

Installation Guide Part 2: setup host database and batch jobs (15min)

This part enables the Compare, Tablespaces and Users buttons. The three buttons show you properties of all the databases together so you can compare them. This is a very powerful feature of the dashboard.

If you already installed the dashboard and followed the instructions in this document then there is no need to do it again so you can quit here.

Before continuing please watch the *DBcafe installation part2* video on the Home page, or even better download it from the Downloads page to see it in high quality. Then you might only need to refer to this document if you get stuck.

1. Prerequisites

For this part you must be on a machine where either the Oracle Server is installed or an Oracle Client which includes the sqlplus.exe. In this document the default root directory **C:\DIS** is assumed but your root directory might be different.

2. The host database

The dashboard needs to store some statistics in a host database and update them in nightly batch jobs. The monitored databases also need to a small schema to store PL/SQL functions. Without this schema the Compare, Tablespaces and Users panels will show no results. These panels, which group results for all databases together, distinguish this dashboard from other tools such as Oracle's Grid Control, Enterprise Manager and SQL Developer.

3. Choose the host database

You have two choices, either you create the *dbpanel* schema in an existing database or you create it in its own database. A good choice is an Oracle XE database which is free software and takes only a few minutes to install. This host database should be on a machine which stays up. The user name of this schema is set in file CTLFILE6. The schema name can be the same for the host database and target databases. The default schema is *dbpanel* which you can change if you wish, as explained below.

4. Set the host database flag (1min)

Continue here when you have chosen the database which will host the *dbpanel* schema which contains the statistics tables. Edit C:\DIS\DB\DASH\DB_dash\run\ctl\CTLFILE2_databases.ctl and set HOST=Y on the host database. **IMPORTANT:** In an Oracle 12c or later database which contains PDBs then choose a PDB which is not CDB\$ROOT.

5. Change schema name (1min)

If you want to change the *dbpanel* schema name or password then you need to edit CTLFILE6 using this command:

```
C:\DIS\DB\DB_install\run\bin\DBcontrol_CTLFILE6.update.cmd
```

6. Create *dbpanel* schema in host database (1min)

```
Run C:\DIS\DB\DB_load\run\bin\create_monitoring_objects.servers.HOST.cmd
```

It will prompt you before dropping or creating objects in the HOST database. On a first-time install there are no prompts to drop anything as no database objects have been created yet. If you rerun this job then it will give prompts because the objects exist. Just hit Enter [n] for every prompt except the second one:

- Are you sure you want to drop schema ... ?
[reply *n* unless it is a fresh install and you have no historical data you wish to keep]

- Are you sure you want to create schema ... ?
[reply **y** to get the extended panel features, if you reply **n** the job will end, after scanning logs for errors]
- Are you sure you want to drop and create table ERROR_LOG?
[reply **n** unless the table contains old data you want to clean]
- Are you sure you want to drop and create table EVENT_LOG?
[reply **n** unless the table contains old data you want to clean]
- Are you sure you want to drop and create table KILL_LOG?
[reply **n** unless the table contains old data you want to clean]
- Are you sure you want to drop and create tables ALL_TABLESPACES_CURRENT and ALL_TABLESPACES_HISTORY?
[reply **n** to keep any existing historical data, only reply **y** if you definitely want to clean the tables]
- Are you sure you want to drop and create table ALL_USERS?
[reply **n** unless the table contains old data you want to clean]

At the end it displays any messages found in the log files. The output has NOTES advising you to ignore JAVA error messages which occur when Java is not installed in the database (e.g. Oracle XE).

7. Create *dbpanel* schema in target databases (2min)

Edit C:\DIS\DASH\DB_dash\run\ctl\CTLFIL2_databases.ctl and see that TABLESPACES=Y on every line. The flag is used to select the databases in which the schema will be created. It is also used by the batch extracts so there will be no properties or statistics collected from databases with this flag set to N. It is recommended that you simply leave it set to **Y** for every database.

Run C:\DIS\DB\DB_load\run\bin\create_monitoring_objects.servers.TARGETS.cmd

If there are DataGuard Standby databases they will return an ORA-01033 error which is normal and can be ignored. The Primary database will contain the schema instead, and replicate it to the Standby.

It will prompt you before dropping or creating the schema in each TARGET database. On a first-time install there are no prompts to drop anything as no database objects have been created yet. If you rerun this job then it will give prompts because the objects exist:

- Are you sure you want to drop schema ... ?
[reply **n** unless you want to clean the schema and not recreate it]
- Are you sure you want to create schema ... ?
[reply **y** unless you dropped the schema and do not want recreate it]

At the end it displays the messages found in the log files. It does this even when there are no errors.

8. Run the batch extracts (about 10sec per database)

Run C:\DIS\adminhost\at_jobs\bin\AT_DBbatch.cmd

Ignore any JAVA errors in the log files when Java is not installed in the database.

If your host database is 11g and you see this error when it links to a 10g database:

```
ORA-04052: error occurred when looking up remote object
schemaname.function@sid.hostname
```

then it may be Oracle bug 4511371 which occurs when executing PL/SQL from an Oracle 11g database to an Oracle 10.2.0.1 database over a database link. The solution is to either apply the latest patchset to the Oracle 10.2.0.1 database or to upgrade the Oracle 10.2.0.1 database to Oracle 11g.

Now the Compare, TableSpaces and Users panels will display results.

9. Schedule the batch extracts (1min)

The nightly batch job on the host machine ensures you have fresh reports for the Compare, TableSpaces and Users panels each morning. The job should be scheduled to run before you usually start work. Open this file and set the scheduled time for each day then run it:

```
C:\DIS\adminhost\at_submit_jobs\bin\ATsubjobs_DBbatch.cmd
```

Open Scheduled Tasks in the Windows Control Panel to see the scheduled jobs.

Please note that the host machine will need to read CTLFILE6 when it runs the batch jobs. Therefore the machine should be one that is only accessed by the database administrator and trusted persons.

10. Schedule AT_load_listener_log (optional)

This job is optional and is only run on a machine where there is a database. It loads the tail end of the listener.log into the *dbpanel* schema. If you want to run it you must first edit these three files:

```
C:\DIS\DB\DB_load_listener_log\configure\bin\DBconfigure_listener_log.cmd and set the path
```

```
C:\DIS\DB\DB_load_listener_log\configure\bin\DBconfigure_oracle_path.cmd and set the path
```

```
C:\DIS\DB\DB_load_listener_log\configure\bin\DBconfigure_TARGET_connect.cmd and set CONNECT  
the same as the CONNECT in CTLFILE2 for the database on the machine where this job will be run.
```

Test:

```
C:\DIS\adminhost\at_jobs\bin\AT_load_listener_log.cmd
```

```
C:\DIS\adminhost\at_jobs\bin\AT_scanfiles.dash.cmd (ignore ORA-00942 messages)
```

Schedule:

Open this file and set the scheduled time for each day then run it:

```
C:\DIS\adminhost\at_submit_jobs\bin\ATsubjobs_load_listener_log.cmd
```

11. Schedule scanfiles (3min)

This job is already included in AT_DBbatch.cmd. It checks the batch logs for error messages. It can send its results to your email address. If you want emails then edit these two files and follow their instructions:

```
C:\DIS\scanfiles\ctl\scanfiles_mail_to.ctl
```

```
C:\DIS\scanfiles\bin\set_mail_server.cmd
```

If you want to schedule scanfiles separately, perhaps after other nightly jobs, then:

Open this file and set the scheduled time to run after the other nightly jobs then run it:

```
C:\DIS\adminhost\at_submit_jobs\bin\ATsubjobs_scanfiles.dash.cmd
```

12. Test the dashboard from a network disk (1min)

You may have already copied the DASH directory to a network disk. If so you should copy it again as you will have changed some files during this second part.

Copy or drag the C:\DIS\DB\DASH directory to a network disk *x*

Run *x:\DASH\DB_dash\run\bin\Panel_01_main.cmd* and paste this into the dialog:

```
C:\DIS\DB\DASH_hide\DB_dash\run\ctl\CTLFILE6_dbusers.ctl
```

This shows you how you can place CTLFILE6_dbusers.ctl wherever you wish and the panel will ask you where to find it. If you copy DASH_hide to the same disk as *x:\DASH* the panel will automatically find it and use it, but as the file contains *unencrypted passwords* it should be placed in a safe location that is accessible only to authorized persons. These would be the database administrator and their backup persons.

13. Choose CTLFILE6 location (1min)

The location of CTLFILE6 is defined in these config files:

C:\DIS\DASH\DB_configure\run\bin\DBconfigure_preferences.cmd (**arg_CTLFILE6**)

C:\DIS\DASH\DB_configure\run\bin\DBconfigure_CTLFILE6_REMOTE.cmd (**arg_CTLFILE6_REMOTE**)

C:\Temp\DASH\DBconfigure_local_preferences.temp.cmd can also be used to set **arg_CTLFILE6_REMOTE**

If the dashboard will be for your personal use only and will not be placed on a shared disk then there is no need to change either file. However if the DASH directory is copied to a shared disk, or deployed to a DropBox, then CTLFILE6 will not be available from other machines. In this case CTLFILE6 can be copied to a restricted directory which is accessible only to authorized persons. If it is encrypted they will need to use the same Windows account.

- Edit C:\DIS\DASH\DB_configure\run\bin\DBconfigure_CTLFILE6_REMOTE.cmd and change the directory path to the secure location where you will put CTLFILE6 then copy CTLFILE6 there
- See the installed document C:\DIS\DB\DB_doc\install\Adding_logins_to_CTLFILE6 for advice on how to protect the file
- DBconfigure_preferences.cmd does not need to be changed

14. Copy NTRESKIT utilities (optional)

The NTRESKIT utilities **tlist** and **kill** are very useful if you have orphaned processes. For example if you use Windows Scheduled Tasks to forcibly end a scheduled job which is “running” but you know it is hanging, and it executes sqlplus, it may leave an orphaned sqlplus process. If the orphaned process writes an output file it may be locked open which prevents the next run from executing. To be ready for this issue:

Copy/paste the **tlist** and **kill** utilities to the Windows directory:

```
C:\DIS\NTRESKIT\* => C:\WINDOWS\*
```

Open a command window and type “tlist -t” to see what it shows.

An orphaned sqlplus process has no parent process and is usually seen at the end of the tlist output. To kill it type “kill 1234” where 1234 is its task number. It is a good idea to check the Windows Scheduled Tasks at least once a week on a Windows machine that is executing daily batch jobs.

15. The ERROR_LOG

This table contains details of errors or unexpected issues which occur during the use of the panels. These error records may contain details of connection strings used to reach databases. The panels hide any passwords that are in these strings. If you find any sensitive data in this table you are welcome to notify the author by email so the error in the program can be rectified. The <PROGRAM> and EMSG are enough to locate the error in the code. The table should be cleaned if it is found to contain sensitive data.

16. Finished

Thank you for installing the dashboard.

Hopefully it will be worth the effort.

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