PWG minutes - 1/8/97 to 1/1097 - Albuquerque

Reading the Minutes:

In general, there are the PWG minutes and separate minutes for each PWG project (IPP, PMP, JMP etc.). The PWG minutes track the overall flow of the entire PWG set of meetings as well as details of any topics that do not fall under an established project.

This months minutes for PWG (including P1394), PMP and JMP were taken by Harry Lewis - IBM Printing Systems. I tried to highlight Actions and Resolutions in Bold, Italics within the body of the specific project minutes. For JMP, I tried to summarize actions/resolutions, here in the PWG minutes for your convenience. I did not accomplish this task for PMP. IPP minutes were taken and provided by Don Wright (Lexmark).

Wednesday

Introductions

The following people were in attendance for some, or all of the 3 day PWG combined set of meetings: (My apologies, up front, for any names or companies that I have mistakes on. Corrections gladly accepted).

1. Chuck, Adams (Tektronics)
2. Jeff, Barnett (IBM)
3. Brian, Batchelder (HP)
4. Ron, Bergman (Data Products)
5. Tim, Campbell (HP)
6. Keith, Carter (IBM)
7. Angelo, Caruso (Xerox)
8. Jeff, Copeland (QMS)
9. Roger, deBry (IBM)
10. Mabry, Dozier (QMS)
11. Lee, Farrel (Canon)
12. Tom, Hastings (Xerox)
13. Bob, Herriott (SUN)
14. Osamu, Hirata ()
15. Scott, Isaacson (Novell)
16. Dave, Kellerman (Northlake Software)
17. Rick, Landau (DEC)
18. Greg, LeClair (Epson)
19. Harry, Lewis (IBM)
20. Carl-Uno, Manros (Xerox)
21. Keith, Moore (Univ. of Tenn)
22. Tetsuya, Morita (Ricoh)

23. Yuichi, Niwa (Ricoh)
24. Ron, Norton (Printronix)
25. Bob, Pentecost (HP)
26. Stuart, Rowley (Kyocera)
27. Bob, Setterbo (Adobe)
28. Bill, Wagner (Osicom)
29. Jim, Walker (Dazel)
30. Don, Wright (Lexmark)
31. Satoshi, Yamamuro (Canon)
32. Lloyd, Young (Lexmark)
33. Atsushi, Yuki (Kyocera)
34. Peter, Zehler (Xerox)

Administration

- The IETF recognizes the "Printer MIB Working Group" as the group producing the Printer and Print Job Management MIBs under IETF Management area.
- The IETF recognizes IPP as a separate group under Applications.
- Friday is cutoff for duplicate e-mail messages. Send duplicates only if topic spans more than one PWG sub-group. Lloyd will post one last notice to this effect.
- Meeting Schedule
  - Feb. 3-7 - San Jose
    - Interoperability Testing and PMP 2/3-5
    - IPP 2/6
    - JMP 2/7
    - Questions raised about validity of interoperability test in light of MIB changes. To be addressed in PMP session (Friday).
  - April 2,3,4
    - Do we need 3 days?
    - Probably, especially if P1394 group meets
  - Agree to move May meeting to San Diego since Feb. is in San Jose.
  - Agree to move Dec. 10-11 (LA) to Dec. 3-4 to avoid conflict with an IETF meeting.

1394 Printing Proposal

Minutes of the proposal to form a P1394 PWG working sub-group are included here, in the PWG minutes, since the sub-group is not official at this time. In general, the proposal to form a P1394 project was accepted.

Background

An exploratory meeting was held 12/6/97 with 70 people in attendance. Presentations were given on:

- 1394 Background
- System directions (Microsoft, Intel, Apple)

- Components directions (TI, Philips, Adaptec)
- Printing directions (Epson, Fujifilm, Serial Bus Protocol-2)
  - Fujifilm already developed printer (raw video data over isochronous channel)
  - Epson has working prototype
- Recommendation for joint (PWG and 1394 Trade Association) sponsorship

Discussion

- Copies of proposed 1394 printing protocol charter passed out by (Greg LeClair - Epson)
- Don't want to change the printing environment on the host system.
- 1394 has different capabilities than the standard parallel port.
  - Somewhat like a small network.
  - Multiple access to the device
- Actual scope of the charter still needs to be defined?

Review of 1394 Charter Proposal

- Likely subgroups to the PWG P1394 project.
  - Data delivery
    - Asynchronous Push or Fetch model
    - Isochronous data delivery
    - Link Layer
  - Standard data formats
    - For example, standard definition of video stream for 1394 isochronous channel.
- Review Goals and Milestones related to charter
  - Meet with PWG
  - P1394 project chairman makes reports to the 1394 TA
  - Goal to demonstrate 1394 connected printers at Fall Comdex

General Discussion

- Need overall project charter (draft provided later in this meeting)
- Then sub-charters for each piece. Make clear the work of each P1394 sub-group.
- Look at industry and examine what else is going on. Try not to redefine.
- Attend 1394 TA developer's conferences.
- Will the layer beneath this accommodate whatever P1394 develops for printing?
- Exposure to usage models, types of devices.
  - How are printers going to be used in this model?
  - Peer-to-Peer nature
  - Future home systems - 1394 as standard mechanism for networking in the home
    - Set-top boxes connected to network via 1394.
    - Printer is device on bus along with TV's, VCR's etc.
  - Serial Bus Protocol-2 (Fetch model) improves thruput.
    - Device fetches data from host memory space (DMA) at it's own rate.

        - 1394 is actually a memory bus.
    - Will there be multiple transports, TCP, etc?
- Push/Fetch.
    - Host still initiates the job.
    - Pointer to where data is in memory.
    - Otherwise, high speed host wastes time and bandwidth polling for device ready
    - Host can generate memory blocks and notify device via flow control.
    - If it's total video isochronous, then job has to be prepared ahead.
- Would like to bring Charter to TA next week.
    - Give status to TA and advise to create subgroups get feedback from other 1394 groups like Video
    - Small group work on Charter today? Yes.
        - About 5 participants.
- What is Charter?
    - Charter is to interact with PWG to define printing over 1394.
    - It will be a Project of the PWG. - decision.
        - There is already a P1394 category on the reflector
        - Use your topic headings carefully to allow e-mail filtering within P1394
    - PWG P1394 chartered project structure
        - Chair
            - Move it forward fast
            - Handle press and outside questions
            - Tentative Chair - Greg LeClair (Epson)
        - Secretary
        - Editor
- 1394 initial subgroup went off 9:40 to work on charter.

JMP 10:00 to 12:45

JMP Resolutions (See JMP minutes for details and resolutions that I might have missed, here)

- ***For a job printing on a particular printer, mgt. app needs to know hrDeviceIndex for the printer handling that job to determine status of that job.***
- ***Measure jobs in Kbytes to avoid needing a 64 bit counter***
- ***JMP does want to address the issue of traps and job event notification***
- ***JMP will keep the Resources group***
- ***Configuration "2B" goes back in the JMP spec, but needs work and will be addresses at a lower priority - not holding up the phase-1 work.***
- ***Remove jmClientID, jmJobUpStreamID, jmJobCurrentID and jmJobDownstreanID***
- ***Add jmJobIdName, jmJobIdNumber***
- ***We agreed, if doing job MIB in printer then printer should do printer MIB***

and so should do hrMIB

- ***We agreed if doing job MIB in server no need to do printer or hrMIB.***
- ***Not doing Job MIF at this time***
- See also “Table of Issues” near the end of the JMP minutes

JMP Actions (see JMP minutes for details and actions I might have missed, here.)

- ***Paragraph telling how to estimate least busy printer - Tom Hastings***
- ***Send completed job table management alternatives the e-mail reflector - Tom Hastings***
- ***Resources that are requested/used need to be separated or clarified during the line-by-line review.***
- ***Clarify why objects have been grouped the way they have - Tom Hastings***
- ***Review Resources Group for proposed mandatory list of objects - All***
- ***Need method for determining which printer was assigned the job for each existing print subsystem - Unassigned***
- ***Poll all private job MIB implementations and converge objects and methods***
  - Tom will make a table with all JMP objects and anyone interested can edit in their comments by 1/17.
- ***Determine whether jmSourceChannelInformation or similar object is needed for Server - Tom Hastings***

Lunch

JMP 2:00 to 3:30

P1394 Charter follow-up

- Brian Batchelder (HP) and Greg LeClair (Epson) presenting
- Draft Charter - handed out see - charter as posted
- PWG group will be focal point
- Chart shows 1394 PWG as joint between PWG and 1394 TA
- Looks basically like a project under PWG.
- Can have subgroups itself
- Schedule - see posting.
- Archive of initial presentations are currently on Lexmark server. Lloyd will check with Jay and move them to PWG.
- ***None opposed to formation of the P1394 group.***
- First meeting will select chair etc. assuming TA buys off on it. Officers will be open to all willing participants and voted on at Feb. meeting.

JMP 3:55 to 5:45

Adjourn for Wednesday

Thursday

Internet Printing 8:30 to Noon (see separate IPP minutes)

Lunch

Breakout into 2 groups 1:30 to 4:00

- Model and Protocols
- Scenarios

IPP back to one group 4:00 to 5:30

- IPP, JMP and Printer MIB should be coordinated in that they are all functions of the PWG and chartered by the IETF. This does not mean that IPP solutions need to have SNMP elements, but the sets of attributes defined should not be disparate.
- Review IPP Charter

Friday

Printer MIB/MIF Project 0830 - 11:50

For PMP Resolutions and Actions, see PMP minutes.

LUNCH Noon - 1:10

PMP 1:10 - 3:00

Adjourn January 1997 PWG meeting.