Processing Large Tables in SIMBAD

- VizieR strategy : completness for tables larger than ~100 objects

- Initial SIMBAD strategy at electronic journal era: processing most VizieR tables

But the situation has evolved over the years :

Dramatic increase of the number of publications and tables
Mid-2006, 545 tables were pending

The nature of the tables has partly changed : more very large catalogues,
statistical purposes, less object characterization

➜ Need to define a new strategy :

Focus on added value in SIMBAD : choice of the most relevant data

Make full use of the VizieR – Simbad complementarity

CDS portal allows to query VizieR and SIMBAD simultaneously

New Processing Strategy mid-2006

1. Publication ---> DJIN team analysis ---> report on tables to VizieR team

2. VizieR Processing ---> report on tables to be possibly processed in Simbad

3a. New ---> Evaluation of each publication
   Weekly meeting, Raccord+astronomers teams

   Priority 1 : must be processed asap
   Priority 2 : should be processed, but less critical
   Ruled out : objects not relevant for SIMBAD, no added value

3b. New ---> Systematic check of the data to be added or updated in SIMBAD
   (value, accuracy, quality, etc...)

4. SIMBAD processing

Evaluation criteria

Criteria for priority 1 tables :

- ✔ Characterization of the objects : nature, properties
- ✔ Well-performed cross-identifications
- ✔ Hierarchical links, memberships
- ✔ Astrometry
- ✔ New measurements, e.g. redshift, parallaxe, magnitudes, proper motion, ...
- ✔ Number of citations
- ✔ Feasibility of the processing

Main criteria for ruled-out tables :

- ✔ No or very poor astrometry
- ✔ Large (huge) photometric catalogues without characterization, either in very crowded regions (e.g. Globular cluster), or allsky ($\rightarrow$ special operations).
- ✔ List of extended objects without geometrical size

SPECIAL OPERATIONS AND TASKS

- More outputs from the weekly meeting : global strategy to improve SIMBAD e.g.

    Systematic inclusion and update of coordinates (DJIN and Raccord teams)
    Hierarchical links between objects
    Magnitudes : from BV to UBVRIugrizJHK, + AB system

- Special Operations performed by Raccord « documentalistes » : e.g.

    Supernovae
    Exoplanets
    Corrections and updates from the General Catalog of Variable Stars

- Special Operations performed by astronomers : e.g.
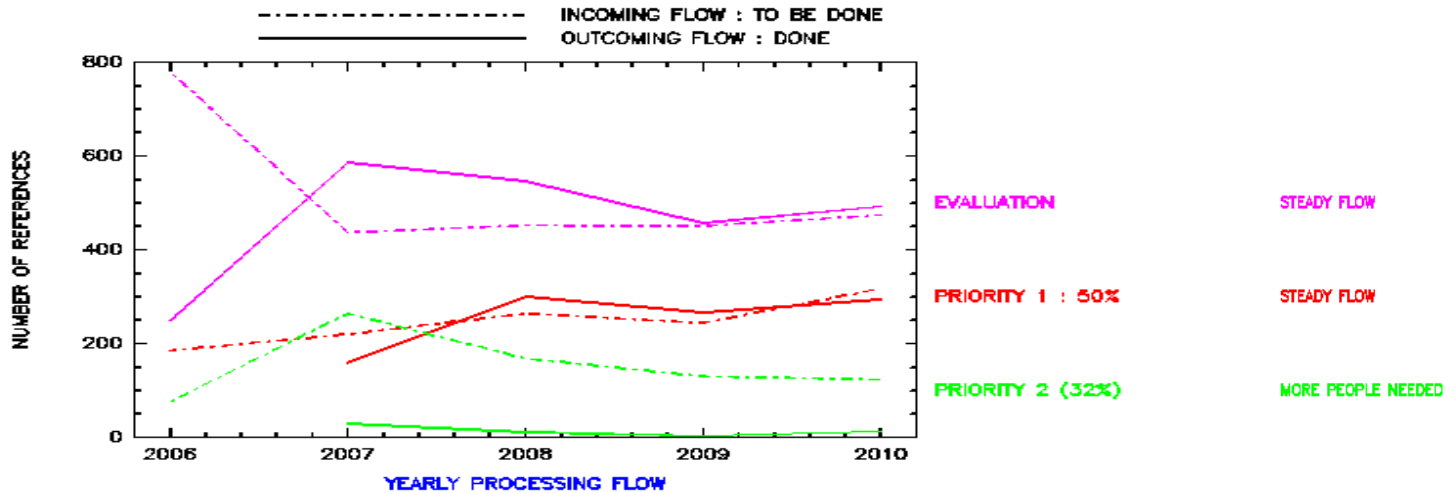 Including input from external collaborators

    High quality position for ~6000 HD stars (which still had poor coordinates)
    Cross-identifications of radio sources
    Cross-identification of the 2MASS survey with the SIMBAD content
    Inclusion/update of large surveys : Hipparcos, quasars, COSMOS, RAVE, …

YEARLY PROCESSING FLOW

- Evaluation + processing of priority 1 tables : OK, follow the flow, no pending tables left
- Processing of priority 2 tables : not done, more people needed

Status according to the year of publication :

- 1 year : minimum time to process a large table in SIMBAD after publication
- 3 years : delay to reach completness for priority 1 tables