Printer Working Group
Marina Del Rey, CA
October 26/27, 1995

Attendees:

Don Wright - Lexmark
Mike Timperman - Lexmark
Tom Hasting - Xerox
Harry Lewis - IBM Pennant
Steve Zilles - Adobe
Rick Landau - DEC
Jay Martin - Underscore
Bill Wagner - DPI
Luis Cubero - HP
Binnur Al-Kazily - HP
Randy Turner - Sharp
Andy Davidson - Tektronix
Kari Knudsen - HP
Sona Mahavni - HP
Chris Wellens - IWL
Gregg Welker - Dataproducts
Paul Reilly - Apple
Andrew Garsten - Dataproducts
Raymond Lutz - Cognisys
Stan McConnell - Xerox

The meeting began at 8:30 AM.

Binnur opened the meeting by reviewing the RFC change procedures previously posted on the reflector. In order to be an IETF working group, the decisions made at meetings must be distributed via the e-mail reflector to the entire group. This allows people who miss a meeting to have an opportunity to review and comment.

The group discussed a number of ways to keep track of the decisions made by the group and it was decided that the ftp site will have more history of accepted and rejected proposals including a list of proposed, accepted and rejected changes. In addition, the details behind these proposals will be kept there as well.

Binnur is currently archiving all the e-mail and has been doing so since August. She is currently looking at a means to make that e-mail archive retrievable.

Steve Zilles updated the group on the status of the problem of the type 2 enumerations. In order to track proposed changes to type 2 enums, a registration editor needs to be appointed to track these changes. Changes will be recorded in the textual conventions document.

Break: 9:20 - 9:35

Raymond Lutz, presented on job submission from the perspective of the MFPA. A lively discussion on some of the issues Ray raised ensued. The document and the presentation are currently available on the MFPA server.

Lunch Break 11:55 - 1:40

Harry Lewis opened the afternoon session with a presentation on his proposal for JOB MIB Transport. Harry believes that it is very difficult to separate job submission from job monitoring and they should be developed together.

The group began attempting to define and identify what job monitoring is. Steve Zilles reviewed the definitions of job and document as determined at the December 1994 meeting of the group. The group wanted to consider more about jobs than just what's inside the printer. This means including pieces of the spooling system on the print server (which is currently more commonly on the computer rather than the printer)

Job Monitoring:
- What is it?
- What kind of information is needed
- Problem Statement
- Why do we want to do this?
- What is the model?
- How to do it?

The group discussed the potential names and definitions of what are commonly referred to as "jobs" and "documents."

Definitions from the perspective of a printer (generally from the Dec 1994 meeting):

Job: A unit of work whose results are expected together without interjection of unrelated results.

Document: A sub-section within a job.

Break: 3:05 - 3:15

Job Monitoring is:

1) Identifying jobs within the serial streams of data being processed by the printer
2) creating "rows" in the job table for each job
3) recording information, known by the agent, about the processing of the job in that "row"

Information to be collected by some job monitoring means:
1) Accounting information
2) Information for the end-user:
- job status
- estimated job complete time before it is submitted (outside scope of this group)
- Capabilities of the printer
- When will it be done
- Where will it be printed
- Job cancel , management

3) Information for the administrator
- list of the jobs in the printer
- state of all the printers in the network
- resources required by the jobs
- ability to control jobs in the printer and the queue (priority, delete, etc.)
- requeue jobs, move to another queue
- accounting, type information
- usage/statistical information

Tom Hastings presented his job monitoring proposal (located on the ftp server as version 0.7, 18-Oct-1995.)

A philosophical discussion ensued over whether we should include objects we know are not available in some environments. This issued was not closed.

Open issue: The set of objects needed for job identification has not been determined.

The issue was raised again as to whether this group should consider in the job monitoring means objects which might not be on all printers. This whole issue is centered on where in the print hierarchy spooling and spool management occurs.

Tom completed going through his Job/Document objects for job monitoring at 5:38. Tom reviewed the other documents that are available that he has developed including one with textual conventions for the printer MIB and others.

The next discussion was on the next meeting. The group decided to have the next meeting on Dec 6th and 7th in Austin. Half of Thursday would be a joint meeting with the MFPA to discussion common issues relating to jobs. Friday would be IS-650 (MFPA) oriented.

The meeting adjourned at 5:45PM

The meeting restarted at 8:30AM.

Harry Lewis opened the meeting by reviewing and repeating the status of the MIF. The open issues with the MIF are related to the lack of corresponding MIFs for MIBs like the Host Resources MIB.

Tom Hastings will forward a comment to the SNMP community concerning standardization of printer interfaces contextual conventions (RFC1573).

Harry Lewis reviewed where the DMTF was going in the area of remote DMI.

Harry reviewed the changes he has made to the objects in the MIF. Most of these changes are in the areas added to try to align the MIF with the MIB.

Jay Martin will forward the mailing list address of the Application MIB to the pmi mailing list.

A lively discussion ensued over the need for many of the items in the printer device table and whether the redundant places that status can be determined is a confusion factor or a benefit.

Storage Type and Device Types come from OIDs and therefore the ENUMs are derived from those OIDs. Manufacturer unique types should be added as an ENUM above 1000.

A vote was taken as to whether to include everything in the ENUM Device Type which passed.

A vote was taken as to remove "parallel" and "serial" - the vote was defeated.

A vote was taken to remove "non-volatile memory" and "volatile memory" - the vote was defeated.

A directory should be added to the ftp server as a repository for requested changes to the host resources MIB. Steve Zilles will post the address of the host resources mailing list to the pmi mailing list.

The "storage Allocation Failures" object was keep in the MIB by consensus.

The language Family Enum list should be updated to change "NPAP" to "NPAP/IEEE 1284.1" in the MIB. Additionally, "simple text" should be changed to "Simple Text". "automatic" should be changed to "Automatic".

Break: 11:05 - 11:20

Harry began the discussion on Alert Codes. Harry presented a list of new alert codes. Several of these were "general" alerts that would be encoded such as 0500 - General Printer Error, 1500 - General Interpreter Error, etc.

The group discussed the need to added several of Harry's proposed alert codes -- "Page Protect Invoked", etc. The group decided they needed better descriptions and associated text before it could agree to add new alert codes.

It was agreed that several of the alert codes lacked a past tense perspective. For example "Media Size Change" should be "Media Size Changed" indicating the event has already occurred.

Tom Hasting took the group through his proposals on alerts. One open issue is the group might like an alert to occur on the trailing edge of a binary event.

Jay Martin addressed the group relative to the charter of the group and a new area for the working group to consider. Jay presented an alert subscription service design that would be implemented inside the printer or printer server. Jay will post a complete description of this service to the mailing list/ftp server.

The group formally thanked Harry Lewis for his work on the MIF.

The group also thanked Jay Martin, Rick Landau, and Mike Timperman for their work and presentation of the issues and a proposed solution for alert subscription.

The group began its discussion on the charter of the group. The group discussed where the group started and what its mission was. The group had several areas which were not addressed by the original MIB including fonts and jobs.

Steve Zilles discussed that last meetings of the group and a discussion of how the group was suspended after the completion and publishing of the MIB draft. Steve Zilles proposed developing the abstract job database for job monitoring in a non-spooling printer.

The group discussed the items that need to be on the next meeting agenda

- jobs / job monitoring
- alert subscription service
- Transportable Document Format (1/2 day joint with MFPA)

The meeting adjourned at 4:45PM