



XTRP FPGA loading

- Currently all FPGAs are loaded during Partition
 - always loaded
 - file names stored in hardware database
- Plan to load FPGAs during Coldstart
 - load if not loaded (after power-up)
 - version # incorrect (Hardware Database)
- Need to add entries in Hardware Database for Two Track Board



XTRP Ram Loading

- Currently Data Board Rams are loaded during Coldstart
 - reloaded every coldstart
 - only verified by readback if requested
 - static parameters stored in Hardware Database
 - trigger parameters provided by Trigger Database
- Plan is to implement checksums
 - reload only if needed (new trigger table)
 - initially calculate maps and checksums in crate
 - eventually store checksums in trigger db - requires code to generate maps/checksums with trigger table
 - verify maps each time reloaded



XTRP Two Track Board

- Entire Two Track Initialization is currently hard coded in Partition
 - Code Rams loaded from files (static)
 - Trigger Rams loaded from files generated offline
 - Not verified
- Plan to move this back to Coldstart
 - Store Code Ram files in Hardware Database
 - generate Trigger Rams in crate from Trigger Database
 - use checksums to determine whether to load Rams
 - Verify each loaded Ram via readback



Other Issues

- Error Reporting
 - Currently very little error reporting in code
 - Need to implement Fatal Errors and Error Logging - FPGAs & Rams failing to load
- Masking Errors
 - Can mask individual Rams (segments)
 - Can mask L1 outputs (muon & cal) for entire board - 2 wedges
 - Performed via Hardware Database
 - Would like an interface which queries the hwdb and provides a list of what is masked for run #