

# **Status of the Printer Working Group Projects**

March 1998

The March PWG meeting was held in Austin, TX during the second week of March. A summary of the status and activities of each PWG subgroup was presented, Wednesday morning, and is reported below.

## **Printer MIB Project**

**The updated Printer MIB remains in limbo due to slow progress on an associated standard called the Host Resources MIB. In January, the PMP appeared satisfied to leave the latest Printer MIB at "Proposed" but, it was later decided by the Chairman, that HR MIB escalation had gone too far to abandon. Thus, we continue to monitor and encourage progress toward a higher "Draft" Internet status. There is a motion to consider a May 1998 deadline, after which the PWG will consider the Printer MIB complete. This motion will be addressed via e-mail prior to the Portland meeting.**

The HR MIB project is now involved in gathering implementation and interoperability experience. The PWG proposal for extending hrPrinterDetectedErrorState should fall naturally into both of these categories. Harry Lewis (author of this proposal on behalf of the PMP) will contact the Chairman of the HR MIB activities and determine the best course of action. If not included as part of a direct HR MIB update, Harry will write an informational RFC to accomplish same.

While we have been focusing on extension of the bits, themselves, we have found that the defined linkage between hrPrinterDetectedErrorState and hrDeviceStatus is unnecessary and intolerable. For example, it is possible to have "Service Requested" with a warning or down condition but the current definition only allows "down", resulting in compliance issues.

## **Job MIB Project**

**The Job MIB has been submitted to the IESG for consideration as an Informational RFC. This process may take up to 6 weeks, after which, the Job MIB will be referenced as an "RFC". Unlike the Printer MIB, the Job MIB will remain information in the IETF context. The Job MIB represents the first official PWG standard, registered under the recently issued PWG enterprise OID subtree. Because IPP and the Job MIB overlap, somewhat, in function, there is interest in continuing to correlate these efforts and clarify their interaction. Some people view the Job MIB in conflict with the desire to standardize one, all encompassing, server to device printing protocol. Others see it as the natural and efficient use of existing SNMP agents which are supporting the IETF Printer MIB.**

**JMP decided to consider the use of SNMP traps in Austin. Tom Hastings and Harry Lewis presented designs for Job MIB trap registration, filtering and distribution. These were shown to be similar and comparable with the latest SNMPv3 traps and informs. The PWG direction will be to emphasize the SNMPv3 RFC's rather than favor anyone's proprietary**

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design, assuming the SNMPv3 security model is optional and the methods described are backward compatible with SNMPv1. Harry's presentation will form the basis for standardizing notification *Types* and *Content* for Job MIB traps as well as IPP notifications.

See <ftp://ftp.pwg.org/pub/pwg/jmp/minutes/jmp-0398.pdf> for further details and complete JMP minutes.

## **Finisher MIB Project**

Tom Hastings proposed to reduce the number of objects to an absolute minimum (4), leaving everything else as an optional attribute. While this would result in extreme flexibility, it would leave application writers with little reliable structure or content. We decided to pursue more balance between objects and attributes by defining a mandatory set of objects and relegating any optional information to the list of attributes. We worked through some of this at the meeting. Tom and Ron will complete this effort and post the updated draft.

Carlos Becerra joined us, from HP, and was very helpful in sharing his finisher expertise. We hope to have even broader finisher participation in the future and have invited the following list of manufactures:

- Black & Decker
- Pitney Bowes
- Channel Bind
- Genesis
- Powis
- Std Register
- Stralfors
- Beste Bunch
- Duplo
- Xerox
- Kodak
- Energy Saving Products
- BDT
- CP Bourg

See <ftp://ftp.pwg.org/pub/pwg/fin/minutes/fin-0398.pdf> for further details and complete FIN minutes.

## **P1394**

Working for over 1 year, the "Printing over IEEE 1394 Serial Attachment" group has now published an initial Draft profile with the IETF. Aside from printing, there are still issues in the core 1394 protocol, itself, such as discovery (IEEE 1212). Also, the IETF IP over 1394

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effort is underway to addresses UDP and IP over the IEEE 1394 serial link which could result in facilitating SNMP and other TCP/IP protocols. A group of Japanese consumer companies, the PWG-C, have defined a thin, point-to-point, printing protocol for 1394 which is intended for things like digital cameras or other consumer devices. The more PC oriented PWG P1394 project has selected Serial Bus Protocol-2 (DMA access to a shared memory bus on the host) for printing over 1394 in home or office environments from a workstation.

## **SENSE Notification Protocol**

No SENSE status due to extenuating circumstances.

SENSE is a potential option for IPP notifications

## **Universal Printer Driver**

A Universal Print Driver meeting was held as a special evening session. This was attended by representatives from 15 companies with several additional participants on the phone. There was a presentation on the GPD file specification, which Microsoft is proposing as the basis for this standard, and a brainstorm session on requirements and scope of project. Don Wright is acting Chairman until the project identifies committed, sustained leadership.

## **IPP - Internet Printing Protocol**

Last month, IPP final drafts were sent to the IESG and are now in "last call". Feedback is expected at the IETF meeting in LA on April 1. The IESG recommends continuing work on Job Notifications under the current IPP charter rather than forming a separate working group. Roger deBry's Notification Requirements document is the basis for this work. The scope of protocols under investigation ranges from e-mail to SNMPv3. Notification Types and Content are a key part of the discussion. IPP will host a print Job Notification BOF in LA.

Interest has been expressed in duplicating IPP as an ISO standard since Europe doesn't necessarily recognize the IETF. Establishing IPP as an ECMA standard would be the fastest path into ISO. There are questions about potential IETF copyright enforcement.

Having already developed IPP, the PWG is now discussing overall printing scenarios and the appropriate roles of IPP, the Printer and Job MIBs and the potential need for a host to printer submission protocol separate from IPP. The use of TIPSII, CPAP, HTTPng, and mapping IPP to TCP/IP are all under consideration. Roger deBry and Tom Hastings drafted high level presentations to guide this discussion.

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IPP is in the interoperability testing stage. A test plan is under development and testing has started between various client and servers, over the Internet. IPP is also considering it's relationship to various directory schema as well as potential future IPPv2 items such as platform independent, automated driver installation.

If IPP remains on schedule, there may be an opportunity for public demonstration at the September Networld-Interop in Atlanta and possibly at Xplor.

### **NC Printing**

NC Printing is not a sanctioned PWG project at this time, but Roger deBry and Lloyd Young are "co-chairing" the effort with the OMG subgroup for Network Computer Management (NCMG@opengroup.org) on behalf of IPP and the PWG. Lloyd presented an NC Print Architecture review and component breakdown. Lloyd solicited for more participants at the Austin meeting. To be added to list, send a note to Lloyd at lpyoung@lexmark.com.

### **IBIP**

The US Postal Service "Information Based Indicia Program is not a PWG workgroup, but is of interest to the Printer industry in that the USPS is conducting a Industry Guidance Group meeting in Las Vegas, March 11/12, to follow-up the "printer working group" meeting which was held in Arlington, Va. on 9/25/97.