

## **Data Products Meeting, Wednesday, 4/5/2006, Socorro, NM**

By the "Data Products" meeting of Wed, 4/5, I am referring to the meeting that took place on Wed, 4/5/2006, in the Upper Conference Room of the AOC, starting at 10:30AM.

The primary subject under discussion was the data products and data formats needed to support the Real Time Data Display (RTDD) that is being written by Dave Del Rizzo. A substantial secondary topic was the data products and data formats for the data that is needed or is to be produced during OTS testing of the prototype correlator.

We took the beginning of July 2006 as the date by which that portion of the RTDD needed to support prototype testing must be ready. Given the % of his time that Dave can work on the RTDD, and the current state of the RTDD, we decided to shoot for April 21, 2006 as the date by which all data product and data format issues relating to the use of the RTDD for support of prototype board testing must be resolved.

### **Correlator Backend**

Martin Pokony is to address the following issues:

1. With reference to Appendix IV: Correlator Backend (CBE) Requirements, from the CorrChip Proto Verif Matrix, A25082N0005, Rev: Prelim Draft:
  - 1.1 The formats outlined on p 27 (the second page) of that Appendix for i) the saving of raw lag frames to ASCII files before CBE integration, and ii) saving lag frame sets to ASCII files after CBE integration must be defined in sufficient detail to support coding. The examples given in figures 9-1 and 9-2 are not sufficiently detailed to support coding. A written spec is needed that includes not only a definition of the formats of the files but also the data source(s). We assume that that data source(es) is the lag frame header and body sent from the baseline board, but this fact must be confirmed. We accept the fact that the raw lag frames and the lag frame sets will use the special format requested by Brent in the above referenced appendix.
  - 2.2 We would like confirmation that items 1, 2, and 3 of Appendix IV - the display of Real & Imaginary vs lags, the display of Amplitude vs lags, and the display of Amplitude and Phase vs frequency for a lag set are not required for prototype board testing. Martin will also be responsible for the eventual resolution of the format in which these items will be written for use by the RTDD.
2. It must be confirmed that the CBE must be able to write both lag frames and frequency spectra, and that this capability is needed to support prototype testing. The format in which this data must be saved must be specified by 4/21/2006.

### **Station Board Data Products**

After a fair amount of toing and froing over what is to be saved, an examination of lists of items to be saved from 3 different sources, discussions of formats for the data, etc, the following seemed to have been agreed upon:

1. Bruce Rowen and Sonja Vrcic will supply a definitive list of the Station Board data products that are to be saved to Bryan Butler. An attempt will be made to include estimates of data volume and data rate. Rich Moeser will distribute a copy of the schema for EVLA monitor data to the appropriate individuals. Bryan will review the list and indicate which items are parts of the SDM (Science Data Model), and which are to be treated as monitor data. All of this work is to be completed by Friday, 4/14.
2. If possible, the format for EVLA monitor data is to be expanded to enable inclusion of those Station Board data products that are not to be included in the SDM. If not possible, then an

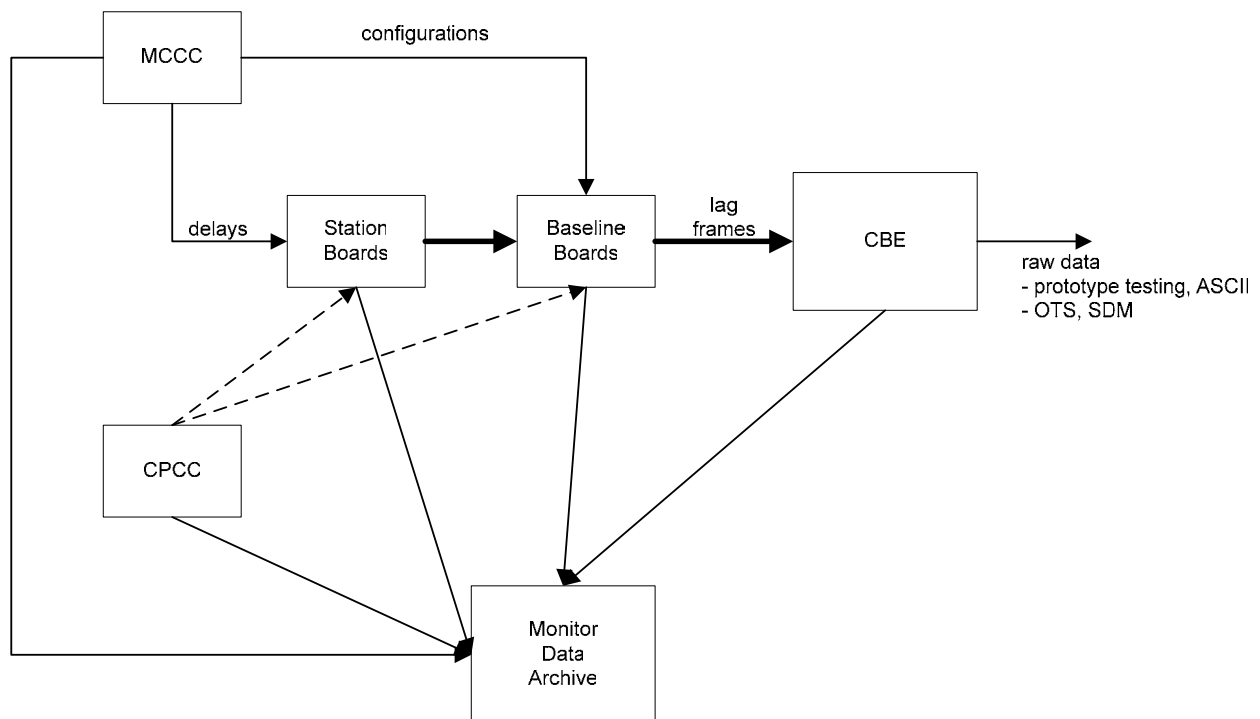
appropriate data format or formats are to be defined for these items. This expansion of the monitor data format is to be done in such a manner as not to require a modification of the monitor data format used by the EVLA MIBs or any modification of EVLA MIB code.

3. For those items designated as included in the SDM it must be decided if i) it is possible to write them in SDM format in time to support prototype board testing, or ii) if not, then an alternative format or formats must be specified. The specification of the format(s) for the SDM items must be completed by 4/21. By the conclusion of the meeting, it seemed likely that it will not be possible to use the SDM format for prototype testing, but that likelihood needs to be reviewed and confirmed or revised. If the SDM items cannot be written in SDM format, then use of the monitor data format would be desirable, if possible.

### Other Issues

1. Given that there will be no monitor data archive in Penticton, exactly what these data products will be written to, during prototype board testing and during prototype correlator checkout may have been discussed, but it did not find it's way into my notes.
2. Same issue applies to lag frames & frequency spectra. To what/where, exactly, will they be written?
3. For OTS Testing, we would like to write Station Board and CBE data products in the SDM format. This capability requires DCAF software ready in time for OTS Testing.

Data Flows, prototype testing



Data Flows, OTS Testing, model server not shown

