Reducing the Size of the /tmp File System

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Note: The information in this document is **not** applicable for AIX 4.1.

About this Document

This document describes how to reduce the /tmp file system in AIX 3.1 or 3.2 on a RISC System/6000.

Procedure

Note: Back up the data in the /tmp file system before proceeding. One way to do this is the following:

```
tar -cvf /dev/fd0 /tmp
```

(/dev/fd0 can be replaced with /dev/rmt# or the full path of a file; that file CANNOT BE in the /tmp file system.)

Note: Set the service mode boot list to include floppy and tape drives with the following command:

```
bootlist -m service fd rmt badisk scdisk
```

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.

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:        /etc/continue hdisk#
   For AIX 3.2 only:        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. Unmount the /tmp file system with the following command:

   ```
   umount /tmp
   ```

8. Remove the /tmp file system, with the following command:

   ```
   rmfs /tmp
   ```

9. Create the logical volume for /tmp with the command "mklv -y hd3 rootvg x", where x is the number of physical partitions you want to allocate. Partitions are 4MB by default. For example,

   ```
   mklv -y hd3 rootvg 2
   ```

   makes logical volume hd3 of size 8MB (2 4MB partitions) in the rootvg volume group.

10. Create the /tmp file system with the following command:

    ```
    crfs -v jfs -d hd3 -m /tmp -a check=false -a free=false -a vol=/tmp
    ```

11. Now you must set your TERM variable and export it. If you are using a megapel display, try setting TERM=hft. For example:

    ```
    TERM=hft
    export TERM
    ```

    If you are using an ASCII terminal of some sort (say an ibm3151), set your TERM to the appropriate terminal type. For example:

    ```
    TERM=ibm3151
    export TERM
    ```

12. Edit /etc/filesystems with the following syntax. (The "set dir=/" in the following line sets the directory for the editing buffer.)

    ```
    vi -c "set dir=/" /etc/filesystems
    ```

    Go down to the stanza for /tmp (search for "/tmp:"). Within that stanza go to the line that says "mount = false" and change the word "false" to "automatic". Save the file.

13. Mount the /tmp file system, with the following command:

    ```
    mount /tmp
    ```

14. Change the ownership and permissions to the proper values, as follows:

    ```
    chmod g-s /tmp
    chmod 1777 /tmp
    chown bin.bin /tmp
    ```

15. Restore the /tmp files from your backup.

16. Shutdown the system.

    ```
    sync;sync;sync;shutdown -F
    ```

17. After you get the message "Halt completed," turn the power off.

18. Switch the key to the Normal position and turn the power back on.

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