GECOS III TIME-SHARING SUBSYSTEMS

BASIC

BASIC (Beginner's All-Purpose Symbolic Instruction Code) is a problem-oriented, algebraic programming language that enables the user to present his program in ordinary mathematical notation, with simple and precise vocabulary and grammer. Its primary advantage is that only a few hours are needed to learn the language.

FORTRAN

Time Sharing FORTRAN IV is especially suited for solving scientific and engineering problems. The language is based on ASA standard FORTRAN and is intended to provide the facility for expressing any problem of numerical computation. In particular, problems comprised of large sets of equations and dealing with many variables may be handled easily. Added commands simplify terminal I/O for the user. A subset of TS FORTRAN is very similar to BASIC. Complete facility is provided for handling BCD, binary and random file I/O.

FORTRAN TRANSLATOR

The FORTRAN Translator is a time-sharing subsystem which allows the user to translate a time-sharing FORTRAN file into batch FORTRAN. This subsystem allows a user to design and debug a program in the very convenient time sharing FORTRAN, and then optimize its processing by converting to batch FORTRAN.

ABACUS

ABACUS is a subsystem which allows the time-sharing terminal to operate as a highly sophisticated desk calculator. Arithmetic statements are expressed in a FORTRAN-like manner and the evaluated results are printed after each carriage return. Included in the subsystem are commonly used functions (square root, trigonometic function, etc.), the commonly used constants (pi, e, etc.), and the ability to save the results of a calculation from expression to expression via symbolic name.

EDITOR

The EDITOR subsystem allows a user at a teletypewriter to enter text into a computer, edit it, store it, and retrieve it. The text may be of any kind: letters, lists, manuals or business records. EDITOR is especially useful for form letters, manuals, inventories, etc., which often need individual items changed. Portions of text may be added, deleted, or modified without changing the surrounding text.

RUNOFF

The RUNOFF subsystem (together with EDITOR) allows the user to specify the format in which a file is to be printed at the teletype and placed in a file. RUNOFF features include the ability to specify the number of lines on a page, the length of each line, justified right and left margins, page numbering, margin size, etc.

CARDIN

CARDIN allows the user to create a batch job stream at a time sharing terminal and have it passed to the batch world for processing. While the job is being processed in the batch mode the user may obtain status information on demand, or if he desires, he may wait for the completion of processing and be automatically notified of the termination status of the job. The user also has the capability of direct communication with his batch job. The SCAN subsystem complements CARDIN with its facilities to scan the job output.

RBUG

RBUG is a conversational debug routine available to, users of the CARDIN time-sharing subsystem. It provides all the capability of the existing batch world DEBUG package but in an interactive manner, allowing users to monitor the execution of his program, insert and remove breakpoints, and to alter the contents of memory locations and registers dynamically.

SCAN

The SCAN subsystem is designed to provide a means of conversationally examining output from batch jobs at a time-sharing terminal. The batch job may have been submitted through the CARDIN system, through remote-batch, or as a standard central-site job, with the output placed into the file system. Various options allow specialized scanning efficiencies for assembly listings, dumps, load maps, etc.

FDUMP

The FDUMP subsystem is a remote-terminal, word-oriented file inspection and maintenance facility for permanent files, regardless of their format. These files may have been generated in either the batch, remote-batch, or time-sharing environments. With the FDUMP subsystem, the user can examine and manipulate the content of any permanent file to which he has access, while working from his remote terminal.

HELP

The HELP subsystem will supply at the user's terminal a detailed explanation of any system error message.

ACCESS

ACCESS is a file system manipulation subsystem that allows the user to create, delete and modify file system catalogs, sub-catalogs and named files. The file space is manipulated with ACCESS, not the file content. Various types of permissions can be assigned either to the catalogs or the files. This system will also allow the time-sharing user to access files that have been saved by others, or that have been stored in the file system by means other than through time sharing (e.g., batch world files).

LODX

The LODX subsystem is used to load a subsystem program from a permanent file into the time-sharing system for checkout purposes. When necessary, octal patches may be applied to the subsystem after it is loaded into memory. The subsystem allows a thorough checkout of user system software before it is integrated into the command structure of TSS and in addition provides users with the capability of having specialized subsystems which are not a part of the total time-sharing system.

TDS

Terminal Debug Subroutine (TDS) allows the user to gain control at selected locations within the subsystem. When TDS is in control, the user may display and/or patch selected areas of the subsystem, display and/or modify registers, and either return to the subsystem normally or to a specified location within the subsystem. The user may add or delete breakpoint locations during operation of the subsystem.