THE 6DF GALAXY SURVEY EARLY DATA RELEASE

Mike Read (WFAU), Matthew Colless (RSAA), Will Saunders and Fred Watson (AAO) for the 6dFGS team

The Wide Field Astronomy Unit at Edinburgh is currently engaged in the construction of a database to house the *reduced* observations of the 6dF Galaxy Survey (see separate article in this Newsletter). The database is hosted at WFAU, Edinburgh, and remote user access is initially via web browser. The input data for the database come from two main sources:

- the input catalogues of candidates for observation (i.e. the 2MASS input catalogue plus additional target catalogues)
- the observed spectra

6dFGS spectral observations are carried out in V and R wavebands. Redshift and peculiar velocity determinations are carried out at Mt Stromlo and are based on single, combined V+R frames. The V and R co-added frames, the combined V+R frame and the meta-data therein form the basis of the spectral information held in the database. Information such as redshift, quality, date of observation, etc. are extracted from the frames and imported directly into the database.

Microsoft SQL Server 2000 (a relational database) is used, and the 6dFGS database has its own dedicated machine (P4 2.2GHz, 1.5 GB RAM, 3x60 GB HDD).

The database is constructed around several tables. The primary table, *target*, represents the master input catalogue and holds basic positional data. Other tables hold the individual input catalogues: *twoMASS, sss* etc. These tables contain more (survey-specific) information about a given target, e.g. magnitudes/fluxes. Another table, *spectra*, contains the information extracted from the spectral observations. The database tables are inter-linked via a unique *target* ID number (see Figure 1).

An Early Data Release for some 14000 objects can be accessed at www-wfau.roe.ac.uk/6dFGS/. For this initial release, simple access is provided (e.g. proximity searches and SQL query input). User access will continue to be developed after the first release with the likely federation of the 6dFGS database and other databases and its integration into AstroGrid/VO work. Web-based documentation describing the database structure, the data and how to perform queries (with examples) accompany the release.
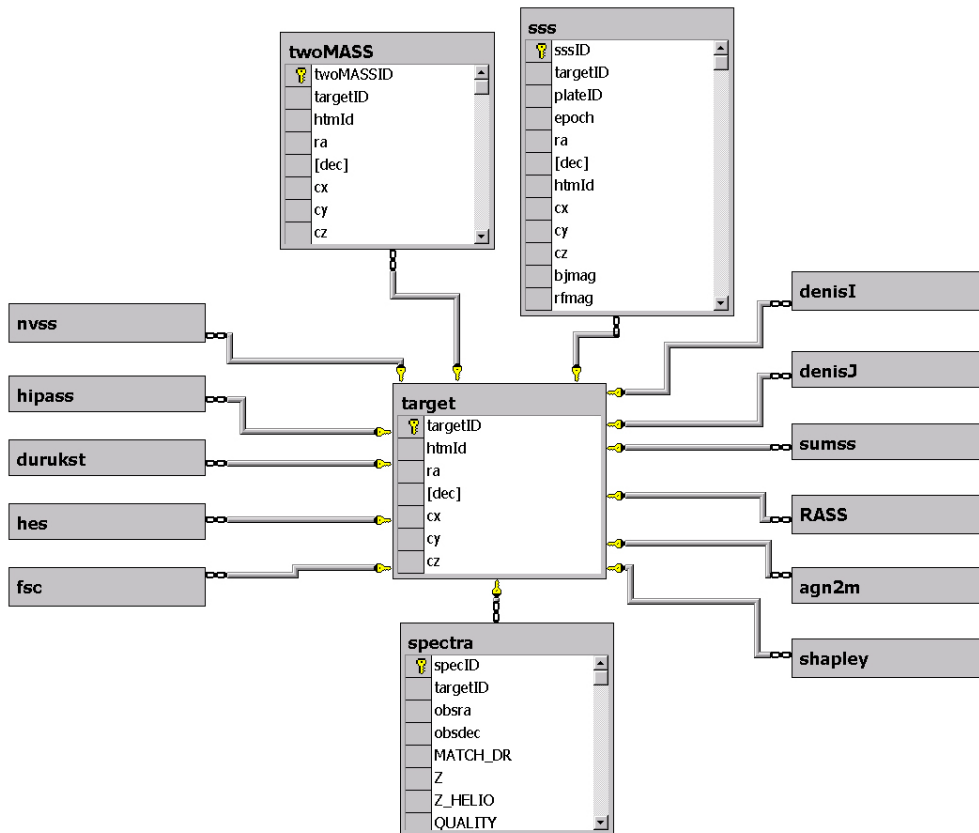
Reprinted from Issue 101, November 2002