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EOSDIS Maintenance and Development Project

Release 7 Product Distribution Subsystem (PDS) Database Design and Database Schema Specifications for the EMD Project

July 2004

Raytheon Company
Upper Marlboro, Maryland

Release 7 Product Distribution Subsystem Database Design and Database Schema Specifications for the EMD Project

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Preface

This document is a formal contract deliverable. It requires Government review and approval within 45 business days. Changes to this document will be made by document change notice (DCN) or by complete revision.

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Revision History

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This document describes the data design and database specification for the Subscription Server subsystem. It is one of eleven documents comprising the detailed database design specifications for each of the ECS subsystems.

The subsystem database design specifications for the as delivered system include:

311-EMD-001 Release 7 Data Management (DM) Subsystem Database Design and Database Schema Specifications for the ECS Project

311-EMD-002 Release 7 Ingest Subsystem Database Design and Database Schema Specifications for the ECS Project

311-EMD-003 Release 7 Planning and Data Processing Subsystem (PDPS) Database Design and Database Schema Specifications for the ECS Project

311-EMD-004 Release 7 Science Data Server (SDSRV) Subsystem Database Design and Database Schema Specifications for the ECS Project

311-EMD-005 Release 7 Storage Management (STMGT) Subsystem Database Design and Database Schema Specifications for the ECS Project

311-EMD-006 Release 7 Subscription Server (SUBSRV) Subsystem Database Design and Database Schema Specifications for the ECS Project

311-EMD-007	Release 7 Management Support Subsystem (MSS) Database Design and Database Schema Specifications for the ECS Project
311-EMD-008	Release 7 Configuration Registry Subsystem (CONFIG) Database Design and Database Schema Specifications for the ECS Project
311-EMD-009	Release 7 PDS Subsystem Database Design and Database Schema Specification
311-EMD-010	Release 7 Name Server Subsystem Database Design and Database Schema Specification
311-EMD-011	Release 7 Order Manager Server Database Design and Database Schema Specification
311-EMD-012	Release 7 Spatial Subscription Server (SSS) Database Design and Database Scheme Specification
311-EMD-013	Release 7 Data Pool (DPL) Subsystem Database Design and Database Scheme Specification

Entity relationship diagrams (ERDs) presented in this document have been exported directly from software tools and in some cases contain too much detail to be easily readable within hard copy page constraints. The reader is encouraged to view these diagrams in portable document format (PDF) on the ECS Data Handling System (EDHS) world wide web (WWW) site. The universal resource locator (URL) is: http://edhs1.gsfc.nasa.gov.

Abstract

This document outlines the Release 7 "as-built" database design and database schema specifications for the Product Distribution Subsystem (PDS). It includes the entity-relationship diagram (ERD), physical database table definitions, and database software which includes listings of triggers and procedures. The ERD describes data entities and the association between these entities used within the PDS Subsystem. Other information is also included to support database installation and life-cycle maintenance.

Keywords: data**,** database, design, specifications, configuration, installation, parameters, scripts, security, data model, replication, performance tuning, SQL server, Oracle, database security, triggers, procedures, scripts.

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Abbreviations and Acronyms

1. Introduction

1.1 Identification

This Product Distribution Subsystem (PDS) Database Design and Database Schema Specifications document, is part of Contract Data Requirements List (CDRL) Item Number 23, which is a required deliverable under the Earth Observing System Data and Information System (EOSDIS) Maintenance and Development (EMD) Contract (NAS5-03098).

1.2 Scope

The *PDS Subsystem Database Design and Database Schema Specifications* document describes the database that supports data requirements for the Product Distribution Subsystem, Release 7.

1.3 Purpose

The purpose of the *PDS Subsystem Database Design and Database Schema Specifications* document is to support the administrators of the Product Distribution Subsystem database throughout its life cycle. Also, this document communicates the database specifications in sufficient detail to support other ongoing installation and operational activities (e.g., configuration management, data administration, system installation and maintenance).

1.4 Audience

The *PDS Subsystem Database Design and Database Schema Specifications* document is intended to be used and maintained by ECS maintenance and operations staff. The document is organized as follows:

Section 1 provides information regarding the identification, scope, purpose and audience.

Section 2 provides a listing of related documents used to develop this document.

Section 3 contains a design overview of the database design including the entity relationship diagram (ERD) representing the physical data model, the database tables and columns, flat file usage and fields, triggers, and stored procedures.

Section 4 provides a description of performance and tuning features, i.e., indexes, caches for the PDS Subsystem database implementation.

Section 5 provides the database security high level description of the preliminary security infrastructure including listings of anticipated users, groups, and permissions expected for preliminary operational use.

Section 6 provides listings of the scripts used for database installation, de-installation, backup and recovery, and other miscellaneous administration functions.

2. Related Documents

2.1 Applicable Documents

The following documents, including Internet links, are referenced in this document, or are directly applicable, or contain policies or other directive matters that are binding upon the content of this volume.

305-EMD-001	Release 7 Segment Design Specification for the EMD Project
920-TDG-009	DAAC Hardware Database Mapping/GSFC
920-TDN-009	DAAC Hardware Database Mapping/NSIDC
920-TDE-009	DAAC Hardware Database Mapping/EDC
920-TDL-009	DAAC Hardware Database Mapping/LARC
920-TDS-009	DAAC Hardware Database Mapping/SMC
920-TDG-010	DAAC Database Configuration/GSFC
920-TDN-010	DAAC Database Configuration/NSIDC
920-TDE-010	DAAC Database Configuration/EDC
920-TDL-010	DAAC Database Configuration/LARC
920-TDS-010	DAAC Database Configuration/SMC
920-TDG-011	DAAC Sybase Log Mapping/GSFC
920-TDN-011	DAAC Sybase Log Mapping/NSIDC
920-TDE-011	DAAC Sybase Log Mapping/EDC
920-TDL-011	DAAC Sybase Log Mapping/LARC
920-TDS-011	DAAC Sybase Log Mapping/SMC
922-TDG-013	Disk Partitions/GSFC
922-TDN-013	Disk Partitions/NSIDC
922-TDE-013	Disk Partitions/EDC
922-TDL-013	Disk Partitions/LARC
922-TDS-013	Disk Partitions/SMC

These documents are maintained as part of the EMD baseline and available on the world wide web at the URL: http://cmdm.east.hitc.com/baseline. Please note that this is a partial mirror site in that some items are not available (they are identified) since this is OPEN to all. This site may also be reached through the EDHS homepage. Scroll page to the connections line and click on the EMD Baseline Information System link.

2.2 Information Documents

The following documents, although not directly applicable, amplify or clarify the information presented in this document. These documents are not binding on this document.

313-EMD-001	Release 7 Internal ICD for the EMD Project
609-EMD-001	Release 7 Operations Tools Manual for the EMD Project
611-EMD-001	Release 7 Mission Operation Procedures for the EMD Project

3. Database Design

3.1 Design Overview

The PDS Subsystem database implements a majority of the persistent data requirements for the PDS Subsystem. Other data requirements, as used for system support, are implemented in flat files, see Section 3.2 for descriptions of these flat files. The database is designed to satisfy business rules while maintaining data integrity, consistency, and performance. Database tables are implemented using the Oracle Relational Database Management System (RDBMS) Version 8.1.6. All components of the PDS Subsystem database are described in the following sections; information is presented in sufficient detail to support operational needs.

3.1.1 Physical Data Model Entity Relationship Diagram

An entity relationship diagram (ERD) was developed for use as a "roadmap" to the PDS Subsystem database. An ERD is a schematic of the physical data structure that illustrates the dependencies and relationships between database entities, i.e., tables. On ERDs, database entities are represented by rectangles and arrows as shown by the key in Figure 3-1 represent relationships. Details on the syntax used by the *Power Designor Data Architect* Computer Aided Software Engineering (CASE) tool may be found in the *Powersoft: Power Designer for PowerBuilder* Reference Guide. The ERD presented in Appendix A for the PDS Subsystem database was produced using the *Power Designer* tool.

The ECS Conceptual Model for the Product Distribution Subsystem (PDS) was developed using an Object Oriented (OO) CASE tool. However, since Oracle implements a RDBMS with an Object wrapper, the syntax (model Notation) is converted from OO to relational and the terminology changes-the "attribute" becomes "column" and "class" becomes "table." Since the specifications of some entities in this document are transferred from the OO Conceptual Model repository, there are many cases where the OO terminology is retained—as, for example, in the table and column names and definitions.

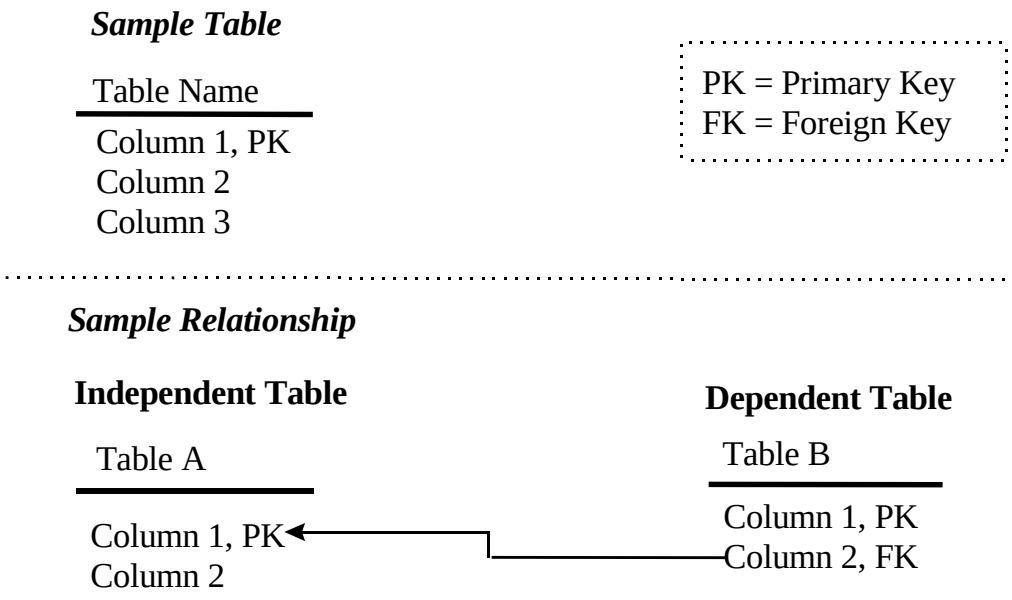

Figure 3-1. ERD Key

3.1.2 Database Table Specifications

Table 3-1 through 3-17 lists the tables in the PDSSA tablespace and their respective table schemas. Each list is presented in alphabetical order corresponding to the database tables illustrated in the ERD (reference Appendix A).

Table 3-1. PDSSA Tablespace Tables (1 of 2)

Table Name	Logical Grouping
APT_APP_ERRORS	PDSSA
JLT_JOBLIMITS_TBL	PDSSA
LKT_LOOKUPS_TBL	PDSSA
MCT_MACHINFO_TBL	PDSSA
MPT_MSGPDSTBL	PDSSA
OTT_ORDUNITSTATBL_TBL	PDSSA
OUT_OTSPTBLV_TBL	PDSSA
PDS_VOLUME	PDSSA
PDT_PDSINFO	PDSSA
PGT_PDS_PPF_TMP	PDSSA
PJC_PDS_JEWEL_CASES	PDSSA

Table 3-1. PDSSA Tablespace Tables (2 of 2)

Table Name	Logical Grouping
PJT_PDSINFO_JOBS	PDSSA
PST_PDS_STATS_TBL	PDSSA
PTT_PDS_PPF_TBL	PDSSA
PVT_PRCDTBL_TBL	PDSSA
PWT_PDS_WORK_TBL	PDSSA
PXT_PRINTERS_TBL	PDSSA

The following report is produced by the Power Designer CASE tool and edited for format consistency. The report provides specifications on the PDS Subsystem database tables. The report is sorted in alphabetical order by table name. Specifications include the table name, a brief description of the table, and the columns comprising the table. The column information includes the column name and the column attributes, i.e., type (format of the data stored within the database), primary key indicator(s), and a mandatory indicator for determining if the column must contain data when the row exists. In some cases the content of the column specification "Type" will reference a domain value (refer to Section 3.1.4 for more information on the domain values).

Table 3-2, APT_APP_ERRORS table is used to capture errors encountered during processing.

Table 3-2. APT_APP_ERRORS

Name	Code	Type	P	M
sql_err_code	SQL_ERR_CODE	number	No	No
sql_err_msg	SQL_ERR_MSG	varchar2(150)	No	No
app_err_msg	APP_ERR_MSG	varchar2(2000)	No	No
orig_form	ORIG_FORM	varchar2(30)	No	No
orig_dbtrigger	ORIG_DBTRIGGER	varchar2(30)	No	No
orig_pro_c	ORIG_PRO_C	varchar2(30)	No	No
orig_plsql	ORIG_PLSQL	varchar2(30)	No	No
db_table	DB_TABLE	varchar2(30)	No	No
entry_date	ENTRY_DATE	date	No	No
db_user	DB_USER	varchar2(20)	No	No

Table 3-3, JLT_JOBLIMITS_TBL table is the job limits table. This table is used by the PDS Operator Interface (PDSOI) to determine the number of units be run at a time. The number of units can be machine dependent. The ppf file is generated using numbers from this table. The schema for this table is described below.

Table 3-3. JLT_JOBLIMITS_TBL

Name	Code	Type	P	M
machine_id	MACHINE_ID	varchar2(10)	No	Yes
product_code	PRODUCT_CODE	varchar2(8)	No	Yes
min_units	MIN_UNITS	number(6)	No	No
max_units	MAX_UNITS	number(6)	No	No
set_units	SET_UNITS	number(6)	No	No
product_media	PRODUCT_MEDIA	varchar2(5)	No	No

Table 3-4, LKT_LOOKUPS_TBL table stores a list of lookups used for processing. This table is used by the PDSOI for things like defaults, pick list, etc. The schema for this table is described below.

Table 3-4. LKT_LOOKUPS_TBL

Name	Code	Type	P	M
lookup_id	LOOKUP_ID	varchar2(25)	Yes	Yes
lookup_code	LOOKUP_CODE	varchar2(25)	Yes	Yes
short_name	SHORT_NAME	varchar2(25)	No	Yes
description	DESCRIPTION	varchar2(500)	No	Yes
enabled_flag	ENABLED_FLAG	varchar2(1)	No	Yes
processing_data	PROCESSING_DATA	varchar2(240)	No	No

Table 3-5, MCT_MACHINFO_TBL is the PDS machine table. This table identifies the logical PDS machines and machine dependent information used by the PDSOI. The schema for this table is described below.

Table 3-5. MCT_MACHINFO_TBL

Name	Code	Type	P	M
machine_id	MACHINE_ID	varchar2(10)	Yes	Yes
home_directory	HOME_DIRECTORY	varchar2(240)	No	Yes
bin_directory	BIN_DIRECTORY	varchar2(240)	No	Yes

Table 3-6, MPT_MSGPDSTBL is used to store order numbers of orders ready to begin processing in the PDSIS working tables.

Table 3-6. MPT_MSGPDSTBL

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	No	No

Table 3-7, OTT_ORDUNITSTATBL_TBL is used as a validation unit for milestones reached in the processing of an order.

Table 3-7. OTT_ORDUNITSTATBL_TBL

Name	Code	Type	P	M
ordunit_status	ORDUNIT_STATUS	varchar2(1)	Yes	Yes
ordunit_status_type	ORDUNIT_STATUS_TYPE	varchar2(1)	No	Yes
ordunit_status_desc	ORDUNIT_STATUS_DESC	varchar2(255)	No	Yes
pds_description	PDS_DESCRIPTION	varchar2(15)	No	No
pds-processing_data	PDS_PROCESSING_DATA	varchar2(240)	No	No

Table 3-8, OUT_OTSPTBLV_TBL holds the specifications of the output that can be produced by the PDS. Any output specifications used in the PDT_PDSINFO table must match one in this table. The schema for this table is described below.

Table 3-8. OUT_OTSPTBLV_TBL

Name	Code	Type	P	M
output_specs	OUTPUT_SPECS	varchar2(5)	Yes	Yes
out_specs_desc	OUT_SPECS_DESC	varchar2(50)	No	No
pds_description	PDS_DESCRIPTION	varchar2(8)	No	No

Table 3-9, PDS_VOLUME The pds_volume table is used in the re-staging process. When an order is re-staged the pds_volume table stores the number of the first volume being restaged and the total number of volumes in the order that are not being restaged. Using this table PDS can give re-staged orders volume numbers within the context of the original order.

Table 3-9. PDS_VOLUME

Name	Code	Type	P	M
pdsinfokey	PDSINFOKEY	number	No	No
order_nbr	ORDER_NBR	varchar2(13)	No	No
unit_nbr	UNIT_NBR	number(5)	No	No
Job_key	JOB_KEY	varhcar2(20)	No	No
currentvolume	CURRENTVOLUME	number(5)	No	No
totalvolumes	TOTALVOLUMES	number(5)	No	No

Table 3-10, PDT_PDSINFO is the interface between the PDSIS and the PDSSSA. The PDT_PDSINFO table contains all PDS orders that are either currently or historically in the system. The schema for this table is described below.

Table 3-10. PDT_PDSINFO

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	No	No
unit_nbr	UNIT_NBR	number(5)	No	No
status	STATUS	varhcar2(1)	No	No
input_media_type	INPUT_MEDIA_TYPE	varchar2(2)	No	No
input_media_fmt	INPUT_MEDIA_FMT	varchar2(10)	No	No
bands	BANDS	varchar2(12)	No	No
product_format	PRODUCT_FORMAT	varchar2(12)	No	No
ouput_specs	OUTPUT_SPECS	varchar2(5)	No	No
product_media	PRODUCT_MEDIA	varchar2(2)	No	No
product_density	PRODUCT_DENSITY	varchar2(4)	No	No
ansi_label_f	ANSI_LABEL_F	varchar2(1)	No	No
data_org	DATA_ORIG	varchar2(3)	No	No
tape_blocking	TAPE_BLOCKING	number(5)	No	No
byte_ordering	BYTE_ORDERING	varchar2(3)	No	No
cre8_col_fire_f	CRE8_COL_FIRE_F	varchar2(1)	No	No
compress_type	COMPRESS_TYPE	varchar2(4)	No	No
retain_dem_f	RETAIN_DEM_F	varchar2(1)	No	No
priority_code	PRIORITY_CODE	varchar2(1)	No	No
prod_code	PROD_CODE	varchar2(4)	No	No
storage_location	STORAGE_LOCATION	varchar2(200)	No	No
directory_location	DIRECTORY_LOCATION	varchar2(200)	No	No
email	EMAIL	varchar2(128)	No	No
ordering_id	ORDERING_ID	varchar2(50)	No	No
pds_project	PDS_PROJECT	varchar2(16)	No	No
date_due	DATE_DUE	date	No	No
copies_each	COPIES_EACH	number(4)	No	No
job_key	JOB_KEY	varchar2(20)	No	No
ppf_key	PPF_KEY	varchar2(20)	No	No
media_id	MEDIA_ID	varchar2(25)	No	No
selected	SELECTED	varchar2(1)	No	No
bin_nbr	BIN_NBR	varchar2(3)	No	No
pdsinfokey	PDSINFOKEY	number	Yes	Yes
ecs_orid	ECS_ORDID	varchar2(35)	No	No

Table 3-11, PGT_PDS_PPF_TMP is a temporary table used when generating the .ppf file for the product generation software. This table only contains values when a .ppf file is being created.

The schema for this table is described below.

Table 3-11. PGT_PDS_PPF_TMP

Name	Code	Type	P	M
job_key	JOB_KEY	varchar2(20)	No	No
sequence_nbr	SEQUENCE_NBR	number(9)	No	No
key	KEY	varchar2(128)	No	No
key_type	KEY_TYPE	varchar2(1)	No	No
key_count	KEY_COUNT	number(9)	No	No
key_value	KEY_VALUE	varchar2(1000)	No	No

Table 3-12, PJC_PDS_JEWEL_CASES table is used by the software in passing information to the Oracle report used for creating the jewel case inserts. The schema for this table is described below.

Table 3-12. PJC_PDS_JEWEL_CASES

Name	Code	Type	P	M
product_code	PRODUCT_CODE	varchar2(8)	Yes	Yes
jewel_rpt	JEWEL_RPT	varchar2(10)	No	No
image_file	IMAGE_FILE	varchar2(30)	No	No
text_file	TEXT_FILE	varchar2(30)	No	No
text_file2	TEXT_FILE2	varchar2(30)	No	No
product_media	PRODUCT_MEDIA	varchar2(5)	Yes	Yes

Table 3-13, PJT_PDSINFO_JOBS contains the jobs that are currently in the system. This schema is used for the display of the PDSOI Main Window. The schema for this table is described below.

Table 3-13. PJT_PDSINFO_JOBS (1 of 2)

Name	Code	Type	P	M
job_key	JOB_KEY	varchar2(20)	No	No
total_units	TOTAL_UNITS	number(6)	No	No
priority	PRIORITY	varchar2(1)	No	No
product_media	PRODUCT_MEDIA	varchar2(5)	No	No
project_id	PROJECT_ID	varchar2(16)	No	No
due_date	DUE_DATE	date	No	No
copies	COPIES	number(4)	No	No
product_code	PRODUCT_CODE	varchar2(8)	No	No

Table 3-13. PJT_PDSINFO_JOBS (2 of 2)

Name	Code	Type	P	M
status	STATUS	varchar2(2)	No	No
product_format	PRODUCT_FORMAT	varchar2(12)	No	No
product_density	PRODUCT_DENSITY	varchar2(4)	No	No
tape_blocking	TAPE_BLOCKING	number(5)	No	No
oi_id	OI_ID	varchar2(25)	No	No
processing_status	PROCESSING_STATUS	varchar2(1)	No	No
stop_job	STOP_JOB	varchar2(1)	No	No
bad_key	BAD_KEY	varchar2(1)	No	No
bad_status	BAD_STATUS	varchar2(1)	No	No
job_status	JOB_STATUS	varchar2(25)	No	No
note	NOTE	Long	No	No

Table 3-14, PST_PDS_STATS_TBL is used to store information about the date and time an order is first entered into the PDT_PDSINFO table and when the status is changed.

Table 3-14. PST_PDS_STATS_TBL

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	Yes	Yes
unit_nbr	UNIT_NBR	number(5)	Yes	Yes
date_entered	DATE_ENTERED	date	No	No

Table 3-15, PTT_PDS_PPF_TBL is the PPF Building table. This table contains the definitions for the entries included in building the PPF file for the PDS system. The schema for this table is described below.

Table 3-15. PTT_PDS_PPF_TBL

Name	Code	Type	P	M
product_code	PRODUCT_CODE	varchar2(8)	No	Yes
key	KEY	varchar2(128)	No	Yes
type	TYPE	varchar2(1)	No	Yes
unit_count	UNIT_COUNT	varchar2(1)	No	Yes
data_source	DATA_SOURCE	varchar(30)	No	Yes
sql_string	SQL_STRING	varchar2(40)	No	Yes

Table 3-16, PVT_PRCDTBL_TBL holds the product codes that use the PDS to produce products. Any product code used in the PDT_PDSINFO table must match one in this table. The schema for this table is described below.

Table 3-16. PVT_PRCDTBL_TBL

Name	Code	Type	P	M
prod_code	PRODUCT_CODE	varchar2(4)	Yes	Yes
prod_desc	PROD_DESC	varchar2(40)	No	No
pds_description	PDS_DESCRIPTION	Varchar2(8)	No	No

Table 3-17, PWT_PDS_WORK_TBL is very similar to the PDT_PDSINFO table, except that it only holds records that are currently in the queue for the PDS system. Records are insert into this table when they have a PDT_PDSINFO.STATUS of "Q". All the processing by the PDSOI is done against the PWT_PDS_WORK_TBL table. When a unit is completed then updates will be made to the PDT_PDSINFO table for the corresponding unit and the PWT_PDS_WORK_TBL record will be deleted. The schema for this table is described below.

Table 3-17. PWT_PDS_WORK_TBL

Name	Code	Type	P	M
pdsinfokey	PDSINFOKEY	number	No	Yes
order_nbr	ORDER_NBR	varchar2(13)	No	No
unit_nbr	UNIT_NBR	number(5)	No	No
status	STATUS	varchar2(1)	No	No
selected	SELECTED	varchar2(1)	No	No
prod_code	PROD_CODE	varchar2(4)	No	No
output_specs	OUTPUT_SPECS	varchar2(5)	No	No
product_format	PRODUCT_FORMAT	varchar2(12)	No	No
product_density	PRODUCT_DENSITY	varchar2(4)	No	No
tape_blocking	TAPE_BLOCKING	number(5)	No	No
priority_code	PRIORITY_CODE	varchar2(1)	No	No
copies_each	COPIES_EACH	number(4)	No	No
pds_project	PDS_PROJECT	varchar2(16)	No	No
date_due	DATE_DUE	date	No	No
storage_location	STORAGE_LOCATION	varchar2(200)	No	No
directory_location	DIRECTORY_LOCATION	varchar2(200)	No	No
job_key	JOB_KEY	varchar2(20)	No	No
ppf_key	PPF_KEY	varchar2(20)	No	No
media_id	MEDIA_ID	Varchar2(25)	No	No

Table 3-18, PXT_PRINTERS_TBL is the printer table. This table contains the valid list of printers to be used by the PDSOI. It is used to validate printer selections in the PDSOI. The schema for this table is described below.

Table 3-18. PXT_PRINTERS_TBL

Name	Code	Type	P	M
printer_id	PRINTER_ID	varchar2(15)	Yes	Yes
short_name	SHORT_NAME	varchar2(25)	No	Yes
printer_type	PRINTER_TYPE	varcahr2(1)	No	Yes

Table 3-19 through 3-30 lists the tables in the PDSIS tablespace and their respective schemas. Each list is presented in alphabetical order corresponding to the database tables illustrated in the ERD (reference Appendix A).

Table 3-19. PDSIS Tablespace Tables

Table Name	Logical Grouping
LOOKUP_OUTSPECINFO_TBL	PDSIS
LOOKUP_PRODINFO_TBL	PDSIS
ODL_PDS_LOOKUP_TBL	PDSIS
PDSIS_ADDRESS_TBL	PDSIS
PDSIS_ERRORS_TBL	PDSIS
PDSIS_LOOKUPS_TBL	PDSIS
PDSIS_ORDERS_TBL	PDSIS
PDSIS_SERVERCONFIG_TBL	PDSIS
PDSIS_UNITS_TBL	PDSIS
PDSIS_UNITFILE_TBL	PDSIS
PDSIS_USERCONFIG_TBL	PDSIS

Table 3-20, LOOKUP_OUTSPECINFO_TBL, is be used for storing output specification information that is passed to PDS. All data except media_size is passed to PDS. The schema for this table is described below.

Table 3-20. LOOKUP_OUTSPECINFO_TBL (1 of 2)

Name	Code	Type	P	M
output_specs	OUTPUT_SPECS	varchar2(5)	Yes	Yes
product_media	PRODUCT_MEDIA	varchar2(2)	No	Yes
input_media_type	INPUT_MEDIA_TYPE	varchar2(2)	No	Yes
input_media_fmt	INPUT_MEDIA_FMT	varchar2(10)	No	Yes
product_density	PRODUCT_DENSITY	varchar2(4)	No	Yes

Table 3-20. LOOKUP_OUTSPECINFO_TBL (2 of 2)

Name	Code	Type	P	M
tape_blocking	TAPE_BLOCKING	number(5)	No	Yes
compress_type	COMPRESS_TYPE	varchar2(4)	No	Yes
media_size	MEDIA_SIZE	number(9)	No	Yes
media_size_check	MEDIA_SIZE_CHECK	varchar2(1)	No	Yes

Table 3-21, LOOKUP_PRODINFO_TBL, is used for storing information that needs to be passed to the pdt_pdsinfo table based on the product code (product specific information). PDSIS looks up the required information by using the prod_code determined from the odl_pds_lookup_tbl table. PDSIS will be accessed when the Data Availability Notice (DAN) is received from ECS. The schema for this table is described below.

Table 3-21. LOOKUP_PRODINFO_TBL

Name	Code	Type	P	M
prod_code	PROD_CODE	varchar2(4)	Yes	Yes
product_format	PRODUCT_FORMAT	varchar2(12)	No	Yes
pds_project	PDS_PROJECT	varchar2(16)	No	Yes
order_node	ORDER_NODE	varchar2(3)	No	Yes
default_size	DEFAULT_SIZE	number(6)	No	Yes
receive_email	RECEIVE_EMAIL	varchar2(1)	No	Yes

Table 3-22, ODL_PDS_LOOKUP_TBL, is used for storing ODL message parameters. This information will be accessed every time an ODL PRODUCT_RERQUEST comes in. It is used to lookup the DATASET_ID, MEDIA_TYPE, MEDIA_FORMAT values from the PRODUCT_REQUEST ODL message to get the appropriate prod_code and output_specs. The schema for this table is described below.

Table 3-22. ODL_PDS_LOOKUP_TBL

Name	Code	Type	P	M
odl_dataset_id	ODL_DATASET_ID	varchar2(100)	Yes	Yes
odl_media_type	ODL_MEDIA_TYPE	varchar2(20)	Yes	Yes
odl_media_format	ODL_MEDIA_FORMAT	varchar2(30)	Yes	Yes
prod_code	PROD_CODE	varchar2(4)	No	Yes
output_specs	OUTPUT_SPECS	varchar2(5)	No	Yes

Table 3-23, PDSIS_ADDRESS_TBL, is used for storing the contact, billing and shipping address information. The schema for this table is described below.

Table 3-23. PDSIS_ADDRESS_TBL

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	Yes	Yes
address_type	ADDRESS_TYPE	varchar2(1)	Yes	Yes
first_middle	FIRST_MIDDLE	varchar2(20)	No	Yes
last_name	LAST_NAME	varchar2(20)	No	Yes
organization	ORGANIZATION	varchar2(60)	No	No
address1	ADDRESS1	varchar2(35)	No	No
address2	ADDRESS2	varchar2(35)	No	No
address3	ADDRESS3	varchar2(35)	No	No
city	CITY	varchar2(30)	No	Yes
state_province	STATE_PROVINCE	varchar2(20)	No	No
country	COUNTRY	varchar2(30)	No	Yes
postal_code	POSTAL_CODE	varchar2(15)	No	No
phone_nbr	PHONE_NBR	varchar2(22)	No	Yes
fax_nbr	FAX_NBR	varchar2(22)	No	No
email	EMAIL	varchar2(128)	No	No

Table 3-24, PDSIS_ERRORS_TBL, is used to associate errors message which occurred during the processing for a specified order. The schema for this table is described below.

Table 3-24. PDSIS_ERRORS_TBL

Name	Code	Type	P	M
error_id	ERROR_ID	varchar2(14)	No	No
error_order_nbr	ERROR_ORDER_NBR	varchar2(13)	No	No
error_unit_nbr	ERROR_UNIT_NBR	number(5)	No	No
error_source	ERROR_SOURCE	varchar2(100)	No	No
error_code	ERROR_CODE	number	No	No
error_message	ERROR_MESSAGE	varchar2(2000)	No	No

Table 3-25, PDSIS_LOOKUPS_TBL, is used to maintain static status codes and allows the operator to enable or disable them. The schema for this table is described below.

Table 3-25. PDSIS_LOOKUPS_TBL

Name	Code	Type	P	M
lookup_id	LOOKUP_ID	varchar2(25)	No	Yes
lookup_code	LOOKUP_CODE	varchar2(25)	No	Yes
lookup_name	LOOKUP_NAME	varchar2(25)	No	Yes
lookup_desc	LOOKUP_DESC	varchar2(100)	No	Yes
enabled	ENABLED	varchar2(1)	No	Yes
server_mode	SERVER_MODE	varchar2(1)	No	Yes

Table 3-26, PDSIS_ORDERS_TBL, is used to store all information relevant to a particular order. The schema for this table is described below.

Table 3-26. PDSIS_ORDERS_TBL

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	Yes	Yes
ecs_ordid	ECS_ORDID	varchar2(10)	No	Yes
ecs_reqid	ECS_REQID	varchar2(10)	No	Yes
status	STATUS	varchar2(1)	No	Yes
status_date	STATUS_DATE	date	No	Yes
date_entered	DATE_ENTERED	date	No	Yes
action_flag	ACTION_FLAG	varchar2(1)	No	No
error_flag	ERROR_FLAG	varchar2(1)	No	Yes
special_action	SPECIAL_ACTION	varchar2(20)	No	No
odl_file	ODL_FILE	varchar2(75)	No	Yes
mail_file	MAIL_FILE	varchar2(75)	No	No
comments	COMMENTS	varchar2(2000)	No	No
meta_flag	META_FLAG	varchar2(1)	No	No

Table 3-27, PDSIS_SERVERCONFIG_TBL, is used to store PDS Server configuration information. The schema for this table is described below.

Table 3-27. PDSIS_SERVERCONFIG_TBL (1 of 2)

Name	Code	Type	P	M
ecs_status	ECS_STATUS	varchar2(1)	No	Yes
server_mode	SERVER_MODE	varchar2(1)	No	Yes
server_retries	SERVER_RETRIES	number(2)	No	Yes
log_archive	LOG_ARCHIVE	varchar2(1)	No	No
usage_threshold	USAGE_THRESHOLD	number(9)	No	Yes

Table 3-27. PDSIS_SERVERCONFIG_TBL (2 of 2)

Name	Code	Type	P	M
usage_current	USAGE_CURRENT	number(9)	No	Yes
sybase_connect	SYBASE_CONNECT	varchar2(1)	No	Yes
grouping_config	GROUPING_CONFIG	varchar2(1)	No	Yes
group_data_size	GROUP_DATA_SIZE	number(9)	No	Yes
group_unit_size	GROUP_UNIT_SIZE	number(5)	No	Yes
days_purge	DAYS_PURGE	number(3)	No	Yes
daac_name	DAAC_NAME	varchar2(60)	No	Yes
daac_contact_name	DAAC_CONTACT_NAME	varchar2(80)	No	No
daac_address	DAAC_ADDRESS	varchar2(35)	No	Yes
daac_city	DAAC_CITY	varchar2(30)	No	Yes
daac_state	DAAC_STATE	varchar2(20)	No	Yes
daac_zip	DAAC_ZIP	varchar2(15)	No	Yes
daac_country	DAAC_COUNTRY	varchar2(30)	No	Yes
daav_phone	DAAC_PHONE	varchar2(22)	No	Yes
daac_fax	DAAC_FAX	varchar2(22)	No	Yes
daac_email	DAAC_EMAIL	varchar2(128)	No	Yes
daac_preamble	DAAC_PREAMBLE	varchar2(75)	No	Yes
email_notification	EMAIL_NOTIFICATION	varchar2(1)	No	Yes
receive_preamble	RECEIVE_PREAMBLE	varchar2(75)	No	No
threshold_release	THRESHOLD_RELEASE	varchar2(1)	No	No
reject_preamble	REJECT_PREAMBLE	varchar2(75)	No	No

Table 3-28, PDSIS_UNITS_TBL, is used to store product unit information. The schema for this table is described below.

Table 3-28. PDSIS_UNITS_TBL (1 of 2)

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	Yes	Yes
unit_nbr	UNIT_NBR	number(5)	Yes	Yes
ordering_id	ORDERING_ID	varchar2(50)	No	Yes
copies_each	COPIES_EACH	number(4)	No	Yes
prod_code	PROD_CODE	varchar2(4)	No	Yes
output_specs	OUTPUT_SPECS	varchar2(5)	No	Yes
subsetted_data	SUBSETTED_DATA	varchar2(1)	No	Yes
mb_size	MB_SIZE	number(6)	No	No
odl_child_node	ODL_CHILD_NODE	number(5)	No	Yes
directory_location	DIRECTORY_LOCATION	varchar2(200)	No	No
status	STATUS	varchar2(1)	No	Yes

Table 3-28. PDSIS_UNITS_TBL (2 of 2)

Name	Code	Type	P	M
status_date	STATUS_DATE	date	No	Yes
action_flag	ACTION_FLAG	varchar2(1)	No	No
error_flag	ERROR_FLAG	varchar2(1)	No	No
error_message	ERROR_MESSAGE	varchar2(100)	No	No
tries	TRIES	number(2)	No	No
scli_tries	SCLI_TRIES	number(2)	No	No
bands	BANDS	varchar2(12)	No	No
reproject	REPROJECT	varchar2(1)	No	No
reformat	REFORMAT	varchar2(1)	No	No

Table 3-29, PDSIS_UNITFILE_TBL, is used for storing the data file name. The schema for this table is described below.

Table 3-29. PDSIS_UNITFILE_TBL

Name	Code	Type	P	M
order_nbr	ORDER_NBR	varchar2(13)	Yes	Yes
unit_nbr	UNIT_NBR	number(5)	Yes	Yes
file_name	FILE_NAME	varchar2(80)	Yes	Yes

Table 3-30, PDSIS_USERCONFIG_TBL stores PDSIS server remote account information. There is not be any GUI interface to this table because of the RISK of compromising a user name and password. The schema for the table is shown below.

Table 3-30. PDSIS_USERCONFIG_TBL (1 of 2)

Name	Code	Type	P	M
mss_sybase_host	MSS_SYBASE_HOST	varchar2(50)	No	Yes
mss_sybase_port	MSS_SYBASE_PORT	number(5)	No	Yes
mss_database	MSS_DATABASE	varchar2(50)	No	Yes
sds_sybase_host	SYS_SYBASE_HOST	varchar2(50)	No	Yes
sds_sybase_port	SDS_SYBASE_PORT	number(5)	No	Yes
sds_database	SDS_DATABASE	varchar2(50)	No	Yes
sms_sybase_host	SMS_SYBASE_HOST	varchar2(50)	No	Yes
sms_sybase_port	SMS_SYBASE_PORT	number(5)	No	Yes
sms_database	SMS_DATABASE	varchar2(50)	No	Yes

Table 3-30. PDSIS_USERCONFIG_TBL (2 of 2)

Name	Code	Type	P	M
sybase_user	SYBASE_USER	varchar2(20)	No	Yes
sybase_passwd	SYBASE_PASSWD	varchar2(20)	No	Yes
ecsuserprofile	ECSUSERPROFILE	varchar2(20)	No	Yes
ecsmode	ECSMODE	varchar2(20)	No	Yes
scli_command	SCLI_COMMAND	varchar2(75)	No	Yes
ftpuser	FTPUSER	varchar2(20)	No	Yes
ftppassword	FTPPASSWORD	varchar2(50)	No	Yes
ftphost	FTPHOST	varchar2(30)	No	Yes
pdsis_email	PDSIS_EMAIL	varchar2(50)	No	Yes
storage_root	STORAGE_ROOT	varchar2(100)	No	Yes
ftp_storage_root	FTP_STORAGE_ROOT	varchar2(100)	No	Yes
log_root	LOG_ROOT	varchar2(100)	No	Yes
archive_root	ARCHIVE_ROOT	varchar2(100)	No	Yes
smtp_server	SMTP_SERVER	varchar2(50)	No	No
smtp_user	SMTP_USER	varchar2(50)	No	No
oms_sybase_host	OMS_SYBASE_HOST	varchar2(50)	No	Yes
oms_sybase_port	OMS_SYBASE_PORT	number(5)	No	Yes
oms_database	OMS_DATABASE	varchar2(50)	No	Yes

Table 3-31 contains information about the current database version for the PDS database.

Table 3-31. EcDbDatabaseVersions

Name	Code	Type	P	M
EcDbComments	ECDBCOMMENTS	varchar2(50)	No	No
EcDbCurrentVersionFlag	ECDBCURRENTVERSIONFLAG	char(1)	No	No
EcDbDropDescription	ECDBDROPDESCRIPTION	varchar2(25)	No	Yes
EcDbDropInstallDate	ECDBDROPINSTALLDATE	date	No	No
EcDbDropVersion	ECDBDROPVERSION	char(6)	No	Yes
EcDbSchemaVersionId	ECDBSCHEMAVERSIONID	smallint	Yes	Yes
EcDbUpdateProcess	ECDBUPDATEPROCESS	varchar2(25)	No	No

3.1.3 Column Specifications

Brief definitions of each of the columns within the PDS database and their valid values, or references to other documents containing the valid values, are contained herein. "Valid Values" identify the permissible data content of the column where there is a finite set of acceptable values that can be defined. Other columns are simply formatted/free text or numeric.

Table 3-32. Database Column Specifications (1 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
action_flag	Activates various functions	pdsis_order_table pdsis_units_tbl	A = Activate S = print Shipping Label M = Mail the distribution notice to the customer C = Clean/delete the directory above associated with this units directory_location D = delete all order data in all tables associated with this order E = Request ECS data P = Request PDS data X = Reject entire order
address1	EDG address sequence field	pdsis_address_tbl	
address2	EDG address sequence field	pdsis_address_tbl	
address3	EDG address sequence field	pdsis_address_tbl	
address_type	description of the address	pdsis_address_tbl	C = contact B = billing S = shipping
ansi_label_f	Optional field indicating an ansi label flag	pdt_pdsinfo	Y = Yes N = NO
app_err_msg	Programmer defined text	apt_app_errors	
archive_root	The directory where tar'ed logs are copied after an order is shipped	pdsis_userconfig_tbl	
bad_key	Determines whether job needs to be re-generated	pjt_pdsinfo_jobs	
bad_status	Determines whether job's status needs to be re-generated	pjt_pdsinfo_jobs	
bands	Spectral bands to use in product generation	pdsis_units_tbl pdt_pdsinfo	
bin_directory	Unix directory that containt he executable code	mct_machinfo_tbl	
bin_nbr	Location to store the generated product untill all units are produced	pdt_pdsinfo	
byte_ordering	Optional field determines order of bytes	pdt_pdsinfo	
city	EDG City	pdsis_address_tbl	

Table 3-32. Database Column Specifications (2 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
comments	Operator comments. This is a free floating field in the PDSIS Oracle forms that the operator can use to enter comments about an order.	pdsis_units_tbl	
compress_type	The compression type to be used in PDS	lookup_outspecinfo_tbl pdt_pdsinfo	
copies	Sum of the copies_each	pjt_pdsinfo_jobs	
copies_each	Passed to PDS. Number of copies of product to be acquired	pdsis_units_tbl pdt_pdsinfo pwt_pds_work_tbl	
country	EDG Country	pdsis_address_tbl	
currentvolume	The starting volume of the data being restaged	pds_volume	
cre8_col_fire_f	Optional field, not presently being used	pdt_pdsinfo	Y, N
daac_address	The street address of the DAAC	pdsis_serverconfig_tbl	
daac_city	The city of the DAAC	pdsis_serverconfig_tbl	
daac_contact_name	The name of a person at the DACC where this PDS is installed	pdsis_serverconfig_tbl	
daac_country	The DAAC's country	pdsis_serverconfig_tbl	
daac_email	The DAAC's customer service email address or contact address	pdsis_serverconfig_tbl	
daac_fax	The DAAC's fax number	pdsis_serverconfig_tbl	
daac_name	The name of the DAAC	pdsis_serverconfig_tbl	
daac_phone	The DAAC's phone number	pdsis_serverconfig_tbl	
daac_preamble	The full path/file name to an ASCII text file containing the Usee Service Preamble message for Shipping Summary reports	pdsis_serverconfig_tbl	
daac_state	The DAAC's state	pdsis_serverconfig_tbl	
daac_zip	The DAAC's zip code	pdsis_serverconfig_tbl	
data_org	How the source file is organized	pdt_pdsinfo	
data_source	Identifies where to get the parameter	ptt_pds_ppf_tbl	
date_due	Date provided by the PDSIS using priority and date entered	pdt_pdsinfo pwt_pds_work_tbl	

Table 3-32. Database Column Specifications (3 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
date_entered	The date the order was received	pdsis_orders_tbl pst_pds_stats_tbl	
days_purge	The number of days to keep an order in the database prior to purging it	pdsis_serverconfig_tbl	
db_table	Name of the table involved in the error	apt_app_errors	
db_user	Name fo the database users that caused the error	apt_app_errors	
default_size	Default size of a granule in MB.	lookup_prodinfo_tbl	
description	Internal description for documentation only	lkt_lookups_tbl	
directory_location	Location of the data on the disk	pdsis_units_tbl pdt_pdsinfo pwt_pds_work_tbl	
due_date	Date the job was promised to the customer	pjt_pdsinfo_jobs	
EcDbComments	Notes or comments on the database version level.	EcDbDatabaseVersions	
EcDbCurrentVersionFlag	Flag indicating if this row represents the current database version entry	EcDbDatabaseVersions	
EcDbDropDescription	The official name of the ECS software drops for this database version level.	EcDbDatabaseVersions	
EcDbDropInstallDate	The date and time that the database versions level was installed.	EcDbDatabaseVersions	
EcDbDropVersion	The official description of the ECS software drops for this database version level.	EcDbDatabaseVersions	
EcDbSchemaVersionId	The subsystem-specific identifier for this database schema version	EcDbDatabaseVersions	
EcDbUpdateProcess	The installation method by which this database version level was installed	EcDbDatabaseVersions	
ecs_ordid	ECS Order ID	pdsis_orders_tbl	
ecs_orid	ECS Order ID	pdt_pdsinfo	
ecs_reqid	ECS Request ID	pdsis_order_tbl	
ecs_status	Determines whether ECS is operational	pdsis_serverconfig_tbl	U = UP D = Down

Table 3-32. Database Column Specifications (4 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
ecsmode	The ECS mode	pdsis_userconfig_tbl	
ecsuserprofile	The ECS user profile to use for the SCLI acquire call	pdsis_userconfig_tbl	
email	EDG Email	pdsis_address_tbl pdt_pdsinfo	
email_notification	Configuration for customer emails.	pdsis_serverconfig_tbl	
enabled	Usage flag	pdsis_lookups_tbl	Y = Yes N = No
enabled_flag	Usage flag	lkt_lookups_tbl	Y = Yes N = No
entry_date	Date the error occurred	apt_app_errors	
error_code	Developer assigned error code	pdsis_errors_tbl	
error_flag	Activates various functions	pdsis_orders_tbl pdsis_units_tbl	Y = an error condition exists N = No error condition exists
error_id	Unique incremental datetime	pdsis_errors_tbl	
error_message	Text of error message	pdsis_errors_tbl pdsis_units_tbl	
error_order_nbr	Order_nbr that the error occurs	pdsis_errors_tbl	
error_source	Subroutine where the error occurs	pdsis_errors_tbl	
error_unit_nbr	Unit_nbr that the error occurs	pdsis_errors_tbl	
fax_nbr	EDG Fax	pdsis_address_tbl	
file_name	Data file name	pdsis_unitfile_tbl	
first_middle	EDG First_name concatenated with Middle_name	pdsis_address_tbl	
ftp_storage_root	The root directory where data is FTP'ed	pdsis_userconfig_tbl	
ftphost	The FTP host name used for the FTP push	pdsis_userconfig_tbl	
ftppassword	The FTP user's password to use for FTP Push	pdsis_userconfig_tbl	
ftpuser	The FTP user name used for the FTP Push	pdsis_userconfig_tbl	
group_data_size	The total sisze in MB of the data that has come back or is going to ECS	pdsis_serverconfig_tbl	

Table 3-32. Database Column Specifications (5 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
group_unit_size	The number of units that has come back from ECS prior to inserting the data into the pdsinfo table	pdsis_serverconfig_tbl	
grouping_config	Current PDSIS grouping	pdsis_serverconfig_tbl	S = Granule size grouping G = Group limits
home_directory	Unix directory that is the root of the directory structure for the host	mct_machinfo_tbl	
image_file	Format of the filename given to the image used to display on the jewel case	pjc_pds_jewel_cases	
input_media_fmt	The format of the incoming data	lookup_outspecinfo_tbl pdt_pdsinfo	
input_media_type	The type of input media	lookup_outspecinfo_tbl pdt_pdsinfo	
jewel_rpt	Name fo the Oracle Report used to create the jewel case isnert	pjc_pds_jewel_cases	
job_key	Dynamic label of the job the unit is associated. The order_nbr with a suffix designating the first unit of the job. A number assigned to each production job of an order.	pds_volume pdt_pdsinfo pgt_pds_ppf_tmp pjt_pdsinfo_jobs pwt_pds_work_tbl	
job_status	Status of the job	pjt_pdsinfo_jobs	
key	Parameter key defined by the proct code	ptt_pds_ppf_tbl pgt_pds-ppf_tmp	
key_count	The number of entries expected for the ppf key	pgt_pds_ppf_tmp	
key_type	The data type for the key	pgt_pds_ppf_tmp	
key_value	The actual values put into the ppf file for the job	pgt_pds_ppf_tmp	
last_name	EDG last name	pdsis_address_tbl	
log_archive	Determines where PDSIS will archive log files	pdsis_serverconfig_tbl	Y = Yes N = No
log_root	The root directory where logs are written	pdsis_userconfig_tbl	
lookup_code	Used by the PDSOI to find specific entries	lkt_lookups_tbl pdsis_lookups_tbl	

Table 3-32. Database Column Specifications (6 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
lookup_desc	A description of the lookup code's usage. Just for informational purposes, not used by the code.	pdsis_lookups_tbl	
lookup_id	Used by the PDSOI to find certain kinds of information	lkt_lookups_tbl pdsis_lookups_tbl	
lookup_name	The name displayed on the Oracle Form for the different actions the operator can take (Activate, Clear Error, Comments, Details, Errors, Expand Message, Reject, Restage, Ship).	pdsis_lookups_tbl	
machine_id	Tied to mct_machinfo	jlt_joblimits_tbl mct_machinfo_tbl	
mail_file	The full path of the mail file to be sent to the customer	pdsis_orders_tbl	
max_units	Maximum number of units to process at one time	jlt_joblimits_tbl	
mb_size	The size in MB of the granule	pdsis_units_tbls	
media_id	Generated by the product generation code, identifier for piece of media printed as the bar code on CD Jewl case inserts	pdt_pdsinfo pwt_pds_work_tbl	
media_size	The storage size in MB of the product media	lookup_outspecinfo_tbl	
media_size_check	Determines whether PDSIS will issue error for units that are too large to fit on a particular media	lookup_outspecinfo_tbl	Y = Yes N = No
meta_flag	Flag that indicate whether metadata should be included in the order. This is only for prestaged request.	pdsis_orders_tbl	Y = Yes N = No NULL = Non prestaged request
min_units	Minimum number of units to process at one time	jlt_joblimits_tbl	
mss_database	The actual name of the database that houses the orders information	pdsis_userconfig_tbl	
mss_sybase_host	The full name of the hardware system housing the MSS Sybase database	pdsis_userconfig_tbl	

Table 3-32. Database Column Specifications (7 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
mss_sybase_port	The port number that the MSS Sybase database is listening	pdsis_userconfig_tbl	
note	Holds operator comments	pjt_pdsinfo_jobs	
odl_child_node	The line item group used by the odl parser.	pdsis_units_tbl	
odl_dataset_id	The data set id in the odl message	odl_pds_lookup_tbl	
odl_file	The full path name of the original odl file	pdsis_orders_tbl	
odl_media_format	The media format in the odl message	odl_pds_lookup_tbl	
odl_media_type	The media type in the odl message	odl_pds_lookup_tbl	
oi_id	Identifies the operator working a job	pjt_pdsinfo_jobs	
oms_database	The actual name of the database.	pdsis_userconfig_tbl	
oms_sybase_host	The full name of the hardware system housing the OMS Sybase database	pdsis_userconfig_tbl	
oms_sybase_port	The port number that the OMS Sybase database is listening	pdsis_userconfig_tbl	
ordering_id	The package id from the odl message	pdsis_units_tbl pdt_pdsinfo	
order_nbr	DORRAN compliant order number for order (nnnYYMMDDnnnn) The number assigned to each order. It is build using a module prefix, the date and an incremental number. Used by the getVolume and getMaxVolume functions to determine the current volume number and maximum number of volumes.	mpt_msgpdstbl pds_volume pdsis_address_tbl pdsis_orders_tbl pdsis_units_tbl pdsis_unitfile_tbl pdt_pdsinfo pst_pds_stats_tbl pwt_pds_work_tbl	
order_node	The first 3 characters of an order number for an order of a specified type	lookup_prodinfo_tbl	
ordunit_status	Determines status of order	ott_ordunitstatbl_tbl	
ordunit_status_desc	Description of the status	ott_ordunitstatbl_tbl	
ordunit_status_type	Defines the type of status	ott_ordunitstatbl_tbl	O, U, B
organization	EDG organization	pdsis_address_tbl	

Table 3-32. Database Column Specifications (8 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
orig_dbtrigger	Name of the originating database trigger that caused the error	apt_app_errors	
orig_form	Name of the originating form that caused the error	apt_app_errors	
orig_plsql	Name of the originating PLSQL that caused the error	apt_app_errors	
orig_pro_c	Name of the originating Pro C routine that caused the error	apt_app_errors	
out_specs_desc	Lengthy description of the ouput specification	out_otsptblv_tbl	
output_specs	The output specifications for the odl values	lookup_outspecinfo_tbl odl_pds_lookup_tbl out_otsptblv_tbl pdsis_units_tbl pdt_pdsinfo pwt_pds_work_tbl	
pds_description	Used in grouping various prod_codes into one type of product for PDS	ott_ordunitstatbl_tbl out_otsptblv_tbl pvt_prcdtbl_tbl	
pds_processing_data	Description of the data being processed	ott_ordunitstatbl_tbl	
pds_project	The PDS Project	lookup_prodinfo_tbl pdt_pdsinfo pwt_pds_work_tbl	
pdsinfokey	Sequence number used as a primary key, which is used to join pds_volume with the pwt_pds_work_tbl, pdt_pdsinfo, and the pdsis_orders_tbl to form pdsinfo_view which in turn is used to build the ppf file to send PDS database values to PDS production modules.	pds_volume pdt_pdsinfo pwt_pds_work_tbl	
pdsis_email	The PDSIS email address	pdsis_userconfig_tbl	
phone_nbr	EDG phone	pdsis_address_tbl	
postal_code	EDG zip	pdsis_address_tbl	
ppf_key	Identifier used to group units of a job together	pdt_pdsinfo pwt_pds_work_tbl	
printer_id	Unix printer name	pxt_printers_tbl	

Table 3-32. Database Column Specifications (9 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
printer_type	Identifies the type of processing the printer is used for	pxt_printers_tbl	R = Reports J = Jewel Cases
priority	The priority of a job	pjt_pdsinfo_jobs	
priority_code	PDSIS priorities	pdt_pdsinfo pwt_pds_work_tbl	1 = Emergency 2 = High 3 – Normal 4 = Rush 5 = Standard
processing_data	Used by PDSOI	lkt_lookups_tbl	
processing_status	Status of the job	pjt_pdsinfo_jobs	
prod_code	Based on odl data setid, mediatype and media format	lookup_prodinfo_tbl odl_pds_lookup_tbl pdsis_units_tbl pdt_pdsinfo pvt_prcdtbl_tbl pwt_pds_work_tbl	0 (No compression (default)); 1 (compressed); 2 (decompressed)
prod_desc	A description of what the product code is	pvt_prcdtbl_tbl	
product_code	All product codes that can have jewel case insert created are stored in this field	jlt_joblimits_tbl pjc_pds_jewel_cases pjt_pdsinfo_jobs ptt_pds_ppf_tbl	
product_density	The density of the product	lookup_outspecinfo_tbl pdt_pdsinfo pwt_pds_work_tbl pjt_pdsinfo_jobs	HIGH LOW
product_format	The format of the output data	lookup_prodinfo_tbl pdt_pdsinfo pwt_pds_work_tbl pjt_pdsinfo_jobs	GENERIC HDF
product_media	The media that the data will be written to	jlt_joblimits_tbl lookup_outspecinfo_tbl pdt_pdsinfo pjc_pds_jewel_cases pjt_pdsinfo_jobs	CD 8M Dl DV
project_id	The name of the project that is producing this product	pjt_pdsinfo_jobs	
receive_email	Determines whether PDSIS will send out an email for a particular product code	lookup_prodinfo_tbl	Y=send out an email N=do not send out an email

Table 3-32. Database Column Specifications (10 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
receive_preamble	The full path to an ASCII file containing the User Service Preamble message	pdsis_serverconfig_tbl	
reformat	Not used – the ECS PDS is adapted from the PDSSA standalone system used by EDC and not all columns were implemented	pdsis_units_tbl	
reject_preamble	Distribution notice preamble for shipping and for rejections	pdsis_serverconfig_tbl	
reproject	Not used – the ECS PDS is adapted from the PDSSA standalone system used by EDC and not all columns were implemented	pdsis_units_tbl	
retain_dem_f	Indicates retention or deletion of DEM data files	pdt_pdsinfo	Y=retention of DEM data files N=deletion of DEM data files
scli_command	The file name the the SCLI command	pdsis_userconfig_tbl	
scli_tries	Part of the tag value in the SCLI command call	pdsis_units_tbl	
sds_database	The actual name of the database that houses the granule size information	pdsis_userconfig_tbl	
sds_sybase_host	The full name of the hardware housing the sds sybase database	pdsis_userconfig_tbl	
sds_sybase_port	The port number that the sds sybase database is listening	pdsis_userconfig_tbl	
selected	Updated after the unit has been completed	pdt_pdsinfo pwt_pds_work_tbl	
sequence_nbr	Line number for the row of the job	pgt_pds_ppf_tmp	
server_mode	The server's mode	pdsis_serverconfig_tbl pdsis_lookups_tbl	A – Automatic M = Manual
server_retries	The number of times the server will attempt an action prior to issuing an error	pdsis_serverconfig_tbl	
set_units	The number of units to process at one time	jlt_joblimits_tbl	

Table 3-32. Database Column Specifications (11 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
short_name	Type and location of printer	pxt_printers_tbl lkt_lookups_tbl	
sms_database	The actual name fo the database that houses the archive information	pdsis_userconfig_tbl	
sms_sybase_host	The full name of the hardware housing the sms database	pdsis_userconfig_tbl	
sms_sybase_port	The port number that the sms database is listening	pdsis_userconfig_tbl	
smtp_user	The user name that PDSIS will use for mail relay	pdsis_userconfig_tbl	
smtp_server	The smtp server that PDSIS will send email out to the customer	pdsis_userconfig_tbl	
sql_err_code	The number Oracle assigned to the error	apt_app_errors	
sql_err_msg	The text of the Oracle Error Message	apt_app_errors	
sql_string	May contain sql type conversions	ptt_pds_ppf_tbl	
special_action	Flag to activate various functions	pdsis_orders_tbl	
state_province	EDG state	pdsis_address_tbl	
status	The status of an order	pdsis_orders_tbl pdsis_units_tbl pdt_pdsinfo pjt_pdsinfo_jobs pwt_pds_work_tbl	O = ODL received I = In progress C = Completed D= ECS data requested F = Hold I = Active Q = Pending R = ECS data received S = Shipped T= Transferred X = Rejected
status_date	The date the order was last updated	pdsis_orders_tbl pdsis_units_tbl	
stop_job	Used to keep track of jobs that have been stopped by the operator	pjt_pdsinfo_jobs	
storage_location	Location of source if it is a tape.	pdt_pdsinfo pwt_pds_work_tbl	

Table 3-32. Database Column Specifications (12 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
storage_root	The root directory where push data is stored	pdsis_userconfig_tbl	
subsetted_data	Determines whether the data is subsetted	pdsis_units_tbl	
sybase_connect	Determines whether PDSIS will connect with Sybase	pdsis_serverconfig_tbl	
sybase_password	Password for the sybase user	pdsis_userconfig_tbl	
sybase_user	The sybase user name	pdsis_userconfig_tbl	
tape_blocking	Output blocking factor	lookup_outspecinfo_tbl pdt_pdsinfo pjt_pdsinfo_jobs pwt_pds_work_tbl	
text_file	Filename displayed on the jewel_case	pjc_pds_jewel_cases	
text_file2	Filename displayed on the jewel_case	pjc_pds_jewel_cases	
threshold_release	Determines whether PDSIS will release orders to PDSSA	pdsis_serverconfig_tbl	
total_units	The total number of units in a job	pjt_pdsinfo_jobs	
totalvolumes	The total number of volumes, plus one, of an order being restaged, not including those volumes being restaged.	pds_volume	
tries	The number of times PDSIS will retry error before setting the error flag	pdsis_units_tbl	
type	Identified data type of the parameters being passed	ptt_pds_ppf_tbl	S = String I = Integer R = Real
unit_count	Determines whether 1 or more parameters are being passed	ptt_pds_ppf_tbl	

Table 3-32. Database Column Specifications (13 of 13)

COLUMN	DESCRIPTION	TABLE	VALID VALUES
unit_nbr	Unit number: An incremental number assigned to each granule in an order. Used by the getVolume and getMaxVolume functions to determine the current volume number and maximum number of volumes.	pds_volume pdsis_units_tbl pdsis_unitfile_tbl pdt_pdsinfo pst_pds_stats_tbl pwt_pds_work_tbl	
usage_current	The disk usage in MB	pdsis_serverconfig_tbl	
usage_threshold	Based on experiential data, the minimum reduction in filesize predicted with an 99% level of confidence.	pdsis_serverconfig_tbl	

3.1.4 Column Domains

Domains specify the ranges of values allowed for a given table column. Oracle supports the definition of specific domains to further limit the format of data for a given column. Oracle domains are, in effect, user-defined data types. There are no domains defined for PDS.

3.1.5 Column Default Values

Defaults are used to supply a value for a column when one is not defined at row insert time. The table below provides information relative to the column defaults used within the PDS database.

Table 3-33. PDS Column Defaults

Table Name	ColumnName	Default Value
APT_APP_ERRORS	entry_date	sysdate
APT_APP_ERRORS	db_user	rtrim(db_user)

Check constraints are another means by which data integrity can be enforced. Check constraints defined the permissible values allowed within a column. The table below provides information relative to the check constraints being utilized within the PDS database.

Table 3-34. PDS Check Constraints

Table Name	Column Name	Check Constraint Name	Valid Values
lkt_lookups_tbl	enabled_flag	lkt_ck_enabled	Y, N
ott_ordunitstatbl	ordunit_status_type	ott_ck_stattype	O, U, B
pdt_pdsinfo	cre8_col_fire_f	pdt_ck_ccfiref	Y, N
pdt_pdsinfo	compress_type	pdt_ck_comfillf	“None”, “Y”

3.1.6 Referential Integrity Rules

Oracle supports the definitions of rules. Rules provide a means for enforcing domain constraints on a given column. There are no rules defined in Oracle for PDS.

3.1.7 Views

Oracle allows the definition of views as a means of limiting an application or users access to data in a table or tables. Views create a logical table from columns found in one or more tables. The table below defines the view(s) currently being employed with the PDS database.

Table 3-35. PDS Views

View Name	Tables Accessed
pdsinfo_view	pwt_pds_work_tbl, pdt_pdsinfo

3.1.8 Declarative Integrity Constraints

Oracle allows the enforcement of referential integrity via the use of declarative integrity constraints. Integrity constraints allow the SQL server to enforce primary and foreign key integrity checks automatically without requiring programming. Oracle is ANSI-92 compliant, therefore, its constraints support "restrict-only" operations. This means that a row can not be deleted or updated if there are rows in other tables having a foreign key dependency on that row. Cascade delete and update operations can not be performed if a declarative integrity constraint has been used. Declarative integrity constraints used in the PDS Subsystem database are found here. Referential integrity is also maintained through use of user-defined triggers and procedures.

3.1.8.1 Dependencies on Table: MCT_MACHINFO_TBL

Reference by List

Referenced by	Constraint Name	Foreign Key
jlt_joblimits_tbl	jlt_fk_machineid	machine_id

3.1.8.2 Dependencies on Table: PDSIS_ORDERS_TBL

Reference by List

Referenced by	Constraint Name	Foreign Key
pdsis_units_tbl	unit_fk_ordernbr	order_nbr
pdsis_unitfile_tbl	unitfile_fk_ordernbr	order_nbr

3.1.9 Triggers

Oracle supports the enforcement of business rules via the use of triggers. A trigger is best defined as a set of activities or checks that should be performed automatically whenever a row is inserted, updated, or deleted from a given table. Oracle allows the definition of insert, update, and delete triggers at the table level. A summary listing of the triggers in the PDS Subsystem database are given in Table 3-34 along with the database table it is associated with and a brief description of the purpose for the trigger.

Table 3-36. Summary List of Triggers

Table	Trigger	User Defined	Description
pdsis_errors_tbl	pdsis_error_trig	Yes	Performs validation prior to insert or update on pdsis_errors_tbl. Validation checks performed on pdsis_orders_tbl and pdsis_units_tbl.
pdsis_orders_tbl	pdsis_orders_trig	Yes	Performs validation prior to insert or update on pdsis_orders_tbl. Sets the value of the status_date field.
pdsis_units_tbl	pdsis_units_trig	Yes	Performs validation prior to insert or update on pdsis_units_tbl. Sets the value of the status_date field.
pdt_pdsinfo	pdt_pdsinfo_trig	Yes	Performs validation on insert into pdt_pdsinfo table. Inserts into pst_pds_stats_tbl new order numbers. Inserts into apt_app_errors if error occurs.
pwt_pds_work_tbl	pwt_pds_work_tbl_trig	Yes	Performs validation on insert,update or delete of pwt_pds_work_tbl. Updates pjt_pdsinfo_job bad_status, bad_key fields and/or updates apt_app_errors if error occurs.

3.1.10 PDS Packages and Stored Procedures

Oracle also supports business rules via the use of packages which are logical groupings of stored procedures and functions. Stored procedures are typically used to capture a set of activities or checks that will be performed on the database repeatedly to enforce business rules and maintain data integrity. Stored procedures are parsed and compiled SQL code that reside in the database

and may be called by name by an application, trigger or another stored procedure. Functions are routines that return a value to a stored procedure. A summary list of the packages and their associated stored procedures within the PDS Subsystem database are given in Table 3-37.

Table 3-37. Summary List of Packages

Package Name	Function/Stored Procedure Name
pds_jobs_pkg	
	Procedure check_proc_running
	Function get_status
	Function job_exists
	Procedure jobkey_build
	Procedure jobs_check
	Procedure jobstatus_update
	Procedure release_lock
pds_ppf_pkg	
	Function create_ppf
	Procedure get_ppf_line
	Procedure update_dpath_count
	Procedure insert_pds_ppf_tmp
pds_update_pkg	
	Function update_status
	Function check_priority_one

3.2 Flat File Usage

A flat file is an operating system file that is written and subsequently read serially, generally independent of other files that exist, and usually static in nature. There are cases when the implementation of persistent data is better suited to a flat file than to a database (e.g., system configuration data, external interface data). There are no flat files used by the PDS Subsystem. Configuration information is stored in the PDS database.

3.2.1 File Descriptions

Not Applicable

3.2.2 Field Specifications

Not Applicable

3.2.3 Domain Definitions

Not Applicable

4. Performance and Tuning Factors

4.1 Indexes

An index provides a means of locating a row in a database table based on the value of a specific column(s), without having to scan all data in the table. When properly implemented, indexes can significantly decrease the time it takes to retrieve data, thereby increasing performance. Oracle allows the definition of two types of indexes, clustered and Non-clustered.

In a clustered index, the rows in a database table are physically stored in sequence-determined by the index. Clustered indexes are particularly useful, when the data is frequently retrieved in sequential order. Only one clustered index may be defined per table.

Non-clustered indexes differ from their clustered counterpart, in that, data is not physically stored in sorted order—newly added rows are stored at the end of the related database table.

A key of the types of indexes found in PDS is provided in Table 4-1 Index Type Key. A list of descriptions for each of the defined indexes is given in Table 4-2 Index List.

Table 4-1. Index Type Key

Index Type Key	Description
PK	Primary Key
FK	Foreign Key
U	Unique - Only one for the column code combination
Sort	ASC (ascending) of DESC (descending) order

Table 4-2. Index List (1 of 2)

Table	Index Code	Column Code	P	F	U	Sort
lkt_lookups_tbl	lkt_pk_lookups	lookup_id, lookup_code	YES	NO	YES	ASC
lookup_outspecinfo_tbl	outlook_pk_outspec	output_specs	YES	NO	YES	ASC
lookup_prodinfo_tbl	prodlook_pk_prodcode	prod_code	YES	NO	YES	ASC
mct_machinfo_tbl	mct_pk_machineid	machine_id	YES	NO	YES	ASC
odl_pds_lookup_tbl	odlpds_pk_odls	odl_dataset_id,odl_media_type, odl_media_format	YES	NO	YES	ASC
ott_ordunitstatbl_tbl	oct_orderstatuskey	ordunit_status	YES	NO	YES	ASC
out_otsptblv_tbl	out_pk_outputspecs	output_specs	YES	NO	YES	ASC
pdsis_address_tbl	addr_pk_ordadd	order_nbr,address_type	YES	NO	YES	ASC
pdsis_orders_tbl	order_pk_ordnbr	order_nbr	YES	NO	YES	ASC
pdsis_units_tbl	unit_pk_numbers	order_nbr, unit_nbr	YES	NO	YES	YES

Table 4-2. Index List (2 of 2)

Table	Index Code	Column Code	P	F	U	Sort
pdsis_unitfile_tbl	unitfile_pk_numbers	order_nbr,unit_nbr,file_name	YES	NO	YES	YES
pdt_pdsinfo	pdt_pk_pdsinfokey	pdsinfokey	YES	NO	YES	ASC
pjc_pds_jewel_cases	pjc_prod_media_rpt_pk	product_code,product_media	YES	NO	YES	ASC
pst_pds_stats_tbl	pst_pk_ordunit	order_nbr,unit_nbr	YES	NO	YES	ASC
pvt_prcdtbl_tbl	pvt_pk_prcdtblkey	prod_code	YES	NO	YES	ASC
pxt_printers_tbl	pxt_pk_printerid	printer_id	YES	NO	YES	ASC

4.2 Tablespaces

The oracle database's data is stored logically in tablespaces and physically in the data files that are associated with the tablespaces. A tablespace is similar to a sybase device. For each mode there are two tablespaces for the two groups of tables corresponding to Product Distribution Subsystem Stand Alone (PDSSA) and Product Distribution Subsystem Input Server (PDSIS) components of PDS.

Table 4-3. Tablespace Descriptions

TableSpace Name	Description	Mode	For PDS Component
PDSSA	Tablespace for Oracle Instance PDS	OPS	PDSSA
PDSIS	Tablespace for Oracle Instance PDS	OPS	PDSIS
PDSSAST	Tablespace for Oracle Instance PDSST	TS1	PDSSA
PDSISST	Tablespace for Oracle Instance PDSST	TS1	PDSIS
PDSSAIT	Tablespace for Oracle Instance PDSIT	TS2	PDSSA
PDSISIT	Tablespace for Oracle Instance PDSIT	TS2	PDSIS

5. Database Security

5.1 Approach

The database security discussed within this section is bounded to security implementation within the Oracle SQL Server DBMS. The Oracle general approach to security is adopted as illustrated in Figure 5-1.

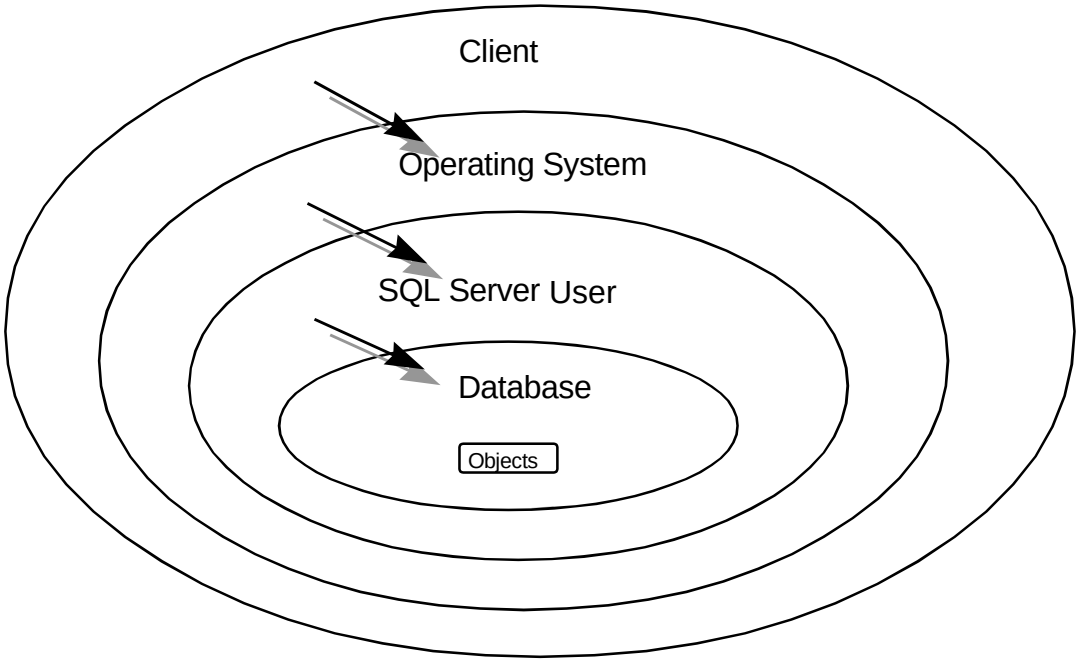

Figure 5-1. Oracle General Approach to SQL Server Security[1]

The client (user) requires a SQL Server user name to access the DBMS. The user name has certain related permissions for gaining access to particular objects (e.g., database tables, views, commands) within the database. The System Administrator may grant or revoke objects permissions for a user individually or based on defined group or roles.

Groups are a means of logically associating users with similar data access needs. Once a group has been defined, object and command permissions can be granted to that group. A user who is member of a group inherits all of the permissions granted to that group. No groups have been initially defined in the PDS Subsystem "default database. The DAACs should define database

groups to support the database security requirements of their individual DAACs. Security for local DAAC users should be controlled by assigning each user to the appropriate group.

5.2 User Permissions

During initial database installation user names used by the ECS custom code were created and permissions assigned for access to the PDS Subsystem database. In addition, a special database installation user , oracle, was created to support database installation needs. For each user, the level of access is limited to that associated with their user name. Object Permissions are set within the installation scripts of the PDS Subsystem for each object.

Permissions are identified in Table 5-1. A specification of the object permissions is contained in Table 5-2.

Table 5-1. Permission Key

Permission	Description
C	Connect
R	Resource
CR	Create Role
CPS	Create Public Synonym

Table 5-2. User Specifications

User Name	C	R	CR	CPS
pdssa	X	X	X	X
pds	X	X	X	X
pdsit	X	X	X	X
pdsst	X	X	X	X

6. Scripts

Script files in this section may be found in the directory /ecs/formal/PDS/database.

6.1 Installation Scripts

Any scripts used to support installation of the PDS Subsystem database are described in Table 6-1.

Table 6-1. Installation Scripts

Script File	Description
EcPdDbDbBuild	Create an empty database and pre-loads initialization data.
EcPdDbDbPatch	Upgrades the database schema

6.2 De-Installation Scripts

No de-installation scripts are provided for the PDS subsystem database.

6.3 Backup Script

The script used to backup the PDS Subsystem database is described in Table 6-2.

Table 6-2. Backup Script

Script File	Description
hotbackup.sh	Dumps each database instance of PDS

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Appendix A. Product Distribution Entity Relationship Diagrams

LOOKUP_OUTSPECINFO_TBL			
OUTPUT_SPECS	VARCHAR2 (5)	<pk>	not null
PRODUCT_MEDIA	VARCHAR2 (2)		not null
INPUT_MEDIA_TYPE	VARCHAR2 (2)		not null
INPUT_MEDIA_FMT	VARCHAR2 (10)		not null
PRODUCT_DENSITY	VARCHAR2 (4)		not null
TAPE_BLOCKING	NUMBER (5)		not null
COMPRESS_TYPE	VARCHAR2 (4)		not null
MEDIA_SIZE	NUMBER (9)		not null
MEDIA_SIZE_CHECK	VARCHAR2 (1)		not null

PDSIS_SERVERCONFIG_TBL		
ECS_STATUS	VARCHAR2 (1)	not null
SERVER_MODE	VARCHAR2 (1)	not null
SERVER_RETRIES	NUMBER (2)	not null
LOG_ARCHIVE	VARCHAR2 (1)	null
USAGE_THRESHOLD	NUMBER (9)	not null
USAGE_CURRENT	NUMBER (9)	not null
SYBASE_CONNECT	VARCHAR2 (1)	not null
GROUPING_CONFIG	VARCHAR2 (1)	not null
GROUP_DATA_SIZE	NUMBER (9)	not null
GROUP_UNIT_SIZE	NUMBER (5)	not null
DAYS_PURGE	NUMBER (3)	not null
DAAC_NAME	VARCHAR2 (60)	not null
DAAC_CONTACT_NAME	VARCHAR2 (80)	null
DAAC_ADDRESS	VARCHAR2 (35)	not null
DAAC_CITY	VARCHAR2 (30)	not null
DAAC_STATE	VARCHAR2 (20)	not null
DAAC_ZIP	VARCHAR2 (15)	not null
DAAC_COUNTRY	VARCHAR2 (30)	not null
DAAC_PHONE	VARCHAR2 (22)	not null
DAAC_FAX	VARCHAR2 (22)	not null
DAAC_EMAIL	VARCHAR2 (128)	not null
DAAC_PREAMBLE	VARCHAR2 (75)	not null
EMAIL_NOTIFICATION	VARCHAR2 (1)	not null
RECEIVE_PREAMBLE	VARCHAR2 (75)	null
REJECT_PREAMBLE	VARCHAR2 (75)	null
THRESHOLD_RELEASE	VARCHAR2 (1)	null

LOOKUP_PRODINFO_TBL			
PROD_CODE	VARCHAR2 (4)	<pk>	not null
PRODUCT_FORMAT	VARCHAR2 (12)		not null
PDS_PROJECT	VARCHAR2 (16)		not null
ORDER_NODE	VARCHAR2 (3)		not null
DEFAULT_SIZE	NUMBER (6)		not null
RECEIVE_EMAIL	VARCHAR2 (1)		not null

PDSIS_ERRORS_TBL		
ERROR_ID	VARCHAR2 (14)	null
ERROR_ORDER_NBR	VARCHAR2 (13)	null
ERROR_UNIT_NBR	NUMBER (5)	null
ERROR_SOURCE	VARCHAR2 (100)	null
ERROR_CODE	NUMBER	null
ERROR_MESSAGE	VARCHAR2 (2000)	null

PDSIS_USERCONFIG_TBL		
MSS_SYBASE_HOST	VARCHAR2 (50)	not null
MSS_SYBASE_PORT	NUMBER (5)	not null
MSS_DATABASE	VARCHAR2 (50)	not null
SDS_SYBASE_HOST	VARCHAR2 (50)	not null
SDS_SYBASE_PORT	NUMBER (5)	not null
SDS_DATABASE	VARCHAR2 (50)	not null
SMS_SYBASE_HOST	VARCHAR2 (50)	not null
SMS_SYBASE_PORT	NUMBER (5)	not null
SMS_DATABASE	VARCHAR2 (50)	not null
SYBASE_USER	VARCHAR2 (20)	not null
SYBASE_PASSWD	VARCHAR2 (20)	not null
ECSUSERPROFILE	VARCHAR2 (20)	not null
ECSMODE	VARCHAR2 (20)	not null
SCLI_COMMAND	VARCHAR2 (75)	not null
FTPUSER	VARCHAR2 (20)	not null
FTPPASSWORD	VARCHAR2 (50)	not null
FTPHOST	VARCHAR2 (30)	not null
PDSIS_EMAIL	VARCHAR2 (50)	not null
STORAGE_ROOT	VARCHAR2 (100)	not null
FTP_STORAGE_ROOT	VARCHAR2 (100)	not null
LOG_ROOT	VARCHAR2 (100)	not null
ARCHIVE_ROOT	VARCHAR2 (100)	not null
SMTP_SERVER	VARCHAR2 (50)	null
SMTP_USER	VARCHAR2 (50)	null
OMS_SYBASE_HOST	VARCHAR2 (50)	not null
OMS_SYBASE_PORT	NUMBER (5)	not null
OMS_DATABASE	VARCHAR2 (50)	not null

Figure A-1. PDSIS Tables (1 of 2)

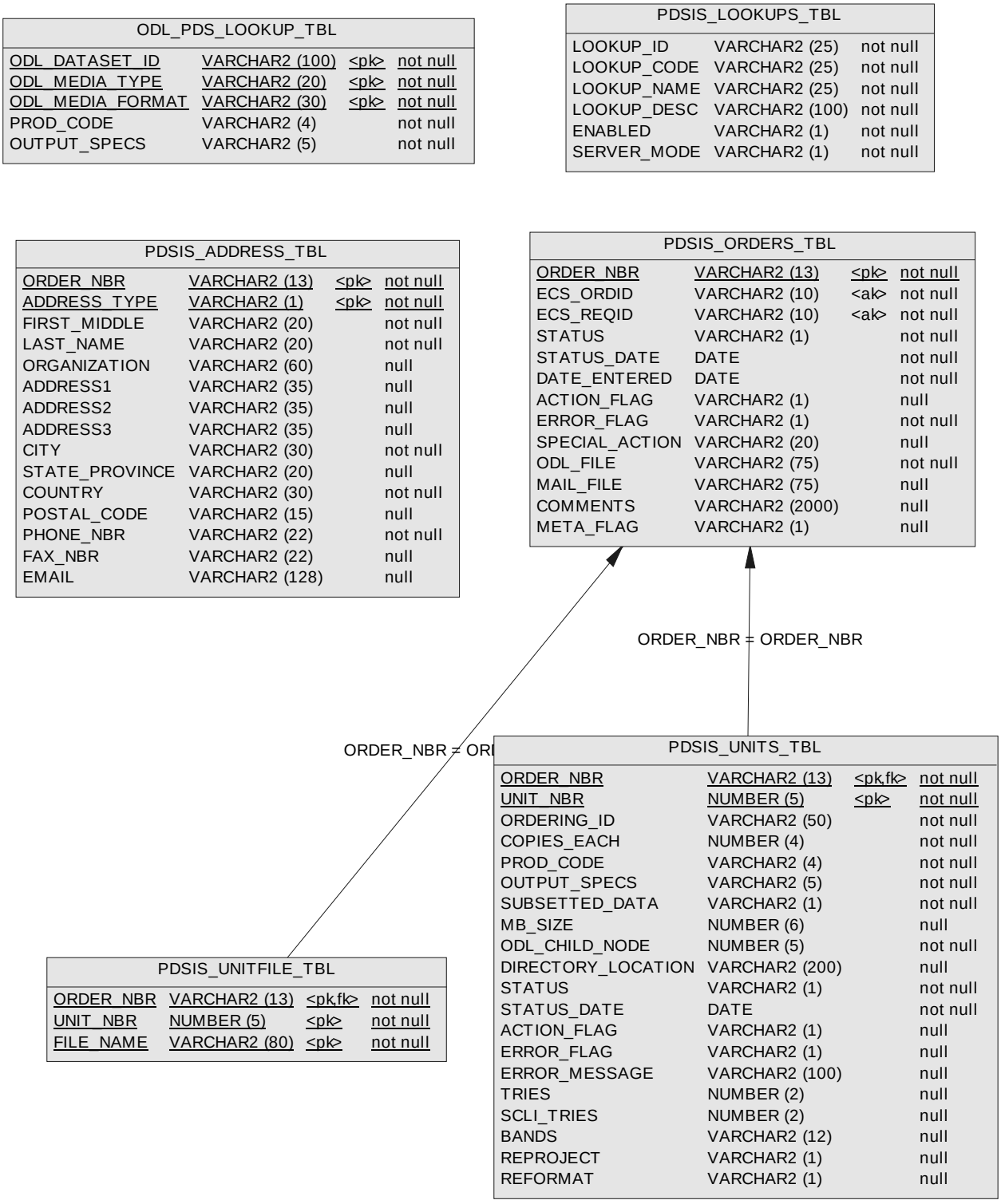

Figure A-1. PDSIS Tables (2 of 2)

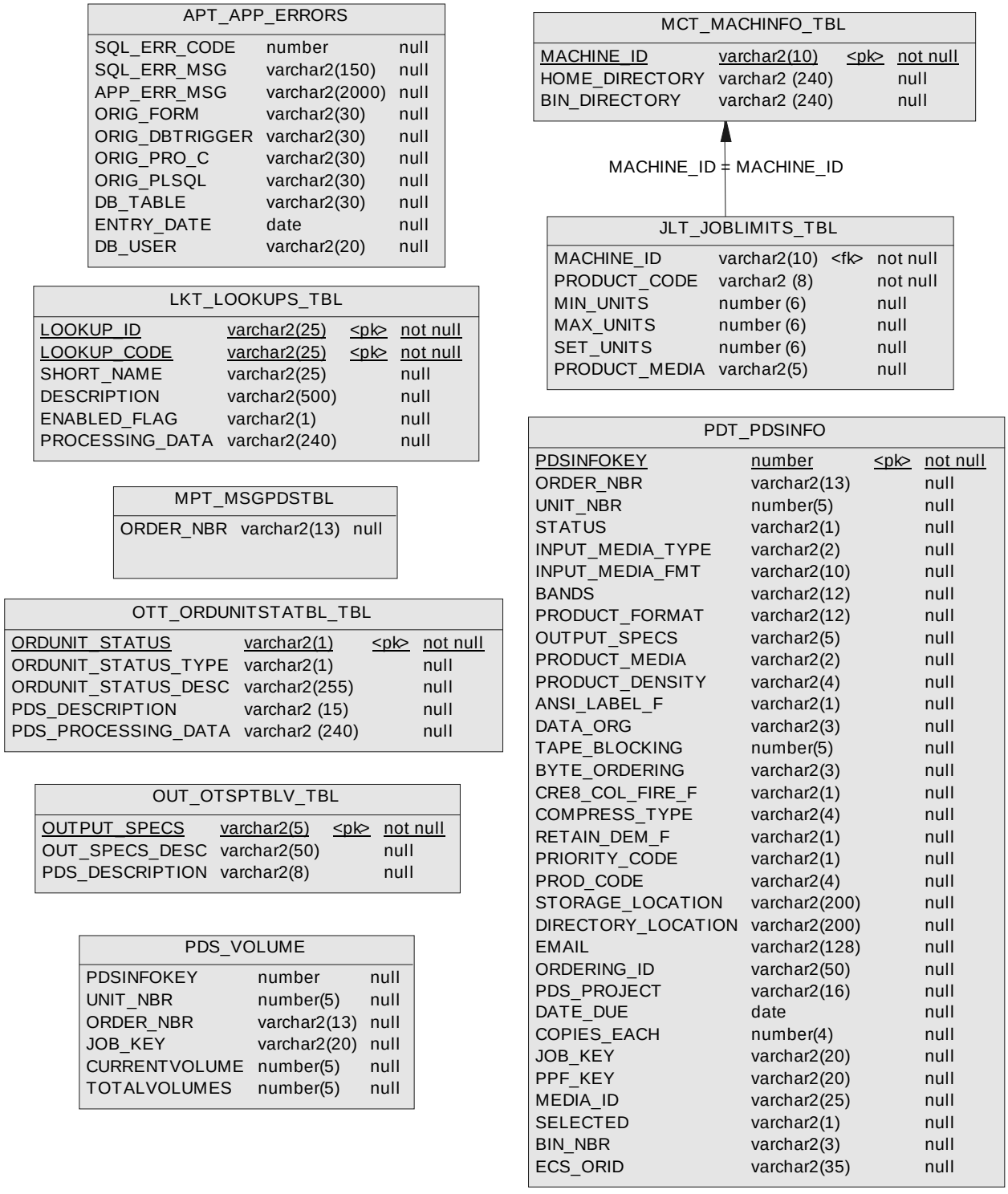

Figure A-2. PDSSA Tables (1 of 2)

PGT_PDS_PPF_TMP		
JOB_KEY	VARCHAR2 (20)	null
SEQUENCE_NBR	NUMBER (9)	null
KEY	VARCHAR2 (128)	null
KEY_TYPE	VARCHAR2 (1)	null
KEY_COUNT	NUMBER (9)	null
KEY_VALUE	VARCHAR2 (1000)	null

PJC_PDS_JEWEL_CASES			
PRODUCT_CODE	varchar2(8)	<pk>	not null
PRODUCT_MEDIA	varchar2(5)	<pk>	not null
JEWEL_RPT	varchar2(10)		null
IMAGE_FILE	varchar2(30)		null
TEXT_FILE	varchar2(30)		null
TEXT_FILE2	varchar2(30)		null

PJT_PDSINFO_JOBS		
JOB_KEY	VARCHAR2 (20)	null
TOTAL_UNITS	NUMBER (6)	null
PRIORITY	VARCHAR2 (1)	null
PRODUCT_MEDIA	VARCHAR2 (5)	null
PROJECT_ID	VARCHAR2 (16)	null
DUE_DATE	DATE	null
COPIES	NUMBER (4)	null
PRODUCT_CODE	VARCHAR2 (8)	null
STATUS	VARCHAR2 (2)	null
PRODUCT_FORMAT	VARCHAR2 (12)	null
PRODUCT_DENSITY	VARCHAR2 (4)	null
TAPE_BLOCKING	NUMBER (5)	null
OI_ID	VARCHAR2 (25)	null
PROCESSING_STATUS	VARCHAR2 (1)	null
STOP_JOB	VARCHAR2 (1)	null
BAD_KEY	VARCHAR2 (1)	null
BAD_STATUS	VARCHAR2 (1)	null
JOB_STATUS	VARCHAR2 (25)	null
NOTE	LONG	null

PST_PDS_STATS_TBL			
ORDER_NBR	varchar2(13)	<pk>	not null
UNIT_NBR	number(5)	<pk>	not null
DATE_ENTERED	date		null

PTT_PDS_PPF_TBL		
PRODUCT_CODE	varchar2(8)	not null
KEY	varchar2(128)	not null
TYPE	varchar2(1)	not null
UNIT_COUNT	varchar2(1)	not null
DATA_SOURCE	varchar2(30)	not null
SQL_STRING	varchar2(40)	not null

PVT_PRCDTBL_TBL			
PROD_CODE	varchar2(4)	<pk>	not null
PROD_DESC	varchar2(40)		null
PDS_DESCRIPTION	varchar2(8)		null

PWT_PDS_WORK_TBL		
PDSINFOKEY	number	not null
ORDER_NBR	varchar2(13)	null
UNIT_NBR	number(5)	null
STATUS	varchar2(1)	null
SELECTED	varchar2(1)	null
PROD_CODE	varchar2(4)	null
OUTPUT_SPECS	varchar2(5)	null
PRODUCT_FORMAT	varchar2(12)	null
PRODUCT_DENSITY	varchar2(4)	null
TAPE_BLOCKING	number(5)	null
PRIORITY_CODE	varchar2(1)	null
COPIES_EACH	number(4)	null
PDS_PROJECT	varchar2(16)	null
DATE_DUE	date	null
STORAGE_LOCATION	varchar2(200)	null
DIRECTORY_LOCATION	varchar2(200)	null
JOB_KEY	varchar2(20)	null
PPF_KEY	varchar2(20)	null
MEDIA_ID	varchar2(25)	null

PXT_PRINTERS_TBL			
PRINTER_ID	varchar2(15)	<pk>	not null
SHORT_NAME	varchar2(25)		not null
PRINTER_TYPE	varchar2(1)		not null

ECDBDATABASEVERSIONS			
ECDBSCHEMAVERSIONID	SMALLINT	<pk>	not null
ECDBDROPVERSION	char(6)		not null
ECDBDROPDESCRIPTION	VARCHAR2 (25)		not null
ECDBCURRENTVERSIONFLAG	CHAR (1)		null
ECDBDROPINSTALLDATE	DATE		null
ECDBCOMMENTS	VARCHAR2 (50)		null
ECDBUPDATEPROCESS	VARCHAR2 (25)		null

Figure A-2. PDSSA Tables (2 of 2)

Abbreviations and Acronyms

ANSI	American National Standards Institute
ASC	Ascending
ASCII	American Standard Code for Information Exchange
CASE	Computer Aided Software Engineering
C	connect
CD	contractual delivery 213-001
CDRL	contract data requirements list
CI	configuration item
COTS	commercial off-the-shelf (hardware or software)
CPS	create public synonym
CR	create role
CSCI	computer software configuration item
DAAC	Distributed Active Archive Center
DAN	Data Availability Notice
DBCC	Database Consistency Checker
DBMS	Data Base Management System
DCN	Document Change Notice
DESC	Descending
DID	data item description
DMS	Data Management Subsystem
ECS	EOSDIS Core System
EDC	EROS Data Center
EDHS	ECS Data Handling System
EMD	EOSDIS Maintenance and Development
EOSDIS	Earth Observing System Data and Information System
EROS	Earth Resources Observation System
ERD	Entity Relationship Diagram

ESDIS	Earth Science Data and Information System (GSFC)
ESDT	Earth science data types
ESN	EOSDIS Science Network (ECS)
FK	Foreign Key
GSFC	Goddard Space Flight Center
GUI	graphic user interface
HDF	hierarchical data format
HDF-EOS	an EOS proposed standard for a specialized HDF data format
HTML	HyperText Markup Language
HTTP	Hypertext Transport Protocol
I/O	input/output
ICD	interface control document
INGST	Ingest Services CSCI
IOS	Interoperability Subsystem
LaRC	Langley Research Center (DAAC)
MB	Megabyte
MSS	Management Support Subsystem
N/A	Not applicable
NAS	National Academy of Science
NASA	National Aeronautics and Space Administration
NSIDC	National SNow and Ice Data Center (DAAC)
ODL	Object Definition Language
OO	Object Oriented
PCF	Process Control File
PDF	Portable Document Format
PDS	Product Distribution Subsystem
PDSOI	PDS Operator Interface
PDPS	Planning and Data Processing Subsystem
PGE	Product Generation Executive
PK	Primary Key

QA	Quality Assurance
R	resource
RDBMS	Relational Data Base Management System
SDSRV	Science Data Server CSCI
SQL	Structured Query Language
STMGT	Storage Management Software CSCI
SUBSRV	Subscription Server
U	Unique
URL	Universal Resource Locator
WWW	World-Wide Web

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