



Project of the PWG-IPP Working Group

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Internet Printing Protocol (IPP): “finishings” attribute values extension

Draft D0.8

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[ftp://ftp.pwg.org/pub/pwg/ipp/new_VAL_proposed_registrations/attribute_values/pwg-ipp-finishings-fold-trim-bale-0010300608-rev.doc, .rtf, .pdf](ftp://ftp.pwg.org/pub/pwg/ipp/new_VAL_proposed_registrations/attribute_values/pwg-ipp-finishings-fold-trim-bale-0010300608-rev.doc,.rtf,.pdf)

Abstract

This document specifies the additional enum values ‘fold’, ‘trim’, ‘bale’, ‘booklet-maker’, ‘jog-offset’, ‘bind-left’, ‘bind-top’, ‘bind-right’, and ‘bind-bottom’ for the IPP/1.1 “finishings” Job Template attribute for use with the [Internet Printing Protocol/1.0 \(IPP\) \[RFC2566, RFC2565\]](#) and Internet Printing Protocol/1.1 (IPP) [~~ipp-mod~~[RFC2911](#), ~~ipp-pr~~[RFC2910](#)]. This attribute permits the client to specify additional finishing options, including values that include a specification of a coordinate system for the placement of finishings operation with respect to the corners and edges of portrait and landscape documents.

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50 ~~INTERNET DRAFT~~

51 ~~<draft-ietf-ipp-finishings-fold-trim-bale-01.txt>~~

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May 31, 2000

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60

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77 ~~documents.~~

78

78 ~~The full set of IPP documents includes:~~

- 79 ~~Design Goals for an Internet Printing Protocol [RFC2567]~~
- 80 ~~Rationale for the Structure and Model and Protocol for the Internet Printing Protocol [RFC2568]~~
- 81 ~~Internet Printing Protocol/1.1: Model and Semantics [ipp-mod]~~
- 82 ~~Internet Printing Protocol/1.1: Encoding and Transport [ipp-pro]~~
- 83 ~~Internet Printing Protocol/1.1: Implementer’s Guide [ipp-ig]~~
- 84 ~~Mapping between LPD and IPP Protocols [RFC2569]~~

85

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126 **1 Introduction Additional values for the “finishings” Job Template attribute**

127 **1.1 Problem**

128 Need additional enum values for finishing to specify which of four corners to put a single staple, which of
129 four edges to put two staples, which of four edges to bind, and generic values for the following: fold, trim,
130 bale, saddle stitch, edge stitch, signature booklet maker and jog-offset.

131 **1.2 Solution Suggested solution**

132 ~~This solution has been proposed at three previous meetings with comments returned and incorporated. The~~
133 ~~suggestion is to add additional enum values to the “finishings” Job Template attributes (also applies to~~
134 ~~“finishings-default” and “finishings-supported” attributes).~~

135 ~~Coordination with the Finisher MIB has been done. There appears to be no direct way to use the same~~
136 ~~enum values, since the Finisher MIB divides up finishing into separate enum values by type. So all the~~
137 ~~stapling is done as a separate enum. Also all the punching is done as a separate enum.~~

138 The coordinate system scheme ~~has been selected to agree~~ with the Finisher MIB which in turn follows the
139 ISO DPA approach of using a coordinate system as if the document were portrait. The approach for
140 coordinate system being relative to the intended reading direction depends on the device being able to
141 understand the orientation embedded in the PDL, which is too problematic for many PDLs. The approach
142 for the coordinate system of being relative to the media feed direction is too dependent on the way the
143 device is currently set up, i.e., pulling short edge first vs. long edge first, and can vary between different
144 output-bins in the same device.

145 Additional (new) ~~keyword~~-symbolic names of these enum values are:

146 fold
147 trim
148 bale
149 booklet-maker
150 jog-offset
151 bind-left
152 bind-top
153 bind-right
154 bind-bottom

155

156 Although not a part of this specification, more specific values for saddle-stitch and fold could be considered
157 once adequate definitions have been developed. Some examples are:

158 saddle-stitch-single-long
159 saddle-stitch-single-short
160 saddle-stitch-dual-long
161 saddle-stitch-dual-short

162 fold-in-half-long
 163 fold-in-half-short
 164 fold-in-thirds-long
 165 fold-in-thirds-short
 166 fold-z-long
 167 fold-z-short
 168

169 **2 Complete “finishings” Job Template attribute definition ~~Proposed Text~~**

170 *Note: [RFC2911] defines generic enum values: 3-9 and more-specific stitching and stapling enum values:*
 171 *20-31. This document defines generic enum values: 10-14 and more specific binding enum values: 50-53.*
 172 *The entire definition of “finishings” from [RFC2911] section 4.2.6 is reproduced here verbatim with the*
 173 *addition of the new enum values for the convenience of the reader.*

174 ~~Add the following paragraphs indicated with revision marks to the description of the “finishings” Job~~
 175 ~~Template attribute, section 4.2.6, so that the entire section would be:~~

176 **4.2.6 finishings (1setOf type2 enum)**

177 This attribute identifies the finishing operations that the Printer uses for each copy of each printed
 178 document in the Job. For Jobs with multiple documents, the “multiple-document-handling” attribute
 179 determines what constitutes a “copy” for purposes of finishing.

180 Standard enum values are:

181 Value	Symbolic Name and Description
182 '3'	'none': Perform no finishing
184 '4'	'staple': Bind the document(s) with one or more staples. The exact number and placement 185 of the staples is site-defined.
186 '5'	'punch': This value indicates that holes are required in the finished document. The exact 187 number and placement of the holes is site-defined. The punch specification MAY be 188 satisfied (in a site- and implementation-specific manner) either by drilling/punching, 189 or by substituting pre-drilled media.
190 '6'	'cover': This value is specified when it is desired to select a non-printed (or pre-printed) 191 cover for the document. This does not supplant the specification of a printed cover 192 (on cover stock medium) by the document itself.
193 '7'	'bind': This value indicates that a binding is to be applied to the document; the type and 194 placement of the binding is site-defined.
195 '8'	'saddle-stitch': Bind the document(s) with one or more staples (wire stitches) along the 196 middle fold. The exact number and placement of the staples and the middle fold is 197 implementation and/or site-defined.
198 '9'	'edge-stitch': Bind the document(s) with one or more staples (wire stitches) along one edge. 199 The exact number and placement of the staples is implementation and/or site- 200 defined.

- 201 ‘10’ ‘fold’: Fold the document(s) with one or more folds. The exact number and orientations of
 202 the folds is implementation and/or site-defined.
- 203 ‘11’ ‘trim’: Trim the document(s) on one or more edges. The exact number of edges and the
 204 amount to be trimmed is implementation and/or site-defined.
- 205 ‘12’ ‘bale’: Bale the document(s). The type of baling is implementation and/or site-defined.
- 206 ‘13’ ‘booklet-maker’: Deliver the document(s) to the signature booklet maker. This value is a
 207 short cut for specifying a job that is to be folded, trimmed and then saddle-stitched.
- 208 ‘14’ ‘jog-offset’: Shift each copy of an output document from the previous copy by a small
 209 amount which is device dependent. This value has no effect on the “job-sheet”. This
 210 value SHOULD NOT have an effect if each copy of the job consists of one sheet.
- 211 ‘15’-’19’ reserved for future generic finishing enum values.

212 The following values are more specific stapling, stitching and binding values; they indicate a corner or an
 213 edge as if the document were a portrait document (see section 4.2.6.1):

- 214 ‘20’ ‘staple-top-left’: Bind the document(s) with one or more staples in the top left corner.
- 215 ‘21’ ‘staple-bottom-left’: Bind the document(s) with one or more staples in the bottom left
 216 corner.
- 217 ‘22’ ‘staple-top-right’: Bind the document(s) with one or more staples in the top right corner.
- 218 ‘23’ ‘staple-bottom-right’: Bind the document(s) with one or more staples in the bottom right
 219 corner.
- 220 ‘24’ ‘edge-stitch-left’: Bind the document(s) with one or more staples (wire stitches) along the
 221 left edge. The exact number and placement of the staples is implementation and/or
 222 site-defined.
- 223 ‘25’ ‘edge-stitch-top’: Bind the document(s) with one or more staples (wire stitches) along the
 224 top edge. The exact number and placement of the staples is implementation and/or
 225 site-defined.
- 226 ‘26’ ‘edge-stitch-right’: Bind the document(s) with one or more staples (wire stitches) along the
 227 right edge. The exact number and placement of the staples is implementation and/or
 228 site-defined.
- 229 ‘27’ ‘edge-stitch-bottom’: Bind the document(s) with one or more staples (wire stitches) along
 230 the bottom edge. The exact number and placement of the staples is implementation
 231 and/or site-defined.
- 232 ‘28’ ‘staple-dual-left’: Bind the document(s) with two staples (wire stitches) along the left edge
 233 assuming a portrait document (see above).
- 234 ‘29’ ‘staple-dual-top’: Bind the document(s) with two staples (wire stitches) along the top edge
 235 assuming a portrait document (see above).
- 236 ‘30’ ‘staple-dual-right’: Bind the document(s) with two staples (wire stitches) along the right
 237 edge assuming a portrait document (see above).
- 238 ‘31’ ‘staple-dual-bottom’: Bind the document(s) with two staples (wire stitches) along the
 239 bottom edge assuming a portrait document (see above).
- 240 ‘32’-’49’ reserved for future specific stapling and stitching enum values.
- 241
- 242 ‘50’ ‘bind-left’: Bind the document(s) along the left edge; the type of the binding is site-defined.
- 243 ‘51’ ‘bind-top’: Bind the document(s) along the top edge; the type of the binding is site-defined.
- 244 ‘52’ ‘bind-right’: Bind the document(s) along the right edge; the type of the binding is site-
 245 defined.

246 ‘53’ ‘bind-bottom’: Bind the document(s) along the bottom edge; the type of the binding is site-
247 defined.

248 ‘54’-MAX reserved for future specific binding enum values and other groups of enum values, such as
249 folding, trimming, and baling.

250 The ‘staple-xxx’ values are specified with respect to the document as if the document were a portrait
251 document. If the document is actually a landscape or a reverse-landscape document, the client supplies the
252 appropriate transformed value. For example, to position a staple in the upper left hand corner of a
253 landscape document when held for reading, the client supplies the ‘staple-bottom-left’ value (since
254 landscape is defined as a +90 degree rotation of the image with respect to the media from portrait, i.e., anti-
255 clockwise). On the other hand, to position a staple in the upper left hand corner of a reverse-landscape
256 document when held for reading, the client supplies the ‘staple-top-right’ value (since reverse-landscape is
257 defined as a -90 degree rotation of the image with respect to the media from portrait, i.e., clockwise).

258 The angle (vertical, horizontal, angled) of each staple with respect to the document depends on the
259 implementation which may in turn depend on the value of the attribute.

260 Note: The effect of this attribute on jobs with multiple documents is controlled by the “multiple-document-
261 handling” job attribute (section 4.2.4) and the relationship of this attribute and the other attributes that
262 control document processing is described in section 15.3.

263 If the client supplies a value of ‘none’ along with any other combination of values, it is the same as if only
264 that other combination of values had been supplied (that is the ‘none’ value has no effect).

265 **3 Conformance Requirements**

266 The Printer and client conformance requirements for supporting this attribute are the same as for any Job
267 Template attribute (see [RFC2911]).

268 **4 IANA Considerations**

269 These “finishings” type2 enum attribute values will be published by IANA according to the procedures in
270 RFC ~~2566~~2911 [~~rfc2566~~RFC2911] section 6.1 with the following URL:

271 `ftp.isi.edu/iana/assignments/ipp/attribute-values/finishings/fold-trim-bale.txt`

272 **5 Internationalization Considerations**

273 Normally, a client will provide localization of the enum values of this attribute to the language of the user.

274 6 Security Considerations

275 This extension poses no additional security threats or burdens than those in IPP/1.0 [RFC2566, RFC2565]
276 and IPP/1.1 [[RFC2911](#), [RFC2910](#)~~ipp-mod, ipp-pro~~]. However, implementations MAY support different
277 access control to various finishing features, depending on the identity of the job submitting user.

278 7 References

279 [ipp-iig]

280 Hastings, T., Manros, C., “Internet Printing Protocol/1.1: <draft-ietf-ipp-implementers-guide-v11-
281 01.txt>, work in progress, May 30, 2000.

282 ~~ipp-mod~~

283 ~~——— R. deBry, T. Hastings, R. Herriot, S. Isaacson, P. Powell, “Internet Printing Protocol/1.1: Model and
284 Semantics”, <draft-ietf-ipp-model-v11-07.txt>, work in progress, May 22, 2000.~~

285 ~~ipp-pro~~

286 ~~——— Herriot, R., Butler, S., Moore, P., Tuner, R., “Internet Printing Protocol/1.1: Encoding and
287 Transport”, <draft-ietf-ipp-protocol-v11-06.txt>, work in progress, May 31, 2000.~~

288 [RFC2565]

289 Herriot, R., Butler, S., Moore, P., Tuner, R., “Internet Printing Protocol/1.0: Encoding and
290 Transport”, RFC 2565, April 1999.

291 [RFC2566]

292 R. deBry, T. Hastings, R. Herriot, S. Isaacson, P. Powell, “Internet Printing Protocol/1.0: Model and
293 Semantics”, RFC 2566, April 1999.

294 [RFC2567]

295 Wright, D., “Design Goals for an Internet Printing Protocol”, RFC 2567, April 1999.

296 [RFC2568]

297 Zilles, S., “Rationale for the Structure and Model and Protocol for the Internet Printing Protocol”,
298 RFC 2568, April 1999.

299 [RFC2569]

300 Herriot, R., Hastings, T., Jacobs, N., Martin, J., “Mapping between LPD and IPP Protocols”, RFC
301 2569, April 1999.

302 [RFC2639]

303 Hastings, T., Manros, C., “Internet Printing Protocol/1.0: Implementer’s Guide”, RFC 2639, July
304 1999.

305 [\[RFC2910\]](#)
306 [Herriot, R., Butler, S., Moore, P., Turner, R., and J. Wenn, "Internet Printing Protocol/1.1:](#)
307 [Encoding and Transport", RFC 2910, September 2000.](#)

308 [\[RFC2911\]](#)
309 [Hastings, T., Herriot, R., deBry, R., Isaacson, S., and P. Powell, "Internet Printing Protocol/1.1:](#)
310 [Model and Semantics", RFC 2911, September 2000.](#)

311 **8 Author's Addresses**

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330 [IPP Web Page: http://www.pwg.org/ipp/](http://www.pwg.org/ipp/)
331 [IPP Mailing List: ipp@pwg.org](mailto:ipp@pwg.org)

332
333 To subscribe to the ipp mailing list, send the following email:

334 1) send it to majordomo@pwg.org
335 2) leave the subject line blank
336 3) put the following two lines in the message body:
337 subscribe ipp
338 end

339 Implementers of this specification document are encouraged to join IPP Mailing List in order to participate
340 in any discussions of clarification issues and review of registration proposals for additional attributes and
341 values.

342 Other Participants:

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Peter Zehler - Xerox

343

344 9 Appendix A: Summary of other IPP documents

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353 The “Design Goals for an Internet Printing Protocol” document takes a broad look at distributed printing
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373 between IPP and LPD (Line Printer Daemon) implementations.

374 **10 Appendix B: Description of the IEEE Industry Standards and Technology (ISTO)**

375 The IEEE-ISTO is a not-for-profit corporation offering industry groups an innovative and flexible
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382 **11 Appendix C: Description of the IEEE-ISTO PWG**

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

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

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