

## Assigned Action Items

### LSST Database

#### **2007-06-29, DataAccWG**

- look into pipeline/harness [KT]
- document Alert email discussion [Lynne]

#### **2007-06-27, DataAccWG**

- image file granularity? - follow up with Robert/Tim? [Jacek]
- fixing systematic errors in fits header - follow up with Robert/Tim? [Jacek]
- storage for calibrated images: last 30 days or more? - follow up with Tim [Jacek]
- check storage estimates (xls and documentation) and provide references [Kem, due July 1st]

#### **2007-06-20, DataAccWG**

- schema change: flagging provisional objects [Jacek]
- follow up with transient working group [Lynne, Serge]

#### **2007-06-13, DataAccWG**

- update Source Classification table [Kem]
- redo schema for Source Classification table, add probability [Jacek]

### **DBMSStorage [K-T]**

- Create realistic (but not fully real) test cases. Probably Exposure and DIASource for output; maybe DIASource or Object for input.
- Import code into SVN.
- Rewrite code to accommodate `boost::serialization`, if that is chosen.
- Investigate hacking Coral to allow setting multiple fields in one call.

#### **2007-05-25, DataAccWG**

- ~~propose metadata definition [Tim, by June 1st]~~

#### **2007-05-23, DataAccWG**

- ~~find why we need historical DIASource for Association Pipeline [Jacek]~~
- merge MOPS schema with Precursor Schema [Jacek, Francesco]

#### **2007-05-16, DataAccWG**

- ~~Check with Deborah about QA [Serge]~~
- run cross-match tests with Serge's DIASources using SQL Server [Maria]
- ~~follow up on slow cross-match query with MySQL [Jacek]~~

### **DC2 plan**

- ~~coral decision [due May 15, all 4]~~
- partitioning tests done [due May 31, Serge]
- cross matching tests done [due June 15, Serge]
- dbms prototype, incl bulk insert, bulk read and things we discover during Serge's tests [due June 30, K-T, Serge]
- catalog ingest service, including integrating with dbmsStorage [due July 20, K-T, Serge]
- db software installation on ncsa hardware: Coral, MySQL [due June 30, Jacek]
- performance tests of ncsa hardware [July 15 Serge]
- deployment of CIS, DBMSStorage [July 31, K-T]
- db and underlying file system tuning (ncsa hardware) [Aug 30, all]
- integration of schema with application code and input image data [Aug 30, Jacek]

### Schema related changes for DC2 [Jacek]

- cx, cy, cz in various tables should be DOUBLE, not FLOAT
- merge Object\_photoZ with Object for nightly
- rework source classif - move to provenance, add probability
- add column to DIASource to keep track of data source (dc2 only)
- object table: xyColor should be "NULL", not "NOT NULL"
  - ◆ muRA, muDecl and parallax too?
- flag "dirty" in Object Catalog to mark rows that need to be written from in-memory table to disk
- match table
- need a flag in Object table to mark provisional objects (objects produced at the base camp, not by deep detection)
- schema for DIASourceIdTonight table

### 2007-05-11, DataAccWG

- document in trac issue about binding queries [K-T]
- ~~rebuild CORAL [K-T/Jacek]~~
- document in UML: formatters / thread safety [K-T]
- get coral approved [Jacek]
- ~~measure CORAL performance overhead [K-T]~~
- ~~check when Maria is back [Ani]~~

### 2007-05-09, DataAccWG telecon about metadata

For Jeff Bartels, check on May 23

- use cases
- which columns in current schema belong to metadata
- sizes, in particular
  - ◆ average number of metadata elements per Object, Source and DIASource
  - ◆ distinct values vs values shared between many Objects/Sources?/DIASources
- flexibility vs speed
- interaction between pipelines ad metadata stored in database, in particular during Alert Generation
- schema design: what to store in metadata, what to store in main "core" tables

Unassigned

- ~~how to efficiently persist vectors in mysql~~

Assigned Action Items

- look into mysql archive engine

### 2007-05-08, discussion with Tim

- add flag "data source" to Object catalog - for DC2 only [Jacek]

### 2007-05-04, DataAccWG telecon

nightly processing

- understand poor-disk performance during loading chunks from disk to memory [Serge]
- try doing cross match using extract from Object table (objId, ra, decl, x,y,z) [Serge]
- ~~check with application people about cross matching against var object [Jacek]~~
- ~~try doing cross match first against variable objects first [Serge]~~
- document requirements / assumptions [Jacek]
- ~~investigate why dropping in memory table slow [Serge]~~
- test number of tables per db to find sweet spot [Serge]
- ~~check with Tim whether proper motion adjustment will be made only during deep detection, or during nightly processing too [Jacek]~~

mysql related

- ~~bad performance of composite index on (zoneId, ra) - follow up with mysql [Jacek]~~
- ~~MyISAM uses 1K disk blocks (8K in new generation myisam) - investigate why it is not tunable [Jacek]~~

Others

- sql stored procedures coding standards [Jeff]
- ~~check existing standards related to stored procedures [Ani]~~
- investigate how easy is to move disks/RAM from lsst-dev03 to lsst-dev02 [Jacek]

### 2007-05-02, DataAccWG telecon

- ~~define baseline approach how we are going to do association in DC2 [due May 11, Serge, Ani, K-T, Jacek]~~
- ~~ping Ray about cleaning AltFormatter [Jacek]~~
- ~~legal issues - Stanford copyrights [Jacek, Jeff]~~
- ~~DBMSStorage [K-T]~~
  - ◆ ~~cleanup namespaces~~

## Unassigned Action Items / Todo's

- schema related (after DC2)
  - ◆ add table for keeping multiple matches (at the moment we only keep the best match)