



Guideline

**Step-by-Step guide to installing
Oracle 10G Client on a Controller
8.3 Application server**

Product(s): Controller 8, Third Party

Area of Interest: Infrastructure

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Contents

1	INTRODUCTION	4
1.1	PURPOSE	4
1.2	APPLICABILITY	4
1.3	IMPORTANT NOTES	4
2	INSTALLING ORACLE CLIENT	5
2.1	INSTALL ORACLE 10G RELEASE 2 CLIENT	5
2.2	INSTALL 10G CLIENT PATCH(ES).....	7
3	CONFIGURING THE CONTROLLER APPLICATION TO POINT TO ORACLE	9
3.1	CONTROLLER (COGNOS 8 BI "RUNTIME") CONTENT STORE	9
3.2	CONTROLLER APPLICATION DATABASES	11
4	TESTING CONTROLLER	15
	APPENDICES	16
4.1	ISSUE WITH NON-ENGLISH LANGUAGES	16

1 Introduction

1.1 Purpose

This document will show how to install/configure the Oracle 10G release 2 client on a Controller 8.3 Application server, and then configure Controller 8.3 to point to the appropriate Oracle 10G (release 2) database/server.

1.2 Applicability

This document was written for Controller 8.3 on a Windows platform. However, it is also applicable for Controller 8.2, and *may* be applicable for future Controller versions.

1.3 Important Notes

This is an unofficial guide, based on customer feedback to Cognos UK Support. Official updates and communications occasionally occur, therefore the official documentation (e.g. "ctrl_inst.pdf" for Controller 8.3 plus http://support.cognos.com/en/support/products/controller83_software_enviro_nments.html) take precedence over this best practice guide.

This document is intended to be used side-by-side with document "Guide to installing Oracle 10G Enterprise Edition for Controller 8.3.doc"

2 Installing Oracle Client

2.1 Install Oracle 10G release 2 client

IMPORTANT:

It is absolutely **vital** that the greatest care is taken to perform these steps *exactly* as described. There are KNOWN ISSUES if you do not do this.

For example, do NOT install the Oracle 10G release 1 client by mistake. It is VITAL that you use all the client versions and patches **exactly as described**.

For more information, see KB articles 1034355, 1034734, 1019301, 1036613, 1038813, 1037268, 1038823 etc.

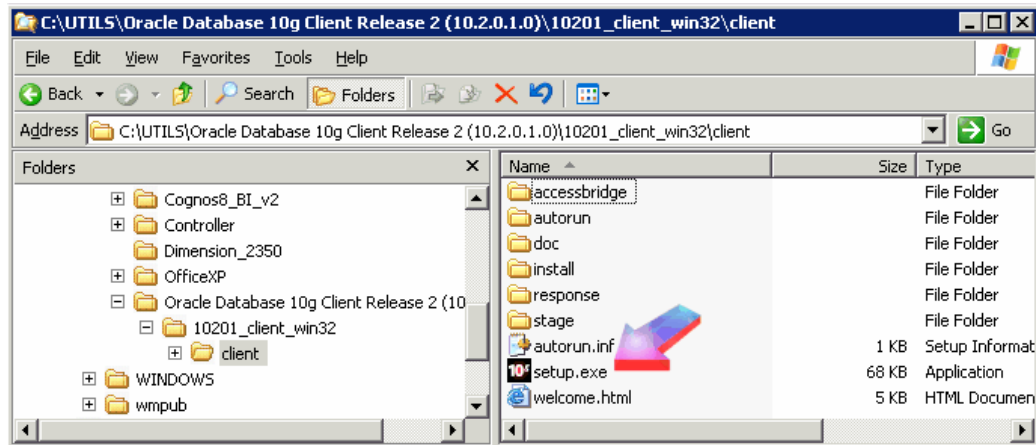
TIP:

This document occasionally refers to IBM Cognos KB (KnowledgeBase) documents, which can be found inside our KB search engine:

<http://support.cognos.com/knowledgebase/googlesearch>

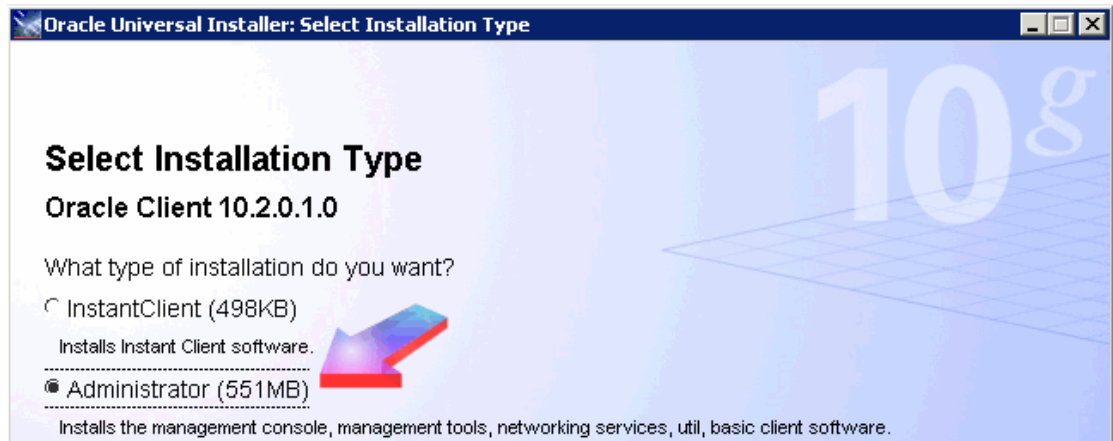
Please use this excellent and extensive facility.

- Download the Oracle 10G Client **Release 2** (10.2.0.1.0) software
- Logon to the Controller 8.3 Application (APP) server, as a Windows administrator.
- Launch `setup.exe`



- Click Next

- Select "Administrator" (**IMPORTANT**: this is an absolute requirement!) - see below



IMPORTANT: Selecting 'Administrator' is an **absolute *must*** requirement!

- Next
- Next
- Next
- Click "Install"

- After the file copy, select Next
- Choose "Typical" at the configuration screen
- Next, Finish

2.2 Install 10G client patch(es)

Oracle regularly releases patches for their client software. These typically contain fixes for significant Oracle issues (e.g. memory leaks etc.)

MANDATORY - UPGRADE TO PATCH 5473334:

It is **vital**¹ that you install patch 5473334 by performing the following steps:

- Download the Oracle OLE DB patch 5473334 from the Oracle website
 - Depending on where you download it from, this is contained inside
 - either the file 'p5473334_10202_WINNT.zip' (also known as 'Oracle Data Access Software for Windows, Release 10.2.0.2.20, June 2005')
 - or 'ODAC1020221.exe' (currently downloadable from <http://www.oracle.com/technology/software/tech/windows/odpnet/utilsoft.html>)
- Logon to the Controller 8.3 Application (APP) server, as a Windows administrator.
- Extract the downloaded patch file onto the server
- Launch `setup.exe` (e.g. `odac10.2.0.2.20\install\setup.exe`)
- Click 'Next'
- Choose "Oracle Data Access Components 10.2.0.2.20", then Next

IMPORTANT: Make sure that you get the following 2 variables correct!

- Ensure that 'name' variable is correct (e.g. `OraClient10g_home1`)
- Ensure that 'path' variable is correct (e.g. `C:\oracle\product\10.2.0\client_1`)
- Next, Next, Next
- Install
- After the install has finished, click "Exit" then "yes"

TIP: To check that this section has worked properly, search for the file 'OraOLEDB10.dll' on the application server. By default, this is located inside `C:\oracle\product\10.2.0\client_1\BIN`. Right-click on this file and choose 'properties', click 'version' and then click 'file version'.
=> Ensure that this file is now version 10.2.0.2.20

¹ See http://support.cognos.com/en/support/products/controller83_software_environments.html Feb 2008, and KB1036613

BEST PRACTICE - UPGRADE TO LATEST PATCHSET:

In addition to applying the above *mandatory* patch, customer feedback to Cognos UK Support *recommends* you should also upgrade to the latest patch release *AFTERWARDS*.

Currently (March 2008) the latest known patch is Patch_10.2.0.3.0-p5337014_10203_WINNT.zip (also known as "Oracle Database 10g Release 2 Patch Set 2 10.2.0.3.0")

- Download (from Oracle) Patch_10.2.0.3.0-p5337014_10203_WINNT.zip
- Extract the downloaded patch file onto the server
- Launch setup.exe (e.g. Patch_10.2.0.3.0-p5337014_10203_WINNT\Disk1\setup.exe)
- Next

IMPORTANT: Make sure that you get the following variables correct!

- Ensure that 'name' variable is correct (e.g. OraClient10g_home1)
- Ensure that 'path' variable is correct (e.g. C:\oracle\product\10.2.0\client_1)
- Next
- Exit

TIP:

Remember to repeat steps 2.1 and 2.2 for each and every Controller application server, if you have more than one.

Finally, reboot the Controller application server(s).

3 Configuring the Controller Application to point to Oracle

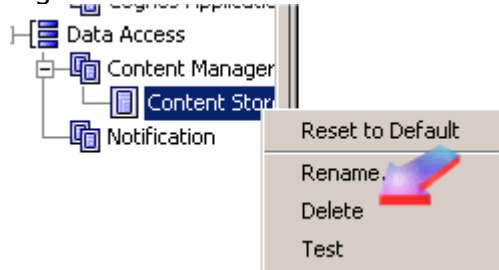
3.1 Controller (Cognos 8 BI "runtime") Content Store

We shall now assume that you have already installed the Controller 8.3 application on your application server.

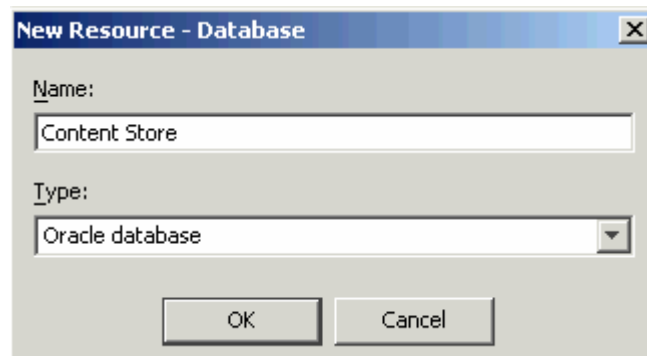
- On the Controller 8.3 Application server, go to the "ORACLE_HOME/jdbc/lib" directory (e.g. "D:\oracle\product\10.2.0\client_1\jdbc\lib")
- Copy the `ojdbc14.jar`² file to the `c8_location/webapps/p2pd/WEB-INF/lib` directory on each of the Cognos/Controller 8 application servers
- After this, follow the "normal" (SQL) install instructions, except the following (see below) are the different things that you need to do for Oracle:

Launch Cognos Configuration

Right-click on "Content Store" and choose "delete", "yes"



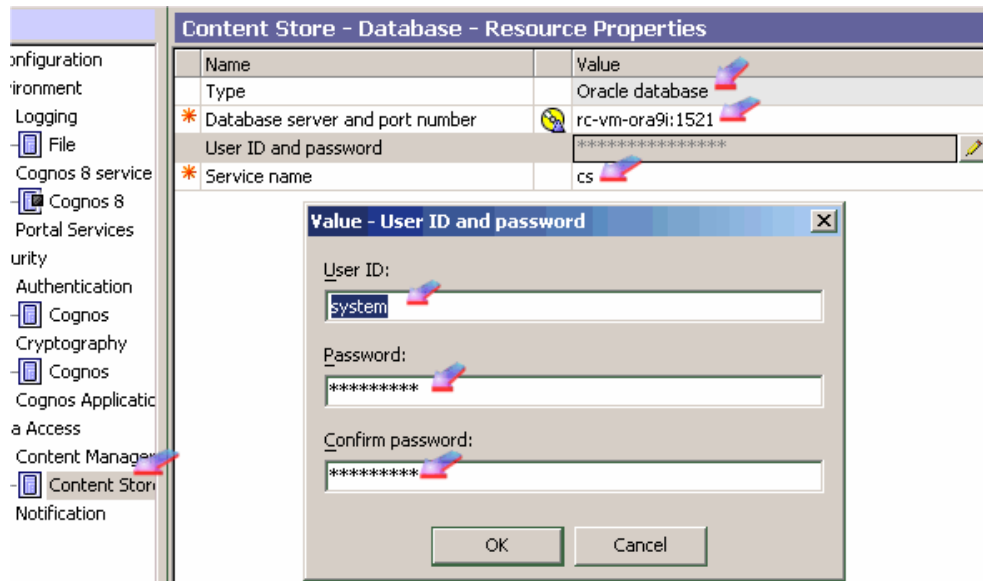
Right-click on content manager and choose "New resource" – "database"
Choose "Oracle Database" and call it "Content Store"



Incidentally, you may have to use "Net Manager" to configure a LISTENER (e.g. on the Oracleserver):

² This file includes the driver required by the content store. Previous versions of Controller used the `classes12.jar` file. If this older file exists, it must be deleted. For more info, see pages 34 & 45 of `ctrl_inst.pdf`.

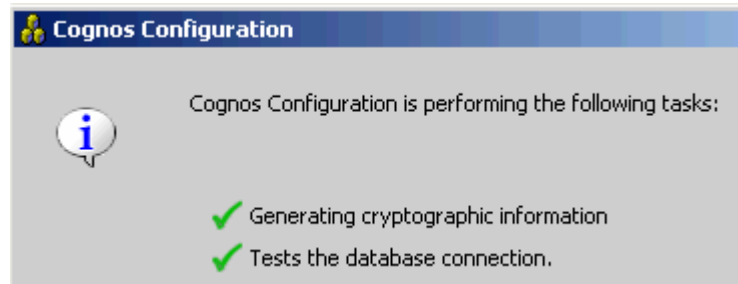
Enter the appropriate details:



TIP:

The above service name ("cs") does not seem to need to be "resolvable" by TNSPING, but the Controller application database (e.g. "CCR") does. In other words, you may have to configure TNSNAMES.ORA file on each application server for the "CCR" database(s), but at this stage you should be OK without a suitably-configured TNSNAMES.ORA file!]

Right-click on "content store" and click "test" to make sure everything is OK



3.2 Controller Application Databases

CONFIGURE A DATABASE CONNECTION

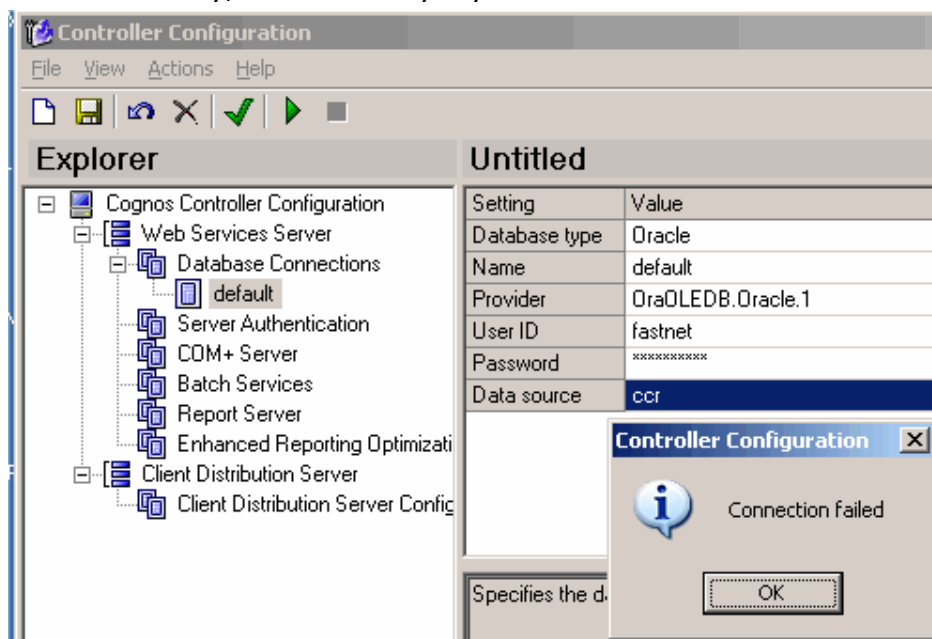
TIP:

This section assumes that there is already a brand-new blank schema (e.g. 'controllerlive') already in place.

If you need instructions on how to create this brand new schema, see the separate sister document 'Guide to installing Oracle 10G Enterprise Edition for Controller 8.3.doc'.

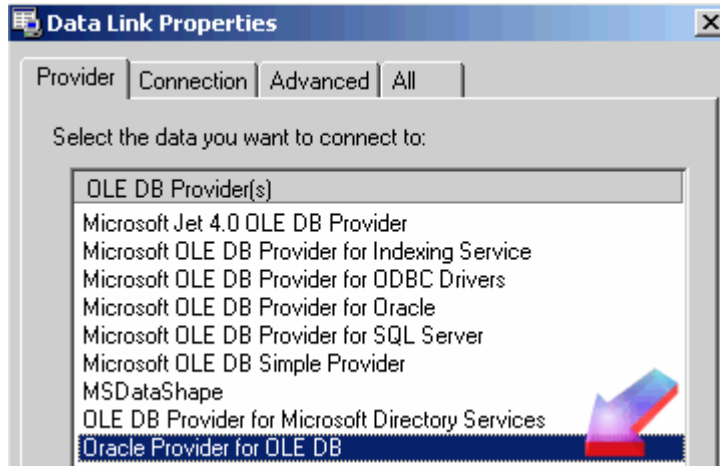
To create a connection to an existing Oracle schema:

- Logon to the Controller application server
- Launch 'Cognos Controller Configuration' from the Start Menu
- In the tree control in the left pane, expand Cognos Controller Configuration > Web Services Server > Database Connections
- Click the 'New' button in the main tool bar
- In the right pane, enter the following information:
 - Database type: Oracle
 - TIP: you can simply double-click on this cell to change it
 - Name: Anything (usually the name of the server and/or purpose is used to help identify the database e.g. "default")
 - Provider: OraOLEDB.Oracle.1
 - User ID: The user ID used in the Create Controller Database step (e.g. controllerlive)
- Enter what you think are the correct details (e.g. see below) and then test
 - This will fail
 - Do not worry, click "save anyway"



Workaround:

- Open the appropriate UDL file, by right-clicking and choosing "properties"
e.g. "C:\Program Files\cognos\c8\data\default.udl"
- Change to the following ("Oracle Provider for OLE DB"):

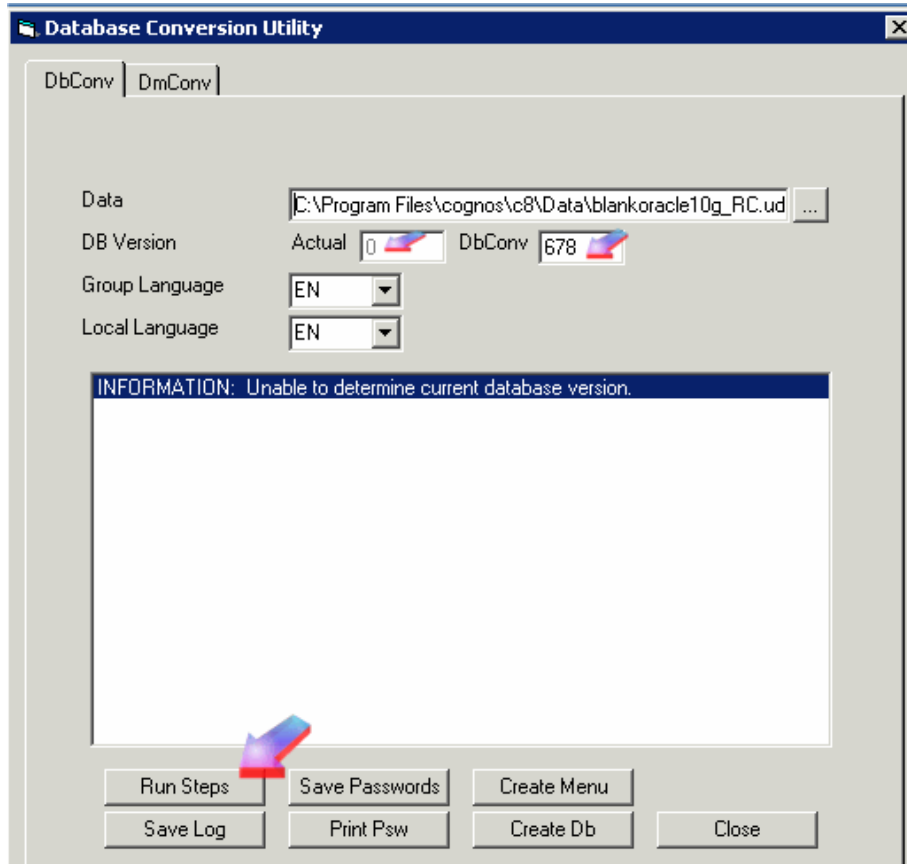


TIP: If you receive 'privilege' issues, see KB 1038823.

TIP: The above "application" database connections rely on TNSPING working OK
Therefore, you will have to edit the TNSNAMES.ORA file correctly..

Inside Cognos Controller Configuration, in the tree control in the left pane, select the database connection you've just created, and click the Run (green "play") button in the main tool bar

- If a warning comes up saying "Unable to determine current database version", click the Create Db button³
- If the Actual and DbConv versions at the top of the dialog do not match⁴ (e.g. in picture 678), click the Run Steps button (this takes a bit of time).



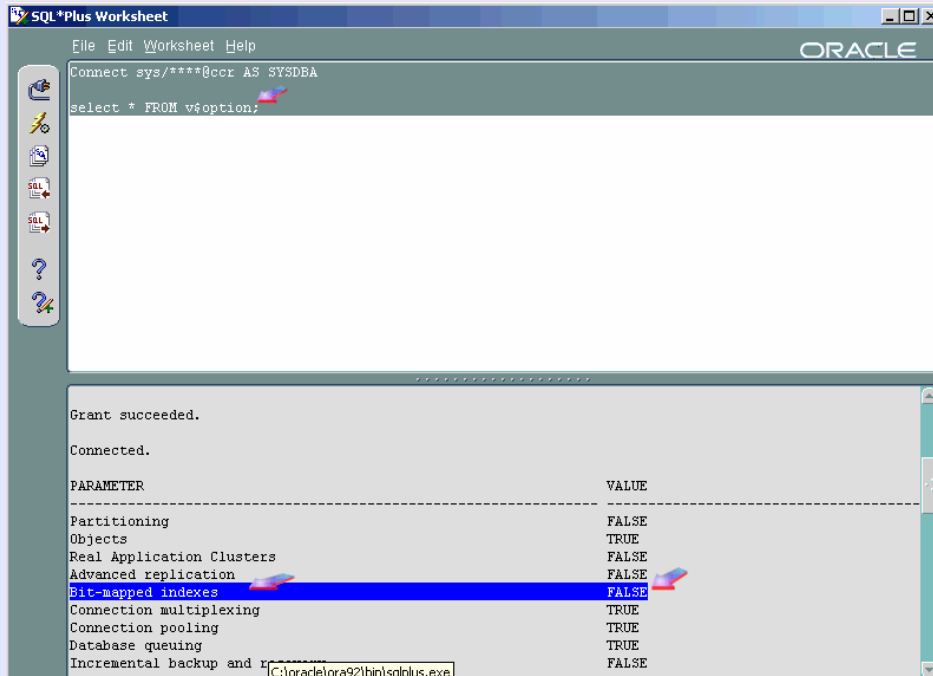
- Click the Close button

³ You may have to change the group/local language settings as appropriate – e.g. to EN/EN
⁴ NB you'll also have to do this step after using the "createDB" step the first time.

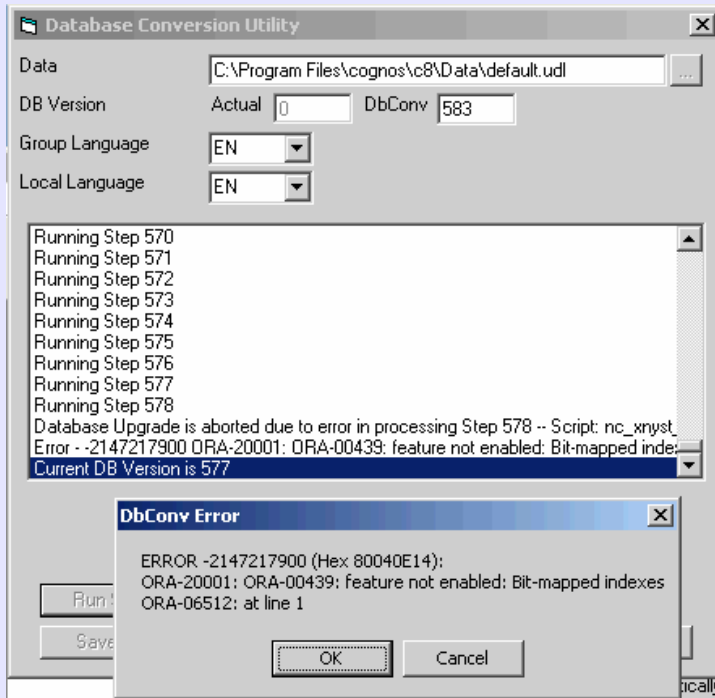
TIP: If you get an error during "run steps" at step 577/578, then type the following command into SQL Plus Worksheet:

```
select * FROM v$option;
```

If you get the following:



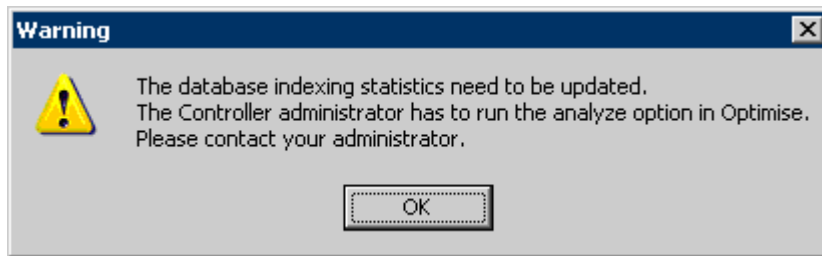
i.e. "Bitmap indexes" is set to "false" then step 578 may fail (see below):



TIP: To solve this, you should ensure you are using Oracle 10G "Enterprise" not "Standard" edition.

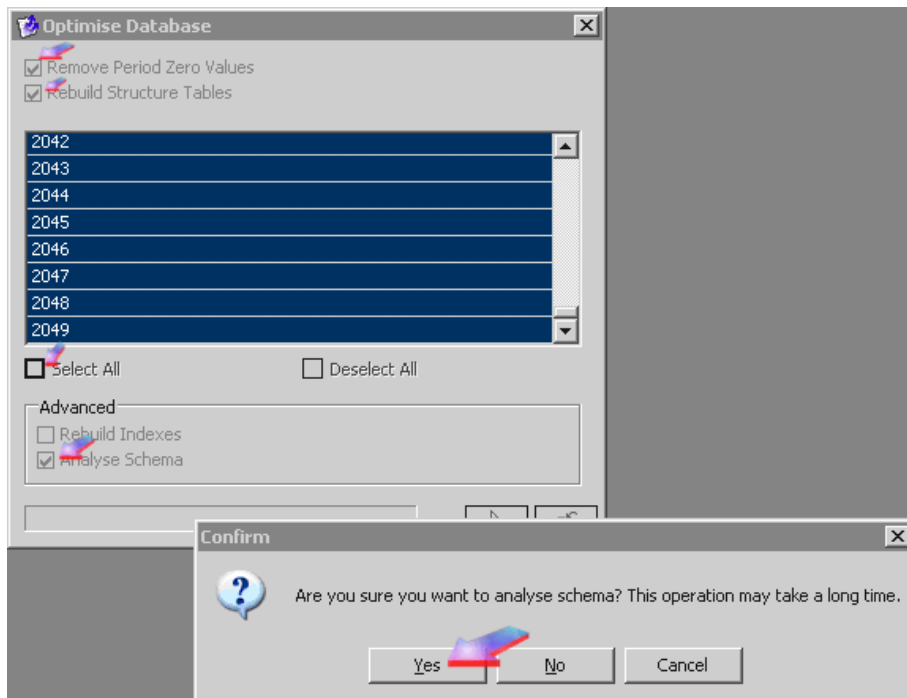
4 Testing Controller

The first time that you logon to Controller, you may get the following message:



This is OK, it is just reminding you to perform some maintenance.

Therefore, go into "Single User Mode" and launch "Maintain – Database – Optimise":



Tick all the boxes (see above) and click on "Yes" to analyse the schema

Appendices

4.1 Issue with non-English languages

When you execute a Consolidation (e.g. "with status"), then you may get the following error:

The ODBC Connection is missing or invalid.

[The above was seen with Controller 8.1.2 MR1, with the Oracle client 9.2.0.7].

Consolidations use an ODBC "system" DSN. Controller Configuration creates a System DSN, but apparently consolidations don't use this⁵. Instead, consolidation creates its own ODBC on the fly:

The problem may therefore be due to the name of the Oracle ODBC driver. If it is not using English, then it may fail. For example: 'Oracle 9i OraHome92' is the Swedish version of the English 'Oracle in OraHome92'. (I remember that there has been a couple of issues with this previously, the consolidation creates it's ODBC on the fly).

Solution:

Locate: HKEY_LOCAL_MACHINE\SOFTWARE\ODBC\ODBCINST.INI

Edit the registry and change the non-English wording (e.g. "Oracle en OraHome92" for Spanish) to "Oracle in OraHome92"

⁵ Therefore, even if you delete/re-create/check this DSN, you may still get the issue