

How To Do An Oracle Time-Based Performance Analysis



Craig Shallahamer
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This presentation was given by Craig Shallahamer (craig@orapub.com)
on October 1, 2017 at Oracle OpenWorld in San Francisco, CA USA.



COLLABORATE 18

TECHNOLOGY AND APPLICATIONS FORUM
FOR THE ORACLE COMMUNITY

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COLLABORATE 18 registration will open on Wednesday, November 8.

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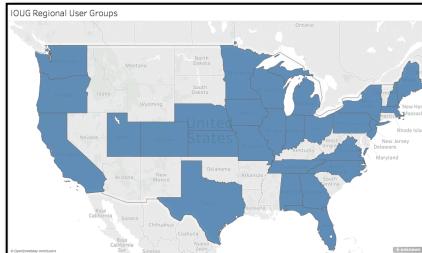
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WORKLOAD REPOSITORY report for

DB Name	DB Id	Instance	Inst num	Startup Time	Release	RAC
PROD30	147730122	prod30	1	21-Sep-15 13:12	12.1.0.2	NO

Host Name	Platform	CPUs	Cores	Sockets	Memory (GB)
sixcore	Linux x86 64-bit	6	6	1	23.54

	Snap Id	Snap Time	Sessions	Cursors/Session
Begin Snap:	13009	21-Sep-15 13:41:28	45	2.2
End Snap:	13010	21-Sep-15 13:58:12	50	2.1
Elapsed:		16.72 (mins)		
DB Time:		400.28 (mins)		





Report Summary

Cache Sizes

	Begin	End	
Buffer Cache:	0M	0M	Std Block Size: 8K
Shared Pool Size:	480M	480M	Log Buffer: 25,044K

Load Profile

	Per Second	Per Transaction	Per Exec	Per Call
DB Time(s):	23.9	255.5	0.00	30.83
DB CPU(s):	6.0	63.5	0.00	7.66
Redo size:	2,093.0	22,339.4		

Oh Man!

What now?

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Your Best Analysis Strategy

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About Me...

- Long time Oracle DBA
- Specialize in Oracle Database performance and predictive analysis
- Performance researcher
- Blogger: A Wider View About Oracle Performance Tuning
- Author: Oracle Performance Firefighting and Forecasting Oracle Performance.
- Conference speaker
- Teacher and mentor
- Oracle ACE Director
- IOUG DBA Track Manager









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OraPub works closely with DBAs who want to take their Oracle tuning skills to the next level.

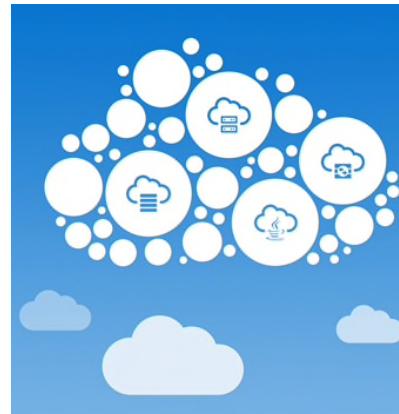
So, you can solve the toughest Oracle DB problems.

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How connect with Craig and OraPub

Analysis Options



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Here's Are The Situations...

- The user community says that on Friday afternoons, performance is always slow.

Here's Are The Situations...



- The user community says that on Friday afternoons, performance is always slow.
- A few users called after lunch to report their screen sometimes froze, for up to a minute around 10:30am.

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Why do an OTBA?
How to do an
Oracle
Time-Based
Analysis
(OTBA)

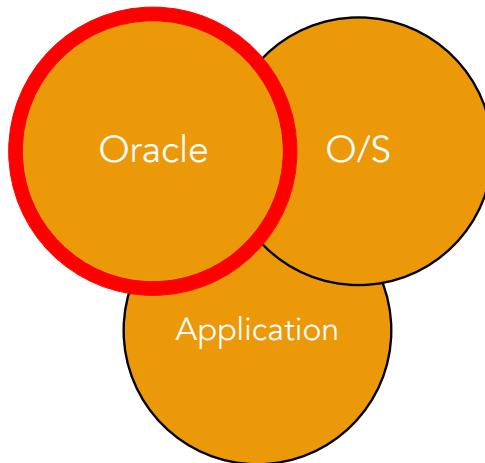


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OraPub 3-Circle Analysis



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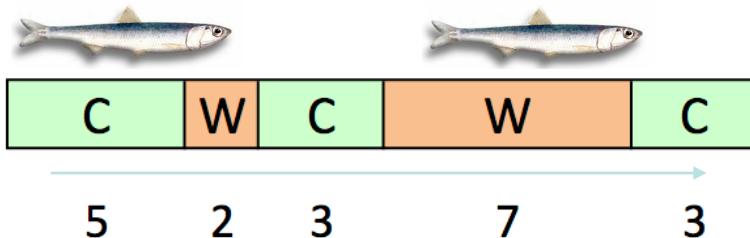
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Elapsed Time. What is it?

Elapsed Time = CPU Time + Wait Time



Time
CPU = 11
Wait = 9

Work
300K LIOs

E = 20

Single Serial Session

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Big ocean with lots of fish



VS

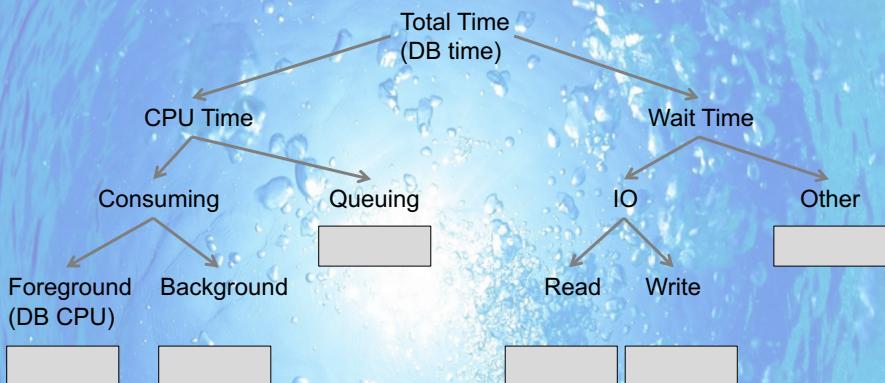


VS



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What is an OTBA?



The focus can be a cluster, single instance, SQL statement, chunk of code, module, program, ...

Users feel time. So, if our analysis is time based, we can create a quantitative link between the user experience and our analysis.

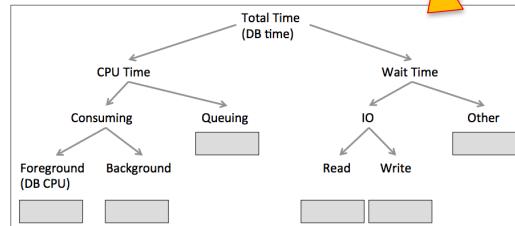
How to do an OTBA?



Top 5 Timed Foreground Events

Event	Waits	Time(s)	Avg wait (ms)	% DB time	Wait Class
DB CPU		5,966		24.84	
latch: cache buffers chains	343,432	5,529	16	23.02	Concurrency
cursor: pin S	9,719	119	12	0.49	Concurrency
db file sequential read	1,312	6	5	0.03	User I/O
wait list latch free	302	4	12	0.02	Other

1. Get data you need
2. Classify Oracle time
3. Develop big-time reducing solutions ...



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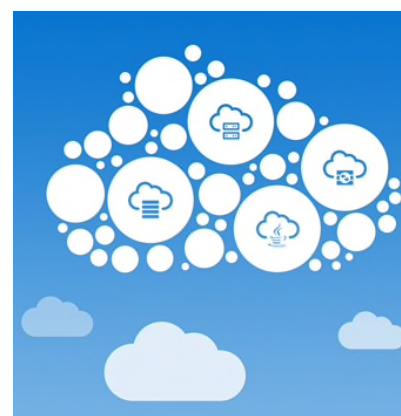
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How To Do



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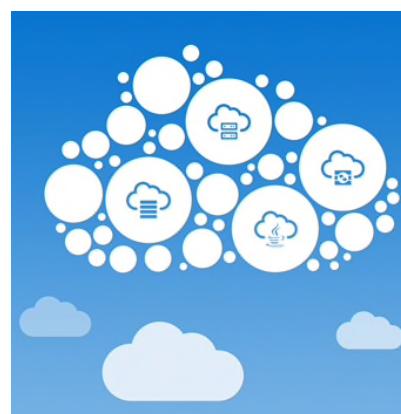
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Live Demo

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Moving
To The
Next Level



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Resource listing



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Thank You!

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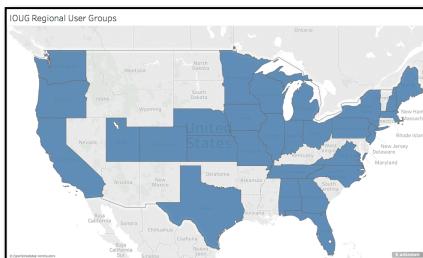


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