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**CSIC**



# MySpec – MyImg Tools for publication of spectra and images

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**Spanish Virtual Observatory**



# MySpec - MyImg



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# MySpec - MyImg



## 1. Introduction

MySpec and MyImg are applications intended to facilitate the publication of spectra and images, both as a web page and as Virtual Observatory SIAP and SSAP services.

They have been designed to build the services from a collection of spectra or images and without any previous knowledge of any programming language.

A clear guidance of what to do and how to proceed to publish VO-compliant data was a major requirement for the Spanish data providers.



# MySpec - MyImg



## 1. Introduction

First release took place during the First SVO Workshop on data publishing (Madrid, April 2014).

First SVO Workshop on data publishing in the Virtual Observatory

Prod ID	Program ID	Obs Block	RA (J2000)	DEC (J2000)	Instr.	Obs. Mode
218770	GI-AS-12A	0001	244.03407	126.73625	OSIRIS	LSS
218719	GI-AS-12A	0001	244.03407	126.70615	OSIRIS	LSS
218717	GI-AS-12A	0001	244.03408	127.47292	OSIRIS	LSS
218716	GI-AS-12A	0001	244.03408	127.46549	OSIRIS	LSS
218715	GI-AS-12A	0001	244.03409	127.14829	OSIRIS	LSS
218660	GI-AS-12A	0001	244.03408	126.55374	OSIRIS	LSS
218605	GI-AS-12A	0001	244.03408	127.52161	OSIRIS	LSS
218576	GI-AS-12A	0001	244.03410	126.85493	OSIRIS	LSS
218181	GI-AS-12A	0001	244.03395	127.82208	OSIRIS	LSS
218064	GI-AS-12A	0001	244.03395	127.82084	OSIRIS	LSS

Credit: A. Nota (ESA/STScI) et al., ESA, NASA

Centro de Astrobiología  
Villafranca del Castillo  
Madrid, 2014 April 8 and 9

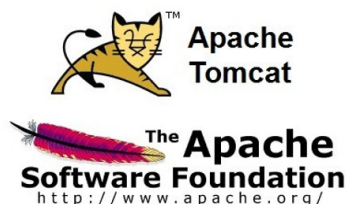




## 2. Configuration

On purpose, the tools do not work like black boxes. Some technical knowledge is required, in particular if changes in the standard functionalities are required.

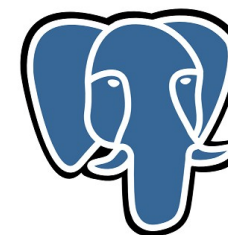
### Technical requirements:



Tomcat 7



Java  
6



PostgreSQL

Postgresql 9

### Data requirements:

Data (spectra/image) have to be in FITS format. The header must contain the RA and DEC keywords, both in decimal degrees, and TIME keyword for spectra data.


## 3. Installation

Once the tool is deployed, you can access via url a private web page where the project can be defined.

Here you must define your data and how to show them (search form and result page). The system will create the database and will ingest the data there.

Your Logo

### My Spectral Archive



Start project

To create your archive, you have to follow the next steps:

1. Define your data [here](#)
2. Download the [DataBase Creation Script](#) and executed it in your database
3. Ingest your data [here](#)
4. Test that you [web access](#) is working properly
5. Configure and re

Ingest Data

[Back to Index](#)

**Version 0.1 - April 2010**

Name	Keyword	Type	search?	show?	UCD	Units	Description
RA		Double	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	pos.eq	deg	
DEC		Double	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	pos.eq	deg	
TIME		choose type	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	time.epoch	-	
		String	<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>			
			<input type="checkbox"/>	<input type="checkbox"/>			

File name	Comment
HD214680_F3_iacob_20081105_05.fits	this file is already in the system
HD18409_F1_iacob_20110912_01.fits	does not have the keyword 'DATE_OBS' Inserted in the database
HD212222_F1_iacob_20130624_02.fits	this file is already in the system
HD212883_F1_iacob_20130624_02.fits	this file is already in the system
HD214680_F3_iacob_20081106_07.fits	this file is already in the system
HD2905_F3_iacob_20081106_11.fits	this file is already in the system
HD14052_F3_iacob_20101024_03.fits	does not have the keyword 'DATE_OBS' Inserted in the database
HD2905_F3_iacob_20091111_04.fits	this file is already in the system




# MySpec - MyImg



## 4. Final result

Once the configuration process is done, the web application and the VO service will be ready.

Your Logo **My Spectral Archive** 

Search form

Search by Obj ID/Coordinates:

ObjID/ Coordinates:  Coordinates format: decimal degrees or sexagesimal degrees HH MM SS.S ±DD MM SS.S

Search radius:  (decimal degrees)

Search by date:

Between:

And:

Search by OBJECT:

OBJECT:

You can search a substring using d%'  
For example "HD%"

Search by JULIAN:

Between:

And:

Number of Results per Page:  Page to show:


Search form web page

## 4. Final result

Once the configuration process is done, the web application and the VO service will be ready.

Your Logo

### My Spectral Archive



Results

Total results: 23

ID	RA (deg)	DEC (deg)	TIME	TIME_OBS (seg)	OBJECT	TELESCOPE	AIRMASS	JULIAN	Header	Descarga <input checked="" type="checkbox"/>
1	178.92859	-22.416277	2013-12-12	16:00:30.333472	LP 851-346	NASA IRTF	1.391	56639.167	Header	Download <input checked="" type="checkbox"/>
2	81.681168	-44.929306	2013-12-12	10:33:41.966427	0526-4455	NASA IRTF	2.337	56638.94	Header	Download <input checked="" type="checkbox"/>
3	130.88867	10.412083	2013-12-12	14:01:22.27776	0843+1024	NASA IRTF	1.019	56639.084	Header	Download <input checked="" type="checkbox"/>
4	130.12396	18.402527	2013-12-12	12:30:09.956466	GJ 316.1	NASA IRTF	1.04	56639.021	Header	Download <input checked="" type="checkbox"/>
5	135.0983	21.834833	2013-12-12	12:35:50.500395	LHS 2090	NASA IRTF	1.059	56639.025	Header	Download <input checked="" type="checkbox"/>
6	154.14458	27.863806	2013-12-12	13:31:43.537975	1016+2751	NASA IRTF	1.097	56639.064	Header	Download <input checked="" type="checkbox"/>
7	135.09866	25.659527	2013-12-12	12:53:27.21353	0900+2539	NASA IRTF	1.037	56639.037	Header	Download <input checked="" type="checkbox"/>
8	127.48775	26.919416	2013-12-12	12:05:15.231617	0829+2655	NASA IRTF	1.062	56639.004	Header	Download <input checked="" type="checkbox"/>
9	129.817	12.898417	2013-12-12	13:43:05.353886	0839+1253	NASA IRTF	1.008	56639.072	Header	Download <input checked="" type="checkbox"/>
10	178.46945	6.9989171	2013-12-12	15:17:31.061358	LHS 2471	NASA IRTF	1.111	56639.137	Header	Download <input checked="" type="checkbox"/>

page number: 1 of 3      Next page

Retrieve Selected Data

[Back to Search Form](#)

Result web page



## 4. Final result

Once the configuration process is done, the web application and the VO service will be ready.

```

- <VOTABLE version="1.1" xsi:noNamespaceSchemaLocation="xmlns:http://www.ivo.net/xml/VOTable-1.1.xsd">
- <RESOURCE type="Results">
  <DESCRIPTION/>
  <INFO name="QUERY_STATUS" value="OK"/>
  <INFO name="SERVICE_PROTOCOL" value="1.1">SSAP</INFO>
  <INFO name="REQUEST" value="queryData"/>
  <INFO name="INPUT.TIME" value="2013" datatype="double">
  <DESCRIPTION>Temporal Region </DESCRIPTION>
  </INFO>
  <INFO name="INPUT.FORMAT" value="ALL" datatype="char" arraysize="*">
  <DESCRIPTION>Request format of image</DESCRIPTION>
  <VALUES>
  <OPTION value="image/fits"/>
  </VALUES>
  </INFO>
  <INFO name="Collection" value="ivo:/svo/sdss"/>
  <INFO name="TableRows" value="23"/>
  <TABLE ID="ssap" name="ssap_search_results">
  <DESCRIPTION>Result showed in VOTable format.</DESCRIPTION>
  <FIELD ID="AssocID" name="AssocID" datatype="char" utype="ssa:Association.ID" arraysize="*">
  <DESCRIPTION>Association identifier</DESCRIPTION>
  </FIELD>
  <FIELD ID="AcRef" name="AcRef" datatype="char" ucd="meta.ref.url" utype="ssa:Access.Reference" arraysize="*">
  <DESCRIPTION>URL used to access dataset</DESCRIPTION>
  </FIELD>
  <FIELD ID="Format" name="Format" datatype="char" utype="ssa:Access.Format" arraysize="*">
  <DESCRIPTION>Content or MIME type of dataset</DESCRIPTION>
  </FIELD>
  <FIELD ID="Title" name="Title" datatype="char" ucd="meta.title;meta.dataset" utype="ssa:DataID.Title" arraysize="*">
  <DESCRIPTION>Dataset Title</DESCRIPTION>
  </FIELD>
  <FIELD ID="Location" name="Location" utype="ssa:Char.SpatialAxis.Coverage.Location.Value" ucd="pos.eq" datatype="double" arraysize="2">
  <DESCRIPTION>Right Ascension and Declination of the star</DESCRIPTION>
  </FIELD>
  <FIELD ID="TIME" name="TIME" datatype="DATE" width="" ucd="time.epoch" arraysize="*" />
  <FIELD ID="TIME_OBS" name="TIME_OBS" datatype="TIME" width="" ucd="time.epoch" arraysize="*" />
  <FIELD ID="OBJECT" name="OBJECT" datatype="VARCHAR(50)" width="" ucd="." arraysize="*" />
  <FIELD ID="TELESCOPE" name="TELESCOPE" datatype="VARCHAR(50)" width="" ucd="instr.tel" arraysize="*" />
  <FIELD ID="AIRMASS" name="AIRMASS" datatype="FLOAT" width="" ucd="." arraysize="*" />
  <FIELD ID="JULIAN" name="JULIAN" datatype="INT" width="" ucd="time.epoch" arraysize="*" />
  <FIELD ID="INSTRUMENT" name="INSTRUMENT" datatype="VARCHAR(50)" width="" ucd="." arraysize="*" />
  <FIELD name="AXES" ID="AXES" ucd="VOX:Spectrum_axes" datatype="char" arraysize="*">
  <DESCRIPTION>
  Axes names (corresponding to the keyword names in the fits file) thatought to be used to do a display.
  </DESCRIPTION>
  </FIELD>
  <FIELD name="UNITS" ID="UNITS" ucd="VOX:Spectrum_units" datatype="char" arraysize="*">
  <DESCRIPTION>Units in which each of the axes is represented.</DESCRIPTION>
  </FIELD>
  <FIELD name="DIMEQ" ID="DIMEQ" ucd="VOX:Spectrum_dimeq" datatype="char" arraysize="*">
  <DESCRIPTION>
  Dimensional equation of the units in each of the axes.
  </DESCRIPTION>

```

SSAP Service

## 5. Working implementations

### IACOB Project (IAC)

<http://vivaldi.ii.iac.es:8080/iacob/jsp/search.jsp>

### SpeX Library



The IACOB project is an ambitious long-term project which is contributing to the modern era of investigation of massive stars by concentrating in Galactic OB stars. In particular, the project aims at building a large database of high-resolution, multi-epoch spectra of Galactic OB stars (the IACOB spectroscopic database), and the scientific exploitation of the database using state-of-the-art models and techniques.

More details about the project can be found in Simon-Diaz et al. (2011a, 2011b, 2015) and the [project webpage](#).

This is the interface to have access to the IACOB spectra. The different data releases (DRx) will be conveniently announced; in the meanwhile people interested in specific (samples of) spectra can contact the PI of the project by email: [ssimon\[at\]iac.es](mailto:ssimon[at]iac.es)

The IACOB spectroscopic database is based on observations made with the **Nordic Optical Telescope** operated by Nordic Optical Telescope Scientific Association, and the **Mercator Telescope**, operated by the Flemish Community, both at the Observatorio de El Roque de los Muchachos (La Palma, Spain) of the Instituto de Astrofísica de Canarias

**Search form**

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**Search by Obj ID/Coordinates:**

ObjID/ Coordinates:  Examples: 245.10 -15.67 - Coordinates in decimal degrees  
16 20 24.5 -15 40 12.0 - Coordinates in sexagesimal degrees

Search radius:  (decimal degrees)

**Search by TARGET:**

TARGET:

**Search by DATA\_RELEASE:**

DATA\_RELEASE:  DR1: FIES observations between 2008 and 2009

**Search by INSTR:**

INSTR:  FIES or HERMES

Number of Results per Page:  Page to show:

Welcome to the SpeX Prism Library!



Go to the **NEW SpeX Prism Library Analysis Toolkit (SPLAT)** website



Go to the **old SpeX Prism Library (SPL)** website

and coming soon...



The UCSD SPL-SQL Data Query Tool



The Spanish Virtual Observatory Data Query Tool

## 6. Online documentation

The documentation is available for the general public on:  
[http://svo.cab.inta-csic.es/files/svo/Public/Meetings/MySpec\\_MyImg\\_7jun2016.odt](http://svo.cab.inta-csic.es/files/svo/Public/Meetings/MySpec_MyImg_7jun2016.odt)

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**MySpec-MyImg**  
 Tools for publication of spectra and images in the  
 Virtual Observatory

If you are interested in creating your own archive using this tool you have to contact with us to obtain the .war file.

[jmalacid@cab.inta-csic.es](mailto:jmalacid@cab.inta-csic.es)

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