

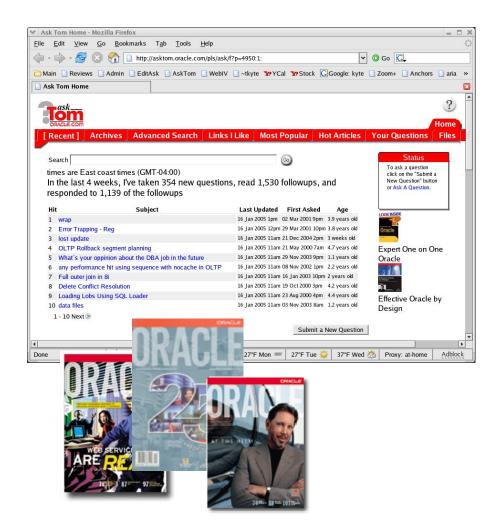


Tom Kyte

ORACLE'

ORACLE®

Who am I



- Been with Oracle for over 13 years
- User of Oracle for over 18 years
- The "Tom" behind AskTom in Oracle Magazine
 www.oracle.com/oramag
- Expert Oracle Database Architecture
- Effective Oracle by Design
- Expert One on One Oracle
- Beginning Oracle

Participate

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Understand
Why Why
Trust, but Question
ROT

Tom,

I am a struggling Want-To-Be DBA.

I attempted to earn the Oracle 8i Certification but that release expired before I could pass my last test.

I had to start all over again with Oracle 9i. I have already earned my Oracle 9i OCA certification and I am now attempting to earn the Oracle 9i OCP certification.

All of my training is self taught with the aid of the Self Test study materials and any free online materials that I can find. Unfortunately, my current job does not give me the 'hands-on' DBA experience that I need.

I really need some help. My company is really cheap when it comes to training. Since most Oracle training is very expensive, my requests for training have been declined. Do you have any suggestions?



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My advice is sort of summed up here:

http://tkyte.blogspot.com/2005/09/question.html

In many cases, the most important point is "participation", it literally is how I got started some 12 years ago in 1994. My range of experience prior to that was limited to what I did at my job. After starting to participate (first as a "lurker" reading everything and later as an active participant), the breadth of what I knew increased many times over. I never really had any formal training in Oracle (I sometimes audit classes now, but to judge how useful they are - not to take them so much).

With the advent of things like Oracle Express Edition (http://otn.oracle.com/xe) you can download and have Oracle on any machine for free - the ability to "play and test and learn" on your own is limitless. I started in 1987 with a \$99 version of Oracle - version 5.1.5c for DOS.



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Where?

- Usenet Newsgroups (http://groups.google.com)
- Oracle-L (http://www.freelists.org/archives/oracle-l/)
- Various Forums
 - http://www.dizwell.com/forum/
 - http://www.dbasupport.com/forums/
- Cooperative FAQ (http://www.jlcomp.demon.co.uk/faq/ind_faq.html)
- OTN Discussion Forums
 (http://forums.oracle.com/forums/index.jsp?cat=48)
- Metalink (http://metalink.oracle.com/)
- IOUG (http://www.ioug.org)

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Understand

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Understand that...

- The database works the way it works
- Software works the way it works
- Things in general work the way they work
 - And sometimes, that is different from the way we think they should work
 - Shared server
 - And sometimes, things change
 - Foreign keys

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How do I reorg a table?

- You Alter table T move, rebuild indexes...
 - And say they did that, what did they get?
 - Took 2 hours of downtime (big table, lots of indexes)
 - Cost \$\$\$, they could have been doing something truly productive
 - Did they achieve their goal? Not in this case, their perceived problem was chained rows (say 1,000 of them)
 - After the reorg, they still had 1,000 chained rows!
- We need to ask "WHY", what is the goal.

How do I reorg a 50gig database

At a given customer site, *I must reorganize a 50 Gigs 8.0.5 Prod DB* in a single day.

Note that I do not know the environment yet (I am replacing somebody leaving on vacation without providing any analysis report. *This guy only told this DB is bad, we must re-organize it and left on vacation...*).

I only know the DB is running on a Windows (NT) server, the 50 Gigs DB is mission-critical (hosting the PeopleSoft Financials suite), the DB is said to be highly-fragmented at the tablespace-levels and highly chained at the table-levels but no bad-perf issue has been apparently reported.

I do not have disk space to create a new db aside the current one, I only have One Day to successfully carry out the whole thing. What would be the right approach? *Keeping in mind, not to loose anything on the way ... (i.e., low risk).* What would be the best strategy?

How do I reorg a 50gig database

- I asked "why", "what is the goal"
- Answer:
 - Tablespace fragmented as reported by Toad
 - Chained rows, must get rid of chained rows
- Turns out peoplesoft uses lots of longs, won't matter how many times you rebuild will it.
- Fragmented tablespace so what? 1 extent or 500 extents.
 So what? They don't drop/truncate, so "so what"
- Only answer is "don't even think about doing this". What would have happened had I just answered the question!

How do I create a table in a stored procedure

- You could answer
 - Get CREATE TABLE granted directly to you, not via a role. Use EXECUTE IMMEDIATE 'create table...'
 - Or, you could answer "why, what is the goal?"

How do I create a table in a stored procedure

- Why is Why the right answer?
 - They were porting from SQL Server.
 - They had years of database experience.
 - Just not with Oracle.
 - Dropping and Creating tables in PL/SQL is not the correct approach in Oracle.
 - We need to tell them How in Oracle.
 - They are not stupid, they just don't know something yet
 - We are not presumptuous or rude, just responsible

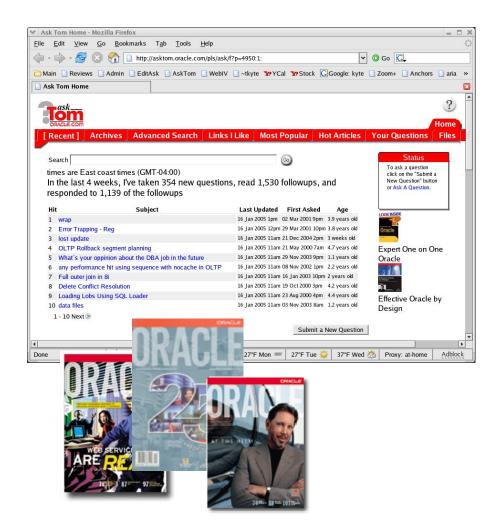
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Security

- Google sql injection
- Funny thing happened during my <u>last column</u>

```
create or replace procedure set_udump (p_udump in varchar2)
as
begin
    execute immediate 'alter system set
        user_dump_dest = '''||p_udump||''' scope=memory';
end;
/
```

Security

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Security

- Google sql injection
- Funny thing happened during my <u>last column</u>

```
create or replace procedure set_udump (p_udump in varchar2)
as
begin
if ( p_udump NOT LIKE '%=%' )
then
        execute immediate 'alter system set
        user_dump_dest = '''||p_udump||''' scope=memory';
else
    raise_application_error(-20000,'Sorry, but for safety
    reasons this procedure does not allow "=" in the parameter
    value');
end if;
end;
```

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the catch phrase is a facetious way one person tells another that he or she is about to make a stupid mistake; that there's a factor he or she overlooked which ought to be taken into account.

- Always use bind variables
 - Unless
 - Data warehouse
 - Month end report
 - Static SQL in PL/SQL (impossible to not bind correctly!)
 - •

- Find full table scans, they are evil
 - Unless
 - You are going to get every row anyway

```
Select *
  from t1, t2, t3, t4, t5
where t1.c1 = t2.c1
  and t2.c2 = t3.c2
  and t3.c3 = t4.c3
  and t4.c4 = t5.c5
```

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Select /*+ RULE */ *
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where t1.c1 = t2.c1
  and t2.c2 = t3.c2
  and t3.c3 = t4.c3
  and t4.c4 = t5.c5
  and t1.c1 > 0;
```

- Will do one of three things for you
 - Fix something
 - Break something
 - Nothing at all

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Monthly 4th Thursday 6pm – 8pm

IBM Center Rocky Point



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