Data General microNova

New Product Announcement

DOS BASIC: Data General made its first product enhancement to the microNova since deliveries of the product began in December 1976 with the recent announcement of DOS BASIC. Originally announced for the Nova Series, the DOS BASIC interpreter became available in May 1977.

DOS BASIC is a subset of RDOS Extended BASIC and is upward-compatible with both RDOS and AOS extended BASIC. The interpreter takes advantage of operating system features by supporting device independence, and features extensions to Dartmouth BASIC. These extensions include string arithmetic, matrix operations, user-controlled output formatting, and sequential, random, and contiguous file management. DOS BASIC also offers several program development features and an assembly-language interface that allows subroutine calls. Both single- and multi-user versions of DOS BASIC have been released by Data General.

DOS BASIC implements string variables and literals, string concatenation, and string subsetting. Users can determine the location of a character within a string or the number of characters assigned to a string variable. They can also convert a numeric expression to a string that is its decimal representation, and return the decimal representation of a string variable or literal. In addition, READ and IF/THEN statements may employ strings. Matrix manipulation is achieved through a set of statements such as ADD, SUBTRACT, MULTIPLY, INVERT, and TRANSPOSE. Data General states that matrix dimensioning and re-dimensioning can easily be accomplished. Complete matrices can be read or written in a single I/O call.

Users can dynamically create, access, and delete sequential, random, and contiguous files. For random files, record size is specified on a per-file basis in the range of 1 to 32,768 bytes. A similar range applies to contiguous files. Sequential file input/output can be performed with fixed or variable-length records on binary or ASCII data.

File protection is based on operator identification codes. Each operator signs on the system with an identification code through which files are created or accessed. Multiple identification codes cannot access the same files, but these files can be reidentified.

DOS BASIC·performs single-precision calculations on real numbers. The floating-point storage format is compatible with other Data General software, including FORTRAN.

String arithmetic allows operations on string variables up to 18 digits long. Literals to be operated upon can also be up to 18 digits long. String arithmetic operations include +, -, *, and /. These operations coexist with standard arithmetic operations.

Program development features include statements such as RE-NUMBER, CONTINUE, STOP and SIZE. These function to RE-NUMBER the statements in the current program, and to CONTINUE program execution from a specific line number after a STOP or an error has occurred. The SIZE statement provides the number of bytes used by a program and the number still available.

The minimum hardware configuration for single-user DOS BASIC is any Nova computer, microNova computer, or microNova computer on a board with 16K words of main memory, a dual diskette drive and controller, and one terminal with the appropriate interface. The minimum hardware configuration for multi-user DOS BASIC is any microNova with 32K words of main memory, a dual diskette drive and controller, and two terminals with appropriate interfaces. Additionally, a wide variety of peripherals can be supported on a Nova-based DOS BASIC system, including diskette drives, magnetic tape drives, line printer, paper tape reader and punch, plotter, and multiple terminals. 32K words of main memory is the maximum that can be supported.

DOS BASIC is available on the microNova for a one-time software fee of $1,000.□