

SIMBAD - Mise à jour via COSIM à partir des tables

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I. *La construction du contenu de la base de données SIMBAD*

➤ *à partir des tables*

➤ *grandes*

➤ *petites*



➤ *outils informatiques*

➤ *AWK* : langage de gestion des fichiers

➤ *COSIM* : programme maison de Comparaison d'Objets pour Simbad

II. CDS – services



III. Le métier de documentaliste scientifique au CDS

La construction du contenu de la base de données SIMBAD





La construction du contenu de la base de données SIMBAD



Basic data :

M 31 -- Galaxy

Other object types: **LIN** (), **G** (LEDA, 2MASX, MCG, UGC, UZC, Z, [M98c]), **AGN** ([V2000c], [VV2003c], [VV98c]), **Rad** (2C, DA, [DGW65]), **IR** (IRAS (XSS))

ICRS coord. (ep=J2000) : **00 42 44.330 +41 16 07.50 (Infrared) [~ ~ ~] B 2006AJ....131.11635**

FK5 coord. (ep=J2000 eq=2000) : **00 42 44.330 +41 16 07.50 (Infrared) [~ ~ ~] B 2006AJ....131.11635**

FK4 coord. (ep=B1950 eq=1950) : **00 40 00.09 +40 59 41.7 (Infrared) [~ ~ ~] B 2006AJ....131.11635**

Gal coord. (ep=J2000) : **121.1743 -21.5733 (Infrared) [~ ~ ~] B 2006AJ....131.11635**

Radial velocity / Redshift / cz : **V(km/s) -300.0 [4.0] / z(spectroscopic) -0.001000 [0.000013] / cz -299.85 [4.00] (-) 2012AJ....144....4H**

Morphological type: **SA(s)b D 2013AJ....146....67B**

Angular size (arcmin): **129 25 45 (-) (-) C ~**

Fluxes (6) :

U 4.86 [0.03] D **2007ApJS...173..185G**
B 4.36 [0.02] D **2007ApJS...173..185G**
V 3.44 [0.03] D **2007ApJS...173..185G**
J 2.094 [0.016] C **2006AJ....131.11635**
H 1.283 [0.017] C **2006AJ....131.11635**
K 0.984 [0.017] C **2006AJ....131.11635**

essential notes: • See GALEX UV data in [GALEX data](#) [01-Oct-2009].

Hierarchy : number of linked objects whatever the membership probability is (see description [here](#)) :

parents : 3 children : 7603 siblings : 18 Display criteria : All

Identifiers (29) :

M 31	LEDA 2557	RAFGL 104
2C 56	2MASX J00424433+4116074	UGC 454
DA 21	MCG +07-02-016	UZC J004244.3+411608
GIN 801	NAME ANDROMEDA NEBULA	XSS J00425+4102
IRAS F00400+4059	NAME ANDROMEDA	Z 535-17
IRAS 00400+4059	NAME ANDROMEDA Galaxy	Z 0040.0+4100

tions that the distance is not limited to the zero-velocity surface of the Local Group (R_{LG}).

The ensuing discussion will focus on dwarf galaxies. Of the 102 galaxies that are listed in the subsequent tables, virtually no discussion will be given to the MW and M31, and numbers relating to M33, NGC 55, and NGC 300 are included for completeness only. The same caveat applies to the Magellanic Clouds, since here the research body and available data are

satisfy the selection criteria discussed in the previous section.

- Column 1. Galaxy name.
- Column 2. Common alternative names.
- Column 3. Indicator whether they are associated with MW [G], M31 [A], the Local Group [L], or are nearby neighbors [N].
- Column 4. Morphological (Hubble) type. The distinction between dwarf elliptical (dE) and dwarf spheroidal (dSph) is based

THE ASTRONOMICAL JOURNAL, 144:4 (36pp), 2012 July

La construction du contenu de la base de données SIMBAD



Basic data :

M 31 -- Galaxy

Other object types: LIR (), G (LEDA, 2MASX, MCG, UGC, UZC, Z, [M98c]), AGN ([VV2000c], [VV2003c], [VV98c]), Rad (2C, DA, [DGW65]), IR (IRz (XSS))

ICRS coord. (ep=j2000) : 00 42 44.330 +41 16 07.50 (Infrared) [- - -] B 2006AJ....131.11635

FK5 coord. (ep=j2000 eq=2000) : 00 42 44.330 +41 16 07.50 (Infrared) [- - -] B 2006AJ....131.11635

FK4 coord. (ep=B1950 eq=1950) : 00 40 00.09 +40 59 41.7 (Infrared) [- - -] B 2006AJ....131.11635

Gal coord. (ep=j2000) : 121.1743 -21.5733 (Infrared) [- - -] B 2006AJ....131.11635

Radial velocity / Redshift / cz : V(km/s) -300.0 [4.0] / z(spectroscopic) -0.001000 [0.000013] / cz -299.85 [4.00] (-) 2012AJ....144....4M

Morphological type: SA(s)b D 2012AJ....146....678

Angular size (arcmin): 129 25 45 (-) (-) C -

Fluxes (6) : U 4.86 [0.03] D 2007ApJS...173...1856
B 4.36 [0.02] D 2007ApJS...173...1856
V 3.44 [0.03] D 2007ApJS...173...1856
J 2.094 [0.016] C 2006AJ....131.11635
H 1.283 [0.017] C 2006AJ....131.11635
K 0.984 [0.017] C 2006AJ....131.11635

essential notes: • See GALEX UV data in [GALEX data](#) [01-Oct-2009].

Hierarchy : number of linked objects whatever the membership probability is (see description [here](#)) :

parents : 3 children : 7603 siblings : 18 Display criteria : All

Identifiers (29) :

H 31	LEDA 2557	RAFGL 104
ZC 56	2MASX J00424433+4116074	UGC 454
DA 21	MCG+07-02-016	UZC J004244.3+411608
GIN 801	NAME ANDROHEDA NEBULA	ZSS J00425+4102
IRAS F00400+4059	NAME ANDROHEDA	Z 535-17
IRAS 00400+4059	NAME ANDROHEDA Galaxy	Z 0040.0+4100

2012AJ....144....4M - Astron. J., 144, 4 (2012) - 29.06.12 04.02.14 July 2012 20

The observed properties of dwarf galaxies in and around the Local Group.
McCONNACHIE A.W.

Abstract (from CDS): Positional, structural, and dynamical parameters for a sample of 100 nearby dwarf galaxies that have distance estimates from the satellite systems of the MW and M31, to the quasi-isolated dwarfs in the Local Group, such as Maffei, Sculptor, and the Local Group, are discussed. Over the coming years with existing and future observational capabilities, additional parameters, such as distances, velocities, magnitudes, mean metallicity, will be continually updated to provide a convenient and current online resource for the study of the MW sub-group, M31 sub-group, and the Local Group. This resource is available in the context of their orbital/interaction histories. The scaling relations (and, more speculatively, stellar mean metallicity) at faint magnitudes is con

Abstract Copyright: American Astronomical Society 2012

Journal keyword(s): catalogs - galaxies: dwarf - galaxies: fundamental parameters

VizieR on-line data: <Available at CDS ([J/AJ/144/4](#)): table1.dat table2.dat table3.dat table4.dat table5.dat>

Simbad objects (120)

Link(s): [Full paper ADS services](#)

2012AJ....144....4M

Astron. J., 144, 4 (2012)

The observed properties of dwarf galaxies in and around the Local Group.

McCONNACHIE A.W.

Comments & notes:

CDS status: being processed

flags: (abstract)

files: <Available at CDS: table1.dat table2.dat table3.dat table4.dat table5.dat refs.dat>

CDS comment:

=q1=+ en cours MiB [q0] Tables 1-5 (objets deja rattaches). (q)Arnaud, ajout id NAME NUBECULA MAJOR sur LMC. NAME CVN II DWARF GALAXY = EQ J1257+3419 -ES-30/07/12. // 82 cit. Catalogue des galaxies naines membres du groupe local (NAME Local Group). Hierarchie en fonction de la colonne n : si n=G, 100% B avec NAME Local Group et avec NAME MW Group; si n=A, 100% B avec NAME Local Group et avec NAME M31 Group; si n=L, 100% B avec NAME Local Group; si n=N, 0% B avec NAME Local Group. Mettre a jour les types morphologiques, les HRV, et la mag V, en DF. (Reunions 27-28/01/2014) //



La construction du contenu de la base de données SIMBAD



Basic data :

M 31 -- Galaxy

Other object types: LTH (), G (LEDA, 2MASX, MCG, UGC, Z, [M98c]), AGN ([VV2000c], [VV2003c], [VV98c]), Rad (2C, DA, [DGW65]), IR (IRV (XSS))
 00 42 44.330 +41 16 07.50 (Infrared) [- - -] B 2006AJ...131.11635
 ICRS coord. (ep=J2000) : 00 42 44.330 +41 16 07.50 (Infrared) [- - -] B 2006AJ...131.11635
 FK5 coord. (ep=J2000 eq=2000) : 00 40 00.09 +40 59 41.7 (Infrared) [- - -] B 2006AJ...131.11635
 Gal coord. (ep=J2000) : 121.1743 -21.5733 (Infrared) [- - -] B 2006AJ...131.11635
 Radial velocity / Redshift / cz : V(km/s) -300.0 [4.0] / z(spectroscopic) -0.001000 [0.000013] / cz -299.85 [4.00] (-) 2012AJ...144...4M
 Morphological type: SA(s)b D 2013AJ...146...67B
 Angular size (arcmin): 129 25 45 (-) (-) C -
 Fluxes (G) :
 U 4.86 [0.03] D 2007ApJS...173...185G
 B 4.36 [0.02] D 2007ApJS...173...185G
 V 3.44 [0.03] D 2007ApJS...173...185G
 J 2.094 [0.016] C 2006AJ...131.11635
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essential notes: • See GALEX UV data in [GALEX data](#) [01-Oct-2009].

Hierarchy : number of linked objects whatever the membership probability is (see description [here](#)) :

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2C 56	2MASX J00424433+4116074	UGC 454
DA 21	MCG+07-02-016	UGC 3004244.3+411608
CGR 801	NAME ANDROMEDA NEBULA	XSS 300425+4102
IRAS F00400+4059	NAME ANDROMEDA	Z S25-17
IRAS 00400+4059	NAME ANDROMEDA Galaxy	Z 0040.0+4100

2012AJ...144...4M

The observed properties of dwarf galaxies in and around the Local Group (McConnachie et al. 2012)

Abstract (from CDS): Positional, structural, and dynamical parameters for sample are discussed. Over 100 nearby galaxies that have distance estimates of the satellite systems of the MW and M31, to the quasi-isolated dwarfs in the Local Group associated with the next nearest groups, such as Maffei, Sculptor, and the Local Group, are presented. Over the coming years with existing and future observational capabilities, additional parameters, such as distances, velocities, magnitudes, mean metallicity, will be continually updated to provide a convenient and current online resource. The extent of the MW sub-group, M31 sub-group, and the Local Group are explored in the context of their orbital/interaction histories. The scaling relations (and, more speculatively, stellar mean metallicity) at faint magnitudes is compared to the Local Group.

Abstract Copyright: American Astronomical Society 2012
Journal keyword(s): catalogs - galaxies: dwarf - galaxies: fundamental parameters
VizieR on-line data: <Available at CDS ([J/AJ/144/4](#)): table1.dat table2.dat table3.dat>
Simbad objects (120)
Link(s): [Full paper ADS services](#)



Catalog Selection Page

new The [AIWISSE](#) and [CMC15](#) catalogues are available in VizieR.

Radial ID: Properties of dwarf galaxies in the Local Group (McConnachie+, 2012) [Similar Catalogs](#) [2012AJ...144...4M](#) [ReadMe+ftp](#)


[J/AJ/144/4/catalog](#) (c) Catalog of the observed properties of dwarf galaxies in and around the Local Group (tables 1-5 of paper) (102 rows)

[J/AJ/144/4/refs](#) References (320 rows)

ALL

Standardized Description of the Catalogue ReadMe

La construction du contenu de la base de données SIMBAD



2012AJ...144...4M - *Astron. J.*, 144, 4 (2012) - 20.06.12 04.02.14 July 2012 2x

The observed properties of dwarf galaxies in and around the Local Group (McConnachie et al. 2012).

Abstract (from CDS): Positional, structural, and dynamical parameters for a sample are discussed. Over 100 nearby galaxies that have distance estimates from the satellite systems of the MW and M31, to the quasi-isolated dwarfs in the Local Group, are presented in this paper. The parameters are derived from the galaxies associated with the next nearest group, such as Maffei 3, Sculptor, etc., over the coming years with existing and future observational capabilities; as observational parameters, such as distances, velocities, magnitudes, mean metallicity, etc., are derived from the galaxies themselves. The parameters are derived from the galaxies themselves and are continuously updated to provide a convenient and current online resource. The extent of the MW sub-group, M31 sub-group, and the Local Group are explored in the context of their orbital/interaction histories. The scaling relations (and, more speculatively, stellar mean metallicity) at faint magnitudes is also discussed.

Abstract Copyright: American Astronomical Society 2012

Journal keyword(s): catalogs - galaxies - dwarf galaxies - fundamental parameters

VizieR on-line data: <Available at cds.u-strasbg.fr/vizier/doc/vizie2.dat.txt>

Simbad objects: 1200

Link(s): Full paper ADS services

Catalog Selection Page

new The [AIIWISE](#) and [CMC15](#) catalogues are available in VizieR.

J/AJ/144/4 Properties of dwarf galaxies in the Local Group (McConnachie+, 2012) [Similar Catalogs](#) [2012AJ...144...4M](#) [ReadMe+ftp](#)

<input type="checkbox"/>	J/AJ/144/4/catalog	(c) Catalog of the observed properties of dwarf galaxies in and around the Local Group (<i>tables 1-5 of paper</i>) (102 rows)
<input type="checkbox"/>	J/AJ/144/4/refs	References (320 rows)
<input type="checkbox"/>	ALL	

Reset All Query selected Tables Join selected Tables

Standardized Description of the Catalogue ReadMe

[J/AJ/144/4/catalog](#) [Post annotation](#)

[Properties of dwarf galaxies in the Local Group \(McConnachie+, 2012\)](#)
Catalog of the observed properties of dwarf galaxies in and around the Local Group (*tables 1-5 of paper*) (**102 rows**)

Index de <ftp://cdsarc.u-strasbg.fr/pub/cats/J/AJ/144/4/>

start [AladinLite](#)

Full	RAJ2000	DEJ2000	SubG	n	Name	MType	RAJ2000	DEJ2000	D	u	HRV	f	D(MW)	V(l)
	"h.m.s"	"d.m.s"					"h.m.s"	"d.m.s"	kpc		km/s		kpc	k
1	17 45 40.0	-29 00 28	MW	G	The Galaxy	S(B)bc	17 45 40.0	-29 00 28						
2	07 12 35.0	-27 40 00	MW	G	Canis Major	????	07 12 35.0	-27 40 00	7		87.0 c		13	
3	18 55 19.5	-30 32 43	MW	G	Sagittarius dSph	dSph	18 55 19.5	-30 32 43	26		140.0		18	
4	10 07 04.0	+16 04 55	MW	G	Segue (I)	dSph	10 07 04.0	+16 04 55	23		208.5		28	
5	08 51 30.0	+63 07 48	MW	G	Ursa Major II	dSph	08 51 30.0	+63 07 48	32		-116.5		38	
6	13 58 00.0	+12 51 00	MW	G	Bootes II	dSph	13 58 00.0	+12 51 00	42		-117.0		40	
7	02 19 16.0	+20 10 31	MW	G	Segue II	dSph	02 19 16.0	+20 10 31	35		-39.2		41	
8	10 49 21.0	+51 03 00	MW	G	Willman 1	dSph	10 49 21.0	+51 03 00	38		-12.3		43	

Vers un rép. de plus haut niveau

- Nom
- +footg5.gif
 - +footg8.gif
 - ReadMe
 - refs.dat
 - table1.dat
 - table2.dat
 - table3.dat
 - table4.dat
 - table5.dat

Taille	Dernière modifcat	
1 KB	22.09.2013	00:00:0
4 KB	22.09.2013	00:00:0
27 KB	22.09.2013	00:00:0
15 KB	03.09.2013	00:00:0
13 KB	02.09.2013	00:00:0
14 KB	22.09.2013	00:00:0
16 KB	22.09.2013	00:00:0
17 KB	22.09.2013	00:00:0
9 KB	03.09.2013	00:00:0

La construction du contenu de la base de données SIMBAD

ReadMe : fichier texte décrivant les tables et leur contenu

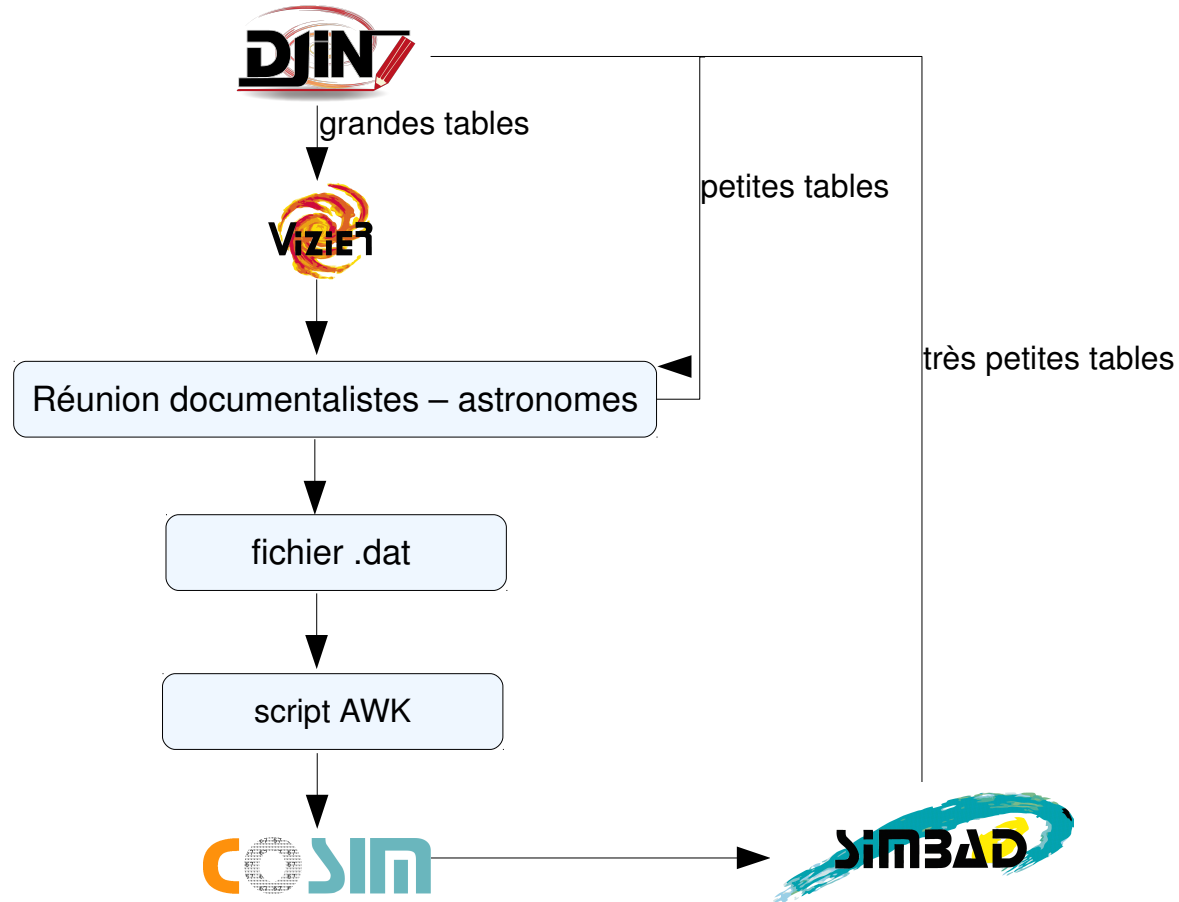
```

-----
Byte-by-byte Description of file: table2.dat
-----
Bytes Format Units Label Explanations
-----
1- 29 A29 --- Name Galaxy name
31 A1 --- f_Name [bk] Flag on Name (5)
33- 37 F5.1 deg GLON ? Galactic longitude l
39- 43 F5.1 deg GLAT ? Galactic latitude b
45- 49 F5.3 mag E(B-V) ? Foreground extinction (6)
51- 55 F5.2 mag (m-M) ? Distance modulus (m-M)_0_ (7)
57- 58 A2 --- u_(m-M) [:lbk ] Uncertain or fixed distance (5)
61- 64 F4.2 mag E_(m-M) ? Positive error in (m-M)
66- 69 F4.2 mag e_(m-M) ? Negative error in (m-M)
71- 74 I4 kpc D ? Heliocentric distance (7)
76 A1 --- u_D [:] Uncertainty flag on D
78- 80 I3 kpc E_D ? Positive error in D
82- 84 I3 kpc e_D ? Negative error in D
86- 91 F6.1 km/s HRV ? Heliocentric radial velocity (9)
93 A1 --- f_HRV [cdfmpr] Flag on HRV (10)
95- 98 F4.1 km/s e_HRV ? Error in HRV
100-103 I4 kpc D(MW) ? Distance for the Galactocentric (MW) frame
of reference (10)
105-108 I4 km/s V(MW) ? Velocity for the Galactocentric (MW) frame
of reference (10)
110-113 I4 kpc D(M31) ? Distance for the M31 frame of reference (10)
115-118 I4 km/s V(M31) ? Velocity for the M31 frame of reference (10)
120-123 I4 kpc D(LG) ? Distance for the Local Group frame of
reference (10)
125-128 I4 km/s V(LG) ? Velocity for the Local Group frame of
reference (10)
130-134 A5 --- Ref2 Reference, in refs.dat file
136 A1 --- f_Ref2 Details on Ref2 (8)
    
```

table2.dat : fichier de données (.data)

The Galaxy																			
Canis Major	b	240.0	-8.0	0.264	14.29	b	0.30	0.30	7	1	1	87.0	c	4.0					
Sagittarius dSph		5.6	-14.2	0.153	17.10		0.15	0.15	26	2	2	140.0		2.0					
Segue (I)		220.5	+50.4	0.031	16.80		0.20	0.20	23	2	2	208.5		0.9					
Ursa Major II		152.5	+37.4	0.094	17.50		0.30	0.30	32	4	4	-116.5		1.9					
Bootes II		353.7	+68.9	0.031	18.10		0.06	0.06	42	1	1	-117.0		5.2					
Segue II		149.4	-38.1	0.185	17.70		0.10	0.10	35	2	2	-39.2		2.5					
Willman 1		158.6	+56.8	0.014	17.90		0.40	0.40	38	7	7	-12.3		2.5					
Coma Berenices		241.9	+83.6	0.017	18.20		0.20	0.20	44	4	4	98.1		0.9					
Bootes III		35.4	+75.4	0.021	18.35		0.1	0.1	47	2	2	197.5		3.8					
LMC		280.5	-32.9	0.926	18.52		0.09	0.09	51	2	2	262.2	d	3.4					
SMC		302.8	-44.3	0.419	19.03		0.12	0.12	64	4	4	145.6	f	0.6					
Bootes (I)		358.1	+69.6	0.017	19.11		0.08	0.08	66	2	2	99.0		2.1					
Draco		86.4	+34.7	0.027	19.40		0.17	0.17	76	6	6	-291.0		0.1					
Ursa Minor		105.0	+44.8	0.032	19.40		0.10	0.10	76	3	3	-246.9		0.1					
Sculptor		287.5	-83.2	0.018	19.67		0.14	0.14	86	6	6	111.4		0.1					
Sextans (I)		243.5	+42.3	0.047	19.67		0.10	0.10	86	4	4	224.2		0.1					
Ursa Major (I)		159.4	+54.4	0.020	19.93		0.10	0.10	97	4	4	-55.3		1.4					
Carina		260.1	-22.2	0.061	20.11		0.13	0.13	105	6	6	222.9		0.1					
Hercules		28.7	+36.9	0.063	20.60		0.20	0.20	132	12	12	45.2		1.1					
Fornax		237.1	-65.7	0.021	20.84		0.18	0.18	147	12	12	55.3		0.1					
Leo IV		264.4	+57.4	0.026	20.94		0.09	0.09	154	6	6	132.3		1.4					
Canes Venatici II		113.6	+82.7	0.010	21.02		0.06	0.06	160	4	4	-128.9		1.2					
Leo V		261.9	+58.5	0.027	21.25		0.12	0.12	178	10	10	173.3		3.1					
Pisces II		79.2	-47.1	0.065	21.30	:			182	:									
Canes Venatici (I)		74.3	+79.8	0.014	21.69		0.10	0.10	218	10	10	30.9		0.6					
Leo II		220.2	+67.2	0.017	21.84		0.13	0.13	233	14	14	78.0		0.1					
Leo I		226.0	+49.1	0.036	22.02		0.13	0.13	254	15	15	282.5		0.1					
Andromeda		121.2	-21.6	0.684	24.47		0.07	0.07	783	25	25	-300.0		4.0					

La construction du contenu de la base de données SIMBAD



La construction du contenu de la base de données SIMBAD

- Vi = éditeur de texte écrit par Bill Joy en 1976 sur une des premières versions de la distribution Unix BSD

- présent d'office sur la majorité des systèmes Unix actuels
- chacune des actions se fait à l'aide de commandes texte
- vi nom_du_fichier
- autres éditeurs de texte sous Linux : Emacs et pico)

La construction du contenu de la base de données SIMBAD

```
BEGIN {
#table Vizier? ajouter le FS="|"
FS="|"
#Bibcode
print ".B 2012AJ....144....4M"
print ""
}
{
if($35!~/The Galaxy/){
#identificateur
print "%I.0 "$35
print "%I.R "$3

#coordonnées
print "%J "$5" "$6

#types morphologiques
if($4!~/^ *$/ && $4!~/^ *\?/) print "%T " $4 "D 2012AJ....144....4M"

#vitesse radiale
if($9!~/^ *$/) print "%V v:s " $9 " [" $11 "]" C 2012AJ....144....4M"

#magnitude
if($17!~/^ *$/) {
    if($19>=$20) print "%M V "$17 ["$19"] D 2012AJ....144....4M"
    else if($19<$20) print "%M V "$17 ["$20"] D 2012AJ....144....4M"
}

#hierarchie
if($2~/G/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME MW Group!, 100 B 2012AJ....144....4M"
}
else if($2~/A/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME M31 Group!, 100 B 2012AJ....144....4M"
}
else if($2~/N/) print "%H.p NAME Local Group!, 0 B 2012AJ....144....4M"

print ""
}
}
```

← Exemple de programme script :

- éditeur de texte vi
- langage de programmation AWK
 - langage de traitement de lignes, disponible sur la plupart des systèmes Unix
 - la syntaxe de base est la même que celle du langage C

La construction du contenu de la base de données SIMBAD

```
BEGIN {
#table VizieR? ajouter le FS="|"
FS="|"
#Bibcode
print ".B 2012AJ....144....4M"
print ""
}
{
if($3!~/The Galaxy/){
#identificateur
print "%I.0 "$35
print "%I.R "$3

#coordonnées
print "%J "$5 "$6

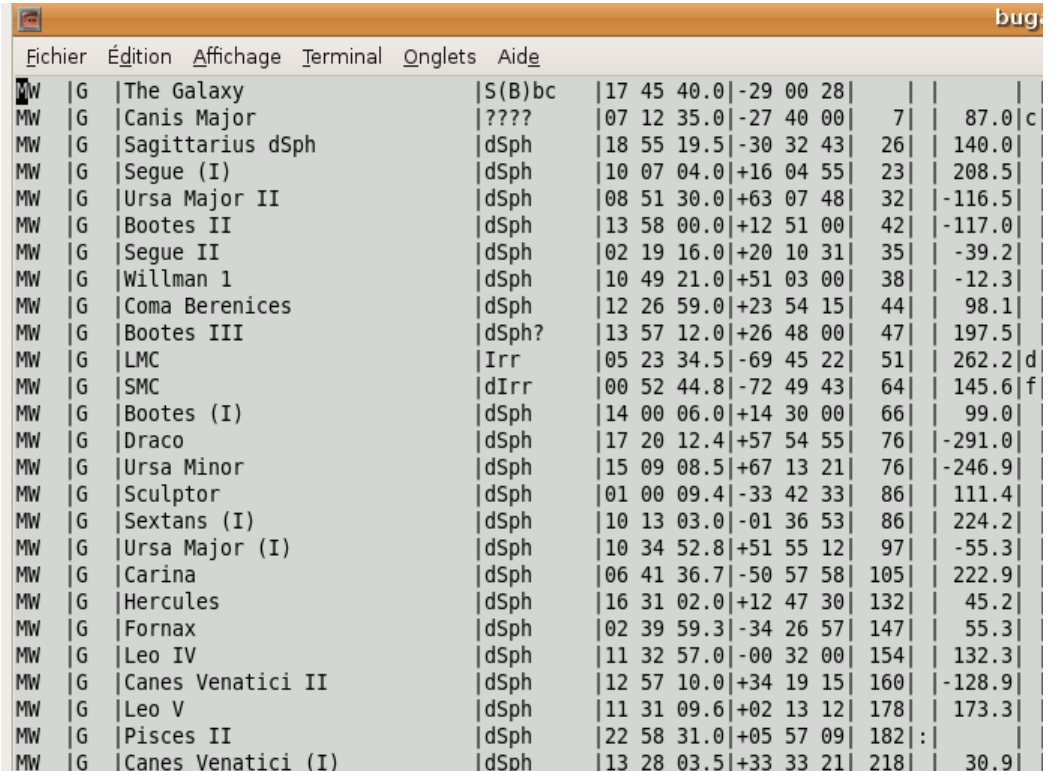
#types morphologiques
if($4!~/^ *$/ && $4!~/^ *\/) print "%T " $4 "D 2012AJ....144....4M"

#vitesse radiale
if($9!~/^ *$/) print "%V v:s " $9 " [" $11 "]" C 2012AJ....144....4M"

#magnitude
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if($2~/G/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME MW Group!, 100 B 2012AJ....144....4M"
}

print ""
}
}
```



MW	G	The Galaxy	S(B)bc	17 45 40.0 -29 00 28					
MW	G	Canis Major	????	07 12 35.0 -27 40 00	7	87.0	c		
MW	G	Sagittarius dSph	dSph	18 55 19.5 -30 32 43	26	140.0			
MW	G	Segue (I)	dSph	10 07 04.0 +16 04 55	23	208.5			
MW	G	Ursa Major II	dSph	08 51 30.0 +63 07 48	32	-116.5			
MW	G	Bootes II	dSph	13 58 00.0 +12 51 00	42	-117.0			
MW	G	Segue II	dSph	02 19 16.0 +20 10 31	35	-39.2			
MW	G	Willman 1	dSph	10 49 21.0 +51 03 00	38	-12.3			
MW	G	Coma Berenices	dSph	12 26 59.0 +23 54 15	44	98.1			
MW	G	Bootes III	dSph?	13 57 12.0 +26 48 00	47	197.5			
MW	G	LMC	Irr	05 23 34.5 -69 45 22	51	262.2	d		
MW	G	SMC	dIrr	00 52 44.8 -72 49 43	64	145.6	f		
MW	G	Bootes (I)	dSph	14 00 06.0 +14 30 00	66	99.0			
MW	G	Draco	dSph	17 20 12.4 +57 54 55	76	-291.0			
MW	G	Ursa Minor	dSph	15 09 08.5 +67 13 21	76	-246.9			
MW	G	Sculptor	dSph	01 00 09.4 -33 42 33	86	111.4			
MW	G	Sextans (I)	dSph	10 13 03.0 -01 36 53	86	224.2			
MW	G	Ursa Major (I)	dSph	10 34 52.8 +51 55 12	97	-55.3			
MW	G	Carina	dSph	06 41 36.7 -50 57 58	105	222.9			
MW	G	Hercules	dSph	16 31 02.0 +12 47 30	132	45.2			
MW	G	Fornax	dSph	02 39 59.3 -34 26 57	147	55.3			
MW	G	Leo IV	dSph	11 32 57.0 -00 32 00	154	132.3			
MW	G	Canes Venatici II	dSph	12 57 10.0 +34 19 15	160	-128.9			
MW	G	Leo V	dSph	11 31 09.6 +02 13 12	178	173.3			
MW	G	Pisces II	dSph	22 58 31.0 +05 57 09	182				
MW	G	Canes Venatici (I)	dSph	13 28 03.5 +33 33 21	218	30.9			

- **BEGIN {}** : bloc d'instructions à exécuter avant la lecture du premier enregistrement
 - variable globale (prédéfinie) FS : le caractère qui sépare les champs (**F**ield **S**eparator) est ici | : (par défaut espace)
- **{}** : blocs d'instructions à exécuter durant la lecture du fichier, à chaque enregistrement
 - instructions exécutées séquentiellement sur les lignes du fichier de données (les galaxies avec les mesures de coordonnées, vitesse radiale, etc)

La construction du contenu de la base de données SIMBAD

```
BEGIN {
#table VizieR? ajouter le FS="|"
FS="|"
#Bibcode
print ".B 2012AJ....144....4M"
print ""
}
{
if($3!~/The Galaxy/){
#identificateur
print "%I.0 "$35
print "%I.R "$3 ←
#coordonnées
print "%J "$5 "$6 ←
#types morphologiques
if($4!~/^ *$/ && $4!~/^ *\?/) print "%T " $4 "D 2012AJ....144....4M"
#vitesse radiale
if($9!~/^ *$/) print "%V v:s " $9 " [" $11 "]" C 2012AJ....144....4M"
#magnitude
if($17!~/^ *$/) {
if($19>=$20) print "%M V "$17 ["$19"] D 2012AJ....144....4M"
else if($19<$20) print "%M V "$17 ["$20"] D 2012AJ....144....4M"
}
#hierarchie
if($2~/G/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME MW Group!, 100 B 2012AJ....144....4M"
}
print ""
}
}
```

Objet	Type	S(B)bc	17	45	40.0	-29	00	28	7	87.0
MW G The Galaxy	G	S(B)bc	17	45	40.0	-29	00	28	7	87.0
MW G Canis Major	G	????	07	12	35.0	-27	40	00	26	140.0
MW G Sagittarius dSph	G	dSph	18	55	19.5	-30	32	43	23	208.5
MW G Segue (I)	G	dSph	10	07	04.0	+16	04	55	32	-116.5
MW G Ursa Major II	G	dSph	08	51	30.0	+63	07	48	42	-117.0
MW G Bootes II	G	dSph	13	58	00.0	+12	51	00	35	-39.2
MW G Segue II	G	dSph	02	19	16.0	+20	10	31	38	-12.3
MW G Willman 1	G	dSph	10	49	21.0	+51	03	00	44	98.1
MW G Coma Berenices	G	dSph	12	26	59.0	+23	54	15	47	197.5
MW G Bootes III	G	dSph?	13	57	12.0	+26	48	00	51	262.2
MW G LMC	G	Irr	05	23	34.5	-69	45	22	64	145.6
MW G SMC	G	dIrr	00	52	44.8	-72	49	43	66	99.0
MW G Bootes (I)	G	dSph	14	00	06.0	+14	30	00	76	-291.0
MW G Draco	G	dSph	17	20	12.4	+57	54	55	76	-246.9
MW G Ursa Minor	G	dSph	15	09	08.5	+67	13	21	86	111.4
MW G Sculptor	G	dSph	01	00	09.4	-33	42	33	86	224.2
MW G Sextans (I)	G	dSph	10	13	03.0	-01	36	53	97	-55.3
MW G Ursa Major (I)	G	dSph	10	34	52.8	+51	55	12	105	222.9
MW G Carina	G	dSph	06	41	36.7	-50	57	58	132	45.2
MW G Hercules	G	dSph	16	31	02.0	+12	47	30	147	55.3
MW G Fornax	G	dSph	02	39	59.3	-34	26	57	154	132.3
MW G Leo IV	G	dSph	11	32	57.0	-00	32	00	160	-128.9
MW G Canes Venatici II	G	dSph	12	57	10.0	+34	19	15	178	173.3
MW G Leo V	G	dSph	11	31	09.6	+02	13	12	182	:
MW G Pisces II	G	dSph	22	58	31.0	+05	57	09	218	30.9
MW G Canes Venatici (I)	G	dSph	13	28	03.5	+33	33	21		

- les champs sont référencés par \$1, \$2, ..., \$NF (dernier champ)
 - \$3 : champ 3, le nom de l'objet
 - \$5 et \$6 : champ 5 et 6, les coordonnées de l'objet
- des structures de contrôle sont utilisées pour répéter la même tâche sur des données successives
 - if... else... ; while

```
while ((getline < "sdss_out") > 0) {
if ($0 ~ /^#Center/)
center = substr($0,10)
gsub(/ *,"/, "", center)
if ($0 ~ /^1/) {
```

La construction du contenu de la base de données SIMBAD

```
BEGIN {
#table Vizier? ajouter le FS="|"
FS="|"
#Bibcode
print ".B 2012AJ....144....4M"
print ""
}
{
if($35!~/The Galaxy/){
#identificateur
print "%I.0 "$35
print "%I.R "$3
#coordonnées
print "%J "$5" "$6
#types morphologiques
if($4!~/^ *$/ && $4!~/^ *\?/) print "%T " $4 "D 2012AJ....144....4M"
#vitesse radiale
if($9!~/^ *$/) print "%V v:s " $9 " [" $11 "]" C 2012AJ....144....4M"
#magnitude
if($17!~/^ *$/) {
if($19>=$20) print "%M V "$17" ["$19"] D 2012AJ....144....4M"
else if($19<$20) print "%M V "$17" ["$20"] D 2012AJ....144....4M"
}
#hierarchie
if($2~/G/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME MW Group!, 100 B 2012AJ....144....4M"
}
print ""
}
}
```

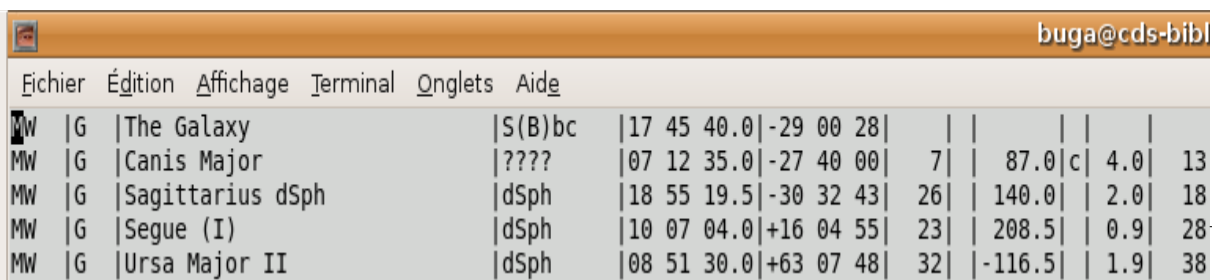
- traitement des chaînes de caractères
- ▶ expressions régulières
 - ^ début ; \$ fin
 - * répétition 0 fois ou plus
 - on met un \ devant certains caractères qui ne peuvent être utilisés directement : \?
- ▶ opérateurs logiques (les mêmes que en C) : && (et); || (ou); ! (non)
- ▶ les commentaires commencent par #

fonctions prédéfinies

```
while ((getline < "sdss_out") > 0) {
if ($0 ~ /^#Center/)
center = substr($0,10)
gsub(/ *,",",center)
if ($0 ~ /^1/) {
sdss_qmode[center] = substr($0,2,1)
sdss_class[center] = substr($0,3,1)
}
```

- ▶ print : affichage d'un ou plusieurs champs
- ▶ substr : extrait pour chaque ligne (\$0) la sous chaîne qui commence à la position 10
- ▶ utilisation d'un tableau unidimensionnel

La construction du contenu de la base de données SIMBAD



buga@cds-bibl

MW	G	Name	S(B)	bc	17	45	40.0	-29	00	28								
MW	G	The Galaxy	S(B)	bc	17	45	40.0	-29	00	28								
MW	G	Canis Major	????		07	12	35.0	-27	40	00	7		87.0	c	4.0			13
MW	G	Sagittarius dSph	dSph		18	55	19.5	-30	32	43	26		140.0		2.0			18
MW	G	Segue (I)	dSph		10	07	04.0	+16	04	55	23		208.5		0.9			28
MW	G	Ursa Major II	dSph		08	51	30.0	+63	07	48	32		-116.5		1.9			38

```
BEGIN {
#table Vizier? ajouter le FS="|"
FS="|"
#Bibcode
print ".B 2012AJ....144....4M"
print ""
}
{
if($35!~/The Galaxy/){
#identificateur
print "%I.0 "$35
print "%I.R "$3
}

#coordonnées
print "%J "$5 "$6

#types morphologiques
if($4!~/^ *$/ && $4!~/^ *\?/) print "%T " $4 "D 2012AJ....144....4M"

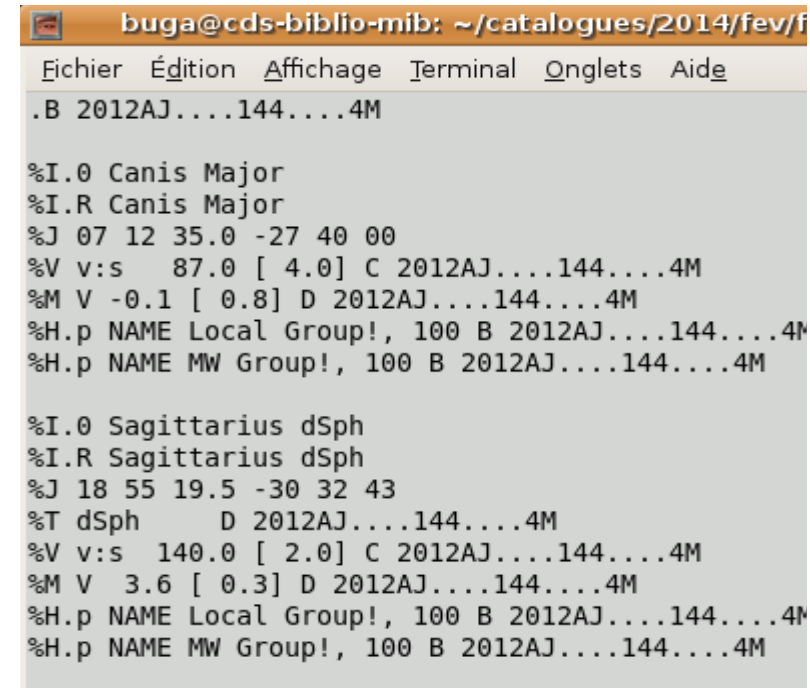
#vitesse radiale
if($9!~/^ *$/) print "%V v:s " $9 " [" $11 "]" C 2012AJ....144....4M"

#magnitude
if($17!~/^ *$/) {
if($19>=$20) print "%M V "$17 ["$19"] D 2012AJ....144....4M"
else if($19<$20) print "%M V "$17 ["$20"] D 2012AJ....144....4M"
}

#hierarchie
if($2~/G/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME MW Group!, 100 B 2012AJ....144....4M"
}
else if($2~/A/) {
print "%H.p NAME Local Group!, 100 B 2012AJ....144....4M"
print "%H.p NAME M31 Group!, 100 B 2012AJ....144....4M"
}
else if($2~/N/) print "%H.p NAME Local Group!, 0 B 2012AJ....144....4M"

print ""
}
}
```

awk -f script.awk table.dat>parfile



buga@cds-biblio-mib: ~/catalogues/2014/fev/f

```
.B 2012AJ....144....4M

%I.0 Canis Major
%I.R Canis Major
%J 07 12 35.0 -27 40 00
%V v:s 87.0 [ 4.0] C 2012AJ....144....4M
%M V -0.1 [ 0.8] D 2012AJ....144....4M
%H.p NAME Local Group!, 100 B 2012AJ....144....4M
%H.p NAME MW Group!, 100 B 2012AJ....144....4M

%I.0 Sagittarius dSph
%I.R Sagittarius dSph
%J 18 55 19.5 -30 32 43
%M V 3.6 [ 0.3] D 2012AJ....144....4M
%H.p NAME Local Group!, 100 B 2012AJ....144....4M
%H.p NAME MW Group!, 100 B 2012AJ....144....4M
```


La construction du contenu de la base de données SIMBAD

```

Fichier Édition Affichage Terminal Onglets Aide
# 16 The Galaxy      |20BDC| 17 45 40.0|-29 00 20| | | | |
# 16 Canis Major     |1717| 07 12 26.0|-27 40 00| 71| 87.0|C| 4.0| 13
# 16 Sagittarius dSph |dSph| 18 55 19.5|-30 32 43| 261| 140.0| 2.0|
# 16 Segue 11        |dSph| 18 07 00.0|-04 35 23| 233| 200.5| 0.9| 20
# 16 Canis Major II  |dSph| 18 53 20.0|-07 40 31| 1385.5| 1.5| 30

```

```

BEGIN {
    #Sesame rewrote le nom?
    print "*****";
    #Nom
    print "N 2012AJ...144....4M";
    #...
}
}

```

awk -f script.awk table.dat>parfile

```

buga@cds-biblio-mib: ~/catalogues/2014/fev/f
Fichier Édition Affichage Terminal Onglets Aide
.B 2012AJ...144....4M

%I.0 Canis Major
%I.R Canis Major
%J 07 12 35.0 -27 40 00
%V v:s 87.0 [ 4.0] C 2012AJ...144....4M
%M V -0.1 [ 0.8] D 2012AJ...144....4M
%H.p NAME Local Group!, 100 B 2012AJ...144....4M
%H.p NAME MW Group!, 100 B 2012AJ...144....4M

%I.0 Sagittarius dSph
%I.R Sagittarius dSph
%J 18 55 19.5 -30 32 43
%T dSph D 2012AJ...144....4M
%V v:s 140.0 [ 2.0] C 2012AJ...144....4M
%M V 3.6 [ 0.3] D 2012AJ...144....4M
%H.p NAME Local Group!, 100 B 2012AJ...144....4M
%H.p NAME MW Group!, 100 B 2012AJ...144....4M

```

cosim parfile

```

Fichier Édition Affichage Terminal Onglets Aide
!PAR #28
!*** Sesame rewrote : 'Andromeda' : NAME ANDROMEDA
!=== DISPLAY : 00 42 44.3+41 16 09 - Andromeda
%I.0 Andromeda
%I.R Andromeda
%J 00 42 44.3 +41 16 09
%T Sb D 2012AJ...144....4M
%V v:s -300.0 [ 4.0] C 2012AJ...144....4M
%H.p NAME Local Group!, 100 B 2012AJ...144....4M
%H.p NAME M31 Group!, 100 B 2012AJ...144....4M
%B 2012AJ...144....4M
! - - - - -
!+++ 1/1: G / ( 0) 1.5"B ( 1.5) V( 1.0) ; from id
! !@ = @1575544 ~
!C.0 G
!CL AGN
!CL G
!CL GiC
!CL GiG
!CL IR
!CL LIN
!CL QSO
!CL Rad
!CL X
!J 010.68470833333 +41.26875000000 (7) == 00 42 44.330 +41 16 07.50
!J.E (IR ) [~ ~ ~] B 2006AJ...131.11635
!M U 4.86 (Vega) [0.03] D 2007ApJS..173..185G
!M B 4.36 (Vega) [0.02] D 2007ApJS..173..185G
!M V 3.44 (Vega) [0.03] D 2007ApJS..173..185G
!M J 2.094 (Vega) [0.016] C 2006AJ...131.11635
!M H 1.283 (Vega) [0.017] C 2006AJ...131.11635
!M K 0.984 (Vega) [0.017] C 2006AJ...131.11635
!V v:spectroscopic -300.0 (~) C [4.0] 2012AJ...144....4M
!T SA(s)b D 2013AJ...146...67B
!G 129 25 45 (-) ~ C ~
!I.0 M 31
!I 2C 56
!I 2MASX J00424433+4116074
!I DA 21
!I GIN 801

```

La construction du contenu de la base de données SIMBAD



Comparaison d'Objets pour Simbad

```
Echier Édition Affichage Terminal Onglets Aide
PAR #28
!*** Sesame rewrote : 'Andromeda' : NAME ANDROMEDA
!=== DISPLAY : 00 42 44.3+41 16 09 - Andromeda
%I.0 Andromeda
%I.R Andromeda
%J 00 42 44.3 +41 16 09
%T Sb      D 2012AJ....144....4M
%V v:s -300.0 [ 4.0] C 2012AJ....144....4M
%Hp NAME Local Group!, 100 B 2012AJ....144....4M
%Hp NAME M31 Group!, 100 B 2012AJ....144....4M
%B 2012AJ....144....4M
!
!+++ 1/1: G / ( 0) 1.5"B ( 1.5) V( 1.0) ; from id
! !@ = @1575544 ~
!C.0 G
!CL AGN
!CL G
!CL GiC
!CL GiG
!CL IR
!CL LIN
!CL QSO
!CL Rad
!CL X
!J 010.68470833333 +41.26875000000 (7) == 00 42 44.330 +41 16 07.50
!J.E (IR ) [~ ~ ~] B 2006AJ....131.1163S
!M U 4.86 (Vega) [0.03] D 2007ApJS..173..185G
!M B 4.36 (Vega) [0.02] D 2007ApJS..173..185G
!M V 3.44 (Vega) [0.03] D 2007ApJS..173..185G
!M J 2.094 (Vega) [0.016] C 2006AJ....131.1163S
!M H 1.283 (Vega) [0.017] C 2006AJ....131.1163S
!M K 0.984 (Vega) [0.017] C 2006AJ....131.1163S
!V v:spectroscopic -300.0 (~) C [4.0] 2012AJ....144....4M
!T SA(s)b D 2013AJ....146...67B
!G 129 25 45 (~) ~ C ~
!I.0 M 31
!I 2C 56
!I 2MASX J00424433+4116074
!I DA 21
!I GIN 801
```

→ Rappel des données d'entrée

→ Résumé des scores pour les candidats

→ Affichage des données des candidats dans SIMBAD

La construction du contenu de la base de données SIMBAD



Comparaison d'Objets pour Simbad

```
Echier Édition Affichage Terminal Onglets Aide
PAR #28
!*** Sesame rewrote : 'Andromeda' : NAME ANDROMEDA
!=== DISPLAY : 00 42 44.3+41 16 09 - Andromeda
%I.0 Andromeda
%I.R Andromeda
%J 00 42 44.3 +41 16 09
%T Sb      D 2012AJ....144....4M
%V v:s -300.0 [ 4.0] C 2012AJ....144....4M
%Hp NAME Local Group!, 100 B 2012AJ....144....4M
%Hp NAME M31 Group!, 100 B 2012AJ....144....4M
%B 2012AJ....144....4M
! - - - - -
!+++ 1/1: G / ( 0) 1.5"B ( 1.5) V( 1.0) ; from id
! !@ = @1575544 ~
!C.0 G
!CL AGN
!CL G
!CL GiC
!CL GiG
!CL IR
!CL LIN
!CL QSO
!CL Rad
!CL X
!J 010.68470833333 +41.26875000000 (7) == 00 42 44.330 +41 16 07.50
!J.E (IR ) [~ ~ ~] B 2006AJ....131.1163S
!M U 4.86 (Vega) [0.03] D 2007ApJS..173..185G
!M B 4.36 (Vega) [0.02] D 2007ApJS..173..185G
!M V 3.44 (Vega) [0.03] D 2007ApJS..173..185G
!M J 2.094 (Vega) [0.016] C 2006AJ....131.1163S
!M H 1.283 (Vega) [0.017] C 2006AJ....131.1163S
!M K 0.984 (Vega) [0.017] C 2006AJ....131.1163S
!V v:spectroscopic -300.0 (~) C [4.0] 2012AJ....144....4M
!T SA(s)b D 2013AJ....146...67B
!G 129 25 45 (~) ~ C ~
!I.0 M 31
!I 2C 56
!I 2MASX J00424433+4116074
!I DA 21
!I GIN 801
```

➔ **Objet trouvé dans SIMBAD par nom ?**

➔ **Si oui** → un score est calculé pour le candidat

La construction du contenu de la base de données SIMBAD



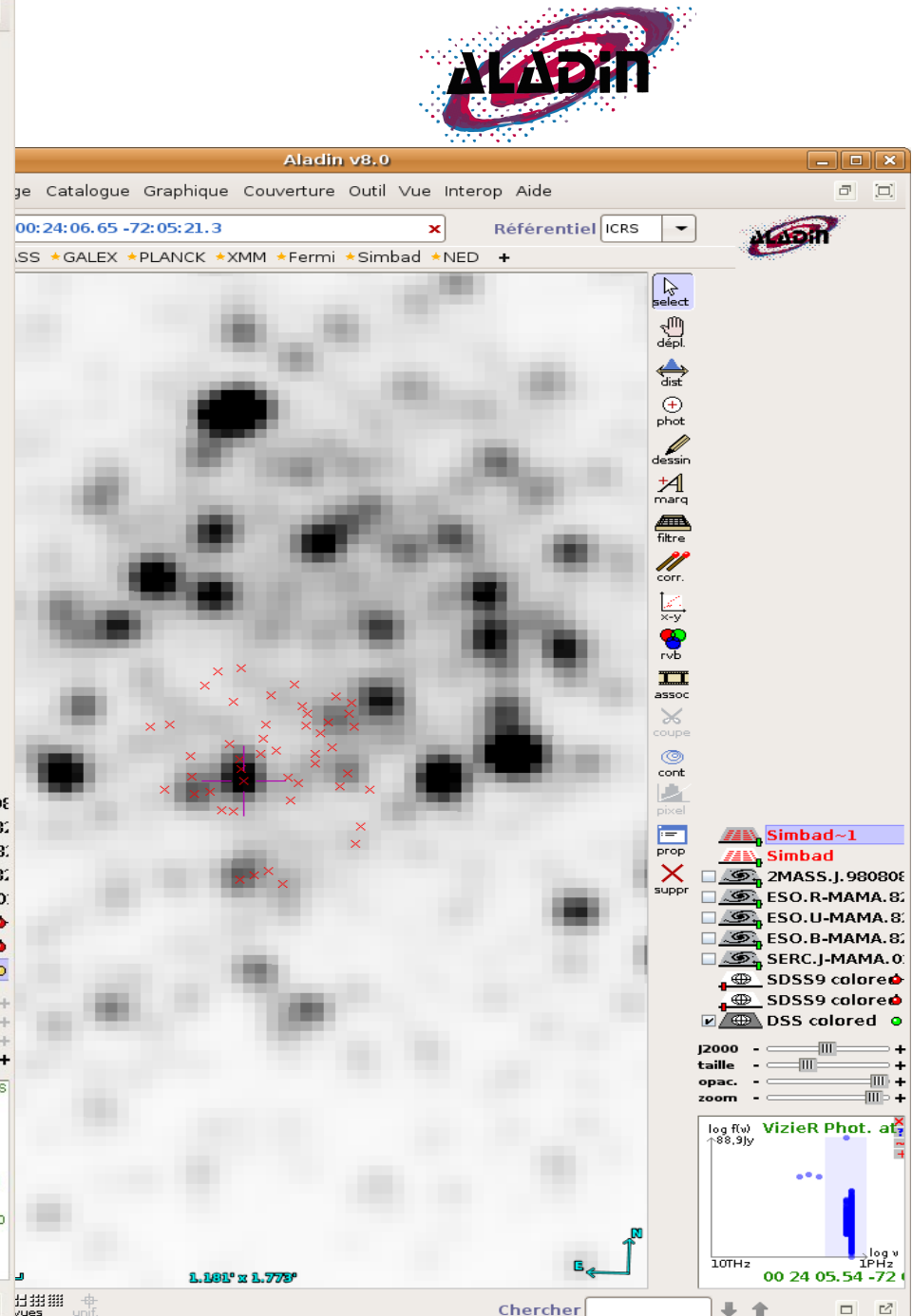
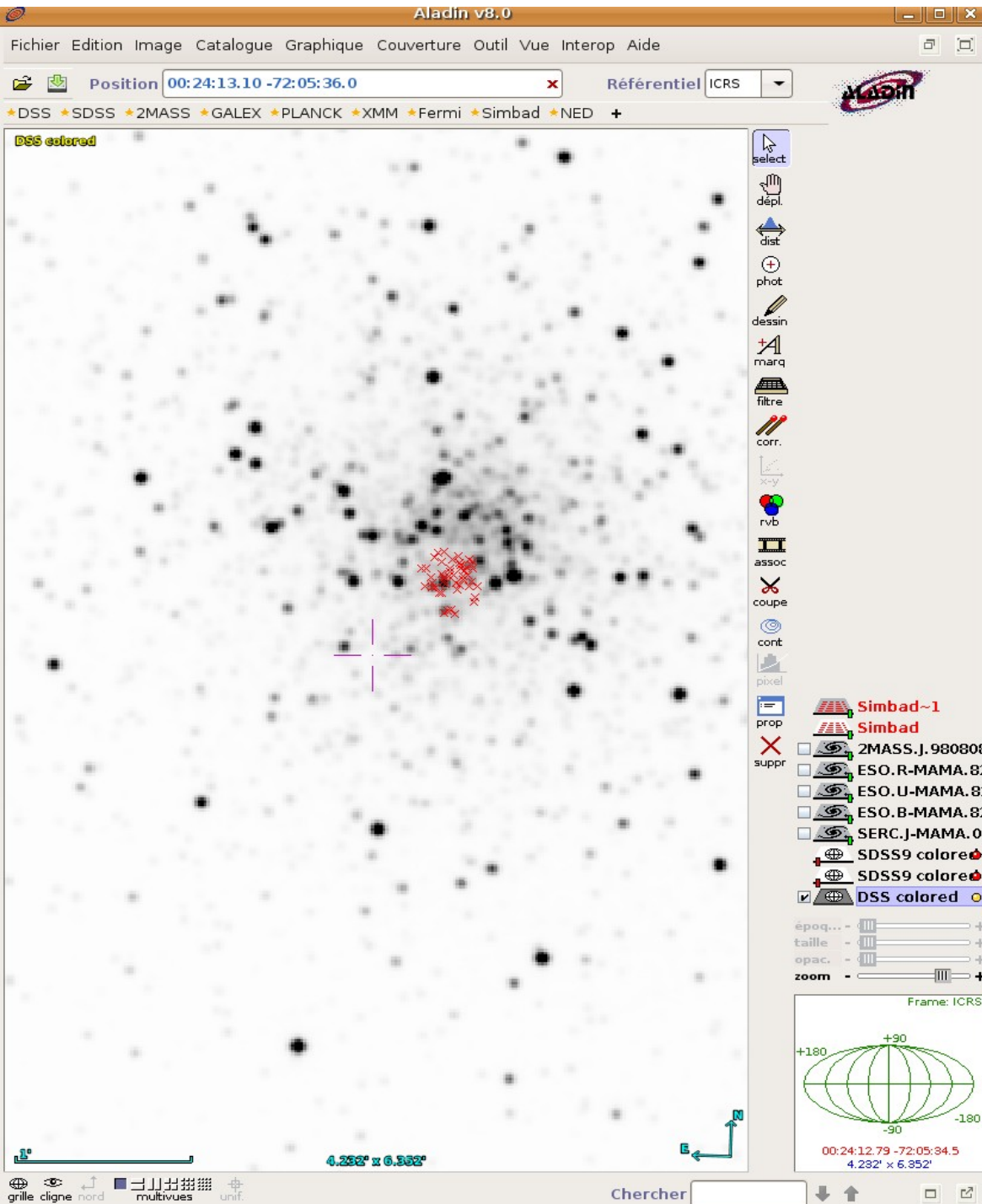
Comparaison d'Objets pour Simbad

➔ **Objet trouvé dans SIMBAD par nom ?**

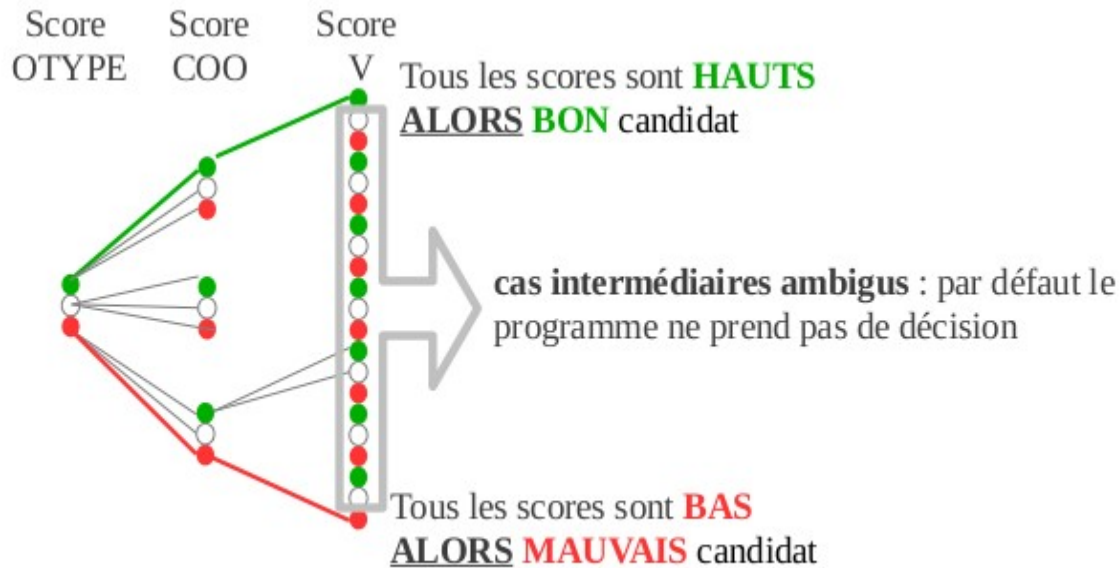
➔ Si **non**, recherche par coordonnées et un score est calculé pour les candidats

```
buga@cds-biblio-mib: ~/catalogues/2014/fev/fait/cat_2012AA_537A_2M
Fichier  Édition  Affichage  Terminal  Onglets  Aide
!=== DISPLAY : 00 24 07.76600-72 05 10.2100 - [MSS2012] 14
!### Identifier not found in the database : [MSS2012] 14
%!I.0 [MSS2012] 14
%#B.R [MSS2012] 14
%#J 006.03235833 -72.08616944 (MIR) D 2012A&A...537A...2M
%#B 2012A&A...537A...2M
!
!... 1/100: *ic/ ( 0) 1.2"D ( 1.4) ; from coo
! !@ = @4051767 ~
!C.0 *ic
!J 006.03250000000 -72.08583333333 (5) == 00 24 07.8 -72 05 09
!J.E (~) [~ ~ ~] D 2007A&A...476.1261M
!M J 8.80 (Vega) [~] D 2007A&A...476.1261M
!M K 7.79 (Vega) [~] D 2007A&A...476.1261M
!I.0 Cl* NGC 104 MV x2
!I Cl* NGC 104 MV x2
!#B 2
!
!... 2/100: UV / ( 0) 3.2"D ( 1.1) ; from coo
! !@ = @4682324 ~
!C.0 UV
!J 006.03101250000 -72.08539722222 (7) == 00 24 07.443 -72 05 07.43
!J.E (~) [~ ~ ~] D 2008ApJ...683.1006K
!I.0 [KDA2008] 9
!#B 1
!
!... 3/100: *ic/ ( 0) 3.3"D ( 0.9) ; from coo
! !@ = @3279450 ~
!C.0 *ic
!J 006.03316250000 -72.08706388889 (7) == 00 24 07.959 -72 05 13.43
!J.E (~) [30 30 90] D ~
!I.0 Cl* NGC 104 GYSB 523
```

La construction du contenu de la base de données SIMBAD



La construction du contenu de la base de données SIMBAD



Comportement du programme COSIM



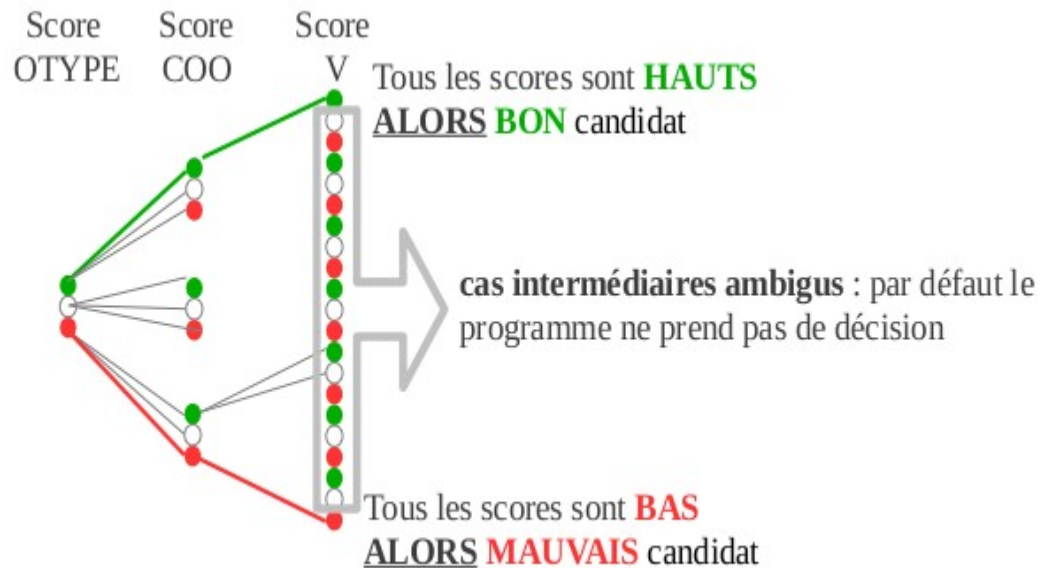
le programme commence par interroger SIMBAD par **identificateur**

si rien n'est trouvé, il cherche par **coordonnées**.

ensuite, il compare chaque objet trouvé par rapport à l'objet entré et évalue sa vraisemblance (score) à être un bon candidat à cross-identification.

Si $\text{scoreX} < \text{minX}$ alors **MAUVAIS** score (trop bas)
Si $\text{scoreX} \geq \text{maxX}$ alors **BON** score (assez haut)
Par défaut les bornes sont à -1 et 1

La construction du contenu de la base de données SIMBAD



ex pour le type d'objet (*,X): si les deux type d'objets

- sont compatibles, $\max X=1$
- ne sont pas compatibles, $\max X=-1$

Comportement du programme COSIM

Si $\text{scoreX} < \min X$ alors **MAUVAIS** score (trop bas)
Si $\text{scoreX} \geq \max X$ alors **BON** score (assez haut)
Par défaut les bornes sont à -1 et 1

La construction du contenu de la base de données SIMBAD

```
BEGIN {  
  
print ".OT+2 H2G, EmG, LSB, Bla, AGN, G, GiG, rG, BLL, Sy2, Sy1, BL?, IR, GiG  
print ".OT-1 ClG"  
print ".search 5\""  
print ".COO -2.0, -1.6"  
print ".M -1.0, 0.0"  
print ".V -2.0, -1.5"  
#Bibcode  
print ".B 2010ApJS..191..254H"  
while ((getline < "sdss_out") > 0) {  
    if ($0 ~ /^#Center/) {  
        center = substr($0, 10)  
        gsub(/ */, "", center)  
        if ($0 ~ /^1/) {  
            sdss_qmode[center] = substr($0, 2, 1)  
            sdss_class[center] = substr($0, 3, 1)  
            sdss_name1[center] = substr($0, 5, 19)  
            sdss_zmag2[center] = substr($0, 110, 6)  
            sdss_zmag_sig2[center] = substr($0, 153, 5)  
        }  
    }  
}  
  
print ""  
}  
{  
ra=substr($0, 20, 9)  
dec=substr($0, 30, 10)  
zs=substr($0, 53, 7)  
  
#  
#####  
#  
}
```

- Le travail du documentaliste est d'étudier le nombre de cas où le programme ne décide rien:

en modifiant les valeurs de chaque score afin de réduire la zone d'incertitude de chaque score

La construction du contenu de la base de données SIMBAD

commandes de mises à jour du contenu SIMBAD, générées par COSIM :

Ajout de données sur les objets
SIMBAD bons candidats,
confirmés par des bons scores

```
!PAR #15
!=== UPDATE from id : SDSS J105710.87+085225.4
!+++ 1/1: BiC/BiC( 1) 0.0"C ( 1.5) V( 1.0) M( 1.0); from id
$o SDSS J105710.87+085225.4
$c c 164.295311+08.873734 (0) [99 72 90] C 2009yCat.2294....0A
$!!c 10 57 10.875+08 52 25.44 (Opt ) [99 72 90] C 2009yCat.2294....0A !!Simbad kept
$a o BiC 2010ApJS..191..254H!
$!!o BClG ~ !!Simbad kept
$c m u (AB) 22.566 [1.517] E 2009yCat.2294....0A
$!!m u (AB) 22.566 [1.517] E 2009yCat.2294....0A !!Simbad kept
$c m g (AB) 19.898 [0.049] D 2009yCat.2294....0A
$!!m g (AB) 19.898 [0.049] D 2009yCat.2294....0A !!Simbad kept
$c m r (AB) 18.068 [0.016] D 2009yCat.2294....0A
$!!m r (AB) 18.068 [0.016] D 2009yCat.2294....0A !!Simbad kept
$c m i (AB) 17.291 [0.011] D 2009yCat.2294....0A
$!!m i (AB) 17.291 [0.011] D 2009yCat.2294....0A !!Simbad kept
$c m z (AB) 16.863 [0.027] D 2009yCat.2294....0A
$!!m z (AB) 16.863 [0.027] D 2009yCat.2294....0A !!Simbad kept
$c V z:s 0.41410 [.00018] C 2009yCat.2294....0A
$!!V z:spectroscopic 0.41410 (~) C [0.00018] 2009yCat.2294....0A !!Simbad kept
$a r 2010ApJS..191..254H, d, SDSS J105710.87+085225.4, +1
$a data velocities |z| 0.41410 0.00018|C|s,,Opt, | | | 2009yCat.2294....0A|
$bye!
```

Création de nouveaux objets

```
!PAR #16
!=== NEW : 10 03 24.756+10 30 50.72
$o SDSS J100324.75+103050.7
$c o BiC 2010ApJS..191..254H!
$a c 150.853152+10.514088 (0) [53 61 90] C 2009yCat.2294....0A
$a V z:s 0.44772 [.00021] C 2009yCat.2294....0A
$a m u (AB) 22.039 [0.553] E 2009yCat.2294....0A
$a m g (AB) 20.328 [0.044] D 2009yCat.2294....0A
$a m r (AB) 18.550 [0.017] D 2009yCat.2294....0A
$a m i (AB) 17.715 [0.013] D 2009yCat.2294....0A
$a m z (AB) 17.261 [0.035] D 2009yCat.2294....0A
$a r 2010ApJS..191..254H, d, SDSS J100324.75+103050.7, +1
$a data velocities |z| 0.44772 0.00021|C|s,,Opt, | | | 2009yCat.2294....0A|
$bye!
```

La construction du contenu de la base de données SIMBAD

```
!PAR #15
!=== UPDATE from id : SDSS J105710.87+085225.4
!+++ 1/1: BiC/BiC( 1) 0.0"C ( 1.5) V( 1.0) M( 1.0); from id
$o SDSS J105710.87+085225.4
$c c 164.295311+08.873734 (0) [99 72 90] C 2009yCat.2294....0A
$!!c 10 57 10.875+08 52 25.44 (Opt ) [99 72 90] C 2009yCat.2294....0A !!Simbad kept
$a o BiC 2010ApJS..191..254H!
$!!o BClG ~ !!Simbad kept
$c m u (AB) 22.566 [1.517] E 2009yCat.2294....0A
$!!m u (AB) 22.566 [1.517] E 2009yCat.2294....0A !!Simbad kept
$c m g (AB) 19.898 [0.049] D 2009yCat.2294....0A
$!!m g (AB) 19.898 [0.049] D 2009yCat.2294....0A !!Simbad kept
$c m r (AB) 18.068 [0.016] D 2009yCat.2294....0A
$!!m r (AB) 18.068 [0.016] D 2009yCat.2294....0A !!Simbad kept
$c m i (AB) 17.291 [0.011] D 2009yCat.2294....0A
$!!m i (AB) 17.291 [0.011] D 2009yCat.2294....0A !!Simbad kept
$c m z (AB) 16.863 [0.027] D 2009yCat.2294....0A
$!!m z (AB) 16.863 [0.027] D 2009yCat.2294....0A !!Simbad kept
$c V z:s 0.41410 [.00018] C 2009yCat.2294....0A
$!!V z:spectroscopic 0.41410 (~) C [0.00018] 2009yCat.2294....0A !!Simbad kept
$a r 2010ApJS..191..254H, d, SDSS J105710.87+085225.4, +1
$a data velocities |z| 0.41410 0.00018|C|s,,Opt, | | | 2009yCat.2294....0A|
$bye!

!PAR #16
!=== NEW : 10 03 24.756+10 30 50.72
$o SDSS J100324.75+103050.7
$c o BiC 2010ApJS..191..254H!
$a c 150.853152+10.514088 (0) [53 61 90] C 2009yCat.2294....0A
$a V z:s 0.44772 [.00021] C 2009yCat.2294....0A
$a m u (AB) 22.039 [0.553] E 2009yCat.2294....0A
$a m g (AB) 20.328 [0.044] D 2009yCat.2294....0A
$a m r (AB) 18.550 [0.017] D 2009yCat.2294....0A
$a m i (AB) 17.715 [0.013] D 2009yCat.2294....0A
$a m z (AB) 17.261 [0.035] D 2009yCat.2294....0A
$a r 2010ApJS..191..254H, d, SDSS J100324.75+103050.7, +1
$a data velocities |z| 0.44772 0.00021|C|s,,Opt, | | | 2009yCat.2294....0A|
$bye!
```

Measurements (1 types) :

velocities : 1

display selected measurements

display all measurements

clear

[velocities](#) (1)

typ	Value	R	m.e.	A (Nmes)	na,Q,dom	, res D	Obs.date	Rem.	Or	Reference	
z	0.41410	0.00018	C ()	s , ,Opt ,						2009yCat.2294....0A	

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- à partir des table

- grandes
- petites



- outils informatiques

- AWK : langage de gestion des fichiers
- COSIM : programme maison de Comparaison d'Objets pour Simbad

II. CDS – services



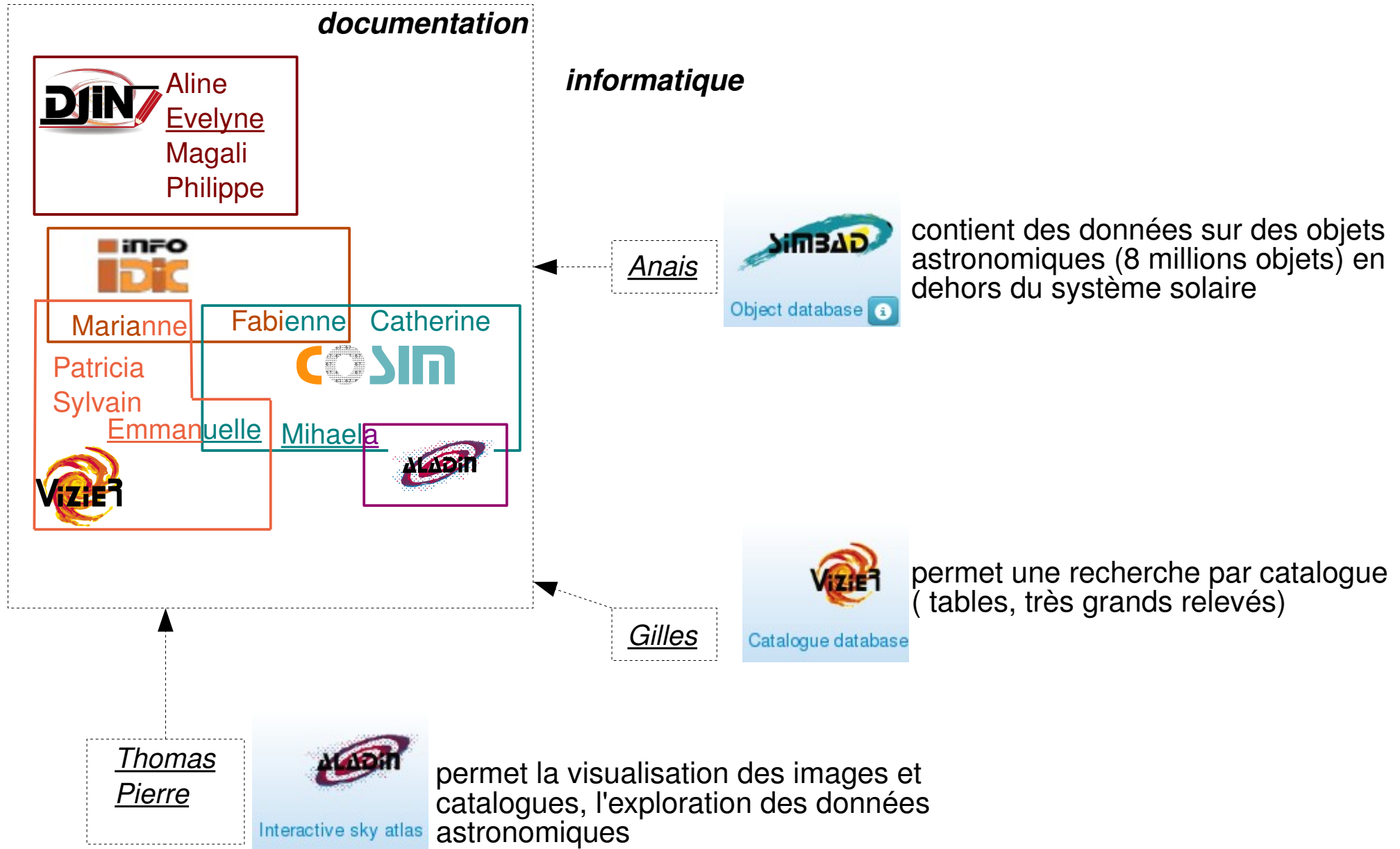
III. Le métier de documentaliste scientifique au CDS

CDS - Centre de Données Astronomiques de Strasbourg



- Une des trois équipes de l'Observatoire Astronomique de Strasbourg
- 1972: Centre de Données Stellaires →
1983: Centre de Données astronomiques
- Infrastructure de recherche - partenariat entre l'Institut National des Sciences de l'Univers (INSU) du CNRS et l'Université de Strasbourg.

Services CDS: SIMBAD, VizieR, Aladin



Services CDS: SIMBAD, VizieR, Aladin



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Centre de Données astronomiques de Strasbourg Strasbourg astronomical Data Center



Entry point to all services

Object/position



Object database

Obj/position/bibcode



Catalogue database

Keywords, target, ...



Interactive sky atlas

Object/position

Other services



[X-match](#)



[Dictionary](#)



[Sesame](#)



[SimPlay](#)

Hosted services



[ADS mirror](#)



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Latest news

- [Aladin Lite in VizieR](#)
- [Catalogs added between 22-Mar-2014 and 29-Mar-2014](#)
- [Aladin v8 announcement](#)
- [Catalogs added between 15-Mar-2014 and 22-Mar-2014](#)
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III. Le métier de documentaliste scientifique au CDS

Le métier de documentaliste scientifique au CDS

- **Mission principale :**

- Entrée des données dans les bases de données de référence SIMBAD et VizieR

- **Activités :**

- Analyse du contenu des tables publiées dans les journaux académiques
- Identification des données à rentrer dans les bases de données du CDS
- Validation et entrée de ces données dans les bases de données

Le métier de documentaliste scientifique au CDS

- **Compétences :**

- A l'aise avec les données scientifiques
- Maîtrise des outils informatiques :
 - les activités documentaires se déroulent dans un environnement de travail Unix
 - construction des procédures/scripts
- Travail en équipe : documentalistes – astronomes – informaticiens
- Anglais lu indispensable : journaux astronomiques
- Capacité d'apprentissage de l'astronomie.

Merci de votre attention!