

← **Roel Hartman** 😊
9,386 Tweets



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Roel Hartman 😊
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📍 The Netherlands [roelhartman.blogspot.com](#) 🎂 Born June 10, 1965
📅 Joined March 2007

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GATLORD ROCKIES
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15 Mb
per user
1,000 users
=> 15 Gb

A close-up photograph of two hands holding a small, black memory card. The card is held between the fingers, and the background is dark and out of focus.

15 Mb
per connection

1,000 users

=> 10 - 100 connections

=> 150 - 1500 Mb



Enemy of The Session State

Current DB SessionID: 43756

Current APEX SessionID: 109676091552906

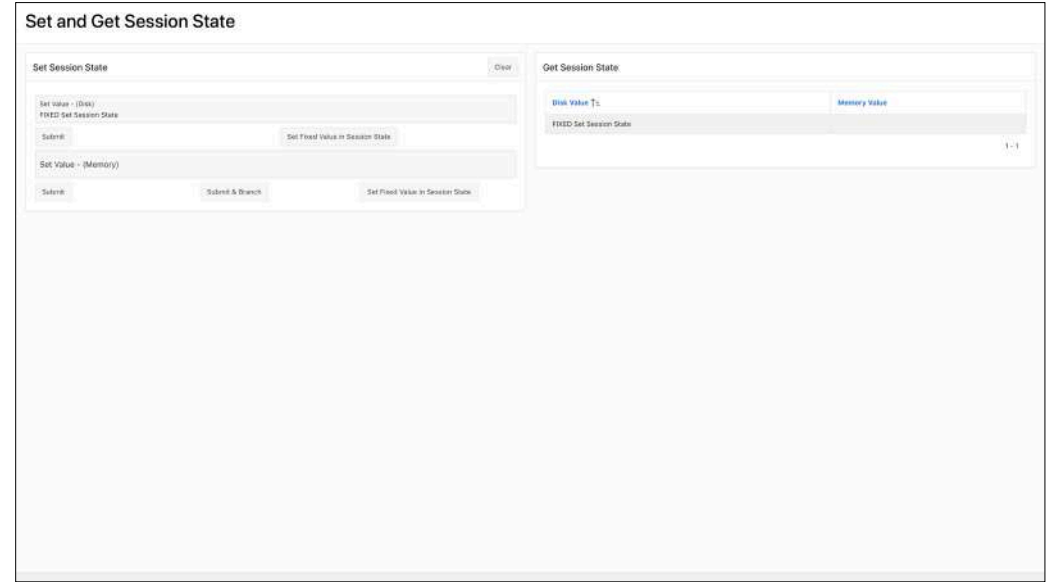
My DB Sessions from v\$session (a.k.a. bathroom stalls)

SID	Machine	Module	Username	Status
609	ordswa-2		ORDS_PLSQL_GATEWAY	INACTIVE
22693	ordswa-4	DEMOAPEX.APX 1311	ORDS_PLSQL_GATEWAY	ACTIVE
27441	ordswa-5		ORDS_PLSQL_GATEWAY	INACTIVE
45108	ordswa-1		ORDS_PLSQL_GATEWAY	INACTIVE
43756	ordswa-6		ORDS_PLSQL_GATEWAY	INACTIVE
54203	ordswa-3		ORDS_PLSQL_GATEWAY	INACTIVE

My Recorded APEX Sessions (a.k.a. visited bathroom stalls)

SID	Counter
609	1
22693	7
27441	5
36933	1
42474	1
43756	8
45759	2
52250	1
54203	9
	35





session state

- save everything you need again in session state
- in PL/SQL use binds or apex_util.set_session_state - don't mix
- "memory only" saves resources





Package Variables

```
create or replace package ess_demo
as
  g_global_value varchar2(100);
  procedure set_global_value( p_value in varchar2 );
  function get_global_value return varchar2;
end;
/

create or replace package body ess_demo
as
  procedure set_global_value( p_value in varchar2 )
  is
  begin
    g_global_value := p_value;
  end set_global_value;

  function get_global_value return varchar2
  is
  begin
    return g_global_value;
  end get_global_value;
end;
/
```

```
exec ess_demo.set_global_value('I LOVE APEX');

select ess_demo.get_global_value from dual;
```

```
GET_GLOBAL_VALUE
-----
I LOVE APEX
```

Package variables

Set / Get global value

Get this global value: APEX WORLD

Hide Show

Main

Value:

Current Value

Get Session State To:	V-Value	Global Value
<input type="text" value="APEX WORLD"/>	<input type="text" value="APEX WORLD"/>	<input type="text" value="APEX WORLD"/>

1-1



```
create or replace view my_emp
as
select * from emp where deptno = nv('P4_DEPTNO')
/
```

```
create or replace context my_apex_context using context_api
/

create or replace package context_api as
  procedure set( p_name in varchar2, p_value in varchar2 );
end context_api;
/

create or replace package body context_api is
  procedure set( p_name in varchar2, p_value in varchar2 )
  is
  begin
    dbms_session.set_context('my_apex_context', p_name, p_value);
  end set;
end context_api;
/
```

```

exec context_api.set( 'variable1', 'I LOVE APEX' );

select sys_context('my_apex_context','variable1') from dual;

```

```

CONTEXT_VALUE
-----
I LOVE APEX

```

```

create or replace view my_emp2
as
select * from emp
where deptno = to_number( sys_context('my_apex_context','deptno') )
/

```

Ordering Dynamic Actions Processing Page Shared Co Action

Page 4: Context

Re-Rendering

Components

Breadcrumb Bar

- Breadcrumb

Body

- P4_DEPTNO
 - Dynamic Actions
 - Refresh details
 - True
 - Refresh
 - Execute Server-side Code
 - Refresh

False

Filter

Identification

Action Execute Server-side Code

Settings

Language PL/SQL

PL/SQL Code

```
context_api.set( 'deptno', :P4_DEPTNO );
```

Items to Submit P4_DEPTNO

Items to Return

Execution Options

Context

Deptno SALES - 30

Db Session 61609

Employees using the NV function

Empno	Ename	Job	Mgr	Hiredate	Sal	Comm	Deptno	Db Session
7699	ALLEN	SALESMAN	7698	2/20/1981	1600	300	30	43116
7521	WARD	SALESMAN	7698	2/22/1981	1250	500	30	43116
7554	MARTIN	SALESMAN	7698	9/28/1981	1250	1400	30	43116
7698	BLAKE	MANAGER	7639	5/1/1981	3000		30	43116
7944	TURNER	SALESMAN	7698	9/8/1991	1500	0	30	43116
7903	JAMES	CLERK	7698	12/3/1981	950		30	43116

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Employees using the context

Empno	Ename	Job	Mgr	Hiredate	Sal	Comm	Deptno	Contextvalue	Db Session
7782	CLARK	MANAGER	7839	6/9/1981	2450		10	10	37240
7839	KING	PRESIDENT		11/07/1981	5001		10	10	37240
7934	MILLER	CLERK	7782	12/21/982	1300		10	10	37240

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Introducing ... Temporal Validity

```
alter table eba_demo_chart_tasks
add period for eba_tasks_period (start_date, end_date)
/
```

```
select *
from eba_demo_chart_tasks
as of period for eba_tasks_period sysdate
/
```

```
dbms_flashback_archive.enable_at_valid_time
(level => 'ASOF'
, query_time => SYSTIMESTAMP
);
```

```
select *
from eba_demo_chart_tasks
/
```

Carrier

Carriername: Nefen und Gust
Carriercode: NJQ

Variables

Country: Germany
Transport Method: GROUPAGE
Check Date: 25.08.2021

function transportcosts_matrix(p_carrier_id in number
, p_country_id in number
, p_transport_method in varchar2
)
return varchar2 sql_macro

Zipcode	Valid from	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1100	1200	1300	1400	1500	1600	1700	18	
01	01.01.2021	18.40	32.24	44.06	52.16	63.22	72.05	77.62	84.39	99.84	119.99	122.06	133.12	144.16	155.14	166.13	177.10	188.05	199.00	210.00	221.00	232.00	243.00	254.00	265.00	276.00	287.00	298.00	309.00	320.00
02	01.01.2021	23.13	36.42	53.69	62.17	75.35	85.91	92.00	100.46	118.96	132.17	145.47	158.65	171.83	185.13	198.43	211.73	225.03	238.33	251.63	264.93	278.23	291.53	304.83	318.13	331.43	344.73	358.03	371.33	384.63
03	01.01.2021	23.13	36.42	53.69	62.17	75.35	85.91	92.00	100.46	118.96	132.17	145.47	158.65	171.83	185.13	198.43	211.73	225.03	238.33	251.63	264.93	278.23	291.53	304.83	318.13	331.43	344.73	358.03	371.33	384.63
04	01.01.2021	19.07	31.67	44.18	51.25	62.12	70.63	76.26	82.82	94.00	108.96	119.03	130.19	141.66	153.63	166.10	179.07	192.54	206.51	221.00	236.00	251.50	267.50	284.00	301.00	318.50	336.50	354.50	373.00	391.50
06	01.01.2021	19.07	31.67	44.18	51.25	62.12	70.63	76.26	82.82	94.00	108.96	119.03	130.19	141.66	153.63	166.10	179.07	192.54	206.51	221.00	236.00	251.50	267.50	284.00	301.00	318.50	336.50	354.50	373.00	391.50
07	01.01.2021	18.63	32.61	45.49	52.77	63.96	73.05	78.62	84.39	99.84	119.99	122.06	133.12	144.16	155.14	166.13	177.10	188.05	199.00	210.00	221.00	232.00	243.00	254.00	265.00	276.00	287.00	298.00	309.00	320.00

Check Date: 25.08.2021

Show Transport Cost Matrix

Dynamic Actions

- Click Show Track
 - Execute Server-side Code
 - Refresh
 - Execute Server-side Code

sys.dbms_flashback_archive.enable_at_valid_time
(level => 'ASOF'
, query_time => to_timestamp (:P196_CHECK_DATE
, :APP-NLS_TIMESTAMP_FORMAT)
);

sys.dbms_flashback_archive.disable_asof_valid_time;

Check Date: 25.08.2021

Show Transport Cost Matrix

Dynamic Actions

- Click Show Track
 - Execute Server-side Code
 - Refresh
 - Execute Server-side Code

sys.dbms_flashback_archive.enable_at_valid_time
(level => 'ASOF'
, query_time => to_timestamp (:P196_CHECK_DATE
, :APP-NLS_TIMESTAMP_FORMAT)
);

sys.dbms_flashback_archive.disable_asof_valid_time;

Flashback

Today's Tasks

Search All Text Columns Go Actions Save Add Row Reset

Task Name	Start Date	End Date	Status	Assigned To	Cost	Budget
HR Support Systems	3/09/2022	7/19/2022	Closed	Al Binea	300	500
HR software upgrades	3/09/2022	7/05/2022	On-Hold	Pam King	8500	7000
Manage Training Activities	4/05/2022	6/14/2022	On-Hold	John Watson	1000	2000
Customize solutions	4/15/2022	7/08/2022	Open	John Watson	1900	4000
Customize Software Projects sof...	4/22/2022	5/28/2022	Open	Tom Saess	600	1000
Collect mission-critical spreadh...	4/22/2022	6/23/2022	Open	Pam King	2500	4000
Migrate applications	4/23/2022	6/28/2022	Open	Mark Nile	1000	8000
Lock spreadsheets	4/23/2022	10/06/2022	Open	Pam King	1000	800
Create applications from spread...	4/23/2022	10/06/2022	Open	Pam King	6000	10000
Send links to previous spreadh...	4/23/2022	10/06/2022	Open	Pam King	1000	1500
Document quality assurance pro...	4/23/2022	5/27/2022	On-Hold	Myra Sutcliff	3500	4000
Plan migration schedule	4/29/2022	7/16/2022	Open	Mark Nile	1500	6000
Publish Feedback application	5/03/2022	8/05/2022	Open	Pam King	300	12000
Implement in Production	5/04/2022	9/08/2022	Open	John Watson	200	1500
End-user Training	5/05/2022	6/30/2022	Open	John Watson	0	2000
Investigate new Virus Protection ...	5/06/2022	5/21/2022	Open	Pam King	1700	1500
Identify integration points	5/16/2022	6/05/2022	Pending	Mark Nile	0	2000
Review feedback	5/17/2022	5/23/2022	On-Hold	Irene Jones	200	400
Develop web pages	5/18/2022	6/23/2022	On-Hold	Tiger Scott	800	2000
Train developers / users	5/18/2022	8/01/2022	Pending	John Watson	0	8000

1 rows selected Total 20



Q & A

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