# Printer Working Group Plenary
April 3, 2000

## 1. Meeting Attendees

| | | Plenary | IPP | UPDF |
|---|---|---|---|---|
| Koichi Masegi | Canon | | x | |
| Mamoru Nagano | Canon | | | x |
| Nobuhiko Shinoda | Canon | x | | |
| Shigeru Ueda | Canon | x | x | |
| Lee Farrell | Canon Information Systems | x | x | x |
| Bill Wagner | DPI/Net Silicon | x | x | |
| Hideki Morozumi | Epson | x | | |
| Fumio Nagasaka | Epson | x | x | x |
| Masanori Tanizaki | Epson | x | x | |
| Atsushi Uchino | Epson | x | x | |
| Michael Wu | Heidelberg Digital | x | x | x |
| Ron Bergman[1] | Hitachi-Koki | x | x | x |
| Yoshinori Nakai | JCI | | x | |
| Yuji Sasaki | JCI | x | x | |
| David Chamberlin | Kyocera | | | x |
| Takanori Hayashi | Kyocera | x | | |
| Shigenaka Kanemitsu | Kyocera | x | | |
| Shuichi Nakagawaji | Kyocera | | | x |
| Tokimune Nasayama | Kyocera | x | | |
| Stuart Rowley | Kyocera | | x | |
| Don Wright[2] | Lexmark | x | x | x |
| Masashi Oguchi | Mitsubishi | x | | |
| Kazuya Torikai | NEC | | x | |
| Hironori Goto | Panasonic | | x | x |
| Minoru Ozaki | Panasonic | x | x | |
| Paul Moore | Peerless | | x | |
| Howard Sidorsky | Peerless | | x | |
| Yuusuke Wada | Peerless | | x | |
| Nick Webb | Peerless | | x | |
| Satoshi Fujitani | Ricoh | x | x | x |
| Mitsuhisa Kanaya | Ricoh | x | | |
| Norimi Kawashima | Ricoh | x | x | |
| Masatoshi Kubokura | Ricoh | | | x |
| Michael Reffke | SEH | x | x | |
| Werner Schweer | SEH | x | x | |
| Matthias Wolff | SEH | x | x | |
| Eric Olbricht | Sharp | x | x | |
| Craig Whittle | Sharp | x | x | |
| Satoshi Ikawa | Techno Scope | | x | |
| Lin Chin Wei | Techno Scope | | x | |
| Junichi Komura | TI | x | | |
| Bob Herriot | Xerox | x | x | |
| Carl-Uno Manros[3] | Xerox | x | x | |

[1] JMP and PMP Chairman  [2] PWG Chairman  [3] IPP Chairman

## 2.  Administrivia

Don Wright opened the meeting and provided the details for the next PWG meeting:

- May 15-19
- Southgate Tower, A Manhattan East Suite Hotel
- 371 Seventh Avenue
- New York, NY 10001-3984
- ph: (212) 320-8050  fax: (212) 714-2159
- http://www.mesuite.com/southgatetower.html
- Rate from $214/night – under "PWG"
- Deadline for reservations: April 28th
- Register at http://www.fapo.com/ieee1284.htm

Don mentioned that the UPnP Printing group will be holding a meeting on Tuesday of the New York meeting week. There will be no PWG session that day. Because many of the individuals participating in the UPnP activity also attend the other PWG sessions, it was considered to be a convenience to hold the meetings in the same place. However, Don stressed that the PWG organization is only *hosting* the UPnP meeting—there is no formal connection between the two groups. Only UPnP members will be allowed to attend.

Don also referenced the 2000 schedule for future PWG meetings:

| | |
|---|---|
| May 15-19 | New York |
| Jul 10-14 | San Francisco/Vancouver BC |
| Sep 11-15 | Chicago |
| Oct 23-27 | Boston |
| Dec 4-8 | San Diego |

## 3.  Status Reports

Each of the Project Chairs (or appointed spokesperson) provided a brief status of the individual projects.

### 3.1  Printer MIB Project (PMP)

Ron Bergman reported that the Host Resources MIB has now been completed. This will allow the Printer MIB to move forward on standards track progression. The Printer MIB has had some (minor) editing changes in response to requests by Xerox. (Various enums and textual conventions are being changed back to their original names.) Ron expects that the changes will be incorporated and the resultant draft submitted to the IESG within two weeks or so.

### 3.2  Finisher (FIN) MIB Project

No status change. The Finisher MIB status is still waiting for progress on the Printer MIB.

### 3.3  Internet Printing Protocol (IPP) Project

Carl-Uno gave a brief review of the IPP WG session that was held last week at the IETF Plenary. He reviewed the various notification delivery methods that are currently under consideration by the group. At the IETF meeting, several individuals suggested that having a single delivery method—or at least very few—would be better than many.

Keith Moore has resigned his position of IETF Applications Area Director. In his place, Ned Freed has taken the position. Ned has acknowledged that the IPP documents have been "in the queue" for a long time—and need attention.

Carl-Uno presented the slides he showed at the IETF. He listed the documents that are still under review by the IESG:

- Model and Semantics
- Encoding and Transport
- Implementer's Guide

New IPP Notification drafts:

- IPP Event Notification Specification
- The "mailto:" Notification Delivery Method
- The "ipp" Notification Polling Method
- The INDP Notification Delivery Method
- IPP Notification Delivery Protocol (INDP)
- Notifications over SNMP

Carl-Uno explained that event subscriptions can be made for both printer and/or job events. The subscriptions contain a URL for the notification recipient, and the event notification is delivered to that URL whenever the specified event occurs. There are four different delivery methods currently under consideration:

- ippget:
- indp:
- mailto:
- snmpnotify:

At the IETF session, Keith Moore suggested that the group should focus their attention on the IPP polling method. He believes that it "fits in" better with the existing Internet architecture. [He did not necessarily feel that it was the most efficient or most functional method under consideration.]

A proposal document for an LDAP printer schema has also been produced: LDAP Schema for Printer Services. It is aligned with the SLP Printer template: Definition of the Printer Abstract Service Type v2.0

Additional Operations and Additional Syntax documents are also being produced:

- Job and Printer Set Operations
- The "collection" attribute syntax

Xerox has also created two documents and has submitted them for approval by the IPP group:

- Exception Attributes for Documents and Pages
- Production Printing Attributes – Set 1

Carl-Uno explained that the IPP Working Group has now (essentially) completed the work listed in their Charter. He mentioned that the IESG is still considering whether or not a new WG should be chartered as

"IPPEXT" for future work. The alternative is to simply allow future IPP work to occur within the existing WG, but with an updated Charter.

Carl-Uno identified two future tasks that need to be addressed by the group, and provided a suggested delivery timeline:

- New Operations – June 2000
- Notifications – September 2000

Carl-Uno requested the attendees to notify the IPP Web Mistress (Gail Songer) about any IPP-related products that their company is involved with. He believes that the group should promote the existence and adoption of the protocol as much as possible.

Carl-Uno announced that the IPP group is planning to hold another interoperability test "Bake-off" event some time in October. The group is looking for a volunteer host for the event. If anyone is interested, please contact Carl-Uno.

## 3.4 Universal Printer Description File Format (UPDF) Project

Don Wright reported that recent discussions have focused on font characteristics and describing fonts within the UPDF file. Additional discussions have been held on possible User Interface feature descriptions.

Don expressed his concern that the Thursday meeting might be very short. Neither the Chair (Sandra Matts) nor the primary font discussion member (Norbert Schade) will attend.

Later in the afternoon, Don showed some slides that had been supplied by Sandra. They described some of the UPDF goals, its purpose, and background.

UPDF is an XML-based printer description file that is similar to a GPD and a PPD file—with some additional functionality:

- O/S-independent
- More dynamic than a GPD/PPD
- PDL-independent

There is no single, data-driven printer file today that is O/S-independent—able to work on *any* operating system:

- GPDs currently are supported on Windows 2000 and are starting to be supported in NT 4. They don't work on Windows 9x or NT 3.51
- Earlier minidrivers are binary-based, and very O/S version-specific

PPDs in theory are supposed to be O/S independent—however, in reality they are not:

- Printer vendors have been creating (separate) Mac PPDs and Windows PPDs for the same printers for years
- Currently, different PPDs are also made for different Windows versions

PDL independence:
- PPDs are PostScript-specific
- GPDs are pretty good at PDL independence. They favor PCL-type escape languages.
- The group wanted UPDF to be able to describe PS and PCL escape languages—and possibly "raster blaster" code

The UPDF needs to be dynamic:
- It should accurately reflect the current printer configuration
- It should be read from the printer at installation time
- It should be read at the job start time

"High want" goals:
- Easily localizable
- Improved constraint model
  * More flexible than the PPD or GPD constraint specification
- Extensible
  * Imaging and User Interface proprietary plugins

A list of the modules currently being defined for UPDF include:
- Graphics
- Paper handling
- User Interface
- Bi-directional
- Localization
- Fonts

## 3.5  1394 PWG

There was no meeting planned for the 1394 PWG group because of a schedule conflict with the 1394 TA meeting. However, the latest news is that the IEEE has approved the Project Authorization Request (PAR) and the specification document is going under the final steps for balloting. The group's specification will be called IEEE 1394.3.

## 4.  Liaison Reports

## 4.1  QualDocs

The QualDocs group also had a meeting at the IETF. It is their plan to create various extensions to IPP to achieve a "fax-like" capability for transferring *high quality* documents over the Internet. Although the group has not yet received official IETF WG status, the Applications Area Director has said it is very likely that they will be given a Charter.

## 4.2  IEEE 1212r

An IEEE meeting should have occurred at the end of March to discuss the balloting status of IEEE 1212r—but no one at the meeting had yet heard the results.

## 4.3  PWG-C

Shinoda-san provided a very brief comment on the PWG-C activity. Unfortunately, because of a scheduling conflict with the 1394 TA meeting, most of the PWG-C participants were unable to have a joint meeting with the PWG this week.

Shinoda-san explained that the DPP specification has been completed. The AV/C Printing protocol will be discussed in Brussels at the TA meeting.

## 4.4  MFPA Activity

Bill Wagner provided an overview and status presentation on the Multifunction Products Association (MFPA). The group is looking for an integrated approach for managing multifunction devices (MFDs). They have recently developed a Scanner MIB and are beginning efforts on developing other MFD MIB documents for device management.

In his presentation, Bill explained some of the purposes, characteristics, and benefits of MIBs and MIB-based device management.

During the discussion, the topic of "work flow" processes within a device was raised. The MFPA has been in contact with the Workflow Management Coalition (WfMC) and is considering whether any of their activity could be applicable to the MFD MIB effort.

After Bill's presentation, Ron Bergman gave a brief talk about the Scanner MIB document. He explained that the MIB was derived from the Printer MIB, and attempts to use a similar model whenever possible. He showed a few diagrams from the MIB document that included various "network views" of the scanner device. Ron also explained the different elements/groups contained in the scanner model block diagram:

- Communication channel
- Image sensor
- Color space
- Scanner control language
- Original document handler(s)—input, media path, and output
- "General" scanner items

Bill noted that the MFPA is very interested in receiving information about existing scanner control languages.

Ron indicated that there has been no implementation experience provided.

Bill was requested to post his slides on the PWG website for general access by the PWG members.

For additional information about the MFPA and the Scanner MIB, please see http://www.mfpa.org.

## 5.  PWG Document Templates

Don mentioned that the PWG documents do not need to maintain plain text formats. The group has the freedom to include much more flexible content—especially with the inclusion of drawings or figures. Don has produced a sample cover page and copyright statements for consideration. It was suggested that the

group could use the IEEE style guidelines as a basic reference. Carl-Uno has suggested that we could attempt to maintain some consistency with the IETF document outline and content order. Tom Hastings is currently authoring a draft document that will serve as the initial PWG template test case.

PWG Plenary adjourned.