

Building an e-science infrastructure for Astronomy

L. da Costa
LineA & ON

The Dark Energy Survey

DES-Brazil Joined 2007

Blanco 4-meter at CTIO



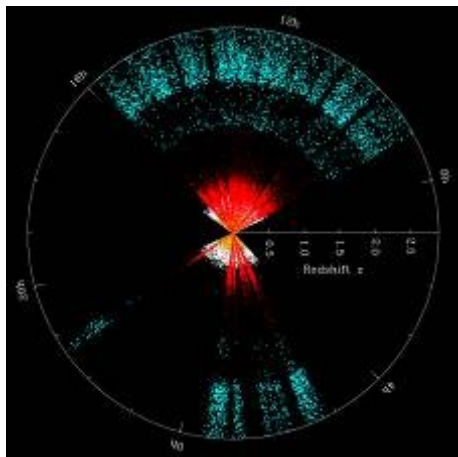
- Stage III DE project using 4 complementary* techniques:
 - I. Cluster Counts
 - II. Weak Lensing
 - III. Large-scale Structure
 - IV. Supernovae
- Two multiband surveys:
 - 5000 deg² *grizY* to 24th mag
 - 30 deg² repeat (SNe)
- Build new 3 deg² FOV camera and Data management system

Survey 2012-2017 (525 nights)

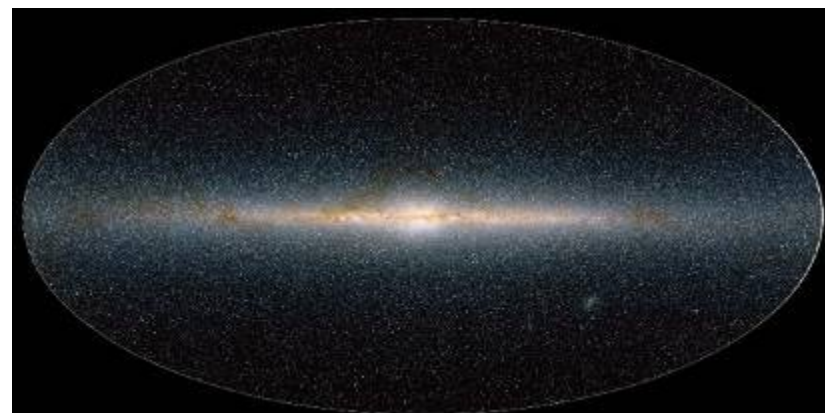
*in systematics & in cosmological parameter degeneracies
 *geometric+structure growth; test Dark Energy vs. Gravity

LSST Meeting Campos de Jordão, April 1-4

BPG Joined 2008



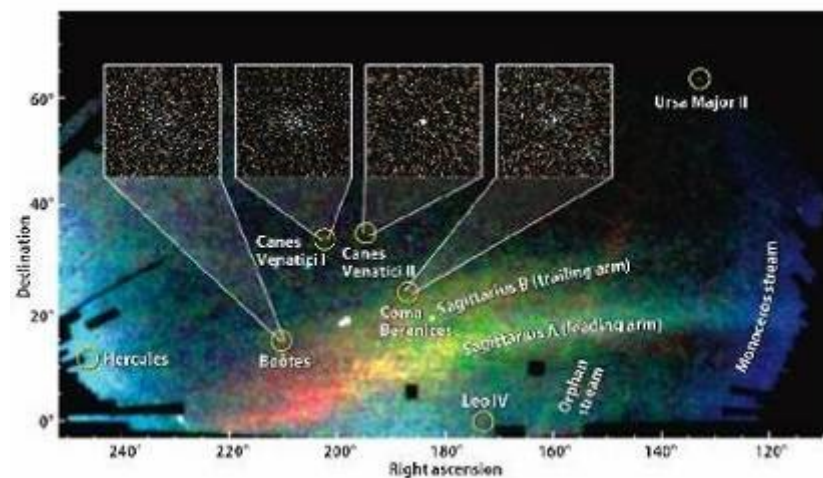
BOSS



APOGEE



MaNGA



SEGUE II

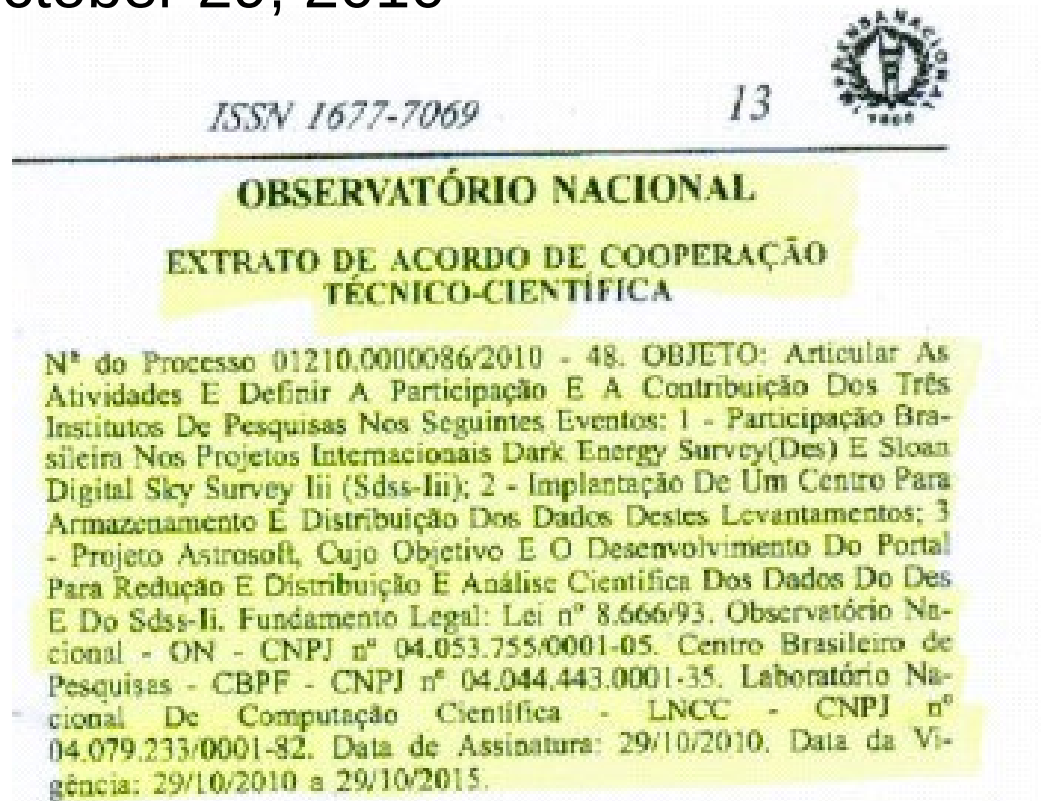
In-kind contribution

- DES
 - QA
 - Science Portal
 - Tertiary site
 - QR

- SDSS
 - Mirror site
 - Interface to SAS

LineA's creation

Signed October 29, 2010





Centro Brasileiro de Pesquisas Físicas



Laboratório Nacional de Computação Científica



Observatório Nacional

&



RNP

Rede Nacional de Ensino e Pesquisa
Promovendo o uso inovador de redes avançadas no Brasil



LineA
Laboratório Interinstitucional de e-Astronomia

Início • Ciência • Serviços • Pessoal • Atividades • Notícias • Divulgação • LineA na Mídia • Contato

O que é o LineA?

É o laboratório interinstitucional envolvendo o Observatório Nacional, o Centro Brasileiro de Pesquisas Físicas e o Laboratório Nacional de Computação Científica, criado com a finalidade de dar suporte à participação brasileira em experimentos científicos utilizando os dados provenientes de grandes levantamentos astronômicos - os projetos Dark Energy Survey e Sloan Digital Sky Survey III. Para alcançar os objetivos científicos destes projetos, o LineA gerencia toda uma infraestrutura de armazenamento, processamento, análise e distribuição de dados astronômicos através do projeto Astrosoft. Participam do LineA pesquisadores e técnicos dos institutos do MCT mencionados acima, além de professores de universidades.

Notícias

July 11, 2011
LineA participa da Feira FAPERJ de Ciência, Tecnologia & Inovação 2011
Nos dias 29 e 30 de junho, o LineA participou da II Feira FAPERJ de CT&I 2011. O evento reuniu cerca de 300 pesquisadores, empreendedores e alunos com projetos no Centro Cultural de Ação da Cidadania, todos financiados pela FAPERJ... [Leia mais](#)

June 1, 2011
APOGEE inicia operações na montanha
Em 25 de abril de 2011, a câmera infravermelha do APOGEE ("Apache Point Observatory Galactic Evolution Experiment") chegou ao sítio do Observatório Apache Point, nas Montanhas



Astrosoft

O objetivo do projeto Astrosoft é desenvolver uma infra-estrutura de hardware e software necessária para gerenciar e explorar os dados provenientes de grandes levantamentos como o DES e o SDSS-III. Levantamentos deste porte requerem grande capacidade para a transferência, armazenamento e processamento de dados. A disponibilidade do sistema Astrosoft permitirá não apenas a participação brasileira nos levantamentos DES e SDSS-III, mas alavancará a participação de toda a comunidade brasileira em outros levantamentos, seja de forma direta ou indireta, explorando cientificamente os dados acumulados por estes levantamentos na medida em que estes

[Mais informações >>](#)



DES-Brazil
Dark Energy Survey

O levantamento Dark Energy Survey tem o objetivo de estudar a natureza da energia escura, uma componente descoberta recentemente, que representa da ordem de 70% do conteúdo do Universo, sendo esta energia a responsável pela aceleração de sua expansão. O projeto procura determinar a abundância da energia escura e a sua variação ao longo da história do Cosmos, através de quatro observáveis obtidos através dos estudos: 1- do número de aglomerados de galáxias em função do desvio para o vermelho (redshift); 2- das distorções nas imagens das galáxias causadas pelo efeito de lentes gravitacionais fracas; 3- da distribuição de galáxias em grande escala e; 4- da

[Mais informações >>](#)



SDSS-III
BRAZILIAN PARTICIPATION GROUP

O projeto Sloan Digital Sky Survey III é uma colaboração internacional, consistindo de vários levantamentos espectroscópicos de extensas regiões do céu, que criam amostras estatísticas sem precedentes para estudos em diferentes áreas. Quatro grandes temas serão estudados: a) através da distribuição de galáxias em grande escala serão examinadas as condições físicas nos primórdios do Universo; b) será mapeada a estrutura, cinemática e composição química das partes mais externas da Via Láctea; c) exames das partes centrais da Via Láctea serão feitos no infravermelho, de forma a se evitar o obscurecimento pelas nuvens de poeira nestas regiões; d) monitoramento de 11 mil estrelas para

[Mais informações >>](#)

Observatório Nacional Centro Brasileiro de Pesquisas Físicas Laboratório Nacional de Computação Científica

Apoio:   

LineA • Laboratório Interinstitucional de e-Astronomia

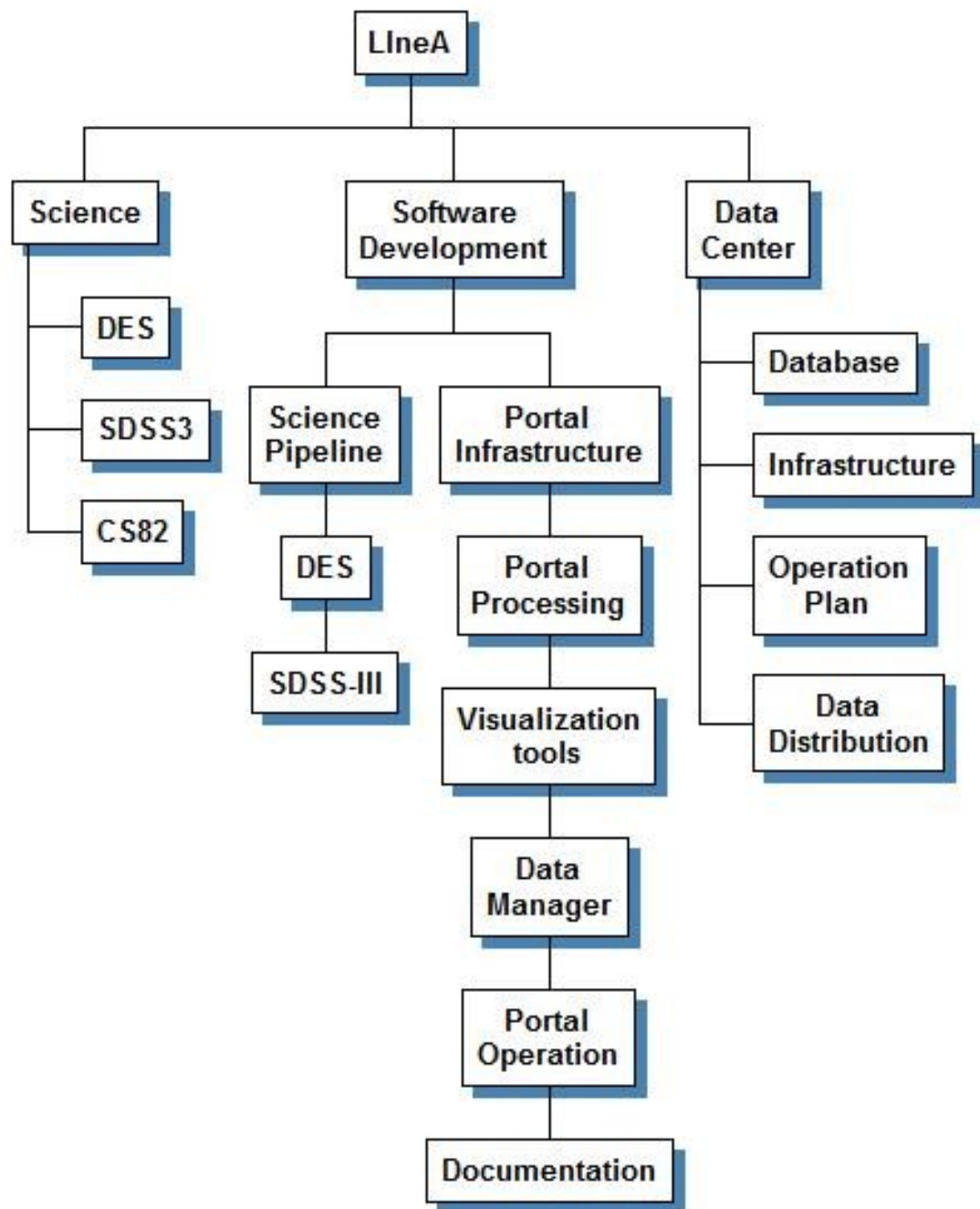
- 12 Technical Staff
- 30 scientists:

1. AIP
2. OAC
3. Padova
4. UFRJ
5. UFRGS
6. UNESP
7. USP
8. UFF

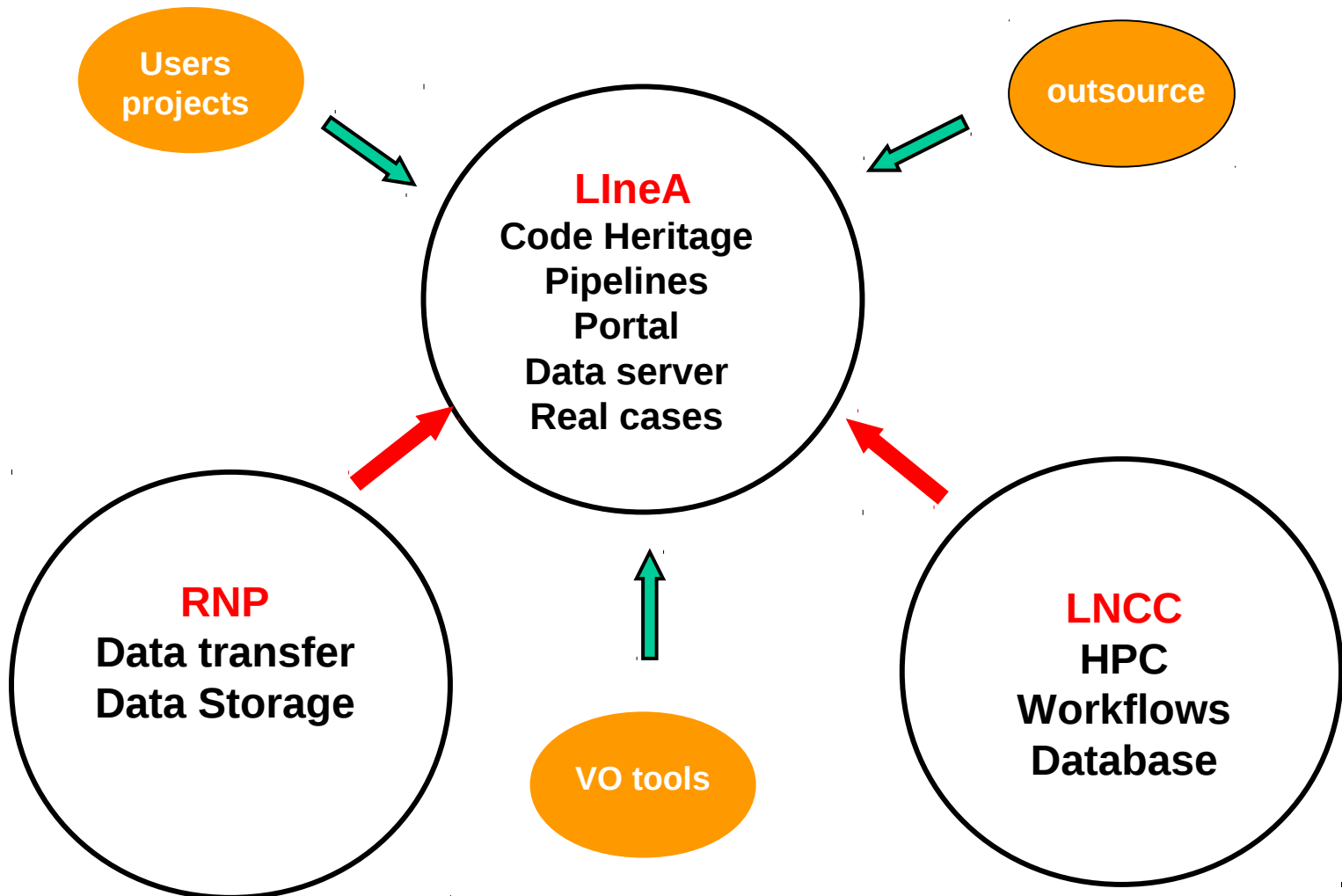


Main goals

- Logistical support to large survey work (management, collaboration tools, finances)
- Develop e-science infrastructure for:
 - Processing
 - Archiving
 - Analyzing
 - Data mining
 - Data distribution
- Support of other activities
 - Helpdesk
 - Code development environment (science libraries, licenses, code versioning)
 - Code inheritance
 - R&D (workflows, database)
 - Data Curation
 - Archival of raw data handled by LNA
 - Archive of advanced data products
 - DES, SDSS-III, etc...



Working Model



Current Resources

- Internal technical team +/- 12 people
- Outsource
 - SLACAM – installation, procurement, monitoring and maintenance
 - Web designer
 - DBA
 - DR9 installation
 - T&T – software development
- Consultants
 - LNCC (W. Leo, F. Porto)
 - RNP (M. Stanton team)
 - COPPE
 - CEFET

Software Development

Examples

- Science codes

- Galaxy model
- Chemical evolution model
- Galaxy sub-structure detection
- QSO mocks
- Clustering
- Cluster finder
- Simulation and detection of arcs
- Data reduction (QR, Precam, DECam)

- Portal infrastructure*

- Workflows

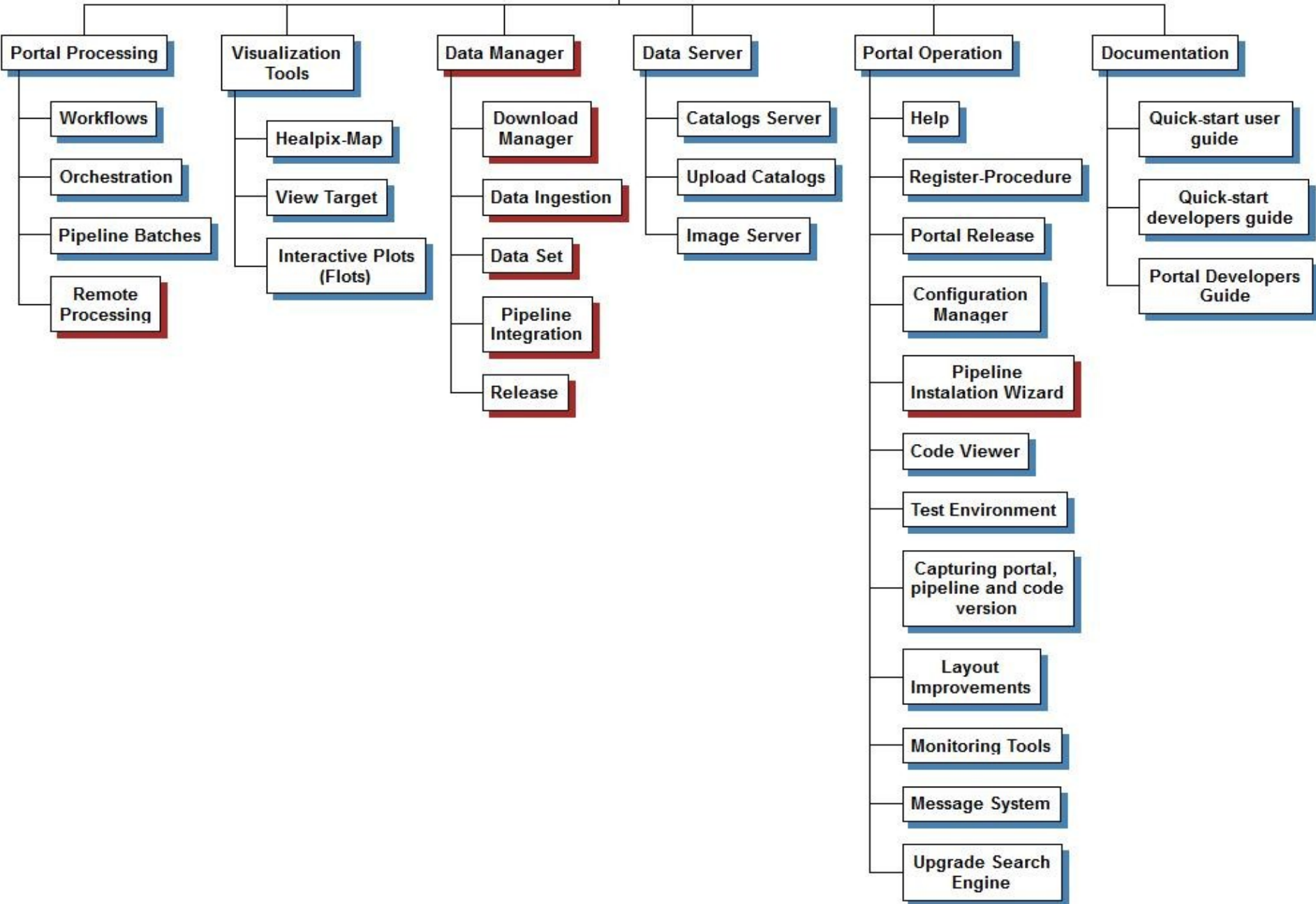
- Science Applications

- Image processing* (Precam, QR)
- QA*

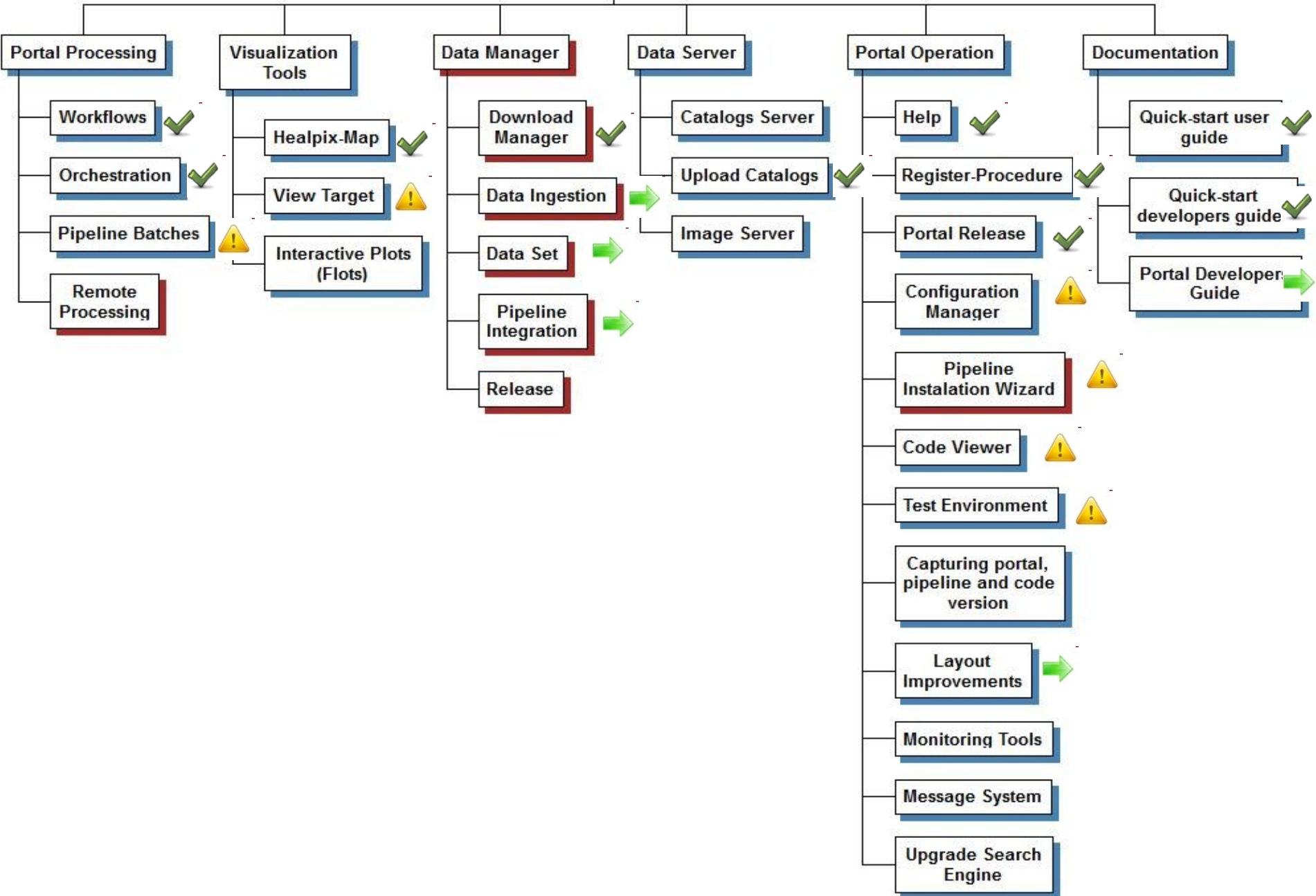
- Science Pipelines

- Cluster*
- Photo-z
- MW
- QSO (poster)
- LSS
- GE

Portal Development



Portal Development



The Dark Energy Survey

Luiz da Costa
Welcome to the Testing portal.

Science Portal

Home Release Notes My Workspace Pipelines Tools Data Server Documentation Help Credits Other Portals Logout

Introduction to the Science Po

This portal is a web-based service that gives t to manage products. Links and documentation parts of the system as well as short explanator oversee the entire system.

The services currently available under the menu folder include:

- **My Workspace:** provides access to the profile, processes, configurati status, allowing the access to: 1) the portal machines through ssh; 2)
- **Pipelines:**
 - **Data Reduction:** provides access to Quick Reduce, a tool to re will turn into the PRECam reduction pipeline.
 - **Advanced Products:** here the user can produce and export cat
 - **Science:** provides access to the available scientific pipelines, g available pipelines (processes) in each group varies in the degr according to the user-specified workflow and algorithms, that query for data, process one or more jobs, depending on the number of input data sets, and generate scientific products that are stored in a temporary directory, which can later be saved or exported by the user. The processes can be run offline with the users being notified by e-mail upon completion.
- **Tools:** provides a large variety of tools, like processes running in the cluster, code manager, cluster environmental information, enabling the access to the administrative layer of the portal for those with permission. Here is also available the means to monitor the Survey Coverage
- **Data Server:** provides the infrastructure and the tools to upload data to the portal and to export the data from within the portal framework to a user specified target directory (in different formats depending on the product type) or to publish a result to the collaboration at large (such as exemplified by the value-added catalog) or in the public domain. A data release must be authorized by the management of the project and requires the preparation of readme files, the announcement on predefined web pages and the triggering of e-mails to a predefined mailing list.
- **Documentation:** you guide to the Portal. How to become a developer, wrap a code and include as a pipeline as well as links to other sources of DES documentation.
- **Help:** provides access to a Glossary, [FAQ](#), Site Map, Help Desk and Comments.
- **Credits:** the terms of the copyright, a list of people directly involved in the development and operation of the portal, and the names of external collaborators.

DES CTIO Portal

Valter Machado

Welcome to the Valter portal.

[Home](#)
[Release Notes](#)
[My Workspace](#)
[Pipelines](#)
[Tools](#)
[Documentation](#)
[Help](#)

Logout

Monitor

Quick Reduce

Exposures

Reduction Mode

☒ AUTOMATIC
 ☐ MANUAL

Status

Running on Testing environment.

Mode

Automatic mode enabled.

Disk Usage

78%

Quick Reduce Control

STOP

Reset

Configure

Last Exposure Info

Exposure ID: 23781
 RA: 22:18:23
 Dec: -42:17:60
 MJD: 55497.110417
 Filter: z

New Exposures

2012-03-26 02:51:07 No matching exposures found.
 2012-03-26 02:50:56 No matching exposures found.
 2012-03-26 02:50:44 No matching exposures found.
 2012-03-26 02:50:32 No matching exposures found.
 2012-03-26 02:50:20 No matching exposures found.
 2012-03-26 02:50:08 No matching exposures found.
 2012-03-26 02:49:56 **EXPOSURE ID 24412, decam--25--42-z-9_00024412.fits**
 2012-03-26 02:49:30 No matching exposures found.
 2012-03-26 02:49:18 No matching exposures found.
 2012-03-26 02:49:06 No matching exposures found.

Reduction Processes

2012-03-26 02:49:57 Waiting for reduction requests...
 2012-03-26 02:49:57 End process 10006401, duration 130s
 2012-03-26 02:49:57 **Start process 10006401, EXPOSURE ID 23081**
 2012-03-26 02:48:19 Waiting for reduction requests...
 2012-03-26 02:48:19 End process 10006400, duration 111s
 2012-03-26 02:48:19 **Start process 10006400, EXPOSURE ID 23080**
 2012-03-26 02:46:20 Waiting for reduction requests...

Release Date: Mon Mar 26 2012 - 11:40:44

Copyright TM

Observing room 4-m CTIO





Science Portal

[Home](#) [Release Notes](#) [My Workspace](#) [Pipelines](#) [Tools](#) [Data Server](#) [Documentation](#) [Help](#) [Credits](#) [Other Portals](#) [Logout](#)

APOGEE

▶ ATSSIM

(January 25, 2010)

The SDSS3-BPG portal is a web-based service that gives the user means to produce and validate catalogs, perform scientific analysis and to manage products. Links and documentation are all easily accessible in an integrated environment. The system tries to be self-evident with in-line help available in various parts of the system as well as short explanatory demonstration movies available in the Help session. The portal also provides tools for power-users and system administrators to oversee the entire system.

The services currently available under the menu folder include:

- **My Workspace**: provides access to the profile, processes, configurations, and products of the user.
- **Pipelines**: provides access to the available scientific pipelines, grouped in sub-categories (sub-folders) representing each survey (APOGEE, BOSS, MARVELS and SEGUE-2). The available pipelines (processes) in each group varies in the degree of sophistication and scope but all consist of concatenated full configurable modules chosen according to the user-specified workflow and algorithms, that query for data, process one or more jobs, depending on the number of input data sets, and generate scientific products that are stored in a temporary directory, which can later be saved or exported by the user. The processes can be run offline with the users being notified by e-mail upon completion.
- **Other portals**: links to NVO portal.
- **Tools**: provides a large variety of tools, like processes running in the cluster, code manager, cluster environmental information, enabling the access to the administrative layer of the portal for those with permission.
- **Data Server**: provides the infrastructure and the tools to export the data from within the portal framework to a user specified target directory (in different formats depending on the product type) or to publish a result to the collaboration at large (such as exemplified by the value-added catalog) or in the public domain. A data release must be authorized by the management of the project and requires the preparation of readme files, the announcement on predefined web pages and the triggering of e-mails to a predefined mailing list.
- **Help**: provides access to demos, links to other relevant sites, a forum for peer-to-peer communication, a helpdesk service and a monitor of tickets.
- **Credits**: the terms of the copyright, a list of people directly involved in the development and operation of the portal, and the names of external

1. DES Collaboration

- Collaboration meetings
- Review Fermilab Oct 2010
- Review University Pennsylvania Oct 2011
- Review MPE May 2012

2. LSST

- SLAC (2009)
- University of Washington (2009)
- PPARC/Caltech (2010)
- ON (2012)

3. Others

- SAB(2011)

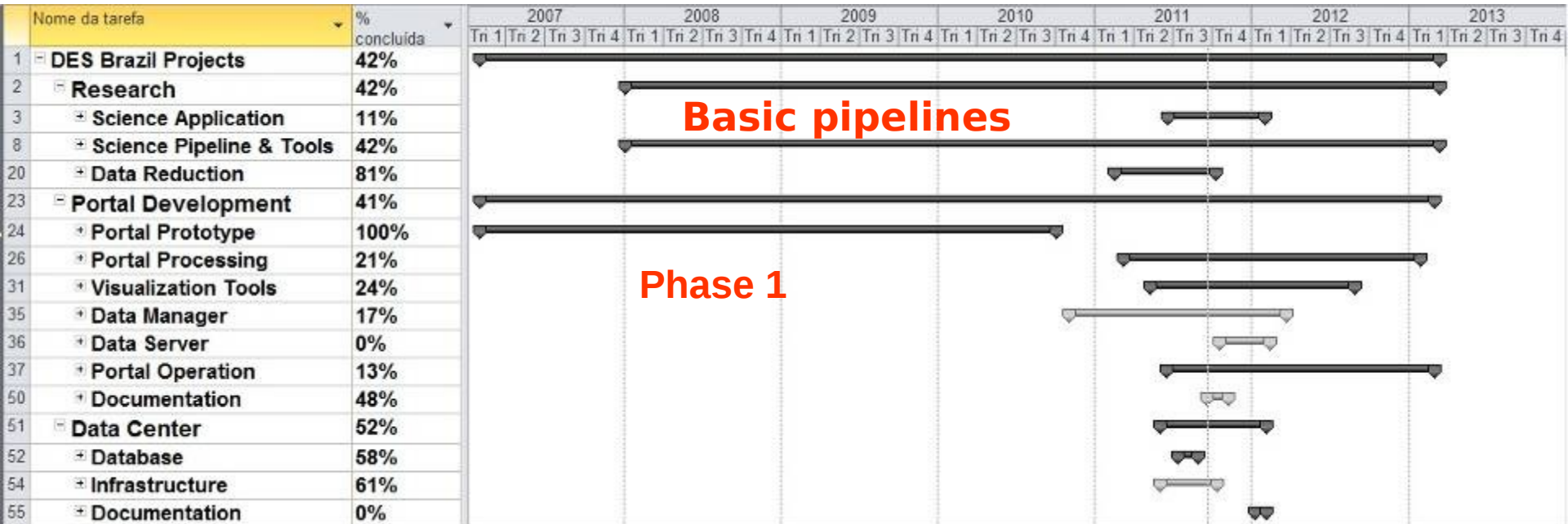
Portal Reviews

2010 - *"The system is actually much more than a Science Portal, it is a comprehensive, web-based eScience Analysis Center for the Dark Energy Survey Collaboration. It is designed to be very general, and allow the sharing of code, data, and results of analysis world-wide, in a virtual environment. **We don't know that anything quite like it exists yet - it is forward-looking and ambitious.**"*

2011 - *"The Brazil Portal concept includes a place where large-collaboration astrophysics analysis can be directed: a central place for checking in codes; compiling, linking, and running those codes; making plots and sharing them, all in a repeatable, archived fashion; and the ability to run things in parallel in larger volume. **The vision of the Brazil portal is commendable and should go forward.** The portfolio of tasks is large, yet the resources to undertake the work are limited. "*

Management

Project Schedule



92 scope documents & interviews

Id	Nome da tarefa	% concluída	Duração	Início	Término	Predecessores	Nomes dos recursos
1	QA	70%	109,75 dias	Ter 19/07/11	Qui 22/12/11		
2	Phase 2	100%	65 dias	Ter 19/07/11	Seg 17/10/11		
3	Design	100%	16 dias	Ter 19/07/11	Ter 09/08/11		
4	Development of Design Document	100%	16 dias	Ter 19/07/11	Ter 09/08/11		Nicolaci
5	Development	100%	57 dias	Sex 29/07/11	Seg 17/10/11		
6	QA Organization	100%	49,4 dias	Sex 29/07/11	Qui 06/10/11		
7	QA Tools version	100%	2 dias	Sex 29/07/11	Ter 02/08/11		Ogando;Angelo
8	Workflow and Parallelization	100%	14 dias	Qui 04/08/11	Sex 30/09/11	7TI+2 dias	Ogando
9	QA product log structure	100%	4 dias	Seg 08/08/11	Qua 05/10/11	8	Ogando
10	Input datasource	100%	1 dia	Qua 10/08/11	Qua 10/08/11	9	Angelo
11	Rearrange old QA tests	100%	2 dias	Qua 10/08/11	Qui 06/10/11	9	Ogando
12	QA Basic Requirements Trivial	100%	36,4 dias	Qui 11/08/11	Sex 30/09/11		
13	Classification	100%	1 dia	Sex 16/09/11	Seg 19/09/11	19TT	Basilio
14	Depth	100%	1 dia	Sex 16/09/11	Seg 19/09/11	19TT	Pellegrini
15	Completeness/Contamination	100%	1 dia	Sex 16/09/11	Seg 19/09/11	19TT	Basilio
16	Photometry	100%	1 dia	Sex 16/09/11	Seg 19/09/11	19TT	Pellegrini
17	Astrometry	100%	1 dia	Qui 11/08/11	Qui 11/08/11		Basilio
18	Image Quality	100%	1 dia	Qui 29/09/11	Sex 30/09/11	19TT	Martin
19	Uniformity	100%	12 dias	Sex 26/08/11	Sex 30/09/11		Ogando
20	Photo-z	100%	1 dia	Sex 16/09/11	Seg 19/09/11	19TT	Basilio
21	Science Requirements	100%	11 dias	Qui 15/09/11	Sex 30/09/11	19TT	Basilio;Benoist;Martin;Pellegrini
22	Trivial Consolidator	100%	4 dias	Seg 26/09/11	Sex 30/09/11		
23	Consolidate tasks results	100%	4 dias	Seg 26/09/11	Sex 30/09/11	21TT	Ogando
24	QA Advanced	100%	2 dias	Sex 14/10/11	Seg 17/10/11		
25	Rearrange QA tests (QA Color)	100%	2 dias	Sex 14/10/11	Seg 17/10/11	22	Ogando
26	Phase 3	45%	34,75 dias	Ter 01/11/11	Qui 22/12/11		
27	General	71%	25 dias	Ter 01/11/11	Qui 08/12/11		
28	Finish ingestion of DC68 (Bug 1763)	100%	12 dias	Ter 01/11/11	Seg 21/11/11		Angelo
29	Find better solution for heatmap plots	100%	9 dias	Ter 01/11/11	Qua 16/11/11		Cristina



Over 800 tasks of approved projects

WebHome < LINEA < TWiki > Mozilla Firefox

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda

http://twiki.linea.gov.br/bin/view/LINEA/WebHome

★ - BIGBOSS

Mais visitados Mapa da Rede Rio de ... http://www.des-brazil... 14 Precam Astrophysics Smithsonian/NASA AD... Dashboard - Confluence inFAPERJ Dark Energy Survey Doodle: New Telecons TioSam.com, Dicionári... Doodle: Doodle: Log in

WebHome < LINEA < TWiki x Traffic Analysis for 1 -- RedeRio... qr Administrative Database Astrophys. Inst. Potsdam - Tele... BigBoss LINEA | Laboratório Interinstituc... SDSS SkyServer DR8

LINEA

You are here: TWiki > LINEA Web > WebHome

Laboratório Interinstitucional de e-Astronomia

r108 - 11 Jul 2011 - 17:16 - CristinaQuartin

Webs Utilities Options

Jump Search

Current Info

- Newsletter
- Events (Meetings, Telecons, Workshops...)
- Blogs
- GoogleAnalytics
- Phone numbers for emergency cases

LINEA Management

- Comite Gestor
- Executive Committee
- Science Committee Web
- BPG-Board
- DES-Board

Project Management

- Documentation
- Scope and Requirements
- Scope & Design Delivery Control
- Project Schedules**
- Quality
- Weekly Priorities
- Project Manager Web (internal)

Planning

- Pre-CIT
- Priorities List
- Milestones**
- Weekly reports
- Project Tracking
- Budget

Structure

- Administration (organization, operations, mailing lists, etc)
- Members
- Public relations and outreach

Science

Concluido

LINEA e astronomy

QR passes the test and it is the first successful deliverable of DES-Brazil!
147 days ago · reply · retweet · favorite

LINEA DR8 mirror site is available for the collaboration at <http://skyserver.linea.gov.br>...
192 days ago · reply · retweet · favorite

The DR8 database is currently being uploaded (23%) the estimated completion time is 20h.
197 days ago · reply · retweet · favorite

The download of the DR8 database took 4d5h, the mean transfer rate was 207 Mbps, including the maintenance stop of ~6h at the POP.
197 days ago · reply · retweet · favorite

LINEA DR8 server was installed at PoP, the 10TB database is currently being downloaded.
203 days ago · reply · retweet · favorite

DR8 is available for the collaboration via skyServer and CASJobs interfaces. See e-mail sent today to bpp-science for details.
210 days ago · reply · retweet · favorite

twitter Join the conversation



Helpdesk

{1} Active Tickets - LineA - Mozilla Firefox

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda

http://ticket.linea.gov.br/report/1

Guia rápido BANCOS NEWS ADM diversao SCIENCE DES-Brazil Document ... WebHome < Main < T... Available Reports - as... Google Calendar Receita Federal do Br... Rio Tócio | A mais Hon...

weekly planner - Google Docs Google Calendar Minutes from telecons - Googl... SDSS SkyServer DR8 ScienceCommittee < LINEA < {1} Active Tickets - LineA

{1} Active Tickets (108 tickets)

- List all active tickets by priority.
- Color each row based on priority.

Results (1 - 100 of 108)

Ticket	Summary	Reporter	Component	Type	Owner	Status	Created
#1078	Erro em rodada de pipeline	ramos	Other	defect	renan	accepted	01/21/11
#1077	Instalação de novo release das bibliotecas cosmo* no tawala	pennalima@...	Other	defect	renan	accepted	01/19/11
#1076	Instalação da biblioteca cuba no tawala	pennalima@...	Other	defect	regiopiress	assigned	01/19/11
#1075	Fwd: [sdss3-archive 2220] SkyServer API and Help pages	angelofausti@...	Other	defect	regiopiress	assigned	01/19/11
#1074	turn on GMBGP pipeline	ogando@...	Other	defect	rossetto	assigned	01/18/11
#1073	GMBGP	jeeseons@...	Other	defect	rossetto	assigned	01/18/11
#1070	videocon	ogando@...	Other	defect	regiopiress	assigned	01/17/11
#1069	data transfer	ldacosta@...	Other	defect	rossetto	assigned	01/15/11
#1067	Fwd: [Sala cluster]	martinmakler@...	Other	defect	renan	accepted	01/14/11
#1064	Códigos no Tawala para QA Classification	ramos	Other	task	rossetto	assigned	01/14/11
#1063	pages	ldacosta@...	Other	defect	valter	accepted	01/14/11
#1062	Fwd: Re: Fwd: Shared Process	ldacosta@...	Other	defect	singulani	accepted	01/14/11
#1061	Acréscitar pipeline QA Classification no portal	ramos	SciencePortal	task	renan	accepted	01/13/11
#1060	mailing list	ldacosta@...	Other	defect	regiopiress	assigned	01/13/11
#1059	parallel data source	ogando@...	Other	defect	rossetto	assigned	01/13/11
#1057	precam reduction	ldacosta@...	Precam	defect	rossetto	accepted	01/12/11
#1055	Erro ao acessar process log	rossetto@...	Other	defect	singulani	accepted	01/11/11
#1054	designated port number - Mariana	pennalima@...	Other	defect	renan	accepted	01/10/11
#1051	link environment	ldacosta@...	Other	defect	tiagomscabral	accepted	01/07/11
#1049	Rejected posting to DES-PRECAM-OBS@LISTSERV.FNAL.GOV	LISTSERV@...	Other	defect	martelli	new	01/06/11
#1047	Modificação do título de pop up interno	ramos	Other	task	singulani	accepted	01/06/11
#1045	[LINEA website] Implementar contador de acessos	angelofausti	Other	task	valter	accepted	01/05/11
#1044	Update Workflow documentation	ogando@...	Other	defect	martelli	assigned	01/04/11
#1043	Product log documentation in portal needs back link	ogando@...	Other	defect	martelli	assigned	01/04/11
#1042	[Spatial 2-point Correlation] Front cover missing	fsimoni@...	Other	defect	martelli	assigned	01/03/11

Concluído

Thunderbird {1} Active Tickets - L... workshop Jan 2011 Microsoft PowerPoint ... PT 10:30

LSST 1800+ tickets since June 2009, April 1-4

Data Center

- **Process**
 - Local development
 - Production (for local and international members)
 - Remote (SINAPAD, UNESP, Fermilab, NCSA)
- **Archive**
 - Backups
 - Catalogs & images
 - Databases
- **Service**
 - Code repository
 - Code development and testing
 - Portal
 - data distribution
 - data curation (DES, SDSS, SOAR, Gemini, CFHT)
 - access to other data sets
 - VO tools
 - helpdesk

Hardware Infrastructure

Number Crunchers

Current

- One site
- 200 cores
- 800 TB

End 2012

- 2 sites
- 800 cores
- 800 TB

Grid Servidores LINEA (01-NC)

Host	Status	Services	Actions
nc01	UP	18 Ok	
nc02	UP	18 Ok	
nc04	UP	18 Ok	
nc05	UP	17 Ok	
nc06	UP	17 Ok	
nc07	UP	18 Ok	
nc08	UP	18 Ok	
nc10	UP	20 Ok	
nc11	UP	20 Ok	
nc12	UP	17 Ok	
nc13	UP	18 Ok	
nc14	UP	18 Ok	
nc15	UP	18 Ok	
nc16	UP	18 Ok	
nc21	UP	18 Ok	
nc22	UP	18 Ok	
nc23	UP	18 Ok	
nc24	UP	18 Ok	
nc25	UP	18 Ok	
nc26	UP	18 Ok	

Servidores Apoio LINEA (02-APOIO)

Host	Status	Services	Actions
as01	UP	8 Ok	
as02	UP	8 Ok	
devel	UP	12 Ok	
devel2	UP	18 Ok 3 CRITICAL	
google	UP	1 Ok	
lupa	UP	16 Ok	
mx1	UP	14 Ok	
ns1	UP	18 Ok	
ns2	UP	18 Ok	
operations	UP	18 Ok	
service	UP	8 Ok	
srvticket	UP	18 Ok	
wiki	UP	16 Ok	
ws2	UP	18 Ok	

Servidores de Banco de Dados (03-BANCO DE DADOS)

Host	Status	Services	Actions
db	UP	21 Ok	
dbdss1	UP	7 Ok	
dbdss2	UP	12 Ok	

Database

Services

Storages Linea (04-STORAGES)

Host	Status	Services	Actions
ms01	UP	1 Ok	
storage01	UP	14 Ok	
storage02	UP	18 Ok	

Storage

Servidores Hospedeiros (05-HOSPEDEIROS)

Host	Status	Services	Actions
virt01	UP	14 Ok	
virt02	UP	11 Ok	
virt03	UP	12 Ok 1 CRITICAL	
ws1	UP	18 Ok 1 WARNING	

Switches LINEA (06-SWITCHES/ROTEADORES)

Host	Status	Services	Actions
blackdiamond	UP	1 Ok	
rt-linea-01	UP	3 Ok	
starburst	UP	1 Ok	
sw-cisco-24po-01	UP	1 Ok	
sw-pocri-stack01	UP	2 Ok	

Services

- **System**
 - APACHE
 - Rocks
 - Condor
 - Globus
 - Qmail
- **WEB Applications**
 - ClockingIT
 - Doc-db
 - twiki
 - gitweb
 - trac
- **Database**
 - SDSS-II MS SQL
 - DES PostgreSQL
- **Software**
 - git
 - tawala
 - Science libraries
- **Operations**
 - garbage collector
 - purge
 - save
 - cutout service
 - view target
 - data server (casjobs)
- **Portal instances**
 - user
 - testing
 - homolog
 - production

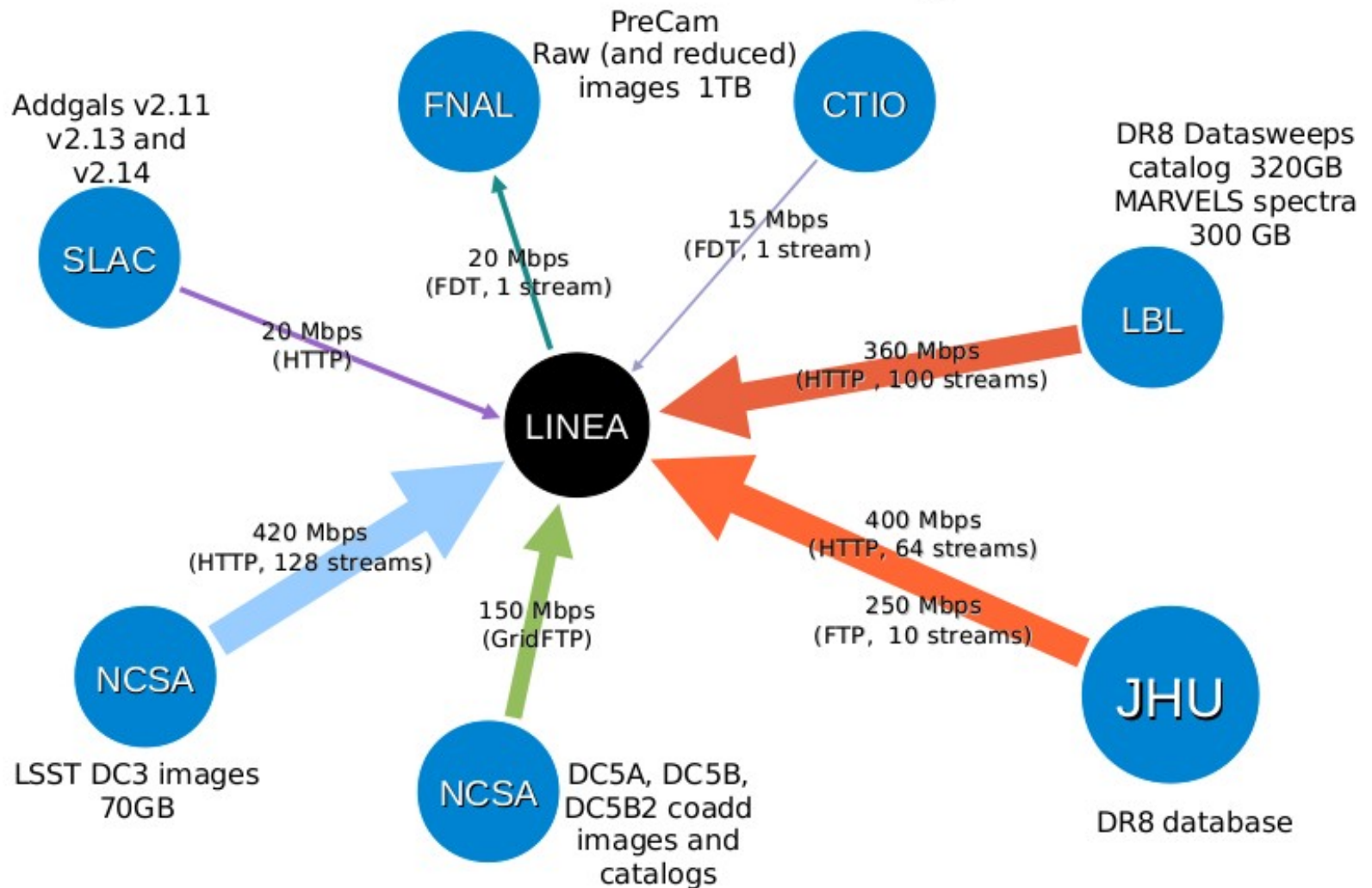
New Acquisitions



+

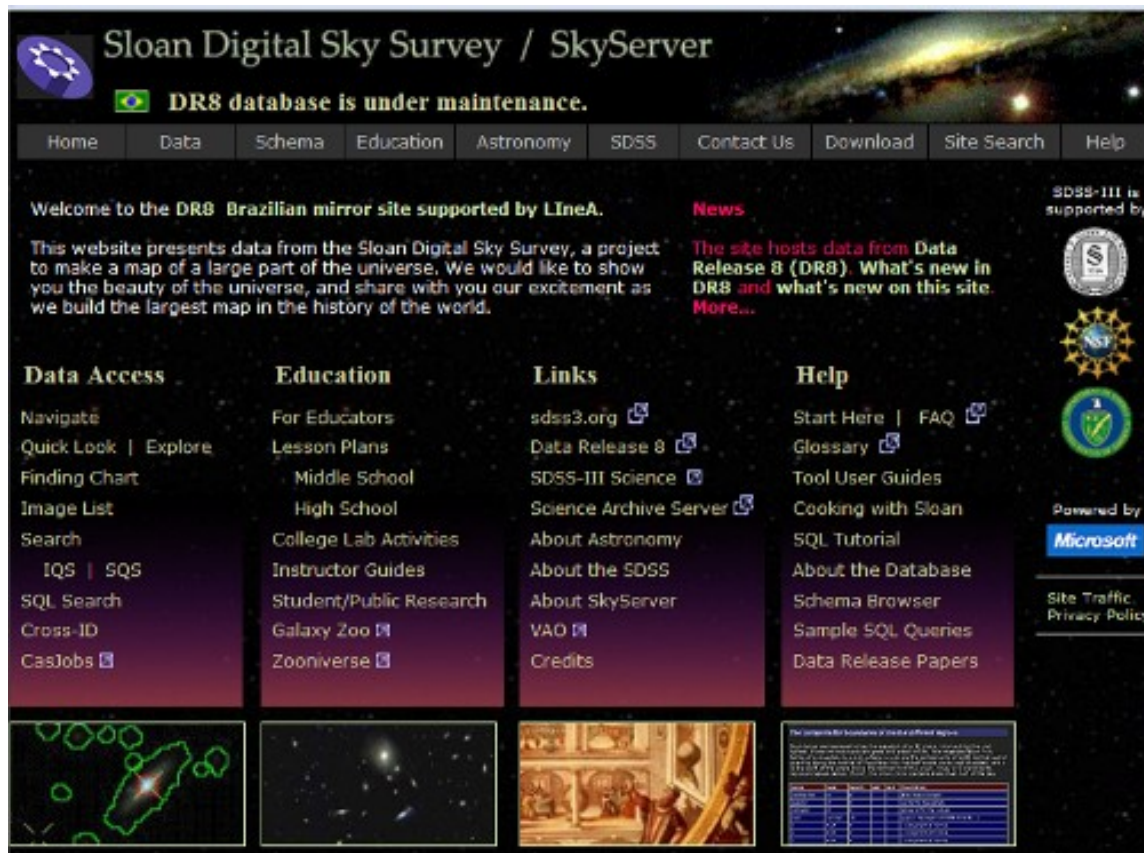
Altix XE 1300 CLUSTER
(600 Cores, 4800GB Mem)





Virtual circuits

Data Distribution

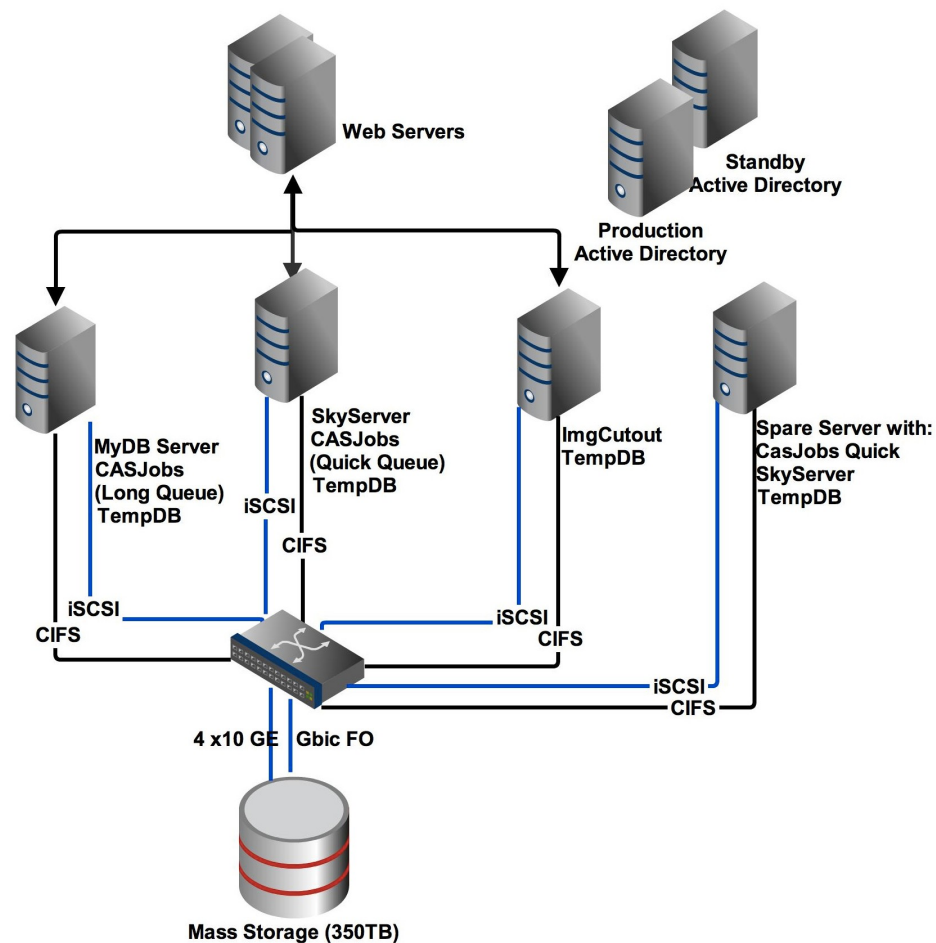


DR8 – skyserver only

DR9 – skyserver, casjobs

LSST Meeting Campos de Jordão, April 1-4

DR9 Implementation



DR9 SQL Server copy1 (data[1-4]; 4TB each)
 DR9 SQL Server copy2 (data[1-4]; 4TB each)
 DR9 SQL Server spare copy (data[1-4]; 4TB each)
 MyDB Server copy1 (data1 of 1TB)
 MyDB Server spare copy (data1 of 1TB)

Future

Long-term view

we are here



Projeto	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
SDSS-III										
DES										
CS82										
CFHT SS										
AS3										
Bigboss										
DESpec										
LSST										

A GLIMPSE INTO THE FUTURE OF ASTRONOMY



OBSERVATÓRIO NACIONAL

CELEBRATING 180 YEARS OF ASTRONOMY IN BRAZIL

RIO DE JANEIRO, MAY 27-28, 2008

Ministério da
Ciência e Tecnologia



PROGRAM

Tuesday - May 27

08:00 Registration

08:45 Opening Remarks - Luis Antonio Rodrigues Elias - Secretário-Executivo do MCT

Session 1: Large Facilities (Chair: J. Peoples)

09:00 *The European Extremely Large Telescope* R. Gilmozzi (ESO)

09:40 *Future Capabilities in Ground-based Optical/Infrared Astronomy at NOAO* V. Smith (NOAO)

10:20 Coffee

11:00 *The Giant Magellan Telescope* W. Freedman (Carnegie)

11:40 *The Thirty Meter Telescope* C. Steidel (Caltech)

12:20 Lunch

Session 2: Surveys (Chair: R. Kirshner)

14:00 *SDSS-III* R. Kron (University of Chicago)

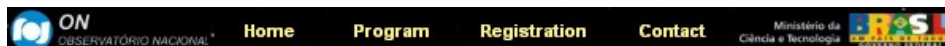
14:40 *Dark Energy Survey* J. Peoples (Fermilab)

15:20 Coffee

16:00 *Pan-STARRS* J. Tonry (University of Hawaii)

16:40 *LSST: Mining the New Digital Sky* C. Smith (CTIO)

Wednesday - May 28



NEW ASTRONOMY: THE DATA CHALLENGE

OBSERVATÓRIO NACIONAL
MAY 29, 2008

Speakers:

C. Cox (AMPATH)
P. Dias (LNCC)
M. Faerman (RNP)
J. Kantor (LSST)
L. Martelli (ON)
C. Smith (CTIO)
C. Thomaz (SUN)
J. Tonry (U. Hawaii)

The presentations will be broadcasted here.



Both scientific & technical

Campos de Jordão, April 1-4

Summary

- Remarkable progress in a few years
- Work done in coordination with other MCT institutes
- Moving from R&D to operation environment
- LINEA committed to:
 - invest in e-science
 - coordinate involvement of Brazilian teams in large international surveys (DES, SDSS-III, AS3 ?, LSST ?)
 - collaborate with LSST DM with no strings attached
 - data curation (surveys, LNA)

extra slides

ClockingIT - Mozilla Firefox

Arquivo Editar Exibir Histórico Favoritos Ferramentas Ajuda

http://cit.des-brazil.org/reports/list

Guia rápido BANCOS NEWS ADM diversao SCIENCE DES-Brazil Document ... WebHome < Main < T... Available Reports - as... Google Calendar Receita Federal do Br... Rio Tócio | A mais Hon...

weekly planner - Google Docs Google Calendar Minutes from telecons - Googl... SDSS SkyServer DR8 ScienceCommittee < LINEA <... ClockingIT

	01/12/2010 - 15/12/2010	16/12/2010 - 31/12/2010	01/01/2011 - 15/01/2011	16/01/2011 - 31/01/2011	Total
#581 DES-GA Telecon DES / Galaxy Archeology / Telecon / Meeting		25m			25m
#527 Revision of DES stellar forecast paper DES / Galaxy Archeology /		1h 45m	30m		2h 15m
#111 New pipelines DES / Galaxy Evolution /		35m			35m
#425 Comissioning of CTIO portal DES / PreCam /	7h	3h 30m			1d 2h 30m
#136 Data transfer procedure DES / PreCam /			6h		6h
#486 Develop monitor tools for precam and OR DES / PreCam /	1h 30m	3h 30m			5h
#433 PreCam Commissioning DES / PreCam /		1h			1h
#569 Reduce Images from PreCam runs DES / PreCam / Precam	1d 1h	1d 5h 30m	4h 30m		3d 3h
#448 Database Administration LineA / Infrastructure /			15m		15m
#571 Contratação de firma de software LineA / Management /		1h			1h
#422 DES International Telecons LineA / Management /	15m				15m
#420 DES-Brazil Telecons LineA / Management /	1h				1h
#206 LineA Meetings LineA / Management /	4h 30m	3h 30m	3h		1d 3h
#423 SDSS.III International Telecons LineA / Management /			1h		1h
#148 Helpdesk tickets	1h 30m				1h 30m

Clocking IT v0.99.3
Feedback? Suggestions? Ideas? Bugs?

Report Type: Pivot
Time Range: Last Month
Rows: Tasks
Columns: Date

Filter
Client: [Any Client]
Project: [Active Projects]
User: Bruno Rossetto
Advanced Options

Run Report

Unassigned Tasks
all tasks Edit
In progress Edit
Science portal priority Edit
Strong Lensing Edit
Tertiary Sites Edit

NOTES New
management / Galaxy
Clusters (11 months ago)

Online (4)

Iniciar 2 Thunder... ClockingIT - ... workshop Ja... Microsoft Po... Calculadora *G:\new-pe... PT 10:48

Track time + projects => update MS Project

Tertiary Site Activities

- Contribute to data challenges: mock QSO catalog, arcs
 - Generate Milky Way model (trilegal+).
 - Generate random catalogs for LSS
 - Prepare science-driven VAC (LSS, Cluster, GE, others)
 - Generate random catalogs for LSS
 - Quality Assessment (truth table, other authors)
 - Serve as code repository for the collaboration
 - Benchmark competing algorithms (cluster finders, photo-z)
 - Carry out analysis for collaboration wide papers
- LSST Meeting, Campos de Jordão, April 1-4