Recovery from an LED C99 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.

Causes of an LED C99

An LED C99 on a RISC System/6000 in AIX 3.1 or 3.2 occurs if the system cannot execute the /usr/bin/odmget command. This could be caused by a missing /usr file system or a corrupted /etc/filesystems file.

Summary of the Recovery Procedure

To find the cause of the LED C99, you will need to make sure there is a /usr stanza in /etc/filesystems, make sure /usr is mounted, and check the existence of /usr/bin and /usr/bin/odmget.

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 any of the fixed disks in the rootvg, 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. Check the /etc/filesystems file to make sure it contains a stanza for the /usr file system.

8. Use the df command to make sure /usr is mounted.

   ```
   df /usr
   ```

   Sample output:

   ```
   Filesystem  Total KB   free %used  iused %iused Mounted on
   /dev/hd2      274432  69432   74%   8429    12% /usr
   ```

   If /usr is not found, you need to get /usr mounted to resolve the LED. If you need further assistance, contact your local branch office.

   If /usr is found, continue with step 9.

9. Check for the existence of the /usr/bin directory by trying to change to that directory:

   ```
   cd /usr/bin
   ```

   If the command fails, /usr/bin needs to be restored. Contact your local branch office if you need further assistance.

   If the command is successful, continue with step 10.

10. Check for the existence of the /usr/bin/odmget file with the following command:

    ```
    ls -l /usr/bin/odmget
    ```

11. If there is no odmget, then check to see if other files are missing from /usr/bin. There should be approximately 280 files in /usr/bin for AIX 3.1 and approximately 500 for AIX 3.2.

    To find out how many files you have in /usr/bin, type:

    ```
    ls -l | grep -c 1
    ```

    If the number you get is significantly less (more than 100 less) than the approximate numbers mentioned above, you are probably missing files.

12. Restore missing files if you can. If you cannot restore the files, you will need to reinstall AIX.

13. If LED C99 still occurs when you reboot your system and you need further assistance with this problem, 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.

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