Repairing File Systems with fsck in AIX 3.1 or 3.2

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 covers the use of fsck (file-system check) in maintenance mode to repair inconsistencies in file systems. This document applies to both AIX 3.1 and 3.2.

Steps

1. Turn the key to the Service position.
2. With BOSboot or installation media **of the same version and level as the operating 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# sh
   ```

   For AIX 3.2 only, run

```
getrootfs hdisk# sh
```

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. Next, run the following commands to check and repair file systems. (The "-y" option gives fsck permission to repair file systems when necessary.)

```
fsck -y /dev/hd1
fsck -y /dev/hd2
fsck -y /dev/hd3
fsck -y /dev/hd4
```

For AIX 3.2 only, also run

```
fsck -y /dev/hd9var
```

Also run fsck on any user-created file systems that are in the rootvg volume group.

8. Type "exit" to exit from the shell. The file systems will automatically mount after you type "exit".

9. If you have file systems in a volume group other than rootvg, you may run fsck on them now by running these commands:

```
varyonvg VGname
fsck -y /dev/LVname
```

where LVname is the name of your user-defined logical volume. The above commands can be repeated for each user-defined volume group on the system.

10. With the key in Normal position, issue the reboot command.

```
sync;sync;sync;reboot
```

Reader's Comments

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