

Output Formats

Part I

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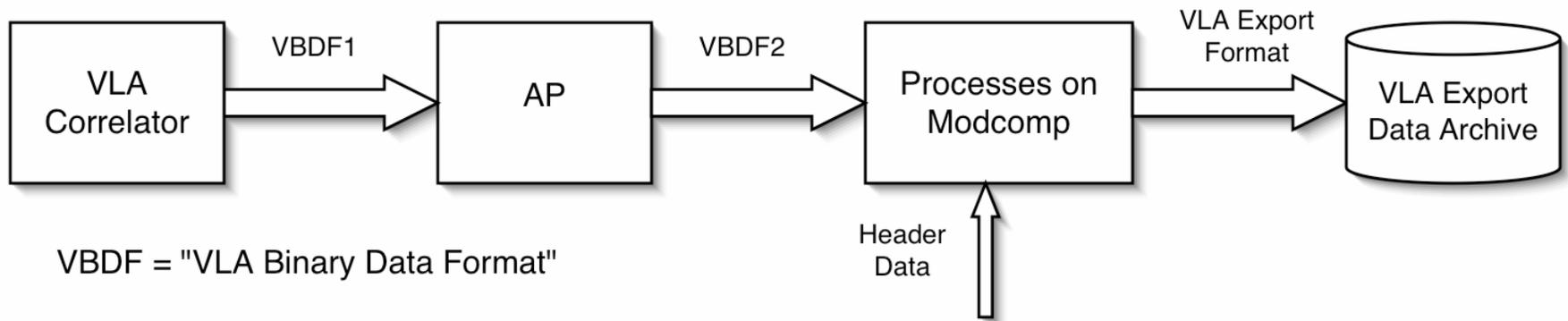
Overview

- 2 types of data:
 - **Monitor data** - of interest to engineers and system testers; stored in the “Monitor Database”
 - **Science data** - what’s interesting to astronomers, which comes in two flavors:
 - What fits in the definition of the “Science Data Model”, e.g., correlation products
 - What doesn’t, e.g., “radar mode” output (all of this comes from the Station Boards or Phasing Boards)

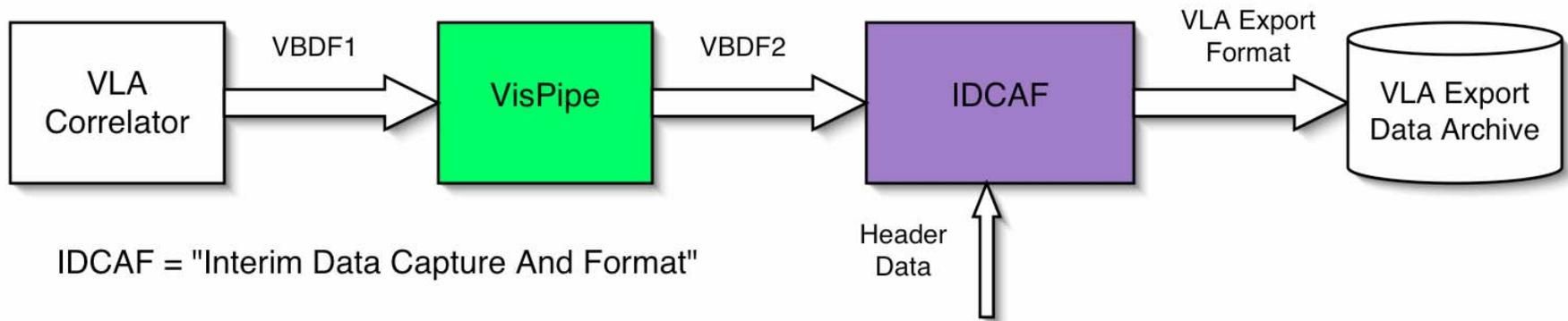
Science Data Overview

- 4 phases:
 - Modcomp; VLA correlator
 - Post-Modcomp; VLA correlator
 - Prototype WIDAR
 - Production WIDAR

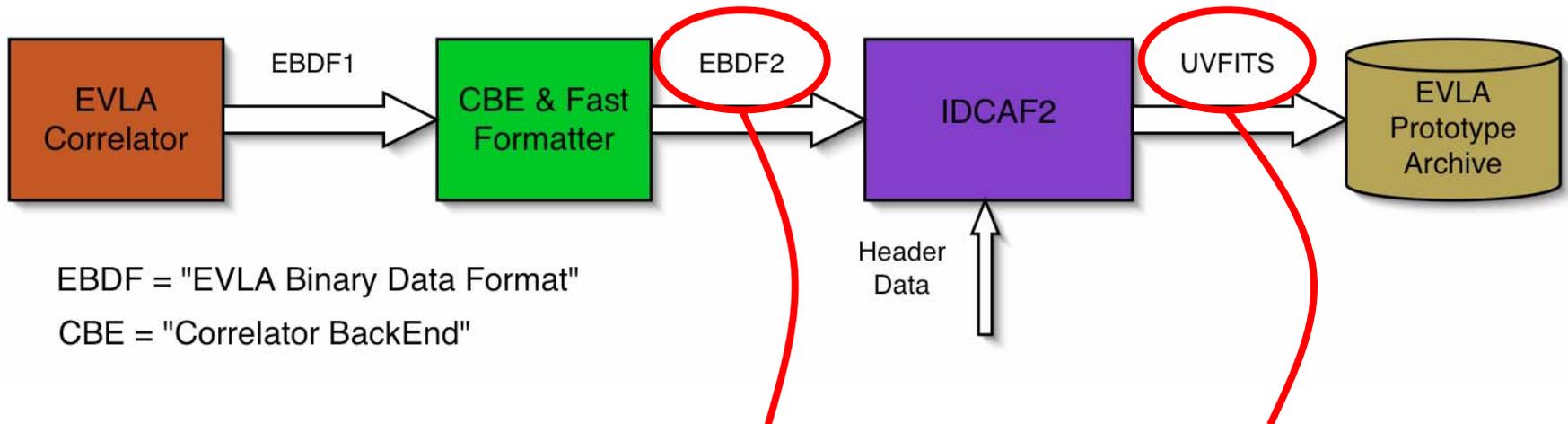
Modcomp; VLA correlator



Post Modcomp; VLA correlator



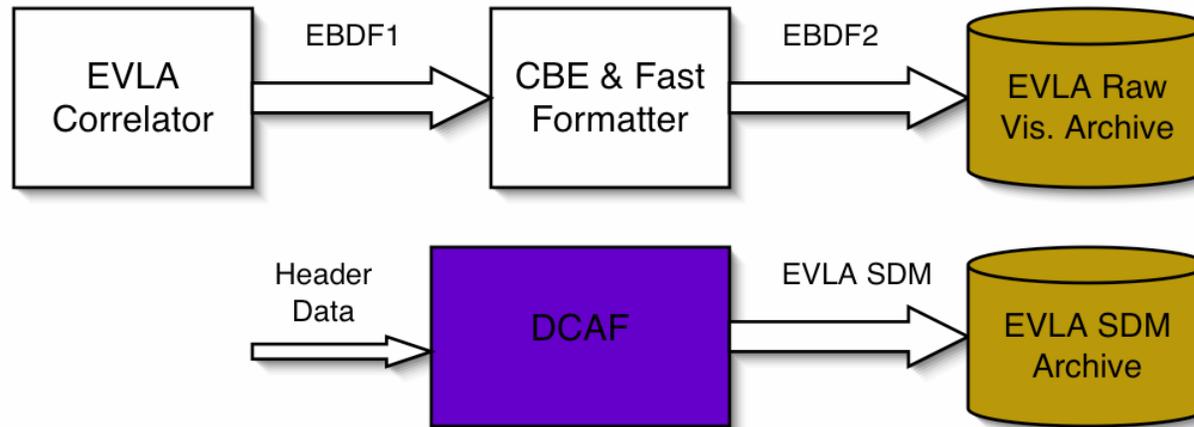
Prototype WIDAR



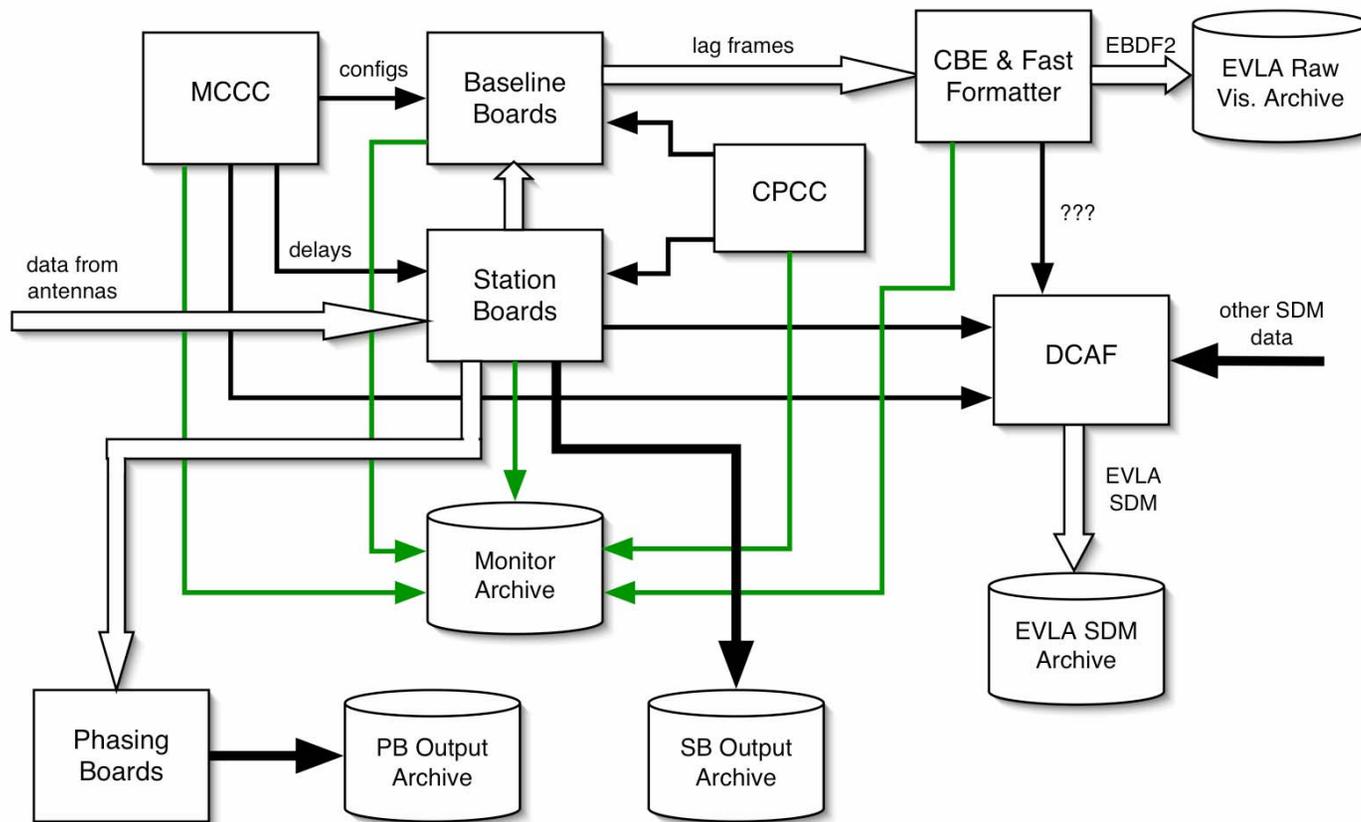
This is the
final EBDf

Is this OK?

Production WIDAR



Production WIDAR - Detailed



Needed Software

- VisPipe (Modcomp retirement)
- IDCAF (Modcomp retirement)
- CBE (ASCII output - PTB, PTC h/w)
- CMIB on SBs and PBs (PTC h/w or OTS?)
- IDCAF2 (PTC OTS)
- IAAT (PTC OTS)
- AIPS (PTC OTS)
- CASA (either PTC OTS or Production WIDAR)
- CBE (EBDF output - PTC OTS)
- DCAF (Production WIDAR)
- AAT (Production WIDAR)

Needed Software, Timeline

- PTB tests - now:
 - CBE (ASCII output)
- Modcomp retirement - June 2007:
 - VisPipe
 - IDCAF
- Prototype Correlator hardware tests - January 2008:
 - CMIBs on SBs and PBs for non-SDM data (and s/w to access it)
- Prototype Correlator OTS tests - April 2008 (?):
 - IDCAF2 or DCAF
 - IAAT (reads either UVFITS or SDM, depending on above)
 - AIPS
 - CASA (only if full DCAF used)
 - CBE (EBDF output)
- Production WIDAR - January 2009 (?):
 - DCAF (if not used for PTC)
 - CASA (if DCAF not used for PTC)
 - AAT (SDM access version)

Questions

- Can we skip writing UVFITS and go right to production version for the prototype?
- What is the final form of the EVLA BDF and how does it differ from ALMA?
- What is the final form of the EVLA SDM, and how does it differ from ALMA?
- What is the format and destination for non-BDF and non-SDM data - Monitor Database; SB Database; PB Database (or can these all be the same?) and when do we need these?
- Does WIDAR have its own Monitor Database, and if so, are the records in it the same format as the other?
- Do the CMIBs and other processes communicate directly with the Monitor Database, or through the VCI (residing on the MCCC)?
- Do CMIBs and other processes communicate directly with DCAF, or through the VCI (residing on the MCCC)?
- For production WIDAR, do CPCC, PBs, and CBE/FF need a connection to DCAF?
- How much (if any) of CBE, FF, and DCAF software can be borrowed from ALMA?