1394PWG Meeting Minutes
21-22 January 1999
Maui Marriott, Maui HI

Chair: **Greg LeClair**   **Epson**

Attendance:
Secretary 1:   Larry Stein   Warp Nine Engineering
Secretary 2:   Lee Farrell   Canon
Editor: Alan Berkema   HP – Roseville

Brian Batchelder HP - Vancouver
Greg Shue   HP – Rancho Bernardo
Laurie Lasslo   HP – Rancho Bernardo
Scott Bonar   HP - Boise
Don Wright   Lexmark
Jerry Thrasher   Lexmark
Nob Shinoda   Canon
Akihiro Shimura Canon
Osamu Hirata   Canon
Ats Nakamura   Canon
Shigeru Ueda   Canon
Kazuhiko Shinozuka Epson
Mike Fenelon   Microsoft
Kaoru Yamagishi Komatsu Ltd.
Frank Zhao   Panasonic
Peter Johansson Congruent Software
Henrik Holst   I-Data
Eric Random   Peerless

Agenda:

    1. Introductions
           Agenda Review
    2. Old Business
           Status
           Group Issues list
           Model
           Target to Host
           Command Queues
           Command Set
           ConfigROM Document
           Profile Document
    5. Document Format
    6. New Business
           1. CSR Message Request/Response
           2.
           3.
    7. Next Steps
           Schedule: Meetings, Tasks

Meeting was called to order at 8:45AM.
1- Introductions

2- Review of Profile Document - Alan Berkema

Version 4.5 of the command set document was posted to the web site last week.
Review of changes. Please refer to the updated document.
Issue raised regarding the assignment of queue numbers.

Transport_Capabilites – Remove the Capabilities and Reply command.
Remove Mode in the I2T_Connect.
Clarify that determining the Service_ID string is beyond the scope of this standard.
There may be an Informative annex that demonstrates how to do this.

(Larry was out for 15 minutes)
break

Disconnect – Commands and Replies shall go on the same queue.

Peter provided a review of an Informative annex that he has been working on. This document suggests a different encoding for the commands (actions). Per Brian, these boil down to:
1- New encoding for actions using existing and new bits in the ORB and redefined action field
2- A single, mixed management queue
3- ORB status and unsolicited status can be used by the target to request T2I control ORBs
It was determined that there is a consensus that we should move in this direction with the document.

ACTION: Alan will await changes from Peter and roll them into the Model and Command set document before Miami.

3. Config ROM
Greg provided an overview of the Config ROM description. File CFGROM02b.pdf
General opinion was the document was moving in the right direction. Peter suggested not repeating what is in other specs unless we are adding or changing something. Greg asked if the two examples were adequate. Opinion was that we should include samples for concrete devices (printer, scanner, printer / scanner MFP and an SBP-2 / DPP printer).

Service Names –
Greg LeClair has a proposal for the structure of the Service Keys. We will reuse the Keyword Leaf for holding the service names supported by the node.

ACTION: Greg LeClair recorded the changes and will roll them into a new version.

ACTION: Greg LeClair noted that we need to ask p1212r to change the ASCII encoding for Keyword Leaf to uppercase characters to match IANA standard.

4. Profile – Alan
Alan has stripped out some of the old command stuff. He wants to roll in some of the concepts from the San Diego meeting and this meeting.

5. Document Format
See day two.

6. New Business
A. CSR Message Request/Response – Alan
Peer to Peer (Target originated communication)
2 levels: a) PC host to device (request/response)
b) Device to device ("Login to me")
There are some issues with Microsoft with this. Mike Fenelon has captured the concerns and will ask George to identify what issues he has with this.

B. End of data indicator

Do we have anyway to indicate the end of a data block or end of job?
HTTP sends chunks of data with varying lengths. Brian commented that HTTP sends a chunk with a zero length that indicates the end of that job or block.

Meeting adjourned at 4:30PM.

Second day
Meeting called to order at 8:45AM

Second day agenda:

        Graceful disconnect – Shimura-san
        Half close – Shimura-san
        Tag Bit
        Open Issues.
        Document Format – Greg

1. Model for graceful disconnect – Akihiro Shimura
Shimura-san made a presentation on some ideas on how the disconnect may work. This represented a concept he is still working on.
Please review presentation "GraceDsc.pdf"

The originator of a disconnect request places it on the queue that it controls. If the Target initiates the disconnect then it places the request on the T2I queue. If the Initiator initiates the request then it places it on the I2T queue.

It was determined that it is necessary to develop state diagrams for this item to better understand the issues.

ACTION: Peter partially agreed to do the state diagrams as it applies to his work in progress proposal.

2. Half Close Issue – Akihiro Shimura
Shimura-san made a presentation on how the half close works with other transports and how we should handle this. This is the case where one side will no longer receive but may send.
Please review presentation "HalfCls.pdf"

Greg Shue made the following motion:
"Half closed functionality will not be addressed in then transport command set and is beyond the scope of this standard."
Seconded by Brian Batchelder
Discussion
Vote: Peter made a motion to table this motion. Seconded by Mike Fenelon.
Discussion on table motion.
Reason is to wait until we have more information. Would like to see a mapping of an API to Winsock.
Need to justify a reason to have half closed in order to determine if we need to do implement it.
The opinion is that this can be done at a higher layer and therefore does not need to be addressed in this standard.
Vote to table: 12 yes, 1 no, 6 abstains
Gregs' motion is tabled until next meeting.

ACTION: Brian and Mike agreed to work on the Socket to Transport command set mapping to assist the group in understanding weaknesses in the current model and command set.

3- Tag Bit – Brian Batchelder
Presentation on how "out of band" data is handled in other transports.
Please review presentation "Tag_and_EOM_bits.pdf"
End of Message Indicator

Brian proposed three options for handling the end of message. His preferred method is to include an "EOM Indicator" with the last data packet or with a packet of zero length.
Greg L. proposed that we wait until we see the Winsock API mapping in order to better understand how this may effect the operation.

ACTION: Brian and Mike agreed to work on the Socket to Transport command set mapping to assist the group in understanding weaknesses in the current model and command set.

4- Open Action Items:
Greg has master list of issues.
> a) Half closed – Need proposal in order to work on this.
> b) Abort Task set (closed)
> c) Target Reset – Need to address. Greg L. will work with Mike Fenelon.
> d) Open Profile Issues
>> - Data packets vs. data string communication model (Winsock)
>> - Service discovery – Transport client command set information (?) (Toronto)
>> - Zero max T2I data size (closed since we removed the max T2I)
> e) Tag bit (Winsock) –
> f) Matched Request/Reply ORBs (San Diego) Closed. Use unsolicited status.
> g) Commands vs. Actions (San Diego) Peter will provide more on this.
> h) Disconnect (Maui). Closed
> i) Kill Queue – Closed. Became Abort Connection
> j) T2I Communications.
>> Closed. Will use Msg Request / Message Response. Needs to be rolled into the profile.
> k) Bridges – Is there anything we need to do about this? SBP2 will require
>> changes to work with bridges. There is nothing that can be done at
>> this point by this committee. 1394.1 must clarify and freeze bridge spec.
>> Must wait for ANSI to initiate the a bridge compatible "SBP-2 like"
>> project through T10.
>> Closed – Out of scope for version 1.0 of the standard.
> l) Result Codes. Brian suggested a new code "Invalid Service"
>> Closed. Included by "Unspecified Error" status.
> m) Keywords – Closed

5- Document Format – Greg
Group opinion was to keep Profile, Socket API, Model and Config ROM documents separate for the time being.

No other business.

Meeting adjourned.