

How to create a brand new blank DB2 database for Controller

This document is a supplement to the following Technote: <http://www-01.ibm.com/support/docview.wss?uid=swg21570572>

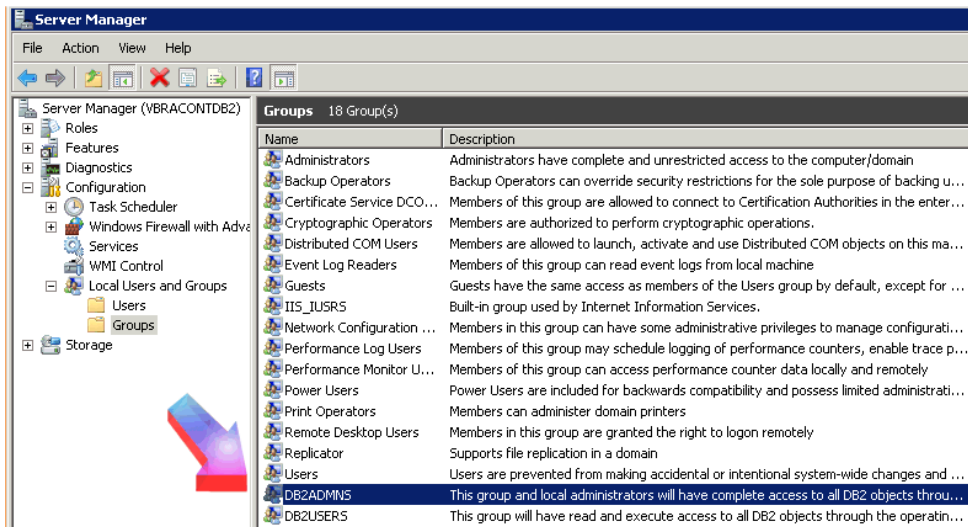
- For the latest version of this document, see that Technote.

The purpose of this document is to give step-by-step instructions for how to successfully create a blank DB2 database, and connect it to a Controller system.

- The steps are based on DB2 9.7 FP4 and Controller 10.1.1 FP1, however the steps will be very similar for other versions
- It is based on DB2 server running on Windows, so naturally the instructions will have to be modified slightly if DB2 server is running on a non-Windows operating system.

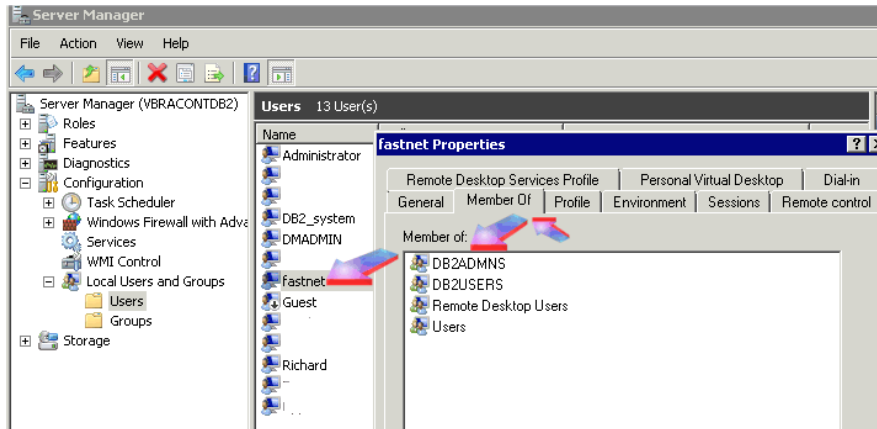
PART ONE: Creating a blank DB2 database:

1. Logon to DB2 database server using a Windows user who is a member of the local “DB2ADMNS” Windows user group:



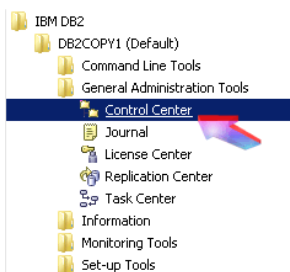
- Next, create a new local Windows user who you are going to use for your connection between the Controller application server and the DB2 database server

In my case/example, I have created a user called “**fastnet**”:

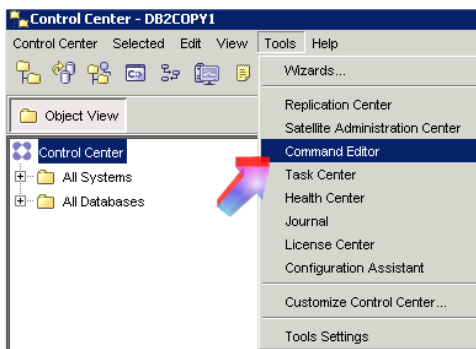


- Add the user (e.g. “fastnet”) to be a member of the group “DB2ADMNS”

- From the Start Menu, launch “Control Center”:



- Click “Tools – Command Editor”



6. Create a blank DB2 database by running the following script:

```
CREATE DATABASE <DATABASE_NAME_LESS_THAN_8_CHARACTERS> ON 'D:\' USING  
CODESET UTF-8 TERRITORY GB COLLATE USING SYSTEM PAGESIZE 32768;
```

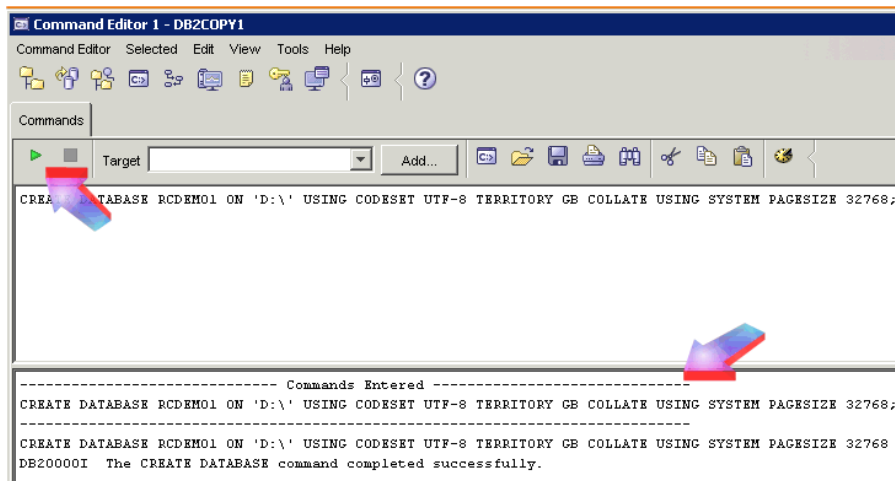
NOTE:

- You must replace the red section with an appropriate short database name (e.g. **RCDEMO1**)
- Modify the hard drive location as you wish (in my case I'm creating the database on the D: drive)
- Other parts of this script (e.g. Territory) can be changed if necessary, but the author warns against modifying his scripts too much (for fear of causing problems later).

In other words, you:

- paste the script into the top part of the "Command Editor 1" window
- ensure that there is NOT anything selected inside "Target"
- Press the green "play" button.

After a few seconds, this should now give you a screen similar to:



7. Again, make sure that there is NOT a database mentioned inside the ‘Target’

8. Paste the following script into the top window:

```
connect to <DATABASENAME>;

GRANT DBADM, CREATETAB, BINDADD, CONNECT, CREATE_NOT_FENCED_ROUTINE, IMPLICIT_SCHEMA, LOAD,
CREATE_EXTERNAL_ROUTINE, QUIESCE_CONNECT ON DATABASE TO USER <controlleruser>;

CREATE BUFFERPOOL BP16K IMMEDIATE SIZE 250 AUTOMATIC PAGESIZE 16 K ;

CREATE BUFFERPOOL BP32K IMMEDIATE SIZE 250 AUTOMATIC PAGESIZE 32 K ;

CREATE REGULAR TABLESPACE CONTROLLER_TABLE PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE
BUFFERPOOL BP32K DROPPED TABLE RECOVERY ON;

CREATE REGULAR TABLESPACE CONTROLLER_XDB PAGESIZE 16 K MANAGED BY AUTOMATIC STORAGE
BUFFERPOOL BP16K DROPPED TABLE RECOVERY ON;

CREATE REGULAR TABLESPACE CONTROLLER_INDEX PAGESIZE 16 K MANAGED BY AUTOMATIC STORAGE
BUFFERPOOL BP16K DROPPED TABLE RECOVERY ON;

CREATE LARGE TABLESPACE CONTROLLER_LOBS PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE
BUFFERPOOL BP32K ;

CREATE USER TEMPORARY TABLESPACE CONTROLLER_TEMP PAGESIZE 32 K MANAGED BY AUTOMATIC
STORAGE BUFFERPOOL BP32K ;

CREATE SYSTEM TEMPORARY TABLESPACE CONTROLLER_SYS PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE
BUFFERPOOL BP32K ;

UPDATE DB CFG USING logprimary 100 logsecond 20 logfilsiz 1024;

update db cfg using auto_reval DEFERRED_FORCE;

update db cfg using decflt_rounding ROUND_HALF_UP;

connect terminate;

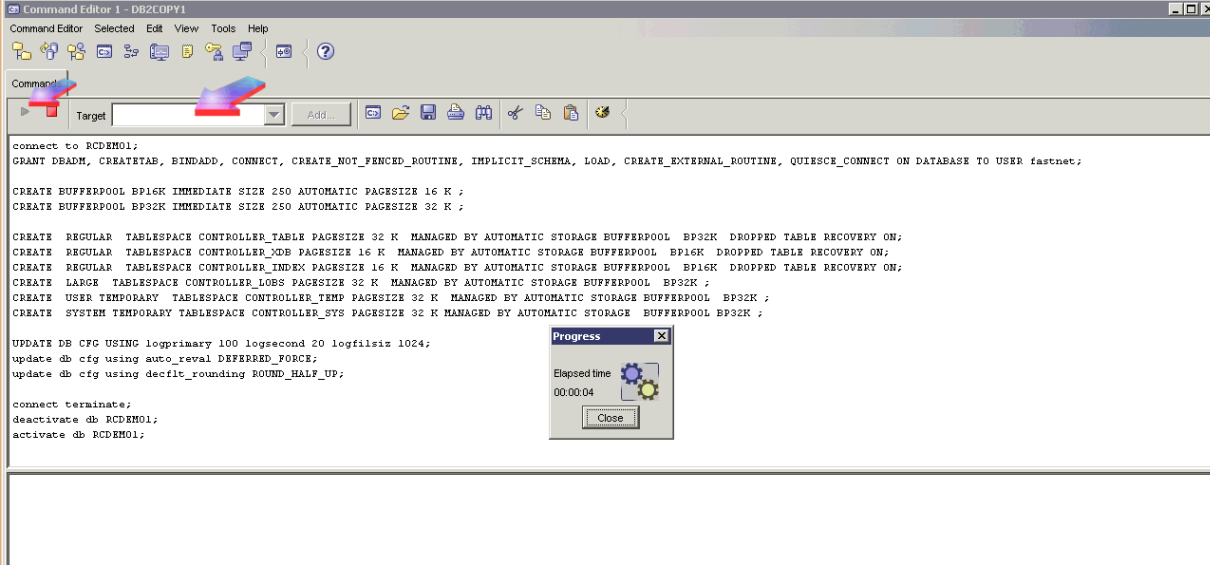
deactivate db <DATABASENAME>;

activate db <DATABASENAME>;
```

NOTE:

- Modify the entry in red to be the name of your database (e.g. “RCDEMO1”)
- Modify the entry in purple to be the name of your connection user (e.g. “fastnet”)
- The reason why we are using “activate” and “deactivate” commands is to ensure that the database server ‘actions’ some of the changes that we have committed.
- Other parts of this script (e.g. relating to logs) can be changed if necessary, but the author warns against modifying his scripts too much (for fear of causing problems later).

In other words, run a script similar to:



The screenshot shows a 'Command Editor 1 - DB2COPY1' window. The main text area contains the following SQL script:

```
connect to RCDEM01;
GRANT DEADN, CREATETAB, BINDADD, CONNECT, CREATE_NOT_FENCED_ROUTINE, IMPLICIT_SCHEMA, LOAD, CREATE_EXTERNAL_ROUTINE, QUIESCE_CONNECT ON DATABASE TO USER fastnet;

CREATE BUFFERPOOL BP16K IMMEDIATE SIZE 250 AUTOMATIC PAGESIZE 16 K ;
CREATE BUFFERPOOL BP32K IMMEDIATE SIZE 250 AUTOMATIC PAGESIZE 32 K ;

CREATE REGULAR TABLESPACE CONTROLLER_TABLE PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE BUFFERPOOL BP32K DROPPED TABLE RECOVERY ON;
CREATE REGULAR TABLESPACE CONTROLLER_IDX PAGESIZE 16 K MANAGED BY AUTOMATIC STORAGE BUFFERPOOL BP16K DROPPED TABLE RECOVERY ON;
CREATE REGULAR TABLESPACE CONTROLLER_INDEX PAGESIZE 16 K MANAGED BY AUTOMATIC STORAGE BUFFERPOOL BP16K DROPPED TABLE RECOVERY ON;
CREATE LARGE TABLESPACE CONTROLLER_LOBS PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE BUFFERPOOL BP32K ;
CREATE USER TEMPORARY TABLESPACE CONTROLLER_TEMP PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE BUFFERPOOL BP32K ;
CREATE SYSTEM TEMPORARY TABLESPACE CONTROLLER_SYS PAGESIZE 32 K MANAGED BY AUTOMATIC STORAGE BUFFERPOOL BP32K ;

UPDATE DB CFG USING logprimary 100 logsecond 20 logfilesiz 1024;
update db cfg using auto_reval DEFERRED_FORCE;
update db cfg using decflt_rounding ROUND_HALF_UP;

connect terminate;
deactivate db RCDEM01;
activate db RCDEM01;
```

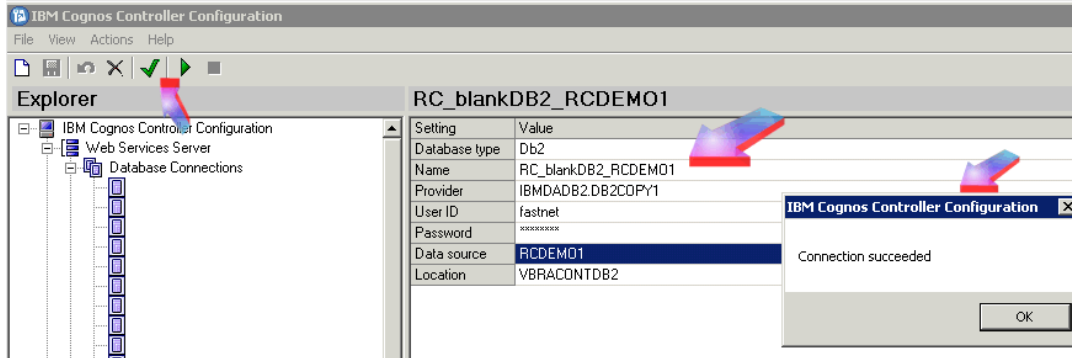
A 'Progress' dialog box is overlaid on the script, showing 'Elapsed time' as '00:00:04' and a 'Close' button.

9. In order for the next stage to work correctly, you must now ***close*** Command Editor!

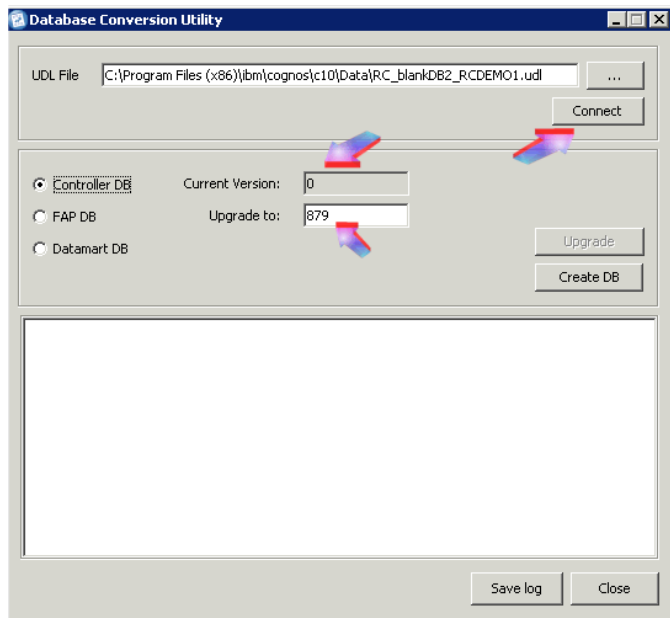
PART TWO: Using Controller Database Conversion (DbConv) to populate the new DB2 database:

1. Logon to the Controller application server as a Windows administrator
2. Launch “Controller Configuration”
3. Create a new database connection, which points to this new database

For example:

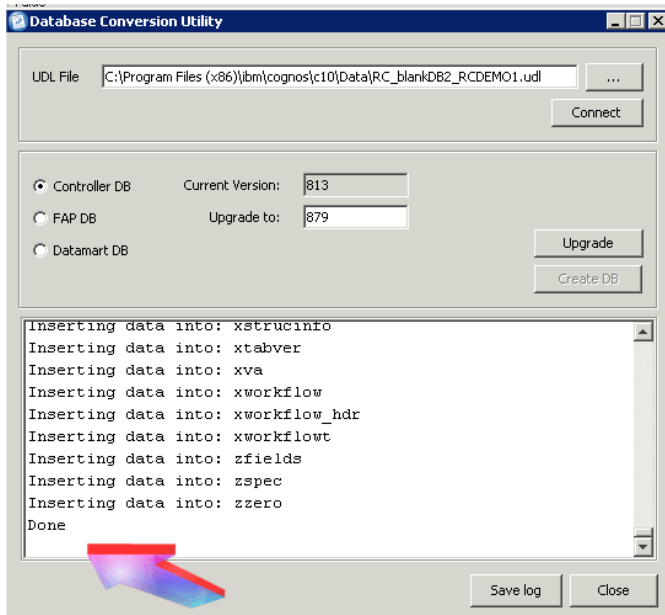


4. Click the green “tick” box, and make sure you get the “Connection succeeded” message
5. Now click the green “play” triangle, to launch “Database Conversion Utility”
6. Click “Connect” and check that the Current Version is 0 (zero):

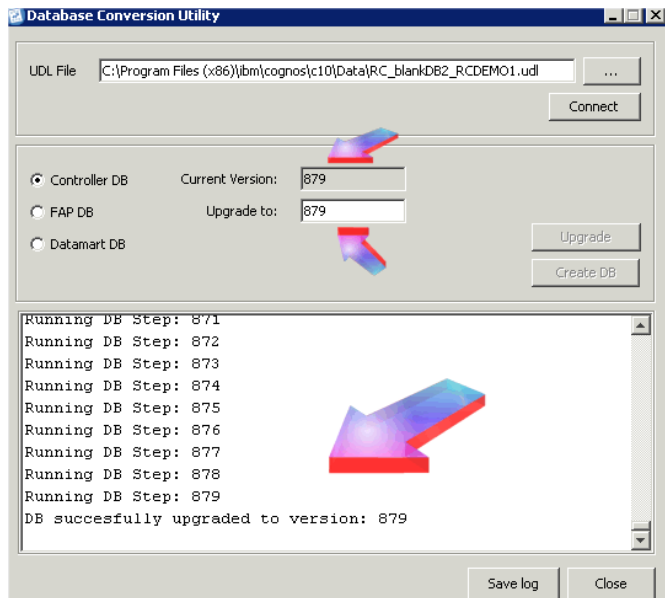


7. Click “Create DB”

8. After a while, the script should be finished with a ‘success’ message:



9. Now click “Upgrade” to upgrade the database version from the current (e.g. 813) to the latest (e.g. 879)

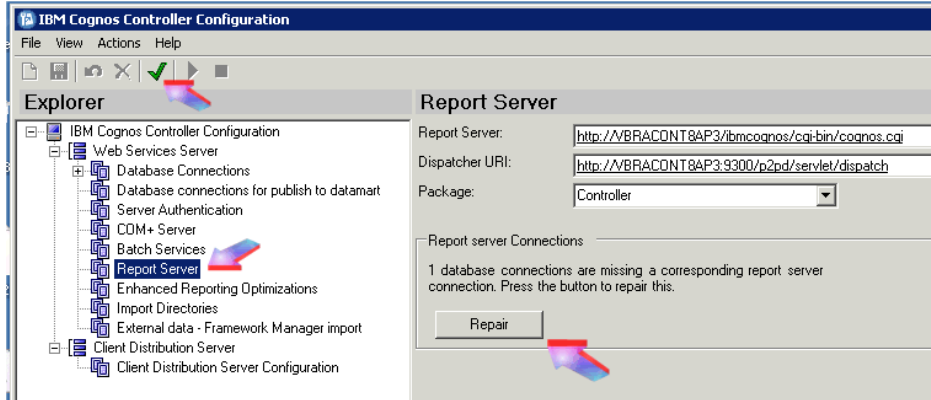


10. Finally, click “Close”.

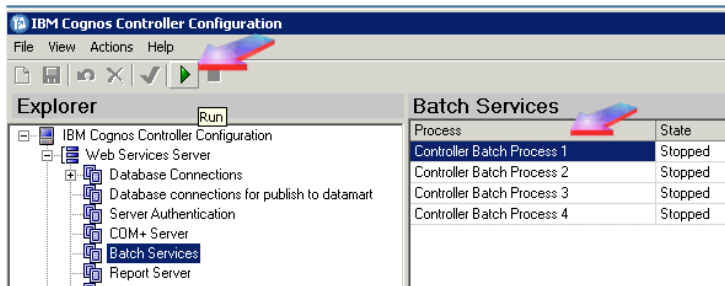
PART THREE: Final required configurations inside “Controller Configuration”:

The following steps are not DB2 specific. Instead, they are required to be performed after creating any new database connection (regardless of database software type):

1. Inside “Controller Configuration” click “Report Server”
2. If using a modern/recent version of Controller, you will now have to click on the green “tick” icon
3. Click on the “Repair” button that appears



4. Click on “Batch Services”
5. Obtain a short period of downtime (during which no users are running any ‘batch jobs’)
6. Highlight “Controller Batch Process 1” (which should be the only one set to “Running”)
7. Click the “Stop” button
8. Wait approximately 5 seconds
9. Click the “Start” button



10. (Optional) If using Optimise2 (also known as ERO) then open the section “Enhanced Reporting Optimizations” and select the new database connection, and configure appropriately.
11. Finally, **test**.