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Understanding SQLTXPLAIN (SQLT) Main Report by Navigating Through Some Samples

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- Job/Hobby: SQL Tuning frequent practitioner
- Experience: Oracle since 1996
- Home: Orlando, Florida
- Besides SQL Tuning: Spinning, Biking, Racquetball and Parenting!
- Author of: SQLTXPLAIN (SQLT), TRCANLZR (TRCA), SQLHC, etc.

SQLT Installation Parameters



Provided inline or when asked

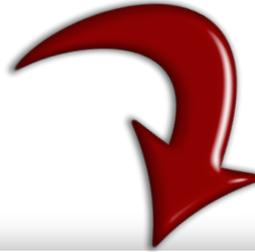
- Optional Connect Identifier (ie: @PROD)
- Password for user SQLTXPLAIN
- Default Tablespace
- Temporary Tablespace
- Main application user of SQLT
- Oracle Pack license [T | D | N]



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SQLT Main Methods

All act on one SQL statement



- SQLT XTRACT
- SQLT XECUTE
- SQLT XTRXEC
- SQLT XPLAIN
- SQLT XTRSBY

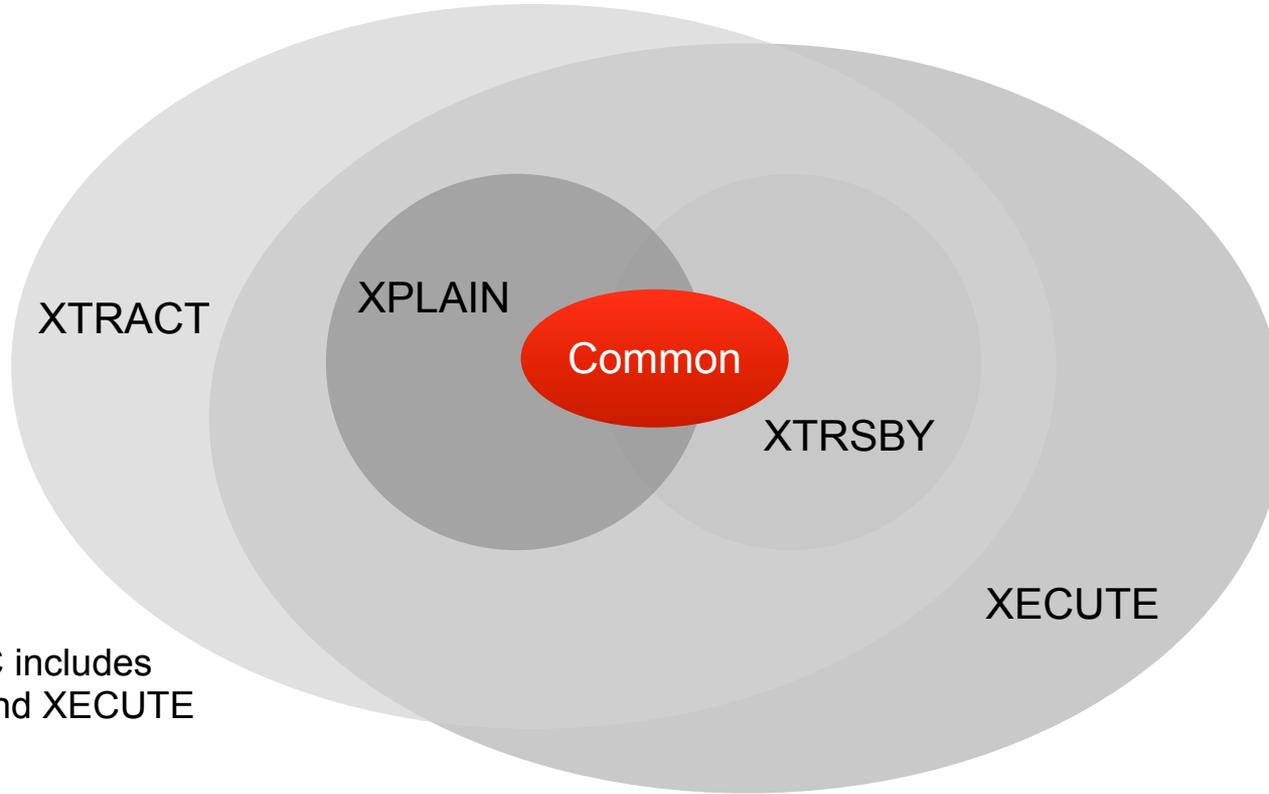
All 5 have these requirements

- SQL*Plus connecting as application user
- Application user must have SQLT_USER_ROLE granted
- Password for SQLTXPLAIN must be provided
- One SQL per use of SQLT
- SQLT has its own configuration parameters

How to use SQLT Main Methods

Method	Script	Features
SQLT XTRACT	sqlt/run/sqltxtract.sql	<ul style="list-style-type: none"> <input type="checkbox"/> Most common method <input type="checkbox"/> Inputs SQL_ID <input type="checkbox"/> SQL statement is not executed
SQLT XECUTE	sqlt/run/sqltxecute.sql	<ul style="list-style-type: none"> <input type="checkbox"/> Inputs a script name which contains <ul style="list-style-type: none"> ✓ ALTER SESSION commands (if applicable) ✓ Binds declaration and assignment (if applicable) ✓ SQL statement
SQLT XTRXEC	sqlt/run/sqltxtract.sql	<ul style="list-style-type: none"> <input type="checkbox"/> Combines XTRACT and XECUTE <input type="checkbox"/> Inputs SQL_ID
SQLT XPLAIN	sqlt/run/sqltxplain.sql	<ul style="list-style-type: none"> <input type="checkbox"/> Inputs a file name which contains a SQL statement <input type="checkbox"/> What if SQL contains binds? <input type="checkbox"/> Leave them in place, OR Replace with literals of same data type
SQLT XTRSBY	sqlt/run/sqltxtrsbby.sql	<ul style="list-style-type: none"> <input type="checkbox"/> For read-only databases <input type="checkbox"/> Executes in Primary and connects into stand-by <input type="checkbox"/> Works like XTRACT <input type="checkbox"/> Inputs SQL_ID and DBLINK

SQLT Output Overlap



- XTRXEC includes XTRACT and XECUTE

What is included in Main Report?

Partial list of contents (1/3)

- Health-checks
- SQL text
- Parameters
- Cursor sharing
- SQL Tuning Advisor (STA) report
- Execution plans



What is included in Main Report?

Partial list of contents (2/3)

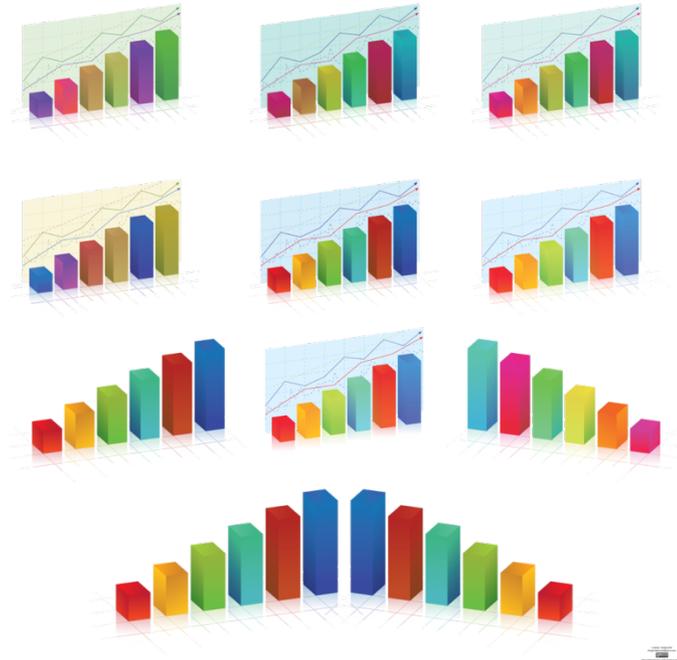
- Plan stability
- Active Session History (ASH)
- SQL performance metrics
- SQL Monitor
- Segment and session statistics
- Tables



What is included in Main Report?

Partial list of contents (3/3)

- Indexes
- CBO statistics
- Objects and dependencies
- Policies
- Metadata



Navigating the SQLT Main Html Report

215187.1 SQLT XTRACT 11.4.4.7 Report: sqlt_s92947_main.html

Typical Navigation

1. SQL Text
2. Plans Summary
3. Observations (health-checks)
4. Branch as per findings

Global

- [Observations](#)
- [SQL Text](#)
- [SQL Identification](#)
- [Environment](#)
- [CBO Environment](#)
- [Fix Control](#)
- [CBO System Statistics](#)
- [DBMS_STATS Setup](#)
- [Initialization Parameters](#)
- [NLS Parameters](#)
- [I/O Calibration](#)
- [Tool Configuration Parameters](#)

Cursor Sharing and Binds

- [Cursor Sharing](#)
- [Adaptive Cursor Sharing](#)
- [Peeked Binds](#)
- [Captured Binds](#)

SQL Tuning Advisor

- [STA Report](#)
- [STA Script](#)

Plans

- [Summary](#)
- [Performance Statistics](#)
- [Performance History \(delta\)](#)
- [Performance History \(total\)](#)
- [Execution Plans](#)

Plan Control

- [Stored Outlines](#)
- [SQL Profiles](#)
- [SQL Plan Baselines](#)

SQL Execution

- [Active Session History](#)
- [AWR Active Session History](#)
- [SQL Statistics](#)
- [SQL Detail ACTIVE Report](#)
- [Monitor Statistics](#)
- [Monitor ACTIVE Report](#)
- [Monitor HTML Report](#)
- [Monitor TEXT Report](#)
- [Segment Statistics](#)
- [Session Statistics](#)
- [Session Events](#)
- [Parallel Processing](#)

Tables

- [Tables](#)
- [Statistics](#)
- [Statistics Versions](#)
- [Modifications](#)
- [Properties](#)
- [Physical Properties](#)
- [Constraints](#)
- [Columns](#)
- [Indexed Columns](#)
- [Histograms](#)
- [Partitions](#)
- [Indexes](#)

Objects

- [Objects](#)
- [Dependencies](#)
- [Fixed Objects](#)
- [Fixed Object Columns](#)
- [Nested Tables](#)
- [Policies](#)
- [Audit Policies](#)
- [Tablespaces](#)
- [Metadata](#)



Demonstration

SQLT Main Report Navigation



My Oracle Support Notes and Contact Info

Review these

- **215187.1** SQLTXPLAIN (SQLT) Tool
- **1454160.1** SQLTXPLAIN (SQLT) FAQ

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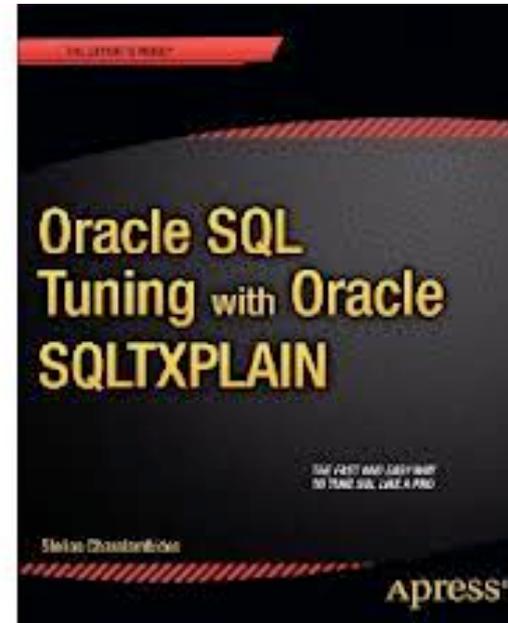


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Oracle SQL Tuning with Oracle SQLTXPLAIN

Stelios Charalambides (2013)

- Publishing Information
- Beginner to Intermediate



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