Software Product Description

PRODUCT NAME: PDP-11 Symbolic Debugger/VAX to RSX, Version 2.2 **SPD 26.75.04**

DESCRIPTION

PDP-11 Symbolic Debugger is a fully symbolic debugger for FORTRAN-77 and MACRO-11 programs running on VMS under VAX-11 RSX. PDP-11 Symbolic Debugger is a tool to aid in locating programming errors in successfully compiled programs that do not execute properly.

PDP-11 Symbolic Debugger runs as a two-task debugger. A small portion of the code, necessary to debug applications, is linked with the user task and the major portion of the debugger runs as a separate task.

PDP-11 Symbolic Debugger provides access to program symbols by reading the symbol table file produced by the task builder. PDP-11 Symbolic Debugger can understand symbols produced by FORTRAN-77 and MACRO-11.

Features

- DEPOSIT and EXAMINE all data types supported by FORTRAN-77 (except virtual array elements).
- Full tracepoint and breakpoint functionality for monitoring the execution of user applications, including the ability to delay the activation of a tracepoint or breakpoint until after it has been encountered a specified number of times. The user also has the ability to specify an action to perform on encountering a tracepoint or breakpoint. The user has the option to specify conditional tracepoints or breakpoints using the WHEN mechanism.
- Control of execution using STEP by LINE or INSTRUCTION, STEP INTO routines or OVER routines, and the GO command.
- Computation of the value of source language expressions or of address expressions using the EVALUATE command.
- Full support for overlaid code including the ability to set tracepoints and breakpoints on locations not currently resident. PDP-11 Symbolic Debugger can distinguish among multiple copies of modules located at different points in the overlay structure.
- The ability to drive a debugging session using indirect command files and to record the results of a debugging session by command logging. PDP-11 Symbolic Debugger can be used interactively or in batch mode.
- On-line Multi-level Prompting HELP Facility that allows the user to receive information about the commands accepted by PDP-11 Symbolic Debugger during a debugging session.
- DATA-TYPE Table showing languages and their equivalent data types in the on-line HELP files.
- Indirection of address expressions for examining data structures at one level of indirection in only one step.

At Compile Time

To enable debugging of FORTRAN-77 programs, the user must specify a switch in the compiler command line. This switch specifies that the information about the symbols in the FORTRAN-77 application will be put into the object file created by the compiler.

To enable debugging of MACRO-11 programs, the user must specify a switch in the assembler command line. This causes information about the symbols in the assembly language program to be available to PDP-11 Symbolic Debugger.

At Taskbuild Time

When taskbuilding the application which will be run under control of PDP-11 Symbolic Debugger, the user must modify the taskbuilder command line and the overlay description file to include the PDP-11 Symbolic Debugger kernel.

HARDWARE REQUIREMENTS

VAX configuration as specified in the System Support Addendum (SSA 26.75.04-x).

SOFTWARE REQUIREMENTS*

- VMS Operating System
- VAX-11 RSX

OPTIONAL SOFTWARE*

- PDP-11 FORTRAN-77/VAX to RSX
- MACRO-11 (included as part of the prerequisite VAX-11 RSX)

* Refer to the System Support Addendum for availability and required versions of prerequisite/optional software (SSA 26.75.04-x).

ORDERING INFORMATION

Software Licenses: QL-139A*-**
Software Media: QA-139A*-**
Software Documentation: QA-139AA-GZ
Software Product Services: QT-139A*-**

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