digital™ AV–N037M–TE

Before You Install VAX Rdb/VMS V4.0

Enclosed is the kit for VAX Rdb/VMS Version 4.0 software (referred to as Rdb/VMS V4.0), which requires VMS Version 5.3 (V5.3) or higher.

NOTE

The two-phase commit protocol of Rdb/VMS V4.0 requires VMS V5.4, which includes DECdtm Services. Rdb/VMS returns the following error if you attempt to use DECdtm Services while running Rdb/VMS under VMS V5.3:

```
%RDB-F-NODECDTM, DETdtm is not installed on your system
```

Rdb/VMS may attempt to invoke DECdtm Services implicitly if you use the SQL interface and access two or more databases in a transaction. This causes the previous error to be returned if you are running VMS Version 5.3. To avoid this error message, disable the two-phase commit protocol by defining the following logical name:

```
$ DEFINE SQL$DISABLE_CONTEXT TRUE
```

However, be sure to deassign this logical name after you install VMS Version 5.4 to receive the benefit of the two-phase commit protocol. SQL evaluates whether the two-phase commit protocol is enabled or disabled at compile time. For more information, see the *VAX Rdb/VMS Guide to Distributed Transactions*.

New customers receive a separate VMS License Management Facility (LMF) Product Authorization Key (PAK); service customers get a Service Update PAK (SUP) with their kit. Register the product with LMF before installation.

Rdb/VMS V4.0 includes a new database conversion utility that converts V3.0, V3.0A, V3.0B, V3.1, V3.1A, and V3.1B databases to V4.0 format. See Chapter 1, Section 1.22.4 of the *VAX Rdb/VMS Release Notes* for more information on the RMU/CONVERT command, syntax, and using this database conversion utility.

The online (TXT) file supplied with the Rdb/VMS software kit and Bookreader documentation for the V4.0 *VAX Rdb/VMS Release Notes* are more recent than the printed version. Notes have been added, revised, and removed. For details, consult the online or Bookreader documentation version of the V4.0 *VAX Rdb/VMS Release Notes*.

The following notes address issues of particular importance to system managers and users.

1 Changes to Run-Unit Journal (RUJ) Files

The following changes have been made to RUJ file default creation:

- RUJ file naming convention changed

  The RUJ file naming convention is changed to:

  ```
  <database_name>$<timestamp generated number>.RUJ
  ```

  This prevents multiple versions of RUJ files from using the same file name and the possibility of RUJ files being lost from a random purge of directories.

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- RUJ file placement changed

  RUJ file placement no longer defaults to SYS$LOGIN directory. RUJ files now default to their own top level directory [RDM$RUJ] on the device in which SYS$LOGIN is defined. This avoids the problem of RUJ files being scattered around in users' directories. If a system manager wishes to change the default placement semantics, the RDMS$RUJ logical name can be defined systemwide to SYS$LOGIN and the ''old'' placement scheme of versions prior to Rdb/VMS V4.0 is used.

  The RDMS$RUJ logical name used for RUJ placement has not changed. The [RDM$RUJ] directory is created automatically by the first user on the disk who creates an RUJ file, and remains there indefinitely. It is owned by the [SYSTEM] identifier. The [SYSTEM] identifier must have write (W) and execute (E) privileges to create this top level directory [RDM$RUJ]. You can create ACLs on it if you wish, as the users are given privileges internal to Rdb/VMS to create or delete RUJ files. The RUJ files created in the directory are owned by the individual users.

  CAUTION

  The *VAX Rdb/VMS Guide to Database Maintenance and Performance*, Section 9.3, describes what to do if you have lost your AIJ file because of a disk drive problem. The manual suggests you create a dummy AIJ file in the directory where the root file says it should be located to get your database up and running again. Though not documented, this method can also be used for missing RUJ files in versions previous to Rdb/VMS V3.1; however, your database may be left in an inconsistent state and no error message warns you of this fact.

  This technique was not supported in Rdb/VMS V3.1 and is not supported for Rdb/VMS V4.0. Beginning with Rdb/VMS V4.0, RMU/ALTER includes syntax (see the Documentation Errors and Omissions section in the *VAX Rdb/VMS Release Notes*) to remove pointers to missing RUJ files. Because using this technique will cause corruption, the database is marked as "eternally corrupt." To remove the "eternally corrupt" database status, restore and recover the database from a clean backup and AIJ file.

2 Installing RMU with Privileges

After the Rdb/VMS installation, install RMU.EXE with the VMS SYSPRV privilege. This enables the RMU image to check for applicable Rdb/VMS privileges when a user enters RMU commands. If you install RMU.EXE without SYSPRV, users must have VMS SYSPRV or BYPASS privilege to execute some of the RMU commands.

To install RMU with the SYSPRV privilege, enter the following command:

```
$  INSTALL
INSTALL>  ADD SYS$SYSTEM:RMU.EXE /OPEN/HEADER/PRIV=(SYSPRV)
```

The VMS INSTALL command requires the VMS CMKRNL privilege because the RMU image is being installed with privileges.

If you previously used the VMS Install utility (INSTALL) to install the RMU.EXE image, enter the REPLACE command instead of the ADD command on the INSTALL command line.

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RMU needs to reference each of the following images. Install the following images:

```
$ INSTALL ADD SYS$COMMON:[SYSMSG]RDMSMSG.EXE/SHARE
$ INSTALL ADD SYS$COMMON:[SYSMSG]RMUMSG.EXE/SHARE
```

See the *VAX Rdb/VMS Installation Guide* or the *VAX Rdb/VMS Guide to Database Design and Definition* for information about the privileges required for RMU. See the *VAX Rdb/VMS RDO and RMU Reference Manual* for more information about the RMU utility. See the *VMS Install Utility Manual* in the VMS documentation set for more information about the VMS Install utility.

3 System Management Information for the SQL/Services Server

Sites planning to install either the Rdb/VMS V4.0 interactive or run-time kit exclusively (rather than the full development kit) can find documentation about managing a SQL/Services server in the appendix to the *VAX Rdb/VMS Release Notes*. Because the *VAX Rdb/VMS Guide to Using SQL/Services*, which contains the server system management information, is shipped only with the Rdb/VMS full development kit, the appendix has been added to the *VAX Rdb/VMS Release Notes* for Rdb/VMS V4.0 to provide essential server information otherwise not provided in the documentation kit supplied with the Rdb/VMS interactive and run-time kits.

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