Media Size Standardized Names
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Abstract

This document specifies standard names to be used to indicate media sizes in other PWG standards. This list of names is a superset of the names that are currently presented in the Printer MIB [RFC1759] and the IPP Model and Semantics [RFC2911] documents. It is intended to supplement the currently defined lists as well as to provide a normative reference for all subsequent standards.

This document is a draft of an IEEE-ISTO PWG Proposed Standard and is in full conformance with all provisions of the PWG Process (see http://www.pwg.org/chair/pwg-process-990825.pdf). PWG Proposed Standards are working documents of the IEEE-ISTO PWG and its working groups. The list of current PWG projects and drafts can be obtained at http://www.pwg.org.

Title: Media Size Standardized Names

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1. Introduction

Media sizes have been defined in many previously published standards related to printing. Examples are the ISO Document Printing Application [DPA], the IEEE Transport Independent Printer/System Interface [TIP/SI], the IETF Printer MIB [RFC1759], and the IETF Internet Printing Protocol [IPP]. Although there is a high degree of commonality in the set of media sizes presented in these documents, they do not represent a uniform set. Several other standards developments, in process prior to the creation of this standard, also have a need for media size definitions. Thus this standard is a response to an urgent need to define a complete set of media sizes, in an independent document, that can be used a normative reference by other standards.

This standard is the result of extensive research to obtain an exhaustive list. It provides a superset of the media sizes currently defined in the previously listed specifications. This standard is intended to update the list that is currently presented in the Printer MIB and the IPP Model and Semantics specification and it also can be referenced by future printing standards. This document will be periodically updated to include any additional sizes, as required.

1.1   Scope

This document defines media sizes only. Other media attributes such as color, type, or weight are not included. One exception is the inclusion of the media type of "envelope." Since many envelope sizes are unique and envelopes have very special physical characteristics which requires special handling and printing formats, this attribute is included with the size.

No provisions are included to specify roll paper. All media sizes represent a cut sheet. Media that is printed and then cut by the printing device can use this standard only to define the final size.

The color attribute that is included in a portion of the media entries in both the Printer MIB and IPP are not included in this document. The addition of color to the media names would result in a large growth in the number of names and this is more optimally handled using an independent attribute.

The media size dimensions that are defined in this document are independent of the media feed direction (i.e. short edge feed or long edge feed) or printing orientation (i.e. portrait or landscape). Both of these parameters are best handled by unique attributes rather than overloading the media size attribute.

2   Terminology

This glossary defines certain terms used in this specification which may not be generally familiar or which may be used with very specific meaning. These definitions are not intended to be absolute but do reflect the use of the terms within this specification.

ASCII American Standards Code for Information Exchange. A character set encoding with printable characters defined in the range 0x21 to 0x7E. Normally refers to a US character set, but variants are defined for many national languages. Equivalent to ISO 8859-1 character set encoding.

IETF Internet Engineering Task Force**.** A volunteer group that develops and approves standards that are relative to the Internet.

ISO International Organization for Standardization.

media The consumable upon which the marking engine marks so as to form a text and/or pictorial image, typically paper.

3   Media Size Specifications

The media size specifications defined in this document, labeled as Self Describing Names, are cross indexed to Legacy Names and Alias (common) names. The Legacy Names define the names currently used in the ISO DPA, Printer MIB, or IPP documents. A reference column is included in the tables to indicate which of these three documents contain the Legacy Name.

Ref column entry definitions:

> 1 = Printer MIB and ISO DPA.   (Both documents contain an identical set.)
> 2 = IPP

3.1   Media Size Name Format

This specification defines a new Media Size Self Describing Name format that is recommended to be used by all new implementations. This new format has the media size embedded within the string and allows a device to operate without a media name to media size table. The Media Size Self Describing Name format is structured as follows:

<div align="center">

prefix - mediaName . widthDim - lengthDim

</div>

3.1.1 *prefix*   This string parameter is present to indicate the size dimensions are in English units. The value of the prefix string is "**na**".

The prefix string shall be included in all Media Size Self Describing Names that contain size dimensions that are to be interpreted as English units. The prefix string must not be present if the size dimensions are in metric units.

The prefix string shall be separated from the mediaName by a hyphen (0x2D).

3.1.2 *mediaName*   This string provides a textual description of the media size. It is normally derived from the Legacy or Alias name associated with the media size. The mediaName can consist of multiple words, with each word separated by a hyphen (0x2D).

The mediaName shall contain only US-ASCII characters using the codes 0x21 through 0x2D and 0x2F through 0x7E. A period (0x2E) must not be present in the mediaName.

The mediaName shall be separated from the widthDim by a period (0x2E).

3.1.3 *widthDim* and *lengthDim*   These values define the media size. The widthDim is always the smaller of the two dimensions.

The widthDim is separated from the lengthDim by a hyphen (0x2D).

For size dimensions measured in English units, the unit of measure is inches/1000 (.001 inches).

For size dimensions measured in Metric units, the unit of measure is millimeters/10 (.1 mm).

No decimal values (i.e. periods) shall be present within a media size dimension.

3.1.4 General

The Media Size Self Describing Name shall not contain any space characters (0x20).

Media Size Self Describing Names are not case sensitive but will always be presented in this standard using lower case characters.

Symbol characters (0x21 through 0x2F, 0x3A through 0x3F, 0x5B through 0x5F, and 0x7B through 0x7E) are not prohibited, with the exception of the period (0x2E), but are not encouraged.

Wherever possible, the Media Size Self Describing Name has been derived from the Legacy Name. In many cases the 'prefix- mediaName' portion is identical to the Legacy Name. In the remaining cases, the 'prefix' portion must be ignored to match the Legacy Name.

3.2   Custom Media Size Name Format

The Custom Media Size Name format allows extensibility of the media size set without an update to this specification. This feature is primarily intended for special media sizes that are used at a minimum number of locations. The Media Size Self Describing Name format for custom sizes is structured similar to the format for the standardized sizes.

<p align="center">prefix - custom - mediaName . widthDim - lengthDim</p>

3.2.1 *prefix*   This string parameter must conform to all the requirements of section 3.1.1.

The prefix string shall be separated from the "custom" string by a hyphen (0x2D).

3.2.2 "custom"   This string value must immediately follow the prefix for a name with English units. Otherwise, it will be the first parameter string in the name.

3.2.3 *mediaName*   This string is optional and, if used, provides a textual description of the media size. The mediaName must conform to all the requirements of section 3.1.2.

3.2.4 *widthDim* and *lengthDim*   These values must conform to all requirements of section 3.1.3.

3.2.5 Example: A custom form measuring 6 inches by 14 inches known as "long and narrow".

<p align="center">na-custom-long-and-narrow.6000-14000 or na-custom.6000-14000</p>

3.3   North American Standard Sheet Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (inches / 1000)
		index-3x5	na-index-3x5.3000-5000
		index-4x6	na-index-4x6.4000-6000
		a2	na-a2.4375-5750
		index-5x8	na-index-5x8.5000-8000
		5x7	na-5x7.5000-7000
invoice	2	statement, mini	na-invoice.5500-8500
		index-4x6-ext	na-index-4x6-ext.6000-8000
		7x9	na-7x9.7000-9000
executive	2		na-executive.7250-10500
		roc-16k	na-roc-16k.7750-10750
na-8x10	2	government-letter	na-govt-letter.8000-10000
quarto	2		na-quarto.8500-10830
na-letter	1, 2	letter, a, engineering-a	na-letter.8500-11000
		fanfold-European	na-fanfold-eur.8500-12000
		letter-plus	na-letter-plus.8500-12690
		foolscap	na-foolscap.8500-13000
na-legal	1, 2	legal	na-legal.8500-14000
		super-a	na-super-a.8940-14000
		9x11, letter-tab	na-9x11.9000-11000
arch-a	2	architecture-a	na-arch-a.9000-12000
		letter-extra	na-letter-extra.9500-12000
		legal-extra	na-legal-extra.9500-15000
		10x11	na-10x11.10000-11000
		10x13	na-10x13.10000-13000
		10x14	na-10x14.10000-14000
		roc-8k	na-roc-8k.10750-15500
		11x12	na-11x12.11000-12000
		11x15	na-11x15.11000-15000
		edp	na-edp.11000-14000
		fanfold-us	na-fanfold-us.11000-14875
ledger	2	b, engineering-b	na-ledger.11000-17000
		b-plus	na-b-plus.12000-19170
		european-edp	na-eur-edp.12000-14000
arch-b	2	architecture-b, tabloid-extra	na-arch-b.12000-18000
		super-b	na-super-b.13000-19000
c	2	engineering-c	na-c.17000-22000
arch-c	2	architecture-c	na-arch-c.18000-24000
d	2	engineering-d	na-d.22000-34000
arch-d	2	architecture-d	na-arch-d.24000-36000
		e1	na-e1.28000-40000
		wide-format	na-wide-format.30000-42000
e	2	engineering-e	na-e.34000-44000
arch-e	2	architecture-e	na-arch-e.36000-48000
		f, engineering-f	na-f.44000-68000

3.4   North American Standard Envelope Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (inches / 1000)
		personal-envelope	na-personal-envelope.3625-6500
monarch-envelope	2		na-monarch-envelope.3875-7500
na-number-9-envelope	1, 2		na-9-envelope.3875-8875
na-number-10-envelope	1, 2		na-10-envelope.4125-9500
		a2-envelope	na-a2-envelope.4375-5750
		number-11-envelope	na-11-envelope.4500-10375
		number-12-envelope	na-12-envelope.4750-11000
		number-14-envelope	na-14-envelope.5000-11500
na-6x9-envelope	1, 2	6x9-envelope	na-envelope.6000-9000
		c5-envelope	na-c5-envelope.6500-9500
na-7x9-envelope	1, 2	7x9-envelope	na-envelope.7000-9000
		letter-envelope	na-letter-envelope.8500-11000
na-9x11-envelope	1, 2	9x11-envelope	na-envelope.9000-11000
na-9x12-envelope	1, 2	9x12-envelope	na-envelope.9000-12000
na-10x13-envelope	1, 2	10x13-envelope	na-envelope.10000-13000
na-10x14-envelope	1, 2	10x14-envelope	na-envelope.10000-14000
na-10x15-envelope	1, 2	10x15-envelope	na-envelope.10000-15000

3.5   ISO Standard Sheet Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
iso-a10	1, 2	a10	iso-a10.260-370
iso-a9	1, 2	a9	iso-a9.370-520
iso-a8	1, 2	a8	iso-a8.520-740
iso-a7	1, 2	a7	iso-a7.740-1050
iso-a6	1, 2	a6	iso-a6.1050-1480
iso-a5	1, 2	a5	iso-a5.1480-2100
		a5-extra	iso-a5.1740-2350
iso-a4	1, 2	a4	iso-a4.2100-2970
		a4-tab	iso-a4-tab.2250-2970
		a4-extra	iso-a4-extra.2355-3223
iso-a3	1, 2	a3	iso-a3.2970-4200
iso-a3-extra			iso-a3-extra.3220-4450
iso-a2	1, 2	a2	iso-a2.4200-5940
iso-a1	1, 2	a1	iso-a1.5940-8410
iso-a0	1, 2		iso-a0.8410-11890
		2a0	iso-2a0.11890-16820
		4a0	iso-4a0.16820-23780
iso-b10	1, 2	b10	iso-b10.310-440
iso-b9	1, 2	b9	iso-b9.440-620
iso-b8	1, 2	b8	iso-b8.620-880
iso-b7	1, 2	b7	iso-b7.880-1250
iso-b6	1, 2	b6	iso-b6.1250-1760
iso-b5	1, 2	b5	iso-b5.1760-2500
		b5-extra	iso-b5-extra.2010-2760
iso-b4	1, 2	b4	iso-b4.2500-3530
iso-b3	1, 2	b3	iso-b3.3530-5000
iso-b2	1, 2	b2	iso-b2.5000-7070
iso-b1	1, 2	b1	iso-b1.7070-10000
iso-b0	1, 2	b0	iso-b0.10000-14140
iso-c8	1	c8	iso-c8.570-810
iso-c7	1	c7	iso-c7.810-1140
iso-c6	1, 2	c6	iso-c6.1140-1620
iso-c5	1, 2	c5	iso-c5.1620-2290
iso-c4	1, 2	c4	iso-c4.2290-3240
iso-c3	1, 2	c3	iso-c3.3240-4580
iso-c2	1	c2	iso-c2.4580-6480
iso-c1	1	c1	iso-c1.6480-9170
iso-c0	1	c0	iso-c0.9170-12970
iso-designated	1, 2	designated-long, dl	iso-dl.1100-2200
iso-ra2			iso-ra2.4300-6100
iso-sra2			iso-sra2.4500-6400
iso-ra1			iso-ra1.6100-8600
iso-sra1			iso-sra1.6400-9000
iso-ra0			iso-ra0.8600-12200
iso-sra0			iso-sra0.9000-12800

3.6   ISO Standard Envelope Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
		c10-envelope	iso-c10-envelope.280-400
		c9-envelope	iso-c9-envelope.400-570
		c8-envelope	iso-c8-envelope.570-810
		c7-envelope	iso-c7-envelope.810-1140
		c7/c6-envelope	iso-c7c6-envelope.810-1620
iso-designated-long-envelope	1, 2	dl-envelope	iso-dl-envelope.1100-2200
		c6-envelope	iso-c6-envelope.1140-1620
		c6/c5-envelope	iso-c6c5-envelope.1140-2290
iso-b6-envelope	2	b6-envelope	iso-b6-envelope.1250-1760
		b6/c4-envelope	iso-b6c4-envelope.1250-3240
iso-c5-envelope	1, 2	c5-envelope	iso-c5-envelope.1620-2290
iso-b5-envelope	1, 2	b5-envelope	iso-b5-envelope.1760-2500
iso-c4-envelope	1, 2	c4-envelope	iso-c4-envelope.2290-3240
iso-b4-envelope	1, 2	b4-envelope	iso-b4-envelope.2500-3530
iso-c3-envelope	2	c3-envelope	iso-c3-envelope.3240-4580
		c2-envelope	iso-c2-envelope.4580-6480
		c1-envelope	iso-c1-envelope.6480-9170
		c0-envelope	iso-c0-envelope.9170-12970

3.7   Japanese Standard Sheet Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
jis-b10	1, 2		jis-b10.320-450
jis-b9	1, 2		jis-b9.450-640
jis-b8	1, 2		jis-b8.640-910
jis-b7	1, 2		jis-b7.910-1280
jis-b6	1, 2		jis-b6.1280-1820
jis-b5	1, 2		jis-b5.1820-2570
jis-b4	1, 2		jis-b4.2570-3640
jis-b3	1, 2		jis-b3.3640-5150
jis-b2	1, 2		jis-b2.5150-7280
jis-b1	1, 2		jis-b1.7280-10300
jis-b0	1, 2		jis-b0.10300-14560
		exec	jis-exec.2160-3300
		hagaki (postcard)	jpn-hagaki.1000-1480
		oufuku (postcard)	jpn-oufuku.1480-2000

3.8 Japanese Standard Envelope Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
		chou4-envelope	jpn-chou4-envelope.900-2050
		you4-envelope	jpn-you4-envelope.1050-2350
		envelope-2	jpn-envelope-2.1111-1460
		chou3-envelope	jpn-chou3-envelope.1200-2350
		kaku3-envelope	jpn-kaku3-envelope.2160-2770
		kahu-envelope	jpn-kahu-envelope.2400-3221
		kaku2-envelope	jpn-kaku2-envelope.2400-3320

3.9 Chinese Standard Sheet Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
		prc-32k	prc-32k.970-1510
		prc-16k	prc-16k.1460-2150

3.10 Chinese Standard Envelope Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
		prc1-envelope	prc1-envelope.1020-1650
		prc2-envelope	prc2-envelope.1020-1760
		prc4-envelope	prc4-envelope.1100-2080
		prc5-envelope	prc5-envelope.1100-2200
		prc8-envelope	prc8-envelope.1200-3090
		prc6-envelope	prc6-envelope.1200-3200
		prc3-envelope	prc3-envelope.1250-1760
		prc7-envelope	prc7-envelope.1600-2300
		prc9-envelope	prc9-envelope.2290-3240
		prc10-envelope	prc10-envelope.3240-4580

3.11 Other Metric Standard Sheet Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
folio	2		folio.2100-3300
		folio-sp	folio-sp.2150-3150

3.12 Other Metric Standard Envelope Media Sizes

Legacy Name	Ref.	Alias (common name)	Self Describing Name (mm / 10)
		italian-envelope	italian-envelope.1000-2300
		postfix-envelope	postfix-envelope.1140-2290
		invite-envelope	invite-envelope.2200-2200

4   Conformance Requirements

The Self Describing Media Size Names defined in this document are recommended for any future specifications that have a need for media size definitions. The proper procedure for including the Self Describing Media Size Names is to simply reference this specification as the definition and source of the media sizes, with the clause "or subsequent revisions". In this manner, any updates to this document are automatically included in the referencing specification.

5   IANA Considerations

Media size names were originally developed as a part of the ISO DPA specification and have not been registered with IANA. The current revision of this specification, not an IANA registration, will define the official reference for media names.

ISSUE 1: *Do we need this section ? This appears to be an IETF remnant. Any objections to not registering these names with IANA ?*

6   Internationalization Considerations

All standardized textual strings must be represented as US-ASCII character codes and local translations must never be performed. Custom sizes, if limited to local use, may be represented using any desired character set.

ISSUE 2: *Do we need this section ?   Should UTF-8 be mentioned ?*

7   Security Considerations

This specification will have no impact on the security burden of or potential threats to the importing system.

8   References

[DPA]
> ISO/IEC 10175, Document Printing Application, June 1996.

[RFC1759]
> Smith, R., Wright, F., Hastings, T., Zilles, S., Gyllenskog, J., "Printer MIB", RFC 1759, March 1995.

[RFC2911]

Hastings, T., Herriot, R., deBry, R., Isaacson, S., and P. Powell, "Internet Printing Protocol/1.1: Model and Semantics", RFC 2911, September 2000.

[TIP/SI]

IEEE Std 1284.1-1997, IEEE Standard for Information Technology, Transport Independent Printer/System Interface.

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10   Appendix A: Description of the IEEE Industry Standards and Technology (ISTO)

The IEEE-ISTO is a not-for-profit corporation offering industry groups an innovative and flexible operational forum and support services. The IEEE-ISTO provides a forum not only to develop standards, but also to facilitate activities that support the implementation and acceptance of standards in the marketplace. The organization is affiliated with the IEEE (http://www.ieee.org/) and the IEEE Standards Association (http://standards.ieee.org/).
For additional information regarding the IEEE-ISTO and its industry programs visit:
http://www.ieee-isto.org.

11   Appendix B: Description of the IEEE-ISTO PWG

The Printer Working Group (or PWG) is a Program of the IEEE Industry Standards and Technology Organization (ISTO) with member organizations including printer manufacturers, print server developers, operating system providers, network operating systems providers, network connectivity vendors, and print management application developers. The group is chartered to make printers and the applications and operating systems supporting them work together better. All references to the PWG in this document implicitly mean "The Printer Working Group, a Program of the IEEE ISTO." In order to meet this objective, the PWG will document the results of their work as open standards that define print related protocols, interfaces, procedures and conventions. Printer manufacturers and vendors of printer related software will benefit from the interoperability provided by voluntary conformance to these standards.

In general, a PWG standard is a specification that is stable, well understood, and is technically competent, has multiple, independent and interoperable implementations with substantial operational experience, and enjoys significant public support.

For additional information regarding the Printer Working Group visit:

http://www.pwg.org

12 Appendix C: Change History

The document is still too preliminary to worry about this! The next revision will track all changes.