NASA TECH BRIEF

Lewis Research Center

MAPS—A Computerized Management Analysis and Planning System

MAPS provides managers of large technical projects with a fast and economical information system for planning and controlling their project. Input information on schedules and status is simultaneously submitted at all project levels and is automatically collated by the program, resulting in an easy-to-understand output.

The MAPS program is in essence a computerized bar chart schedule reporting system in which the work structure of a project can be listed at all levels. This system integrates an item of work, its schedule, its status against the schedule, the person responsible for that item, and brief explanatory comments about the item. In addition, the relation of any single item to other items in the project is clearly shown by a hierarchy form of program organization. The structure of the MAPS program promotes a natural organization of all project work elements and can be used to control down to any level of detail desired.

A key feature of the MAPS program is that each project work element can be keyed to a responsible individual. This is true at all levels of the work structure. The program can give each individual a condensed listing on a item-by-item basis of the project work elements in his area of responsibility; thus, each individual can see exactly what his project role is and what schedule demands he is working against. This listing is also helpful to management in reviewing manpower requirements and loading.

Another key feature is that the MAPS system is written for fast updating. Thus, management review can always be conducted with up-to-date information. The program has been found most effective when used in conjunction with a biweekly management review meeting; the printouts serving as both information and as a format from which to conduct the meeting. In the printouts, all new or updated information is identified as a change from the previous plan or schedule, which can be used as an exception reporting system. The information on the progress of each project element can be maintained on an exception reporting basis by individuals who are responsible for each work element listed.

Finally, the MAPS program is a resource saving tool. Experience to date on an R&D project involving over 100 professional personnel has shown that MAPS can be maintained on a detailed level by one operator utilizing about one-fourth of his time. The MAPS program is written so that no prior computer experience is required for an operator to effectively implement and maintain project computerized outputs.

MAPS has been specifically designed for planning and scheduling engineering project work; however, its flexible format capability permits a variety of other uses such as manpower and budget planning, configuration control, engineering work orders, drawing lists, parts lists, and others.

Notes:

1. This program is written in FORTRAN IV language and is currently being run on an IBM 7094 computer.

2. Requests for further information may be directed to:

Technology Utilization Officer
Lewis Research Center
21000 Brookpark Road
Cleveland, Ohio 44135
Reference: B71-10321

3. Requests for the computer program and documentation may be directed to:

COSMIC
Barrow Hall
University of Georgia
Athens, Georgia 30601
Reference: B71-10321

Patent status:

No patent action is contemplated by NASA.

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