

# Making Magic with Oracle

Some cool tricks for DBAs

---

Presented by: Francisco Munoz Alvarez



June 1, 2015

Pythian  
love your data®  
Pythian  
love your data®

# Francisco Munoz Alvarez

Oracle ACE Director

8/9/10g/11g OCP, RAC OCE, AS OCA, E-Business OCP,  
SQL/PLSQL OCA, Oracle 7 OCM

Oracle 7, 11GR2, 12cR1 and OVM 3.1 Beta Tester

IOUC LA Spokesperson

ITIL Certified

2010 Oracle ACE Director of the year by Oracle Magazine

Blog: [oraclenz.com](http://oraclenz.com) - Email: [alvarez@pythian.com](mailto:alvarez@pythian.com)

Twitter : [fcomunoz](https://twitter.com/fcomunoz)

Pythian

Vice President Asia Pacific

[www.pythian.com](http://www.pythian.com)

# Agenda

- A Cool Trick
- Data Masking
- Data Repository and Version Control
- Smaller Copy of Production
- Flexible with Data Pump
- Data Recovery Advisor

# A Cool Trick

Who never had a problem with a SQL that is killing your Database Performance and you can't fix it because it's running from an external closed application that you or your developers can't touch?

Since Oracle version 10 this is a problem of the past, now you can easy solve this kind of problem using the `DBMS_ADVANCED_REWRITE` package, which allow you to transform/customize queries on the fly, changing for example one query with bad explain plan for another one with a good explain plan.



# DBMS\_ADVANCED\_REWRITE

Before you become too excited, please remember the following restrictions:

- It does not work with bind variables.(Alternative solution at [Metalink Doc ID. 392214.1](#))
- Only works for the SELECT statement.
- Does not work when the base table is modified through DML.



# Data Masking with Oracle

- Important to protect your sensible data in Dev/QA/Test Environments
- Protect your data when sending it to outside your company.
- Normal Products used for Data Masking?



OEM / Data Pump



<http://www.oracle.com/technetwork/database/datapump11g2009-transform-133936.pdf>

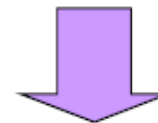
# What is Data Masking

## Key Drivers

- Application Development & QA
  - Offshore / in-house
- Data Sharing
  - Claims processing
  - Marketing analysis of customer data
- Regulations
  - PCI
  - Sarbanes-Oxley
  - HIPAA
  - Graham-Leach-Bliley
  - EU Data Protection Directive



LAST_NAME	SSN	SALARY
AGUILAR	203-33-3234	40,000
BENSON	323-22-2943	60,000
D'SOUZA	989-22-2403	80,000
FIORANO	093-44-3823	45,000



LAST_NAME	SSN	SALARY
ANSKEKSL	111-23-1111	40,000
BKJHHEIEDK	111-34-1345	60,000
KDDEHLHESA	111-97-2749	80,000
FPENZIEK	111-49-3849	45,000

# Data Repository and Version Control

As a DBA, I'm always looking for proactive ways to allow me to be prepared in case of a disaster strike or if an emergency release rollback is required (I love to use always the "What if" methodology), and due to these reasons, have a metadata repository and version control of it is always useful .

Using Data Pump: SQLFILE parameter





# Creating Smaller Copies of Production

That is a very common task for a DBA, you are always having a task to create a copy of your Database ( for development or test purpose ) but your destination server don't have enough space to create a full copy of it! This can be easily solved with Data Pump, for this example, let say that you only have space for 70% of your production database, now to know how to proceed, we need to decide if the copy will contain metadata only (no data/rows) or if it will include the data also.

Using Data Pump:      `TRANSFORM=PCTSPACE` and `SAMPLE` parameters

# More Data Pump Stuff

- Clone a User
- Change Tablespaces
- Change Datafile Location
- Flashback Consistent Backups

# More Data Pump Stuff

- Flashback Consistent Backups

By default expdp is consistent only for the table that is currently being exported.

You can use: FLASHBACK\_TIME or FLASHBACK\_SN

Note: On 11g the CONSISTENT parameter was deprecated , At 11g you can use the FLASHBACK\_TIME=systimestamp to get data pump export to be consistent to a single point in time.

Since 11.2 you can also use the legacy mode option to use the old parameter CONSISTENCY=y

# Data Recovery Advisor

- RMAN> LIST FAILURE;
- RMAN> ADVISE FAILURE;
- RMAN> REPAIR FAILURE PREVIEW;
- RMAN> REPAIR FAILURE;
- RMAN> REPAIR FAILURE NOPROMPT;

# Questions? More Information?



- Francisco Munoz Alvarez
- [alvarez@pythian.com](mailto:alvarez@pythian.com)

And Remember to participate more with your local User Group



Thank you! Have a Nice Day