

## LAB - Using i<sup>3</sup> UI



- Log into the I3 system
- Examine StartPoint
  - How many environments are configured?
- Focus on the Test environment and Launch Indepth for Oracle
  - Which Workspace has opened?
  - How many Instances are installed?
- Go back to StartPoint. Focus on the Production environment and Launch Indepth for Oracle.
- For this LAB, we will use the last 48 hours
  - Setup the timeframe to display the last 48 hours.
- Switch to *Low density* display in the Dashboard graphs and scroll.
- Switch to the *Applications* tab in the Dashboard (do not confuse it with the Activity workspace)
- Use the *Users* title link to switch to the Activity workspace
  - When did the users start using the application on Monday (approximately)?
  - What is the time unit of each bar in the graph?
- Zoom into four hours of the activity
  - What is the time unit of each bar in the graph?
- Display a list of Forms/programs executed during that time
  - Which Form was executed the most (focus only on the Interactive activity)?
- Find out which Users executed this Form
- Use the BACK button to navigate to the Instance level.

### I3 Training

- Can you display the over-time graph for all the KMART programs (e.g. programs with KMART in the name)?
- Can you display a list of statements for the above programs which had more than 20 seconds of I/O wait?



## LAB - Indepth for Oracle drill-down

- Launch Indepth for Oracle while working on the production environment
- Use the Current workspace to answer the following questions
  - How many sessions are connected and how many are active?
  - Which OA Batches are currently running?
  - Are any of the sessions blocked? If so, can you identify the locking session and the sessions being blocked?

For this LAB we will focus on Activity from May 16<sup>th</sup> 11:00 am till May 17 11:59 am:

- Examine KMD3 instance performance overtime
  - What is the instance's resource breakdown for this time-range? If we want to improve performance, which wait type do we need to focus on?
  - Open another I3 window and focus on the same timeframe in April. Do you see a similar resource breakdown? If not, can you explain why?
- For each of the wait-type you identified above, can you tell if it is a system wide problem or a specific problem?
- Can you identify the programs (Forms) that contributed most of the *buffer wait*?
- What percentage of the activity is OA batch, OA interactive and Self Services?
- Drill into OA batch activity
- Examine the resource breakdown of all the batches. Is it similar to the instance breakdown?
- Which programs are being executed?
- Sort the list by the number of sessions
- Sort the list by the average In-Oracle
- Can you identify some tuning opportunities?
- Focus on the first batch
  - Which statements were executed by this program?
  - Which users executed this program?
  - What are the concurrent requests numbers?

## I3 Training

- Repeat the same process for the second batch
- Examine the OA Interactive activity
  - What is the top form?
  - Which users executed this form?
  - Which statements were executed by this form?
- What are the *hottest* tables accessed during this time-range?
- Which object suffered from most of the Internal Lock Wait?
- Can you identify the statements that contributed to it?
- Should we fix these statements? What are the number of executions and the average duration of these statements?
- Check if the behavior we see for this time-range is a typical behavior.
  
- Examine the performance of INVTMRPM during the last month.
- Examine the performance of “KM\_Address\_Label\_Driver” during the last month.



## LAB - Indepth for Oracle Tuner workspaces

For this LAB we will focus on Activity from May 16<sup>th</sup> 11:00 am till May 17 11:59 am:

- Focus on the problematic queries we identified in the previous LAB.
- Focus on the OA Batch “KM\_Shipping\_Label\_Barcodes” and identify the SQL statement that is responsible for 66% of the time
  - What is the total number of executions and the average duration? Is it a long running query?
  - Which object contributed most of the wait time?
  - Where does this statement come from? Which statement do you need to tune in order to fix the “KM\_Shipping\_Label\_Barcodes” problem?
- Examine the execution plan for the statement
  - What is the estimated cost?
  - How many tables are involved?
  - Which indexes exist for each table?
  - What is the biggest table referenced in the query? Is it the one we are waiting on?
  - Can you identify the problematic step in the plan?
  - Can you understand why the optimizer is using such a plan?
  - Can you suggest a solution?
- Examine the performance of “KM\_Shipping\_Label\_Barcodes” in the last two days. Do you see any major changes?
- Dan sent the following email this morning: “I can see in I3 a query that needs some improvement. It is 38712.63197...”. Let’s see what Dan is talking about:
  - Focus on this statement. What is the total number of executions and the average duration? Is it a long running query?
  - Who ran this query? Is it from a Form? Batch?
  - Check the performance of this query/form/batch overtime
  - Can you suggest a solution?
- Switch to the Object workspace. Identify the biggest tables in Production (based on the number of rows or/and number of pages)
- Identify the statements that are using the top table. Are there any statements that access the table via Full table scan?
- Why is the list of statements short? Can you identify the list of statements that access the table using a different workspace? What are the differences between the two lists?

## I3 Training

- Analyze the performance of the following programs:
  - OEM\_APPLICATION\_DASHBOARD\_COLLECTION
  - DISCRETE\_JOBS\_WITH\_MATERIAL\_SHORTAGE
  - Labor\_Efficiency\_Report\_by\_Standard\_Labor\_Account