

ID	% Complete	Task Name	Start	Finish	May '08	Jun '08	Jul '08	Aug '08	Sep '0											
					27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10
1	9%	<b>DC3</b>	5/1/2008	5/15/2009																
2	23%	<b>DC3 Management, Coordination and Support</b>	5/1/2008	3/20/2009																
3	30%	DC3 coordination	5/1/2008	3/20/2009																
4	15%	Infrastructure maintenance	7/14/2008	3/20/2009																
5	23%	<b>Middleware</b>	5/1/2008	5/15/2009																
6	21%	<b>SW Quality Assurance</b>	5/1/2008	9/3/2008																
7	31%	<b>Software Quality Assurance: Planning</b>	5/1/2008	9/3/2008																
8	40%	<b>Develop Framework of LSST DM Software Development PI</b>	5/1/2008	5/21/2008																
9	30%	Software Quality Assurance Plan	5/1/2008	5/21/2008																
10	30%	Verification and Validation Plan	5/1/2008	5/21/2008																
11	60%	Configuration Management Plan	5/1/2008	5/21/2008																
12	45%	<b>Verification and Validation: Tracking Requirement to Tested Product Release</b>	5/22/2008	9/3/2008																
13	90%	Standards: develop standard labelling scheme for products and their provenance.	5/22/2008	5/29/2008																
14	0%	V and V: define the procedure whereby the initial requirements are traced to the validated product	8/28/2008	9/3/2008																
15	0%	Develop Data Challenge 3 specialization of those SQA plans	5/30/2008	6/17/2008																
16	0%	Evaluation of (commercially/open-source) available testing tools	6/18/2008	8/6/2008																
17	0%	Decision on testing tool	8/6/2008	8/6/2008																
18	50%	<b>Verification and Validation: Acquire SQA support tools</b>	8/7/2008	8/13/2008																
19	100%	configurable tool to perform Lsst software standards checking	8/7/2008	8/13/2008																
20	0%	coverage analysis tool	8/7/2008	8/13/2008																
21	0%	<b>Verification and Validation: Increased Validation Testing</b>	7/1/2008	9/3/2008																
22	0%	<b>Standards: specify the testing requirements for each phase of Product development:</b>	7/1/2008	8/20/2008																
23	0%	implement automatic creation of integration test stubs from EA Use Cases	7/1/2008	7/29/2008																
24	0%	unit test: black box, white box, performance tests	8/14/2008	8/20/2008																
25	0%	integration tests: black box, white box, performance, regression tests	8/14/2008	8/20/2008																
26	0%	system tests: function, performance, interface, resource, security, portability, reliability, maintainability, safety	8/14/2008	8/20/2008																
27	0%	acceptance tests: capability and constraint tests	8/14/2008	8/20/2008																
28	0%	Standards: specify the pass/fail metrics for each test type (eg compliance levels)	8/21/2008	8/27/2008																
29	0%	V and V: Refine the workflow process to incorporate additional V & V testing.	8/28/2008	9/3/2008																
30																				
31	31%	<b>Build System</b>	5/1/2008	11/11/2008																
32	90%	update software distribution server	6/2/2008	6/13/2008																

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					27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10
33	0%	implement new package build mechanism	5/1/2008	6/9/2008																
34	85%	convert to new package build mechanism (remove dependency on	6/16/2008	6/20/2008																
35	80%	enable support for 64-bit Linux	7/8/2008	7/14/2008																
36	24%	<b>VMs</b>	<b>5/1/2008</b>	<b>11/11/2008</b>																
37	100%	create and configure distributable VMs	5/1/2008	5/16/2008																
38	25%	deploy SW stack on VMs	8/4/2008	8/8/2008																
39	10%	(BB) support distributable VMs for new developers	8/11/2008	11/11/2008																
40	66%	<b>deploy automated, multi-platform testing system</b>	<b>5/1/2008</b>	<b>9/10/2008</b>																
41	100%	investigate continous integration systems	5/1/2008	5/16/2008																
42	100%	decide on continous integration system	5/16/2008	5/16/2008																
43	60%	install and configure initial testing system	6/20/2008	7/11/2008																
44	5%	configure test sytem for automated V&V	9/4/2008	9/10/2008																
45	0%	create better templates for SConstruct, SConscript, and Swig .i file	6/10/2008	6/16/2008																
46	8%	<b>implement Software Quality Assurance procedures relevant to build process</b>	<b>7/14/2008</b>	<b>8/8/2008</b>																
47	10%	<b>within Ticket branch development</b>	<b>7/14/2008</b>	<b>7/18/2008</b>																
48	10%	build warnings if coding standards check fails	7/14/2008	7/15/2008																
49	10%	build warnings if unittest doesn't satisfy DC3 coverage requirement	7/16/2008	7/18/2008																
50	10%	<b>within Trunk branch development (generally merge from Ticket branch)</b>	<b>7/21/2008</b>	<b>7/25/2008</b>																
51	10%	build failure if unittest doesn't satisfy DC3 coverage require	7/21/2008	7/22/2008																
52	10%	build failure if coding standards check fails	7/23/2008	7/25/2008																
53	10%	<b>Nightly build of development trunk</b>	<b>7/28/2008</b>	<b>8/1/2008</b>																
54	10%	any failures cause automatic 'Failed Nightly Build' ticket at high priority	7/28/2008	8/1/2008																
55	0%	<b>Production Release sanity check</b>	<b>8/4/2008</b>	<b>8/8/2008</b>																
56	0%	any failure causes automatic 'Failed Production sanity check' ticket at high priority	8/4/2008	8/5/2008																
57	0%	auxiliary automatic notification to highest authority on failure (separate from ticket notification)	8/6/2008	8/8/2008																
58	0%	<b>Configuration Management: 'Build' upgrade</b>	<b>8/11/2008</b>	<b>8/22/2008</b>																
59	0%	Standards: specify requirement to version and archive build's provenance;	8/11/2008	8/12/2008																
60	0%	Configuration Management: define procedure to satisfy that requirement;	8/13/2008	8/15/2008																
61	0%	Configuration Management: implement its instantiation.	8/18/2008	8/22/2008																
62																				
63	9%	<b>Database</b>	<b>6/24/2008</b>	<b>5/15/2009</b>																
64	5%	<b>Provenance</b>	<b>7/23/2008</b>	<b>9/19/2008</b>																

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					27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10
65	75%	DC2 Policy capture	7/23/2008	8/8/2008																
66	0%	DC3 provenance capture	8/11/2008	8/22/2008																
67	0%	capturing full SW/HW info	8/25/2008	9/5/2008																
68	0%	demonstrating re-creation of Calibrated Science Images	8/25/2008	9/19/2008																
69	18%	<b>Supporting data release pipelines</b>	<b>6/24/2008</b>	<b>5/15/2009</b>																
70	0%	regularize the storage and access to image metadata	7/28/2008	8/15/2008																
71	0%	support persistence and retrieval of nightly pipeline products ar	9/15/2008	10/3/2008																
72	0%	support persistence and retrieval of deep detection products ar	12/8/2008	1/9/2009																
73	98%	removing coral	6/24/2008	8/1/2008																
74	0%	plan & setup database for DC3-nightly	3/23/2009	4/17/2009																
75	0%	plan & setup database for DC3-deepDet	4/20/2009	5/15/2009																
76	0%	image archive development, including template storage	8/18/2008	9/19/2008																
77	80%	research objectId synchronization between data releases	7/1/2008	8/22/2008																
78	0%	implement objectId synchronization between data releases (nc	1/15/2009	2/13/2009																
79	0%	<b>Database schema</b>	<b>11/17/2008</b>	<b>2/13/2009</b>																
80	0%	extend schema to support DC3 nightly	11/17/2008	11/21/2008																
81	0%	extend schema to support DC3 deep detection	11/24/2008	12/19/2008																
82	0%	integrate MOPS schema with baseline schema	1/26/2009	2/13/2009																
83	0%	<b>Expanding match algorithms</b>	<b>9/1/2008</b>	<b>11/28/2008</b>																
84	0%	<b>MWI improvements</b>	<b>7/21/2008</b>	<b>10/14/2008</b>																
85	0%	policy/data property integration	7/28/2008	8/15/2008																
86	0%	exception improvements	7/21/2008	8/8/2008																
87	0%	persistence framework refinement	10/1/2008	10/14/2008																
88	0%	shared pointer improvements	8/11/2008	8/22/2008																
89	0%	SDQA architecture support	8/4/2008	8/29/2008																
90																				
91	57%	<b>Event Framework</b>	<b>5/1/2008</b>	<b>10/3/2008</b>																
92	100%	Develop usecases	5/1/2008	5/16/2008																
93	100%	Update event packages	5/27/2008	6/13/2008																
94	100%	Implement configurable on-the-fly event processing (1)	5/27/2008	6/20/2008																
95	50%	Implement configurable on-the-fly event processing (2)	6/23/2008	8/25/2008																
96	0%	Event system failover	8/26/2008	9/2/2008																
97	0%	Configure event monitoring for fault system	9/8/2008	9/19/2008																
98	0%	Configure event monitoring for log analysis	9/22/2008	10/3/2008																
99																				
100	0%	<b>Middleware Interface</b>	<b>8/18/2008</b>	<b>8/29/2008</b>																
101	0%	Merge trace and logging	8/18/2008	8/29/2008																
102																				










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					27	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10
103	25%	<b>Pipeline Harness extensions ¶</b>	5/1/2008	10/29/2008																
104	100%	Develop usecases	5/1/2008	5/16/2008																
105	33%	<b>Complete design for data sharing among Slices</b>	5/27/2008	9/1/2008																
106	33%	<b>Support use cases for interSlice communication</b>	5/27/2008	9/1/2008																
107	50%	identify neighbors of a Slice: known in advance, or dynami	5/27/2008	8/20/2008																
108	0%	identify data types that are transmitted in each use case	8/21/2008	8/27/2008																
109	50%	Determine level at which communication occurs	6/10/2008	9/1/2008																
110	0%	<b>Implement data sharing mechanisms</b>	9/1/2008	10/1/2008																
111	0%	Work to support communication of general serializable types o	9/1/2008	10/1/2008																
112	0%	Develop mechanisms for identifying/accessing	10/1/2008	10/29/2008																
113																				
114	58%	<b>Fault Tolerance</b>	6/16/2008	10/3/2008																
115	100%	Fault tolerance plan - individual contributions	6/16/2008	7/31/2008																
116	50%	Fault tolerance plan - final editing	8/1/2008	8/8/2008																
117	0%	Improving exception handling	9/8/2008	10/3/2008																
118																				
119	0%	<b>Pipeline Orchestration Layer</b>	5/1/2008	9/5/2008																
120	0%	Develop usecases	5/1/2008	5/16/2008																
121	0%	fill out the design of the orchestration layer, identify the component	5/27/2008	7/7/2008																
122	0%	implement an orchestration layer	7/21/2008	8/29/2008																
123	0%	"life-support" services	9/1/2008	9/5/2008																
124																				
125	1%	<b>Applications</b>	6/2/2008	3/31/2009																
126	0%	<b>Applications Framework</b>	6/9/2008	8/29/2008																
127	0%	update from DC2	6/9/2008	8/29/2008																
128	0%	<b>Nightly Processing</b>	6/2/2008	12/30/2008																
129	0%	association pipeline improvements	8/1/2008	12/30/2008																
130	0%	association pipeline improvements to DC2	8/1/2008	12/30/2008																
131	0%	add proper motion, color dependent refraction and source listin	10/6/2008	11/28/2008																
132	0%	instrument signature removal	6/2/2008	11/28/2008																
133	0%	implement infrastructure & standard astronomical CCD image ¶	6/2/2008	10/3/2008																
134	0%	implement selected additional signature removal, eg crosstalk	10/6/2008	11/28/2008																
135	0%	generate usable PSF model for DC3 tasks	6/30/2008	10/3/2008																
136	0%	produce negotiated diagnostic metrics for use by SDQA	9/2/2008	11/28/2008																
137	0%	<b>MOPS</b>	9/2/2008	11/28/2008																
138	0%	tweaks to nightly MOPS	9/2/2008	11/28/2008																
139	0%	integration of DayMOPS into LSST	9/2/2008	11/28/2008																
140	0%	improve WCS determination	10/6/2008	11/28/2008																

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141	0%	improve basis functions	10/6/2008	11/28/2008																
142	0%	source characterization for stars and galaxies	10/6/2008	11/28/2008																
143	1%	<b>Data Release Processing</b>	<b>7/1/2008</b>	<b>3/31/2009</b>																
144	15%	regularize the storage and access to image metadata*	7/28/2008	8/15/2008																
145	0%	image coaddition: image resampling/stacking/combining	7/1/2008	10/3/2008																
146	20%	image retrieval service	7/21/2008	8/22/2008																
147	0%	photometric calibration: simulate pipeline algorithms, handle time d	9/2/2008	1/5/2009																
148	0%	deep detection	10/1/2008	3/31/2009																
149	0%	detection in coadded image	10/1/2008	2/2/2009																
150	0%	psf stellar photometry	10/1/2008	3/2/2009																
151	0%	deblending confused sources	10/1/2008	3/31/2009																
152	0%	galaxy (extended source) photometry framework	10/1/2008	3/31/2009																
153	0%	background estimation	12/1/2008	3/31/2009																
154	0%	Implement algorithm for co-adding images to produce a template i	8/1/2008	1/30/2009																
155	0%	multifit: shape measurements and photometry for galaxies	10/1/2008	3/2/2009																
156	0%	astrometric calibration: determine low order terms	10/1/2008	3/31/2009																
157	0%	photometric calibration: run algorithms against CFHT data	1/5/2009	3/31/2009																
158	0%	SDQA diagnostic generation	9/2/2008	12/1/2008																
159	39%	<b>Database</b>	<b>6/10/2008</b>	<b>11/28/2008</b>																
160	90%	integrate MOPS schema with baseline schema*	6/10/2008	6/30/2008																
161	0%	integrate SDQA persistence into schema	11/3/2008	11/28/2008																
162	0%	<b>SDQA</b>	<b>6/2/2008</b>	<b>2/27/2009</b>																
163	0%	determine SDQA architecture	6/2/2008	10/3/2008																
164	0%	Implement one or more use case end to end	7/7/2008	2/27/2009																
165	0%	<b>Data</b>	<b>6/2/2008</b>	<b>9/30/2008</b>																
166	0%	created simulated data for the difference, template, deep detector	7/1/2008	9/30/2008																
167	0%	provide CFHT data	6/2/2008	9/2/2008																
168																				
169	22%	<b>non-DC3 activities</b>	<b>5/1/2008</b>	<b>6/30/2009</b>																
170	22%	<b>DB group</b>	<b>5/1/2008</b>	<b>6/30/2009</b>																
171	0%	improve trac db documentation for PDR	11/3/2008	11/28/2008																
172	28%	<b>management</b>	<b>5/1/2008</b>	<b>6/30/2009</b>																
173	65%	hiring	7/1/2008	9/15/2008																
174	24%	telecons	5/1/2008	6/30/2009																
175	24%	others unclassified (SOW, status reports, planning etc)	5/1/2008	6/30/2009																
176	10%	ADASS (prep, attending)	9/22/2008	10/10/2008																
177	0%	VLDB'09 prep	1/26/2009	2/13/2009																
178	0%	Possibly CIDR'09 prep	9/9/2008	9/29/2008																

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179	0%	coordinate defining common LSST vocabulary (UCDs)	2/2/2009	6/30/2009																
180	0%	schema browser	5/1/2009	6/22/2009																
181	<b>28%</b>	<b>sciDB</b>	<b>5/1/2008</b>	<b>6/30/2009</b>																
182	100%	initiating sciDB	5/1/2008	6/30/2008																
183	70%	sciDB steering and building community	5/1/2008	9/30/2008																
184	80%	sciDB design and implementation - I	7/1/2008	9/1/2008																
185	0%	sciDB design and implementation - II (change in personnel)	9/2/2008	6/30/2009																
186	17%	outreach, fund raising and proposals (DoE, NSF, other labs)	6/16/2008	6/30/2009																
187	<b>18%</b>	<b>Large scale tests</b>	<b>5/1/2008</b>	<b>6/30/2009</b>																
188	95%	interact with sciCollab chairs, refresh list of common queries	7/1/2008	7/22/2008																
189	0%	interact with sciCollab chairs, refresh list of common queries	12/1/2008	12/19/2008																
190	24%	research new db technologies	5/1/2008	6/30/2009																
191	70%	work with UW on scheduling bigtable tests	6/2/2008	7/31/2008																
192	0%	prepare schema for bigtable tests	7/1/2008	8/8/2008																
193	0%	assist google intern with tests, alternative: run hypertable tests	8/8/2008	11/7/2008																
194	45%	preparing testbed for scalability tests, incl sim data	7/1/2008	7/31/2008																
195	0%	test gridSQL	8/1/2008	9/30/2008																
196	0%	run large scale tests	8/1/2008	9/30/2008																
197	0%	tune/optimize large scale tests (1)	11/3/2008	12/31/2008																
198	0%	rerun large scale tests, increase complexity (queries, concurrency)	1/1/2009	2/27/2009																
199	0%	tune/optimize large scale tests (2)	3/2/2009	4/30/2009																
200	0%	write document refining baseline db architecture	5/1/2009	5/21/2009																
201	0%	<b>investigate internal file format for image pixels</b>	<b>8/1/2008</b>	<b>11/28/2008</b>																
202	<b>54%</b>	<b>XLDB2</b>	<b>7/1/2008</b>	<b>10/15/2008</b>																
203	65%	XLDB2 prep	7/1/2008	9/26/2008																
204	0%	XLDB2	9/29/2008	9/30/2008																
205	0%	XLDB2 report	10/1/2008	10/15/2008																
206																				
207	<b>50%</b>	<b>NCSA</b>	<b>7/21/2008</b>	<b>8/1/2008</b>																
208	50%	Security Document	7/21/2008	8/1/2008																

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