DFSMSdss SPACEREL command for z/VM volumes

Case
TS007596400

Status
IBM is working

Product
z/OS

Description
Dear IBM Team,

We are currently using IBM DS8950F and have configured ESE volumes for z/OS and z/VM.
We have 3 IBM DS8950F configured in a cascaded MGM3SITE configuration (H1->H2->H3), and I am trying to perform DFSMSdss SPACEREL command for all the volumes on the primary (H1) controller, and I am looking for some examples of how to execute SPACEREL for all the volumes (z/OS and z/VM) using JCL.

IBM documentation doesn't have the examples to use UCB for a volume, however I am able to execute SPACEREL for z/OS volumes (with VOLSER specified) using the below JCL example.

```
//SPACEREL EXEC PGM=ADRDSSU
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
SPACEREL DYN(TSART0) DEBUG(SRMSG(SUM))
```

This is fine when I run for a z/OS volume, but fails for a z/VM volume.

Requesting you to please provide some insight for doing this for z/VM volume. I face below error when I try for a z/VM volume (from z/OS)

ADR405E (001)-DYNA (02), DYNAMIC ALLOCATION OF VOLUME 2D00 FAILED. ERROR CODE 0218. INFORMATION CODE 0000
ADR017E (001)-CLTSK(01), 2021.320 13:19:21 TASK NOT SCHEDULED DUE TO ERROR. TASK RETURN CODE 0008

2D00 - is a z/VM volume.

Best Regards,
Riyaz Dodhia

Product Area
DFSMSdss DFDSS DSS ADRDSSU <5695DF175>

Product Version
2.4.0

System Down
No

Service Type

Q&A

Severity
4 - Minimal impact (how-to questions, minor problems)

Created
21 Nov 2021(4 days old)
8:31 AM

Customer
RIYAD BANK

Client reference number

IBM customer number
0391007

Geography
SA

Team
Riyaz Dodhiya **(case owner)**

Case history

25 Nov 2021

08:22 AM CST
PAPPERIT (IBM) changed Status from *Waiting for IBM* to *IBM is working*.
08:18 AM CST
Riyaz Dodhiya (Customer) changed Status from *IBM is working* to *Waiting for IBM*.
08:18 AM CST
Riyaz Dodhiya (Customer)
Hello Takeshi,
I have raised a new RFE for the same. ID:153291
BR,
Riyaz
03:43 AM CST
PAPPERIT (IBM)
Action taken: Update noted, informed Takeshi
Action plan: Takeshi will have a look at the case at his business hours
Notified: @Takeshi Nakano
Notified: @Takeshi Nakano
03:43 AM CST

PAPPERIT (IBM) changed Status from *Waiting for IBM* to *IBM is working*.

03:26 AM CST

Riyaz Dodhiya (Customer) changed Status from *Awaiting your feedback* to *Waiting for IBM*.

03:26 AM CST

Riyaz Dodhiya (Customer)

Hello Takeshi, Hello Justin,

Thank you for the feedback. I am trying to raise a new RFE for DFSMSdss SPACEREL command, but it appears that I will need a PMR instead of a case to submit the RFE. Requesting you to please raise a PMR and associate it it this case: TS007596400, that I can use to submit the RFE.

For the RELSPACE CP command on z/VM, I will have to do some investigation and test this before using it for DATA volumes.

Question - does the RELSPACE CP command deletes (or) erases the active (in-use) data on the minidisk or has any impact on the data? Kindly confirm.

Thank you,

BR,

Riyaz

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24 Nov 2021

11:43 PM CST

Takeshi.Nakano1 (IBM)

Hello Riyaz,

Kindly review the previous update from Justin. As for the link to the RFE item, could you try to access to the link: https://www.ibm.com/developerworks/rfe/ (https://www.ibm.com/developerworks/rfe/), put "Thin Provisioning support from z/OS guest under z/VM" into search box and enter? Please let me know what error message you received if it does not work.

Best regards,

Takeshi - DFSMS DSS Support

Action Taken:

Provided another path to the RFE item.

Action Plan:

I will await the feedback.

11:43 PM CST

Takeshi.Nakano1 (IBM) changed Status from *IBM is working* to *Awaiting your feedback*.

03:07 PM CST

jmslocum (IBM)

Hello Riyaz,

This is Justin VanSlocum from z/VM I/O development to help with your question about equivalent actions to DFSMS SPACEREL when working with space efficient volumes for your z/VM systems.

Due to the management of potential minidisk space on user volumes in z/VM usually being handled by other tools (for example DIRMAINT), there is not an exact equivalent function provided by z/VM commands to automatically find and release unused space on a specified DASD device. Instead, tools managing z/VM disk space or the system programmer use the z/VM command RELSPACE to release the space of the specified virtual device (minidisk or dedicated DASD) back to the space efficient pool. Some of this is done automatically depending on what tools you are using for disk space management. Typical use cases are:

- to release the space of a minidisk back to the space efficient pool when a minidisk is being removed from a virtual machine or reformatted (RELSPACE essentially formats the disk contents as well as returning the space)
- to release an entire real disk's space when the disk is no longer being used for its current purpose (return to scratch disk pool or allocated for new usage)

If you have further questions about your potential usage of z/VM RELSPACE, just let me know and I'll be happy to answer any further questions and provide guidance.

Justin

09:28 AM CST

Rolf.Wenzel (IBM)

Action taken: Update noted, informed Takeshi

Action plan: Takeshi will have a look at the case at his business hours

Notified: @Takeshi Nakano

09:28 AM CST

Rolf.Wenzel (IBM) changed Status from *Waiting for IBM* to *IBM is working*.

09:14 AM CST

Riyaz Dodhiya (Customer) changed Status from *IBM is working* to *Waiting for IBM*.

09:14 AM CST

Riyaz Dodhiya (Customer)

Hello Takeshi, Hello Vincent,

I am unable to access the link provided earlier to access the RFE in progress.

Can you please provide the link to open a NEW RFE for DFDSS please?

BR,

Riyaz

01:14 AM CST

Takeshi.Nakano1 (IBM)

Hi Riyaz,

Thank you for considering to open an RFE for DFDSS! I am waiting for a feedback from z/VM team right now, please give me some more time. I will get back to you as soon as I have the feedback.

Thanks,

Takeshi - DFSMS DSS Support

01:14 AM CST

Takeshi.Nakano1 (IBM) changed Status from *Waiting for IBM* to *IBM is working*.

12:56 AM CST

Riyaz Dodhiya (Customer) changed Status from *IBM is working* to *Waiting for IBM*.

12:56 AM CST

Riyaz Dodhiya (Customer)

Hello Vincent,

Thank you for update. I will take a look at the RFE in progress, and will open a new RFE to have UCB processing in the DYNam parameter for SPACEREL.

Meanwhile, did you receive any feedback from the z/VM team about running dss SPACEREL from z/VM guest for z/VM formatted volumes?

BR,

Riyaz

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23 Nov 2021

11:47 AM CST

v_gay (IBM)

Hi Riyaz,,

Thank you for your update. My colleague Takeshi is on vacation and will update you at his next scheduled working day. I'll ensure that he is notified.

But in the meantime I can tell you that SPACEREL command does not have the possibility to specify a UCB unit address only volser is allowed using DYNAM., sorry for that I can only suggest/recommand you to open a Request For Enhancement if you want a design change for this command.

For your info

There is an interesting RFEs around DSS PACEREL and I would like to recommend you to have a look at following link and if you are interested in please vote for this RFE !

- **"Provide a method of predicting in advance the results of a DFSMSdss SPACEREL action**"
  https://www.ibm.com/developerworks/rfe/execute?use_case=viewRfe&CR_ID=105816
  (https://www.ibm.com/developerworks/rfe/execute?use_case=viewRfe&CR_ID=105816) it is still opened and its status is "**Planned for Future Release**"

Kind regards. Vincent (for Takeshi)

Action taken:

- answer to UCB option in SPACEREL: not possible
- provide an interesting RFE link around DSS SPACEREL
- notify Takeshi

Action plan:

- to Takeshi's attention

Notified: @Takeshi Nakano

11:46 AM CST

v_gay (IBM) changed Status from *Waiting for IBM* to *IBM is working*.

08:33 AM CST

Riyaz Dodhiya (Customer) changed Status from *IBM is working* to *Waiting for IBM*.

08:33 AM CST

Riyaz Dodhiya (Customer)

Hi Takeshi,

Yes I read that, thank you.

However, I was looking for a way to create a JCL and schedule this to run on periodic basis.

Can you please tell me how to run SPACEREL using just the UCB unit address as this will remain constant whereas the VOLSER and STORGRP are dynamic and can be changed.

Is the below syntax correct for z/OS volumes using JCL?

SPACEREL DYN(UCB1) DEBUG(SRMSG(SUM))

SPACEREL DYN(UCB2) DEBUG(SRMSG(SUM))

SPACEREL DYN(UCB3) DEBUG(SRMSG(SUM))

.

.

.

SPACEREL DYN(UCBn) DEBUG(SRMSG(SUM))

I will wait for further feedback for z/VM.

BR,

Riyaz

08:18 AM CST

Takeshi.Nakano1 (IBM)

Hi Riyaz,

SPACEREL command with DYNAM parameter cannot have GENERIC value, the manual mentions this: "You cannot specify a nonspecific volume serial number using an asterisk (*)". For DYNAM keyword, you can specify multiple volumes like DYNam((volser1,3390),(volser2,3390), ... ,(volsern,3390)). If the target volumes are all SMS-managed, SPACEREL command can process all the volumes in Storage Groups with STORGRP keyword: STORGRP(storgrp1, storgrp2, ... ,storgrpn).

DYNAM keyword

https://www.ibm.com/docs/en/zos/2.4.0?topic=esck-dynam (https://www.ibm.com/docs/en/zos/2.4.0?topic=esck-dynam)

STORGRP keyword

https://www.ibm.com/docs/en/zos/2.4.0?topic=esck-storgrp (https://www.ibm.com/docs/en/zos/2.4.0?topic=esck-storgrp)

Best regards,

Takeshi - DFSMS DSS Support

07:39 AM CST

Riyaz Dodhiya (Customer)

Hi Takeshi,

Also if you can please let me know a way to run SPACEREL for z/OS volumes (range of devices or a particular LSS or LCU)?

Is it possible to specify GENERIC value for VOLSER or UCB unit in the DYNam parameter in a single command?

BR,

Riyaz

07:01 AM CST

Takeshi.Nakano1 (IBM)

Hi Riyaz,

Thanks, I will discuss with z/VM team and get back to you.

Best regards,
Takeshi - DFSMS DSS Support
06:58 AM CST

Riyaz Dodhiya (Customer)
Hi Takeshi,
We are on z/VM v7.2
BR,
Riyaz
06:47 AM CST

Takeshi.Nakano1 (IBM)
Hi Riyaz,
To know of the function like SPACEREL on z/VM, I need to reach out to our z/VM team. Could you tell me your z/VM version?
Thanks,
Takeshi - DFSMS DSS Support
05:57 AM CST

Riyaz Dodhiya (Customer)
Hi Takeshi,
Okay this is noted.
Yes the z/VM volumes are in CPVOLUME format and are made available to the z/VM guest.
Is there are way to run SPACEREL function on these z/VM volumes (from z/VM) ?
BR,
Riyaz
05:45 AM CST

Takeshi.Nakano1 (IBM)
Action Taken:
Hello Riyaz,
The manual of SPACEREL command says "The SPACEREL command supports SMS and non-SMS managed ESE volumes with an indexed VTOC at the volume and storage group levels. **Volumes with other VTOC formats are not supported**". In your case, the z/VM volume should have a format which DFDSS does not support.
In addition, Format 4 DSCB on z/VM volume might indicate that no space is available on the volume, according to the ICKDSF manual, even though SPACEREL command tries to determine the free space extent on the volume; therefore, you would need to run some function from z/VM side rather than z/OS.
SPACEREL command
https://www.ibm.com/docs/en/zos/2.4.0?topic=commands-spacerel-command-dfsmsdss (https://www.ibm.com/docs/en/zos/2.4.0?topic=commands-spacerel-command-dfsmsdss)
Records formatted by CPVOLUME
https://www.ibm.com/docs/en/zos/2.4.0?topic=cylinders-formatting-cylinder-0-track-0 (https://www.ibm.com/docs/en/zos/2.4.0?topic=cylinders-formatting-cylinder-0-track-0)
Please let me know if you have any questions.
Takeshi - DFSMS DSS Support
Action Plan:
I will await the feedback.
04:00 AM CST

Riyaz Dodhiya (Customer)
Hello Takeshi,
Kindly let me know if you need any further information from my side.
Awaiting your feedback.
Thank you,
BR,
Riyaz

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22 Nov 2021

12:31 AM CST
Takeshi.Nakano1 (IBM)
Hello Riyaz,
Thank you for contacting IBM, I am Takeshi from DSS Support. We will review your inquiry and get back to you with our findings/suggestions.
Thanks,
Takeshi - DFSMS DSS Support

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21 Nov 2021

08:32 AM CST
Riyaz Dodhiya (Customer) created this case