Synchronizing Disk Names and Recovering Volume Groups

Special Notices

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Procedure

Use the following script when the names of your hard disks are out of order (for example: hdisk0, hdisk2, hdisk3 instead of hdisk0, hdisk1, hdisk2). The order of the disk names generally does not cause errors, but it may cause confusion for the user. Run the following "dsksync" script to alleviate such confusion. The script will rename the hard disks.

The order in which the disks will be named after rebooting machine will be determined on the order they are detected by the device configuration process. For instance, a disk at address 00-00-0S-00 will be numbered before a disk at address 00-00-0S-20 or 00-05-00-00.

This document applies to AIX 3.1 through 4.2 on the RISC System/6000.

Make sure the key is in "Normal" position before running this script.

```
lsdev -Cc disk | awk '{ print $1 }' | while read HDname; do
          odmdelete -q "name = $HDname" -o CuAt
          odmdelete -q "value = $HDname" -o CuAt
          odmdelete -q "name = $HDname" -o CuDv
          odmdelete -q "value3 = $HDname" -o CuDvDr
          odmdelete -q "name = $HDname" -o CuVPD
done
rm -f /dev/hdisk*
rm -f /dev/rhdisk*

savebase
```

When the shell script completes successfully, run the following command to shutdown and reboot.

```
shutdown -Fr
```

Note: You may need to use the enclosed document 'Recovering Volume Groups in AIX' after you run this script.

About this Document

Run the script in this document when the ODM (Object Data Manager) entries for the root volume group are corrupted. The script may be modified for volume groups other than rootvg. (See the 'About the Script' section in this document.) This document applies to all levels of AIX 3.1 through 4.2.

Problem Determination

When the ODM entries for a volume group are corrupted, you may notice one of the following symptoms:

- "lsvg", "lslv", and/or "lspv" commands fail.
- You cannot change the size of file systems.
- The system cannot find volume groups or device IDs.
- The output of the following command contains "?"s in some fields or some fields are blank:

  ```
  lsvg -l VGname
  ```

Before Using the Script

Before using the following script, save the current version of your /etc/objrepos/Cu* files, in case you want to go back to that version at some time. (In the following commands, replace "mmdd" with the month and day, such as "jan01".)

```
cd /etc/objrepos
cp CuAt cuat.mmdd
cp CuDep cudep.mmdd
cp CuDv cudv.mmdd
cp CuDvDr cudvdr.mmdd
```

About the Script

1. This script contains only a few provisions for handling error conditions because it is designed to minimize typing mistakes.
2. The PV (physical volume) and VG (volume group) variables on the first two lines of the script are defaulted for the root volume group (rootvg). The PV

is set to /dev/ipldevice, which is a synonym for one of the physical volumes that is a member of the rootvg volume group.

If you wish to run this script for a volume group other than the rootvg, you must change the VG variable to match the volume group you wish to fix, and change the PV variable to match any one of the physical volumes (/dev/hdisk#) that is a member of that volume group. To determine to which VG a PV belongs, enter the command:

```
lsvg `lqueryvg -vp hdisk# ` | grep GROUP
```

Please note that grave (backtic) characters are used in the aforementioned command.

3. It is not necessary to reboot after running this script.
4. If this is being used to clean up a rootvg AND the rootvg is mirrored, the user must run the bosboot command to the disks that make up the bootable rootvg. Note, there is no need to reboot after the bosboot.
5. Note that this script calls the synclvodm command, which will change the permissions on all logical volume device files to 660, and their ownership to root:system. This may cause problems with database applications that use raw logical volumes whose device files have had their ownership and/or permissions changed. Running this script may thus require you to shutdown applications that operate in this manner, and change the permissions/ownership on those files when finished.

The Script

Notes:

1. Run the following script while in Normal mode and logged in as root.
2. Depending on how you are viewing this document, some characters in the following code may appear incorrectly. If the characters in the following list do not match their descriptions, be sure to change them in the code.

[	left bracket
]	right bracket

3. Please note that page headers and footers may appear in the following code. They should be removed before the code is used. Also, revision bars (vertical bars in the left margin which mark changes in the document) may appear to the left of the code and should be removed before the code is used.

```
PV=/dev/ipldevice
VG=rootvg

lqueryvg -Lp $PV | awk '{ print $2 }' | while read LVname; do
         odmdelete -q "name = $LVname" -o CuAt
         odmdelete -q "name = $LVname" -o CuDv
         odmdelete -q "value3 = $LVname" -o CuDvDr
done
odmdelete -q "name = $VG" -o CuAt
odmdelete -q "parent = $VG" -o CuDv
odmdelete -q "name = $VG" -o CuDv
odmdelete -q "name = $VG" -o CuDep
odmdelete -q "dependency = $VG" -o CuDep
if [ "$VG" = rootvg ]
then
  odmdelete -q "value1 = 10" -o CuDvDr
else
  odmdelete -q "value1 = $VG" -o CuDvDr
fi
odmdelete -q "value3 = $VG" -o CuDvDr

importvg -y $VG $PV           # ignore lvaryoffvg errors
varyonvg $VG

synclvodm -v $VG
savebase
```

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Reader's Comments

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