PWG Media Standardized Names v2.1 (MSN)

Status: Approved

Abstract: This document defines standard colorant and media names and naming conventions to be used by other PWG specifications. These lists of names are a superset of the names that are defined in the Printer MIB v2 (RFC 3805) and various Internet Printing Protocol documents.

This document is a PWG Candidate Standard. For a definition of a "PWG Candidate Standard", see:

<https://ftp.pwg.org/pub/pwg/general/process/pwg-process-4.pdf>

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1. Introduction

Media names/properties for coatings, colors, sizes, sources, tooth, and types have been defined in many previously published standards related to printing. Examples are the ISO Document Printing Application [ISO10175], the IEEE Transport Independent Printer/System Interface [IEEE1284.1], the Printer MIB v2 [RFC3805], and the Internet Printing Protocol/1.1 [STD92]. Although there is a high degree of commonality in the set of media names/properties presented in these documents, they do not represent a uniform set. This document defines a complete set of coatings, colors, sizes, sources, tooth, and types that can be used as a normative reference by other standards. These definitions are also registered in the IANA registry for IPP [IANA-IPP].

* 1. Scope

This document defines colorant names and media coatings, colors, sizes, tooth, and types. Other numeric media properties such as weight and opacity are not included.

The media size dimensions that are defined in this document for sheet media 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 parameters are best handled by unique properties rather than overloading the media size, e.g., in IPP a "media" attribute with value 'na\_letter\_8.5x11in' and "orientation-requested" attribute with value 4 (landscape). The only exception to this usage is for roll-fed media

Dimensions are provided in inches or millimeters to avoid conversion errors. Programs that convert media dimensions to/from other units have a responsibility to ensure that errors do not accumulate. For example, when converting from inches to hundredths of millimeters, programs will truncate any fractional remainder, but when converting from hundredths of millimeters to inches those same programs will round any remainder to the nearest thousandth of an inch.

Media sizes typically represent cut sheets. Sizes can also represent the minimum and maximum supported sheet dimensions, the inner and outer diameters of printable discs (e.g. CD, DVD, etc.), the minimum and maximum supported roll dimensions, and specific roll-fed media dimensions. No accommodation is made to support continuous printing applications, although a client application can supply multiple "pages" of content with each page representing a strip of content on a continuous printout.

The color property that is included in a portion of the Media Name entries in both the Printer MIB and IPP are included as a separate independent set of Color Names in this specification. The Color Names are defined to be used to describe marker colorants and media color. The sRGB reference values for each named color are not normative but rather are provided for purposes of display on a client, much as the English Localized Name (see section 1.2 below) can be used on the client.

* 1. Localization

The intent of the names defined in this specification is for machine communication. Examples include:

1. From a printer to client software,
2. From client software to a printer, and
3. From a printer data description file to client software.

This specification defines example localizations for each name in the "English Localized Name" column of each table. Typically a client will localize these names to the language of the user before displaying them. However, when a client encounters a name that it does not recognize, the names have been structured so that they can be converted to title case form (e.g. "photographic-glossy" becomes "Photographic Glossy") and displayed to the user without further localization. Color names can also include sRGB reference values for display as well.

The Media Size Self-Describing Name deserves special mention. It contains both a media size name and the dimensions, in case the receiver does not recognize the media size name. Such a receiver can then parse the Media Size Self-Describing Name and discover the intended dimensions of such an unrecognized media. These names have also been defined to facilitate parsing and/or fallback presentation of either the media size name and/or the dimensions parts. Programs are encouraged to display dimensional sizes using the original units to avoid confusion, however this behavior is outside the scope of this specification.

1. Terminology
   1. Conformance Terminology

Capitalized terms, such as MUST, MUST NOT, RECOMMENDED, REQUIRED, SHOULD, SHOULD NOT, MAY, and OPTIONAL, have special meaning relating to conformance as defined in Key words for use in RFCs to Indicate Requirement Levels [BCP14]. This specification defines the following additional capitalized conformance terms:

*CONDITIONALLY REQUIRED*: A MUST conformance requirement that applies only when a specified condition is true.

*DEPRECATED*: A SHOULD NOT conformance requirement for previously defined and approved protocol elements that are planned to be removed from use.

*OBSOLETE*: A MUST NOT conformance requirement for previously defined and approved protocol elements that have been removed from use.

* 1. Other Terminology

This specification defines the following terms:

*ABNF**(Augmented Backus-Naur Form)*; A formal meta-syntax used to express content-free grammars. ABNF is commonly used in Internet protocol specifications and is defined in the Augmented BNF for Syntax Specifications [STD68].

*Alias***;** An alternative name that is commonly used to mean the same as a name standardized in this document, but which is not defined for a use that conforms to this specification.

*Color Name*; The standard name used to identify the color of media or marker colorant such as ‘white’, ‘red’, ‘ivory’, 'cyan', 'magenta', 'yellow', and 'black'.

*Legacy Name*; A standard name used in the same contexts as the names defined in this specification, but which is DEPRECATED from use when conforming to this specification. This name is provided for historical context.

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

*Media Dimensions*; The short and long dimensions of the media or the inner and outer diameters of a printable disc.

*Media Finish***;** An adjective that describes the surface texture of the medium. In most cases the texture is obtained by the application of a coating such as ‘glossy’ and ‘matte’.

*Media Size Name***;** The standard name that identifies a particular media size such as ‘a4’, ‘letter’, and ‘monarch’.

*Media Size Self-Describing Name (or Media Size for short)*; An ASCII string that contains a Media Size Name and the Media Dimensions that correspond to the Media Size Name such as ‘iso\_a4**\_**210x297mm’, ‘na\_letter**\_**8.5x11in’, and ‘na\_monarch**\_**3.875x7.5in’.

*Media Source Name;* The standard name that identifies a particular input tray or roll such as 'tray-1', 'manual', 'large-capacity', and 'main-roll'.

*Media Type Name*; The standard name that identifies a particular media type, i.e., the predominate characteristic of the media, such as ‘stationery’, ‘transparency’, and ‘envelope’.

* 1. Acronyms and Organizations

This specification defines the following acronyms and organizations:

*ASCII*: American Standard Code for Information Interchange

*ASME*: American Society of Mechanical Engineers, <https://www.asme.org/>

*DPA*: Document Printing Application

*IANA*: Internet Assigned Numbers Authority, <https://www.iana.org/>

*IETF*: Internet Engineering Task Force, <https://www.ietf.org/>

*IPP*: Internet Printing Protocol

*ISO*: International Organization for Standardization, <https://www.iso.org/>

*JTAPI*: Job Ticket Application Programming Interface, <https://wiki.linuxfoundation.org/openprinting/jtapi>

*MIB*: Management Information Base

*PSTN*: Public Switched Telephone Network

*PWG*: Printer Working Group, <https://www.pwg.org/>

*RFC*: Request For Comments

*sRGB, sRGBA*: Standard Red Green Blue (Alpha) color space, <https://www.w3.org/Graphics/Color/sRGB.html>

1. Media Type Names

The following subsections define standard media type names and naming conventions.

* 1. Standard Media Type Names

The standard Media Type Names are defined in Table 1. The base set of these names is derived from the Printer MIB v2 [RFC3805], Media Features for Display, Print, and Fax [RFC2534], and IPP Job Extensions v2.0 [PWG5100.7]. Additional values MAY be registered with IANA according to the Internet Printing Protocol/1.1 [STD92] IANA IPP registry [IANA-IPP] .

Media Types that are produced using a coating or special process can only apply coating or process on one side. The Media Type Names defined in this specification do not distinguish between one sided and two sided conditions.

Standard Media Type Names conform to the following ABNF [STD68]:

standard-type-name = keyword

keyword = ALPHA 1\*( ALPHA / DIGIT / "-" / "\_" / ".")

Table 1 - Media Type Names

| **Name** | **English Localized Name** | **Description** |
| --- | --- | --- |
| aluminum | Aluminum | An opaque aluminum media; DEPRECATED - see "metal" |
| auto | Automatic | Automatically selected/detected media |
| back-print-film | Back Print Film | A translucent film that the user can view with or without backlighting |
| cardboard | Cardboard | A corrugated, opaque material |
| cardstock | Card Stock | A heavier or stiffer opaque material than "stationery" |
| cd | Compact Disc | A compact disc; DEPRECATED - see "disc" |
| continuous | Continuous | Continuously connected sheets of an opaque material - which edge is connected is not specified [RFC2534] |
| continuous-long | Continuous (Long) | Continuously connected sheets of an opaque material connected along the long edge [RFC3805] |
| continuous-short | Continuous (Short) | Continuously connected sheets of an opaque material connected along the short edge [RFC3805] |
| corrogated-board | Cardboard | A corrugated, opaque material; DEPRECATED - see "cardboard" |
| disc | Optical Disc | An optical disc |
| disc-glossy | Optical Disc (Glossy) | An optical disc with a glossy coating |
| disc-high-gloss | Optical Disc (High-Gloss) | An optical disc with a "high-gloss" coating |
| disc-matte | Optical Disc (Matte) | An optical disc with a matte coating |
| disc-satin | Optical Disc (Satin) | An optical disc with a satin finish coating |
| disc-semi-gloss | Optical Disc (Semi-Gloss) | An optical disc with a semi-gloss coating |
| double-wall | Cardboard (Double Wall) | A corrugated, opaque material with two layers or walls |
| dvd | Digital Versatile Disc | A printable DVD; DEPRECATED - see "disc" |
| end-board | Cardboard (End) | A corrugated, opaque material that is closed on the ends |
| envelope | Envelope | Envelopes that can be used for conventional mailing purposes [RFC2534] [RFC3805] |
| envelope-archival | Envelope (Archival) | Envelopes made from an archival-quality material |
| envelope-bond | Envelope (Bond) | Envelopes made from a medium stock |
| envelope-coated | Envelope (Coated) | Envelopes made from a coated material |
| envelope-colored | Envelope (Colored) | Envelopes made from a colored material |
| envelope-cotton | Envelope (Cotton) | Envelopes made from a material composed in part of cotton or rag fibers |
| envelope-fine | Envelope (Fine) | Envelopes made from vellum or other high quality opaque material |
| envelope-heavyweight | Envelope (Heavyweight) | Envelopes made from a heavy stock |
| envelope-inkjet | Envelope (Inkjet) | Envelopes made from a material designed to minimize the spread of liquid inks. Can be accomplished using a coating |
| envelope-lightweight | Envelope (Lightweight) | Envelopes made from a light stock |
| envelope-plain | Envelope (Plain) | Envelopes that are not preprinted and have no windows [RFC2534] [RFC3805] |
| envelope-preprinted | Envelope (Preprinted) | Envelopes with a preprinted image |
| envelope-window | Envelope (Window) | Envelopes that have windows for addressing purposes [RFC3805] |
| fabric | Fabric | Printable fabric |
| fabric-archival | Fabric (Archival) | Printable fabric with archival qualities |
| fabric-glossy | Fabric (Glossy) | Printable fabric with a glossy coating or finish |
| fabric-high-gloss | Fabric (High Gloss) | Printable fabric with a high gloss coating or finish |
| fabric-matte | Fabric (Matte) | Printable fabric with a matte coating or finish |
| fabric-semi-gloss | Fabric (Semi-Gloss) | Printable fabric with a semi-gloss coating or finish |
| fabric-waterproof | Fabric (Waterproof) | Printable fabric that is waterproof |
| full-cut-tabs | Full Cut Tabs | Media with a tab that runs the full length of the sheet so that only one tab is visible extending out beyond the edge of non-tabbed media |
| glass | Glass | Sheets of rigid glass, typically transparent |
| glass-colored | Glass (Colored) | Sheets of colored rigid glass |
| glass-opaque | Glass (Opaque) | Sheets of opaque rigid glass |
| glass-surfaced | Glass (Surfaced) | Sheets of rigid glass with a semi-smooth (abraded) surface, typically translucent |
| glass-textured | Glass (Textured) | Sheets of rigid glass with a raised surface texture of lines, ridges, and or shapes |
| labels | Labels | Label stock, for example a sheet of peel-off labels |
| labels-colored | Labels (Colored) | Label stock with a colored (non-white) appearance |
| labels-glossy | Labels (Glossy) | Label stock with a glossy finish |
| labels-high-gloss | Labels (High Gloss) | Label stock with a "high gloss" finish |
| labels-inkjet | Labels (Inkjet) | Label stock designed to minimize the spread of liquid inks |
| labels-matte | Labels (Matte) | Label stock with a matte finish |
| labels-permanent | Labels (Permanent) | Label stock with a permanent adhesive |
| labels-satin | Labels (Satin) | Label stock with a satin finish |
| labels-security | Labels (Security) | Label stock with a semi-permanent adhesive with security features |
| labels-semi-gloss | Labels (Semi-Gloss) | Label stock with a semi-gloss finish |
| letterhead | Stationery (Letterhead) | Letterhead; DEPRECATED - see "stationery-letterhead" |
| metal | Metal | A metallic medium |
| metal-glossy | Metal (Glossy) | A metallic medium with a glossy finish |
| metal-high-gloss | Metal (High Gloss) | A metallic medium with a "high gloss" finish |
| metal-matte | Metal (Matte) | A metallic medium with a matte finish |
| metal-satin | Metal (Satin) | A metallic medium with a satin finish |
| metal-semi-gloss | Metal (Semi-Gloss) | A metallic medium with a semi-gloss finish |
| multi-layer | Multi-Layer | Form medium composed of multiple layers which are pre-attached to one another; e.g., for use with impact printers [RFC3805] |
| multi-part-form | Multi-Part Form | Form medium composed of multiple layers not pre-attached to one another; each sheet can be drawn separately from an input source [RFC3805] |
| other | Other | Other media that does not fall into any of the specific type names; DEPRECATED |
| paper | Stationery | Separately cut sheets of an opaque material; DEPRECATED - see "stationery" |
| photographic | Photo | An opaque material to produce photographic quality images. The coating is unspecified |
| photographic-archival | Photo (Archival) | An archival-quality material used to reproduce photographic quality images. |
| photographic-film | Photo (Film) | Film used to produce photographic quality images |
| photographic-glossy | Photo (Glossy) | An opaque material that has a "glossy" coating to produce photographic quality images [PWG5100.3] |
| photographic-high-gloss | Photo (High Gloss) | An opaque material that has a "high gloss" coating to produce photographic quality images [PWG5100.3] |
| photographic-matte | Photo (Matte) | An opaque material that has a "matte" coating to produce photographic quality images [PWG5100.3] |
| photographic-satin | Photo (Satin) | An opaque material that has a "satin" coating to produce photographic quality images [PWG5100.3] |
| photographic-semi-gloss | Photo (Semi-Gloss) | An opaque material that has a "semi-gloss" coating to produce photographic quality images [PWG5100.3] |
| plastic | Plastic | An opaque printable plastic (polypropylene or similar) |
| plastic-archival | Plastic (Archival) | An opaque, archival-quality printable plastic |
| plastic-colored | Plastic (Colored) | An opaque, colored printable plastic |
| plastic-glossy | Plastic (Glossy) | An opaque printable plastic with a glossy coating or finish |
| plastic-high-gloss | Plastic (High Gloss) | An opaque printable plastic with a high gloss coating or finish |
| plastic-matte | Plastic (Matte) | An opaque printable plastic with a matte coating or finish |
| plastic-satin | Plastic (Satin) | An opaque printable plastic with a satin coating or finish |
| plastic-semi-gloss | Plastic (Semi-Gloss) | An opaque printable plastic with a semi-gloss coating or finish |
| pre-cut-tabs | Pre-Cut Tabs | Media with tabs that are cut so that more than one tab is visible extending out beyond the edge of non-tabbed media in an Output-Document. |
| roll | Roll | Media provided on a roll; DEPRECATED - see any other media type name that correctly describes the type of media |
| screen | Screen | A refreshable display [RFC2534] |
| screen-paged | Screen (Paged) | A refreshable display which cannot scroll [RFC2534] |
| self-adhesive | Self-Adhesive Paper | Self-adhesive paper as sheets or rolls; see "labels" for pre-cut labels |
| self-adhesive-film | Self-Adhesive Film | Self-adhesive film as sheets or rolls |
| single-face | Single Face | Corrugated cardboard with a single face |
| single-wall | Cardboard (Single Wall) | Corrugated cardboard with a single layer or wall |
| sleeve | Sleeve | An opaque media used for a sleeve |
| stationery | Paper (Plain) | General-purpose opaque material [RFC2534] [RFC3805] |
| stationery-archival | Paper (Archival) | An archival-quality material used for long-lived documents |
| stationery-bond | Paper (Bond) | A medium stock opaque material |
| stationery-coated | Paper (Coated) | An opaque material with a coating of unspecified type |
| stationery-colored | Paper (Colored) | A colored (non-white) opaque material |
| stationery-cotton | Paper (Cotton) | An opaque material composed in part of cotton or rag fibers |
| stationery-fine | Paper (Vellum) | Vellum or other high quality opaque material |
| stationery-heavyweight | Paper (Heavyweight) | A heavy stock opaque material |
| stationery-heavyweight-coated | Paper (Heavyweight Coated) | A heavy stock opaque material with a coating of unspecified type |
| stationery-inkjet | Paper (Inkjet) | An opaque material designed to minimize the spread of liquid inks. Can be accomplished using a coating |
| stationery-letterhead | Paper (Letterhead) | An opaque material with a preprinted letterhead [PWG5100.3] |
| stationery-lightweight | Paper (Lightweight) | A light stock opaque material |
| stationery-preprinted | Paper (Preprinted) | An opaque material with a preprinted image [PWG5100.3] |
| stationery-prepunched | Paper (Prepunched) | An opaque material that is punched with an unspecified hole pattern |
| tab-stock | Tab Stock | Media with tabs (either pre-cut or full-cut) [RFC3805] |
| tractor | Tractor Feed | Tractor feed media |
| transfer | Transfer | Transfer paper, such as for T-shirt printing |
| transparency | Transparency | A transparent material [RFC2534] [RFC3805] |
| triple-wall | Cardboard (Triple Wall) | Cardboard with three layers or walls |

* 1. Vendor Media Type Names

Vendor Media Type Names MAY be added without an update to this specification by prefixing the names with a reverse-DNS identifier, e.g. "org.pwg-my-type", or using 'smiNNN-' where NNN is an SMI Private Enterprise Number (PEN) [[IANA-PEN](https://datatracker.ietf.org/doc/html/rfc8011#ref-IANA-PEN)]. The format is defined by the following ABNF [STD68]:

vendor-type-name = ( dns-name / smi-name ) "-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

dns-name = 1\*ALPHA 1\*( "." 1\*( ALPHA / DIGIT / "-" ) )

smi-name = "smi" 1\*DIGIT

* 1. Custom Media Type Names

Media Type Names MAY be locally extended using a Custom Media Type Name without an update to this specification by prefixing the names with the string "custom-", e.g. "custom-xyz-letterhead". The format is defined by the following ABNF [STD68]:

custom-type-name = "custom-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

* 1. Derived Media Type Names

Media Type Names MAY be locally extended from existing standard, vendor, or custom media names by prefixing the names with the string "derived-" and appending the existing name with a leading underscore, e.g. "derived-xyz-photo\_photographic-glossy". The format is defined by the following ABNF [STD68]:

derived-type-name = "derived-" base-name "\_"

( base-name / vendor-type-name /

custom-type-name )

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / ".")

1. Color Names

Table 2 defines the Media Color Names. These names are derived primarily from the Printer MIB v2 [RFC3805] prtInputMediaColor and JTAPI [JTAPI] standard values. The name 'transparent' has been replaced by 'no-color' to allow the use of a color attribute with the media type ‘transparency’ as defined in Table 2.

Table 2 - Color Names

| **Name** | **English Localized Name** | **sRGBA Value** | **Sample** |
| --- | --- | --- | --- |
| no-color | Transparent | 0xFFFFFF00 |  |
| black | Black | 0x000000FF |  |
| clear-black | Clear Black | 0x0000007F |  |
| light-black | Light Black | 0x808080FF |  |
| blue | Blue | 0x0000FFFF |  |
| clear-blue | Clear Blue | 0x0000FF7F |  |
| dark-blue | Dark Blue | 0x00008BFF |  |
| light-blue | Light Blue | 0xADD8E6FF |  |
| brown | Brown | 0xA52A2AFF |  |
| clear-brown | Clear Brown | 0xA52A2A7F |  |
| dark-brown | Dark Brown | 0x5C4033FF |  |
| light-brown | Light Brown | 0x9966FFFF |  |
| buff | Buff | 0xF0DC82FF |  |
| clear-buff | Clear Buff | 0xF0DC827F |  |
| dark-buff | Dark Buff | 0x976638FF |  |
| light-buff | Light Buff | 0xECD9B0FF |  |
| cyan | Cyan | 0x00FFFFFF |  |
| clear-cyan | Clear Cyan | 0x00FFFF7F |  |
| dark-cyan | Dark Cyan | 0x008B8BFF |  |
| light-cyan | Light Cyan | 0xE0FFFFFF |  |
| gold | Gold | 0xFFD700FF |  |
| clear-gold | Clear Gold | 0xFFD7007F |  |
| dark-gold | Dark Gold | 0xEEBC1DFF |  |
| light-gold | Light Gold | 0xF1E5ACFF |  |
| goldenrod | Goldenrod | 0xDAA520FF |  |
| clear-goldenrod | Clear Goldenrod | 0xDAA5207F |  |
| dark-goldenrod | Dark Goldenrod | 0xB8860BFF |  |
| light-goldenrod | Light Goldenrod | 0xFFEC8BFF |  |
| gray | Gray | 0x808080FF |  |
| clear-gray | Clear Gray | 0x8080807F |  |
| dark-gray | Dark Gray | 0x404040FF |  |
| light-gray | Light Gray | 0xD3D3D3FF |  |
| green | Green | 0x008000FF |  |
| clear-green | Clear Green | 0x0080007F |  |
| dark-green | Dark Green | 0x006400FF |  |
| light-green | Light Green | 0x90EE90FF |  |
| ivory | Ivory | 0xFFFFF0FF |  |
| clear-ivory | Clear Ivory | 0xFFFFF07F |  |
| dark-ivory | Dark Ivory | 0xF2E58FFF |  |
| light-ivory | Light Ivory | 0xFFF8C9FF |  |
| magenta | Magenta | 0xFF00FFFF |  |
| clear-magenta | Clear Magenta | 0xFF00FF7F |  |
| dark-magenta | Dark Magenta | 0x8B008BFF |  |
| light-magenta | Light Magenta | 0xFF77FFFF |  |
| multi-color | Multi-Color | Undefined |  |
| clear-multi-color | Clear Multi-Color | Undefined |  |
| mustard | Mustard | 0xFFDB58FF |  |
| clear-mustard | Clear Mustard | 0xFFDB587F |  |
| dark-mustard | Dark Mustard | 0x7C7C40FF |  |
| light-mustard | Light Mustard | 0xEEDD62FF |  |
| orange | Orange | 0xFFA500FF |  |
| clear-orange | Clear Orange | 0xFFA5007F |  |
| dark-orange | Dark Orange | 0xFF8C00FF |  |
| light-orange | Light Orange | 0xD9A465FF |  |
| pink | Pink | 0xFFC0CBFF |  |
| clear-pink | Clear Pink | 0xFFC0CB7F |  |
| dark-pink | Dark Pink | 0xE75480FF |  |
| light-pink | Light Pink | 0xFFB6C1FF |  |
| red | Red | 0xFF0000FF |  |
| clear-red | Clear Red | 0xFF00007F |  |
| dark-red | Dark Red | 0x8B0000FF |  |
| light-red | Light Red | 0xFF3333FF |  |
| silver | Silver | 0xC0C0C0FF |  |
| clear-silver | Clear Silver | 0xC0C0C07F |  |
| dark-silver | Dark Silver | 0xAFAFAFFF |  |
| light-silver | Light Silver | 0xE1E1E1FF |  |
| turquoise | Turquoise | 0x30D5C8FF |  |
| clear-turquoise | Clear Turquoise | 0x30D5C87F |  |
| dark-turquoise | Dark Turquoise | 0x00CED1FF |  |
| light-turquoise | Light Turquoise | 0xAFE4DEFF |  |
| violet | Violet | 0xEE82EEFF |  |
| clear-violet | Clear Violet | 0xEE82EE7F |  |
| dark-violet | Dark Violet | 0x9400D3FF |  |
| light-violet | Light Violet | 0x7A5299FF |  |
| white | White | 0xFFFFFFFF |  |
| clear-white | Clear White | 0xFFFFFF7F |  |
| yellow | Yellow | 0xFFFF00FF |  |
| clear-yellow | Clear Yellow | 0xFFFF007F |  |
| dark-yellow | Dark Yellow | 0xFFCC00FF |  |
| light-yellow | Light Yellow | 0xFFFFE0FF |  |

* 1. Vendor Color Names

Vendor Color Names MAY be added without an update to this specification by prefixing the names with a reverse-DNS identifier or SMI enterprise number and optionally adding one or more sRGBA colors on the end, e.g. "org.pwg-my-color\_ff0000ff". The format is defined by the following ABNF [STD68]:

vendor-color-name = ( dns-name / smi-name ) "-" base-name

\*( "\_" red-color green-color blue-color

[ alpha-color ] )

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

dns-name = 1\*ALPHA 1\*( "." 1\*( ALPHA / DIGIT / "-" ) )

smi-name = "smi" 1\*DIGIT

red-color = 2HEXDIG

green-color = 2HEXDIG

blue-color = 2HEXDIG

alpha-color = 2HEXDIG

* 1. Custom Color Names

Media Color Names MAY be locally extended using a Custom Media Color Name without an update to this specification by prefixing the color name with the string "custom-" and optionally adding one or more sRGBA colors to the end, e.g. "custom-mauve\_b996ae". The format is defined by the following ABNF:

custom-color-name = "custom-" base-name

\*( "\_" red-color green-color blue-color

[ alpha-color ] )

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

red-color = 2HEXDIG

green-color = 2HEXDIG

blue-color = 2HEXDIG

alpha-color = 2HEXDIG

1. Media Size Self-Describing Names

The media size specifications defined in this document, labeled as Media Size Self-Describing Names, are cross indexed to Legacy Names and Alias (common) names. The Legacy Names define the names currently used in the ISO Document Printing Application [ISO10175], Printer MIB v2 [RFC3805], or Internet Printing Protocol/1.1 [STD92] documents.

Media size names defined in this specification and registered in the IANA IPP registry [IANA-IPP] have unique dimensions - no two self-describing media size names can have dimensions matching within 1mm or 0.01in. Sizes MUST be defined using the original units of measure (inches or millimeters) to avoid conversion errors or accidental duplication.

* 1. Media Size Self-Describing Name Format

This specification defines a Media Size Self-Describing Name format that is recommended to be used by all new implementations. Names conforming to this format do not contain any space characters (0x20) - only letters, numbers, period ("."), hyphen ("-"), and underscore ("\_") are allowed.

Wherever possible, the Media Size Self-Describing Name has been derived from the Legacy Name. In many cases the 'class\_size-name' portion is identical to the Legacy Name. In the remaining cases, the 'class' portion MUST be ignored to match the Legacy Name.

This format has the Media Size Name and the Media Dimensions embedded within the string and allows a device to operate without a Media Size Name to Media Dimensions localization table. A long-dim value of 0 is used for reporting the width of roll-fed media (section 5.1.3). The Media Size Self-Describing Name format is structured using the following ABNF [STD68]:

media-size-self-describing-name =

media-size-name / "choice" 2\*( "\_" media-size-name )

media-size-name = class-in "\_" size-name "\_" width-dim "x" length-dim "in" /

class-mm "\_" size-name "\_" width-dim "x" length-dim "mm" /

"disc\_" size-name "\_" inner-dim "x" outer-dim "mm"

class-in = "custom" / "na" / "asme" / "roc" / "oe" / "roll"

class-mm = "custom" / "iso" / "jis" / "jpn" / "prc" / "om" / "roll"

size-name = base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

width-dim = dim

length-dim = dim / "0"

inner-dim = dim

outer-dim = dim

dim = integer-part [fraction-part] / "0" fraction-part

integer-part = non-zero-digit \*digit

fraction-part = "." \*digit non-zero-digit

non-zero-digit = %x31-39

Note: The online PWG Media Names ABNF [MSN-ABNF] is the most up-to-date reference for use with this specification.

* + 1. class-in, class-mm, "choice", and "disc"

This string part is present to indicate the name space or jurisdiction for the size name to prevent name clashes. Currently defined classes are:

'asme'; American Society of Mechanical Engineers sizes in inches,

'choice'; Lists two or more self-describing media names that can be used in alphabetical order,

'custom'; Site-unique and user-defined sizes in inches or millimeters as defined in section,

'disc'; Printable optical disc media, sizes are inner and outer printable diameters in millimeters,

'iso'; International Standards Organization sizes in millimeters,

'jis'; Japanese Information Standard sizes in millimeters,

'jpn'; Japan sizes in millimeters,

'na'; North America sizes in inches,

'oe'; Other vendor-defined (English) sizes in inches,

'om'; Other vendor-defined (metric) sizes in millimeters,

'prc'; People's Republic of China sizes in millimeters,

'roc'; Republic of China (Taiwan) sizes in inches, and

'roll'; Roll media sizes in inches or millimeters.

New class names MUST conform to the following ABNF:

class-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "." )

* + 1. size-name

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 size-name can consist of multiple parts, with each part separated by a hyphen (0x2D).

* + 1. width-dim and length-dim

These values define the media size. For sheet fed media, the width-dim is always the smaller of the two dimensions. The dimensions are presented in decimal format to as many places as necessary to define the size. Trailing zeros MUST NOT be used if a decimal portion is present. Leading zeros MUST NOT ever be used. When expressing a supported or ready media width for roll fed media where the minimum and maximum lengths are unbounded or unknown, the length-dimMUST be 0.

Examples:

123 (valid)

123.456 (valid)

123. (invalid, trailing decimal with no digits)

123.4560 (invalid, trailing zero)

0123.456 (invalid, leading zero)

* + 1. inner-dim and outer-dim

These values define the inner and outer diameters of the printable area on an optical disc. The dimensions are presented in decimal format to as many places as necessary to define the size. Trailing zeros MUST NOT be used if a decimal portion is present. See section 5.1.3 for examples.

* + 1. Conversion

For interchange between programs, the dimensions presented in this specification MUST NOT be converted to another system of units but MUST remain as defined in this specification.

The common usage of some names can represent several physical sizes, e.g., folio, quarto, foolscap, and executive. To avoid naming and sizing conflicts, a hyphenated identifier MUST be used to link the names to a specific size.

* + 1. Examples

The letter size (8.5 inches by 11 inches) used primarily in North America:

na\_letter\_8.5x11in

The ISO A4 size (210 mm by 297 mm) used world-wide:

iso\_a4\_210x297mm

* + 1. Custom and Roll Fed Media Size Self-Describing Names

The classes "custom" and "roll" allow extensibility of the media size set without an update to this specification or registration with IANA. These classes are primarily intended for special or user-defined media sizes that are used at a minimum number of locations. Size names that use the "custom" or "roll" prefix MUST NOT be registered with IANA.

* + 1. Reserved Size Names

The following sizenames are reserved**:**

'current'; indicates the currently loaded media,

'current.*source-name*'; indicated the currently loaded media for the given media source,

'max'; Indicates the upper size limit of either a device or application,

'max.*source-name*'; indicates the upper size limit for the given media source,

'min'; indicates a lower size limit, and

'min.*source-name*'; indicates the lower size limit for the specified media source.

For example, a device that can process forms from 2 x 3 inches to 18 x 36 inches would report:

custom\_max\_18x36in

custom\_min\_2x3in

A device with two roll sources, "roll-1" and "roll-2", that accept rolls up to 60 inches in width and 1800 inches (150 feet) in length with a 36 inch roll installed with 240 inches (20 feet) remaining would report:

roll\_current.roll-1\_36x240in

roll\_max\_60x1800in

roll\_min\_2x3in

* + 1. Standard Media Sizes

The rest of this section contains the tables of Media Size Self-Describing Names. Within a table, entries from different sources are grouped together. The entries in these groups are arranged in order of increasing size of the smaller dimension and then the larger dimension. The "English Localized Name" column provides the suggested English language equivalent to show in a user interface.

Engineering sizes are defined in Decimal Inch Drawing Sheet Size and Format [ASME-IN] and Metric Drawing Sheet Size and Format [ASME-M].

The presence of “(envelope)” in the Alias column indicates this size is also commonly used for envelopes. It does not imply that this size is only available as an envelope media type.

Table 3 - North American Sheet Media Sizes

| **Legacy Name** | **Alias**  **(Common Name)** | **Self-Describing Name** | **English Localized Name** |
| --- | --- | --- | --- |
|  | index-3x5 | na\_index-3x5\_3x5in | 3 x 5" |
|  | personal (envelope) | na\_personal\_3.625x6.5in | Personal Envelope |
| monarch-envelope |  | na\_monarch\_3.875x7.5in | Monarch Envelope |
| na-number-9-envelope |  | na\_number-9\_3.875x8.875in | #9 Envelope |
|  | index-4x6 (postcard) | na\_index-4x6\_4x6in | 4 x 6" |
| na-number-10-envelope | comm-10 (envelope) | na\_number-10\_4.125x9.5in | #10 Envelope |
|  | a2 (envelope) | na\_a2\_4.375x5.75in | A2 Envelope |
|  | number-11 (envelope) | na\_number-11\_4.5x10.375in | #11 Envelope |
|  | number-12 (envelope) | na\_number-12\_4.75x11in | #12 Envelope |
|  | 5x7 | na\_5x7\_5x7in | 5 x 7" |
|  | index-5x8 | na\_index-5x8\_5x8in | 5 x 8" |
|  | number-14 (envelope) | na\_number-14\_5x11.5in | #14 Envelope |
| invoice | statement, mini, half-letter | na\_invoice\_5.5x8.5in | Statement |
|  | index-4x6-ext | na\_index-4x6-ext\_6x8in | 6 x 8" |
| na-6x9-envelope | 6x9 (envelope) | na\_6x9\_6x9in | 6 x 9" |
|  | c5 (envelope) | na\_c5\_6.5x9.5in | C5 Envelope |
| na-7x9-envelope | 7x9 (envelope) | na\_7x9\_7x9in | 7 x 9" |
| executive |  | na\_executive\_7.25x10.5in | US Executive |
| na-8x10 | government-letter | na\_govt-letter\_8x10in | 8 x 10" |
|  | government-legal | na\_govt-legal\_8x13in | 8 x 13" |
| quarto |  | na\_quarto\_8.5x10.83in | Quarto |
| na-letter | letter, a, engineering-a | na\_letter\_8.5x11in | US Letter |
|  | fanfold-european | na\_fanfold-eur\_8.5x12in | European Fanfold |
|  | letter-plus | na\_letter-plus\_8.5x12.69in | US Letter (Plus) |
|  | foolscap, german-legal-fanfold | na\_foolscap\_8.5x13in | Foolscap |
|  | oficio | na\_oficio\_8.5x13.4in | Oficio (Mexico) |
| na-legal | legal | na\_legal\_8.5x14in | US Legal |
|  | super-a | na\_super-a\_8.94x14in | 8.94 x 14" |
| na-9x11-envelope | 9x11 (envelope), letter-tab | na\_9x11\_9x11in | 9 x 11" |
| arch-a | architecture-a (envelope) | na\_arch-a\_9x12in | 9 x 12" |
|  | letter-extra | na\_letter-extra\_9.5x12in | US Letter (Extra) |
|  | legal-extra | na\_legal-extra\_9.5x15in | US Legal (Extra) |
|  | 10x11 | na\_10x11\_10x11in | 10 x 11" |
| na-10x13-envelope | 10x13 (envelope) | na\_10x13\_10x13in | 10 x 13" Envelope |
| na-10x14-envelope | 10x14 (envelope) | na\_10x14\_10x14in | 10 x 14" Envelope |
| na-10x15-envelope | 10x15 (envelope) | na\_10x15\_10x15in | 10 x 15" Envelope |
|  | 11x12 | na\_11x12\_11x12in | 11 x 12" |
|  | edp | na\_edp\_11x14in | 11 x 14" |
|  | fanfold-us | na\_fanfold-us**\_**11x14.875in | US Fanfold |
|  | 11x15 | na\_11x15**\_**11x15in | 11 x 15" |
| tabloid | ledger, b, engineering-b | na\_ledger**\_**11x17in | 11 x 17" |
|  | european-edp | na\_eur-edp**\_**12x14in | 12 x 14" |
| arch-b | architecture-b, tabloid-extra | na\_arch-b**\_**12x18in | 12 x 18" |
|  | 12x19 | na\_12x19\_12x19in | 12 x 19" |
|  | b-plus | na\_b-plus**\_**12x19.17in | 12 x 19 1/6" |
|  | super-b | na\_super-b**\_**13x19in | 13 x 19" |
| c | engineering-c | na\_c**\_**17x22in | 17 x 22" |
| arch-c | architecture-c | na\_arch-c**\_**18x24in | 18 x 24" |
| d | engineering-d | na\_d**\_**22x34in | 22 x 34" |
| arch-d | architecture-d | na\_arch-d**\_**24x36in | 24 x 36" |
|  |  | na\_arch-e2\_26x38in | 26 x 38" |
|  |  | na\_arch-e3\_27x39in | 27 x 39" |
| f | e1 | asme\_f**\_**28x40in | 28 x 40" |
|  | wide-format | na\_wide-format**\_**30x42in | 30 x 42" |
| e | engineering-e | na\_e**\_**34x44in | 34 x 44" |
| arch-e | architecture-e | na\_arch-e**\_**36x48in | 36 x 48" |
|  | f, engineering-f | na\_f**\_**44x68in | 44 x 68" |

Table 4 - Other English Sheet Media Sizes

| **Legacy Name** | **Alias**  **(Common Name)** | **Self-Describing Name** | **English Localized Name** |
| --- | --- | --- | --- |
|  |  | oe\_business-card\_2x3.5in | Business Card |
|  | photo-l | oe\_photo-l\_3.5x5in | 3.5 x 5" Photo |
|  | 4x4 | oe\_square-photo\_4x4in | 4 x 4" Photo |
|  | 5x5 | oe\_square-photo\_5x5in | 5 x 5" Photo |
|  | photo-s8r | oe\_photo-s8r\_8x12in | 8 x 12" Photo |
|  | photo-10r | oe\_photo-10r\_10x12in | 10 x 12" Photo |
|  | photo-s10r | oe\_photo-s10r\_10x15in | 10 x 15" Photo |
|  | photo-12r | oe\_photo-12r-12x15in | 12 x 15" Photo |
|  | 12x16 | oe\_12x16\_12x16in | 12 x 16" |
|  | 14x17 | oe\_14x17\_14x17in | 14 x 17" |
|  | 14x18 | oe\_photo-14x18\_14x18in | 14 x 18" Photo |
|  | photo-16r | oe\_photo-16r\_16x20in | 16 x 20" Photo |
|  | a2-plus | oe\_a2plus\_17x24in | 17 x 24" |
|  | 18x22 | oe\_18x22\_18x22in | 18 x 22" |
|  | photo-20r | oe\_photo-20r\_20x24in | 20 x 24" Photo |
|  | 22x28 | oe\_photo-22x28\_22x28in | 22 x 28" Photo |
|  | photo-22r | oe\_photo-22r\_22x29.5in | 22 x 29.5" Photo |
|  | 24x30 | oe\_photo-24x30\_24x30in | 24 x 30" Photo |
|  | photo-24r | oe\_photo-24r\_24x31.5in | 24 x 31.5" Photo |
|  | photo-30r | oe\_photo-30r\_30x40in | 30 x 40" Photo |

Table 5 - ISO Sheet Media Sizes

| **Legacy Name** | **Alias**  **(Common Name)** | **Self-Describing Name** | **English Localized Name** |
| --- | --- | --- | --- |
| iso-a10 | a10 | iso\_a10\_26x37mm | A10 |
|  | c10 (envelope) | iso\_c10\_28x40mm | C10 Envelope |
| iso-b10 | b10 | iso\_b10\_31x44mm | B10 |
| iso-a9 | a9 | iso\_a9\_37x52mm | A9 |
|  | c9 (envelope) | iso\_c9\_40x57mm | C9 Envelope |
| iso-b9 | b9 | iso\_b9\_44x62mm | B9 |
| iso-a8 | a8 | iso\_a8\_52x74mm | A8 |
|  |  | iso\_id-1\_53.98x85.6mm | ID Card |
| iso-c8 | c8 (envelope) | iso\_c8\_57x81mm | C8 Envelope |
| iso-b8 | b8 | iso\_b8\_62x88mm | B8 |
| iso-a7 | a7 | iso\_a7\_74x105mm | A7 |
| iso-c7 | c7 (envelope) | iso\_c7\_81x114mm | C7 Envelope |
|  | c7/c6 (envelope) | iso\_c7c6\_81x162mm | C7/C6 Envelope |
| iso-b7 | b7 | iso\_b7\_88x125mm | B7 |
| iso-a6 | a6 | iso\_a6\_105x148mm | A6 |
| iso-designated | designated-long, dl (envelope) | iso\_dl**\_**110x220mm | DL Envelope |
| iso-c6 | c6 (envelope) | iso\_c6\_114x162mm | C6 Envelope |
|  | c6/c5 (envelope) | iso\_c6c5**\_**114x229mm | C6/C5 Envelope |
| iso-b6 | b6 (envelope) | iso\_b6\_125x176mm | B6 Envelope |
|  | b6/c4 (envelope) | iso\_b6c4\_125x324mm | B6/C4 Envelope |
| iso-a5 | a5 | iso\_a5\_148x210mm | A5 |
| iso-c5 | c5 (envelope) | iso\_c5**\_**162x229mm | C5 Envelope |
|  | a5-extra | iso\_a5-extra\_174x235mm | A5 (Extra) |
| iso-b5 | b5 (envelope) | iso\_b5\_176x250mm | B5 Envelope |
|  | b5-extra | iso\_b5-extra\_201x276mm | B5 (Extra) |
| iso-a4 | a4 | iso\_a4\_210x297mm | A4 |
| iso-ra4 |  | iso\_ra4\_215x305mm | RA4 |
|  | a4-tab | iso\_a4-tab\_225x297mm | A4 (Tab) |
| iso-sra4 |  | iso\_sra4\_225x320mm | SRA4 |
| iso-c4 | c4 (envelope) | iso\_c4**\_**229x324mm | C4 Envelope |
|  | a4-extra | iso\_a4-extra\_235.5x322.3mm | A4 (Extra) |
| iso-b4 | b4 (envelope) | iso\_b4\_250x353mm | B4 Envelope |
| iso-a3 | a3 | iso\_a3\_297x420mm | A3 |
| iso-a4x3, a4x3 |  | iso\_a4x3\_297x630mm | A4x3 |
| iso-a4x4, a4x4 |  | iso\_a4x4\_297x841mm | A4x4 |
| iso-a4x5, a4x5 |  | iso\_a4x5\_297x1051mm | A4x5 |
| iso-a4x6, a4x6 |  | iso\_a4x6\_297x1261mm | A4x6 |
| iso-a4x7, a4x7 |  | iso\_a4x7\_297x1471mm | A4x7 |
| iso-a4x8, a4x8 |  | iso\_a4x8\_297x1682mm | A4x8 |
| iso-a4x9, a4x9 |  | iso\_a4x9\_297x1892mm | A4x9 |
| iso-ra3 |  | iso\_ra3\_305x430mm | RA3 |
| iso-sra3 |  | iso\_sra3\_320x450mm | SRA3 |
| iso-a3-extra |  | iso\_a3-extra\_322x445mm | A3 (Extra) |
| iso-c3 | c3 (envelope) | iso\_c3**\_**324x458mm | C3 Envelope |
| iso-b3 | b3 | iso\_b3\_353x500mm | B3 |
| iso-a2 | a2 | iso\_a2\_420x594mm | A2 |
| iso-a3x3, a3x3 |  | iso\_a3x3\_420x891mm | A3x3 |
| iso-a3x4, a3x4 |  | iso\_a3x4\_420x1189mm | A3x4 |
| iso-a3x5, a3x5 |  | iso\_a3x5\_420x1486mm | A3x5 |
| iso-a3x6, a3x6 |  | iso\_a3x6\_420x1783mm | A3x6 |
| iso-a3x7, a3x7 |  | iso\_a3x7\_420x2080mm | A3x7 |
| iso-ra2 |  | iso\_ra2**\_**430x610mm | RA2 |
| iso-sra2 |  | iso\_sra2**\_**450x640mm | SRA2 |
| iso-c2 | c2 (envelope) | iso\_c2**\_**458x648mm | C2 Envelope |
| iso-b2 | b2 | iso\_b2\_500x707mm | B2 |
| iso-a1 | a1 | iso\_a1\_594x841mm | A1 |
| iso-a2x3, a2x3 |  | iso\_a2x3\_594x1261mm | A2x3 |
| iso-a2x4, a2x4 |  | iso\_a2x4\_594x1682mm | A2x4 |
| iso-a2x5, a2x5 |  | iso\_a2x5\_594x2102mm | A2x5 |
| iso-ra1 |  | iso\_ra1**\_**610x860mm | RA1 |
| iso-sra1 |  | iso\_sra1**\_**640x900mm | SRA1 |
| iso-c1 | c1 (envelope) | iso\_c1**\_**648x917mm | C1 Envelope |
| iso-b1 | b1 | iso\_b1\_707x1000mm | B1 |
| iso-a0 | a0 | iso\_a0\_841x1189mm | A0 |
| iso-a1x3, a1x3 |  | iso\_a1x3\_841x1783mm | A1x3 |
| iso-a1x4, a1x4 |  | iso\_a1x4\_841x2378mm | A1x4 |
| iso-ra0 |  | iso\_ra0**\_**860x1220mm | RA0 |
| iso-sra0 |  | iso\_sra0**\_**900x1280mm | SRA0 |
| iso-c0 | c0 (envelope) | iso\_c0**\_**917x1297mm | C0 Envelope |
| iso-b0 | b0 | iso\_b0\_1000x1414mm | B0 |
| a0x2 | 2a0 | iso\_2a0\_1189x1682mm | A0x2 |
| a0x3 |  | iso\_a0x3\_1189x2523mm | A0x3 |

Table 6 - Other Metric Sheet Media Sizes

|  |  |  |  |
| --- | --- | --- | --- |
| **Legacy Name** | **Alias**  **(Common Name)** | **Self-Describing Name** | **English Localized Name** |
|  |  | om\_business-card\_55x85mm | 55 x 85mm Card |
|  |  | om\_business-card\_55x91mm | 55 x 91mm Card |
|  |  | om\_square-photo\_89x89mm | 89 x 89mm Photo |
|  |  | om\_dsc-photo\_89x119mm | 89 x 119mm Photo |
|  | small-photo | om\_small-photo\_100x150mm | 10 x 15cm Photo |
|  |  | om\_wide-photo\_100x200mm | 10 x 20cm Photo |
|  | Italian (envelope) | om\_italian\_110x230mm | Italian Envelope |
|  | Postfix (envelope) | om\_postfix\_114x229mm | Postfix Envelope |
|  | medium-photo | om\_medium-photo\_130x180mm | 13 x 18cm Photo |
|  |  | om\_16k\_184x260mm | 184 x 260mm |
|  |  | om\_16k\_195x270mm | 195 x 270mm |
|  | large-photo | om\_large-photo\_200x300mm | 200 x 300mm Photo |
| folio |  | om\_folio\_210x330mm | Folio |
|  | folio-sp | om\_folio-sp\_215x315mm | Folio (Special) |
|  | Invite (envelope) | om\_invite\_220x220mm | Invitation Envelope |
|  |  | om\_photo-30x40\_300x400mm | 30 x 40cm Photo |
|  |  | om\_photo-30x45\_300x450mm | 30 x 45cm Photo |
|  |  | om\_photo-35x46\_350x460mm | 35 x 46cm Photo |
|  |  | om\_photo-40x60\_400x600mm | 40 x 60cm Photo |
|  |  | om\_photo-50x75\_500x750mm | 50 x 75cm Photo |
|  |  | om\_photo-50x76\_500x760mm | 50 x 76cm Photo |
|  |  | om\_photo-60x90\_600x900mm | 60 x 90cm Photo |

Table 7 - Japanese Sheet Media Sizes

| **Legacy Name** | **Alias**  **(Common Name)** | **Self-Describing Name** | **English Localized Name** |
| --- | --- | --- | --- |
| jis-b10 |  | jis\_b10\_32x45mm | JIS B10 |
| jis-b9 |  | jis\_b9\_45x64mm | JIS B9 |
| jis-b8 |  | jis\_b8\_64x91mm | JIS B8 |
|  | chou4 (envelope) | jpn\_chou4\_90x205mm | Chou 4 Envelope |
|  |  | jpn\_chou40\_90x225mm | Chou 40 Envelope |
| jis-b7 |  | jis\_b7\_91x128mm | JIS B7 |
|  | you6 (envelope) | jpn\_you6\_98x190mm | You 6 Envelope |
|  | hagaki (postcard) | jpn\_hagaki\_100x148mm | Hagaki |
|  | you4 (envelope) | jpn\_you4\_105x235mm | You 4 Envelope |
|  | chou2 (envelope) | jpn\_chou2\_111.1x146mm | Chou 2 Envelope |
|  |  | jpn\_kaku8\_119x197mm | Kakugata 8 Envelope |
|  | chou3 (envelope) | jpn\_chou3\_120x235mm | Chou 3 Envelope |
| jis-b6 |  | jis\_b6\_128x182mm | JIS B6 |
|  |  | jpn\_kaku7\_142x205mm | Kakugata 7 Envelope |
|  | oufuku (reply postcard) | jpn\_oufuku\_148x200mm | Oufuku Reply Postcard |
| jis-b5 |  | jis\_b5\_182x257mm | JIS B5 |
|  |  | jpn\_kaku5\_190x240mm | Kakugata 5 Envelope |
|  |  | jpn\_kaku4\_197x267mm | Kakugata 4 Envelope |
|  |  | jpn\_kaku3\_216x277mm | Kakugata 3 Envelope |
|  | exec | jis\_exec\_216x330mm | JIS Executive |
|  | kahu (envelope) | jpn\_kahu\_240x322.1mm | Kahu Envelope |
|  | kaku2 (envelope) | jpn\_kaku2\_240x332mm | Kakugata 2 Envelope |
| jis-b4 |  | jis\_b4\_257x364mm | JIS B4 |
|  |  | jpn\_kaku1\_270x382mm | Kakugata 1 Envelope |
| jis-b3 |  | jis\_b3\_364x515mm | JIS B3 |
| jis-b2 |  | jis\_b2\_515x728mm | JIS B2 |
| jis-b1 |  | jis\_b1\_728x1030mm | JIS B1 |
| jis-b0 |  | jis\_b0\_1030x1456mm | JIS B0 |

Table 8 - Chinese Sheet Media Sizes

| **Legacy Name** | **Alias**  **(Common Name)** | **Self-Describing Name** | **English Localized Name** |
| --- | --- | --- | --- |
|  | prc-32k | prc\_32k\_97x151mm | Chinese 32k |
|  | prc1 (envelope) | prc\_1\_102x165mm | Chinese #1 Envelope |
|  | prc2 (envelope) | prc\_2\_102x176mm | Chinese #2 Envelope |
|  | prc4 (envelope) | prc\_4\_110x208mm | Chinese #4 Envelope |
|  | prc8 (envelope) | prc\_8\_120x309mm | Chinese #8 Envelope |
|  | prc6 (envelope) | prc\_6\_120x320mm | Chinese #6 Envelope |
|  | prc3 (envelope) | prc\_3\_125x176mm | Chinese #3 Envelope |
|  | prc-16k | prc\_16k\_146x215mm | Chinese 16k |
|  | prc7 (envelope) | prc\_7\_160x230mm | Chinese #7 Envelope |
|  | juuro-ku-kai | om\_juuro-ku-kai\_198x275mm | Chinese 4k (Large) |
|  | pa-kai | om\_pa-kai\_267x389mm | Chinese 8k (Large) |
|  | dai-pa-kai | om\_dai-pa-kai\_275x395mm | Chinese 16k (Large) |
|  | prc10 (envelope) | prc\_10\_324x458mm | Chinese #10 Envelope |
|  | roc-16k | roc\_16k\_7.75x10.75in | ROC 16k |
|  | roc-8k | roc\_8k\_10.75x15.5in | ROC 8k |

1. Media Coating Names

Standard "media-back-coating" and "media-front-coating" keywords [PWG5100.7] are defined in the IANA IPP Registry [IANA-IPP]. Localizations are provided in Table 8.

Table 9 - Media Coating Names

|  |  |
| --- | --- |
| **Name** | **English Localized Name** |
| glossy | Glossy |
| high-gloss | High Gloss |
| matte | Matte |
| none | None |
| satin | Satin |
| semi-gloss | Semi-Gloss |

* 1. Vendor Media Coating Names

Vendor Media Coating Names MAY be added without an update to this specification by prefixing the names with a reverse-DNS identifier, e.g. "org.pwg-my-coating", or using 'smiNNN-' where NNN is an SMI Private Enterprise Number (PEN) [[IANA-PEN](https://datatracker.ietf.org/doc/html/rfc8011#ref-IANA-PEN)]. The format is defined by the following ABNF [STD68]:

vendor-coating-name = ( dns-name / smi-name ) "-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

dns-name = 1\*ALPHA 1\*( "." 1\*( ALPHA / DIGIT / "-" ) )

smi-name = "smi" 1\*DIGIT

* 1. Custom Media Coating Names

Media Coating Names MAY be locally extended using a Custom Media Coating Name without an update to this specification by prefixing the names with the string "custom-", e.g. "custom-xyz-coating". The format is defined by the following ABNF [STD68]:

custom-coating-name = "custom-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

1. Media Source Names

Standard "media-source" keywords [PWG5100.7] are defined in the IANA IPP Registry [IANA-IPP]. Localizations are provided in Table 9.

Table 10 - Media Source Names

| **Name** | **English Localized Name** |
| --- | --- |
| alternate | Alternate Tray |
| alternate-roll | Alternate Roll |
| auto | Automatic |
| bottom | Bottom Tray |
| by-pass-tray | Multipurpose Tray |
| center | Center Tray |
| disc | CD/DVD Feed |
| envelope | Envelope Feed |
| hagaki | Hagaki Tray |
| large-capacity | Large Capacity Tray |
| left | Left Tray |
| main | Main Tray |
| main-roll | Main Roll |
| manual | Manual Feed |
| middle | Middle Tray |
| photo | Photo Tray |
| rear | Rear Feed |
| roll-1 | Roll 1 |
| roll-2 | Roll 2 |
| roll-3 | Roll 3 |
| roll-4 | Roll 4 |
| roll-5 | Roll 5 |
| roll-6 | Roll 6 |
| roll-7 | Roll 7 |
| roll-8 | Roll 8 |
| roll-9 | Roll 9 |
| roll-10 | Roll 10 |
| side | Side Tray |
| top | Top Tray |
| tray-1 | Tray 1 |
| tray-2 | Tray 2 |
| tray-3 | Tray 3 |
| tray-4 | Tray 4 |
| tray-5 | Tray 5 |
| tray-6 | Tray 6 |
| tray-7 | Tray 7 |
| tray-8 | Tray 8 |
| tray-9 | Tray 9 |
| tray-10 | Tray 10 |
| tray-11 | Tray 11 |
| tray-12 | Tray 12 |
| tray-13 | Tray 13 |
| tray-14 | Tray 14 |
| tray-15 | Tray 15 |
| tray-16 | Tray 16 |
| tray-17 | Tray 17 |
| tray-18 | Tray 18 |
| tray-19 | Tray 19 |
| tray-20 | Tray 20 |

* 1. Vendor Media Source Names

Vendor Media Source Names MAY be added without an update to this specification by prefixing the names with a reverse-DNS identifier, e.g. "org.pwg-my-source", or using 'smiNNN-' where NNN is an SMI Private Enterprise Number (PEN) [[IANA-PEN](https://datatracker.ietf.org/doc/html/rfc8011#ref-IANA-PEN)]. The format is defined by the following ABNF [STD68]:

vendor-source-name = ( dns-name / smi-name ) "-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

dns-name = 1\*ALPHA 1\*( "." 1\*( ALPHA / DIGIT / "-" ) )

smi-name = "smi" 1\*DIGIT

* 1. Custom Media Source Names

Media Source Names MAY be locally extended using a Custom Media Source Name without an update to this specification by prefixing the names with the string "custom-", e.g. "custom-xyz-source". The format is defined by the following ABNF [STD68]:

custom-source-name = "custom-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

1. Media Tooth Names

Standard "media-tooth" keywords [PWG5100.7] are defined in the IANA IPP Registry [IANA-IPP]. Localizations are provided in Table 10.

Table 11 - Media Tooth Names

|  |  |
| --- | --- |
| **Name** | **English Localized Name** |
| antique | Antique |
| calendared | Calendared |
| coarse | Coarse |
| fine | Fine |
| linen | Linen |
| medium | Medium |
| smooth | Smooth |
| stipple | Stipple |
| uncalendared | Uncalendared |
| vellum | Vellum |

* 1. Vendor Media Tooth Names

Vendor Media Tooth Names MAY be added without an update to this specification by prefixing the names with a reverse-DNS identifier, e.g. "org.pwg-my-tooth", or using 'smiNNN-' where NNN is an SMI Private Enterprise Number (PEN) [[IANA-PEN](https://datatracker.ietf.org/doc/html/rfc8011#ref-IANA-PEN)]. The format is defined by the following ABNF [STD68]:

vendor-tooth-name = ( dns-name / smi-name ) "-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

dns-name = 1\*ALPHA 1\*( "." 1\*( ALPHA / DIGIT / "-" ) )

smi-name = "smi" 1\*DIGIT

* 1. Custom Media Tooth Names

Media Tooth Names MAY be locally extended using a Custom Media Tooth Name without an update to this specification by prefixing the names with the string "custom-", e.g. "custom-xyz-tooth". The format is defined by the following ABNF [STD68]:

custom-tooth-name = "custom-" base-name

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

1. Conformance Requirements

Implementations conforming to this specification MUST:

1. Support media type names as defined in section 3,
2. Support color names as defined in section 4,
3. Support size names as defined in section 5,
4. Support coating names as defined in section 6,
5. Support source names as defined in section 7,
6. Support tooth names as defined in section 8,
7. Support the internationalization considerations defined in section 10, and
8. Support the security and privacy considerations defined in section 11.

Media Names defined in this specification are presented using lowercase characters. Other referencing standards can impose case sensitive rules if necessary. For interoperability and implementation efficiency, this specification strongly recommends these names be used in the lowercase form defined in this document.

1. Internationalization Considerations

For interoperability and basic support for multiple languages, conforming implementations MUST support:

1. The Universal Character Set (UCS) Transformation Format -- 8 bit (UTF-8) [STD63] encoding of Unicode [UNICODE] [ISO10646]; and
2. The Unicode Format for Network Interchange [RFC5198] which requires transmission of well-formed UTF-8 strings and recommends transmission of normalized UTF-8 strings in Normalization Form C (NFC) [UAX15].

Unicode NFC is defined as the result of performing Canonical Decomposition (into base characters and combining marks) followed by Canonical Composition (into canonical composed characters wherever Unicode has assigned them).

WARNING – Performing normalization on UTF-8 strings received from Clients and subsequently storing the results (e.g., in Job objects) could cause false negatives in Client searches and failed access (e.g., to Printers with percent-encoded UTF-8 URIs now 'hidden').

Implementations of this specification SHOULD conform to the following standards on processing of human-readable Unicode text strings, see:

Unicode Bidirectional Algorithm [UAX9] – left-to-right, right-to-left, and vertical

Unicode Line Breaking Algorithm [UAX14] – character classes and wrapping

Unicode Normalization Forms [UAX15] – especially NFC for [RFC5198]

Unicode Text Segmentation [UAX29] – grapheme clusters, words, sentences

Unicode Identifier and Pattern Syntax [UAX31] – identifier use and normalization

Unicode Collation Algorithm [UTS10] – sorting

Unicode Locale Data Markup Language [UTS35] – locale databases

Implementations of this specification are advised to also review the following informational documents on processing of human-readable Unicode text strings:

Unicode Character Encoding Model [UTR17] – multi-layer character model

Unicode Character Property Model [UTR23] – character properties

Unicode Conformance Model [UTR33] – Unicode conformance basis

1. Security and Privacy Considerations

The media names defined in this document require the same security and privacy considerations as defined in the Internet Printing Protocol/1.1 [STD92].

Implementations of this specification SHOULD conform to the following standard on processing of human-readable Unicode text strings, see:

Unicode Security Mechanisms [UTS39] – detecting and avoiding security attacks

Implementations of this specification are advised to also review the following informational document on processing of human-readable Unicode text strings:

Unicode Security FAQ [UNISECFAQ] – common Unicode security issues

1. IANA Considerations
   1. Type2 Keyword Registrations

The keyword values defined in this specification will be published by IANA according to the procedures in the Internet Printing Protocol/1.1 [STD92] in the following location:

<https://www.iana.org/assignments/ipp-registrations>

The registry entries will contain the following information:

Attributes (attribute syntax)

Keyword Attribute Value Reference

----------------------- ---------

media (type2 keyword | name(MAX)) [RFC8011]

asme\_f\_28x40in [PWG5101.1]

iso\_2a0\_1189x1682mm [PWG5101.1]

iso\_a0\_841x1189mm [PWG5101.1]

iso\_a0x3\_1189x2523mm [PWG5101.1]

iso\_a10\_26x37mm [PWG5101.1]

iso\_a1\_594x841mm [PWG5101.1]

iso\_a1x3\_841x1783mm [PWG5101.1]

iso\_a1x4\_841x2378mm [PWG5101.1]

iso\_a2\_420x594mm [PWG5101.1]

iso\_a2x3\_594x1261mm [PWG5101.1]

iso\_a2x4\_594x1682mm [PWG5101.1]

iso\_a2x5\_594x2102mm [PWG5101.1]

iso\_a3-extra\_322x445mm [PWG5101.1]

iso\_a3\_297x420mm [PWG5101.1]

iso\_a3x3\_420x891mm [PWG5101.1]

iso\_a3x4\_420x1189mm [PWG5101.1]

iso\_a3x5\_420x1486mm [PWG5101.1]

iso\_a3x6\_420x1783mm [PWG5101.1]

iso\_a3x7\_420x2080mm [PWG5101.1]

iso\_a4-extra\_235.5x322.3mm [PWG5101.1]

iso\_a4-tab\_225x297mm [PWG5101.1]

iso\_a4\_210x297mm [PWG5101.1]

iso\_a4x3\_297x630mm [PWG5101.1]

iso\_a4x4\_297x841mm [PWG5101.1]

iso\_a4x5\_297x1051mm [PWG5101.1]

iso\_a4x6\_297x1261mm [PWG5101.1]

iso\_a4x7\_297x1471mm [PWG5101.1]

iso\_a4x8\_297x1682mm [PWG5101.1]

iso\_a4x9\_297x1892mm [PWG5101.1]

iso\_a5-extra\_174x235mm [PWG5101.1]

iso\_a5\_148x210mm [PWG5101.1]

iso\_a6\_105x148mm [PWG5101.1]

iso\_a7\_74x105mm [PWG5101.1]

iso\_a8\_52x74mm [PWG5101.1]

iso\_a9\_37x52mm [PWG5101.1]

iso\_b0\_1000x1414mm [PWG5101.1]

iso\_b10\_31x44mm [PWG5101.1]

iso\_b1\_707x1000mm [PWG5101.1]

iso\_b2\_500x707mm [PWG5101.1]

iso\_b3\_353x500mm [PWG5101.1]

iso\_b4\_250x353mm [PWG5101.1]

iso\_b5-extra\_201x276mm [PWG5101.1]

iso\_b5\_176x250mm [PWG5101.1]

iso\_b6\_125x176mm [PWG5101.1]

iso\_b6c4\_125x324mm [PWG5101.1]

iso\_b7\_88x125mm [PWG5101.1]

iso\_b8\_62x88mm [PWG5101.1]

iso\_b9\_44x62mm [PWG5101.1]

iso\_c0\_917x1297mm [PWG5101.1]

iso\_c10\_28x40mm [PWG5101.1]

iso\_c1\_648x917mm [PWG5101.1]

iso\_c2\_458x648mm [PWG5101.1]

iso\_c3\_324x458mm [PWG5101.1]

iso\_c4\_229x324mm [PWG5101.1]

iso\_c5\_162x229mm [PWG5101.1]

iso\_c6\_114x162mm [PWG5101.1]

iso\_c6c5\_114x229mm [PWG5101.1]

iso\_c7\_81x114mm [PWG5101.1]

iso\_c7c6\_81x162mm [PWG5101.1]

iso\_c8\_57x81mm [PWG5101.1]

iso\_c9\_40x57mm [PWG5101.1]

iso\_dl\_110x220mm [PWG5101.1]

iso\_id-1\_53.98x85.6mm [PWG5101.1]

iso\_ra0\_860x1220mm [PWG5101.1]

iso\_ra1\_610x860mm [PWG5101.1]

iso\_ra2\_430x610mm [PWG5101.1]

iso\_ra3\_305x430mm [PWG5101.1]

iso\_ra4\_215x305mm [PWG5101.1]

iso\_sra0\_900x1280mm [PWG5101.1]

iso\_sra1\_640x900mm [PWG5101.1]

iso\_sra2\_450x640mm [PWG5101.1]

iso\_sra3\_320x450mm [PWG5101.1]

iso\_sra4\_225x320mm [PWG5101.1]

jis\_b0\_1030x1456mm [PWG5101.1]

jis\_b10\_32x45mm [PWG5101.1]

jis\_b1\_728x1030mm [PWG5101.1]

jis\_b2\_515x728mm [PWG5101.1]

jis\_b3\_364x515mm [PWG5101.1]

jis\_b4\_257x364mm [PWG5101.1]

jis\_b5\_182x257mm [PWG5101.1]

jis\_b6\_128x182mm [PWG5101.1]

jis\_b7\_91x128mm [PWG5101.1]

jis\_b8\_64x91mm [PWG5101.1]

jis\_b9\_45x64mm [PWG5101.1]

jis\_exec\_216x330mm [PWG5101.1]

jpn\_chou2\_111.1x146mm [PWG5101.1]

jpn\_chou3\_120x235mm [PWG5101.1]

jpn\_chou4\_90x205mm [PWG5101.1]

jpn\_hagaki\_100x148mm [PWG5101.1]

jpn\_kahu\_240x322.1mm [PWG5101.1]

jpn\_kaku1\_270x382mm [PWG5101.1]

jpn\_kaku2\_240x332mm [PWG5101.1]

jpn\_kaku3\_216x277mm [PWG5101.1]

jpn\_kaku4\_197x267mm [PWG5101.1]

jpn\_kaku5\_190x240mm [PWG5101.1]

jpn\_kaku7\_142x205mm [PWG5101.1]

jpn\_kaku8\_119x197mm [PWG5101.1]

jpn\_oufuku\_148x200mm [PWG5101.1]

jpn\_you4\_105x235mm [PWG5101.1]

na\_10x11\_10x11in [PWG5101.1]

na\_10x13\_10x13in [PWG5101.1]

na\_10x14\_10x14in [PWG5101.1]

na\_10x15\_10x15in [PWG5101.1]

na\_11x12\_11x12in [PWG5101.1]

na\_11x15\_11x15in [PWG5101.1]

na\_12x19\_12x19in [PWG5101.1]

na\_5x7\_5x7in [PWG5101.1]

na\_6x9\_6x9in [PWG5101.1]

na\_7x9\_7x9in [PWG5101.1]

na\_9x11\_9x11in [PWG5101.1]

na\_a2\_4.375x5.75in [PWG5101.1]

na\_arch-a\_9x12in [PWG5101.1]

na\_arch-b\_12x18in [PWG5101.1]

na\_arch-c\_18x24in [PWG5101.1]

na\_arch-d\_24x36in [PWG5101.1]

na\_arch-e\_36x48in [PWG5101.1]

na\_b-plus\_12x19.17in [PWG5101.1]

na\_c5\_6.5x9.5in [PWG5101.1]

na\_c\_17x22in [PWG5101.1]

na\_d\_22x34in [PWG5101.1]

na\_e\_34x44in [PWG5101.1]

na\_edp\_11x14in [PWG5101.1]

na\_eur-edp\_12x14in [PWG5101.1]

na\_executive\_7.25x10.5in [PWG5101.1]

na\_f\_44x68in [PWG5101.1]

na\_fanfold-eur\_8.5x12in [PWG5101.1]

na\_fanfold-us\_11x14.875in [PWG5101.1]

na\_foolscap\_8.5x13in [PWG5101.1]

na\_govt-legal\_8x13in [PWG5101.1]

na\_govt-letter\_8x10in [PWG5101.1]

na\_index-3x5\_3x5in [PWG5101.1]

na\_index-4x6-ext\_6x8in [PWG5101.1]

na\_index-4x6\_4x6in [PWG5101.1]

na\_index-5x8\_5x8in [PWG5101.1]

na\_invoice\_5.5x8.5in [PWG5101.1]

na\_ledger\_11x17in [PWG5101.1]

na\_legal-extra\_9.5x15in [PWG5101.1]

na\_legal\_8.5x14in [PWG5101.1]

na\_letter-extra\_9.5x12in [PWG5101.1]

na\_letter-plus\_8.5x12.69in [PWG5101.1]

na\_letter\_8.5x11in [PWG5101.1]

na\_monarch\_3.875x7.5in [PWG5101.1]

na\_number-10\_4.125x9.5in [PWG5101.1]

na\_number-11\_4.5x10.375in [PWG5101.1]

na\_number-12\_4.75x11in [PWG5101.1]

na\_number-14\_5x11.5in [PWG5101.1]

na\_number-9\_3.875x8.875in [PWG5101.1]

na\_oficio\_8.5x13.4in [PWG5101.1]

na\_personal\_3.625x6.5in [PWG5101.1]

na\_quarto\_8.5x10.83in [PWG5101.1]

na\_super-a\_8.94x14in [PWG5101.1]

na\_super-b\_13x19in [PWG5101.1]

na\_wide-format\_30x42in [PWG5101.1]

oe\_12x16\_12x16in [PWG5101.1]

oe\_14x17\_14x17in [PWG5101.1]

oe\_18x22\_18x22in [PWG5101.1]

oe\_a2plus\_17x24in [PWG5101.1]

oe\_business-card\_2x3.5in [PWG5101.1]

oe\_photo-10r\_10x12in [PWG5101.1]

oe\_photo-12r\_12x15in [PWG5101.1]

oe\_photo-14x18\_14x18in [PWG5101.1]

oe\_photo-16r\_16x20in [PWG5101.1]

oe\_photo-20r\_20x24in [PWG5101.1]

oe\_photo-22r\_22x29.5in [PWG5101.1]

oe\_photo-22x28\_22x28in [PWG5101.1]

oe\_photo-24r\_24x31.5in [PWG5101.1]

oe\_photo-24x30\_24x30in [PWG5101.1]

oe\_photo-30r\_30x40in [PWG5101.1]

oe\_photo-l\_3.5x5in [PWG5101.1]

oe\_photo-s10r\_10x15in [PWG5101.1]

oe\_square-photo\_4x4in [PWG5101.1]

oe\_square-photo\_5x5in [PWG5101.1]

om\_16k\_184x260mm [PWG5101.1]

om\_16k\_195x270mm [PWG5101.1]

om\_business-card\_55x85mm [PWG5101.1]

om\_business-card\_55x91mm [PWG5101.1]

om\_dai-pa-kai\_275x395mm [PWG5101.1]

om\_dsc-photo\_89x119mm [PWG5101.1]

om\_folio-sp\_215x315mm [PWG5101.1]

om\_folio\_210x330mm [PWG5101.1]

om\_invite\_220x220mm [PWG5101.1]

om\_italian\_110x230mm [PWG5101.1]

om\_juuro-ku-kai\_198x275mm [PWG5101.1]

om\_large-photo\_200x300mm [PWG5101.1]

om\_medium-photo\_130x180mm [PWG5101.1]

om\_pa-kai\_267x389mm [PWG5101.1]

om\_photo-30x40\_300x400mm [PWG5101.1]

om\_photo-30x45\_300x450mm [PWG5101.1]

om\_photo-35x46\_350x460mm [PWG5101.1]

om\_photo-40x60\_400x600mm [PWG5101.1]

om\_photo-50x75\_500x750mm [PWG5101.1]

om\_photo-50x76\_500x760mm [PWG5101.1]

om\_photo-60x90\_600x900mm [PWG5101.1]

om\_postfix\_114x229mm [PWG5101.1]

om\_small-photo\_100x150mm [PWG5101.1]

om\_square-photo\_89x89mm [PWG5101.1]

om\_wide-photo\_100x200mm [PWG5101.1]

prc\_10\_324x458mm [PWG5101.1]

prc\_16k\_146x215mm [PWG5101.1]

prc\_1\_102x165mm [PWG5101.1]

prc\_2\_102x176mm [PWG5101.1]

prc\_32k\_97x151mm [PWG5101.1]

prc\_3\_125x176mm [PWG5101.1]

prc\_4\_110x208mm [PWG5101.1]

prc\_5\_110x220mm [PWG5101.1]

prc\_6\_120x320mm [PWG5101.1]

prc\_7\_160x230mm [PWG5101.1]

prc\_8\_120x309mm [PWG5101.1]

roc\_16k\_7.75x10.75in [PWG5101.1]

roc\_8k\_10.75x15.5in [PWG5101.1]

media-back-coating (type2 keyword | name(MAX)) [PWG5100.7]

glossy [PWG5101.1]

high-gloss [PWG5101.1]

matte [PWG5101.1]

none [PWG5101.1]

satin [PWG5101.1]

semi-gloss [PWG5101.1]

media-color (type2 keyword | name(MAX)) [PWG5100.7]

black [PWG5101.1]

brown [PWG5101.1]

clear-black [PWG5101.1]

clear-blue [PWG5101.1]

clear-brown [PWG5101.1]

clear-buff [PWG5101.1]

clear-cyan [PWG5101.1]

clear-gold [PWG5101.1]

clear-goldenrod [PWG5101.1]

clear-gray [PWG5101.1]

clear-green [PWG5101.1]

clear-ivory [PWG5101.1]

clear-magenta [PWG5101.1]

clear-multi-color [PWG5101.1]

clear-mustard [PWG5101.1]

clear-orange [PWG5101.1]

clear-pink [PWG5101.1]

clear-red [PWG5101.1]

clear-silver [PWG5101.1]

clear-turquoise [PWG5101.1]

clear-violet [PWG5101.1]

clear-white [PWG5101.1]

clear-yellow [PWG5101.1]

cyan [PWG5101.1]

dark-blue [PWG5101.1]

dark-brown [PWG5101.1]

dark-buff [PWG5101.1]

dark-cyan [PWG5101.1]

dark-gold [PWG5101.1]

dark-goldenrod [PWG5101.1]

dark-gray [PWG5101.1]

dark-green [PWG5101.1]

dark-ivory [PWG5101.1]

dark-magenta [PWG5101.1]

dark-mustard [PWG5101.1]

dark-orange [PWG5101.1]

dark-pink [PWG5101.1]

dark-red [PWG5101.1]

dark-silver [PWG5101.1]

dark-turquoise [PWG5101.1]

dark-violet [PWG5101.1]

dark-yellow [PWG5101.1]

gold [PWG5101.1]

light-black [PWG5101.1]

light-blue [PWG5101.1]

light-brown [PWG5101.1]

light-buff [PWG5101.1]

light-cyan [PWG5101.1]

light-gold [PWG5101.1]

light-goldenrod [PWG5101.1]

light-gray [PWG5101.1]

light-green [PWG5101.1]

light-ivory [PWG5101.1]

light-magenta [PWG5101.1]

light-mustard [PWG5101.1]

light-orange [PWG5101.1]

light-pink [PWG5101.1]

light-red [PWG5101.1]

light-silver [PWG5101.1]

light-turquoise [PWG5101.1]

light-violet [PWG5101.1]

light-yellow [PWG5101.1]

magenta [PWG5101.1]

multi-color [PWG5101.1]

mustard [PWG5101.1]

silver [PWG5101.1]

turquoise [PWG5101.1]

violet [PWG5101.1]

media-front-coating (type2 keyword | name(MAX)) [PWG5100.7]

<Any "media-back-coating" value> [PWG5101.1]

media-type (type2 keyword | name(MAX)) [PWG5100.7]

aluminum(deprecated) [PWG5101.1]

auto [PWG5101.1]

back-print-film [PWG5101.1]

cardboard [PWG5101.1]

cardstock [PWG5101.1]

cardstock-coated [PWG5101.1]

cardstock-heavyweight [PWG5101.1]

cardstock-heavyweight-coated [PWG5101.1]

cardstock-lightweight [PWG5101.1]

cardstock-lightweight-coated [PWG5101.1]

cd(deprecated) [PWG5101.1]

continuous [PWG5101.1]

continuous-long [PWG5101.1]

continuous-short [PWG5101.1]

corrogated-board(deprecated) [PWG5101.1]

disc [PWG5101.1]

disc-glossy [PWG5101.1]

disc-high-gloss [PWG5101.1]

disc-matte [PWG5101.1]

disc-satin [PWG5101.1]

disc-semi-gloss [PWG5101.1]

double-wall [PWG5101.1]

dry-film [PWG5101.1]

dvd(deprecated) [PWG5101.1]

embossing-foil [PWG5101.1]

end-board [PWG5101.1]

envelope [PWG5101.1]

envelope-archival [PWG5101.1]

envelope-bond [PWG5101.1]

envelope-coated [PWG5101.1]

envelope-cotton [PWG5101.1]

envelope-fine [PWG5101.1]

envelope-heavyweight [PWG5101.1]

envelope-inkjet [PWG5101.1]

envelope-lightweight [PWG5101.1]

envelope-plain [PWG5101.1]

envelope-preprinted [PWG5101.1]

envelope-window [PWG5101.1]

fabric [PWG5101.1]

fabric-archival [PWG5101.1]

fabric-glossy [PWG5101.1]

fabric-high-gloss [PWG5101.1]

fabric-matte [PWG5101.1]

fabric-semi-gloss [PWG5101.1]

fabric-waterproof [PWG5101.1]

film [PWG5101.1]

flexo-base [PWG5101.1]

flexo-photo-polymer [PWG5101.1]

flute [PWG5101.1]

foil [PWG5101.1]

full-cut-tabs [PWG5101.1]

glass [PWG5101.1]

glass-colored [PWG5101.1]

glass-opaque [PWG5101.1]

glass-surfaced [PWG5101.1]

glass-textured [PWG5101.1]

gravure-cylinder [PWG5101.1]

image-setter-paper [PWG5101.1]

imaging-cylinder [PWG5101.1]

labels [PWG5101.1]

labels-colored [PWG5101.1]

labels-glossy [PWG5101.1]

labels-heavyweight [PWG5101.1]

labels-high-gloss [PWG5101.1]

labels-inkjet [PWG5101.1]

labels-lightweight [PWG5101.1]

labels-matte [PWG5101.1]

labels-permanent [PWG5101.1]

labels-satin [PWG5101.1]

labels-security [PWG5101.1]

labels-semi-gloss [PWG5101.1]

letterhead(deprecated) [PWG5101.1]

metal [PWG5101.1]

metal-glossy [PWG5101.1]

metal-high-gloss [PWG5101.1]

metal-matte [PWG5101.1]

metal-satin [PWG5101.1]

metal-semi-gloss [PWG5101.1]

mounting-tape [PWG5101.1]

multi-layer [PWG5101.1]

multi-part-form [PWG5101.1]

other(deprecated) [PWG5101.1]

paper(deprecated) [PWG5101.1]

photographic [PWG5101.1]

photographic-archival [PWG5101.1]

photographic-film [PWG5101.1]

photographic-glossy [PWG5101.1]

photographic-high-gloss [PWG5101.1]

photographic-matte [PWG5101.1]

photographic-satin [PWG5101.1]

photographic-semi-gloss [PWG5101.1]

plastic [PWG5101.1]

plastic-archival [PWG5101.1]

plastic-colored [PWG5101.1]

plastic-glossy [PWG5101.1]

plastic-high-gloss [PWG5101.1]

plastic-matte [PWG5101.1]

plastic-satin [PWG5101.1]

plastic-semi-gloss [PWG5101.1]

plate [PWG5101.1]

polyester [PWG5101.1]

pre-cut-tabs [PWG5101.1]

roll(deprecated) [PWG5101.1]

screen [PWG5101.1]

screeen-paged [PWG5101.1]

self-adhesive [PWG5101.1]

self-adhesive-film [PWG5101.1]

shrink-foil [PWG5101.1]

single-face [PWG5101.1]

single-wall [PWG5101.1]

sleeve [PWG5101.1]

stationery [PWG5101.1]

stationery-archival [PWG5101.1]

stationery-bond [PWG5101.1]

stationery-coated [PWG5101.1]

stationery-cotton [PWG5101.1]

stationery-fine [PWG5101.1]

stationery-heavyweight [PWG5101.1]

stationery-heavyweight-coated [PWG5101.1]

stationery-inkjet [PWG5101.1]

stationery-letterhead [PWG5101.1]

stationery-lightweight [PWG5101.1]

stationery-preprinted [PWG5101.1]

stationery-prepunched [PWG5101.1]

stationery-recycled [PWG5101.1]

tab-stock [PWG5101.1]

tractor [PWG5101.1]

transfer [PWG5101.1]

transparency [PWG5101.1]

triple-wall [PWG5101.1]

wet-film [PWG5101.1]

1. Overview of Changes
   1. PWG Media Standardized Names v2.1

The following changes were made to the 2.0 version of this specification [PWG5101.1-2013]:

* Added new IANA registered media names,
* Added support for vendor names using 'smiNNNN-' prefixes in addition to the older reverse-DNS prefix,
* Updated the ABNF rules,
* Updated references to current versions of referenced specifications, and
* Resolved all reported issues.
  1. PWG Media Standardized Names v2.0

The following changes were made to the 1.0 version of this specification [PWG5101.1-2002]:

* Added media coating, source, and tooth names,
* Added roll fed media conventions, and
* Added IANA registrations.

1. Collected ABNF

The following ABNF [STD68] grammar defines the syntax of valid names in this specification. This ABNF is also available online [MSN-ABNF].

; ABNF definitions for PWG 5101.1-2023: PWG Media Standardized Names v2.1 (MSN)

;

; Last Update: April 28, 2023

;

; The ABNF definitions contained herein, if different from the definitions in

; the specification, supercede those present in the specification.

;

; NOTE: This ABNF allows for a mix of uppercase and lowercase letters in

; names, however specific bindings such as the Internet Printing Protocol

; only allow for lowercase letters.

;

; 3 Media Type Names

type-name = custom-type-name / derived-type-name / standard-type-name /

vendor-type-name

custom-type-name = "custom-" base-name

derived-type-name = "derived-" base-name "\_"

( base-name / custom-type-name / vendor-type-name )

standard-type-name = keyword

vendor-type-name = (dns-name / smi-name) "-" base-name

; 4 Color Names

color-name = custom-color-name / standard-color-name / vendor-color-name

custom-color-name = "custom-" base-name

\*( "\_" red-color green-color blue-color

[ alpha-color ] )

standard-color-name = keyword

vendor-color-name = (dns-name / smi-name) "-" base-name

\*( "\_" red-color green-color blue-color

[ alpha-color ] )

red-color = 2HEXDIG

green-color = 2HEXDIG

blue-color = 2HEXDIG

alpha-color = 2HEXDIG

; 5 Media Size Names

media-size-self-describing-name =

media-size-name / "choice" 2\*( "\_" media-size-name )

media-size-name = class-in "\_" size-name "\_" width-dim "x" length-dim "in" /

class-mm "\_" size-name "\_" width-dim "x" length-dim "mm" /

"disc\_" size-name "\_" inner-dim "x" outer-dim "mm"

class-in = "custom" / "na" / "asme" / "roc" / "oe" / "roll"

class-mm = "custom" / "iso" / "jis" / "jpn" / "prc" / "om" / "roll"

size-name = base-name

width-dim = dim

length-dim = dim / "0"

inner-dim = dim

outer-dim = dim

dim = integer-part [fraction-part] / "0" fraction-part

integer-part = non-zero-digit \*DIGIT

fraction-part = "." \*DIGIT non-zero-digit

class-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "." )

; 6 Media Coating Names

coating-name = custom-coating-name / standard-coating-name /

vendor-coating-name

custom-coating-name = "custom-" base-name

standard-coating-name = keyword

vendor-coating-name = (dns-name / smi-name) "-" base-name

; 7 Media Source Names

source-name = custom-source-name / standard-source-name / vendor-source-name

custom-source-name = "custom-" base-name

standard-source-name = keyword

vendor-source-name = (dns-name / smi-name) "-" base-name

; 8 Media Tooth Names

tooth-name = custom-tooth-name / standard-tooth-name / vendor-tooth-name

custom-tooth-name = "custom-" base-name

standard-tooth-name = keyword

vendor-tooth-name = (dns-name / smi-name) "-" base-name

; Common rules

base-name = ( ALPHA / DIGIT ) \*( ALPHA / DIGIT / "-" / "." )

dns-name = 1\*ALPHA 1\*( "." 1\*( ALPHA / DIGIT / "-" ) )

smi-name = "smi" 1\*DIGIT

keyword = ALPHA 1\*( ALPHA / DIGIT / "-" / "\_" / ".")

non-zero-digit = %x31-39

; EOF

1. Parser Considerations for the Media Size Name (Informative)

Special consideration needs to be made during the development of a parser for the Media Size Name. Since additional "class" names and "size-names" will be defined in the future, in many cases the parser cannot be strictly conformant to the ABNF. The following is intended to provide guidelines for the development of client parsers and device parsers.

* 1. Client Parsers

There are several degrees of client which display something to the user for selection and MAY format documents (where it would need to know the dimensions):

1. Non-formatting client**;** In this case, the parser treats the string as a unit and can simply display it to the user as is, no parsing is required. If the parser localizes and finds a string that it doesn't recognize, then it can just display the entire string as received, or perhaps breaks it up into separate pieces separated by a space. Such a client most likely doesn't format documents, so it will not even care about the dimensions, only the user and Printer do.
2. Client does formatting; Now the client will separate the class field, the name field, and the dimension field. The class and name fields can be displayed as is or localized, and the dimensions are converted to the units preferred by the user. If a class or name field isn't recognized, it will be displayed as is, perhaps with underlines replaced by spaces. The dimensions will also be converted to the internal units for formatting documents.
   1. Device Parsers

On the Printer side, there are two cases to consider, the one that doesn't support client's inventing custom sizes and the one that does. If the Printer displays media sizes to an operator or on a control panel, then that parser code has the same problems as the client (see above):

1. Device doesn't support client-defined custom sizes; In this situation the parser doesn't even need to parse the string. It simply compares the entire string with a list of supported strings, including system administrator defined custom sizes. If there isn't a match, the Printer doesn't support that requested size and takes the appropriate action.
2. Device supports client-invented custom sizes; Here the Printer parser MUST look at the class field for "custom", then parse the dimensions and check for a valid range and then possibly convert to the Printer's internal units.
3. Localization Considerations (Informative)

Media names, like most other attributes and values, are localized using a combination of client-side and printer-supplied message catalogs that are keyed using the attribute name and value. For example, the "printer-strings-uri" Printer Description attribute [PWG5100.13] provides a URI to a message catalog hosted by an IPP Printer. An English message catalog for all registered IPP attributes and values is available from the PWG [PWG-CATALOG].

Note: Many client user interfaces prefer strings from local, client-side message catalogs over those supplied by a printer. This is typically done to provide a more consistent user experience and/or support certain accessibility goals.

* 1. Localizing Media Size Names

Common media sizes are often recognized by local names, for example "US Letter" for 'na\_letter\_8.5x11in' or "A4" for "iso\_a4\_210x297mm". Less common sizes are better known by dimensional names, for example "8 x 10" for 'na\_govt-letter\_8x10in'. Client user interfaces typically use local names for a small set of common sizes and dimensional names for other media sizes, sometimes supplemented by the "size-name" portion of a self-describing name, for example by adding "Photo" or "Envelope" to the dimensional name when the "size-name" contains 'photo' or 'envelope', respectively.

* 1. Localizing Media Color Names

Media color names should be presented with both the equivalent visible coloring and the localized written name for the color in order to allow users with different vision abilities to clearly identify them.

* 1. Localizing Other Names

Other media names are typically provided as hyphenated US English strings, for example 'photographic-glossy' and 'tray-3'. A naive client implementation could convert these strings to title case, for example "Photographic Glossy" and "Tray 3", and then use machine translation to produce localized versions. However, such localized names are a poor substitute for proper message catalogs from the printer or on the client.

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