

NASA TECH BRIEF



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Computer Program Conducts Facilities Utilization and Occupancy Survey

The problem:

Since its early period of development, the Jet Propulsion Laboratory has periodically experienced a shortage of "space". Though the intensity of the problem has varied during the past, it has always been necessary to critically examine the utilization of facilities in a systematic fashion. Early utilization surveys were conducted primarily with the help of ad hoc teams making tours of the facilities and then assembling the data for a presentation of the conditions at the time of the survey. Manual updating of this type of survey was a tedious, time consuming task, and as the laboratory staffing increased, it became wholly inadequate.

The solution:

A computer program was designed to identify the various uses of all offices, experimental laboratories, conference rooms, shops, etc., and to provide information on the net area in each room as well as the number and classification of people occupying them. When the data are assembled, punched on IBM cards, and processed through the computer, a record which will include every room in every building or trailer at JPL and its satellite facilities will be available. The system also provides a means to indicate unsatisfactory work areas and has the provision of being able to be updated each month.

How it's done:

The system itself is comprised of three programs and their subroutines:

(A) FACIL-S

1. This program provides a report itemizing the buildings and rooms being utilized by each organizational unit.
2. This program produces a single summary card for each organizational unit.

(B) JOHN I:

1. This program uses the summary cards to produce a summary report by organizational units for the total JPL.

(C) FACIL-B

1. This program provides a single report itemizing the rooms and their utilization in each building.
2. This program analyzes the building data and provides ten additional summaries, e.g., "Summary of Leased Buildings".

Notes:

1. The system is written in Fortran II for use on the IBM 7094-7044 computer. The three programs in the system can be processed separately or together. Approximately 1 1/2 hours of computer time are required to completely process the JPL data files consisting of about 3,500 room entries.
2. A similar system, also consisting of three programs, and written in Fortran II but for use on the IBM 1620 computer, is described in Tech Brief 67-10476. If inquiries concerning this system are made to COSMIC, the Tech Brief number must be included.
3. Inquiries concerning this program may be made to:
COSMIC
Computer Center
University of Georgia
Athens, Georgia 30601
Reference: B68-10137

Patent status:

No patent action is contemplated by NASA.
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(NPO-10438)
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