Software Product Description

PRODUCT NAME: DECintact, Version 2.0 **SPD 29.58.04**

DESCRIPTION

The DECintact product provides a foundation for building simple and complex transaction processing applications on one or more VAX systems under the VMS operating system. The DECintact product runs as a collection of services and several processes under the VMS operating system. DECintact supports either single-threaded (per-process) or multithreaded (server) application program design methodologies. Multiple versions of the DECintact product can execute at the same time and share the same physical memory, while remaining completely independent. The DECintact product offers the following major facilities:

- Front-end services
- Database services
- Two-phase commit
- DECtrace support
- LSE templates
- Security and menu dispatching
- File management and restart/recovery
- Queue management
- Network management

Front-end Services

The DECintact product supports DECforms forms or DECintact forms within DECintact terminal-based applications. A single system menu can display multiple applications, some using DECforms and some using DECintact forms. However, a single application can not mix forms products.

DECforms forms

Access to DECforms services is available through a set of DECintact routines. For more information on DECforms, refer to the DECforms Software Product Description (SPD 19.90.xx).

DECintact forms

DECintact forms supports VT100, VT200 and VT300 (in VT200 emulation mode) series terminals as though they were intelligent block-mode terminals. Programmers create screen forms interactively through the Terminal Forms Editor (TFE). Forms are virtual in length, and multiple forms can be windowed on a single terminal. Fields on a form have video and /or edit attributes, which are handled by the terminal management facility. A user-written edit routine facility exists, which allows character, field, and form editing to be augmented by the programmer. The ability to print a hard copy of the screen is a built-in service of the terminal management facility.

Database Services

The DECintact product allows multithreaded applications to access synchronous resource managers such as VAX Rdb/VMS and VAX DBMS. Also included are facilities to monitor/configure this environment (that is, control the number of server pool instances, and monitor overall server pool throughput).

Two-Phase Commit

Utilizing the DECdtm component of the VMS operating system, the DECintact product can coordinate distributed transactions to perform atomic updates to multiple and/or different resource managers that are DECdtm compliant (for example, VAX Rdb/VMS, VAX DBMS, and DECintact queues).

DECtrace Support

The DECintact product allows the collection of performance event data by DECtrace at two levels. The first level allows the collection of performance event data from within the DECintact code. The second level involves allowing application programmers to insert DECtrace calls into their application code.

LSE Templates

The DECintact product provides LSE DECintact routine templates to allow programmers to generate DECintact applications more quickly and accurately.

Security and Menu Dispatching

The DECintact product provides a comprehensive security and menu system. A mechanism for establishing security profiles for local/remote users and terminals is provided. The DECintact product makes use of a hierarchical menu system that permits references to both lower-level menus and to menu functions directly invoking applications. All menu items can be protected, and users are shown only those items for which they have proper entitlement. Hours of operation, password expiration, transaction audit, and response-time reports are among the features of the DECintact security system.

File Management

Digital's Record Management Services (VAX RMS) is used for file and record access. The DECintact File Management facility improves upon its use of the VAX RMS facility by supporting shared relative files, logically deleted records, and implicit file openings. The DECintact product also supplies its own hash file access support, which provides a high performance method of inserting and retrieving records. All record operations are considered atomic for the purposes of restart /recovery.

There are two options for recovery of VAX RMS files: DECintact Recovery and RMS Journaling. Both coordinate with DECdtm (Two-Phase Commit) to provide both recovery-unit journaling and after-image journaling. DECintact users can choose either recovery method (DECintact or VAX RMS Journaling) on a file by file basis.

DECintact Recovery

This service is provided as part of the base DECintact product.

VAX RMS Journaling

This is an optional service. For information on VAX RMS Journaling, refer to the VAX RMS Journaling Software Product Description (SPD 27.58.xx).

Queue Management

The DECintact product provides a comprehensive set of routines that support the creation of disk-based and/or memory-based queues. A queue consists of items that are priority ordered with up to 65,000 priority classes per queue. Queue items may be inserted FIFO or in priority order and are removed either FIFO or atomic for the purposes of restart/recovery. All disk-based queues are fully recoverable. The DECintact product supports remote queues, queue sets, multiple queue insertions, enqueue-level threshold alarms, and proof and reconciliation statistics.

Network Management

The DECintact product supports explicit and implicit remote access at the menu-item level and uses DECnet facilities for intersystem communication. Network access is supported at two levels: peer-to-peer and front-end-to-host. Peer-to-peer access allows users with sufficient entitlement to invoke applications remotely on another participating DECintact system. Front-end-to-host access provides a transparent method of off-loading forms management (including both built-in and user-written validation) and menu level security from a host onto a VAX front-end system. A VAX front-end system also offers automatic host failure rollover in the event that a CPU within a host VAXcluster system fails.

VAXcluster Features

The DECintact product supports the building of simple, as well as complex, VAXcluster applications. All DECintact file accesses, as well as all disk-based queue operations, utilize the VMS distributed lock manager to arbitrate cluster wide system resources. The DECintact system support of VAXcluster features in conjunction with its own restart/recovery strategies can be used to simplify the implementation of high availability applications.

Development Option

The DECintact Development Option provides all features of the product for the application development environment.

Run-Time Option

As a subset of the Development Option, the DECintact Run-Time Option allows existing, developed applications to be run in a production environment under an alternate license. This option does not provide the facilities for developing applications.

Remote-Access Option

As a subset of the Run-Time Option, the Remote-Access Option provides the ability to off-load the Terminal Management Facilities in a distributed application environment, to ‘‘remote’’ or ‘‘front-end’’ systems under an alternate license.

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXstation or VAXserver configuration as specified in the System Support Addendum (SSA 29.58.04-x).

SOFTWARE REQUIREMENTS*

For Systems Using Terminals (No DECwindows Interface):

VMS Operating System

For Workstations Running VWS:

VMS Operating System
VMS Workstation Software

In addition to these requirements, DECnet–VAX is required for the Remote-Access Option.

* Refer to the System Support Addendum (SSA 29.58.04-x) for availability and required versions of prerequisite/optional software and for information regarding components of VMS DECwindows.

ORDERING INFORMATION

Development Option

Software Licenses: QL-VF1A*-**
Software Media: QA-VF1A*-**
Software Documentation: QA-VF1AA-GZ
Software Product Services: QT-VF1A*-**

Run-Time Option

Software Licenses: QL-VF2A*-**
Software Media: QL-VF2A*-**
Software Documentation: QA-VF2AA-GZ
Software Product Services: QT-VF2A*-**

Remote-Access Option

Software Licenses: QL-VF3A*-**
Software Media: QL-VF3A*-**
Software Documentation: QL-VF3AA-GZ
Software Product Services: QT-VF3A*-**

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

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LICENSE MANAGEMENT FACILITY SUPPORT

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.

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.

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