EVLA Weekly Meeting Notes

Meeting Date	2007February07
Meeting Participants	
Penticton	Amy, Brent, Bruce, Dave DR, Dave F, Donna, Mark, Peter, Sonja, Zhang
Socorro	Bill, Bryan, Jon, Kevin, Mark, Martin, Michael
Jodrell Bank	Bryan, Dave, Roger, Simon

Software Focus

Sonja Vrcic
- Working on the GUI for the Station Board.
  - → Zoran and Dave are testing.
- The Real-time Data Display review went well.

Dave Del Rizzo
- Received some good suggestions re: Real-time Data Display.
  - → Implementing changes.

Kevin Ryan
- Supporting Baseline Board testing.
  - → Added capability re: voltage of correlator chips and chip settings.
- Working on CRC monitor data flow streaming.
  - → Recreated the problem in preparation for finding a solution.
  - → There is some disagreement whether or not there is any data loss.
  - → Bruce suggested dumping data to a file.
  - → Sonja suggested limiting the number of readers to prevent partial reports.
  - → Kevin thought there might be memory considerations.
  - → Bruce indicated that the MAHs have similar issues.
- Kevin would like to have access to DRAO from IPs other than those already assigned.

Action
  - → Brent to request Tony H. forward VPN details to Kevin.
- Kevin will be unavailable for the month of May.

Brent
- Before too long, the Baseline Board and, possibly, the Station Board will have built-in self-tests on power up.
  - → Self-tests will be needed before correlator chip testing starts.

Action
  - → Sonja to discuss software requirements for self-tests with the software team.

Bruce Rowen
- Made some changes re: Real-time Data flow.
  - → State counters were re-ordered from low to high.
- Worked on Quantizer State Data; replaced attributes.
- Updated the System voltages; correlator voltages are now available.
- Added features e.g. clock edge, selection, etc.

Martin Pokorny
- Finished the WireSharp plug-in; it is now functional.
  - → Tony H has installed the plug-in however it has not been tested.

- Working on the implementation of the Binary Data Format.
  - → Review meeting is scheduled for 1:00 pm (Penticton) / 2:00 pm (Socorro), Wednesday, February 14.
  - → We will use videoconferencing for this meeting with telephone back up.
  - → The review of the BDF Spec is to take place in AOC Rm 317 on Wed, 2/14 at 2PM MST. The IP address for the videoconf link is 146.88.16.8, the phone number for the conference phone is 505-835-7370, the phone number for the conventional handset phone is 505-835-7371. DRAO participants to meet in the small videoconferencing room.

Michael Rupen
- Expect to have the BDF Memo ready by tomorrow.

New Software Action Items

- Brent to request Tony H. forward VPN details to Kevin.
- Sonja to discuss software requirements for self-tests on power up with the software team.

Continuing Software Action Items

- If there is time, Kevin to investigate and insert a plotting feature for magnitude vs lag.
- Kevin to investigate the possible use of Skype for communicating with DRAO lab.
- Bruce to update Real Time Software RFS to describe delay tracking and other Station Board functionality.
- Dave DR and Bruce to discuss offline re: diagnostic display for different points on the Station Board.
- Dave F and Bruce to discuss single-wire GUIs.

Hardware Update

Brent Carlson
- EVLA face-to-face meeting is scheduled for April 16 and 17, 2007.
  - → Everyone to confirm availability with Donna by the end of the day, February 8, 2007.
  - → Focus to include: further prototype correlator development and testing; system installation (rack assembly) and software.
  - → Dave Brown will attend and will possibly be at DRAO for some time before the meeting dates.
- Socketing the BGAs turns out to be very difficult; this is confirmed by Morley at BMS.
  - → Brent has given up trying to socket on the Baseline Board. The Paragon elastomer doesn't work and the Fujipoly elastomer works sometimes but the wires don't line up correctly.
  - → The socket packaging house recently indicated that the tolerance has changed from 0.1mm to 0.2mm.
- Seven correlator chips were re-flowed onto the Baseline Board and thermal tested with a 6/7 success rate.
  - → 1 line to the LTA chip was dead; otherwise, the chip is generating data frames, will re-flow today and re-test.
- Station Board testing is going well.
- Working on the timing of the Ethernet chip to the LTA chip; looks okay, but it hasn't been tested.
- The plan is to not fully populate the mechanical board so will not be able to complete a full set of tests.
- Testing software is performing well...good job!
- Investigating fibre vs copper. Some concern re: 160 lines travelling into the backend in one packet.

	→ Will wait to purchase SFPs and cable.
Dave Fort	• Working with Zoran and Bruce on Station Board testing.
	• Making changes to the timing FPGA code; not tested yet.
Zhang Heng	• Working on the Baseline Board Test Plan.
	• Making some modifications to the Fanout Board as discussed with Brent.
	• Next task will be to make modifications to the Baseline Board then work on the RPMIB, then the Terminator Board.
	• Combining smaller boards could mean less documentation.
Brent	→ It may not be useful to combine boards at this time.
	→ Each board will require a user manual.
Mark Halman	• Breaker panel drawings are almost done; once complete then will require a review.
	• Worked on re-flowing the Baseline Board.
	→ Got the re-work machine going.
	→ Ran into a malfunction – swapped relays and now it works fine. Might want to order a few spare relays.
Action	→ Mark to forward log in and password for the re-work machine to Amy.
	• Almost finished the drawings for the new Delay Module.
	• Moved the freezer into the lab.

Project Management

Amy Fink	• Amy has not received word re: correlator chip delivery schedule.
	• Inventory is done.
	→ Inventories and sign up sheets are in each cabinet.
	→ Inventories are posted on the WIDAR website in the Management section.
	• Received 9 new BMS invoices: they appear to be correct! The credit for double payment was included.
	• Waiting for Mark's drawing of the Delay Module then will get the manufacturer's package together and issue a work order.
	• Re-did the spending estimates for this year: gave back $265K.
	→ New deadline for estimates is February 9, not March 9 as initially advertised.
	• Both Peter and Tom will be absent in March.
	→ Transferring signing authority to Sean is underway.
Simon Garrington	• Simon is in agreement that it is not necessary to have a telecon this month.
	→ The next scheduled eMERLIN telecon is for 0900 (DRAO) / 1700 (JB), Friday March 9, 2007.