This is a complete PDP-8 DECUS Library Catalog. It includes a complete listing of current PDP-8, BASIC-8, and FOCAL-8 DECUS programs.

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DDCMP: Half-Duplex Subset of Digital Data Communications Message Protocol

Author: Jonathan R. Gross
Digital 8030 Cedar Avenue So. Minneapolis, MN
Operating System: RTS-8
Source Language: PAL-8
Memory used: 32000 words

Abstract: DDCMP is a half-duplex, point to point, dial up subset of D. E. C.'s Digital Data Communications Message Protocol implemented as an RT8 task. DDCMP permits the synchronous communication of data messages between two computer systems.

Media Price Code: A2, B4, G18

OS/8 FORTRAN-IV Routines

Author: Lars Palmer and Robert Phelps
Alistair Windran AA Hassle, Fack Sweden
Operating System: OS/8
Source Language: RALF and PAL-8
Other Software Required: OS/8 FORTRAN IV

Abstract: This tape contains in the first place several useful FORTRAN routines:
1. REGIST which is made up of several small routines.
   a) a routine to pass command decoder switches to a running FORTRAN program.
   b) a routine to perform IO to several laboratory devices and execute random IOT's from FORTRAN code.
2. FILSZ which will allow a FORTRAN program to determine the size of a file given to the Run Time System.
3. BITS which will allow a program to store up to 36 logical variables in one FORTRAN variable.
4. ICHAR which will allow a program to fetch and send single characters to the console. This allows the FORTRAN program to do detailed control over all output characters.

The tape also contains the sources to all patches to the FORTRAN Run Time System published in the Newsletter and the /M patch to PASS3 mentioned in the Newsletter. It also contains other bits and pieces such as TECO macros which are of use in various situations.

Media Price Code: A2, H32, K27
Format: OS/8

Improved Mini Debugging Technique

Author: Theodore E. Bridge
Springfield, MA
Operating System: Paper Tape
Source Language: Abbreviated PAL
Memory Required: 4K

Abstract: This program uses the BIN loader and the Punch overlay of DECUS 8-523 almost unchanged. The modify and octal dump overlays are much improved. Four other overlays are added. This debugging technique will now do almost everything that the DEC ODT will do; but it occupies only the last page of memory 7600-7777.

Media Price Code: D2, F5

CASTOR: Sykes Cassette Editor

Author: M. G. Fishel, G. Vandermeulen, R. Vyncke, and S. Orloff
Free University, Brussels, V.U.B., Belgium
Source Language: PAL-III
Memory Required: 4K (0000-2673)
Special Hardware Required: Sykes 3000 series cassette
Other Software Required: Symbolic Editor

Abstract: Program CASTOR overlays Digital's symbolic Editor to enable reading and writing on a SYKES 3000 series cassette unit, it uses the ASR-33 or (and) the VT05. This results in considerable time savings when assembling PAL programs since PAL III has also been modified to accept symbolic source programs directly from the SYKES 3000 series cassette unit (PALLUX). The original FORM FEED (F), GET (G) and TRAILER (T) commands, the ESCAPE key and the high speed paper tape reader and punch routines are inoperative.

CASTOR was written for a system with the following configuration: PDP-8E, VT05, ASR-33 and SYKES 3220.

Media Price Code: A2, B2, F5, G16

BLKPIP: OS/8 Transfer Program for Files and Blocks

Author: Karlheinz Siehold and Friedeman Brauer
HNO Forschungstrakt Klinikum Westend Spandauer Damm
D-1000 Berlin (West) 19 Germany
Operating System: OS/8
Source Language: PAL-8
Memory Required: 8K

Abstract: BLKPIP is an OS/8 Transfer Program. Various OS/8 files and blocks can be chained, creating a new file or a set of contiguous blocks. The program replies with the command decoder "***" when called. Sets of blocks are specified by starting block number, followed by the octal number of blocks: NNNN, MMMM. If less than 100 (octal) blocks are required, the two digit octal number can be given as "extension": NNNN, MM. BLKPIP doesn't open files already existing. The program is useful for blockwise transfer of data, recovering files from "smashed" devices, etc.

Media Price Code: D2, F5, G8, K27
Format: OS/8

IPSIV: Slave Program, and DB8E Interprocessor Buffer Handler

Author: Karlheinz Siehold and Friedeman Brauer
HNO Forschungstrakt Klinikum Westend Spandauer Damm
130 D-1000 Berlin (West) 19 Germany
Operating System: OS/8
Source Language: PAL-8
Memory Required: 8K
Special Hardware Required: DB8E Interprocessor Buffer

Abstract: OS/8 slave program, and DB8E interprocessor buffer device handler (1-page) for the host computer. The program replies with the command decoder when called. The name of an OS/8 device belonging to the slave computer requested (where the DB8E device handler must be implemented into the OS/8 system with "build")CTRL/U selects another device; CTRL/C goes back to OS/8 monitor the program is restartable at 2000.

Media Price Code: D2, F5, G6

VT50 CURSOR MOVE

Author: Jeffrey Shrager
Radnor High School, Newton Square, PA
Operating System: OS/8
Source Language: PAL-8
Other Software Required: OS/8 BASIC

Abstract: Direct BASIC cursor control of the VT50 line of CRT can entail a rather complex BASIC subroutine. CMOVE enables the programmer to pass the vertical and horizontal coordinates to a BASIC/8 user function which will move the cursor to that position and stop.

Media Price Code: D2
BASIC8-91—BASIC8-100

BASIC8 Abstracts

BASIC8 Single Key Reader
Author: Jeffrey Shragar
Radnor High School
Operating System: OS/8
Source Language: PAL-8
Other Software Required: OS/8 BASIC

Abstract: It is often convenient to be able to read a single keystroke in the process of a BASIC program. Normal input is done via the INPUT statement, but this method requires that the user type a return at the end of input. KEYIN permits the program to poll the terminal for keystrokes and read and process these keys without having to stop the program and wait for input.

Restrictions: BRATS User Overlay Area

Media Price Code: D1

BASIC8-92

Symbolic Editor Program
Author: Christopher A. Kryzan
Northwestern University, Chicago, IL
Operating System: EDU-30
Source Language: BASIC
Memory Required: 4K

Abstract: Text-editing and word processing facilities are welcome and desired on all computer systems, including small systems with only one available compiler at one time period. In order to provide editing capabilities on even these small systems, EDITOR was created. BASIC was seen as one of the most abundant system languages in use on small high-school-systems, and thus EDITOR was designed in the BASIC language. Text-editing capabilities similar to standard DEC editors and a character capacity of up to 6000 characters serve to enhance EDITOR's attractiveness.

Media Price Code: D6, G7

BASIC8-94

Scrambled Word Generator
Author: Christopher A. Kryzan
Northwestern University, Chicago, IL
Operating System: EDU-30
Source Language: BASIC

Abstract: Oftentimes instructors wish to supplement their lectures with extraordinary teaching aids. One common method utilized by teachers is scrambled word lists. In order to increase the ease with which lists can be compiled, SCRMBL was created. This program will scramble words in lists of up to 150 characters (or more on larger computer systems). An attractive feature of this program is its ability to generate multiple for mass distribution.

Media Price Code: D1, G5

BASIC8-95

MADMAZ Maze Generator
Author: Christopher A. Kryzan
Northwestern University, Chicago, IL
Operating System: EDU-30
Source Language: BASIC

Abstract: Computers have many non-scientific applications in addition to their technical side, one of which is found in demonstrations and gaming. An interesting sub-genre of this is the construction and solution of puzzles. MADMAZ is designed to create 15 x 15 maze puzzles, replete with solutions as well. Execution can be quite lengthy, but the results are well worth the wait.

Media Price Code: D2, G5

BASIC8-96

Paper Tape Message Generator
Author: Christopher A. Kryzan
Northwestern University, Chicago, IL
Operating System: EDU-30
Source Language: BASIC

Abstract: A variety of programs to produce punched tape messages have been published, but this particular version proves to be one of the most efficient yet designed in BASIC. The program consists simply of a data list of characters and a routine to enter and output the message, creating punched tape records of up to 400 characters in length.

Media Price Code: D1, G5

BASIC8-97

HOCKEY
Author: Joseph Cannata
State University of New York at Stony Brook, NY
Source Language: BASIC

Abstract: This version of HOCKEY is designed to simulate almost every facet of the game. To start, the rink was divided into 24 zones with an odd-even numbering scheme. This allowed control and monitoring throughout the program. Because of this system, icing, offside passes, and passing could be built in. Icing and offsides are checked by differences in zones. Passing is based on a probability of completing a pass, depending upon whether it is a long or short pass, or whether it is a lateral or back pass.

Restrictions: This program was written for use on a Univac 1110 computer, and will require modification for use on most other versions of BASIC. There are approximately 350 lines of code.

Media Price Code: D2

BASIC8-98

Compass Deviation
Author: G. Brent Dalrymple
U.S. Geological Survey, Menlo Park, CA
Operating System: OS/8
Source Language: BASIC
Memory Required: 8K

Abstract: This OS/8 BASIC program calculates the deviation of a boat's compass using the relative bearing of a celestial body and the True Azimuth method. A knowledge of the compass heading, the boat's position, the local magnetic variation and the GHA and declination of the body are also required. The program will accept up to 51 data sets for various compass headings and completes execution by printing a deviation table. The program runs in 8K of core.

Media Price Code: D2, G5

BASIC8-100

Bowling Record Tabulator
Author: Jerry N. Rabinowitz
Claymont School District, Claymont, DE
Operating System: Paper Tape
Source Language: BASIC-8
Memory Required: 8K
Special Hardware Required: Teletype recommended

Abstract: This two-part program will tabulate weekly records for a bowling league with twelve four man teams; but, can be used for leagues with any number of teams, and any number of bowlers. It will run under virtually any version of BASIC—NO string handling capabilities are required.

Media Price Code: D2, G8
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