



Part II

RDBIX

The Relational DataBase
of the Terapix Project



A database for Terapix

1. Why ?
2. General constraints
3. Overview
4. Choices
5. Extensions
6. AVO Integration



1. Why ?

- ▶ History management :
 - Calibration files
 - Processing done
 - Log files
- ▶ Data organization
- ▶ Search abilities
 - of FITS images header keywords
 - of attached files keywords

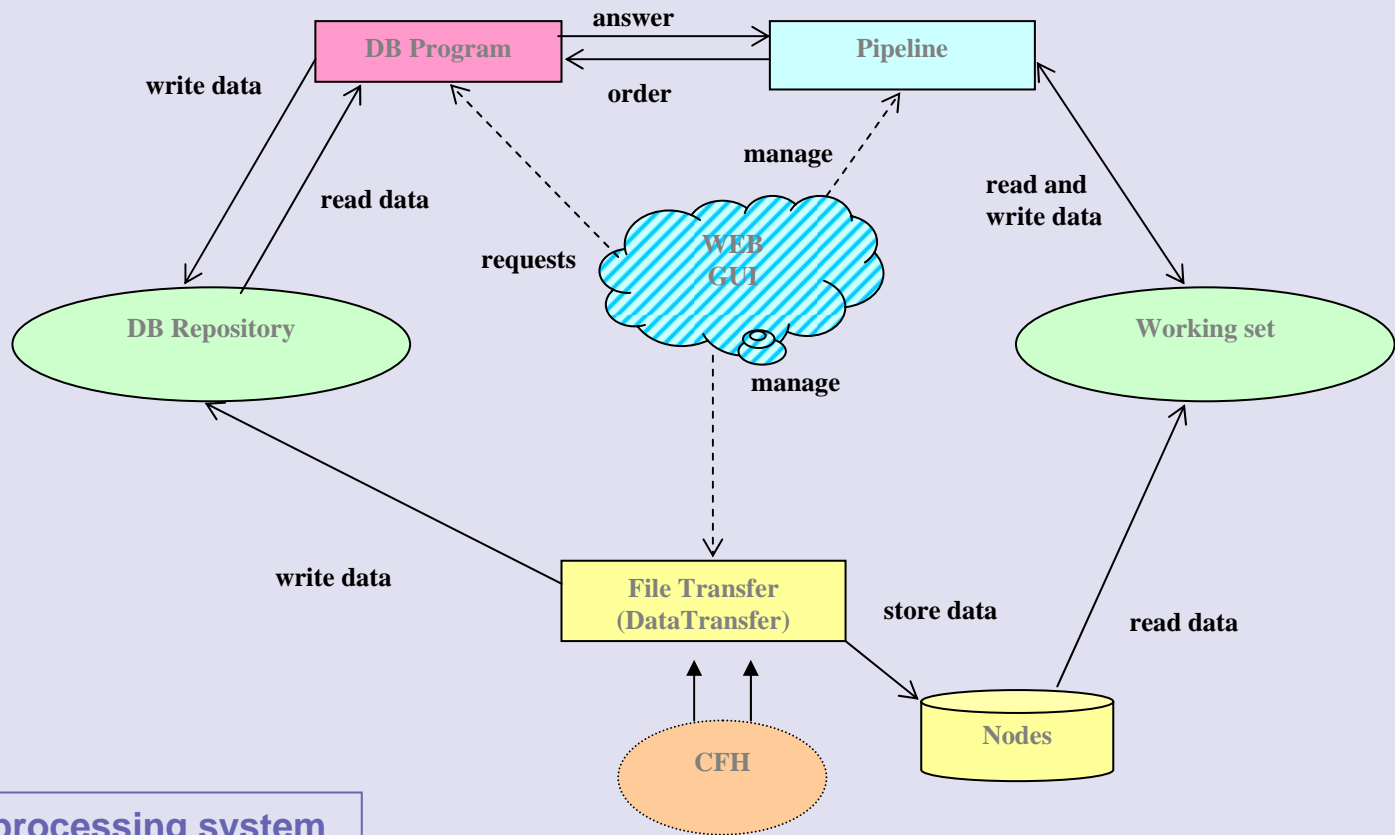


2. General constraints

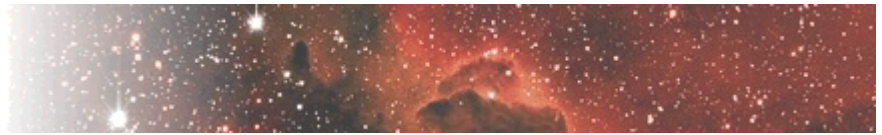
- ▶ Quick access to data
- ▶ Big storage capacity
 - more than 30.000 raw images
 - more than 5.000 coadded images
- ▶ Portability
- ▶ Data integrity protection



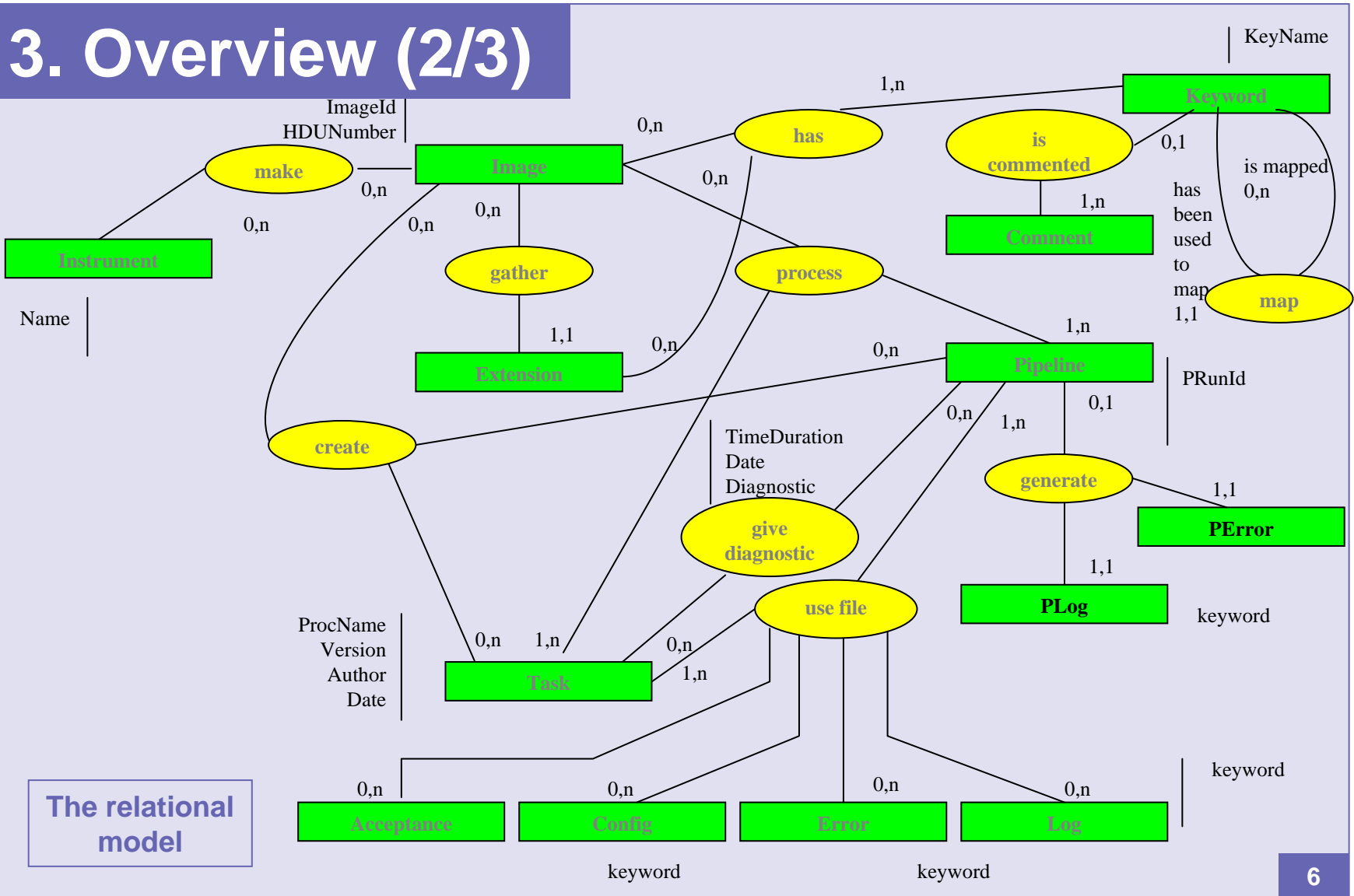
3. Overview (1/3)



The processing system



3. Overview (2/3)

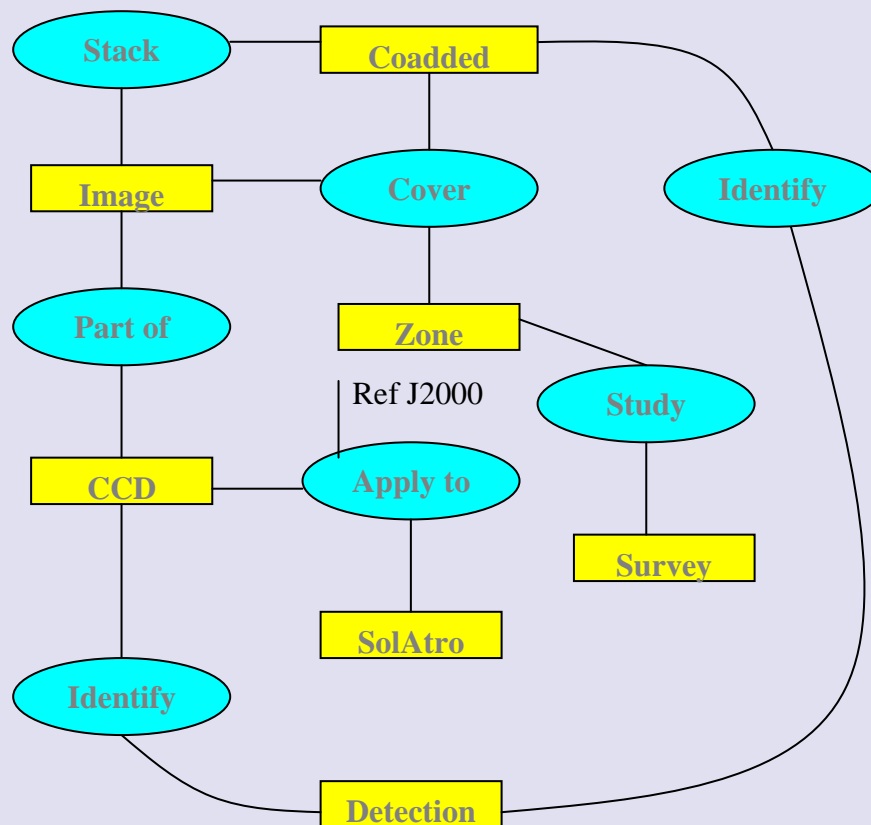


The relational model



3. Overview (3/3)

- ▶ Survey
- ▶ Image / CCD
- ▶ Coadded images
- ▶ Zone
- ▶ Instrument
- ▶ Software
- ▶ Run
- ▶ Catalogues
- ▶ Calibration



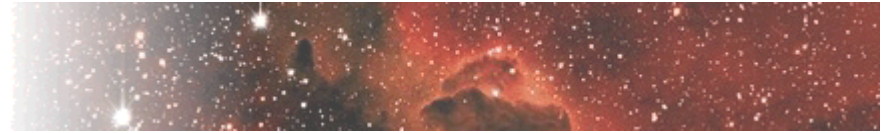
The objects to store



4. Choices (1/3)

- ▶ Encapsulation of the proprietary database
- ▶ Need of :
 - Results unification
 - Access unification
 - SQL 2 standard respect
 - ANSI standard respect concerning table attributes type.

Proprietary Database free



4. Choices (2/3)

- ▶ Object language
 - C++
- ▶ Relational database
 - MySQL



4. Choices (3/3)

View of the final RDBIX database

DBTERAPIX running on localhost - phpMyAdmin 2.5.4 - Opera

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OPERA software

http://dix.iap.fr/admin/mysql/index.php

<input type="checkbox"/>	SCIENCECCD_29_1	264	MyISAM	603.7 KB
<input type="checkbox"/>	SCIENCECCD_2_1	264	MyISAM	605.9 KB
<input type="checkbox"/>	SCIENCECCD_30_1	264	MyISAM	602.8 KB
<input type="checkbox"/>	SCIENCECCD_31_1	264	MyISAM	603.5 KB
<input type="checkbox"/>	SCIENCECCD_32_1	264	MyISAM	604.5 KB
<input type="checkbox"/>	SCIENCECCD_33_1	264	MyISAM	604.9 KB
<input type="checkbox"/>	SCIENCECCD_34_1	264	MyISAM	604.4 KB
<input type="checkbox"/>	SCIENCECCD_35_1	264	MyISAM	604.2 KB
<input type="checkbox"/>	SCIENCECCD_3_1	264	MyISAM	607.3 KB
<input type="checkbox"/>	SCIENCECCD_4_1	264	MyISAM	608.0 KB
<input type="checkbox"/>	SCIENCECCD_5_1	264	MyISAM	608.5 KB
<input type="checkbox"/>	SCIENCECCD_6_1	264	MyISAM	608.6 KB
<input type="checkbox"/>	SCIENCECCD_7_1	264	MyISAM	607.9 KB
<input type="checkbox"/>	SCIENCECCD_8_1	264	MyISAM	607.6 KB
<input type="checkbox"/>	SCIENCECCD_9_1	264	MyISAM	605.0 KB
<input type="checkbox"/>	SCIENCEImage_1	9,504	MyISAM	481.6 KB
<input type="checkbox"/>	SCIENCEPrimary_1	264	MyISAM	66.8 KB
164 table(s)		Sum	746,987	86.7 MB

Query window



5. Extensions

- ▶ Catalogs management
- ▶ Sources indexation
- ▶ Survey management



6. AVO integration

- ▶ Web services, for wide non local usage :
 - Images processing
 - Images quality analysis
 - Catalogs search and analysis
 - Surveys follow-up
- ▶ All these services should be :
 - registered
 - VO compatible (through VOTable output)



So this is the
beginning !...