Printer Working Group
Plenary Meeting Minutes

New York City
8 October 2003

Submitted by Bill Wagner, NetSilicon, Acting PWG Secretary

1 Time and Place

The New York City PWG meetings were held at the Grand Hyatt, in midtown Manhattan, during the week of October 6. The schedule for the week is below. In addition to the Plenary and working group meetings, the schedule included a Friday meeting to consider possible PWG activity in the areas of notification and discovery. These minutes cover the Plenary on Wednesday and the BOF activities on Friday.

Day	Group
Monday (October 6)	- Web Based Monitoring and Management
Tuesday (October 7)	- Print Service Interface
Wednesday (October 8)	- Plenary (Morning) and
	- Character Recognition (afternoon)
Thursday (October 9)	- IPP, JobX and Semantic Model
Friday (October 10)	- Notification and Discovery BOF

2 Agenda

Acting Chairman Harry Lewis started the PWG plenary at 8:30 AM EDT. His presentation is accessible at
ftp://ftp.pwg.org/pub/pwg/general/presentations/PWG_Plenary_October2003.pdf

The Agenda for the meeting was:
- Discussion of next meeting details
- Considerations in selecting Meetings
- Discussion of 2004 Schedule
- Review of June steering committee meeting topics
- Project Details and Reports from the constituent working groups
- Treasury report (Given by ISTO Personnel)
- Leadership Issues
    1. Officers
    2. Marketing officer – what to market?

Additional items included:
- Update the IPP information on the Web Site update (Pete Z. volunteered to solicit information from member companies).
- Continued consideration of the Process Document

The Plenary meeting was adjourned at 2:45 PM to allow the Character Repertoire and resumed at 4:00 PM for a discussion of the Process Document.

3   Meeting Attendees

Attendee	Company	Email Address
Acosta, Rod	Agfa-Monotype	Rod.Acosta@agfamonotype.com
Berkema, Allan	HP	allan.berkema@hp.com
Bradshaw, Elliott	Oak Technologies	elliottBradshaw@zoran.com
Farrell, Lee	Canon	lfarrell@cis.canon.com
Leisz, Allison	ISTO	a.leisz@ieee.org
Lewis, Harry	IBM	harryl@us.ibm.com
McDonald, Ira (tele)	High North, Inc.	imcdonald@sharplabs.com
Migliaro, Marco	ISTO	Marco.migliaro@ieee-isto.org
Nagasaka, Fumio	Epson	nagasaka.fumio@exc.epson.co.jp
Patel, Ami	ISTO	a.s.patel@ieee.org
Regnier, Alain	Ricoh	alain@ussj,ricoh.com
Shiraku, Hiroshi	Fuji-Xerox	Shiraku.hiroshi@fxpsc.co.jp
Tailor, Bob	HP	bobt@hp.com
Thrasher, Jerry	Lexmark	thrasher@lexmark.com
Tiritilli, Cindy	ISTO	c.tiritilli@ieee.org
Wagner, William	NetSilicon	wwagner@netsilicon.com
Yang, Yiruo	Epson	yyang@eitc.epson.com
Zehler, Peter	Xerox	pzehler@crt.xerox.com

4   Review of Previous Plenary Minutes

The published minutes of the Portland meeting (pwg-0306.pdf) were accepted without comment.

5   Future Meetings

5.1 Next Face to Face

The remaining PWG face-to-face meeting for 2003 is scheduled for the week of December 1 at Provo, Utah, and is being hosted by Novell. It was agreed that, since this is the week following the Thanksgiving weekend, meetings would start on Tuesday 2 December. Eight participants at the New York meeting indicated that they planned to attend the December meeting. However, since the October attendance itself was light owing possibly to the cost of the New York meeting, it can be assumed that the turnout for Provo will be somewhat higher than that. Because Novell is providing the meeting room, the ISTO will not be requiring registration for the meeting. However, a query will

be sent out toward the middle of November to get an attendance count for planning purposes.

The proposed schedule for the December meeting is:

Monday	(travel after Thanksgiving weekend) – no meetings
Tuesday	WBMM
Wednesday	Plenary / Semantic Model
Thursday	PSI / IPP
Friday	Notification/Discovery

5.2 Proposed Schedule for 2004

The PWG has a good reputation for setting its meetings well in advance. Indeed, it is written in the governing PWG Process document that the schedule for the next year is to be published the preceding October. The Chairman therefore proposed a tentative schedule.

One of the subjects of the PWG steering committee help after the June meeting were the considerations in location and timing of face-to-face meetings (see next section). The tentative schedule attempted to keep these considerations in mind. The Microsoft meetings are, of course, dependent upon agreement with Microsoft. The Vancouver and Montreal meetings (unlikely to both be held) are predicated on cost effectiveness of Canadian venues as well as the international venues. The Wisconsin meeting would be to allow attendance of Ira McDonald, a major contributor to PWG efforts as well as to other standards and industry groups.

Jan	Florida, Las Vegas or Microsoft
Mar/April	Washington, D.C.
June	Vancouver B.C / or Microsoft
Aug	Montreal
Fall	Madison,WI (Ira)
December	San Diego

This schedule will need to be firmed up at the December meeting. Comments both at that meeting and on the reflector are solicited.

6 Summary of June Steering Committee Meeting

The Chairman reported on the June meeting of the PWG Steering Committee. The primary topic concerned instilling renewed vitality to the organization. The main points were:

- Desirability for some increased formality of the proceedings.
  - o Need PWG treasury report.
  - o Formal approval of minutes

- o Stricter adherence to the provisions of the Process document
- Consider adding PWG officer in charge of marketing
- Call for interest on new projects (Discovery, Notifications, IPP?, fonts)?
- Increased coordination with other groups and companies
  - o more meetings with Microsoft and FSG
  - o overtures to other organizations such as OSTA.org (consumer), DMTF

There was also some discussion given to the number and location of face-to-face meetings. The considerations are:
- Convenience: the location should be readily accessible: Of venues the PWG has had in the past, Bar Harbor, Maine (although readily accessible to me) was regarded as an example of an inappropriate location
- Cost: this includes cost of travel, hotels and meeting facilities. The New York meeting was an example of high costs of meeting facilities and hotel. When member companies are willing to host (such as Novell in December), these costs can be significantly reduced. Zoran offered to host Boston area meetings at its facility.
- Coordination: one of the PWG objectives it to continue developing stronger cooperation to other imaging related organizations, and to imaging subgroups in general organizations and companies. In the past, we have coordinated meetings with uPnP and FSG. We should seek further coordination with other organizations such as PODi and CIP4, and also with companies such as Microsoft. Indeed, considering the significance of imaging in the new Microsoft OS's, there should be a specific attempt to have a meeting at Microsoft to facilitate participation of cognizant individuals at that company.
- International meetings: The PWG considers itself an international organization and has attempted to have some meeting out of the US at least once every other year. However, recent corporate travel restrictions have not allowed this. Although it was agreed that occasional international meetings are desirable, it was not clear how the restrictions could be overcome. (It should be noted that many of the companies reported to have such restrictions are sending representatives to the increasing frequent international meetings of other standards organizations.)
- Number of Meetings: The PWG has dropped from 7-8 face-to-face meetings a year to only four this year. Part of this was due to travel restrictions and part due to the completion of the high profile projects. The PWG working groups have compensated to an extent by much more frequent teleconferences. And although the continued pursuit of project objectives with teleconferences is encouraged, it was expressed that face-to-face meetings were still highly desirable for encouraging the broadest participation and for maintaining the excitement and interest in a project.

7 Reports from Constituent Working Groups

7.1 Character Repertoire-CR

Elliott Bradshaw reported that the group charter is complete and approved. Last call on the normative document and best practices document will go for a formal vote soon. There remains the question on how to do the interop that the process document requires for specification state advancement beyond candidate standard.. Character Repertoire ties into the semantic model, which has a similar problem in that it defines an approach rather than an implementable protocol.

Elliott suggested that the ongoing mission for group is to proselytize the defined approach. There was some question as to whether the group should continue with PDO and fonts.

7.2 Web Base Monitoring and Management - WBMM

Bill Wagner summarized group activity since June. The group charter has been approved. However, the pointed withdrawing by HP personnel from editorship and from all participation, without any overt reason being stated or apparent cause, did prompt re-evaluation of the group's purpose. It was decided to concentrate activity on the original objective of facilitating fleet management over the Internet. Substantial progress has been made toward defining this capability, including the definition of basic operations and the schema of the Schedule document. An extensive scenarios document has been developed and is currently being analyzed to evolve into a requirements document.

It again was stressed that the WBMM management element definition activity is intended to be compatible with, and will be incorporated into the printer semantic model, adding device characteristics to what is presently largely a logical printer model. It was further suggested that aspects and intermediate products of the WBMM activity may of interest to other groups (such as the CIM and WSMF) , and may indeed be the mechanisms by which printer device characteristics are incorporated into these other activities. Indeed, there appears to be interest in the XML translation of the printer MIB, done previously in the WBMM, from some other groups.

The effort will continue, probably including the addition of some new objects to augment the standard printer MIB.

7.3 IPP FAX - IFX

Ira McDonald gave a brief summary of IPP-FAX progress.

In keeping with the new process, a requirements document has been generated and reviewed and is currently at Last Call.. The protocol spec is currently being checked against the requirements.

There have been some simplifications; notably, Notifications are removed in favor of a 5-minute job history. The PDF-IS specification is considered to be in good shape, with

just minor editorial changes outstanding. The intent is for both PDF-IS and IFX to go last call next month.

7.4 Semantic Model – SM & IPP Extensions

Peter Zehler stated that the SM activity was in good shape with the three main documents having completed Last Call. After implementing some editorial comments, the following documents will be put up for final approval by the PWG.

"Printer Working Group (PWG) Standard for Internet Printing Protocol (IPP): Document Object"
"Printer Working Group (PWG) Standard for Internet Printing Protocol (IPP): Job Extensions"
"Printer Working Group (PWG) Standard for Internet Printing Protocol (IPP): Page Overrides"

The intent is to close on these documents at the December Face to Face.

The Semantic Model document and the associated Schema are nearing completion. Media size name, media key, versioning and namespaces will be discussed at the face-to-face meeting of the SM group this week. It is anticipate that these documents will come up for last call in November. There may still be IP and copyright issues.

Continuing efforts in this area will be in determining and implementing a process for updating and maintaining the semantic model. This includes proper interface with the WBMM device oriented information.

7.5 Print Services Interface -PSI

Alan Berkema reported that although the PSI Bakeoff still exposed tools issues, there were no showstopper issues. There were two participating companies. Three clients and two servers were tested. No bugs were discovered in the specification. Interoperability was demonstrated, but only after some hand tweaking to compensate for compatibility issues resulting from tools problems.

PSI Requirements document needs to be updated with respect to discovery and Security. The PSI specification has been reviewed. Some editorial cleanup is necessary but there are no substantive changes. Work done should be done by October 14-21.
Goal is to complete last call by 7 November and to advance to candidate standard.

The next Phone conference is scheduled for 21 October. Primary subject is what to do next. The likelihood is that the current chairman and editor will not be able to continue on those roles.

The chairman made the point that, especially considering the limited number of bake-off participants, there should be a consideration of how to market PSI to our companies, as well as to potential users.

7.6 Additional Activities

The Acting PWG Chairman gave a brief summary of the status of the remaining projects.

- **XHTML-Print**:. Now in last call in W3C . Changed the spec to use a more generic XHTML MIME type. It is unclear whether the ramifications of this have been considered.
- **UPDF-Universal Print Driver Format**: Being Merged with PSI capabilities. May be desirable to co-ordinate with WBMM.
- **MIBS**: Printer/Finisher MIB and IANA Charset MIB in editor's queue. Formal status pending final IANA considerations

8 Presentation by ISTO Personnel

Marco Migliaro, president and CEO of the IEEE-ISTO gave a greeting and introduction to the organization and the ISTO personnel who work with the PWG and were present:

Ami Patel
Allison Leisz
Cindy Tiritilli

Marc also discussed the upcoming ISTO Board of Directors election. There are three positions open this year. Each director serves for a 2-year term. There are no face-to-face meetings but one teleconference a year in November. The PWG must elect a representative to the nominating committee. Acting PWG Chairman Harry Lewis is the representative this year, and the PWG has traditionally elected its chairman to this position. It was suggested that the PWG process document indicate that the PWG Chairman is the delegate to the nominating committee *ex officio*.

Cindy Tiritilli, program manager for the PWG. -Gave an overall presentation and presented some issues that the membership should address.

- What is procedure for membership late payments, non-payments? When does membership lapse?

- Distribution of financial information?

- Fees and subsidize. Should face-to-face meeting attendees subsidize phone and Internet hookup for remote participants? Should there be separate registration a fee structure for remote participants? [These questions were largely prompted by the high telephone and exorbitant daily Internet hookup fees at hotel conference facilities.]

- For face-to-face conferences, where is Hi-speed Internet capability most needed, sleeping room or conference room?

It was suggested that the ISTO set up a liaison with the PWG Working Group Chairs to determine the group needs for each face-to-face meeting.

Ami Patel then presented a financial report for the PWG. The organization remains solvent. As indicated elsewhere, some mechanism must be developed for member organizations in good standing to access these financial reports. It was considered that this information need not be generally accessible to non-members. Until such time as this mechanism is established, member companies needing this information should contact the PWG secretary.

9 PWG Issues

9.1 Working Group Leadership and Participation

It was observed the number of companies actively participating in the various working groups is small. This has prompted the various critiques that it amounts to railroading through specs by a small group of companies and/or is putting to much reliance (and to much work) on a small group. The alternate view is that a small core group is more efficient and can product specs in a more timely manner.

In any standardization process, there typically are several tiers of participation: editors; primary contributors; active reviewers; passive monitors; and superficial observers (who nevertheless can provide the very useful objective input or reading the document and observing that something makes no sense).

The PWG process requires overall PWG member approval of any specification, which should ensure some degree of impartial outside sanity check. However, the fact is that the current PWG process does not require a clearly defined quorum for formal approval. Although the specs are out for review and ultimately for vote, participation has been very poor with typically less than 15-20% of the membership voting. Further, although the requirement for an interop to advance to a standard should ensure a sufficient definition and a viable approach, having but two participants and no report can also cause the effectiveness of the interop to be questioned.

9.2 Leadership Crisis

The PWG leadership crisis was presented to the plenary meeting and is best summarized by this message that was sent to the PWG announce reflector at the behest of the Acting Chairman.

At the Printer Working Group Plenary Meeting on 8 October, it was pointed out that the PWG is presently operating in violation of its bylaws. The positions of chairman, vice chair and secretary must be filled but the terms of the previous officers expired on September 1. There has not been an election because we do not have a full roster of candidates although there was a call for nominations at the June Portland meeting and in the minutes of that meeting.

The terms of the current PWG officers expire in September 2003. The organization requires that the offices of chairman, vice chairman and secretary must be filled. The duties of these officers are listed in the PWG Process document. Although this document

is currently under revision, definition of duties is quite similar in both versions. Nominations are open and should be submitted to the current chairman or the secretary. (The secretary does not intend to run for re-election.)

The current version of the process document (which outlines the bylaws and the description of officers' duties) is at:

ftp://ftp.pwg.org/pub/pwg/general/process/pwg-process20-20030812-rev.pdf
ftp://ftp.pwg.org/pub/pwg/general/process/pwg-process20-20030812-rev.doc

It is regarded as necessary that, for the organizations continued viability, properly elected officers be installed at the December Face-to-Face (Dec 1). This means that nominations for candidates for the three officers must be received by 14 November, with the roster of candidates published and the election starting 15 November. This will allow a 10-business day voting period prior to the next face-to-face meeting on 2 December.

The PWG constituent working groups continue to develop standards and procedures critical to the advancement of imaging. The organization continues to act as a liaison with other standards groups to provide adequate supporting for imaging services within a larger context. The PWG remains an important part of the industry. I urge the members to offer nominations for each of the offices to me (acting-secretary) or Harry Lewis (acting-Chairman). A brief professional bio of the candidate would also be helpful

10 Review of the Latest Process Document

There had been extensive review and some revision of the process document at the Portland meeting in June. Unfortunately, several members had missed the notice of the posting of the revised document in a 12 August version.
ftp://ftp.pwg.org/pub/pwg/general/process/pwg-process20-20030812-rev.pdf
It was noted that this version had minimal changes from the previous version.

There was a discussion of some areas that may need reconsideration and these are considered action items.

- **Developers' Guides and Best Practices** documents are not subject to formal PWG approval, are published only in the Working Group track, and may be changed or withdrawn at any time. Because many of the most significant working group products will be of this nature, it is desirable that these documents be provided with good access, that they be appropriately maintained, and that they be subject to more through review.
- The Process document requires that the candidate standards be proven at an interoperation test before they can advance to PWG standards. There is a question whether this can be applied to standards activities that seek to define something other than a specific protocol, such as the Semantic Model or Character Repertoires activities. Should some mechanism other that an interop be allowed for such documents?
- It was expressed that the Process document does not adequately define the numbering system for standards, and that much of this is still determined by non-formally documented tradition. Although those who understand the system stated

that the examples given in the Process Document were adequate, others did not agree that the Process document was adequate in this area unto itself. Indeed, the fact that the string was intended to represent [project][spec][version] was unclear since there was no obvious implicit or explicit delimiter between fields and since the [spec] field could be omitted. It was suggested that this would be eased by publishing an approved listing of each working group's project string. Ira indicated that an ABNF representation of the system was available. Bill Wagner suggested that, as one not intimate with the existing precedent, he would test the description by attempting to define it in English.

- It was stated that the requirements for presenting information for consideration be more clearly stated. Specifically the following lead times were suggested:
  - o Details of and agenda for working groups at- face-to-face meeting: at least seven days prior to the meeting
  - o Details of and agenda for phone conference: at least 48 hours prior to the call
  - o Documents for review: at least 2 weeks prior to reviewing meeting

A somewhat revised Process document reflecting some of these thoughts and including issues from the Portland meeting that had been missed, was posted on 10 October. ftp://ftp.pwg.org/pub/pwg/general/process/pwg-process20-20031010-rev.pdf. However, not all issues were addressed.

11 Friday 10 October- Notification and Discovery BOF

The objective of the Friday BOF was to consider the state of the art in these areas and to decide whether a group (or two separate groups) should be started to do either specifications or best practices definition. The idea is to define an approach or set of approaches so that other groups do not need to readdress these requirements each time they arise, but rather that they use a consistent approach.. Hopefully, this will also encourage the implementation of certain techniques to eventually enhance interoperability. This meeting was started at 9:10 EDT.

11.1 Attendees:

Attendee	Company	Email Address
Farrell, Lee	Canon	lfarrell@cis.canon.com
Lewis, Harry	IBM	harryl@us.ibm.com
McDonald, Ira (tele)	High North, Inc.	imcdonald@sharplabs.com
Nagasaka, Fumio	Epson	nagasaka.fumio@exc.epson.co.jp
Shiraku, Hiroshi	Fuji-Xerox	Shiraku.hiroshi@fxpsc.co.jp
Tailor, Bob	HP	bobt@hp.com
Thrasher, Jerry	Lexmark	thrasher@lexmark.com
Wagner, William	NetSilicon	wwagner@netsilicon.com
Yang, Yiruo	Epson	yyang@eitc.epson.com
Zehler, Peter	Xerox	pzehler@crt.xerox.com
Hastings, Tom (tele)	Xerox	hastings@cp10.es.xerox.com

11.2 Discovery BOF

Harry Lewis introduced the subject in terms of device discovery and capabilities discovery. Several methods exist, including UPNP that uses a combination of "ddd" and "sdpd" and UDDI.

Questions were:
- What work needs to be done?
- Should this (with respect to UDDI for example) be done now or should the effort wait until more than one company implements PSI?
- Is UDDI more appropriate to Print shop operations than to intra-enterprise printing?

Significant work had been done in PSI to identify various techniques. But an effort to provide a best practices document would be more likely to get it right if done in conjunction with vendor who is implementing it (CPXe).

The general recommendation was to keep watch on the technology and jump in only if there is some other initiative.

Next steps:
- UDDI Watch
- Extract PSI information into separate document.
- Determine who interested in describing best practices
- Determine who interested in applying described best practices?
- Create appropriate PWG mailing list and put out message soliciting response from those who have an interest.

11.3 Notification BOF

The discussion of notification started at about 10:00 AM EDT with an IPP base notification status report from Tom Hastings.

The document was submitted but from an IETF viewpoint it has security problems and it is unlikely to meet IETF Internet security requirements. Two options:
     1. upgrade security provisions to get it through the IETF (push methods do not protect against SPAM)
     2. make IEEE-ISTO spec
Tom has converted to IEEE format. The activity would now need an editor to take over the activity. The translated document needs PSI and IPP fax updates and IP administration changes/additions

Other points brought up include:

- The desirability to create a general model taken from IPP semantics for notification and subscription.
- The need to need to consider IPP Get, INDP and Mail-To mechanisms.
- The Need to understand what else is being done in the area, such as GINA, and other things that are coming
- Mapping notification to methods for Wireless, including Bluetooth and 802.11

Next Steps:

- Find editor/chair to complete IPP to ISTO standard.
- Create appropriate PWG mailing list and put out message soliciting response from those who have an interest.

The BOF Sessions ended at noon.