

# Maintenance of VizieR

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The VizieR supervisor is available at url : <http://cdsarc.u-strasbg.fr/spv-bin/Vmonitor.cgi>

## Table des matières

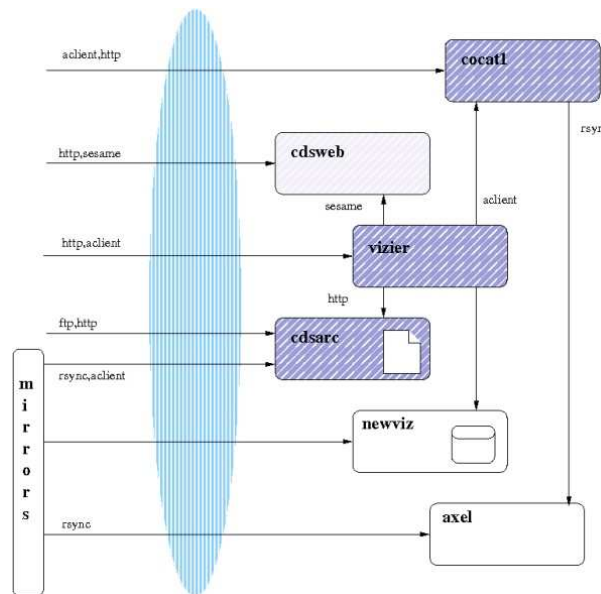
<b>1</b>	<b>Architecture</b>	<b>2</b>
<b>2</b>	<b>The VizieR web server</b>	<b>3</b>
<b>3</b>	<b>The FTP server</b>	<b>5</b>
<b>4</b>	<b>Dealing with sesame</b>	<b>6</b>
<b>5</b>	<b>The database server</b>	<b>7</b>
5.1	System informations . . . . .	7
5.2	The Database stuff . . . . .	7
<b>6</b>	<b>Dealing with mirrors</b>	<b>10</b>

# 1 Architecture

VizieR is composed of 3 services :

- The VizieR web pages display astronomical catalogues
- The archives Catalogues contains the ReadMe file and the original files
- Access to large surveys to query the large catalogues (2MASS, USNO-B1, GSC...)

**A short brief of VizieR’s servers repartition :**



Server	Subject	Descriptions	Services
Public servers			
vizier	Web server	- Query catalogues and display them into different format - Dictionary of Nomenclature of Celestial Objects	VizieR cdsclient
viz-beta	Web server (beta version)	- Query catalogues and display them into different format	VizieR
viz-old	Web server (old version)	- Query catalogues and display them into different format	VizieR
cdsarc	Archive server	- Query ReadMe and original repository - ftp server	ftp ReadMe
cocat1	VizieR and Aladin cluster	- Query large catalogues with package cdsclient (find2mass, findenis,...)	cdsclient
cdsweb	CDS web pages	- The web pages of CDS The resolver name service	CDS sesame
Private servers			
newviz	VizieR database server	- The VizieR database - Server reference for viziers mirrors - A test Web server	VizieR
axel	Big catalogs original repository	- Original files of large catalogues (May relay cocat1)	cdsclient

## 2 The VizieR web server

Url : vizier.u-strasbg.fr

VizieR uses apache and CGI. See the following graph (p.3) to understand the software architecture.

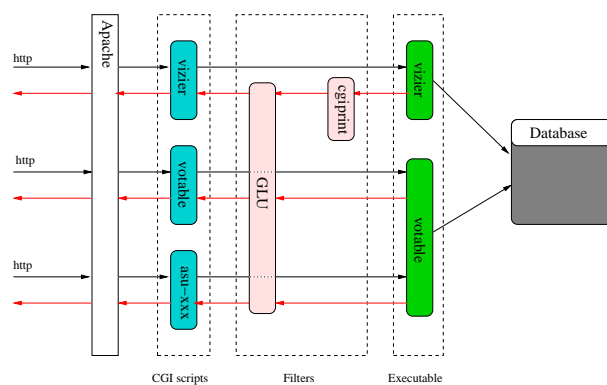


FIG. 1 – Software architecture

Services :

Name	Explanations	Config. dir
apache	web server	/etc/apache2
glu	HTML tag server	/home/cds/glu
postfix	mail server	/etc/postfix

repositories :

Directory	Explanations
/home/cds/glu	Glu
/home/cds/httpd/Pages	the Root Web pages
/home/cds/httpd/cgi	the CGI pages
/home/cds/httpd/cgi/ext	script to big catalogs access
/home/cds/logs	the log directory
/home/cds/src	the source directory

Configuration files :

File	Explanation
cds/cloneupdate.conf	files updates by for clone process
cds/interfaces	the database configuration
cds/httpd/Venv	local environnement used in CGI
cds/httpd/Pages/COUNTS	set the big catalog server if empty CGI redirects to an other Mirror <b>This file is updated by crontab</b>

**Maintenance actions :**

Type of error	Todo
Error with database access	Normally crontab will rebuild the COUNTS file (see upper) and so, the queries will be redirected. To optimize the time needed, you can refer to the next error.
Http queries are redirected to an other mirror	Open the Venv file (see upper) to modify the database server :  setenv METADB "metaviz@VIZIR asu asu4VizieR" (here VIZIR, but you can use an other database which is on cds/interfaces file). Next, launch the command : cds/bin/COUNTS

**Logs :**

File	Explanation
/var/log/apache2	apache logs
/home/cds/httpd/logs	the CDS mirror logs

**User accounts :**

User	Password
cds	asu4VizieR
root	la*,7viz

### 3 The FTP server

Url : cdsarc.u-strasbg.fr

cdsarc is used to :

- **Ftp** and **ReadMe** access
- used by the documentalist team to construct new catalogs (user cats)
- contain a **VizieR mirror** with the **originals files** (ftp,readme,cgi, static web pages) (this mirror is used as a test web server by the documentalist team)
- it is the cvs server for the VizieR and cluster sources

Services :

Name	Explanations	Start/Stop script	Config. dir
apache	web server (for Readme queries)	/etc/init.d/apache2	/etc/apache2
glu	HTML tag server	/home/cds/glud	/home/cds/glu
vsftpd	ftp server	/etc/init.d/vsftp	/etc/vsftpd.conf
aserver	VizieR RPC service	launched by inetd	/etc/inetd.conf /usr/local/lib/rpc.rcats
rsync	rsync server used by mirrors	/etc/init.d/rsync	/etc/rsyncd.conf
cvs	cvs server	launched by inetd	/etc/inetd.conf

repositories :

Directory	Explanations
/ftp	the ftp directory where are located all catalogs files
/home/cats	the documentalist works
/home/cds	the original Mirror of VizieR

Logs :

File	Explanation
/var/log/apache2	apache logs
/home/cds/httpd/logs	the CDS mirror logs
/var/log/xferlog	ftp log
/var/log/vsftpd.log	
/var/log/rcatd.log	aserver log

User accounts :

User	Password
cds	asu4VizieR
root	la*,7viz
cats	???

## 4 Dealing with sesame

**Url** : cdsweb.u-strasbg.fr (or on mirror server)

There are 2 possibilities to configure sesame :

- centralized (as it is for the vizier CDS server, Russia, ...).  
In this case, all sesame queries are redirected to the cdsweb server.  
This configuration is set by the environment variable `SESAME_SERVER` :  
`setenv SESAME_SERVER cds` (see in `cds/httpd/Venv` file of each mirror)
- locally : (as CfA) sesame query is done locally.

**Logs** :

File	Explanation
<code>/home/cds/httpd/logs/sesame.log</code>	Sesame log

## 5 The database server

Url : newviz.u-strasbg.fr

### 5.1 System informations

newviz is used as :

- database server
- test vizier web server

Services :

Name	Explanations	Start/Stop script	Config. dir
apache	web server (for Readme queries)	/etc/init.d/apache2	/etc/apache2
glu	HTML tag server	/home/cds/glud	/home/cds/glu
sybase	Sybase database server	/home/sybase/ASE-12.5/install/RUN_NEWVIZ	

Logs :

File	Explanation
/usr/sybase/ASE-12.5/install/NEWVIZ.log	sybase log

System user accounts :

User	Password
cds	asu4VizieR
root	la*,7viz

### 5.2 The Database stuff

The database list :

- metaviz (the META database)
- viz1,viz2,viz3,viz4,viz5,viz6
- vizA,vizB,vbig : large databases containing bigger catalogs (not present in all mirror)

Database user accounts :

User	Password	
asu	asu4VizieR	simple database user (read only)
pipecat	popuViz04	user with write rigths

To connect on the database, do :

```
isql -Uasu -Pasu4VizieR -I/home/cds/interfaces -SNEWVIZ
```

**Maintenance actions :**

- You can have a brief report of the database status with command :  
~francois/sybase/sp\_report
- the sybase crontab does some maintenance of the database as to dump the transactions every day.

We will now list some errors that should happend and how to repair them.

**1. Queries aborts or are too long**

May be some tables or database are locked.

Connect on database, and next do :

```
sp_lock
go
```

You can see the locks in the databases listed before. Wait a while for the end of queries which locks tables. But take in mind, that the time of locks should not be more long than one minute. If query doesn't finish, you have to kill the query :

**Becarefull : take care of dbname field. Only dbname as metaviz, vizX or vbig are used in VizieR ; no action must be done for other dbname !**

First connect with sa user :

```
isql -Usa -Pnewviz -SNEWVIZ -I/home/cds/interfaces
```

```
kill spid
go
```

Where spid is the id of the query you want to kill.

**2. The transaction log in database tempdb is almost full. Your transaction is being suspended until space is made available in the log.**

The tempdb is full.

Try to connect with sa user on database (see before). Next, launch the command :

```
dump tran tempdb with no_log
go
```

**3. All database is off. Even connection with dba user aborts**

The tempdb database may be full. Restart the database.



**4. No space left in a database**

The logs of database are full. Connect on database with user pipecat, next do :

```
dump tran databasename with truncate_only  
go
```

## 6 Dealing with mirrors

**List of VizieR mirrors :**

Mirror	State	Url	User	Password
CDS	France	<a href="http://vizier.u-strasbg.fr">http://vizier.u-strasbg.fr</a>	cds	asu4VizieR
ADAC	Japan	<a href="http://vizier.nao.ac.jp/vizier/">http://vizier.nao.ac.jp/vizier/</a>	cds	size=2000
CADC	Canada	<a href="http://vizier.hia.nrc.ca/vizier/">http://vizier.hia.nrc.ca/vizier/</a>	cds	@cadc4DD
Cambridge	UK	<a href="http://vizier.ast.cam.ac.uk/vizier/">http://vizier.ast.cam.ac.uk/vizier/</a>	cds	inUK4Jim
IUCAA	India	<a href="http://vizier.iucaa.ernet.in/vizier/">http://vizier.iucaa.ernet.in/vizier/</a>	cds	cds4ajit
INASAN	Russia	<a href="http://vizier.inasan.ru/vizier/">http://vizier.inasan.ru/vizier/</a>	cds	inR4Olga
Beijing Obs.	China	<a href="http://data.bao.ac.cn/vizier/">http://data.bao.ac.cn/vizier/</a>	cds	inCn4Guo
CFA	USA	<a href="http://vizier.cfa.harvard.edu/vizier/">http://vizier.cfa.harvard.edu/vizier/</a>	cds	@cfa4Viz
JAC	USA (Hawai)	<a href="http://www.ukirt.jach.hawaii.edu/vizier/">http://www.ukirt.jach.hawaii.edu/vizier/</a>	cds	inH4Kynan

**Database access :**

You can find the type of database (PostgreSQL or Sybase) at url :  
<http://cdsarc.u-strasbg.fr/spv-bin/VcloneStatusAll.cgi>

You can connect the mirror database from the CDS server with cds account or directly on the mirror server.

Connection for a PostgreSQL server : (password asu4VizieR) `psql -Uasu vizier`

Connection for a Sybase server : `isql -Uasu -Pasu4VizieR -I cds/Interfaces -Sservername`  
 (find the servername int file `cds/Interfaces`)

**Mirroring process :** (launched by crontab)

You can find the result of the mirrors process at url :  
<http://cdsarc.u-strasbg.fr/spv-bin/Vclone.cgi>

The mirroring uses :

- Clone script : see under `cds/src/vizclone`
- `rsync` : (connection to cdsarc) for FTP and web pages files
- remote connection on `newviz` : with the database API or `aclient` (uses port 1660 on `newviz`)

**Maintenance action :**

If a mirror have some troubles, you can deactivate it!

To deactivate a mirror, open the file `cds/httpd/Venv` and add (or change if exist) :

```
setenv METADB "metaviz@VIZIR asu asu4VizieR"
(here VIZIR, but you can use an other database which is on ~cds/interfaces file)
Next, launch the command: ~cds/bin/COUNTS
```