

DM Leadership Team Meeting 2015-05-18 to 2015-05-21

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Date

18 May 2015 – 20 May 2015 (DMLT Days)

21 May 2015 (T/CAM Day)

Remote access: (new ls.st link each day)

Attendees

- [Jim Bosch](#)
- [John Swinbank](#)
- [Jeff Kantor](#)
- [Unknown User \(xiuqin\)](#)
- [Gregory Dubois-Felsmann](#)
- [Unknown User \(ciardi\)](#)
- [Robert Lupton](#)
- [Frossie Economou](#)
- [Kian-Tat Lim](#)
- [Mario Juric](#)
- [Jacek Becla](#) remotely on Monday only
- [Tim Jenness](#) remotely

Goals

- Quarterly face to face meeting of DM Leadership Team (DMLT).
- Refer to LDM-294 for charter of the DMLT.

Carpooling

Arrivals

[JFB](#): arriving ORD at 10:15pm on Sunday (could drive late that night, or Monday morning after staying one night in Chicago).

[Jeff Kantor](#): arriving at MDW 12:05pm Sunday, renting car driving to Champaign

[Robert Lupton](#) Could arrive Monday morning or Sunday night. Would like to beg a ride

[John Swinbank](#): likely arriving ORD at 05:02 on Monday morning. (Hoping to beg a lift from somebody driving from Chicago Monday morning.)

[Unknown User \(xiuqin\)](#): plan to arrive ORD on Sunday at 4:16pm by United. (may stay at Chicago and like to beg a ride to NCSA Monday morning.)

[Frossie Economou](#): (plan to) Arrive Midway Sunday night, pick up car, drive to ORD for hotel, drive down early Monday morning with ADD YOUR NAME HERE IF YOU WANT A RIDE AROUND 7am MONDAY

Departures

[JFB](#): departing ORD at 7:00pm on Wednesday.

[Robert Lupton](#) Could leave with Jim Bosch. I'll contact Laurie...

Jeff Kantor: departing NCSA ~3:00pm (depends on T/CAM day agenda), driving back to Chicago, turning in car (overnight near MDW, depart MDW Friday 8:30am)

John Swinbank: Departing ORD 8:16pm Thursday evening. (Hoping to beg a lift from somebody driving to Chicago Thursday afternoon).

Gregory Dubois-Felsmann: Departing ORD 8:20pm Thursday evening. Looking for a ride.

Unknown User (xiuqin): Plan to leave NCSA Thursday afternoon, fly out ORD Friday Morning at 10:17am by United.

Frossie Economou: plan to drive to ORD with ADD YOUR NAME HERE IF YOU NEED A RIDE on Thursday and fly out Friday morning

***** Note the outbound flight times from CMI are 2:45 pm and 6:05 pm**

Logistics

The meetings will be held at the National Center for Supercomputing Applications (NCSA) at the University of Illinois Urbana-Champaign.

NCSA is located at 1205 W. Clark Street, Urbana, IL, 61801

Local hospitality information:

- **Hampton Inn** (across the street from NCSA).
- **Several hotels** are available along I-74 between Neil Street and Prospect Avenue (Co Rd 1100 E). Note that they are not within walking distance of NCSA.

NOTE: Laurie Thomas is trying to book a block at the Hampton, contact her for hotel

Champaign Area: <http://visitchampaigncounty.org/things-do/dining>

Closest cafeteria : **Beckman Center**, west of the NCSA 1205 West Clark Street building

Agenda

Monday 18 May 2015				
10:00	10:30	Meeting Prep: Set up and confirm audio/visual /telecom	NCSA any remote attendees	Refreshments
10:30	11:00	Meeting Start: Introductions and Objectives LSST Project Manager Remarks	Jeff Kantor Victor Krabbendam	
11:00	11:30	DM Organization	Jeff Kantor	
11:30	12:30	Lunch	All	Self-pay, per diem, cafeteria or local place
12:30	2:00	DM Goals	Mario Juric	Develop a shared understanding of DM high-level goals, including: <ul style="list-style-type: none">• Science goals• SRD and DPDD• Key performance metrics• LSST users• Role of precursor surveys/data
2:00	2:15	Break		Refreshments during break
2:15	4:15	DM Architecture	Kian-Tat Lim	Develop a shared understanding of the high-level DM architecture, including: <ul style="list-style-type: none">• Toolkit, services, productions• Science components: afw• Science algorithms: measurement, coaddition, MOPS, etc.• Data access middleware: Butler, Qserv, other databases, Web services• VO interfaces: alert publisher, alert broker, VO access protocols• SUI• SDQA• Control middleware: Config, Task, CmdLineTask, IPC, workflow /orchestration• DMCS, productions, and operations (Provides a basis for later discussions of alert system data flow, VO, SUI, and TOWG)

4:15	4:30	Top worries and priorities	Mario Juric Kian-Tat Lim	Initial thoughts on top areas that need to be attacked
4:30	5:30	International networks and Brazil, IN2P3 MOAs	Jeff Kantor Donald Petravick	Discuss International Networks Status, Brazil, IN2P3 MOAs for Ops Support

Tuesday 19 May 2015

8:15	8:30	Meeting Preparation: Set up and confirm audio /visual/telecom	NCSA any remote attendees	Refreshments
8:30	8:45	Meeting Start: Daily Agenda	Jeff Kantor	
8:45	9:30	Development Process	Kian-Tat Lim	Improve our shared understanding of how we will be planning and executing software development
9:30	1:00	Clarifications and Discussions: Alert System Data Flow	Kian-Tat Lim with Simon Krughoff and Unknown User (xiuqin)	Develop a shared understanding of the alert system data flow from alert generation, storage in database, subscription, to alert distribution to users
1:00	1:15	Break		
1:15	1:00	Clarifications and Discussions: VO and SUI	Gregory Dubois-Felsmann with Unknown User (xiuqin)	Define what needs to be done to coordinate with the VO and assign responsibilities Develop a shared understanding of the SUI visualization role in all aspects of the system, including debugging the pipelines, pipeline production, SDQA, the camera, and other teams
1:00	1:30	Deliverables, status, and dependencies Part 1	06 Jacek Becla (presented by Kian-Tat Lim) 07 Margaret Gelman 08 Unknown User (rlambert)	Develop a shared understanding of each group's near-term deliverables and dependencies on other groups
1:30	1:30	Lunch	All	Self-pay. per diem, cafeteria or local place
1:30	3:30	Deliverables, status, and dependencies Part 2	03 Simon Krughoff 04 John Swinbank 05 Unknown User (xiuqin) 01 Frossie Economou	Develop a shared understanding of each group's near-term deliverables and dependencies on other groups
3:30	4:00	LDM-240 Prioritization	Kian-Tat Lim	Develop an initial draft of a tweaked LDM-240 attacking high priority areas first (KTL must leave at ~4 PM)
4:00	5:30	Key performance metrics and HSC /precursor data	Mario Juric	Develop a detailed plan for how key performance metrics will be measured, including amount of data, tests to be performed, cadence of tests, hardware resources required (note: no additional hardware is expected to be purchased or installed), software required, tentative assignments of who does what for remainder of S15
6:00	8:00	Optional social dinner	All who want to attend	Self-pay, per diem, local place

Wednesday 20 May 2015

8:30	9:00	Meeting Preparation: Set up and confirm audio/visual/telecom	NCSA any remote attendees	Refreshments
9:15	9:45	Comet VOEvent demo	Simon Krughoff	Quick prototype to show Comet-based event broker
9:45	10:00	Break		
10:00	11:00	Python/C++ boundary	Tim Jenness	Presentation of investigation into alternatives, discussion of costs and benefits Develop a list of further information required to reach a consensus and/or develop a transition plan
11:00	12:00	Technical Operations Working Group debrief	Gregory Dubois-Felsmann Donald Petravick Robert Gruendl	Convey an understanding of the TOWG charter, activities, and progress Start technical leads thinking about what will be needed to operate their systems and how to minimize operations costs
12:00	1:00	Lunch	All	Self-pay. per diem, cafeteria or local place
1:00	2:00	General activities at NCSA of interest to LSST	Donald Petravick	There are a few things / activity areas at NCSA that seem to be of interest to LSST. I'm off to investigate a bit more. 1) We have an emerging capability in another project that provides a frameworks for (apparently) both continuous integration, and also I think ad-hoc processing (think of capabilities for SUI and L3) in the same framework. 2) a concurrent astro simulation / analysis meeting at NCSA 3) I may find more.
2:00	3:00	Wrap up and plans for next meeting(s)	Jeff Kantor	Summarize actions and decisions from this meeting, dates and logistics for next meeting(s)
3:00		Adjourn		

Thursday 21 May 2015				
(T/CAM day)				
8:30	9:00	Meeting Preparation: Set up and confirm audio/visual/telecom	NCSA any remote attendees	Refreshments
9:00	10:30	Summer 2015 replan, including resource adjustments, staffing/hiring considerations	Jeff Kantor Kevin Long	It will be close to 3 months into Summer 2015, so replan will be about due.
10:30	11:00	Break	All	
11:00	11:30	FY15 Spend status, FY16 budgeting assumptions	Jeff Kantor Kevin Long	Assess where we are with respect to budget and spending YTD, as well as planning for FY16.
11:30	12:00	WBS/Control Account changes	Jeff Kantor Kevin Long	Discuss proposed changes to WBS and/or Cost Accounts.
12:00	1:00	SQuaRE/NCSA division of responsibility	Donald Petravick Frossie Economou Jeff Kantor	There are interfaces regarding development environment and tools, which are split across NCSA and SQuaRE. Need to clarify these in more detail and ensure WBS is consistent with this.

1:00	Adjourn T/CAM Retreat		T/CAMs were looking for some quality time attached to a T/CAM training meeting or a DMLT meeting. (informal, may be en route to Chicago or at ORD)
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Suggested Agenda items

Time	Item	Who	Notes
1 hour	Virtual Observatory coordination	DMLT	We need to rationalize VO interface responsibilities, continuing discussion from last session. Now that Brian Glendenning is US representative to IVOA, we have another avenue for impacting VO standards/protocols to address LSST requirements
1 hour	SQuaRE /NCSA division of responsibility	Donald Petravick Frossie Economou Kian-Tat Lim Jeff Kantor Gregory Dubois-Felsmann Mario Juric	There are interfaces regarding development environment and tools, which are split across NCSA and SQuaRE. Need to clarify these in more detail and ensure WBS is consistent with this.
2 hours	Summer 2015 replan	T/CAMs	It will be close to 3 months into Summer 2015, so replan will be about due. On Thursday T/CAM day.
1 hour	FY15 spend status	T/CAMs	Assess where we are with respect to budget and spending YTD. On Thursday T/CAM day.
4 hours	T/CAM retreat	T/CAMs	T/CAMs were looking for some quality time attached to a T/CAM training meeting or a DMLT meeting. On Thursday T/CAM day.
1 hour	International networks and Brazil	Jeff Kantor Donald Petravick	Side session (not agenda item) to connect with Luiz da Costa to discuss Brazil MOA for network support.
2 hours	Python/C++ Boundary	DMLT (mostly DRP, AP, SUI, SQuaRE?)	Discussions on how to get to a more Pythonic (and AstroPy-friendly) interface, where the Python/C++ boundary should ultimately be in our code, and alternatives to Swig. This is driven mostly by a need to improve library interfaces that will be used by science users (hence the "mostly" teams in the Who column), but of course tool choices and library conventions may affect other teams as well.
1 hour	Integration testing on HSC	SQuaRE, AP, DRP teams	DRP team will want to start running larger-scale tests on HSC data regularly in S15, and can contribute code to getting that working. Need to negotiate with SQuaRE (and AP) teams who should do what, and what the balance should be between fast-and-easy vs. future-proof in how this fits with other plans to improve CI.
1 - 2 hours	Alert system data flow	UW, SUI, NCSA, SLAC, John Swinbank	To fully understand the alert system data flow, from alert generation, storage in database, subscription, to alert distribution to users.
1-2 hours	General activities at NCSA of interest to LSST	Don +?	There are a few things / activity areas at NCSA that seem to be of interest to LSST. I'm off to investigate a bit more. 1) We have an emerging capability in another project that provides a framework for (apparently) both continuous integration, and also I think ad-hoc processing (think of capabilities for SUI and L3) in the same framework. 2) a concurrent astro simulation / analysis meeting at NCSA 3) I may find more.
1-2 hours	SUI visualization role in DM and LSST	all?	support for camera, pipeline, SDQA, and possibly other LSST teams
1 hour	Technical Operations Working Group debrief	Kian-Tat Lim Donald Petravick	The TOWG has been working on use cases and resource estimates for data processing operations. The DM members of the TOWG would provide an overview of the TOWG assumptions, use cases, and estimates to the DM LT.

Thursday Tony Johnson Visit — Agenda Items

Time	Location	Topic	Who	Notes
10:00-12:00 CDT	NCSA-2004	Camera visualization	Tatiana Goldina Unknown User (jit) Unknown User (xiuqin) Gregory Dubois-Felsmann Trey Roby	Interested parties are DM SUI group, Thaler's group.
TBD		Understanding glast /Fermi Authn		Location NCSA. Interested NCSA Parties are DM group, LSST ISO, NCSA security person
TBD		Understanding glast /Fermi file management		Location NCSA Interested NCSA parties are DM group.

Reference documents

- LSST overview paper, [arxiv:0805.2366](#), <http://ls.st/op>
- Science Requirements Document, [LPM-17](#), <http://ls.st/srd>
- Data Products Definition Document (DPDD), [LSE-163](#), <http://ls.st/dpdd>
- DM Technical Baseline, [Collection-2511](#) - of which see especially:
 - Data Management System Design, [LDM-148](#)
 - Data Management Applications Design, [LDM-151](#)
 - Data Management Middleware Design, [LDM-152](#)
 - Data Management Database Baseline Schema, [LDM-153](#)
 - Data Management Infrastructure Design, [LDM-129](#)
 - LSST Observatory Network Design, [LSE-78](#)

Action items

From core DMLT meeting

- ✓ [Kian-Tat Lim](#) Define standing time slots for design discussions
- ✓ Gregory Dubois-Felsmann Create memo about whether a change request is needed to reflect the assignment of the alert mini-broker and interface responsibilities. 18 Oct 2016: This overall issue went unresolved for a long time; however, there is now a consensus, as of the October 2016 T/CAM meeting, regarding the division of responsibilities among WBS elements. It will be reflected in the DM replan documentation.
- ✓ Jeff Kantor Discuss with Victor Krabbendam, Steven Kahn how can DM scientists provide input into discussion (e.g. at TOWG) regarding science operations, software evolution, archive/dp operations. What is the plan, roadmap for how TOWG and higher level governance team work leads to ops proposal, i.e the schedule, reviews, etc. [Robert Lupton](#) and others believe ops steady state is not until 3 - 5 years in, need at least 40% of construction staff level until then. [Tim Jenness](#) thinks that the next TOWG meeting is on Tucson operations. [Unknown User \(ciardi\)](#) says we should not pre-suppose locations of science operations, we should state what is needed.
NOTE: This message was passed on to [Victor Krabbendam](#), he and [Steven Kahn](#) are aware and the process will be explained in the months ahead.

From T/CAM day

- ✓ Kevin Long will not require teams to be set for epics to be imported into Primavera (WBS and cycle will be required).
- ✓ Kevin Long: stories with 0 SPs will be imported into PMCS with a weight of 0. Stories with Null SPs will not be imported into PMCS.
- ✓ Kevin Long: add a "target completed story points to date" column to Excel summary sheet (that is: (estimated story points) * (elapsed months) / cycle length).
- ✓ Jeff Kantor: add "improvements" as equivalent to bugs & stories in workflow diagrams.
- ✓ Jeff Kantor: change "epic tests KPM" to "epic relates to KPM" in workflow diagrams.
- ✓ Jeff Kantor: set "DLP version" as equivalent to "DM cycle" in workflow diagrams.
- ✓ Jeff Kantor: remove "bloks" link between "DM epic" and "DLP milestone" in workflow diagrams.
- ✓ Jeff Kantor: discuss with Kian-Tat Lim the schedule for migrating LDM-240 from Excel to JIRA, including both a start date and a completion deadline.
- ✓ Jeff Kantor & Kevin Long: discuss the import of DLP information into PMCS.