[oradebug 用法小结(一）](http://blog.itpub.net/28697282/viewspace-1478774/)

 分类： Oracle2015-03-30 14:24:31

oradebug是oracle内部提供的工具，并且在文档中没有记录。11g中oracle的oradebug功能加强，我们可以通过 oradebug doc 命令来查看internal trace command。简单记录下，留作研究。

首先看下当前的环境和连接的用户

> select \* from v$version;

BANNER

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Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production

PL/SQL Release 11.2.0.4.0 - Production

CORE 11.2.0.4.0 Production

TNS for Linux: Version 11.2.0.4.0 - Production

NLSRTL Version 11.2.0.4.0 - Production

> sho user

USER is "SYS"

**oradebug doc查看**

> oradebug doc

Internal Documentation

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

  EVENT Help on events (syntax, event list, ...)

  COMPONENT [<comp\_name>] List all components or describe <comp\_name>

**oradebug doc event**

> oradebug doc event

Event Help:

\*\*\*\*\*\*\*\*\*\*\*

  Formal Event Syntax

  --------------------

    <event\_spec> ::= ' []

                                   []

                                   []

                                   []

                                   [off]'

    <event\_id> ::= <event\_name | number>[<target\_parameters>]

    <event\_scope> ::= [<scope\_name>: scope\_parameters]

    <event\_filter> ::= {<filter\_name>: filter\_parameters}

    <action> ::= <action\_name>(action\_parameters)

    <\*\_parameters> ::= <parameter\_name> = <value>[, ]

  Some Examples

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    \* Set event 10235 level 1:

      alter session set events '10235';

    \* Set events SQL\_TRACE (a.k.a. 10046) level 1:

      alter session set events 'sql\_trace';

    \* Turn off event SQL\_TRACE:

      alter session set events 'sql\_trace off';

    \* Set events SQL\_TRACE with parameter <plan\_stat> set to 'never'

      and parameter <wait> set to 'true':

      alter session set events 'sql\_trace wait=true, plan\_stat=never';

    \* Trace in-memory the SQL\_MONITOR component (the target) and all its

      sub-components at level high. Get high resolution time for each

      trace:

      alter session set events 'trace[sql\_mon.\*] memory=high,

                                                 get\_time=highres';

    \* On-disk trace PX servers p000 and p005 for components 'sql\_mon'

      and 'sql\_optimizer' (including sub-components) at level highest:

      alter system set events 'trace[sql\_mon | sql\_optimizer.\*]

                                    {process: pname = p000 | p005}';

    \* Same as above but only when SQL id '7ujay4u33g337' is executed:

      alter system set events 'trace[sql\_mon | sql\_optimizer.\*]

                                    [sql: 7ujay4u33g337]

                                    {process: pname = p000 | p005}';

    \* Execute an action immediatly by using 'immediate' for the event

      name:

      alter session set events 'immediate eventdump(system)'

    \* Create an incident labeled 'table\_missing' when external error

      942 is signaled by process id 14534:

      alter session set events '942 {process: 14534}

                                    incident(table\_missing)';

  Notes

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    \* Implicit parameter level is 1 by default

      e.g. '10053\' is same as '10053 level 1'

    \* Event target (see [<target\_parameters>] construct) is only

      supported by specific events like the TRACE[] event

    \* <event\_scope> and/or <event\_filter> are constructs

      that can be used for any event

    \* Same event can be set simultaneously for a different scope or

      target but not for different filters.

    \* '|' character can be used to select multiple targets, scope or

      filters.

      E.g. 'sql\_trace [sql: sql\_id=g3yc1js3g2689 | sql\_id=7ujay4u33g337]'

    \* '=' sign is optional in <\*\_parameters>

      E.g. 'sql\_trace level 12';

    \* Like PL/SQL, no need to specify the parameter name for target,

      scope, filters and action. Resolution is done by position in

      that case:

      E.g. 'sql\_trace [sql: g3yc1js3g2689 | 7ujay4u33g337]'

  Help sub-topics

  ---------------

    NAME [<event\_name>] List all events or describe <event\_name>

    SCOPE [<scope\_name>] List all scopes or describe <scope\_name>

    FILTER [<filter\_name>] List all filters or describe <filter\_name>

    ACTION [<action\_name>] List all actions or describe <action\_name>

**oradebug doc event name**

> oradebug doc event name

Events in library DIAG:

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trace[] Main event to control UTS tracing

disable\_dde\_action[] Event used by DDE to disable actions

ams\_trace[] Event to dump ams performance trace records

ams\_rowsrc\_trace[] Event to dump ams row source tracing

sweep\_verification Event to enable sweep file verification

enable\_xml\_inc\_staging Event to enable xml incident staging format

Events in library RDBMS:

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alert\_text event for textual alerts

trace\_recursive event to force tracing recursive SQL statements

clientid\_overwrite event to overwrite client\_identifier when client\_info is set

sql\_monitor event to force monitoring SQL statements

eventsync\_tac Event posted from events syncing tac

sql\_trace event for sql trace

pmon\_startup startup of pmon process

background\_startup startup of background processes

db\_open\_begin start of db open operation

test\_gvtf test GV$() Table Tunction

krbabrstat\_fault event to control krbabrstat fault injection

Events in library GENERIC:

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kg\_event[] Support old error number events (use err# for short)

Events in library CLIENT:

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oci\_trace event for oci trace

Events in library LIBCELL:

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libcell\_stat libcell statistics level specification

cellclnt\_skgxp\_trc\_ops Controls to trace SKGXP operations

cellclnt\_ossnet\_trc Controls to trace IP affinity in ossnet

cellclnt\_high\_lat\_ops Control to trace High-latency I/O operations

cellclnt\_read\_outlier\_limit Control to trace read I/O outliers

cellclnt\_write\_outlier\_limit Control to trace write I/O outliers

cellclnt\_lgwrite\_outlier\_limit Control to trace log write I/O outliers

Events in library ADVCMP:

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arch\_comp\_level[] arch\_comp\_level[<ulevel, 1-7>]

ccmp\_debug columnar compression debug event

ccmp\_align columnar compression enable alignment

ccmp\_countstar columnar compression enable count(\*) optimization

ccmp\_dumpunaligned columnar compression dump dbas of unaligned CUs

**oradebug doc event name sql\_trace**

> oradebug doc event name sql\_trace

sql\_trace: event for sql trace

Usage

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sql\_trace

   wait < false | true >,

   bind < false | true >,

   plan\_stat < never | first\_execution | all\_executions | adaptive >,

   level <ub4>

> oradebug doc event name db\_open\_begin

db\_open\_begin: start of db open operation

Usage

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db\_open\_begin

   delay <ub4>

**oradebug doc component**

> oradebug doc component

Components in library DIAG:

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  diag\_uts Unified Tracing Service (dbgt, dbga)

    uts\_vw UTS viewer toolkit (dbgtp, dbgtn)

  diag\_adr Automatic Diagnostic Repository (dbgr)

    ams\_comp ADR Meta-data Repository (dbgrm)

    ame\_comp ADR Export/Import Services (dbgre)

    ami\_comp ADR Incident Meta-data Services (dbgri)

    diag\_ads Diagnostic Directory and File Services (dbgrf, sdbgrf, sdbgrfu, sdbgrfb)

  diag\_hm Diagnostic Health Monitor

  diag\_ips Diagnostic Incident Packaging System

  diag\_dde Diagnostic Data Extractor (dbge)

  diag\_fmwk Diagnostic Framework (dbgc)

    diag\_ilcts Diagnostic Inter-Library Compile-time Service (dbgf)

    diag\_attr Diagnostic Attributes Management

    diag\_comp Diagnostic Components Management

  diag\_testp Diagnostic component test parent (dbgt)

    diag\_testc1 Diagnostic component test child 1

    diag\_testc2 Diagnostic component test child 2

  KGSD Kernel Generic Service Debugging (kgsd)

  diag\_events Diagnostic Events (dbgd)

  diag\_adl Diagnostic ARB Alert Log (dbgrl, dbgrlr)

  diag\_vwk Diagnostic viewer toolkit (dbgv)

    diag\_vwk\_parser Diagnostic viewer parser (dbgvp, dbgvl)

    diag\_vwk\_uts Diagnostic viewer for UTS traces and files (dbgvf)

    diag\_vwk\_ams Diagnostic viewer for AMS metadata (dbgvm)

    diag\_vwk\_ci Diagnostic viewer for command line (dbgvci)

  kghsc KGHSC Compact Stream (kghsc)

  dbgxtk DBGXTK xml toolkit (dbgxtk)

Components in library RDBMS:

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  SQL\_Compiler SQL Compiler

    SQL\_Parser SQL Parser (qcs)

    SQL\_Semantic SQL Semantic Analysis (kkm)

    SQL\_Optimizer SQL Optimizer

      SQL\_Transform SQL Transformation (kkq, vop, nso)

        SQL\_MVRW SQL Materialized View Rewrite

        SQL\_VMerge SQL View Merging (kkqvm)

        SQL\_Virtual SQL Virtual Column (qksvc, kkfi)

      SQL\_APA SQL Access Path Analysis (apa)

      SQL\_Costing SQL Cost-based Analysis (kko, kke)

        SQL\_Parallel\_Optimization SQL Parallel Optimization (kkopq)

    SQL\_Code\_Generator SQL Code Generator (qka, qkn, qke, kkfd, qkx)

      SQL\_Parallel\_Compilation SQL Parallel Compilation (kkfd)

      SQL\_Expression\_Analysis SQL Expression Analysis (qke)

      SQL\_Plan\_Management SQL Plan Managment (kkopm)

    MPGE MPGE (qksctx)

    ADS ADS (kkoads)

  SQL\_Execution SQL Execution (qer, qes, kx, qee)

    Parallel\_Execution Parallel Execution (qerpx, qertq, kxfr, kxfx, kxfq, kxfp)

      PX\_Messaging Parallel Execution Messaging (kxfp)

      PX\_Group Parallel Execution Slave Group (kxfp)

      PX\_Affinity Parallel Affinity (ksxa)

      PX\_Buffer Parallel Execution Buffers (kxfpb)

      PX\_Granule Parallel Execution Granules (kxfr)

      PX\_Control Parallel Execution Control (kxfx)

      PX\_Table\_Queue Parallel Execution Table Queues (kxfq)

      PX\_Scheduler Parallel Execution Scheduler (qerpx)

      PX\_Queuing Parallel Execution Queuing (kxfxq)

    Bloom\_Filter Bloom Filter (qerbl, qesbl)

      PX\_Blackbox Parallel Execution Blackbox (kxf)

  PGA\_Manage PGA Memory Management

    PGA\_Compile PGA Memory Compilation

    PGA\_IMM PGA Memory Instance Manage

    PGA\_CMM PGA Memory Cursor Manage

    PGA\_ADV PGA Memory Advisor

  rdbms\_dde RDBMS Diagnostic Data Extractor (dbke)

  VOS VOS (ks)

    hang\_analysis Hang Analysis (ksdhng)

    background\_proc Background Processes (ksb, ksbt)

    system\_param System Parameters (ksp, kspt)

    ksu Kernel Service User (ksu)

      ksutac KSU Timeout Actions

    ksv\_trace Kernel Services Slave Management (ksv)

  sql\_mon SQL Monitor (keswx)

    sql\_mon\_deamon SQL Monitor Deamon

    sql\_mon\_query SQL Monitor Query

  CACHE\_RCV Cache Recovery (kcv, kct, kcra, kcrp, kcb)

  DIRPATH\_LOAD Direct Path Load (kl, kdbl, kpodp)

    DIRPATH\_LOAD\_BIS Direct Path Kpodpbis Routine (kpodp)

  RAC Real Application Clusters

    GES Global Enqueue Service

    GCS Global Cache Service (kjb)

    GSIPC Global Enqueue/Cache Service IPC

      KSI Kernel Service Instance locking (ksi)

      RAC\_ENQ Enqueue Operations

    RAC\_RCFG Reconfiguration

    RAC\_DRM Dynamic Remastering

    RAC\_MRDOM Multiple Recovery Domains

    CGS Cluster Group Services (kjxg)

    CGSIMR Instance Membership Recovery (kjxgr)

      DD GES Deadlock Detection

      GCS\_BSCN Broadcast SCN (kjb, kcrfw)

    RAC\_WLM Work Load Management (wlm)

    RAC\_MLMDS RAC Multiple LMS (kjm)

      GCS\_READMOSTLY GCS Read-mostly (kjb)

      GCS\_READER\_BYPASS GCS Reader Bypass (kjb)

      GCS\_DELTAPUSH GCS Delta Push (kjb)

      RAC\_BCAST Enqueue Broadcast Operations

    RAC\_LT RAC Latch Usage

  db\_trace RDBMS server only tracing

  kst server trace layer tracing (kst)

  ddedmp RDBMS Diagnostic Data Extractor Dumper (dbked)

  cursor Shared Cursor (kxs, kks)

    Bind\_Capture Bind Capture Tracing

  KSM Kernel Service Memory (ksm)

  KSE Kernel Service Error Manager (kse)

  explain SQL Explain Plan (xpl)

  rdbms\_event RDBMS Events (dbkd)

  LOB\_INODE Lob Inode (kdli)

  rdbms\_adr RDBMS ADR (dbkr)

  ASM Automatic Storage Management (kf)

    KFK KFK (kfk)

      KFKIO KFK IO (kfkio)

      KFKSB KFK subs (kfksubs)

    KFN ASM Networking subsystem (kfn)

      KFNU ASM Umbillicus (kfnm, kfns, kfnb)

      KFNS ASM Server networking (kfns)

      KFNC ASM Client networking (kfnc)

    KFIS ASM Intelligent Storage interfaces (kfis)

    KFM ASM Node Monitor Interface Implementation (kfm)

      KFMD ASM Node Monitor Layer for Diskgroup Registration (kfmd)

      KFMS ASM Node Monitor Layers Support Function Interface (kfms)

    KFFB ASM Metadata Block (kffb)

    KFFD ASM Metadata Directory (kffd)

    KFZ ASM Zecurity subsystem (kfz)

    KFC ASM Cache (kfc)

    KFR ASM Recovery (kfr)

    KFE ASM attributes (kfe)

    KFDP ASM PST (kfdp)

    KFG ASM diskgroups (kfg)

    KFDS ASM staleness registry and resync (kfds)

    KFDX ASM Exadata interface (kfdx)

  DML DML Drivers (ins, del, upd)

  Health\_Monitor Health Monitor

  DRA Data Repair Advisor

  DIRACC Direct access to fixed tables (kqfd)

  PART Partitioning (kkpo, qespc, qesma, kkpa, qergi)

    PART\_IntPart Interval Partitioning

    PART\_Dictionary Partitioning Dictionary (kkpod)

  LOB\_KDLW Lob kdlw (kdlw)

  LOB\_KDLX Lob xfm (kdlx)

  LOB\_KDLXDUP Lob dedup (kdlxdup)

  LOB\_KDLRCI Lob rci (kdlrci)

  LOB\_KDLA SecureFile Archive (kdla)

  SQL\_Manage SQL Manageability (kes)

    SQL\_Manage\_Infra Other SQL Manageability Infrastructure (kesai, kesqs, kesatm, kesutl, kessi, keswat, keswts, keswsq)

    SQL\_Tune SQL Tuning Advisor (kest)

      SQL\_Tune\_Auto SQL Tuning Advisor (auto-tune) (kestsa)

      SQL\_Tune\_Index SQL Tuning Advisor (index-tune) (kestsi)

      SQL\_Tune\_Plan SQL Tuning Advisor (plan node analysis) (kestsp)

      SQL\_Tune\_Px SQL Tuning Advisor (parallel execution) (kestsa)

      SQL\_Tune\_Fr SQL Tuning Advisor (fix regression) (kestsa)

    SQL\_Test\_Exec SQL Test-Execute Service (kestse)

    SQL\_Perf SQL Performance Analyzer (kesp, keswpi)

    SQL\_Repair SQL Repair Advisor (kesds)

        Auto\_Tune\_Opt Auto Tuning Optimizer (kkoat)

    SQL\_trace\_parser SQL trace parser (kesstp)

  SQL\_Analyze SQL Analyze (qksan)

  SQL\_DS SQL Dynamic Sampling Services (qksds)

  SQL\_DDL SQL DDL (atb, ctc, dtb)

  RAT\_WCR Real Application Test: Workload Capture and Replay (kec)

  Spatial Spatial (md)

    Spatial\_IND Spatial Indexing (mdr)

    Spatial\_GR Spatial GeoRaster (mdgr)

  Text Text (dr)

  rdbms\_gc RDBMS Diagnostic Generic Configuration (dbkgc)

  XS XS Fusion Security (kzx)

    XSSESSION XS Session (kzxs)

    XSPRINCIPAL XS Principal (kzxu)

    XSSECCLASS XS Security Class (kzxc)

    XSXDS XS Data Security (kzxd)

    XSVPD XS VPD

    XSXDB\_DEFAULT XS XDB

    XS\_MIDTIER XS Midtier (kpuzxs)

  AQ Streams Advanced Queuing (kwq, kkcn, kpon, kpoaq, kpce, kpcm, kpun, kpuaq)

    AQ\_DEQ Streams Advanced Queuing Dequeue (kwqid, kwqdl)

    AQ\_TM Streams Advanced Queuing Time Manager (kwqit, kwqmn)

  KSFM Kernel Service File Mapping (ksfm)

  KXD Exadata specific Kernel modules (kxd)

    KXDAM Exadata Disk Auto Manage (kxdam)

    KCFIS Exadata Predicate Push (kcfis)

    NSMTIO Trace Non Smart I/O (nsmtio)

    KXDRS Exadata Resilvering Layer (kxdrs)

    KXDOFL Exadata Offload (kxdofl)

    KXDMISC Exadata Misc (kxdmisc)

  DV Database Vault (kzv)

  ASO Advanced Security Option

    RADM Real-time Application-controlled Data Masking (kzradm)

  SVRMAN Server Manageability (ke)

      ASH Active Session History (kewa)

    AWR Automaitc Workload Repository (kew)

      METRICS AWR metrics (kewm)

    AUTOTASK Automated Maintenance Tasks (ket)

    MMON MMON/MMNL Infrastructure (keb)

  RAT Real Application Testing (kec)

    RAT\_MASK Real Application Testing: Masking (kesm, kecprm)

Components in library GENERIC:

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  Generic\_VOS Generic VOS

    VOS\_Heap\_Manager VOS Heap Manager

    VOS\_Latches VOS Latches

    VOS\_GST VOS Generic Stack Trace (kgds)

  XML XML (qmxt, qmxq)

  Generic\_XDB Generic XDB

    XDB\_Repository XDB Repository (qme)

    XDB\_Protocols XDB Protocols (qmh, qmf, qmn)

    XDB\_Query XDB Query (qmxtra, qerxp)

    XDB\_XMLIndex XDB XMLIndex (qmxtri, qmixq)

    XDB\_Schema XDB Schema (qmxtri, qmixq)

    XDB\_XOB XDB XOB (qmx)

    XDB\_CSX XDB CSX (qmcxe, qmcxd)

    XDB\_Default XDB Default

  LOB LOB (koll, kola)

    LOB\_Refcount LOB Refcount (kolr)

    LOB\_Default LOB Default (kole, kokl, koxs, kokla, koklm, koklv)

  KGH KGH Memory Allocator (kgh)

  KGF ASM Automatic Storage Management (kgf)

  LIBCACHE LIBCACHE (kgl, kql)

  OBJECTS OBJECTS

    OBJECTS\_DDL OBJECTS DDL (kokt)

    OBJECTS\_Types OBJECTS Types (kot, ko, ort)

    OBJECTS\_Images OBJECTS Images (koke, kot, kad)

    OBJECTS\_Anydata OBJECTS Anydata (kokla, kolo, kot, kad)

    OBJECTS\_Streams OBJECTS Streams (koxs)

    OBJECTS\_Dict OBJECTS Dictionary (kkdo, qcdo)

    OBJECTS\_Semanal OBJECTS Semantic Analysis (koks, qcso, qcto)

    OBJECTS\_Default OBJECTS Default

Components in library CLIENT:

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  Client\_KPU Client KPU

    KPU\_Memory KPU Memory

    KPU\_TTC KPU TTC

    KPU\_Relational KPU Relational

    KPU\_Objects KPU Objects

    KPU\_LOBS KPU LOBS

  SQLLDR\_Load SQLLDR Load (ul)

  DPAPI\_Load DPAPI Load (kpudp)

Components in library LIBCELL:

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  Client\_Library Client Library

    Disk\_Layer Disk Layer

    Network\_Layer Network Layer

    IPC\_Layer IPC Layer

Components in library ORANET:

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  TNSLSNR OraNet Listener

    NET\_NSGR Network Service Generic Registration

    NET\_NSGI TNI Network Service Generic Listener User-defined class

  CMAN OraNet Connection Manager

  NET OraNet Services

    NET\_NI Network Interface Layer

    NET\_NS Network Session Layer

    NET\_NT Network Transport Layer

    NET\_NTM Network Transport Mailbox Layer

    NET\_NTP Network Transport IPC Layer

    NET\_NTT Network Transport TCP/IP Layer

    NET\_NTUS Network Transport Unix Domain Sockets Layer

    NET\_NL Network Library

    NET\_NA Network Authentication

    NET\_NZ Network Zecurity

    NET\_NTZ Network SSL

    NET\_NU Network Trace Route Utility

    NET\_NN Network Names

Components in library ADVCMP:

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  ADVCMP\_MAIN Archive Compression (kdz)

    ADVCMP\_COMP Archive Compression: Compression (kdzc, kdzh, kdza)

    ADVCMP\_DECOMP Archive Compression: Decompression (kdzd, kdzs)

Components in library PLSQL:

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  PLSQL\_Apps PL/SQL Apps (di, pi, plitblm, scm, std, textio, wpiutil)

  PLSQL\_Codegen PL/SQL Codegen

    PLSQL\_COG\_IDL\_Gen PL/SQL Codegen IDL Gen (pdw)

    PLSQL\_COG\_Infrastructure PL/SQL Codegen Infrastructure (pdz)

    PLSQL\_COG\_Native PL/SQL Codegen Native (pdn)

    PLSQL\_COG\_Optimizer PL/SQL Codegen Optimizer (pdx)

    PLSQL\_COG\_MCode\_Gen PL/SQL Codegen MCode Gen (pdy)

  PLSQL\_Code\_Execution PL/SQL Code Execution (pb, pd, pe, pf, plst, pri)

  PLSQL\_External\_Proc PL/SQL External Proc (pef, ociextp)

  PLSQL\_IDL PL/SQL IDL (pdt, pt)

  PLSQL\_ILMS PL/SQL ILMS (pgm)

  PLSQL\_KNLDE PL/SQL KNLDE (pbbicd, pbp3g, pbs, pbt3g, peibp)

  PLSQL\_KG\_Interface PL/SQL KG Interface (bam, hep, hsh, lis, par, phdr, pk)

  PLSQL\_Infrastructure PL/SQL Infrastructure (pci, pcm, ph, pl, pncutil, pp, ps, pu, tre)

  PLSQL\_PSD PL/SQL PSD

    PLSQL\_PSD\_Generic PL/SQL PSD Generic (psd, pso, psu)

    PLSQL\_PSD\_Standalones PL/SQL PSD Standalones (p2c, pls, psx)

  PLSQL\_Semantics PL/SQL Semantics (ph2, pha, phn)

  PLSQL\_Syntax PL/SQL Syntax (ph1)