Reducing File System Size in AIX 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 explains how you can reduce the size of file systems in the rootvg volume group by making a system backup, editing `/.fs.size`, and reinstalling the system. It then describes how non-rootvg, or user-created, volume groups may be imported into your newly installed operating system. This document applies to AIX 3.2 on the RISC System/6000.

Note: If you do **not** need to reduce the `/usr` or `/` file system, you can use the **simpler** procedure in document number 2447 or 2364 from 1-800-IBM-4FAX.

Documents 2447 and 2364 are written specifically for the `/tmp` and `/var` file systems, respectively. However, they can be used for any file systems with the appropriate substitutions of the mount point and logical volume name.

Also note that documents 2447 and 2364 can be used for file systems that are not in the rootvg. This is not true of the document you are currently reading.

Steps

Note: It is recommended that you back up any file systems that are not in the rootvg volume group before following this procedure.

1. With the machine in Normal mode, log in as root.

2. Remove any files that you do not want in the file systems that you plan to reduce. If you are not sure of the origin or purpose of a particular file, do not delete it.

3. Make sure all file systems in the rootvg volume group are mounted. **If not, they will not be included in the reinstalled system.**

4. Type "mkszfile". This will create a file "/.fs.size", which will contain a list of the active file systems in the rootvg volume group, which will be included in the mksysb tape that you will create.

5. Use an editor to edit the "/.fs.size" file. Change the size of all the rootvg file systems that you are reducing to reflect the sizes you want for those file systems.

   Example: The /.fs.size file currently shows the file size of /usr to be 40MB with the following entry:

   ```
   rootvg 4 hd2 /usr 10 40 jfs
   ```

   The first number (4) represents the physical partition (PP) size on your system. The second number (10) represents the number of PPs needed to contain the file system. The third number (40) represents the MB of disk space required, that is, the first number multiplied by the second.

   If you want to reduce the size of /usr from 40 MB to 32 MB, you would edit the /usr entry to look like this:

   ```
   rootvg 4 hd2 /usr 8 32 jfs
   ```

   Important: Make sure that you DO NOT enter a value which is less than the size required to contain the current data. Doing so will cause the reinstallation procedure to fail. Use the "df -v" command to see the current blocks used in the file systems; then divide this number by 1024 to get the total MB required.

6. Check for anu user defined paging space(s) with the following command:

   ```
   lsvg -l <vgname>
   ```

   where "<vgname>" is the name of the volume group. If there are any user defined paging space(s), do the following to deactivate the paging space:

   a. Execute the command:

      ```
      chps -a n <paging_space>
      ```

   b. Reboot the system.

7. Unmount all file systems that are **not** in the rootvg volume group.

8. If you have any non-rootvg volume groups, varyoff and export them with the following commands. (Substitute VGname with the name of the volume group.)

   ```
   varyoffvg VGname
   exportvg VGname
   ```

9. With a tape in the tape drive, type the following command:

```
mksysb /dev/rmt0
```

This will create a complete system backup of the rootvg, which will include file-system size information (in the /.fs.size file) for use in the installation procedure.

10. Follow the instructions in Chapter 3 of the Installation Guide ("Installation from a System Backup"), using the tape that you created in the previous step. Choose option 2, which is:

```
2) Install a system that was created with the SMIT
   "Backup the System" function or the "mksysb" command.
```

11. When the operating system installation is complete, you will need to reboot the system in normal mode. The reduction of the file systems is now complete.

12. If you have any non-rootvg volume groups, you can import them with the following commands. (Substitute VGname with the name of the volume group; substitute PVname with the name of any one of the physical volumes in the volume group.)

```
importvg -y VGname PVname
varyonvg VGname
```

13. Now, you can mount all the file systems with

```
mount all
```

Reader's Comments

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