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October 12, 2017 5 minute read

# SAP AS ABAP Developer Edition: Steps to fix DBACOCKPIT and extending your DB space



First of all, having SAP provide these Developer Edition ABAP servers for FREE is an absolute blessing! I'm sure the entire community is absolutely grateful and appreciate it – **I know I am!**

Here's the link to download the ABAP servers and there are also links to guides on how to install found on the same page, if you don't already know – https://tools.hana.ondemand.com/#abap

## Assigned tags

ABAP Development

SAP NetWeaver Application Server for ABAP

ABAP_Trial

dbacockpit

free trial

## Related Blog Posts

SAP AS ABAP and SAP BW on SAP HANA: FREE Developer/Trial Editions

By **Julie Plummer** , May 16, 2013

SAP AS ABAP 751 SP02 Developer Edition to Download

By **Julie Plummer** , Sep 04, 2017

SAP AS ABAP 7.51 Developer Edition: FAQs

By **Julie Plummer** , Sep 14, 2017

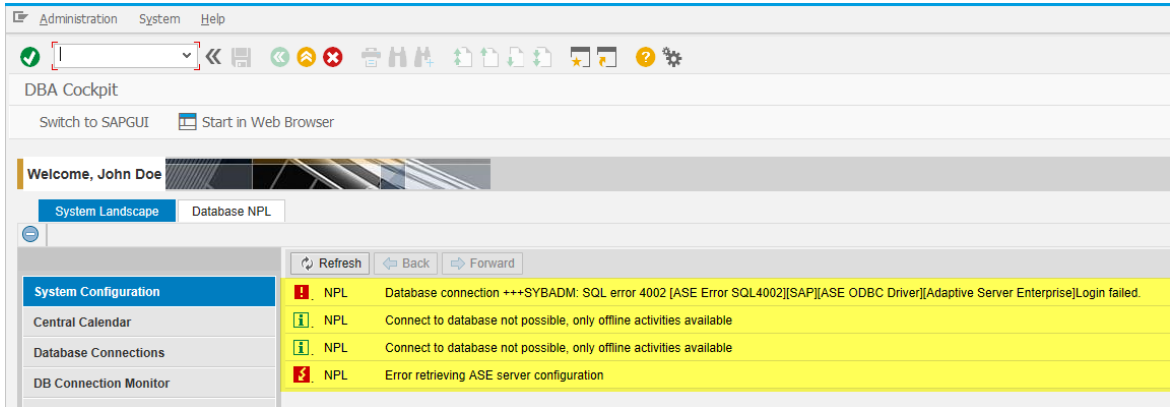
Anyway, I did notice a couple of issues when I first installed these instances with DBACOCKPIT and would like to share some of the fixes that I've done to my local instance. I've had these fixes 'documented' for a while but didn't have the time to publish them. But, here they are and I hope these will be useful to others too.

The steps below should be applicable to both the 750 SP02 and 751 SP02 versions.

**DISCLAIMER:** I am not a SAP Basis resource nor a SAP DBA, these steps below somehow worked for me and I certainly cannot guarantee that they will work for you too. **Proceed at your own risk** (especially the part about extending the DB)! I can not be held responsible if any of these steps below made your system unusable. **If you agree, you may proceed.**

# Error when executing transaction DBACOCKPIT

**ISSUE:** If you run transaction **DBACOCKPIT** after installing the server, you might notice the error messages below. I believe that's because the password for the user 'sapsa' was changed to the master password that we entered during installation and needs to be updated in the system.




## Related Questions

AS ABAP 7.52 SP01 developer edition: DBACOCKPIT can't login to database

By **Christian Guenter** , Sep 30, 2018

Checksum error in server \TAR\x86_64\dbdata.tgz-ad

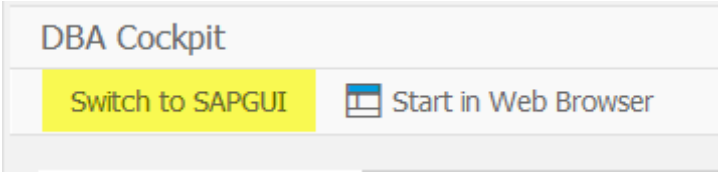
By **Nikhil Gupta** , Dec 18, 2018

HANA Studio AIE ABAP Development Plugin - Can't create a New Project

By **Former Member** , Aug 23, 2017

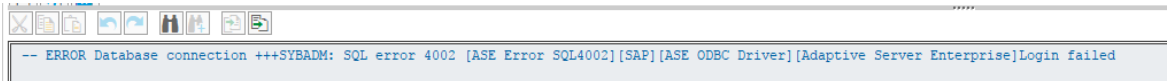
**SOLUTION:**

**Step 1**: Switch to the SAPGUI version of the DBACOCKPIT



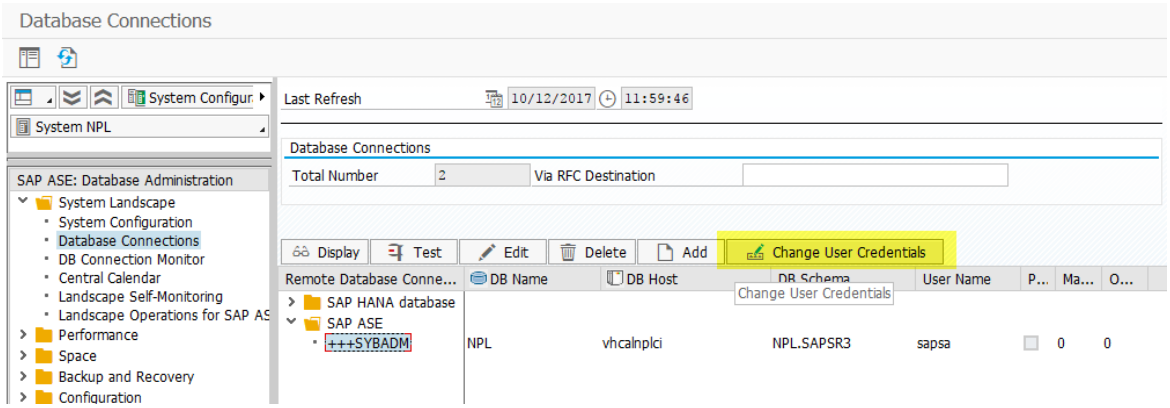

**Step 2**: Navigate to **System Landscape -> Database Connections ->** Then drop-down on the folder **SAP ASE** and select the node **+++SYBADM**.

If you click on the "**Test**" button before changing your username and password, you might see this error message below.

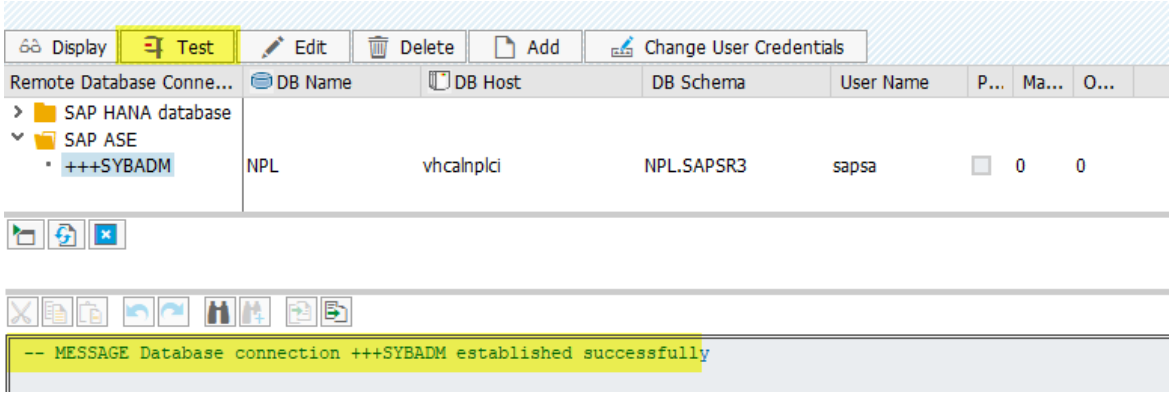



So, go ahead and click on the button '**Change User Credentials**' and enter the following:

**Username:** *sapsa*
**Password:** *<your master password>* " The password you entered when prompted when installing the ABAP server




**Step 3**: Validate that the username + password now works by clicking on the '**Test**' button



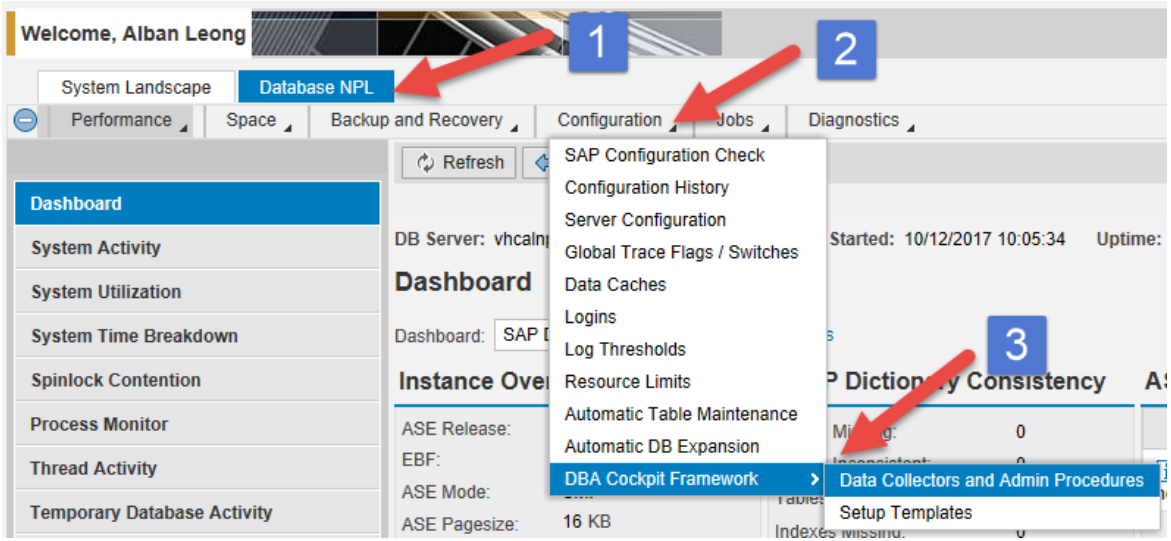

That's it! Now, if you restart the **DBACOCKPIT** transaction again, you no longer get the error messages that you saw earlier.

# Errors in DBACOCKPIT periodic jobs

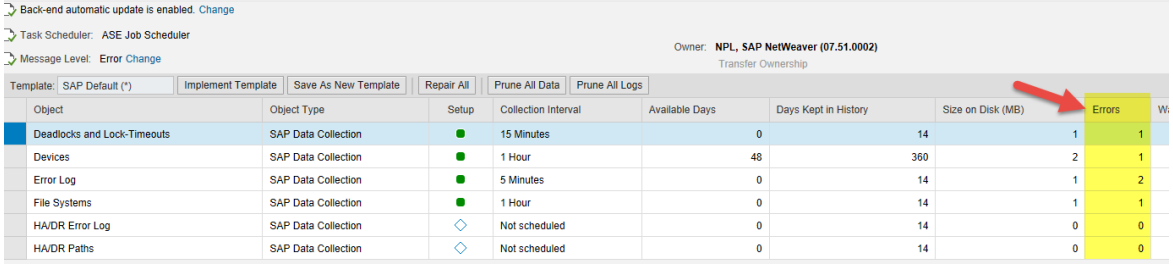
Now, if you've fixed the issue above, you should now be able to go into DBACOCKPIT and explore around. Then, I noticed another issue...

**ISSUE**: Data Collector and other periodic jobs are getting some sort of authentication errors as well.

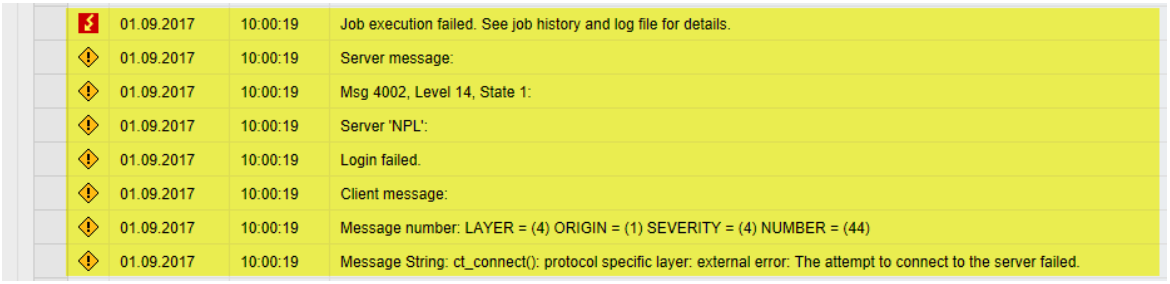
Go to the tab **'Database NPL'**, then click on the dropdown **'Configuration' -> DBA Cockpit Framework -> Data Collectors and Admin Procedures**




Look at the 'Errors' column and select on one of the rows with Errors on it.




And I saw the error entries below...



| | | |
|---|---|---|
| 01.09.2017 | 10:00:19 | Job execution failed. See job history and log file for details. |
| 01.09.2017 | 10:00:19 | Server message: |
| 01.09.2017 | 10:00:19 | Msg 4002, Level 14, State 1: |
| 01.09.2017 | 10:00:19 | Server 'NPL': |
| 01.09.2017 | 10:00:19 | Login failed. |
| 01.09.2017 | 10:00:19 | Client message: |
| 01.09.2017 | 10:00:19 | Message number: LAYER = (4) ORIGIN = (1) SEVERITY = (4) NUMBER = (44) |
| 01.09.2017 | 10:00:19 | Message String: ct_connect(): protocol specific layer: external error: The attempt to connect to the server failed. |

**SOLUTION:** After some Googling around, looks like we just need to drop and recreate the extern login for SYB_JSTASK.

For this, go to the virtual machine and run XTERM and execute the following commands.

1. Switch over to user SYBNPL and enter your master password when prompted – **su sybnpl**
2. Then, login to the DB with isql – **isql -SNPL -Usapsa -X**
3. Enter password when prompted – **<master password>**

Then, let's validate to make sure that there is indeed a login for SYB_JSTASK set up in the system. To do this, execute the following commands

1. **> use master**
2. **> go**
3. **> sp_helpexternlogin**
4. **> go**

You should see a return of at least 1 row with the Server SYB_JSTASK and Login/Externlogin with sapsa. Now, let's fix the issue by dropping the Externlogin and re-creating it again.

We execute **sp_dropexternlogin** to drop it.

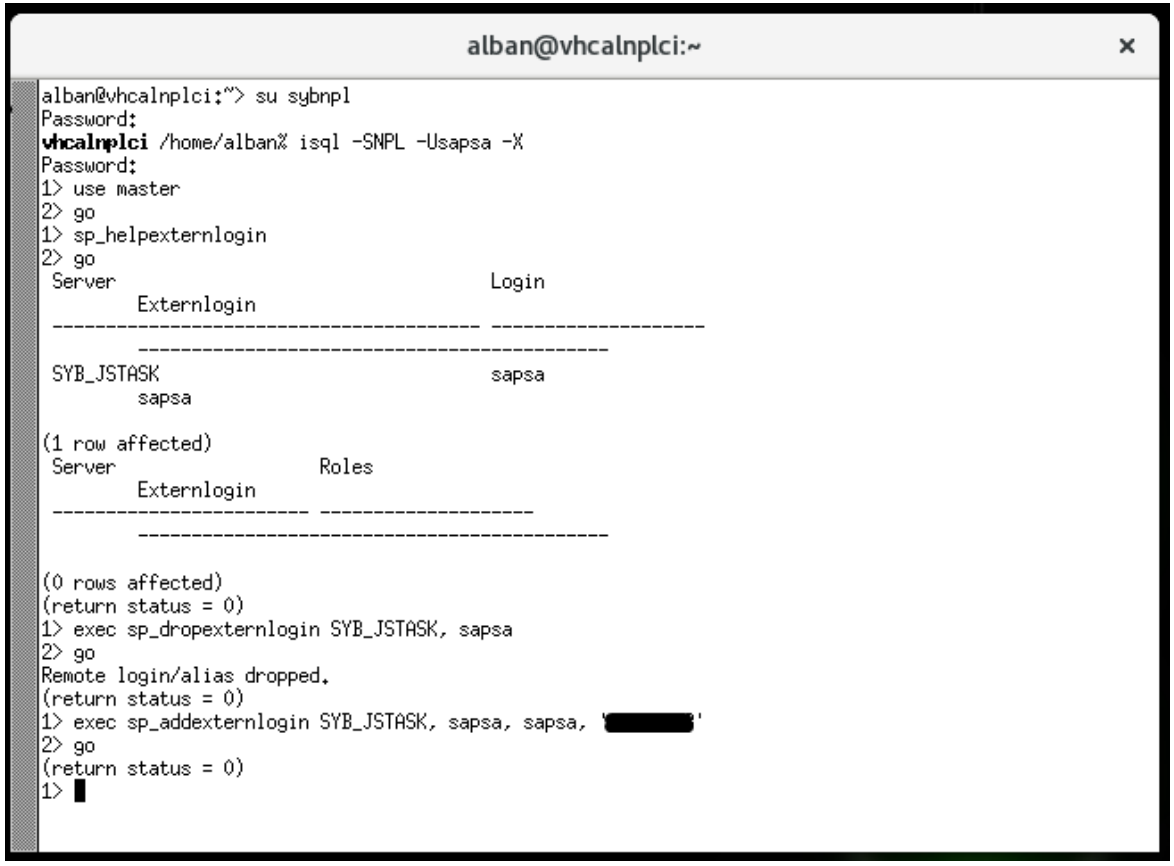
1. **> exec sp_dropexternlogin SYB_JSTASK, sapsa**
2. **> go**

You should then see a message that says ‘Remote login/alias dropped.’

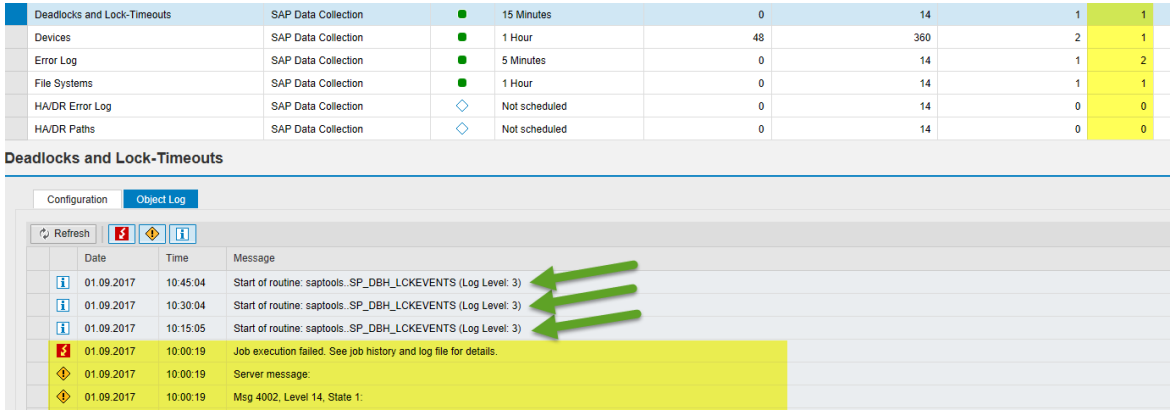
Finally, we execute **sp_addexternlogin** to recreate it again

1. **> exec sp_addexternlogin SYB_JSTASK, sapsa, sapsa, ‘<master password>’**
2. **> go**

And that’s it. If you have followed the steps above, you should get a similar screen as below.




And now, if you go back into **DBACOCKPIT** and monitor the logs of the periodic jobs again, you should now see success entries instead of the error logs. *Refer to the green arrows below.*

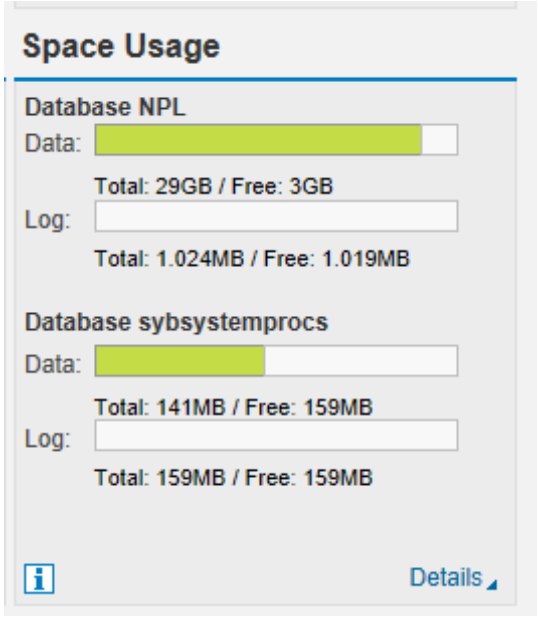



| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Deadlocks and Lock-Timeouts | SAP Data Collection | | 15 Minutes | 0 | 14 | 1 | 1 |
| | Devices | SAP Data Collection | | 1 Hour | 48 | 360 | 2 | 1 |
| | Error Log | SAP Data Collection | | 5 Minutes | 0 | 14 | 1 | 2 |
| | File Systems | SAP Data Collection | | 1 Hour | 0 | 14 | 1 | 1 |
| | HA/DR Error Log | SAP Data Collection | ◇ | Not scheduled | 0 | 14 | 0 | 0 |
| | HA/DR Paths | SAP Data Collection | ◇ | Not scheduled | 0 | 14 | 0 | 0 |

**Success!**

## OPTIONAL: Add more space to database NPL by extending it

While browsing around **DBACOCKPIT**, I also noticed that the free space for database **NPL** is pretty limited. *There's about 3GB of free space left for the delivered AS ABAP 751 SP02 instance.*



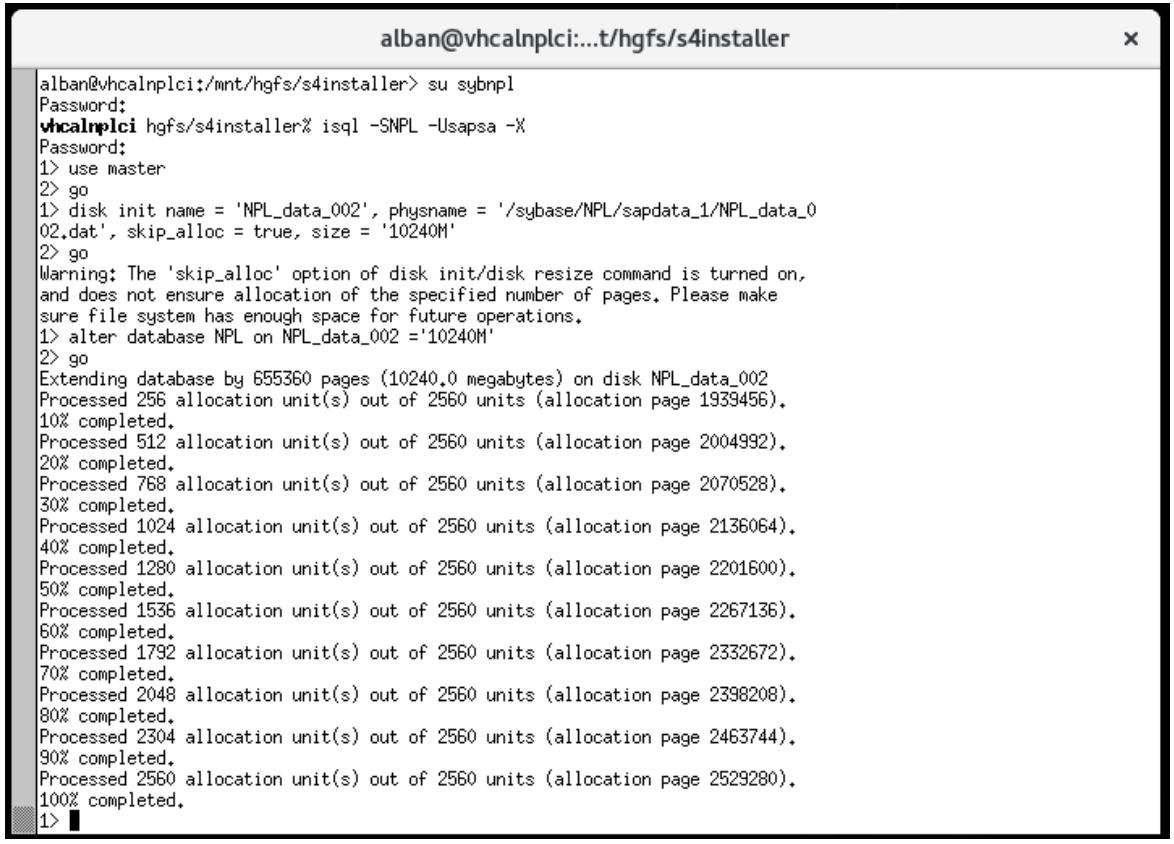

You can find the screen-shot above in **DBACOCKPIT** if you click to '**Database NPL**' tab, then **Performance -> Dashboard** and look under **Space Usage.**

**This step is completely optional.** 3GB should really be sufficient for a lot of the POCs or test development that I want to perform but I wanted to see if I could extend / add more space to this database. If you do too, you can follow the steps below, but please make sure that your virtual machine has enough free space to be allocated to the database. I am going to extend the database by another 10GB of space.

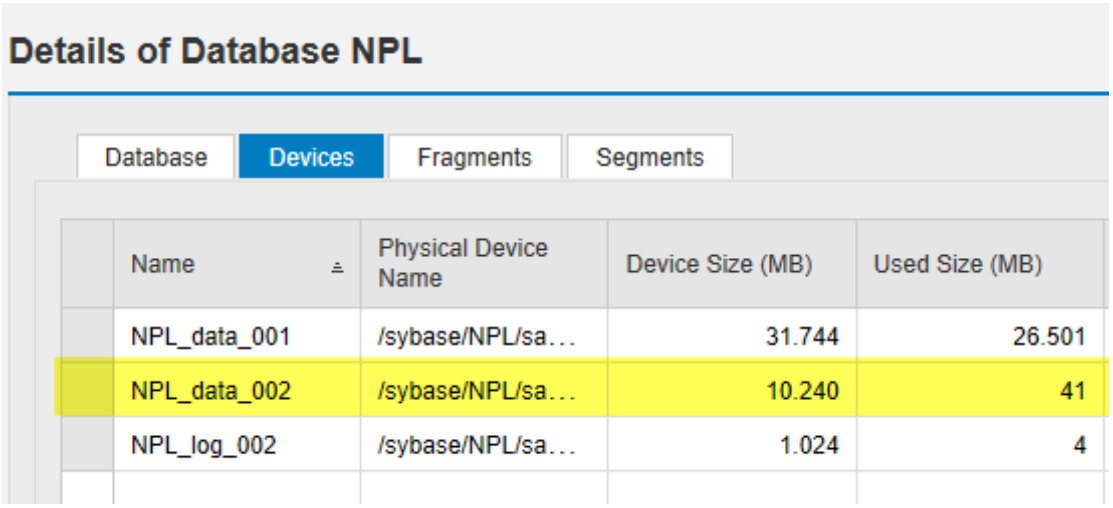
You need to be in the virtual machine and also be running XTERM to execute the steps below:

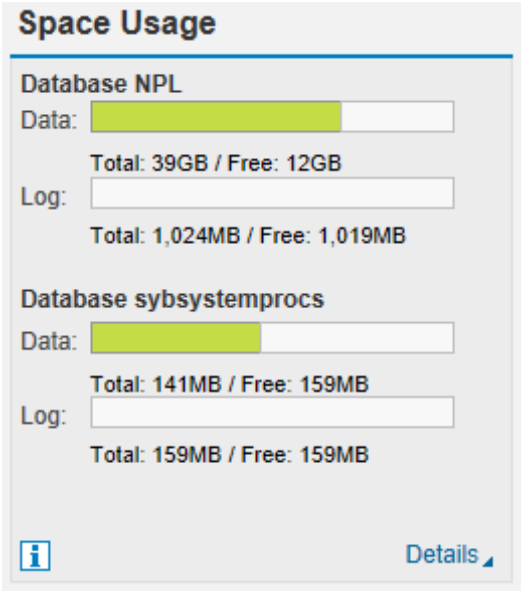
1. Switch over to user SYBNPL and enter your master password when prompted – **su sybnpl**
2. Then, login to the DB with isql – **isql -SNPL -Usapsa -X**
3. Enter password when prompted – **<master password>**

4. > use master
5. > go
6. > disk init name = ‘NPL_data_002’, physname = ‘/sybase/NPL/sapdata_1/NPL_data_002.dat’, skip_alloc = true, size = ‘10240M’
7. > go
8. > alter database NPL on NPL_data_002 =’10240M’
9. > go




Done! Now, let’s head back into DBACOCKPIT and see what we’ve done there.




Ahhh.. now that's better!

That's all folks! **Good luck!**

## 3 Comments



Alex Li

October 13, 2017 at 1:30 am

Good share. Add my two cents:

I'd like to do the two configuration changes for the database when setting up the DEMO server.

1. Enlarge the memory of ASE database.

This is controlled by ASE parameter "max memory", I'd like to set to 45% of memory of the virtual machine. e.g. if my VM memory is 8192MB then it will be 3686MB. Notice that the parameter is using 2KB as unit, so the actual value to be configured is:

8192 * 45% * 1024 / 2 = 1887436

Then login ASE DB with user sybnpl with isql:

isql -X -W999 -SNPL -Usapsa -P<master password>

sp_configure “max memory”, 1887436

go

-> This is a static parameter so you have to reboot ASE DB to take effect.

2. Enlarge the number of user connections of ASE DB.

After I installed the DEMO system I also notice that the default value of the “number of user connections” parameter is set too small (only 25) for AS ABAP application server. If I increase the number of work processes, then I got database related shortdumps to address this as well.

This is controlled by ASE parameter “number of user connections”. It is a dynamic parameter, just set to 500 then usually you don’t need to worry about it.

Then login ASE DB with user sybnpl with isql:

isql -X -W999 -SNPL -Usapsa -P<master password>

sp_configure “number of user connections”, 500

go

-> This change takes effect immediately. (As long as the configured max memory is sufficient for ASE DB).

Best Regards,

Alex

Like (3)

Alban Leong | Post author

October 13, 2017 at 2:43 am

Thanks for the tips Alex! It's certainly very helpful as well!

Like (0)

Ivan Gurin

October 1, 2018 at 12:39 pm

Thank you for your input.

Like (1)