1394PWG Meeting Minutes

1-2 March 1999

Biscayne Bay Marriott, Miami, Fl

Attendance:

Chair:	**Greg LeClair**	**Epson**
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
Akihiro Shimura	Canon
Osamu Hirata	Canon
Takashi Isoda	Canon
Fumio Nagasaka	Epson
Hideki Morozumi	Epson
Fumio Samitzu	Epson
Kazuhiko Shinozuka	Epson
Mike Fenelon	Microsoft
Peter Johanson	Congruent Software
Craig Whittle	Sharp

Agenda:

1- Introductions & Agenda Overview
2- Old Business
- Review previous meeting minutes (990121_minutes.pdf)
- Review and update open action items
- Ongoing work
  - Model and Command Set (pwgpr49.pdf)
  - Profile Document (pwgpro55.pdf)
  - Config ROM Section (cfgrom03a.pdf)

3- New Business
- Discussion on open issues
  - Disconnect presentation
    Batchelder
    Isoda
  - Sequence numbers
  - 1394 PWG OUI Usage Proposal
  - IDT_r01 document - Peter
  - Socket API issues (Brian)
  - SBP-2 Stack Assumptions (Peter)

- Other?

4- Meeting Close

The files referenced above can be found at the following URLs:
ftp://ftp.pwg.org/pub/pwg/p1394/mtg030199/pwgpr49.pdf
ftp://ftp.pwg.org/pub/pwg/p1394/mtg030199/pwgpro55.pdf
ftp://ftp.pwg.org/pub/pwg/p1394/mtg012199/990121_minutes.pdf
ftp://ftp.pwg.org/pub/pwg/p1394/mtg012199/cfgrom03a.pdf

Meeting was called to order at 8:35AM.

1- Introductions and Business

The meeting charge is $38.00 per day. The Marriott is not handling the meeting charge fee. Please write a check to Sandra Matts for the fee.

2- Agenda review

Maui meeting minutes accepted without change

3- Open Action Items

a) Half closed – Need proposal in order to work on this.
Tabled at last meeting.

b) Abort Task set
(closed)

c) Target Reset
Greg- still open

d) Open Profile Issues
- Data packets vs. data string communication model (Winsock)
- Service discovery – Transport client command set information (?) (Toronto)
Peter has provided a document IDT_R01.pdf
- Zero max T2I data size (closed since we removed the max T2I)
Closed

e) Tag bit (Winsock) –
Peter has provided a document IDT_R01.pdf

f) Matched Request/Reply ORBs (San Diego)
Closed. Use unsolicited status.

g) Commands vs. Actions (San Diego) Peter will provide more on this.
Peter has provided a document IDT_R01.pdf

h) Disconnect (Maui).
Closed

i) Kill Queue –
Closed. Became Abort Connection

j) T2I Communications.
Closed. 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. Must wait for ANSI to initiate the bridge 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

4- Review of Model and Command Set (pwgpr49.pdf)

- Update on definitions
- Modify drawing on page 5 showing queue to task relationship.

- Action Item: Should the target be responsible for checking the direction bit in ORBs that have a defined direction (I2T T2I mixed)?

- Action Item: How long is "reasonable" for an ORB in the command queue to be completed? A target should complete queue 0 tasks "quickly." Do we need to define what "quickly" means? Peter made a suggestion that we should define a timeout like the Management ORB timeout timer. This timer is in 500ms increments with a max of 125 seconds.
- Clarification on page 5 section 5, last sentence. Change to "neither the initiator or target shall place more than one ORB on Queue 0."
- Need a better diagram to show control information flow, section 5.1 and figure 15 of IDT_r01.pdf.
- Section 5.1, page 7: How does the Target communicate the size of the buffer it needs? Change it to read something like "…should be big enough to …"
- Define a new result code that indicates "need larger buffer, no action taken" or something to that effect.
- Residual is defined as the:
  (amount of buffer space available) - (amount of data transfer requested)
- Section 6.1.2 Return codes. Remove items:
  3 Invalid Control ORB
  4 Invalid Data ORB
  These errors can be covered by the Unspecified Error return status.
- Section 6.2.6 Remove result value:
  6 Unknown Service_id_string
- Section 6.3 Error Reporting Precedence
  1. SBP-2 errors
     2. ORB command dependent errors
     Change to :
  2. Completion Field
  3. Result Values
  4. Unknown or unspecified errors
- Section 7.1 and 7.1
  Disconnect is on a given queue so that it does not require a queue number.
  Abort goes on the command queue therefore it needs the queue number as a parameter.

5- Disconnect API - (Brian Batchelder)
Brian presented a clarification on how the Winsock 2 specification defines Disconnect. This is to provide a framework for how we discuss and define this concept within our specification.
Brian will post this presentation.

Takashi Isoda – Presentation on queue vs. connection Disconnect

A long discussion ensued to understand the issues involved in doing a Disconnect for uni-directional and bi-directional connections. Is the current approach broken? Refer to the above presentations for more information.

Discussion postponed until day 2

6- Sequence numbers (Peter Johansson)
Peter presented a proposal to use the Sequence Number field as a Signature field. This field would be used to identify and reconnect to an existing connection after a bus reset. This is outlined in the document IDT_r01.pdf.

Day 2 – Meeting called to order at 8:45

Continue with Sequence Number discussion:
Shimura-san has a presentation prepared. This proposal maintains a history log of ORB execution. Upon completion of an ORB (Status Response received) the history is discarded and completed.

Will come up with a different term for the field other than Sequence Number. Fred or Ethel has been suggested.

Action Item: Peter will prepare a document that incorporates Shimura-sans' history concept with Peter's signature proposal.

7- Profile Document (Alan Berkema)
Review of PWGPRO55.pdf.

Need to review chapter 8 drawings for the target and initiator and then merge this with the IDT_Rx and PWGPR49 documents.

Action Item: Alan and Peter will integrate these drawings and provide an update by the next meeting.

8- Config ROM
Greg is absent today. Please review this doc and provide any comments to Greg.

9- Review of IDT (Image Data Transfer) Document
Reviewed document IDT_r01.pdf and determined areas that needed clarification.

Action Item: Mike Fenelon will provide an example diagram for the use of the End_of_Message bit.

Action Item: Reset Connection. Greg Shue will take a stab at defining the scope of this control function.

Discussion on the T2I and I2T data size vs. buffer size. What the operation should be for datagram and stream operations. T bit and what "residual" data size will be indicated.

Action Item: Peter will take the concepts from this discussion and incorporate them into the document.

5- Disconnect API - (Continued from day 1)
Review the requirements for Disconnect: Efficient management of resource allocation and release.

I. Simplicity
II. Synchronization of the End of the Queue between T and I
III. Shutdown API support:
IIIA. Send: Notify receiver that there is no more data to be sent. Queue is shutdown
IIIB. Receive: May need to notify sender that Queue is shutdown
IIIC. Both: Do both Send and Receive
IV. Shutdown:
IVA. Send: Guaranteed data delivery
IVB. Receive: Data delivery not guaranteed
IVC. Both: see Send and Receive
V. Abort a blocked queue

Action Item: Need an implementation note that explains how to use the Notify Bit in both initiators and targets.

Brian will make a motion at the next meeting that will change the spec to require that the Notify Bit be always set to '1'. This is the two week notification.

An diagram was drawn for each of the shutdown process that indicated what should happen in each case of the shutdown. Peter will incorporate this into a document that describes these concepts.

Abort requirement:

10- Half-closed Motion – Tabled at last meeting
Peter made a motion to un-table this motion.
Greg Shue withdrew this motion.
Accepted

11. Meeting change for New Orleans
Since Alan and Peter will not be at the meeting we will only have a one day meeting. The 1394PWG will be on Tuesday. Monday will be an IEEE 1284.4 review.

The meeting schedule will then be:

Monday	1284.4 Review
Tuesday	1394PWG
Wednesday	PWG/IPP
Thursday	IPP
Friday	UPDF

Registration and Meeting Fee payment for the April meeting will be done online. This is to reduce the problems we've had with collecting the meeting fees at the meetings. Warp Nine Engineering will provide the services for this. A notice will be posted by March 5th.

Meeting adjourned at 5:00PM

-Larry Stein