SPERRY UNIVAC

SYSTEM 80

PROGRAM PRODUCT SPECIFICATION

BASIC-Beginner's All Purpose Symbolic Instruction Code

Type Number: 6224-00

SECTION 1

BASIC (the Beginner's All-Purpose Symbolic Instruction Code) compiler has been developed to provide instructional support and problem-solving capabilities with an easily learned language. BASIC supports advanced features of the language such as files, subprograms, string handling, chaining, user-defined functions, etc. The process of program entry is interactive; syntax errors are detected as the statements are entered. BASIC is compatible with the Dartmouth Time Sharing System BASIC and with the ANSI Standard for Minimal BASIC, with extensions.

PRODUCT FEATURES

BASIC provides an easily learned language and a simple method of entering and executing programs. New programs may be created at the terminal by typing each line of the program into BASIC. A syntax check is done, and if the statement is not correct it is returned for correction. The HELP facility provides information indicating the cause for the statement rejection and what is expected.

BASIC programs are stored in Library files. A program is initiated from the terminal. During execution, the program may solicit input from the terminal and display output. Errors detected during run-time are displayed on the terminal and, as in the case of statement entry errors, a HELP facility is available.

Major features of this compiler are:

Matrix Support – A series of commonly used operations are available in a single statement. Examples of a few of these are: inversion, transposition, determinants, matrix I/O, and dynamic redimensioning. Both one- and two-dimension arrays are supported for strings and numeric variables.

Intrinsic Functions – Built-in functions are available in four functional areas:

1. Numeric functions including: sine, cosine, tangent, cotangent, logarithm, absolute value, square root.

2. File-related functions including: end of file, file type, margin.

3. String functions including: substring, string search, length, concatenation, conversion.

4. Miscellaneous functions including: time, date, user-id.

User Functions - Users may define up to 26 numeric type functions and 26 string type functions composed in a single line or multiple lines. Global and local variables as well as passed parameters may be referenced.

Files and I/O - Temporary and permanent files containing string or numeric type data may be referenced. Formatted output including formatted matrix output is supported. Sequential and random files may be referenced.

Subprograms - Callable BASIC subroutines may be created and referenced. A subroutine library facility is available to locate subprograms not included with the program source. Passed parameters may be variables, expressions, arrays, function definitions, function values, and files.

Chaining - Programs may be segmented into smaller modules by chaining. The chained segments may be located in library files on BASIC data files.

String - String handling is supported for strings up to 4095 characters.

A simple-to-use editor is an integral part of BASIC; it provides the facility to list or delete sections of the program based on line numbers or character strings within the line. Lines may be modified by retyping them with the change.

SOFTWARE REQUIREMENTS

BASIC requires the following OS/3 software products for operation:

- SCS - OS/3 System Control Software
- ICAM Terminal Support Facility (if required)

HARDWARE REQUIREMENTS

BASIC will operate on any System 80 model and configuration that meets the minimal hardware configuration requirement for that specific model and satisfies the main storage requirements specified in the software release documentation accompanying each release.

Additional main storage and/or peripheral devices may be required, depending on the user's selection of the system's supported features and the size of the user's programs, files and data bases.

SECTION II

CUSTOMER EDUCATION

Sperry Univac makes available customer education related to this program product. Course availability and schedules are contained in the published course catalog. Charges for courses will be at the then prevailing rates. Customers should contact their local Sperry Univac representatives for enrollment procedures.

PROGRAM PRODUCT SUPPORT

Sperry Univac will endeavor to correct any significant error in an unaltered current release of the Program Product, which the customer brings to the attention of Sperry Univac in accordance with establishing correction procedures. Sperry Univac does not represent or warrant that all errors will be corrected. This error correction service may result from time to time in update releases which the customer will install. Sperry Univac reserves the right to alter the classification of this Program Product to reflect changes in policy or support requirements.

ORDERING INFORMATION

This Program Product and its associated documentation may be leased from Sperry Univac at separately stated lease charges. Upon execution of a Supplement for Program Products (Form UD1-1306) or its equivalent for this Program Product, the following will be provided:

1. A magnetic tape, diskette(s) or removable disk media in OS/3 Operating System format containing:

   - BASIC
   - Installation Verification Program

2. One copy of the associated documentation:

   - Software Release Documentation
   - BASIC Programmer Reference, UP-9168
   - Introduction to BASIC, UP-8801.