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**MapTool:  
a new software program for managing field data**

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Traditionally, field observations are recorded in a standard field notebook at an outcrop. These data are distilled by the geoscientist and the basic features are plotted on a base map. Information that can be garnered by users of the map is typically limited to location, group-formation-unit, structural measurements, and perhaps type of mineralization. Few maps contain outcrop data relating to intensity and type of alteration and mineralization, specific rock-type, development and overprinting relationships of structural fabrics, colour, magnetic characteristics, or bed thickness, yet this information was probably recorded in the mapper's fieldbook. When remapping of an area is required, there is an enormous amount of effort expended recording data that has

already been recorded, simply because the original observations (fieldbook) are rarely available. This duplication of effort is inefficient at best, especially in light of the recent advances in digital data capture and management, which have helped to transform the ways in which geological data can now be recorded, spatially referenced, managed, and distributed. By storing field observations in a universally accessible digital database, the geological mapper becomes a data conduit rather than a data repository.

MapTool is a program, developed jointly by the New Brunswick Geological Surveys Branch and CARIS, to aid in the digital capture, display, management, and distribution of geological field data. A desktop version and a Pocket-PC version, which can be used in the field, have been developed. Through a series of simple on-screen forms, geologists can record their field observations into a relational database and link them to outcrop symbols on a digital base map. The outcrop symbols are geo-referenced using data retrieved from a handheld GPS receiver. By periodically uploading field data through the course of a mapping project, map preparation and interpretation can be significantly expedited. The result is a geological map with an underlying relational database of field observations that can be distributed to users. As MapTool stores its data in Microsoft Access, it can be exported, if necessary, to other popular database formats (e.g., Oracle, dBase), and linked to digital maps in other GIS programs.