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**Papers from Third  
Concurrent Session,  
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**Agency and Visitor  
Interactions and  
Communication**

# Using an Interactive Computer Program to Communicate with the Wilderness Visitor<sup>1</sup>

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**Abstract:** The Bureau of Land Management, Oregon State Office, identified a need for a tool to communicate with wilderness visitors, managers, and decision-makers regarding wilderness values and existing resource information in 87 wilderness study areas. An interactive computer program was developed using a portable Macintosh computer, a touch screen monitor, and laser disk player. The program allows the user to randomly and instantaneously access and review descriptive text, color slide and video tape files, and numerous maps and graphic displays. The program has been used successfully in a variety of settings to communicate with individuals and groups seeking information on proposed wilderness areas. This "cutting edge" technology provides wilderness and recreation resource managing agencies with a powerful new tool for communicating with those seeking information on wilderness resources and recreational opportunities.

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In October 1991, the Bureau of Land Management completed a 15-year study of its roadless areas on public lands located throughout the West. The study, required by the Federal Land Policy and Management Act of 1976, resulted in the identification of over 26 million acres of lands with wilderness qualities known as Wilderness Study Areas (WSAs). Eventually, Congress will make final decisions via legislation on each of these WSAs regarding whether or not their wilderness qualities and primitive recreational opportunities will be preserved.

Meanwhile, the public and elected representatives at all governmental levels have shown an increasing interest in the wilderness resource values of individual areas and in how BLM's wilderness recommendations were derived. Requests for information on individual areas has increased tremendously since the wilderness study began. Primary interest has focused on primitive recreational opportunities and on other wilderness attributes unique to each area. Interest often has extended to the commodity resource values of individual WSAs whose development might be foregone in the event of wilderness designation.

During the 15-year wilderness study on BLM lands in Oregon, a vast amount of resource information was generated during the wilderness inventory, study, and reporting processes. Oregon has 2.8 million acres of WSAs scattered throughout the state in 87 separate roadless areas. This information was in the form of text, color slide and video tape files, and maps. A system was needed to organize the most important information in a format that would allow BLM quick and easy access to all segments of this large wilderness data base. A centralized information system would provide rapid development of responses to queries from the public, would greatly assist in giving presentations at public gatherings, and could aid in day-to-day management of these lands by making access to important wilderness data quick and easy.

To this end, in 1991 a multi-media computer program was developed. It combined the most important resource and analyti-

cal information on each of the WSAs into a single random access system that allows the user almost instantaneous access to WSA-specific color slides, video tape, sound track, maps, color graphics, and text. A person planning a wilderness visit can now sit down at the computer, view a map of the specific WSA, and see color slides and video footage keyed to photo points giving a preview of terrain and scenery. The user can view on the monitor text from the Statewide wilderness EIS specific to any area of interest covered in the study. Examples include a description of wilderness values, wildlife and plant species present, and ecological conditions. If desired, a general oral description of wilderness conditions could be listened to from the audio track. An overview of the Statewide wilderness study displayed in color graphics could also be viewed.

The system utilizes a Macintosh IIfx computer with touch screen monitor and extended keyboard. The entire 2,200 page Oregon Statewide Wilderness EIS is stored on the computer's hard drive as are 55 color graphic displays (some have animation), and 270 maps. A second component is the video imagery stored on a 13-inch laser disk that contains 440 color slides and over 53,000 frames of video tape footage. A portion of the video tape footage is narrated and can be listened to via a pair of accessory speakers. Supercard software provides the shell or navigational tool for this non-linear, random access program. A projector can be used when giving a presentation to a group. The system is portable and user-friendly, and the format allows the user to randomly access details from a large volume of site-specific wilderness information.

This is a prototype project that provides a working model of how a large quantity of multi-media wilderness resource data can be organized for easy access and use by both the public and the managing agency. The program is presently based on only one computer system (which is being used in this demonstration), and most of the use of the program, to date, has been in giving presentations to groups rather than individual use by members of the public. Future plans include expanding the hardware base to include compatible systems in the four major wilderness managing BLM offices in Oregon, and modifying the program to include a larger data base, which will add final wilderness area boundaries determined by Congress via legislation.

Eventually, a visitor access system could be placed in each district office public room, which would be dedicated solely to use by the walk-in visitor.

Interactive multi-media computer systems provide an exciting new communication tool for public and state land managing agencies. The advanced technology utilized provides limitless opportunities for enhanced communication between wilderness and recreation managing agencies, and visitors to the public lands.

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