NETWORK AND DATA BANK AT SAO

V. Vitkovskij

Special Astrophysical Observatory, Nizhnij Arkhys,
Karachay-Cherkess Republic 357147, Russian Federation

This paper gives an outline of the main principles and architecture for networking, telecommunication and data access at the Special Astrophysical Observatory (SAO). Its second goal is to give a view of the state and trends of computing, networking and data archiving.

A combined satellite/microwave/fiberoptic link is the basis of the network. The microwave and fiberoptic (in future) links are used for the SAO local loops (three LANs). The satellite link (64 K) connects the SAOnet with Internet via DESY (Germany) and MSU (Russia). The basic TCP/IP services, consisting of file transfer (FTP), e-mail and terminal access (including TELNET and X-Windows) are available everywhere on the network. Telecommunication services enable SAO scientists and their partners to exchange data rapidly and to pursue successfully collaborative projects.

The principal concept of global integration of different kinds of observational data and different acquisition systems of SAO is the application of the recordable CD media and the multi-user object oriented DBMS to realize the SQL server with WWW access.