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EOSDIS Maintenance and Development Project

Release 7.20
Data Pool Database Design and Schema Specifications for the EMD Project

Revision --

July 2007

Raytheon Information Solutions
Upper Marlboro, Maryland

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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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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 EMD subsystems.

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

311-EMD-100 Release 7.20 INGEST (INS) Subsystem Database Design and Schema Specifications for the EMD Project

311-EMD-101 Release 7.20 Science Data Server Database Design and Schema Specifications for the EMD Project

311-EMD-102 Release 7.20 Storage Management and Data Distribution Subsystems Database Design and Schema Specifications for the EMD Project

311-EMD-103 Release 7.20 Systems Management Subsystem Database Design and Schema Specifications for the EMD Project

311-EMD-104 Release 7.20 Order Manager Database Design and Schema Specifications for the EMD Project

311-EMD-105 Release 7.20 Spatial Subscription Server (SSS) Database Design and Schema Specifications for the EMD Project

311-EMD-106 Release 7.20 Data Pool Database Design and Schema Specifications for the EMD Project

Entity Relationship Diagrams (ERDs) presented in this document have been exported directly from tools and some cases contain too much detail to be easily readable within hard copy page constraints. The reader is encouraged to view these drawings on-line using the Portable Document Format (PDF) electronic copy available via the ECS Data Handling System (EDHS) on the world-wide web at http://edhs1.gsfc.nasa.gov.

Abstract

This document outlines Release 7 “as-built” database design and database schema of the Data Pool database including the physical layout of the database and initial installation parameters.

Keywords: data**,** database, design, configuration, database installation, scripts, security, data model, data dictionary, replication, performance tuning, SQL server, database security, replication, database scripts

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Appendix A. Entity Relationship Diagram

Abbreviations and Acronyms

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1. Introduction

1.1 Purpose and Scope

The purpose of Data Pool Database Design and Database Schema Specification document is to describe the database design and schema specifications implemented to support the data requirements of Release 7 Data Pool CSCI.

1.2 Document Organization

Section 3 provides a detailed description of all objects used in the DataPool database including all object types with detailed definitions where appropriate.

Section 4 describes the perfomance strategies used within the DataPool database inclduing indexes, segments and any defined caches used for memory optimization.

Section 5 describes the security measures used within the DataPool database. This includes startegies used at the user, group, object, server and role levels.

Section 6 describes custom utilities that provide means of insatlling and backing up the DataPool database including fault recovery mechanisms.

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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-100	Release 7.20 Segment Design Specifications for the EMD Project
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-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-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-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.

609-EMD-100	Release 7.20 Operations Tools Manual for the EMD Project
611-EMD-100	Release 7.20 Mission Operation Procedures for the EMD Project

3. Data Design

3.1 Database Overview

The Data Pool database implements the large majority of the persistent data requirements for the Data Pool subsystem. The database is designed in such a manner as to satisfy business policy while maintaining data integrity and consistency. Database tables are implemented using the Sybase Relational Database Management system (RDBMS). All components of the Data Pool database are described in the sections which follow, in sufficient detail to support maintenance needs.

3.1.1 Physical Data Model Entity Relationship Diagram

The Entity Relationship Diagram (ERD) presents a schematic depiction of the Data Pool physical data model. The ERDs presented here for the Data Pool database were produced using the Power Designor Data Architect Computer Aided Software Engineering (CASE) tool. ERDs represent the relationship between entities or database tables. On ERDs, tables are represented by rectangles and relationships are represented as arrow (see Figure 3-1).

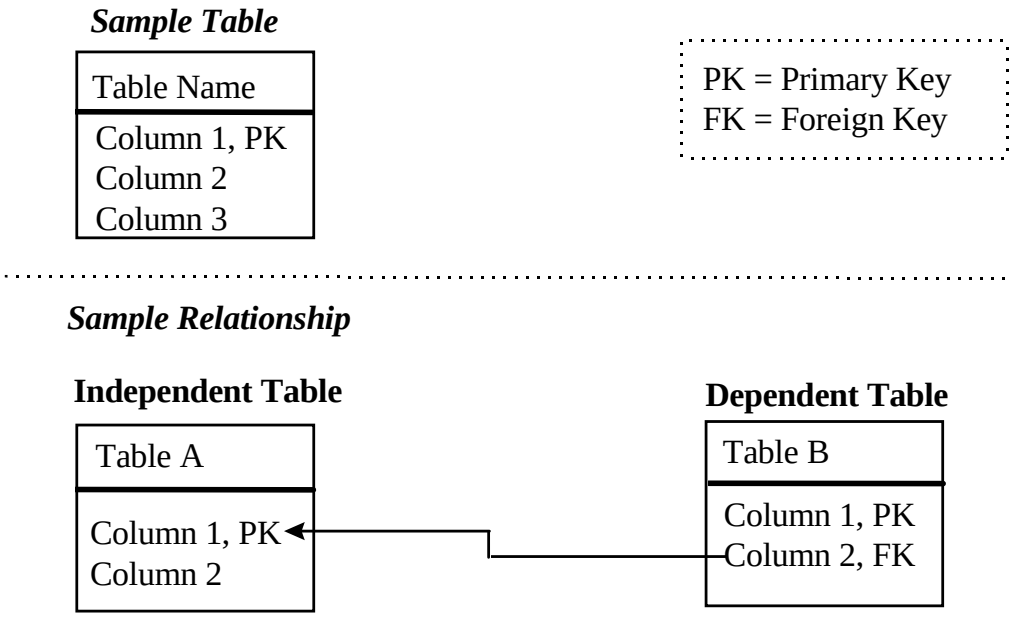

Table A has a one to many relationship with Table B

Figure 3-1. ERD Key

3.1.2 Tables

A listing of each the tables in the Data Pool database is given here. A brief definition of each of these tables follows including a listing of the columns comprising the tables in Table 3-1. The column list indicates if the column is part of the primary key for the table, that is, if the columns can be used alone or in combination with other primary key columns to uniquely identify a single row in the table. The column list also indicates whether the column is a mandatory attribute that must be included in every row.

Table 3-1. Data Tables Listing (1 of 3)

Table Name
DlAccessRollup
DlActiveInsertProcesses
DlAdAlert
DlAdMessages
DlAgingConfig
DlBoundingRectangle
DlBrowse
DlBrowseFile
DlBulkWrkTable
DlCartOrder
DlCartOrderItem
DlCartOrderItemBand
DlCloudCoverSource
DlCollectionGroup
DlCollections
DlCompressionAlgorithms
DlConfig
DlDimensionDayNight
DlDimensionGroupESDT
DlDimensionMP
DlDimensionMPScienceQAXref
DlDimensionPolygonXref
DlDimensionScienceQA
DlDimensionSpatialT6All
DlDimensionTemporal
DlDimensionTimeOfDay
DlECSIdsToInsert
DlESDTCurrentDensityMap
DlFactDayNight
DlFactGroupESDT
DlFactQA

Table 3-1. Data Tables Listing (2 of 3)

Table Name
DlFactTemporalRange
DlFactTimeOfDay
DlFile
DlFilesToBeDeleted
DlFileSystems
DlFtpAccessLog
DlGPolygon
DlGranuleAccess
DlGranuleBrowseXref
DlGranuleExpirationPriority
DlGranuleHdfObjectsXref
DlGranuleOWS
DlGranules
DlGranuleSubscription
DlGranuleThemeXref
DlGranuleTiles
DlGrCloudCover
DlHdf4thDimensions
DlHdfBands
DlHdfFields
DlHdfObjects
DlHEGExceptionCollXref
DlHEGExceptions
DlHEGLookup
DlHEGOptionCollXref
DlHEGOptionLabel
DlHEGOptions
DlIdentifier
DlInsertActionQueue
DlMeasuredParameter
DlMisrProcessingCriteria
DlNOSELookup
DlOMSGranules
DlOrbitCalculatedSpatial
DlOrbitPolygons
DlOWSDeletedGranules
DlPlatInstrCode
DlPrivateCollection
DlProcAttributes

Table 3-1. Data Tables Listing (3 of 3)

Table Name
DlQAUpdFlagTemp
DlQAUpdTempBcp
DlRecoveryParameters
DlStatESDT
DlStatGroupESDT
DlStatTheme
DlTempGrans
DlTempPhantoms
DlThemes
DlUpdGranulesTemp
DlWebAccessLog
DlXMLFilesToInsert
EcDbDatabaseVersions

Table 3-2 identifies the current version level of the Data Pool database.

Table 3-2. EcDbDatabaseVersions

Column Name	Data Type	PK Column	Mandatory Column
EcDbSchemaVersionId	smallint	Yes	Yes
EcDbDropVersion	char(64)	Yes	Yes
EcDbDropDescription	varchar(255)	No	No
EcDbCurrentVersionFlag	char(1)	No	No
EcDbDatabaseName	varchar(255)	No	No
EcDbDropInstallDate	datetime	No	No
EcDbSybaseVersion	varchar(255)	No	No
EcDbSybaseServer	varchar(255)	No	No
EcDbComments	varchar(255)	No	No
EcDbUpdateProcess	varchar(255)	No	No

Table 3-3 The DlCollectionGroup table contains information about Data Pool collection groups. Collection groups are based on the ECS Bulk Metadata Generation Tool collection groups, and represent groupings of ECS collections by instrument and mission (e.g. MOAT).

Table 3-3. DlCollectionGroup (1 of 2)

Column Name	Data Type	PK Column	Mandatory Column
groupId	char(12)	Yes	Yes
displayName	char(12)	No	Yes
CollGrpDescription	varchar(255)	No	No

Table 3-3. DlCollectionGroup (2 of 2)

Column Name	Data Type	PK Column	Mandatory Column
ecsFlag	char(1)	No	Yes
insertTime	datetime	No	No
lastUpdate	datetime	No	No
orderOnlyGrpDirName	varchar(40)	No	No

Table 3-4 The DlCollections table contains information about Data Pool collections. It includes the short name and version of the collection and flags to determine whether data from the collection may be stored in the Data Pool.

Table 3-4. DlCollections

Column Name	Data Type	PK Column	Mandatory Column
collectionId	ID	Yes	Yes
ShortName	char(8)	No	Yes
VersionId	tinyint	No	Yes
CollectionDescription	varchar(255)	No	No
groupId	char(12)	No	Yes
spatialSearchType	varchar(40)	No	Yes
exclusionSCFlag	char(1)	No	Yes
insertEnabledFlag	char(1)	No	Yes
convertEnabledFlag	char(1)	No	Yes
bulkExportedFlag	char(1)	No	Yes
insertTime	datetime	No	No
lastUpdate	datetime	No	No
qualitySummary	varchar(255)	No	No
fileSystemLabel	char(10)	No	No
compAlgorithmLabel	char(10)	No	No
moveFlag	char(1)	No	Yes
cloudSourceId	ID	No	No
global	char(1)	No	Yes
dayNight	char(1)	No	Yes
twentyFourHr	char(1)	No	Yes
gridLevel	tinyint	No	Yes
orderOnlySNDirName	varchar(40)	No	No
orderOnlyFSLabel	char(10)	No	No
replacementOn	char(1)	No	Yes
GranPublicFlag	char(1)	No	No
PublicRetTime	int	No	No
PublicPriority	tintint	No	No
NonECSFlag	char(1)	No	No
HiddenRetTime	int	No	No

Table 3-5 The DlThemes table contains information about Data Pool themes. It includes the theme name and flags to determine whether granules associated with the theme may be stored in the Data Pool and whether the theme is allowed for web drill down.

Table 3-5. DlThemes

Column Name	Data Type	PK Column	Mandatory Column
themeId	ID	Yes	Yes
name	varchar(40)	No	Yes
themeDescription	varchar(255)	No	No
insertEnabledFlag	char(1)	No	Yes
webVisibleFlag	char(1)	No	Yes
preConvertEnabledFlag	char(1)	No	No
serviceRequested	char(1)	No	No
insertTime	datetime	No	No
lastUpdate	datetime	No	No

Table 3-6 The DlGranuleThemeXref table contains cross-reference information between Data Pool science granules and their associated themes.

Table 3-6. DlGranuleThemeXref

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
themeId	ID	Yes	Yes

Table 3-7 The DlGranuleSubscription table provides a cross-reference that relates each granule in the Data Pool to the list of subscriptions that caused its insertion.

Table 3-7. DlGranuleSubscription

Column Name	Data Type	PK Column	Mandatory Column
subId	int	Yes	Yes
dbId	ID	Yes	Yes

Table 3-8 The DlGranules table is the central table of the Data Pool database. It contains the core attributes for all science granules in the Data Pool. It also includes the range date and time attributes for each granule.

Table 3-8. DlGranules

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
externalId	varchar(80)	No	No
ecsId	ID	No	No
collectionId	ID	No	Yes
ShortName	char(8)	No	Yes
VersionId	tinyint	No	Yes
RangeBeginningDate	datetime	No	No
RangeBeginningTime	varchar(20)	No	No
RangeEndingDate	datetime	No	No
RangeEndingTime	varchar(20)	No	No
DayNightFlag	char(5)	No	No
sizeMB	float	No	No
ecsInsertTime	datetime	No	No
insertTime	datetime	No	No
lastUpdate	datetime	No	No
isOrderOnly	char(1)	No	No
versionNumber	int	No	No
archiveNeeded	char(1)	No	No
archiveTimeStamp	datetime	No	No
localGranuleId	varchar(80)	No	No
publishTime	datetime	No	No

Table 3-9 The DlGranuleExpirationPriority table contains the expiration date and retention priority for each granule in Data Pool.

Table 3-9. DlGranuleExpirationPriority

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
expirationDate	datetime	No	Yes
retentionPriority	int	No	Yes

Table 3-10 The DlMeasuredParameter table contains one row for each measured parameter associated with a granule in the Data Pool. All data in this table are copied from the DsMdMeasureParameter table in the ECS SDSRV database.

Table 3-10. DlMeasuredParameter

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
ParameterName	varchar(40)	Yes	Yes
ScienceQualityFlag	varchar(25)	No	No
OperationalQualityFlag	varchar(20)	No	No
AutomaticQualityFlag	varchar(64)	No	No
ScienceQualityFlagExplan	varchar(255)	No	No
OperationalQualityFlagExplan	varchar(255)	No	No
AutomaticQualityFlagExplan	varchar(255)	No	No
QAPercentMissingData	int	No	No
QAPercentOutOfBoundsData	int	No	No
QAPercentInterpolatedData	int	No	No
QAPercentCloudCover	int	No	No

Table 3-11 The DlBrowse table contains information about Browse granules in the Data Pool.

Table 3-11. DlBrowse

Column Name	Data Type	PK Column	Mandatory Column
browseId	ID	Yes	Yes
externalId	varchar(80)	No	No
ecsId	ID	No	No
BrowseDescription	varchar(255)	No	No
ecsInsertTime	datetime	No	No
insertTime	datetime	No	No
lastUpdate	datetime	No	No
isOrderOnly	char(1)	No	No
versionNumber	int	No	No
archiveNeeded	char(1)	No	No
archiveTimeStamp	datetime	No	No
ProductionDateTime	datetime	No	No
publishTime	datetime	No	No

Table 3-12 The DlBrowseFile table contains information about Browse files in the Data Pool.

Table 3-12. DlBrowseFile

Column Name	Data Type	PK Column	Mandatory Column
browseId	ID	Yes	Yes
fileName	varchar(255)	Yes	Yes
directoryPath	varchar(255)	No	Yes
fileType	varchar(10)	No	No
fileSize	numeric(16,0)	No	No

Table 3-13 The DlGranuleBrowseXref table contains cross-reference information between Data Pool science granules and their associated browse granules.

Table 3-13. DlGranuleBrowseXref

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
browseId	ID	Yes	Yes

Table 3-14 The DlFile table contains information about science files in the Data Pool.

Table 3-14. DlFile

Column Name	Data Type	PK Column	Mandatory Column
directoryPath	varchar(255)	Yes	Yes
fileName	varchar(255)	Yes	Yes
granuleId	ID	No	Yes
fileType	varchar(10)	No	No
fileSize	numeric(16,0)	No	No
origChksum	varchar(128)	No	No
compFileSize	numeric(16,0)	No	No
compAlgorithmLabel	char(10)	No	No
compChksum	varchar(128)	No	No
uncompChksum	varchar(128)	No	No
compTimeInSec	int	No	No
uncompChksumTypeId	tinyint	No	No

Table 3-15 The DlBoundingRectangle table contains spatial information about granules whose spatial coverage is LLBOX.

Table 3-15. DlBoundingRectangle

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
BoundingRectangle	llbox	No	Yes

Table 3-16 The DlGPolygon table contains spatial information about granules whose spatial coverage is a gpolygon.

Table 3-16. DlGPolygon

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
GpolygonContainer	gpolygon	No	Yes

Table 3-17 The DlOrbitCalculatedSpatial table contains spatial information about granules with nominal orbital spatial coverage.

Table 3-17. DlOrbitCalculatedSpatial

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
PathNo	smallint	Yes	Yes
StartBlock	smallint	Yes	Yes
EndBlock	smallint	No	Yes
platInstrCode	tinyint	Yes	Yes
misrCameraId	varchar(20)	No	No
misrOrbitNumber	int	No	No
misrProductVersion	int	No	No

Table 3-18 The DlOrbitPolygons table contains a series of orbit polygons for a platform and instrument combination. The data in this table is static and applies only to MISR data.

Table 3-18. DlOrbitPolygons

Column Name	Data Type	PK Column	Mandatory Column
platInstrCode	tinyint	Yes	Yes
PathNo	smallint	Yes	Yes
SequenceNo	smallint	Yes	Yes
Orbit	polygon	No	Yes

Table 3-19 The DlPlatInstrCode table contains static look up information regarding the platform and instrument names for a given platInstrCode.

Table 3-19. DlPlatInstrCode

Column Name	Data Type	PK Column	Mandatory Column
platInstrCode	tinyint	Yes	Yes
platformShortName	varchar(20)	No	Yes
instrumentName	varchar(80)	No	Yes

Table 3-20 The DlConfig table contains parameter names and values for all Data Pool configuration parameters which are configurable through the Data Pool Maintenance GUI.

Table 3-20. DlConfig

Column Name	Data Type	PK Column	Mandatory Column
parameterName	varchar(50)	Yes	Yes
parameterDescription	varchar(255)	No	No
parameterType	char(1)	No	Yes
intValue	int	No	No
charValue	varchar(255)	No	No
floatValue	float	No	No

Table 3-21 The DlFilesToBeDeleted table is used by the Data Pool Cleanup Utility as temporary storage for all granules which get deleted from the Data Pool inventory through a Data Pool clean up session.

Table 3-21. DlFilesToBeDeleted

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	No	No
browseId	ID	No	No
fileName	varchar(255)	No	Yes
fileSize	numeric(16,0)	No	Yes
directoryPath	varchar(255)	No	No
state	tinyint	No	Yes
ecsId	ID	No	No
ShortName	char(8)	No	No
VersionId	tinyint	No	No

Table 3-22 The DlTempGrans is used by the Data Pool Cleanup Utility for the temporary storage of granuleIds that are passed in through the –file parameter.

Table 3-22. DlTempGrans

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes

Table 3-23 The DlTempPhantoms is used as temporary work space to store the names of phantom files. It will populated from a flat file using the Sybase Bulk Copy Utility.

Table 3-23. DlTempPhantoms

Column Name	Data Type	PK Column	Mandatory Column
directoryPath	varchar(255)	No	Yes
fileName	varchar(255)	No	Yes

Table 3-24 The DlProcAttributes table contains the static configuration attributes read by the Data Pool stored procedures.

Table 3-24. DlProcAttributes

Column Name	Data Type	PK Column	Mandatory Column
procName	varchar(30)	Yes	Yes
attributeName	varchar(30)	Yes	Yes
charValue	varchar(255)	No	No
intValue	int	No	No
floatValue	float	No	No

Table 3-25 The DlInsertActionQueue table contains Data Pool insert actions that have been queued up by the Spatial Subscription Server or by the Batch Insert Utility.

Table 3-25. DlInsertActionQueue

Column Name	Data Type	PK Column	Mandatory Column
insQueueId	ID	Yes	Yes
ecsId	ID	No	No
ShortName	char(8)	No	No
VersionId	tinyint	No	No
subId	int	No	No
retentionPriority	int	No	No
retentionPeriod	int	No	No
metadataOnlyFlag	char(1)	No	No
enqueueTime	datetime	No	Yes
completionTime	datetime	No	No
retryCount	int	No	No
status	varchar(20)	No	No
statusDetail	varchar(255)	No	No
inCacheFlag	char(1)	No	Yes
actionSource	char(2)	No	No
dispatchPriority	smallint	No	No
xmlFileName	varchar(255)	No	No
themeId	ID	No	No
batchLabel	varchar(16)	No	No
archiveHost	varchar(60)	No	No
tapeLabel	varchar(60)	No	No
requestId	varchar(10)	No	No
requestSuspendFlag	char(1)	No	No
processState	char(1)	No	No

Table 3-26 The DlActiveInsertProcesses table contains information on all the current active Data Pool insert processes.

Table 3-26. DlActiveInsertProcesses

Column Name	Data Type	PK Column	Mandatory Column
granIdentifier	varchar(255)	Yes	Yes
processId	int	No	No
parentPid	int	No	No
xmlFileName	varchar(255)	No	No
ecsId	ID	No	No
ShortName	char(8)	No	Yes
VersionId	tinyint	No	Yes
retentionPriority	int	No	No
retentionPeriod	int	No	No
metadataOnlyFlag	char(1)	No	No
startTime	datetime	No	No
lastStatusChangeTime	datetime	No	No
status	varchar(50)	No	No
inCacheFlag	char(1)	No	No
retryCount	int	No	No

Table 3-27 The DlFtpAccessLog table is a temporary table used by the Data Pool Access Statistic Utility. It contains entries for each Data Pool file access which appears in the FTP log.

Table 3-27. DlFtpAccessLog

Column Name	Data Type	PK Column	Mandatory Column
directoryPath	varchar(255)	No	Yes
fileName	varchar(255)	No	Yes
accessTime	datetime	No	Yes
fileSize	numeric(16,0)	No	Yes
transferTime	int	No	No
specialActionFlag	char(2)	No	No
ipAddress	char(15)	No	Yes
domainName	varchar(255)	No	No

Table 3-28 The DlWebAccessLog table is a temporary table used by the Data Pool Access Statistic Utility. It contains entries for each Data Pool file (metadata, browse) access which appears in the web log.

Table 3-28. DlWebAccessLog

Column Name	Data Type	PK Column	Mandatory Column
directoryPath	varchar(255)	No	Yes
fileName	varchar(255)	No	Yes
accessTime	datetime	No	Yes
ipAddress	char(15)	No	Yes
domainName	varchar(255)	No	No

Table 3-29 The DlAccessRollup table contains an entry for each Data Pool access statistic rollup.

Table 3-29. DlAccessRollup

Column Name	Data Type	PK Column	Mandatory Column
rollupBeginningDateTime	datetime	Yes	Yes
rollupEndingDateTime	datetime	Yes	Yes
accessType	varchar(10)	Yes	Yes

Table 3-30 The DlGranuleAccess table contains information used for running Data Pool access statistic reports.

Table 3-30. DlGranuleAccess (1 of 2)

Column Name	Data Type	PK Column	Mandatory Column
dbId	ID	No	Yes
accessType	varchar(10)	No	Yes
age	int	No	Yes
ecsId	ID	No	No
fileSize	numeric(16,0)	No	Yes
fileType	varchar(10)	No	No
fileName	varchar(255)	No	No
accessTime	datetime	No	Yes
transferTime	int	No	No

Table 3-30. DlGranuleAccess (2 of 2)

Column Name	Data Type	PK Column	Mandatory Column
specialActionFlag	char(2)	No	No
ipAddress	char(15)	No	Yes
domainName	varchar(255)	No	No

Table 3-31 The DlDimensionGroupESDT table is a static table used for web drill down. It contains information about all possible Data Pool collection groups and collections to which a Data Pool granule might belong.

Table 3-31. DlDimensionGroupESDT

Column Name	Data Type	PK Column	Mandatory Column
groupESDTKey	int	Yes	Yes
groupESDTType	char(1)	No	Yes
groupESDTValue	varchar(12)	No	Yes
groupESDTDescription	varchar(255)	No	No
groupKey	int	No	No

Table 3-32 The DlDimensionDayNight table is a static table used for web drill down. It contains information about all possible values of DayNightFlag for Data Pool granules might belong.

Table 3-32. DlDimensionDayNight

Column Name	Data Type	PK Column	Mandatory Column
dayNightKey	smallint	Yes	Yes
dayNightValue	char(1)	No	Yes
dayNightDescription	varchar(20)	No	No

Table 3-33 The DlDimensionTimeOfDay table is a static table used for web drill down. It contains a row for each time of day bin to which a Data Pool granule might belong.

Table 3-33. DlDimensionTimeOfDay

Column Name	Data Type	PK Column	Mandatory Column
timeOfDayKey	smallint	Yes	Yes
timeOfDayType	char(1)	No	Yes
timeOfDayBeginTime	smallint	No	Yes
timeOfDayEndTime	smallint	No	Yes
todHourKey	smallint	No	No
todFourHourKey	smallint	No	No
todHalfDayKey	smallint	No	No

Table 3-34 The DlDimensionMP table is a static table used for web drill down. It contains information about all known measured parameters.

Table 3-34. DlDimensionMP

Column Name	Data Type	PK Column	Mandatory Column
qaKey	int	Yes	Yes
qaValue	varchar(40)	No	No
qaDescription	varchar(255)	No	Yes

Table 3-35 The DlDimensionScienceQA table is a static table used for web drill down. It contains information about all known science QA flag values which could be present in a Data Pool granule.

Table 3-35. DlDimensionScienceQA

Column Name	Data Type	PK Column	Mandatory Column
qaCode	tinyint	Yes	Yes
qaValue	varchar(40)	No	Yes
qaDescription	varchar(255)	No	Yes

Table 3-36 The DlDimensionMPScienceQAXref table is a table used for web drill down. It contains unique key to indicate the combination of measured parameter and a valid science QA value.

Table 3-36. DlDimensionMPScienceQAXref

Column Name	Data Type	PK Column	Mandatory Column
qaKey	int	Yes	Yes
qaCode	tinyint	No	Yes
qaNameKey	int	No	Yes

Table 3-37 The DlDimensionTemporal table is a static table used for web drill down. It contains a row for each possible temporal bin (day, week, month, and year) to which a Data Pool granule might belong. NOTE: For purposes of this table, weeks are not defined as Sunday - Saturday groups of 7 days, but are instead defined as subsets of 7 day weeks wholly contained within a calendar month. For example, if a Sunday - Saturday week is July 29 - August 4, this table will store July 29-31 as one week, and August 1-4 as a different week.

Table 3-37. DlDimensionTemporal

Column Name	Data Type	PK Column	Mandatory Column
temporalKey	int	Yes	Yes
temporalType	char(1)	No	Yes
temporalBeginDate	datetime	No	Yes
temporalEndDate	datetime	No	Yes
weekKey	int	No	No
monthKey	int	No	No
yearKey	int	No	No

Table 3-38 The DlDimensionSpatialT6All table is a static table used for web drill down. It contains a row for each possible spatial bin to which a Data Pool granule might belong.

Table 3-38. DlDimensionSpatialT6All

Column Name	Data Type	PK Column	Mandatory Column
spatialKey	int	Yes	Yes
gridLevel	tinyint	No	Yes
tile	int	No	Yes
BR_Degree	gpolygon	No	Yes

Table 3-39 The DlDimensionPolygonXref table is a static table used for populating the DlESDTCurrentDensityMap table for orbit data. It contains spatial keys for each polygon with specific path and instrument.

Table 3-39. DlDimensionPolygonXref

Column Name	Data Type	PK Column	Mandatory Column
spatialKey	int	Yes	Yes
platInstrCode	tinyint	Yes	Yes
PathNo	smallint	Yes	Yes
SequenceNo	smallint	Yes	Yes
gridLevel	tinyint	No	No

Table 3-40 The DlFactGroupESDT table stores the relation between granules and the group/ESDT search domain, defined in DlDimensionGroupESDT.

Table 3-40. DlFactGroupESDT

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
groupESDTKey	int	Yes	Yes

Table 3-41 The DlFactDayNight stores the relation between granules and the DayNight search domain, defined in DlDimensionDayNight.

Table 3-41. DlFactDayNight

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
dayNightKey	smallint	Yes	Yes

Table 3-42 The DlFactTimeOfDay table stores the relation between granules and the TimeOfDay search domain, defined in DlDimensionTimeOfDay.

Table 3-42. DlFactTimeOfDay

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
timeOfDayKey	smallint	Yes	Yes

Table 3-43 The DlFactQA table stores the relation between granules and the QA search domain, defined in DlDimensionMPScienceQAXref.

Table 3-43. DlFactQA

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
qaKey	int	Yes	Yes

Table 3-44 The DlFactTemporalRange table stores the relation between granules and the temporal search domain, defined in DlDimensionTemporal.

Table 3-44. DlFactTemporalRange

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
collectionId	ID	No	Yes
minDayKey	int	No	Yes
maxDayKey	int	No	Yes
minWeekKey	int	No	Yes
maxWeekKey	int	No	Yes
minMnthKey	int	No	Yes
maxMnthKey	int	No	Yes
minYearKey	int	No	Yes
maxYearKey	int	No	Yes
sizeMB	float	No	No

Table 3-45 The DlIdentifier table contains the next available system generated unique identifier. There is a separate row in this table to generate identifiers for the DlCollections, DlGranules, DlThemes, and DlBrowse tables.

Each row in this table is padded out to the 2K page size to minimize locking contention on a per row basis.

Table 3-45. DlIdentifier (1 of 2)

Column Name	Data Type	PK Column	Mandatory Column
identifierType	char(30)	Yes	Yes
identifierObjectType	char(30)	Yes	Yes
lastIdentifier	ID	No	Yes
lastIntIdentifier	int	No	Yes

Table 3-45. DlIdentifier (2 of 2)

Column Name	Data Type	PK Column	Mandatory Column
lastSmallintIdentifier	smallint	No	Yes
identifierPad1	char(255)	No	Yes
identifierPad2	char(255)	No	Yes
identifierPad3	char(255)	No	Yes
identifierPad4	char(255)	No	Yes
identifierPad5	char(255)	No	Yes
identifierPad6	char(255)	No	Yes
identifierPad7	char(255)	No	Yes

Table 3-46 The DlUpdGranulesTemp table is temp permanent table, which will get the data from a flat file using the Sybase Bulk Copy Utility for the Update Granule Expiration utility.

Table 3-46. DlUpdGranulesTemp

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	No	Yes
ExpirationDate	datetime	No	Yes
RetentionPriority	int	No	No

Table 3-47 The DlXMLFilesToInsert table holds Non-ECS granule data for the Batch Insert utility.

Table 3-47. DlXMLFilesToInsert

Column Name	Data Type	PK Column	Mandatory Column
processId	int	Yes	Yes
xmlFileName	varchar(255)	Yes	Yes
ShortName	char(8)	No	No
VersionId	tinyint	No	No

Table 3-48 The DlECSIdsToInsert table holds the granules from Science Data Server for the Batch Insert utility.

Table 3-48. DlECSIdsToInsert

Column Name	Data Type	PK Column	Mandatory Column
processId	int	Yes	Yes
ecsId	ID	Yes	Yes

Table 3-49 The DlHEGLookup table holds all collections that allow HEG conversion.

Table 3-49. DlHEGLookup

Column Name	Data Type	PK Column	Mandatory Column
ShortName	char(8)	Yes	Yes
VersionId	tinyint	Yes	Yes

Table 3-50 The DlCartOrder table contains order information for HEG conversion orders that initiated through the Data Pool Web Access GUI.

Table 3-50. DlCartOrder

Column Name	Data Type	PK Column	Mandatory Column
orderId	ID	Yes	Yes
email	varchar(255)	No	Yes
realName	varchar(255)	No	No
status	varchar(10)	No	No
timestamp	datetime	No	No
notes	varchar(255)	No	No
insertDate	datetime	No	No
archiveFlag	char(1)	No	Yes

Table 3-51 The DlCartOrderItem table contains order item information for HEG conversion orders that initiated through the Data Pool Web Access GUI.

Table 3-51. DlCartOrderItem

Column Name	Data Type	PK Column	Mandatory Column
itemId	ID	Yes	Yes
orderId	ID	No	Yes
inputFile	varchar(255)	No	Yes
outputProj	varchar(10)	No	No
outputFmt	varchar(10)	No	No
ul_lat	float	No	No
ul_lon	float	No	No
lr_lat	float	No	No
lr_lon	float	No	No
status	varchar(10)	No	No
errorCode	int	No	No
granuleId	ID	No	No
projParamStr	varchar(255)	No	No
subsetFlag	char(1)	No	Yes
compAlgorithmLabel	char(10)	No	No

Table 3-52 DlQAUpdFlagTemp is a temporary table to hold QA flags to be updated and their values

Table 3-52. DlQAUpdFlagTemp

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	No	Yes
ParameterName	varchar(40)	No	Yes
xmlUpdateFlag	char(1)	No	No
qaFlagType	varchar(11)	No	No
qaValue	varchar(25)	No	No
qaExplValue	varchar(255)	No	No

Table 3-53 The DlRecoveryParameters table contains information about the various parameters and its values to be used in Data Pool Cleanup Utility.

Table 3-53. DlRecoveryParameters

Column Name	Data Type	PK Column	Mandatory Column
utilityName	varchar(40)	Yes	Yes
parameterName	varchar(50)	Yes	Yes
parameterValue	varchar(255)	No	Yes

Table 3-54 QA Update utility will first load this table using Sybase Bulk Copy Utilitty for the final population of DlQAUpdFlagTemp table.

Table 3-54. DlQAUpdTempBcp

Column Name	Data Type	PK Column	Mandatory Column
ecsId	ID	No	Yes
ParameterName	varchar(40)	No	Yes
xmlUpdateFlag	char(1)	No	No
qaFlagType	varchar(11)	No	No
qaValue	varchar(25)	No	No
qaExplValue	varchar(255)	No	No

Table 3-55 DlFileSystems contains the file system information for Data Pool staging area.

Table 3-55. DlFileSystems (1 of 2)

Column Name	Data Type	PK Column	Mandatory Column
fileSystemLabel	char(10)	Yes	Yes
absoluteFileSystemPath	varchar(255)	No	Yes
fileSystemPath	varchar(255)	No	No
freeSpaceMB	int	No	Yes
availabilityFlag	char(1)	No	Yes
availabilityFlagLastUpdate	datetime	No	No
freeSpaceFlag	char(1)	No	Yes
freeSpaceFlagLastUpdate	datetime	No	No
insertTime	datetime	No	Yes
insertStatus	varchar(30)	No	No
ingestStatus	varchar(30)	No	No
lastUpdate	datetime	No	No

Table 3-55. DlFileSystems (2 of 2)

Column Name	Data Type	PK Column	Mandatory Column
fileSystemID	numeric(9)	No	Yes
consumedSpace	tinyint	No	No
freeSpaceChecked	datetime	No	No
freeSpaceGB	int	No	Yes

Table 3-56 DlCompressionAlgorithms contains all the compression algorithms that are used by DataPool.

Table 3-56. DlCompressionAlgorithms

Column Name	Data Type	PK Column	Mandatory Column
compAlgorithmLabel	char(10)	Yes	Yes
compCmd	varchar(255)	No	Yes
decompCmd	varchar(255)	No	No
defaultFileExtension	char(10)	No	No
activeFlag	char(1)	No	Yes
lastUpdate	datetime	No	No
insertTime	datetime	No	Yes

Table 3-57 DlCloudCoverSource contains all the cloud cover source that used by DataPool.

Table 3-57. DlCloudCoverSource

Column Name	Data Type	PK Column	Mandatory Column
cloudSourceId	ID	Yes	Yes
sourceName	varchar(40)	No	Yes
sourceDescription	varchar(255)	No	No
sourceType	char(1)	No	Yes

Table 3-58 DlGrCloudCover contains the cloud cover percentage for a granule

Table 3-58. DlGrCloudCover

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
cloudCover	int	No	Yes

Table 3-59 DlGranuleTiles contains the list of spatial keys for a granule in HEX format.

Table 3-59. DlGranuleTiles

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
collectionId	ID	No	Yes
insertTime	datetime	No	Yes
tiles	varbinary(800)	No	Yes
gridLevel	tinyint	No	Yes

Table 3-60 DlESDTCurrentDensityMap contains the HEX representation of a density map for a collection.

Table 3-60. DlESDTCurrentDensityMap

Column Name	Data Type	PK Column	Mandatory Column
collectionId	ID	Yes	Yes
lastUpdate	datetime	No	No
densityMap	image	No	Yes
lastUpdatedUtility	char(1)	No	Yes

Table 3-61 DlOMSGranules contains all the granules that are come from OMS requests. It uses between the OMS and the cleanup utility to figure out who owns the row.

Table 3-61. DlOMSGranules

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	Yes	Yes
ecsId	ID	No	No
granuleType	char(2)	Yes	Yes
owner	char(1)	No	No
lockId	varchar(255)	No	No
lastUpdate	datetime	No	No

Table 3-62 DlCartOrderItemBand contains the band information for an order item.

Table 3-62. DlCartOrderItemBand

Column Name	Data Type	PK Column	Mandatory Column
itemId	ID	No	Yes
objectId	ID	No	Yes
bandId	ID	No	No
bandValue	int	No	No
dimId	ID	No	No
dimValue	int	No	No

Table 3-63 DlHdfObjects contains the HDF object information

Table 3-63. DlHdfObjects

Column Name	Data Type	PK Column	Mandatory Column
objectId	ID	Yes	Yes
objectName	varchar(255)	No	Yes
objectType	varchar(60)	No	Yes

Table 3-64 DlHdfBands contains the HDF band information.

Table 3-64. DlHdfBands

Column Name	Data Type	PK Column	Mandatory Column
bandId	ID	Yes	Yes
fieldName	varchar(255)	No	Yes
bandName	varchar(255)	No	Yes
bandSize	int	No	Yes

Table 3-65 DlHdfFields contains the HDF field information.

Table 3-65. DlHdfFields

Column Name	Data Type	PK Column	Mandatory Column
fieldId	ID	Yes	Yes
fieldName	varchar(255)	No	Yes

Table 3-66 DlHdf4thDimensions contains the 4th dimension information of a HDF object.

Table 3-66. DlHdf4thDimensions

Column Name	Data Type	PK Column	Mandatory Column
dimId	ID	Yes	Yes
dimName	varchar(255)	No	Yes
dimSize	int	No	Yes

Table 3-67 DlGranuleHdfObjectsXref contains the band subset information for a granule

Table 3-67. DlGranuleHdfObjectsXref

Column Name	Data Type	PK Column	Mandatory Column
granuleId	ID	No	Yes
objectId	ID	No	Yes
bandId	ID	No	No
dimId	ID	No	No
fieldId	ID	No	No

Table 3-68 DlMisrProcessingCriteria contains the list of MISR ESDTs which uses for MISR Browse processing.

Table 3-68. DlMisrProcessingCriteria

Column Name	Data Type	PK Column	Mandatory Column
ShortName	char(8)	Yes	Yes
VersionId	tinyint	Yes	Yes
type	char(1)	No	Yes

Table 3-69 The DlNOSELookup table holds all collections that are NOSE data type. This table uses to fill out the gridLevel for NOSE collections in DlCollections.

Table 3-69. DlNOSELookup

Column Name	Data Type	PK Column	Mandatory Column
ShortName	char(8)	Yes	Yes
VersionId	tinyint	Yes	Yes
platformShortName	varchar(20)	No	Yes
instrumentName	varchar(80)	No	Yes

Table 3-70 The DlStatGroupESDT table contains all groupESDT Key space and the total number of granules that the group or ESDT contains.

Table 3-70. DlStatGroupESDT

Column Name	Data Type	PK Column	Mandatory Column
groupESDTKey	int	No	Yes
number	int	No	Yes

Table 3-71 The DlStatESDT table contains all groupESDT Key space and the total number of granules that the ESDT contains.

Table 3-71. DlStatESDT

Column Name	Data Type	PK Column	Mandatory Column
groupESDTKey	int	No	Yes
groupESDTType	char(1)	No	Yes
number	int	No	Yes
size	float	No	Yes

Table 3-72 The DlStatTheme table contains a list of themes and the total number of granules that each theme contains.

Table 3-72. DlStatTheme

Column Name	Data Type	PK Column	Mandatory Column
themeId	ID	No	Yes
number	int	No	Yes

Table 3-73 The DlAgingConfig table stores the global aging policy used to describe how the dispatch priority of a granule changes over time.

Table 3-73. DlAgingConfig

Column Name	Data Type	PK Column	Mandatory Column
AgingConfigId	Numeric/Identity	Yes	Yes
MaxPriLevel	float	No	No
agingStep	float	No	No
ECSPriority	char(15)	No	No
IntPriority	tinyint	No	No

Table 3-74 The DlHEGOptions table stores all HEG options relate to format, projections, and subsetting.

Table 3-74. DlHEGOptions

Column Name	Data Type	PK Column	Mandatory Column
optionId	int	Yes	Yes
optionType	varchar(20)	No	Yes
optionName	varchar(80)	No	Yes

Table 3-75 The DlHEGOptionLabel table stores the label name for each HEG options.

Table 3-75. DlHEGOptionLabel

Column Name	Data Type	PK Column	Mandatory Column
optionId	int	Yes	Yes
labelName	varchar(80)	No	Yes

Table 3-76 The DlHEGOptionCollXref table stores the available static HEG options for each ESDT.

Table 3-76. DlHEGOptionCollXref

Column Name	Data Type	PK Column	Mandatory Column
collectionId	ID	Yes	Yes
optionId	int	Yes	Yes
required	char(1)	No	Yes

Table 3-77 The DlHEGExceptions table stores a list of HEG exceptions base on the specific option.

Table 3-77. DlHEGExceptions

Column Name	Data Type	PK Column	Mandatory Column
exceptionId	int	Yes	Yes
formatId	int	No	No
projectionId	int	No	No
subsetId	int	No	No
resamplingId	int	No	No
subsamplingId	int	No	No
stitchingId	int	No	No
resolutionId	int	No	No
exceptionType	char(1)	No	No
message	varchar(255)	No	No

Table 3-78 The DlHEGExceptionCollXref table stores the available exception for HEG options for each ESDT.

Table 3-78. DlHEGExceptionCollXref

Column Name	Data Type	PK Column	Mandatory Column
collectionId	ID	Yes	Yes
exceptionId	int	Yes	Yes

Table 3-79 The DlGranuleOWS table contains granules that are registered with OGC Web Services, OWS.

Table 3-79. DlGranuleOWS

Column Name	Data Type	PK Column	Mandatory Column
geoid	varchar(30)	Yes	Yes
granuleId	ID	No	Yes
serviceRequested	char(1)	No	Yes
processingState	varchar(10)	No	No
lastUpdate	datetime	No	No

Table 3-80 The DlOWSDeletedGranules table contains granules that have been deleted from the Data Pool database but are still registered with OGC Web Services, OWS.

Table 3-80. DlOWSDeletedGranules

Column Name	Data Type	PK Column	Mandatory Column
geoid	varchar(30)	Yes	Yes
expirationDate	datetime	No	Yes
serviceRequested	char(1)	No	Yes

Table 3-81. The DlAdAlert table contains information about alerts that have been raised for resources such as file systems, service hosts, and archives.

Table 3-81. DlAdAlert

Column Name	Data Type	PK Column	Mandatory Column
ResourceID	varchar(64)	Yes	Yes
RaiseTime	datetime	Yes	Yes
ClearTime	datetime	No	No
RaiseReason	varchar(255)	No	Yes
ClearReason	varchar(255)	No	No

Table 3-82. The DlAdMessages table contains granules that have been deleted from the Data Pool database but are still registered with OGC Web Services, OWS.

Table 3-82. DlAdMessages

Column Name	Data Type	PK Column	Mandatory Column
MessageID	numeric(7)	Yes	Yes
MessageName	varchar(30)	No	Yes
Arg1	varchar(255)	No	No
Arg2	varchar(255)	No	No
Arg3	varchar(255)	No	No
SubmitTime	datetime	No	Yes
CompletionTime	datetime	No	No
CompletionMessage	varchar(255)	No	No

Table 3-83. The DlBulkWrkTable table contains information of a list of Bulk URL ids.

Table 3-83. DlBulkWrkTable

Column Name	Data Type	PK Column	Mandatory Column
clientId	ID	No	Yes
granuleId	ID	No	Yes

Table 3-84. The DlPrivateCollection table contains granules that have been deleted from the Data Pool database but are still registered with OGC Web Services, OWS.

Table 3-84. DlPrivateCollection

Column Name	Data Type	PK Column	Mandatory Column
ShortName	char(8)	Yes	Yes
VersionId	tinyint	Yes	Yes

3.1.3 Columns

Brief definitions of each of the columns present in the database tables defined above are contained in Table 3-85.

Table 3-85. Column Descriptions (1 of 28)

Column Name	Table	Column Description	Valid Values
absoluteFileSystemPath	DlFileSystems	The absolute path includes the FTP root path and the file system path.	
accessTime	DlGranuleAccess DlFtpAccessLog DlWebAccessLog	The time at which the file was accessed through FTP or Web	
accessType	DlGranuleaccess DlAccessRollup	The type of access log for this process.	FTP – any ftp access http – any web access
actionSource	DlInsertActionQueue	Indicates if the action is coming from the Spatial Subscription Server, Data Pool Batch Insert Utility or request from Order Manager. Valid values are:	B – Batch Insert S – Subscription O – OMS request
activeFlag	DlCompressionAlgorithms	Flag indicates whether the compression algorithm is active.	Y – compression algorithm active (default) N – compression algorithm is not active
age	DlGranuleAccess	The difference between the time at which the file was accessed through FTP or Web and the time at which the file was inserted into Data Pool	
AgingConfigId	DlAgingConfig	Unique identifier for a aging policy	
agingStep	DlAgingConfig	Number of steps to promote the request foe the aging policy.	
archiveFlag	DlCartOrder	Flag used to determine whether delete have been performed on the order	Y – Delete had performed on the order N – Delete had not performed on the order (default)
archiveHost	DlInsertActionQueue	Indicate which archive host to use for copying the file into Data Pool.	
archiveNeeded	DlGranules, DlBrowse	Indicates whether the granule should also be placed in the archive.	Y – archive required
archiveTimeStamp	DlGranules, DlBrowse	The time when archiving occurred.	

Table 3-85. Column Descriptions (2 of 28)

Column Name	Table	Column Description	Valid Values
Arg1	DlAdMessages	This column provides storage for an optional message argument. If the message requires no arguments, this column may be null.	
Arg2	DlAdMessages	This column provides more storage for an optional message argument. If Arg1 is null, this must also be null	
Arg3	DlAdMessages	This column provides more storage for an optional message argument. If Arg2 is null, this must also be null	
attributeName	DlProcAttributes	The name of the attribute which is use to look up its value.	
AutomaticQualityFlag	DlMeasuredParameter	Automatic Quality value for the granule	
AutomaticQualityFlag Explan	DlMeasuredParameter	Explanation for how to figure out the automatic quality value.	
availabilityFlag	DlFileSystems	Flag indicates whether the file system is available	Y – file system available (default) N – file system is unavailable
availabilityFlagLastUpdate	DlFileSystems	The last time that the availability flag updated.	
bandId	DlHdfBands DlCartOrderItemBand DlGranuleHdfObjectsXref	Unique identifier for the 3rd dimension in a field in a HDF-EOS object	
bandName	DlHdfBands	Name of the 3rd dimension in a field	
bandSize	DlHdfBands	Size of 3rd dimension in the field	
bandValue	DlCartOrderItemBand	The value for the 3rd dimension in a HDF-EOS object	

Table 3-85. Column Descriptions (3 of 28)

Column Name	Table	Column Description	Valid Values
batchLabel	DlInsertActionQueue	Batch label that is associated with a batch insert.	
BoundingRectangle	DlBoundingRectangle	A SQS type llbox representation of the spatial area for the granule.	
BR_Degree	DlDimensionSpatialT6All	The value of the geographical location	
BrowseDescription	DlBrowse	Description of the browse granule	
browseId	DlBrowse DlBrowseFile DlGranuleBrowseXref DlFilesToBeDeleted	The unique ID which identifies the browse granule	
bulkExportedFlag	DlCollections	Flag used to determine whether the collection allows for exporting metadata by the ECHO Access to Data Pool utility.	Y – export to ECHO N – do not export to ECHO (default)
charValue	DlConfig DlProcAttributes	The value of the parameter which has data type of character.	
ClearReason	DlAdAlert	Text message giving the reason for clearing the alert, null if ClearTime is null.	
ClearTime	DlAdAlert	Clear time for the alert, not cleared if null.	
clientId	DlBulkWrkTable	Bulk URL client ID	
cloudCover	DlGrCloudCover	The percentage for cloud cover.	
cloudSourceId	DlCollections DlCloudCoverSource	ID uses to indicate which cloud cover source that the collection uses.	

Table 3-85. Column Descriptions (4 of 28)

Column Name	Table	Column Description	Valid Values
CollectionDescription	DlCollections	Description of ECS collection	
collectionId	DlCollections DlGranules DlGranuleTiles DlESDTCurrentDensityMap DlFactTemporalRange DlHEGOptionCollXref DlHEGExceptionCollXref	Identifier for each collection	
CollGrpDescription	DlCollectionGroup	Description of an ECS collection group	
compAlgorithmLabel	DlCompressionAlgorithms DlCollections DlCartOrderItem DlFile	Label uses to indicate which compression algorithm to use.	
compChksum	DlFile	Checksum computed for compressed file	
compCmd	DlCompressionAlgorithms	The command for a compression algorithm with full path.	
compFileSize	DlFile	The size of the compressed file.	
CompletionMessage	DlAdMessages	Text messages for the server message was processed.	
CompletionTime	DlAdMessages	The time at which the server message was processed.	
completionTime	DlInsertActionQueue	The time that the action was completed. It contains the value NULL until the action status is either DONE or FAILED.	
compTimeInSec	DlFile	Time in seconds it took to compress the file	
consumedSpace	DlFileSystems	Percentage of a file system that is in use.	
convertEnabledFlag	DlCollections	Flag use to determine whether the collection is allowed for HEG conversion.	Y – allow HEG conversion N – do not allow HEG conversion (default)

Table 3-85. Column Descriptions (5 of 28)

Column Name	Table	Column Description	Valid Values
dayNight	DlCollections	Flag uses to indicate whether the collection has day night coverage.	Y – has dayNight coverage (default) N – does not have dayNight coverage
dayNightDescription	DlDimensionDayNight	Description for each dayNighValue	
DayNightFlag	DlGanules	Flag indicating whether the granule was acquired during the day, the night, or both	
dayNightKey	DlDimensionDayNight DlFactDayNight	Uniquely Identifies a condition of the day when the granule acquisition occurred.	
dayNightValue	DlDimensionDayNight	The value represented by the key.	D – Day N – Night B – Both X – Not Compatible
dbId	DlGranuleSubscription DlGranuleAccess	The unique ID which identifies the granule.	
decompCmd	DlCompressionAlgorithms	The associated decompress command for the compression algorithm with full path.	
defaultFileExtension	DlCompressionAlgorithms	The default file extension uses for the compressed file after the granule file compressed.	
densityMap	DlESDTCurrentDensityMap	The HEX representation of the density map	
dimId	DlHdf4thDimensions DlCartOrderItemBand DlGranuleHdfObjectsXref	Unique identifier for the 4th dimension in a field in a HDF-EOS object.	
dimName	DlHdf4thDimensions	Name of the 4th dimension in the field	
dimSize	DlHdf4thDimensions	Size of the 4th dimension in the field	
dimValue	DlCartOrderItemBand	The value for the 4th dimension in a HDF-EOS object.	

Table 3-85. Column Descriptions (6 of 28)

Column Name	Table	Column Description	Valid Values
directoryPath	DlFile DlBrowseFile DlFilesToBeDeleted DlFtpAccessLog DlWebAccessLog DlTempPhantoms	Path Name of the browse granule files relative to the Data Pool root directory.	
dispatchPriority	DlInsertActionQueue	Dispatch priority for a granule in the queue.	
displayName	DlCollectionGroup	Group name uses to display on Web Drill Down page.	
domainName	DlFtpAccessLog DlWebAccessLog DlGranuleAccess	Domain name of the client	
EcDbComments	EcDbDatabaseVersions	Notes or comments on the database version level.	
EcDbCurrentVersion Flag	EcDbDatabaseVersions	Flag indicating if this row represents the current database version entry	
EcDbDatabaseName	EcDbDatabaseVersions	The name of the database for which this database version level is applied.	
EcDbDropDescriptio n	EcDbDatabaseVersions	The official name of the ECS software drops for	
EcDbDropInstallDate	EcDbDatabaseVersions	The date and time that the database version level was installed.	
EcDbDropVersion	EcDbDatabaseVersions	The official description of the ECS software drops for this database version level.	
EcDbSchemaVersion Id	EcDbDatabaseVersions	The subsystem-specific identifier for this database schema version	
EcDbSybaseServer	EcDbDatabaseVersions	The name of the baseline Sybase SQL server controlling this database.	
EcDbSybaseVersion	EcDbDatabaseVersions	The software release version of the Sybase SQL server in place when this database version level was initially installed.	

Table 3-85. Column Descriptions (7 of 28)

Column Name	Table	Column Description	Valid Values
EcDbUpdateProcess	EcDbDatabaseVersions	The installation method by which this database version level was installed.	
ecsFlag	DlCollectionGroup	Flag used to identify whether the collection group is ECS or non-ECS.	Y – ECS N – Non-ECS
ecsId	DlActiveInsertProcesses DlGranules DlBrowse DlFilesToBeDeleted DlOMSGranules DlQAUpdTempBcp DlGranuleAccess DlInsertActionQueue DlECSIdsToInsert	The ID that identifies the ECS browse granule. It matches the browse id in SDSRV database. The unique ID which identifies the granule. It matches the dbID in the ECS Science Data Server (SDSRV) database.	
ecsInsertTime	DlGranules DlBrowse	Time when the granule was inserted into ECS	
ECSPriority	DlAgingConfig	Priority for the ECS request before gets into the DPL	
email	DlCartOrder	Email Id	
EndBlock	DlOrbitCalculatedSpatial	The ordinal number of the polygon where granule coverage ends.	
enqueueTime	DlInsertActionQueue	The time at which the action was queued.	
errorCode	DlCartOrderItem	if FAILED, error code from HEG converter	
exceptionType	DlHEGExceptions	Value to indicate the type of exception, valid values.	“W” – warning, “E” - Error
exclusionSCFlag	DlCollections	Flag used to determine whether the collection is allowed to insert Science and Metadata to Data Pool or Metadata only.	Y – Metadata only N – Science and Metadata (default)
ExpirationDate	DlUpdGranulesTemp	Expiration date for a granule.	
expirationDate	DlGranuleExpirationPriorit y DlOWSDeletedGranules	Date when the granule expired.	

Table 3-85. Column Descriptions (8 of 28)

Column Name	Table	Column Description	Valid Values
exceptionId	DlHEGExceptions DlHEGExceptionCollXref	Unique identifier for a HEG exception	
externalId	DlGranules DlBrowse	The ID which identifies the Non-ECS granule.	
fieldId	DlHdfFields DlGranuleHdfObjectsXref	Id of the field in the HDF-EOS object	
fieldName	DlHdfBands DlHdfFields	Name of the field in the HDF-EOS object	
fileName	DlFile DlBrowseFile DlFilesToBeDeleted DlFtpAccessLog DlWebAccessLog DlTempPhantoms DlGranuleAccess	The file name for a science, metadata or browse file	
fileSize	DlFile DlBrowseFile DlFilesToBeDeleted DlFtpAccessLog DlGranuleAccess	The size of the browse file stored on the Data Pool disk. The size of the file in Data Pool.	
fileSystemID	DlFileSystems	An identifying number for a file system.	
fileSystemLabel	DlFileSystems DlCollections	Label uses to indicate which file system the collection belongs to.	
fileSystemPath	DlFileSystems	The file system portion of the absolute path.	
fileType	DlBrowseFile DlFile DlGranuleAccess	The type of file. The valid file type for a browse granule is BROWSE. The type of the file. The valid file types for a science granule are:	BROWSE SCIENCE METADATA
floatValue	DlConfig DlProcAttributes	The value of the parameter which has data type of float.	
formatId	DlHEGExceptions	Identifier for a HEG's format option.	
freeSpaceChecked	DlFileSystems	The last time the free space in the file system was checked.	

Table 3-85. Column Descriptions (9 of 28)

Column Name	Table	Column Description	Valid Values
freeSpaceFlag	DlFileSystems	Flag indicates whether there's any space available in the file system.	Y – space is available on the file system N – no space is available on the file system
freeSpaceGB	DlFileSystems	The free space in the file system in gigabytes.	
freeSpaceFlagLastUpdate	DlFileSystems	The last time that the free space flag updated.	
freeSpaceMB	DlFileSystems	The amount of space which the Cleanup utility has to clear before resetting the freeSpaceFlag.	
geoid	DlGranuleOWS DlOWSDeletedGranules	The unique identifier of an OWS granule.	Format is "SC:shortName.versionId:dbID"
global	DlCollections	Flag uses to indicate whether the collection is a global collection or it contains a very large spatial coverage.	Y – has global coverage N – do not has global coverage (default)
GpolygonContainer	DlGPolygon	A SQS type gpolygon representation of the spatial area for the granule.	
granIdentifier	DlActiveInsertProcesses	Identifier for a insert process.	

Table 3-85. Column Descriptions (10 of 28)

Column Name	Table	Column Description	Valid Values
granuleId	DlGranules DlGranuleOWS DlGranuleTiles DlGranuleThemeXref DlGranuleHdfObjectXref DlGranuleBrowseXref DlMeasuredParameter DlGrCloudCover DlBoundingRectangle DlGPolygon DlOrbitCalculatedSpatial DlFactGroupESDT DlFactDayNight DlFactQA DlFactTemporalRange DlFactTimeOfDay DlFile DlFilesToBeDeleted DlUpdGranulesTemp DlQAUpdFlagTemp DlTempGrans DlCartOrderItem DlOMSGranules DlGranuleExpirationPriorit y DlBulkWrkTable	The unique ID which identifies the granule	
GranPublicFlag	DlCollections	Indicates whether granules in the collection can be made public.	Y – can be public N – remain hidden
granuleType	DlOMSGranules	The two characters uses to identify the type of granule	SC – science granule BR – browse granule
gridLevel	DlDimensionPolygonXref DlDimensionSpatialT6All DlCollections DlGranuleTiles	Spatial grid level uses to generate the density map. The default is 6.	Valid values are between 1 and 6 (default = 6)
groupESDTDescripti on	DlDimensionGroupESDT	The description for the group or ESDT.	
groupESDTKey	DlDimensionGroupESDT DlFactGroupESDT DlStatESDT DlStatGroupESDT	Uniquely Identifies a group or ESDT	

Table 3-85. Column Descriptions (11 of 28)

Column Name	Table	Column Description	Valid Values
groupESDTType	DlStatESDT DlDimensionGroupESDT	Identifies the type, either group or ESDT	G – Group E – ESDT
groupESDTValue	DlDimensionGroupESDT	The value for the group or ESDT. If it is an ESDT, its value is a combination of ShortName and VersionId If it is a collection group, its value is the displayName of the group.	
groupId	DlCollectionGroup DlCollections	ECS collection group ID	
groupKey	DlDimensionGroupESDT	If groupESDTType is G, this field contains the value NULL. Otherwise, the field contains the key of the group to which the ESDT belongs.	
HiddenRetTime	DlCollections	The default retention time for hidden granules in this collection.	
identifierObjectType	DlIdentifier	The name or type of the DPL database object for which the DlIdentifier row exists.	
identifierPad1	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	
identifierPad2	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	
identifierPad3	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	
identifierPad4	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	

Table 3-85. Column Descriptions (12 of 28)

Column Name	Table	Column Description	Valid Values
identifierPad5	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	
identifierPad6	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	
identifierPad7	DlIdentifier	One of seven columns of type char(255) used to pad each row in the DlIdentifier table to the 2K page size.	
identifierType	DlIdentifier	The data type of the identifier for which the DlIdentifier row exists.	
inCacheFlag	DlInsertActionQueue DlActiveInsertProcesses	Indicates if process is handling a granule that must be read off tape or whether the granule is in AMASS cache. Valid values are:	Y – the granule is in cache (default) N – the granule is on tape
ingestStatus	DlFileSystems	Indicates the status of the file system with respect to the ability to ingest new granules.	ACTIVE SUSPENDED SUSPENDEDBYOPERATOR
inputFile	DlCartOrderItem	File in datapool archive to process	
insertDate	DlCartOrder	When order was first inserted	
insertEnabledFlag	DlCollections DlThemes	Flag used to determine whether granules from this collection are eligible for insertion in the Data Pool.	Y – allow Data Pool insert (default) N – do not allow Data Pool insert
insertStatus	DlFileSystems	Similar to ingestStatus, but with respect to DPAD rather than DPL Ingest.	ACTIVE SUSPENDED SUSPENDEDBYOPERATOR

Table 3-85. Column Descriptions (13 of 28)

Column Name	Table	Column Description	Valid Values
insertTime	DlGranules DlBrowse DlThemes DlCollections DlCollectionGroup DlFileSystems DlCompressionAlgorithms DlGranuleTiles	The time which the row inserted.	
insQueueId	DlInsertActionQueue	Uniquely identifies the queue entry	
instrumentName	DlPlatInstrCode DlNOSELookup	The name of an instrument for the platform.	
IntPriority	DlAgingConfig	Value for each aging step.	
intValue	DlConfig DlProcAttributes	The value of the parameter which has data type of integer.	
ipAddress	DlFtpAcessLog DlWebAccessLog DlGranuleAccess	IP Address of the user	
isOrderOnly	DlGranules DlBrowse	Flag indicate whether the granule is an order only granule.	Y – order only granule
itemId	DlCartOrderItem DlCartOrderItemBand	Unique Identifier for an item in the Cart.	
labelName	DlHEGOptionLabel	Label name for the HEG Option that uses to display on the Web Access GUI.	
lastIdentifier	DlIdentifier	The next available uniqueness identifier available of type ID for a specific IdentifierObjectType	
lastIntIdentifier	DlIdentifer	The next available uniqueness identifier available of type integer for a specific IdentifierObjectType.	
lastSmallintIdentifier	DlIdentifier	The next available uniqueness identifier available of type smallint for a specific IdentifierObjectType.	

Table 3-85. Column Descriptions (14 of 28)

Column Name	Table	Column Description	Valid Values
lastStatusChangeTime	DlActiveInsertProcesses	Time current action last changed status.	
lastUpdate	DlGranules DlGranuleOWS DlCollections DlCollectionGroup DlBrowse DlGranules DlCompressionAlgorithms DlESDTCurrentDensityMap DlThemes DlOMSGranules	The time which the row last updated.	
lastUpdatedUtility	DlESDTCurrentDensityMap	The utility that last updated the density map	C – cleanup utility D – density map utility T – transition utility
localGranuleId	DlGranules	The string by which the user recognizes this granule.	
lockId	DlOMSGranules	A user string provided by OMS when locking and unlocking a granule to ensure that the granule is locked and unlocked by the same owner.	
lr_lat	DlCartOrderItem	Lower right latitude	
lr_lon	DlCartOrderItem	Lower right longitude	
maxDayKey	DlFactTemporalRange	Maximum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type day.	
MaxPriLevel	DlAgingConfig	Max Priority Level that the request promoted for the aging policy	
maxMnthKey	DlFactTemporalRange	Maximum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type month.	
maxWeekKey	DlFactTemporalRange	Maximum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type week.	

Table 3-85. Column Descriptions (15 of 28)

Column Name	Table	Column Description	Valid Values
maxYearKey	DlFactTemporalRange	Maximum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type year.	
message	DlHEGExceptions	Warning or Error message for the exception	
MessageID	DlAdMessages	Surrogate key	
MessageName	DlAdMessages	This gives the name of the message, and is used by the DPAD server to determine what action must be performed.	
metadataOnlyFlag	DlInsertActionQueue DlActiveInsertProcesses	The flag indicates whether the action is for inserting only a metadata file for that granule, not the granule science files. Valid values are:	Y – Insert the metadata file only N – Insert science granule files and metadata file
minDayKey	DlFactTemporalRange	Minimum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type day.	
minMnthKey	DlFactTemporalRange	Minimum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type month.	
minWeekKey	DlFactTemporRange	Minimum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type week.	
minYearKey	DlFactTemporalRange	Minimum temporal key for granule base on temporal range from DlDimensionTemporal with temporal type year.	
misrCameraId	DlOrbitCalculatedSpatial	SensorShortName for a MISR granule.	
misrOrbitNumber	DlOrbitCalculatedSpatial	Orbit number for a MISR granule.	
misrProductVersion	DlOrbitCalculatedSpatial	ProductVersion PSA for a MISR granule.	

Table 3-85. Column Descriptions (16 of 28)

Column Name	Table	Column Description	Valid Values
monthKey	DlDimensionTemporal	Null if temporalType is Y or M. If temporalType is W or D, this field is used to cross reference this row to its corresponding month row in this table; i.e., this field contains the value of temporalKey for the row where temporalType is M, and this day or week is within that month.	
moveFlag	DlCollections	Flag uses to indicate whether the collection is in the process of moving to a different file system.	Y – in the process of moving N – not in the process of moving (default)
name	DlThemes	The theme name.	
NonECSFlag	DlCollections	If set, indicates that granules in this collection originated outside of ECS.	
notes	DlCartOrder	Notes from operator on status of order	
number	DlStatESDT DlStatGroupESDT DlStatTheme	The total number of granules which the collection group, collection or theme contains.	
objectId	DlHdfObjects DlGranuleHdfObjectsXref DlCartOrderItemBand	Unique identifier for a HDF-EOS object	
objectName	DlHdfObjects	The name of a HDF object	
objectType	DlHdfObjects	The type of a HDF object	S – Swath G – Grid
OperationalQualityFlag	DlMeasuredParameter	Operational quality flag value for a measured parameter.	
OperationalQualityFlagExplan	DlMeasuredParameter	Explanation for the operational quality flag.	
optionId	DlHEGOptions DlHEGOptionLabel DlHEGOptionCollXref	Unique identifier for a HEG option.	
optionName	DlHEGOptions	Name of the HEG Option	

Table 3-85. Column Descriptions (17 of 28)

Column Name	Table	Column Description	Valid Values
optionType	DlHEGOptions	Type of HEG Option.	Format, Projection, Subsetting, Resampling, Subsampling, Stitching, Resolution
Orbit	DlOrbitPolygons	A polygon type representation of an orbit spatial coverage.	
orderId	DlCartOrder DlCartOrderItem	Order id which the item belongs.	
orderOnlyFSLabel	DlCollections	Order Only file system label	
orderOnlyGrpDirName	DlCollectionGroup	Order only group level directory name	
orderOnlySNDirName	DlCollections	Order only collection level directory name	
origChksum	DlFile	Checksum that generated by EcUtCopy.	
outputFmt	DlCartOrderItem	Output map projection for file	
outputProj	DlCartOrderItem	Output format for file – hdfeos/geotiff	
owner	DlOMSGranules	The owner that holds the mutex for this granule	O – indicates the granule still uses by OMS C – indicates the granule is in the process of cleaning up.
parameterDescription	DlConfig	The description of the parameter	
ParameterName	DlMeasuredParameter DlQAUpdTempBcp DlQAUpdFlagTemp	Name of a measured parametet for a granule	
parameterName	DlConfig DlRecoveryParameters	The name of the configuration parameter	
parameterType	DlConfig	The data type of the parameter. The valid values are:	I – integer C – character F – float
parameterValue	DlRecoveryParameters	The value of the parameter.	
parentPid	DlActiveInsertProcesses	The Unix pid of the parent Data Pool Action Driver (DPAD) process that created this DPIU.	

Table 3-85. Column Descriptions (18 of 28)

Column Name	Table	Column Description	Valid Values
PathNo	DlDimensionPolygonXref DlOrbitPolygons DlOrbitCalculatedSpatial	Orbit number.	
platformShortName	DlPlatInstrCode DlNOSELookup	The short name of a platform.	
platInstrCode	DlPlatInstrCode DlOrbitPolygons DlOrbitCalculatedSpatial DlDimensionPolygonXref	A code identifying a particular platform and instrument.	
preConvertEnabledFlag	DlThemes	A flag to indicate whether the data should be converted to GeoTiff format prior to inserting the granule into the data pool.	Y – yes (pre-convert) N – no (don't pre-convert)
processId	DlActiveInsertProcesses DlECSIdsToInsert DlXMLFilesToInsert	Unix process Id for the utility.	
processState	DlInsertActionQueue	The current state of processing of a request.	R- marked for retrieval P – picked up by driver S – suspended C – completed F – failed X - canceled
procName	DlProcAttributes	The name of the stored procedure	
processingState	DlGranuleOWS DlInsertActionQueue	The current processing state of an OWS granule.	converted, indexed, published
ProductionDateTime	DlBrowse	The time when the associated science granule was created.	
projParamStr	DlCartOrderItem	List of projection parameters.	
projectionId	DlHEGExceptions	Identifier for HEG projection	
PublicPriority	DlCollections	The default priority for public granules in this collection.	
PublicRetTime	DlCollections	The default retention time for public granules in this collection.	
publishTime	DlGranules, DlBrowse	The time when the granule was made public.	

Table 3-85. Column Descriptions (19 of 28)

Column Name	Table	Column Description	Valid Values
qaCode	DlDimensionScienceQA DlDimensionMPScienceQAXref	Uniquely Identifies a value of the Science QA flag	
qaDescription	DlDimensionMP DlDimensionScienceQA	The description for the key and the value.	
qaExplValue	DlQAUpdFlagTemp DlQAUpdTempBcp	The value for Quality Flag Explan.	
qaFlagType	DlQAUpdFlagTemp DlQAUpdTempBcp	Either ScienceQualityFlag or OperationalQualityFlag	Valid values: ScienceQualityFlag OperationalQualityFlag
qaKey	DlDimensionMP DlDimensionMPScienceQAXref DlFactQA	Uniquely Identifies a measured parameter or the value of the Science QA flag	
qaNameKey	DlDimensionMPScienceQAXref	This field contains the value of qaKey for the corresponding measured parameter.	
QAPercentCloudCover	DlMeasuredParameter	The quality percentage for cloud cover.	
QAPercentInterpolatedData	DlMeasuredParameter	The quality percentage for Interpolated data.	
QAPercentMissingData	DlMeasuredParameter	The quality percentage for missing data.	
QAPercentOutOfBoundsData	DlMeasuredParameter	The quality percentage for OutOfBounds data.	
qaValue	DlDimensionMP DlQAUpdFlagTemp DlDimensionScienceQA DlQAUpdTempBcp	The value for the parameter	Actual value of ScienceQualityFlag or OperationalQualityFlag
qualitySummary	DlCollections	URL that displays the quality information.	
RaiseReason	DlAdAlert	Text message giving the reason for the alert.	
RaiseTime	DlAdAlert	Open time for the alert.	
RangeBeginningDate	DlGranules	Date when the granule acquisition started	
RangeBeginningTime	DlGranules	Time when the granule acquisition started	
RangeEndingDate	DlGranules	Date when the granule acquisition ended	
RangeEndingTime	DlGranules	Time when the granule acquisition ended	
realName	DlCartOrder	User's real name	

Table 3-85. Column Descriptions (20 of 28)

Column Name	Table	Column Description	Valid Values
replacementOn	DlCollections	Flag uses to indicate whether granule replacement is allowed for the collection	"Y" – granule replacement allowed "N" – granule replacement not allowed
required	DlHEGOptionCollXref	Value indicates whether the HEG option is required.	"N" – not required, (default) "A" – absolutely required, "O" – required or
requestId	DlInsertActionQueue	Request ID from OMS.	
requestSuspendFlag	DlInsertActionQueue	Flag uses to indicate whether the request suspended.	
resolutionId	DlHEGExceptions	Identifier for HEG resolution option.	
resamplingId	DlHEGExceptions	Identifier for HEG resampling option.	
ResourceID	DlAdAlert	Label of the resource for which the alert was raised.	
retentionPeriod	DlActiveInsertProcesses DlInsertActionQueue	The retention period associated with this subscription.	
RetentionPriority	DlUpdGranulesTemp	Retention Priority for a granule, uses to indicate how long that a granule is retained in Data Pool.	Valid values between 1 and 255
retentionPriority	DlActiveInsertProcesses DlInsertActionQueue DlGranuleExpirationPriority	Priority of the granule in the Data Pool database	Valid values between 1 and 255
retryCount	DlActiveInsertProcessses DlInsertActionQueue	Counts the number of retries for the action.	
rollupBeginningDateTime	DlAccessRollup	The starting time at which Data Pool accesses are extracted from the ftp or web logs.	
rollupEndingDateTime	DlAccessRollup	The ending time at which Data Pool accesses are extracted from the ftp or web logs.	
ScienceQualityFlag	DlMeasuredParameter	ScienceQuality Flag for a measured parameter	

Table 3-85. Column Descriptions (21 of 28)

Column Name	Table	Column Description	Valid Values
ScienceQualityFlagExplan	DlMeasuredParameter	Explanation of the Science Quality Flag	
SequenceNo	DlDimensionPolygonXref DlOrbitPolygons	The sequence of the polygon for a MISR orbit granule.	
serviceRequested	DlGranuleOWS DlOWSDeletedGranules DlThemes	The OWS services for which a granule is registered.	M (registered with WMS), C (registered with WCS), B (registered with both WMS and WCS), null (not registered)
ShortName	DlBulkWrkTable DlCollections DlGranules DlInsertActionQueue DlFilesToBeDeleted DlActiveInsertProcesses DlNOSELookup DlHEGLookup DlXMLFilesToInsert DlMisrProcessingCriteria	ECS collection short name	
size	DlStatESDT	The total size of all granules for the collection.	
sizeMB	DlGranules DlFactTemporalRange	The granule size in MB	
sourceDescription	DlCloudCoverSource	The cloud cover source description	
sourceName	DlCloudCoverSource	The name uses to identify the cloud cover source.	
sourceType	DlCloudCoverSource	Cloud cover source type	P – PSA C – Core Metadata
spatialKey	DlDimensionSpatialT6All DlDimensionPolygonXref	Uniquely identifies a geographical location tile.	
spatialSearchType	DlCollections	Type of spatial search associated with the collection (e.g. Orbit, GPolygon, Rectangle)	Valid values “Orbit,” “Rectangle,” “Gpolygon,” “Point,” “Circle,” “Not Supported,” and “Unknown” (default)

Table 3-85. Column Descriptions (22 of 28)

Column Name	Table	Column Description	Valid Values
specialActionFlag	DlFtpAccessLog DlGranuleAccess	This flag will determine the format of the file. Valid values are	CT - Compressed & tar UT - Uncompressed & tar T - Tar _ - No action
StartBlock	DlOrbitCalculatedSpatial	The ordinal number of the polygon where granule coverage starts. It points to the polygons covering this orbit in DlOrbitPolygons.	
startTime	DlActiveInsertProcesses	Time current action was dispatched.	
state	DlFilesToBeDeleted	The status of cleaning up a granule.	0 – successfully deleted (default) 1 – not deleted
status	DlInsertActionQueue	The current status of the action.	NULL – the action was not yet processed COMPLETE – the action is done FAILED – the action is failed RETRY – the action is retried NOTINIT – the action is not initiated CANCELED – the action was canceled by the operator

Table 3-85. Column Descriptions (23 of 28)

Column Name	Table	Column Description	Valid Values
status	DlActiveInsertProcesses	The current status of the current process.	STARTING – process was initialized and has started to process a Data Pool insert. PROCESSING – the current process is in process LOCATING GRANULE FILES – looking for science granule files LOCATING BROWSE FILES – looking for browse granule files COPYING GRANULES FROM AMASS – copy science granules from the AMASS host GENERATING XML FILE – generating the metadata file in XML format MOVING GRANULE TO DATA POOLS – copy granule into Data Pool COPYING SDSRV INVENTORY – copy metadata from the SDSRV database

Table 3-85. Column Descriptions (24 of 28)

Column Name	Table	Column Description	Valid Values
status	DlActiveInsertProcesses	(The current status of the current process.)	POPULATING THE DATA WAREHOUSE – populating all the fact tables PROCESSING BROWSE XREF – generate cross-reference between science granule and browse granule MOVING BROWSE TO DATA POOLS – copy browse granules into Data Pool COPYING BROWSE FROM AMASS – copy browse granule from the AMASS host EXTRACTING JPEGS – extra the jpeg from the browse file UPDATING BROWSE INVENTORY – update the browse inventory data in Data Pool database CREATING BROWSE LINKS – create links for browse file

Table 3-85. Column Descriptions (25 of 28)

Column Name	Table	Column Description	Valid Values
status	DlCartOrder	The current status of the order	<NULL>- order just entered into system ENTERED - order ready for HEG processing PROCESSED – order processed by HEG PACKAGING - order is now being packaged DONE – order complete (user notified if necessary) FAILOPER – order failed – operator should be notified FAILOPERN - order failed – operator has been notified FAILED- order is failed – cannot retry
status	DlCartOrderItem	status (of individual file)	
statusDetail	DlInsertActionQueue	Detailed explanation of the status.	
stitchingId	DlHEGExceptions	Identifier for HEG stitching	
subId	DlGranuleSubscription DlInsertActionQueue	The ID of a subscription that caused the insertion of the granule in the Data Pool. This is a cross-reference to the Spatial Subscription Server database.	
SubmitTime	DlAdMessages	The time at which the server message was inserted.	
subsamplingId	DlHEGExceptions	Identifier for HEG sub sampling	
subsetId	DlHEGExceptions	Identifier for HEG subsetting option.	
subsetFlag	DlCartOrderItem	Flag uses to indicate whether the order requires subsetting.	
tapeLabel	DlInsertActionQueue	Indicate which tape to use.	
temporalBeginDate	DlDimensionTemporal	The beginning time for the date range	

Table 3-85. Column Descriptions (26 of 28)

Column Name	Table	Column Description	Valid Values
temporalEndDate	DlDimensionTemporal	The ending time for the date range	
temporalKey	DlDimensionTemporal	Uniquely Identifies a date range bin	
temporalType	DlDimensionTemporal	Identifies the type of key.	D – Day W – Week M – Month Y – Year
themeDescription	DlThemes	Description of theme	
themeId	DlThemes DlGranuleThemeXref DlStatTheme DlInsertActionQueue	The unique ID that identifies a data pool theme.	
tile	DlDimensionSpatialT6All	The index for the geographical location	
tiles	DlGranuleTiles	The HEX representation of the list of spatial keys for a granule.	
timeOfDayBeginTime	DlDimensionTimeOfDay	The beginning time of the period	
timeOfDayEndTime	DlDimensionTimeOfDay	The ending time of the period	
timeOfDayKey	DlDimensionTimeOfDay DlFactTimeOfDay	Uniquely identifies periods of the day	
timeOfDayType	DlDimensionTimeOfDay	Type that is used to describe a period of the day.	1 – One hour 3 – 30 minutes 4 – Four hours D – Day H – Half day
timestamp	DlCartOrder	last update time/date	
todFourHourKey	DlDimensionTimeOfDay	Null if timeOfDayType is D, H, 0r 4. If timeOfDayType is 1 or 3, this field is used to cross reference this row to its corresponding 4-hour row in this table; i.e., this field contains the value of timeOfDayKey for the row where timeOfDayType is 4, and the time range for that 4 hour row contains the time range for this row.	

Table 3-85. Column Descriptions (27 of 28)

Column Name	Table	Column Description	Valid Values
todHalfDayKey	DlDimensionTimeOfDay	Null if timeOfDayType is D or H. If timeOfDayType is 1, 3 or 4, this field is used to cross reference this row to its corresponding halfday row in this table; i.e., this field contains the value of timeOfDayKey for the row where timeOfDayType is H, and the time range for that half day row contains the time range for this row.	
todHourKey	DlDimensionTimeOfDay	Null if timeOfDayType is D, H, 4, or 1. If timeOfDayType is 3, this field is used to cross reference this row to its corresponding hour row in this table; i.e., this field contains the value of timeOfDayKey for the row where timeOfDayType is 1, and the time range for that hour row contains the time range for this row.	
transferTime	DlFtpAccessLog DlGranuleAccess	Total transfer time in seconds	
twentyFourHr	DlCollections	Flag uses to indicate whether the collection has twenty four hours coverage.	Y – has twenty four hours coverage N – do not has twenty four hours coverage (default)
type	DlMisrProcessingCriteria	Type of MISR ESDT	B – MISR Browse 1 – MISR Level 1 2 – MISR Level 2
ul_lat	DlCartOrderItem	upper left latitude	
ul_lon	DlCartOrderItem	upper left longitude	
uncompChksum	DlFile	Checksum for uncompressed file, calculated on the DPL host.	
uncompChksumTypeId	DlFile	Unique Identifier for the checksum type from SDSRV DsMdChecksumType table.	1= ECS 2=CKSUM

Table 3-85. Column Descriptions (28 of 28)

Column Name	Table	Column Description	Valid Values
utilityName	DlRecoveryParameters	Name of the Utility	
VersionId	DlBulkWrkTable DlCollections DlGranules DlInsertActionQueue DlFilesToBeDeleted DlActiveInsertProcesses DlNOSELookup DlHEGLookup DlXMLFilesToInsert DlMisrProcessingCriteria	Version of ECS collection	
versionNumber	DlGranules, DlBrowse	The suffix used to rename the root filename in case of duplicates.	
webVisibleFlag	DlThemes	Flag use to determine whether granules from this theme are eligible for web drill down in Data Pool.	Y – allow Data Pool Web Drill Down N – do not allow Data Pool Web Drill Down
weekKey	DlDimensionTemporal	Null if temporalType is Y, M, or W. If temporalType is D, this field is used to cross reference this row to its corresponding week row in this table; i.e., this field contains the value of temporalKey for the row where temporalType is W, and this day is within that week.	
xmlFileName	DlXmlFilesToInsert DlInsertActionQueue DlActiveInsertProcesses	Location of the xml file for Non-ECS granules	
xmlUpdateFlag	DlQAUpdTempBcp DlQAUpdFlagTemp	Flag uses to determine whether the XML file had updated.	Valid Values will be ‘Y’ or ‘N’
yearKey	DlDimensionTemporal	Null if temporalType is Y. If temporalType is M, W, or D, this field is used to cross reference this row to its corresponding year row in this table; i.e., this field contains the value of temporalKey for the row where temporalType is Y, and this day, week, or month is within that year.	

3.1.4 Domains

Sybase supports the definition of specific data types, domains, to further limit the format of data for given column. There are no domains defined for Data Pool.Rules

Sybase supports the definitions of rules. Rules provide a means for enforcing domain constraints on a given column.

Rule Name	Description
RetentionPriority	Value of retentionPriority is between 1 and 255.
ParameterType	Value for Parameter type column in DlConfig table. The valid values are “I”, “C”, “F”.
fileType	Valid values are “SCIENCE”, “METADATA”, and “BROWSE”.
gridLevel	Valid values are between 1 and 6.
sourceType	Valid values are “P” and “C”
exceptionType	Valid values are “W”, “E”
processingState	Valid values are “converted”, “indexed”, “published”
serviceRequested	Valid values are M (registered with WMS), C (registered with WCS), B (registered with both WMS and WCS), null (not registered)

3.1.5 Defaults

Defaults are used to supply a value for a column when one is not defined at insert time. The defaults defined in Sybase for the DPL database are described herein.

Column Default	Default Value
spatialSearchType	Unknown
exclusionSCFlag	N
InsertEnabledFlag	Y
state	0
inCacheFlag	Y
convertEnabledFlag	N
bulkExportedFlag	N
archiveFlag	N
gridLevel	6
subId	-1
required	N
lastUpdate	getdate()

3.1.6 Views

Sybase 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. DataPool uses view, EMSDistFTP, for EMS extract processing, as shown in Figure 3-2.

EMSDistFTP_View

Object Type	View

Columns

NAME	Datatype	Null
dbId	ID	No
age	int	Yes
fileSize	numeric(16,0)	No
fileType	varchar(10)	No
accessTime	varchar(18)	Yes
ecsId	ID	Yes
transferTime	int	Yes
ipAddress	varchar(15)	No
fileName	varchar(255)	Yes
ShortName	varchar(8)	No
VersionId	tinyint	No

Privileges

Object Name	Delete	Execute	Insert	References	Select	Update
EMSgroup					Y	

Dependencies

Referenced Objects

Object Name	Object Type
DlGranuleAccess	TABLE
ID	USER DATATYPE

Figure 3-2. DataPool View for EMS Extract Processing

3.1.7 Integrity Constraints

Sybase 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. Sybase 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 constraint has been used. All declarative integrity constraints defined in the DPL database are described in Tables 3-86 through 3-109.

Table 3-86. Dependencies on Table: DlCollectionGroup

Referenced by	Primary Key	Foreign Key
DlCollections	groupId	groupId

Table 3-87. Dependencies on Table: DlCollections

Referenced by	Primary Key	Foreign Key
DlFactTemporalRange	collectionId	collectionId
DlESDTCurrentDensityMap	collectionId	collectionId
DlGranules *	collectionId	collectionId
DlHEGOptionCollXref	collectionId	collectionId
DlHEGExceptionCollXref	collectionId	collectionId

* The dependency of DlGranules on DlCollections is not shown on the ERD due to space limitations. The ERDs each show a partial view of the entire system.

Table 3-88. Dependencies on Table: DlGranules

Referenced by	Primary Key	Foreign Key
DlGranuleExpirationPriority	granuleId	granuleId
DlGranuleBrowseXref	granuleId	granuleId
DlGranuleOWS	granuleId	granuleId
DlFile	granuleId	granuleId
DlOrbitCalculatedSpatial	granuleId	granuleId
DlGPolygon	granuleId	granuleId
DlBoundingRectangle	granuleId	granuleId
DlMeasuredParameter	granuleId	granuleId
DlGranuleTiles	granuleId	granuleId
DlFactTemporalRange	granuleId	granuleId
DlFactQA	granuleId	granuleId
DlFactTimeOfDay	granuleId	granuleId
DlFactDayNight	granuleId	granuleId
DlFactGroupESDT	granuleId	granuleId
DlGranuleThemeXref	granuleId	granuleId
DlGrCloudCover	granuleId	granuleId
DlGranuleHdfObjectsXref	granuleId	granuleId

Table 3-89. Dependencies on Table: DlBrowse

Referenced by	Primary Key	Foreign Key
DlGranuleBrowseXref	browseId	browseId
DlBrowseFile	browseId	browseId

Table 3-90. Dependencies on Table: DlPlatInstrCode

Referenced by	Primary Key	Foreign Key
DlOrbitPolygons	platInstrCode	platInstrCode

Table 3-91. Dependencies on Table: DlDimensionSpatialT6All

Referenced by	Primary Key	Foreign Key
DlDimensionPolygonXref	spatialKey	spatialKey

Table 3-92. Dependencies on Table: DlDimesionTimeOfDay

Referenced by	Primary Key	Foreign Key
DlFactTimeOfDay	timeOfDayKey	timeOfDayKey

Table 3-93. Dependencies on Table: DlDimensionDayNight

Referenced by	Primary Key	Foreign Key
DlFactDayNight	dayNightKey	dayNightKey

Table 3-94. Dependencies on Table: DlDimensionGroupESDT

Referenced by	Primary Key	Foreign Key
DlFactGroupESDT	groupESDTKey	groupESDTKey

Table 3-95. Dependencies on Table: DlOrbitPolygons

Referenced by	Primary Key	Foreign Key
DlDimensionPolygonXref	platInstrCode	platInstrCode
DlDimensionPolygonXref	PathNo	PathNo
DlDimensionPolygonXref	SequenceNo	SequenceNo
DlOrbitCalculatedSpatial	platInstrCode	platInstrCode
DlOrbitCalculatedSpatial	PathNo	PathNo

Table 3-96. Dependencies on Table: DlThemes

Referenced by	Primary Key	Foreign Key
DlGranuleThemeXref	themeId	themeId

Table 3-97. Dependencies on Table: DlCartOrder

Referenced by	Primary Key	Foreign Key
DlCartOrderItem	orderId	orderId

Table 3-98. Dependencies on Table: DlDimensionMP

Referenced by	Primary Key	Foreign Key
DlDimensionMPScienceQAXref	qaKey	qaNameKey

Table 3-99. Dependencies on Table: DlDimensionScienceQA

Referenced by	Primary Key	Foreign Key
DlDimensionMPScienceQAXref	qaCode	qaCode

Table 3-100. Dependencies on Table: DlCompressionAlgorithms

Referenced by	Primary Key	Foreign Key
DlFile	compAlgorithmLabel	compAlgorithmLabel
DlCollections	compAlgorithmLabel	compAlgorithmLabel

Table 3-101. Dependencies on Table: DlFileSystems

Referenced by	Primary Key	Foreign Key
DlCollections	fileSystemLabel	fileSystemLabel

Table 3-102. Dependencies on Table: DlCloudCoverSource

Referenced by	Primary Key	Foreign Key
DlCollections	cloudSourceId	cloudSourceId

Table 3-103. Dependencies on Table: DlHdfObjects

Referenced by	Primary Key	Foreign Key
DlGranuleHdfObjectsXref	objectId	objectId
DlCartOrderItemBand	objectId	objectId

Table 3-104. Dependencies on Table: DlHdfBands

Referenced by	Primary Key	Foreign Key
DlGranuleHdfObjectsXref	bandId	bandId
DlCartOrderItemBand	bandId	bandId

Table 3-105. Dependencies on Table: DlHdfFields

Referenced by	Primary Key	Foreign Key
DlGranuleHdfObjectsXref	fieldId	fieldId

Table 3-106. Dependencies on Table: DlHdf4thDimensions

Referenced by	Primary Key	Foreign Key
DlGranuleHdfObjectsXref	dimId	dimId
DlCartOrderItemBand	dimId	dimId

Table 3-107. Dependencies on Table: DlCartOrderItem

Referenced by	Primary Key	Foreign Key
DlCartOrderItemBand	itemId	itemId

Table 3-108. Dependencies on Table: DlHEGOptions

Referenced by	Primary Key	Foreign Key
DlHEGOptionCollXref	optionId	optionId
DlHEGOptionLabel	optionId	optionId

Table 3-109. Dependencies on Table: DlHEGExceptions

Referenced by	Primary Key	Foreign Key
DlHEGExceptionCollXref	exceptionId	exceptionId

3.1.8 Triggers

Sybase supports the enforcement of business policy via the use of triggers. A trigger is best defined as set of activities or checks that should be performed automatically by Sybase whenever a row is inserted, updated, or deleted from a given table. Sybase allows the definition of insert, update, and delete triggers for each table. Description of each of the triggers in the Data Pool database is given in Table 3-110. Trigger code may vary as new drops or test executables for Release 7 are installed into the implemented database. For this reason trigger code listings are no longer included in this documentation but may be reviewed on-line using the installed database.

Table 3-110. Trigger Listing

Table Code	Trigger Name	Trigger Type
DlBoundingRectangle	TrigUpdDlBoundingRectangle	Update
DlCartOrderItem	TrigUpdCartOrderStatus	Update
DlCollectionGroup	TrigInsCollectionGroup	Insert
DlCollectionGroup	TrigDelCollectionGroup	Delete
DlCollectionGroup	TrigUpdCollectionGroup	Update
DlCollections	TrigInsCollections	Insert
DlCollections	TrigDelCollections	Delete
DlCollections	TrigUpdCollections	Update
DlConfig	TrigUpdDlConfig	Update
DlFile	TrigUpdDlFile	Update
DlFileSystems	TrigInsFileSystems	Insert
DlFileSystems	TrigUpdFileSystems	Update
DlGPolygon	TrigUpdDlGPolygon	Update
DlGrCloudCover	TrigUpdDlGrCloudCover	Update
DlGranuleExpirationPriority	TrigUpdDlGranExpPriority	Update
DlGranuleTiles	TrigUpdDlGranuleTiles	Update
DlGranules	TrigInsDlGranules	Insert
DlGranules	TrigUpdDlGranules	Update
DlHEGOptionCollXref	TrigInsHEGOptionCollXref	Insert
DlInsertActionQueue	TrigInsIAQ	Insert
DlInsertActionQueue	TrigUpdIAQ	Update
DlMeasuredParameter	TrigInsMeasuredParameter	Insert
DlMeasuredParameter	TrigUpdMeasuredParameter	Update
DlOrbitCalculatedSpatial	TrigInsOrbitCalculatedSpatial	Insert
DlOrbitCalculatedSpatial	TrigUpdOrbitCalculatedSpatial	Update
DlPrivateCollection	TrigInsPrivateColl	Insert

3.1.9 Stored Procedures

Sybase also includes support for business policy via the use of stored procedures. Stored procedures are typically used to capture a set of activities or checks that will be performed on the database repeatedly to enforce business policy 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. A listing of each the stored procedures in the Data Pool database is given here. A brief definition of each of these stored procedures follows in Table 3-111. Stored procedure code may vary as new drops or test executables for Release 7 are installed into the implemented database. For this reason stored procedure code listings are no longer included in this documentation but may be reviewed on-line using the installed database.

Table 3-111. Procedure Listing (1 of 26)

Name	Description
DlGetOMSInserts	Returns the number of OMS inserts
DlGetSSSInserts	Returns the number of SSS inserts
DlPDInsertComplete	Complete data of newly inserted entries in the DlPendingDelete table
ProcBackfillBrowse	This proc updates the isOrderOnly flag in DlBrowse when move the order only browse to public.
ProcBmGetOwsDplDeleted	Returns a list of OWS granules designated for cleanup.
ProcBmGetOwsIndexedGranules	Returns a list of OWS granules that have been indexed and are ready to be published in the ECHO catalogue.
ProcBmOwsMarkPublished	Updates the processing state of newly published granules.
ProcCancelInsertQueue	Updates an insert status in the DlInsertActionQueue to “CANCELLED”.
ProcCanRemoveGranule	Checks whether it is OK to remove the granule from from Data Pool.
ProcCanRemoveLinkedBrowse	Remove browse association for a specified granule.
ProcCheckCoveredRollups	Checks the previous rollupdatetime to determine whether the period of rollup had been done.
ProcCheckFreeSpace	Checks the availability of a file system for a collection.
ProcCopySdsrvBrowseInventory	Copies browse inventory information from SDSRV to Data Pool. Execute this procedure in chained mode.
ProcCopySdsrvGranInventory	Copies granule inventory information from SDSRV to datapool. Execute this procedure in chained mode.
ProcCopySdsrvOrbitInfo	Copies orbit metadata from the sdsrv database.
ProcDeleteAssocXref	Delete all rows in DlGranuleBrowseXref table that associated with granules that are about to be deleted.
ProcDeleteBndgRectangle	Delete all granules from DlBoundingRectangle table where the granule exists in DlFilesToBeDeleted.
ProcDeleteDayNightFact	Delete from DlFactDayNight table for all granules in DlFilesToBeDeleted.
ProcDeleteFtpAccessLog	Truncate the DlFtpAccessLog table.
ProcDeleteGPolygon	Delete all granules from DlGPolygon table where the granule exists in DlFilesToBeDeleted.
ProcDeleteGranFiles	Delete all rows in DlFile where the file exists in DlFilesToBeDeleted.
ProcDeleteGroupESDTFact	Delete from DlFactGroupESDT table for all granules in DlFilesToBeDeleted.
ProcDeleteIAQOldActionItems	Remove completed actions whose completion time is older than DELETECOMPLETEACTIONSAFTER.
ProcDeleteMeasuredParameter	Delete all granules from DlMeasuredParameter table where the granule exists in DlFilesToBeDeleted.
ProcDeleteOrbCalcSpatial	Delete all granules from DlOrbitCalculatedSpatial table where the granule exists in DlFilesToBeDeleted.
ProcDelExpiredOWSGranules	Deletes from table DlOWSDeletedGranules.

Table 3-111. Procedure Listing (2 of 26)

Name	Description
ProcDelGranAccessByTimeRange	Delete access statistic data by a time range.
ProcDelGranAcsByTimeAndType	Delete access statistic data by a time range and the access type.
ProcDelInconsistentGranules	Checks for deleted OWS granules that were reinserted.
ProcDeleteProcess	Delete process entry from database and modify the queue based on completion status.
ProcDeleteProcessByEcsId	Delete process entry from database based on ECS ID and modify the queue based on completion status.
ProcDeleteProcessByXmlFileName	Delete process entry from database based on XML file name and modify the queue based on completion status.
ProcDeleteQAFact	Delete from DlFactQA table for all granules in DlFilesToBeDeleted.
ProcDeleteRetPriority	Delete all granules from DlGranuleExpirationPriority table where the granule exists in DlFilesToBeDeleted.
ProcDeleteSciGranules	Delete science granules that are in DlFilesToBeDeleted.
ProcDeleteSingleGranule	Delete a single granule from Data Pool database. It uses for recovery when inserted failed.
ProcDeleteTemporalFact	Delete from DlFactTemporalRange table for all granules in DlFilesToBeDeleted.
ProcDeleteTimeOfDayFact	Delete from DlFactTimeOfDay table for all granules in DlFilesToBeDeleted.
ProcDeleteWebAccessLog	Truncate DlWebAccessLog table.
ProcDlAdClearAlert	Closes an open alert in the DlAdAlert table. This procedure is called when an alert is closed, either because the condition causing the alert has been corrected, or the server is restarting. An alert is considered cleared (or closed), when it has a non-null ClearTime in the database.
ProcDlAdCompleteServerMessage	Updates a server message with a completion message and time. A message is considered completed (and hence will not be processed again) when it has a non-null CompletionTime.
ProcDlAdCreateActiveInsert	Creates a row in DlActiveInsertProcesses for a new insert request. If a row already exists (for example, it is a recovery situation), then the existing data will be returned. For new rows, representing a granule that does not already exist in the Data Pool, a new, unique identifier will be created.
ProcDlAdDeleteActiveInsert	Removes a row from the DlActiveInsertProcesses table. This procedure is called when an insert terminates (successfully, or not), and is being cleaned up.
ProcDlAdGetAllRaisedAlerts	Returns the open alerts. This procedure is called during server restart, when the server must retrieve all the currently open alerts in order to close them.

Table 3-111. Procedure Listing (3 of 26)

Name	Description
ProcDlAdGetApGranuleFiles	Returns file information for an Algorithm package granule. This procedure is designed to match the output from ProcDlAdGetScienceFiles, hence the null values in the output results set.
ProcDlAdGetArchiveFileSystems	Returns the archive file system information from the Ingest database. This procedure is called once during start up.
ProcDlAdGetBrowseGranuleFiles	Returns file information for a browse granule. This procedure is designed to match the output from ProcDlAdGetScienceFiles, hence the null values in the output results set.
ProcDlAdGetDapGranuleFiles	Returns file information for a DAP granule. This procedure is designed to match the output from ProcDlAdGetScienceFiles, hence the null values in the output results set.
ProcDlAdGetDefaultCksum	Retrieves the default checksum type from the Ingest database.
ProcDlAdGetDPLFileSystems	Returns information about the Data Pool file systems. This procedure is called once during server startup.
ProcDlAdGetECSServiceHosts	Retrieves the service host configuration from the Ingest database. This procedure is called once during server startup.
ProcDlAdGetESDTs	Retrieves all the configured collections from the Data Pool database.
ProcDlAdGetGranuleFiles	Returns the files for a given Science Data server granule.
ProcDlAdGetNewPendingInserts	Retrieves new granule insert requests from the DlInsertActionQueue. This procedure is called periodically by the Action Driver.
ProcDlAdGetPhGranuleFiles	Returns file information for a Procesing History granule. This procedure is designed to match the output from ProcDlAdGetScienceFiles, hence the null values in the output results set.
ProcDlAdGetQaGranuleFiles	Returns file information for a QA granule. This procedure is designed to match the output from ProcDlAdGetScienceFiles, hence the null values in the output results set.
ProcDlAdGetScienceGranuleFiles	Returns the file information for a science granule.
ProcDlAdGetServerMessages	Retrieves new server messages from the database. This procedure is called periodically by the Action Driver.
ProcDlAdGetSilos	Retrieves information about the archive silos (the old archive hosts) from the STMGT database.
ProcDlAdGetSsapGranuleFiles	Returns file information for am SSAP granule. This procedure is designed to match the output from ProcDlAdGetScienceFiles, hence the null values in the output results set.

Table 3-111. Procedure Listing (4 of 26)

Name	Description
ProcDlAdGetVolumeGroups	Retrieve volume group information from the storage management database for a given ESDT (shortname and version ID).
ProcDlAdInsertChecksum	Inserts a newly computed checksum into the Science Data Server database.
ProcDlAdInsertServerMessage	Inserts a server message into the Action Driver messages table.
ProcDlAdLockGranule	Places a lock on a granule (if not already locked).
ProcDlAdRaiseAlert	Creates a row in the DlAdAlert table representing an open alert.
ProcDlAdRecoverPendingInserts	Retrieves previously executing insert requests. This procedure is called once during startup, in place of ProcDlAdGetNewPendingInserts. It resets all suspended insert requests back to the null state (so that they get reprocessed), and then selects all remaining active insert requests.
ProcDlAdRemoveClosedAlerts	Removes all closed alerts older than a given age.
ProcDlAdRemoveCompleteMessages	Removes completed server messages older than a given age.
ProcDlAdRemoveStaleGranuleLock	Removes 'stale' granule locks - those older than a configured age. Note that this procedure retrieves the age configuration directly from DlConfig, rather than accepting it as an input parameter.
ProcDlAdServerRestart	Resets the Data Pool Insert database ready for a server restart.
ProcDlAdSetACFileSystemState	Sets the state of an Archive Cache file system.
ProcDlAdSetDPLFileSystemState	Sets the status of a Data Pool file system (from the Insert perspective).
ProcDlAdSetServiceHostState	Sets the status of an ECS server host.
ProcDlAdUnlockGranule	Removes a granule lock held by the Action driver.
ProcDlAdUpdateActiveInsert	Updates the status of a granule insert in the DlActiveInsertProcesses table.
ProcDlAdUpdateQueueStatus	Update the status in DlInsertActionQueue table.
ProcDlOmRemoveStaleGranuleLock	Removes 'stale' granule locks owned by OMS those older than a configured age.
ProcGetAssocGransBrowseFiles	This procedure is used to log out the sci granules that are being removed because they have associated browse files that are missing (phantom browse in DlTempPhantoms). It also returns related browseId, ecsId and the browse file name for verification purposes.

Table 3-111. Procedure Listing (5 of 26)

Name	Description
ProcGetCheckSumFiles	This procedure will search through the DlGranules and DlFile tables to find granules that were inserted either 1) within the last 24 hours, 2) a week ago, or 3) a month ago. It will report these files that have not had their checksumValidationStatus flag set in order to perform checksum validation.
ProcGetCheckSumFilesByEsdt	This procedure will search through the DlGranules and DlFile tables to find file names for granules that match the input ESDT and associated Version id.
ProcGetChksumTypeId	Get the ID for a given checksum type.
ProcGetChksumTypeToIdMapping	Get the IDs for all checksum types.
ProcGetDplGranuleXmlFileN	This procedure returns the directoryPath and xml filename for the specified granuleid.
ProcGetDplIdInfo	Returns the relevant ESDT info for the provided SCIENCE dplid.
ProcGetEsdtInfo	Retrieves collection level info for a specified ESDT.
ProcGetGrFiles	Retrieves the complete file pathname for a granule, based on the granuleId.
ProcGetGranuleIdFS	Retrieves the absolute file system path for a granule, based on the granuleId.
ProcGetGranuleLockOwner	Returns the owner of the lock on the granule.
ProcGetHiddenDirForGranule	Return the full directory path for a granule.
ProcGetHiddenGranFileInfo	Return the appropriate filename information.
ProcGetInsertTotalByFilters	Get queue information base on batchLabel and status
ProcGetMissingXrefInfo	Get datapool granules that are yet to be linked to this browse or QA granule.
ProcGetPublicFileName	Retrieves the public (user) filename. Short name is used to identify which type of granule.
ProcGetPublicGranFileInfo	Return the appropriate filename information.
ProcGetSciFilesInDBByCollGroup	Get a list of science, metadata, and associated browse files for a given collection group order by directoryPath and filename.
ProcGetSciLinksInDBByCollGroup	Get a list of science, metadata, browse links, and associated browse files for a given collection group order by directoryPath and filename.
ProcGetScramFSForESDT	Get scrambled file system path for a given ESDT.
ProcGetSdsrvInsertInfo	Retrieve insertTime, lastUpdate from DsMdGranules and update ecsInsertTime in DPL.
ProcGetUniqueBrowseFileName	Determine if a browse granule filename is unique. If not, assign a number to append to it.
ProcGetUniqueFileName	Determine if a filename is unique. If not, assign a number to append to it.
ProcGetUniqueLinkName	Determine if a filename is unique. If not, assign a number to append to it. Update the versionNumber in DlGranules.

Table 3-111. Procedure Listing (6 of 26)

Name	Description
ProcGetXmlFilePathByEcsId	This procedure selects the file path for an XML metadata file based on the ecsId for the granule.
ProcGranuleArchived	Sets the archiveTimeStamp in DlGranules.
ProcInsActQueueBandBackfill	Inserts a record into DlInsertActionQueue, backfilling source, retention, and priority info.
ProcInsertActionQueue	Inserts a record into DlInsertActionQueue.
ProcInsertGrExpPrioHours	Insert a row into DlGranuleExpirationPriority table.
ProcInsertGranSubId	Insert DlGranuleSubscription if not already there.
ProcInsertINGESTCleanAction	Enter granule in Ingest DB for later cleaning.
ProcInsertOMSActionN	Insert a row in DlInsertActionQueue for an OMS action.
ProcIsBandInserted	Checks whether a DPL granule has band information.
ProcIsGrReplacementNeeded	Check whether granule replacement is needed.
ProcIsDplGranInDpl	Checks to see if granule is in the Data Pool.
ProcIsGranInDpl	Checks to see if granule is in the Data Pool.
ProcLockGranuleForDplInsert	Attempt to obtain a lock on a granule.
ProcLockGranuleForOMS	Inserts into table DlOMSGranules.
ProcMarkPublicationComplete	Sets the publishTime when publication is complete.
ProcMarkRegistrationComplete	Sets the insert time when registration is complete.
ProcOSGetDelURLByList	Retrieves the deleted granuleId(s) from DPL.
ProcOSGetInsURLByList	Retrieve Inserted Ftp URLs from a work table containing ecsIds of granules ingested into the Data Pool.
ProcPublishBrowseFile	Update DlBrowseFile to make the browse file public. Execute this proc in chained mode.
ProcPublishGranule	Update DlGranules to mark a granule published.
ProcPublishScienceFile	Update DlFile to make the file public. Execute this proc in chained mode.
ProcRegisterBrowseFile	Insert file details into DlBrowseFile; Execute this proc in chained mode.
ProcRegisterBrowseGranule	Register a browse granule.
ProcRegisterScienceFile	Insert file details into DlFile; Execute this proc in chained mode.
ProcRegisterScienceGranule	Insert a row into DlGranules table.
ProcRemoveAssocGranuleXrefs	Remove xrefs to a granule.
ProcRemoveGranule	Removes a granule from the database. Short name is used to identify which type of granule.
ProcRemoveGranuleBrowseXrefs	Remove xrefs to a browse granule.
ProcRemoveOriginalBrowseFile	Remove the original, hidden browse data file.
ProcSplitFileName	Splits a filename into its root and extension.
ProcUnpublishScienceFile	Updates the directory path and filename to the hidden directory path and new filename.
ProcUnpublishScienceGranule	Removes granule's metadata, updates the isOrderOnly flag, and resets the publishTime.

Table 3-111. Procedure Listing (7 of 26)

Name	Description
ProcUnlockGranuleForOMS	Deletes from table DlOMSGranules.
ProcUpdGranExpirOmsRequest	Synchronizes the expiration dates for all granules corresponding to a single OMS request.
ProcUpdateCheckSumStatus	This procedure will update the datapool DlFile table and set the checksumValidationStatus flag to FAILED for checksumResult of 0 or to SUCCESS for checksumResult of 1.
ProcUpdateGranuleIsOrderOnly	Set the isOrderOnly flag in DlGranules.
ProcUpdateXmlFileSize	Updates the filesize of a metadata file.
ProcGetACProcessCounts	Return max number of insert processes, insert processes that require AMASS access to cache, and processes that do not require AMASS access to cache.
ProcGetACTimeLimits	Return max time in minutes operators allow a DPIU process to complete whose files are in cache. And max time in hours operators allow a DPIU process to complete whose files are not in cache.
ProcGetActionConfig	Return action configuration values of parameter
ProcGetActiveProcesses	Retrieves all rows from the DlActiveInsertProcesses table.
ProcGetAIPList	Get all active insert processes.
ProcGetAllCollGrps	Retrieve all rows from DlCollectionGroup table.
ProcGetAllConfigParms	Retrieves the value of all configuration parameters from DlConfig.
ProcGetAllowedProcesses	Retrieves rows with parameterValue of “NumOfAllowedInsertProcesses, NumOfAllowedCacheProcesses, NumOfAllowedNonCacheProcesses, RefreshRate” from the DlConfig table.
ProcGetAllOWSThemes	Returns a list of themes associated with OWS granules.
ProcGetAllCollectionsByGroupId	Returns the list of collections, opt. qualified by groupId
ProcGetBrowseEcsInsertDate	Retrieves insert time from SDSRV inventory for the specified browse.
ProcGetBrowseFiles	Get files associated with a browse in DataPool inventory.
ProcGetBrowseLinks	Insert into DlFilesToBeDeleted all links from browse granules that are associated with science granules that qualify for deletion.
ProcGetBrowseToDelete	Select all browse links from DlFilesToBeDeleted.
ProcGetBrowseUR	Parses UR to determine whether this is a browse granule. Constructs browse UR in either case..
ProcGetCollectionDescription	Retrieves the collection description for a specific collection.
ProcGetCollections	Retrieves all collection from DlCollections for a specific collection group.
ProcGetCollGrp	Retrieves a row from DlCollectionGroup for a specific collection group.
ProcGetCollNotInDataPool	Retrieves the collections that are not yet in the Data Pool.

Table 3-111. Procedure Listing (8 of 26)

Name	Description
ProcGetDayNightKey	This procedure gathers the dayNightKey for a specific dayNight value.
ProcGetDayNightKeyMap	This procedure gathers the mapping of dayNightKey and dayNightKeyValue.
ProcGetDayNightSummary	This procedure gathers the counts of granules for each dayNightKey. All values of the dimension table are output.
ProcGetDPLGrFileInfo	Retrieves absolute file path for a science browse granule based on UR provided
ProcGetESDTSummary	This procedure gathers the counts of granules for each groupESDTKey given a groupKey
ProcGetExpiredInventory	Returns information for a list of OWS granules that have expired and have been added to DlOWSDeletedGranules.
ProcGetExtraFileInfo	Gets file info for a given ecs granule id
ProcGetFileVolumeGroup	Retrieve Volume Group related info' based on specified granule or browse id's insert time from STMGT database
ProcGetFreeSpace	Calculate the sum of the file sizes of all files that were successfully removed.
ProcGetGenericBrFileInfo	Retrieves absolute file paths for a browse granule from granule UR
ProcGetGeotiffByGeoid	Retrieves GeoTiff file information for an OWS granule.
ProcGetGranAltFile	For the specified granule id, locate input granule id from DsMdInputGranule table and get userfile for this input granuleid and append pathrow info to userfile name from SDSRV database
ProcGetGranCollGroupName	Get the collection group id for the specified collection.
ProcGetGransByLimit	Insert into DlFilesToBeDeleted all files from granules which have expired and have priority less than a given limit.
ProcGetGransByTable	Populate DlFilesToBeDeleted with info for the granules in DlTempGrans. This table is pre-loaded and created via the cleanup script for Data Pool.
ProcGetGranuleId	Retrieves the granuleId associated with a science file.
ProcGetGranules	Gathers the granule data associated with the all granuleId limited by max granule count.
ProcGetGroupESDTKeyMap	This procedure gathers the mapping of groupESDTKey and groupESDTValue.
ProcGetGroupESDTKeys	This procedure gathers the groupESDTKey for a specific collection.
ProcGetGroupSummary	Gathers the counts of granules for each groupKey
ProcGetIAQList	Get all insert actions that have never been processed or actions that are in retry state.
ProcGetIAQNewActions	Return all insert actions queued after this input queueid.
ProcGetInsertsSuspended	Return availabilityFlag value.

Table 3-111. Procedure Listing (9 of 26)

Name	Description
ProcGetLinksToDelete	Select all browse links from DlFilesToBeDeleted.
ProcGetMaxTemporalKeys	This procedure gathers the maximum set of temporal keys given a begin date and an end date.
ProcGetMaxTimeOfDayKeys	This procedure gathers the maximum set of time of day keys given a begin time and an end time.
ProcGetMinTemporalKeys	This procedure gathers the minimum set of temporal keys given a begin date and an end date.
ProcGetMinTimeOfDayKeys	This procedure gathers the minimum set of time of day keys given a begin date and an end date.
ProcGetMonthTemoralKey	This procedure gathers the temporalKey for a specific month.
ProcGetNewInventory	Returns information for a list of OWS granules inserted within a specified time range.
ProcGetNoFreeSpace	Return NoFreeSpaceFlag value.
ProcGetNotInDataPoolDesc	Retrieves the description for a collection that has not yet been added to the Data Pool.
ProcGetOrderOnlyFilePaths	Returns the full directoryPath for order only granules
ProcGetOverallSummaries	This procedure gathers the overall count, size in MB, and percent of the Datapool DB.
ProcGetOWSFileAttributes	Retrieves collection information for a science file based on its pathname.
ProcGetProcAttributeInt	Select the integer value of a given attribute name and a store procedure name.
ProcGetQAKeys	This procedure gathers the qaKey for a specific QA parameter and it's science QA flag.
ProcGetQAParamValueKeyMap	This procedure gathers the mapping of qaKey and qaValue.
ProcGetQASummary	This procedure gathers the counts of granules for each qaKey.
ProcGetScienceAquisitionDate	Return BeginningDateTime or EndingDateTime, if the former is not present, or NULL, if both are not present for the specified granule from DsMdGranules table in SDSRV database.
ProcGetScienceGranuleFiles	Identify files associated with a science granule in SDSRV inventory.
ProcGetScienceToDelete	Select all science and metadata files that are in DlFilesToBeDeleted.
ProcGetSdsrvBrowseGranule	Retrieve associated browse granule for the specified science granule from SDSRV inventory.
ProcGetTempDayNightSummary	This procedure gathers the counts of granules for each dayNightKey given a vector of granuleIds. All values of the dimension table are output
ProcGetTempESDTSummary	This procedure gathers the counts of granules for each groupESDTKey given a vector of granuleIds and a groupKey.

Table 3-111. Procedure Listing (10 of 26)

Name	Description
ProcGetTempGranules	This procedure gathers the granule data associated with the given vector of granuleIds.
ProcGetTempGroupSummary	This procedure gathers the counts of granules for each groupKey given a vector of granuleIds.
ProcGetTemporalSummary	This procedure gathers the counts of granules for each temporalKey given a vector of granuleIds and monthKey.
ProcGetTemporalSummaryESDT	This procedure gathers the counts of granules for each temporalKey given an ESDT.
ProcGetTemporalSummaryMkey	This procedure gathers the counts of granules for each temporalKey given a month key.
ProcGetTempOverallSummaries	This procedure gathers the overall count, size in MB, and percent of the Datapool DB for a vector of granuleIds.
ProcGetTempQASummary	This procedure gathers the counts of granules for each qaKey given a vector of granuleIds.
ProcGetTempTemporalSummary	This procedure gathers the counts of granules for each temporalKey given a vector of granuleIds and monthKey.
ProcGetTempTimeOfDaySummary	This procedure gathers the counts of granules for each timeOfDayKey given a vector of granuleIds.
ProcGetTimeOfDaySummary	This procedure gathers the counts of granules for each timeOfDayKey.
ProcGetTotalInsertQueue	Retrieves the total inserts that have not been processed or whose status is not “FAILED”, “CANCELLED”, or “DONE” in the DlInsertActionQueue table.
ProcGetUnconvertedFiles	Returns a list of files enabled for pre-conversion which have not yet been converted.
ProcGetVolumeGroups	Return volume group details
ProcGranuleEligibleForInsert	Based on input params shortname, version and metadata flag, determine what is eligible for insert
ProcInsertAccessRollup	Inserts the rollupdatetime for a specific access rollup period.
ProcInsertAIP	Insert new active process details into DlActiveInsertProcesses
ProcInsertBrowseFile	Insert browse file details into DlBrowseFile; Execute this procedure in chained mode
ProcInsertCollections	Insert a row to the DlCollections table.
ProcInsertCollGrp	Insert a new collection group to DlCollectionGroup table.
ProcInsertDlFile	Insert granule file details into DlFile; Execute this proc in chained mode
ProcInsertFtpGranuleAccess	Inserts data into DlGranuleAccess for access type FTP.
ProcInsertGeotiffFiles	Inserts GeoTiff files for a granule into DlFile.
ProcInsertGranuleBrowseXref	Insert xrefs into DlGranuleBrowseXref
ProcInsertGranuleSubscription	Insert into DlGranuleSubscription; Execute this proc in chained mode

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Name	Description
ProcInsertOWSGranule	Inserts a new row into DlGranuleOWS if not already present.
ProcInsertWebGranuleAccess	Inserts data into DlGranuleAccess for access type http.
ProcIsBrowseFileInventoried	Check if this directory path/filename already exists in DlBrowseFile
ProcIsNonCacheLimitReached	Find if # of nonchache processes in DlActiveInsertProcesses reached config limit
ProcIsOrderOnlyDirInfoPresent	Checks to see if order only dir info is present
ProcIsScienceFileInventoried	Check if this directory path/filename already exists in DlFile
ProcRemoveDeletedBrowse	Removes all browse granules whose browse files have been deleted successfully in a previous run from DlFilesToBeDeleted.
ProcRemoveDeletedLinks	Removes all granules whose browse files have been deleted successfully in a previous run from DlFilesToBeDeleted.
ProcRemoveDeletedSci	Removes all granules whose files have been deleted successfully in a previous run from DlFilesToBeDeleted
ProcRemoveGoodDeletes	Clears all rows which have state equal to zero.
ProcResetMarkers	Clears all markers from DlRecoveryParameters used in recovery.
ProcResolveTemoralKey	This procedure gathers the temporalKey for a specific period range.
ProcResolveTimeOfDayKey	This procedure gathers the timeOfDayKey for a specific period range.
ProcSaveHdfBandsFieldname	Inserts HDF Bands information, including fieldName
ProcSaveHdfFields	Inserts HDF Fields information
ProcSelectGrExpiration	Retrieves the SizeMB, ShortName, VersionId, expirationDate, retentionPriority for a specific granule.
ProcStoreFieldData	Insert field and band info into a temp table
ProcTruncateTempGrans	Truncate DlTempGrans table.
ProcUpdateAIPdbid	Create an image of ‘old’ dbId details in DlActiveInsertProcesses for the specified ‘new’ dbId
ProcUpdateAIPStatus	Update ‘status’ and ‘lastStatusChangeTime’ columns of the specified process to reflect different transition states during insert process
ProcUpdateBadStates	Reset the state of all rows in DlFilesToBeDeleted to 0.
ProcUpdateBrowseDlInsertTime	Update DlInsertTime for the specified browse. Execute this proc in chained mode
ProcUpdateBrowseState	Updates the state of the supplied browse file to 1.
ProcUpdateCollections	Updates the exclusionSCFlag and insertEnabledFlag for a specific collection.
ProcUpdateConfigParms	Updates all configuration parameters in DlConfig.

Table 3-111. Procedure Listing (12 of 26)

Name	Description
ProcUpdateGrExpiration	Updates the expirationDate and retentionPriority for a specific granule.
ProcDeleteTheme	Delete a specified theme from DlThemes
ProcGetAllThemes	Get a list of detailed theme information.
ProcGetGransToBeUpdated	Loads DlGransToBeUpdated temp table from the granules in DlUpdGranulesTemp table.
ProcGetGransToBeUpdatedByTheme	Load into a temporary table, DlGransToBeUpdated temp table, with a list of qualified granules associated with a given theme ID that satisfies the following condition: current expiration date is prior to a specified expiration date (or) current retention priority is less than a specified retention priority.
ProcGetInvalidInputGranules	Select all granules that are invalid for update.
ProcGetThemeByInsertEnabled	Get a list of theme information based on the value of the insertEnabledFlag.
ProcGetThemeId	Get themeId for a given theme name.
ProcGetUpdateGranulesSummary	Obtain summary information from the DlGranulesToBeUpdated temp table based on the status passed in.
ProcGetFilePath	Get xmlFileName based on the insQueueId that passed in.
ProcInsertTheme	Insert a theme into DlThemes.
ProcUpdateGranDlInsertTime	Update DlInsertTime for the specified granule. Execute this proc in chained mode
ProcUpdateGransExpPriority	Update the granules expiration dates and priorities in the DP inventory using information stored in the DlGransToBeUpdated temp table. The steps involved are as follows: Perform granule update in batches using a configured batch size obtained from DlProcAttributes table. Set the state of the granules that have been successfully updated to success (1) in DlGransToBeUpdated table as each batch gets updated. Return the total number and size of granules successfully updated.
ProcUpdateGranState	Update the state of the science granule to 1.
ProcUpdateLinkState	Update the state of the supplied link to 1.
ProcUpdateNonECSCollections	Update a specific Non-ECS collection.
ProcUpdateOWSGranState	Updates the processing state for a granule in table DlGranuleOWS.
ProcUpdateRefreshRate	Updates the parameter RefreshRate in DlConfig table.
ProcUpdateTheme	Updates theme information for a specified theme.
ProcUpdStateToIndexed	Updates the processing state of an OWS granule to indexed.

Table 3-111. Procedure Listing (13 of 26)

Name	Description
ProcDeleteAssocThemeXref	This procedure will remove all granule cross-references from the DlGranuleThemeXref table associated with the granules in the DlFilesToBeDeleted table.
ProcDropGransToBeUpdated	Deletes all existing granules in the DlGransToBeUpdated temp table.
ProcFindDeleteOrphanedBrowse	Insert all orphaned browse into DlFilesToBeDeleted and remove the obsolete browse from the inventory,
ProcGetAllBrowseFiles	This procedure returns a list of browse files in the DlBrowseFile table.
ProcGetAllCollections	Get a list of all collections in DP inventory.
ProcGetAssocGransToBeDeleted	This procedure obtains a list of science granules (science and metadata files) that are associated with the phantom browse granules found in DlTempPhantoms table and inserts them into DlFilesToBeDeleted table.
ProcGetBatchSummary	Get a summary count of granules in the DlInsertActionQueue base on the status of Pending, Completed and Failed for all batch label.
ProcGetBrPhantomsToBeDeleted	This stored procedure puts the phantom browse granules found in DlTempPhantoms table into DlFilesToBeDeleted table.
ProcGetCollectionsByGroupId	This procedure returns the collectionId, ShortName, VersionId for a given collection groupId.
ProcGetFilesInDBByCollGroup	Get a list of science, metadata, browse links and associated browse files for a given collection group order by directoryPath and ilename.
ProcGetGransLimitByTheme	This procedure will insert into DlFilesToBeDeleted all files for granules associated with a specific theme ID which have expired and have priority less than a given limit and not associated with any other theme.
ProcGetSciPhantomsToBeDeleted	This stored procedure puts the phantom science granules found in DlTempPhantoms table into DlFilesToBeDeleted table.
ProcGetThemeByWebEnabled	Get a list of theme information based on the value of the webVisibleFlag.
ProcIsValidCollGroup	This procedure validates if a specified collection groupId exists in the Data Pool.
ProcRemoveThemeXref	This stored procedure removes all rows from the DlGranuleThemeXref table for a specific theme ID.
ProcTruncateFilesToBeDeleted	This procedure truncates the DlFilesToBeDeleted table.
ProcTruncateTempPhantoms	This procedure truncates the DlTempPhantoms table.
ProcCartAddOrder	This procedure inserts a new order into the DlCartOrder table if there is room.
ProcCartAddOrderItem	This procedure inserts a new order item into the DlCartOrderItem table.

Table 3-111. Procedure Listing (14 of 26)

Name	Description
ProcCartAddOrderItemBand	This procedure inserts band information for an existing order.
ProcCartHEGGetBands	This procedure gets HEG band info for a specified itemId.
ProcCartHEGGetNewWork	This procedure allows the HEG Frontend to look for new work.
ProcCartMarkFailedItems	This procedure allows the Packager component of Webaccess cart to mark order items as failed if the link script failed for any reason.
ProcCartPkgGetNewWork	This procedure allows the Packager component of Webaccess cart to check for orders to complete.
ProcCartUpdateOrderItemStatus	This procedure updates the status field in the DlCartOrderItem table.
ProcCartUpdateOrderStatus	This procedure updates the status and notes field in the DlCartOrder table.
ProcCleanUpECSIds	This procedure deletes all rows in DlECSIdsToInsert containing this connection's spid (@pid).
ProcCleanUpXMLFiles	This procedure deletes all rows in DlXMLFilesToInsert containing this connection's spid (@pid).
ProcCountPhantomBrowse	This procedure returns the number of phantom browse files found.
ProcCountPhantoms	This procedure returns the number of phantom files found.
ProcCountPhantomsDeleted	This procedure will count the phantoms from the DlFilesToBeDeleted table.
ProcDeleteIneligibleGranuleIds	This procedure gets all ECS ids of granules from DlECSIdsToInsert that are ineligible for insert for the following reasons: Already queued in DlInsertActionQueue Marked as DFA or logically deleted in SDSRV DB Not in SDSRV DB In collection not enabled for insert
ProcGetBandsForGranule	This procedure returns a table of band information for a specified granuleId.
ProcGetGranuleFiles	This procedure retrieves file metadata based on data type.
ProcGetNonSCMetadata	This procedure retrieves metadata based on data type.
ProcGetECSCollXMLFiles	This procedure gets all XML filenames for granules ineligible for insert because they are in an ECS collection.
ProcDeleteIneligibleXMLFiles	This procedure deletes all xml files from DlXMLFilesToInsert that are ineligible for insert for the following reasons: Associated with non-existent collection Already queued in DlInsertActionQueue In collection not enabled for insert

Table 3-111. Procedure Listing (15 of 26)

Name	Description
ProcDpadDeleteProcess	This procedure deletes a DPAD process either by ECS ID or by XML file name.
ProcDpadDeleteProcessByEcsId	This procedure deletes a DPAD process by ECS ID.
ProcDpadDeleteProcessByXml	This procedure deletes a DPAD process by XML filename.
ProcGetBatchLabels	This procedure returns all unique batch label from DlInsertActionQueue.
ProcGetCollectionId	This procedure returns the collectionId from DlCollections table.
ProcGetCollInsertEnabledFlag	This procedure returns the value of insertEnabledFlag from DlCollections table.
ProcGetDbIdFromLocGranId	This procedure gets the dbId(s) for a local granule id.
ProcGetDeletedGranIds	This procedure gets all ECS ids of granules from DlECSIdsToInsert that are ineligible for insert because they are marked as DFA or logically deleted in SDSRV DB.
ProcGetEcsBrowseGranuleFiles	This procedure identifies files associated with a browse granule in SDSRV inventory.
ProcGetEcsBrowseInternalId	This procedure gets DPL internal browse id base on the ecsid.
ProcGetEcsGranuleId	This procedure retrieves the granuleId from the DlGranules table, based on the provided ecsid.
ProcGetEcsMissingXrefInfo	This procedure gets DPL granules are yet to be linked to this browse.
ProcGetEcsScienceInternalId	This procedure gets DPL internal granuleId based on the ecsid.
ProcGetEDGDatapoolInfo	This procedure retrieves all necessary URL information for a particular ecs granule id to allow the EDG to display DPL inventory information to a user.
ProcGetHEGToDelete	This procedure gets all cart orders that are qualified for deletion.
ProcGetNoCollGranIds	This procedure gets all ECS ids of granules from DlECSIdsToInsert that are ineligible for insert because their collections are not in DlCollections.
ProcGetNoCollXMLFiles	This procedure gets all XML filenames for granules from DlXMLFilesToInsert that are ineligible for insert because their collections are not in DlCollections.
ProcGetNoInsertGranIds	This procedure gets all ECS ids of granules from DlECSIdsToInsert that are ineligible for insert because they are in collections not enabled for insert.
ProcGetNoInsertXMLFiles	This procedure gets all XML filenames for granule from DlXMLFilesToInsert that are ineligible for insert because they are in a collection not enabled for insert.
ProcGetNonEcsBrowseFiles	This procedure gets files associated with a browse in DPL inventory.

Table 3-111. Procedure Listing (16 of 26)

Name	Description
ProcGetNonEcsBrowseInternalId	This procedure gets DPL internal browse id based on ecsid.
ProcGetNonEcsGranuleFiles	This procedure gets the filename and filetype for a non-ecs granule.
ProcGetNonEcsScienceInternalId	This procedure gets DPL internal granule id based on ecsid.
ProcGetNonExistGranIds	This procedure gets all ECS ids of granules from DlECSIdsToInsert that are ineligible for insert because they are not in SDSRV database.
ProcGetNonExistGrans	This procedure reads through the DlTempGrans temporary table (built from the user input file) and reports any granules not found in the DlGranules table.
ProcGetOrderMgtConfig	This procedure gets order management operator config parameters
ProcGetPhantomBrowseDetails	This procedure gets a list of phantom browse files from DlFilesToBeDeleted.
ProcGetPhantomDetails	This procedure gets a list of phantoms from DlFilesToBeDeleted.
ProcGetQueuedGranIds	This procedure gets all ECS ids of granules from DlECSIdsToInsert that are ineligible for insert because they are already queued in DlInsertActionQueue.
ProcGetQueuedXMLFiles	This procedure gets all XML filenames for granule from DlXMLFilesToInsert that are ineligible for insert because they are already queued in DlInsertActionQueue.
ProcGetScienceFileGranuleId	
ProcGetScienceQAKey	This procedure returns the QA keys based on the specified parameter name and the QA flag.
ProcGetSCToBeDeleted	This procedure puts the granuleId into a temp table, which use for cleanup the DPL inventory.
ProcGetSDSRVData	This procedure loads all necessary granule data from SDSRV database DsMdGranules table into temp table for subsequent processing.
ProcGetTempThemeSummary	This procedure gets count of granules grouped for each theme category given a vector of granuleIds.
ProcGetThemeByBeginningLetter	This procedure returns the theme information based on the beginning letter of a theme.
ProcGetThemeByFilters	This procedure returns the theme information based on the filters that pass in.
ProcGetThemeData	This procedure gets the themeId and insertEnabledFlag for a theme name.
ProcGetThemeKey	This procedure returns all theme key.
ProcGetThemeKeyMap	This procedure returns the value key map for theme search.
ProcGetThemeSummary	This procedure returns granule count for each theme.
ProcGetUniqueId	This procedure returns a unique DPL internal id based on the object type.

Table 3-111. Procedure Listing (17 of 26)

Name	Description
ProcGetUniqueIDOutput	This procedure returns a unique DPL internal id as part of the output parameter based on the object type.
ProcGetXMLFilePath	
ProcInsertBrowse	This procedure inserts a row into DlBrowse table.
ProcInsertECSActions	This procedure inserts actions for granules in DlECSIdsToInsert into DlInsertActionQueue table.
ProcInsertGranules	This procedure inserts a granule into DlGranules table.
ProcInsertGranuleTemp	This procedure inserts into myGranulesTable for web access.
ProcInsertGrExpirationPriority	This procedure inserts a row into DlGranuleExpirationPriority table.
ProcInsertMeasuredParameter	This procedure inserts a row into the DlMeasuredParameter table.
ProcInsertNonECSActions	This procedure inserts actions for granules in DlXMLFilesToInsert into DlInsertActionQueue table.
ProcInsertNonECSCollections	This procedure inserts a non-ecs collection into DPL.
ProcInsertNonEcsGranule	This procedure inserts a row into DlGranules for non-ecs granule.
ProcInsertOrbitCalSpatial	This procedure inserts a row into DlOrbitCalculatedSpatial table.
ProcInsertXMLInfo	This procedure inserts info for a non-ECS XML file into the DlXMLFilesToInsert table.
ProcIsCollectionEcs	This procedure gets ecsFlag value for a specified ESDT.
ProcIsEcsBrowseInDataPool	This procedure checks whether the specified browse is present in DPL inventory.
ProcIsEcsGranuleProcessing	This procedure checks whether the specified granule is present in DPL inventory.
ProcIsEcsSCGranuleInDataPool	This procedure checks whether a record with the specified dbId exists in DlActiveInsertProcesses.
ProcIsGranuleThemeXref	This procedure determines whether a granule theme cross-reference exists in DlGranuleThemeXref.
ProcIsNonEcsBrowseInDataPool	This procedure determines whether a non-ecs browse exists in DPL.
ProcIsNonEcsBrowseReady	This procedure checks whether the browse exists for the granule.
ProcIsNonEcsGranuleInDataPool	This procedure determines whether a non-ecs granule exists in DPL.
ProcIsNonEcsGranuleInserted	This procedure checks whether the granule exists in DlGranules.
ProcDelQaUpdates	This procedure deletes rows in QA working tables that have xmlUpdateFlag = ‘Y’
ProcGetDayNightFlagKey	This procedure returns the keys for day night search.

Table 3-111. Procedure Listing (18 of 26)

Name	Description
ProcGetQa	This procedure gets QA update data from working tables for ecsId
ProcGetXmlFileName	This procedure gets the xml filename from DlFile for an ecsId
ProcIsNonEcsGranuleProcessing	This procedure checks whether a record with the specified non-ecs granule exists in DlActiveInsertProcesses.
ProcIsNonEcsGranuleReady	This procedure checks whether a bunch of external granuleids already in DPL when a browse arrives alone.
ProcIsSciGranGlobal	Retrieves the info to if the specified science granule is a global granule or not. The client code will implement the rules for global granules determination.
ProcIsThemeEnabled	This procedure checks whether insert enabled for a specified theme.
ProcMakeThemeRetroactive	This procedure associates all granules in the data pool which were previously inserted because of a subscription with theme that is now associated with that subscription.
ProcNumOfObjects	This procedure returns the tables, procedures, triggers and view count for the database.
ProcOSGetDplDeletedURL	This procedure retrieves the deleted granuleId(s) from DPL.
ProcOSGetDplURL	This procedure retrieves ftp URLs.
ProcPopulateDlQAUpdFlagTemp	This procedure will populate the DlQAUpdFlagTemp.
ProcRemoveThemeXrefForThemes	This procedure removes all rows from DlGranuleThemeXref table for a specific theme ID as long as there is an associated entry in the DlFilesToBeDeleted table.
ProcSetXmlUpdFlag	This procedure updates xmlUpdateFlag to ‘Y’.
ProcThemeEnabledForInsert	This procedure checks whether the theme is enabled for DPL insert.
ProcUpdateDirectoryPath	
ProcUpdateHEGOrder	This procedure updates the archiveFlag for a specified ordered.
ProcUpdateIsOrderOnlyFlag	This procedure updates the value of the isOrderOnly column in DlGranules.
ProcUpdateOrderMgtConfig	This procedure updates order management operator config parameters
ProcUpdatePeriodPriority	This procedure updates the retentionPriority and expiration date based on the provided granuleId.
ProcUpdateQa	This procedure updates the DlMeasuredParameter table for the ecsId with new science & operational QA value and explanation.
ProcUpdNonEcsGranInsertTime	This procedure updates the insert time for non-ecs granules.
ProcCheckActiveInsertProcesses	This procedure retrieves the value of insertEnabledFlag for an ESDT.

Table 3-111. Procedure Listing (19 of 26)

Name	Description
ProcDeleteCloudCover	This procedure deletes from the DlGrCloudCover table for all granules in DlFilesToBeDeleted.
ProcDeleteGranule	Remove the granule and specified cross-references.
ProcDeleteGranuleTiles	This procedure deletes from DlGranuleTiles table for all granules in DlFilesToBeDeleted.
ProcDeleteGranuleHdfObjectXref	Deletes HDF-object xref info for a granule
ProcDeleteGRHdfObjectsXref	This procedure deletes from DlGranuleHdfObjectsXref table for all granules in DlFilesToBeDeleted.
ProcDeleteLinkedGran	Remove the linked granule for a specified granule.
ProcDeleteOMSGranule	This procedure deletes from DlOMSGranules table for all granules in DlFilesToBeDeleted.
ProcDeleteOrderGranuleN	Remove granule information for a specified granule.
ProcDeleteSingleGranuleN	Remove granule information for a specified granule.
ProcGetBrowseMetadata	Creates an XML string containing minimal SDSRV information for a browse granule.
ProcGetCollsInDelFiles	This procedure searches through DlFilesToBeDeleted and get the distinct collection/VersionIds.
ProcGetDeletedECSGrans	This stored procedure will collect the rows from the science database which have been marked for deletion.
ProcGetFSInfoByESDT	This procedure returns the file system info for an ESDT.
ProcGetInsertEnabledFlag	This procedure retrieves the value of insertEnabledFlag for an ESDT.
ProcGetOfflineCollections	This procedure searches through the DlTempGrans table and identify which collections are on file systems that are marked unavailable. ShortName and VersionId for collections with cleanup candidates are passed back.
ProcGetQaGranIds	This procedure gets granuleId and xmlUpdateFlag to load into memory.
ProcGetRecoveryParams	This procedure returns command-line and configuration parameters from an interrupted run.
ProcGetUncleanOMSGranulesInfo	This procedure removes granules and orphan browses that are still using by OMS from DlFilesToBeDeleted.
ProcInsertRecoveryParams	This procedure inserts a new row into DlRecoveryParameters for the cleanup utility.
ProcInsOMSGransForCleanup	This procedure inserts granules and orphaned browse that will delete by cleanup into DlOMSGranules table.
ProcRemapCollToGrp	This procedure updates all the tables to change the group mapping info with the new group.
ProcUncleanOMSGranules	This procedure removes granules and orphaned browse that are still using by OMS from DlFilesToBeDeleted.
ProcUpdateCollToGrpMapping	This procedure updates the groupId for an ESDT.
ProcUpdateRecoveryParams	This procedure updates or inserts a row in DlRecoveryParameters for the utility based upon whether or not it already exists.

Table 3-111. Procedure Listing (20 of 26)

Name	Description
ProcDeleteIAQ	This procedure deletes a row from DlInsertActionQueue for a specified actionQueueId.
ProcDeleteOMSGranules	This procedure deletes a row in DlOMSGranules for a specified granuleId.
ProcGetCloudCoverSummary	This procedure retrieves cloud cover information for all collections.
ProcGetCollectionDir	This procedure would list collection level directories
ProcGetFileInfo	This procedure retrieves file information for a specified granuleId.
ProcGetFilesInDir	This procedure will return a list of files inserted in specified period for a given directory
ProcGetFSGrpESDTMappings	This procedure returns the file system, collection group, ESDT mapping
ProcGetQualitySummary	This procedure retrieves quality summary for a collection.
ProcGetTopDirEntry	This procedure will list unique short name & version Id of files inserted on specified date.
ProcInsertOMSAction	This procedure inserts a row in DlInsertActionQueue for an OMS action.
ProcInsertOMSGranule	This procedure inserts a row in DlOMSGranules for a specified granuleId.
ProcInsNonECSOMGranule	This procedure inserts a row in DlOMSGranules for a specified granuleId.
ProcInsNonECSOMGranule	This procedure inserts a row in DlOMSGranules for a specified granuleId.
ProcIsCollEmpty	This procedure checks whether the collection has any granules.
ProcIsCollGrpValid	This procedure checks whether the group is valid.
ProcIsCollMapToCollGrp	This procedure checks whether the specified collection maps to the specified collection group.
ProcIsCollValid	This procedure checks whether the specified collection is valid.
ProcIsEcsSCGranuleInDP	This procedure checks whether this specified granule is present in DataPool inventory.
ProcIsNonECSGranuleInDP	This procedure checks whether this specified NON-ECS granule is present in DataPool inventory.
ProcPopulateOMSTmpGranfiles	This procedure populates the OMS #GRANFile for stored procedure OmInsBulkGranules in OMS database.
ProcPopulateOMSTmpGranules	This procedure populates granule information for OMS table #Granules in stored procedure OmInsBulkGranules in OMS database.
ProcCanRemoveBrowse	This procedure removes browse association for a specified granule.
ProcDeleteAssociatedBrowse	This procedure removes the browse granule for a specified granule.

Table 3-111. Procedure Listing (21 of 26)

Name	Description
ProcGetCloudCoverSourceInfo	This procedure retrieves cloud cover information for a specified ESDT.
ProcGetCollInfo	This procedure retrieves collection level information for a specified ESDT.
ProcGetESDTsAvailability	This procedure checks the availability for the list of granules.
ProcGetESDTSkipFlags	This procedure returns the skip flags for a specified ESDT.
ProcGetOrbitIntersects	This procedure gets a list of spatialKey based on a search of DlDimensionPolygonXref.
ProcGetOVDplBrowseFiles	This procedure returns the directoryPath, filename for the files associated for a specified granule.
ProcGetSpatialSummary	This procedure returns the density map for a specified ESDT.
ProcGetTempCloudCoverSummary	This procedure retrieves cloud cover information for an ESDT.
ProcGetTempSpatialSummary	This procedure returns the density map for a specified ESDT.
ProcInsertGranuleHdfObjectXref	This procedure inserts HDF information for a specified granule.
ProcInsertGranuleTiles	This procedure inserts spatial information for a granule.
ProcInsertGrCloudCover	This procedure inserts cloud cover information for a granule.
ProcIsMFSOnInsert	This procedure checks whether DPAD should use the Multiple File System procs.
ProcIsSysLevCompOn	This procedure retrieves theparameter value of CompressOnInsert from DlConfig.
ProcSaveHdf4thDimensions	This procedure inserts the HDF 4th dimension information into DlHdf4thDimensions table.
ProcSaveHdfBands	This procedure inserts the HDF band information into DlHdfBands.
ProcSaveHdfObjects	This procedure inserts HDF objects information.
ProcUpdateCollectionGridLevel	This procedure returns the gridLevel for a specified ESDT.
ProcUpdateDlStatESDT	This procedure updates the DlStatESDT table.
ProcUpdateDlStatGroupESDT	This procedure updates the DlStatGroupESDT table.
ProcUpdateDlStatTheme	This procedure updates the DlStatTheme table.
ProcUpdateFSFreeSpace	This procedure updates the freeSpaceFlag for a specified file system.
ProcGetAssociatedMisrL1	This procedure returns a lists of MISR L1 granules that can be associated to the current MISR BROWSE granule(AN).
ProcGetAssociatedMisrL2	This procedure returns a lists of MISR L2 granules that can be associated to the current MISR BROWSE granule
ProcGetDplCameraId	This procedure retrieves the misrCameraId fro DlOrbitCalculatedSpatial.

Table 3-111. Procedure Listing (22 of 26)

Name	Description
ProcGetFileSystemPath	This procedure returns the absolute file system path and groupId for a specified collection.
ProcGetMisrBrowseEsdts	This procedure returns a list of configured MISR Browse ESDTs.
ProcGetMisrL1Esdts	This procedure returns a list of configured MISR L1 ESDTs.
ProcGetMisrL2Esdts	This procedure returns a list of configured MISR L2 ESDTs.
ProcGetOVDplGranuleFiles	This procedure returns directoryPath and filename for a specified granule.
ProcGetSDSRVCheckSum	This procedure retrieves a checksum based upon internalFileName from SDSRV database.
ProcGetSdsrvL1MisrBRGranule	This procedure returns a list of SDSRV granules that have the same WRSpath, OrbitNumber, and cameraId as the current granule.
ProcGetSdsrvL2MisrBRGranule	This procedure returns a list of SDSRV granules that have the same WRSpath, OrbitNumber, and cameraId as the current granule and associate to the MISR L2 granule.
ProcGetUserFileName	This procedure returns LocalGranuleID as userFileName if LocalGranuleId exists for the specified granule; otherwise, returns the userDataFile from DsMdFileStorage in SDSRV database.
ProcInsertGranuleBrowseXref	This procedure inserts MISR and MISR Browse granule association.
ProcInsertMisrBrowse	This procedure inserts the MISR browse metadata into DlBrowse.
ProcIsDoubleInsertNeeded	This procedure verifies whether a double insert is needed for a specified collection.
ProcIsGrReplacementNeeded	This procedure checks whether granule replacement is needed.
ProcIsLevel1ProcessingOn	This procedure verifies whether MISR L1 ESDT processing is on.
ProcIsLevel2ProcessingOn	This procedure verifies whether MISR L2 ESDT processing is on.
ProcIsMisrProcessingOn	This procedure verifies whether MISR processing is on.
ProcRemoveActiveInsertProcess	This procedure removes a row from DlActiveInsertProcesses for a specified ecsId.
ProcDeactivateCompAlgorithm	This procedure deactivates a compression algorithm.
ProcDeleteBackfilledOMSInfo	This procedure removes all OMS information from the tables that are backfilled because it is an order only granule.
ProcDeleteCloudCoverSource	This procedure deletes a specified cloud cover source.
ProcDeleteSingleBrowse	This procedure deletes a browse.
ProcGetAllCloudSource	This procedure retrieves a list of cloud cover source information.
ProcGetAssociatedCollections	This procedure returns all collections for compression algorithms.

Table 3-111. Procedure Listing (23 of 26)

Name	Description
ProcGetChecksumByFile	This procedure returns the checksumType and checksumValue for a specified file from the SDSRV database.
ProcGetCloudSourceId	This procedure returns the cloudSourceId for a specified sourceName, sourceType.
ProcGetCompAlgorithms	This procedure returns all compression algorithms.
ProcGetDplGranuleXmlFile	This procedure returns the directoryPath and the xml filename for a specified granule.
ProcGetESDTSummaries	This procedure returns the total granule count and granule size for a specified ESDT.
ProcGetFileSystemLabels	This procedure returns a list of file system labels.
ProcGetFileSystemsInfo	This procedure returns all file systems information.
ProcGetInsertQueueByFilters	This procedure returns the insert queue information based on the filters.
ProcInsertCloudCoverSource	This procedure inserts a row into DlCloudCoverSource.
ProcInsertCompAlgorithm	This procedure inserts compression algorithms.
ProcInsertFileSystem	This procedure inserts a row for a file system.
ProcIsCollHasCloudCoverGrans	This procedure checks whether there are any granules that have cloud cover information for a specified ESDT.
ProcIsOMSGranule	This procedure verifies whether the specified granule is an order only granule.
ProcPopulateMeasuredParams	This procedure inserts the missing measured parameter information for order only granule.
ProcSetDisplayAIPChunkSize	This procedure updates the parameter value for DisplayAIPChunkSize parameter in DlConfig.
ProcSwitchToTapeProcess	This procedure updates the inCacheFlag when a granule is not in cache.
ProcUnflagOMSGranule	This procedure resets the isOrderOnly flag to null.
ProcUpdateCloudCoverSource	This procedure updates the specified cloud cover source.
ProcUpdateCompAlgorithm	This procedure updates the specified compression algorithms.
ProcUpdateFileSystem	This procedure updates a file system.
ProcClearMoveFlag	This procedure resets the move flag in DlCollections table.
ProcCopySdsrvApInventory	This procedure copys the AP granule information from SDSRV.
ProcCopySdsrvDapInventory	This procedure copys the DAP granule information from SDSRV.
ProcCopySdsrvInventory	This procedure calls another copy inventory proc base on the granule type.
ProcCopySdsrvPhInventory	This procedure copys the PH granule information from SDSRV.
ProcCopySdsrvQaInventory	This procedure copys the QA granule information from SDSRV.

Table 3-111. Procedure Listing (24 of 26)

Name	Description
ProcCopySdsrvSsapInventory	This procedure copys the SSAP granule information from SDSRV.
ProcCountPhantomBrowse	This procedure returns the number of phantom files found.
ProcCountPhantoms	This procedure returns the number of phantom browse files found.
ProcDeleteCollection	Deletes a single collection from the DPL DB.
ProcDeleteOrderGranule	This procedure removes Datapool inventory for order-only granule.
ProcDelRecoveryParams	This procedure deletes rows from DlRecoveryParameters bases on the parameter.
ProcGetAcquisitionDate	This procedure retrieves the acquisition date.
ProcGetAgingConfigInfo	This procedure retrieves the aging configuration information from DlAgingConfig.
ProcGetAIPByStatusTime	This procedure retrieves all rows from the DlActiveInsertProcesses table by descending status time
ProcGetAIPStatusFilters	This procedure retrieves NumOfAllowedInsertProcesses, NumOfAllowedCacheProcesses,NumOfAllowedNonCacheProcesses, RefreshRate from the DlConfig table.
ProcGetApGranuleFiles	This procedure retrieves the datat files for an AP granule.
ProcGetApMetadata	This procedure retrieves metadata information for an AP granule and uses for generate the XML file.
ProcGetBandsForGranule	This procedure retrieves the band information for a granule.
ProcGetBrowseFileBrowseId	This procedure retrieves the browse id for a browse file.
ProcGetCartOrderItemInfo	This procedure retrieves the cart order item information.
ProcGetCollPath	This procedure retrieves the collection path.
ProcGetDapGranuleFiles	This procedure retrieved the data files for a DAP granule.
ProcGetDapMetadata	This procedure retrieves the metadata information for an DAP granule and uses for generate the XML file.
ProcGetFileVolumeGroup	Retrieve stmgt Volume related info based on specified granule or browse id's insert time.
ProcGetGroupESDTKey	This procedure retrieves the group ESDT key.
ProcGetHiddenGranIds	This procedure retrieves all ecs ids in DlECSIdsToInserts that are ineligible due to DFA or logically deleted in SDSRV DB.
ProcGetNonSCAcquisitionDate	This procedure retrieves the acquisition date for a non-science granule.
ProcGetOrderedFiles	This procedure retrieves the ordered files.
ProcGetOrderOnlyCollPath	This procedure retrieves the absoluteFileSystemPath and groupId for a specified ESDT.
ProcGetOrderOnlyFilePath	This procedure returns the full directoryPath for an given granule.
ProcGetOrderOnlyFSInfoByESDT	This stored procedure will return the file system info for a specified ESDT.

Table 3-111. Procedure Listing (25 of 26)

Name	Description
ProcGetPhGranuleFiles	This procedure retrieves the data files for a PH granule.
ProcGetPhMetadata	This procedure retrieves the metadata information for PH granule and uses for generate the XML file.
ProcGetQaGranuleFiles	This procedure retrieves the data files for QA granule.
ProcGetQaMetadata	This procedure retrieves the metadata information for QA granule and uses for generate the XML file.
ProcGetQualitySummary	This procedure retrieves the quality summary info from DlCollections table for an ESDT.
ProcGetSpatialSummary	This procedure returns the density map for a specified ESDT.
ProcGetSsapGranuleFiles	This procedure retrieves the data files for SSAP granule.
ProcGetSsapMetadata	This procedure retrieves the metadata information for SSAP granule and uses for generate the XML file.
ProcGetStatusCount	This procedure retrieves the count base on status.
ProcGetTimeOfDaySummary	This procedure retrieves the time of day summaries for a collection.
ProcInsDeletedGranByLimit	This procedure inserts the granules in the temp table base on the priority limit and expiration date.
ProcInsDeletedGranByTheme	This procedure inserts the granules in the temp table base on a theme.
ProcInsertThemeXref	This procedure inserts rows in DlGranuleThemeXref table.
ProcIsDoubleInsertNeeded	Verified whether a double insert is needed for a specified collection.
ProcSetMoveFlag	This procedure sets the move flag in DlCollections table.
ProcUpdateFSInClearAlert	Wrapper stored proc used by InClearAlert
ProcUpdateFSInColdRCleanup	Wrapper stored proc used by InColdRestartCleanup
ProcUpdateFSInCreateAlert	Wrapper stored proc used by InCreateAlert
ProcUpdateFSInInfo	Wrapper stored proc used by InUpdateFSInfo
ProcUpdateFSSuspResume	Wrapper stored proc used by InSuspResumeFS
ProcUpdateQueueStatus	This procedure updates the status in DlInsertActionQueue.
ProcUpdateActiveProcess	This procedure updates the active process in DlActiveInsertProcesses table.
ProcUpdateAgingInfo	This procedure updates the aging configuration.
ProcUpdCollFileSys	This procedure updates the file system label for a collection.
ProcUpdOrderOnlyCollFileSys	This procedure updates the order only file System path mapping for a specified ESDT
ProcUpdOrderOnlyGrpDirName	This proc creates order only hidden collection group entries in the DPL database.
ProcUpdOrderOnlySNDirName	This proc updates the orderOnlySNDirName column in DlCollections for a given ESDT. If there are granules associated with the ESDT, then update the shortname portion of the directoryPath for the granules in DlFile

Table 3-111. Procedure Listing (26 of 26)

Name	Description
ProcGetInsertQueueAll	Get queue information for all requests that have batchLabel; based upon the status of the requests.
ProcGetDplBrowseFiles	Returns the directorypath and filename for the files associated with the specified browse granule.
ProcGetDplGranuleFiles	Returns the directorypath and filename for the files associated with the specified granule.
ProcUpdateCollGrp	Update collection group.
Sp_thresholdaction	Action to take when crossing the threshold.
Datawarning	Prine warning message when data segment threshold is crossed.
Logdump	Prine message and dump the transaction log when log segment threshold is crossed.
Logwarning	Prine warning message when log segment threshold is crossed.

3.2 File Usage

There are cases when the implementation of a persistent data requirement is better suited to a flat file than to a database table. A typical example of such data is system configuration information. System configuration information is fairly static and usually has no explicit relationship to other data in the enterprise. Another common use of files in ECS is as an interface mechanism between ECS and the external world. Files utilized in Data Pool are described herein.

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. Sybase 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 Data Pool is provided in Table 4-1 Index Type Key. A list and description of 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
C	Clustered or non-clustered index
Sort	ASC (ascending) or DESC (descending) order

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

Table Code	Index Code	PK	FK	U	C
EcDbDatabaseVersions	EcDbDatabaseVersionsPkConstr	Yes	No	Yes	Yes
DlAccessRollup	DlAccessRollUpPkConstr	Yes	No	Yes	Yes
DlActiveInsertProcesses	DlActiveInsertProcessEcsIdIdx	Yes	No	Yes	Yes
DlActiveInsertProcesses	DlAIPPkConstr	Yes	No	Yes	Yes
DlAdAlert	PK_DLADALERT	Yes	No	Yes	Yes
DlAdMessages	PK_DLADMESSAGES	Yes	No	Yes	Yes
DlAgingConfig	DlAgingConfigPkConstr	Yes	No	Yes	Yes
DlBoundingRectangle	xDlBoundingRectangle	No	No	No	Yes
DlBoundingRectangle	DlBoundingRectanglePkConstr	Yes	Yes	Yes	No
DlBrowse	DlBrowsePkConstr	Yes	No	Yes	Yes
DlBrowse	DlBrowseEcsIdIdx	No	No	No	No

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

Table Code	Index Code	PK	FK	U	C
DlBrowse	DlBrowseExternalIdIdx	No	No	No	No
DlBrowseFile	DlBrowseFileBrowseIdIdx	No	No	No	No
DlBrowseFile	DlBrowseFilePkConstr	Yes	Yes	Yes	Yes
DlCartOrder	DlCartOrderPkConstr	Yes	No	Yes	Yes
DlCartOrderItem	DlCartOrderItemPkConstr	Yes	No	Yes	Yes
DlCartOrderItemBand	DlCartOrderItemBandItemIdIdx	No	No	No	No
DlCloudCoverSource	DlCloudCoverSourcePkConstr	Yes	No	Yes	Yes
DlCollectionGroup	DlCollectionGroupPkConstr	Yes	No	Yes	Yes
DlCollections	DlCollectionPkConstr	Yes	No	Yes	Yes
DlCollections	DlCollShortNameVIdIdx	No	No	No	No
DlCompressionAlgorithms	DlCompAlgorithmsPkContr	Yes	No	Yes	Yes
DlConfig	DlActionConfigPkConstr	Yes	No	Yes	Yes
DlDimensionDayNight	DlDimensionDayNightPkConstr	Yes	No	Yes	Yes
DlDimensionGroupESDT	DlDimensionGroupESDTPkConstr	Yes	No	Yes	Yes
DlDimensionGroupESDT	DlDimensionGrpESDTgrpValueIdx	No	No	No	No
DlDimensionMP	DlDimensionMPPkConstr	Yes	No	Yes	Yes
DlDimensionMP	DlDimensionMPqaKeyqaValIdx	No	No	No	No
DlDimensionMP	DlDimensionMPqaValIdx	No	No	No	No
DlDimensionMPScienceQA Xref	DlDimMPScienceQAXrefPkConstr	Yes	No	Yes	Yes
DlDimensionMPScienceQA Xref	DlDimMPSCQAXrefqaNameKeyIdx	No	No	No	No
DlDimensionPolygonXref	DlDimensionPolygonXrefPkConstr	No	No	Yes	No
DlDimensionScienceQA	DlDimensionScienceQAPkConstr	Yes	No	Yes	Yes
DlDimensionSpatialT6All	DlDimensionSpatialIdx	No	No	No	Yes
DlDimensionSpatialT6All	DlDimensionSpatialT6PkConstr	Yes	No	Yes	No
DlDimensionTemporal	DlDimensionTemporalPkConstr	Yes	No	Yes	Yes
DlDimensionTemporal	DlDimensionTemporalTypeIdx	No	No	No	No
DlDimensionTimeOfDay	DlDimensionTimeOfDayPKConstr	Yes	No	Yes	Yes
DlECSIdsToInsert	DlECSIdsToInsertPkConstr	Yes	No	Yes	Yes
DlESDTCurrentDensityMap	DlESDTCurrentDensityMap	Yes	No	Yes	Yes
DlESDTCurrentDensityMap	DlESDTCurrDensityMapPkConstr	Yes	No	Yes	Yes
DlFactDayNight	DlFactDayNightPkConstr	Yes	No	Yes	Yes
DlFactDayNight	DlFactDayNightIdx	No	No	No	No
DlFactGroupESDT	DlFactGroupESDTPkConstr	Yes	No	Yes	Yes
DlFactGroupESDT	DlFactGroupESDTIdx	No	No	No	No
DlFactQA	DlFactQAPKConstr	Yes	No	Yes	Yes
DlFactQA	DlFactQAIdx	No	No	No	No
DlFactTemporalRange	DlFactTemporalRangePkConstr	Yes	Yes	Yes	Yes
DlFactTemporalRange	DlFactTemporalRangeCollMXDK	No	No	No	No

Table 4-2. Index List (3 of 4)

Table Code	Index Code	PK	FK	U	C
DlFactTemporalRange	DlFactTemporalRangeCollMXWK	No	No	No	No
DlFactTemporalRange	DlFactTemporalRangeCollMXMK	No	No	No	No
DlFactTimeOfDay	DlFactTimeOfDayPkConstr	Yes	No	Yes	No
DlFactTimeOfDay	DlFactTimeOfDayIdx	No	No	No	No
DlFile	DlFileDirectoryPathIdx	No	No	No	No
DlFile	DlFilePkConstr	Yes	No	Yes	Yes
DlFile	DlFileGranuleIdIdx	No	Yes	No	No
DlFileSystems	DlFileSystemsPkContr	Yes	No	Yes	Yes
DlFilesToBeDeleted	DlFilesToBeDeletedDbidsIdx	No	No	No	No
DlFtpAccessLog	DlFtpAccessLogIdx	No	No	No	Yes
DlGPolygon	xDlGPolygon	No	No	No	Yes
DlGPolygon	DlGPolygonPkConstr	Yes	Yes	Yes	No
DlGrCloudCover	DlCoudCoverPkConstr	Yes	Yes	Yes	Yes
DlGranuleAccess	DlGranuleAccessdbIdIdx	No	No	No	No
DlGranuleAccess	DlGranuleAccessAccTimeIdx	No	No	No	No
DlGranuleBrowseXref	DlGranuleBrowseXrefBrowseIdIdx	No	No	No	No
DlGranuleBrowseXref	DlGranuleBrowseXrefPkConstr	Yes	Yes	Yes	Yes
DlGranuleExpirationPriority	DlGranExpirPriorityPkConstr	Yes	Yes	Yes	Yes
DlGranuleHdfObjectsXref	DlGranHdfObjXrefGIdObjIdIdx	No	Yes	No	No
DlGranuleSubscription	DlGranuleSubPkConstr	Yes	No	Yes	Yes
DlGranuleThemeXref	DlGranuleThemeXrefPkConstr	Yes	Yes	Yes	Yes
DlGranuleTiles	DlGranuleTilesCollInsTimeIdx	No	No	No	Yes
DlGranuleTiles	DlGranuleTilesPkConstr	Yes	Yes	Yes	No
DlGranules	DlGranulePkConstr	Yes	No	Yes	Yes
DlGranules	DlGranulesEcsIdIdx	No	No	No	No
DlGranules	DlGranulesExternalIdIdx	No	No	No	No
DlGranules	DlGranulesCollIdIdx	No	Yes	No	No
DlGranules	DlGranulesEcsInsTimeIdx	No	No	No	No
DlGranuleOWS	DlGranuleOWSPkConstr	Yes	No	Yes	Yes
DlGranuleOWS	DlGranuleOWSStateUpdIdx	No	No	No	No
DlHEGExceptionCollXref	DlHEGExceptionCollXrefPkConstr	Yes	No	Yes	Yes
DlHEGExceptions	DlHEGExceptionsPkConstr	Yes	Yes	Yes	Yes
DlHEGLookup	DlHEGLookupPkConstr	Yes	No	Yes	Yes
DlHEGOptionCollXref	DlHEGOptionCollXrefPkConstr	Yes	No	Yes	Yes
DlHEGOptionLabel	DlHEGOptionLabelPkConstr	Yes	No	Yes	Yes
DlHEGOptions	DlHEGOptionsPkConstr	Yes	Yes	Yes	Yes
DlHdf4thDimensions	DlHdf4thDimensionsPkConstr	Yes	No	Yes	Yes
DlHdfBands	DlHdfBandsPkConstr	Yes	No	Yes	Yes
DlHdfFields	DlHdfFieldsPkConstr	Yes	No	Yes	Yes
DlHdfObjects	DlHdfObjectsPkConstr	Yes	No	Yes	Yes

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

Table Code	Index Code	PK	FK	U	C
DlIdentifier	DlIdentifierPkConstr	Yes	No	Yes	Yes
DlInsertActionQueue	DlIAQecsIdIdx	No	No	No	No
DlInsertActionQueue	DlIAQxmlFileNameIdx	No	No	No	No
DlInsertActionQueue	DlInsertActionQueuePkConstr	Yes	No	Yes	Yes
DlMeasuredParameter	DlMeasuredParameterPkConstr	Yes	Yes	Yes	Yes
DlMisrProcessingCriteria	DlMisrProcessCriteriaPkConstr	Yes	No	Yes	Yes
DlNOSELookup	DlNOSELookupPkConstr	Yes	No	Yes	Yes
DlOMSGranules	DlOMSGranulesPkConstr	Yes	No	Yes	Yes
DlOMSGranules	DlOMSGranGranIdIdx	No	No	No	No
DlOMSGranules	DlOMSGranLockIdIdx	No	No	No	No
DlOrbitCalculatedSpatial	DlOrbitCalSpatialPkConstr	Yes	No	Yes	Yes
DlOrbitPolygons	xDlOrbitPolygons	No	No	No	Yes
DlOrbitPolygons	DlOrbitPolygonsPkConstr	Yes	No	Yes	No
DlOWSDeletedGranules	DlOWSDeletedGranulesPkConstr	Yes	No	Yes	Yes
DlOWSDeletedGranules	DlOWSDeletedGranulesExpDateIdx	No	No	No	No
DlPlatInstrCode	DlplatInstrCodePkConstr	Yes	No	Yes	Yes
DlProcAttributes	PK_PROCATTRIBUTES	Yes	No	Yes	Yes
DlPrivateCollection	DlPrivateCollectionPkConstr	Yes	No	Yes	Yes
DlQAUpdFlagTemp	DlQAUpdFlagTempGranParmIdx	No	No	No	No
DlQAUpdTempBcp	DlQAUpdTempBcpEcsIdIdx	Np	No	No	No
DlRecoveryParameters	DlRecoveryParametersPkConstr	Yes	No	Yes	Yes
DlTempGrans	DlTempGransPkConstr	Yes	No	Yes	Yes
DlTempPhantoms	DlTempPhantomsDirFileNameIdx	No	No	No	No
DlThemes	DlThemePkConstr	Yes	No	Yes	Yes
DlThemes	DlThemesNameIdx	No	No	No	No
DlThemes	DlThemesConvSvcIdx	No	No	No	No
DlUpdGranulesTemp	DlUpdGransTempGranIdIdx	No	No	No	No
DlWebAccessLog	DlWebAccessLogIdx	No	No	No	Yes
DlXMLFilesToInsert	DlXMLFilesToInsertPkConstr	Yes	No	Yes	Yes

4.2 Segments

Sybase supports the declaration of segments. A segment is a named pointer to a storage device(s). Segments are used to physically allocate a database object to a particular storage device. Segments defined for the Data Pool and all other subsystem databases are described in Table 4-3.

Table 4-3. Segment Descriptions

Segment Name Segment	Description
Default	Default data segment used if no other segment specified in the create statement.
Logsegment	SYSLOGS, Transaction Logs
Systemsegment	System tables and indexes

4.3 Caches

A cache is a block of memory that is used by Sybase to retain and manage pages that are currently being processed. By default, each database contains three caches:

Data cache – retains most recently accessed data and index pages

Procedure cache – retains most recently accessed stored procedure pages

User transaction log cache – transaction log pages that have not yet been written to disk for each user

The size of each of these default caches is a configurable item which is must be managed on a per DAAC basis. These caches may be increased or decreased by the DAAC DBA as needed.

The data cache can be further subdivided into named caches. A named cache is a block of memory that is named and used by the DBMS to store data pages for select tables and/or indexes. Assigning a database table to named cache causes accessed pages to be loaded into memory and retained. The named cache does not need to be allocated to accommodate the entire database table since the DBMS manages the cache according to use. Named caches greatly increase performance by eliminating the time associated for disk input and output (I/O). There is a named cache (dp_cache) that is currently defined for the Data Pool Subsystem database. Named caches may be defined as the memory usage of the Data Pool database becomes well known and the DAACs move into an operational environment.

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5. Database Security

5.1 Approach

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

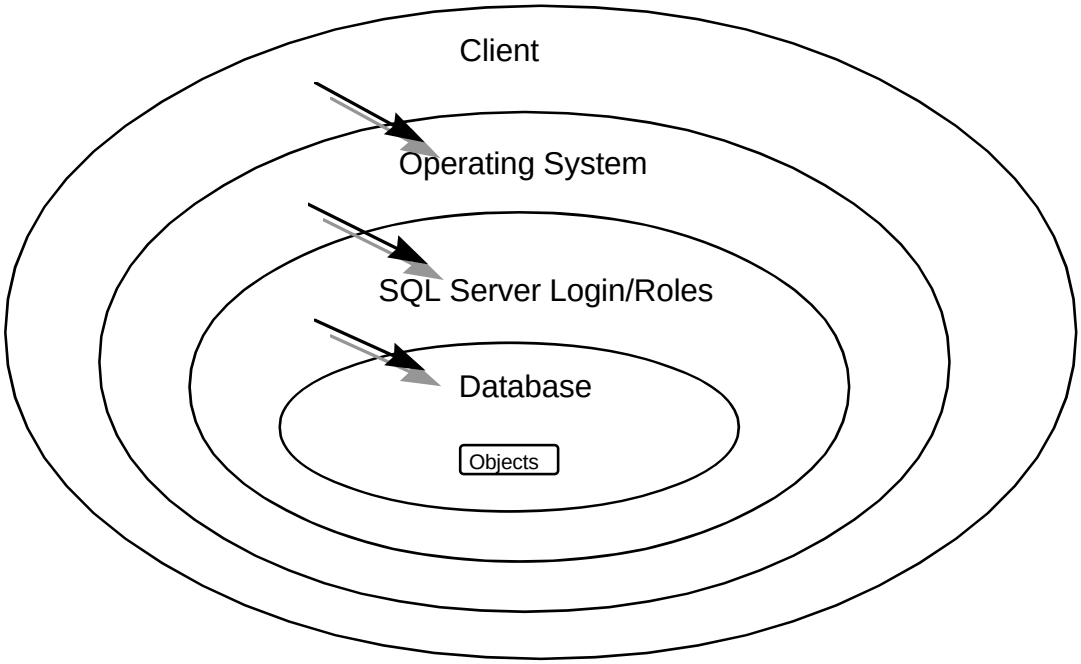

Figure 5-1. Sybase General Approach to SQL Server Security[1]

5.2 Users

The client (user) requires a SQL Server login to access the DBMS. The login is assigned to a user with 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 login individually or based on defined group or roles.

[1] Reference Sybase Student Guide: *Advanced SQL Server Administration*.

5.3 Groups

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 Data Pool Subsystem "default database. The DAACs should define database groups to support the database security requirements of their individual DAACs. Assigning each user to the appropriate group should control security for local DAAC users.

5.4 Roles

Roles were introduced in Sybase to allow a structured means for granting users the permissions needed to perform standard database administration activities and also provide a means for easily identifying such users. There are six pre-defined roles that may be assigned to a user. A definition of each of these roles follows, as well as a description of the types of activities that may be performed by each role.

System Administrator (*sa_role*): This role is used to grant a specific user permissions needed to perform standard system administrator duties including:

- installing SQL server and specific SQL server modules
- managing the allocation of physical storage
- tuning configuration parameters
- creating databases

Site Security Officer (*sso_role*): This role is used to grant a specific user the permissions needed to maintain SQL server security including:

- adding server logins
- administrating passwords
- managing the audit system
- granting users all roles except the *sa_role*

Operator (*oper_role*): This role is used to grant a specific user the permissions needed to perform standard functions for the database including:

- dumping transactions and databases
- loading transactions and databases

Navigator (*navigator_role*): This role is used to grant a specific user the permissions needed to manage the navigation server.

Replication (*replication_role*): This role is used to grant a specific user the permissions needed to manage the replication server.

Sybase Technical Support (*sybase_ts_role*): This role is used to grant a specific user the permissions needed to execute *database consistency checker (dbcc)*, a Sybase supplied utility supporting commands that are normally outside of the realm of routine system administrator activities.

The DAACs should review these roles and assign them to the appropriate login and/or groups.

5.5 Login/Group Object Permissions

During initial database installation logins used by the ECS custom code were created and permissions assigned for access to the Data Pool Subsystem database. In addition, special database installation login, dpl_role, was created to support database installation needs. For each login, the level of access is limited to that associated with their login, group or assigned group/role. Object Permissions are set within the installation scripts of the Data Pool Subsystem for each object and group/role.

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
A	All
S	Select
I	Insert
U	Update
D	Delete
E	Execute

Table 5-2. Object Permissions (1 of 3)

Group Name	Group Users	Delete	Insert	Select	Update	Execute	Object Name
EMSgroup	EcDbEMSdataExtractor			X			DistFTP
EMSgroup	EcDbEMSdataExtractor			X			DlGranuleAccess
datapool	All		X	X	X	X	ALL
datapool	All	X					DlGPolygon
datapool	All	X					DlBoundingRectangle

Table 5-2. Object Permissions (2 of 3)

Group Name	Group Users	Delete	Insert	Select	Update	Execute	Object Name
datapool	All	X					DlOrbitPolygons
nbgroup	All					X	ProcThemeEnabledForInsert
nbgroup	All					X	ProcGetUniqueIdOutput
nbgroup	All					X	ProcMakeThemeRetroactive
nbgroup	All		X				DlInsertActionQuerue
nbgroup	All			X			DlAccessRollup
nbgroup	All			X			DlActiveInsertProcesses
nbgroup	All			X			DlBoundingRectangle
nbgroup	All			X			DlBrowse
nbgroup	All			X			DlBrowseFile
nbgroup	All			X			DlCartOrder
nbgroup	All			X			DlCartOrderItem
nbgroup	All			X			DlCartOrderItemBand
nbgroup	All			X			DlCloudCoverSource
nbgroup	All			X			DlCollectionGroup
nbgroup	All			X			DlCollections
nbgroup	All			X			DlCompressionAlgorithms
nbgroup	All			X			DlConfig
nbgroup	All			X			DlDimensionDayNight
nbgroup	All			X			DlDimensionGroupESDT
nbgroup	All			X			DlDimensionMP
nbgroup	All			X			DlDimensionMPScienceQAXref
nbgroup	All			X			DlDimensionPolygonXref
nbgroup	All			X			DlDimensionScienceQA
nbgroup	All			X			DlDimensionSpatialT6All
nbgroup	All			X			DlDimensionSpatialT6BR_Degree
nbgroup	All			X			DlDimensionTemporal
nbgroup	All			X			DlDimensionTimeOfDay
nbgroup	All			X			DlESDTCurrentDensityMap
nbgroup	All			X			DlFactDayNight
nbgroup	All			X			DlFactGroupESDT
nbgroup	All			X			DlFactQA
nbgroup	All			X			DlFactTemporalRange
nbgroup	All			X			DlFactTimeOfDay
nbgroup	All			X			DlFile
nbgroup	All			X			DlFileSystems

Table 5-2. Object Permissions (3 of 3)

Group Name	Group Users	Delete	Insert	Select	Update	Execute	Object Name
nbgroup	All			X			DlFilesToBeDeleted
nbgroup	All			X			DlFtpAccessLog
nbgroup	All			X			DlGPolygon
nbgroup	All			X			DlGrCloudCover
nbgroup	All			X			DlGranuleAccess
nbgroup	All			X			DlGranuleBrowseXref
nbgroup	All			X			DlGranuleExpirationPriority
nbgroup	All			X			DlGranuleHdfObjectsXref
nbgroup	All			X			DlGranuleSubscription
nbgroup	All			X			DlGranuleTiles
nbgroup	All			X			DlGranules
nbgroup	All			X			DlHEGLookup
nbgroup	All			X			DlHdf4thDimensions
nbgroup	All			X			DlHdfBands
nbgroup	All			X			DlHdfObjects
nbgroup	All			X			DlIdentifier
nbgroup	All			X			DlInsertActionQueue
nbgroup	All			X			DlInsertActionQueue
nbgroup	All			X			DlMeasuredParameter
nbgroup	All			X			DlMisrProcessingCriteria
nbgroup	All			X			DlNOSELookup
nbgroup	All			X			DlOMSGranules
nbgroup	All			X			DlOrbitCalculatedSpatial
nbgroup	All			X			DlOrbitPolygons
nbgroup	All			X			DlPlatInstrCode
nbgroup	All			X			DlProcAttributes
nbgroup	All			X			DlQAUpdFlagTemp
nbgroup	All			X			DlRecoveryParameters
nbgroup	All			X			DlThemes
nbgroup	All			X			DlUpdGranulesTemp
nbgroup	All			X			DlWebAccessLog
nbgroup	All			X			DlXMLFilesToInsert
nbgroup	All			X			EcDbDatabaseVersions

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6. Scripts

6.1 Installation Scripts

Scripts used to support installation of the Data Pool Subsystem database are listed in Table 6-1.

Table 6-1. Installation Scripts

Script File	Description
EcDlDbBuild	Script used to build the DPL database from scratch.

6.2 De-Installation Scripts

Scripts used to support de-installation of the Data Pool Subsystem database are listed in Table 6-2.

Table 6-2. De-Installation Scripts

Script File	Description
DlDbDropSchema	Script used to delete all schema and data from database.

6.3 Backup and Recovery Scripts

Scripts developed to perform backup and recovery of the Data Pool Subsystem database are listed in Table 6-3. These scripts should be configured to run automatically using the Unix chron facility. It is recommended that, transaction logs dumps (incremental dumps) are performed a minimum of 3 times each day. It is recommended that database dumps (full database dumps) are performed a minimum of once each day. Backup and recovery are M&O activities. At their discretion, DAACs may modify these backup/recovery scripts or utilize backup/recovery scripts developed by their local M&O staff.

Table 6-3. Backup and Recovery Scripts

Script File	Description
EcCoDbSyb_DumpDb	Dumps all databases for managed by the SQL server instance.
EcCoDbSyb_DumpTran	Dumps the transaction log for all databases managed by the SQL server.

6.4 Miscellaneous Scripts

Miscellaneous scripts applicable to the Data Pool Subsystem database are shown in Table 6-4.

Table 6-4. Miscellaneous Scripts and Input Data Files

Script	Description
EcDdmMonitorServer	Monitors segment usage and user levels for a selected SQL server. Superseded by DbVision COTS.
EcDdmSegmentUse	Monitors segment usage. Used by EcDdmMonitorServer. Superseded by DbVision COTS.
EcDdmUserCounts	Monitors user access. Used by EcDdmMonitorServer. Superseded by DbVision COTS.
EcCoDbSyb_CkErrorLog	Checks the error log for error messages warranting DBO attention. Superseded by DbVision.
EcCoDbSyb_DbStat	Updates index statistics for each table in the selected database.
EcCoDbSyb_DboMail	Emails DBA error notification via e-mail. Used by EcCoDbSyb_DumpDb/Tran and EcCoDbSyb_CkErrorLog scripts.

Appendix A. Entity Relationship Diagram

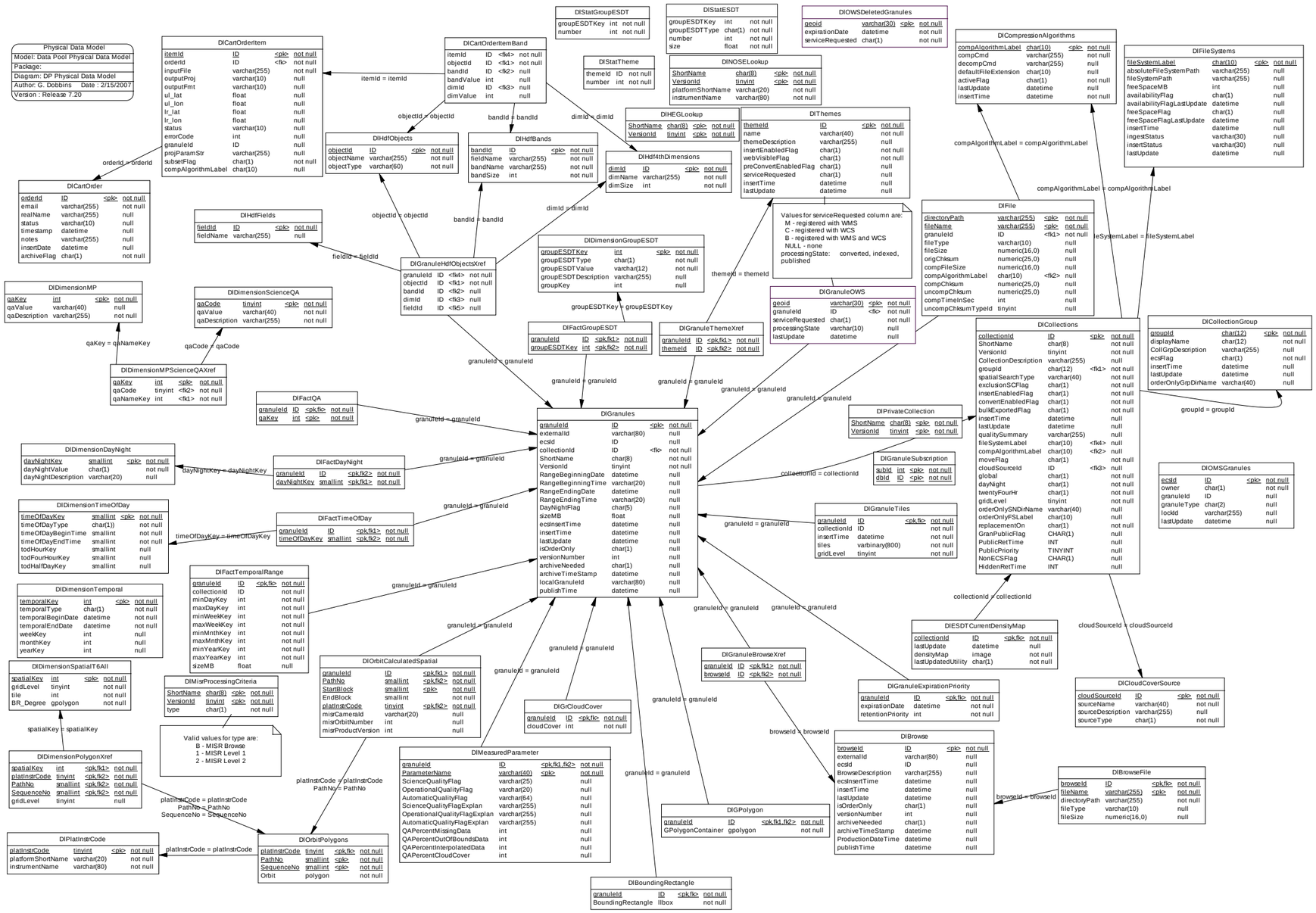

Figure A-1. Data Pool Inventory (1 of 2)

DlAgingConfig

AgingConfigId	identity	<pk>	not null
MaxPriLevel	float		null
agingStep	float		null
ECSPriority	char(15)		null
IntPriority	tinyint		null

DlConfig

parameterName	varchar(50)	<pk>	not null
parameterDescription	varchar(255)		null
parameterType	char(1)		not null
intValue	int		null
charValue	varchar(255)		null
floatValue	float		null

DlAccessRollup

rollupBeginningDateTime	datetime	<pk>	not null
rollupEndingDateTime	datetime	<pk>	not null
accessType	varchar(10)	<pk>	not null

DlGranuleAccess

dbId	ID	not null
ecsId	ID	null
accessType	varchar(10)	not null
age	int	not null
fileName	varchar(255)	null
fileSize	numeric(16,0)	not null
fileType	varchar(10)	null
accessTime	datetime	not null
transferTime	int	null
specialActionFlag	char(2)	null
ipAddress	char(15)	not null
domainName	varchar(255)	null

EcDbDatabaseVersions

EcDbSchemaVersionId	smallint	<pk>	not null
EcDbDropVersion	char(64)	<pk>	not null
EcDbDropDescription	varchar(255)		null
EcDbCurrentVersionFlag	char(1)		null
EcDbDatabaseName	varchar(255)		null
EcDbDropInstallDate	datetime		null
EcDbSybaseVersion	varchar(255)		null
EcDbSybaseServer	varchar(255)		null
EcDbComments	varchar(255)		null
EcDbUpdateProcess	varchar(255)		null

DlIdentifier

identifierType	char(30)	<pk>	not null
identifierObjectType	char(30)	<pk>	not null
lastIdentifier	ID		not null
lastIntIdentifier	int		not null
lastSmallintIdentifier	smallint		not null
identifierPad1	char(255)		not null
identifierPad2	char(255)		not null
identifierPad3	char(255)		not null
identifierPad4	char(255)		not null
identifierPad5	char(255)		not null
identifierPad6	char(255)		not null
identifierPad7	char(255)		not null

DlAdAlert

ResourceID	varchar(64)	<pk>	not null
RaiseTime	datetime	<pk>	not null
ClearTime	datetime		null
RaiseReason	varchar(255)		not null
ClearReason	varchar(255)		null

DlAdMessages

MessageID	numeric(7)	<pk>	identity
MessageName	varchar(30)		not null
Arg1	varchar(30)		null
Arg2	varchar(30)		null
Arg3	varchar(30)		null
SubmitTime	datetime		not null
CompletionTime	datetime		null
CompletionMessage	varchar(255)		null

DlProcAttributes

procName	varchar(30)	<pk>	not null
attributeName	varchar(30)	<pk>	not null
charValue	varchar(255)		null
intValue	int		null
floatValue	float		null

DlActiveInsertProcesses

granIdentifier	varchar(255)	<pk>	not null
processId	int		null
parentPId	int		null
xmlFileName	varchar(255)		null
ecsId	ID		null
ShortName	char(8)		not null
VersionId	tinyint		not null
retentionPriority	int		null
retentionPeriod	int		null
metadataOnlyFlag	char(1)		null
startTime	datetime		null
lastStatusChangeTime	datetime		null
status	varchar(50)		null
inCacheFlag	char(1)		null
retryCount	int		null

Valid values for actionSource:
S - subscription
B - batch insert
O - OMS request

DlInsertActionQueue

insQueueId	ID	<pk>	not null
ecsId	ID		null
ShortName	char(8)		null
VersionId	tinyint		null
subId	int		null
retentionPriority	int		null
retentionPeriod	int		null
metadataOnlyFlag	char(1)		null
enqueueTime	datetime		not null
completionTime	datetime		null
retryCount	int		null
status	varchar(20)		null
statusDetail	varchar(255)		null
inCacheFlag	char(1)		not null
actionSource	char(2)		null
dispatchPriority	smallint		null
xmlFileName	varchar(255)		null
themeId	ID		null
batchLabel	varchar(16)		null
archiveHost	varchar(60)		null
tapeLabel	varchar(60)		null
requestId	varchar(10)		null
requestSuspendFlag	char(1)		null
processState	char(1)		null

These tables are permanent temporary tables that uses for processing data.
They will get clean up after the process is finished.

DlFtpAccessLog

directoryPath	varchar(255)	not null
fileName	varchar(255)	not null
accessTime	datetime	not null
fileSize	numeric(16,0)	not null
transferTime	int	null
specialActionFlag	char(2)	null
ipAddress	char(15)	not null
domainName	varchar(255)	null

DlWebAccessLog

directoryPath	varchar(255)	not null
fileName	varchar(255)	not null
accessTime	datetime	not null
ipAddress	char(15)	not null
domainName	varchar(255)	null

DlTempGrans

granuleId	ID	<pk>	not null

DlFilesToBeDeleted

granuleId	ID	null
browseId	ID	null
fileName	varchar(255)	not null
fileSize	numeric(16,0)	not null
directoryPath	varchar(255)	null
state	tinyint	not null
ecsId	ID	null
ShortName	char(8)	null
VersionId	tinyint	null

DlTempPhantoms

directoryPath	varchar(255)	not null
fileName	varchar(255)	not null

DlUpdGranulesTemp

granuleId	ID	not null
ExpirationDate	datetime	not null
RetentionPriority	int	null

DlRecoveryParameters

utilityName	varchar(40)	<pk>	not null
parameterName	varchar(50)	<pk>	not null
parameterValue	varchar(255)		not null

DlECSIdsToInsert

processId	int	<pk>	not null
ecsId	ID	<pk>	not null

DlXMLFilesToInsert

processId	int	<pk>	not null
xmlFileName	varchar(255)	<pk>	not null
ShortName	char(8)		null
VersionId	tinyint		null

DlQAUpdTempBcp

ecsId	ID	not null
ParameterName	varchar(40)	not null
xmlUpdateFlag	char(1)	null
qaFlagType	varchar(11)	null
qaValue	varchar(25)	null
qaExplValue	varchar(255)	null

DlQAUpdFlagTemp

granuleId	ID	not null
ParameterName	varchar(40)	not null
xmlUpdateFlag	char(1)	null
qaFlagType	varchar(11)	null
qaValue	varchar(25)	null
qaExplValue	varchar(255)	null

Figure A-2. Data Pool Inventory (2 of 2)

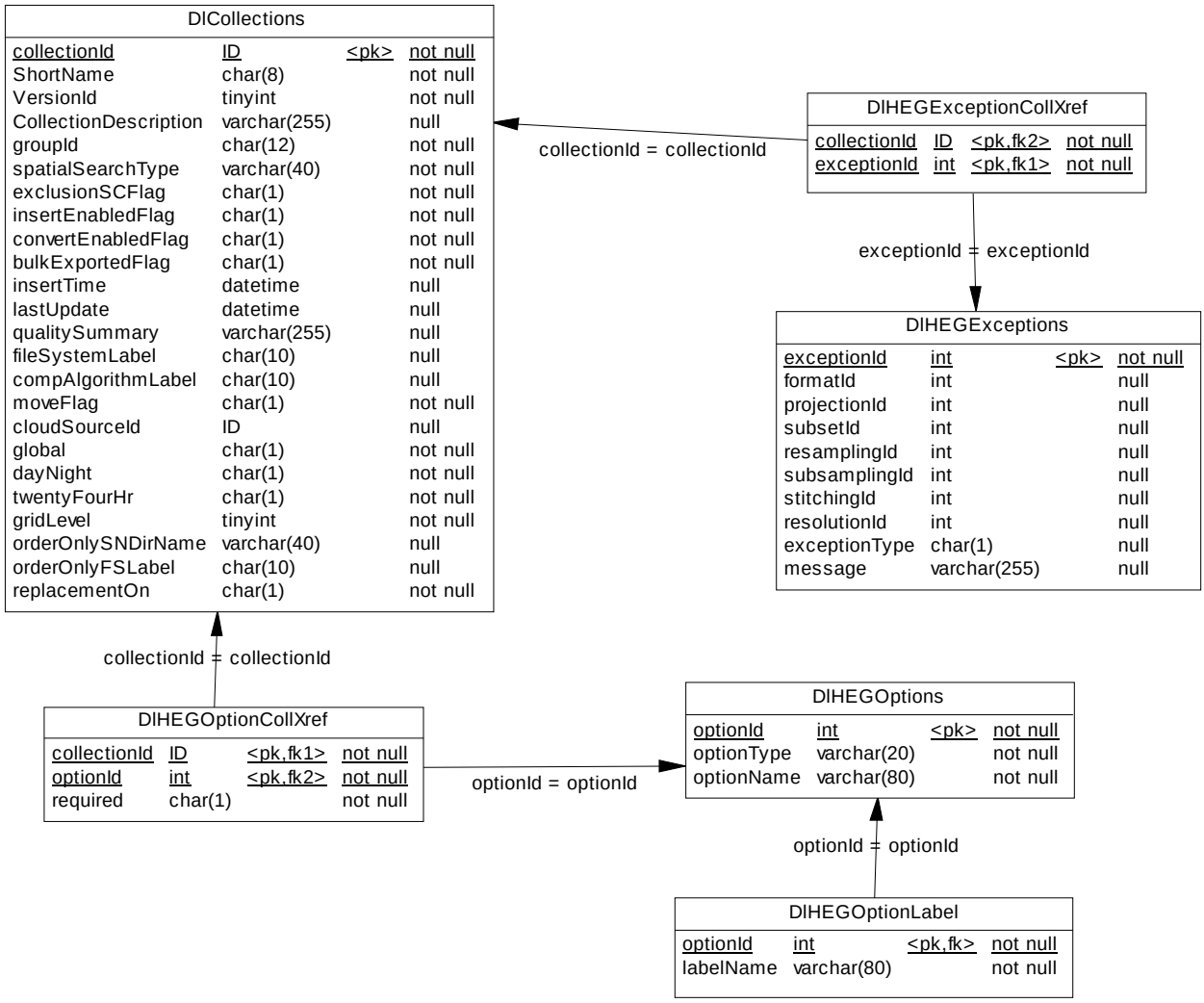

Figure A-3. Data Pool HEG Configuration

Abbreviations and Acronyms

ADSRV	Advertising Service CSCI
ANSI	American National Standards Institute
ASC	Ascending
BCP	Bulk Copy Utility
CASE	Computer Aided Software Engineering
CD	contractual delivery 214-001
CDRL	contract data requirements list
CDS	cell directory service
CI	configuration item
CONFIG	Configuration Registry Subsystem
COTS	commercial off-the-shelf (hardware or software)
CSCI	computer software configuration item
CSDT	Computer Science Data Type
CSMS	Communications and Systems Management Segment (ECS)
CSS	Communications Subsystem
DAAC	Distributed Active Archive Center
DESC	Descending
DBMS	Database Management System
DCN	Document Change Notice
DDICT	Data Dictionary CSCI
DDIST	Data Distribution Services CSCI
DDN	Data Delivery Notice
DID	data item description
DM	Data Management
DMS	Data Management Subsystem
DP	Data Provider
DPAD	Data Pool Action Driver
DPIU	Data Pool Insert Utility

DPL	Data Pool Subsystem
DPS	Data Processing Subsystem
DSS	Data Server Subsystem
ECS	EOSDIS Core System
EDC	EROS Data Center
EDHS	ECS Data Handling System
EDOS	EOS Data and Operations System
EOS	Earth Observing System
EOSDIS	Earth Observing System Data and Information System
ERD	Entity Relationship Diagram
EROS	Earth Resources Observation System
ESDIS	Earth Science Data and Information System (GSFC)
ESDT	Earth science data types
FK	Foreign Key
FTP	File Transfer Protocol
GIS	Geographic Information System
GSFC	Goddard Space Flight Center
GUI	graphic user interface
HTML	Hypertext Markup Language
HTTP	Hypertext Transport Protocol
HWCI	Hardware Configuration Item
ICD	interface control document
ID	identification
INGEST	Ingest Services CSCI
IOS	Interoperability Subsystem
IP	Internet Protocol
ISS	Internetworking Subsystem
IV&V	independent verification and validation
LaRC	Langley Research Center (DAAC)
MCF	Metadata Configuration File
MSFC	Marshall Space Flight Center
MSS	Management Support Subsystem
OGC	Open Geospatial Consortium

OWS	OGC Web Services
PDF	Portable Document Format
PDPS	Planning and Data Processing Subsystem
PK	Primary Key
PLANG	Production Planning CSCI
PLS	Planning Subsystem
RDBMS	Relational Data Base Management System
RPC	Remote Procedure Call
SDSRV	Science Data Server
STMGT	Storage Management Software CSCI
SUBSRV	Subscription Server
URL	Universal Reference Locator
WWW	World-Wide Web

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