

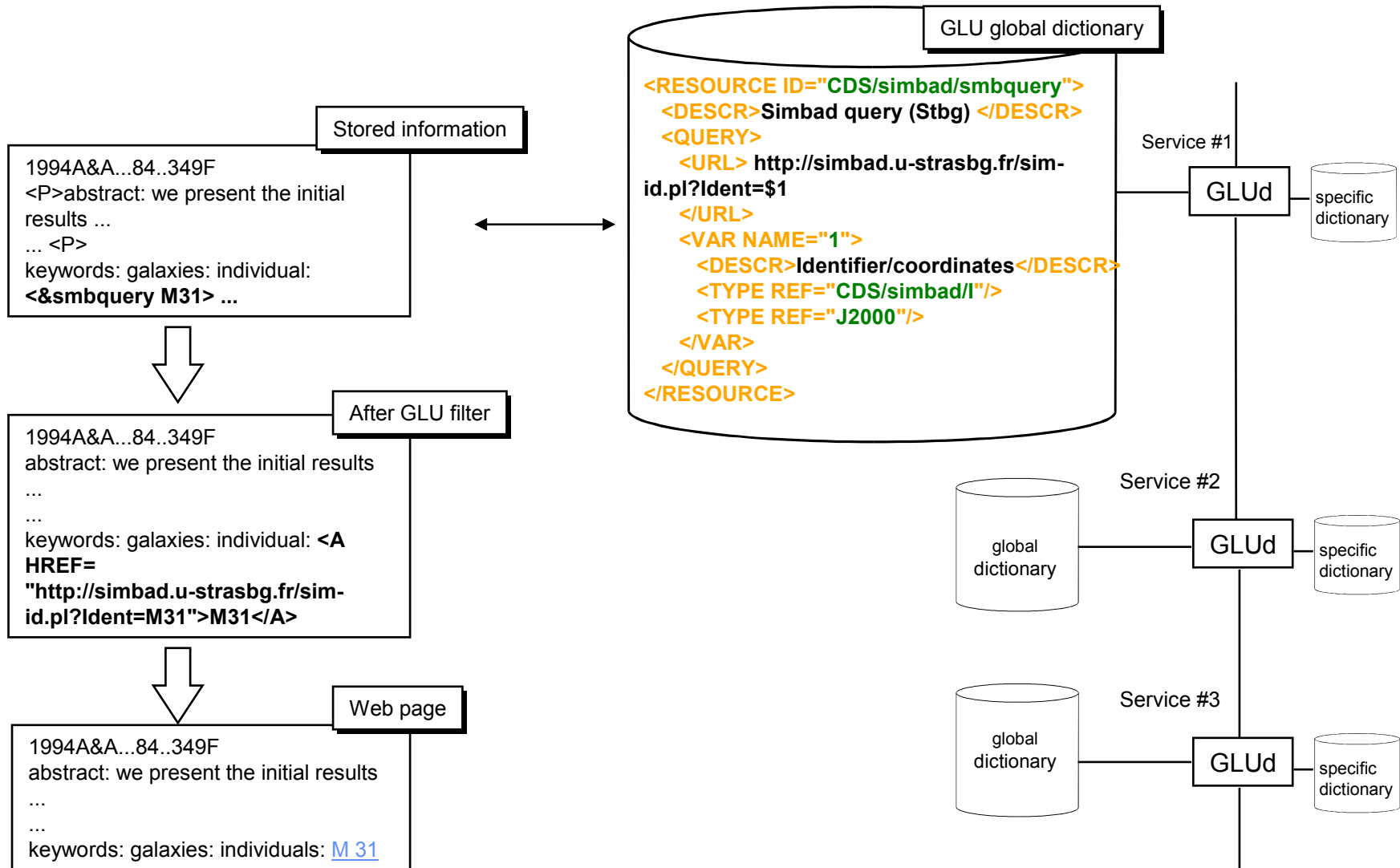
GLU: Générateur de Liens Uniformes

Error 404

Not found - file doesn't exist or is read protected [even tried multi]

- **Purpose :**
 - **Avoid storing hardcoded URLs**
 - **On the fly generation of hyperlinks**
 - **Easy maintenance of a set of links used in applications**
 - **Better inter-operability of web services**
- **Concepts :**
 - ***Glu dictionary* maintaining URLs according to data types or resource names**
 - ***Glu filter* substituting data type and resource name tags for the generated URLs. Management of parameters**
 - ***Glu daemon* maintaining on each participating service a global dictionary. Mirror site tests.**

GLU : How it works

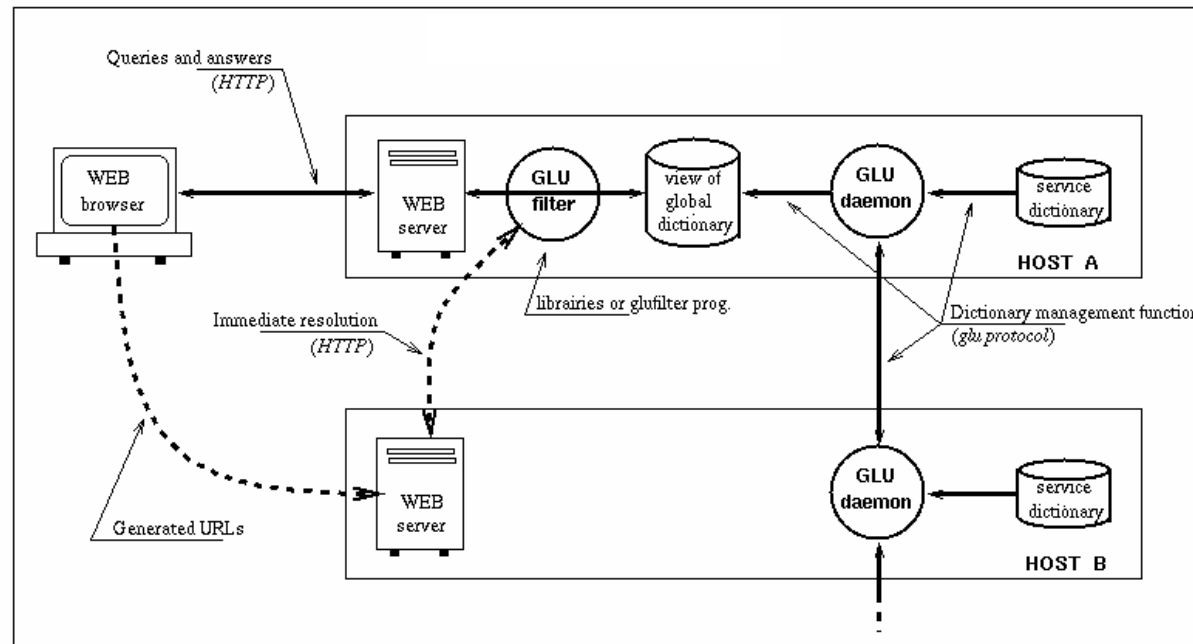


GLU : the data dictionary

- Three kind of dictionaries :
 - ***specific dictionary*** : containing all records defining URLs needed to access a particular service. This dictionary is maintained by the manager of the service.
 - ***global dictionary*** : general dictionary build by the GLU daemon by receiving the entries from all specific dictionaries participating to a domain.
 - ***personal dictionary*** : particular dictionary used by an application to overload some definitions of the global dictionary. This dictionary is unknown from the GLU daemon and introduced directly by the application.
- The dictionary is a distributed database. Each service maintains its own part, containing its URL definitions.
- A global dictionary is accessible at each participating site, improving substitution performances.

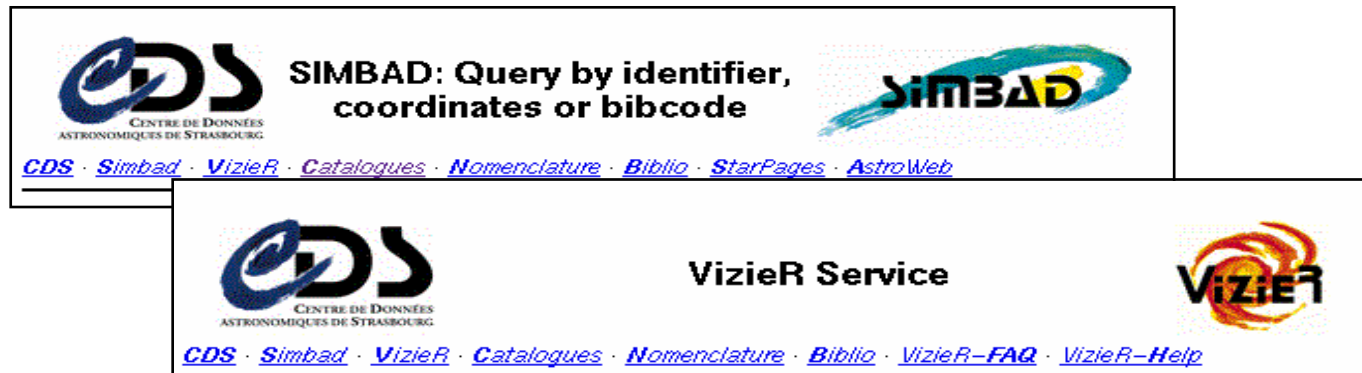
GLU : the GLU daemon

- A GLU daemon is active on every site managing a glu dictionary
- It maintains the global dictionary from a set of specific, service related, dictionaries
- It tests regularly mirror site resources
- A GLU daemon knows the specific dictionaries for which it is server
- It knows the domains in which it is a client, and receives the specific dictionaries from the corresponding servers



GLU : other functionalities

- HTML text can be added to an URL definition : allows creation of homogeneous pages



- A GLU dictionary entry can contain other GLU tags, allowing recursive substitutions
- Parameter conversions to adjust resource required parameters and user parameters
- Immediate resolution : instead of substituting an URL, the GLU filter behaves like a web client, and substitutes the glu tag for the result of the URL call.
- Test of data availability : either by calling an URL, either by executing a test sequence (only on a local basis).
This allows conditional writing of an URL, only if data exists.
- URL testing with recorded test data used as parameters. This allows to check all the URLs used by a service.
- Management of clones : by checking regularly all the URLs defined for the same resource and labelling the best one (fastest, nearest)

GLU : specific tools

Dictionary browser :

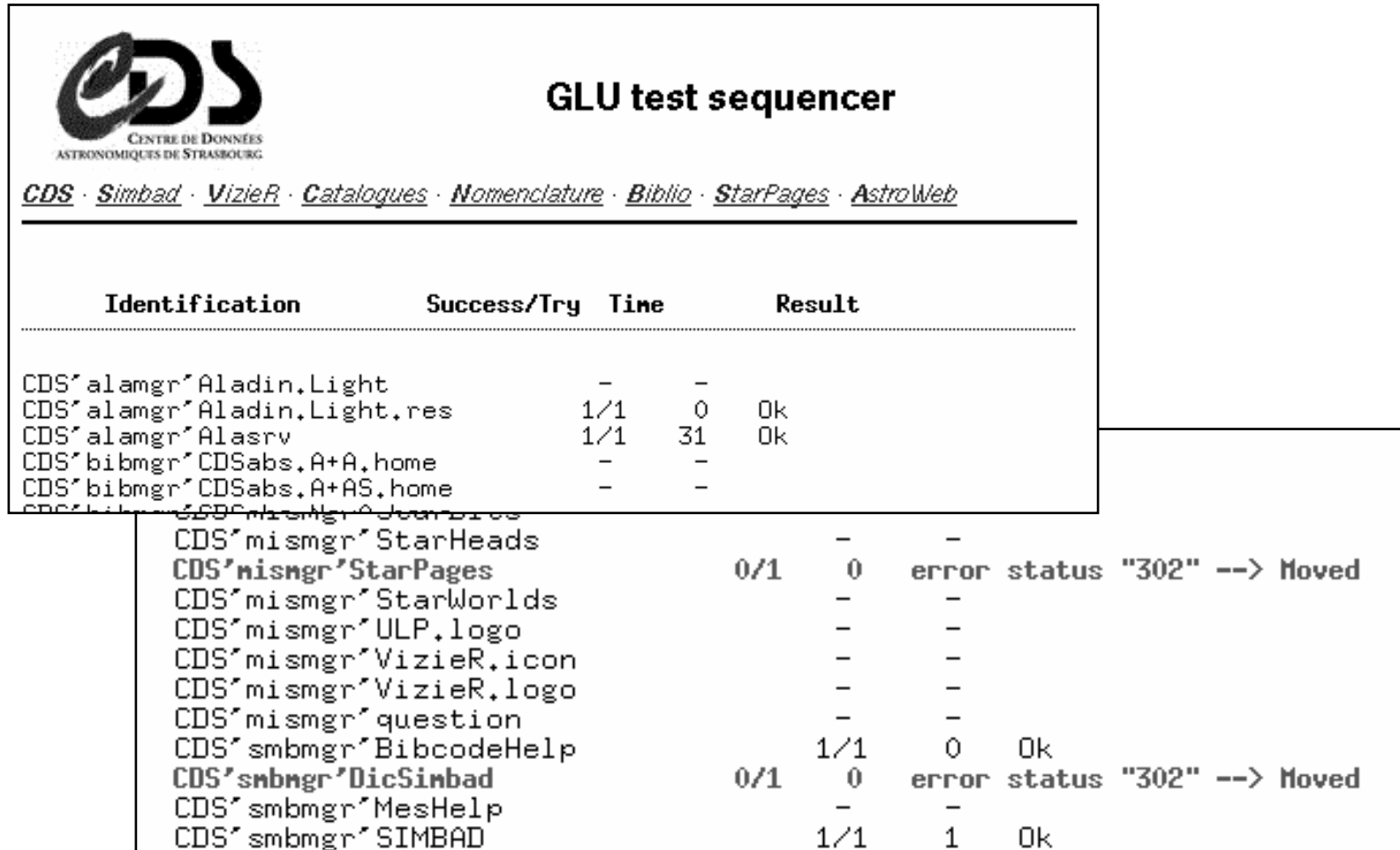
- displays the dictionary by entry, by domain, ...
- Allow execution of any URL with provided parameters.
- Allows the remote management of the GLU daemon.

The screenshot shows the Glu Dictionary Browser web interface. The browser window title is "GluBrowser v5.0 - Microsoft Internet Explorer". The address bar shows the URL "http://simbad.u-strasbg.fr/glu/cgi-bin/GluBrowser.pl". The page content includes the CDS logo (Centre de Données Astronomiques de Strasbourg) and the title "Glu Dictionary Browser on simbad:/usr/local/glu/". There are navigation links for "Host information", "Action test", "Generic summary", "Field manual", "Documentation", and "Help". A search section includes "Select by: Actions Types Services Domains" and input fields for "Identifier:" and "Keyword:". The main content area displays details for the "CDS/VizieR/VizierFind" service, including its alias, service name, last update date, URL, and parameters. A "Try the URL" section allows users to specify parameters and encode them. At the bottom, there is a "Dictionary Record" section with a "get long PARFILE syntax" button and XML-style record information.

```
<RESOURCE ID="CDS/VizieR/VizFind.www">
  <NAME>VizFind.www</NAME>
  <URLS>VizFind</URLS>
```

GLU : specific tools

Test sequencer : checks all URLs defined in a dictionary and displays a report.



The screenshot shows the GLU test sequencer interface. At the top left is the logo for the Centre de Données Astronomiques de Strasbourg (CDS). The title is "GLU test sequencer". Below the title is a navigation bar with links: [CDS](#) · [Simbad](#) · [VizieR](#) · [Catalogues](#) · [Nomenclature](#) · [Biblio](#) · [StarPages](#) · [AstroWeb](#). Below this is a table with the following columns: Identification, Success/Try, Time, and Result. The table lists various URLs and their test results.

Identification	Success/Try	Time	Result
CDS'alamgr'Aladin.Light	-	-	
CDS'alamgr'Aladin.Light.res	1/1	0	Ok
CDS'alamgr'Alasrv	1/1	31	Ok
CDS'bibmgr'CDSabs.A+A.home	-	-	
CDS'bibmgr'CDSabs.A+AS.home	-	-	
CDS'bibmgr'Journal	-	-	
CDS'mismgr'StarHeads	-	-	
CDS'nismgr'StarPages	0/1	0	error status "302" --> Moved
CDS'mismgr'StarWorlds	-	-	
CDS'mismgr'ULP.logo	-	-	
CDS'mismgr'VizieR.icon	-	-	
CDS'mismgr'VizieR.logo	-	-	
CDS'mismgr'question	-	-	
CDS'smbmgr'BibcodeHelp	1/1	0	Ok
CDS'snbmgr'DicSinbad	0/1	0	error status "302" --> Moved
CDS'smbmgr'MesHelp	-	-	
CDS'smbmgr'SIMBAD	1/1	1	Ok



GLU : specific tools

GluSupervisor v1.0 - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites Media History Mail Print Edit Discuss Real.com

Address <http://simbad.u-strasbg.fr/local/glu/GluSupervisor.pl> Go Liens »

 **Glu Supervisor** 

[CDS](#) · [Simbad](#) · [VizieR](#) · [Aladin](#) · [Catalogues](#) · [Nomenclature](#) · [Biblio](#) · [StarPages](#) · [AstroWeb](#)


The last manual test has been done at : 25-Apr-2002 07:33

A&A Clone	AAS Clone	ADS Clone
Aladin	AstroWeb	Bazaar etc...
Biblio CDS	CDS http servers	Dictionary of nom.
GLU	IUE/INES	Reseau
Simbad France	Simbad US	StarPages
VizieR (all sites)	-	-

Re-launch the test now (takes a few minutes)

- Everything works
- There is at least an action without test
- There is at least an action with a bad test result
- Everything is crashed

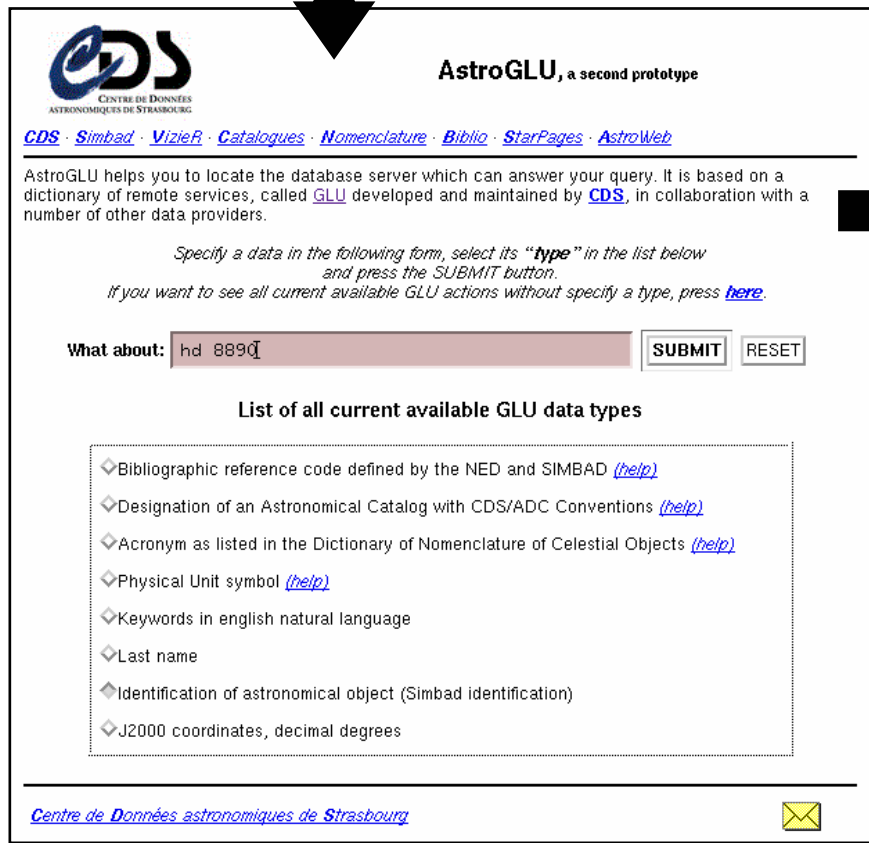
To know what the GLU Supervisor does, click [here](#)

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Done Internet

GLU : specific tools

AstroGLU : a reversed usage of the dictionary. To get all services knowing something about a specific data type.



AstroGLU, a second prototype

CDS · [Simbad](#) · [VizieR](#) · [Catalogues](#) · [Nomenclature](#) · [Biblio](#) · [StarPages](#) · [AstroWeb](#)


AstroGLU helps you to locate the database server which can answer your query. It is based on a dictionary of remote services, called [GLU](#) developed and maintained by [CDS](#), in collaboration with a number of other data providers.

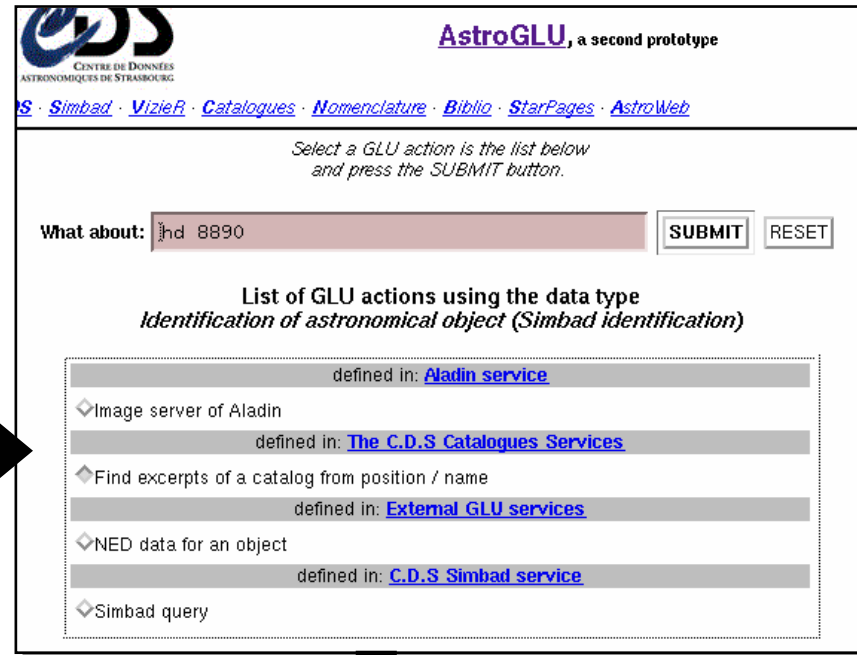
Specify a data in the following form, select its "type" in the list below and press the SUBMIT button.
If you want to see all current available GLU actions without specify a type, press [here](#).

What about:

List of all current available GLU data types

- ◇ Bibliographic reference code defined by the NED and SIMBAD ([help](#))
- ◇ Designation of an Astronomical Catalog with CDS/ADC Conventions ([help](#))
- ◇ Acronym as listed in the Dictionary of Nomenclature of Celestial Objects ([help](#))
- ◇ Physical Unit symbol ([help](#))
- ◇ Keywords in english natural language
- ◇ Last name
- ◇ Identification of astronomical object (Simbad identification)
- ◇ J2000 coordinates, decimal degrees

[Centre de Données astronomiques de Strasbourg](#) 



AstroGLU, a second prototype

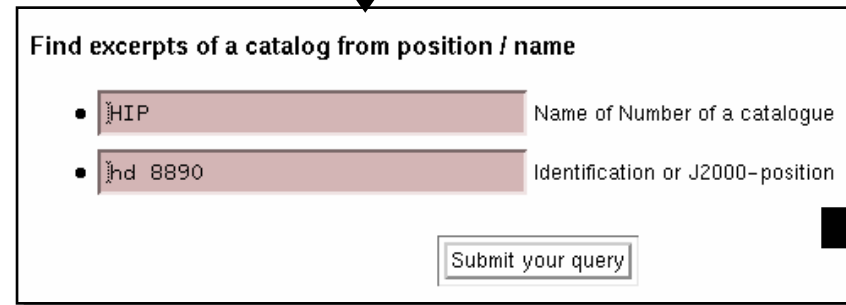
CDS · [Simbad](#) · [VizieR](#) · [Catalogues](#) · [Nomenclature](#) · [Biblio](#) · [StarPages](#) · [AstroWeb](#)

Select a GLU action in the list below and press the SUBMIT button.

What about:

List of GLU actions using the data type
Identification of astronomical object (Simbad identification)

- defined in: [Aladin service](#)
- ◇ Image server of Aladin
- defined in: [The C.D.S Catalogues Services](#)
- ◇ Find excerpts of a catalog from position / name
- defined in: [External GLU services](#)
- ◇ NED data for an object
- defined in: [C.D.S Simbad service](#)
- ◇ Simbad query





Find excerpts of a catalog from position / name

- Name of Number of a catalogue
- Identification or J2000-position

GLU specific tools

AstroGLU

**VizieR Result Page**

[CDS](#) · [Simbad](#) · [VizieR](#) · [Catalogues](#) · [Nomenclature](#) · [Biblio](#) · [VizieR-FAQ](#) · [VizieR-Help](#)

*Result of VizieR Search around **hd 8890** (no other constraint specified)*

1. I/239/hip_main (The Hipparcos Main Catalogue)

Full	HIP	Vmag mag	RAdeg deg	DEdeg deg	AstroRef	P1x mas	pmRA mas/
1	7283	6.46	23.45214999	89.01571833		10.15	64
2	17195	8.10	55.23321118	89.10495838		11.35	-52
3	11767	1.97	37.94614689	89.26413805		7.56	44

2. I/239/tyc_main (The main part of Tycho Catalogue)

Full	TYC	Vmag mag	RAdeg deg	DEdeg deg	AstroRef	P1x mas	pmRA mas/
1	4627 259 1	6.47	23.45212796	89.01571793		12.60	67
2	4628 149 1	9.80	32.54431682	89.07305311		0.50	53
3	4627 125 1	10.97	24.86449324	89.09181872		57.30	81
4	4628 68 1	8.10	55.23318230	89.10495915		4.90	-54
5	4628 237 1	2.00	37.94616079	89.26413807	X	8.50	45
6	4627 75 1	10.27	18.54380509	89.30704051		87.00	37

GLU : documentation

- **GLU documentation and access :**
 - **Documentation and project follow-up :**
<http://simbad.u-strasbg.fr/glu/glu.htx>
 - **GLU dictionary browser :**
<http://simbad.u-strasbg.fr/glu/cgi-bin/GluBrowser.pl>
 - **AstroGLU :**
<http://simbad.u-strasbg.fr/glu/cgi-bin/astroglu.pl>