Recovery from a Corrupted Boot Logical Volume

Special Notices

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> **Note:** The information in this document has **not** been verified for AIX 4.1.

About this Document

This document applies to AIX 3.1 or 3.2 on the RISC System/6000. It contains instructions for using the bosboot command to recover from a corrupted boot logical volume.

Warning: Please do not use this document if the system is a /usr client, diskless client, or dataless client.

Symptoms of a Corrupted Boot Logical Volume

During boot up on a RISC System/6000 with AIX 3.1 or 3.2, a hang on LED 517 or the LED sequence 888-103-207-299 or 888-103-208-299 may be caused by a corrupted boot logical volume.

There may be other symptoms which are also caused by a corrupted boot logical volume. If you suspect that your boot logical volume is corrupted, follow the steps below.

Steps

1. Turn the key to the Service position.
2. With bootable media **of the same version and level as the system,** boot the system.

Warning: If you boot a 3.2 system with 3.1 media, or boot a 3.1 system with 3.2 media, then you will not be able to use the standard scripts (getrootfs or /etc/continue) to bring your workstation into full maintenance mode.

Moreover, performing the scripts on a 3.1 system with 3.2 boot media may actually remove some files and prevent your system from booting successfully in normal mode until missing files (/etc/mount and /etc/umount) are replaced on the disk.

Notes:

a. For information on BOSboot diskettes, refer to InfoExplorer or order fax #2462 from 1-800-IBM-4FAX (or 415-855-4FAX outside the U.S. from a fax machine phone).

b. If booting from diskettes, when you see LED c07, insert the next diskette. This may be the optional display extensions diskette (required for AIX 3.2.5) or the display diskette.

c. If you have AIX 3.2.5, used a fddi network install, and selected that option for the install device, you will need the communications extensions diskette. If this diskette is not available, you can build it from another system with fddi installed or call your branch office for assistance.

Follow the prompts to the installation/maintenance menu.

3. Choose the maintenance shell (option 5 for AIX 3.1, option 4 for AIX 3.2).

4. Determine the hdisk# to use with the getrootfs or /etc/continue command. If you have only one disk, then `hdisk0` is the proper hdisk# to use. If you have more than one disk, do the following:

   - **For AIX 3.2.4 or later:**

     Run

     ```
     getrootfs
     ```

     The output indicates the disk that should be used with getrootfs in the next step.

   - **For AIX 3.1 to 3.2.3e:**

     Run

     ```
     lqueryvg -Atp hdisk# | grep hd5
     ```

     for each hdisk# (hdisk0, hdisk1, etc.) until you get output that looks like:

     ```
     00005264feb3631c.2  hd5 1
     ```

     The exact output you get will be different but will follow the form

     ```
     large_number.x  hd5 1
     ```

You may find more than one disk has this output. These will all be disks which belong to the rootvg volume group. You may use any of the disks identified to be in rootvg in the following step.

5. Now access the rootvg volume group by running /etc/continue (for AIX 3.1) or getrootfs (for AIX 3.2). ('#' is the number of the fixed disk, determined in step 4).

   For AIX 3.1 only, run

   ```
   /etc/continue hdisk#
   ```

   For AIX 3.2 only, run

   ```
   getrootfs hdisk#
   ```

   If you get errors from /etc/continue or getrootfs, do not continue with the rest of this procedure. Correct the problem causing the error. If you need assistance correcting the problem causing the error, contact one of the following:

   - local branch office
   - your point of sale
   - 1-800-CALL-AIX (to register for fee-based services)

   All of the above avenues for assistance may be billable.

6. For AIX 3.2.4 or greater, enter the following command:

   ```
   ODMDIR=/dev/objrepos
   ```

7. Determine which disk is the boot disk with the lslv command. The boot disk will be shown in the PV1 column of the lslv output.

   ```
   lslv -m hd5
   ```

WARNING: Please do not proceed further if the system is a /usr client, diskless client, or dataless client.

8. Enter the following commands to synchronize the logical volume information and re-create the boot device. (hdisk# should be replaced with the hdisk# where hd5 resides, found in step 7.)

   ```
   syncvg -v rootvg
   synclvodm -v rootvg
   bosboot -a -d/dev/hdisk#
   sync; sync
   ```

9. Turn the key to Normal.

10. Enter the following command to reboot the system.

    ```
    reboot
    ```

    If you followed these steps for either LED 888-103-207-299 or LED 888-103-208-299, and you still stop at those LEDs after rebooting, please place a call to hardware support (800-IBM-SERV) for additional assistance.

If running the above commands did not fix the problem and you need further assistance with this problem, contact one of the following:

- local branch office
- your point of sale
- call 1-800-CALL-AIX (to register for fee-based services)

All of the above avenues for assistance may be billable.

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