COSMIC EVOLUTION SURVEY

The COSMOS survey

t logged in
Users logged in: 0

Close

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Introduction

ToC

This is an introductory help to explain to zCosmos Database users how to compose queries to data catalogs.

The individual help topics are intended for typical users to give them an idea of the functionality of the various panels and commands available to them. In addition to the present procedural help, it is planned to add some more details for the MySQL knownledgeable user.

Screen layout and appearance

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The typical screen arrangement of the database query window sees three areas: a title area on top (providing also some additional information like a login status: an identification message and note at the bottom of the side bar that provides a counter of the users currently logged in), a button side bar on the left hand side, and a main area with the various panels described below.

Some functions will open automatically other windows and re-use them as necessary.

The typical sequence of operations will be like this, after login one will compose a query, which involves selecting one or more database tables, the output columns and some conditions. After submission of the query, one could inspect the results, or also save them to files to be later retrieved. One could then issue a new or modified query or logout.

Login, registration and account settings

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The very first step is to login, provided you have already registered. You can access the login page pressing the LOGIN button.

Here you will find the login form where you shall enter the information explained below.

- *User*

  Each user can store the result of the queries in private files for retrieval. To allow orderly administration of such data, the user shall register an individual user login name.

- *Password*

  For security reasons each login user name is protected by a password.

- *Group*

  Access to the various families of database tables might change with time, and be granted to a given group of users. Users in each group are authorized to access only a subset of the tables. Ultimately, when all analysis work is completed, the goal is to release all restrictions and allow full public access (everybody can access every table).

  A public group named *public* is the default group which allows access to the tables released so far.

The above concerns access to the data tables which are parts of the zCosmos Database catalogues proper. Of course access is in read-only mode. For what concerns private files, they will be accessible in full mode only to the relevant user. However they will be stored according to the work group under which one was logged in at the time of creation (and therefore accessed only when logged in under the respective work group).

Users may belong to more groups. The initial affiliation has to be included in the registration request, after which it can be changed any time on request or ex officio.

Once performed the login, then you can compose a new query.

To logout press the LOGOUT button.

To register yourself as a member of the public workgroup, click on the *New registration* link provided in the login form. A simply self-explanatory registration form is displayed. For registration into a particular work group, or to request deletion of your account, send a mail request to Cosmos DB Administrator.

The registration to the public workgroup is mandatory before to request a registration into another workgroup.

Note that if you need to change you account information, you can do it (provided you have logged in) clicking the MY ACCOUNT button. It shows the registration information and a password reminder button, case you forgot it.

A similar form is used for new registrations or for changes. The difference is that it has different action buttons (only *Register* in the case of new registrations, *Modify*, *Delete* and a password reminder in the case of account maintenance). Note that to modify some account information like the e-mail or affiliation you are requested to enter your password in both places provided.

There are two password reminder links with different purposes. One is on the login form, and is for the case when neither you nor your browser remember the password (which will be mailed at the e-mail address recorded at registration). The second reminder is on the account maintenance form, and applies in the case when your browser remembers it so that you could login, but you have forgotten it and need to enter it to change something else.

Compose and modify queries

ToC

Introduction

There are three ways to compose a query: Simple, Advanced and *Get all columns* (they are mutually exclusive).

The Simple query composition has been studied to be an user friendly way to quickly compose statements that haven't particular complex expression. *Simple* query allows to select a sky region, to define a set of objects to be retrieved, to conditionate the query with some constrains and to define the output columns.

The Advanced query composition has been thought to provide a more flexible tool for expert users. It allows to insert formulas in the selection statement, to define the selection condition in a customizable complex way, to sort the output using a specified data column order and it also allows to limit the result output.

The *Get all columns* query method has been included to provide a quick way to retrieve the whole content of the selected catalogs without apply any filter or selection. We discourage the use of this method as it is not the most clever way to use a database, but since in certain cases it may be useful we decided to provide it.

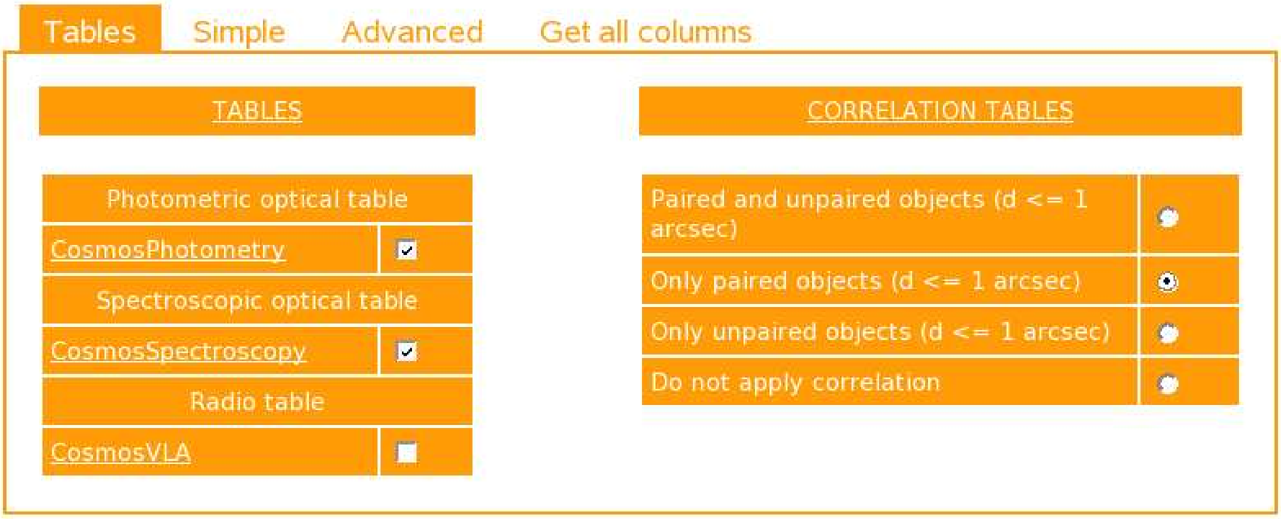
These three ways have the first step in common: select the tables to be inquired, as described here below.

Tables form

After a successful login or whenever you press the NEW QUERY button, you come in a fresh *Tables* form, where you can select the tables you intend to query.

The table selection is the first and mandatory step to compose a query: no other composing operation is enabled without a previous table selection.

The *Tables* form appears in its full form like this :



TABLES	
Photometric optical table	
CosmosPhotometry	☑
Spectroscopic optical table	
CosmosSpectroscopy	☑
Radio table	
CosmosVLA	□

CORRELATION TABLES	
Paired and unpaired objects (d <= 1 arcsec)	○
Only paired objects (d <= 1 arcsec)	●
Only unpaired objects (d <= 1 arcsec)	○
Do not apply correlation	○

The *Tables* form has two columns, of which only the first (left hand side) one is always present on the screen.

Tables

The left hand side part of the screen lists the existing database tables (available to the workgroup), and allows to select one or more of them as source for database queries. They are grouped by categories described by the group header (title) and listed in a category "priority" order. At equal category "priority", another specific table "priority" is used, and the alphabetic order at equal table "priority" level. Inside each table category, the tables are listed in alphabetic order. Click on the tables checkbox to select them. You must select at least one table, and optionally many more.

If you select *more than two tables* your queries will be conducted *independently in parallel* on each of the tables. If you select *exactly two tables* you will have the possibility to make a *joint query* using the correlation tables described below (if none of them is or can be selected a standard parallel query will be performed).

To get more information about a table, there are two ways:

1. if you move the mouse cursor over a table name, a floating window will appear with some concise summary information;
2. if you instead click on the table name, a popup window with ancillary information (a short description and some verbose notes) will be shown.

Note: there are thee kind of tables available:

1. *Standard tables:*
   These are simple tables for which any kind of selection of the individual columns are allowed, without particular rules or constraints.
2. *Views:*
   Assuming that (each or some) X-ray sources *seq1, seq2 ... seqn* in an X-ray table, are identified with some optical, radio, or other source, one would like to have a table which gives the X-ray, optical, radio etc. properties of the source.
   However copying the information from the original tables into columns of a new table is a waste of space (and also requires manual updates if the original tables are updated).
   A *view* is a way of linking the information in the original tables without the need to make a physical copy of the information.

We can think at the *views* as special tables, which come from hidden pre-cooked queries to standard tables. From the user's point of view, they appear like simple tables except that the possibility to view all the columns for the member tables is allowed. Thus, when a *view* has been selected, then a check box labelled "Show member tables also" is shown. Selecting such check box, then in the Advanced query composition form, all the member tables columns are displayed together with the *view* columns.
Correlations between two virtual tables are not be supported. It is possible to access a *view* alone or correlated with a standard table with (be it a member of the *view* or not).

3. *Virtual tables:*
   The concept of *virtual tables* is rather similar to that of *view*. The only difference is that a *virtual table* is a more "explicit" query to standard tables. As a consequence, the member table are always available in Advanced queries, even if it is allowed to ignore them, and the expressions or formula which identify the *virtual table* columns are fully reported in the query composition.
   By convention, *virtual tables* have names starting with an underscore (generally in all capitals, e.g. a name like `_VIRTEST`). Usually *virtual tables* are rarely adopted.

Correlation tables

The right hand side of the screen will list existing correlation tables for a specific couple of selected tables. Correlation tables are listed only if exactly two tables are selected and only if (at least one) correlation for them has been generated.

The correlation itself will be constructed by us at database population time and shall not concern the user. The application of a correlation table is activated simply selecting the relevant checkbox.

Of course *only one* correlation table at a time can be active, if any. If you click on the *Do not apply correlation* checkbox you will disable all correlation tables and revert to a standard parallel query acting independently on each table

In a nutshell correlation tables work as best explained by the following simple example: assume that in the *Tables* form one has selected to perform a query on two tables, an *xray* and an *optical* one. Let also assume that the *xray* table contains 70 objects, and that the optical one contains 1000 objects. Existing correlation tables (relevant to this specific couple of data tables) will be presented in the appropriate column.

In absence of a correlation table, a joint query on the two tables would be performed on *all possible combinations* (70×1000=70,000 in the example), which is usually both silly and time consuming. For this reason our system does not allow joint correlations without a correlation table.

Let us assume for instance that the *optical* table does not have an uniform sky coverage, but has been generated selecting all objects within a box of 60 arcsec around each object in the *xray* table. In this case obviously there is no interest in accessing possible couples of objects which were not associated in the original box. It appears natural to restrict searches to the *optical* objects within 60 arcsec from any *xray* object, consistently with the way the optical table were *constructed*.
Even if the *optical* table had a broader sky coverage, it would be meaningless to consider all possible couples, or couples far apart, and it will be appropriate to restrict searches within some limited radius. These will be the broader ("natural" or "unbiased") correlation tables.

In both cases one might desire to further limit the search (e.g. to object really close, say with an angular distance less than a few arcsec). Therefore one can have additional (narrower) tables.

Finally it could be possible that there are objects in either table without counterpart in the other (for sake of argument let's say in the *xray* table which have no *optical* objects associated to them). These "null correlations" might or might not be included in the correlation table. Bear in mind that a table, if indicated as "without null", would not include these unidentified objects, and therefore they will not be accessed at all in a query using such correlation table as a filter.

Conversely, if you use a table "with null", any column of the "second" table for which there is no object present in correspondence of an object in the "first" table will contain a null value.

Simple query composition

The *Simple* query composition is performed assembling the parameters of the selection which the user enters in several forms accessed one by one in arbitrary order clicking on one of the *tabs* shown here below:

The *tabs* (Tables, By Position, By Input List, By Parameters, Output columns) are not arranged in a hierarchic or sequential order but the *Tables* tab is the first form to be filled in. The other forms are enabled only if at least one table has been selected. Note that all the input parameters entered by the user for a table in the *tabs* are permanently memorized and can be reset pressing the "Clear all" button (which applies only to the parameters shown on the screen). This means that if the user deselects a table and later reselects it, the table specific query parameters are reloaded, unless he doesn't press the NEW QUERY button.

All the forms (excepted the *Tables* tab) have a large submit button to execute the query.

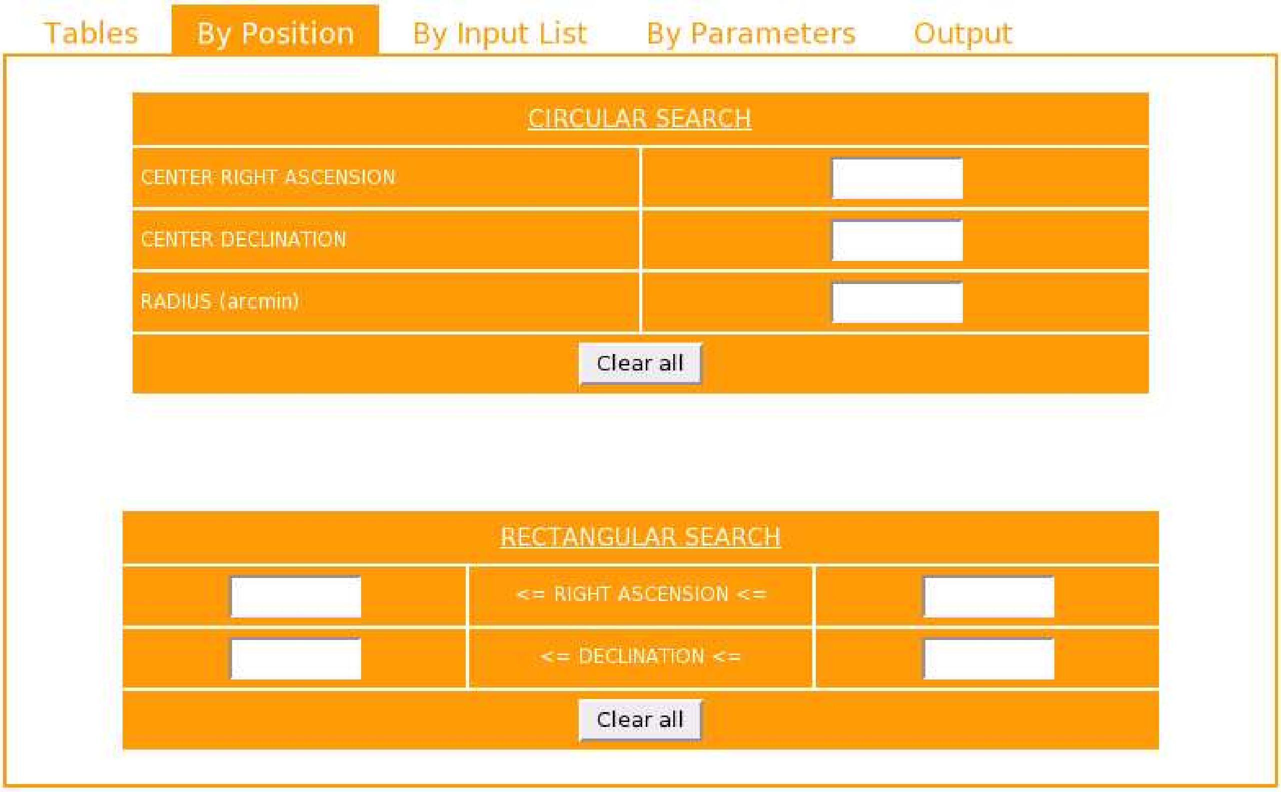
If you have already composed a query, you can simply modify it (edit your previous choices) clicking on the MODIFY QUERY button, instead of composing it from scratch as would occur clicking the *New query* button described above. Note that the *Modify query* command allows to modify the current query composition without resetting any parameters (hidden ones included).

Clicking on the name of the tables or columns, a summary of columns in the table or a verbose description of the specific column will be displayed in the help window.

Query "by position"

The *By Position* form allows you to select a sky region common to all the tables chosen (applied to the default sky coordinate columns *alpha* and *delta*). Only objects falling inside such region will be returned.

The *By Position* form appears like this :



You can perform two kinds of region selection, each one with its sub-form:

Circular search

It defines a circular region centered at the specified right ascension and declination with an extension radius (indicated in degrees units).

Rectangular search

It defines a rectangular region which you have to indicate by the right ascension and declination extrema.

The right ascension and declination can be expressed both in "decimal" degrees or in traditional sessagesimal format. The examples below show how to write sessagesimal coordinates:

```
02:00:00
-16:45:20.59
+18:05:01.359
15:32:05.9
```

Note that you must fill all the entry fields in one of the sub-forms, either *Circular search* or *Rectangular search*, to define a valid area. Otherwise the statement is simply and silently ignored.

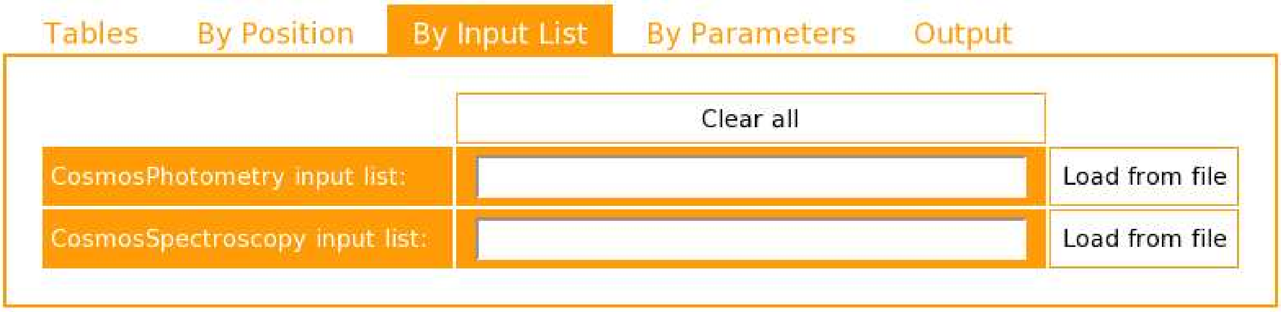
Circular search and *Rectangular search* make sense only if used one a time. Anyway, if they are used together, the intersection area is used to select data.

Take care not to input here a sky region that conflicts with another coordinate range defined with the By Parameters form; otherwise the intersection sky region will be used for the selection, which is in general not what one wants or expects.

Note also that, if a table has more columns corresponding to sky coordinates (e.g. a set of corrected or uncorrected coordinates) only the one defined as "default sky coordinates" will be considered by the "By Position" tab (the other columns can be used only in the By Parameters form).

Query "by input list"

The *By Input List* form allows you to constrain the query on a list of objects. This list of objects must be a blank space (" ") separated list of id column values.



The objects list can be input by hand into the proper entry field or loaded from a local file clicking on the *Load form file* button. The local file must be an ASCII file with blank space separated list of id column values (no matter if one per line or all in one line or mixed). Example:

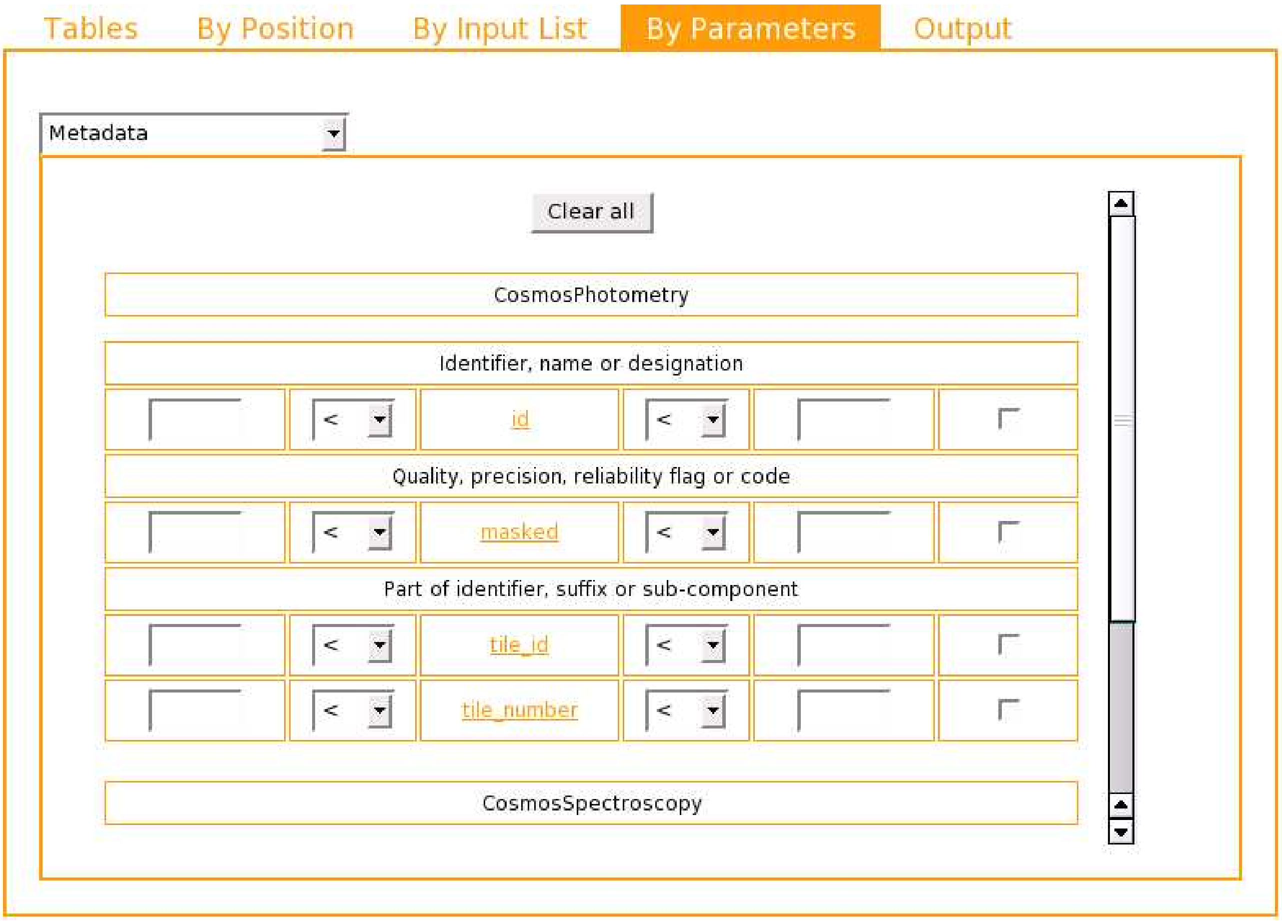
```
12631 1432 2134 13324 876324

or

12631
1432
2134
13324
876324

or

12631 1432
2134 13324
876324
```

Note that if you're composing a query on two correlated tables, for example on *table1* and *table2*, then if you select two input lists of objects (one for *table1* and another for *table2*) the query will be constrained on *table1* list OR *table2* list. Otherwise, the constraints will be considered separately, one per table.

Query "by parameters"

The *By Parameters* form allows you to set many selection conditions as ranges, equality or likeness for each table column of the tables chosen.
All these conditions are ANDed together

The *By Parameter* form appears like this :



The columns are grouped by main categories listed in the menu in the upper left corner, and only one category at a time is displayed on the screen. When a main category is selected, then, for each table chosen, a list of sub-categories is displayed, each with the columns which belong to it. All columns categories are listed in a "priority" order; alphabetic order is used at equal "priority" level.

According to the column type you have two kinds of selection condition:

- *Text column*

  On text columns you can select an equality ("=") or likeness ("LIKE") condition with the value inserted in the right hand side text area. Likeness expression syntax is as for the standard SQL pattern matching as described in the MySQL Manual.

- *Numeric column*

  On numeric columns you can select an equality ("=") or disequality ("<", "<=") condition which can be combined to define a simple condition inserting a value in only the right or the left hand side text area, or a range condition using both of them.

  Obviously if you use the equality condition it makes sense only as simple condition. Here below there are some examples of regular parameters condition:

```
column = 5.3
25 = column
column <= 2.3
0 < column                (this means column > 0)
83.2 <= column            (this means column >= 83.2)
10 < column <= 22.0       (this as a range condition)
```

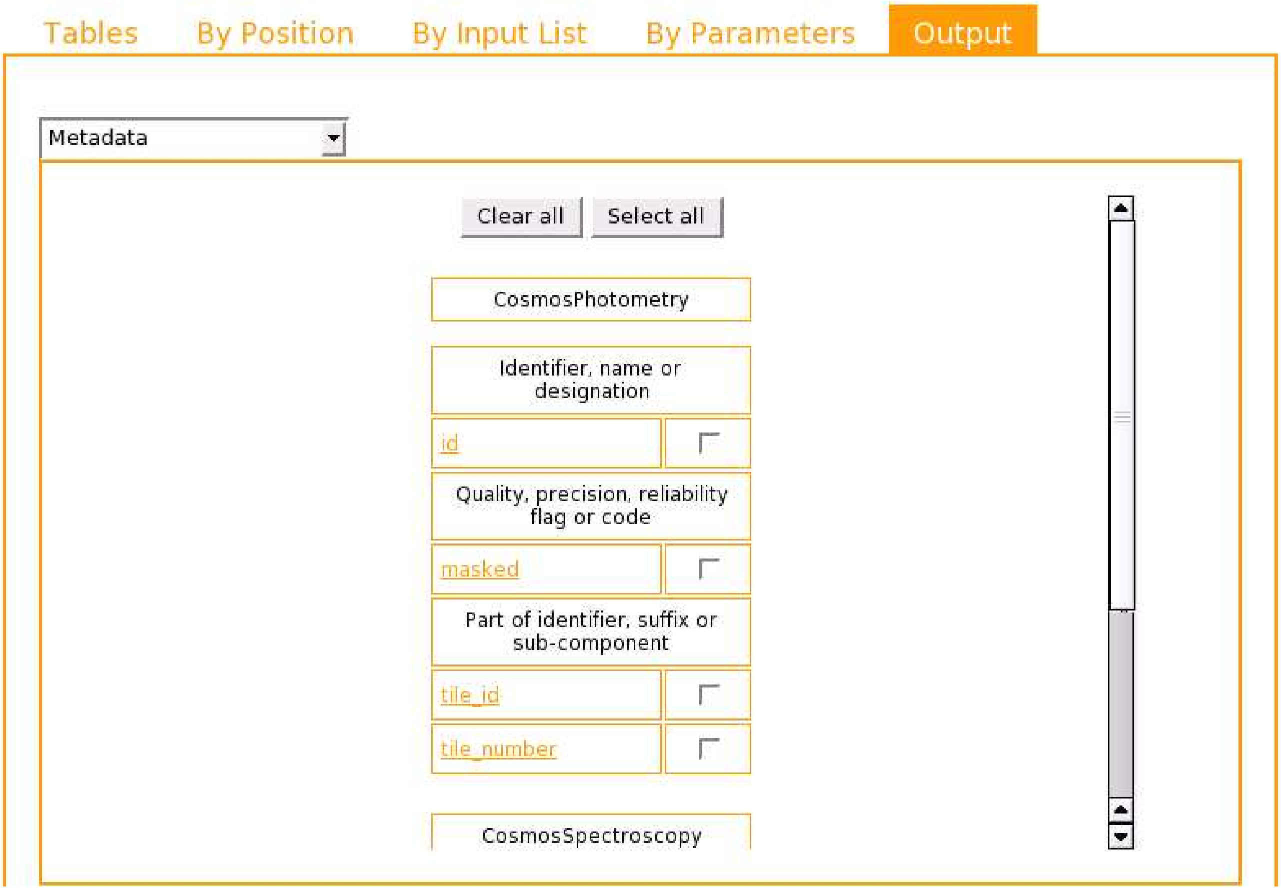
The checkbox on the right of each column is used to define a selection on the objects which have a non null value into that column. In other words is a filter on objects with an existing value in the related column. If you use a selection condition, this additional condition is unnecessary, but it is anyway allowed.

Using this form you can also select a sky region (which can also be a strip or semi-plane). In this case take care to define a sky region that does not conflict with another defined in the By Position form; otherwise objects in the intersection sky region will be returned.

This form can also be used to get ancillary information about a column (like an explanation or the units), clicking on the column name: a popup window with a short description and some verbose notes will be shown.

Output columns

The *Output* form shown below allows you to select, for each table, which columns will be included in the output of the query.



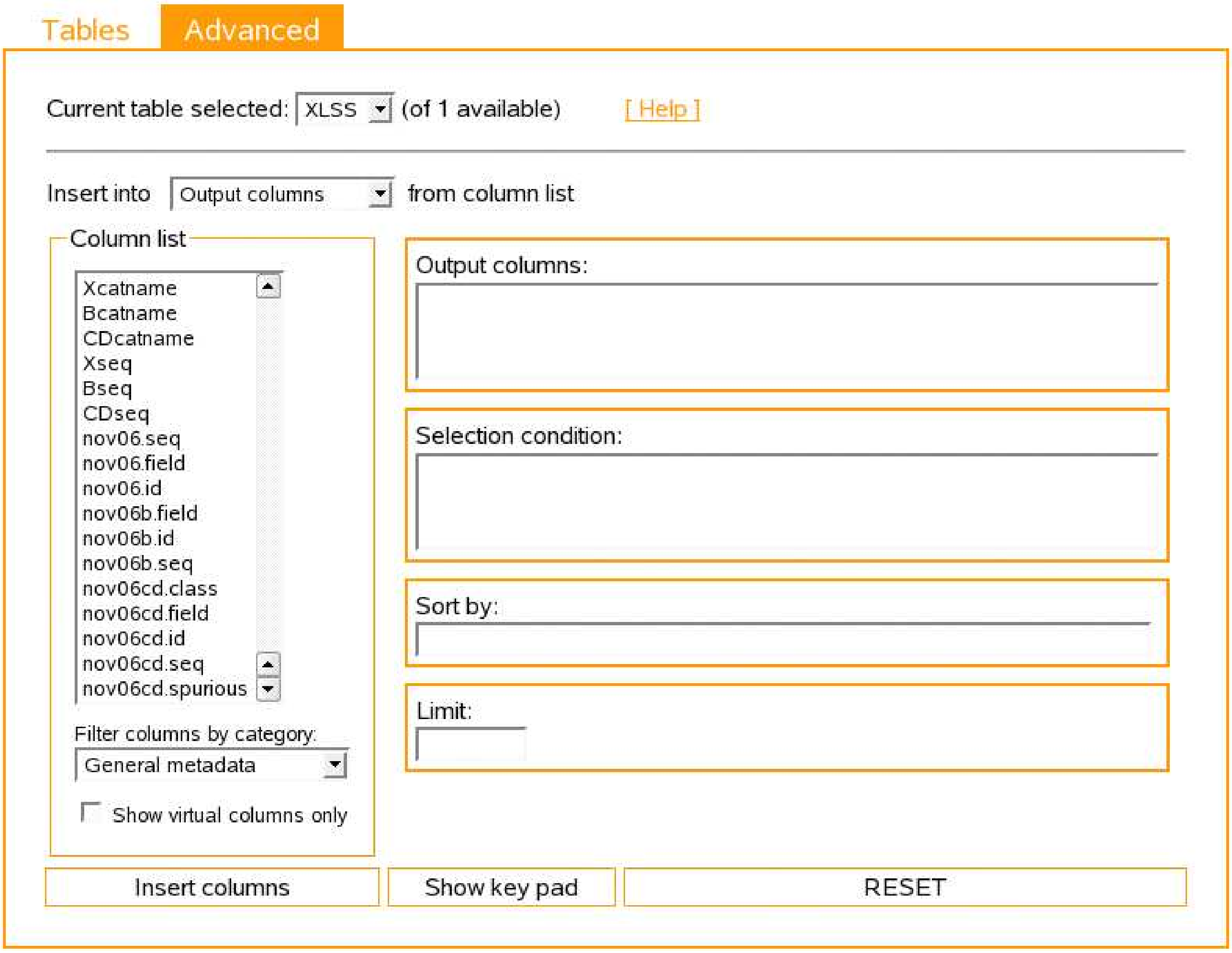
The columns are grouped by main categories listed in the menu in the upper left corner, analogously to what happens for the By Parameter form. When a main category is selected, then, for each table chosen, a list of sub-categories is displayed, each with the columns which belong to it. All columns categories are listed in a "priority" order; alphabetic order is used at equal "priority" level.

Also this form can also be used to get ancillary information about a column (like an explanation or the units), clicking on the column name: a popup window with a short description and some verbose notes will be shown.

Note that you should have passed via this form and selected at least one output column in order to be able to submit a query.

Advanced query composition

The *Advanced* query build panel page is divided in three horizontal areas. The topmost area is to select the table to be considered while composing the query statement (with a description [Help] of the current table). The bottommost area is the buttons area. The centre area is the main panel used to build the query and its look is presented below. The various components are described from top to bottom and from left to right.



Current table selected: XLSS (of 1 available)

Insert into Output columns from column list

Filter columns by category: General metadata

Options row

A menu labelled *Insert into... from column list* , with possible values *Output columns*, *Selection condition* and *Sort by*, which specify which of the query fields are the target of the query composition actions done using the column list or the virtual key pad

Column list

On the extreme left there is a scrollable menu listing all available database columns in the selected database tables (information on their content can be obtained by the description help of each table). Current columns are filtered by a category selected in the combo-box underneath. Inside the category, columns are listed in a "priority" order. Inside the same priority, columns are listed in alphabetic order.
If the current table is a *view* with member tables or a *virtual table*, then an additional check-box labelled "Show virtual columns only" enables/disables the listing of the member tables columns (see the note in Tables).
The user can select and unselect one or more columns clicking on their names (as usual in your browser), and then press the button *Insert columns*. If the user selects more than one column, they will be listed in the query target area (as defined by the *Insert into... from column list* menu) in the order they appear in the menu, separated by a comma (or by an AND for the *Selection condition* area: one should then complete the statement with comparison or algebric operators in the form *Selection condition*: `col1 op val1 AND col2 op val2 AND ...`). If the user wants a different order, just select one column at a time and press each time *Insert columns*.

Query fields

The rightmost area includes four text areas labelled *Output columns*, *Selection condition*, *Sort by* and *Limit* and two buttons labelled *Show key pad* and *RESET*. The user can freely compose the expressions in the three text areas "by hand", or use the virtual key pad, or edit freely a previously composed expression. It is responsibility of the user to ensure one is composing a valid expression according to MySQL syntax. The MySQL query being "finally" built is one of the form: `select` *`column list`* `from` *`table list`* `where` *`expression1`* `order by` *`expression2`* `limit` *`number`*.

- The *`table list`* is defined at page entry and cannot be edited explicitly at query build time;
- the *`column list`* is the content of the *Output columns* area, and is a list of table columns and/or expressions involving table columns (which can also be aliased to a new mnemonic name);
- the *`expression1`* is the content of the *Selection condition* area, and is an arithmetic and logical expression on columns defining a subset of the database;

- the `expression2` is the (optional) content of the *Sort by* area and is a list of columns (including new column aliases);
- the `number` is the (optional) content of the *Limit* area and is the limited number of rows to be outputted respect the total.

An example of a possible query could be `select cts1,cts2,cts3, cts1+cts2 as a, cts2+cts3 as b from xray where seq<=10 order by b,a`

Buttons

The *RESET* button clears all the query fields. The *Show key pad* button opens a virtual keyboard (or key pad) with numbers, arithmetic operators, logical operators and other MySQL operators. The user clicks on each item to add it to the expression being built in the query target area (as defined by the *Insert into... from column list* menu). Spaces or open parentheses are inserted where appropriate. It is however care of the user to provide the right number of arguments to functions and to close the brackets. No syntax check on the expression being built is done during composition! It is responsibility of the user to ensure one is composing a valid expression . Arithmetic, logical and MySQL operators shall be self-explanatory, with the exception of the customised function DIST which computes the angular distance between two points on the celestial sphere in degrees (decimal form) with syntax `DIST(ra1,dec1,ra2,dec2)`.

Submit the query

The *Submit the query* button is shown in all tabs (but the *Tables* one) after at least one table has been selected. It performs the validation and execution of the query based on all settings inserted by the user with the various tab forms described above (see *Compose and modify queries*). In particular, for *Simple* queries, all range and positional conditions will be ANDed.

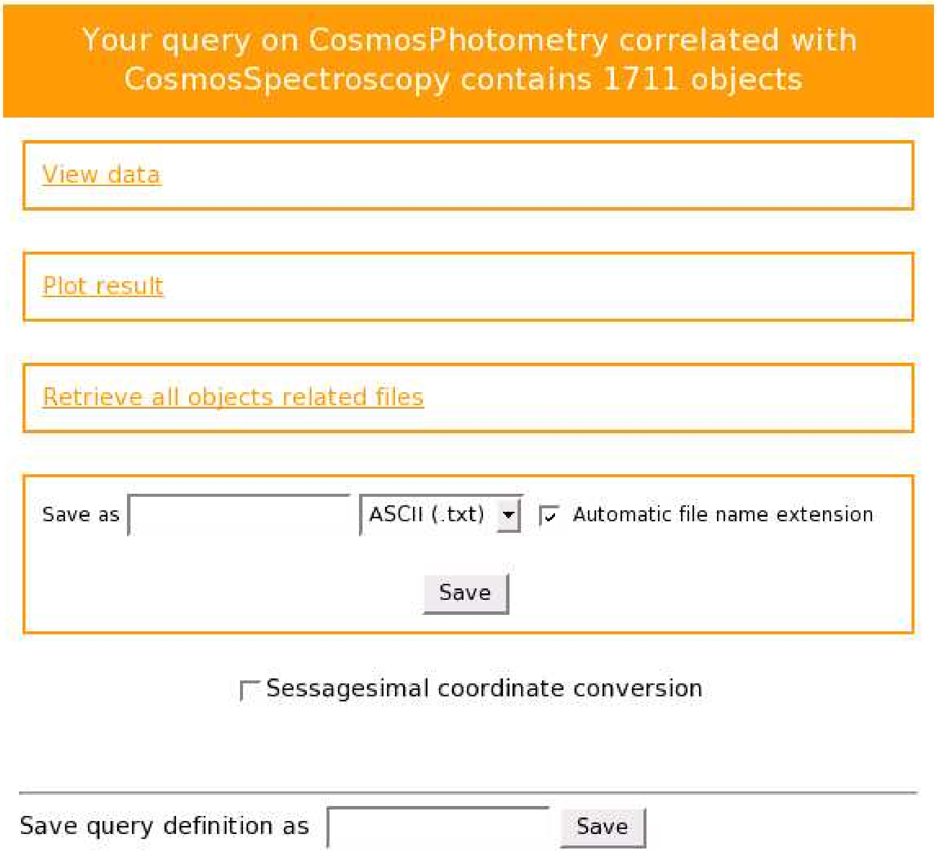
The query result can be a collection of query results, one for each table if a parallel query on more tables was performed, or a single query result for a joint (correlated) query on 2 tables (see *Correlation tables* for details).

If no errors occur, then the user is redirected on the *Query result* panel.

Query result

ToC

A panel like this is shown automatically after successful submission of a query and can also be reaccessed at any time pressing the QUERY RESULT button.



Your query on CosmosPhotometry correlated with CosmosSpectroscopy contains 1711 objects

View data

Plot result

Retrieve all objects related files

Save as ASCII (.txt) ☑ Automatic file name extension

Save

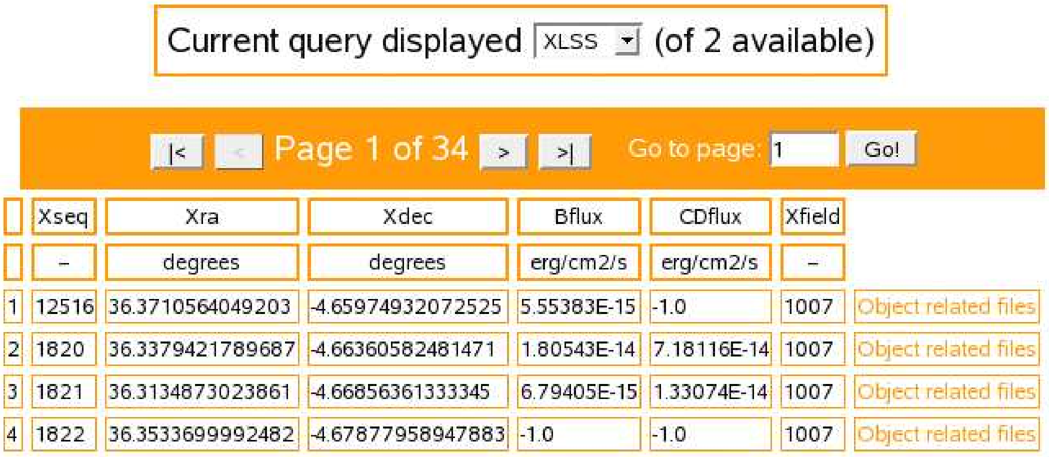
□ Sessagesimal coordinate conversion

Save query definition as Save

It displays on the top the number of objects returned for each table used in the query (or the number of objects satistfying a single joint query on two correlated tables). The other buttons and links allow to inspect the data in several ways (view, plot, retrieve files and save) as explained here below.

View data

Clicking on this link, a popup window is opened, which looks like the example below.



Current query displayed XLSS (of 2 available)

|< < Page 1 of 34 > >| Go to page: 1 Go!

	Xseq	Xra	Xdec	Bflux	CDflux	Xfield	
	–	degrees	degrees	erg/cm2/s	erg/cm2/s	–	
1	12516	36.3710564049203	-4.65974932072525	5.55383E-15	-1.0	1007	Object related files
2	1820	36.3379421789687	-4.66360582481471	1.80543E-14	7.18116E-14	1007	Object related files
3	1821	36.3134873023861	-4.66856361333345	6.79405E-15	1.33074E-14	1007	Object related files
4	1822	36.3533699992482	-4.67877958947883	-1.0	-1.0	1007	Object related files

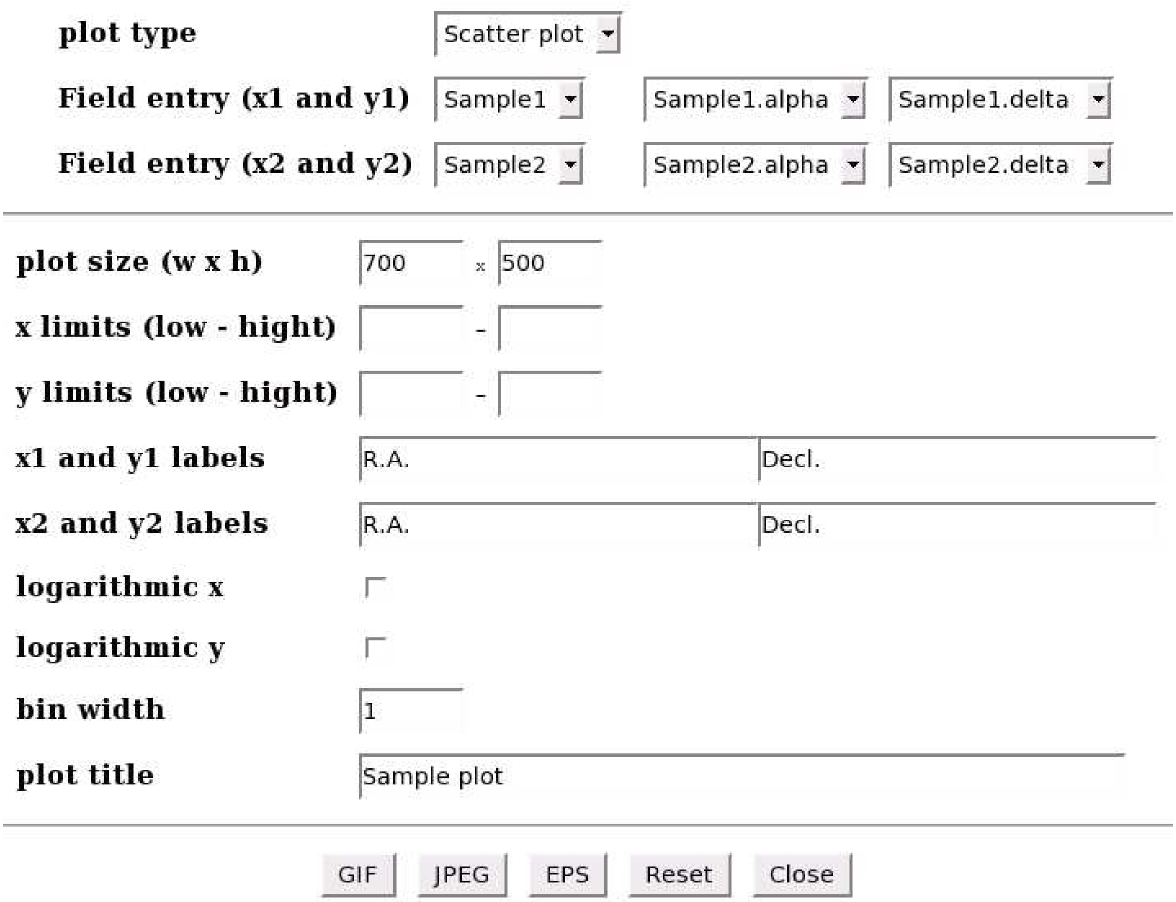
Such panel displays the table results, paginated by 100 rows per page. The menu on top allows to select the table to display. The < and > buttons at the top and bottom of each page allow to scroll through the pages, one page a time, back and forward respectively. The |< and >| buttons allow to go to the first and last page respectively. The *Go to page* entry field allows to go directly to a typed page.

Results are presented in a table with a column header on top (with the column name and its unit of measure), while a row counter is reported at the left of each row.

If files related to the single object are available, then an additional column is placed on the right side of the row list. This additional column has a link to the *Object related files* that opens a self explanatory new window for the file retrieving (see also about data products).

Plot result

The *Plot them* link opens an *intermediate* popup window containing a form as shown below, with many fields, most of which are self-explanatory and/or provide suitable defaults (for instance the labels used to annotate the axes are derived from the database itself).



plot type	Scatter plot		
Field entry (x1 and y1)	Sample1	Sample1.alpha	Sample1.delta
Field entry (x2 and y2)	Sample2	Sample2.alpha	Sample2.delta
plot size (w x h)	700 x 500		
x limits (low - hight)	-		
y limits (low - hight)	-		
x1 and y1 labels	R.A.	Decl.	
x2 and y2 labels	R.A.	Decl.	
logarithmic x	□		
logarithmic y	□		
bin width	1		
plot title	Sample plot		

Typically one selects either:

- a *plot type* of Histogram and the *Field entry X1* corresponding to the column for which one wants the frequency histogram.
- a *plot type* of Scatter plot when one wants to plot one column versus another. In such case the X and Y columns shall be selected assigning *Field entry X1* and *Field entry Y1*
- a *plot type* of Histogram and both *Field entry X1* and *Field entry X2* to overplot the frequency histograms of two quantities (in two different colours or renditions)
- a *plot type* of Scatter plot with two separate sets of *Field entry X1* and *Y1*, and *Field entry X2* and *Y2* if one wants to overlay two plots, typically this would be the case when (X1, Y1) are R.A. and Dec. from one database table, and (X2, Y2) are R.A. and Dec. from another
- a *plot type* of Scatter plot with one *Field entry X1* but two *Field entry Y1* and *Field entry Y2* when one wants to plot two quantities vs a third (e.g. fluxes in two bands vs another parameter)

Note that in case of a query on more tables, one can use the menus with the table names to preload the menus for the X1, Y1, X2 and Y2 columns, and therefore freely mix columns from different tables

It is responsibility of the user to ensure the choice is meaningful.

It is also responsibility of the user to insert the proper *X and Y labels* if one is not satisfied with the default. Note that the default axis annotations are retrieved from the database, and are used to annotate the X-axis. For the Y-axis, since one can have 1 or 2 quantities, the labels appear in a legenda besides a coloured marker. In the case one is plotting two Y quantities with the same name from the two different tables, it is care of the user to arrange better labels.

At the end, one clicks on one of the GIF, JPEG or EPS buttons to select the plot output format. Image graphs will be usually displayed in the same window, but EPS graphs will be displayed in a browser-dependent way (e.g. ghostview or other PS previewer).

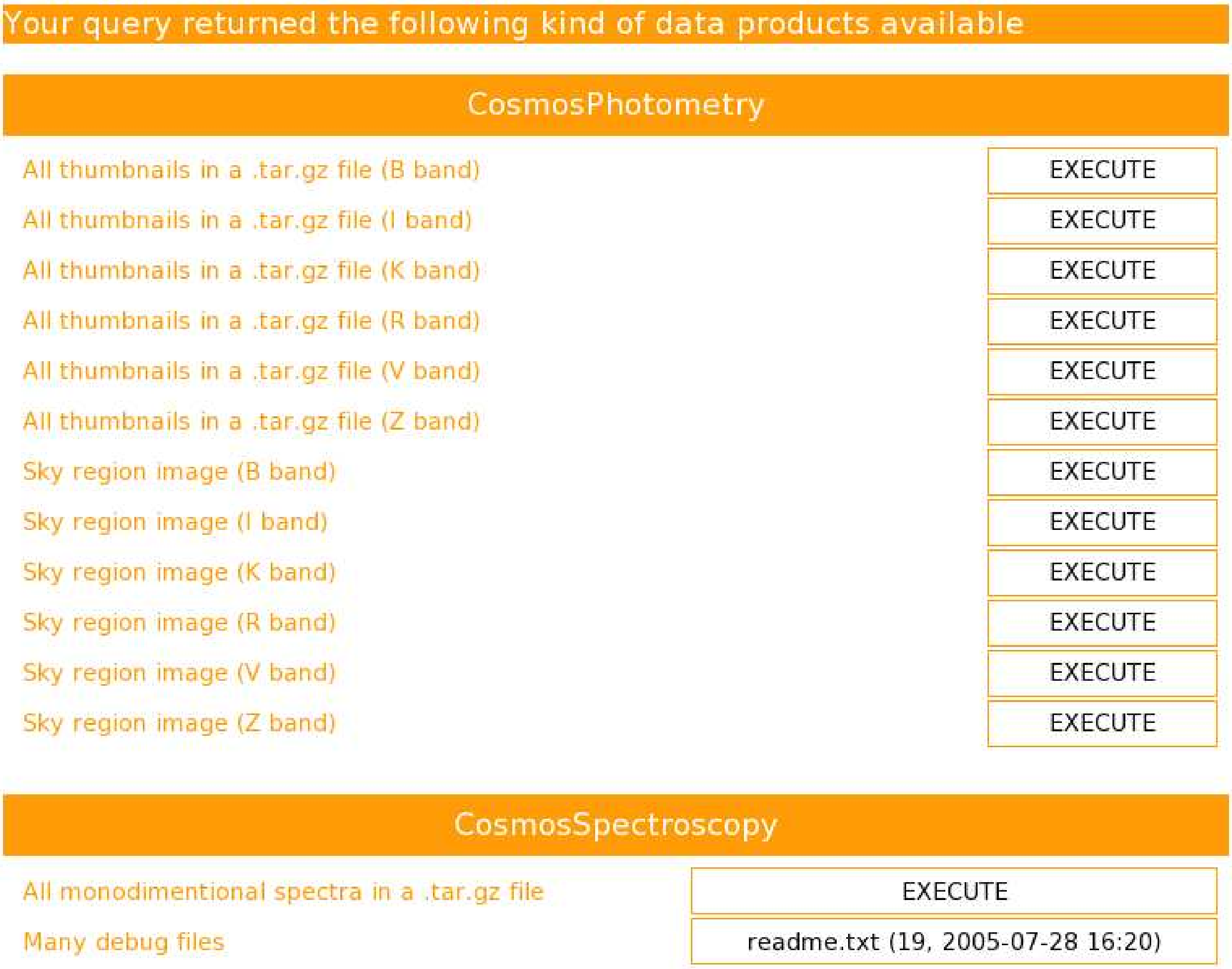
Once an image graph is displayed, the Change plot settings button allows to go back to the plot settings form in order to make a new plot.

The Reset button is just used to clear the form.

These plots are intended for quick look and therefore do not satisfy publication quality. In particular note that EPS graphics has no color support. Note also that the default *Plot size (W X H)* has an aspect ratio which may be unsuitable for plotting on an A4 page, but, since this is an EPS file, it is suitable for inclusion and rescaling within other documents according to customary procedures for encapsulated Postscript files. The user can always manually set the width and height of the plot.

Retrieve all objects related files

Like for the View data single object related files, this option allows the user to retrieve all files related to the entire set of objects returned by the executed query (a.k.a. **data products**). The files are grouped by table name and data product type and labelled with a short description.



Your query returned the following kind of data products available

CosmosPhotometry

All thumbnails in a .tar.gz file (B band)	EXECUTE
All thumbnails in a .tar.gz file (I band)	EXECUTE
All thumbnails in a .tar.gz file (K band)	EXECUTE
All thumbnails in a .tar.gz file (R band)	EXECUTE
All thumbnails in a .tar.gz file (V band)	EXECUTE
All thumbnails in a .tar.gz file (Z band)	EXECUTE
Sky region image (B band)	EXECUTE
Sky region image (I band)	EXECUTE
Sky region image (K band)	EXECUTE
Sky region image (R band)	EXECUTE
Sky region image (V band)	EXECUTE
Sky region image (Z band)	EXECUTE

CosmosSpectroscopy

All monodimentional spectra in a .tar.gz file	EXECUTE
Many debug files	readme.txt (19, 2005-07-28 16:20)

Objects related files can be:

- single files to be retrieved directly;
- the results of web services execution (CGI, Servlets, ...);
- *.tar.gz* files (generated online) containing all single object related files of one or more data products type (as described in the explanation label). Objects related files grouped and compressed in a global *.tar.gz* file, once generated by the user, are stored in the User data repository in order to be downloaded from the server or deleted.
- *Sky region*s gzipped in one *.fits.tar.gz* file. A *sky region* (if exists) contains the image of the entire region covered by the query result.

Save as

Saving to files is accomplished using the form entries in the lower part of the result panel.

It allows to save the query result as ASCII, VOTable or FITS files (binary tables). The file name must be written in the proper text area and the file type chosen from the ASCII (.txt) option menu. A checkbox is available to append an automatic file name extension to the root file name given (in case of query on more tables (not joined) a sequence number will also be appended, since a separate file will be created for each table).

Note that ASCII files are stored in compressed (gzip) format, and can therefore be handled in a browser-dependent way.

Note also that VOTable are not compressed, so they can be very space consuming.

The file(s) can be retrieved immediately, or retrieved later from the user file repository, which also offers facilities for deletion.

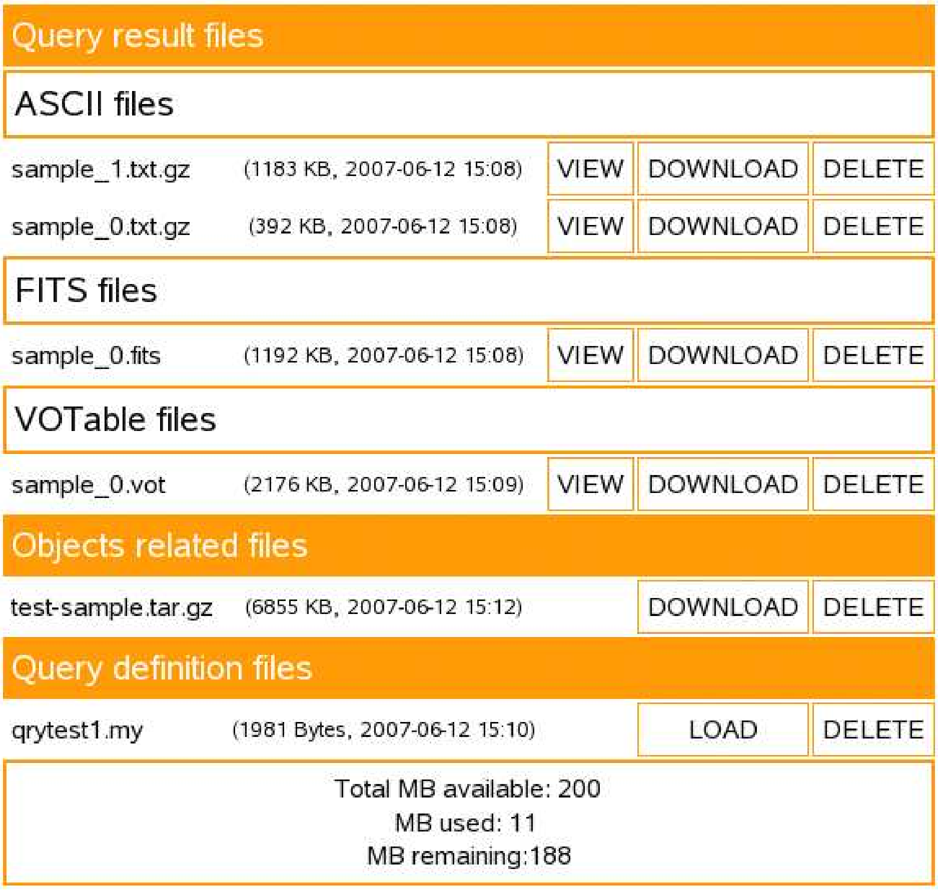
Save query definition as

You can store your query definition in a file (XML) in order to be reused later. Reloading your query definition from the User data page, you can retrieve all you query parameters, hidden ones included. This is an usefull tool that avoids the user to remember and recompose manually an old query.

User data

ToC

This panel is shown automatically after a save to file operation, the save query definition operation and the online generation of *.tar.gz* file from the all objects related files retrieve operation. Also can be re-accessed at any time pressing the USER DATA button. It has a look like this



Query result files

ASCII files

sample_1.txt.gz	(1183 KB, 2007-06-12 15:08)	VIEW	DOWNLOAD	DELETE
sample_0.txt.gz	(392 KB, 2007-06-12 15:08)	VIEW	DOWNLOAD	DELETE

FITS files

sample_0.fits	(1192 KB, 2007-06-12 15:08)	VIEW	DOWNLOAD	DELETE

VOTable files

sample_0.vot	(2176 KB, 2007-06-12 15:09)	VIEW	DOWNLOAD	DELETE

Objects related files

test-sample.tar.gz	(6855 KB, 2007-06-12 15:12)	DOWNLOAD	DELETE

Query definition files

qrytest1.my	(1981 Bytes, 2007-06-12 15:10)	LOAD	DELETE

Total MB available: 200
MB used: 11
MB remaining:188

It shows the content of the user data repository, which has a maximum size of 200 MB

You can find three kind of data (files):

Query result files

You can download, delete or view your ASCII, VOTable and FITS files that contain you query results (see Save as). Note that the download option streams the file content with a MIME type "application/octet-stream", while the view option streams the file content as "text/plain" for ASCII files (so that they are eventually directly unzipped), as "text/xml" for VOTables and as "application/fits" for FITS file, to allow the user to set its browser behaviour as one likes.

Objects related files

You can download or delete the *.tar.gz* files coming from the online generation of global data products, as decribed in Retrieve all objects related files point. Note that the download option streams the file with a MIME type "application/octet-stream".

Query definition files

You can load or delete the query definition files described in the Save query definition as point.

Button side bar

ToC

A button side bar is always present on the left hand side of the screen. The buttons present may change (e.g. according to login status) but if present they will always appear in the sequence shown here.

HOME	Goes back to the start page (always present).
NEWS	Shows news and messages in the same window (always present).
HELP	Shows this help in a separate help window (opening it when necessary). It is always present.
LOGIN	Shows the login form (see Login). After the login has been performed it changes into the logout button, and the other buttons below are also shown.
LOGOUT	Logs the user out (see Logout).
MY ACCOUNT	Displays the account info in the main window and allows to change them, and also to get via e-mail a reminder of ones password (since modern browsers remember it for you it is likely you'd forget).
NEW QUERY	Resets all the query composition parameters and allows to compose a new query. See the introduction to query composition.
MODIFY QUERY	Allows to modify the current query composition without resetting any parameters (hidden ones included). See the introduction to query composition.
QUERY RESULT	Shows the query result panel (see Query result).
USER DATA	Shows the user files repository (see User data).