

AIX alt_disk_copy

Article Number: 615 | Rating: Unrated | Last Updated: Sun, Jun 30, 2019 8:52 PM

Required filesets:

bos.alt_disk_install.boot_images
bos.alt_disk_install.rte
bos.msg.en_US.alt_disk_install.rte

alt_disk_copy -d <hdisk to clone rootvg> this will clone the rootvg to the specified disk

alt_disk_copy -e /etc/exclude.rootvg -d <hdisk> this will use the exclude list during the cloning

alt_disk_copy -T -d <hdisk> it will convert jfs to jfs2 on the new target disk (from 6.1 TL4 only)

alt_rootvg_op -X <cloned rootvg to destroy> this will destroy the cloned rootvg (alt_rootvg_op -X altinst_rootvg)

alt_rootvg_op -W -d <hdisk> this will wake up a disk (cloned filesystems will be mounted with prefix /alt_)

alt_rootvg_op -S -t <hdisk> this will put cloned rootvg to sleep (before that it will do a bosboot)
(-S: put to sleep earlier "waked up" vg, -t: rebuilds the alt. bootimage before sleep)

alt_rootvg_op -v <new cloned rootvg name> -d <hdisk> this will rename the given cloned rootvg name
(after wake-up and sleep the cloned vg name will be changed, in this case it is useful)

alt_disk_mksysb -m /mnt/aix1mkysb -d hdisk1 -k this will restore given mkysb (aix1mkysb) to
hdisk1 (-k: keep device configuration)

/var/adm/ras/alt_disk_inst.log alt_disk log file

alt_disk_copy: (copy hdisk0 to hdsik1)

lv names can't be longer than 11 characters (because of alt_ prefix)

do not take out that disk which was used during boot (otherwise there will be problems with bosboot)

-unmirrorvg rootvg hdisk1

-reducevg rootvg hdisk1

-bosboot -ad hdisk0

-bootlist -m normal hdisk0

-alt_disk_copy -d hdisk1

-bootlist -m normal hdisk0

after booting from hdisk1:

root@aix11: / # *lspv*

hdisk0	00cf5d8fe9c88a34	old_rootvg	
hdisk1	00cf5d8fadcaa9a9	rootvg	active

booting from the old disk:

root@aix11: / # *lspv*

hdisk0	00cf5d8fe9c88a34	rootvg	active
hdisk1	00cf5d8fadcaa9a9	altinst_rootvg	

removing the new image (keeping the old one):

```
-alt_rootvg_op -X altinst_rootvg <--removing the new image from hdisk1
-chpv -c hdisk1 <--clear that pv what contained the removed image
-extendvg -f rootvg hdisk1 <--extend the currently used rootvg with the cleared disk (hdisk1)
-mirrorvg -S rootvg hdisk1 <--mirroring rootvg to hdisk1 (checking: lsvg rootvg | grep STALE)(-S:
-background sync)
-bosboot -ad hdisk0; bosboot -ad hdisk1 <--recreate the bootimage
-bootlist -m normal hdisk0 hdisk1 <--setup correct bootlist (checking: bootlist -m normal -o)
```

Changing lv names (to avoid 11 characters problem):

1. # mkszfile <--creates image.data file of rootvg
2. # vi image.data <--edit image.data
3. # alt_disk_copy -d hdiskX -i /image.data -B <--give image.data file for alt_disk_copy

ONLINE UPDATE WITH ALT_DISK_INSTALL:

```
unmirrorvg rootvg hdisk1 <--removing mirror ( check: lsvg -p rootvg)
chpv -c hdisk1 <--clears boot record
reducevg rootvg hdisk1 <--free up hdisk1
bosboot -ad hdisk0 <--creates boot record
bootlist -m normal hdisk0 <--sets boot list (check: bootlist -m normal -o)
```

```

installp -s <--check if anything can be committed
copy new bos.rte.install <--will be needed for checking if update will be successful (cd to this
directory)
install_all_updates -pYd . <--preview of new bos.rte.install
install_all_updates -Yd . <--installs new bos.rte.install

oslevel -sg 5300-09-01-0847 <--shows which fileset is greater than current service pack, it will show
bos.rte.install
instfix -i | grep SP <--it will show where to update (53-09-020849_SP)
oslevel -sl 53-09-020849 <--shows which filesets should be update

cd /mnt/5300-09-SP2 <--go to servicepack dir
install_all_updates -pYd . <--preview check

alt_disk_copy -d hdisk1 -b update_all -l /mnt/5300-09-SP2 <--this will do the update

shutdown -Fr <--new OS will boot up
smitty commit <--if needed

alt_rootvg_op -X old_rootvg <--removes cloned old OS
chpv -c hdisk0 <--clears bootrecord
extendvg -f rootvg hdisk0 <--add hdisk0 to rootvg
mirrorvg -S rootvg hdisk0 <--mirror rootvg (-S: in background)
bosboot -a <--creates boot record
bootlist -m normal hdisk0 hdisk1 <--set bootlist

```

alt_disk error during AIX update:

If you see this:

...

...

install_all_updates: Result = SUCCESS

Modifying ODM on cloned disk.

Building boot image on cloned disk.

0301-150 bosboot: Invalid or no boot device specified!

usage: bosboot {-a | -v} [-d device] [-p proto] [-k kernel] [-l lvdev]
[-b file] [-M primary|standby|both] [-D|-I] [-LTq]

Where:

- a Create boot image and write to device or file.
- v Verify, but do not build boot image.
- d device Device for which to create the boot image.
- p proto Use given proto file for RAM disk file system.
- k kernel Use given kernel file for boot image.
- l lvdev Target boot logical volume for boot image.
- b file Use given file name for boot image name.
- D Load kernel debugger.
- I Load and Invoke kernel debugger.
- M primary|standby|both Boot mode - primary or standby.
- T platform Specifies the hardware platform type.
- q Query disk space required to create boot image.
- L Enable MP locks instrumentation.

0505-120 alt_disk_install: Error running bosboot in the cloned
root volume group.

Cleaning up.

forced unmount of /alt_inst/var/adm/ras/livedump

forced unmount of /alt_inst/var/adm/ras/livedump

...

...

There is a bug in alt_disk fileset in different 6.1 TL levels (for example in TL6).

Solution is to update alt_disk filesets separately before doing AIX update

1. I use these files, and copy them to a separate directory:

-rwxrwxrwx 1 root nobody 28393472 Mar 05 13:36 bos.alt_disk_install.boot_images.6.1.9.30.U

-rwxrwxrwx 1 root nobody 709632 Mar 05 13:35 bos.alt_disk_install.rte.6.1.9.30.U

2. update filesets with smitty update_all or install_all_updates -cYd /mnt/bb/alt_disk

3. try again AIX update: alt_disk_copy -d hdiskX -n -b update_all -l /mnt/AIX_new_level

Posted - Sun, Jun 30, 2019 8:52 PM. This article has been viewed 10104 times.

Online URL: <http://kb.ictbanking.net/article.php?id=615>