

Digital Cartography

Editor's Note: In the Winter '82 issue of *Park Science*, Fleet first described his program in *Digital Cartography*. Another article describing a specific application appeared in the Winter '83 issue. Here he gives a brief update.

By Harvey Fleet

Program Manager for Digital Cartography

The Digital Cartography Program at DSC continues to build and analyze digital cartographic data bases. These are line-type (or "vector") data bases and are used for research, environmental analysis, resource management, and planning. Data bases have been constructed for Cape Cod, Upper Delaware, Great Smokies, Yellowstone, Yosemite, Tar Sands Lease Unit (Utah), Prince William Forest, Saratoga, and Capitol Reef. Typically, these data bases include boundaries, landuse/landcover, soils, hydrography, roads, trails, structures, and topography, among many other themes. Most of our data processing is done using SAGIS (Systems Applications Group Information System) on a CDC (Control Data Corporation) CYBER mainframe, on which we timeshare, and which is owned and operated by the Bureau of Reclamation. We supplement our use of the CYBER by making extensive use of our Tektronix 4054 for plotting, analysis, and data display. We routinely produce high-quality color plots of the data the various data bases contain.

Our principal product is a digital data base, rather than specific plots of data in the data base, and we anticipate that our clients will use the data base regularly over the years. Unlike remote sensing, we do not create the thematic maps that we enter into the computer, but concentrate on entering *existing* maps (of any kind of resource feature). The technique is especially suited for faithfully and precisely capturing line-type data (polygons, lines, and points) in digital format.

Recent and upcoming developments include the addition of polygon overlay and a data base manager to our list of analytical tools, the acquisition of an extremely powerful, high resolution color display monitor and complementary ink-jet plotter, publication of the second issue of the Data Base Newsletter, publication of *The Manager's Guide to Resource Information Systems*, and the capability to merge remote sensing data with our digital cartographic data.