XTRP Update

Status of Maps:

- CMU, CMX, IMU, Cal maps exist and have since before the commissioning run.
- Maps are generated by code running on MVME processor
  - we specify thresholds, fudge factors
  - maps are calculated and loaded into Data Boards
- Specifically generated "conservative" maps that have larger $\delta\phi$ windows than true maps.
  - At low luminosity, rather have too many matches than too few
  - can tighten maps at any time
- Performed independent "map check" before commish run
- Infrastructure for Track Trigger maps exist. Actual maps do not.

Data board status

Data board #	status	Via test/repair	comments
2	Works	N/A	Prototype run, no bad vias In commish run
3	Works	N/A	Prototype run, no bad vias In commish run
4	Works	In progress (FNAL)	Partial test and repair
5		In progress (UIUC)	First pass complete
6		In progress (FNAL)	First pass complete
7		In progress (UIUC)	Test complete, now plugging
8	Works		Partial test and repair
9		In progress (UIUC)	Test complete, now plugging
10	Works		Partial test and repair
11	Works	Complete (UIUC)	
12	Works		Very few bad vias
13		In progress (FNAL)	
14		In progress (FNAL)	
15	Works	In progress (FNAL)	
16		In progress (FNAL)	First pass complete

Summary:

- 8 boards work (2,3,4,8,10,11,12,15); 3 more (5,6,16) very soon, remaining 4 (7,9,13,14) to follow
- 9 boards in test/repair right now (6 first pass, 3 second pass). After we have a full working crate, want to cycle other 4 (working) boards through test and repair.

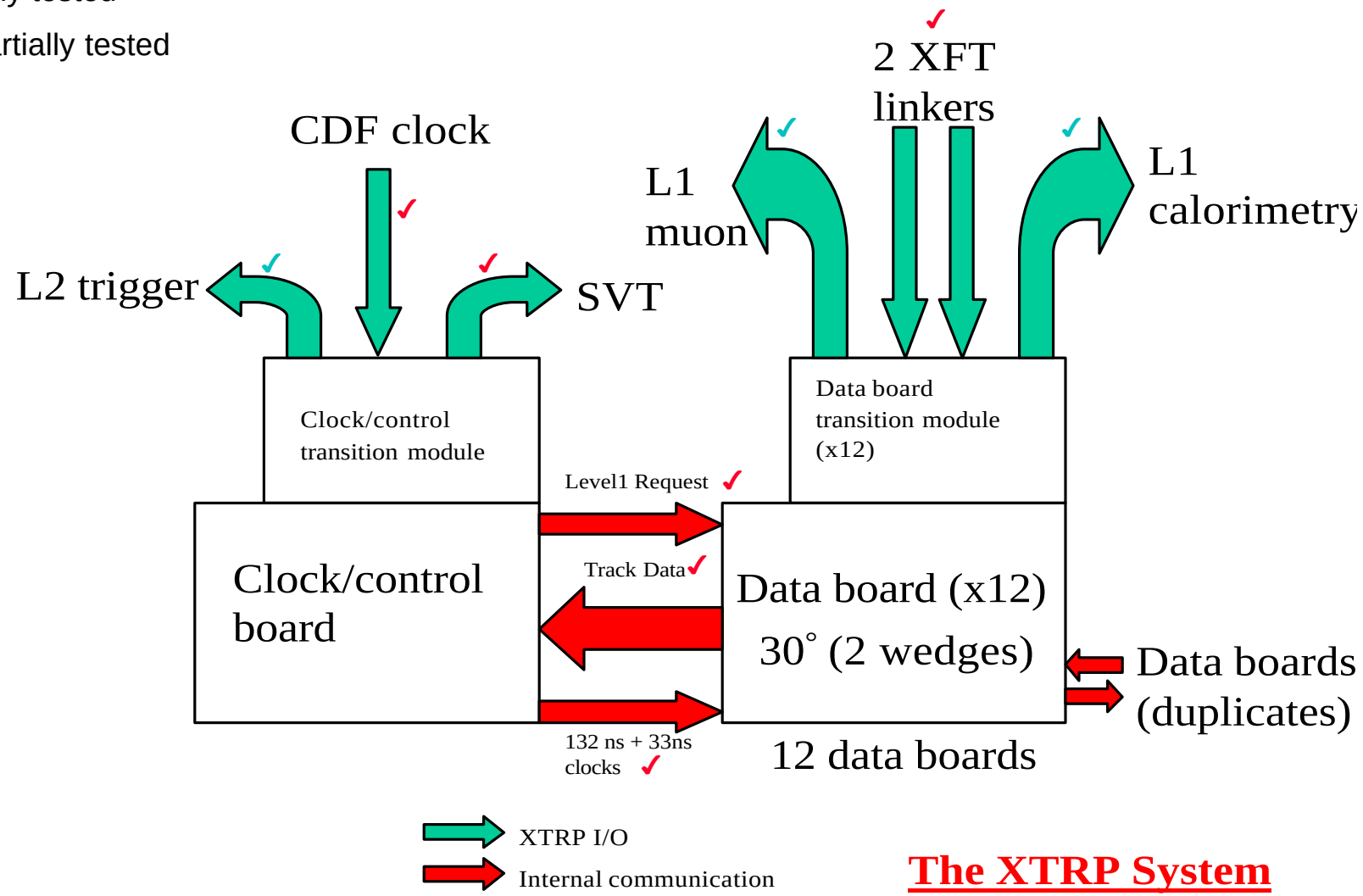
Testing Status

- Full board test/repair takes 60-80 man hours
  - ~7000 accessible vias, ~5000 hidden vias **CHECKED**
  - preliminary results indicate test/repair is successful
  - less time for boards already working (fewer problems)
- UIUC: 2 boards full test/repair, 2 boards full test
  - 1 full time tech, several students
- FNAL: 2 boards full test/repair, 3 boards in test
  - 2 almost full time techs, 4 very part time techs
- are cycling working boards through as well (for improved long-term reliability) will do so as the opportunity arises

Interface Testing

✓ fully tested

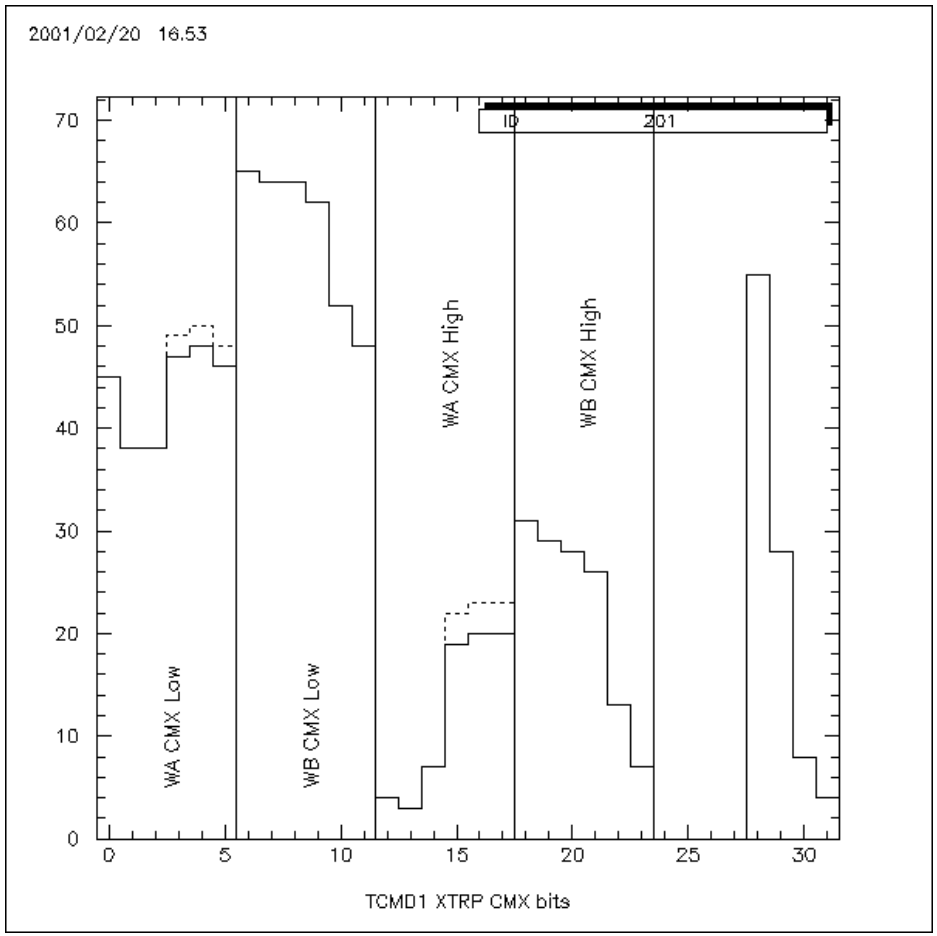
✓ partially tested



The XTRP System

Offline verification of data / maps

- Tools
  - *XTRPSim*: full simulation
  - *XTRPMon*:
    - self consistency
    - bit checking
  - *XTRPAna*
    - offline code
    - pulls in XFT, XTRP, Muon trigger info + offline tracks
    - need to add CAL info and offline muon stubs
- All of the above were used during the commish run



Commissioning run XTRP muon extrapolation data