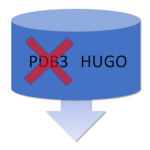
<https://mikedietrichde.com/2018/02/09/rename-pluggable-database/>

**How to rename a Pluggable Database**

**Posted on February 9, 2018 by [Mike.Dietrich](https://mikedietrichde.com/author/mike-dietrich/" \o "Posts by Mike.Dietrich)**[Single-/Multitenant](https://mikedietrichde.com/category/single-multitenant/)[**30**](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comments)

Have you ever asked yourself how to rename a pluggable database? I did. And today a colleague from ACS Support told me how easy it is.

Of course I had to try it out. And it seems to work quite nice in Oracle Database 12.2.0.1. In the previous release I found some nits documented in MOS.

**How to rename a Pluggable Database**

There’s no obvious command to rename a pluggable database such as “alter pluggable database PDB1 rename to PDB2”. But it’s not complicated if you know the right command.

I’m creating a fresh pluggable database:

create pluggable database PDB1 admin user adm identified by adm

file\_name\_convert=('/u02/oradata/CDB2/pdbseed','/u02/oradata/CDB2/pdb1');

alter pluggable database PDB1 open;

For a rename operation it has to be in RESTRICTED mode:

alter pluggable database PDB1 close;

alter pluggable database PDB1 open restricted;

My environment has the following PDBs:

show pdbs

CON\_ID CON\_NAME OPEN MODE RESTRICTED

---------- ------------------------------ ---------- ----------

2 PDB$SEED READ ONLY YES

4 PDB1 READ WRITE YES

Then I connect to PDB1 and rename it:

alter session set container=PDB1;

alter pluggable database rename global\_name to HUGO;

show pdbs

CON\_ID CON\_NAME OPEN MODE RESTRICTED

---------- ------------------------------ ---------- ----------

4 HUGO READ WRITE YES

Finally … please note that the directory does not get renamed. As I placed my PDB1 in /u02/oradata/CDB2/pdb1 it does not get moved into a directory reflecting the new name.

[CDB2] oracle@localhost:/u02/oradata/CDB2/**pdb1**

$ ls

sysaux01.dbf system01.dbf temp01.dbf undotbs01.dbf

If you’d like to move it into a directory having the PDB’s name you can do for instance the following action: Create a directory first:

$ mkdir /u02/oradata/CDB2/hugo

And then use the ONLINE MOVE feature in Oracle Database 12.1.0.2 onwards:

alter database move datafile '/u02/oradata/CDB2/pdb1/undotbs01.dbf' to '/u02/oradata/CDB2/hugo/undotbs01.dbf';

alter database move datafile '/u02/oradata/CDB2/pdb1/sysaux01.dbf' to '/u02/oradata/CDB2/hugo/sysaux01.dbf';

alter database move datafile '/u02/oradata/CDB2/pdb1/system01.dbf' to '/u02/oradata/CDB2/hugo/system01.dbf';

You can also combine the rename action into one single command.

But the temporary tablespace’s tempfile is still located in the old directory. There’s no online move for this file available. Instead I can drop the tempfile and recreate it in another directory. The temporary tablespace does not need to be dropped.

alter database tempfile '/u02/oradata/CDB2/pdb1/temp01.dbf' drop including datafiles;

alter tablespace TEMP add tempfile '/u02/oradata/CDB2/hugo/temp01.dbf' size 20M reuse;

Final check:

[CDB2] oracle@localhost:/u02/oradata/CDB2

$ ls -lrt ./pdb1

total 0

[CDB2] oracle@localhost:/u02/oradata/CDB2

$ ls -lrt ./hugo

total 671776

-rw-r-----. 1 oracle dba 20979712 Feb 8 23:19 temp01.dbf

-rw-r-----. 1 oracle dba 220209152 Feb 8 23:20 system01.dbf

-rw-r-----. 1 oracle dba 246423552 Feb 8 23:20 sysaux01.dbf

-rw-r-----. 1 oracle dba 220209152 Feb 8 23:21 undotbs01.dbf

I’m guessing that it’s not supported to rename the PDB$SEED to something else – so please don’t do it!

**Additional Information**

Philippe Fierens pointed me to this MOS Note which is important in case you try the above with TDE (Transparent Data Encryption) in place:

* [MOS Note: 2301128.1 – Impact Of Renaming PDB On TDE Configuration](https://support.oracle.com/epmos/faces/DocumentDisplay?id=2301128.1)

And somebody else asked me about the same process in Oracle Database 12.1.0.2. It works – but you will have to check MOS first for issues such as:

* [Bug 17982838 – ORA-60 during PDB rename](https://support.oracle.com/epmos/faces/DocumentDisplay?id=17982838.8)
* [Bug 19075256 – ORA-600 [kcfmis\_internal: enq] from PDB RENAME](https://support.oracle.com/epmos/faces/DocumentDisplay?id=19075256.8)

Both issues are fixed in 12.2.0.1 and with certain patch levels on Oracle 12.1.0.2.

–Mike

Share this:



**Related**

[Issue with PDB Archives in Oracle 12.2.0.1 in ASM](https://mikedietrichde.com/2017/05/22/issue-with-pdb-archives-in-oracle-12-2-0-1-in-asm/?relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=0&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=0&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=0&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=0)

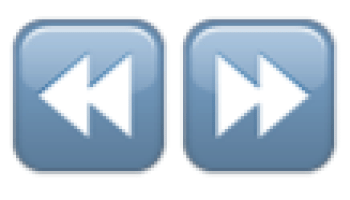
There is a fancy new command to unplug a PDB in Oracle Database 12.2.0.1: ALTER PLUGGABLE DATABASE pdb1 UNPLUG INTO 'pdb1.pdb'; The nice thing with this command differing in the file ending of 'pdb' instead of 'xml' as you used it in Oracle 12.1 (and the 'xml' option is still…

May 22, 2017

[SPFILE Parameter: max\_pdbs – a must for Single Tenant](https://mikedietrichde.com/2016/11/14/spfile-parameter-max_pdbs-a-must-for-single-tenant/?relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=1&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=1&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=1&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=1)

Sometimes my job has a aspect making me smile at the end of the day ;-) I sat together with Johannes Ahrends during a talk at the OUGN Conference on the boat from Oslo towards Kiel. And we were discussing afterwards why there's no official way to limit the number…

November 14, 2016

[](https://mikedietrichde.com/2017/08/30/fallback-strategy-flashback-pluggable-database/?relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2)

[Fallback Strategy: Flashback Pluggable Database](https://mikedietrichde.com/2017/08/30/fallback-strategy-flashback-pluggable-database/?relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2&relatedposts_hit=1&relatedposts_origin=3090&relatedposts_position=2)

August 30, 2017

Tags: [Multitenant](https://mikedietrichde.com/tag/multitenant/)[Oracle 12.2.0.1](https://mikedietrichde.com/tag/oracle-12-2-0-1/)[PDB](https://mikedietrichde.com/tag/pdb/)[Rename](https://mikedietrichde.com/tag/rename/)

* [Next**Multiple Hops – Which should be the intermediate release?**](https://mikedietrichde.com/2018/02/13/multiple-hops-intermediate-release/)
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* [**Pingbacks1**](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#pinglist-container)

1. [**Luis Silva**](http://www.dinosauriodigital.com/)

[February 11, 2018 at 20:54](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5693)

Not supported does not means not allowed

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5693)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[February 18, 2018 at 17:39](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5804)

Well, don’t expect me to explain  But in theory of course it works with the \_oracle\_script parameter. But I imagine that the trouble will start later with patches, upgrades etc. And I wouldn’t do it. “Not supported” means that you won’t get support for it  I wouldn’t risk it

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5804)

1. **Tim Nimmo**

[February 13, 2018 at 21:33](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5710)

alter database tempfile ‘/u02/oradata/CDB2/pdb1/temp01.dbf’ drop including datafiles;  
Syntax error?  
=====  
Safer to move temporary tablespaces by creating new temporary tablespace, alter database default temporary using the new temporary tablespace name, and drop “other” temporary tablespace. Dropping the old, and possibly only, temp tablespace may hang for a long time and/or possibly lead to transaction error should a transaction need temporary space before temporary tablespace is available. Someone in the crowd may not take this into consideration ;-\

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5710)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[February 18, 2018 at 17:42](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5806)

Tim,

as you do this with a single PDB – and it is in restricted mode I don’t expect this to hang as there shouldn’t be any transactions in it.  
But thanks for your hint!

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-5806)

1. **Yahya**

[March 15, 2019 at 14:49](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-11361)

Thanks Mike.  
How about renaming PDB in ASM case ? Is there any MOS note or article working on ?  
BR,  
Yahya

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-11361)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[March 18, 2019 at 16:17](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-11430)

The same procedure should work.  
Have you tried it?

Thanks!  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-11430)

1. **Ryan A Pritchard**

[January 30, 2020 at 20:43](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-19440)

I have completed Mike’s steps above on two of my Oracle DB 12.2.0.1 with ASM on Windows servers. Works well. No issues.

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-19440)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[February 3, 2020 at 14:00](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-19472)

Thanks Ryan – and I had totally forgotten that I did post this

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-19472)

1. **Arne**

[April 14, 2020 at 15:11](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-20563)

War gerade super nützlich, danke Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-20563)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[April 14, 2020 at 23:24](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-20568)

Danke – und gerne

Herzliche Gruesse,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-20568)

1. [**Frank Gerasch**](https://frankgerasch.de/)

[January 19, 2021 at 14:38](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27118)

Hi Mike, there seems to be a still unkown problem with Non-Unicode PDBs that has been plugged into Unicode-CDBs and has been renamed afterwards. The character set conversion between Client and PDB no longer works as it should after the renaming! MOS ticket in progress.  
Details (nly german): <https://frankgerasch.de/2021/01/risiken-beim-umbenennen-von-pluggable-databases-pdb/>

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27118)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[January 21, 2021 at 18:47](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27166)

Hi Frank,

excellent blog post – can you share the SR for the multi-charset issue with me please (either here or via email).

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27166)

1. **Frank Gerasch**

[January 21, 2021 at 20:38](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27174)

Hi Mike,  
sure: SR 3-24828076501. Unfortunately there is no progress for 22 days.  
Best regards,  
Frank

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27174)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[January 25, 2021 at 13:11](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27252)

Hi Frank,

I dropped the folks in Support an email – and I dropped you an email with advice to get this speed up.  
In addition, I will have a look into it as well.

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27252)

1. **danny**

[February 18, 2021 at 16:03](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27745)

Mike  
I tried the case of frank gerasch..  
So i have a PDB with charset WE8MSWIN1252 in a container with AL32UTF8.  
I renamed my PDB and after the rename i did not encounter the problem of Frank.

So the query: select ‘Ä’ Character, rawtohex(‘Ä’) HEXCODE, lengthb(‘Ä’) Byte\_Length, lengthc(‘Ä’) Character\_Length from dual;

gave exactly the same output before and after renaming the PDB. I am doing that select also from within SQL-developer.  
Database version is 19.8

regards  
danny

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27745)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[February 24, 2021 at 11:16](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27856)

Hi Danny,

I couldn’t reproduce it either. Neither with SQL Plus nor with SQL Developer.  
But Frank is working with Support on this topic.

Cheers, and thanks a lot for testing it as well!  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27856)

* + [**Frank Gerasch**](https://frankgerasch.de/)

[February 25, 2021 at 11:18](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27872)

Hi Danny, Oracle Support ist still working on this issue. I was able to reproduce it on a second test environment as well and provided my VM to Oracle Support. By the way, I have found out that bouncing the containter database database ist solving the problem. The problem occurred first with a customer of mine and it took us a while to find the cause.

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-27872)

1. [**Michael Fontana**](http://www.enkitec.com/)

[July 28, 2021 at 01:00](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-30301)

Good stuff, Mike. They tell you you cannot do something, but then someone finds a workaround solution. Somewhat convoluted, but often necessary!

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-30301)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[August 3, 2021 at 17:34](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-30370)

Thanks Michael!

Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-30370)

1. **Leandro Martins de LIma**

[August 30, 2021 at 17:05](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31042)

I wonder if it would be faster/easier to simply clone it with a new name and drop the original one? Sure you’d face some restrictions like disk space for both temprarily co-existing, the data integrity with the ongoin activity (maybe lost data?) and also the copy time if the DB is too big, but this could make the operation significantly simpler, couldn’t it?  
Just three commands (CREATE new FROM old / ALTER OPEN new / DROP old). No need to put in restricted mode, no need to move files, no need to rebuild the temporary tablespace.  
Aside the inconviniences I already mentioned, would there be other problems? (Don’t know about the TDE thing, would it be correctly replicated too?).

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31042)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[September 26, 2021 at 18:39](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31296)

Sure, this would work, too – but it may take longer, and as you’ve mentioned already, you will need extra space.

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31296)

1. **Allan**

[September 21, 2021 at 15:04](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31244)

Hi Mike  
Just tried this as I am creating PDBs via manifest files after a restore and upgrade from 11.2.0.4  
Realised halfway through creating a PDB for a 43Tb database that I had used the wrong PDB name !!  
Once it completed I ran through the noncdb\_to\_pdb.sql etc and had it up and running.  
Closed the pluggable etc and tried to rename it only to be hit with an error

ORA-00001: unique constraint (SYS.I\_PDB\_ALERT1) violated

MoS Note 2215331.1 is a good match and apparently it is a bug (16192980) and to do with values being in PDB\_PLUG\_IN\_VIOLATIONS.

The workaround is to recreate the pluggable which is not helpful.  
I was wondering if there was a way to clear the PDB\_PLUG\_IN\_VIOLATIONS safely if one finds an entry prior to running the rename otherwise it could be a lot of leg work to fix.  
Cheers  
Al

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31244)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[September 26, 2021 at 21:22](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31324)

Hi Al,

there is no way to clean out PDB\_PLUG\_IN\_VIOLATIONS as long as entries are not “resolved”.  
I guess, you received an ERROR?

Can you try to start your PDB in UPGRADE mode and clear the violation manually?  
Or, you could try to delete the entry in PDB\_PLUG\_IN\_VIOLATIONS manually in this mode … but no guarantee from my side here …  
You may use “event 10046” with level 12 to see on a test environment what an UPDATE (ERROR => RESOLVED) would do in the background.

Cheers,  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31324)

1. **Timur**

[September 30, 2021 at 13:25](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31374)

Hi all,  
small advise not to forget instances=all when stopping the pdb if you do it in RAC,  
and modifying the RAC services reffering to old pdb name with srvctl modify service if there are any…

Hope this helps

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-31374)

1. **Maranhão**

[July 29, 2022 at 14:41](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-37300)

Hello Mike, Can I do it on a VM at OCI? Or on OCI should execute another procedure? I check my OCI page and I don’t have the option to rename a pdb, also I don’t have any dbaascli tool when we created this enviroment.

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-37300)

* + [**Mike.Dietrich**](https://mikedietrichde.com/about)

[December 11, 2022 at 23:44](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-38437)

Please try – I think this should work there as well.

Cheers  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-38437)

1. **Bill Korb**

[August 3, 2022 at 18:29](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-37355)

Mike,

Great stuff, as always. I have, of course, an end-case that I’m hoping you can shed some light on.

I have a CDB that I have cloned which contains a single PDB whose name is in lowercase. I would like to rename it and the new name should also be lowercase. I figured that would be simply accomplished by enclosing the new global\_name in double quotes, but it didn’t work!

SYS@cebspc> show pdbs

CON\_ID CON\_NAME OPEN MODE RESTRICTED  
————- —————————— ———- ———-  
2 PDB$SEED READ ONLY NO  
3 ebs21prd READ WRITE YES  
SYS@cebspc> alter session set container = “ebs21prd”;

Session altered.

SYS@cebspc> alter pluggable database rename global\_name to “ebspclon”;

Pluggable database altered.

SYS@cebspc> show pdbs

CON\_ID CON\_NAME OPEN MODE RESTRICTED  
————- —————————— ———- ———-  
3 EBSPCLON READ WRITE YES

Any idea how I can do that?

Thanks,  
Bill

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-37355)

* + **Bill Korb**

[August 3, 2022 at 18:46](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-37356)

Mike,

It turns out that while this is supported, it’s probably a bad habit. Look no further than this ML doc: EBS 19c Database Fail With ORA-65011 Trying to Start Clusterware Services Using A Lowercase PDB Name (Doc ID 2764123.1).

So I should probably just leave it uppercase and deal with it, eh?

Thanks,  
Bill

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-37356)

* + - [**Mike.Dietrich**](https://mikedietrichde.com/about)

[December 11, 2022 at 23:33](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-38431)

Hi Bill,

EBS is always VERY special – and I think the ORACLE\_PDB\_SID came in for EBS only.  
Thanks for sharing the note.

Cheers  
Mike

[Reply](https://mikedietrichde.com/2018/02/09/rename-pluggable-database/#comment-38431)