

# Apps Status Report for March 15, 2010

## Guide on Reporting Percentage Completed:

For software development tasks,

- use 0% if the solution is still being designed;
- use 25% if the solution's design is completed;
- use 50% if the solution is implemented and tested within the Ticket branch;
- use 75% if the implementation review is complete, the Ticket branch has been merged onto the Trunk branch, and the Ticket is closed.
- use 100% if the affected Trunk packages are tagged and released.

For other tasks, still use these increments, but apply their meaning as best as possible.

**Note:** Please place an asterisk (\*) after the percent if you updated this value in this report.

## Allsman Robyn

Reported 16 March 2010

ID	Percent	Task	Comments
APP204	0%	identify scientists to analyze stage output	<i>not started</i> - given to TSA
APP200	0%	validate initial integration run successfully completed	<i>not started</i>

\*Percent updated in this report

Comments:

### Other Activities

DC3b

- Implementing Buildbot script for nightly pipeline unit testing
- PT1 Integration and Test Planning

QA Support Tasks

- (too few) Software Standards check requests
- testing beta EA 8 for scenario based Activity integration-test generation
- preparing proposals for the March CCB meeting

SAT Support Tasks

- Reverse engineered packages to generate logical/class diagrams from implemented code
- UML design updates resulting from SAT review presentations

## Axelrod Tim

Reported xx/xx/xx

ID	Percent	Task	Comments
APP155	0%	photometric self calibration	<i>not started</i>
APP159	0%	evaluate tools and make selection	<i>not started</i>
APP158	0%	configure and test for HEALpix projection	<i>not started</i>
APP161	0%	configure and test for display of full focal plane LSST image	<i>not started</i>
APP56	50%	defining units	
APP91	80%	define DC3b goals for SDQA	
APP191	50%	Provide special case simulation needs (Axelrod)	

\*Percent updated in this report

Comments:

### Other Activities

## Becker Andy

Reported 03/15/10

ID	Percent	Task	Comments
APPXX	25%	Update of ip_diffim based on design review (ticket 1176)	*
APPXX	25%	Implement correlation function for spatial kernel fit (ticket 1140)	*
APPXX	0%	Psf match two models for coadd generation (ticket 1161)	*
APP95	40%	code to measure quality of difference imaging coadds	
APP100	0%	test difference imaging coadds	<i>not started</i>
APP123	0%	find CFHT fringe frames and move to NCSA	<i>not started</i>

\*Percent updated in this report

Comments:

### Other Activities

## Becla Jacek

Reported 03/17/10

ID	Percent	Task	Comments
APP53	100%*	schema updates for all source related tables and object table	
APP54	10%*	schema updates for all exposure related tables	
APP55	0%	synthetic sources of data	this is not part of DC3b any more
APP56	80%*	defining units	

\*Percent updated in this report

Comments:

### Other Activities

see middleware report

## Bickerton Steve

Reported xx/xx/xx

ID	Percent	Task	Comments
APP112	25%	stellar photometry	

\*Percent updated in this report

Comments:

### Other Activities

## Bosch Jim

Reported xx/xx/xx

ID	Percent	Task	Comments
APP108	75%	implement convolved Sersic models	
APP117	0%	implement constrained models for forced photometry	<i>not started</i>
APP116	0%	create LSST stages for photometry	<i>not started</i>

\*Percent updated in this report

Comments:

### Other Activities

## Cleveland Matt

Reported xx/xx/xx

ID	Percent	Task	Comments
APP154	0%	develop distributed linkTracklets implementation	<i>not started</i>

\*Percent updated in this report

Comments:

## Other Activities

### Dodd Suzy

Reported 3/15/10

- Attended Design Reviews: Healpix, Meas\_Alg, Pipeline Orchestra, DayMOPS (J. Daily from IPAC/WISE also attended)
- Attended Seattle breakout meetings on SUI and Data Access. IPAC will lead this new task.
- Discuss with Mike Freeman and infrastructure WG data access for PT1
- Start work on coordination of PT1 data access tools. Made inventory of possible IPAC and VO tools.
- Met with Jeff on IPAC priorities: now- DC3b Science requirements, PT1 data access tools, DC3b User Guide sections: later - Science User Interface use case, requirement generation and documentation.
- Standard meetings: Apps WG, DC3b, DM management, LSST management

Next Month

- Finish PT1 data access design and start implementation
- DC3B plan update
- Vacation April 12-16

### Dubcovsky Martin

Reported 03/16/10

APP108	90%*	implement convolved Sersic models	Working version in trunk. Testing quality of models
APP118	50%*	implement multifit pipeline which leverages multifit API and image access framework	All c++ code for this pipeling exists
APP119	25%*	implement pipeline stage for extracting ellipse parameters, flux, and bounding box from detections	All C++ code for this stage exists
APP117	10%*	implement constrained models for forced photometry	In design
APP116	0%	create LSST stages for photometry	<i>not started</i>

\*Percent updated in this report

Comments:

## Other Activities

### Grav Tommy

Reported xx/xx/xx

ID	Percent	Task	Comments
APP134	0%	generate PS-SSM catalog for LSST	<i>not started</i>

\*Percent updated in this report

Other Activities

Comments:

### Other Activities

## Jarvis Mike

Reported xx/xx/xx

ID	Percent	Task	Comments
APP105	50%	PSF for deep detection	

\*Percent updated in this report

Comments:

### Other Activities

## Jones Lynne

Reported xx/xx/xx

ID	Percent	Task	Comments
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\*Percent updated in this report

Comments:

### Other Activities

## Krughoff Simon

Reported 03/17/2010

ID	Percent	Task	Comments
APP84	0%	apply fringe frame correction	<i>not started</i>
APP83	75%	develop camera state classes (CCDinfo and Ampinfo)	
APP82	25%	develop calibration products database classes	

\*Percent updated in this report

Comments:

### Other Activities

## Laher Russ

Reported 03/15/10

ID	Percent	Task	Comments
APP90	0%	implement SDQA tool functionality to support DC3b goals	<i>not started</i>

APP89	0%	query metadata and package in C++ container	<i>not started</i>
APP88	0%	implement threshold comparison	<i>not started</i>
APP211	50%	WCS verification stage	
APP210	75%	ATpy evaluation	
?	5%	WCS failure assessment stage	"started"

\*Percent updated in this report

Comments:

### Other Activities

- Reviewed my notes from the Tucson meeting in January 2010, and DC3b\_Data\_Quality\_Requirements\_V2.pdf.
- Created detailed SDQA task list for PT1, PT2, and PT3, and sent it to Deborah Levine for review.
- Started a GWT web application to facilitate DC3b science data validation.
- Looking at cosmic-rays in ImSim images and their mapping from CCD to amplifier coordinates.

## Levine Deborah

Reported 3/15/09

ID	Percent	Task	Comments
APP90	0%	implement SDQA tool functionality to support DC3b goals	<i>not started</i>

\*Percent updated in this report

Comments: This task list really need to be updated per the DC3b replan and my task should probably read "manage" or "coordinate".

- Updated DC3b plan page
- Planning an Analysis Support "Implementation Frenzy" in August

### Other Activities

- Still working on SDQA-proper longer range planning
- Working on solidifying the plan for Data Access Tools and have put tentative tasks into the DC3b plan page. Backend technology and developers have been identified, which front-end tool to use as the model is still under investigation.

## Lim KT

Reported xx/xx/xx

ID	Percent	Task	Comments
APP6	0%	interslice communications	<i>not started</i>
APP7	0%	post spatial matching (stretch goal)	<i>not started</i>
APP192	0%	translate overall production into pipeline , stages, and policies	<i>not started</i>

\*Percent updated in this report

Comments:

### Other Activities

## Lupton Robert

Reported xx/xx/xx

ID	Percent	Task	Comments
APP139	0%	integrate HEALPix into software stack	<i>not started</i>
APP95	40%	code to measure quality of difference imaging coadds	
APP100	0%	test difference imaging coadds	<i>not started</i>
APP149	80%	move applications code out of stage code	
APP167	0%	modify stage code to conform with new MW API	<i>not started</i>
APP101	75%	simplified background estimation	
APP121	50%	adapt astrometry code for DC3b use	

\*Percent updated in this report

Comments:

### Other Activities

I've been working on:

Definition of HEALPix for LSST. Redesign of meas::algorithms. Porting LSST code to Intel compilers (and os/x 10.6). Managing the P'ton group. Attending phone meetings and design reviews. Other things that I forget.

In other (Subaru) contexts, but relevant to LSST:

Working on file system layouts and objects ("Manager") to encapsulate them

## Monet Dave

Reported xx/xx/xx

ID	Percent	Task	Comments
APP121	50%	adapt astrometry code for DC3b use	

\*Percent updated in this report

Comments:

### Other Activities

# Monkewitz Serge

Reported xx/xx/xx

ID	Percent	Task	Comments
APP144	0%	move applications code out of stage code	<i>not started</i>
APP162	0%	modify stage code to conform with new MW API	<i>not started</i>
APP6	0%	interslice communications	<i>not started</i>
APP7	0%	post spatial matching (stretch goal)	<i>not started</i>
APP74	0%	characterization of and improvements to association cosmic ray rejection performance	<i>not started</i>

\*Percent updated in this report

Comments:

## Other Activities

# Mullally Fergal

Reported xx/xx/xx

ID	Percent	Task	Comments
APP86	60%	implement improvements for WCS	
APP151	25%	implement stage structure for support astrometry code	

\*Percent updated in this report

Comments:

## Other Activities

# Myers Jon

Reported xx/xx/xx

ID	Percent	Task	Comments
APP140	25%	integrate MOPS stages with new C++ KD-Tree tools	
APP129	35%	run DayMOPS with solar system model	
APP141	75%	write linkTracklets and unit tests	

\*Percent updated in this report

Comments:

## Other Activities



## Owen Russell

Reported xx/xx/xx

ID	Percent	Task	Comments
APP77	0%	fix ticket #873	<i>not started</i>
APP94	0%	code to warp images to/from sky pixel representation	I had 25% but we switched horses for HEALPix
APP209	50%*	implement outlier rejection	it is likely the final version will operate in HEALPix space
APP98	50%	code to create PSF-matched difference imaging coadds (no outlier rejection)	
APP95	40%	code to measure quality of difference imaging coadds	
APP104	50%	code to detect chi-squared deep detection coadds (no outlier rejection)	further progress awaits HEALPix

\*Percent updated in this report

Comments:

### Other Activities

## Pierfederici Francesco

Reported xx/xx/xx

ID	Percent	Task	Comments
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\*Percent updated in this report

Comments:

### Other Activities

## Shaw, Dick

Reported 03/15/10

ID	Percent	Task	Comments
XXX	5%	Edit new DC3b User Guide	<i>Constructed outline, some writing assignments made, created inventory of extant documents</i>
XXX	0%	Create User training program for analysis of DC3b data products	<i>not started</i>
XXX	*20%	Assemble calibration reference files for DC3b processing	<i>Created inventory of CFHT master de-trend files</i>
XXX	*10%		<i>implementation proposal posted to Trac</i>

		Compute metric to capture variation of image background	
XXX	0%	Automate comparison to ground truth for cosmic ray removal	<i>not started</i>
XXX	0%	Collate and present failure rate statistics for WCS, PSF on selected image types	<i>not started</i>
XXX	0%	Generate statistics to characterize the quality of source subtraction in template-subtracted images	<i>not started</i>

\*Percent updated in this report

Comments:

- CFHT-LS datasets have been identified for DC3b processing. Results of inventory have been posted to Trac.

### Other Activities

- External User Support
  - ◆ Contributed to discussions in Infrastructure WG in planning for user access/support for DC3b data products
- Planned work
  - ◆ Create a Trac page with plan for de-assembling calibration reference files
  - ◆ Coordinate w/David Gehrig to transfer calibration reference (a.k.a. de-trend) files from CADC to NCSA.
  - ◆ Test scheme for evaluation of background in processed DC3b images

## Van Dyk, Schuyler

Reported 3/16/10

- Attended Design Reviews
- Initiated work on IPAC-assigned chapters for DC3b User Guide.
- Attended Seattle meeting on SRD and ImSim, as well as SUI lunch-time breakouts.
- With Suzy, started work on coordination of PT1 data access tools. Made inventory of possible IPAC and VO tools.
- Met with Jeff on IPAC priorities.
- Assumed ownership of DC3b data quality requirements doc and DC3b validation/metrics evaluation tools ("metrics scorecard").
- Standard meetings: Apps WG, DC3b, TCT, DM management, as well as MW Infrastructure.

## TBD

Reported xx/xx/xx

ID	Percent	Task	Comments
APP103	0%	create a set of chi-squared deep detection coadds	<i>not started</i>
APP102	0%	code to measure quality of deep detection coadds	<i>not started</i>
APP208	0%	define CFHT to be used	<i>not started</i>

APP201	0%	identify tools to analyze science data quality of stage output	<i>not started</i>
APP199	0%	validate science quality of initial integration run	<i>not started</i>

\*Percent updated in this report

Comments:

### Other Activities

## Major Accomplishments

Significant breakthroughs, issues resolved.

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## Objectives for the Next Period

What you expect to accomplish.

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## Problems Encountered and Solutions Being Pursued

Budget or schedule variance, technical issues, management issues.