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The Printer Working Group

PWG Policy

Definition of the Standards Development Process



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Version 2.0
August 12, 2003

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The Printer Working Group

PWG Policy Definition of the Standards Development Process

Version 2.0
August 12, 2003

Deleted: June 18

42 Abstract: This document defines the standards development process that guides and controls the work of the IEEE-
43 ISTO Printer Working Group, an organization developing open standards for the Print, Imaging, MFP and related
44 Services industries. This document organizes the flow of standards creation from Brainstorming, Requirements
45 gathering and Charter definition through Working Drafts, Candidate Standards and Standards. Herein are the
46 guidelines for conducting Last Call, assuring interoperability and establishing levels of formal approval. PWG Process
47 v2.0 builds on the original PWG Process document but has been rewritten for greater clarity. Sections relating to
48 Intellectual Property and Confidentiality are unaltered but the overall process has been streamlined, compared to the
49 original, and sound file naming and document versioning guidelines defined. This is a process defining document, not
50 an industry standard.

51

52 This version of the PWG Standards Development Process is available electronically at:
53 <ftp://ftp.pwg.org/pub/pwg/standards/process/pwg-process20-20030816.pdf>, .doc

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89 About the IEEE-ISTO PWG

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

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

102 For additional information regarding the Printer Working Group visit: <http://www.pwg.org>

103 Contact information:

104 PWG Web Page: <http://www.pwg.org/>
105 PWG Mailing List: pwg@pwg.org

106 To subscribe to the PWG mailing list, send the following email:

- 107 1) send it to majordomo@pwg.org
- 108 2) leave the subject line blank
- 109 3) put the following two lines in the message body:
110 subscribe pwg
111 end

112 Members of the PWG and interested parties are encouraged to join the PWG Mailing List in order to participate in
113 any discussions of clarifications or review of the PWG Process.
114

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160 1 Introduction

161 This document establishes the process that is followed as open industry standards are developed by the IEEE ISTO
162 Printer Working Group. The Printer Working Group (or PWG) is a Program of the IEEE Industry Standards and
163 Technology Organization (ISTO) and is an alliance among printer manufacturers, print server developers, operating
164 system providers, network operating systems providers, network connectivity vendors, print and print management
165 application developers chartered to make printers and the applications and operating systems supporting them work
166 together better. All references to the PWG in this document implicitly mean "The Printer Working Group, a Program
167 of the IEEE ISTO." In order to meet this objective, the PWG will document the results of their work as open
168 standards that define print related protocols, interfaces, procedures and conventions. Printer manufacturers, vendors
169 of printer related software and the consuming public will benefit from the interoperability provided by voluntary
170 conformance to these standards.

171
172 A PWG standard is a specification that is stable, well understood, technically competent and has multiple,
173 independent implementations with substantial operational experience, demonstrated interoperability and significant
174 public support. The PWG may issue a standard as a PWG standard and/or when appropriate submit the standard to
175 other standards organizations, such as the IETF, ISO, ITU, W3C, IEEE, or ECMA. In developing a standard, a
176 working group of the PWG may define durable documents such as WSDL, Schema or common industry semantics
177 that need to have well known, persistent filenames and file paths.

178
179 This process document establishes

- 180 1. The stages, or maturity levels a standard will go through from Charter and Requirements through Drafts,
181 Candidates and Standard to the final, Maintenance stage of an established standard.
- 182 2. Working documents naming and versioning
- 183 3. Standards naming and numbering
- 184 4. File name and path conventions for durable documents such as WSDL and schema.

185
186 This document can be updated and a new version can be produced. As long as section 10 is not modified, the new
187 version must be approved through the Formal Approval process described in section 8.2.1. If section 10 is modified,
188 100% of all PWG members must approve the new document (abstentions/non-votes are not allowed).

189 2 Organization of the PWG

190 The Printer Working Group is composed of representatives from printer manufacturers, print server developers,
191 operating system providers, network operating system providers, network connectivity vendors, and print and print
192 management application developers. Member organizations are those companies, individuals or other groups (i.e. a
193 university) that have agreed to participate and operate under the processes and procedures of the ISTO by-laws, the
194 ISTO-PWG Program Participation Agreement and this document and have paid the annual assessment. Multiple
195 individuals employed by the same company or other organization cannot join the PWG as individual members.
196 Associates or affiliates of member organizations which are beneficially controlled or owned by said member
197 organization with more than fifty percent (50%) of the voting stock or equity shall not be considered a separate entity
198 and are not eligible for separate membership in the PWG. The annual assessment is set each year by the PWG
199 itself.
200

201 2.1 PWG Officers

202 The PWG has a Chair position responsible for organizing the overall agenda of the PWG. The PWG chair is elected
203 in odd numbered years by a simple majority of the PWG members to a two-year term of office that begins on
204 September 1st. Responsibilities of the PWG chair include creating working groups, appointing working group chairs,
205 assuring that working groups maintain adequate leadership, making local arrangements for PWG meetings (this may

206 be delegated as appropriate), setting the high level PWG agenda, chairing the PWG plenary session, ensuring that
207 the PWG web and FTP site are maintained (see section 4.8), and assisting working group chairs to accomplish their
208 tasks. The PWG Chair must be a representative of a PWG Member Organization. The PWG Chair is an ex officio
209 member of all working groups.

210
211 The PWG Vice Chair is elected in odd numbered years by a simple majority of the PWG members to a two year term
212 of office, beginning September 1st. The Vice Chair's responsibilities are to act in the absence of the chair and
213 provide assistance to the Chair in carrying out his or her role, as required. The PWG Vice Chair must be a
214 representative of a PWG Member Organization. The PWG Vice Chair is an ex officio member of all working groups.

215
216 The PWG Secretary is elected in odd numbered years to a two year term of office by a simple majority of the PWG
217 members. It is the Secretary's responsibility to record and distribute the minutes of all PWG plenary sessions and
218 other meetings, as required, to support the PWG chair. The PWG Secretary must be a representative of a PWG
219 Member Organization. ~~The PWG Secretary is responsible, in cooperation with the IEEE ISTO, for maintaining a
220 PWG Member Organization roster including contact information and company profile information, including logo, as it
221 pertains to representation on the PWG web site.~~

222
223 The PWG Steering Committee is composed of the PWG ~~Chair, Vice Chair, Secretary,~~ and chairs of all active working
224 groups. The Steering Committee shall meet upon the call of the PWG Chair or by a majority of its members to
225 discuss matters of concern of the PWG. Where matters come to a vote in the Steering Committee, decisions are
226 made by simple majority of the entire committee (abstentions/non-votes are counted as no votes), with one vote per
227 person.

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- Deleted: c
- Deleted: s

228 **2.2 Working Group Officers**

229 Under the PWG Chair are a number of working groups (WG) which are chartered for the purpose of developing a
230 specific standard. Working groups are chartered as required to address specific areas of standardization. A working
231 group is considered active until it satisfies its charter or is otherwise terminated by the Working Group Chair with the
232 agreement of the Steering Committee.

233
234 The Chair of a WG is appointed by the PWG Chair, with approval (simple majority) at a PWG plenary. The WG
235 Chair's term is indefinite and would normally extend through the period of time during which there is active
236 maintenance on the standard(s) developed by the working group. The Working Group Chair must be a representative
237 of a PWG Member Organization. The working group Chair is responsible for appointing a Vice Chair and Secretary
238 for the WG, creating the WG Charter, setting the agenda for meetings of the WG, chairing WG meetings, appointing
239 editors for WG documents, driving the work of the WG to completion, and reporting status of the WG at PWG plenary
240 sessions.

241
242 The Vice Chair of a WG is appointed by the WG chair, with approval (simple majority) of the WG. The WG Vice
243 Chair's term is indefinite. The Vice Chair acts in the absence of the Chair and assists, as appropriate, in carrying out
244 the responsibilities of the Chair.

245
246 A WG Secretary is appointed by the WG Chair, with approval (simple majority) of the WG. The term of office is
247 indefinite. The responsibilities of the Secretary are to record and distribute minutes of working group meetings and to
248 record attendance for members of that working group.

249 **2.3 PWG Meetings**

250 The annual face-to-face meeting schedule for the PWG is set in October of each year. As a guideline, meetings are
251 to be distributed geographically, and should be held approximately every 6 to 10 weeks, as needed. Meeting
252 location details are to be published at least 4 weeks in advance of meetings. Decisions made at PWG
253 administrative, business, or plenary meetings require a simple majority, 1 vote per member organization.

254
255 Much of the core work of the PWG working groups can be accomplished via telephone and web enabled
256 conferencing.

257 **3 PWG Standards development and maintenance**

258 There are 3 main phases to standards development in the PWG – Charter, Development and Maintenance (Table 1).
 259 These phases are a guideline to the activities and types of documents a working group should expect to encounter.
 260 There are no specific exit criteria from these phases. Exit criteria apply to PWG Standards documents and are
 261 outlined in section 4.
 262
 263
 264
 265

266 **Table 1 - Three Phases to developing a PWG Standard**

Phase	Activities in this Stage	Internal Documents	PWG Standards Documents
Charter	Identify need Brainstorm Develop Charter Gather Requirements	White Papers	Charter Requirements Statement Preliminary Working Draft
Development	Develop PWG Working Drafts Prototype Promote to Candidate Standard Demonstrate Interoperability Promote to PWG Standard	White Papers Proposals Developer Guides Interop Test Plans	PWG Working Drafts Candidate Standards Supporting durables such as WSDL, Schema
Maintenance	Maintain PWG Standard	Errata Registration of new keywords, enums	Standard Supporting durables

267

268 **4 Formal PWG standards-track publications**

269 Standards development is guided, largely, by the progression of documents used to define and articulate the
 270 Standard. Formal documents consist of the Charter, a set of Requirements, Working Drafts, Candidate Standards
 271 and, ultimately, the Standard, itself. Publication of these formal PWG standards-track documents requires Last Call
 272 and/or Formal Approval (vote) by the membership of the PWG as described in Section 8. The standards process
 273 may be augmented by a set of informal technical briefs and proposals reading on the standard. While helpful and
 274 encouraged, these are not treated as formal documents and do not require formal approval. Standards-track
 275 publications and the criteria for exit are defined below. Because the synchronization of Standard version, standard
 276 document maturity, document naming, support file namespace and file path names can be quite complex, Table 3
 277 provides an example of how these items are orchestrated throughout the standards process.

278 **4.1 Editing Documents**

279 The Working Group Chair will appoint an editor for each standards-track document. The editor will be approved by a
 280 simple majority vote of the working group. Normally an editor will work in this capacity throughout the life cycle of the
 281 standard, although exceptions may occur. Editors are responsible for reflecting the decisions of the working group,
 282 rather than their own personal views. Ultimately, the editor has responsibility for the quality of the document, making
 283 sure that it is readable and has a coherent style, even when it has multiple authors or contributors.
 284

285 4.2 Working Group Charter

286 The first order of business for any working group is to create a charter that clearly describes the scope of their work.
287 Brainstorming, fact finding, guest speakers and other enlightening activities often precede or coincide with Charter
288 development. In addition to scope, the Charter should define milestones and schedule, including an expiration date.
289 Extensions may be granted by the PWG Steering Committee, based on perception of progress and commitment of
290 the working group. In some cases the working group may choose to publish their standard in affiliation with an
291 outside standards organization such as the IETF or W3C. If this is evident, the Charter should indicate the desire for
292 formal affiliation with another standards organization and include a liaison plan with the other organization. Charter
293 definition, requirements gathering and outlining a preliminary Working Draft may occur simultaneously. In many
294 cases, this is encouraged, as new information gleaned from these activities may alter perception of the Charter.

295 A Working Group Charter requires Formal Approval (see Section 8).
296

297 4.3 Statement of Requirements

298 Prior to completion of the first Working Draft, a clear statement of requirements for the standard to be produced is
299 required. A requirements statement documents the best effort collection of known requirements on a particular
300 protocol, interface, procedure or convention. The requirements statement is important as it leads to a clear, common
301 understanding of the goals, provides a guide for developing the standard, and can be used as a final test to measure
302 the completeness of the resulting specification. It is not necessary that the resulting standard meet every stated
303 requirement, but the standard should be explicit about which requirements it does not meet, and why. Requirements
304 may be updated during the development of the standard, as they become clearer. As with Charter (above),
305 brainstorming, fact finding and associated activities frequently accompany the process of requirements gathering.
306 Often, at the beginning of a project, the Charter, Requirements and early versions of an initial Working Draft are all
307 undergoing simultaneous revision until a clear direction emerges and the Charter and Requirements are formally
308 approved.

309 A Working Group Statement of Requirements requires Formal Approval (see Section 8).
310
311

312 4.4 Working Draft

313 When rough consensus has been reached on the Charter, Requirements and general approach, and there is
314 sufficient information to begin writing a standard, the initial Working Draft will be written. Charter and Requirements
315 must be formally approved prior to completion of the first Working Draft. A PWG Working Draft facilitates reaching
316 consensus on how to approach the PWG Standard and provides a backdrop for discussion and agreement on details
317 of the specification. The initial Working Draft should be reasonably complete and drives a stake in the ground as the
318 basis for further work on the Standard.

319 Working Drafts correspond to a specific version of the Standard they are defining. Unless the working group is
320 engaged in an effort to revise an existing PWG Standard, the Working Drafts are always defining PWG Standard
321 Version 1.0.
322

323 [A PWG Working Draft cannot progress ahead of any given normative reference that it contains.](#)
324

325 A PWG Working Draft requires Last Call, and Formal Approval to transition to PWG Candidate Standard.
326
327

328 4.4.1 Maturity Level

329 In the interest of providing some subjective indication of the maturity of a PWG Working Draft, a Maturity Level will
330 appear on the title page as:

331 Maturity: <keyword>
332

333 Although the maturity level will not appear on PWG Candidate Standards or PWG Standards, if a Candidate
334 Standard needs to be revised, any resulting PWG Working Drafts will have a maturity level indicated on their title
335 page.

336 **Table 2 – Maturity Level keywords**

<i>Maturity Level keyword</i>	<i>Indicates</i>
Initial	Initial attempt to specify the standard.
Interim	Standard in development. Significant changes to the standard expected in the future.
Prototype	Content of the standard is functionally complete and ready for prototyping.
Stable	Standard is very close to completion. Standard is either getting ready for, is in, or has completed Last Call.

337
338 Normally, the Working Drafts of a standard would progress from “Initial” to “Stable” in stages, although stages could
339 be skipped for small standards efforts. However, it is possible for the Working Drafts to become less mature: if a
340 large problem was found in a standard that was considered “Prototype”, it might have to go back to “Interim” while
341 that problem is solved. Note also that for all four maturity levels, multiple, consecutive Working Drafts might have the
342 same maturity level.

343
344 The current maturity level of a Working Draft will be decided upon by the working group.

345
346 Table 2 above should appear in the “boilerplate” of every Working Draft as a handy reference for readers to
347 understand the significance of the maturity level keyword on the title page.

348 **4.5 Candidate Standard**

349 When agreement has been reached among the participants about the details of a Standard, the current Working
350 Draft is ready to transition to a PWG Candidate Standard. A Candidate Standard should not be approved unless it is
351 supported by prototypes and thought to be ready for implementation. A PWG Candidate Standard forms the basis for
352 comments from outside of the working group and the PWG, and provides the foundation for initial product
353 development and interoperability testing. Implementations can comfortably proceed from a PWG Candidate
354 Standard, knowing that it will not undergo significant change as it matures to a PWG Standard. However, should
355 changes to a Candidate Standard be necessary, these changes will be accomplished via Working Drafts that must
356 once again go through Last Call and Formal Approval. The Working Draft will then and only then regain Candidate
357 Standard status.

358
359 Candidate Standards correspond to a specific version of the Standard they are defining. Unless the working group is
360 engaged in an effort to revise an existing PWG Standard, the Candidate Standards are always defining PWG
361 Standard Version 1.0.

362
363 When a document becomes a Candidate Standard, it is assigned an IEEE-ISTO standard number, which it keeps
364 forever. To indicate the standard is at Candidate Standard status, the prefix “CS” is attached to the standard
365 number, resulting in a number such as “PWG CS 5105.2”. If the Candidate Standard goes back to Working Draft
366 status, the prefix “CS” is replaced by “WD”, resulting in a number such as “PWG WD 5105.2”. IEEE-ISTO standard
367 numbers are tracked and assigned by the PWG Secretary.

368
369 [A PWG Candidate Standard cannot progress ahead of any given normative reference that it contains.](#)

370
371
372 A PWG Candidate Standard requires Last Call, demonstration of Interoperability and Formal Approval to transition to
373 PWG Standard.

375 4.6 Standard

376 When a PWG Candidate Standard has passed Last Call, demonstrated interoperability and acquired Formal
377 Approval, it is promoted to the final status of a PWG Standard. At this point, the prefix "CS" is replaced by "STD" in
378 the IEEE-ISTO standard number and "PWG" is replaced by "IEEE-ISTO", resulting in a number such as "IEEE-ISTO
379 STD 5105.2".

380 4.7 Extensions to standards

381 When a document has reached the PWG Candidate Standard or PWG Standard status, documents can be written
382 that are extensions to that standard. Such extension documents start immediately at Working Draft status and then
383 follow all rules above for progression to Candidate Standard and Standard. Note that the extension to a Candidate
384 Standard cannot progress to Standard before the Candidate Standard it is extending has progressed to Standard.
385

386 It is also possible that the PWG will decide to formalize PWG extensions for any (IETF, IEEE, or other printing
387 industry) external standard (e.g. RFC2911). As above, such extension documents start immediately at Working Draft
388 status and then follow all rules in earlier sections above for progression to Candidate Standard and Standard.

389 4.8 FTP site procedures

390 Table 3 below illustrates both the filename and the location on the PWG FTP site to be used for every version of a
391 document. Because it is not always straightforward for a reader to find the latest version of a document, an
392 additional directory will be created on the FTP site for each working group, and the latest version of all documents
393 will be located there, with a durable URL. To go along with the example used in Table 3, the durable URL would be:
394 <ftp://ftp.pwg.org/pub/pwg/xyz/xyz10-latest.doc>

395 Therefore, for every row in Table 3, the new version of the document would be stored with the filename and location
396 shown in the table, *and also* would be stored with the filename and location of the durable URL.
397

398 An additional procedure to be followed on the FTP site is that in both the 'ftp://ftp.pwg.org/pub/pwg/candidates' and
399 'ftp://ftp.pwg.org/pub/pwg/standards' directories, an index file (index.txt) will be added that lists all standards
400 contained in the directory. Due to the fact that the files that correspond to published Candidate Standards and
401 Standards will remain in these directories forever, the index file will list the current status of each standard, so that
402 readers can realize at least the following:

- 403 • A Candidate Standard has been modified and is currently being worked on as a Working Draft.
- 404 • A Candidate Standard has transitioned to Standard.

405 A new version of a Standard is currently being worked on (e.g. version 1.0 of the Standard is in the FTP directory, but
406 version 1.1 is currently being worked on).

In Filename	X	X	X			X		
In Path			X		(For WSDL)			
On title page	X	X		X		X	X	X
Publication	Spec Ver	Spec Doc Revision	Status	Maturity Level	WSDL Interface Namespace / Ver	PWG Num	Document Filename *	Do
Working Draft	XYZ 1.0	2002/01/01	WD	Initial	2002/01/01	N/A	wd-xyz10-20020101.doc	ftp
Working Draft	XYZ 1.0	2002/01/15	WD	Interim	2002/01/15	N/A	wd-xyz10-20020115.doc	ftp
Working Draft	XYZ 1.0	2002/07/15	WD	Prototype	2002/07/15	N/A	wd-xyz10-20020715.doc	ftp
Working Draft - Last Call, Formal Approval	XYZ 1.0	2003/02/07	WD	Stable	2003/02/07	N/A	wd-xyz10-20030207.doc	ftp
Candidate Standard	XYZ 1.0	2003/02/21	CS	N/A	2003/02/07	PWG CS 510n.m	cs-xyz10-20030221-510nm.doc	ftp ...
Working Draft, no interface changes	XYZ 1.0	2003/03/01	WD	Prototype	2003/02/07	PWG WDWD 510n.m	wd-xyz10-20030301-510nm.doc	ftp
Working Draft, * interface change	XYZ 1.0	2003/03/15	WD	Prototype	* 2003/03/15	PWG WDWD 510n.m	wd-xyz10-20030315-510nm.doc	ftp
Working Draft, no interface change - Last Call, Formal Approval	XYZ 1.0	2003/04/15	WD	Stable	2003/03/15	PWG WDWD 510n.m	wd-xyz10-20030415-510nm.doc	ftp
Candidate Standard – Interop Last Call, Formal Approval	XYZ 1.0	2003/06/20	CS	N/A	2003/03/15	PWG CS 510n.m	cs-xyz10-20030620-510nm.doc	ftp ...
Standard	XYZ 1.0	2003/08/20	STD	N/A	2003/03/15	IEEE-ISTO STD 510n.m	std-xyz10-20030820-510nm.doc	ftp

407 Table 3 - Sample flow of documents including versions and naming

408

409 * **Note:** In the filenames above, the substring “xyz10” is: [project][spec][version]. For version 1.0 of the main spec for the
 410 could be “xyz10” (that is, the [spec] part is left out). For all other specs created in the “xyz” project, the name would inclu
 411 example, “xyzattr10” might be used if a separate document was detailing attributes for use in the “xyz” project.

412 **5 Informal supporting PWG documents**

413 The following are considered informal, working documents that contribute to the development or clarification of a
414 PWG Standard. As such, these documents require no Formal Approval process.

415 **5.1 White Papers and Technical Briefs**

416 During the standards process, PWG members are encouraged to document their proposals for various elements of a
417 standard in a White Paper or Technical Brief. These documents provide an informal means of communicating
418 technical proposals among PWG members. It is strongly recommended that no item be opened for discussion on the
419 agenda of a PWG meeting without first having been documented and made available for review at least one week
420 prior to the meeting where the paper is to be discussed. White Papers are particularly useful when two or more
421 approaches to a standard exist and need to be debated. White Papers may be updated to reflect group consensus or
422 individual positions on a particular topic. Since a white paper represents current thought and individual contribution,
423 they do not require any form of approval and have no formal status. White Papers and Technical Brief are subject to
424 change or withdrawal at any time. Other documents, such as Best Practices, Hints and Tips, Developer's Guides and
425 FAQ fall into the same category as White Papers and Technical Briefs. These documents should be posted to the
426 PWG FTP site and announced on the working group mailing list prior to discussion at a PWG meeting. Discussion
427 will be most fruitful when people have taken adequate time to review the papers prior to the meeting.

428 **6 Modifications to process**

429 To handle exceptional cases, the Steering Committee may decide that some or all of the steps in the standards
430 process may be shortened or eliminated.

431 **7 Publication of PWG documents**

432 All of the PWG standards-track and supporting documents described in sections 4 and 5 must be available in either
433 PDF or HTML format (others may be provided as well) and published on the PWG FTP site. Any document identified
434 as PWG Charter, PWG Requirements, PWG Working Draft, PWG Candidate Standard or PWG Standard represents
435 a formal PWG approved document, which will be published in a durable location with well known path after achieving
436 the appropriate Last Call and/or Formal Approval. Listed are examples of the directory structure using v1.0
437 Standards as an example. In use, "wg" would be replaced by the abbreviation for a particular working group (ex.
438 pmp, psi, ipp etc.). Note the prefix conventions established for these documents as reflected in the file name prefix in
439 the examples below.

440
441 Charter – <ftp://ftp.pwg.org/pub/pwg/wg/charter/ch-wg10-yyyymmdd.pdf>
442 Requirements – <ftp://ftp.pwg.org/pub/pwg/wg/charter/rq-wg10-yyyymmdd.pdf>
443 Working Drafts – <ftp://ftp.pwg.org/pub/pwg/wg/wd/wd-wg10-yyyymmdd.pdf>
444 Candidate Standards – <ftp://ftp.pwg.org/pub/pwg/wg/cs-wg10-yyyymmdd-510nm.pdf>
445 Standards – <ftp://ftp.pwg.org/pub/pwg/standards/std-wg10-yyyymmdd-510nm.pdf>
446

447 Standards are not published in the Working Group path. PWG Standards are given a unique number and are
448 published in one, flat, namespace for ease of access.

449
450 Supporting documents (see Section 5) are posted in the root Working Group path or a subdivision of that path as
451 appropriate. Filename prefixes for common supporting documents are:

452
453 White Paper – wp
454 Technical Brief – tb
455 Developer's Guide – dg

456 Best Practice – bp
457 Hints and Tips – ht
458 FAQ – faq
459 Last Call Review Comments - lrcr

460
461 Internal working versions of PWG documents should be available in an agreed upon, widely available word
462 processing format, to provide for collaboration between document editors and contributors. For example, Microsoft
463 WORD and HTML are common revisable formats in use, today.

464
465 When documents are posted to the PWG FTP site, a notice should also be posted to the Working Group mailing list.
466 It is recommended that Working Groups provide a web site where information about their activities is provided. The
467 Web site should provide links to current, relevant documents.
468

469 **8 Approval**

470 **8.1 Last Call**

471 Last Call represents a final opportunity for issues to be raised against a document. The WG Chair announces a Last
472 Call on a document with rough consensus of the working group. Last Calls are posted to all members of the PWG via
473 the PWG-ANNOUNCE mailing list. A successful Last Call indicates a higher level of maturity during the development
474 of a Standard. The Last Call period may vary, based upon the content, complexity, or other circumstances, but must
475 be at least ten full working days. A working day is considered to end at 5 PM in New York City, New York, USA.

476
477 All issues raised during Last Call must be answered in one of the following manners:

- 478 • Resolved - Document updated to reflect the resolution
- 479 • Resolved - No change required in the document
- 480 • Unresolved - Document will be approved as is

481

482 **8.2 Formal Approval**

483 **8.2.1 Formal Approval Process**

484 Once all of the Last Call issues have been responded to, a vote is taken on approval of the resulting document and
485 transition to the next maturity level. Formal approval voting must be announced and conducted via the PWG-
486 ANNOUNCE mailing list. The formal approval voting period must last at least 10 full working days and may be longer
487 at the discretion of the WG Chair.

488
489 Formal Approval requires

- 491 • approval by 2/3 of those casting votes (abstentions do not count) with no strong opposition
- 492 • approval by 80% of those casting votes (abstentions do not count), in the face of strong opposition

493
494 Strong opposition occurs when one or more companies formally calls for an 80% vote. It is the responsibility of the
495 WG chair to ensure that the results of a vote are fair and representative. If a member of the PWG has an issue with a
496 WG Chair decision, he or she can appeal that decision to the PWG Steering Committee (first) and then to the
497 membership of the PWG at large if necessary.

498
499 A no vote on a standards-track document requires the voter to state the reason for the no vote, and a description of
500 the changes that would be required to the document to turn the no vote to a yes. These will be documented on the
501 PWG-ANNOUNCE mailing list.

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503
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Formal approval is not granted until the PWG Steering Committee reviews the process used to achieve Last Call and Vote insuring the PWG process was followed with fidelity.

505

8.2.2 Formal Approval voting rights

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The following voting rights policy applies to all Formal Approval voting:

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- A voter must be a representative of a PWG Member Organization.
- Votes are counted on an organization basis.

511

8.3 Approval with a Working Group

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8.3.1 Working Group approval process

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For technical issues, a 2/3 majority of those casting votes (abstentions do not count) is required. A simple majority of those casting votes (abstentions do not count) is required to pass on administrative and operational issues.

515

8.3.2 Working Group approval voting rights

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The following voting rights policy applies to all voting done within the PWG Working Groups:

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519

- A voter must be a representative of a PWG Member Organization.

520
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- Votes are counted on an organization basis.

522
523

- At times it may become necessary to conduct a vote on internal WG matters. If so, eligibility is determined by an organization attending two of the previous four face-to-face meetings, or two of the previous four conference calls. It is the responsibility of the Secretary to maintain the list of eligible voters.

524
525

- With a simple majority vote, the working group may confer voting rights to an individual or organization that is not otherwise eligible to vote due to lack of attendance. This is done on a case-by-case basis and is intended to address those individuals or companies who have made significant, on-going contributions to the group – but have not been able to attend the required number of meetings. In no case may a representative of a non-member company be conferred voting rights by the action of a working group.

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- A Working Group Chair may declare that a sufficient quorum does not exist for voting purposes if at least 50% of potential voting members are not present during the vote.

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- Voting is not a requirement for declaring rough consensus, unless specifically requested by a member with voting rights.

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8.4 Approval at a PWG Plenary

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8.4.1 PWG Plenary approval process

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A simple majority of those casting votes (abstentions do not count) is required.

541

8.4.2 PWG Plenary approval voting rights

542

The following voting rights policy applies to all voting done within the PWG plenary:

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546

- A voter must be a representative of a PWG Member Organization.

- Votes are counted on an organization basis.

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- Plenary voting occurs at plenary sessions, so participation in the plenary is required for voting.
- Voting is not a requirement for declaring rough consensus, unless specifically requested by a member with voting rights.

552 **9 Maintenance**553
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Many PWG standards are extensible and provide the ability for additional keyword or enumerated values to be registered. When approved, these have the same status as the standard to which the feature is being added. In addition, as implementation work proceeds, clarifications may be required to guarantee interoperability. This section addresses the process to be followed for:

- registrations of new operations and type 2 enums, keywords, and attributes, and
- clarifications of the standard and any approved registrations

Major changes or additions to a standard are not considered maintenance, but require engagement of the PWG standards development process described above.

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Proposals for registrations and clarifications will follow the following process:

1. Each WG will appoint a Maintenance Editor for their PWG Standard.
2. Anyone can initiate a proposal for a clarification or registration by starting a discussion on the appropriate project mailing list.
3. After there is some agreement on the mailing list for the need of a clarification or the suitability of a registration, the proposer and the standard's Maintenance Editor work out a proposal. Such a proposal should include:
 - Status of the proposal, including previous reviews.
 - A description of the requirement being met or the problem being solved.
 - Description of the proposed solution.
 - The exact text to be incorporated into the standard at some future date.
4. To make the status of proposed registrations and clarifications clear to PWG participants and others, the Maintenance Editor will keep them in the appropriate sub-directory
 - <ftp://ftp.pwg.org/pub/pwg/xxx/proposed-registrations>
 - <ftp://ftp.pwg.org/pub/pwg/xxx/proposed-clarifications>where xxx is the project.
5. All proposals must be published according to section 6 of this document.
6. Reviews of proposed registrations and clarifications may occur at a meeting or on the MAILING LIST.
7. The proposal will undergo sufficient reviews and updates until, in the opinion of the WG Chair, there is rough consensus that the proposal is ready for Last Call as described in section 8.1 followed by Formal Approval as described in section 8.2.
8. If, in the opinion of the WG Chair, the Last Call discussions and Formal Approval meet the voting requirements described in section 8, the Maintenance Editor will move the approved registration or clarification to the appropriate sub-directory for each project
 - <ftp://ftp.pwg.org/pub/pwg/xxx/approved-registrations>
 - <ftp://ftp.pwg.org/pub/pwg/xxx/approved-clarifications>and announce the Formal Approval to the entire PWG via the PWG-ANNOUNCE MAILING LIST.
9. Periodically, the Maintenance Editor will incorporate the approved registrations and clarifications into the version of the standard that the PWG keeps to record all approved registrations and clarifications. Such an updated version of the standard will have a new minor version of the standard, along with a Change History Appendix that lists each change.

593 10 Intellectual Property and Confidentiality

594 10.1 Ownership of IP rights:

595 All patents, copyrights, or other intellectual property owned or created by any Member or member's affiliates
596 ("hereinafter "Member or Associate) outside the PWG or its work within the PWG shall remain the property of that
597 Member or Associate thereunder and shall not be affected in any way by the Member or Associate's participation in
598 the PWG.

599
600 The PWG may, through its activities, generate intellectual property, and license such property to the Members and/or
601 Associates on reasonable and nondiscriminatory terms, conditions and prices; provided, however, that Members and
602 Associates receive more favorable pricing than non-Members or non-Associates.

603
604 All information and materials, and all copyrights thereto, contributed by Members and Associates and their
605 representatives and incorporated into a PWG Standard and Specification (here after "the Standard") shall be owned
606 by the contributing Member or Associate. The contributing Member or Associate shall grant PWG and its Members
607 and Associates an irrevocable license to use, reproduce, modify, distribute and sublicense the copyrighted work(s)
608 incorporated in the Standard on non-discriminatory basis and within reasonable terms and conditions.
609 Notwithstanding the above, any intellectual property independently created by a Member or Associate, but not
610 incorporated into a PWG standard, should remain the exclusive property of the original owner and no mandatory
611 license should be imposed.

612
613 Participants in the standard setting procedure shall disclose any known patents whose use would be required for
614 compliance with a proposed PWG standard. Prior to PWG's approval of the proposed standard, the PWG should
615 receive a written patent statement from the patent holder as described below in section 10.3.

616 10.2 Intellectual Property Procedures

617 The PWG is not in a position to give authoritative or comprehensive information about evidence, validity or scope of
618 patents or similar rights, but it is desirable that any available information should be disclosed. Therefore, all PWG
619 members shall, from the outset, draw PWG's attention to any relevant patents (hereinafter defined) either their own
620 or of other organizations including their Affiliates (hereinafter defined) that are known to the PWG members or any of
621 their Affiliates, although PWG is unable to verify the validity of any such information.

- 622
- 623 • "Relevant Patents" means any issued or registered patent, without use of which a Proposed PWG Standard
624 cannot be practiced.
 - 625 • "Proposed PWG Standard" means each proposal towards each PWG specification, which proposal is submitted
626 to PWG after the date of acceptance of these Procedures (hereinafter the Effective Date).
 - 627 • "Affiliates or Associates," with respect to section 10.2, means any entity that as of the Effective Date directly or
628 indirectly is controlled by the PWG member, so long as such control exists, where "Control" means beneficial
629 ownership of more than fifty percent (50%) of the voting stock or equity in an entity.

630 10.3 Patent Statement

631 If a Proposed PWG Standard is submitted to the PWG, three different situations may arise with respect to the
632 relevant Patents:

- 633
- 634 (1) In the event the PWG Proposed Standard is adopted to become a PWG Standard, the patent holder waives his
635 rights under the Relevant Patents owned by him and hence, the Proposed PWG Standard is freely accessible to
636 everybody; no particular conditions, no royalties due, etc., with respect to such Relevant Patents. The PWG
637 Standard means any PWG specifications that are officially published by PWG after October 1, 1999.
 - 638
639 (2) In the event a PWG Proposed Standard is adopted as a PWG Standard, the patent holder is not prepared to
640 waive his rights under the Relevant Patents owned by him but would be willing to grant licenses to other parties

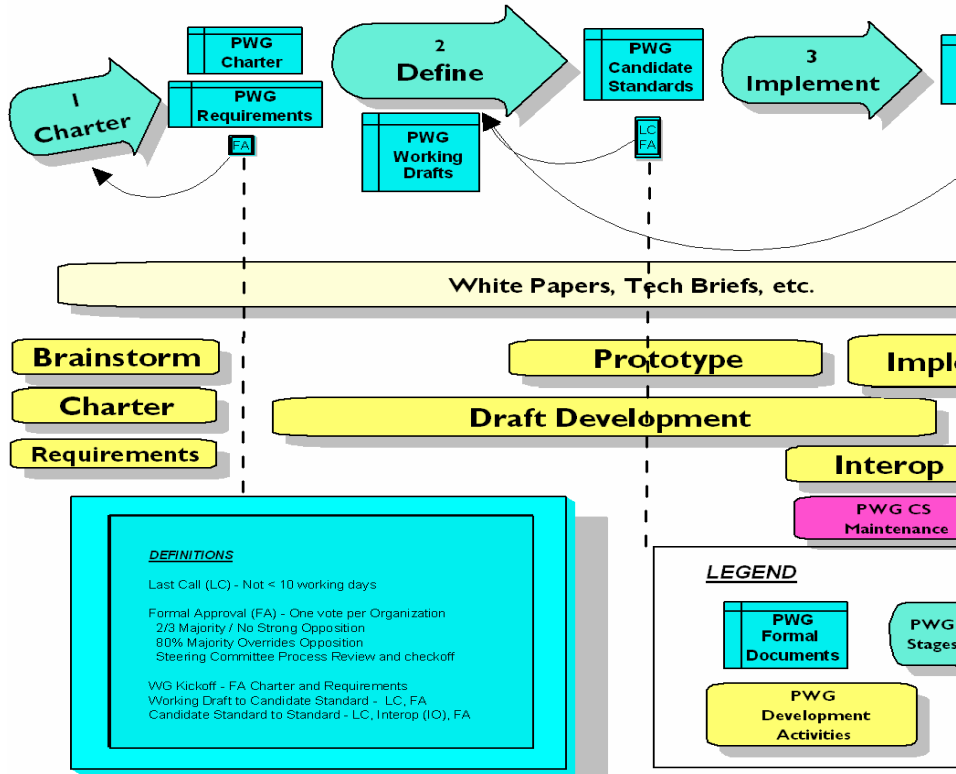
- 641 on a non-discriminatory basis and on reasonable terms and conditions, provided a similar grant under the
642 licensee's patents within the scope of the license granted to the licensee is made available. Such license grants
643 are left to the parties concerned.
644
- 645 (3) In the event the Proposed Standard is adopted to become a PWG Standard, and the patent holder is not willing
646 to comply with the provisions of either paragraph 10.3 (1) or (2), in such a case the Proposal cannot be
647 established as a PWG Standard.
648
- 649 (4) Whichever option from among paragraphs 10.3 (1), (2) or (3) is chosen, any PWG member must provide a
650 written statement to be filed on behalf of itself and its Affiliates at the PWG secretariat with respect to the
651 Relevant Patents that are owned by the PWG member or any of its Affiliates and known to the PWG member or
652 any of its Affiliates. This statement must not include additional provisions, conditions, or any other exclusion
653 clauses in excess of what is provided for each case in paragraphs 10.3 (1), (2) and (3).
654
- 655 (5) If no Relevant Patents that are owned by the PWG member or any of its Affiliates are known to the PWG
656 member or any of its Affiliates, an affirmative disclosure to that effect must be submitted before the end of the
657 Patent Statement deadline in lieu of the Patent Statement. Any Relevant Patents that are owned by the PWG
658 member or any of its Affiliates and are found after the Patent Statement deadline are automatically subject to
659 either paragraph 10.3 (1) or (2) as described above.
660
- 661 (6) Format of Patent Statement/Patent Notice
662
- 663 (i) A Patent Statement should be submitted by all the PWG members for all Relevant Patents which are known
664 to the PWG members and their Affiliates and are owned by the PWG members or their Affiliate, providing the
665 following information:
666
- 667 1. Proposal Name
 - 668 2. Organization: The organization that holds the patent which could include administrations, universities,
669 etc., and its contact address.
 - 670 3. Tel. No.: The contact telephone number of the organization.
 - 671 4. Fax. No.: The contact fax number of the organization.
 - 672 5. Patent Policy and Remarks: The declared patent policy of the organization in its communication to the
673 PWG. Most often the patent policy is given as "Pat. Policy. 10.3 (2)", which would mean that the
674 organization subscribes to paragraph 10.3 (2) of the PWG bylaws.
 - 675 6. Patent Title: The title of a patent
 - 676 7. Patent Number: The number of the patent.
 - 677 8. Patent Country: The country in which the patent has been obtained. If the patent is held in several
678 countries, a list of those countries is given.
 - 679 9. Signature: Signature of an authorized representative of the company.
- 680
- 681 (ii) Further, a Patent Notice should be submitted by all the PWG members for Relevant Patents which are
682 known to the PWG members and their Affiliates and are not owned nor controlled by the PWG members or
683 their Affiliate, providing the following information:
684
- 685 1. Proposal Name
 - 686 2. Organization: The organization that holds the patent which could include administrations, universities,
687 etc., and its contact address.
 - 688 3. Patent Title: The title of a patent
 - 689 4. Patent Number
 - 690 5. Patent Country: The country in which the patent has been obtained. If the patent is held in several
691 countries, a list of those countries is given.
 - 692 6. Signature: Signature of a representative of the company
- 693
- 694 (7) All members must submit a written patent statement according to section 10.3(6) between the proposal deadline
695 and the commencement of voting period.

696 **10.4 Non-Confidentiality.**

697 The participation in the PWG by the Members and the Associates and their appointed representatives shall be on a
698 non-confidential basis; however, a PWG Member may with the approval of the Steering Committee, wherein such
699 approval shall not be unreasonably withheld, enter into written confidentiality agreements with all other PWG
700 Members which restricts the dissemination of specified confidential information and/or materials provided by any of
701 such Member, to Persons who are not Members or Associates.

702
703 Subject only to valid patents and copyrights, all PWG Members and Associates shall be free to use all information
704 received or publicly disclosed from the PWG, its Members or Associates in connection with the normal business
705 including the processes described herein, without obligation regardless of markings including but not limited to
706 "Proprietary" or "Confidential."
707

708 11 PWG Process Diagram



709

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