

Overview

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- Introduction
- Review goals
- Agenda
- Summary

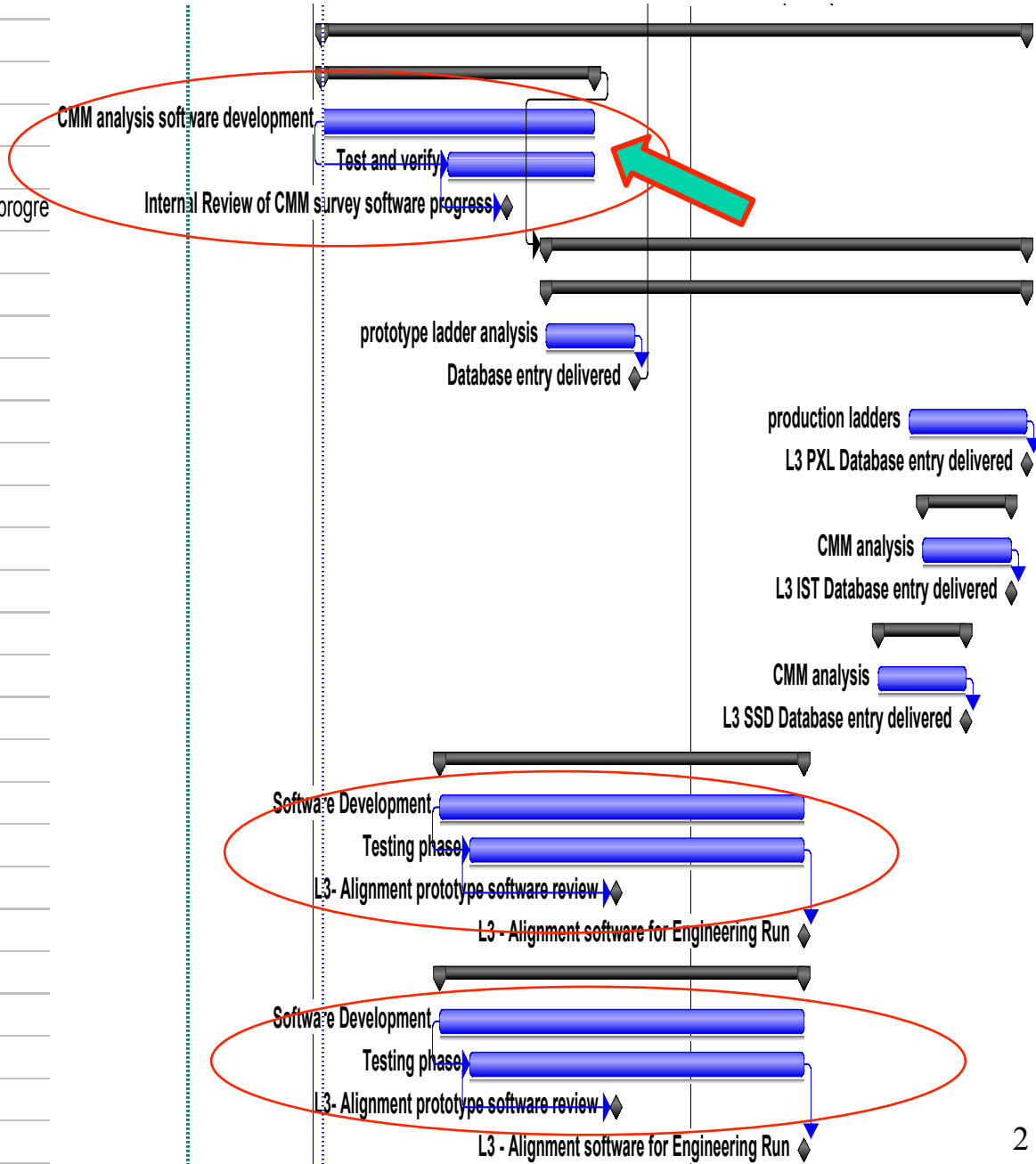
Schedule

10/2011

NOW

10/2013

1.6.1.4	Calibration and alignment
1.6.1.4.1	Survey Software
1.6.1.4.1.2	CMM analysis software development
1.6.1.4.1.1	Test and verify
1.6.1.4.1.9	Internal Review of CMM survey software progress
1.6.1.4.5	CMM analysis
1.6.1.4.5.1	Analysis of PXL
1.6.1.4.5.1.10	prototype ladder analysis
1.6.1.4.5.1.11	Database entry delivered
1.6.1.4.5.1.12	production ladders
1.6.1.4.5.1.13	L3 PXL Database entry delivered
1.6.1.4.5.2	Analysis of IST
1.6.1.4.5.2.5	CMM analysis
1.6.1.4.5.2.6	L3 IST Database entry delivered
1.6.1.4.5.3	Analysis of SSD
1.6.1.4.5.3.1	CMM analysis
1.6.1.4.5.3.2	L3 SSD Database entry delivered
1.6.1.6	Global Alignment
1.6.1.6.1	Software Development
1.6.1.6.2	Testing phase
1.6.1.6.3	L3- Alignment prototype software review
1.6.1.6.4	L3 - Alignment software for Engineering Run
1.6.1.8	Self Alignment
1.6.1.8.9	Software Development
1.6.1.8.10	Testing phase
1.6.1.8.11	L3- Alignment prototype software review
1.6.1.8.12	L3 - Alignment software for Engineering Run



Relevant HFT-Software L3 Milestones

Software			
3	Review of CMM software progress	4/5/12	5/17/12
3	Alignment software Review	9/20/12	9/20/12
3	PXL CMM database delivered for prototype	11/15/12	11/15/12
3	PXL online software ready for engineering run	12/4/12	12/4/12
3	IST online software for ladder tests	1/13/13	1/13/13
3	Alignment software ready for engineering run	1/18/13	1/18/13
3	SSD online software complete	5/14/13	5/14/13
3	IST online software complete	7/24/13	7/24/13
3	IST CMM database delivered	8/17/13	8/17/13
3	PXL CMM database delivered for production sectors	8/22/13	8/22/13
3	PXL online software ready for production run	10/1/13	10/1/13

- Needed to decouple the *procedures review* (this one) from *readiness*.

Issues

- There several efforts that need parallel development
- Experience exists from SVT (Fisyak et al.) but many aspects are new and different
- Infrastructure needed/available today is different
- Many of the tasks need close collaboration with the BNL group

Review Goals

- Review soundness of overall approach given the available manpower and time constraints
- Review so far progress
- Agree on infrastructure needs and priorities
- Define action items

Agenda Topics

- Developments/progress on the 3 areas of effort
 - Geometry/Simulation environment
 - Survey of Detector elements
 - Alignment software
- Infrastructure needs
- Other possible Tools

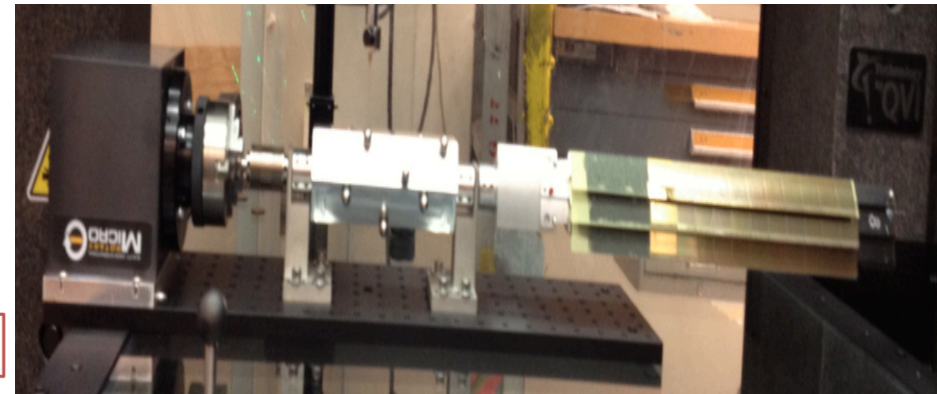
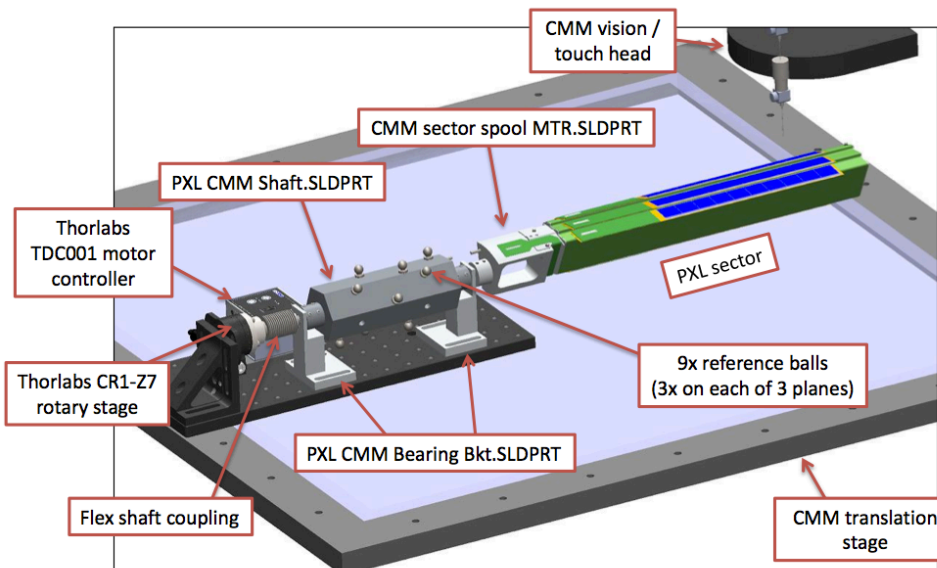
(No manpower discussions this time)

Geometry/Simulation environment (Jonathan's talk)

- Continuous progress on detector modeling
 - PXL details
 - SSD reconfiguration
 - IST modeling (UIC)
- Hit/Geometry Db structures development
- Alignment code adaptation
- *Misalignment mechanism development*
- *Synchronization of Simulation/Offline environment*
 - *Need VMC (STV, CA?) tools*

• Survey progress (Hao's talk)

- Significant progress has been made in developing methods for PXL
- SSD and IST need to begin soon (less complex, less demanding)
- Still need to define/develop precise interfaces with Alignment
 - This is true for all detectors but also for mounting structures



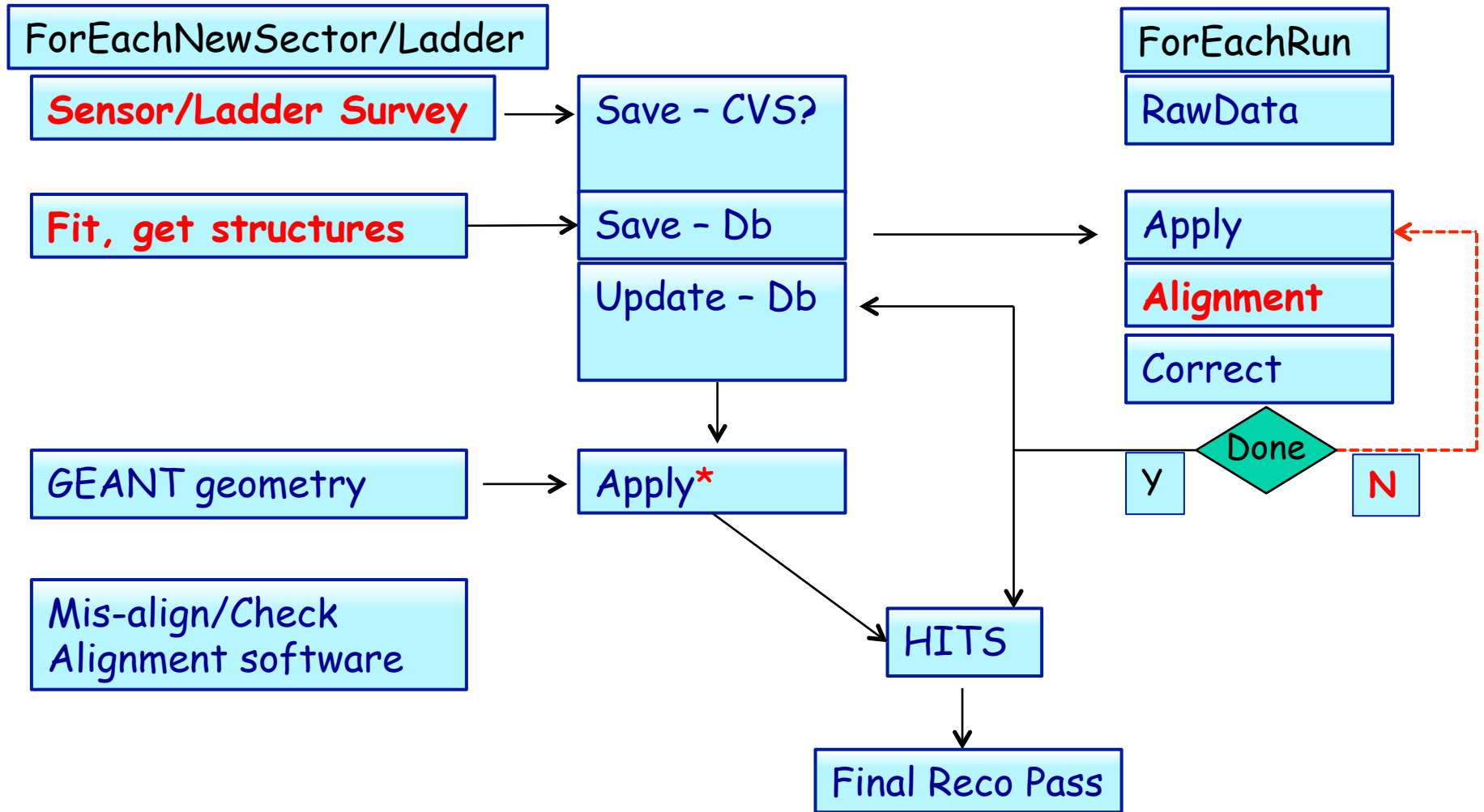
Alignment Software/Procedures (Spiros/Jonathan's talk)

- Some progress on developing a working HFT chain based on SVT/SSD experience/code
 - SSD works
 - IST (based on SSD) in progress (semi-works)
 - PXL (based on same code) needs to be developed
- Need to do extensive code cleanup, reorganization
- Need rigorous testing with Simulation and Real data (cosmics/events)
- Procedures need to be tested and established
- Evaluate/start using other tools
- Need VMC (STV, CA?) tools

Summary

- Lots of activity but...most work still ahead
- Critical mass/experience is building up
- Your view/advice is important

General Flowchart of Survey/Alignment Tasks



* VMC, STV ready