

SVOCat

Easily publishing catalogues in the VO (and web)

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SVOCat 1.0 is an application intended to make easier the publication of an astronomical catalogue,

- as a **web page** and
- as a **VO ConeSearch** service.

- easy to install and configure

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SVOCat 2.0, advanced features:

- handle also spectra associated to resources
- + **VO SSA**
- + **VO DataLink**

Our intention is not to provide a black box-like tool but a tool characterized by:

- Fast learning curve.
 - Good and simple starting point to VO development.
 - Helps to learn about what is being done.
- Flexibility and versatility.
 - It allows starting the installation and configuration process at different steps.
 - Easy adaptation to your particular requirements.

Requirements

- A web server (Apache, for instance).
- PHP
- MySQL database.

and, in a typical case:

- Your catalogue can be seen as a single table.
- Two of the columns give RA and DEC in decimal degrees.
- You have your data as a csv file.

The tool has proved to be useful for very different communities

- From medium/large consortia and observatories ...
 - CMC15 (Carlsberg Meridian Catalogue).
 - Alhambra final catalogue.
 - The Mark-I solar spectrophotometer archive.

The image displays three overlapping screenshots of astronomical data portals:

- CMC15 (Carlsberg Meridian Catalogue):** Shows a 'Coverage Map' with an ATOFF projection of the sky. Text includes 'MOC resolution: 13.74" (max order=8)', 'View MOC in Aladin', and 'Download MOC fits file'. Images were created with Aladin and MOC file with SITS.
- ALHAMBRA:** Features a 'Documentation' section with an 'ALHAMBRA Overview' and a sky map showing observation locations like ALHAMBRA-3, ALHAMBRA-4, COSMOS, and ALHAMBRA DEEP2.
- Mark-I:** A solar spectrophotometer archive with a 'Database of daily observation files', 'Resources' (Data retrieval, News, Documentation, Help-Desk), and a 'SpaceInn Project' description.

The tool has proved to be useful for very different communities

- From medium/large consortia and observatories ...
 - CMC15 (Carlsberg Meridian Catalogue).
 - Alhambra final catalogue.
 - The Mark-I solar spectrophotometer archive.
- to small groups / individual researchers who want to publish their data in the VO
 - Shapley Supercluster Survey.
 - Stars with debris disks and planets.
 - The SVO hot subdwarf archive.
 - Catalogue of Galactic PNe.
 - THROES catalogue.

Examples

Shapley Supercluster Survey (ShSS) Public Data Catalogue

Shapley Supercluster Survey
ShSS Public Data Catalogue

Home | Data retrieval | News | Documentation | Help Desk | Login

Shapley Supercluster Survey: ShSS Public Data Catalogue

The Shapley Supercluster Survey (ShSS), ≈ 0.65 covers a contiguous area of $260 \text{ h}^{-2} \times 72 \text{ Mpc}^2$ including the supercluster core. The project main aim is to quantify the influence of intermediate mass assembly on galaxy evolution in view of the mass massive structures in the local Universe. The survey includes nine dwarf clusters (A3352, A3356, A3358, A3359, A3360, A3361, A3374, A3375) and two poor clusters (DC1327-312, SC1209-312) showing evidence of cluster-cluster interactions. Optical (gri) and near-infrared (J) imaging acquired with VST and VISTA, allow us to study the galaxy population down to $m_{\text{r}} \approx 18$ at the supercluster redshift. A dedicated spectroscopic survey with AAOmega on the Anglo-Australian Telescope provides a magnitude limited sample of supercluster members with 80% completeness at $\sim m_{\text{r}}^{13}$.



Shapley Supercluster Survey: construction of the photometric catalogues and *i*-band data release

A. Mercurio, P. Merluzzi, G. Busarello, A. Grado, L. Limatola, C. P. Haines, M. Brescia, S. Cavuoti, M. Dopita, M. Dall'Orta ... Show more

Monthly Notices of the Royal Astronomical Society, Volume 453, Issue 4, 11 November 2015, Pages 3685–3698, <https://doi.org/10.1093/mnras/stv1905>

Published: 09 September 2015. Article history

LA UNIVERSIDAD AUTÓNOMA DE BARCELONA

Stars with Debris

Home | Data retrieval | News | Documentation | Help Desk

Stars with Debris Disks and Planets:

Planetary systems are built by planets and planetesimals in the main-sequence collisions of planetesimals produce dust among planets, planetesimals and debris disks, and with it. Currently thousands of main-sequence stars are known to host such planetary systems. However, only few tens of stars study of those systems is particularly valuable to widen our

This page just collects some of the properties of the known

Catalogue of Galactic PNe

New and updated catalogue of Galactic PNe

Home | Data retrieval | News | Documentation | Coverage Map | Help Desk

Coverage Map

AITOFF projection. Click to see an enlarged

MOC resolution: 13.74' (max order=8)

- View MOC in Aladin
- Download MOC file

THROES PACS Spectroscopy Catalogue

THROES PACS Spectroscopy Catalogue V1.0

Home | Data retrieval | Energy | Documentation | Contact

RA (°) | DEC (°) | Radius (") | Search Name

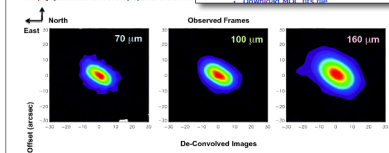
3.2541 | 72.523 | 360 | all results | default verbosity | (maximum search radius allowed: 360 degrees)

Hide additional search fields

Name (°) | RA (hh:mm:ss) (°) | DEC (dd:mm:ss) (°) | AOT (°) | Object class (°) | Mass Classification (°) | Reprocessed (°)

Showing all entries associated to reprocessed evolved low-intermediate mass stars with AOT: PacisRangeSpec

RA (DEG)	DEC (DEG)	RA (ICRS) (hh:mm:ss)	DEC (ICRS) (dd:mm:ss)	Name (°)	AOT (°)	#Obs (°)	Mass Classification (°)
3.2542	72.5219	03:16:01.010	72:31:19.30	NGC 46	PacisRangeSpec:PacisRangeSpec	4	Evolved low intermediate mass star
317.2624	68.9968	21:09:31.790	68:59:27.20	T 600	PacisRangeSpec	1	Evolved low intermediate mass star
329.2424	62.3221	21:58:58.190	62:18:45.80	IRAS 21254+6204	PacisRangeSpec	1	Evolved low intermediate mass star
336.8945	59.8700	22:19:27.490	59:51:21.70	OH 104.91+24.1	PacisRangeSpec	1	Evolved low intermediate mass star
337.2932	54.8517	22:29:10.270	54:51:05.60	HD 230504	PacisRangeSpec	2	Evolved low intermediate mass star
359.0536	51.3885	23:58:24.870	51:12:51.70	R Cas	PacisRangeSpec	2	Evolved low intermediate mass star
351.3761	53.2061	22:05:20.260	53:21:53.00	IRAS 23054+5301	PacisRangeSpec	2	Evolved low intermediate mass star
322.4934	51.8666	21:29:36.420	51:50:59.90	IRAS 21282+5050	PacisRangeSpec	2	Evolved low intermediate mass star
363.8152	43.5365	23:34:27.660	43:33:02.40	AFGL 3116	PacisRangeSpec	2	Evolved low intermediate mass star
246.6385	66.4831	17:58:33.240	66:37:54.80	NGC 6543	PacisRangeSpec	3	Evolved low intermediate mass star
246.5722	66.4356	17:58:17.350	66:38:08.30	NGC 6543 W Knot	PacisRangeSpec	2	Evolved low intermediate mass star
316.5773	47.8519	21:08:18.570	47:51:08.90	NGC 7026	PacisRangeSpec	2	Evolved low intermediate mass star
61.3038	66.4831	03:05:00.800	66:38:02.40	T 2020	PacisRangeSpec	1	Evolved low intermediate mass star





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(You can see this documentation as a [single web page](#) if you wish)

Introduction

SVOCat is an application intended to make easier the publication of an astronomical catalogue, both as a web page and as a Virtual Observatory ConeSearch service.

Our intention is not to make it "magical" so that it makes all the work for you. We have tried to make it so that it's easier for you to learn about what is being done, to start the installation and configuration process at different steps if you wish, and to change the application if you need to do it for your case.

Requirements:

- A web server ([Apache](#), for instance) and access to a web directory to install the files.
- [PHP](#)
- [MySQL database](#).

(See some technical details below)

We assume that:

- Your catalogue can be seen as a single table with several columns (one for each property provided by the catalogue) and several lines (one for each catalogue entry, for instance, each observed object)
- Two of the columns give RA and DEC in decimal degrees.

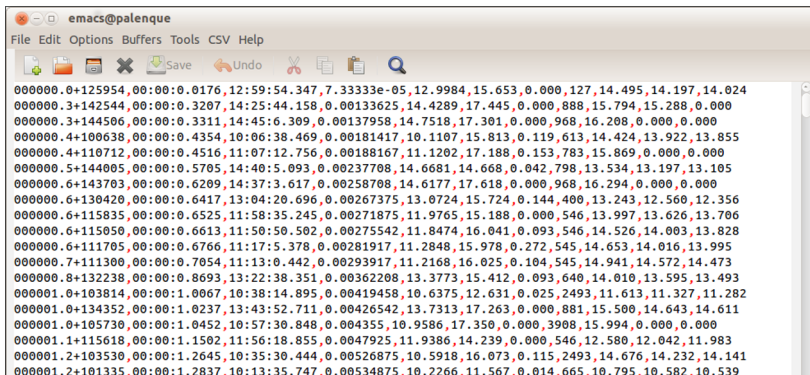
and that you have your data either:

- as a csv file with different columns separated by commas. It can be a series of different csv files with the same structure if your catalogue is very big and you prefer to split it in different files.
- as a table in a mysql database.

Configuration Example

Create a service with SVOCat for a **subsample of CMC15 catalogue**,

- 5000 objects
- 9 columns
- data initially in a CSV file.



The screenshot shows an Emacs editor window titled 'emacs@palenque'. The menu bar includes 'File Edit Options Buffers Tools CSV Help'. The toolbar contains icons for Save, Undo, Cut, Copy, Paste, and Search. The main text area displays a CSV file with 5000 rows of data. Each row contains 9 columns of numerical values, including object IDs and various parameters. The data is formatted as follows:

```
000000.0+125954,00:00:0.0176,12:59:54.347,7.33333e-05,12.9984,15.653,0.000,127,14.495,14.197,14.024
000000.3+142544,00:00:0.3207,14:25:44.158,0.00133625,14.4289,17.445,0.000,888,15.794,15.288,0.000
000000.3+144506,00:00:0.3311,14:45:6.309,0.00137958,14.7518,17.301,0.000,968,16.208,0.000,0.000
000000.4+100638,00:00:0.4354,10:06:38.469,0.00181417,10.1107,15.813,0.119,613,14.424,13.922,13.855
000000.4+110712,00:00:0.4516,11:07:12.756,0.00188167,11.1202,17.188,0.153,783,15.869,0.000,0.000
000000.5+144005,00:00:0.5705,14:40:5.093,0.00237708,14.6681,14.668,0.042,798,13.534,13.197,13.105
000000.6+143703,00:00:0.6209,14:37:3.617,0.00258708,14.6177,17.618,0.000,968,16.294,0.000,0.000
000000.6+130420,00:00:0.6417,13:04:20.696,0.00267375,13.0724,15.724,0.144,400,13.243,12.560,12.356
000000.6+115835,00:00:0.6525,11:58:35.245,0.00271875,11.9765,15.188,0.000,546,13.997,13.626,13.706
000000.6+115050,00:00:0.6613,11:50:50.502,0.00275542,11.8474,16.041,0.093,546,14.526,14.003,13.828
000000.6+111705,00:00:0.6766,11:17:5.378,0.00281917,11.2848,15.978,0.272,545,14.653,14.016,13.995
000000.7+111300,00:00:0.7054,11:13:0.442,0.00293917,11.2168,16.025,0.104,545,14.941,14.572,14.473
000000.8+132238,00:00:0.8693,13:22:38.351,0.00362208,13.3773,15.412,0.093,640,14.010,13.595,13.493
000001.0+103814,00:00:1.0067,10:38:14.895,0.00419458,10.6375,12.631,0.025,2493,11.613,11.327,11.282
000001.0+134352,00:00:1.0237,13:43:52.711,0.00426542,13.7313,17.263,0.000,881,15.500,14.643,14.611
000001.0+105730,00:00:1.0452,10:57:30.848,0.004355,10.9586,17.350,0.000,3908,15.994,0.000,0.000
000001.1+115618,00:00:1.1502,11:56:18.855,0.0047925,11.9386,14.239,0.000,546,12.580,12.042,11.983
000001.2+103530,00:00:1.2645,10:35:30.444,0.00526875,10.5918,16.073,0.115,2493,14.676,14.232,14.141
000001.2+101335,00:00:1.2837,10:13:35.747,0.00534875,10.2266,11.567,0.014,665,10.795,10.582,10.539
```

Configuration Example

TOPCAT(1): Table Columns

Window Columns Display Help

Table Columns for 1: cmc15n2-part1.csv

Visible	Name	ID	Datatype	Units	Description
<input type="checkbox"/>	index	\$0			Table row index
<input checked="" type="checkbox"/>	objID	\$1	char		Identifier (IAU standard)
<input checked="" type="checkbox"/>	rahms	\$2	char		RA (ICRS) (hh:mm:ss)
<input checked="" type="checkbox"/>	decdecms	\$3	char		DEC (ICRS) (dd:mm:ss)
<input checked="" type="checkbox"/>	RAdeg	\$4	double	deg	RA (ICRS) (deg)
<input checked="" type="checkbox"/>	DECdeg	\$5	double	deg	DEC (ICRS) (deg)
<input checked="" type="checkbox"/>	magr	\$6	double		Magnitude (r, ABv scale)
<input checked="" type="checkbox"/>	e_magr	\$7	double		Standard deviation of magnitude (magnitudes)
<input checked="" type="checkbox"/>	epoch	\$8	integer	day	Mean epoch of the astrometry (days since 26/3/1999)
<input checked="" type="checkbox"/>	magJ	\$9	double		2MASS J magnitude, Vega scale
<input checked="" type="checkbox"/>	magH	\$10	double		2MASS H magnitude, Vega scale
<input checked="" type="checkbox"/>	magKs	\$11	double		2MASS Ks magnitude, Vega scale

TOPCAT(1): Table Browser

Window Subsets Help

Table Browser for 1: cmc15n2-part1.csv

	objID	rahms	decdecms	RAdeg	DECdeg	magr	e_magr	epoch	magJ	magH	magKs
1	000000.0+125954	00:00:0.0176	12:59:54.347	7.333330E-5	12.9984	15.653	0.	127	14.495	14.197	14.024
2	000000.3+142544	00:00:0.3207	14:25:44.158	0.00134	14.4289	17.445	0.	888	15.794	15.288	0.
3	000000.3+144506	00:00:0.3311	14:45:6.309	0.00138	14.7518	17.301	0.	968	16.208	0.	0.
4	000000.4+100638	00:00:0.4354	10:06:38.469	0.00181	10.1107	15.813	0.119	613	14.424	13.922	13.855
5	000000.4+110712	00:00:0.4516	11:07:12.756	0.00188	11.1202	17.188	0.153	783	15.869	0.	0.
6	000000.5+144005	00:00:0.5705	14:40:5.093	0.00238	14.6681	14.668	0.042	798	13.534	13.197	13.105
7	000000.6+143703	00:00:0.6209	14:37:3.617	0.00259	14.6177	17.618	0.	968	16.294	0.	0.
8	000000.6+130420	00:00:0.6417	13:04:20.696	0.00267	13.0724	15.724	0.144	400	13.243	12.56	12.356
9	000000.6+115835	00:00:0.6525	11:58:35.245	0.00272	11.9765	15.188	0.	546	13.997	13.626	13.706
10	000000.6+115050	00:00:0.6613	11:50:50.502	0.00276	11.8474	16.041	0.093	546	14.526	14.003	13.828
11	000000.6+111705	00:00:0.6766	11:17:5.378	0.00282	11.2848	15.978	0.272	545	14.653	14.016	13.995
12	000000.7+111300	00:00:0.7054	11:13:0.442	0.00294	11.2168	16.025	0.104	545	14.941	14.572	14.473
13	000000.8+132238	00:00:0.8693	13:22:38.351	0.00362	13.3773	15.412	0.093	640	14.01	13.595	13.493
14	000001.0+103814	00:00:1.0067	10:38:14.895	0.00419	10.6375	12.631	0.025	2493	11.613	11.327	11.282
15	000001.0+134352	00:00:1.0237	13:43:52.711	0.00427	13.7313	17.263	0.	881	15.5	14.643	14.611
16	000001.0+105730	00:00:1.0452	10:57:30.848	0.00436	10.9586	17.35	0.	3908	15.994	0.	0.
17	000001.1+15618	00:00:1.1502	11:56:18.855	0.00479	11.9386	14.239	0.	546	12.58	12.042	11.983
18	000001.2+103530	00:00:1.2645	10:35:30.444	0.00527	10.5918	16.073	0.115	2493	14.676	14.232	14.141
19	000001.2+101335	00:00:1.2837	10:13:35.747	0.00535	10.2266	11.567	0.014	665	10.795	10.582	10.539
20	000001.2+125423	00:00:1.2859	12:54:23.231	0.00536	12.9065	16.576	0.092	538	15.404	14.897	14.806
21	000001.3+101245	00:00:1.3990	10:12:45.233	0.00583	10.2126	15.712	0.043	665	14.44	14.021	14.021

Configuration Example

1.- Create a Database

(if you already have a database you can skip this step)

- MySQL db/user/password
- Which fields/columns? names and datatypes.
- Create scripts with SVOCat
- scripts + CSV \Rightarrow populate database

Configuration Example

Admin User | Project | **Mysql database** | Web options | VO properties | Catalogue fields | Photon. Groups | Search options | File Paths | Scripts | VO Registry | Logout

MYSQL database connection properties

Some information is needed so that the application is able to connect to the Mysql database server and do everything that is needed. In this stage we need to create the database with the corresponding table. Later, the web application and the VO service will need to access this table to find data. If you don't know the adequate answer for some of the questions, please, contact your server administrator.

- 'Mysql hostname': is the hostname for the database server. The most usual one is 'localhost'.
- 'Mysql port': is the port number to access the database server. If you do not need to use an special port (which is the usual case), leave it empty.
- 'Database name': is the name of the database that will be used for this project. Please, create the database first it does not exist yet. Then write its name here.
- 'Table name': is the name that you want to use for the database table where the catalogue data will be saved.

Mysql hostname localhost
Mysql port
Database name vocats
Table name heidelberg

MYSQL user

A username/password that is allowed to SELECT data in the database. No higher permissions are needed for the application.

You will also need a user with higher permissions in order to create the table that user here. For security reasons it is recommended that you don't use the same user for both (it is better to be careful).

Mysql User heuser
Mysql Pass heipass

Continue

```
$ mysqladmin -u root -p create vocats  
Enter password:
```

```
$ mysql -u root -p  
Enter password:
```

```
mysql> grant all privileges  
on vocats.heidelberg  
to 'heuser'@'localhost'  
identified by 'heipass';  
mysql>exit
```

Configuration Example

1.- Create a Database

(if you already have a database you can skip this step)

- MySQL db/user/password
- Which fields/columns? names and datatypes.
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Configuration Example

This is made by two files named `objcat.csv` and `decdeg.csv` containing RA and DEC in decimal degrees.

DB name	Data type	Show	CSV Order	Res. Order	Title	UCD	Unit	Description	Phot.Group
objID	string	---	1						
ra_hms	string	---	2						
dec_dms	string	---	3						
RAdeg	double	---	4						
DECdeg	double	---	5						
magr	double	---	6						
sig_magr	double	---	7						
epoch	integer	---	8						
magJ	double	---	9						
magH	double	---	10						
magKs	double	---	11						
	---	---							
	---	---							
	---	---							
	---	---							

TOPCAT(1): Table Columns

Window Columns Display Help

Table Columns for 1: cmc15n2-part1.csv

Visible	Name	ID	Datatype	Units	Description
0	Index	\$0			Table row index
1	objID	\$1	char		Identifier (IAU standard)
2	rahms	\$2	char		RA (ICRS) (hh:mm:ss)
3	decdms	\$3	char		DEC (ICRS) (dd:mm:ss)
4	RAdeg	\$4	double	deg	RA (ICRS) (deg)
5	DECdeg	\$5	double	deg	DEC (ICRS) (deg)
6	magr	\$6	double		Magnitude (r, ABv scale)
7	e_magr	\$7	double		Standard deviation of magnitude (magnitudes)
8	epoch	\$8	integer	day	Mean epoch of the astrometry (days since 26/3/1999)
9	magJ	\$9	double		2MASS J magnitude, Vega scale
10	magH	\$10	double		2MASS H magnitude, Vega scale
11	magKs	\$11	double		2MASS Ks magnitude, Vega scale

Configuration Example

1.- Create a Database

(if you already have a database you can skip this step)

- MySQL db/user/password
- Which fields/columns? names and datatypes.
- Create scripts with SVOCat
- scripts + CSV \Rightarrow populate database

Configuration Example

Configuration

Admin User | Project | Mysql database | Web options | VO properties | Catalogue fields | Photom. Groups | Search options | File Paths | **Scripts** | VO Registry | Logout

Scripts for database creation

It is necessary to create a database table containing the info on your catalogue. You can do it by yourself using any method that you want and then just configure the "Fields" section with the table information. But you can also let us help you here.

If you have a csv file containing the catalogue data and you have already filled the "Fields" section with the info corresponding to the columns of that csv file, we will create for you some files using that information:

- work/create_table.my

you can use it to create the table in the database as:

```
mysql -u catuser -p vocats < work/create_table.my
```

(or change 'catuser' by any other mysql user able to create database tables).

- work/load_data2.csh

a csh script that you can run as:

```
csh work/load_data2.csh
```

It will generate a file named XXX.csv.my and you will be able to run:

```
mysql -u catuser -p vocats < XXX.csv.my
```

to load data into the database table.

(if you have several csv files the script will generate one .csv.my file for each .csv file)

[Create scripts](#)

```
drop table if exists heidelberg;

create table heidelberg (
  id          int not null auto_increment,
  objID       char(255),
  ra_hms      char(255),
  dec_dms     char(255),
  RAdeg       double,
  DECdeg      double,
  magr        double,
  sig_magr    double,
  epoch       int,
  magJ        double,
  magH        double,
  magKs       double,
  primary key (id),
  index idx_ra (RAdeg),
  index idx_dec (DECdeg));
```

Configuration Example

Configuration

Admin User | Project | Mysql database | Web options | VO properties | Catalogue fields | Photom. Groups | Search options | File Paths | **Scripts** | VO Registry | Logout

Scripts for database creation

It is necessary to create a database table containing the info on your catalogue.
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(or change 'catuser' by any other mysql user able to create database tables).

- work/load_data2.csh

a csh script that you can run as:

```
csh work/load_data2.csh
```

```
$ cd work/  
$ csh load_data2.csh  
  
$ mysql -u root -p vocats < create_table.my  
Enter password:  
  
$ mysql -u root -p vocats < cmc15n2-part1.csv.my  
Enter password:
```

```
drop table if exists heidelberg;  
  
create table heidelberg (  
  id int not null auto_increment,  
  ra char(255),  
  dec char(255),  
  name char(255),  
  ra_deg double,  
  dec_deg double,  
  magr double,  
  mag double,  
  primary key (id),  
  index idx_ra (RAdeg),  
  index idx_dec (DECdeg));
```

Configuration Example

Configuration

Admin User | Project | Mysql database | Web options | VO properties | Catalogue fields | Photom. Groups | Search options | File Paths | **Scripts** | VO Registry | Logout

Scripts for database creation

It is necessary to create a database table containing the info on your catalogue.
You can do it by yourself using any method that you want and then just configure the "Fields" section with the table information.
But you can also let us help you here.

If you have a csv file containing the catalogue data and you have already filled the "Fields" section with the info corresponding to the columns of that csv file, we will create for you some files using that information:

- work/create_table.my

you can use it to create the table in the database as:

```
mysql -u catuser -p vocats < work/create_table.my;
```

carlos@palenque: ~

File Edit View Search Terminal Help

```
mysql> select * from heidelberg limit 15;
```

id	objID	ra_hms	dec_dms	RAdeg	DECdeg	magr	sig_magr	epoch	magJ	magH	magKs
1	000000.0+125954	00:00:0.0176	12:59:54.347	0.0000733333	12.9984	15.653	0	127	14.495	14.197	14.024
2	000000.3+142544	00:00:0.3207	14:25:44.158	0.00133625	14.4289	17.445	0	888	15.794	15.288	0
3	000000.3+144506	00:00:0.3311	14:45:6.309	0.00137958	14.7518	17.301	0	968	16.208	0	0
4	000000.4+100638	00:00:0.4354	10:06:38.469	0.00181417	10.1107	15.813	0.119	613	14.424	13.922	13.855
5	000000.4+110712	00:00:0.4516	11:07:12.756	0.00188167	11.1202	17.188	0.153	783	15.869	0	0
6	000000.5+144005	00:00:0.5705	14:40:5.093	0.00237708	14.6681	14.668	0.042	798	13.534	13.197	13.105
7	000000.6+134703	00:00:0.6209	14:37:3.617	0.00258708	14.6177	17.618	0	968	16.294	0	0
8	000000.6+130420	00:00:0.6417	13:04:20.696	0.00267375	13.0724	15.724	0.144	400	13.243	12.56	12.356
9	000000.6+115835	00:00:0.6525	11:58:35.245	0.00271875	11.9765	15.188	0	546	13.997	13.626	13.706
10	000000.6+115050	00:00:0.6613	11:50:50.502	0.00275542	11.8474	16.041	0.093	546	14.526	14.003	13.828
11	000000.6+111705	00:00:0.6766	11:17:5.378	0.00281917	11.2848	15.978	0.272	545	14.653	14.016	13.995
12	000000.7+111300	00:00:0.7054	11:13:0.442	0.00293917	11.2168	16.025	0.104	545	14.941	14.572	14.473
13	000000.8+132238	00:00:0.8693	13:22:38.351	0.00362208	13.3773	15.412	0.093	640	14.01	13.595	13.493
14	000001.0+103814	00:00:1.0067	10:38:14.895	0.00419458	10.6375	12.631	0.025	2493	11.613	11.327	11.282
15	000001.0+134352	00:00:1.0237	13:43:52.711	0.00426542	13.7313	17.263	0	881	15.5	14.643	14.611

```
15 rows in set (0.00 sec)
```

```
mysql>
```

```
INDEX (ra_dec (DECdeg)),
```

Configuration Example

1.- Once you have a database, the rest is easy

- Some texts for web page and VO services
- More details about your columns
- Allowed search fields
- etc

Configuration Example

Configuration

Admin User | Project | Mysql database | **Web options** | VO properties | Catalogue fields | Photom. Groups | Search options | File Paths | Scripts | VO Registry | Logout

WEB page texts

There are some texts that we need to include in the web page describing your project. Please write here the adequate content.

- 'Title': The web page title
- 'Subtitle': A short subtitle
- 'Email': A help-desk contact email
- 'Description': A description of the project to show in the homepage. You can use html here.
- 'Acknowledge': A text explaining how to acknowledge the use of this service. To be shown at the end of the homepage.

Title	<input type="text" value="Heidelberg test"/>
Subtitle	<input type="text"/>
Email	<input type="text" value="svo-support@cab.inta-csic.es"/>
Description	<input type="text" value="Implementing a test catalogue with SVOCat"/>
Acknowledge	<input type="text" value="Write here the Acknowledgements adequate for your catalogue. Or any other text that you want to show at the bottom of the homepage."/>

WEB functionalities / menu

The web application includes a menu for different functionalities. You can choose here which of those functionalities you want to include for this particular case. Just check those that you want included (The Data Retrieval one must be checked) and, optionally, the title that you want for that option.

You can implement another custom functionality in other1.php. If you do that and you want to include it, just mark the checkbox and say what title you want for this functionality in the menu.

Configuration Example

1.- Once you have a database, the rest is easy

- Some texts for web page and VO services
- More details about your columns
- Allowed search fields
- etc

Configuration Example

There must be two fields named `ra_deg` and `dec_deg` containing RA and DEC in decimal degrees.

DB name	Data type	Show	CSV Order	Res. Order	Title	UCD	Unit	Description	Phot.Group
objID	string	VERB=1	1	1	objID	ID_MAIN		Identifier (IAU standard)	
ra_hms	string	never	2		ra_hms				
dec_dms	string	never	3		dec_dms				
RAdeg	double	VERB=1	4	2	RA (ICRS)	POS_EQ_RA_MAIN	deg	Right Ascension (ICRS) (degrees)	
DECdeg	double	VERB=1	5	3	DEC (ICRS)	POS_EQ_DEC_MAIN	deg	Declination (ICRS) (degrees)	
magr	double	VERB=1	6	4	magr	phot.mag;em.opt.R		Magnitude (r, ABv scale)	sds_s_r
sig_magr	double	VERB=1	7	5	sig_magr	stat.error;phot.mag;em.opt.R		Standard deviation of magnitude (magnitudes)	sds_s_r
epoch	integer	VERB=1	8	9	epoch	time.epoch	days	Mean epoch of the astrometry (days since 26/3/1999 i.e. observations taken on the evening of 26 March 1999, first light, are epoch 0)	
magJ	double	VERB=1	9	6	magJ	phot.mag;em.IR.J		2MASS J magnitude, Vega scale	2mass_j
magH	double	VERB=1	10	7	magH	phot.mag;em.IR.H		2MASS H magnitude, Vega scale	2mass_h
magKs	double	VERB=1	11	8	magKs	phot.mag;em.IR.K		2MASS Ks magnitude, Vega scale	2mass_ks
	---	---							
	---	---							
	---	---							
	---	---							

Configuration Example

1.- Once you have a database, the rest is easy

- Some texts for web page and VO services
- More details about your columns
- Allowed search fields
- etc

Configuration Example

Configuration

Admin User | Project | Mysql database | Web options | VO properties | Catalogue fields | Photom. Groups | **Search options** | File Paths | Scripts | VO Registry | Logout

Search options

In both web and VO services there are different possibilities about what options the user has to search for one field or another. The most usual search in catalogues is using RA, DEC and a search radius. But you can also specify that some of the other fields in the catalogue are available to restrict the queries. Here you can specify which of the fields can be used for searches and you can set some options about how they can be used.

- 'Field': the name of this field in the "Fields" config.
- 'Datatype': the data type of this field.
- 'Search': Available or not for searching
- 'Search type': Say if value ranges are allowed to search for this field or only individual values.
- 'Form type': Say if we present the user a text field to write a free value or we present a select field with all available values.

Field	Datatype	Search	Search type	Form type
objID	string	Yes ▾	Value ▾	Input ▾
ra_hms	string	--- ▾	--- ▾	--- ▾
dec_dms	string	--- ▾	--- ▾	--- ▾
RAdeg	double	Special: RA/DEC/SR		
DECdeg	double	Special: RA/DEC/SR		
magr	double	Yes ▾	Range ▾	Input ▾
sig_magr	double	--- ▾	--- ▾	--- ▾
epoch	integer	--- ▾	--- ▾	--- ▾
magJ	double	--- ▾	--- ▾	--- ▾
magH	double	--- ▾	--- ▾	--- ▾
magKs	double	--- ▾	--- ▾	--- ▾

[Continue](#)

Done!



Heidelberg test - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Heidelberg test x +

localhost/carlos/svo/vocats/heidelberg/ Search

Heidelberg test



Home Data retrieval News Documentation Help-Desk

Heidelberg test:

Implementing a test catalogue with SVOCat

Resources

- [Data retrieval](#)
- [News](#)
- [Documentation](#)
- [Help-Desk](#)

Write here the Acknowledgements adequate for your catalogue. Or any other text that you want to show at the bottom of the homepage.


Heidelberg test - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Heidelberg test x +

localhost/carlos/svo/vocats/heidelberg/ Search

Heidelberg test




Home Data retrieval News Documentation Help-Desk

RA (?)	DEC (?)	Radius (?)	Search	Reset
0	10	0.5	10 results	default verb.

(Maximum Search Radius allowed: 180 degrees)

[-] Hide additional search fields

objID (?)	<input type="text"/>
magJ (?)	<input type="text"/>

First 10 results shown (163 found)

Δ (?) (arcsec)	RA (ICRS) (deg)	DEC (ICRS) (deg)	RA (ICRS) (hh:mm:ss)	DEC (ICRS) (hh:mm:ss)	objID (?)	magr (?)	sig_magr (?)	magJ (?)	magH (?)	magKs (?)	epoch (?) (days)
139.52	0.0268883	10.0283	00:00:06.45	10:01:41.88	000006.4+100141	14.269	0.117	12.597	12.07	11.96	535
197.14	0.0325508	10.0444	00:00:07.81	10:02:39.84	000007.8+100239	17.297	0.05	16.147	0	0	719
243.90	0.019745	10.0649	00:00:04.74	10:03:53.64	000004.7+100353	15.783	0.197	14.646	14.219	14.193	613
377.21	0.0507421	10.0921	00:00:12.18	10:05:31.56	000012.1+100531	15.173	0.091	12.905	12.24	12.066	613
378.89	0.0820883	10.0674	00:00:19.70	10:04:02.64	000019.7+100402	16.386	0	0	0	0	540
388.32	0.0702092	10.0828	00:00:16.85	10:04:58.08	000016.8+100458	16.943	0.127	14.787	14.105	14.022	631
398.57	0.00181417	10.1107	00:00:00.44	10:06:38.52	000000.4+100638	15.813	0.119	14.424	13.922	13.855	613
427.08	0.106904	10.0547	00:00:25.66	10:03:16.92	000025.6+100316	15.655	0.142	14.186	13.76	13.648	613
435.56	0.0670317	10.1014	00:00:16.09	10:06:05.04	000016.0+100605	17.422	0	16.21	0	0	532
438.11	0.0875479	10.0859	00:00:21.01	10:05:09.24	000021.0+100509	17.432	0.319	14.76	14.08	13.779	656

Download all results as [VOTable](#) or [CSV file](#)
 Open results table in [Aladin](#) (via JNLP/webstart)
[Send table to SAMP Hub](#)

Done!

```
http://localhost/carlos/svo/vocats/heidelberg/cs.php?RA=0.000000&DEC=10.000000&SR=0.500000&VERB=2 - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Heidelberg test x http://localhost/carlos/svo/ x +
localhost/carlos/svo/vocats/heidelberg/cs.php?RA=0.0&DEC=10.0&SR=0.5 Search
58 <FIELD name="RA" ucd="POS_EQ_RA_MAIN" unit="deg" datatype="double">
59 <DESCRIPTION>Right Ascension (ICRS) (degrees)</DESCRIPTION>
60 </FIELD>
61 <FIELD name="DEC" ucd="POS_EQ_DEC_MAIN" unit="deg" datatype="double">
62 <DESCRIPTION>Declination (ICRS) (degrees)</DESCRIPTION>
63 </FIELD>
64 <FIELD name="dis" ucd="POS_ANG_DIST_GENERAL" unit="arcsec" datatype="float">
65 <DESCRIPTION>Distance from ConeSearch center position</DESCRIPTION>
66 </FIELD>
67 <FIELD name="objID" ucd="ID_MAIN" unit="" datatype="char" arraysize="*">
68 <DESCRIPTION>Identifier (IAU standard)</DESCRIPTION>
69 </FIELD>
70 <FIELD name="magr" ucd="phot.mag;em.opt.R" unit="" datatype="double">
71 <DESCRIPTION>Magnitude (r, ABv scale)</DESCRIPTION>
72 </FIELD>
73 <FIELD name="sig_magr" ucd="stat.error;phot.mag;em.opt.R" unit="" datatype="double">
74 <DESCRIPTION>Standard deviation of magnitude (magnitudes)</DESCRIPTION>
75 </FIELD>
76 <FIELD name="epoch" ucd="time.epoch" unit="days" datatype="integer">
77 <DESCRIPTION>Mean epoch of the astrometry (days since 26/3/1999 i.e. observations taken on the evening of 26 March 1999, first light, are epoch 0)</DESCRIPTION>
78 </FIELD>
79 <FIELD name="magJ" ucd="phot.mag;em.IR.J" unit="" datatype="double">
80 <DESCRIPTION>2MASS J magnitude, Vega scale</DESCRIPTION>
81 </FIELD>
82 <FIELD name="magH" ucd="phot.mag;em.IR.H" unit="" datatype="double">
83 <DESCRIPTION>2MASS H magnitude, Vega scale</DESCRIPTION>
84 </FIELD>
85 <FIELD name="magKs" ucd="phot.mag;em.IR.K" unit="" datatype="double">
86 <DESCRIPTION>2MASS Ks magnitude, Vega scale</DESCRIPTION>
87 </FIELD>
88 <DATA>
89 <TABLEDATA>
90 <TR>
91 <TD>0.0268883</TD>
92 <TD>10.0283</TD>
93 <TD>139.5207390023</TD>
94 <TD>000006.44100141</TD>
95 <TD>14.269</TD>
96 <TD>0.117</TD>
97 <TD>535</TD>
98 <TD>12.597</TD>
99 <TD>12.07</TD>
```



- SVOCat 2.0
 - more configuration options
 - including spectra
 - datalink VO protocol
 - *not well documented (yet)*

- myspec/myimage
 - implemented in java
 - for spectra, images
 - SSA,SIA protocols

- Available on Friday, if you are interested.

THANK YOU!