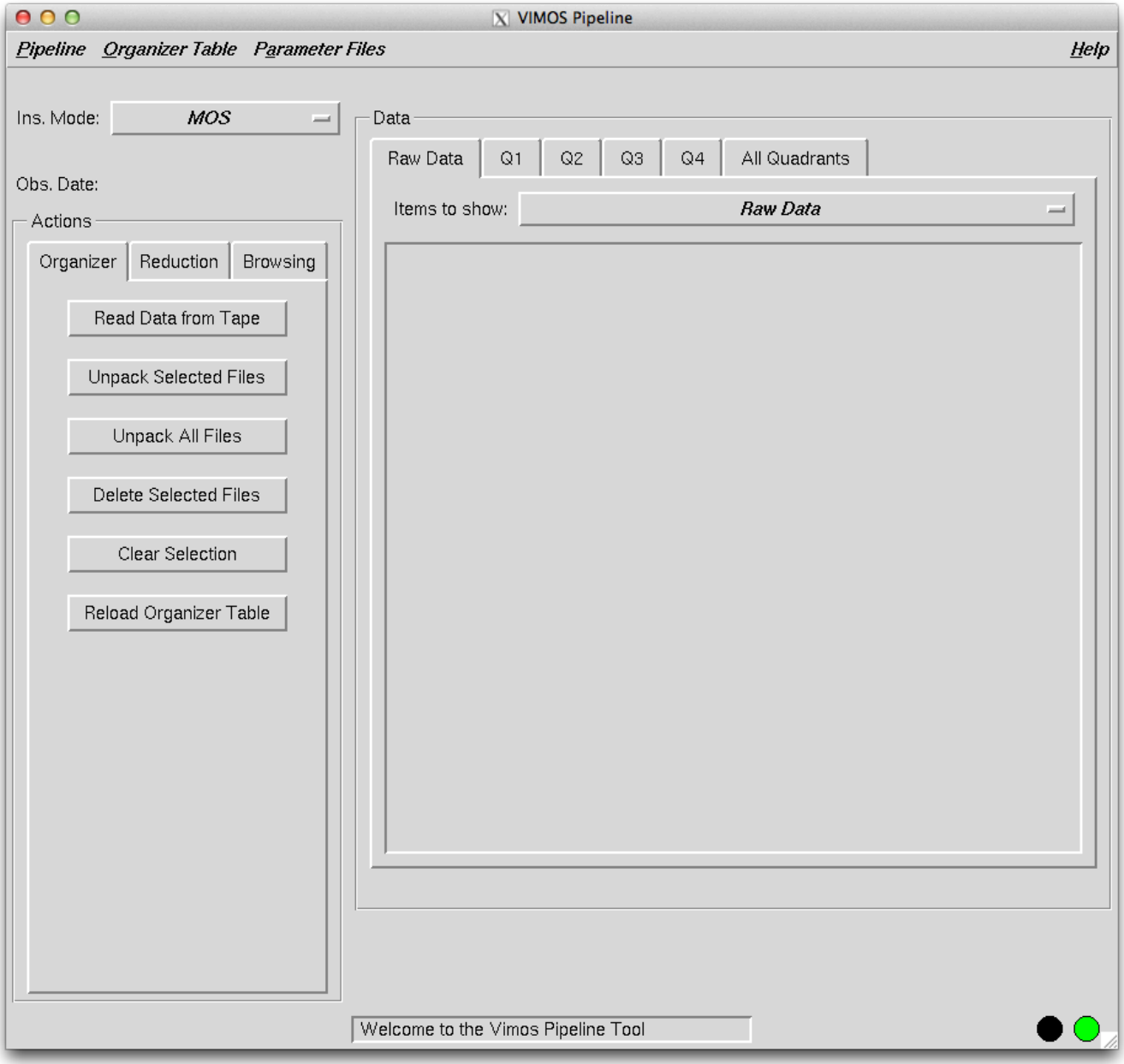
IS BACK !

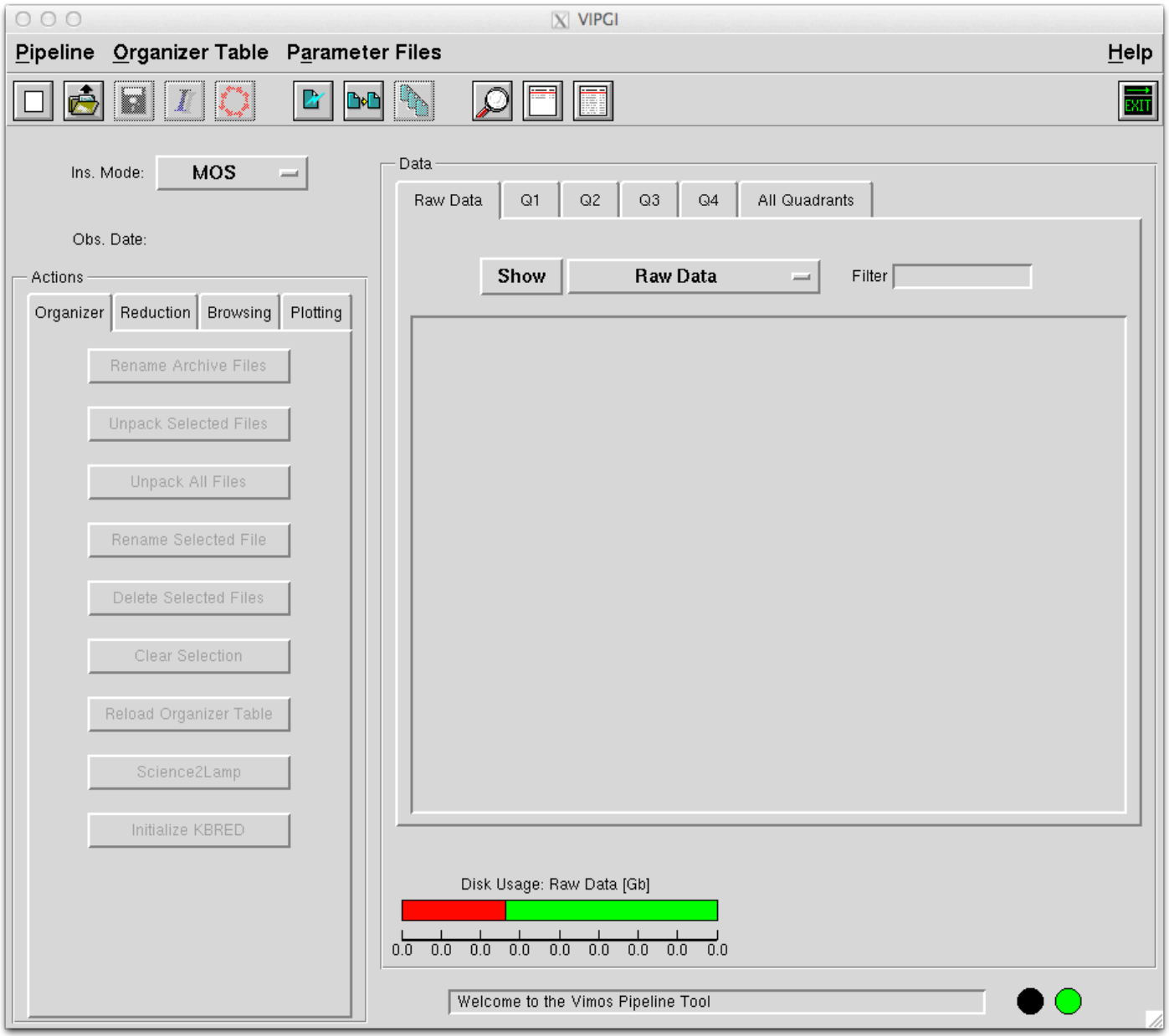
VIPGI 0.6
4/9/2002

- **python / tcltk & BLT**
- **C (DRS)**



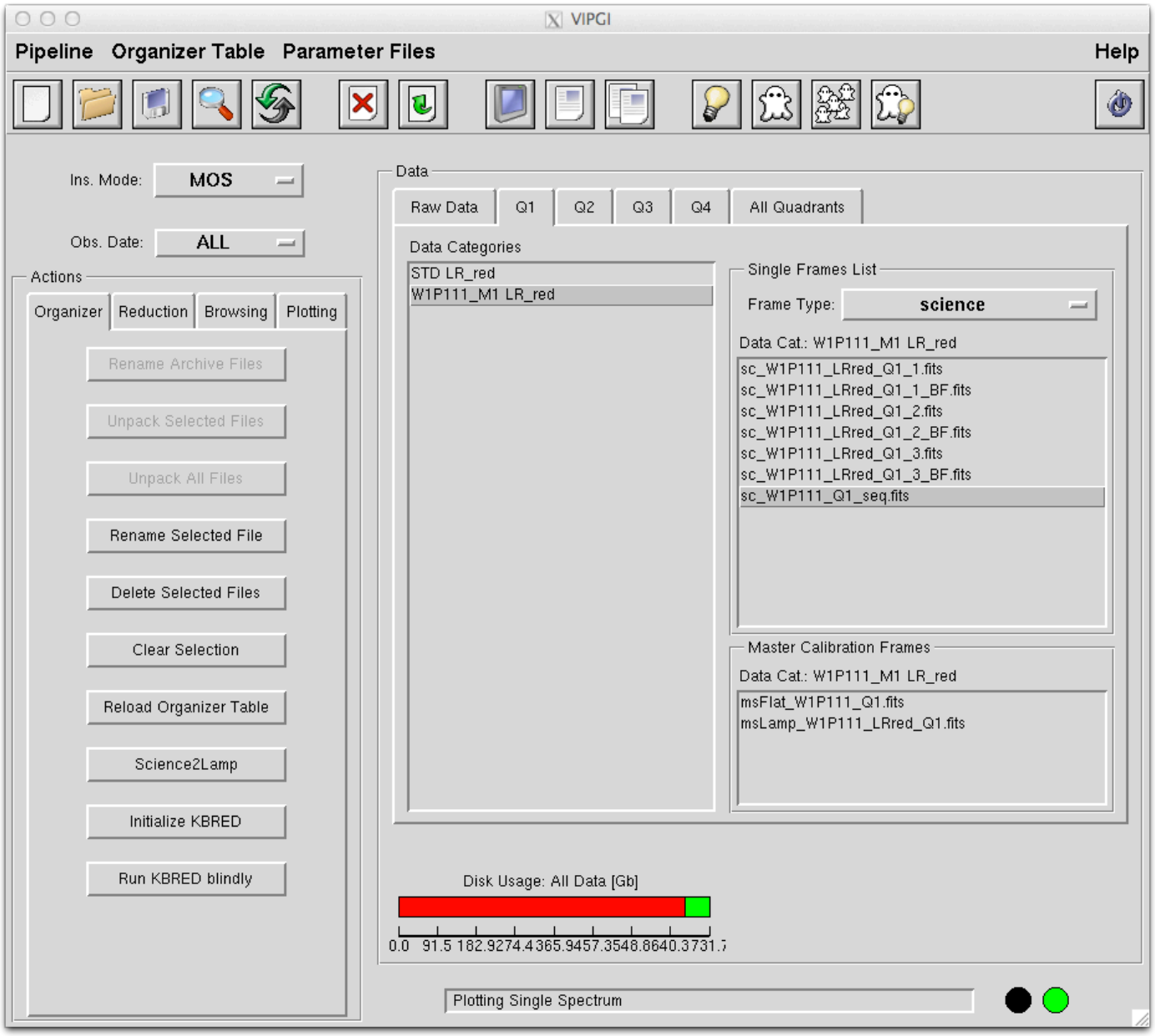
VIPGI 0.8.5

17/12/2002



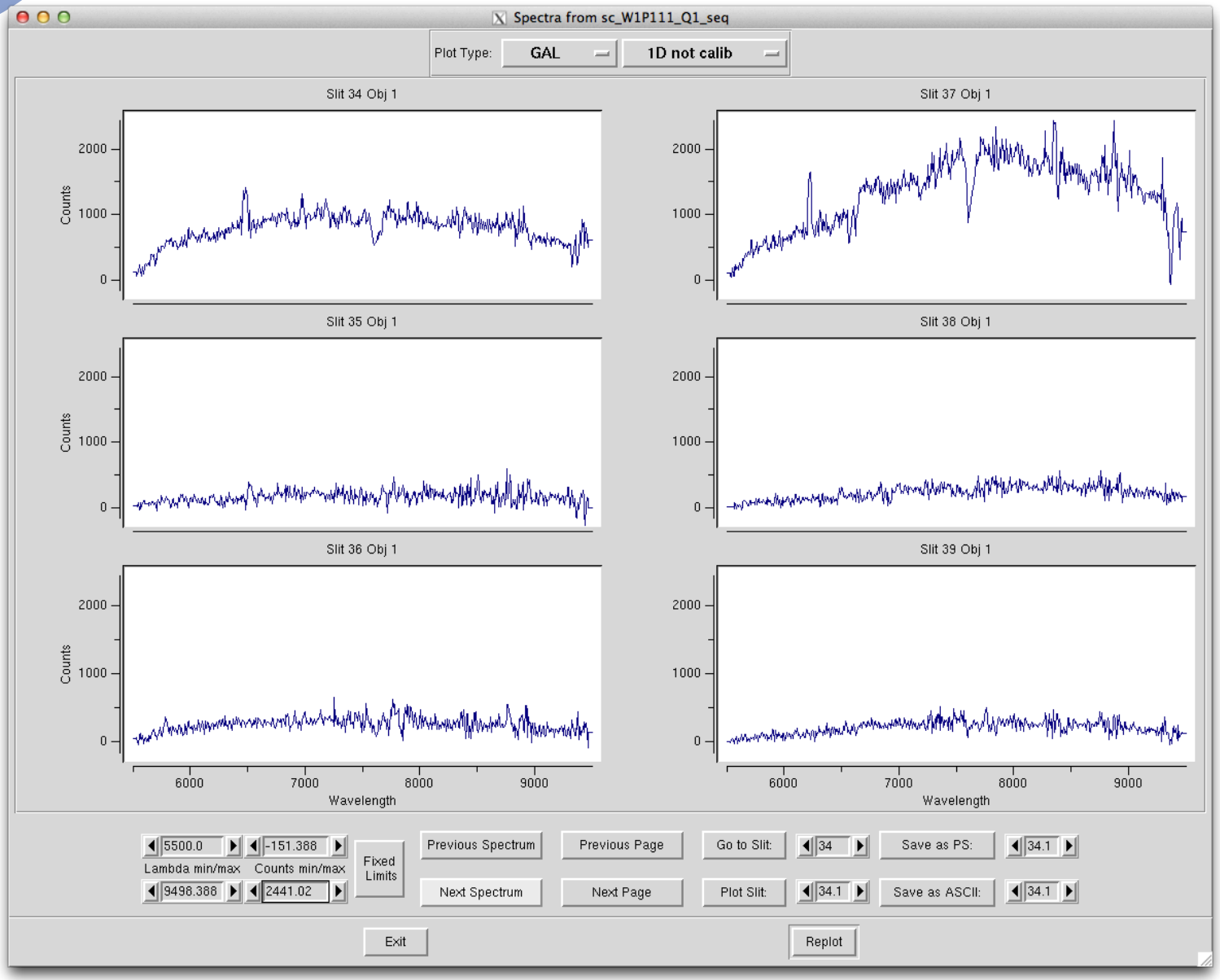
VIPGI 0.9.6

21/4/2004



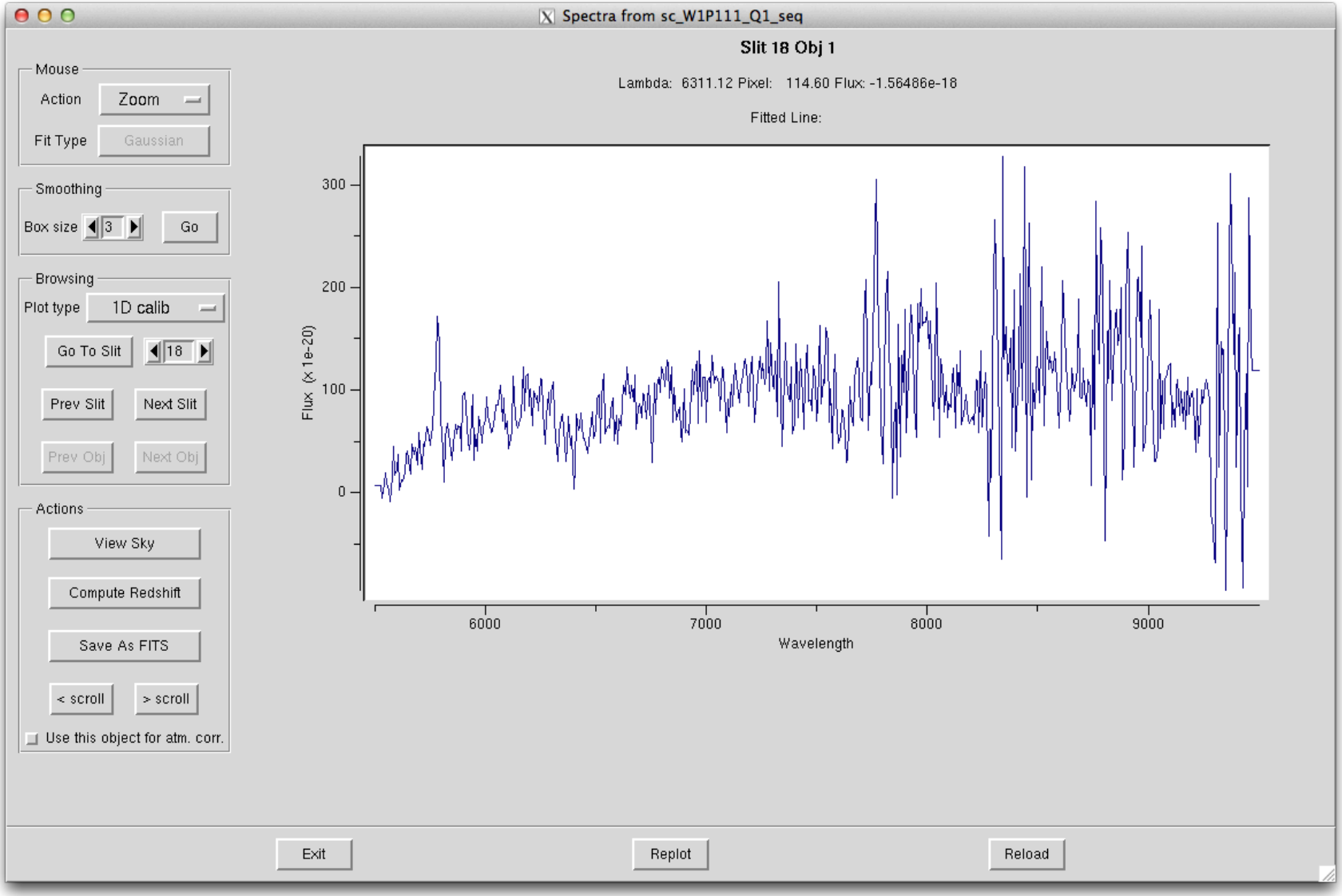
VIPGI 0.9.6
21/4/2004

Plot Multi Spectra



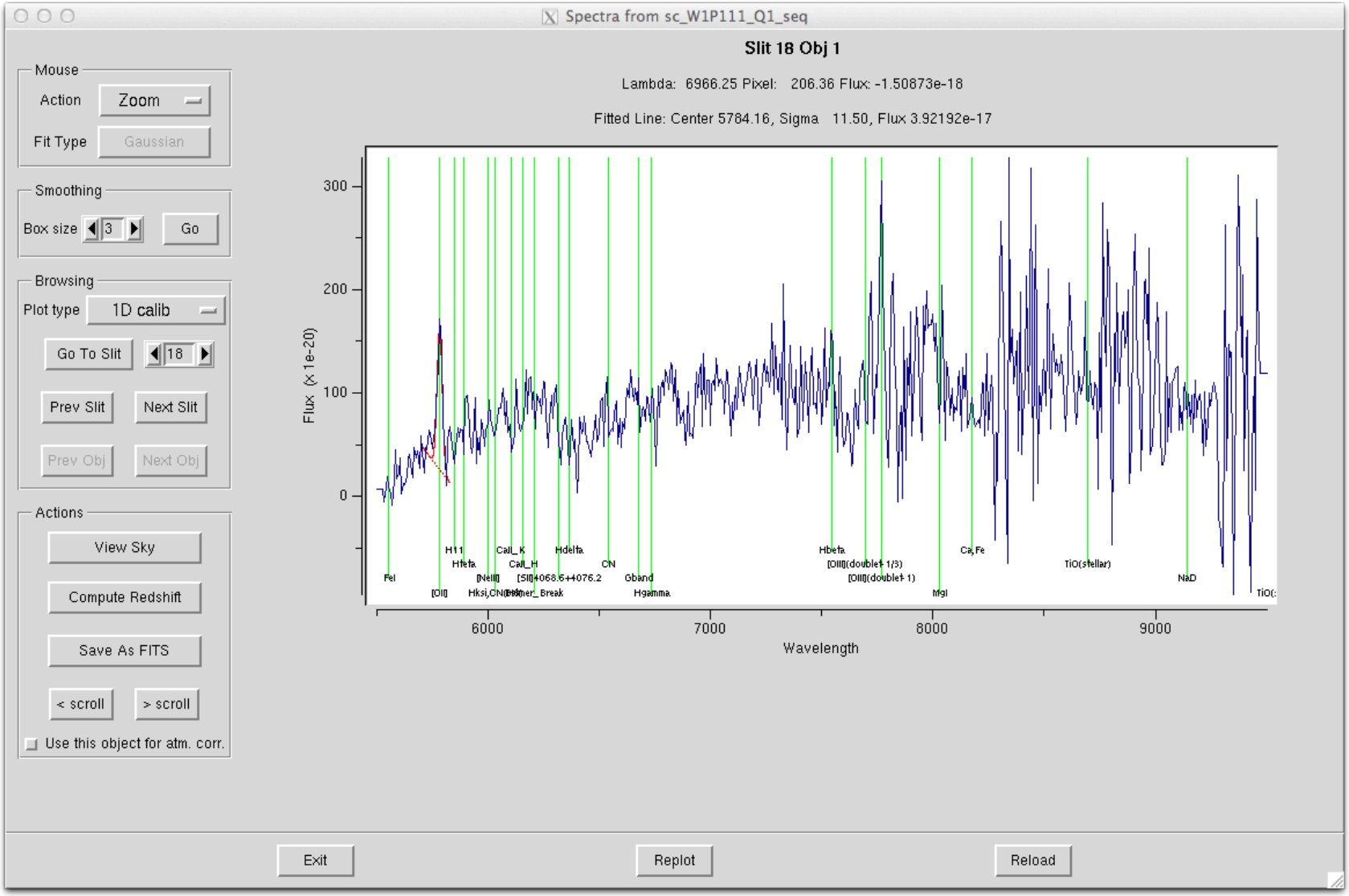
VIPGI 0.9.6
21/4/2004

Plot Single Spectrum



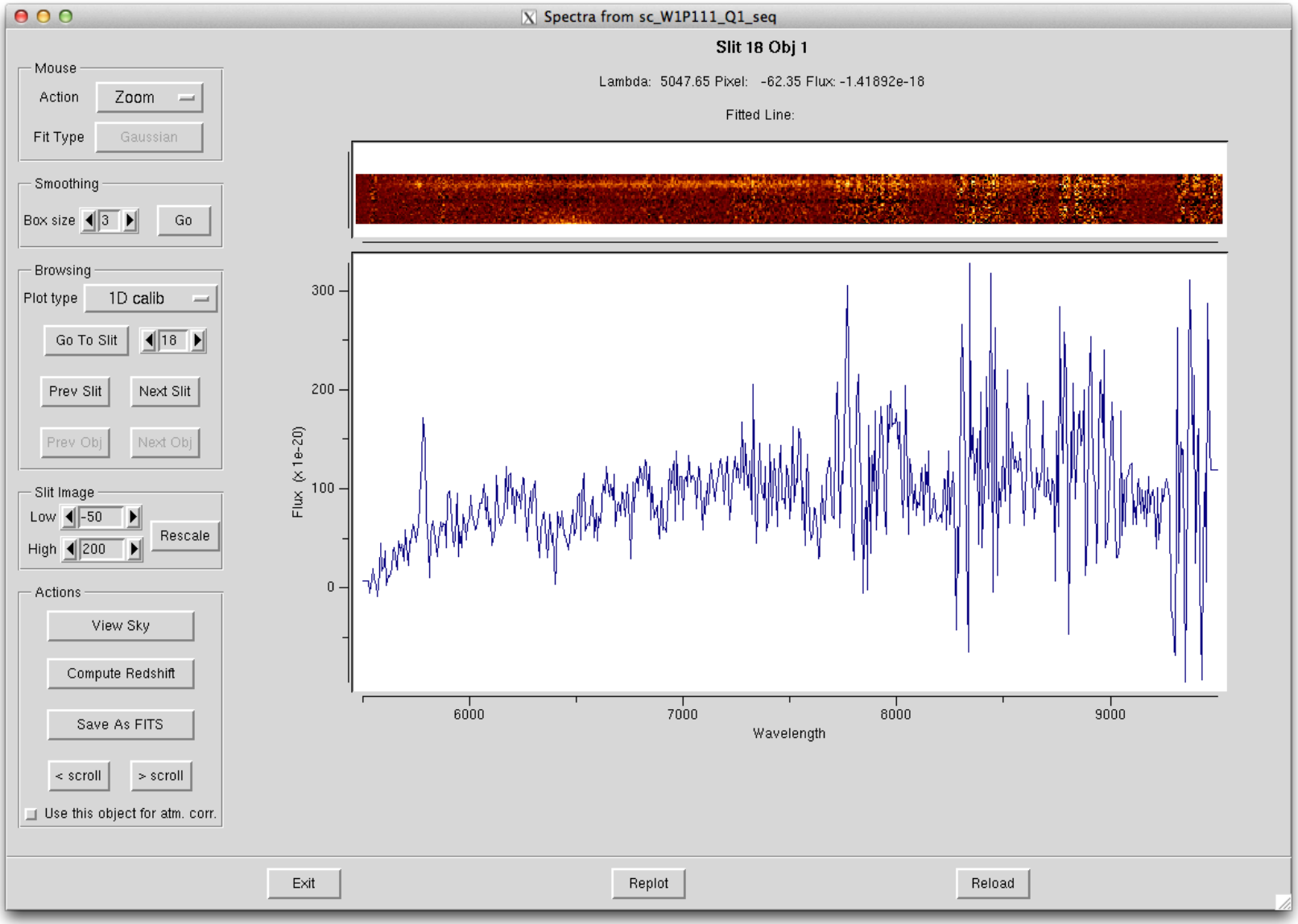
VIPGI 0.9.6
21/4/2004

Plot Single Spectrum



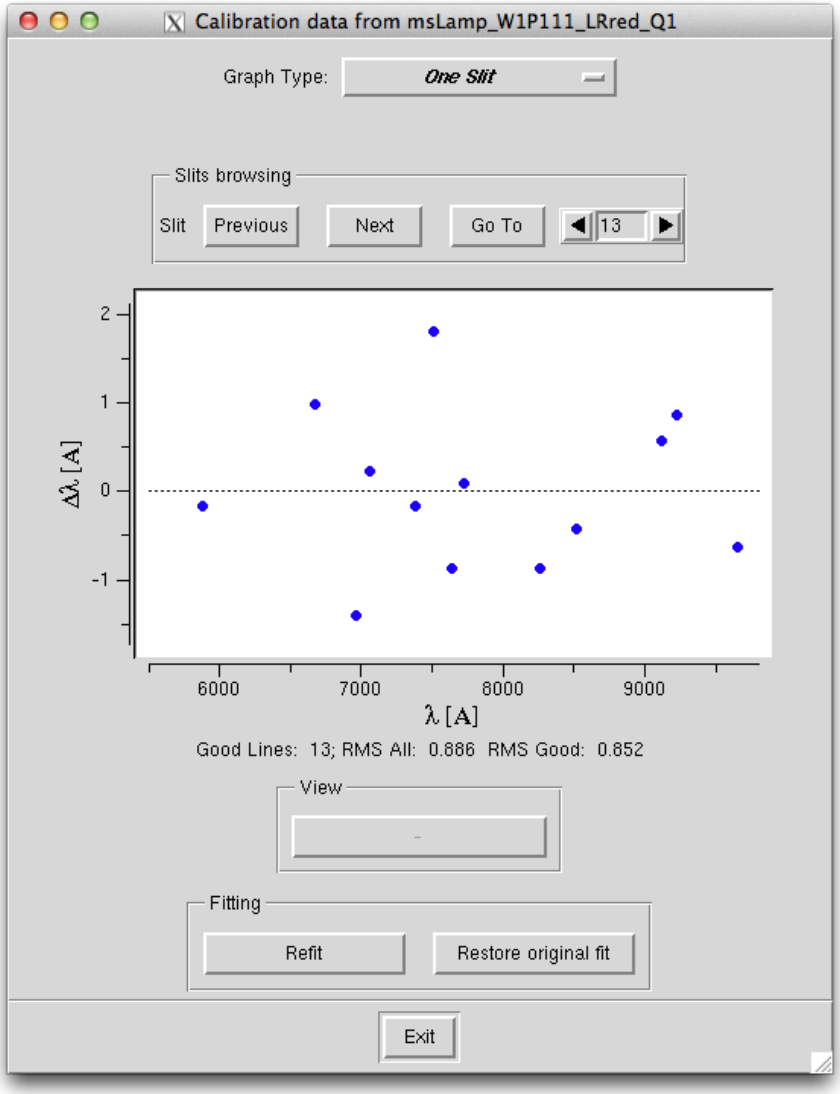
VIPGI 0.9.6
21/4/2004

Plot Single Spectrum



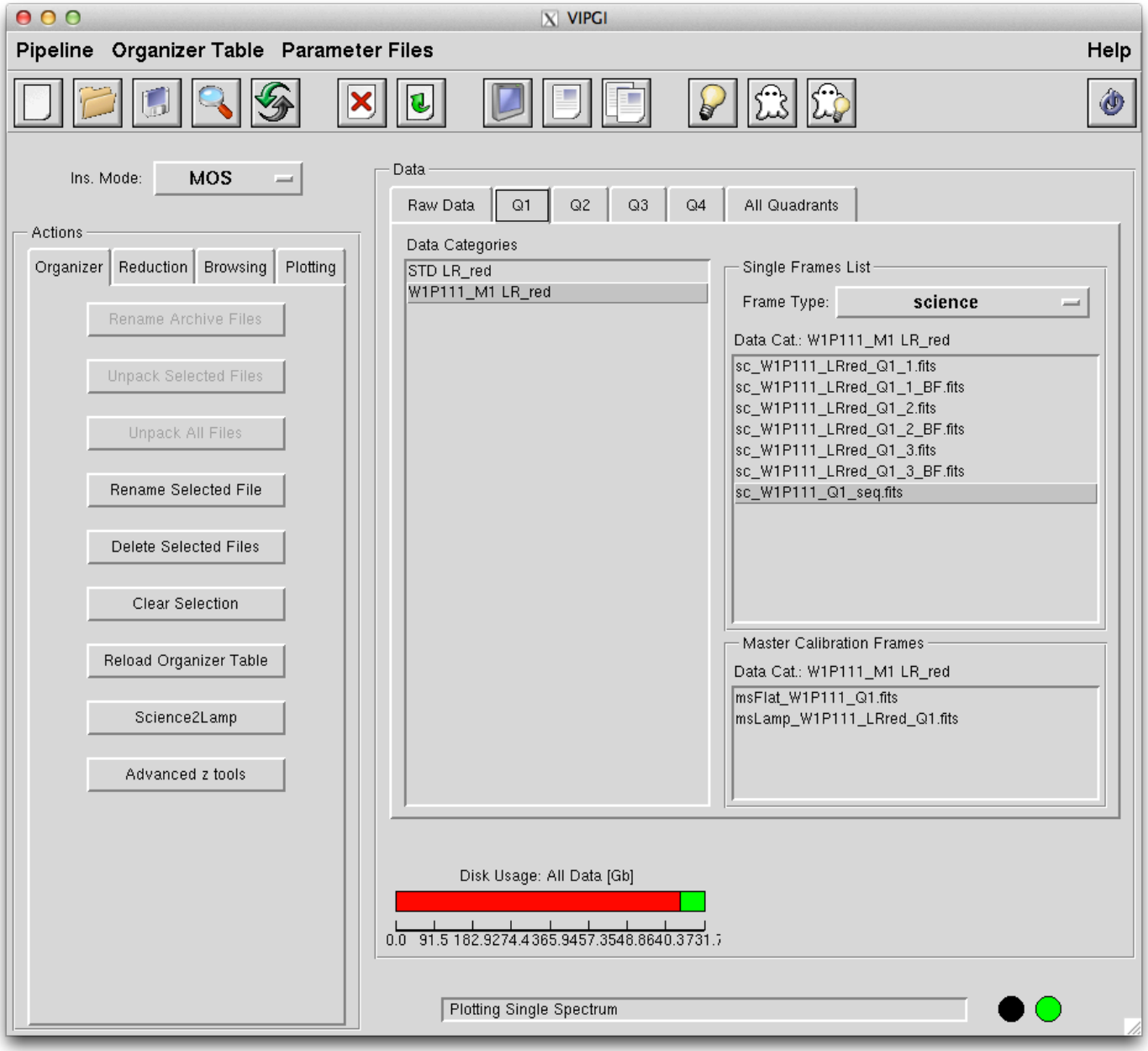
VIPGI 0.9.6
21/4/2004

Check Lambda Calibration



VIPGI 1.4

6/4/2009



EZ: Easy-Z

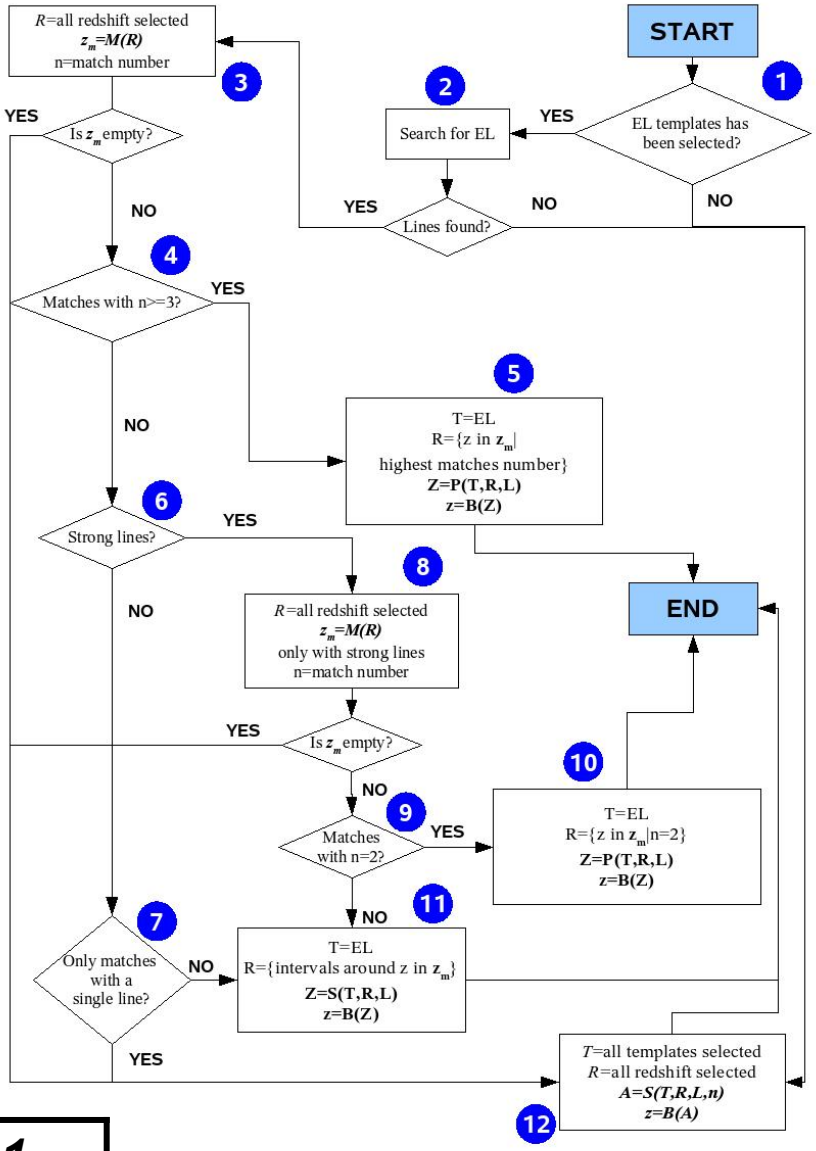
(in collaboration with Roberto Scaramella and Stephane Paltani)

EZ satisfies the demand of a tool to measure redshifts in an automatic and reliable way from the huge amount of spectra provided by modern spectroscopic surveys

- ***Written in python/C***
- ***Interactive/Batch mode***
- ***Uses a set of user defined templates and a combination of correlation and fitting algorithms***
- ***Flexible and modular architecture***

EZ
Performance

Decisional Tree

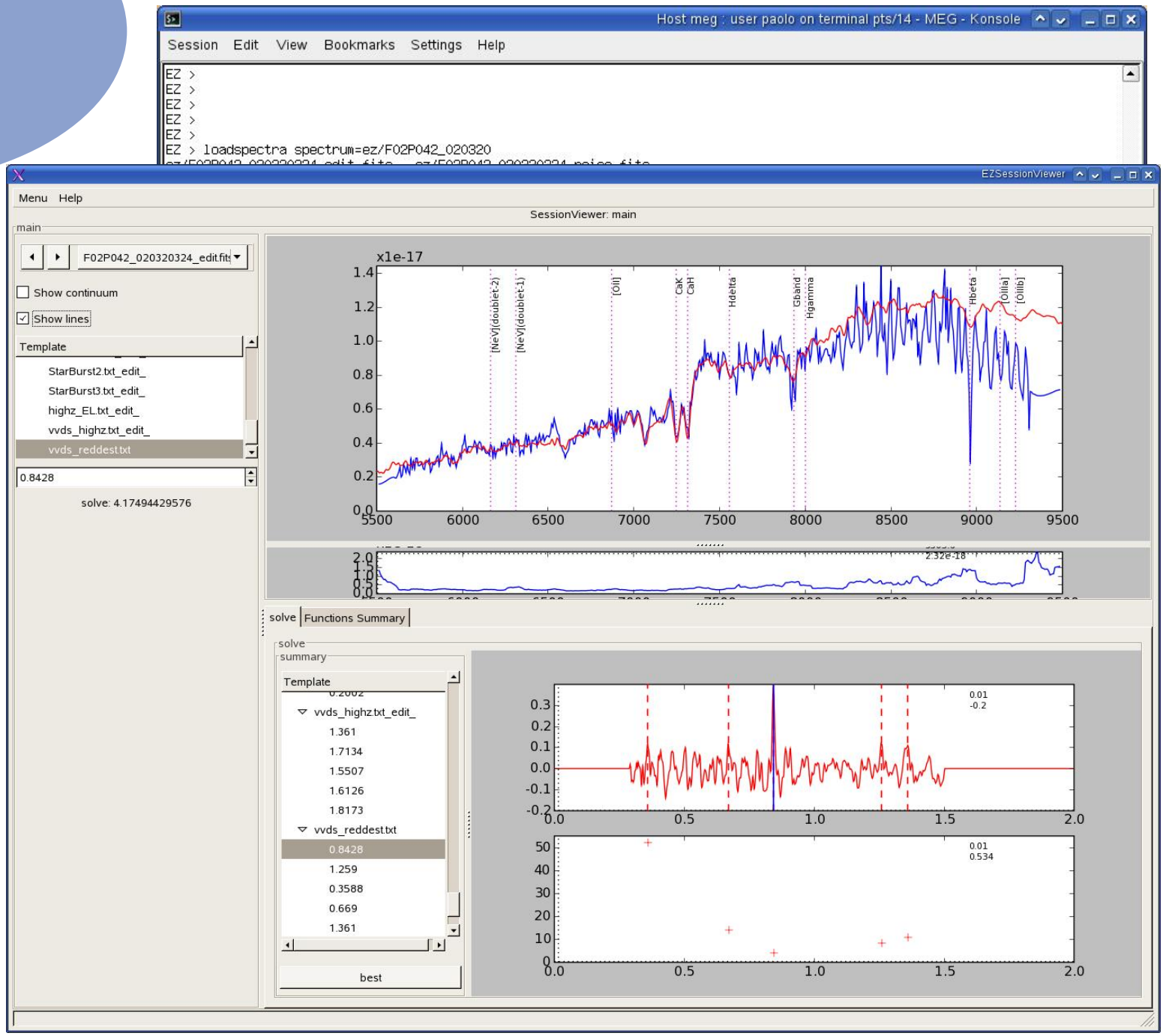


	All	4	3	9	2	1
VVDS	73.0	95.9	89.9	56.4	63.1	23.8
zCosmos	82.4	91.1	85.2	74.3	66.3	45,7

EZ

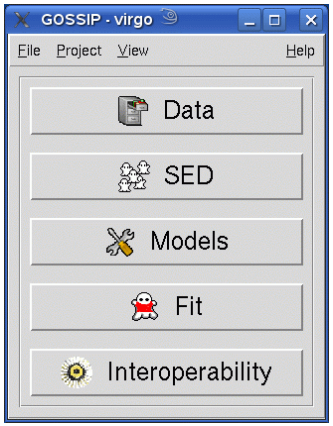
Features

Versione 1.0
13/6/2007



GOSSIP:

Galaxy Observed Simulated SED Interactive Program



GALAXIES SAMPLE

- BROAD BAND MAGNITUDES
- SPECTRUM
- REDSHIFT

SEDs LIBRARY

X^2 MINIMIZATION

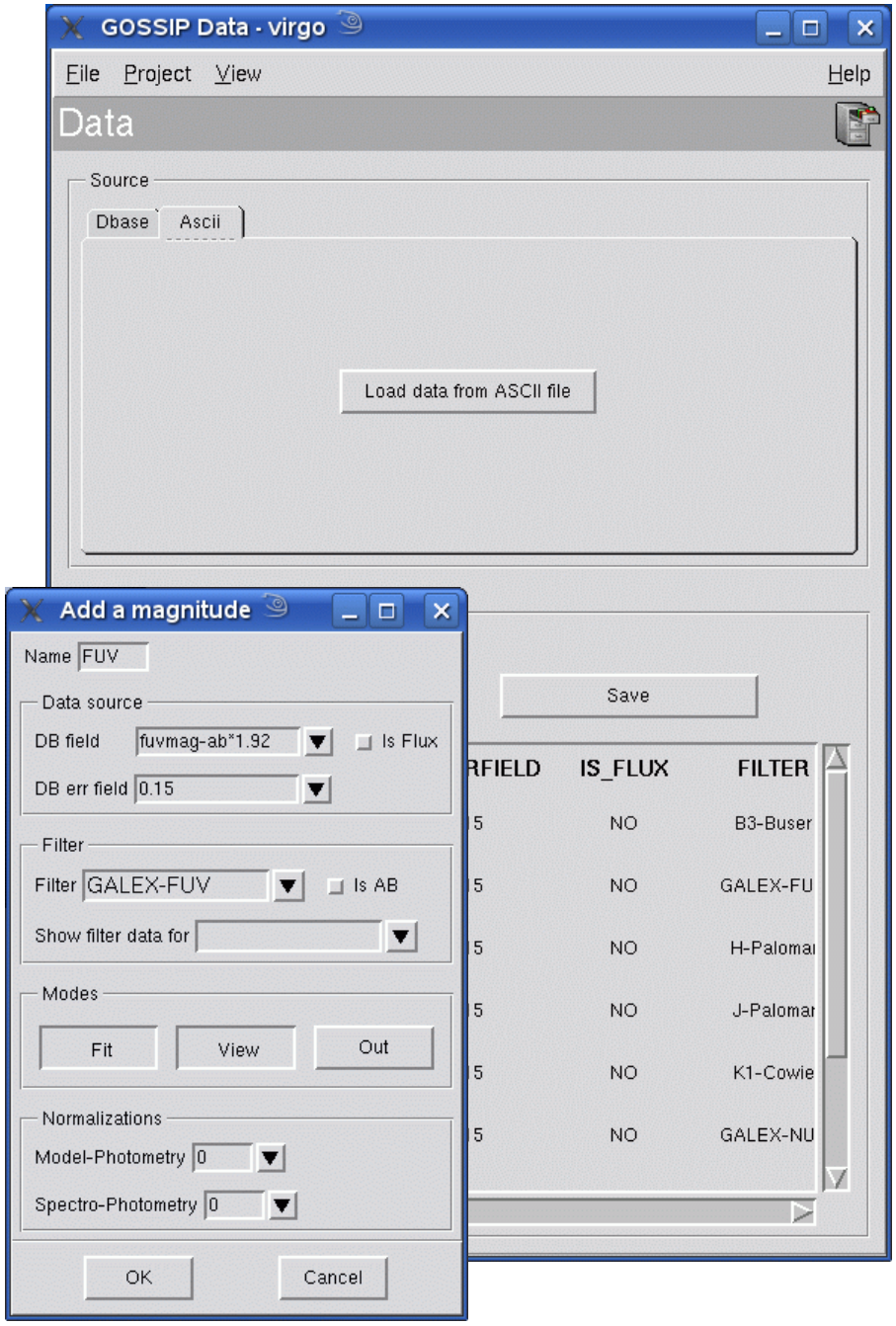
PDFs COMPUTATION

- STAR FORMATION HISTORY
- STAR FORMATION RATE
- STELLAR MASS
- ABSOLUTE MAGNITUDES
- ...

GOSSIP

GALAXIES SAMPLE

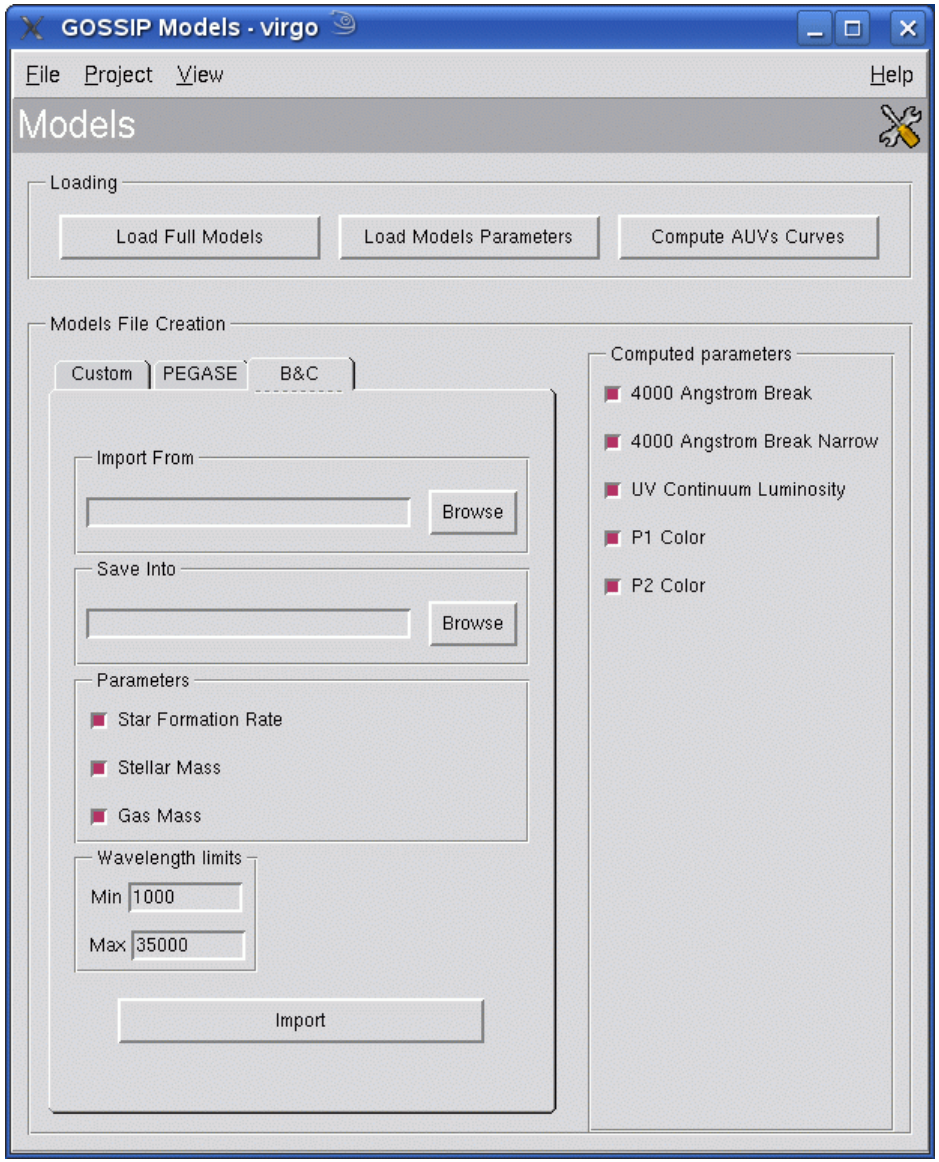
GOSSIP builds-up the observed SED of each object combining magnitudes in different broad bands from different instruments and also a spectrum.



GOSSIP

SEDs LIBRARY

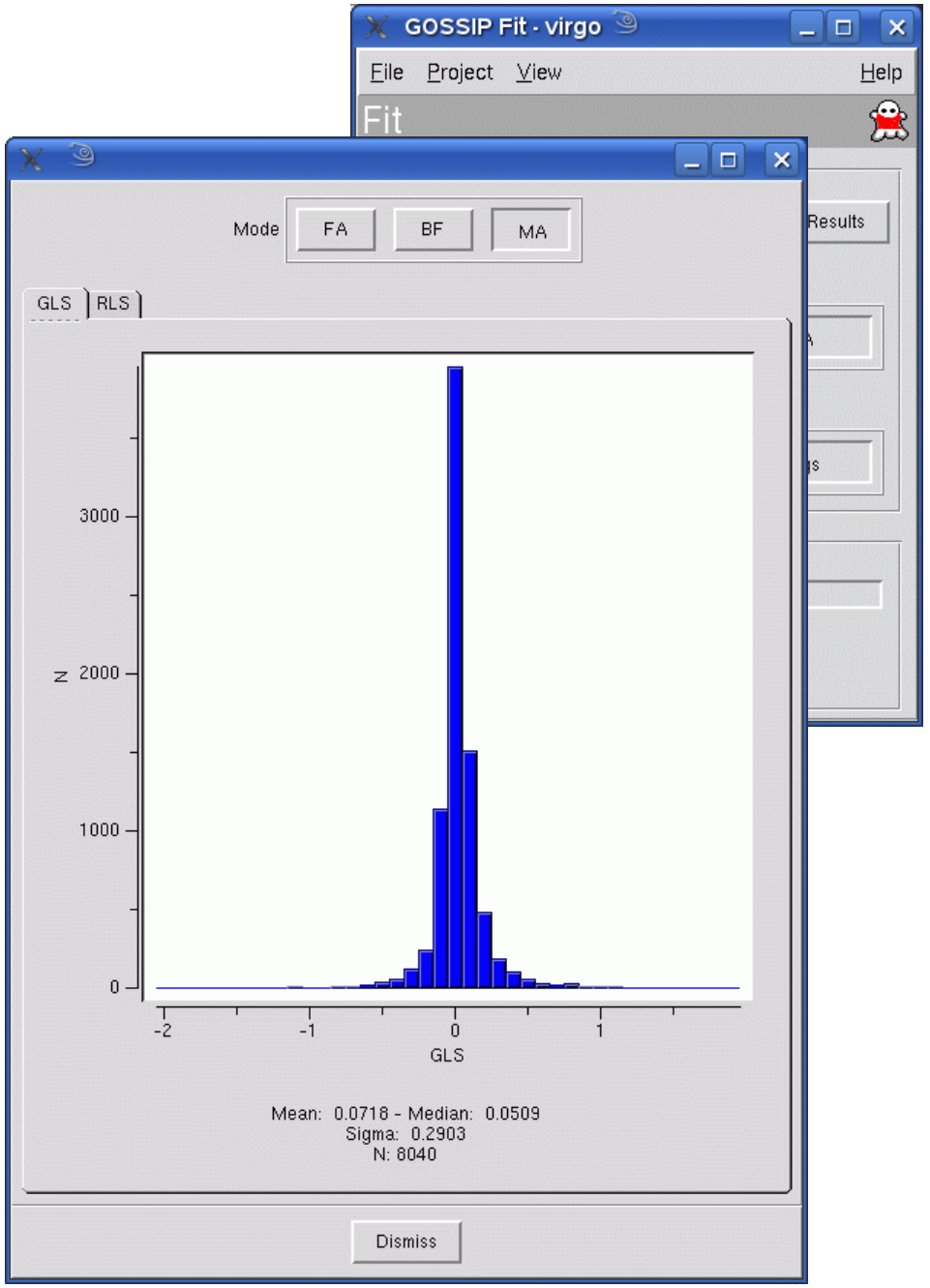
GOSSIP loads sets of user-defined synthetic models, but it is also able to load directly the output data files produced by the PEGASE and Bruzual & Charlot synthesis population codes.



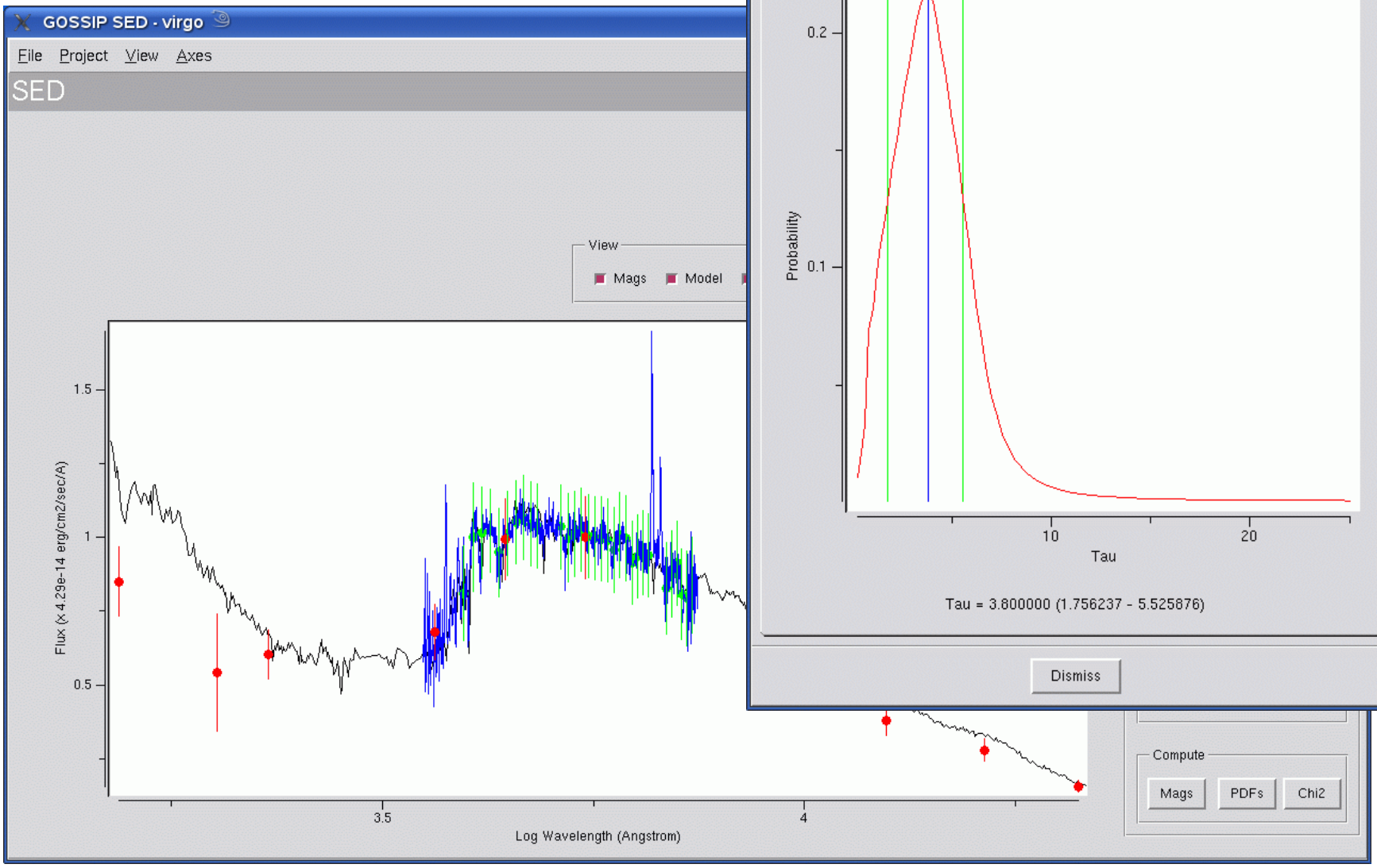
GOSSIP

FITTING

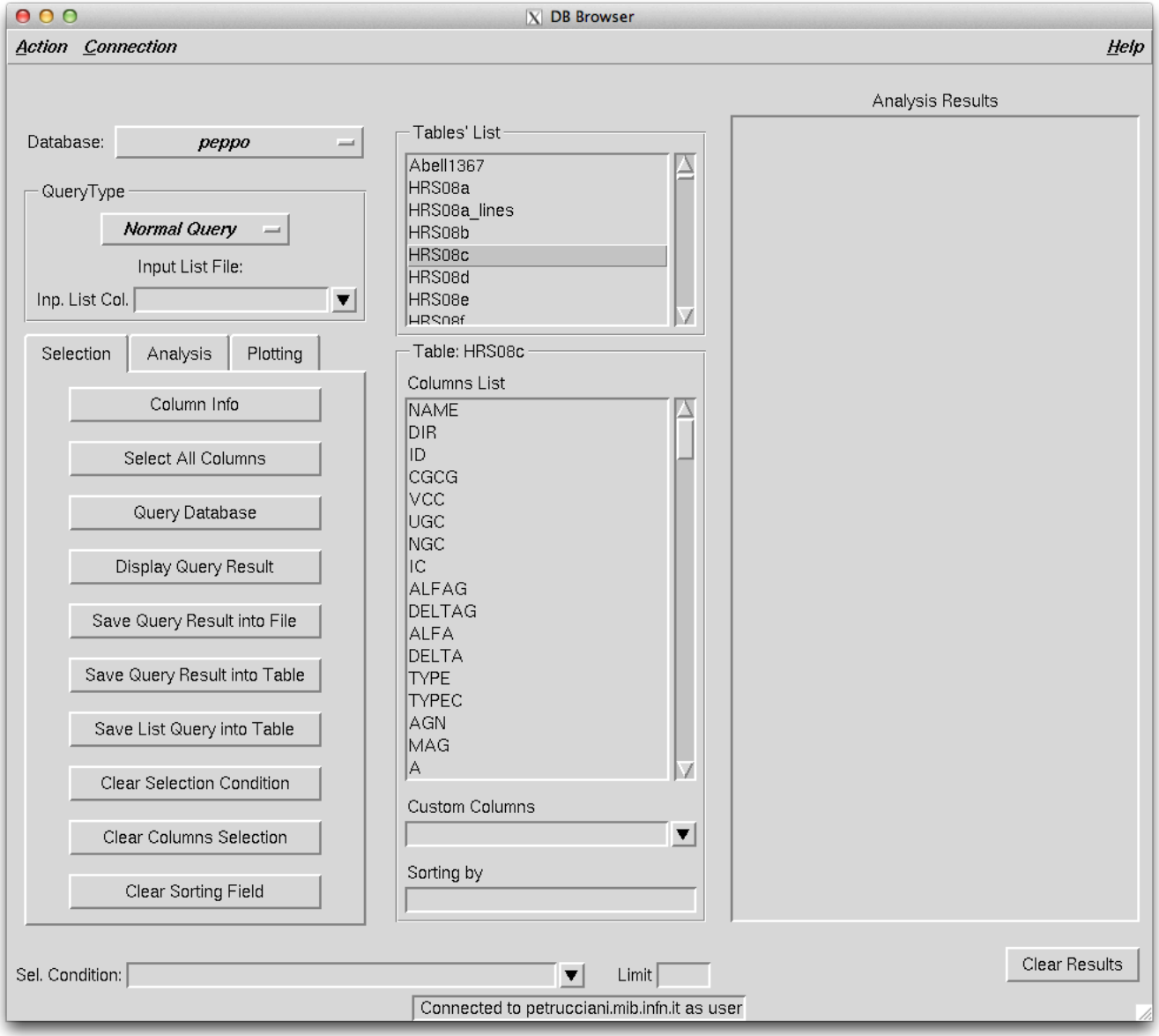
GOSSIP performs the X^2 minimization procedure and the PDFs computation in batch mode on a single CPU or on a BEOWULF cluster. It performs also post-fitting operations like results checking and computation of absolute magnitudes.



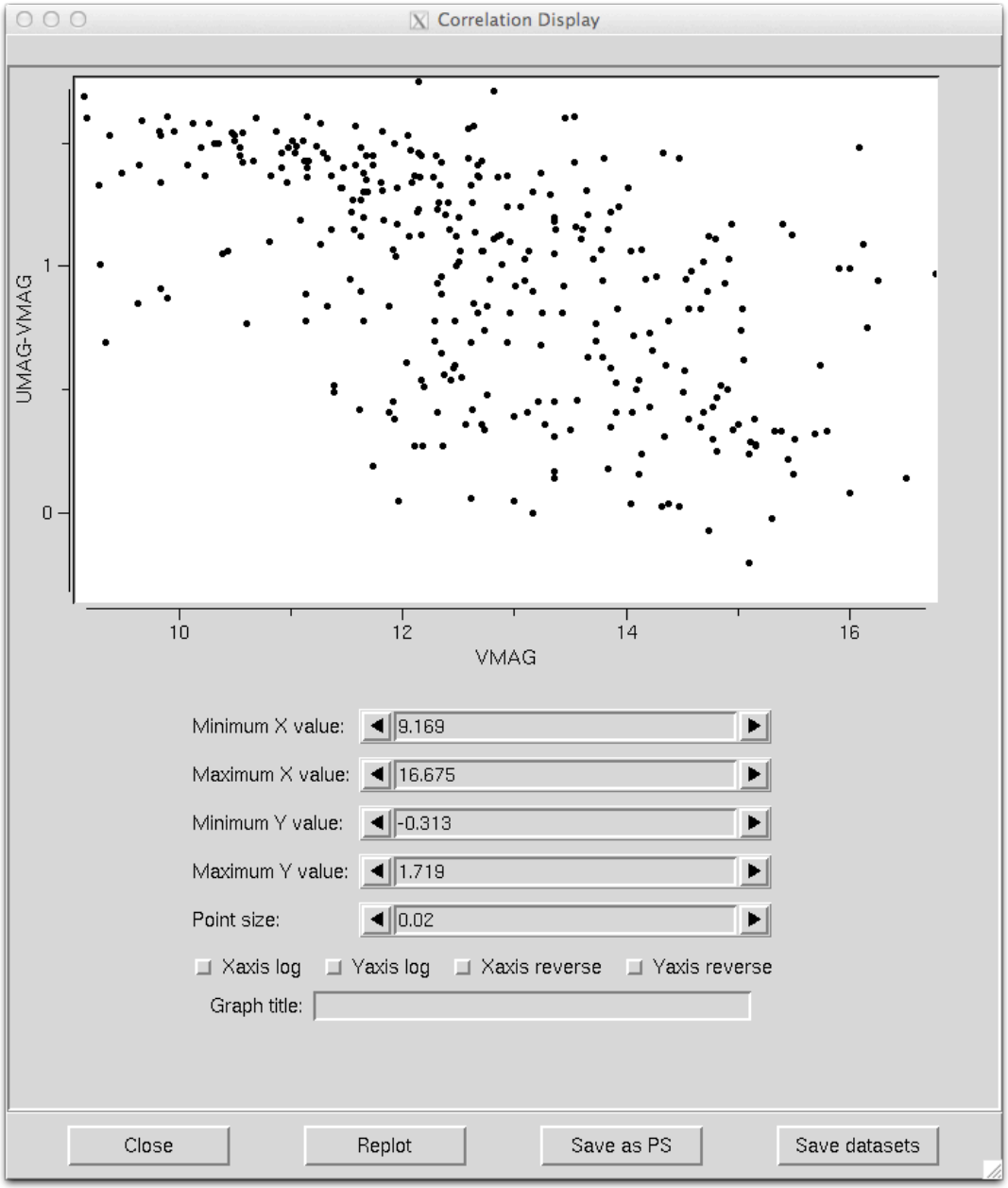
GOSSIP


GOSSIP SED - virgo
File Project View Axes
SED
View
Mags
Model
Flux (x 4.29e-14 erg/cm2/sec/A)
1.5
1
0.5
3.5
4
Log Wavelength (Angstrom)
Compute
Mags
PDFs
Chi2
PDFs for object 1516
Mode
FA
BF
MA
Tau
Age
Auv
0.2
0.1
Probability
10
20
Tau
Tau = 3.800000 (1.756237 - 5.525876)
Dismiss

DBBROWSER

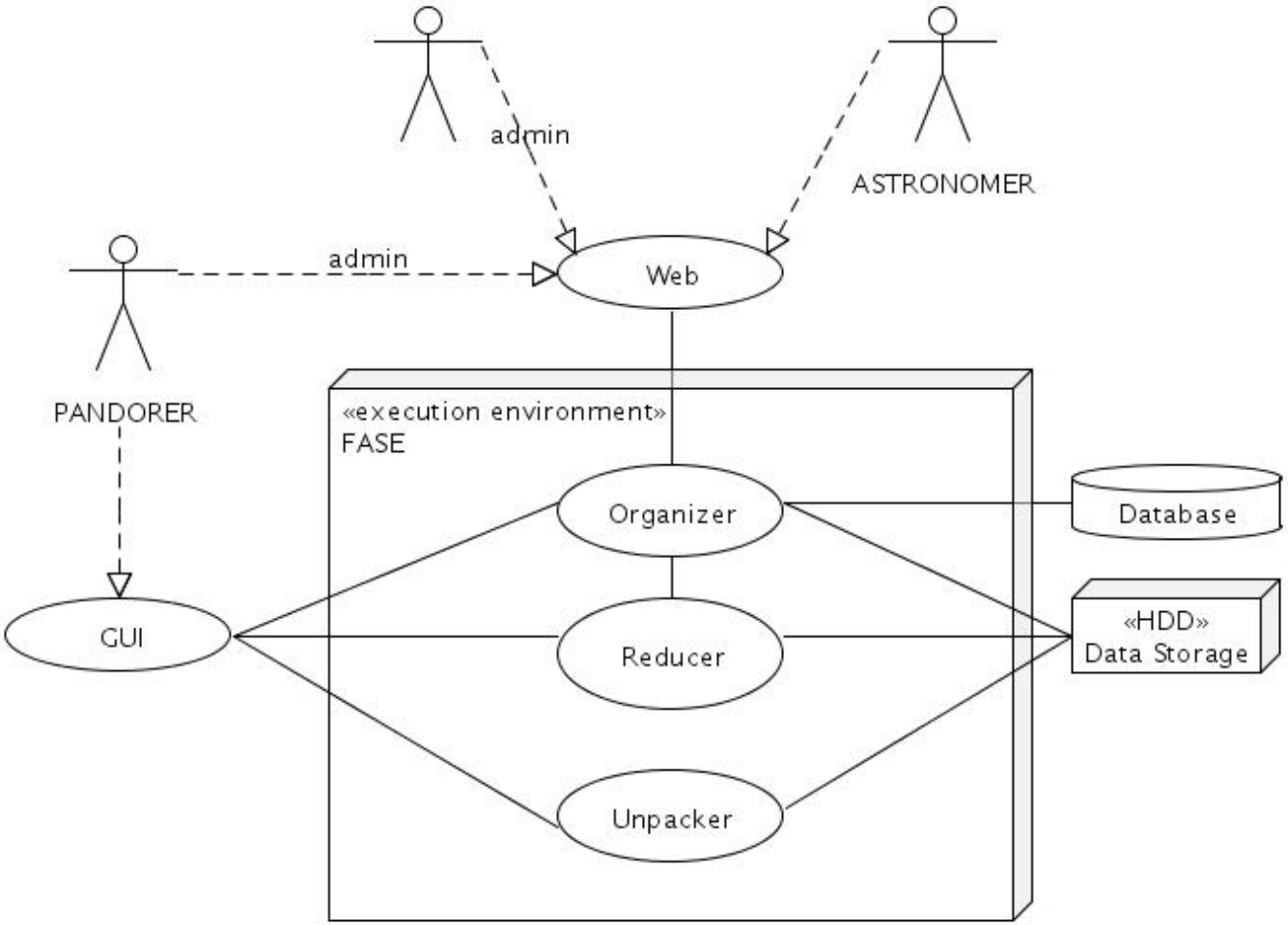

DB Browser
Action
Connection
Help
Database:
peppo
QueryType
Normal Query
Input List File:
Inp. List Col.
Selection
Analysis
Plotting
Column Info
Select All Columns
Query Database
Display Query Result
Save Query Result into File
Save Query Result into Table
Save List Query into Table
Clear Selection Condition
Clear Columns Selection
Clear Sorting Field
Tables' List
Abell1367
HRS08a
HRS08a_lines
HRS08b
HRS08c
HRS08d
HRS08e
Table: HRS08c
Columns List
NAME
DIR
ID
CGCG
VCC
UGC
NGC
IC
ALFAG
DELTAG
ALFA
DELTA
TYPE
TYPEC
AGN
MAG
A
Custom Columns
Sorting by
Analysis Results
Clear Results
Sel. Condition:
Limit
Connected to petrucciani.mib.infn.it as user

DBBROWSER

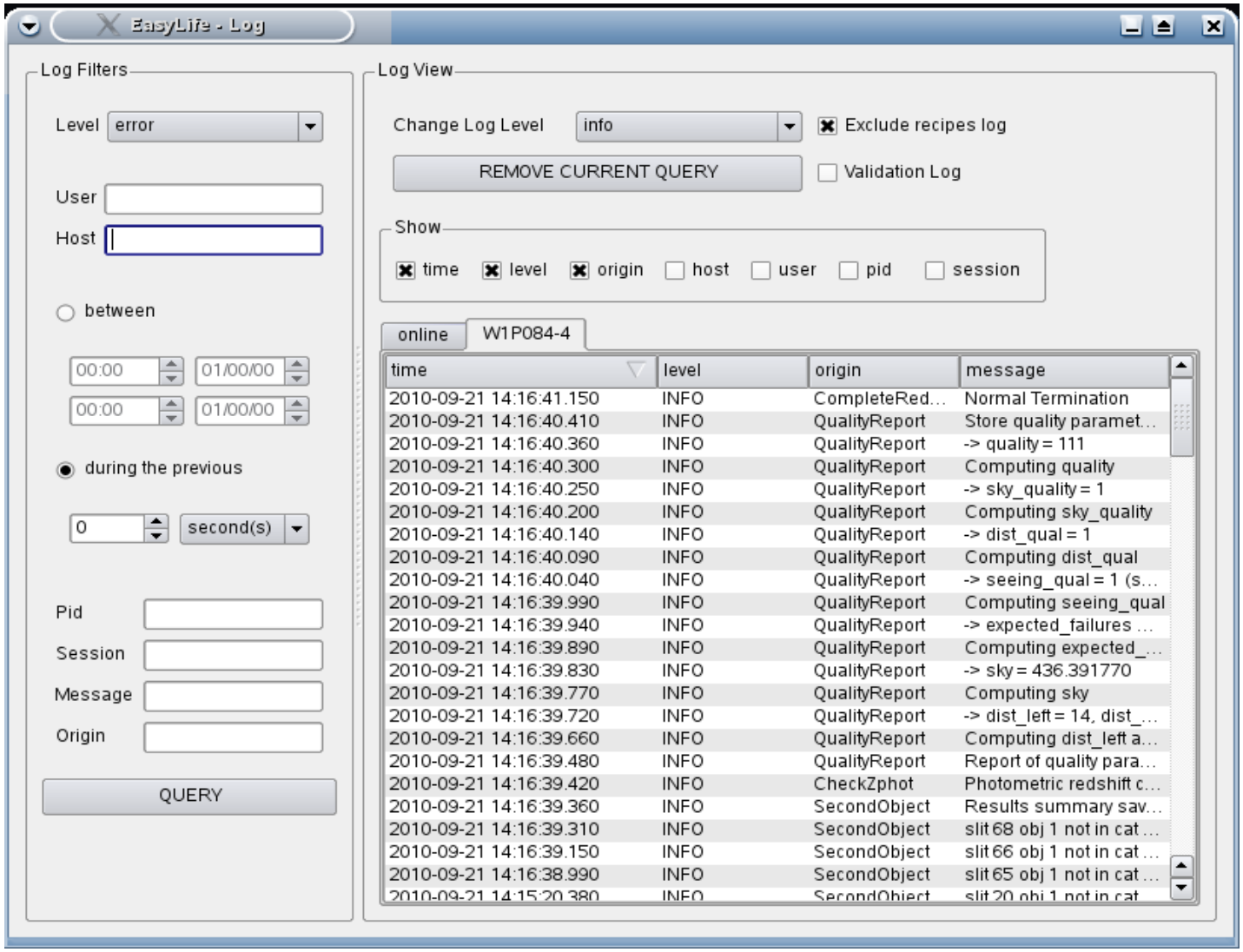

Correlation Display
UMAG-VMAG
1
0
10
12
14
16
VMAG
Minimum X value:
9.169
Maximum X value:
16.675
Minimum Y value:
-0.313
Maximum Y value:
1.719
Point size:
0.02
Xaxis log
Yaxis log
Xaxis reverse
Yaxis reverse
Graph title:
Close
Replot
Save as PS
Save datasets

EASYLIFE

FASE FRAMEWORK

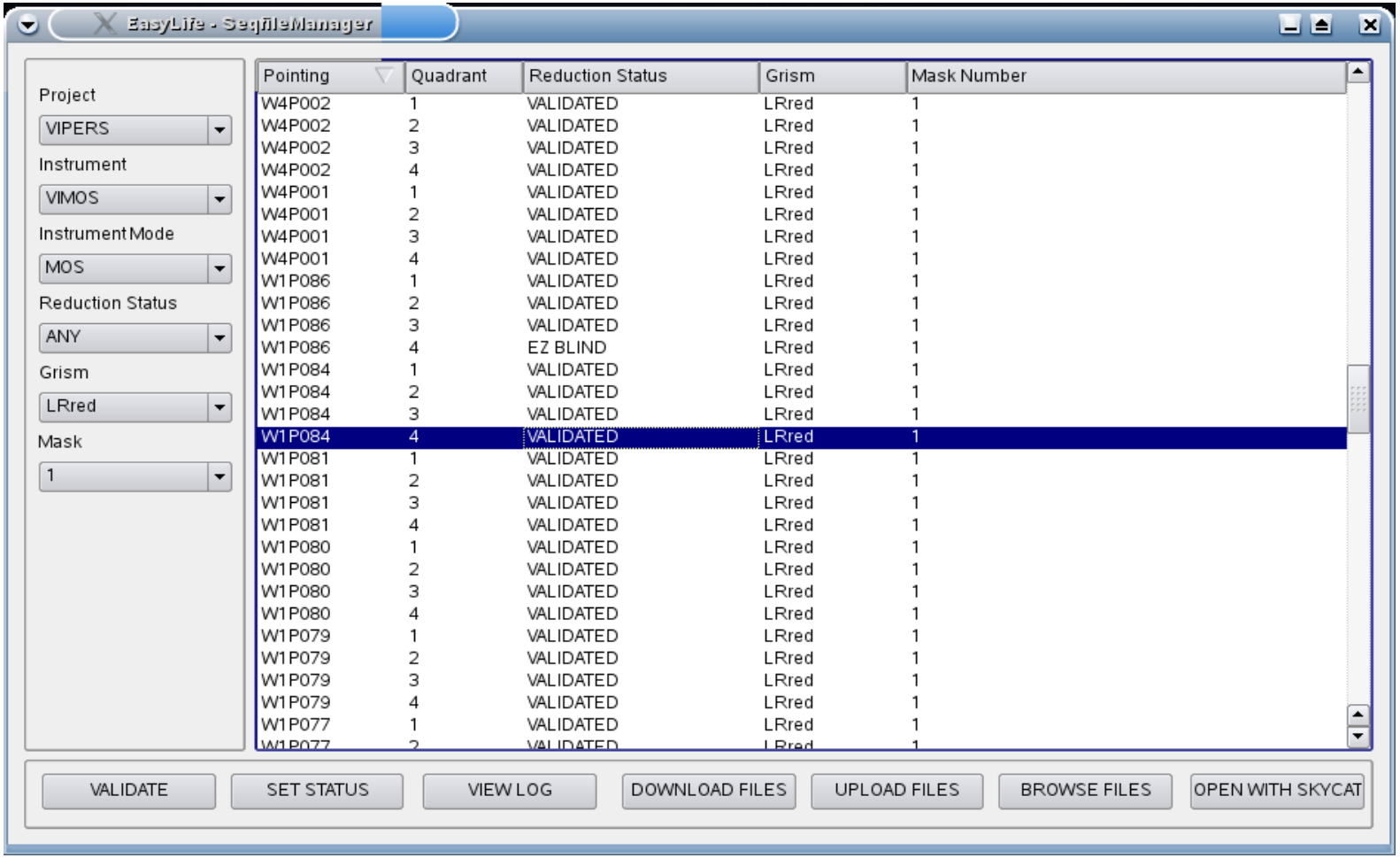


EASYLIFE



Astrosiesta Luigi - 21 Ottobre 2010

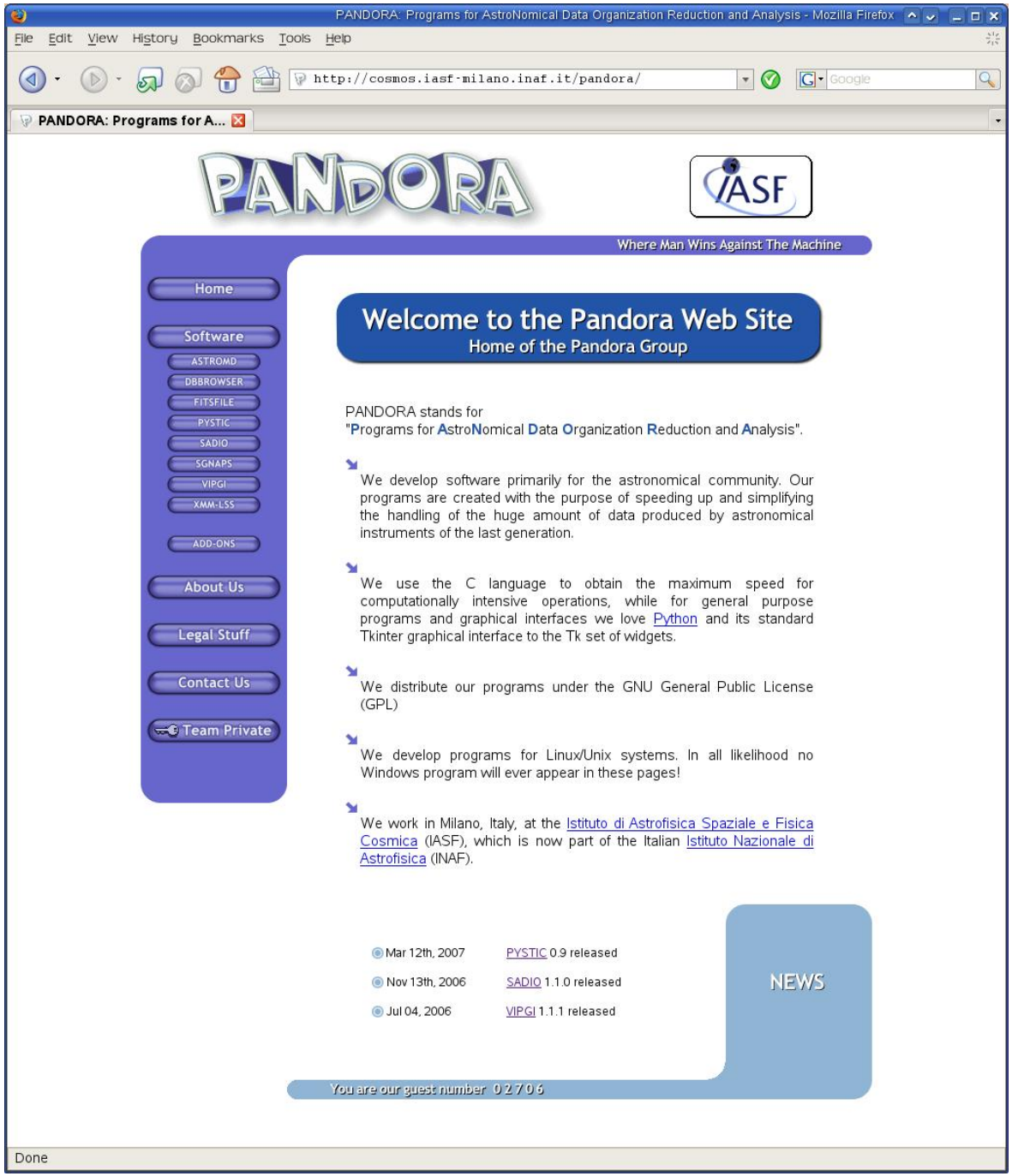
EASYLIFE



Astrosiesta Luigi - 21 Ottobre 2010

PANDORA Group

20 aprile 2004



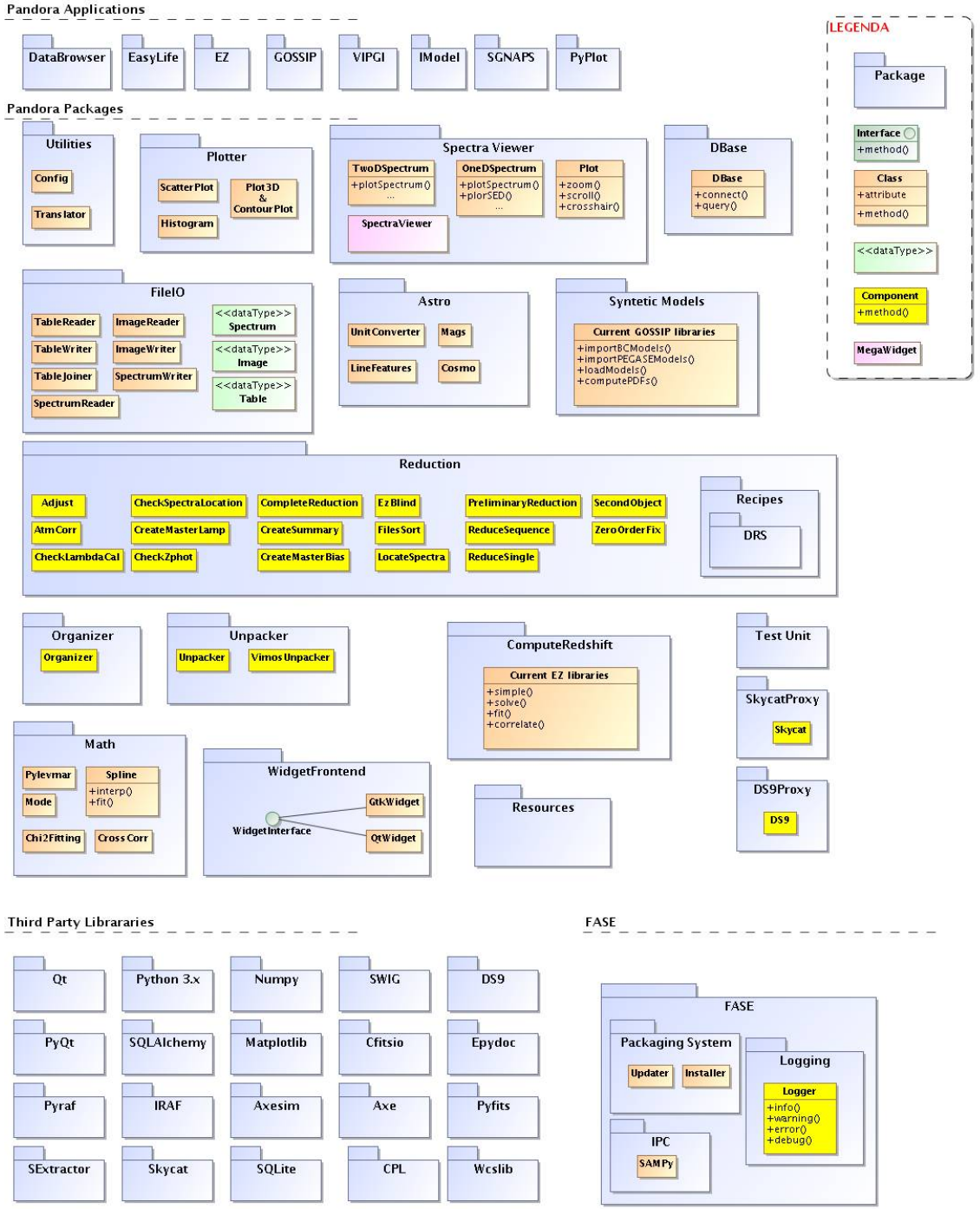
SETTEMBRE
2009

- Data reduction pipeline
- Various data analysis tools
- Multi-cpu / grid know-how
- Many graphical interfaces
- Mac
- FASE

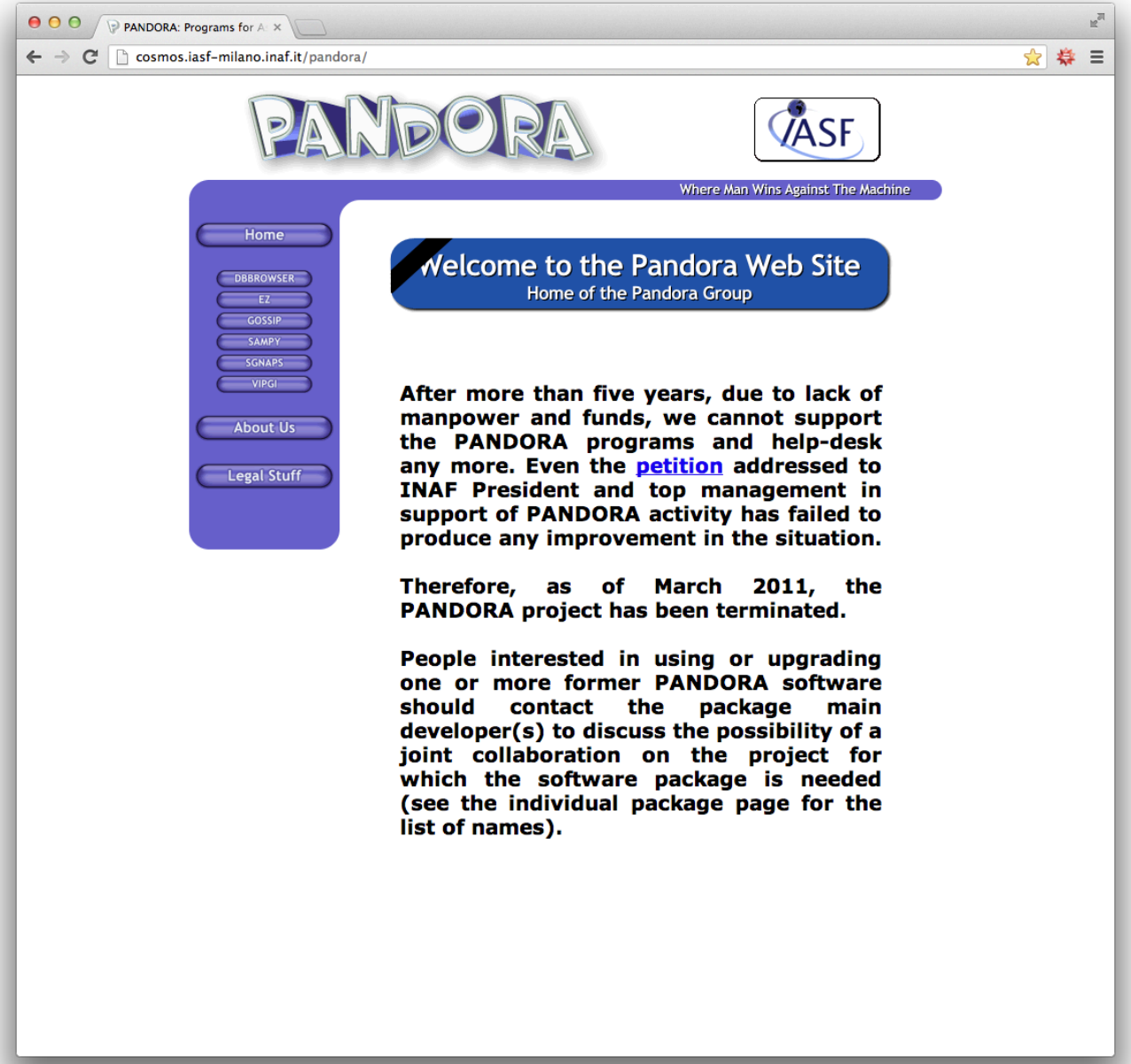
- Addons / Installation
- Libraries deaths
- Code duplication / management
- Installazione semplice
- Helpdesk

PNGS
Pandora Next Generation Software

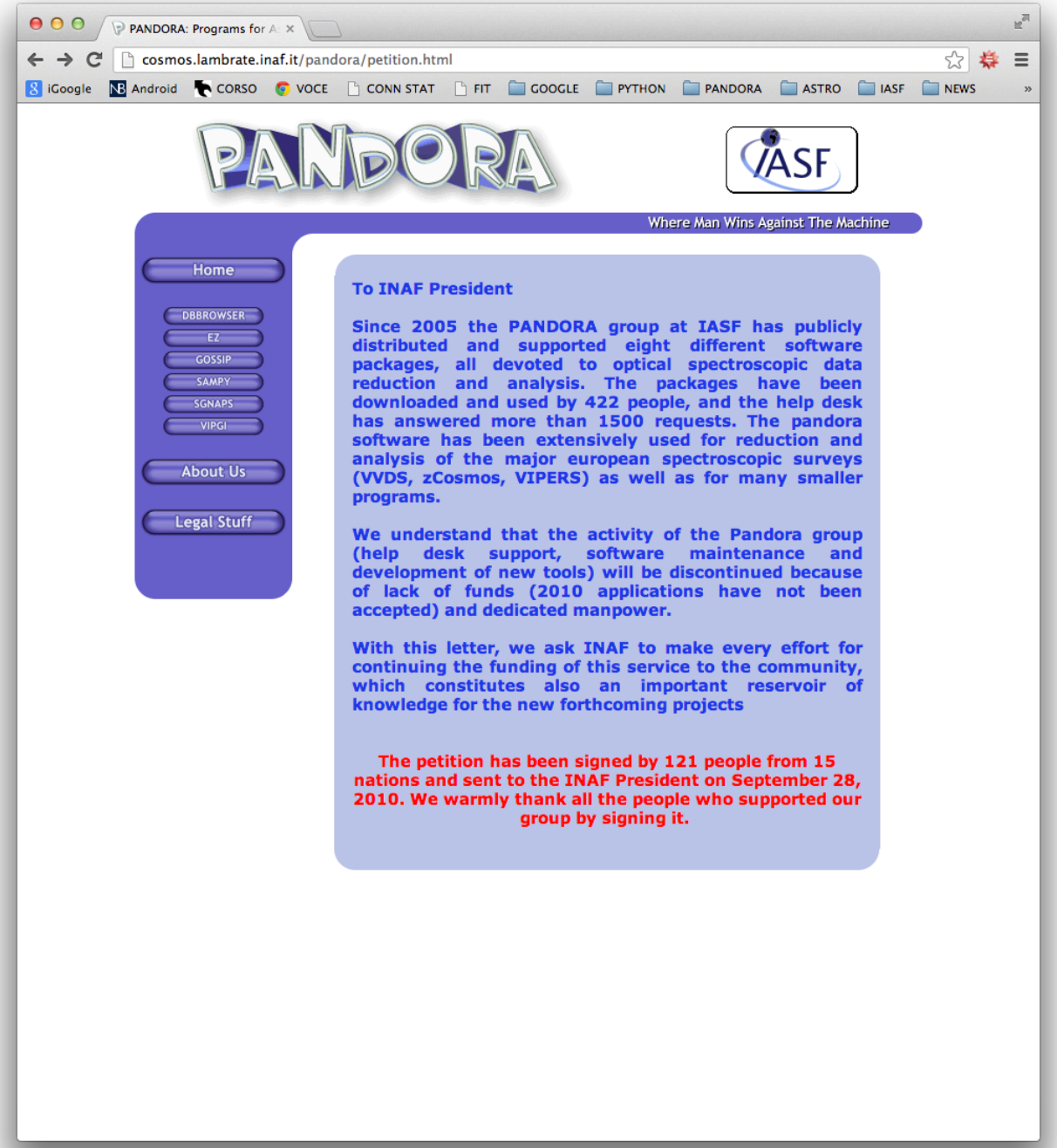
PNGS


Pandora Applications
DataBrowser
EasyLife
EZ
GOSSIP
VIPGI
IModel
SGNAPS
PyPlot
LEGENDA
Package
Interface
+method()
Class
+attribute
+method()
<<dataType>>
Component
+method()
MegaWidget
Pandora Packages
Utilities
Config
Translator
Plotter
ScatterPlot
Plot3D & ContourPlot
Histogram
Spectra Viewer
TwoDSpectrum
+plotSpectrum()
OneDSpectrum
+plotSpectrum()
+plorSED()
Plot
+zoom()
+scroll()
+crosshair()
SpectraViewer
DBase
DBase
+connect()
+query()
FileIO
TableReader
ImageReader
TableWriter
ImageWriter
TableJoiner
SpectrumWriter
SpectrumReader
<<dataType>> Spectrum
<<dataType>> Image
<<dataType>> Table
Astro
UnitConverter
Mags
LineFeatures
Cosmo
Syntetic Models
Current GOSSIP libraries
+importBCModels()
+importPEGASEModels()
+loadModels()
+computePDFs()
Reduction
Adjust
AtmCorr
CheckLambdaCal
CheckSpectraLocation
CreateMasterLamp
CheckZphot
CompleteReduction
CreateSummary
CreateMasterBias
EzBlind
FilesSort
LocateSpectra
PreliminaryReduction
ReduceSequence
ReduceSingle
SecondObject
ZeroOrderFix
Recipes
DRS
Organizer
Organizer
Unpacker
Unpacker
VimosUnpacker
ComputeRedshift
Current EZ libraries
+simple()
+solve()
+fit()
+correlate()
Test Unit
SkycatProxy
Skycat
DS9Proxy
DS9
Math
Pylevmar
Mode
Spline
+interp()
+fit()
Chi2Fitting
CrossCorr
WidgetFrontend
WidgetInterface
GtkWidget
QtWidget
Resources
Third Party Librararies
Qt
Python 3.x
Numpy
SWIG
DS9
PyQt
SQLAlchemy
Matplotlib
Cfitsio
Epydoc
Pyraf
IRAF
Axesim
Axe
Pyfits
SExtractor
Skycat
SQLite
CPL
Wcslib
FASE
FASE
Packaging System
Updater
Installer
Logging
Logger
+info()
+warning()
+error()
+debug()
IPC
SAMPy

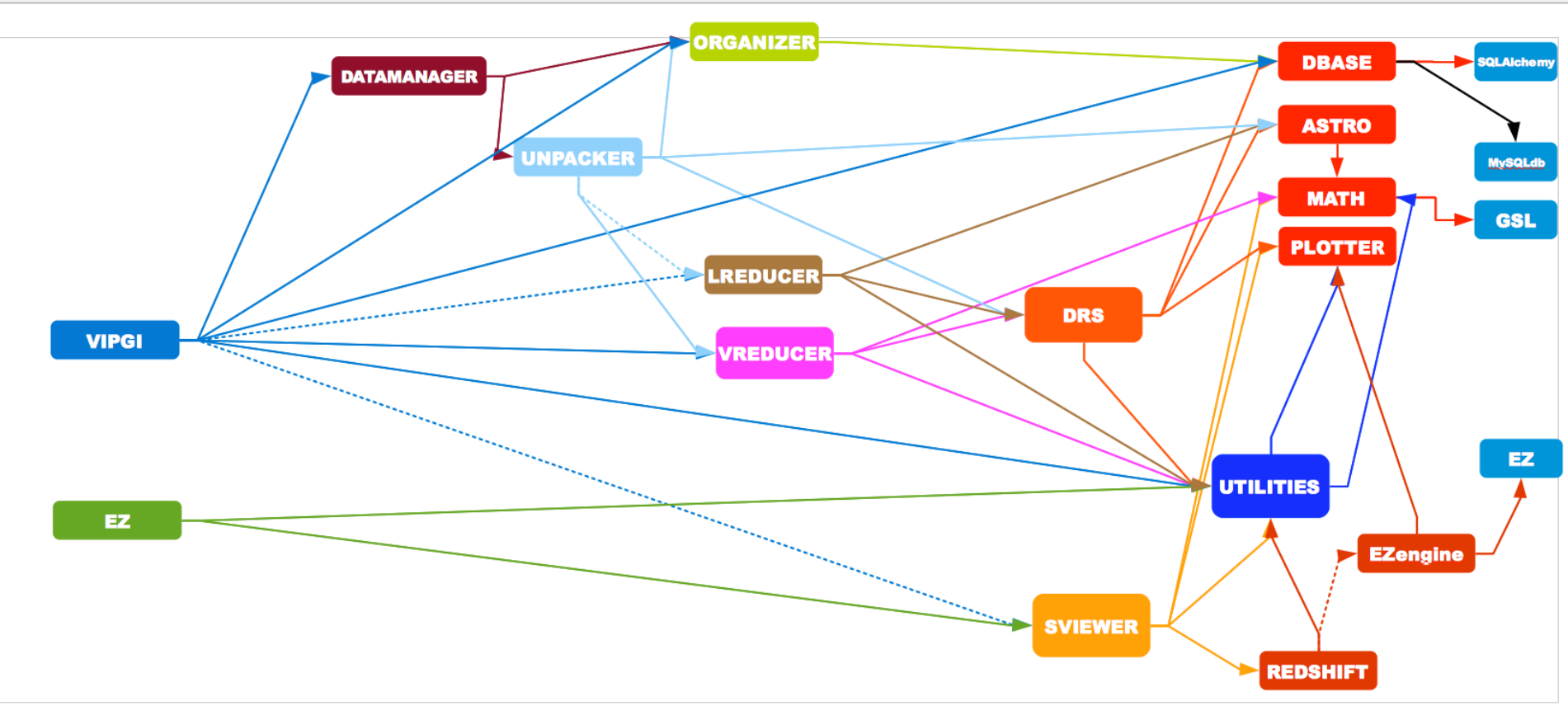
PNGS ???


PANDORA: Programs for A
cosmos.iasf-milano.inaf.it/pandora/
PANDORA
IASF
Where Man Wins Against The Machine
Home
DBBROWSER
EZ
GOSSIP
SAMPY
SGNAPS
VIPGI
About Us
Legal Stuff
Welcome to the Pandora Web Site
Home of the Pandora Group
After more than five years, due to lack of manpower and funds, we cannot support the PANDORA programs and help-desk any more. Even the petition addressed to INAF President and top management in support of PANDORA activity has failed to produce any improvement in the situation.
Therefore, as of March 2011, the PANDORA project has been terminated.
People interested in using or upgrading one or more former PANDORA software should contact the package main developer(s) to discuss the possibility of a joint collaboration on the project for which the software package is needed (see the individual package page for the list of names).

PNGS ???


PANDORA: Programs for A
cosmos.lambrate.inaf.it/pandora/petition.html
iGoogle
Android
CORSO
VOCE
CONN STAT
FIT
GOOGLE
PYTHON
PANDORA
ASTRO
IASF
NEWS
PANDORA
IASF
Where Man Wins Against The Machine
Home
DBBROWSER
EZ
GOSSIP
SAMPY
SGNAPS
VIPGI
About Us
Legal Stuff
To INAF President
Since 2005 the PANDORA group at IASF has publicly distributed and supported eight different software packages, all devoted to optical spectroscopic data reduction and analysis. The packages have been downloaded and used by 422 people, and the help desk has answered more than 1500 requests. The pandora software has been extensively used for reduction and analysis of the major european spectroscopic surveys (VVDS, zCosmos, VIPERS) as well as for many smaller programs.
We understand that the activity of the Pandora group (help desk support, software maintenance and development of new tools) will be discontinued because of lack of funds (2010 applications have not been accepted) and dedicated manpower.
With this letter, we ask INAF to make every effort for continuing the funding of this service to the community, which constitutes also an important reservoir of knowledge for the new forthcoming projects
The petition has been signed by 121 people from 15 nations and sent to the INAF President on September 28, 2010. We warmly thank all the people who supported our group by signing it.

PNGS


ORGANIZER
DATAMANAGER
UNPACKER
LREDUCER
VREDUCER
VIPGI
EZ
DRS
SVIEWER
DBASE
ASTRO
MATH
PLOTTER
UTILITIES
SQLAlchemy
MySQLdb
GSL
EZ
EZengine
REDSHIFT

IMODEL

pandora.imodel

EUCLID SIMULATIONS

the code

logical workflow

inputs | products | algorithms

The input catalog, representing the universe, provides the incident spectra, i.e. the spectra as they arrive on the telescope

UNIVERSE (CATALOG)

INCIDENT SPECTRA

The instrument model and the observing strategy are used to simulate the spectra on the FoV as they will be observed by the instrument

INSTRUMENT MODEL

OBSERVING STRATEGY

FRAMES SIMULATOR

2D IMAGES

The reduction pipeline extracts the 1D spectra from the 2D simulated images

REDUCTION

1D SPECTRA

The redshift measurement on the 1D spectra obtains the recovered redshifts and an estimate of how much the measure is "reliable" (as it will not be possible to manually check millions of spectra)

Z MEASURE

RELIABLE REDSHIFTS

The cosmological computations based on the recovered redshifts gives the FoM for the BAO measure

COSMOLOGICAL COMPUTATIONS

BAO FoM

The FoM tells us if the instrument meets the scientific requirements of the EUCLID mission

GO Or NO GO

implementation

modules | steps | framework

Each logical step can be executed using different modules; the user defines at runtime the set of modules to be used for a given simulation run (see below some of the possible use cases).

At the moment the used modules are based on legacy software (like aXe, aXeSIM and EZ) and prototypes developed by us (RESS).

As soon as the OUs codes will be ready they will be easily included in the system for a more realistic simulation chain.

FASE (the Future Astronomical Software Environment) is a project that has been funded by the european community (OPTICON Network 9.2, FP7) to develop a standard interoperable and distributed framework within which integrating the legacy astronomical software and developing the future astronomical software.

It provides:

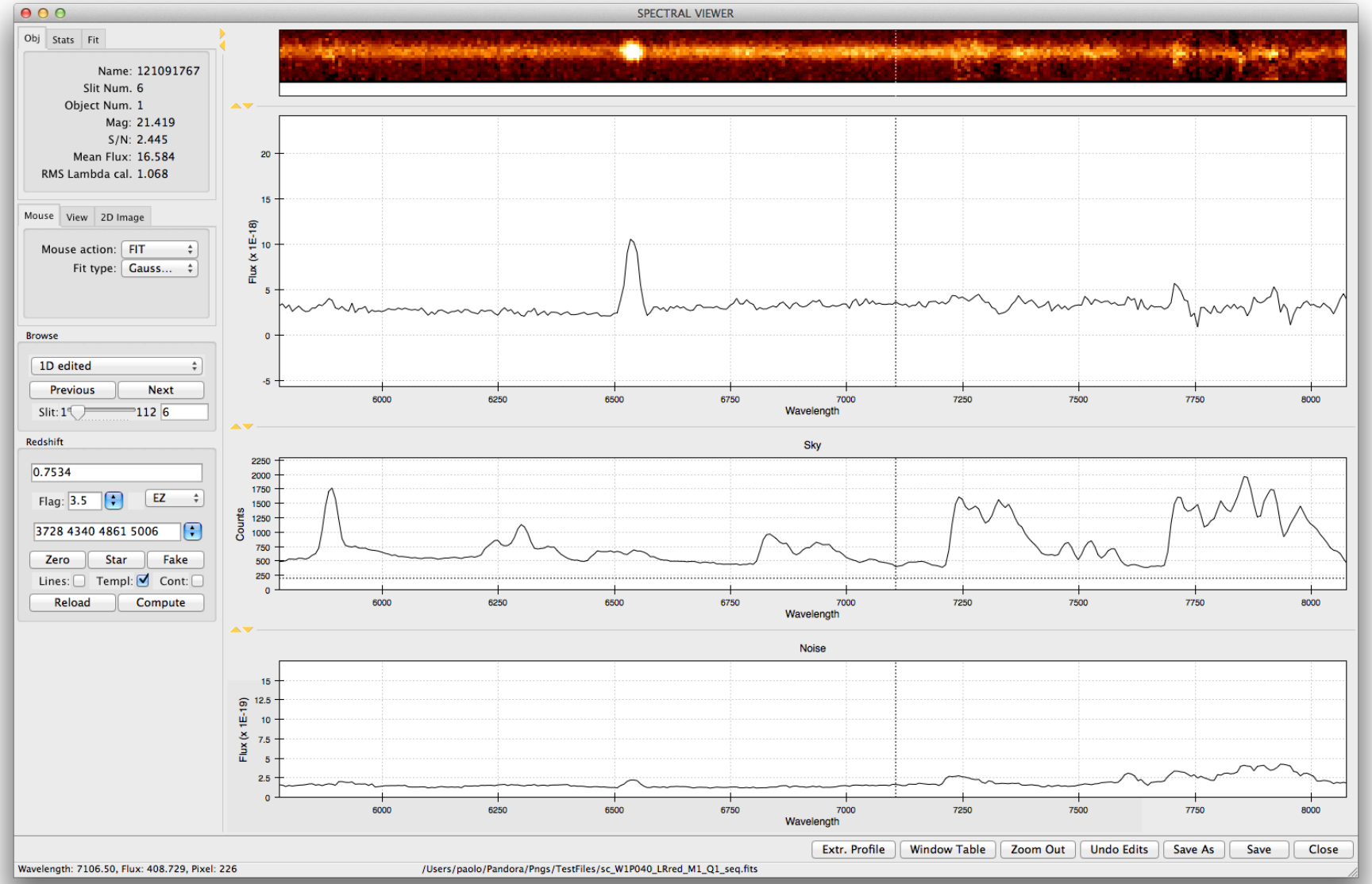
- a set of libraries to exploit the framework resources
- an execution engine to launch the applications on a scalable environment
- a packaging system, to pack the applications and easy their distribution, installation and execution

which simplify the use and development of astronomical applications, managing at run-time their life-cycle and providing a set of facilities to enable a real inter-operation between the different components involved (no matter in what language they are written).

For further details see http://faserepo.lambrate.inaf.it/media/tutorial/cur/html/main.html

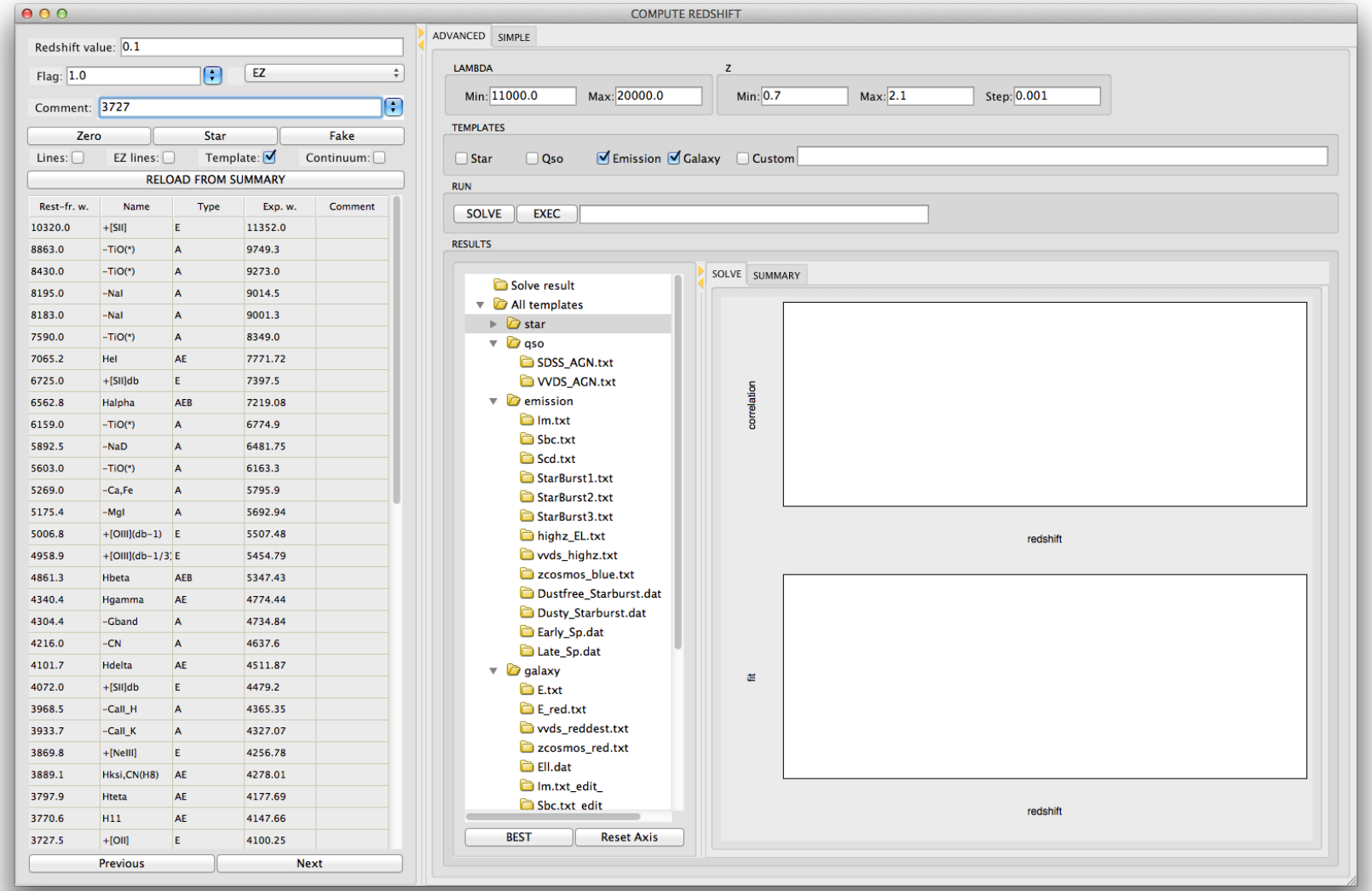
PNGS

pandora.ez



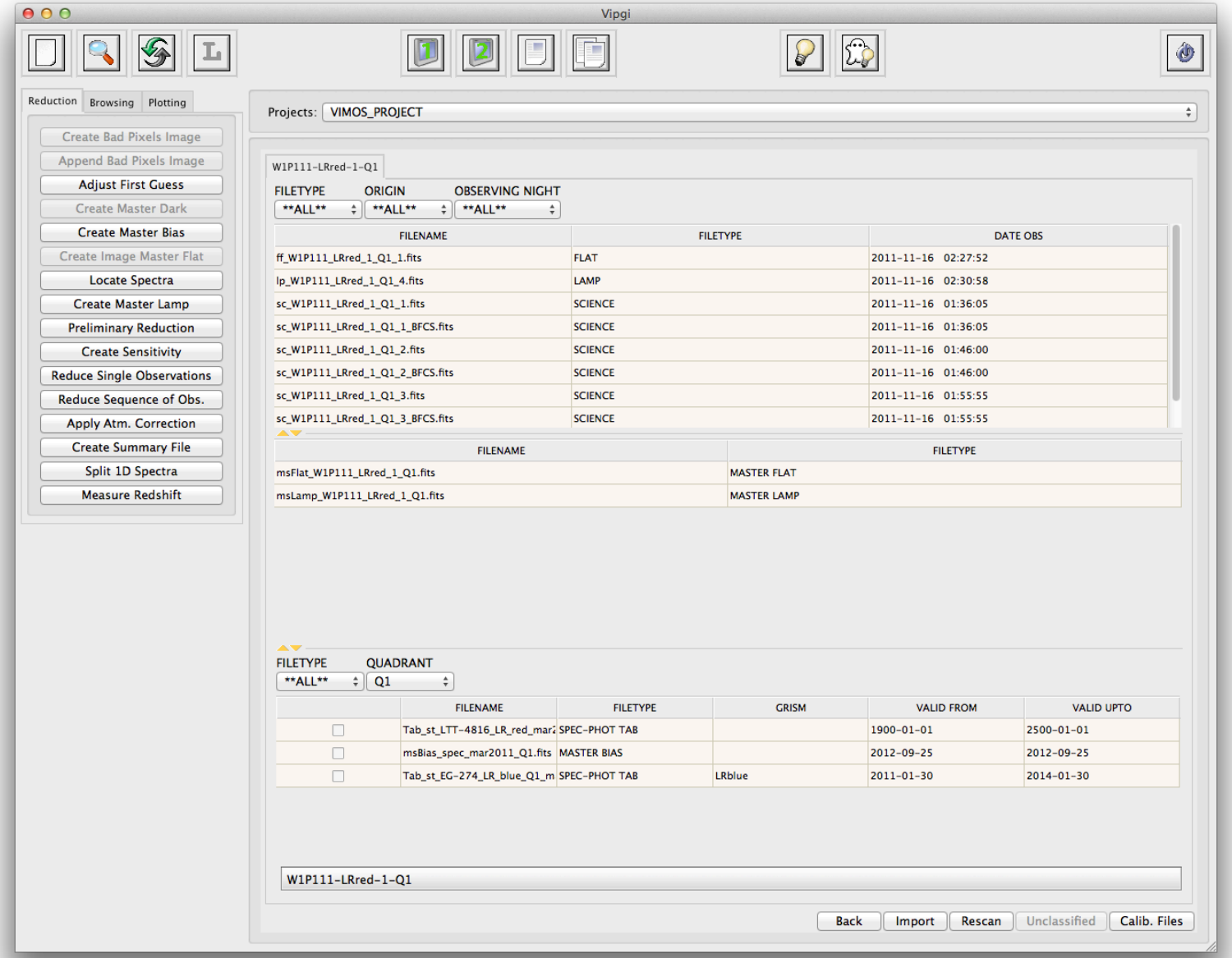
PNGS

pandora.ez



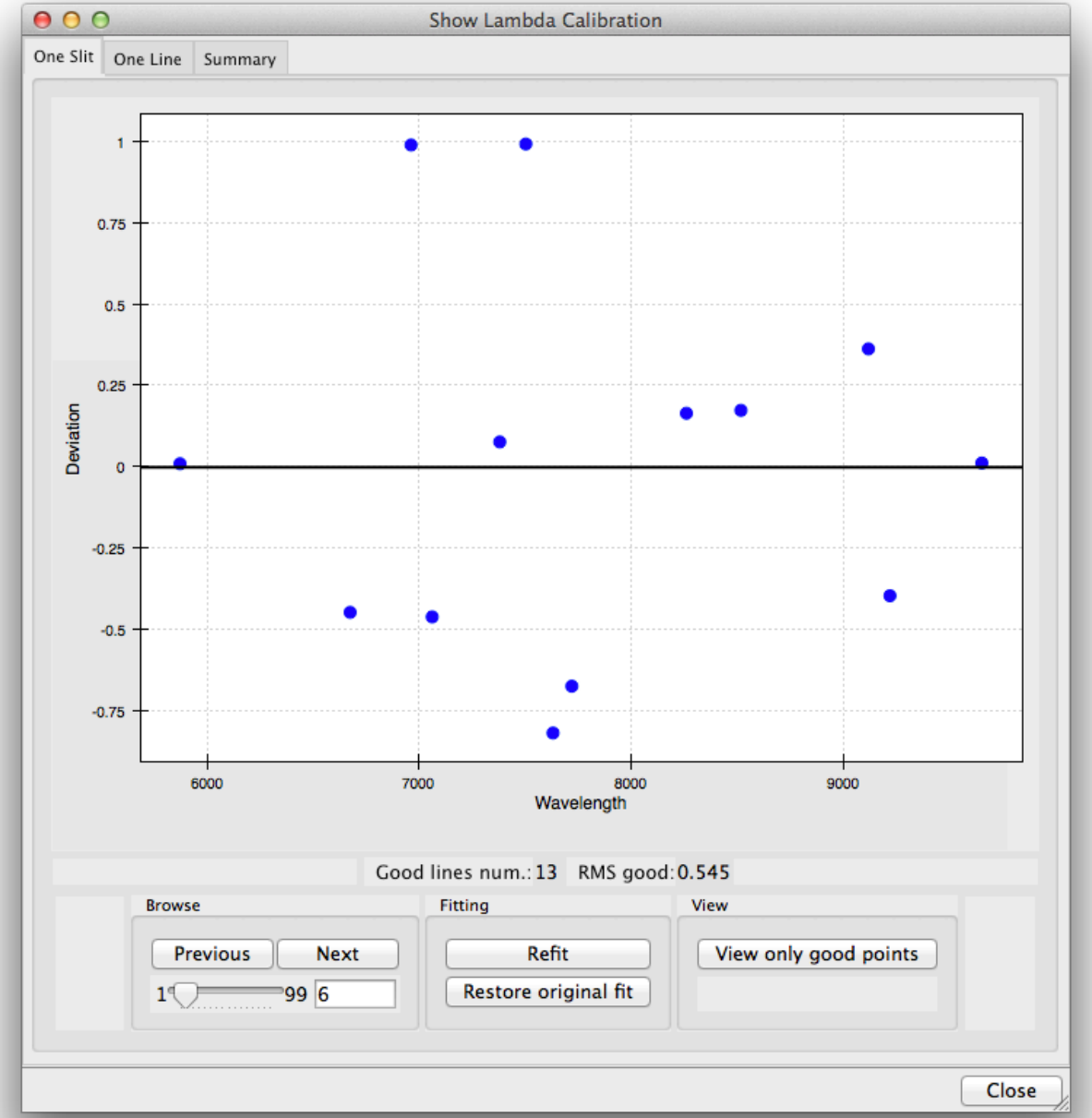
PNGS

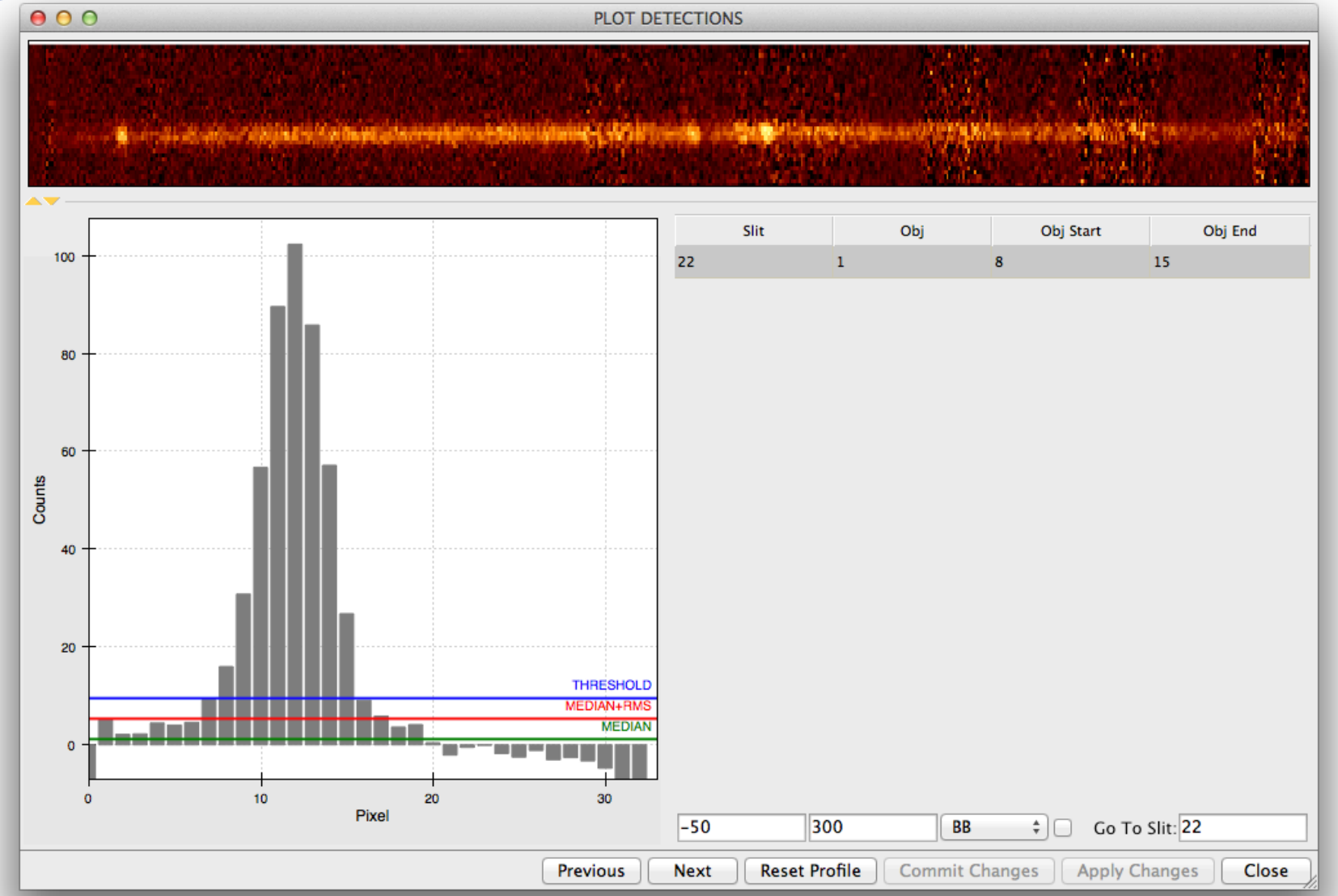
pandora.vipgi



PNGS

pandora.vipgi



PNGS

pandora.vipgi