

Tutorial: Oracle BAM – Real Time Process Monitoring Reports (Tutorial_10_BAM_ProcessMonitoringReport.doc)

Supported Version: Oracle BAM 10.1.3

Objectives:

This document describes designing simple reports to monitor the process status. This report gives statistics like: Process Performance (a.k.a Average Processing Time), Status of Processes (a.k.a instance running vs. instance completed), etc.

Prerequisite:

This document uses BPEL OrderBooking Tutorial and BAM OrderBooking DataObjects as reference. The BPEL and BAM steps should be completed before starting these steps. The data objects used for this report design: BPELOrderBookingData and BPELOrderBookingTimeStamp should already be available under your “StudentLab” directory (when viewed in Architect –Data Objects). These steps are described in earlier documents.

Designing “Process Monitoring” Dashboards

Open Oracle BAM on browser, (IE only) <http://localhost/OracleBAM>. Click on “Active Studio” link. Select “Create a new report” link, and select the “Tiled Report” as shown.

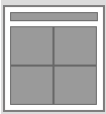
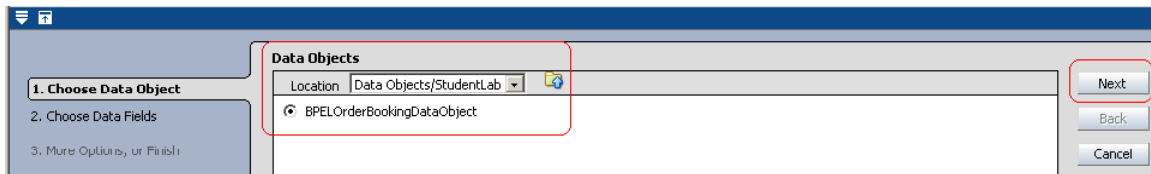


Chart #1: (Process Performance)



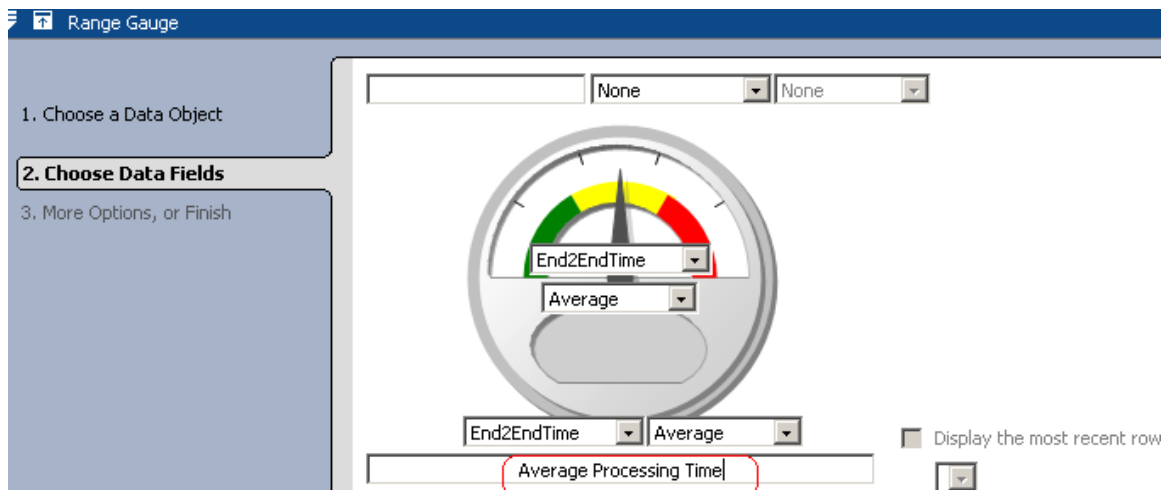
For the 1st top left area, select Range Gauge chart.

This will open Chart Edit Window in the bottom. Select StudentLab folder. Pick “BPELOrderBookingDataObject” and click “Next”.

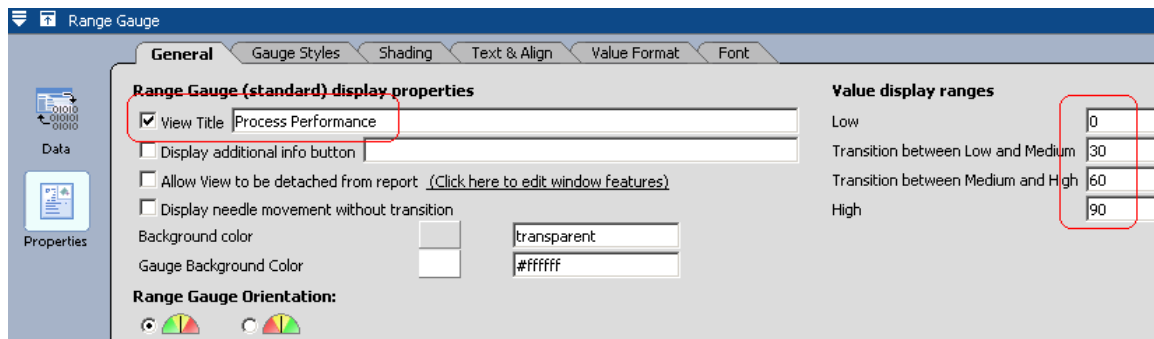


Select the parameters as shown below to display “Average End2EndTime”.

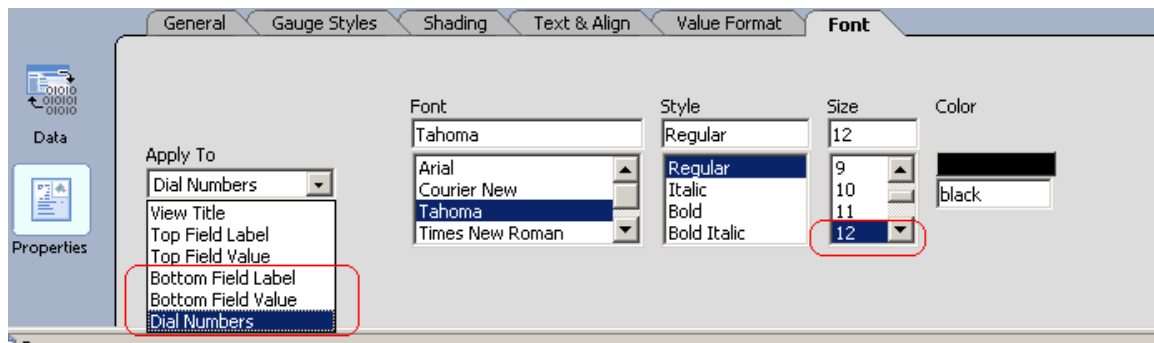
Tutorial: Oracle BAM – Real Time Process Monitoring Reports (Tutorial_10_BAM_ProcessMonitoringReport.doc)



Click on Next. Select Report Properties and Set the following properties for this chart.



Click on “Apply” and then select “Font” tab. Set the font properties as shown below.



Click on “OK” and save the chart.

Note – this chart does not have any “filters” and shows the performance figures (average processing time) for all the data, that is: all process instances available.

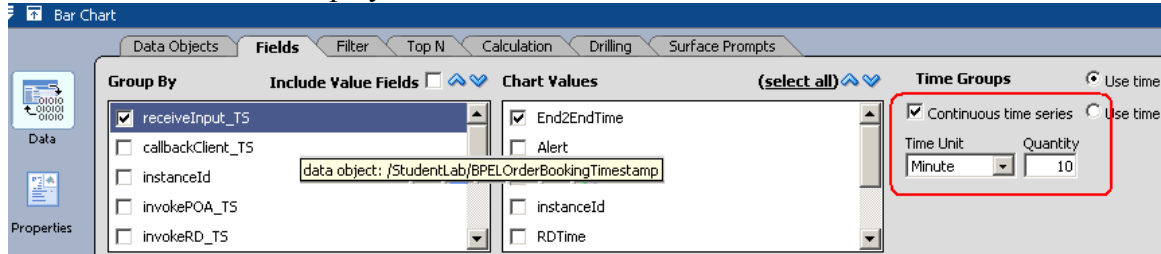
Tutorial: Oracle BAM – Real Time Process Monitoring Reports

(Tutorial_10_BAM_ProcessMonitoringReport.doc)

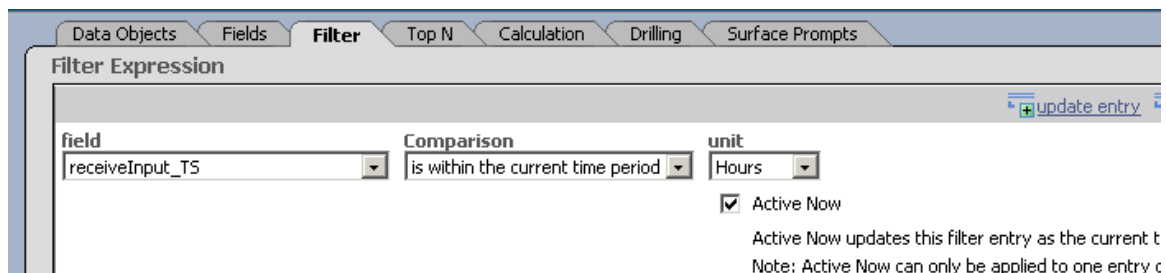
Chart #2 (Process Time last 1 hr, grouped every 10 mins)

For the 2nd chart on top right corner, select 3D Bar Chart, and select BAM Data Object -- /StudentLab/BPELOrderBookingTimestamp.

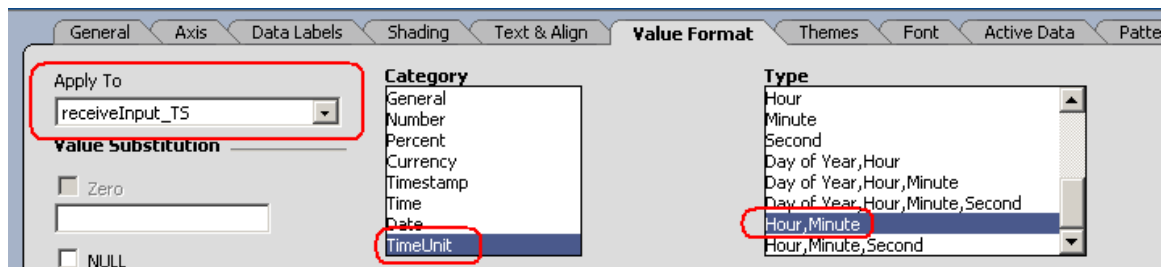
Select the fields to be displayed as below:



Click on “Apply” and then select Filters. In the filters tab, select the criteria as follows: (to select data objects from current hour only) Click on “Add Entry” and “Apply”.



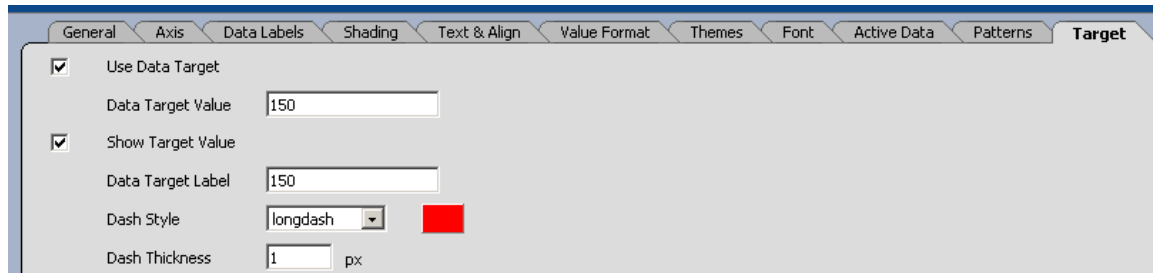
Next select the properties, and set the “Value Formatting Tab” to (display DateTime in hh:mm format). Set the value format as below to show clear time field in X-Axis.



Select “Target”, set the Target Value as 150. Select a line type, and line color and line thickness, and select the two check boxes (Use Data Target & Show Data Target).

Tutorial: Oracle BAM – Real Time Process Monitoring Reports

(Tutorial_10_BAM_ProcessMonitoringReport.doc)

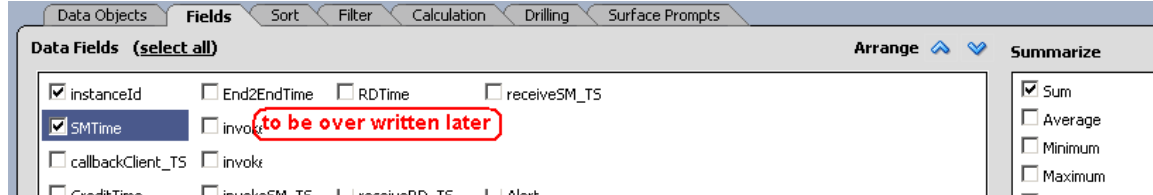


This completes the chart to display Average Processing Time, grouped every 10 mins, for the current hour. Click on OK to save this chart.

Chart #3: (Show process status)

For the 3rd chart, for lower left, select “Collapsed List”, and select BAM Data Object -- /StudentLab/BPELOrderBookingTimestamp.

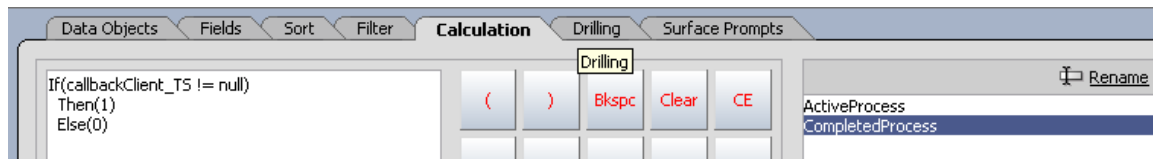
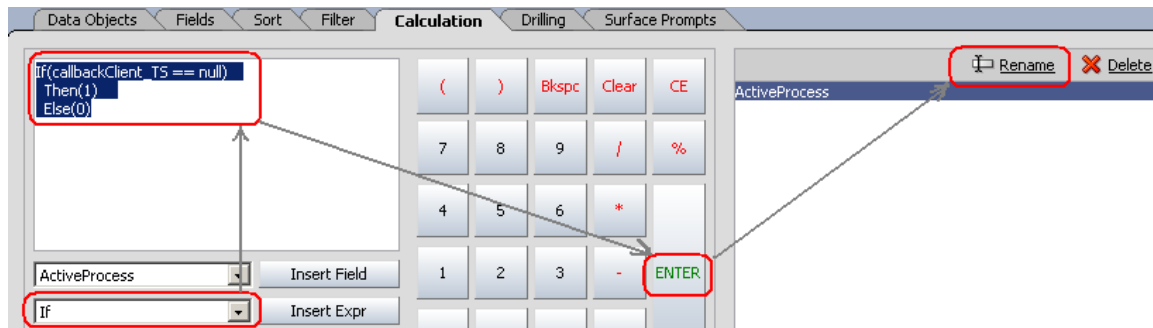
Select the fields to be displayed as below: (these are dummy selections):



Click on “Next”, Select “Calculation Tab” and set the “two” calculation fields as below:

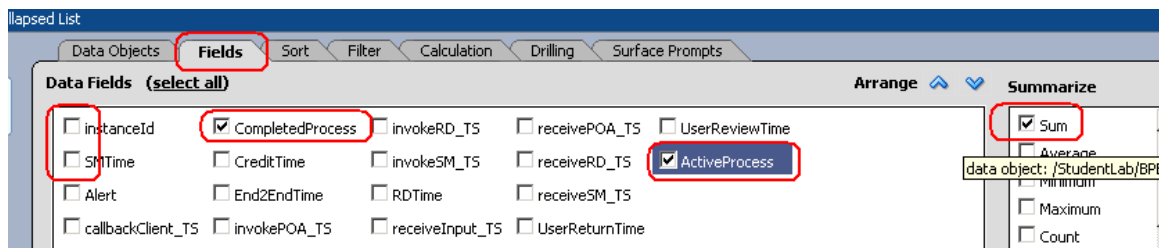
If(callbackClient_TS == null) Then(1) Else(0) == ActiveProcess

If(callbackClient_TS != null) Then(1) Else(0) == CompletedProcess

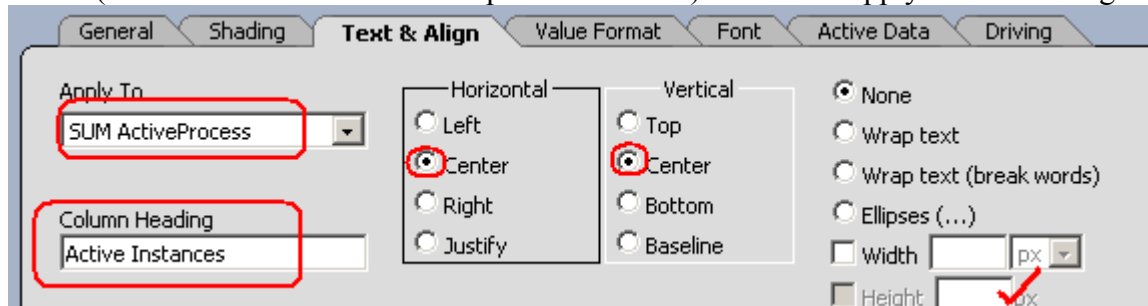


Click on “Apply” and then select “Fields” Tab. Re-do the selection of the fields to be displayed as below (remove earlier selected fields and add the two calculated fields).

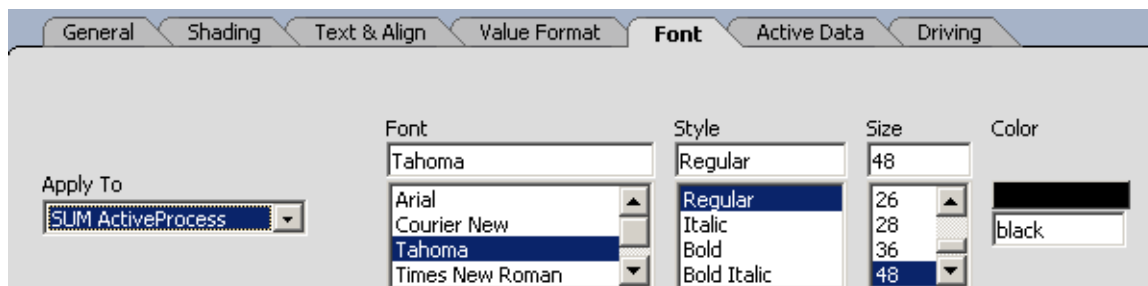
Tutorial: Oracle BAM – Real Time Process Monitoring Reports (Tutorial_10_BAM_ProcessMonitoringReport.doc)



Click on Properties and set the required properties of this chart to display the information clearly. Select “General Tab” and set View Title as “Instance Summary”. Next, select the “Text Align” tab. Set the view height to “75”. Set the “Column Headings” as shown below (for Active Instances and Completed Instances). Click on “Apply” to save changes.



Next select the Font Tab, and set font for “Sum(ActiveProcess) and Sum(CompletedProcess)” to Times New Roman Bold 48, as shown below.



Click on OK to save this chart.

Chart #4: (Show SLA status)

For the 4th chart, for lower right, select “3D Pie Chart”, and select BAM Data Object -- /StudentLab/BPELOrderBookingTimestamp.

Select the fields to be displayed as below: (these are dummy selections):

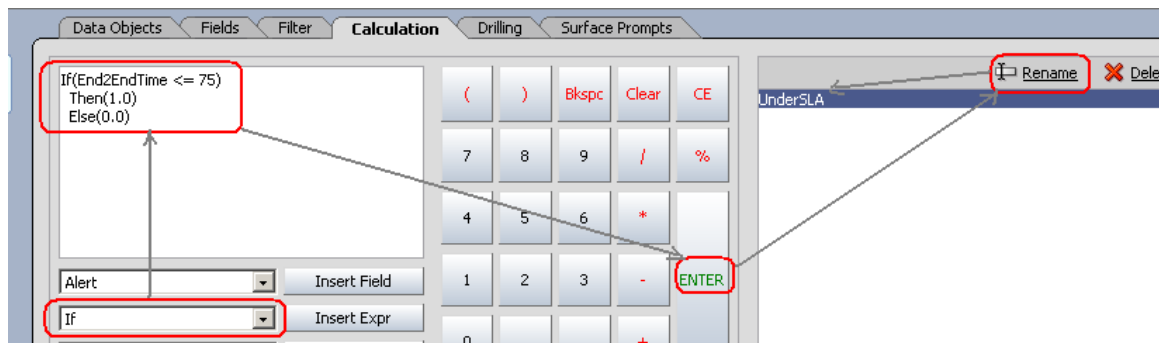
Tutorial: Oracle BAM – Real Time Process Monitoring Reports (Tutorial_10_BAM_ProcessMonitoringReport.doc)



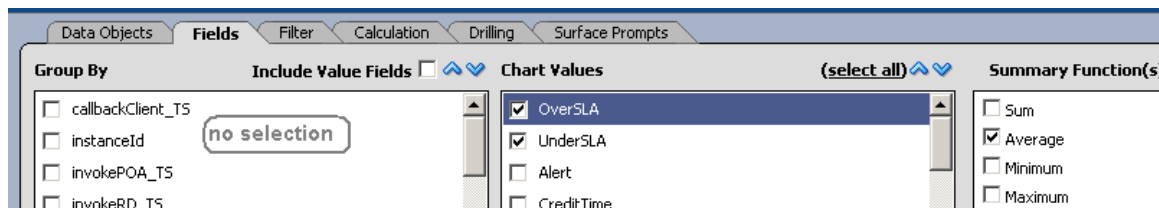
Click on “Next”, Select “Calculation Tab” and set the “two” calculation fields as below:

If(End2EndTime <= 75) Then(1.0) Else(0.0) == UnderSLA

If(End2EndTime > 75) Then(1.0) Else(0.0) == OverSLA



Click on “Apply” and return back to “Fields” Tab. Select the correct field selection with summarizes as shown below. Select Chart Values of “OverSLA” Average & “UnderSLA” Average, click on “Apply”.



Click on “Properties” and Select “General” tab. Set Chart Title as “Service Level Agreements”, and select “show legend” bottom. Click on Apply.

Select Tab – Value Format – and set Avg(OverSLA) and Avg(UnderSLA) as “percent”.

Click on “OK”. This completes defining this chart.

Click on “Close” Report – and give this report a name.

View this report using Active Viewer to see completed dashboard. Real time data can be pushed using either the simulated java program or BPEL process.

Completed Dashboard:

Note the complete dashboard would display real time results as below. Various other combinations and process status information can be displayed. In this design, only 1 chart has selection filter to limit the display to current hour, remaining charts show data for all

Tutorial: Oracle BAM – Real Time Process Monitoring Reports

(Tutorial_10_BAM_ProcessMonitoringReport.doc)

the values and data in the data objects. These charts can be improved or modified to show more refined data for current day or current hour etc.

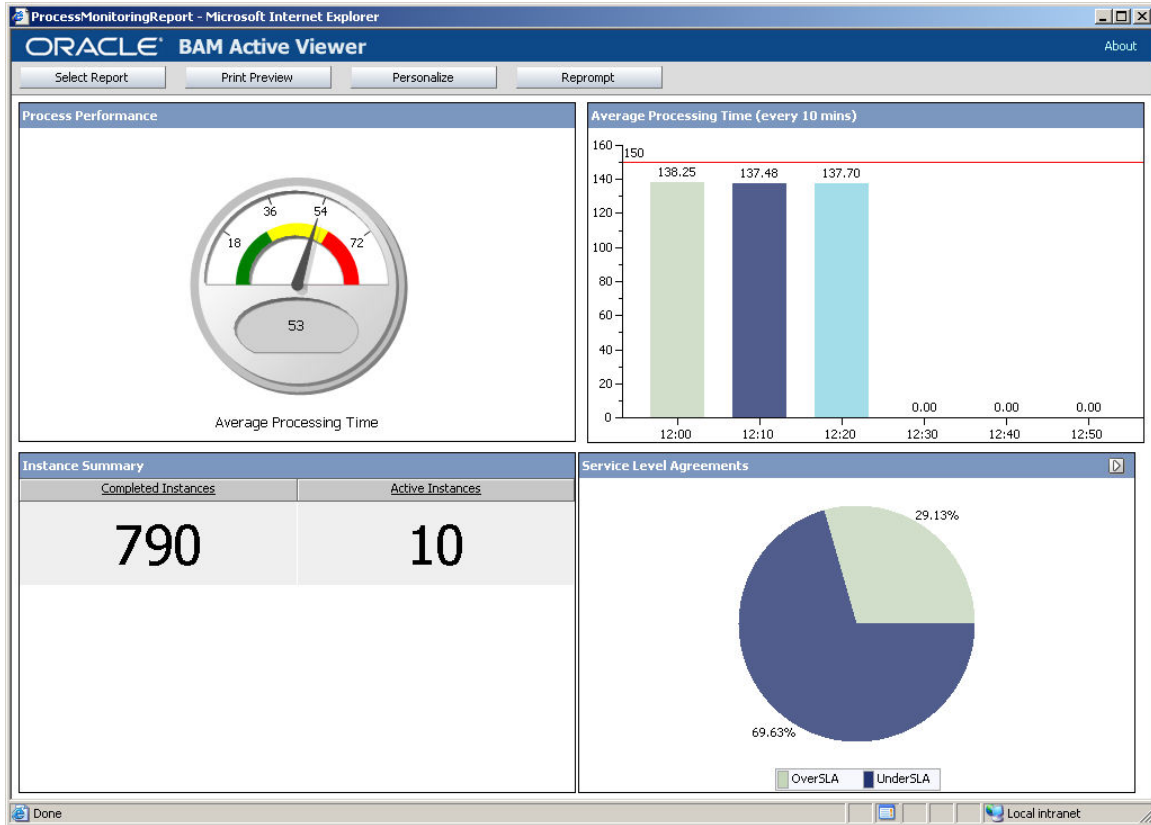
Summary:

At the end of this exercise, students would have understood:

- Designing dashboards for Process Monitoring and Performance.
- Data in the charts is derived from time stamp fields in data objects.
- Select filters for showing current values (and limited set of data).
- Use of calculated fields, and using calculated fields in views.
- Display various process metrics information in different visualization graphs.

Tutorial: Oracle BAM – Real Time Process Monitoring Reports (Tutorial_10_BAM_ProcessMonitoringReport.doc)

Completed Dashboard.



Questions & Clarifications:

If you have any comments or need additional information, please communicate through the Oracle BAM forum at: <http://forums.oracle.com/forums/forum.jspa?forumID=252>