

DESCRIPTION

The UCSD Operating System is a disk based single user software system for program development, text editing and word processing, and interactive applications on the Terak 8510 and 8510/a computer systems. The system is designed around, and includes the UCSD Pascal Language compiler. The Language is essentially identical with the Pascal as defined by 'the Report' by K. Jensen and N. Wirth (Springer Verlag, NY). Extensions have been added for separate compilation, overlaying of segments within a program, assembly language procedures, strings, interactive and random access I/O, extended precision decimal numbers, and graphics support. A screen oriented text editor allows rapid entry of documentation and programs. A large file screen oriented editor supports random access to text files. The file manager supports 'wild card' file operations, and disk file maintenance. A system library, librarian utility, and linker support procedure libraries. An assembler supports real time or high speed programming requirements. A Basic language compiler is also included. A complement of utilities support program development, intercomputer communication, graphics display creation, animation, and Pascal programming techniques. A 'student' system is also included, with intrinsic turtle graphics.

FEATURES

- EASE OF USE — single keystroke commands, and prompt lines aid system operation.
- PASCAL — structured control and data can halve development time, create lucid, maintainable programs.
- SCREEN ORIENTED EDITOR — rapid visual feedback of affect of commands, and context and format of text being edited, speeds composition.
- GRAPHICS — library and intrinsic procedures, turtle graphics, screen oriented graphics editor, and animation support.
- PORTABILITY — entire O/S runs on a pseudo machine architecture compatible with other hardware. Pascal programs are highly machine independent.
- TERAK HARDWARE SUPPORT — writeable character set editor, loader. Serial communications support. Sources for many utilities.

SYSTEM PROGRAMS

- SYSTEM.COMPILER — compiles typically at 600 to 800 lines per minute with an optional 'swapping' mode which allows compilation of very large programs. Supports separate compilation of procedures. Optionally directs text editor to place page cursor at location of errors. Very close implementation of Jensen and Wirth Pascal. Supports strings, extended precision decimal numbers and operating system functions. Supports segment procedures — overlays — to conserve memory.
- STUDENT SYSTEM — compiler intrinsically supports 'turtle graphics', allowing quick, simple use of the graphics display of the Terak 8510/a.
- SYSTEM.LINKER — Searches library files to resolve external procedure and unit (module) references of a '.CODE' file.
- LIBRARY.CODE — links separately compiled segments (procedures) into library files, for use by SYSTEM.LINKER.
- SYSTEM.ASSEMBLER — assembles the PDP-11 instruction set. Emits machine code which may be linked as procedures into Pascal programs.
- BASIC.COMPILER — supports a subset of Dartmouth Basic. Emits P-code which may be linked with Pascal procedures, or run directly.
- SYSTEM.FILER — file transfer, compression, and maintenance. Single disk drive system support.
- SYSTEM.EDITOR — screen oriented text editor which supports both programming and word processing modes of operation. As editing proceeds, screen display is updated with each keystroke to closely represent the actual or potential appearance of the text. All deletions and insertions allow a decision point for the operator to cancel the command after observing its effect. Deleted text may be immediately copied back, or moved. Commands are single keystroke. Cursor positioning indicates locations in text for editing. Clear prompt lines provide the state of the editor and options available.
- L2.CODE — similar to SYSTEM.EDITOR including random access to text files, both forward and reverse pipeline, for files larger than memory capacity. Supports user settable tab stops.

- PATCH.CODE — allows direct inspection, change, and dump of files.
- YALOE.CODE — a line oriented text editor for 'dumb' terminals.
- XREF.CODE — Pascal program cross reference generator.
- GREDIT.CODE — screen oriented graphics display editor.
- RT2PAS.CODE — DEC RT-11 to UCSD Pascal file transfer utility.

- TERMINAL.TEXT — general asynchronous terminal emulator, and communication facility for computer to computer file transfer.
- CHARACTER SETS — a large collection of character set files covering mathematical symbols, primitive graphics, and foreign languages.
- DEMONSTRATION and UTILITY FILES — user directory manipulation, graphics animation, character set editor and loader, graphics demonstrations, with sources of many programs to help the user in getting started with Pascal and Terak 8510/a graphics.

MANUALS and MATERIALS

Included with this software product are the following manuals:

- UCSD Pascal Operating System Manual (UCSD)
- Pascal User Manual and Report (K. Jensen and N. Wirth)
- A Practical Introduction to Pascal (I. Wilson and A. Addyman)
- Microcomputer Problem Solving Using Pascal (K. Bowles)

The software is delivered on Terak compatible (3740) diskettes.

WARRANTY

For one year from date of purchase, Terak will warrant that the software will perform for the purchaser as described in the most recent product description, provided through the submission of and response to Software Performance Report (SPR) forms.

MINIMUM HARDWARE REQUIRED

Terak 8510 with EIS/FIS, or Terak 8510/a Data Processor, with 28K words of memory.

OPTIONAL HARDWARE SUPPORTED

Up to three 8512 disk subsystems, Terak 8540 line printer, Serial interface I/O.

ORDERING INFORMATION

This software is provided for use only on Terak equipment, at a single installation site, and can be copied or modified only for use at such site, except as may otherwise be allowed in writing from Terak. Manuals are available separately. Consult your distributor or Terak for further ordering information, or further description of this product.

TERAK is a registered trademark of Terak Corporation.
 DEC and PDP-11 are trademarks of Digital Equipment Corporation.
 UCSD PASCAL is a trademark of the Regents of the University of California.
 BASIC is trademark of the Trustees of Dartmouth College.

All information, specifications, and related data were correct when approved for printing. Terak reserves the right to make changes without prior notice and without incurring obligations.