

# 15

## Proactive Maintenance

By: [Ahmad Syauqi Ahsan](#)

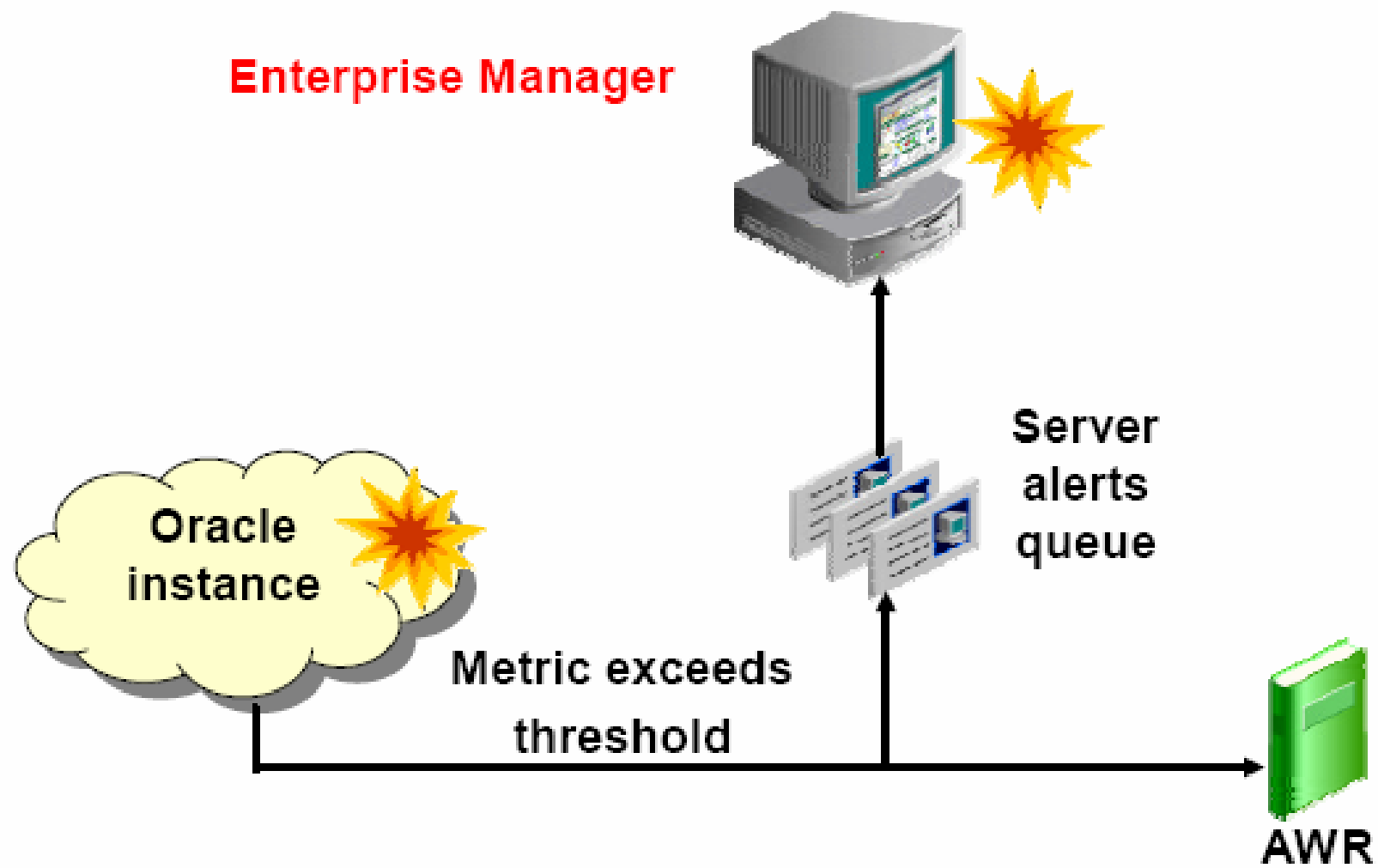
ORACLE

# Tujuan

**Setelah menyelesaikan bab ini, anda seharusnya dapat melakukan hal-hal berikut:**

- **Melakukan seting peringatan dan siaga critical pada thresholds**
- **Mengumpulkan dan menggunakan metrik dasar**
- **Menggunakan tuning dan diagnostic advisor**
- **Menggunakan Automatic Database Diagnostic Monitor (ADDM)**
- **Mengatur Automatic Workload Repository**

# Server Generated Alert



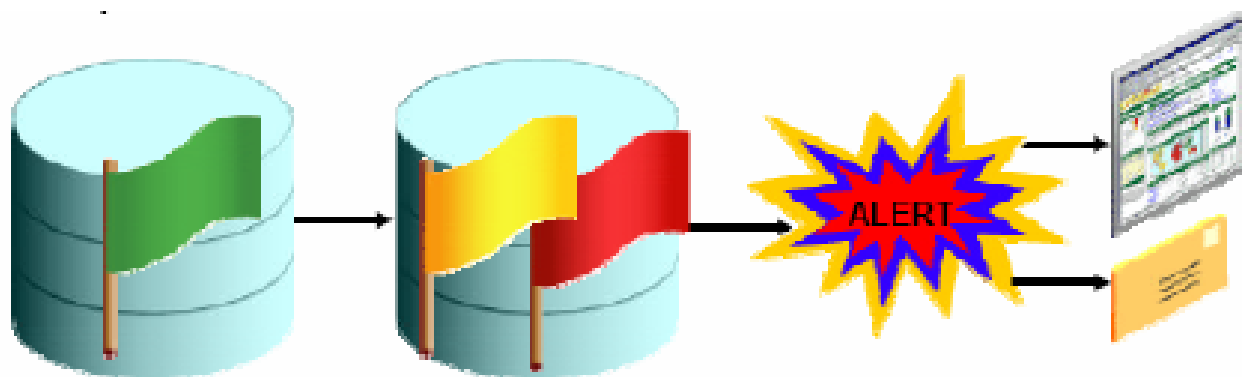
# Threshold

Masing-masing metric bisa menugaskan dua thresholds :

- **Warning**
- **Critical**

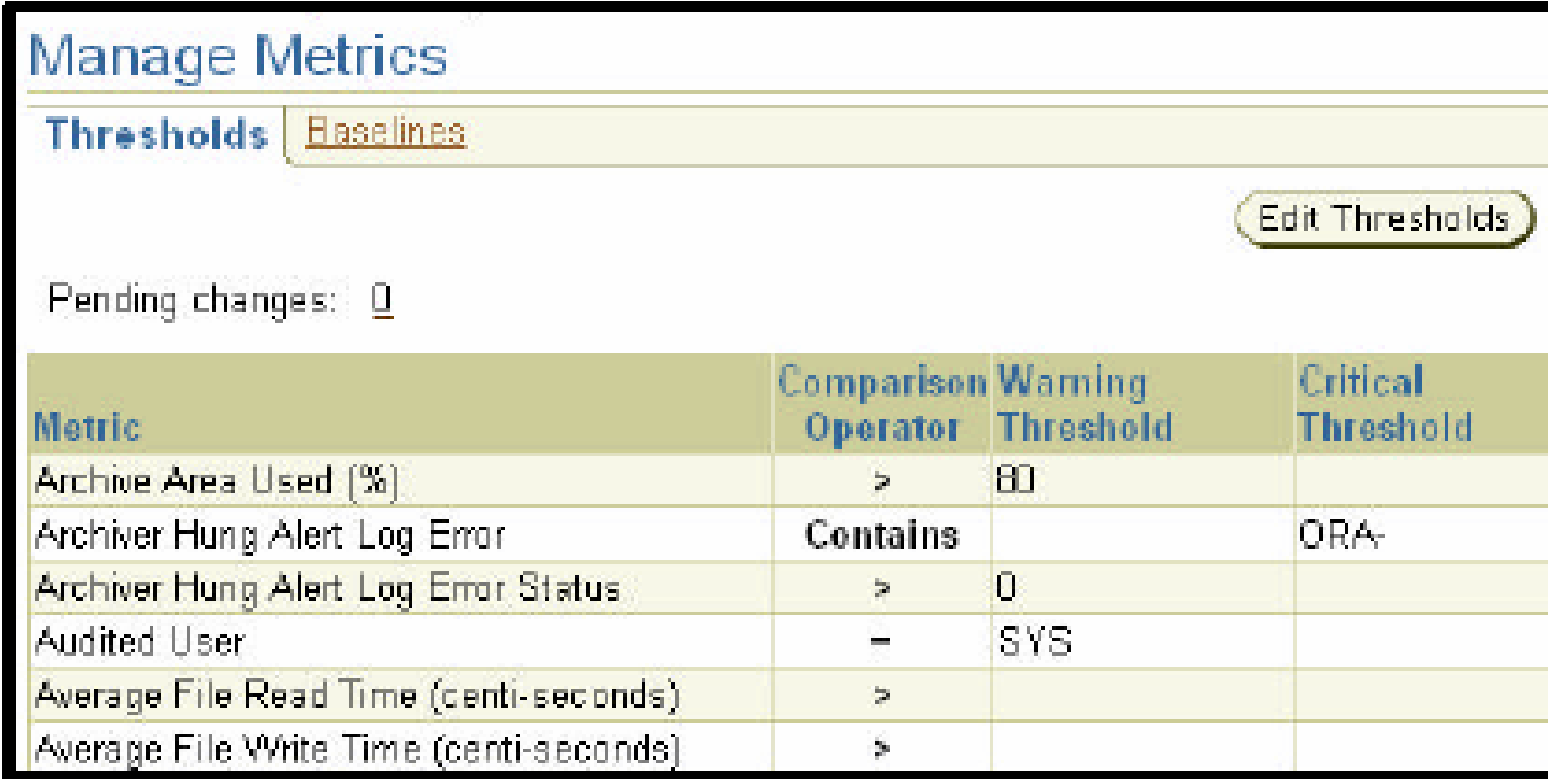
Jika thresholds sudah dicapai, alerts dipicu oleh :

- **Notifikasi-notifikasi yang kelihatan di Alerts region dari Database Control homepage**
- **Optional e-mail alerts**



# Setting Tresholds

**Manage Metrics Enterprise Manager pada halaman property menyediakan akses ke setting threshold**



**Manage Metrics**

**Thresholds** [Baselines](#)

[Edit Thresholds](#)

Pending changes: [0](#)

Metric	Comparison Operator	Warning Threshold	Critical Threshold
Archive Area Used (%)	>	80	
Archiver Hung Alert Log Error	Contains		ORA-
Archiver Hung Alert Log Error Status	>	0	
Audited User	=	SYS	
Average File Read Time (centi-seconds)	>		
Average File Write Time (centi-seconds)	>		


# Baseline Measurements


**Pengukuran Baseline menyediakan rekomendasi threshold berdasarkan pada performance data yang sebenarnya**

### Create Metric Baseline

Create a metric baseline by specifying the date whose performance metric data will be used as a basis to calculate thresholds. If you choose, Warning and Critical thresholds will be calculated based on the percentages specified. Cancel OK

**Name**

**Date**    
Specify a date whose performance was acceptable for this period.  
(Example: 09-11-2009)

**Hour of day**    AM  PM

**Warning Percentage**

**Critical Percentage**   
The Warning and Critical percentages will be used against both the absolute Low and High values to calculate metric thresholds. (see help for details.)

Go

# Using Baselines

Untuk mengaktifkan stored baseline :

Database: dba10g > Manage Metrics > Edit Thresholds

## Edit Thresholds

Use these metrics to monitor conditions as they reach their critical and warning thresholds. Alerts are generated when thresholds are reached. Change the thresholds as required.

**TIP** A Response Action is a user-specified command or script that is executed automatically by the Management Agent when the metric reaches the Warning or Critical state. The command or script specified must include a fully qualified path and must be accessible to the Management Agent.

Related Link: [Response to Target Down](#)

1. Klik Copy Threshold dari Baseline
2. Pilih threshold yang sesuai

Database: dba10g > Manage Metrics > Edit Thresholds > Copy Thresholds From Baseline

## Copy Thresholds From Baseline

Select the baseline from which to copy thresholds.

Select	Name <input type="text"/>	Date
<input checked="" type="radio"/>	Mid-day Performance	19-NOV-2003 14:00:00

# Tuning and Diagnostic Advisors

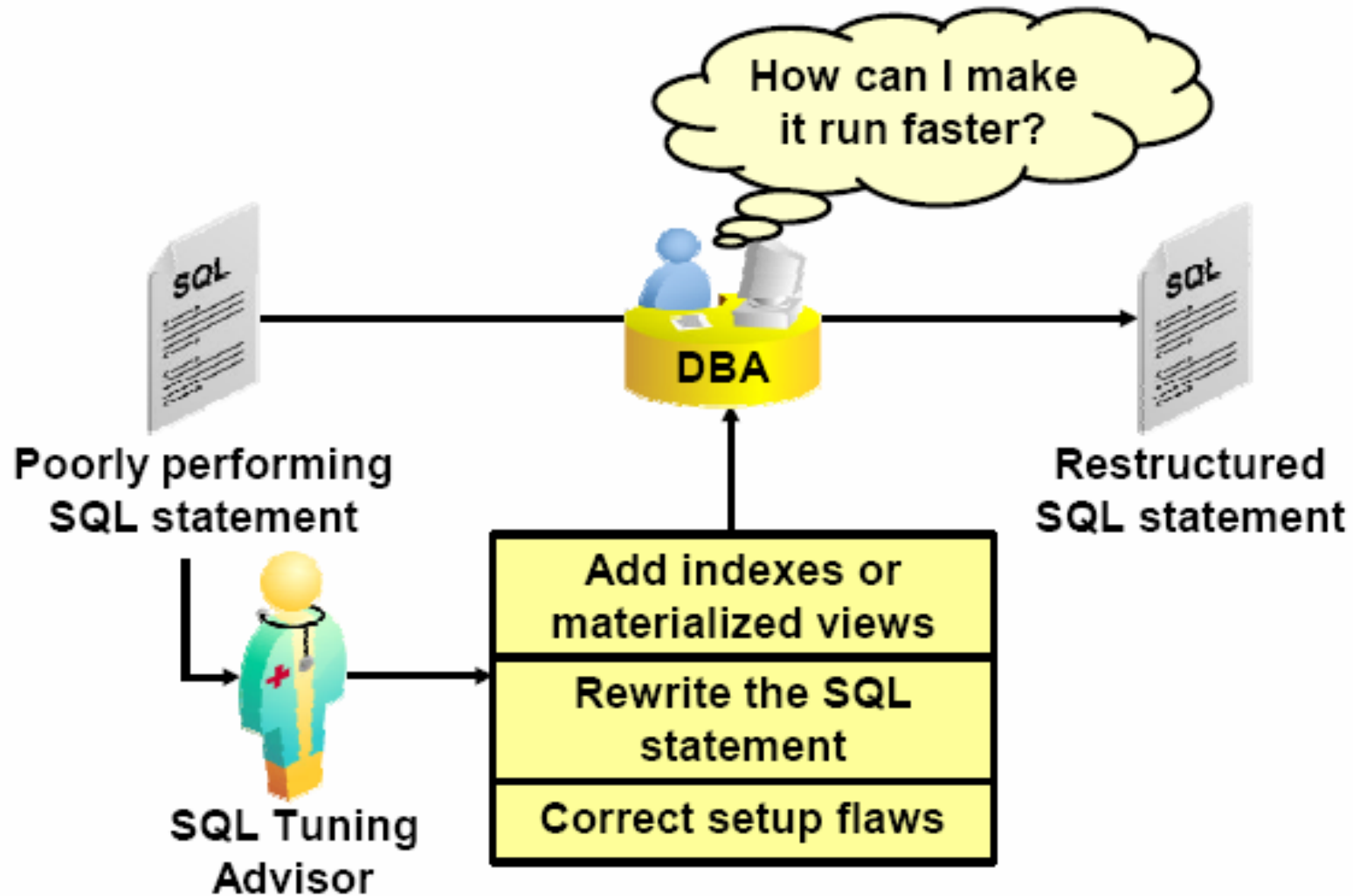
**Database Oracle 10g menyediakan beberapa tuning dan diagnostic advisors :**

- **Automatic Database Diagnostic Monitor (ADDM)**
- **SQL Tuning dan Access Advisors**
- **Memory Advisors**
- **Mea-Time-To-Recover (MTTR) Advisor**
- **Segment Advisors**
- **Undo Management Advisors**





# SQL Tuning dan Access Advisor

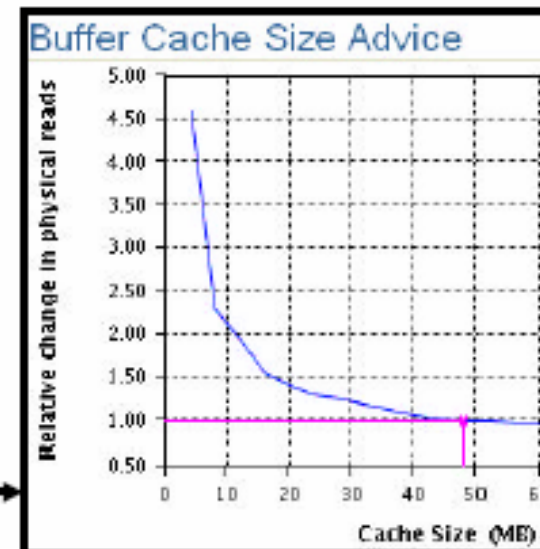
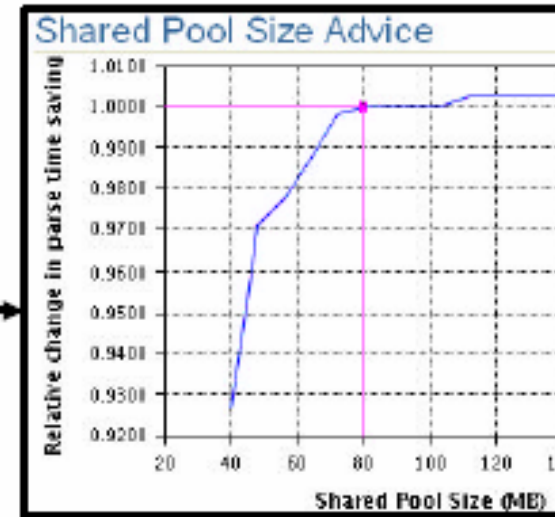



# Memory Advisor

- Shared pool
- Database buffer cache
- Program Global Area (PGA)

Automatic Shared Memory Management Disabled

Shared Pool	<input type="text" value="80"/>	MB	<input type="button" value="Advice"/>
Buffer Cache	<input type="text" value="48"/>	MB	<input type="button" value="Advice"/>
Large Pool	<input type="text" value="8"/>	MB	
Java Pool	<input type="text" value="48"/>	MB	
Other (MB)	<input type="text" value="23"/>		



# Segment Advisor

- Entire tablespace
- Individual schema objects

**Segment Advisor**

You can get advice on shrinking segments for individual schema objects or entire tablespaces. Cancel Continue

Tablespaces  
 Schema Objects

Advisor Mode

Complete Analysis of All Segments (Comprehensive)  
The advisor will sample selected objects as needed, and generate more complete recommendations. The analysis may take a long time to finish and will be scheduled as a job.

Analysis Based on Available Statistics (Limited)  
The analysis will finish within 30 seconds. Due to the time limitation, the advisor may not be able to finishing evaluating all segments.

**Overview**

The segment advisor determines whether objects have unused space that can be released, taking estimated future space requirements into consideration.

**Segment Advisor: Review**

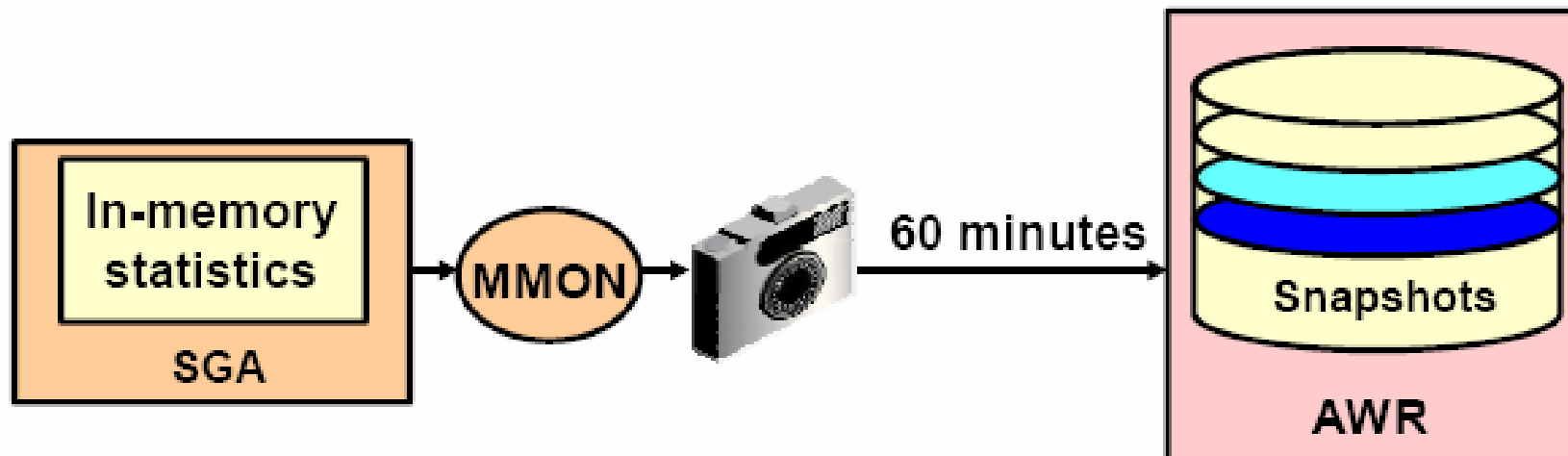
Database dba10g Cancel Show SQL Back Step 4 of 4 Submit

Task Name **SHRINK\_2958425**  
Task Description **Get shrink advice based on object growth trend**  
Advisor Mode **Complete Analysis of All Segments (Comprehensive)**  
Time Limit for Analysis (secs)  
Advisory Results Retention (days)

**Selected Objects**

Tablespace	Schema	Segment Name	Partition Name	Type
EXAMPLE	HR	COUNTRIES		Table

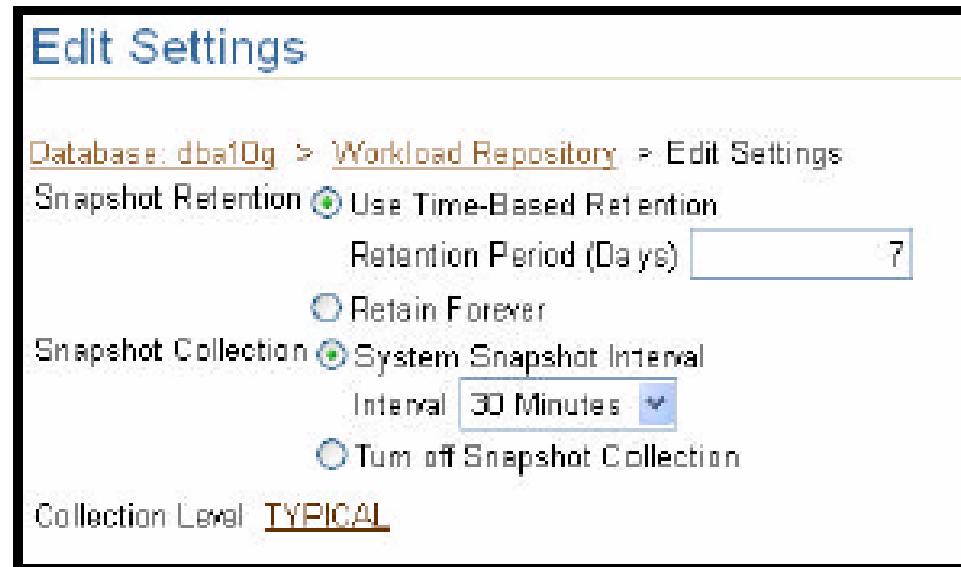
# Automatic Workload Repository (AWR)



- Built-in penyimpanan dari informasi performance
- Snapshots dari database metrics diambil setiap 60 menit dan disimpan untuk 7 hari
- Foundation untuk semua fungsi self-management

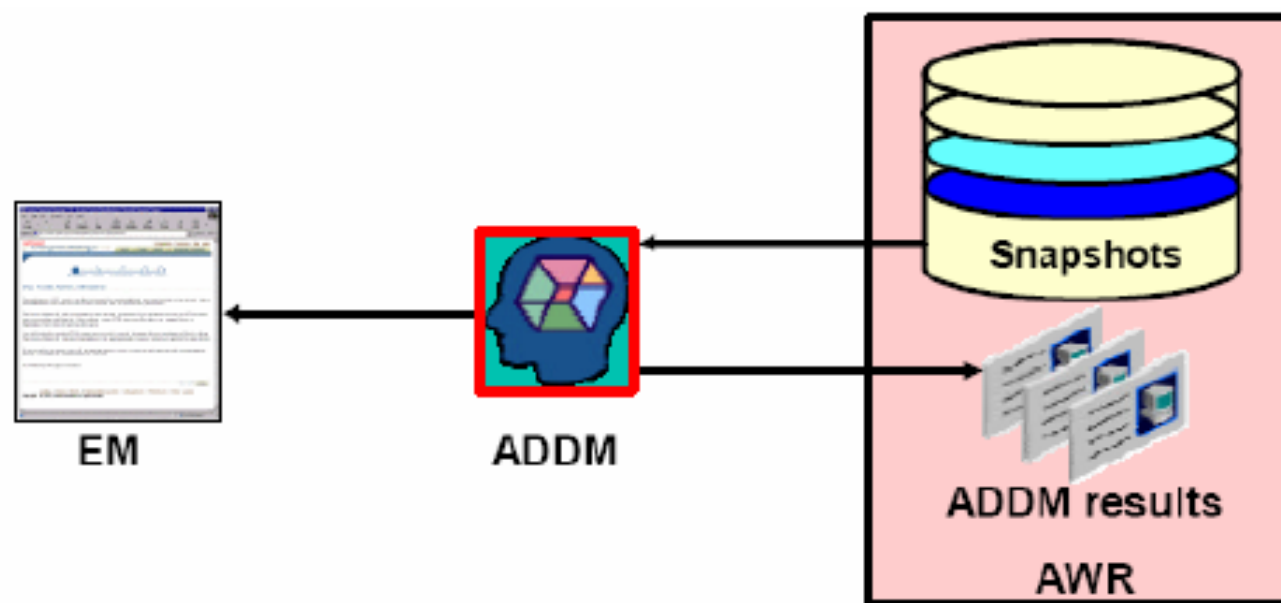
# Mengelola AWR

- **Retention period**
  - Default 7 hari
  - Mempertimbangkan
  - Kebutuhan storage
- **Collection Interval**
  - Default 30 menit
  - Mempertimbangkan kebutuhan storage,
  - performance impact
- **Collection level**
  - Basic (disables most of ADDM functionality)
  - Typical (recommended)
  - All (menambahkan additional informasi SQL tuning ke snapshots)



## Automatic Database Diagnostic Monitor (ADDM)

- Berjalan setelah masing-masing AWR snapshot
- Memonitor instance dan mendeteksi bottlenecks
- Results disimpan bersama AWR

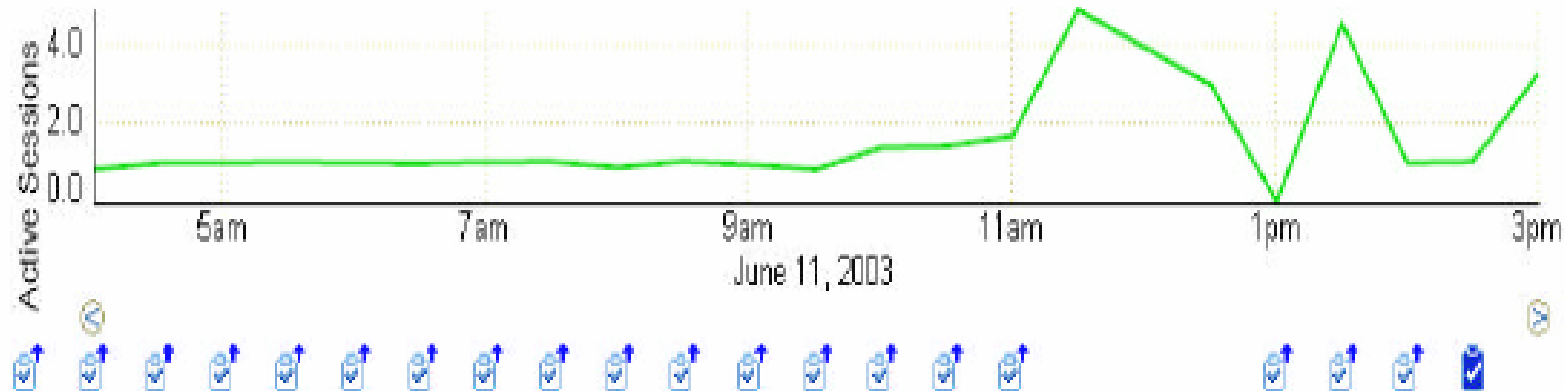


# Penemuan ADDM

## Choose ADDM Task

Create ADDM Task...

Select the ADDM Task for which you would like to see details using the icons. Session activity is shown in the graph to help you.



## ADDM Task Detail

Database Time (minutes) 94.33 Analysis Start Time Jun 11, 2003 2:30:14 PM Analysis Duration (minutes) 29.85

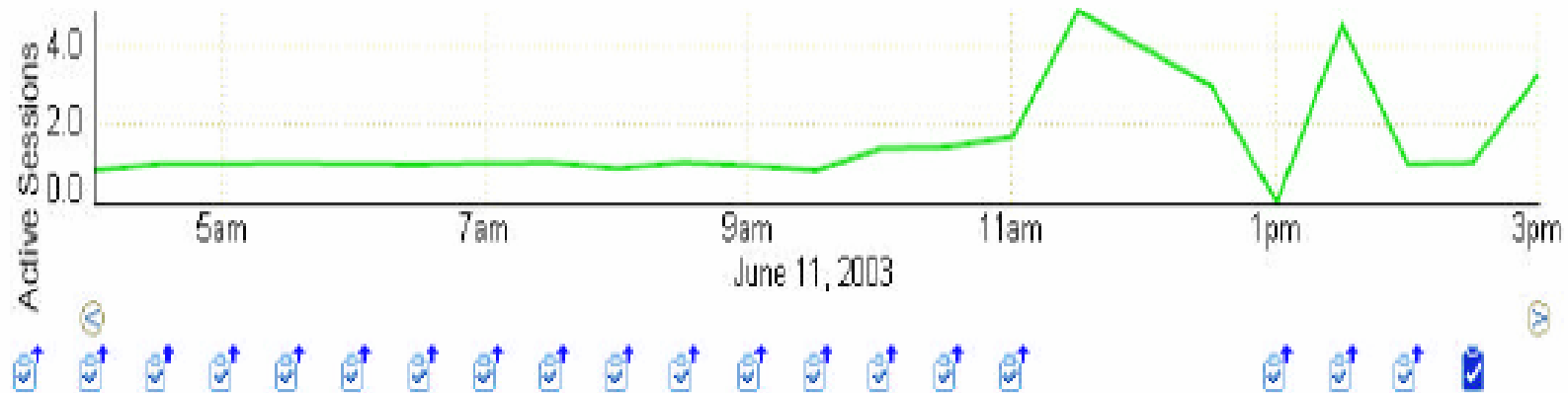
Finding	Impact (%)	Recommendation Summary
Read and write contention on database blocks was consuming significant database time.	16	SCHEMA 3
Contention on buffer cache latches was consuming significant database time.	2	SQL TUNE 2

# Rekomendasi ADDM

## Choose ADDM Task

Create ADDM Task...

Select the ADDM Task for which you would like to see details using the icons. Session activity is shown in the graph to help you.



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# Ringkasan

Pada bab ini, anda seharusnya telah mempelajari bagaimana cara untuk:

- Mengeset warning dan critical alert thresholds
- Mengumpulkan dan menggunakan baseline metrics
- Menggunakan Tuning dan Diagnostic Advisors
- Menggunakan Automatic Database Diagnostic Monitor (ADDM)
- Memanajemen Automatic Workload Repository