General trend of the market for those equipments learned from various free and paid reports is observed as follows.*

- Inkjet printer takes up roughly 80% in unit and 50% in sales in terms of stock. However, growth rate in flows of colour laser printer is considerably faster than inkjet printer in single function machines and multi-function peripherals combined.
- Sales of toner and ink cartridges for copying machines and printers continues to grow robustly.
- Shift from single inkjet printers and single laser printers to inkjet based or laser based multi-function peripherals is noticeable.
- Environment conscious and energy efficient design of office equipment is getting increasingly important on a global scale.
- Accessibility is more than a nice-to-have feature. It is getting increasingly important for countries whose society becomes aged.
- Secure print function is getting important to protect from information leakage.

*Standards required by the market are those to facilitate or enable:*

- Comparison of functional specifications (descriptors) in product catalogues (Continuously being updated)
- Measurement of yield of ink and toner cartridges of printers (Major work done)
- Comparison of characteristics of toner and ink cartridges (Ongoing)
- Evaluation and comparison of printed output image quality and resolutions (Major work done as Technical Specification. Upgrade to IS in the near future is under consideration)
- Measurement of productivity and performance of copying machines, printers and image scanners (Major work done on copying machines and printers. New work started on image scanners)
- Displaying and printing images in consistent colours across different hardware (Potential work item)
- Printing in a consistent manner across different file formats (Potential work item)
- Design of equipment in an environment conscience manner (Depends on Energy Star and related international program for the time being)
- Accessibility for disabled and aged persons (To reflect Section 508 and other international norms)



- Understanding office colour technology and applications without confusion (Colour terminology consolidation ongoing)

## 2.2 ACHIEVEMENTS

### (1) Project progression

#### Published as IS or TR/TS

- ISO/IEC 19752:2004 Cor 1 (id62597)  
Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components – Technical Corrigendum 1
- ISO/IEC 19798:2007 Cor 1 (id62596)  
Method for the determination of toner cartridge yield for colour printers and multi-function devices that contain printer components – Technical Corrigendum 1
- ISO/IEC 24711:2007 (id62595)  
Method for the determination of ink cartridge yield for colour inkjet printers and multi-function devices that contain printer components – Technical Corrigendum 1
- ISO/IEC 21118:2012 (Ed.2) (id57467)  
Information technology – Office equipment – Information to be included in specification sheets – Data projectors
- ISO/IEC 29142-3 (id51951)  
Print cartridge characterization Part 3: Environment
- ISO/IEC 29142-2 (id51950)  
Print cartridge characterization Part 2: Cartridge Characterization Data Reporting
- ISO/IEC 29142-1 (id45165)  
Print cartridge characterization Part 1: General: terms, symbols, notations and cartridge characterization framework

#### FDIS approved

- ISO/IEC 11160-2 (Ed.2) (id61520)  
Information technology – Office equipment – Minimum information to be included in specification sheets – Printers – Part 2: Class 3 and Class 4 printers

#### DIS registered

- ISO/IEC17629 (id60200)  
Method for measuring first page out time for digital printing devices

CD approved

- ISO/IEC 24734 (id63751)  
Method for measuring digital printing productivity

Standard withdrawn

- ISO/IEC 14545:1998  
Method for measuring copying machine productivity

**(2) Other achievements**

None in particular

**2.3 RESOURCES**

It is an inherent and chronic problem with SC 28 that national bodies which can afford to provide experts in SC 28 technical work are generally limited to few countries with office equipment industries.

**2.4 ENVIRONMENTAL ISSUES**

None in particular

**2.5 PARTICIPATION METRICS**

The following tables present ratios of P-members' attendance to plenary meetings and participation in official letter ballots.

**Plenary attendance** For the past five Plenary meetings  
Attendance ratio: # Participated P-members/# all P-members

Plenary meetings	June 2009 Busan	June 2010 Rochester	June 2011 Hangzhou	June 2012 London	June 2013 Vienna
Attendance ratio	7/14	7/13	5/13	5/13	6/12

**Voting participation** For the previous plan period June 2012 - May 2013

Month	Nov 2012	Nov2012	Nov 2012	May 2013
Vote on	CD	CD	CD	CD

# of P-members that voted	11	11	11	11
% against all P-members	85%	85%	85%	92%

### **3.0 THE FOCUS OF THE NEXT WORK PERIOD**

#### **3.1 DELIVERABLES**

(Business as usual)

#### **3.2 STRATEGIES**

- Align SC 28 work program with JTC 1 strategic directions where applicable (e.g. energy efficiency etc.)
- AG to prompt SC 28 National Bodies to generate new projects by making the most of the road map to which AG has devoted much of its energies.

#### **3.3 RISKS**

Risks, if there is any, are considered to come from inaction on our part. We may lose our grips on some important requirements in office equipment industry if we do not proactively define our work. This is because in many of our fronts are crowded with groups in ISO, IEC and consortia actively engaged in such areas as photography, graphic technology and document management. They become competitive at times while they are basically complementary to SC 28 as proven by the case of TC130/JWG14.

#### **3.4 OPPORTUNITIES**

Opportunity identification will be a crucial task of SC 28 throughout the plan period (see 3.2 Strategies above).

#### **3.5 WORK PROGRAM PRIORITIES**

Work on upgrade from TS 24790 to IS 24790 following WG 4 verification of the TS 24790 production version of the Conformance Chart and its target values and tolerances.