mksysb End-of-Tape Detection Problem Prior to 3.2.4

Special Notices

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

About This Document

This document addresses the mksysb end-of-tape detection problem (when mksysb cannot bridge to a second or third tape). It describes fixes that may be ordered and a one-time workaround to use if you cannot wait for the fix. The problem addressed in this document has been fixed at AIX level 3.2.4 and above.

Fixing the mksysb End-of-Tape Detection Problem

If you can wait for the fix to arrive and be installed, please call 1-800-CALL-AIX and indicate that you want to order one or more of the following PTFs with "SUPERSEDE=N":

U413108 Fixes the tar end-of-tape problem

U408848 Fixes multivolume problems in ASCII version of smit

U412353 Fixes multivolume problems in Motif version of smit

(These PTFs will not upgrade your system to 3.2.4.)

If you are trying to make a mksysb of your system in preparation for an upgrade to a newer level, use the information in the next section as a one-time fix.

Workaround

The information in this section is intended as a one-time workaround if you cannot wait for the fix to arrive and be installed. It will allow the mksysb command to correctly bridge to a second or third tape.

Note: This modification is ONLY for a SINGLE tape/tape-drive combination. Determine what tape and tape drive you will be using for the backup before performing this workaround.

Note: When running mksysb after this procedure, be sure to use the correct density setting to match the rmtX special device. For more information on density settings, order document #1896 from the IBM Fax Information Service (1-800-IBM-4FAX in the U.S), Outside the U.S. call 415-855-4FAX using a fax machine phone.

1. Make a backup copy of /usr/bin/mksysb.
2. Use the following table to determine which "-S SIZEb" flag needs to be added to the tar command at the end of /usr/bin/mksysb. "SIZE" is the size in 512-byte blocks to be expected from the tape.

   Note: After the number for the -S flag, you must put in the "b" flag to denote these are blocks, e.g., "-S 111100b".

   Note: The block-size setting for a 1/4-inch tape drive should be 512 and for an 8mm or 4mm dat tape drive should be 1024. However, if you are using a 7208 8mm tape drive and you do not have PTF U403173 on your system, you must use a block size of 512 and a SIZE flag of "-S 111100b" (half the value shown in the table). The capacity in this case will be 1.15GB.

Tape Drive	Flag	Capacity
7206 4mm dat	-S 222200	2.3 Gbytes
7208 8mm	-S 222200	2.3 Gbytes
7207-001 1/4 inch		
6150 tape	-S 14000	150 Mbytes
6250 tape	-S 23800	250 Mbytes
7207-011 1/4 inch		
6150 tape	-S 14000	150 Mbytes
6250 tape	-S 23800	250 Mbytes
6525 tape	-S 50800	525 Mbytes
7207-012 1/4 inch		
6150 tape	-S 14000	150 Mbytes
6250 tape	-S 23800	250 Mbytes
6525 tape	-S 50800	525 Mbytes
9100 tape	-S 104700	1.2 Gbytes

   Note: Because the meaning of the tar flag "-S" has changed at some point in the past, it is necessary to perform a test to determine if any adjustment in the number shown in the above chart is needed.

The following test can be used to determine any adjustment to the supplied values of S in this document. Use <Ctrl-C> to terminate the test after tar asks for another volume.

```
tar -cvf /dev/null -S100b /
```

You will see something that looks like this:

```
tar: There are 100 blocks on /dev/null.
tar: Mount next media on device /dev/null and press return.
```

If it asks for the second volume after 2000 blocks, use the numbers supplied in the fax.

If it asks for the second volume after 100 blocks, multiply the number in the fax by 20 and use that value.

3. Add the proper "-S SIZEb" flag to the /usr/bin/mksysb file.

   The original line looks like this:

   ```
   tar -cvdpf"$DEVICE" -L"$archive_lst"
   ```

   The corrected line should look like this (where SIZE is chosen from the table in step 2.):

   ```
   tar -cvdpf"$DEVICE" -S SIZEb  -L"$archive_lst"
   ```

   Example: For a 7208 8mm tape drive:

   ```
   tar -cvdpf"$DEVICE" -S 222200b -L"$archive_lst"
   ```

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If you need technical assistance, contact your local branch office, point of sale, or 1-800-CALL-AIX (for information about support offerings). These services may be billable. Faxes on a variety of subjects may be ordered free of charge from 1-800-IBM-4FAX. Outside the U.S. call 415-855-4329 using a fax machine phone.

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Note: If you have a problem report or item number, supplying that number may help us determine why a procedure did or did not work in your specific situation.

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