DMTF Printer Management Working Group
Toronto, Ontario, Canada
July 26, 1994 - July 27, 1994

Attendees:

Joel Gyllenskog - Hewlett-Packard
Steve Zilles - Adobe
Ron Smith - TI
Don Wright - Lexmark
Stan McConnell - Xerox
Charles Kimber - DataProducts
Michael Bringmann - QMS
Randy Turner - QMS
Gaylord Miyata - Underscore
Steve Waldbusser - CMU (Wednesday PM only)

The meeting began at 9:15 AM.

The group will draft a press release for release indicating that the group has completed its work on the MIB.

The purpose of this meeting was to insure that the MIF is aligned with the IETF MIB. In addition to some MIF-specific issues, there were also a number of recommendations for resolutions to open MIB issues. These will be forwarded to the working group.

Brief discussion on:

Trademarks need to be clarified (Issue 106)
Participant list needs to be updated (Issue 107)
New text for appendix B & C needs to be inserted (Issue 94)

Gaylord Miyata questioned the use of RFC 1573 (Evolution of the Interfaces Group of MIB-II). We will recommend referencing 1573 even though we don't need any of the V2 SMI unique constructs. (Issue 108) **** Hold for Waldbusser (Final result was recommending using RFC 1213)

The MIB needs to use the correct sizes of iso-c3/c4/c5/c6.(Issue 109) Correct sizes are:

iso-c0 917mm X 1297mm
iso-c1 648mm X 917mm
iso-c2 458mm X 648mm

iso-c3 324mm X 458mm
iso-c4 229mm X 324mm
iso-c5 162mm X 229mm
iso-c6 114mm X 162mm
iso-c7 81mm X 114mm
iso-c8 57mm X 81mm

Discussion on the issue of adding time and life count stamps on alerts. (Issue 110) Many arguments were made for and against the inclusion of these additional objects in the alert table. It was pointed out that the life counter information is already available in the printer because the life counter is a mandatory object. The group could not reach a consensus so the following votes were taken:

1) Should time (if included) be clock ticks or real time: ticks (6 to 2)
2) Should we include time at all: yes (8 to 0)
3) Should life count be included: no (3 to 1)
4) Should the objects be mandatory or optional: optional (4 to 1)

Resolved, the group recommends time in clock ticks (from SysUpTime at the time of the alert) will be an optional object augmenting the alerts table.

What do we do about the possibility of having different units of measure on different paths in the printer? (Issue 111) Decision was to recommend moving prtMediaPathMaxSpeedPrintUnit and prtMediaPathMediaSizeUnit into the Media Path Table.

CaPSL and LIPS should be added as interpreters. (Issue 112)

Should we add an automatic tray switching object (Issue 113)? The group felt that a single object does not fully address the complexity of the problem. Given the current status of the MIB, the group felt that adding a partial solution was not the right thing to do at this time.

Should we add a "standby" state which implies that warming up must occur before the printer can print? (Issue 114) **** Hold for Steve W.'s consultation

Textual objects which are not specifically stated to be localized should not be localized. These objects should be returned in ASCII (Issue 24).

Adjourned for lunch at 12:50; resumed at 2:30.

Character sets should be an enum of type 3 which is a superset of all the input from various people (Issue 88).

Martin Rivers of Lexmark questions:
1) Why no general printer descriptions? -- covered in MIB II
2) Why no memory objects? -- covered in Host Resources MIB

3) Why isn't prtOutputDim variable called prtOuputDimUnit (like the prtInputDimUnit.)? OK in the current drafts.
4) Why do both CoverClosed and CoverOpen appear? -- Either could be an error or state change that should be reported.

MIB should add EXCL as a language (per Talaris request)
MIB should add XES and Line Conditioned Data Stream as language (per Xerox)

What is the difference between language types 14 & 30? **** Stan will report on Wednesday. (Issue 115)

Comments from Steve Zilles:
1. The group discussed miscellaneous typo/consistency issues as per Steve Zilles' e-mail notes. Recommended changes documented to Waldbusser.
2. Should delete sheets(8) from MediaUnit on July 5th MIB, page 30-31.
3. Should remove instances of "EntStatus" and change to "SubUnitStatus".

Comments from Tom Hastings:
1. Should add a comment before prtGeneral indicating it is mandatory.
2. Is responsible party group optional (Issue 116) **** Waldbusser to add
3. Should mark System Resources group as mandatory.
4. Should change prtOutputCapacity to prtOutputCapacityUnit and make read-only (Issue 117)
5. - 8. We recommend changing the following to Read-write:
   prtMarkerSuppliesMaxCapacity
   prtMarkerSuppliesLevel
   We recommend changing the following to Read-only:
   prtMarkerSuppliesSupplyUnit (and in fact other ...SupplyUnit are r/o) (Issue 119)
   prtOutputDimUnit (and in fact other ...DimUnit are read-only) (Issue 118)
9. prtInputMediaDimFeedDirDeclared and prtInputMediaDimXfeedDirDeclared should have -1 mean unknown.
10 . Issue of need for reverse portrait and reverse landscape was addressed at the San Jose meeting and was removed.
11. Typo on prtInterpreterXFeedAddressability is in units of 10000 not 1000.
12. Should delete GB and CA from examples for prtLocalizationLanguage.
13. Should some/all of the prtXxxIndex's have a range of 65535? **** Waldbusser

Rick Landau Issues:

1. Issues of persistence - (Issue 119) Recommend adding a statement that the persistence of any object across power cycles is manufacturer determined. If any object is to persist, the prtMarkerLifeCount should persist.
2. Should there be a "current" object for each "default" object? No
3. Why does the MIB use "current" for some objects and "default" for others? There is a slight difference in meaning for "default" versus "current".

"Default" has a historical printer significance going back to the operator panel and implies what action will be taken if there is nothing in the job datastream to change it. - No change will be made.

4. What about fallback/rollback for changes that fail (Issue 127)? **** Waldbusser
5. Question about RFC 1573, SNMP V2, etc. (Issue 108) **** Waldbusser

Rick Landau specific questions:

1. What resets prtGeneralConfigChanges? What are configuration changes? Generally a configuration change is a change in the capabilities of the printer. For example, the addition of more output bins, the downloading of another interpreter, or the change of input media (size, name, type, etc.) are all configuration changes.
2. prtGeneralCurrentLocalization - is this persistent? Manufacturer determined.
3. prtGeneralReset actions are manufacturer determined.

Adjourned for the evening at 5:55pm.
Meeting resumed at 9:10AM on Wednesday.

The MIB should clarify the names of the prtGeneralReset enums to explain that powerCycleReset is a cold start, resetToNVRAM is a warm start, and resetToFactoryDefaults restores NVRAM to it factory default conditions.

4. prtInputDefaultIndex's persistency is manufacturer determined.
5. prtInputMaxCapacity uses -1 to indicate to unlimited such as in the case of a roll feed printer with no restriction on the size of the roll. -2 means the printer has restrictions but doesn't know what it is.
6. prtOutputDefaultIndex's persistence is manufacturer determined.
7. prtMarkerDefaultIndex's persistence is manufacturer determined.
8. --- deleted ---
9. prtMarkerColorantMarkerIndex points to the marker which uses this colorant. This value is set by the printer and cannot be changed. This object and prtMarkerColorantValue cannot be written, i.e. the printer must know this information. Ron Smith will propose a picture to help with understanding.
10. prtMediaPathDefaultIndex's persistence is manufacturer determined.
11. MIB needs to correct enum for prtChannelState --> 3=print data accepted, 4=no data accepted.
12. If an interpreter returns data on any channel then the value of TwoWay would be "yes."
13. This console is any type of console under the control of the printer. It could be either a terminal or a single line LCD display. Priorities, persistence, and length of display are all manufacturer specific. Writing a zero length string clears the line. Persistence is manufacturer determined.
14. MIB needs to make prtConsoleOnTime and prtConsoleOffTime read-write. (Issue 120)
15. Add time to the alert table ---- Closed, Issue 110

16. How do we classify errors in the system controller? Use AlertGroup equal to 1 for system controller errors.
--- OID mapping and alert table (Issue 121). **** Waldbusser
17. Issue 20 was revisited by issue 96 and the comments are correct within the MIB.
18. prtChannelCurrentJobCntlLangIndex's and prtChannelDefaultPageDescLangIndex's are manufacturer defined.
19. "On Request" means the printer has the capability to do something but operator action is required. This is a DPA (ISO10175) concept.
20. What is an example of a noncritical error for Media Path or Channel? There are a number of things that could cause this error. For example excessive bad packets on a channel could be a noncritical error.
21. Difference between "EntStatus" and "SubUnitStatus"? There is no difference between these. "EntStatus" is the old terminology and has been replaced by "SubUnitStatus"
22. Typo corrections were reviewed and forwarded to Waldbusser.

More Zilles Items:

1. Ordering and alert codes. Should we arrange and leave gaps in the alert codes list? (Issue 122) **** Waldbusser
2. Recommend replacing InputMediaName text as suggested by Steve Z.
3. Recommend changing InputMediaType comment.
4. What is the best name for what is now prtMarkerSuppliesColorantIndex? (issue 123)
5. Fix of typos in prtMarkerSouth, West, and East forwarded to Waldbusser.
6. Enumerations of prtMediaPathMaxSpeedPrintUnit in the MIB need to match the PRTSPEC; they are currently in error.
7. Change definition of -1 in prtMediaPathMaxMediaFeedDir to mean "unlimited" rather than "infinite". Forwarded to Waldbusser.
8. Changes in the prtInterpreterLangFamily recommended:
   - langIso6429 to langISO6429
   - langIMPRESS to langimPress
9. Change enumeration for prtInterpreterDefaultOrientation to
   1 Other
   2 (Reserved)
   3 Portrait
   4 Landscape
   as per the PRTSPEC.
10. Typos in prtAlertIndex description and prtChannelType description were discussed with recommended changes forwarded to Waldbusser.

Issues list should be removed from the MIB.

Is there a way to post publicly additional documents relating to the working group on an IETF controlled ftp servers? **** Waldbusser

Break for lunch at 12:15.
Resumed at 1:35.

prtGeneralReset should be a mandatory object. All printers must support at least implement enum(5). (Issue 124) This is an error in the documentation.

Steve Waldbusser joined the group and we began reviewing the issues held for his consultation.

Issue 121: We recommend adjusting the OIDs and Alert Group Codes to correspond.
Issue 122: We recommend renumbering the alert codes to be grouped. Common alerts like jams will be enums less than 100. Group (Input, output, etc.) enums will be in groups of 100 e.g. prtGeneral will be 400 to 499, etc.
Issue 123: We recommend leaving the names of the pointers as is.
Issue 108: We recommend referencing RFC1213 not RFC1573.
Issue 114: We will recommend changes to the appropriate objects in the host resources MIB to enable representation of a standby state.

FYI: The host resources mib mailing list is hostmib-request@andrew.cmu.edu.

Issue 126: Which INTEGER32s should be sub-ranged to 65535? The group went through the MIB and note those that we think should/shouldn't be cap'ed.
Rollback/Fallback (Issue 127): These issues are addressed in the basic SNMP definition. Specific implementations on printers will have to do their best to meet the SNMP requirements. Further discussion will occur on the mailing list.
Issue 110: Alert table time stamping was discussed again. It was the again decided to recommend leaving this as an optional object.

The group discussed potential future interoperability testing.

Joel will not be at the August meeting. The group decided that Harry Lewis should lead that meeting to further discuss the MIF.

The September meeting was set for 9/19 - 9/20 in Denver. We will ask Harry Lewis to handle the reservations. The October meeting is tentatively set for New England, no date set.

The meeting adjourned at 5:30 PM.