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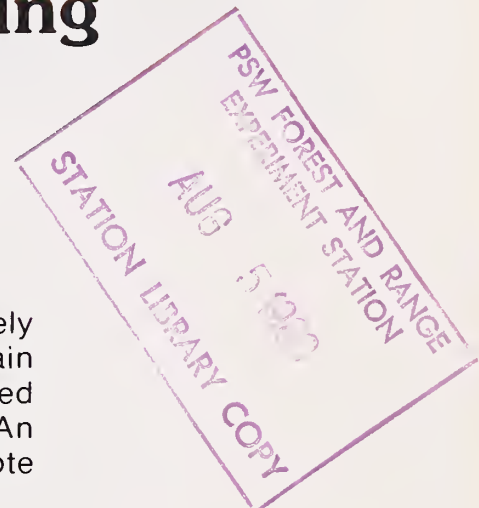
Rocky Mountain Forest and
Range Experiment Station

Computer Techniques for Land Management Planning

Curtis M. Johnson¹

A computer system for storage and retrieval of approximately 200 land management planning techniques for the Rocky Mountain and Southwestern Regions of the Forest Service has been placed on the USDA UNIVAC 1100 computer at Fort Collins, Colo. An abstract of each technique can also be retrieved from remote terminals via telephone.

Keywords: Computer programs, land management planning, information storage and retrieval



The Rocky Mountain and Southwestern Regions with the Rocky Mountain Forest and Range Experiment Station have assembled a list of computer-aided land management planning and assessment techniques. This list includes approximately 200 programs that can be searched by most functional and resource areas in a land management plan.

An abstract of each technique is provided, which defines the technique and the circumstances or situations where it might be used. Both the list of techniques and their abstracts have been placed on the USDA UNIVAC 1100/82 computer at Fort Collins, Colo.² Both are accessible via

telephone service in an interactive mode to field personnel with remote terminals. Statements on execution are self-explanatory within the program.

Instructions to Execute

The runstream (a list of computer commands) in figure 1 provides the information needed to retrieve the planning assessment techniques from the Fort Collins Computer Center. An explanation of figure 1 is as follows:

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Cols  1234567890123456789
1.     @RUN Run-id,ACCOUNT-NO,RMLMP
2.     @ASG,A RMLMP*ABSTRACT.
3.     @ADD RMLMP*ABSTRACT.RUN1
.      .
.      .
.      .
4.     @FIN

```

Figure 1.—Example runstream to access planning assessment techniques.

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²The computer program described in this publication is available on request with the understanding that the U.S. Department of Agriculture cannot assure its accuracy, completeness, reliability, or suitability for any other purpose than that reported. The recipient may not assert any proprietary rights thereto nor represent it to anyone as other than a government-produced computer program. For cost information, write: Director, Rocky Mountain Forest and Range Experiment Station, 240 West Prospect Street, Fort Collins, CO 80526.

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1. Sign on run statement giving a 6-digit run identification, a 10-digit account number, and the project identifier.
2. Assign statement to access the RMLMP* ABSTRACT file.
3. Statement which begins program operation.
4. Terminates run after retrieval.

Program Input and Output

Input required for execution of RMLMP* ABSTRACT is performed by first entering the numeric function code for the area of interest. After entering this four-digit numeric code, a table of assessment techniques will be given, listing the assessment name, whether the model is available from the Fort Collins computer or some other computer, whether a user's guide is available, whether the model is under development or needs further modification, and a very brief description of the technique (fig. 2).

After the programs are listed for a specific resource or functional area, users have the option of retrieving an abstract of a specific technique on their terminals or retrieving all the abstracts on a local high-speed printer. This is done by entering either ONE for one particular abstract or ALL to retrieve all the abstracts. A high-speed printer SITE-ID in the format FCRXXX has to be entered in conjunction with ALL. The abstract retrieved will provide information on the purpose and description of the program, its area of applicability, if it has been verified for use, data requirements, program outputs, the computer system where it is available, the organization responsible for its maintenance and support, a contact person for further information, and reference documentation. Figure 3 shows how to retrieve a specific abstract and an example of that abstract.

The RMLMP*ABSTRACT program will be continually updated as new models are developed or become operational, or informational or support people change.

ASSESSMENT TECHNIQUES FOR
 LAND MANAGEMENT PLANNING
 (REGIONS 2 AND 3)
 AS OF 12/14/79

- 1600 (PUBLIC INVOLVEMENT)
- 1920 (ANALYSIS)
- 1960 (ECONOMICS)
- 2100 (CLIMATE)
- 2200 (RANGE)
- 2310 (RECREATION)
- 2380 (VISUAL)
- 2400 (TIMBER)
- 2500 (WATER)
- 2550 (EROSION)
- 2600 (WILDLIFE)
- 5100 (FIRE)
- 6630 (DATA MANAGEMENT)
- 7140 (DISPLAY)
- 7700 (ENGINEERING)
- 9888 (STATISTICAL)

ENTER NUMERIC FUNCTION CODE OR FINISH
 START IN COLUMN 1.

>1600

12/14/79 ASSESSMENT TECHNIQUE - (PUBLIC INVOLVEMENT)						
ASSESSMENT NAME	ABSTRACT IN FILE	ON FCCC	ON ELSE- WHERE AVAILABLE	USER GUIDE	NEEDS MODIFYING OR BEING DEVELOPED	DESCRIPTION
CLUSTER	YES	X		YES		DATA GROUPING
PUBLIC	YES	X		YES		ANALYSIS OF PUBLIC INPUT AND IDENTIFICATION OF PUBLICS
SELGEM	YES	X		YES		STORING, SORTING, RECALLING PUBLIC COMMENT

Figure 2.—Example of input and output of abstract list.

DO YOU WANT AN ABSTRACT OF ONE OR MORE OF THE ASSESSMENTS LISTED FOR (PUBLIC INVOLVEMENT)
 ENTER YES OR NO
 >YES
 YOU CAN SELECT MORE THAN ONE ASSESSMENT BY SUCCESSIVE INPUT SOLICITATIONS BY ENTERING THE COMMAND: ONE
 ---OR---

YOU CAN PRINT -ALL- ASSESSMENTS FOR THE SELECTED FUNCTION BY ENTERING THE COMMAND: ALL. IF YOU ENTER ALL, YOUR OUTPUT WILL BE PRINTED ON A HIGH-SPEED PRINTER. YOU WILL NEED THE SITE-ID OF A HIGH-SPEED PRINTER NEAR YOU, AND INPUT THAT ID WHEN ASKED FOR IT.
 ENTER EITHER ONE OR ALL.
 >ONE
 ENTER ASSESSMENT NAME OR FINISH
 START IN COLUMN 1.
 >PUBLIC

PUBLIC INVOLVEMENT

NAME: PUBLIC
 LONG NAME: PROCEDURE FOR PUBLIC INVOLVEMENT
 DESCRIPTION AND PURPOSE: A SERIES OF COMPUTER PROGRAMS, PRIMARILY MULTIVARIATE STATISTICAL TECHNIQUES, WHICH CLARIFIES THE COLLECTION AND ANALYSIS OF PUBLIC OPINION DATA, AND SHOWS HOW SUCH DATA CAN BE UTILIZED TO EXAMINE THE CORRESPONDENCE BETWEEN AGENCY STAFF SPECIALISTS AND VARIOUS PUBLIC OPINIONS SO THAT PROFESSIONAL ADVISE AND PUBLIC OPINION CAN BE MORE HARMONIOUSLY MESHED.
 AREA OF APPLICABILITY: SERVICEWIDE
 DATA REQUIREMENTS: WILL ACCEPT MANY DIFFERENT DATA FORMATS ON PUBLIC OPINION. ONE OPTION IS A RANK ORDER OF LAND USES AND THE ACTIVITY LEVEL DESIRED FOR EACH LAND USE VALUE.
 PROGRAM OUTPUTS: LISTING OF INPUT DATA AND INVALID INPUT DATA, DESCRIPTIVE STATISTICS AND HISTOGRAM REPRESENTING THE PERCENTAGE OF RESPONSES FALLING IN UP TO 13 DISTINCT CATEGORIES, KENDALL CONCORDANCE COEFFICIENT WITH OBSERVATIONS USED, A SINGLE PRIORITY RANKING OF THE VARIABLES SATISFACTORY TO THE MAJORITY OF INDIVIDUALS WHOSE PRIORITY RANKINGS COMPOSE THE DATA, AND A FACTOR ANALYSIS WITH STATISTICS, PLOTS, GROUP SORTING AND RANKINGS.
 SYSTEM/COMPUTER HARDWARE: UNIVAC 1100
 MODE SOFTWARE DEVELOPED FOR: BATCH, FIXED FIELD
 UNIT RESPONSIBLE FOR MAINTENANCE AND SUPPORT:
 R-3, RO, LMP, ALBUQUERQUE, NM
 INFORMATION CONTACT PERSON: DON RENTON
 ORGANIZATION: LMP, RO, R-3
 ALBUQUERQUE NM
 TELEPHONE: FTS 474-3630
 DOCUMENTATION: CASE, P.J., T.D. EDGMON, D.A. RENTON. 1976. PUBLIC: A PROCEDURE FOR PUBLIC INVOLVEMENT. RANGE SCIENCE SERIES NO. 22, COLLEGE OF FORESTRY AND NATURAL RESOURCES, RANGE SCIENCE DEPT. CSU
 END OF (PUBLIC INVOLVEMENT)
 DO YOU WANT ANOTHER ASSESSMENT (YES OR NO)
 >NO

DO YOU WANT TO LIST ANOTHER FUNCTION (YES OR NO)
 >NO
 END RUN
 >

Figure 3.—Example of an abstract and how to retrieve it.