

Cincom

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VMS Release Notes

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SUPRA Server PDM VMS Release Notes

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Release information for this manual

The *SUPRA Server PDM VMS Release Notes*, M25-1012-02, is dated January 15, 2002. This document supports Release 2.4 of SUPRA Server under VMS environments.

We welcome your comments

We encourage critiques concerning the technical content and organization of this manual. Please take the [survey](#) provided with the online documentation at your convenience.

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About this book

Using this document

The release notes describe the changes made to the product since the last release. This includes problem fixes and enhancements. Each change is preceded by a resolution number which is assigned by Cincom's internal Resolution Management System (RMS). Additional information about a change is available upon request by contacting Cincom Support and referencing the RMS resolution number.

Conventions

The following table describes the conventions used in this document series:

Convention	Description	Example
Constant width type	Represents screen images and segments of code.	<pre>PUT 'customer.dat' GET 'miller\customer.dat' PUT '\DEV\RMT0'</pre>
Slashed b (b)	Indicates a space (blank). The example indicates that four spaces appear between the keywords.	<pre>BEGIN XXXX SERIAL</pre>
Braces { }	Indicate selection of parameters. (Do not attempt to enter braces or to stack parameters.) Braces surrounding stacked items represent alternatives, one of which you must select. The example indicates that you must enter ON or OFF when using the MONITOR statement.	<pre>MONITOR { ON } { OFF }</pre>

Convention	Description	Example
Brackets []	<p>Indicate optional selection of parameters. (Do not attempt to enter brackets or to stack parameters.) Brackets indicate one of the following situations:</p> <p>A single item enclosed by brackets indicates that the item is optional and can be omitted.</p> <p>The example indicates that you can optionally enter a WHERE clause.</p> <p>Stacked items enclosed by brackets represent optional alternatives, one of which can be selected.</p> <p>The example indicates that you can optionally enter either WAIT or NOWAIT. (WAIT is underlined to signify that it is the default.)</p>	<p>[WHERE <i>search-condition</i>]</p> <p><u>(WAIT)</u> (NOWAIT)</p>
<p><u>Underlining</u> (In syntax)</p>	<p>Indicates the default value supplied when you omit a parameter.</p> <p>The example indicates that if you do not choose a parameter, the system defaults to WAIT.</p> <p>Underlining also indicates an allowable abbreviation or the shortest truncation allowed.</p> <p>The example indicates that you can enter either STAT or STATISTICS.</p>	<p><u>(WAIT)</u> (NOWAIT)</p> <p><u>STATISTICS</u></p>
Ellipsis points...	<p>Indicate that the preceding item can be repeated.</p> <p>The example indicates that you can enter multiple host variables and associated indicator variables.</p>	<p>INTO <i>:host-variable</i> [<i>:ind-variable</i>],...</p>

Convention	Description	Example
UPPERCASE lowercase	In most operating environments, keywords are not case-sensitive, and they are represented in uppercase. You can enter them in either uppercase or lowercase.	COPY MY_DATA.SEQ HOLD_DATA.SEQ
<i>Italics</i>	Indicate variables you replace with a value, a column name, a file name, and so on. The example indicates that you must substitute the name of a table.	FROM <i>table-name</i>
Punctuation marks	Indicate required syntax that you must code exactly as presented. () parentheses . period , comma : colon ' ' single quotation marks	<i>(user-id, password, db-name)</i> INFILE 'Cust.Memo' CONTROL LEN4
SMALL CAPS	Represent a required keystroke. Multiple keystrokes are hyphenated.	ALT-TAB

Current changes

The following changes were made in SUPRA[®] Server PDM release 2.4:

New features in release 2.4

Release 2.4 of SUPRA Server PDM support includes the following new features:

- ◆ The new Serial ReadAhead Cache feature dramatically improves performance for readonly sweeping of datasets. See the *SUPRA Server PDM System Administration Guide (VMS)*, P25-0130 for further information.
- ◆ A new script procedure check_identification.com displays the internal file identifications of .exe image files. This procedure is only used under the direction of Cincom Support and is not documented in these manuals.
- ◆ The database reports provided in the supra_report directory are now available on Alpha. See the *SUPRA Server PDM RDM Administration Guide (VMS)*, P25-8220, for more information on generating reports.

Changes in release 2.4.00

The following updates were made in the initial release of SUPRA/VMS 2.4.00.

981637, 990069, 990070

A change was made to DATBAS and CSIPDM that provides DATBAS client read ahead buffers for serial RDNXT, READV, READR, & READX functions that use the RLSE end parameter or when the SINON mode is SINGLE. The buffers are allocated in local space in the application task. One buffer is allocated for RDNXT functions, another for READV/READR functions, and another for READX functions. The buffers are allocated the size of the CSIPDM input parameter MAXDATA.

When the first RDNXT for a given file is executed one record is returned in the buffer as in prior releases. If the application repeats the RDNXT function for the same file and the same element list the CSIPDM server will return as many records to the DATBAS client as will fit without causing an I/O. If all of these records are read by the application without an intervening RDNXT call to another file or using a different element list or executing a COMMIT or RESET function, the CSIPDM server will return as many records as will fit in MAXDATA regardless of io. By having three buffers it is possible to perform any other function while retaining the buffered records. This allows applications that RDNXT through a primary dataset and follow each chain of related records using the READV function to use buffered reads for both the RDNXT and the READV.

Good database coding practice dictates that update functions should not be executed following read functions that use the RLSE end parameter. It is recommended that records with the potential of being updated are read with the END. end parameter which causes these records to be held and turns off any buffering that may have been used to locate the record. This feature may be turned off by application by defining the logical name CSI_READAHEAD with a value of FALSE or NO. The CSI_READAHEAD logical name may also be set to TRUE, YES, or deleted in order to turn read ahead feature back on. By defining the CSI_READAHEAD logical name in a process table the feature will be turned on or off for an individual process. It may be turned off for a group or system by defining the CSI_READAHEAD logical name in a group or system logical name table. The logical name CSI_READAHEAD_STATISTICS may be set to TRUE or YES in order to direct DATBAS to print read ahead statistics at SINOF. The read ahead statistics consist of total function calls and buffered function calls for RDNXT, READV/READR, and READX.

990227

A new script procedure named `check_identification.com` is being delivered in the `supra_coms` directory. This script displays the internal file identifications of `.exe` image files, and is used under the direction of Cincom Support when special image files have been delivered by Cincom Support. The script accepts 2 parameters: image file name and output file name. Help is available by entering:

```
$ @supra_coms:check_identification.com ?
```

For example, the PDM image identification may be displayed on terminal:

```
$ @supra_coms:check_identification.com csipdm tt
```

990230

The database reports provided in the `supra_report` directory are now available on Alpha. Previously in 2.3 they were available on VAX only.

Changes in release 2.4.00a

The following updates have been made in maintenance release 2.4.00a.

990612

This fix resolves occasions of invalid IVRP status during a GET SAME or a GET AT MARK when using RDM (using the DBAID tool or calling CSVIPLVS) just after insert of that same record.

990759

When using SUPRA_PDM_COMMANDER and the buffer message was the last query before exiting, the message line was written below the pasteboard area so that after exiting the program the dcl commands were being written over that message line. This fix corrects the problem.

990924

When a dbmod is defined with both a task log and single task attributes, corruption of the task log and a FATAL 103 may occur when issuing a RESET PDML function. This fix allows the RESET to occur without corruption of the task log or crashing the PDM server process.

000162

This corrects a situation where an application could receive the following operator message:

```
%%%%%%%%%% OPCOM dd-mmm-yyyy hh:mm:ss.cc %%%%%%%%%%
Message from user <username> on <nodename>
Failed to Receive DECnet message,
status is %SYSTEM-W-DATAOVERUN, data overrun.
```

The PDM server process continues to run unaffected. The application client datbas code may then attempt to reconnect and sinon to the PDM server and receive an EXSO status as a result.

This error occurred only under a combination of 3 conditions:

- ◆ The application must be running remotely and connecting via DECnet to the PDM server.
- ◆ The application must be using the serial readahead cache feature which requires the following:
 - The logical name CSI_READAHEAD must be either undefined or defined TRUE.
 - Record holding must not be in effect for the application—running in SINGLE mode or using the RLSE end parameter on datbas calls.
 - Reading a lot of records serially from the same dataset. A 'lot' is defined as enough to use an entire dataset buffer plus enough to fill MAXDATA plus one.
- ◆ The dataset element list being used must specify a returned record length (RRL) such that

$$(((RRL + 4) * count) + 4 + 17 + ELL + 4)$$

is equal to MAXDATA+1 or MAXDATA+2 or MAXDATA+3 where

- *count* is any positive integer number
- ELL is the element list length number of characters in datbas call
- MAXDATA is the CSIPDMINP input file setting

000282

The Serial ReadAhead Cache (SRAC) feature introduced with SUPRAPDM/VMS 2.4.00 provides potentially significant improvements in performance when serially reading records from a dataset with either RDNXT, READV, READR, or READX. It does this by detecting when a record is being requested which is immediately adjacent to the previous record and then returning the entire data block of records to be cached in the client for future serial reads from memory. If that block is used and another serial read is requested from the PDM server then as many records as can fit into the dataarea of size MAXDATA are returned to the client for caching. Previously this made use of hardcoded thresholds of value 1 which provided maximum performance benefit.

There may be situations where one suspects these thresholds are inappropriate and may be needlessly returning too many records, even to the point of resulting in an actual degradation of performance. While Cincom makes every effort to assure these situations do not exist, with this Fix these thresholds are now settable in the CSIPDMINP input file. The two threshold settings have the names READAHEAD_THRESHOLD1 and READAHEAD_THRESHOLD2 and can take values in the range of 1 to 32766. Default values are:

- ◆ READAHEAD_THRESHOLD1=1
- ◆ READAHEAD_THRESHOLD2=1

which provide the previous 2.4.00 behavior.

READAHEAD_THRESHOLD1 determines the number of individual reads which must occur before a blocks worth of records is returned to the client for caching. A value of 1 is appropriate for this parameter and is the default setting. However, if applications are regularly reading only 2 or 3 records before invalidating the cache then it would be inefficient for the 2nd read to return many records which will not be used. Setting READAHEAD_THRESHOLD1=3 may be appropriate for this situation. If READAHEAD_THRESHOLD1 is not specified then it is automatically given the value 1.

READAHEAD_THRESHOLD2 is usually set to the same value as READAHEAD_THRESHOLD1 and cannot be set to a lower value. The difference between these 2 parameter settings is the number of additional caching operations of one block each which will be performed before the client cache is completely filled with MAXDATA worth of records. If READAHEAD_THRESHOLD2 is not specified then it is automatically given the same value as READAHEAD_THRESHOLD1.

000629

This fixes an internal problem with no known externally visible symptoms.

000797

In circumstances when two applications are both using the same index and also using the readahead cache feature one application can be locked out of work and frozen on PDM servers task list. If that task is temporarily holding any records those records will become inaccessible to any other application. This fix alleviates this problem so that all tasks have access to all the records in a timely fashion.

000961

This is a TCP/IP socket performance improvement which decreases the elapsed time for every remote TCP/IP datbas() function call including those from the new PC Windows Client.

000973

This fix adds the /INDICES option to the DISPLAY command in CSIOPCOM. This will allow the user to verify the status of any index defined to the PDM.

Examples of the new command are:

- ◆ Display/Indices burrys
- ◆ Display/Indices all
- ◆ Display/Indices burrys /file=cust

Output from the examples are:

```
Display/Indices SUPRAD
CSTI208I No Indices were found.
```

```
Display/Indices burrys all
CSTI206I      NAME      FILE INDEX OPEN ACTIVATED POPULATED
CSTI207I      BURRYS    CUST  01   N       Y       Y
```

000974

Due to the ever increasing size of dbmods the output in CSIOPCOM for the DISPLAY/DATABASE command for the fields GROUP and SIZE are running together. The SIZE field is sometimes being truncated on the high order side. The display has had space added and the corresponding size of the field SIZE has also been increased from 8 to 10 characters.

000976

In DBA under the Administration Functions menu, the menu item "3 : Expand related data set" increases the available space in a related data set in units called cylinders. This fix will make sure that the new cylinder added will be used next. This reduces PDM thrashing to find a cylinder with available free records by marking the newest cylinder as the next available.

000979

This fix adds an option to the CSIDMPANL program allowing the choice of outputting the stack frame.

000981

This fix adds the message CSTI209R. When the OPCOM message CSTI038R is received the message CSTI209R will also be shown. The CSTI038R message tells you the command parameter(s) is incorrect. The CSTI209R message tells you the command that was entered for OPCOM to process so you may correct the problem and re-enter the corrected command.

An example of the new command is:

```
CSTI209R You entered command UNLOAD/FORCE PERSONS[000206]
```

000982

Currently the CSTI151I informational message tells you that the logical name for the database has changed but does not supply the logical name definition. The message will now include the definition of the logical name and the actual logical name definition that the PDM was using. This will allow the user to decide if the change was a proper one that was wanted or to gracefully shut the PDM down and look for other clues as to why the logical name definition was changed.

An example of the look of the command is:

```
CSTI151I VMS Logical name for database PERSON has changed
from DUA4:[SUPRAD.R24]PERSON.MOD;23
to DUA4:[SUPRA.R24.SUBDIR]PERSON.MOD;24
```

010007

Under certain circumstances and timing conditions when the PDM server process is shutdown with active tasks, then some signed on tasks may experience an ACCVIO access violation rather than the expected ENDT return status. This is corrected such that ENDT status is returned and the application tasks should not abend.

010184

An internal coding issue was corrected with no customer visible symptom. This became necessary due to a change in behavior of a newer version DECC compiler.

