

MASCOT: INASAN EXPERIENCE AND CONTRIBUTIONS

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Received September 22, 2000.

Key words: methods: data analysis – catalogs – surveys

A Multi-wavelength All-Sky Catalogue for Observations with ground and space-based Telescopes (hereafter MASCOT) will be based on the USNO-A V2.0, which will be cross-identified with cataloged data on important astronomical objects. MASCOT will be world-wide accessible via standard Internet tools. The tasks to design the MASCOT are shared among seven participating teams in accordance with the program defined by Dluzhnevskaya et al. (2000). Institute of Astronomy, Moscow (INASAN) is one of the participating teams, and the current paper briefly describes our experience and contributions to the project.

XSKYMAP: a multi-catalog visualization facility. XSKYMAP is an IDL application for visualization of astronomical catalogs. The current version of XSKYMAP contains the compressed [6:1] version of the GSC and the PPM family. XSKYMAP provides a wide range of visualization tools for various applications. The current version has been integrated with the control software for the Galileo Italian National Telescope as an observation support tool; the primary applications being generation of finder charts and preliminary telescope positioning (see Smirnov & Malkov 1997, Pasian et al. 1998, Smirnov & Malkov 1999).

Cross-identification of NED objects with the GSC. The NASA/IPAC Extragalactic Database (NED) contains positions, extensive data and cross-identifications for extragalactic objects. Benefits of NED-GSC cross-identification are nearly obvious for both sides. The GSC lacks even rudimentary cross-identifications with other astronomical catalogs, and consequently little is known both about the nature of these objects themselves and their relationship to other data already cataloged and independently available in machine-readable form. NED helps to use the accurate positions found in the GSC.

Results for a small sampling of objects from the NED: 84% of galaxies and 23% of IR sources were confidently identified with GSC optical counterparts. We also obtained preliminary results on cross-identification of some other types of NED objects with the GSC (for details see Malkov & Smirnov 1997).

Software for USNO-A data retrieval. To facilitate data retrieval from the USNO-A, we have created U-DARES, a user-friendly program that lets one to look directly at the data in the USNO-A catalog, either as a graphical sky map, a plot, or a simple text table (Malkov & Smirnov 1999). Like GUIDARES, its predecessor for the GSC (Malkov & Smirnov 1994), U-DARES can read a sampling of USNO-A data for a given sky region, store this sampling in a text file and display a graphical map of the sampled region. It supports rectangular and circular regions defined by coordinates in the equatorial, ecliptic (any equinox), galactic or supergalactic systems.

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