

## Instructions for tape backup (2008.03.18)

### For backup

- Check tape before insertion into tape recorder.
- By convenience, text files of list of files to be backed up are saved in directory /home/users/8IDIUSER/tape\_backup. Folder “/USERS” for user data. For personal use, create a separate folder.
- Create a file that lists all the files/folders to be backed up (folder is treated as a file during backup) in the ~/tape\_backup folder by
  - Go to the upper level of the data folder, e.g., folder /home/8-idi-a/ for /kim0802
  - >ls kim0802/ >~/tape\_backup/USERS/2008-1/HKIM20080318 (This will dump all the folder and file names in kim0802 into list file “HKIM20080318”)
  - Add directory change command line before the list in text file “HKIM20080318” as “-C /home/8-idi-a/kim0802”. (Can add other directory change command line in front of list of files that are saved in other directories.)
  - Back to ~/tape\_backup/USERS and use “namit” and “mt” to backup data
- Usage of “namit”
  - >namit (usage info)
  - >namit -h (help info)
  - >namit -b listfile (backup data listed in listfile on a fresh tape or append to used tape)
  - >namit -a # listfile (start backup from file # on a used tape. This will overwrite files with numbers equal and larger than #)
  - namit -bs listfile (run in simulation mode. Check errors information and size of the total data to be backed up before physical writing. This will generate three files after simulation: “HKIM20080318.long”, “HKIM20080318.short” and “HKIM20080318.size”. Print “HKIM20080318.short” and save it to tape storage case. A label should also be inserted to the tape.)
  - namit -b listfile (start writing. Default mode is compressed mode so that the total tape capacity is 320 GB)
- Usage of “mt”
  - >mt (usage info)
  - >mt -h (help info)
  - >mt -tell (the current block on the tape; block 0 for fresh tape; can also check if tape is ready or not: no response means “not ready”)
  - >mt -rewind (rewind the tape to block 0)
  - >mt -eod (wind to the end block of data on the tape; data is saved to blocks with each block 256KB)
- Notes:
  - Before backup, always check availability of the space on the used tape.
  - After backup, check the record if the tape is full after writing and if there are any files listed that have not been written because of no free space.

## For extract

- Use file “tape\_backup\_example” as a template:
  - mt asf 152 (absolutely go to file 152)
  - tar -f /dev/tape -xv -b 256 (extract file 152)
  - mt fsf 1 (forward one file to file 153)
  - tar -f /dev/tape -xv -b 256 (extract file 153)
  - mt bsf 1 (backward one file to file 152)
  - tar -f /dev/tape -xv -b 256 (extract file 152)
- Save the above file to the target directory where to extract.
- >chmod a+xx tape\_extract\_template (give permission)
- Go to the target directory
- >tape\_extract\_template
- If the file content printout along with tape is lost, one can get back the .long, .short and .size files by
  - >mt rewind
  - >tar -f /dev/tape -xv -b 256 (this three files are saved as the 0<sup>th</sup> file at the beginning of the tape)
- >mt eject (when done, eject the tape; can also do manually)