Hello DBA,

Myself Rahul Kurkute. We all know AWR reports designed to capture and analyze Oracle database performance data which consist of all information about database for time. Reading AWR reports can be a difficult task for DBA's due to their intricate nature, technical complexity, and lots of numerical figures in each section.

In this document I'm not going to explain How to read AWR reports but I'm goanna show you the simplest way to understand/know what happened on DB during the AWR snap time. If you want to learn **"HOW TO READ AWR Report"** I'll leave best blogs links at the end.

So, let's start.

We all know how to generate AWR report, but did you ever noticed while generating AWR report it ask for REPORT TYPE. Usually we select **"HTML" or "TEXT".**

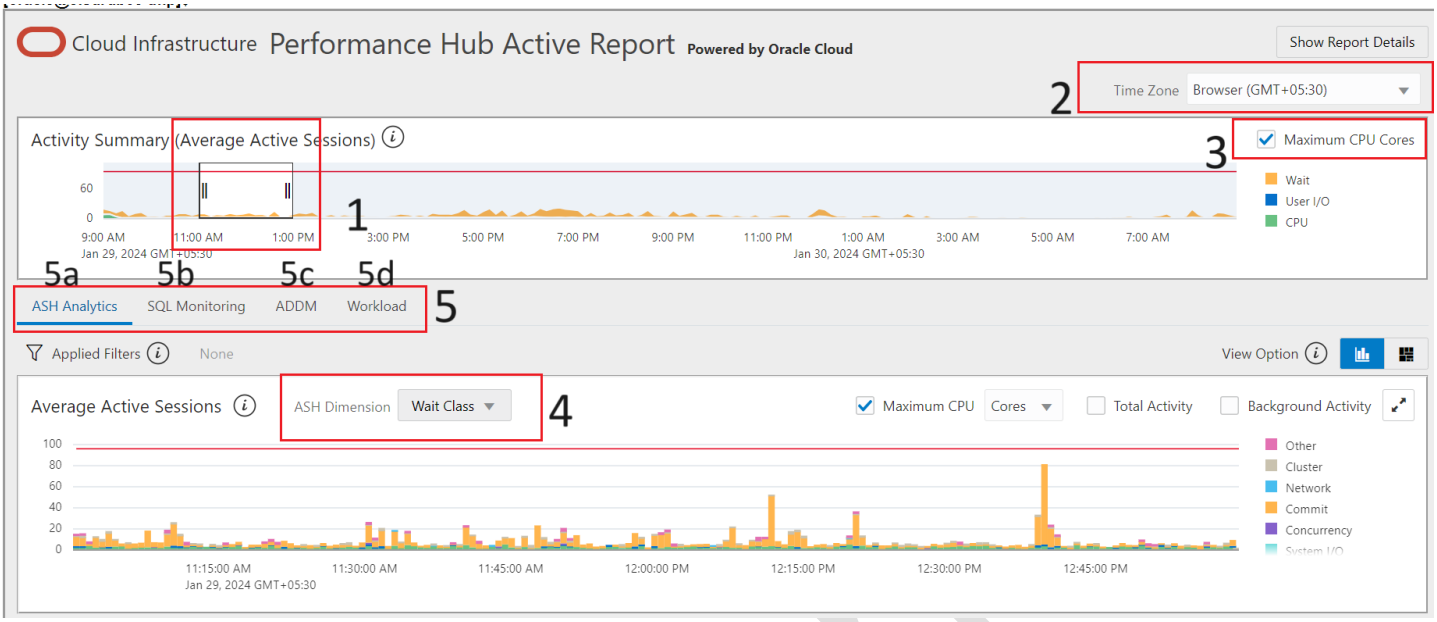
We always ignore 3rd type **"ACTIVE-HTML".** If you knew this, then congrats you're genius.

```
conn / as sysdba

SQL> @$ORACLE_HOME/rdbms/admin/awrrpt.sql

Specify the Report Type
~~~~~~~~~~~~~~~~~~~~~~~
AWR reports can be generated in the following formats. Please enter the
name of the format at the prompt. Default value is 'html'.

'html' HTML format (default)
'text' Text format
'active-html' Includes Performance Hub active report

Enter value for report_type:
old 1: select 'Type Specified: ',lower(nvl('&&report_type','html')) report_type from dual
new 1: select 'Type Specified: ',lower(nvl('','html')) report_type from dual

Type Specified: html

old 1: select '&&report_type' report_type_def from dual
new 1: select 'html' report_type_def from dual
```

Here, we must select **'active-html'** as a type of AWR report.

So yes, we can generate AWR reports in 'active-html' which Includes **Performance Hub active report** nothing but OEM's monitoring screen with data, specific to AWR time.

Once you generate active-html AWR reports it will generate normal AWR report + Performance Hub active report (at the end of AWR report). Check below SS for same.



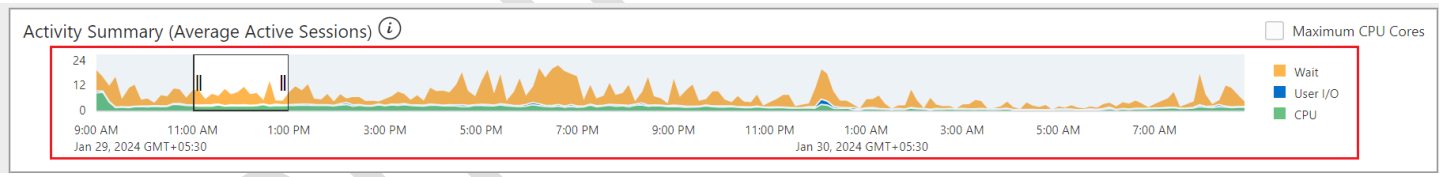
If you are expert in OEM Monitoring, then this will be very easy for you to understand.

Below are the information and my recommendations of each point marked in SS.

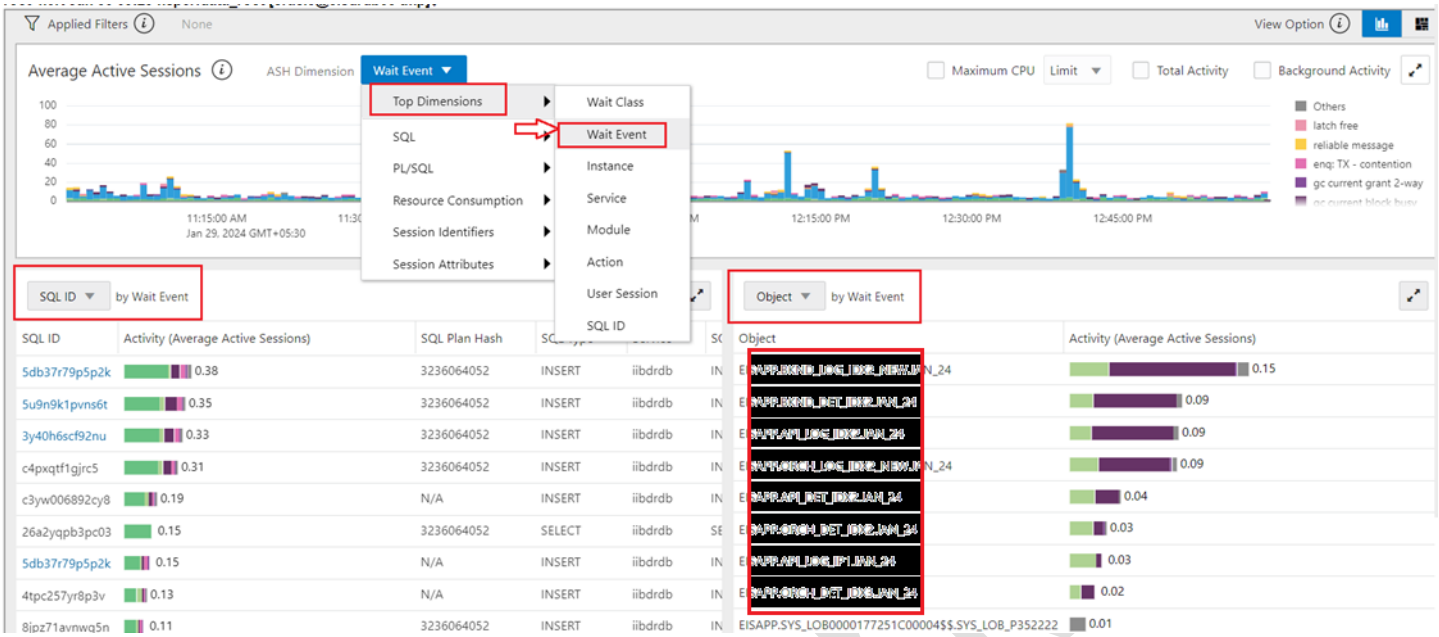
1. This mark shows Avg. Active session on DB during your AWR snap time duration. Other time periods load also visible here, but we can't check data other than our AWR snap time.

2. This mark show Time Zone. Always select Database time rather than browser time.

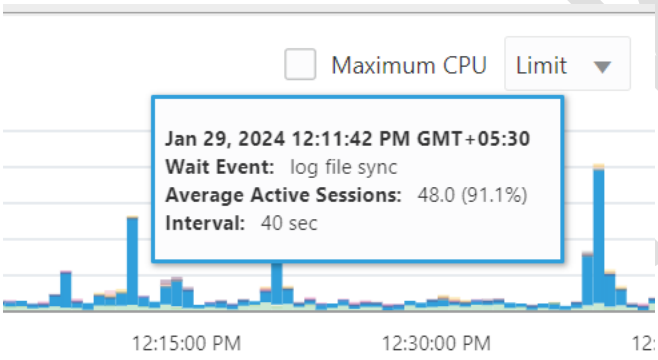
3. Simply it shows Max CPU Cores. Un-tick this and it will enlarge your active sessions graph as shown below.



4.Click on ASJ dimension and this will show many options and according to your selection it will sort and present data. You can set columns values as per your choice, but I'll prefer to set as I shown in below SS



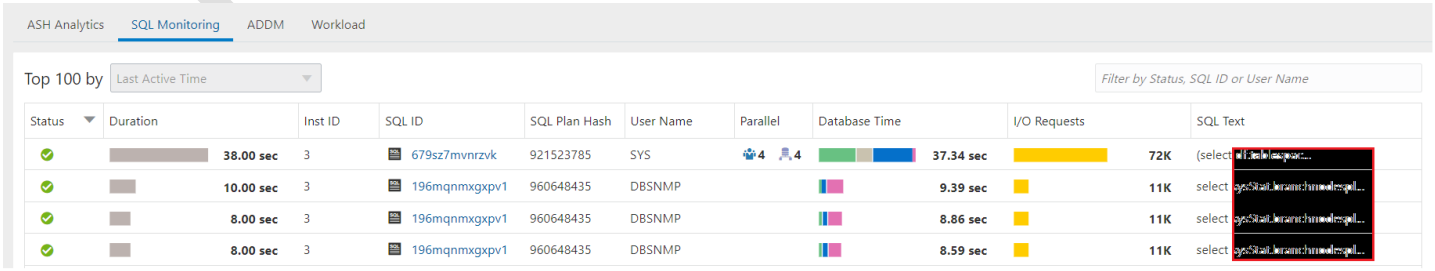
As we can see I've selected and sorted data as per Wait Event and then SQL ID, Objects. It will show top wait event consumed % of DB Time with top SQL and Objects usage. If u drag your cursor on load bars, it will show more info as like below.



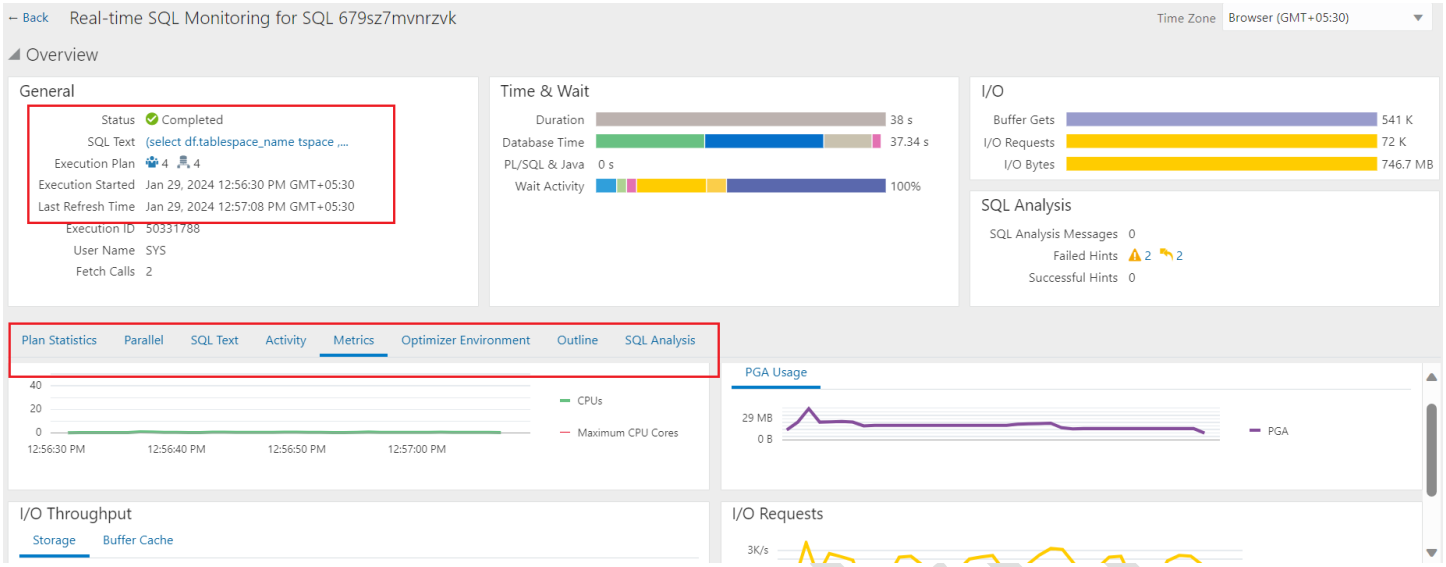
5. Here we get other tabs ASH, SQL Monitoring, ADDM, Workload.

5a. It shows ASH data like as shown in point 4th SS.

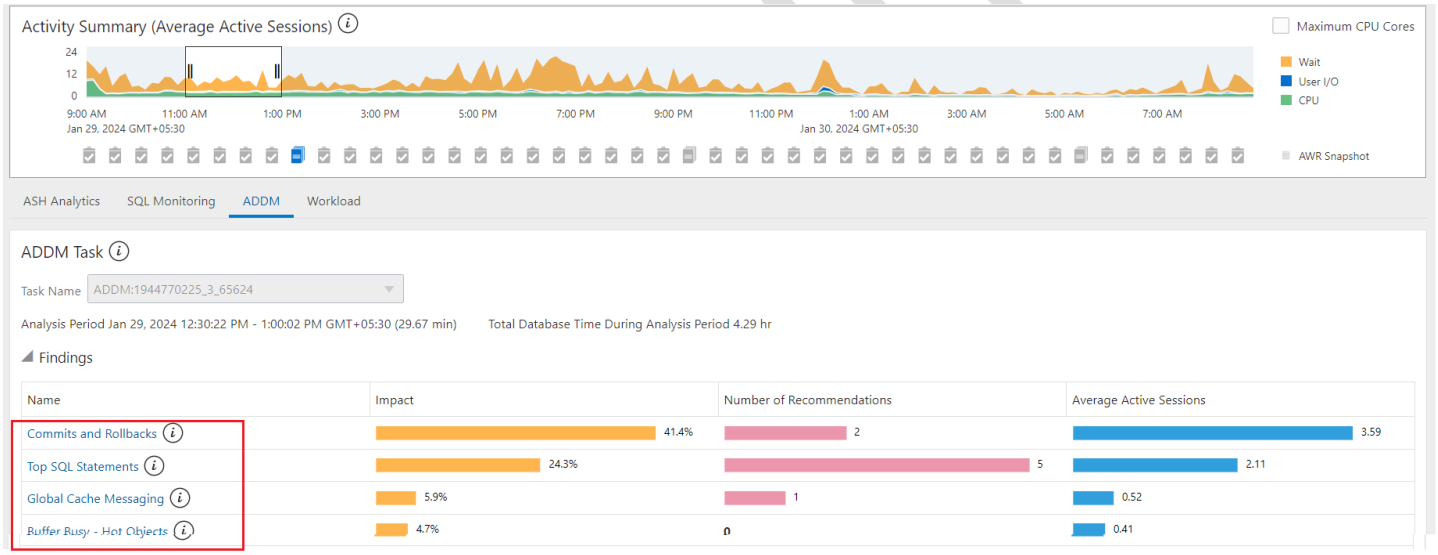
5b. In SQL Monitoring tab, you can view top 100 SQL ID's and other stats info with EXECUTION PLAN.

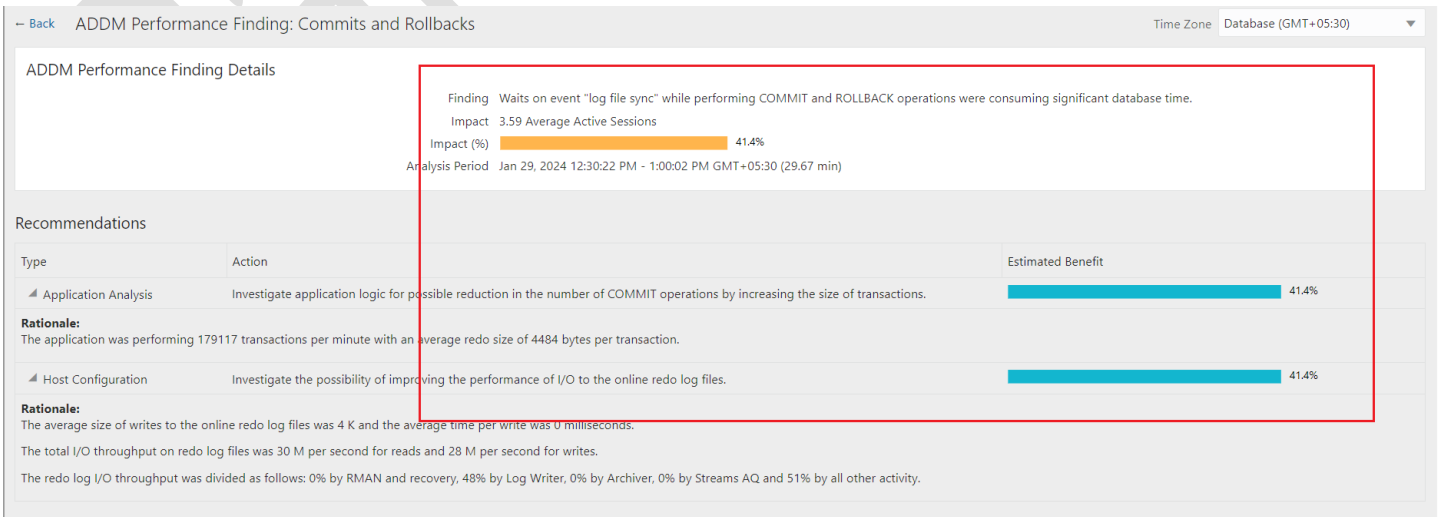


Click on any SQL ID and it will show more info about SQL ID.

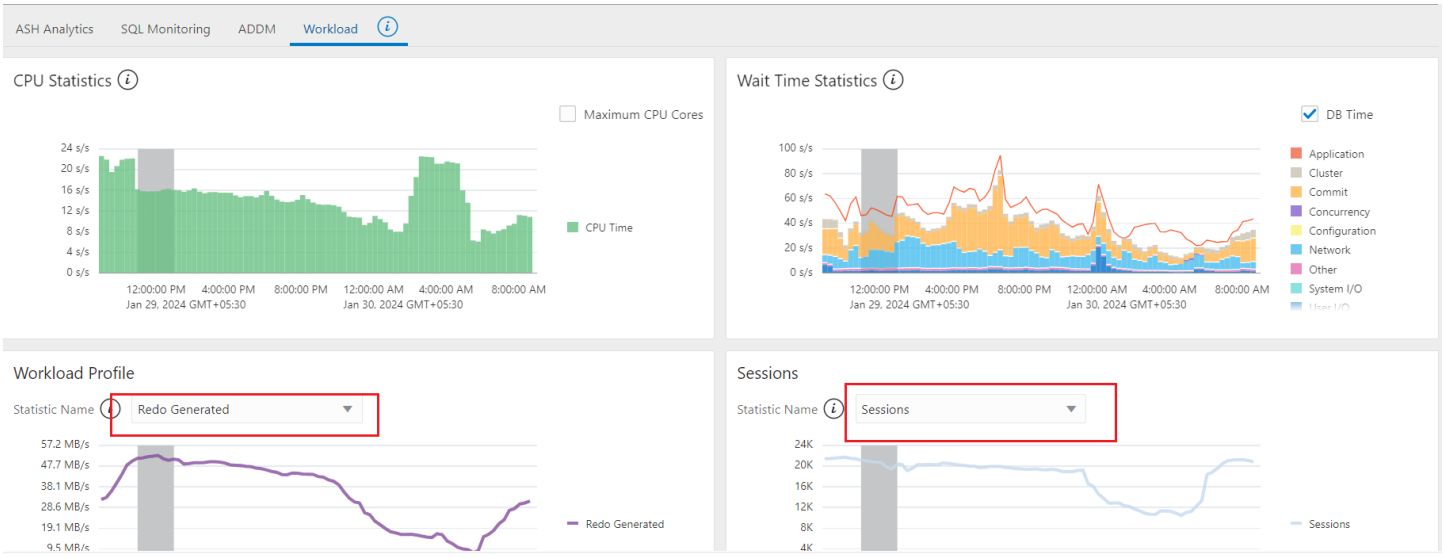


5c. In ADDM tab it shows Automatic Database Diagnostic Monitor report's findings with recommendations. Next click on any finding will show deep information about it.





5d. Last tab shows more detailed information for CPU, Wait time statistics, Workload profile, session statistics info.You will get information about CPU usage, Wait event with respect to DB time, Inactive sessions count etc.



Key Notes:

1) **On busy database, generation of AWR report with active-html type will take more time.**
2) **Use this part of report as a handbook to troubleshoot Performance or any issue.**
3) **SQL monitoring requires the STATISTICS_LEVEL parameter to be set to 'TYPICAL' or 'ALL', and the CONTROL_MANAGEMENT_PACK_ACCESS parameter set to 'DIAGNOSTIC+TUNING'.**

That's it from my side. Hope this document will level up your step towards understanding of AWR report.

Thanks Mr. Prashant Naik and one of my DBA friend for valuable help.

Thanks for your time too.

Keep Learning and sharing. Have a great Day!!!!!

Please share your opinions, experience, thoughts, suggestions if any.

LinkedIn Profile: Rahul Kurkute

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How to Read AWR reports blogs links:

Performance Tuning Basics 15 : AWR Report Analysis – Expert Oracle

AWR Analysis - File I/O and Tablespace I/O Statistics (dbanet.co.za)

AWR Reports (pafumi.net)

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