

UNIVERSITY OF QUEENSLAND

Prentice Computer Centre

NEWSLETTER

authorization: Director of the Centre

1 MIDITRAN

Notes for supervisors of classes using Mditran are available on request from the Centre. Student notes which are appropriate to a beginning class are available in bulk from the Centre at 20¢ a copy in lots of 20 or more. Individual copies will be available from the Centre at a cost of 50¢.

2 PLEASE

A new version of PLEASE has been installed on the system. This version includes a number of patches to correct DEC reported errors and includes a new technique for communicating with the operator. The messages to the user when PLEASE is used are different but hopefully self explanatory.

3 SPSS COURSES

The Centre has received some requests for an introductory course on the facilities and use of the "Statistical Package for Social Sciences" (SPSS) suite of programs.

We have found in the past that such requests are best satisfied by a department (or group of departments) internally organizing a course for its staff and post-graduate students at a time and place convenient to them. The Centre will be pleased to supply lecturers for such courses of 10 people (or more), provided reasonable notice is given.

4 NEW VERSION OF THE MOUNT/DISMOUNT/FILE PROGRAMS

It is proposed that new versions (26A) of the systems OMOUNT and UMOUNT will be installed in the near future.

It is our normal practice to implement new software by using it for a period on NEW: where it will receive use by a number of our active users. However, with an item of software such as the MOUNT system, this is not possible and having tested it as best it can be on a dedicated system, we have to implement it completely on STD:.

If errors are discovered, we ask your forbearance and will endeavour to correct them as quickly as possible.

This software item is the result of about a year's use and bug fixing by Digital and we are of the opinion that its implementation will benefit all users.

These new versions are primarily to fix reported errors but a number of new features are incorporated, as outlined below. Documentation is given in the manual 'Operating System Commands' which is available from the Centre, but since this new version has a number of additional facilities, these are outlined in brief below. Help files also exist.

The DISMOUNT command allows a user to return devices to the monitor pool of available resources and to remove a file structure from his search list. When this command is applied to non-file structures it is similar to the DEASSIGN command. When this command is applied to a file structure, it keeps track of logged-out quotas and, if necessary, enforces them, allows physical removal of disk packs (if there are no other users of the pack), and removes the file structure name from the job's search list.

The timesharing user may continue his job as soon as the DISMOUNT command is issued even if operator action is required. If the user wishes to wait for the operator to acknowledge the request before continuing with the job, he must specify the /WAIT switch (see below). A Batch job always waits until the DISMOUNT has been completed unless the /NOWAIT switch has been specified.

The UMOUNT program, which runs in the user's core area (with privileges), is invoked when the DISMOUNT command is issued. When operator action is required, the UMOUNT program writes a command file and notifies the OUMOUNT program (running on the operator's terminal) to perform the action.

Command Format

DISMOUNT dev:switches

dev:= any previously ASSIGNED or MOUNTed device or file structure name. The name may be a physical or logical name (except if the /REASSIGN switch is given, see below) or it may be NUL:. This argument is required except where otherwise indicated.

/switches = optional switches that can be used to further specify the requested action. Switches are processed in the order specified by the user. Therefore, if there are any conflicting switches in the command string, the last one scanned is used. (An exception to this is the use of both the /WAIT and /NOWAIT switches within a single command string. If both switches are so specified, a fatal error condition results). If the user specifies switches that do not apply to the device type, these switches are ignored (e.g. DISMOUNT DSKB:/REWIND). Only as few characters as are necessary to make the switch unique are required

<u>Switch</u>	<u>Meaning</u>
/CHECK	Check and list this job's pending DISMOUNT requests. This switch is intended to be used without other switches and without a device specification. If other switches or a device appear in the same command string with the /CHECK switch, they will be ignored.
/HELP	Types out a brief description of the DISMOUNT command and the list of switches that are valid with it. This switch is intended to be used without other switches and without a device specification. If other switches or a device appear in the command string with the /HELP switch, they will be ignored.
/PAUSE	Notify the user (to give him an opportunity to cancel the request) before queuing the DISMOUNT request to the operator.
/REWIND	Rewind the tape. This switch is ignored if the tape has already been rewound or unloaded.
/STAY	Do not reposition the device. This is ignored for disk.
/NOUNL	Synonymous with /STAY this switch is included for compatibility with previous versions and will be removed shortly.
/UNLOAD	Unload the tape, default condition for tapes.
/VID:text	A visual identification passed as a comment to the operator. The argument can be up to 50 characters in length and may be delimited by single or double quotation marks. (The quotation marks are included in the 50 characters).

- /WAIT** Wait for the operator to acknowledge the DISMOUNT request before allowing the user to continue his job. This switch is ignored if operator action is not required to complete the DISMOUNT (e.g. a DISMOUNT command for a file structure that others are using). This is the default for Batch jobs. Also, the /WAIT switch can be used without a device specification and without other switches. In this case, the job waits for all pending DISMOUNT requests to be completed. /WAIT is the default condition for Batch jobs.
- /NOWAIT** Do not wait for the operator to acknowledge DISMOUNT requests before allowing the user to continue the job. This is the default condition for timesharing jobs.

Characteristics

The DISMOUNT command:

Places the terminal in user mode.
Runs the UMount program, thereby destroying the user's core image.

No additional facilities are provided with the File command, except that the wild characters "*" and "?" may be used in the names of files and their extensions.

The MOUNT Command

Function

The MOUNT command allows the user to request assignment of a device via the operator. The MOUNT command gives the operator control over the assignment of devices on the system. When a user requests a device via this command, the operator has the option of selecting a specific unit (e.g. DTA5), or deferring the request, or cancelling the request completely (all units of this type are in use and the operator does not want to free one for this user).

When the MOUNT command is used to gain access to a file structure, it places the file structure name at the end of the job's search list, and waits for completion of operator action, if desired. Each file structure has an administrative file, QUOTA.SYS, which contains a list of quotas for all users allowed access to the structure. When the file structure is mounted, a UFD is created for the user if he has an entry in the file structure's QUOTA.SYS.

The MOUNT command runs the UMOUNT program in the user's core area. When operator intervention is required, UMOUNT queues a request to the OMOUNT program, OMOUNT examines these command files and interacts with the operator. UMOUNT waits for this completion of operator action unless the user has specified /NOWAIT or he types two CTRL/Cs. When the two CTRL/Cs are typed, the user does not receive a message of confirmation, but can later use the /CHECK switch to see if his request is still pending.

Command Format

MOUNT dev:logical-name/switches(drives)

dev: = one of the following: 1) a physical or generic device name (e.g. DTA3, MTA2); 2) a logical name previously associated with a physical device by either a MOUNT or an ASSIGN command; 3) a file structure name (one that is already mounted or one whose name appears on STRLST.SYS); 4) a spooled device name (e.g. LPT,PTP) assuming these devices are spooled; or 5) NUL:. This argument is required except when specifying one of the following switches: /CHECK, /HELP, or /WAIT. If the user issues a MOUNT command for one drive (e.g. MTA1) and the operator selects another drive for him, for example, MTA2, then the physical drive (MTA2) will be given the logical name of MTA1 so that Batch control files that reference MTA1 will work correctly.

logical-name = any SIXBIT name. The logical name may be a previously assigned name. If the request in which this name appeared has been processed, then MOUNT transfers the name from the previously assigned device to the device in this MOUNT command. It is recommended that the user supply a logical name with any non-disk MOUNT request since with the use of generic device names, the logical name is the only way for the user to know what physical device has been assigned by the operator.

switches = switches used to further describe the device to be mounted or the requested action. These switches are optional unless otherwise indicated in the individual switch descriptions. Switches are processed in the order specified by the user. Therefore, if there are any conflicting switches, the last one scanned is used. (An exception to this is the use of the /WAIT and /NOWAIT switches within a single command string. If both switches are specified together, a fatal error results). The switch names may be abbreviated to as few characters as are necessary to make the switch unique.

- /ACTIVE** Mount the disk in the user's active search list. This means that the structure becomes part of generic DSK: and is automatically searched. (Refer to the SETSRC command). /ACTIVE is the default condition.
- /PASSIVE** Mount the disk in the user's passive search list. The disk is not considered part of generic DSK: and is not automatically searched; rather, it is merely available for use. (Refer to the SETSRC command).
- /CHECK** Check and list this job's pending MOUNT requests. This switch is intended to be used by itself with the MOUNT command and if a device specification or other switches appear in the command string with the /CHECK switch, they are ignored.
- Note
- /C is a valid abbreviation of /CHECK. Therefore, if /CREATE is desired, at least "/CR" must be typed.
- /CREATE** Permit creation of files on this structure, default condition. Specification of this switch implies that /ACTIVE is in effect. (Refer to the SETSRC command).
- /NOCREATE** Prohibit creation of files, on this structure when DSK: is specified or implied. Files may be created on this structure if the user explicitly uses its name in the command line. Specification of this switch implies that /ACTIVE is in effect. (Refer to the SETSRC command).
- /HELP** Type out a brief description of the MOUNT command. This switch is intended to be used by itself with the MOUNT command and if a device specification or other switches appear in the command string with the /HELP switch, they are ignored.
- /MULTI** Allow multiple access, disk only, opposite of /SINGLE. /MULTI is the default condition.
- /PAUSE** Notify user (to give him an opportunity to cancel the request) before queuing the mount request to the operator.
- /REELID:name** A reel identification to be used when requesting a magnetic tape to be mounted. The argument, "name", is a 6-character ASCII string which is used to uniquely identify a reel of magnetic tape. This identification will be included in any system generated error or status reports about the drive while the reel is mounted. This switch is required when requesting magnetic tapes to be mounted.

- `/RONLY` Read only, same as `/WLOCK`.
- `/SINGLE` Prohibit access to this structure by other users. The user must be in the same project as the owner of the pack to be allowed single access. File protection is enforced for the user. This switch is applicable only to disk mount requests.
- `/VID:text` A visual identification, describing the volume (DECTape, card deck, etc.), to be passed to the operator. This switch is required in MOUNT requests for DECTapes and for all input-only devices.

The "text" can be up to 50 characters in length. For DECTapes the text is the DECTape number, e.g. `/VID:1326`. If the tape is not numbered or if the user does not wish to have the number checked, he must describe the tape by enclosing the "text" in single or double quotation marks. For example:

```
MOUNT DTA:/VID:"FRIDAY'S FAILSAFE FOR [13,2652]"
```

For input-only devices, the text should be a description of the input. For example:

```
MOUNT CDR:/VID:"PLEASE LOAD THE BLUE CARD-DECK:  
'COBOL SOURCE'"
```

Unquoted strings may contain only alphanumeric characters, periods and hyphens. In quoted strings, the quotation marks are included in the 50 characters.

- `/WAIT` Wait before continuing with the job when operator intervention is required. When this switch is used in a command with a device specification and other switches, the job will wait for the request to be completed. When this switch is used alone (`MOUNT/WAIT`), the job will not continue until all of the user's pending requests have been processed. This format is useful only if a `MOUNT dev:/NOWAIT` was done previously or if the user typed two `CTRL/Cs`. In either case, the message "Waiting...Type 2 `CTRL-Cs` to Exit" is typed to the user. `/WAIT` is the default condition.

Note

`/W` is a valid abbreviation of `/WAIT`.

- /NOWAIT** Don't wait if the operator intervention is needed to process the user's pending requests. This switch is particularly advantageous when running Batch jobs. In timesharing jobs the use of the /NOWAIT switch merely saves the user from typing two CTRL/Cs(+C+C).
- /WENABL** Permit writing for this job. This is the default condition for disk.
- /WLOCK** Prohibit writing for this job. This job may not write on this device or file structure and the monitor will not update BAT blocks or the access date. If /SINGLE is specified, the operator may set hardware writelock to ensure that nothing is written. In addition, the write-status of all tapes is verified so, the user must specify the correct setting. Hardware write-status is not checked for disk and a [1,2] job may write on a disk mounted with /WLOCK so care should be taken if the user is [1,2] and does not wish to write on the disk. /WLOCK is the default for magnetic tape and DECTape.
- /WRITE:NO** Same as /WLOCK.
- /WRITE:YES** Same as /WENABL.

Characteristics

The MOUNT command:

Places the terminal in user mode.
Runs the UMOUNT program, thereby destroying the user's core image.

Other than the changes to implement these improvements, a number of errors have been corrected and the MOUNT system now is more thorough in the checks it makes. For example, the write-status of all tapes will now be checked. Some changes will be noted and users should examine their use of UMOUNT commands to assess the effect these changes will have.

- The default write status of non-file structure devices (i.e. magnetic tapes) is now the more natural Write lock as opposed to the former write enabled status. However, the default status for file structures remain write enabled.

- When UMount is waiting for the device to be mounted, the user may exit by typing two ^Cs or may 'type ahead' commands. Formerly type ahead was 'gobbled up' by UMount. If the user does not wish to wait, the switch /NOWAIT may be used.
- The device is not left assigned to the user if he prematurely types ^C in a dismount as occurred previously.

5 CARD PUNCHING

CDPSPL is now operational. This will replace "PDPUN" which was used in conjunction with the GE-225 to produce punched cards from PDP-10 disk files. As from the 23 February 1976, CDPSPL will be the only means of obtaining punched cards from disk. When placing files on the card punch queue, file type must be specified. The queue will be cleared every Tuesday with output being available on the following Thursday or Friday. Any queries on CDPSPL should be directed to the Operations Manager. See previous newsletter (N-194) for abbreviated details.

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