

Oracle9i数据库WITH查询语法小议 PDF转换可能丢失图片或格式，建议阅读原文

[https://www.100test.com/kao\\_ti2020/143/2021\\_2022\\_Oracle9i\\_E6\\_95\\_c102\\_143365.htm](https://www.100test.com/kao_ti2020/143/2021_2022_Oracle9i_E6_95_c102_143365.htm) Oracle9i新增了WITH语法功能，可以将查询中的子查询命名，放到SELECT语句的最前面。下面看一个简单的例子: SQL> WITH2 SEG AS (SELECT SEGMENT\_NAME, SUM(BYTES)/1024 K FROM USER\_SEGMENTS GROUP BY SEGMENT\_NAME),3 OBJ AS (SELECT OBJECT\_NAME, OBJECT\_TYPE FROM USER\_OBJECTS)4 SELECT O.OBJECT\_NAME, OBJECT\_TYPE, NVL(S.K, 0) SIZE\_K5 FROM OBJ O, SEG S6 WHERE O.OBJECT\_NAME = S.SEGMENT\_NAME ( )7 .OBJECT\_NAME OBJECT\_TYPE SIZE\_KDAIJC\_TEST TABLE 128P\_TEST PROCEDURE 0IND\_DAIJC\_TEST\_C1 INDEX 128通过WITH语句定义了两个子查询SEG和OBJ，在随后的SELECT语句中可以直接对预定义的子查询进行查询。从上面的例子也可以看出，使用WITH语句，将一个包含聚集、外连接等操作SQL清晰的展现出来。 WITH定义的子查询不仅可以使查询语句更加简单、清晰，而且WITH定义的子查询还具有在SELECT语句的任意层均可见的特点。 即使是在WITH的定义层中，后定义的子查询都可以使用前面已经定义好的子查询: SQL> WITH2 Q1 AS (SELECT 3 5 S FROM DUAL),3 Q2 AS (SELECT 3 \* 5 M FROM DUAL),4 Q3 AS (SELECT S, M, S M, S \* M FROM Q1, Q2)5 SELECT \* FROM Q3.S M S M S\*M8 15 23 120利用WITH定义查询中出现多次的子查询还能带来性能提示。 Oracle会对WITH进行性能优化，当需要多次访问WITH定

义的子查询时，Oracle会将子查询的结果放到一个临时表中，避免同样的子查询多次执行，从而有效的减少了查询的IO数量。看一个简单的例子，首先构造一张大表，现在要取出大表中ID最小、ID最大以及ID等于平均值的记录，看看普通写法和WITH语句的区别:

```
SQL> CREATE TABLE T_WITH AS
SELECT ROWNUM ID, A.* FROM DBA_SOURCE A WHERE
ROWNUM SET TIMING ON SQL> SET AUTOT ON SQL>
SELECT ID, NAME FROM T_WITH2 WHERE ID IN 3 (4
SELECT MAX(ID) FROM T_WITH 5 UNION ALL6 SELECT
MIN(ID) FROM T_WITH7 UNION ALL8 SELECT
TRUNC(AVG(ID)) FROM T_WITH9 ).ID NAME1
STANDARD50000 DBMS_BACKUP_RESTORE100000
INITJVMAUX已用时间: 00: 00: 00.09执行计划Plan hash value:
647530712-----|
```

Id	Operation	Name	Rows	Bytes
0	SELECT STATEMENT		3	129
1	HASH JOIN		3	129
2	VIEW	VW_NSO_1	3	39
3	HASH UNIQUE		3	39
4	UNION-ALL		5	
5	SORT AGGREGATE		1	13
6	TABLE ACCESS FULL	T_WITH	112K	1429K
7	SORT AGGREGATE		1	13
8	TABLE ACCESS FULL	T_WITH	112K	1429K
9	SORT AGGREGATE		1	13
10	TABLE ACCESS FULL	T_WITH	112K	1429K
11	TABLE ACCESS FULL	T_WITH	112K	3299K

-----Pre  
dicate Information (identified by operation

id):-----1 -

access("ID"="\$nso\_col\_1")Note----- dynamic sampling used for  
this statement统计信

息-----0

recursive calls0 db block gets5529 consistent gets0 physical reads0  
redo size543 bytes sent via SQL\*Net to client385 bytes received via  
SQL\*Net from client2 SQL\*Net roundtrips to/from client0 sorts  
(memory)0 sorts (disk)3 rows processed为了避免第一次执行时  
物理读的影响，查询结果选取了SQL的第三次运行，物理读  
为0时的统计信息。 100Test 下载频道开通，各类考试题目直  
接下载。详细请访问 [www.100test.com](http://www.100test.com)