



Where Do We Go From Here? Why Many IT Staff are Living in the Past

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Customised Oracle Training Workshops
and Consulting
www.sagecomputing.com.au

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www.sagecomputing.com.au



Agenda



- **Oracle technology latest directions – overview**
- **Database**
 - How to monitor your whole environment
 - Maintaining performance levels
 - End to end monitoring in a three tier environment
 - Features coming in version 11
- **Development tools**
 - Demo of Oracle JDeveloper
 - How to move to JDeveloper from traditional Oracle tools
 - Oracle Application Express
 - Demo of APEX
 - How to use APEX for fast lightweight web development
 - Skill set required
- **Summary**
 - How to select an approach
 - When to use JDeveloper/APEX/Traditional Oracle tools



Technology Directions

1979

Database

2007

Application Server

Character development

Client/server development

Web development

SOA



Technology Directions - Database

1979

Database

2007

Significant increases in storage capacity

Large object support

XML support

Grid computing

Management tools

www.sagecomputing.com.au



Technology Directions – Application Server

2000

Internet Application Server

2007

Forms and Reports services

Portal

J2EE

Web Services

BPEL

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Technology Directions – Development Tools

1986

Development tools

2007

Character development
(Forms/Reports)

Client/server development
(Forms/Reports)

Web development
Apex/JDeveloper

SOA
JDeveloper

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Obsolescence



SQL*Plus GUI version

2010

**Client/server development
(Forms/Reports)**

2008

**Transition from web development (Forms/Reports) to
Apex/JDeveloper**



Managing the Database

- ➡ **Oracle Enterprise Manager is now usable**
- ➡ **Server collects comprehensive statistics**
- ➡ **OEM provides tuning advice (Automated Database Diagnostics Monitor ADDM)**
- ➡ **SQL Tuning Advisor recommends tuning techniques for SQL**
- ➡ **Troubleshooting is easier**
- ➡ **Multi tier monitoring is supported (if developers are recording the right information)**

File Edit View Favorites Tools Help

Address http://sage2.sagecomputing.com.au:1158/em/console/database/instance/sitemap?event=doLoad&target=ora10gv2&type=orade_database&pageNum=1 Go

Database Instance: ora10gv2

Home Performance Administration Maintenance

Page Refreshed 20/02/2007 03:14:30 Refresh View Data Automatically (60 sec) v

General

Shutdown

Status Up
Up Since 20/02/2007 07:43:25 AM GMT
Instance Name **ora10gv2**
Version 10.2.0.1.0
Host sage2.sagecomputing.com.au
Listener [LISTENER_sage2.sagecomputin...](#)

[View All Properties](#)

Active Sessions

Report Backup Status

SQL Response Time
Baseline is empty.
[Reset Baseline](#)

No data is currently available.

Load 1.00 Paging 35.04
Maximum CPU 1

Diagnostic Summary

ADDM Findings 0
All Policy Violations 8
Alert Log 24/11/2006 06:15:4

[Report Alerts](#)

Space Summary

Database Size (GB) 3.104
Problem Tablespaces 0
Segment Advisor 1
Recommendations 1
Policy Violations 0
Area Used (%) 88

High Availability

Instance Recovery Time (sec) 115
Last Backup n/a
Usable Flash Recovery Area (%) 100
Flashback Logging Disabled

Report Policy Violations

Alerts

Go Critical 0 Warning 14

Previous 1-10 of 14 Next 4

Name	Message	Alert Triggered
Database Time Spent Waiting (%)	Metrics "Database Time Spent Waiting (%)" is at 100 for event class "Concurrency"	20/02/2007 11:14:11
User Audit	User SYS logged on from MSHOME\SAGE2.	8/02/2007 06:26:27

Internet

Logged in As SYS

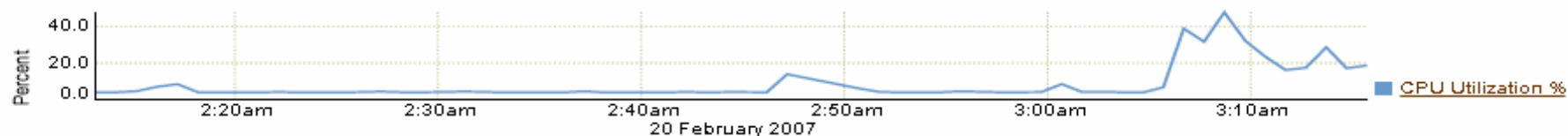
Database Instance: ora10gv2

[Home](#) [Performance](#) [Administration](#) [Maintenance](#)

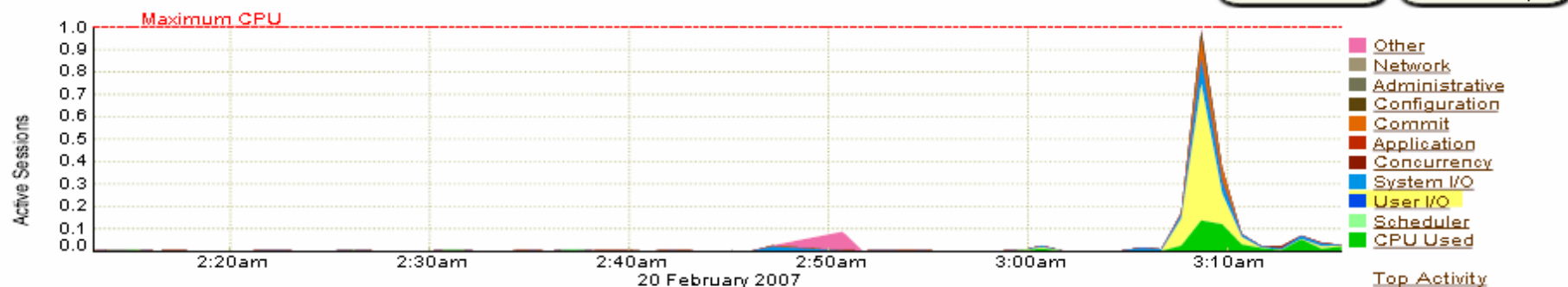
Click on an area of a graph or legend to get more detail.

View Data Real Time: 15 Second Refresh

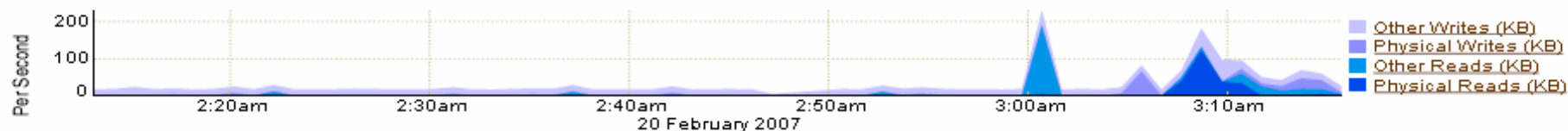
Host



Average Active Sessions

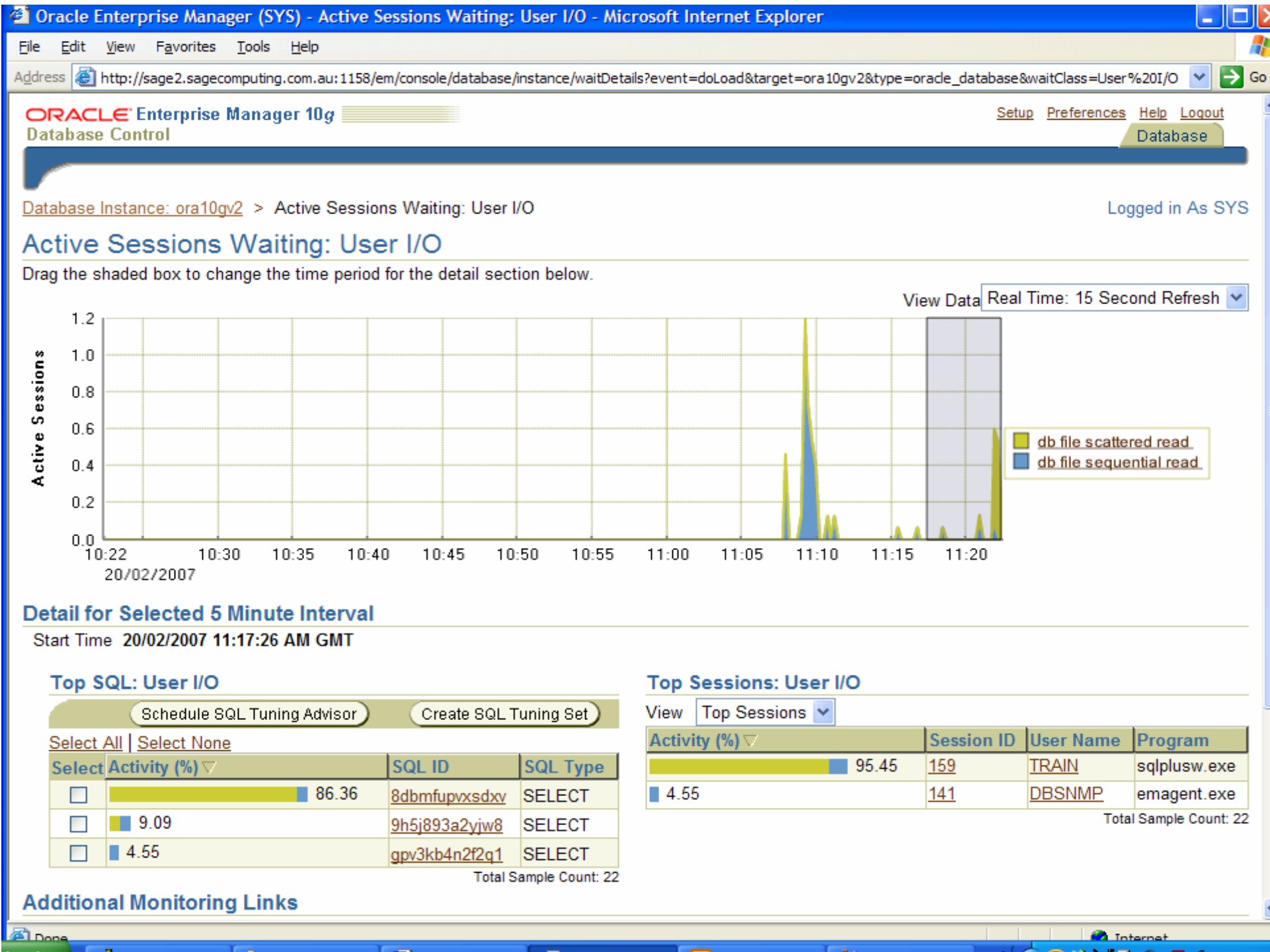


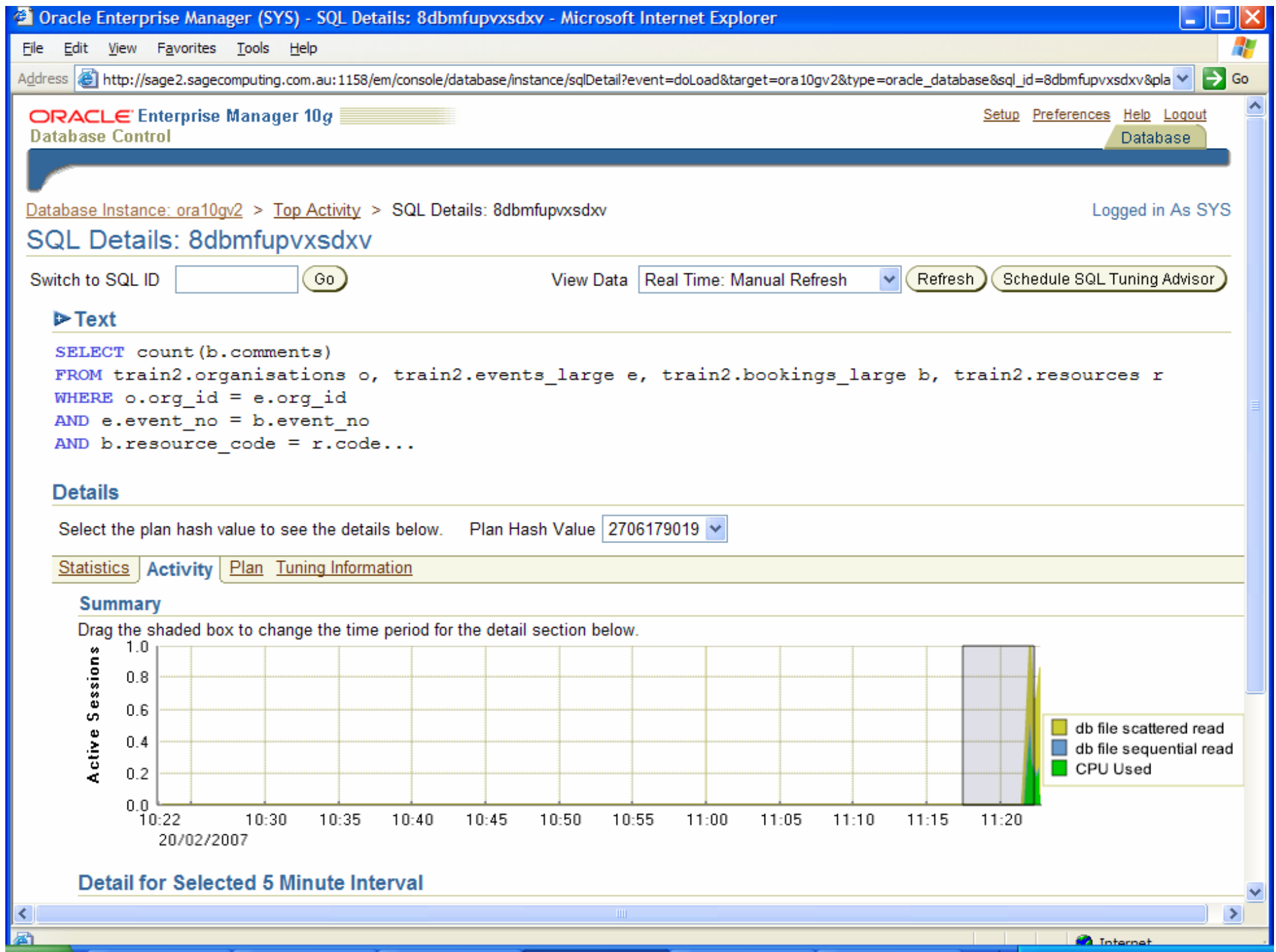
Instance Disk I/O



Instance Throughput







Oracle Enterprise Manager (SYS) - Recommendations for SQL ID:8dbmfupvxsdv - Microsoft Internet Explorer

FileEditViewFavoritesToolsHelp

Addresshttp://sage2.sagecomputing.com.au:1158/em/console/database/instance/sqltune?event=viewstmt&task_id=1833&objectId=1&target=ora10gv2&type=oracle_databaseGo

ORACLE Enterprise Manager 10g

Database Control

SetupPreferencesHelpLogout

Database

Database Instance: ora10gv2 > Advisor Central > SQL Tuning Results:SQL_TUNING_1171941794343 > Recommendations for SQL ID:8dbmfupvxsdv

Logged in As SYS

Recommendations for SQL ID:8dbmfupvxsdv

Return

Only one recommendation should be implemented.

SQL Text

SELECT count(b.comments) FROM train2.organisations o, train2.events_large e, train2.bookings_large b, train2.resources r WHERE o.org_id = e.org_id AND e.event_no = b.event_no AND b.resource_code =...

Select Recommendation

Original Explain Plan

Implement

Select	Type	Findings	Recommendations	Rationale	Benefit (%)	New Explain Plan
<input checked="" type="radio"/>	SQL Profile	A potentially better execution plan was found for this statement.	Consider accepting the recommended SQL profile.		91.02	

Return

Database | Setup | Preferences | Help | Logout

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About Oracle Enterprise Manager 10g Database Control

Internet

Oracle Enterprise Manager (SYS) - Explain Plans: SQL_TUNING_1171941794343, SQL ID: 8dbmfupvxsdv - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://sage2.sagecomputing.com.au:1158/em/console/database/instance/sqltune?planType=newHintsetPlan&objectId=1&event=compareHintsetPlan&target=ora10gv2&> Go

ORACLE Enterprise Manager 10g Database Control

Setup Preferences Help Logout Database

Database Instance: ora10gv2 > Advisor Central > SQL Tuning Results:SQL_TUNING_1171941794343 > Recommendations for SQL ID:8dbmfupvxsdv > New Explain Plan

Logged in As SYS

New Explain Plan

New Explain Plan With SQL Profile

The following is the new explain plan for the SQL statement being tuned. The cost has been adjusted by the SQL Tuning Advisor to reflect the recommendation.

[Expand All](#) | [Collapse All](#)

Operation	Line ID	Object	Object Type	Order	Rows
SELECT STATEMENT	0			11	1
SORT AGGREGATE	1			10	1
NESTED LOOPS	2			9	16
NESTED LOOPS	3			6	141
HASH JOIN	4			3	5
TABLE ACCESS FULL	5	ORGANISATIONS	TABLE	1	1
TABLE ACCESS FULL	6	EVENTS_LARGE	TABLE	2	75144
TABLE ACCESS BY INDEX ROWID	7	BOOKINGS_LARGE	TABLE	5	28
INDEX RANGE SCAN	8	BK_EVT2	INDEX	4	28

Original Explain Plan

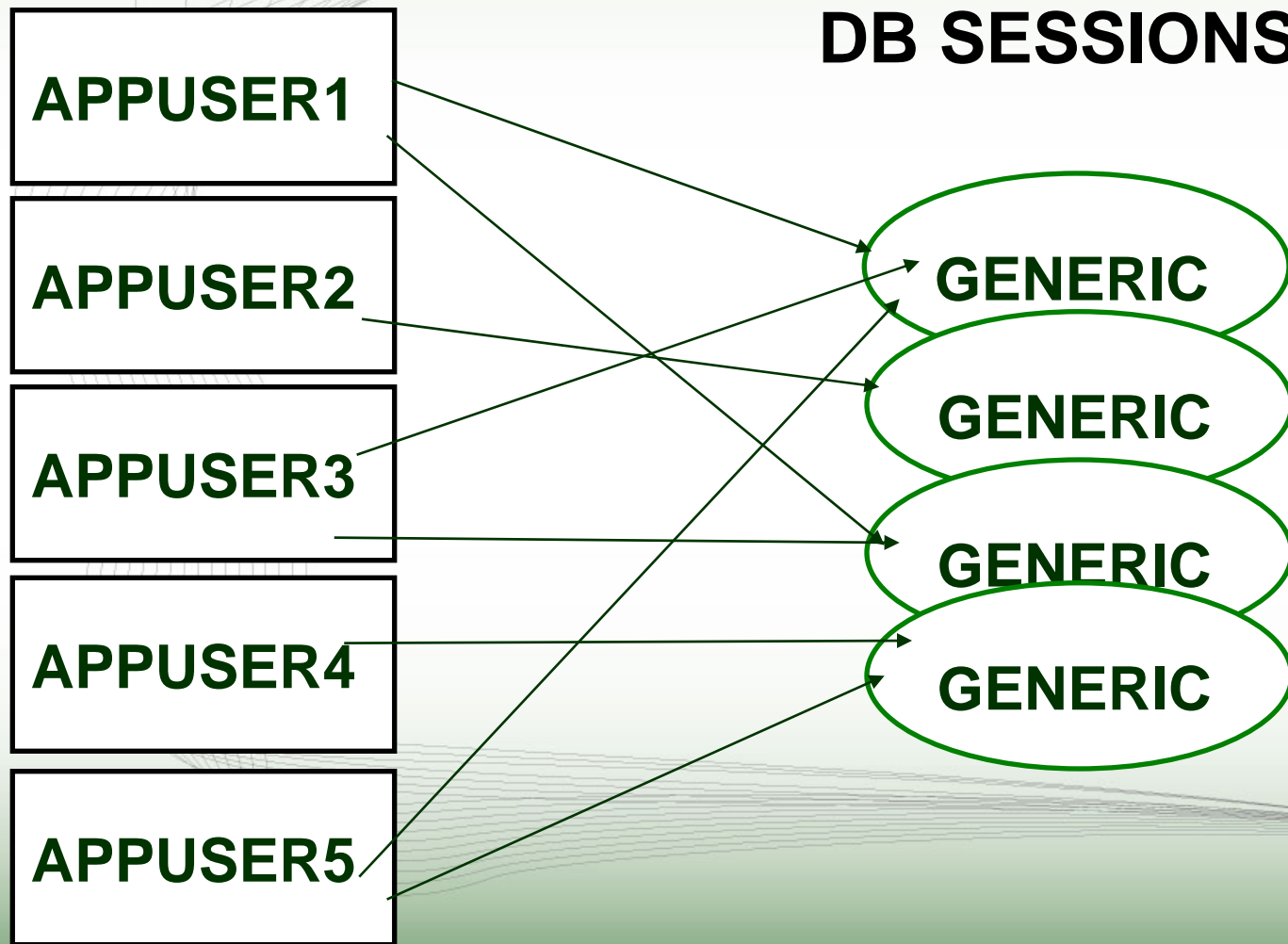
Indicates an adjustment from the original plan by the SQL Tuning Advisor

The following is the original explain plan for the SQL statement being tuned.

[Expand All](#) | [Collapse All](#)

Operation	Line ID	Object	Object Type	Order	Rows
SELECT STATEMENT	0			10	1
SORT AGGREGATE	1			9	1
HASH JOIN	2			8	16
HASH JOIN	3			6	5
MERGE JOIN CARTESIAN	4			4	1
TABLE ACCESS FULL	5	ORGANISATIONS	TABLE	1	1
BUFFER SORT	6			3	1
TABLE ACCESS FULL	7	RESOURCES	TABLE	2	1
TABLE ACCESS FULL	8	EVENTS_LARGE	TABLE	5	75144
TABLE ACCESS FULL	9	BOOKINGS_LARGE	TABLE	7	2837021

End to End tracing





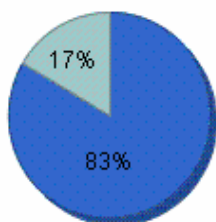
End to End tracing



```
dbms_session.set_identifier('CHRIS');
```

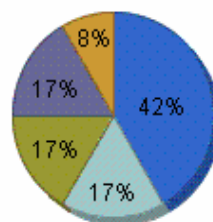
```
dbms_application_info.set_module  
(module_name=>'RESBOOK',  
action_name=>'UPDATEBOOK');
```

Top Services



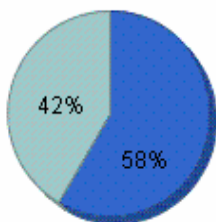
ora10gv2(83.3%)
SYS\$USERS(16.7%)

Top Modules (by Service)



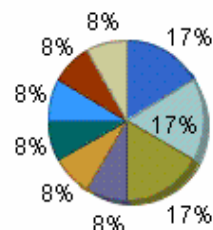
APEX:APPLICATION 150 (ora10gv2)(41.7%)
APEX:APPLICATION 4000 (ora10gv2)(16.7%)
OEM.SystemPool (ora10gv2)(16.7%)
emagent.exe (SYS\$USERS)(16.7%)
Apache.exe (ora10gv2)(8.3%)

Top Clients



ADMIN:3286733042567227(58.3%)
Unnamed(41.7%)

Top Actions (by Module) (by Service)



Unnamed (emagent.exe) (SYS\$USERS)(16.7%)
PAGE 18 (APEX:APPLICATION 150) (ora10gv2)(16.7%)
PAGE 4150 (APEX:APPLICATION 4000) (ora10gv2)(16.7%)
PAGE 6 (APEX:APPLICATION 150) (ora10gv2)(8.3%)
PAGE 7 (APEX:APPLICATION 150) (ora10gv2)(8.3%)
XMLLoader0 (OEM.SystemPool) (ora10gv2)(8.3%)
Unnamed (Apache.exe) (ora10gv2)(8.3%)
Unnamed (OEM.SystemPool) (ora10gv2)(8.3%)
PAGE 13 (APEX:APPLICATION 150) (ora10gv2)(8.3%)



Expected in Release 11

- **Beta**
- **Replay of workload**
- **Enhanced optimiser plan management**
 - **Recognise and trial new plans**
- **Data Compression**
- **Online upgrade**
- **Security and audit improvements**
- **I/O Performance enhancements**



Application Express



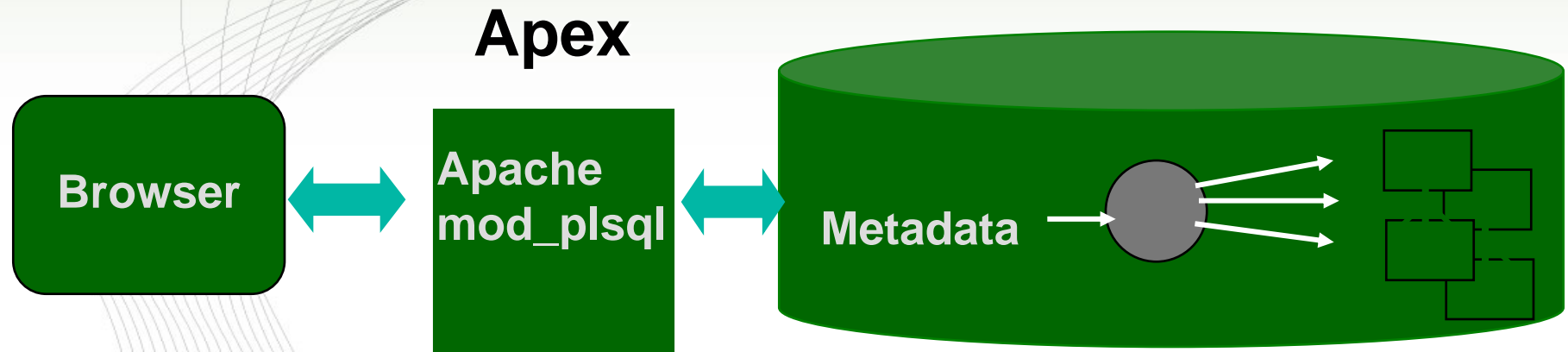
Apex Overview



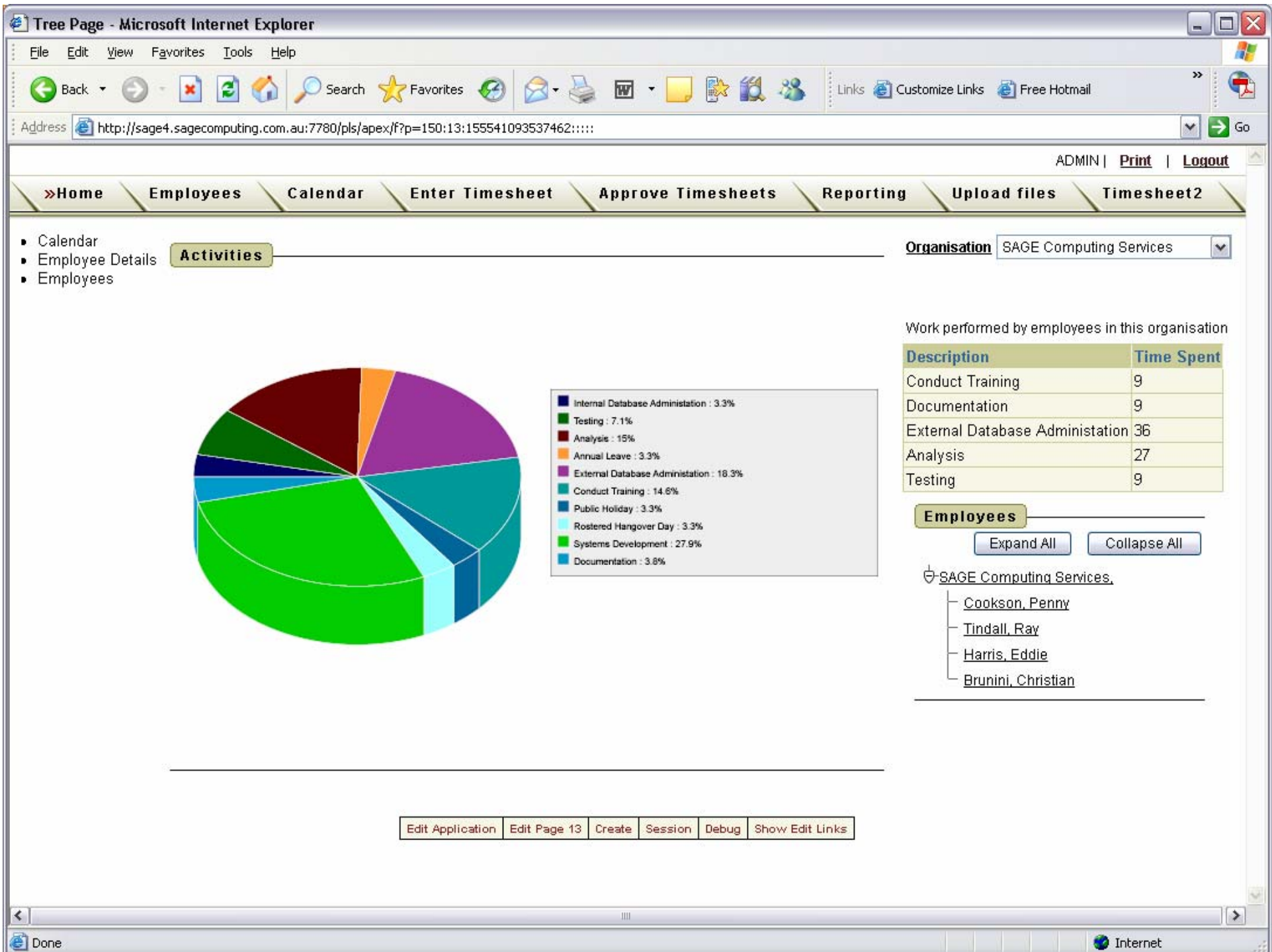
- **Comes with the database**
- **Free with Oracle Express Edition**
- **Wizard driven development environment**
- **Entirely within the Oracle database**
- **Declarative approach – rapid development**
- **Targeted at hosted small-medium systems development**
- **Oracle 10g (but can run on 9i)**
- **Metalink is written in Apex**



Apex Architecture



- **Lightweight rapid web development**
- **HTML pages generated from meta data**



Employees - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Links Customize Links Free Hotmail Windows

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ADMIN | [Print](#) | [Logout](#)

[Home](#) [»Employees](#) [Calendar](#) [Enter Timesheet](#) [Approve Timesheets](#) [Reporting](#) [Upload files](#) [Timesheet2](#)

Employee Parameters

Organisation - All -
Name - All -
Employees ACME Consulting
Oddbods Professional Services
SAGE Computing Services
SAGE Training Services

[Go](#)

[Create](#)

Name	First Names	Date of Birth	Job Title	Organisation	From	To
Brunini	Christian	29-DEC-70	System Consultant	SAGE Computing Services	01-MAY-95	
Cookson	Penny	14-JAN-56	Managing Director	SAGE Computing Services	01-MAY-93	01-SEP-93
Harris	Eddie	10-NOV-87	System Consultant	SAGE Computing Services	21-JUN-02	
Marshall	Katie		System Consultant	SAGE Training Services	10-JUL-03	
Njegich	Branka		System Consultant	SAGE Training Services	24-AUG-98	
Smith	Fred	01-JUN-53	Business Analyst	Oddbods Professional Services	01-SEP-04	01-DEC-04
Tindall	Ray		System Consultant	SAGE Computing Services	10-NOV-96	01-MAY-06

1 - 7

[Edit Application](#) [Edit Page 6](#) [Create](#) [Session](#) [Debug](#) [Show Edit Links](#)

Internet

Employee Details - Microsoft Internet Explorer

FileEditViewFavoritesToolsHelp

Back

Search

Favorites

Links

Customize Links

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Go

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ADMIN | [Print](#) | [Logout](#)

Home

»Employees

Calendar

Enter Timesheet

Approve Timesheets

Reporting

Upload files

Timesheet2

Parties

Cancel

Delete

Apply Changes

First Names

Eddie

☒ Name

Harris

Dob

10-NOV-87

Job Title

System Consultant

☒ Type

Individual

Organisation

SAGE Computing Services

Eff From

21-JUN-02

Eff To

Edit Application

Edit Page 7

Create

Session

Debug

Show Edit Links

Done

Internet



Template Driven User Interface

Home Employees »Calendar Enter Timesheet

Calendar

February 2007

Monday	Tuesday	Wednesday	Thursday	Friday
			01	02
05	06	07	08	09
12	13	14	15	16
19	20	21	22	23
26	27	28		

Back Today Forward

Home Employees Calendar Enter Timesheet Approve Timesheets Report

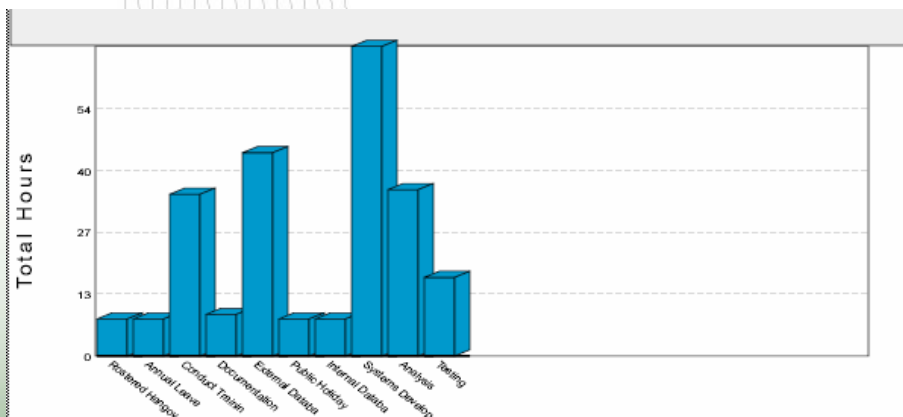
Employee

Employee: Njeglich, Branka

Start Date: 18-DEC-06 Go

Timesheet Entry

Entry Day	Activity	Hours	Comments
Monday			
Tuesday			
Wednesday			
Thursday			
Friday			



ADMIN | Print | Logout

Home Employees Calendar Enter Timesheet Approve Timesheets

Employee

Employee: Cookson, Penny

Upload Client Timesheets

File Name: C:\sage\IOUG\papers2005\wpd.p (Browse...)

Comments:

Submit

Files

ID	NAME	COMMENTS
Download	F9328/Booking confirmation.htm	Bookings
Download	F9386/hamilton.htm	Booking for NZ masterclass



Building an Application

- **Customise templates**
- **Build common objects**
 - **Navigation bars**
 - **Lists of values**
 - **Web Services**
- **Start with Wizard Approach**
- **Add custom validation**
- **Add custom processing**

Create Application - Microsoft Internet Explorer

FileEditViewFavoritesToolsHelp

Back

Search

Favorites

Links

Customize Links

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ORACLE®Application Express

LogoutHelp

HomeApplication BuilderSQL WorkshopUtilities

Home > Create Application

Method

▼

Define Application

▼

Confirm

Create Application

CancelNext >

An application is a collection of pages linked together using tabs, buttons, or hypertext links. The pages in an application share a common session state definition and authentication method.

☒ Create Application

☐ Create from Spreadsheet

☐ Demonstration Application

Create Application

Create Application:
Create an application by defining pages, selecting an authentication scheme, and specifying a user interface. Pages may be based on tables, queries, or drill-down queries.

From a Spreadsheet:
Create an application based on spreadsheet data. Upload or paste spreadsheet data to create a table. The application will feature query, insert, update, and analysis capabilities on the newly created table.

Demonstration Application:
Install or uninstall demonstration applications. Use these applications to learn how to build applications.

Language: en-au

Application Express 2.2.0.00.32

Workspace: TIMESHEET User: ADMIN

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Internet

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Back

Search

Favorites

Links

Customize Links

Free Hotmail

Address

http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:3000:5038438557118941::CC:NO:3000,3001,3020

Go

ORACLE® Application Express

LogoutHelp

HomeApplication BuilderSQL WorkshopUtilities

Home > Create Application

Method

Name

Pages

Tabs

Shared Components

Attributes

User Interface

Confirm

Create Application

Cancel

< Previous

Next >

Enter an application name and an unique application ID. Then, select an application creation method and a schema.

* Name

CRM

* Application

151

Create Application:

☒ From scratch

☐ Based on existing application design model

Schema

TRAIN

Language: en-au

Application Express 2.2.0.00.32

Workspace: TIMESHEET User: ADMIN

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Internet

ORACLE® Application Express

[Home](#)

Application Builder

SQL Workshop

Utilities

[Home](#) > [Create Application](#)

Method

Name _____

Pages

Tabs

Shared Components

Attributes

User Interface

Confirm

Create Application

Cancel

[◀ Previous](#)

Next >

Add pages to your application by selecting a page type and clicking **Add Page**.

Add Page

Add Page


Select Page Type:

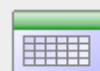
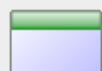
☐ Blank

[Report](#)

Form

- Tabular Form

 Report and Form



Action: **Add a report with an edit form on a second page**

Table Name: ORGANISATIONS

☐ Include Analysis Pages

Add Page

Select the type of page you wish to create:

- **Blank** creates a page with no built-in functionality.
- **Report** creates a page the contains the formatted result of a SQL query. You can choose to build a report based on a table you select, or based on a custom SQL SELECT statement or a PL/SQL function returning a SQL SELECT statement that you provide.
- **Form** creates a form to update a single row in a database table.
- **Tabular Form** creates a form to perform update, insert, and delete operations on multiple rows in a database table.
- **Report and Form** builds a two page report and form combination. On the first page, users select a row to update. On the second page users can update the selected table or view.

Analysis Pages

Report pages include the **Include Analysis Pages** check box. Select this option and follow the wizard prompts to create additional summary reports and charts.

Create Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Links Customize Links Free Hotmail

Address http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:3001:5038438557118941::NO:: Go

ORACLE® Application Express

Logout Help

Home Application Builder SQL Workshop Utilities

Home > Create Application

Method

Name

Pages

Tabs

Shared Components

Attributes

User Interface

Confirm

Create Application

Cancel < Previous Next >

Page	Page Name	Page Type	Source Type	Source	Delete
1	ORGANISATIONS	Report	Table	ORGANISATIONS	✖
2	ORGANISATIONS	Form	Table	ORGANISATIONS	✖

Add Page

Add Page

Select Page Type:


☐ Blank


☐ Report


☐ Form


☐ Tabular Form


☒ Report and Form











Action: Add a report with an edit form on a second page

Subordinate to Page - Top Level Page -

Table Name:

☐ Include Analysis Pages

Add Page

Select the type of page you wish to create:

- Blank creates a page with no built-in functionality.
- Report creates a page the contains the formatted result of a SQL query. You can choose to build a report based on a table you select, or based on a custom SQL SELECT statement or a PL/SQL function returning a SQL SELECT statement that you provide.
- Form creates a form to update a single row in a database table.
- Tabular Form creates a form to perform update, insert, and delete operations on multiple rows in a database table.
- Report and Form builds a two page report and form combination. On the first page, users select a row to update. On the second page users can update the selected table or view.

Add Page

Analysis Pages

Report pages include the Include Analysis Pages check box. Select this option and follow the wizard prompts to create additional summary reports and charts.

Done Internet

Create Application - Microsoft Internet Explorer

FileEditViewFavoritesToolsHelp

BackForwardStopReloadHomeSearchFavorites

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Addresshttp://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:437:5038438557118941::NO:::Go

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LogoutHelp

HomeApplication BuilderSQL WorkshopUtilities


Home > Create Application


Method
▼
Name
▼
Pages
▼
Tabs
▼
Shared Components
▼
Attributes
▼
User Interface
▼
Confirm


Create Application

Cancel< PreviousNext >

Application: 151
Name: CRM
Tabs:
☐ No Tabs☒ One Level of Tabs☐ Two Levels of Tabs







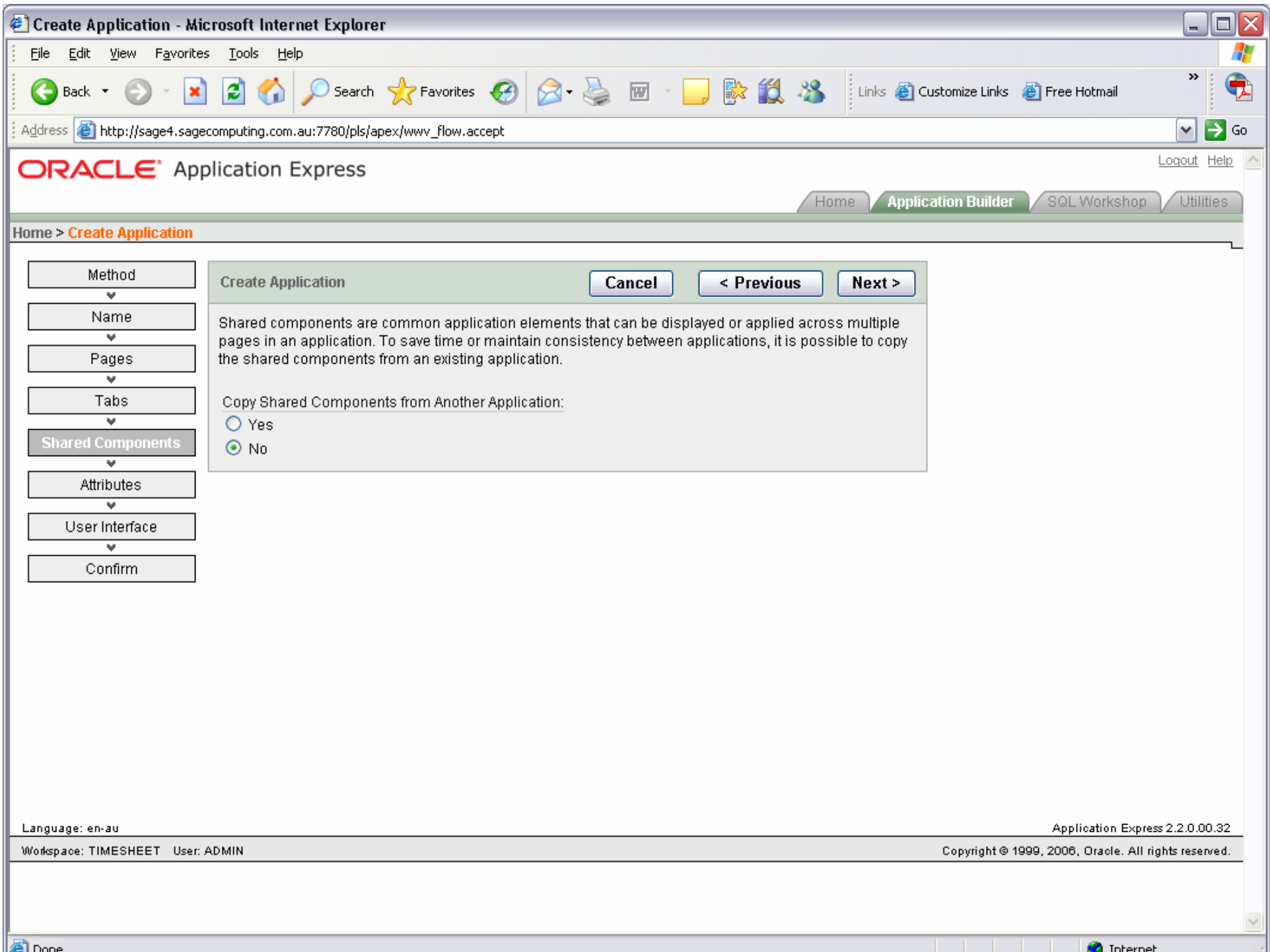
Language: en-au

Application Express 2.2.0.00.32

Workspace: TIMESHEET User: ADMIN

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Internet



Create Application - Microsoft Internet Explorer

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ORACLE® Application ExpressLogout Help

HomeApplication BuilderSQL WorkshopUtilities

Home > Create Application

Method

Name

Pages

Tabs

Shared Components

Attributes

User Interface

Confirm

Create Application


Cancel< PreviousNext >


Authentication Scheme:


☒ Application Express

☐ No Authentication

☐ Database Account







Language:
English (Australia) (en-au)

User Language Preference Derived From:
Use Application Primary Language

Language: en-auApplication Express 2.2.0.00.32

Workspace: TIMESHEET User: ADMINCopyright © 1999, 2006, Oracle. All rights reserved.

DoneInternet

Create Application - Microsoft Internet Explorer

File Edit View Favorites Tools Help

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Address <http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:3004:5038438557118941::NO::> Go

ORACLE® Application Express Logout Help

Home Application Builder SQL Workshop Utilities

Home > Create Application

Method

Name

Pages

Tabs

Shared Components

Attributes

User Interface

Confirm

Create Application

Cancel < Previous Next >

Select a theme:

☐ Theme 1

☐ Theme 2

☐ Theme 3

☐ Theme 4

☒ Theme 5

☐ Theme 6

☐ Theme 7

☐ Theme 8

☐ Theme 9

☐ Theme 10

☐ Theme 11

☐ Theme 12

☐ Theme 13

☐ Theme 14

☐ Theme 15

Internet

Create Application - Microsoft Internet Explorer

FileEditViewFavoritesToolsHelp

BackForwardStopHomeSearchFavoritesRefresh

LinksCustomize LinksFree Hotmail

Addresshttp://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:3005:5038438557118941:::Go

ORACLE®Application Express

LogoutHelp

HomeApplication BuilderSQL WorkshopUtilities

Home > Create Application

Method

Name

Pages

Tabs

Shared Components

Attributes

User Interface

Confirm

Create Application

Cancel< PreviousCreate

You have requested to create an application with the following attributes. Please confirm your selections.

Application	151
Name	CRM
Parsing Schema	TRAIN
Default Language	en-au
Tabs	One Level of Tabs
Default Authentication Scheme	Application Express Authentication
5	
UI Theme	

☒ Save this definition as a design model for reuse

Language: en-au

Application Express 2.2.0.00.32

Workspace: TIMESHEET User: ADMIN

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DoneInternet

Application Builder - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites

Links Customize Links Free Hotmail

Address http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:1:5038438557118941::NO:RP::&success_msg=Application%20created%20successfully.%2FAB977B96A42857681885C61 Go

ORACLE® Application Express


Logout Help


Home Application Builder SQL Workshop Utilities


Home > Application Builder > Application 151 Page 1


Application created successfully.

Application: 151 - CRM


Run Application


Edit Attributes


Shared Components


Export / Import

Page View Details Display 15 Go

Create Page >

Page	Name	Updated	Updated By	Lock	Run
1	ORGANISATIONS	3 seconds ago	-		
2	ORGANISATIONS	1 seconds ago	-		
101	Login	4 seconds ago	-		

row(s) 1 - 3 of 3

Tasks

- Delete this Application
- Copy this Application
- Manage Page Groups
- Manage Page Locks
- View Application Reports
- Manage Export Repository
- Manage Supporting Object Definitions

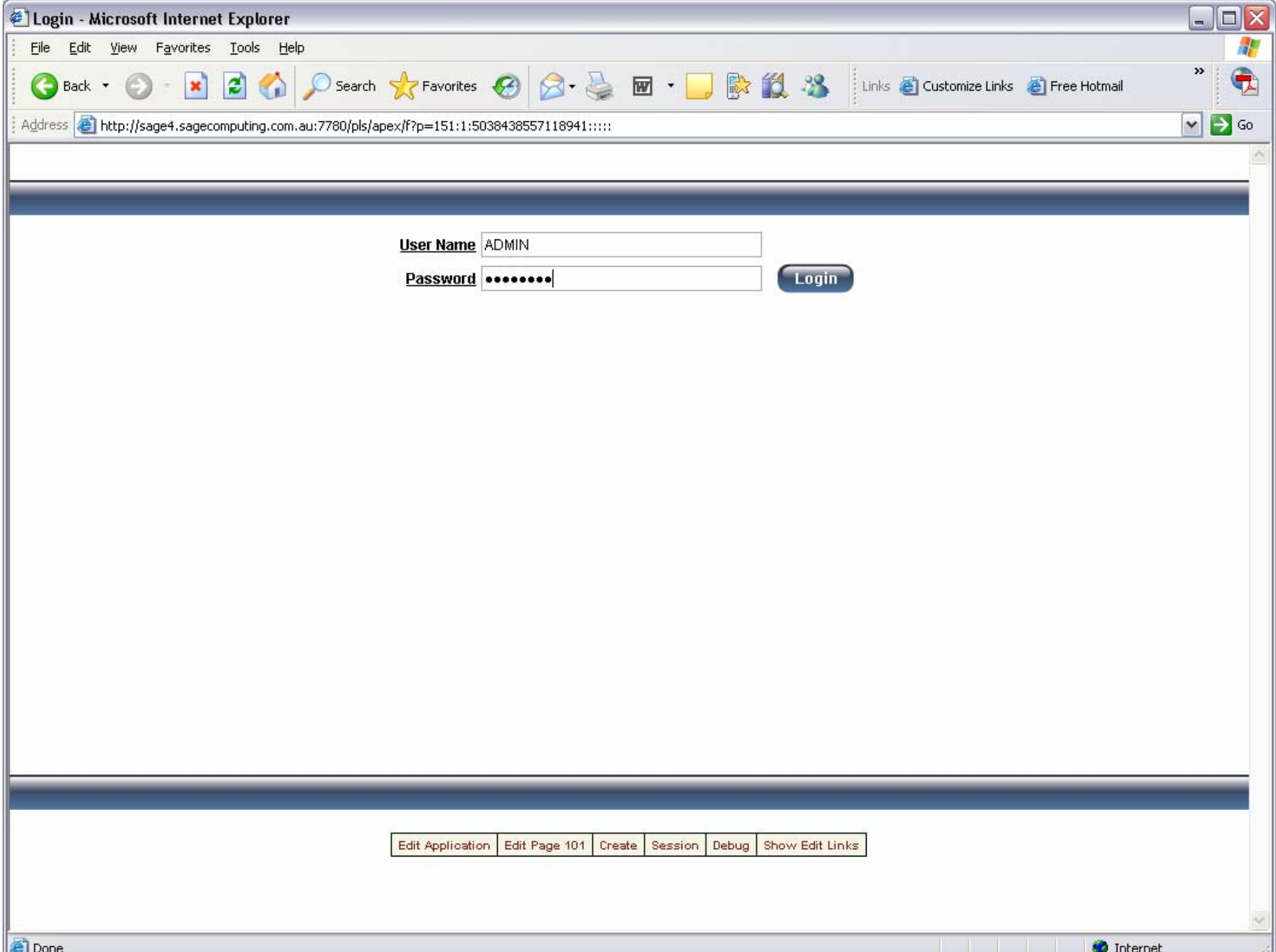
Language: en-au

Workspace: TIMESHEET User: ADMIN

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ORGANISATIONS - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back

Search

Favorites

Links

Customize Links

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Address

http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=151:1:5038438557118941::::

Go

Logout

ORGANISATIONS

ORGANISATIONS ADMIN

ORGANISATIONS

Reset

Create

Search

Display 15

Go

	Parent Org Id	Name	Address1	Address2	Address3	State	Postcode	Telephone	Internal
	1000	Training Division	PO Box 220	Hillarys	Perth	WA	6025	0419904458	I
	1010	Classroom Training							I
	1010	Self Study Program							I
	3210	Rivers Division	16 Green St	N Sydney		NSW	2003	02 234 5557	E
	3210	Forests Division	14 Green St	N Sydney		NSW	2003	02 234 5677	E
	3842	Marketing Services	156 High Rd	Sydney		NSW	2056	02 890 6764	E
	3842	Financial Services	159 High Rd	Sydney		NSW	2056	02 890 6230	E
		Institute of Business Services	102 The Terrace	Sydney		NSW	2056	02 890 6678	E
		Newface cosmetics	2 Hays Terrace	W Perth		WA	6001	09 235 6639	E
		Australian Medical Systems	23 Alexander Rd	St Kilda	Melbourne	VIC		288 5687	E
		Sage Professional Services	PO Box 220	Hillarys	Perth	WA	6025	0419217704	I
		Conservation Society	12 Green St	N Sydney		NSW	2003	02 234 5690	E

Spread Sheet

1 - 12

Edit Application

Edit Page 1

Create

Session

Debug

Show Edit Links

Done Internet

ORGANISATIONS - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Mail Print Word PDF Calculator Phone People Links Customize Links Free Hotmail

Address http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=151:2:5038438557118941::::P2_ORG_ID:3216 Go

[Logout](#)

ORGANISATIONS

ORGANISATIONS > ORGANISATIONS ADMIN

ORGANISATIONS

[Cancel](#) [Delete](#) [Apply Changes](#)

Parent Org Id

Name

Address1

Address2

Address3

State

Postcode

Telephone

Internal

[Edit Application](#) [Edit Page 2](#) [Create](#) [Session](#) [Debug](#) [Show Edit Links](#)

Internet

Page Definition - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Links

Address http://sage4.sagecomputing.com.au:7780/pls/apex/f?p=4000:4150:5038438557118941::NO:1,4150:FB_FLOW_ID,FB_FLOW_PAGE_ID,F4 Go

ORACLE Application Express

Home > Application Builder > Application 151 > Page 2

Page 2

Page 2 View Definition Go Run Copy Delete Create >

Last Updated: 79 seconds ago
Page Comments: 0

Page Rendering

Page Name: ORGANISATIONS Template: Application default

Title: ORGANISATIONS Header Text:

HTML Header: <script language="JavaScript"> Footer Text:

On Load: Build Option:

Help Text: No help is available for this Authorization: No

Regions

Display Point: Page Template Body (3)

10 ☐ ORGANISATIONS HTML

Display Point: Region Position 01

1 >>> Breadcrumbs Breadcrumb Entry

Buttons

Region: ORGANISATIONS

10 <u>Cancel</u>	Redirect to page 1	
20 <u>Delete</u>	Run: javascript:confirmDelete(htmlidb_delete_m	
30 <u>Apply Changes</u>	Submit as "SAVE"	Conditional
40 <u>Create</u>	Submit as "CREATE"	Conditional

Page Processing

Computations

Validations

1 P2 PARENT ORG ID must be number Conditional

Processes

After Submit

1 Process Row of ORGANISATIONS Automatic Row Processing Unconditional (DML)

Branches

After Processing

1 Go To Page 1 Unconditional

Shared Components

Lists of Values

Breadcrumbs

Breadcrumb

Lists

Templates

Page	<u>One Level Tabs</u>
Region	<u>Form Region</u>
Region	<u>Breadcrumb Region</u>
Label	<u>Optional Label with Help</u>

Security

Navigation Bar

200. Logout Redirect To &LOGOUT URL.

Annotations

- Add validation
- Add processes
- Edit properties
- Customise navigation



Apex Skill Set



- ➡ **SQL**
- ➡ **PL/SQL**
- ➡ **HTML**
- ➡ **JavaScript**
- ➡ **Easily learnt by Oracle developers with traditional skills**



Approach



- **Spend time creating UI Templates**
- **Start with a small internal application**
- **Use it to refine standards/UI**
- **Make the product widely available**
- **Aim to get rid of all the isolated small systems**



JDeveloper



JDeveloper



- **Java based J2EE technology**
- **Entirely more sophisticated approach**
- **Entirely more complex approach**
- **Uses an MVC architecture utilising ADF Business Component and ADF Faces**
- **Supports failover, huge scalability**
- **Oracle's direction of Fusion and EBS**
- **The successor of Forms**
- **Utilises many wizards to reduce learning curve**



JDeveloper Demo



JDeveloper Skill Set



- ➡ **SQL**
- ➡ **HTML + HTTP Request/Response**
- ➡ **Java**
- ➡ **JavaServer Faces**
- ➡ **JSF Expression Language**
- ➡ **JAAS/JAZN Security**
- ➡ **JavaScript + Some AJAX**
- ➡ **J2EE/OC4J Containers**



Summary



- **Select approach based on**
 - **Functional requirements**
 - **Organisation's technical architecture**
 - **Skill set of staff**
- **Apex is good for smaller organisations with traditional skills and small/medium systems requirements**
- **JDeveloper ADF is the long term development environment**
- **JDev complexity shouldn't be shied away from – introduce in a controlled fashion**



Thank You For Your Attention

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