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T. Hastings
Xerox Corporation
D. Fullman
Xerox Corporation
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9 Internet Printing Protocol/1.1: "media" Engineering attribute values extension
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12 Status of this Memo

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22 **Abstract**

23 This document specifies additional type3 keyword values for the IPP/1.1 "media" Job Template attribute
24 for use with the Internet Printing Protocol/1.1 (IPP). These additional attribute values permit the client to
25 specify additional media options, including values of media common to engineering drawings. For
26 completeness, all of the existing "media" keyword values are included as well.

27 The full set of IPP documents includes:

- 28 Design Goals for an Internet Printing Protocol [RFC2567]
- 29 Rationale for the Structure and Model and Protocol for the Internet Printing Protocol [RFC2568]
- 30 Internet Printing Protocol/1.1: Model and Semantics [ipp-mod]
- 31 Internet Printing Protocol/1.1: Encoding and Transport [ipp-pro]
- 32 Internet Printing Protocol/1.1: Implementer's Guide [ipp-iig]
- 33 Mapping between LPD and IPP Protocols [RFC2569]

34

35 The "Design Goals for an Internet Printing Protocol" document takes a broad look at distributed printing
36 functionality, and it enumerates real-life scenarios that help to clarify the features that need to be included
37 in a printing protocol for the Internet. It identifies requirements for three types of users: end users,
38 operators, and administrators. It calls out a subset of end user requirements that are satisfied in IPP/1.0. A
39 few OPTIONAL operator operations have been added to IPP/1.1.

40 The "Rationale for the Structure and Model and Protocol for the Internet Printing Protocol" document
41 describes IPP from a high level view, defines a roadmap for the various documents that form the suite of
42 IPP specification documents, and gives background and rationale for the IETF working group's major
43 decisions.

44 The "Internet Printing Protocol/1.1: Encoding and Transport" document is a formal mapping of the abstract
45 operations and attributes defined in the model document onto HTTP/1.1 [RFC2616]. It defines the
46 encoding rules for a new Internet MIME media type called "application/ipp". This document also defines
47 the rules for transporting over HTTP a message body whose Content-Type is "application/ipp". This
48 document defines a new scheme named 'ipp' for identifying IPP printers and jobs.

49 The "Internet Printing Protocol/1.1: Implementer's Guide" document gives insight and advice to
50 implementers of IPP clients and IPP objects. It is intended to help them understand IPP/1.1 and some of
51 the considerations that may assist them in the design of their client and/or IPP object implementations. For
52 example, a typical order of processing requests is given, including error checking. Motivation for some of
53 the specification decisions is also included.

54 The "Mapping between LPD and IPP Protocols" document gives some advice to implementers of gateways
55 between IPP and LPD (Line Printer Daemon) implementations.

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72 **1 Additional values for the "media" Job Template attribute**

73 **1.1 Problem**

74 Need additional type3 keyword values for media to support the additional sizes and types of media
75 common to engineering drawings.

76 **1.2 Suggested solution**

77 This solution is a new solution to address the unique requirements for the engineering market. The
78 suggestion is to add additional type3 keyword values to the "media" Job Template attributes (also applies to
79 "media-default", "media-supported" and "media-ready" attributes).

80

81 **1.3 Proposed Text**

82 Add the following paragraphs indicated with revision marks to the description of the "media" Job Template
83 attribute (section 4.2.11), References (section 9), and Appendix C: "media" keyword values (section 14), so
84 that the entire sections would be:

85 **4.2.11 media (type3 keyword | name(MAX))**

86 This attribute identifies the medium that the Printer uses for all impressions of the Job.

87 The values for "media" include medium-names, medium-sizes, input-trays and electronic forms so that one
88 attribute specifies the media. If a Printer object supports a medium name as a value of this attribute, such a
89 medium name implicitly selects an input-tray that contains the specified medium. If a Printer object
90 supports a medium size as a value of this attribute, such a medium size implicitly selects a medium name
91 that in turn implicitly selects an input-tray that contains the medium with the specified size. If a Printer
92 object supports an input-tray as the value of this attribute, such an input-tray implicitly selects the medium
93 that is in that input-tray at the time the job prints. This case includes manual-feed input-trays. If a Printer
94 object supports an electronic form as the value of this attribute, such an electronic form implicitly selects a
95 medium-name that in turn implicitly selects an input-tray that contains the medium specified by the
96 electronic form. The electronic form also implicitly selects an image that the Printer MUST merge with the
97 document data as its prints each page.

98 Standard keyword values are taken from ISO DPA, the Printer MIB and ASME-Y14.1M and are listed in
99 section 14. An administrator MAY define additional values using the 'name' or 'keyword' attribute syntax,
100 depending on implementation.

101 There is also an additional Printer attribute named "media-ready" which differs from "media-supported" in
102 that legal values only include the subset of "media-supported" values that are physically loaded and ready

103 for printing with no operator intervention required. If an IPP object supports "media-supported", it NEED
104 NOT support "media-ready".

105 The relationship of this attribute and the other attributes that control document processing is described in
106 section 15.3.

107 The following text includes all of the current Appendix C in [ipp-mod] plus additional values:

108 **14. APPENDIX C: "media" keyword values**

109 Standard keyword values are taken from several sources.

110 Standard values are defined (taken from DPA[ISO10175] and the Printer MIB[RFC1759]):

111 'default': The default medium for the output device
112 'iso-a4-white': Specifies the ISO A4 white medium: 210 mm x 297 mm
113 'iso-a4-colored': Specifies the ISO A4 colored medium: 210 mm x 297 mm
114 'iso-a4-transparent' Specifies the ISO A4 transparent medium: 210 mm x 297 mm
115 'iso-a3-white': Specifies the ISO A3 white medium: 297 mm x 420 mm
116 'iso-a3-colored': Specifies the ISO A3 colored medium: 297 mm x 420 mm
117 'iso-a5-white': Specifies the ISO A5 white medium: 148 mm x 210 mm
118 'iso-a5-colored': Specifies the ISO A5 colored medium: 148 mm x 210 mm
119 'iso-b4-white': Specifies the ISO B4 white medium: 250 mm x 353 mm
120 'iso-b4-colored': Specifies the ISO B4 colored medium: 250 mm x 353 mm
121 'iso-b5-white': Specifies the ISO B5 white medium: 176 mm x 250 mm
122 'iso-b5-colored': Specifies the ISO B5 colored medium: 176 mm x 250 mm
123 'jis-b4-white': Specifies the JIS B4 white medium: 257 mm x 364 mm
124 'jis-b4-colored': Specifies the JIS B4 colored medium: 257 mm x 364 mm
125 'jis-b5-white': Specifies the JIS B5 white medium: 182 mm x 257 mm
126 'jis-b5-colored': Specifies the JIS B5 colored medium: 182 mm x 257 mm

127

128 The following standard values are defined for North American media:

129 'na-letter-white': Specifies the North American letter white medium
130 'na-letter-colored': Specifies the North American letter colored medium
131 'na-letter-transparent': Specifies the North American letter transparent medium
132 'na-legal-white': Specifies the North American legal white medium
133 'na-legal-colored': Specifies the North American legal colored medium

134

135 The following standard values are defined for envelopes:

136 'iso-b4-envelope': Specifies the ISO B4 envelope medium

- 137 'iso-b5-envelope': Specifies the ISO B5 envelope medium
- 138 'iso-c3-envelope': Specifies the ISO C3 envelope medium
- 139 'iso-c4-envelope': Specifies the ISO C4 envelope medium
- 140 'iso-c5-envelope': Specifies the ISO C5 envelope medium
- 141 'iso-c6-envelope': Specifies the ISO C6 envelope medium
- 142 'iso-designated-long-envelope': Specifies the ISO Designated Long envelope medium
- 143 'na-10x13-envelope': Specifies the North American 10x13 envelope medium
- 144 'na-9x12-envelope': Specifies the North American 9x12 envelope medium
- 145 'monarch-envelope': Specifies the Monarch envelope
- 146 'na-number-10-envelope': Specifies the North American number 10 business envelope medium
- 147 'na-7x9-envelope': Specifies the North American 7x9 inch envelope
- 148 'na-9x11-envelope': Specifies the North American 9x11 inch envelope
- 149 'na-10x14-envelope': Specifies the North American 10x14 inch envelope
- 150 'na-number-9-envelope': Specifies the North American number 9 business envelope
- 151 'na-6x9-envelope': Specifies the North American 6x9 inch envelope
- 152 'na-10x15-envelope': Specifies the North American 10x15 inch envelope
- 153

154 The following standard values are defined for the less commonly used media:

- 155 'executive-white': Specifies the white executive medium
- 156 'folio-white': Specifies the folio white medium
- 157 'invoice-white': Specifies the white invoice medium
- 158 'ledger-white': Specifies the white ledger medium
- 159 'quarto-white': Specified the white quarto medium
- 160 'iso-a0-white': Specifies the ISO A0 white medium: 841 mm x 1189 mm
- 161 'iso-a0-transparent': Specifies the ISO A0 transparent medium: 841 mm x 1189 mm
- 162 'iso-a0-translucent': Specifies the ISO A0 translucent medium: 841 mm x 1189 mm
- 163 'iso-a1-white': Specifies the ISO A1 white medium: 594 mm x 841 mm
- 164 'iso-a1-transparent': Specifies the ISO A1 transparent medium: 594 mm x 841 mm
- 165 'iso-a1-translucent': Specifies the ISO A1 translucent medium: 594 mm x 841 mm
- 166 'iso-a2-white': Specifies the ISO A2 white medium: 420 mm x 594 mm
- 167 'iso-a2-transparent': Specifies the ISO A2 transparent medium: 420 mm x 594 mm
- 168 'iso-a2-translucent': Specifies the ISO A2 translucent medium: 420 mm x 594 mm
- 169 'iso-a3-transparent': Specifies the ISO A3 transparent medium: 297 mm x 420 mm
- 170 'iso-a3-translucent': Specifies the ISO A3 translucent medium: 297 mm x 420 mm
- 171 'iso-a4-translucent': Specifies the ISO A4 translucent medium: 210 mm x 297 mm
- 172 'iso-a5-transparent': Specifies the ISO A5 transparent medium: 148 mm x 210 mm
- 173 'iso-a5-translucent': Specifies the ISO A5 translucent medium: 148 mm x 210 mm
- 174 'iso-a6-white': Specifies the ISO A6 white medium: 105 mm x 148 mm
- 175 'iso-a7-white': Specifies the ISO A7 white medium: 74 mm x 105 mm
- 176 'iso-a8-white': Specifies the ISO A8 white medium: 52 mm x 74 mm
- 177 'iso-a9-white': Specifies the ISO A9 white medium: 37 mm x 52 mm
- 178 'iso-10-white': Specifies the ISO A10 white medium: 26 mm x 37 mm
- 179 'iso-b0-white': Specifies the ISO B0 white medium: 1000 mm x 1414 mm
- 180 'iso-b1-white': Specifies the ISO B1 white medium: 707 mm x 1000 mm

181 'iso-b2-white': Specifies the ISO B2 white medium: 500 mm x 707 mm
182 'iso-b3-white': Specifies the ISO B3 white medium: 353 mm x 500 mm
183 'iso-b6-white': Specifies the ISO B6 white medium: 125 mm x 176 mm
184 'iso-b7-white': Specifies the ISO B7 white medium: 88 mm x 125 mm
185 'iso-b8-white': Specifies the ISO B8 white medium: 62 mm x 88 mm
186 'iso-b9-white': Specifies the ISO B9 white medium: 44 mm x 62 mm
187 'iso-b10-white': Specifies the ISO B10 white medium: 31 mm x 44 mm
188 'jis-b0-white': Specifies the JIS B0 white medium: 1030 mm x 1456 mm
189 'jis-b0-transparent': Specifies the JIS B0 transparent medium: 1030 mm x 1456 mm
190 'jis-b0-translucent': Specifies the JIS B0 translucent medium: 1030 mm x 1456 mm
191 'jis-b1-white': Specifies the JIS B1 white medium: 728 mm x 1030 mm
192 'jis-b1-transparent': Specifies the JIS B1 transparent medium: 728 mm x 1030 mm
193 'jis-b1-translucent': Specifies the JIS B1 translucent medium: 728 mm x 1030 mm
194 'jis-b2-white': Specifies the JIS B2 white medium: 515 mm x 728 mm
195 'jis-b2-transparent': Specifies the JIS B2 transparent medium: 515 mm x 728 mm
196 'jis-b2-translucent': Specifies the JIS B2 translucent medium: 515 mm x 728 mm
197 'jis-b3-white': Specifies the JIS B3 white medium: 364 mm x 515 mm
198 'jis-b3-transparent': Specifies the JIS B3 transparent medium: 364 mm x 515 mm
199 'jis-b3-translucent': Specifies the JIS B3 translucent medium: 364 mm x 515 mm
200 'jis-b4-transparent': Specifies the JIS B4 transparent medium: 257 mm x 364 mm
201 'jis-b4-translucent': Specifies the JIS B4 translucent medium: 257 mm x 364 mm
202 'jis-b5-transparent': Specifies the JIS B5 transparent medium: 182 mm x 257 mm
203 'jis-b5-translucent': Specifies the JIS B5 translucent medium: 182 mm x 257 mm
204 'jis-b6-white': Specifies the JIS B6 white medium: 128 mm x 182 mm
205 'jis-b7-white': Specifies the JIS B7 white medium: 91 mm x 128 mm
206 'jis-b8-white': Specifies the JIS B8 white medium: 64 mm x 91 mm
207 'jis-b9-white': Specifies the JIS B9 white medium: 45 mm x 64 mm
208 'jis-b10-white': Specifies the JIS B10 white medium: 32 mm x 45 mm

209

210 The following standard values are defined for American Standard (i.e. ANSI) engineering media:

211 'a-white': Specifies the engineering ANSI A size white medium: 8.5 inches x 11 inches
212 'a-transparent': Specifies the engineering ANSI A size transparent medium: 8.5 inches x 11 inches
213 'a-translucent': Specifies the engineering ANSI A size translucent medium: 8.5 inches x 11 inches
214 'b-white': Specifies the engineering ANSI B size white medium: 11 inches x 17 inches
215 'b-transparent': Specifies the engineering ANSI B size transparent medium: 11 inches x 17 inches
216 'b-translucent': Specifies the engineering ANSI B size translucent medium: 11 inches x 17 inches
217 'c-white': Specifies the engineering ANSI C size white medium: 17 inches x 22 inches
218 'c-transparent': Specifies the engineering ANSI C size transparent medium: 17 inches x 22 inches
219 'c-translucent': Specifies the engineering ANSI C size translucent medium: 17 inches x 22 inches
220 'd-white': Specifies the engineering ANSI D size white medium: 22 inches x 34 inches
221 'd-transparent': Specifies the engineering ANSI D size transparent medium: 22 inches x 34 inches
222 'd-translucent': Specifies the engineering ANSI D size translucent medium: 22 inches x 34 inches
223 'e-white': Specifies the engineering ANSI E size white medium: 34 inches x 44 inches
224 'e-transparent': Specifies the engineering ANSI E size transparent medium: 34 inches x 44 inches

225 'e-translucent': Specifies the engineering ANSI E size translucent medium: 34 inches x 44 inches
226

227 The following standard values are defined for American Standard (i.e. ANSI) engineering media for
228 devices that provide the "synchro-cut" feature (see section 14.1):

229 'axsynchro-white': Specifies the roll paper having the width of the longer edge (11 inches) of the
230 engineering ANSI A size white medium and cuts synchronizing with data.
231 'axsynchro-transparent': Specifies the roll paper having the width of the longer edge (11 inches) of the
232 engineering ANSI A size transparent medium and cuts synchronizing with data.
233 'axsynchro-translucent': Specifies the roll paper having the width of the longer edge (11 inches) of the
234 engineering ANSI A size translucent medium and cuts synchronizing with data.
235 'bxsynchro-white': Specifies the roll paper having the width of the longer edge (17 inches) of the
236 engineering ANSI B size white medium and cuts synchronizing with data.
237 'bxsynchro-transparent': Specifies the roll paper having the width of the longer edge (17 inches) of the
238 engineering ANSI B size transparent medium and cuts synchronizing with data.
239 'bxsynchro-translucent': Specifies the roll paper having the width of the longer edge (17 inches) of the
240 engineering ANSI B size translucent medium and cuts synchronizing with data.
241 'cxsynchro-white': Specifies the roll paper having the width of the longer edge (22 inches) of the
242 engineering ANSI C size white medium and cuts synchronizing with data.
243 'cxsynchro-transparent': Specifies the roll paper having the width of the longer edge (22 inches) of the
244 engineering ANSI C size transparent medium and cuts synchronizing with data.
245 'cxsynchro-translucent': Specifies the roll paper having the width of the longer edge (22 inches) of the
246 engineering ANSI C size translucent medium and cuts synchronizing with data.
247 'dxsynchro-white': Specifies the roll paper having the width of the longer edge (34 inches) of the
248 engineering ANSI D size white medium and cuts synchronizing with data.
249 'dxsynchro-transparent': Specifies the roll paper having the width of the longer edge (34 inches) of the
250 engineering ANSI D size transparent medium and cuts synchronizing with data.
251 'dxsynchro-translucent': Specifies the roll paper having the width of the longer edge (34 inches) of the
252 engineering ANSI D size translucent medium and cuts synchronizing with data.
253 'exsynchro-white': Specifies the roll paper having the width of the longer edge (44 inches) of the
254 engineering ANSI E size white medium and cuts synchronizing with data.
255 'exsynchro-transparent': Specifies the roll paper having the width of the longer edge (44 inches) of the
256 engineering ANSI E size transparent medium and cuts synchronizing with data.
257 'exsynchro-translucent': Specifies the roll paper having the width of the longer edge (44 inches) of the
258 engineering ANSI E size translucent medium and cuts synchronizing with data.
259

260 The following standard values are defined for American Architectural engineering media:

261 'arch-a-white': Specifies the Architectural A size white medium: 9 inches x 12 inches
262 'arch-a-transparent': Specifies the Architectural A size transparent medium: 9 inches x 12 inches
263 'arch-a-translucent': Specifies the Architectural A size translucent medium: 9 inches x 12 inches
264 'arch-b-white': Specifies the Architectural B size white medium: 12 inches x 18 inches
265 'arch-b-transparent': Specifies the Architectural B size transparent medium: 12 inches x 18 inches
266 'arch-b-translucent': Specifies the Architectural B size translucent medium: 12 inches x 18 inches
267 'arch-c-white': Specifies the Architectural C size white medium: 18 inches x 24 inches

268 'arch-c-transparent': Specifies the Architectural C size transparent medium: 18 inches x 24 inches
269 'arch-c-translucent': Specifies the Architectural C size translucent medium: 18 inches x 24 inches
270 'arch-d-white': Specifies the Architectural D size white medium: 24 inches x 36 inches
271 'arch-d-transparent': Specifies the Architectural D size transparent medium: 24 inches x 36 inches
272 'arch-d-translucent': Specifies the Architectural D size translucent medium: 24 inches x 36 inches
273 'arch-e-white': Specifies the Architectural E size white medium: 36 inches x 48 inches
274 'arch-e-transparent': Specifies the Architectural E size transparent medium: 36 inches x 48 inches
275 'arch-e-translucent': Specifies the Architectural E size translucent medium: 36 inches x 48 inches
276

277 The following standard values are defined for American Architectural engineering media for devices that
278 provide the "synchro-cut" feature (see section 14.1):

279 'arch-axsynchro-white': Specifies the roll paper having the width of the longer edge (12 inches) of the
280 Architectural A size white medium and cuts synchronizing with data.
281 'arch-axsynchro-transparent': Specifies Specifies the roll paper having the width of the longer edge (12
282 inches) of the Architectural A size transparent medium and cuts synchronizing with data.
283 'arch-axsynchro-translucent': Specifies Specifies the roll paper having the width of the longer edge (12
284 inches) of the Architectural A size translucent medium and cuts synchronizing with data.
285 'arch-bxsynchro-white': Specifies the roll paper having the width of the longer edge (18 inches) of the
286 Architectural B size white medium and cuts synchronizing with data.
287 'arch-bxsynchro-transparent': Specifies the roll paper having the width of the longer edge (18 inches)
288 of the Architectural B size transparent medium and cuts synchronizing with data.
289 'arch-bxsynchro-translucent': Specifies the roll paper having the width of the longer edge (18 inches) of
290 the Architectural B size translucent medium and cuts synchronizing with data.
291 'arch-cxsynchro-white': Specifies the roll paper having the width of the longer edge (24 inches) of the
292 Architectural C size white medium and cuts synchronizing with data.
293 'arch-cxsynchro-transparent': Specifies the roll paper having the width of the longer edge (24 inches) of
294 the Architectural C size transparent medium and cuts synchronizing with data.
295 'arch-cxsynchro-translucent': Specifies the roll paper having the width of the longer edge (24 inches) of
296 the Architectural C size translucent medium and cuts synchronizing with data.
297 'arch-dxsynchro-white': Specifies the roll paper having the width of the longer edge (36 inches) of the
298 Architectural D size white medium and cuts synchronizing with data.
299 'arch-dxsynchro-transparent': Specifies the roll paper having the width of the longer edge (36 inches)
300 of the Architectural D size transparent medium and cuts synchronizing with data.
301 'arch-dxsynchro-translucent': Specifies the roll paper having the width of the longer edge (36 inches) of
302 the Architectural D size translucent medium and cuts synchronizing with data.
303 'arch-exsynchro-white': Specifies the roll paper having the width of the longer edge (48 inches) of the
304 Architectural E size white medium and cuts synchronizing with data.
305 'arch-exsynchro-transparent': Specifies the roll paper having the width of the longer edge (48 inches) of
306 the Architectural E size transparent medium and cuts synchronizing with data.
307 'arch-exsynchro-translucent': Specifies the roll paper having the width of the longer edge (48 inches) of
308 the Architectural E size translucent medium and cuts synchronizing with data.
309

310 The following standard values are defined for Japanese and European Standard (i.e. ISO) engineering
311 media, which are of a long fixed size [ASME-Y14.1M]:

312 'iso-a1x3-white': Specifies the ISO A1X3 white medium having the width of the longer edge (841
313 mm) of the ISO A1 medium

314 'iso-a1x3-transparent': Specifies the ISO A1X3 transparent medium having the width of the longer
315 edge (841 mm) of the ISO A1 medium

316 'iso-a1x3-translucent': Specifies the ISO A1X3 translucent medium having the width of the longer
317 edge (841 mm) of the ISO A1 medium

318 'iso-a1x4-white': Specifies the ISO A1X4 white medium having the width of the longer edge (841
319 mm) of the ISO A1 medium

320 'iso-a1x4-transparent': Specifies the ISO A1X4 transparent medium having the width of the longer
321 edge (841 mm) of the ISO A1 medium

322 'iso-a1x4-translucent': Specifies the ISO A1X4 translucent medium having the width of the longer
323 edge (841 mm) of the ISO A1 medium

324 'iso-a2x3-white': Specifies the ISO A2X3 white medium having the width of the longer edge (594
325 mm) of the ISO A2 medium

326 'iso-a2x3-transparent': Specifies the ISO A2X3 transparent medium having the width of the longer
327 edge (594 mm) of the ISO A2 medium

328 'iso-a2x3-translucent': Specifies the ISO A2X3 translucent medium having the width of the longer
329 edge (594 mm) of the ISO A2 medium

330 'iso-a2x4-white': Specifies the ISO A2X4 white medium having the width of the longer edge (594
331 mm) of the ISO A2 medium

332 'iso-a2x4-transparent': Specifies the ISO A2X4 transparent medium having the width of the longer
333 edge (594 mm) of the ISO A2 medium

334 'iso-a2x4-translucent': Specifies the ISO A2X4 translucent medium having the width of the longer
335 edge (594 mm) of the ISO A2 medium

336 'iso-a2x5-white': Specifies the ISO A2X5 white medium having the width of the longer edge (594
337 mm) of the ISO A2 medium

338 'iso-a2x5-transparent': Specifies the ISO A2X5 transparent medium having the width of the longer
339 edge (594 mm) of the ISO A2 medium

340 'iso-a2x5-translucent': Specifies the ISO A2X5 translucent medium having the width of the longer
341 edge (594 mm) of the ISO A2 medium

342 'iso-a3x3-white': Specifies the ISO A3X3 white medium having the width of the longer edge (420
343 mm) of the ISO A3 medium

344 'iso-a3x3-transparent': Specifies the ISO A3X3 transparent medium having the width of the longer
345 edge (420 mm) of the ISO A3 medium

346 'iso-a3x3-translucent': Specifies the ISO A3X3 translucent medium having the width of the longer
347 edge (420 mm) of the ISO A3 medium

348 'iso-a3x4-white': Specifies the ISO A3X4 white medium having the width of the longer edge (420
349 mm) of the ISO A3 medium

350 'iso-a3x4-transparent': Specifies the ISO A3X4 transparent medium having the width of the longer
351 edge (420 mm) of the ISO A3 medium

352 'iso-a3x4-translucent': Specifies the ISO A3X4 translucent medium having the width of the longer
353 edge (420 mm) of the ISO A3 medium

354 'iso-a3x5-white': Specifies the ISO A3X5 white medium having the width of the longer edge (420
355 mm) of the ISO A3 medium

356 'iso-a3x5-transparent': Specifies the ISO A3X5 transparent medium having the width of the longer
357 edge (420 mm) of the ISO A3 medium

358 'iso-a3x5-translucent': Specifies the ISO A3X5 translucent medium having the width of the longer
359 edge (420 mm) of the ISO A3 medium

360 'iso-a3x6-white': Specifies the ISO A3X6 white medium having the width of the longer edge (420
361 mm) of the ISO A3 medium

362 'iso-a3x6-transparent': Specifies the ISO A3X6 transparent medium having the width of the longer
363 edge (420 mm) of the ISO A3 medium

364 'iso-a3x6-translucent': Specifies the ISO A3X6 translucent medium having the width of the longer
365 edge (420 mm) of the ISO A3 medium

366 'iso-a3x7-white': Specifies the ISO A3X7 white medium having the width of the longer edge (420
367 mm) of the ISO A3 medium

368 'iso-a3x7-transparent': Specifies the ISO A3X7 transparent medium having the width of the longer
369 edge (420 mm) of the ISO A3 medium

370 'iso-a3x7-translucent': Specifies the ISO A3X7 translucent' medium having the width of the longer
371 edge (420 mm) of the ISO A3 medium

372 'iso-a4x3-white': Specifies the ISO A4X3 white medium having the width of the longer edge (297
373 mm) of the ISO A4 medium

374 'iso-a4x3-transparent': Specifies the ISO A4X3 transparent medium having the width of the longer
375 edge (297 mm) of the ISO A4 medium

376 'iso-a4x3-translucent': Specifies the ISO A4X3 translucent' medium having the width of the longer
377 edge (297 mm) of the ISO A4 medium

378 'iso-a4x4-white': Specifies the ISO A4X4 white medium having the width of the longer edge (297
379 mm) of the ISO A4 medium

380 'iso-a4x4-transparent': Specifies the ISO A4X4 transparent medium having the width of the longer
381 edge (297 mm) of the ISO A4 medium

382 'iso-a4x4-translucent': Specifies the ISO A4X4 translucent medium having the width of the longer
383 edge (297 mm) of the ISO A4 medium

384 'iso-a4x5-white': Specifies the ISO A4X5 white medium having the width of the longer edge (297
385 mm) of the ISO A4 medium

386 'iso-a4x5-transparent': Specifies the ISO A4X5 transparent medium having the width of the longer
387 edge (297 mm) of the ISO A4 medium

388 'iso-a4x5-translucent': Specifies the ISO A4X5 translucent medium having the width of the longer
389 edge (297 mm) of the ISO A4 medium

390 'iso-a4x6-white': Specifies the ISO A4X6 white medium having the width of the longer edge (297
391 mm) of the ISO A4 medium

392 'iso-a4x6-transparent': Specifies the ISO A4X6 transparent medium having the width of the longer
393 edge (297 mm) of the ISO A4 medium

394 'iso-a4x6-translucent': Specifies the ISO A4X6 translucent medium having the width of the longer
395 edge (297 mm) of the ISO A4 medium

396 'iso-a4x7-white': Specifies the ISO A4X7 white medium having the width of the longer edge (297
397 mm) of the ISO A4 medium

398 'iso-a4x7-transparent': Specifies the ISO A4X7 transparent medium having the width of the longer
399 edge (297 mm) of the ISO A4 medium

400 'iso-a4x7-translucent': Specifies the ISO A4X7 translucent medium having the width of the longer
401 edge (297 mm) of the ISO A4 medium

402 'iso-a4x8-white': Specifies the ISO A4X8 white medium having the width of the longer edge (297
403 mm) of the ISO A4 medium

- 404 'iso-a4x8-transparent': Specifies the ISO A4X8 transparent medium having the width of the longer
405 edge (297 mm) of the ISO A4 medium
- 406 'iso-a4x8-translucent': Specifies the ISO A4X8 translucent medium having the width of the longer
407 edge (297 mm) of the ISO A4 medium
- 408 'iso-a4x9-white': Specifies the ISO A4X9 white medium having the width of the longer edge (297
409 mm) of the ISO A4 medium
- 410 'iso-a4x9-transparent': Specifies the ISO A4X9 transparent medium having the width of the longer
411 edge (297 mm) of the ISO A4 medium
- 412 'iso-a4x9-translucent': Specifies the ISO A4X9 translucent medium having the width of the longer
413 edge (297 mm) of the ISO A4 medium

414

415 The following standard values are defined for Japanese and European Standard (i.e. ISO) engineering
416 media, which are either a long fixed size [ASME-Y14.1M] or roll feed, for devices that provide the
417 "synchro-cut" feature (see section 14.1):

- 418 'iso-a0xsynchro-white': Specifies the paper having the width of the longer edge (1189 mm) of the ISO
419 A0 white medium and cuts synchronizing with data.
- 420 'iso-a0xsynchro-transparent': Specifies the paper having the width of the longer edge (1189 mm) of
421 the ISO A0 transparent medium and cuts synchronizing with data.
- 422 'iso-a0xsynchro-translucent': Specifies the paper having the width of the longer edge (1189 mm) of the
423 ISO A0 translucent medium and cuts synchronizing with data.
- 424 'iso-a1xsynchro-white': Specifies the paper having the width of the longer edge (841 mm) of the ISO
425 A1 white medium and cuts synchronizing with data.
- 426 'iso-a1xsynchro-transparent': Specifies the paper having the width of the longer edge (841 mm) of the
427 ISO A1 transparent medium and cuts synchronizing with data.
- 428 'iso-a1xsynchro-translucent': Specifies the paper having the width of the longer edge (841 mm) of the
429 ISO A1 translucent medium and cuts synchronizing with data.
- 430 'iso-a2xsynchro-white': Specifies the paper having the width of the longer edge (594 mm) of the ISO
431 A2 white medium and cuts synchronizing with data.
- 432 'iso-a2xsynchro-transparent': Specifies the paper having the width of the longer edge (594 mm) of the
433 ISO A2 transparent medium and cuts synchronizing with data.
- 434 'iso-a2xsynchro-translucent': Specifies the paper having the width of the longer edge (594 mm) of the
435 ISO A2 translucent medium and cuts synchronizing with data.
- 436 'iso-a3xsynchro-white': Specifies the paper having the width of the longer edge (420 mm) of the ISO
437 A3 white medium and cuts synchronizing with data.
- 438 'iso-a3xsynchro-transparent': Specifies the paper having the width of the longer edge (420 mm) of the
439 ISO A3 transparent medium and cuts synchronizing with data.
- 440 'iso-a3xsynchro-translucent': Specifies the paper having the width of the longer edge (420 mm) of the
441 ISO A3 translucent medium and cuts synchronizing with data.
- 442 'iso-a4xsynchro-white': Specifies the paper having the width of the longer edge (297 mm) of the ISO
443 A4 white medium and cuts synchronizing with data.
- 444 'iso-a4xsynchro-transparent': Specifies the paper having the width of the longer edge (297 mm) of the
445 ISO A4 transparent medium and cuts synchronizing with data.
- 446 'iso-a4xsynchro-translucent': Specifies the paper having the width of the longer edge (297 mm) of the
447 ISO A4 translucent medium and cuts synchronizing with data.

448

449 The following standard values are defined for American Standard (i.e. ANSI) engineering media, American
450 Architectural engineering media, and Japanese and European Standard (i.e. ISO) engineering media, which
451 are either a long fixed size [ASME-Y14.1M] or roll feed, for devices that provide the "synchro-cut" feature
452 and/or the "auto-select" feature (see section 14.1):

- 453 'auto-white': Specifies that the printer selects the white medium with the appropriate fixed size (e.g.
454 a1, a2, etc.) or data-synchro size, and the selection is implementation-defined.
- 455 'auto-transparent': Specifies that the printer selects the transparent medium with the appropriate fixed
456 size (e.g. a1, a2, etc.) or data-synchro size, and the selection is implementation-defined.
- 457 'auto-translucent': Specifies that the printer selects the translucent medium with the appropriate fixed
458 size (e.g. a1, a2, etc.) or data-synchro size, and the selection is implementation-defined.
- 459 'auto-fixed-size-white': Specifies that the printer selects the white medium with the appropriate fixed
460 size (e.g. a1, a2, etc.) or the appropriate long fixed size listed above.
- 461 'auto-fixed-size-transparent': Specifies that the printer selects the transparent medium with the
462 appropriate fixed size (e.g. a1, a2, etc.) or the appropriate long fixed size listed above.
- 463 'auto-fixed-size-translucent': Specifies that the printer selects the translucent medium with the
464 appropriate fixed size (e.g. a1, a2, etc.) or the appropriate long fixed size listed above.
- 465 'auto-synchro-white': Specifies that the printer selects the white paper with the appropriate width and
466 cuts it synchronizing with data.
- 467 'auto-synchro-transparent': Specifies that the printer selects the transparent paper with the appropriate
468 width and cuts it synchronizing with data.
- 469 'auto-synchro-translucent': Specifies that the printer selects the translucent paper with the appropriate
470 width and cuts it synchronizing with data.

471

472 The following standard values are defined for input-trays (from ISO DPA and the Printer MIB):

- 473 'top': The top input tray in the printer.
- 474 'middle': The middle input tray in the printer.
- 475 'bottom': The bottom input tray in the printer.
- 476 'envelope': The envelope input tray in the printer.
- 477 'manual': The manual feed input tray in the printer.
- 478 'large-capacity': The large capacity input tray in the printer.
- 479 'main': The main input tray
- 480 'side': The side input tray

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482 The following standard values are defined for media sizes (from ISO DPA):

- 483 'iso-a0': Specifies the ISO A0 size: 841 mm by 1189 mm as defined in ISO 216
- 484 'iso-a1': Specifies the ISO A1 size: 594 mm by 841 mm as defined in ISO 216
- 485 'iso-a2': Specifies the ISO A2 size: 420 mm by 594 mm as defined in ISO 216
- 486 'iso-a3': Specifies the ISO A3 size: 297 mm by 420 mm as defined in ISO 216
- 487 'iso-a4': Specifies the ISO A4 size: 210 mm by 297 mm as defined in ISO 216

488 'iso-a5': Specifies the ISO A5 size: 148 mm by 210 mm as defined in ISO 216
489 'iso-a6': Specifies the ISO A6 size: 105 mm by 148 mm as defined in ISO 216
490 'iso-a7': Specifies the ISO A7 size: 74 mm by 105 mm as defined in ISO 216
491 'iso-a8': Specifies the ISO A8 size: 52 mm by 74 mm as defined in ISO 216
492 'iso-a9': Specifies the ISO A9 size: 37 mm by 52 mm as defined in ISO 216
493 'iso-a10': Specifies the ISO A10 size: 26 mm by 37 mm as defined in ISO 216
494 'iso-b0': Specifies the ISO B0 size: 1000 mm by 1414 mm as defined in ISO 216
495 'iso-b1': Specifies the ISO B1 size: 707 mm by 1000 mm as defined in ISO 216
496 'iso-b2': Specifies the ISO B2 size: 500 mm by 707 mm as defined in ISO 216
497 'iso-b3': Specifies the ISO B3 size: 353 mm by 500 mm as defined in ISO 216
498 'iso-b4': Specifies the ISO B4 size: 250 mm by 353 mm as defined in ISO 216
499 'iso-b5': Specifies the ISO B5 size: 176 mm by 250 mm as defined in ISO 216
500 'iso-b6': Specifies the ISO B6 size: 125 mm by 176 mm as defined in ISO 216
501 'iso-b7': Specifies the ISO B7 size: 88 mm by 125 mm as defined in ISO 216
502 'iso-b8': Specifies the ISO B8 size: 62 mm by 88 mm as defined in ISO 216
503 'iso-b9': Specifies the ISO B9 size: 44 mm by 62 mm as defined in ISO 216
504 'iso-b10': Specifies the ISO B10 size: 31 mm by 44 mm as defined in ISO 216
505 'na-letter': Specifies the North American letter size: 8.5 inches by 11 inches
506 'na-legal': Specifies the North American legal size: 8.5 inches by 14 inches
507 'executive': Specifies the executive size (7.25 X 10.5 in)
508 'folio': Specifies the folio size (8.5 X 13 in)
509 'invoice': Specifies the invoice size (5.5 X 8.5 in)
510 'ledger': Specifies the ledger size (11 X 17 in)
511 'quarto': Specifies the quarto size (8.5 X 10.83 in)
512 'iso-c3': Specifies the ISO C3 size: 324 mm by 458 mm as defined in ISO 269
513 'iso-c4': Specifies the ISO C4 size: 229 mm by 324 mm as defined in ISO 269
514 'iso-c5': Specifies the ISO C5 size: 162 mm by 229 mm as defined in ISO 269
515 'iso-c6': Specifies the ISO C6 size: 114 mm by 162 mm as defined in ISO 269
516 'iso-designated-long': Specifies the ISO Designated Long size: 110 mm by 220 mm as defined in ISO
517 269
518 'na-10x13-envelope': Specifies the North American 10x13 size: 10 inches by 13 inches
519 'na-9x12-envelope': Specifies the North American 9x12 size: 9 inches by 12 inches
520 'na-number-10-envelope': Specifies the North American number 10 business envelope size: 4.125
521 inches by 9.5 inches
522 'na-7x9-envelope': Specifies the North American 7x9 inch envelope size
523 'na-9x11-envelope': Specifies the North American 9x11 inch envelope size
524 'na-10x14-envelope': Specifies the North American 10x14 inch envelope size
525 'na-number-9-envelope': Specifies the North American number 9 business envelope size
526 'na-6x9-envelope': Specifies the North American 6x9 envelope size
527 'na-10x15-envelope': Specifies the North American 10x15 envelope size
528 'monarch-envelope': Specifies the Monarch envelope size (3.87 x 7.5 in)
529 'jis-b0': Specifies the JIS B0 size: 1030mm x 1456mm
530 'jis-b1': Specifies the JIS B1 size: 728mm x 1030mm
531 'jis-b2': Specifies the JIS B2 size: 515mm x 728mm
532 'jis-b3': Specifies the JIS B3 size: 364mm x 515mm
533 'jis-b4': Specifies the JIS B4 size: 257mm x 364mm

534 'jis-b5': Specifies the JIS B5 size: 182mm x 257mm
535 'jis-b6': Specifies the JIS B6 size: 128mm x 182mm
536 'jis-b7': Specifies the JIS B7 size: 91mm x 128mm
537 'jis-b8': Specifies the JIS B8 size: 64mm x 91mm
538 'jis-b9': Specifies the JIS B9 size: 45mm x 64mm
539 'jis-b10': Specifies the JIS B10 size: 32mm x 45mm

540 The following standard values are defined for American Standard (i.e. ANSI) engineering media sizes:

541 'a': Specifies the engineering ANSI A size medium: 8.5 inches x 11 inches
542 'b': Specifies the engineering ANSI B size medium: 11 inches x 17 inches
543 'c': Specifies the engineering ANSI C size medium: 17 inches x 22 inches
544 'd': Specifies the engineering ANSI D size medium: 22 inches x 34 inches
545 'e': Specifies the engineering ANSI E size medium: 34 inches x 44 inches
546

547 The following standard values are defined for American Architectural engineering media sizes:

548 'arch-a': Specifies the Architectural A size medium: 9 inches x 12 inches
549 'arch-b': Specifies the Architectural B size medium: 12 inches x 18 inches
550 'arch-c': Specifies the Architectural C size medium: 18 inches x 24 inches
551 'arch-d': Specifies the Architectural D size medium: 24 inches x 36 inches
552 'arch-e': Specifies the Architectural E size medium: 36 inches x 48 inches
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555 **14.1. Examples**

556 Below are examples to supplement the engineering media value definitions.

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562 Example 1: "Synchro-Cut", a device cutting the roll paper in synchronization with the data

563 data height: A1 height
564 data width (shaded): A1 width < data width < (A1 width) x 2
565 specified value: 'iso-axlsynchro-white'

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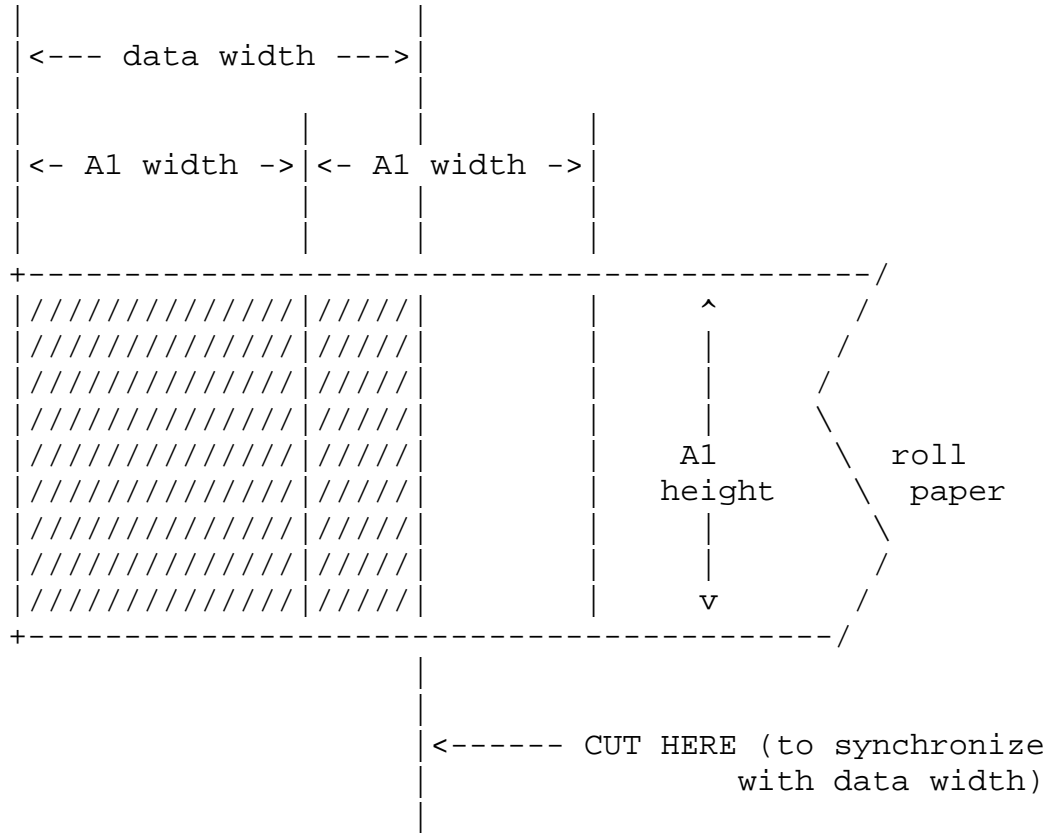
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598 Example 2: "Auto-Cut", a device cutting the roll paper at multiples of fixed-size media width

599 data height: A1 height

600 data width (shaded): A1 width < data width < (A1 width) x 2

601 specified value: 'auto-fixed-size-white'

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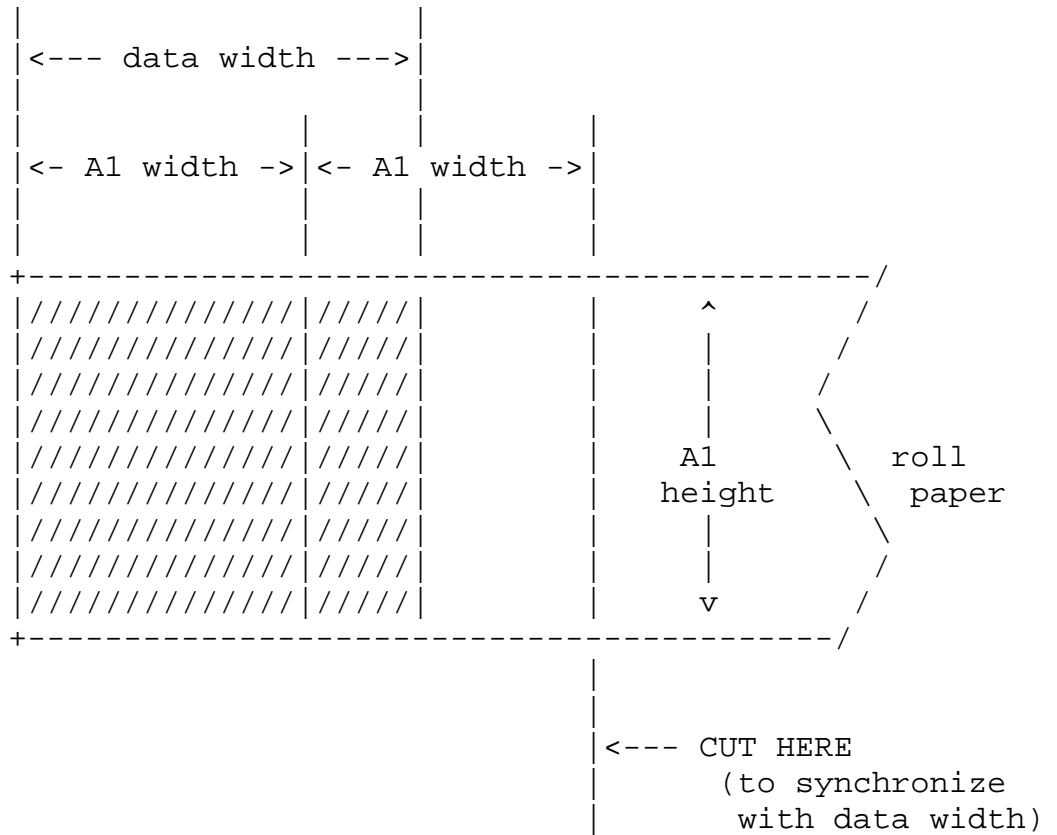
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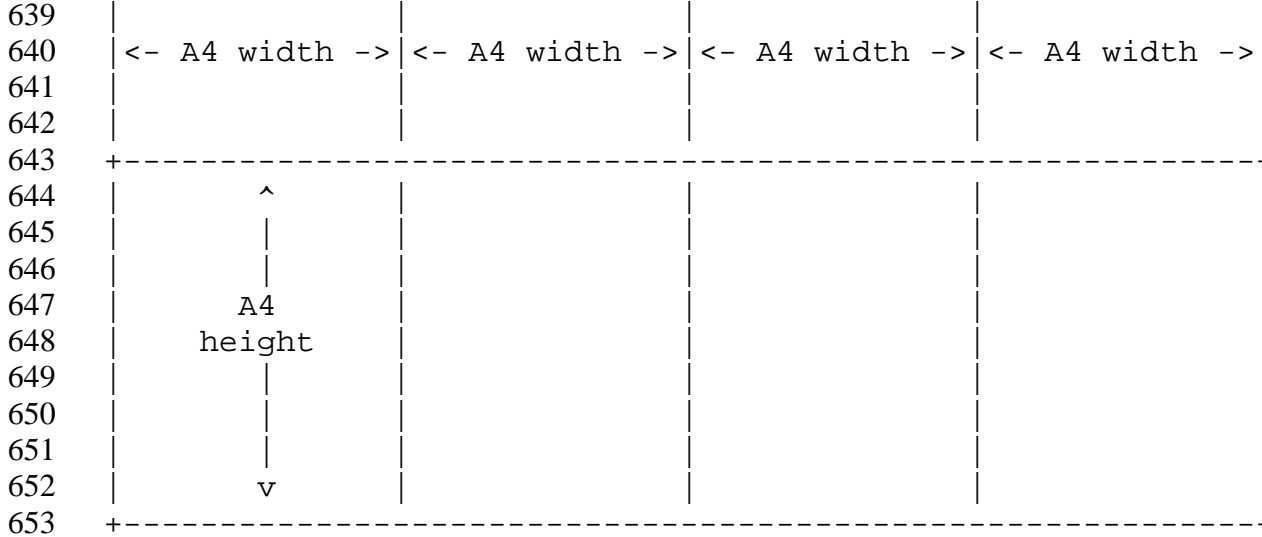
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666 Example 4: "Synchro-Cut", a device cutting the fixed size paper in synchronization with the data

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667 data height:           A4 height
668 data width (shaded): (A4 width) x 2 < data width < (A4 width) x 3
669 specified value:     'iso-a4xsynchro-white'

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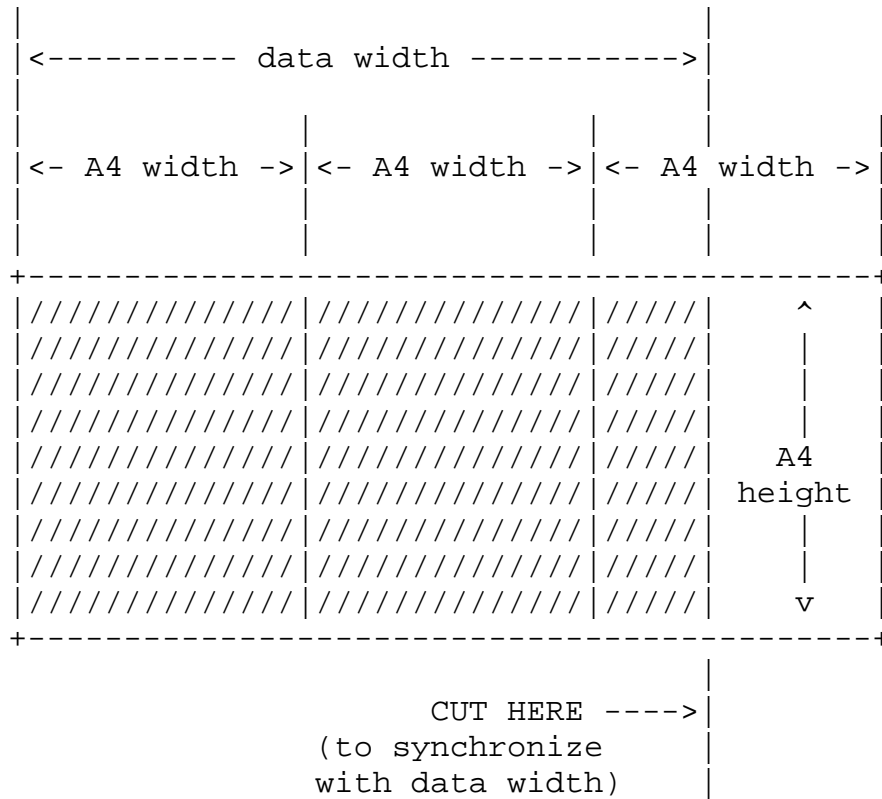
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694 2 IANA Considerations

695 These "media" type3 keyword attribute values will be published by IANA according to the procedures in
696 RFC 2566 [rfc2566] section 6.1 with the following URL:

697 <ftp://isi.edu/iana/assignments/ipp/attribute-values/media/engineering.txt>

698 3 Internationalization Considerations

699 Normally a client will provide localization of the keywords values of this attribute to the language of the
700 user. On the other hand, the client will not localize any name values for the "media" attribute defined by
701 the system administrator of the IPP Printer (see [ipp-mod] section 4.1.2 and 4.1.3).

702 4 Security Considerations

703 This extension poses no additional security threats or burdens than those in IPP/1.0 [RFC2566, RFC2565]
704 and IPP/1.1 [ipp-mod, ipp-pro]. However, implementations MAY support different access control to
705 various media, depending on the identity of the job submitting user.

706 5 References

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736 **6 Author's Addresses**

737 Tom Hastings
738 Xerox Corporation
739 737 Hawaii St. ESAE 231
740 El Segundo, CA 90245
741
742 Phone: 310-333-6413
743 Fax: 310-333-5514
744 e-mail: hastings@cp10.es.xerox.com
745

746 Don Fullman
747 Xerox Corporation
748 737 Hawaii St. ESAE 231
749 El Segundo, CA 90245
750
751 Phone: 310-333-8342
752 Fax: 310-333-5514
753 e-mail: dfullman@cp10.es.xerox.com

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