Software Product Description

DESCRIPTION

PDP-11 DATATRIEVE/VAX is an interactive query, report, and data maintenance system designed for the less sophisticated computer user. DATATRIEVE/VAX runs under the VMS Operating System in conjunction with VAX-11 RSX. DATATRIEVE/VAX utilizes the RMS (Record Management Services) to access data contained in disk files of sequential, indexed, or relative organization. DATATRIEVE/VAX provides facilities for selective data retrieval, sorting, formatting, updating, and report generation without the need for programming.

Record and domain (file) definitions entered in DATATRIEVE/VAX are stored in Data Dictionaries shared by DATATRIEVE/VAX users. Dictionaries can also be used to store frequently used sequences of commands to be recalled and processed later. Commands are provided to list the contents of the Data Dictionary, to delete entries, and to control access to individual entries in the Data Dictionary. A Dictionary Compression utility is provided to compress the Data Dictionary index file.
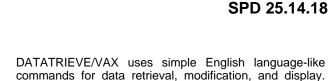
DATATRIEVE/VAX enables the user to define domains that cross RMS file definitions and subset record definitions.

DATATRIEVE/VAX provides an Application Design Tool (ADT) to assist the novice user in creating domain and record definitions. The ADT uses an interactive dialogue technique to guide the user through the data definition process. It creates an indirect command file that is then processed to actually update the DATATRIEVE/VAX Data Dictionary.

The DATATRIEVE/VAX report writer provides easy-to-use commands to control the following report functions:

- Report name, date, and page numbering
- Page width and length specification
- Detail line specification
- Multiple control break specification with automatic totaling at any level
- Multiple report sections

DATATRIEVE/VAX report commands can be freely intermixed with other DATATRIEVE/VAX commands.

DATATRIEVE/VAX uses simple English language-like commands for data retrieval, modification, and display. Prompting is automatic for both command and data entry. The major commands are as follows:

- HELP provides a summary of each DATATRIEVE command.

- READY identifies a domain for processing and controls the access mode to the appropriate file.

- FIND establishes a collection (subset) of records contained in either a domain or a previously established collection based on a Boolean expression.

- SORT reorders a collection of records in either an ascending or descending sequence based upon the contents of one or more fields in those records.

- PRINT prints one or more fields of one or more records. Output can be optionally directed to a line printer or disk file. Format control can be specified. A column header is generated automatically.

- SELECT identifies a single record in a collection for subsequent individual processing.

- MODIFY alters the values of one or more fields for either the selected record or all records in a collection. Replacement values are prompted for by name.

- STORE creates a new record. The value for each field contained in the record is prompted for by name.

- ERASE removes one or more records corresponding to the appropriate domain.

- FOR executes a subsequent command once for each record in a collection providing a simple looping facility.

- EDIT invokes an editor (EDT) that inserts, replaces, or deletes text from procedures defined in the Data Dictionary.

- DROP allows the user to drop selected records from a collection.

- DECLARE defines global and local variables to be used within a DATATRIEVE query.

- DEFINE provides a consistent mechanism for creating domain, record, procedure, table, and view definitions in the Data Dictionary.

- REDEFINE - Functions similarly to DEFINE, but an implicit delete is performed on the previous version of the dictionary object.

DATATRIEVE/VAX provides lexical functions consisting of the following four groups:

- Functions using numeric data:

  - FN$ABS - Calculates absolute value of input

  - FN$MOD - Calculates value of input according to specified modulus

  - FN$SIGN - Indicates the sign of a number

- Functions using alphanumeric data:

  - FN$STR__EXTRACT - Extracts substring from input using a default edit string of 30 characters.

  - FN$STR__LOC - Calculates starting position of substring in input

  - FN$UPCASE - Changes characters in string to uppercase

- Functions using dates:

  - FN$JULIAN - Calculates Julian date of input

  - FN$YEAR - Extracts year part of input

  - FN$MONTH - Extracts month part of input

  - FN$DAY - Extracts day part of input

  - FN$TIME - Extracts time part of input

  - FN$HOUR - Extracts hour part of input

  - FN$MINUTE - Extracts minute part of input

  - FN$SECOND - Extracts second part of input

  - FN$HUNDREDTH - Extracts hundredth-of-a-second part of input

  - FN$DATE - Converts a date string to an 8-byte data value

- Function relating to processes:

  - FN$DCL - Allows you to spawn directly from your main DATATRIEVE process to a specified Digital Command Language (DCL) command.

In addition to the simple data manipulation commands, a number of more complex commands are available for the advanced user. These commands, such as REPEAT, BEGIN-END, and IF-THEN-ELSE, can be used to combine two or more DATATRIEVE/VAX commands into a single compound command. These, in turn, can be stored in the Data Dictionary as procedures for invocation by less experienced users.

DATATRIEVE/VAX provides a full set of arithmetic operators (addition, subtraction, multiplication, division, and negation) and a set of statistical operators (total, average, maximum, minimum, and count), and provides data types used in the FORTRAN, COBOL, DIBOL, and BASIC-PLUS-2 languages. An additional data type is provided that supports time and recognizes various date formats.

DATATRIEVE/VAX provides data encoding, decoding and input validation capabilities through tables stored in the Data Dictionary. The user can also check data validity by storing validation criteria in the record definition.

SOURCE CODE INFORMATION

The following source code modules are provided on all magnetic distribution media:

- MESSAGE TEXT

- DATATRIEVE DICTIONARY

- OBJECT DEFINITION

  - DOMAINS
  - RECORDS
  - PROCEDURES
  - TABLES

HARDWARE REQUIREMENTS

VAX configuration as specified in the System Support Addendum (SSA 25.14.18-x).

SOFTWARE REQUIREMENTS*

VMS Operating System

VAX-11 RSX

* Refer to the System Support Addendum (SSA 25.14.18-x) for availability and required versions of prerequisite/optional software.

ORDERING INFORMATION

Software Licenses: QL-105A*-**
Software Media: QA-105A*-**
Software Documentation: QA-105AA-GZ
Software Product Services: QT-105A*-**

* Denotes variant fields. For additional information on available licenses, services and media, refer to the appropriate price book.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions. For more information about DIGITAL's licensing terms and policies, contact your local DIGITAL office.

LICENSE MANAGEMENT FACILITY

This layered product supports the VMS License Management Facility.

License units for this product are allocated on a CPU-capacity basis.

For more information on the License Management Facility, refer to the VMS Operating System Software Product Description (SPD 25.01.xx) or the License Management Facility Manual of the VMS Operating System documentation set.

For more information about DIGITAL's licensing terms and policies, contact your local DIGITAL office.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from DIGITAL. For more information contact your local DIGITAL office.

SOFTWARE WARRANTY

Warranty for this software product is provided by DIGITAL with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

System Support Addendum

HARDWARE REQUIREMENTS

Processor Support

VAX: VAX 6210, VAX 6220, VAX 6230, VAX 6240, VAX 6310, VAX 6312, VAX 6320, VAX 6330, VAX 6333, VAX 6340, VAX 6350, VAX 6360, VAX 8200, VAX 8250, VAX 8300, VAX 8350, VAX 8500, VAX 8530, VAX 8550, VAX 8600, VAX 8650, VAX 8700, VAX 8800, VAX 8810, VAX 8820, VAX 8830, VAX 8840, VAX 8842 VAX 8974, VAX 8978

VAX-11/730, VAX-11/750, VAX-11/780, VAX-11/785

VAXserver: VAXserver 6210, VAXserver 6220, VAXserver 6310, VAXserver 6320

Processors Not Supported

MicroVAX, VAXstation, VAXserver 3300, VAXserver 3400, VAXserver 3500, VAXserver 3600, VAXserver 3602

Block Space Requirements (Block Cluster Size = 1):

Disk space required for installation:

3,300 blocks
(1.69M bytes)

Disk space required for use (permanent):

2,400 blocks
(1.23M bytes)

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options selected. Verify that within this disk space requirement that you have 275 contiguous blocks.

OPTIONAL HARDWARE

None

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VAXcluster* configuration without restrictions. The HARDWARE REQUIREMENTS sections of this product's Software Product Description and System Support Addendum detail any special hardware required by this product.

* V5.x VAXcluster configurations are fully described in the VAXcluster Software Product Description (29.78.xx) and include CI, Ethernet and Mixed Interconnect configurations.

SOFTWARE REQUIREMENTS

VMS Operating System V5.1

VAX-11 RSX V2.4

VMS Tailoring

This product runs under VAX-11 RSX. For VMS V5.x systems, the following VMS classes are required for full functionality of this layered product:

- VMS Required Saveset

For more information on VMS classes and tailoring, refer to the VMS Operating System Software Product Description (SPD 25.01.xx).

OPTIONAL SOFTWARE

None

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the minimum requirements for the current version.

DISTRIBUTION MEDIA

Disk: RX01 Floppy Diskette

Tape: 9-track 1600 BPI Magtape (PE), TU58 DECtape II Cartridge

digital
software

ORDERING INFORMATION

Software Licenses: QL-105A*-**
Software Media: QA-105A*-**
Software Documentation: QA-105AA-GZ
Software Product Services: QT-105A*-**

* Denotes variant fields. For additional information on available licenses, services and media, refer to the appropriate price book.

The above information is valid at time of release. Please contact your local DIGITAL office for the most up-to-date information.