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Release and Installation Notes for Version 4.0 of the RAMP Product Data Translation System (RPTS) Small Mechanical Parts (SMP) for Rock Island

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These Release and Installation Notes apply to the Rapid Acquisition of Manufactured Parts (RAMP) Product Data Translation System (RPTS) for Small Mechanical Parts (SMP). The Installation of RPTS SMP Version 3.2 upgrade is addressed herein. Version 4.0 was developed, at the direction of the RAMP Program Office, to implement certain improvements in the South Carolina Research Authority (SCRA) developed software and to install the latest version of the vendor supported software.

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April 23, 1992

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Dear Lorna:

The following document is submitted for your review:

<u>Document Title</u>	<u>Document No.</u>	<u>Document Date</u>
Release and Installation Notes for Version 4.0 of the RAMP Product Data Translation System (Small Mechanical Parts) for Rock Island	VDR015003-0	17 April 1992



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If you have any questions, please contact me at (803) 760-3322.

Sincerely,

John H. Bradham, Ph.D.
RAMP/RTIF Program Manager

cc: Library
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Statement A per telecon Lorna Estep
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Arlington, VA 22217-5000

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LIST OF ACRONYMS

ACSN	Advanced Change Study Notice
COTS	Commercial Off-the-Shelf
COM	Computer Operator's Manual
MIL-STD	Military Standard
MSL	Master Software Library
PDES	Product Data Exchange using STEP
PR	Problem Report
PTC	Parametric Technology Corporation
RAMP	Rapid Acquisition of Manufactured Parts
RPGS	RAMP PDES Generation System
RPTS	RAMP Product Data Translation System
RTIF	RAMP Test and Integration Facility
SCRA	South Carolina Research Authority
SMP	Small Mechanical Parts
STEP	Standard for the Exchange of Product Model Data
TAR	Tape Archive
TSL	Test Support Library
UDF	User Defined Features

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1.0 UPGRADE RATIONALE

These Release and Installation Notes apply to the Rapid Acquisition of Manufactured Parts (RAMP) Product Data Translation System (RPTS) for Small Mechanical Parts (SMP). The installation of RPTS SMP Version 3.2 upgrade is addressed herein. Version 4.0 was developed, at the direction of the RAMP Program Office, to implement certain improvements in the South Carolina Research Authority (SCRA) developed software and to install the latest version of the vendor supported software.

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2.0 INVENTORY OF MATERIALS RELEASED

The RPTS SMP Version 4.0 release package consists of the following:

1. Release and Installation Instructions

2. Backup Media (delivered to Rock Island on April 6, 1992)

Two 1/4" cartridge tapes delivered to Rock Island

RPTS SMP Version 4.0 Executables

RPTS SMP Version 4.0 Developer's Distribution PDES Translator and
Supporting Text Files tape

Three 1/4" cartridge tapes stored in the South Carolina Research Authority
(SCRA) Master Software Library (MSL)

RPTS SMP Version 4.0 Executables

RPTS SMP Version 4.0 Developer's Distribution PDES Translator and
Supporting Text Files tape

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3.0 POSSIBLE PROBLEMS AND KNOWN DEFICIENCIES

It has been determined that there are outstanding Problem Reports (PR) requiring action.

Summary of outstanding PRs.

PR #	Description	Status	Workarounds
RP202	PDES entity "material composition" string field entry is truncated and is appended by the string "null" at the end.	Open	See RP203
RP203	PDES printout contains about two pages of material composition data because the operator was allowed to cancel before entering all of the necessary composition.	Open	Operator must enter all required data and do not cancel
RP205	PDES Generation incomplete. "Error:area shaped ID not found for surface reference"	Open	none

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4.0 INSTALLATION INSTRUCTIONS

The following instructions will allow the user to install the RPTS SMP Version 4.0 on the Rock Island SPARCStation.

4.1 Installation of Parametric Technology Corporation's (PTC) Pro/DEVELOP End-User Distribution

- A. Pro/ENGINEER must be loaded on this machine. You will need to know the directory in which Pro/ENGINEER has been installed.
 - 1. Install Pro/DEVELOP end-user distribution. This is the PDES Translation program. This may be installed anywhere you have at least 5 Mb of space available.
 - a. Insert distribution tape into tape drive (check to ensure write-protection).
 - b. Follow instructions in Pro/ENGINEER 8.0 Installation Guide.
 - 1. You will need to know the "name of product" - this is "convert_pdes".
 - 2. You will be asked for an installation directory for product - this cannot be the Pro/ENGINEER loadpoint, .../rpgs OR .../rpgsad. The path to the product is the distribution directory name followed by two subdirectories as in :

\$DIST_DIR/sun4/obj/convert_pdes

4.2 Configure ORACLE User Logins and Database Performance Tuning

- A. Log in as the Oracle user (this is typically "oracle"). Oracle should be installed with a database size of at least 20 Mb.
- B. Create two database user logins, one for the Order Manager database and one for the PDES database.

```
sqlplus system/manager
```

```
GRANT CONNECT, RESOURCE TO <order_mgr_db_login>, <pdes_db_login>  
IDENTIFIED BY <order_mgr_db_passwd>, <pdes_db_passwd>;
```

You may choose the names for the database logins and passwords. It is suggested that they are not too long. Examples:

Database Name	Password
ordermgr	pdes
genpds	pdes

C. Shut down currently running database.

1. cd \$ORACLE_HOME/bin
2. dbshut

D. Modify/add parameters in "init*.ora" file in \$ORACLE_HOME/dbs as follows:

```
ddl_locks = 100
dml_locks = 200
processes = 30
enqueue_resources = 700
open_cursors = 100
dc_free_extents = 400
row_cache_enqueues = 400
```

E. Restart database with new initialization parameters.

1. cd \$ORACLE_HOME/bin
2. dbstart

4.3 Installation of RPTS Software and Supporting Utilities

A. Create RPTS user and RPTS Administrator user system logins.

1. Create two user logins, one for the RPTS user and one for the RPTS Administrator user. In this example, we will use RPTS and RPTSAD as the user logins. The home directory for the RPTS user must have at least 30 Mb of space. This will allow approximately 18 Mb of space for the /PDES FILES directory to store Pro/ENGINEER part files, PDES files, et cetera. The home directory for the RPTSAD user must have at least 1.5 Mb of space. The home directory paths for each of these logins must be adjusted AFTER the installation is complete. After the installation, each loadpoint will have a subdirectory - ".../rpgs" for the RPTS user and ".../rpgsad" for the RPTSAD user. These will be the new "HOME" directories for each user.

B. Install RPTS software.

1. Log in as the RPTS user. This will be the loadpoint for the RPTS system.
2. Insert RPTS Executables tape into tape drive (check to ensure write-protection).
3. tar xvf /dev/nrst0 (or whatever your tape device name may be - be sure to specify the device as "no rewind").

If the tape drive is located on a remote machine on your network use this command:

```
rsh -n <remote_machine> dd if=/dev/nrst0 | tar xvBf -
```

4. Once the tar command is complete, check for file extraction. You should now see a new subdirectory: ./rpgs.
5. Log in as "root" and adjust the RPTS user home directory to contain the new subdirectory just created.
6. Log in as the RPTS user. Change permissions on User Defined Feature (UDF) files since they may have been extracted from tape with a different permission mask.
 - a. Log in as the RPTS user. You should now be in the "new" RPTS home directory. Now cd ./udfs.
 - b. chmod.csh
7. Modify the login_order.db, login_pdes.db and config.pro files.
 - a. Change directory to ../bin (\$RPGS_HOME/bin).
 - b. Change the database login and password in each file to match the database logins and passwords which you have created (see section II). The file login_order.db contains the Order Manager database login on the first line and the Order Manager database password on the second line. The file login_pdes.db contains the PDES database login on the first line and the PDES database password on the second line.
 - c. Change directory to ../rpgs_scripts/scripts (\$RPGS_HOME/rpgs_scripts/scripts).
 - d. Modify the line "pro_group_dir ../../udfs" to contain the entire ABSOLUTE directory path for \$RPGS_HOME/udfs without using environment variables in the file "config.pro".

- e. Modify `del_all.sh` in same directory (`$RPGS_HOME/rpgs_scripts/scripts`) ONLY IF your database password for the PDES database is NOT "pdes". You will see a line "`pwd=PDES`". Modify the password setting if you have not specified "pdes" as the password in the GRANT command.

C. Install the RPTS Admin software.

1. Log in as the RPTSAD user. This will be the loadpoint for the RPTS Admin system.
2. RPTS Executables tape should already be in tape drive. If not, insert RPTS executables tape into tape drive (check to ensure write-protection). Use the following command to advance the tape to the RPTS Admin files:

```
mt -f /dev/nrst0 fsf 1
```

If the tape drive is located on a remote machine on your network use this command:

```
rsh -n <remote_machine> "mt -f /dev/nrst0 fsf 1"
```

3. `tar xvf /dev/rst0` (or whatever your tape device name may be).

If the tape drive is located on a remote machine on your network use this command:

```
rsh -n <remote_machine> dd if=/dev/nrst0 | tar xvBf -
```

4. Once the tar command is complete, check for file extraction. You should now see a new subdirectory: `./rpgsad`
5. Log in as "root" and adjust the RPTSAD user home directory to contain the new subdirectory just created.
6. Modify the `login_order.db` file.
 - a. Log in as the RPTSAD user. You should now be in the "new" RPTSAD home directory.
 - b. Change the database login and password in `login_order.db` to match the database login and password created for the Order Manager database. The `login_order.db` contains the Order Manager database login on the first line and the Order Manager database password on the second line.

4.4 Configure RPTS and RPTSAD Environments

- A. A sample ".login" and ".cshrc" file is provided. You may customize the RPTS and RPTSAD environments provided that the following environment variables are set in the ".login" and ".cshrc" files for EACH user, RPTS and RPTSAD. In the ".login" ONLY:

RPGS_PRO_CMD : set to your command for running Pro/ENGINEER
ORACLE_HOST : machine host name where Oracle is installed
ORACLE_SID : Oracle system identifier
(specified in installation)
ORACLE_HOME : Oracle home directory

In the .login AND .cshrc files :

RPGS_SCRIPTS_DIR : \$RPGS_HOME/rpgs_scripts
[Use absolute path name]

SPG_DIRECTORY : Pro/ENGINEER loadpoint

Of course, you may use the ".login" and ".cshrc" files provided, but they must be modified to contain your site-specific information such as machine host names, file directory paths, et cetera. Be sure to delete or comment out any commands which do not pertain to your installation site.

4.5 Create Database Tables for the Order Manager and for the PDES Translator

- A. Log in as the RPTS user.
1. cd ./db_scripts (\$RPGS_HOME/db_scripts).
 2. To create tables for the Order Manager (using the DB login and password from our example in section II B):

```
sqlplus ordermgr/pdes < create_tables.sql
```

3. To create tables for the PDES Translator (using the DB login and password from our example in section II B):

```
make_smp_tables.sh genpds pdes
```

This may take several minutes, please be patient.

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