

The New Tool - Automatic Diagnostic Repository (ADR); How Can It Help You Troubleshoot Your Databases?

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ABSTRACT

The purpose of my presentation is Inform my audience how to be a proactive DBA by simply using this new tool. This tool and my presentation will help database administrators provide to their customers a way to reduce the cost of ownership by reducing the time to trouble shoot anomalies. It will also help administrators gather information to see what is potentially causing problems which will bring about higher availability. This tool has manageability written all over it. ADR Command Interpreter (ADRCCI) is a command line tool that DBA's can use to help manage their databases. This presentation will look at a real example troubleshooting a problem with the new tool. It will look at the commands that are used to gain valuable information about what are some of the problems affecting your database.

This diagnostic tool is use to quickly gather information from trace files, dumps, alert logs, health monitor reports and so much more. During the presentation we will identify what is a problem, an incident and how they are linked. Once users have identified what is happening all of this diagnostic data can be packaged automatically into a logical incident package for uploading to Oracle.

TARGET AUDIENCE

Any DBA; new or old will benefit from this presentation. We will cover the new feature in 11g, “Automatic Diagnostic Repository” (ADR). Part of the 11g Diagnosability is Fault Management and we will cover where it is and how it works. Best of all we will show and tell you simple command that you can go home and use today.

EXECUTIVE SUMMARY

After this session, you will be able to:

- What is Automatic Diagnostic Repository (ADR) and what does it do?
 1. This is a new infrastructure and tool that will help you diagnose problems.
 2. It defines a new way of looking into the alert and trace files to diagnose errors

- What are some of the commands
 1. Setup of environment variables and file locations
 2. Show and set control commands
 3. Show and set home commands
 4. Show alerts
 5. Show problems
 6. Show incident

- How to be effective using the tool. Step by step example of troubleshooting a problem. (Best Practice)
 1. Setup the environment
 2. Check the health of your system
 3. View alerts and trace files
 4. Identify problems

BACKGROUND

Which version 11g of the Oracle database, Oracle created a new feature to help diagnose the database.

Do you know where this tool is and how to use it? After going to Oracle 11 I couldn't find my tracefiles. I called another DBA and he didn't know either. I had heard about this new tool, but didn't know what to do to use it. Now I do. I can help you accelerate the learning process and shorten the learning curve. This tool is already setup and waiting for you to use it. You may have heard the question "Who moved the cheese", well someone moved the alert, trace and dump files. We will help you discover where they have moved to and how to use them more effectively.

TECHNICAL DISCUSSIONS AND EXAMPLES

So what does ADR do?

Here are the commands you will need to know:

ADRCI

>show control

>show home

>set control

>set home

>help

>quit

>exit

>show alert

>show problem

>show incident

You can run a batch job by supplying a command line with commands between quotes.

```
>exec="command; command;"
```

You can also enter the name of a file to run from the operating system command line:

```
ADRCI script=file_name
```

```
ADRCI
```

```
adrci> show homes
```

```
ADR Homes:
```

```
diag\clients\user_s826199\host_3988473476_80
```

```
diag\clients\user_UNKNOWN\host_3988473476_80
```

```
diag\rdbms\siidb2\siidb2
```

```
diag\tnslsr\siidb2\listener
```

```
adrci>
```

You can see the alert log with many variations: (`-tail` displays the last 10 lines of the alert log to you terminal, `-tail 50` displays the last 50 lines of your alert log to the terminal, `-tail -f` will display the last 10 entries of the alert log and then wait for more entries to come from the alert log.)

```
>show alert
```

```
>show alert -tail
```

```
>show alert -tail 50
```

```
>show alert -tail -F
```

Using the commands below you will be able to write the entire alert log to the file `alert_today.log`

```
>spool d:\temp>alert_today.log
```

```
>show alert -term
```

```
>spool off
```

To see the trace files issue the following commands: (`-I ###` will display the tracefile associated with incident number `###`, `%m005%` will display the tracefiles with the name `m005` in the filename.

```
>show tracefiles
```

```
>show tracefiles -I 305
```

```
>show tracefiles %m005%
```

To see problems and incident issue the following commands:

```
>show problem
```

```
> show problem -all
```

```
>show problem -p "problem_id=22"
```

```
>show problem -p "problem_id>15"
```

```
>show incident
```

```
>show incident -mod detail -p "INCIDENT_ID=1305"
```

```
>help show tracefile
```

```
>help show incident
```

```
>help show problem
```

```
> help ips
```

```
>help ips create package
```

```
>help finalize package
```

```
>help generate package
```

Creating a package to send to Oracle is a 3 step process

1. Create a logical package
2. Add additional information to the package
3. Generate a physical package

```
>IPS CREATE PACKAGE PROBLEM problem_id
```

```
>IPS ADD INCIDENT incident_id PACKAGE package_number
```

```
>IPS GENERATE PACKAGE package_number IN path
```

REFERENCES

Oracle 11g documentation:

http://docs.oracle.com/cd/B28359_01/server.111/b28319/adrci.htm