

如何监控Oracle索引的使用完全解析Oracle认证考试 PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/576/2021_2022__E5_A6_82_E4_BD_95_E7_9B_91_E6_c102_576579.htm

研究发现，oracle数据库使用的索引不会超过总数的25%，或者不易他们期望被使用的方式使用。通过监控数据库索引的使用，释放那些未被使用的索引，从而节省维护索引的开销，优化性能。

1、在oracle8i中，确定使用了那个索引的方法意味着要对存在语共享SQL区中的所有语句运行EXPLAIN PLAN，然后查询计划表中的OPERATION列，从而识别有OBJECT_OWNER和OBJECT_NAME列所确定的那个索引上的索引访问。下面是一个监控索引使用的脚本，这个脚本仅仅是一个样品，在某种条件下成立：条件：运行这个脚本的用户拥有权限解释所有的v\$sqlarea中的sql，除了不是被SYS装载的。plan_table.remarks能够别用来决定与特权习惯的错误。对所有的共享池中SQL，参数OPTIMIZER_GOAL是一个常量，无视v\$sqlarea.optimizer_mode。两次快照之间，统计资料被再次分析过。没有语句别截断。所有的对象都是局部的。所有被引用的表或视图或者是被运行脚本的用户所拥有，或者完全有资格的名字或同义词被使用。自从上次快照以来，没有不受"欢迎"的语句被冲洗出共享池(例如，在装载)。对于所有的语句，v\$sqlarea.version_count = 1 (children)。

脚本: Code:
[Copy to clipboard] set echo off Rem Drop and recreate PLAN_TABLE for EXPLAIN PLAN 0drop table plan_table. create table PLAN_TABLE (statement_id varchar2(30), timestamp date, remarks varchar2(80), operation varchar2(30), options

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varchar2(255), object_node varchar2(128), object_owner
varchar2(30), object_name varchar2(30), object_instance numeric,
object_type varchar2(30), optimizer varchar2(255), search_columns
number, id numeric, parent_id numeric, position numeric, cost
numeric, cardinality numeric, bytes numeric, other_tag
varchar2(255), partition_start varchar2(255), partition_stop
varchar2(255), partition_id numeric, other long, distribution
varchar2(30), cpu_cost numeric, io_cost numeric, temp_space
numeric, access_predicates varchar2(4000), filter_predicates
varchar2(4000)). Rem Drop and recreate SQLTEMP for taking a
snapshot of the SQLAREA 0drop table sqltemp. create table sqltemp
( ADDR VARCHAR2 (16), SQL_TEXT VARCHAR2 (2000),
DISK_READS NUMBER, EXECUTIONS NUMBER,
PARSE_CALLS NUMBER). set echo on Rem Create procedure to
populate the plan_table by executing Rem explain plan...for sqltext
dynamically create or replace procedure do_explain ( addr IN
varchar2, sqltext IN varchar2) as dummy varchar2 (1100). mycursor
integer. ret integer. my_sqlerrm varchar2 (85). begin
dummy:=EXPLAIN PLAN SET STATEMENT_ID= .
dummy:=dummy|||addr|| || FOR ||sqltext. mycursor :=
dbms_sql.open_cursor.
dbms_sql.parse(mycursor,dummy,dbms_sql.v7). ret :=
dbms_sql.execute(mycursor). dbms_sql.close_cursor(mycursor).
commit. exception -- Insert errors into PLAN_TABLE... when
others then my_sqlerrm := substr(sqlerrm,1,80). insert into
plan_table(statement_id, remarks) values (addr,my_sqlerrm). --

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close cursor if exception raised on EXPLAIN PLAN
dbms_sql.close_cursor(mycursor). end. / Rem Start EXPLAINing all
S/I/U/D statements in the shared pool declare -- exclude statements
with v$sqlarea.parsing_schema_id = 0 (SYS) cursor c1 is 0select
address, sql_text, DISK_READS, EXECUTIONS, PARSE_CALLS
from v$sqlarea where command_type in (2,3,6,7) and
parsing_schema_id != 0. cursor c2 is 0select addr, sql_text from
sqltemp. addr2 varchar(16). sqltext v$sqlarea.sql_text%type. dreads
v$sqlarea.disk_reads%type. execs v$sqlarea.executions%type. pcalls
v$sqlarea.parse_calls%type. begin open c1. fetch c1 into
addr2,sqltext, dreads,execs,pcalls. while (c1%found) loop insert into
sqltemp values (addr2,sqltext,dreads,execs,pcalls). commit. fetch c1
into addr2, sqltext,dreads,execs,pcalls. end loop. close c1. open c2.
fetch c2 into addr2, sqltext. while (c2%found) loop
do_explain(addr2,sqltext). fetch c2 into addr2, sqltext. end loop.
close c2. end. / Rem Generate a report of index usage based on the
number of times Rem a SQL statement using that index was executed
0select p.owner, p.name, sum(s.executions) totexec from sqltemp s,
(0select distinct statement_id stid, object_owner owner,
object_name name from plan_table where operation = INDEX) p
where s.addr = p.stid group by p.owner, p.name order by 2 desc.
Rem Perform cleanup on exit (optional) 0delete from plan_table
where statement_id in ( 0select addr from sqltemp ). 0drop table
sqltemp.关于这个脚本，有几个重要的地方需要注意，即它可能
一起明显的开销，因此，应该在仔细地进行权衡后才把它
应用到繁忙的生产应用系统中区。 100Test 下载频道开通，各

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