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Expert Performance Reporter

MONTAPE/MONREPT UTILITY GUIDE

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Expert Performance Reporter

MONTAPE/MONREPT Utility Guide

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Contents

About This Book

Overview

This book describes the ExPR Tape Mount Monitor MONTAPE data collector utility and MONREPT reporting program.

Audience

This manual has been written as a reference guide for StorageTek customers who use MONTAPE and MONREPT to monitor and report on tape drive systems.

Organization

This book is organized as follows:

- Chapter 1, *Introduction to MONTAPE* provides an introduction to MONTAPE including what it measures. It also contains information regarding MONTAPE versus HSC.
- Chapter 2, *MONTAPE Control Statements* provides detailed descriptions of the control statements that are used by MONTAPE and MONREPT.
- Chapter 3, *MONTAPE Reports* provides report samples and field descriptions for the reports produced by the MONREPT reporting program.
- Appendix A, *Record Layouts* provides record layouts.

Related Documentation

- *Introduction to ExPR*
- *ExPR Installation, Configuration, and Administration Guide (ICAG)*
- *ExPR Mainframe User's Guide*
- *ExPR PC User's Guide*
- *ExPR Messages Guide*

StorageTek Support

StorageTek Software Support and the StorageTek Customer Resource Center (CRC) maintain information about known ExPR problems and updates. You can contact Software Support or access the CRC for the latest information available concerning product updates (i.e., documentation, PTFs, PUTs).

See the *Requesting Help from Software Support* guide (included in the ExPR package) for information about contacting StorageTek for technical support and for requesting changes to software products, or access StorageTek's CRC homepage at:

http://www.support.storagetek.com

Note: You must obtain a login ID and password in order to access the CRC. You can request a login ID and password from the CRC homepage.

Refer also to the *ExPR Messages Guide*, appendix B, *Reporting ExPR MVS Problems* and appendix C, *Reporting ExPR PC GUI Problems* for instructions about specific information you will need to provide when reporting a problem.

Chapter 1: Introduction to MONTAPE

Overview

MONTAPE is a monitor program that runs in the customer's system and monitors tape drive status. It should be run on every CPU doing tape mounts. MONTAPE determines tape drive status by looking at the allocated and mount pending bits in the UCB (unit control block). By design, MONTAPE looks at the tape UCBs every second and writes one record for each drive allocation (approximately one per mount).

One of the output files produced from the run is a data set named &USERID.MONREPT.PCTOOLS.FILE which can be down-loaded to a floppy and used with ASAP II to produce various graphs and charts for the analyzed data.

What is Measured by MONTAPE

MONTAPE looks at the mount pending bit (UCBMOUNT of UCBDMCT) to determine whether there is an outstanding mount. There are two situations when the mount pending bit is on, and yet it is physically impossible to mount a tape:

- The first situation is when a multi-volume input is being processed. The system issues a keep message for the current mount, and then immediately issues the mount for the next volume. The mount pending bit is on (but the rewind bit is off) and MONTAPE starts clocking the mount pending time even through the previous volume is still rewinding.

- The second situation is when a job step ends and the tape begins rewinding. However, before the tape unloads, the drive is allocated to another job step that requires a tape mount. Again, the mount pending bit is on, but the first tape is still in the drive. MONREPT detects the multi-volume input condition and flags the mount pending time with an asterisk (*); however, there is currently no way to tell how much of the mount pending time should be attributed to the previous tape's rewind time.

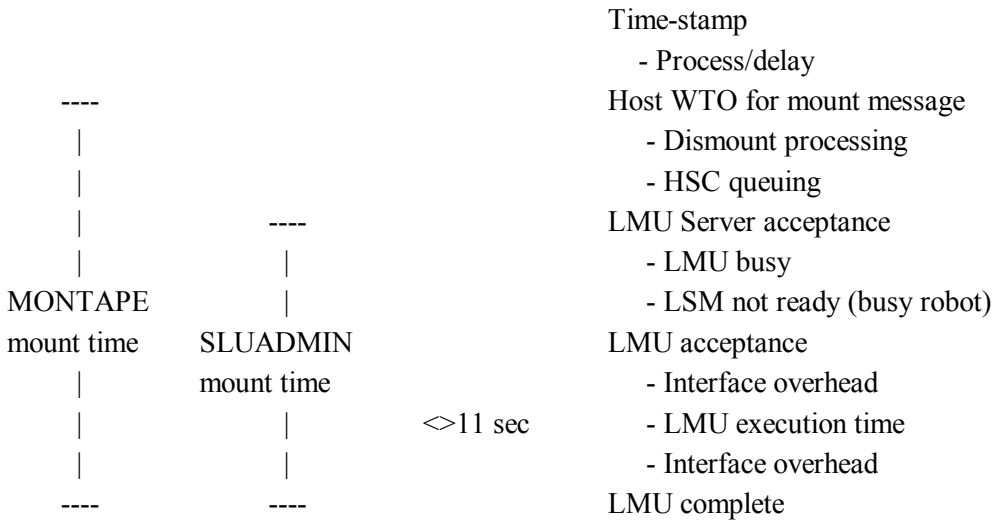
MONTAPE also looks at the CMB (channel measurement block) to obtain connect, pend, and disconnect times for each volume allocation. Additionally, program wait with outstanding tape I/O is collected.

MONTAPE versus HSC

MONTAPE and SLUADMIN report different mount pending times for the same mount. The mount pending time that MONTAPE collects corresponds to the difference in time that the mount message appears on the operator's console and the time that the drive becomes ready. The HSC, on the other hand, doesn't start clocking the mount pending time until the LMU actually receives the mount request. When multi-volume inputs occur, the dismount is handled completely before the mount request is issued to the LMU.

However, if the LMU is busy, mount requests to the LSM could be delayed. And, the busier the LSM is with mount/dismount or enter/eject activity, the longer the mount pending times are in both MONTAPE and the HSC Activities Report. You might get a closer comparison between MONTAPE and HSC if you compare MONTAPE's average mount pending time with the sum of the dismount average and mount average displayed on the HSC Activities Report.

Following is a time line that illustrates the difference in mount times reported by MONTAPE and SLUADMIN:



Chapter 2: MONTAPE Control Statements

Overview

The programs that run during MONTAPE and MONREPT execution accept parameters from a file having the SYSIN *ddname* with the assumption that their record length is 80 bytes and that their record format is fixed. Only columns 1 through 72 of a control statement are examined. Any characters in columns 73 through 80 are ignored.

Valid Keyword/Value Units

The control statement format consists of a series of keyword/value units separated by one or more spaces and/or commas. A keyword/value unit can begin on any column from 1 to 72, but must end on or before column 72. A keyword/value unit must be entirely contained on one card and cannot be continued onto the next card.

A keyword/value unit consists of a keyword, perhaps (depending on the keyword) followed by a value. When there is a value, it must be separated by at least one space and/or equal sign (=) from the preceding keyword. The characters which are recognized as delimiting the end of the value are the space and the right parenthesis, except in the special case of the CONFIG keyword.

For any keyword, column 73 is also recognized as delimiting the value.
An asterisk (*) in column 1 causes the entire control statement to be treated as comments. An asterisk followed by a blank causes the rest of the control statement to be treated as comments.

Control statements are defined for the MONTAPE program first, and then for the MONREPT reporting program.

Control Statement Descriptions

This section contains a detailed description of each control statement used by MONTAPE and MONREPT. The control statements are listed in alphabetical order.

ACSDRIVE=

{*device_address*[,*nnn*]}

Description

The ACSDRIVE control statement is used by MONREPT to flag the 3480 or 3490 type drives attached to an ACS as a different device type. The drives will be reported as 348R or 349R device types. You can use any number of ACSDRIVE control statements to define the environment. Any address not matching an ACSDRIVE will be treated as manual unless it matches an RMT*n*DRIVE address.

Parameter

nnn identifies the LSM to which the drives are attached. Reporting will be by LSM ID if this parameter is used.

DETAIL=

{N}
{A}
{M}
{*nn*}

Description

The DETAIL control statement is used by MONREPT to specify the type of detail to be reported.

Parameters

N, the default, requests no detail be produced.

A requests the reporting of all allocation activity. Each volume allocation produces a detail line.

M requests that only those allocations having mounts pending be reported.

nn requests that only those mount pending times of *nn* or more seconds be reported. One line is produced for each mount meeting the *nn* requirement.

DO3420ONLY

Description

The DO3420ONLY control statement is used by MONREPT to report 9 track tape activity only. If you specify neither DO3420ONLY nor DOCARTONLY, then all tape activity is reported.

DOCARTONLY

Description

The DOCARTONLY control statement is used by MONREPT to report cartridge tape activity only. If you specify neither DO3420ONLY nor DOCARTONLY, then all tape activity is reported.

EDATE=

{*yyddd*}
{*mm*/*dd*/*yy*}
{*mon*/*dd*/*yy*}
{*dd*/*mon*/*yy*}
{99365}

Description

The EDATE control statement is used by both MONTAPE and MONREPT. MONTAPE uses the statement to tell the monitor what date to stop monitoring. MONREPT uses the statement to select records or data sets that were created on or before this date.

In MONTAPE and MONREPT, the SDATE/STIME and EDATE/ETIME control statements are optional and should be used only if you want to report on a sub-set of the data collected by MONTAPE. By default, all records passed into the job stream are reported. This information is available as soon as the job begins.

Parameters

The values for *yy*, *mm*, and *dd* are numeric; *mon* is alphabetic (for example, “JAN” for January).

ETIME=

{*hh.mm*}
{*+hh.mm*}
{23.59.59.99}

Description

The ETIME control statement is used by both MONTAPE and MONREPT. MONTAPE uses the statement to tell the monitor what time to stop monitoring on the specified EDATE. MONREPT uses the statement to select records created on or before this time on the EDATE for reporting.

In MONTAPE and MONREPT, the SDATE/STIME and EDATE/ETIME control statements are optional and should be used only if you want to report on a sub-set of the data collected by MONTAPE. By default, all

records passed into the job stream are reported. This information is available as soon as the job begins.

Parameters

hh.mm is used by MONTAPE *and* MONREPT to specify the hour and minute to stop monitoring on the specified EDATE. (In MONTAPE, you can use this parameter without specifying an EDATE, which causes the monitor to end at the next occurrence of the specified time.)

+hh.mm is used by MONTAPE to specify the hours and minutes you want the monitor to run before stopping. You can specify a value of up to 99.00 hours.

EXCJOB=

{*job_name*}

Description

The EXCJOB control statement is used by MONREPT to exclude specific jobs from reporting.

EXCUNIT=

{*device_address*}

Description

The EXCUNIT control statement is used by MONREPT to exclude specific control unit addresses from reporting.

EXCVOL=

{*volser*}

Description

The EXCVOL control statement is used by MONREPT to exclude specific volumes from reporting.

HISTOGRAM=

{Y}
{N}
{*nn*}

Description

The HISTOGRAM control statement is used by MONREPT to control the printing of the histogram.

Parameters

Y requests a complete histogram for each INCR.

N, the default, suppresses the histogram.

nn is a number of tape drives. Only those histogram entries using *nn* or more tape drives are reported.

INCJOB=

{*job_name*}

Description

The INCJOB control statement is used by MONREPT to limit reporting to those jobs matching the supplied job name. Any number of INCJOB statements can be used.

INCR=

{*nn*}
{05}

Description

The INCR control statement is used by MONREPT to determine the reporting increment for the histogram. Values are accumulated as if a "snap-shot" was taken every *nn* minutes beginning at the SDATE/STIME value.

INCUNIT=

{*device_address*}

Description

The INCUNIT control statement is used by MONREPT to include only specific device addresses for reporting.

LINES=

{*nn*}
{55}

Description

The LINES control statement is used by MONREPT to specify the maximum number of detail lines to appear on a report page.

MANDRIVE=

{*device_address*}

Description

The MANDRIVE control statement is used by MONREPT to flag manual drive addresses. Any address not matching will be treated as an ACS address unless it matches an RMT*n*DRIVE address.

MAN*n*DRIVE

Description

The MAN*n*DRIVE control statement allows you to define manual addresses at remote locations.

Parameter

n is a number from 1 to 3.

MAXDR=

{*nn*}
{99}

Description

The MAXDR control statement is used by MONREPT to specify an arbitrary maximum number of open data sets to be used for histogram reporting. Each open data set (up to *nn* data sets) is represented on the histogram as an asterisk (*). Each asterisk represents the number of open data sets at that interval. If there are more open data sets than the specified *nn* value, all asterisks greater than *n* are changed to a dash (-) as an eye catcher value.

Parameter

nn is a maximum number of open data sets to be used for histogram reporting.

MODE=

{SIMULATE}

Description

The MODE control statement is used by MONREPT to request an estimation of the amount of time that could be saved if data sets were accessed on a TimberLine device.

MONRECNUM=nnn

Description

The MONRECNUM control statement specifies the SMF number to be used by MONTAPE/MONREPT when data is collected via the SMF archive files, instead of a sequential disk file.

Parameter

nnn is an unused user SMF number, usually between 200 and 255.

RMT*n*DRIVE

Description

The RMT*n*DRIVE control statement is used by MONREPT to define robotic addresses at remote locations.

Parameter

n is a number from 1 to 3.

SAVEPCT=

{*pp*%,*cc*%,*dd*%}
{60%,60%,60%}

Description

The SAVEPCT control statement tells MONREPT what percent of the current pend, connect, and disconnect times should be treated as saved when doing a TimberLine savings simulation.

Parameters

***pp*%** is the percent of current pend time to treat as saved.

***cc*%** is the percent of current connect time to treat as saved.

***dd*%** is the percent of current disconnect time to treat as saved.

Note: No savings is calculated for DISC time on remote drives.

Definitions

Pend time is the time accumulated because of device busy, control unit busy, or busy paths.

Connect time is the time to transfer the data blocks to the tape control unit.

Disconnect time is the unproductive time for tasks like rewind, buffer full on write, buffer empty on read, and channel adapter not being serviced. It can also be the result of transmitting data to a remote tape drive.

SDATE=

{*yyddd*}
{*mm*/*dd*/*yy*}
{*mon*/*dd*/*yy*}
{*dd*/*mon*/*yy*}
{85001}

Description

The SDATE control statement is used by MONREPT to select records for processing that were created on or after the specified date. The SDATE/STIME and EDATE/ETIME control statements are optional and need only be used if you want to report on a sub-set of the data collected by MONTAPE. By default, all records passed into the job stream are reported. This information is available as soon as the job begins.

Parameters

The values for *yy*, *mm*, and *dd* are numeric; the value for *mon* is alphabetic, for example, "JAN" for January.

SHIFT*n*=

{*hh.mm*,*hh.mm*[,PRINT][,NOPRINT]}

Description

The SHIFT*n* control statement is used by MONREPT to specify the starting and ending times for each shift. The end of one shift must match the beginning of the next shift. If you want the first two shifts only, specify the ending time of shift 2 as both the beginning and ending times of shift 3.

Parameters

n is the number of the shift: 1, 2, or 3.

hh.mm,hh.mm are the starting and ending times for each shift.

PRINT requests the printing of the DRIVEPLOT distribution reports for each individual shift.

NOPRINT suppresses the printing of the DRIVEPLOT distribution reports for each individual shift.

STIME=

{*hh.mm*}
{00.00}

Description

The STIME control statement is used by MONTAPE and MONREPT to select records for reporting that were created on or after this time on the SDATE. The SDATE/STIME and EDATE/ETIME control statements are optional and must be used only if you want to report on a sub-set of the data collected by MONTAPE. By default, all records passed into the job stream are reported. This information is available as soon as the job begins.

TITLE=

{*60_character_report_title*}
{S T O R A G E T E K}

Description

The title control statement is used by MONREPT to specify a 60-character title for all of its reports.

TIMESYNC=

{*+hh*}
{*-hh*}

Description

The TIMESYNC control statement is used to adjust the reported times of one or more host images if they are running in different time zones and sharing tape drives.

Chapter 3: MONREPT Reports

Overview

This chapter contains reoirt samples and field descriptions for the reports produced by the MONREPT reporting program.

Tape Drive Mount Distribution (MONR043)

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
MONR043                                TAPE DRIVE MOUNT DISTRIBUTION          VER 5.11                                PAGE 001
FIRST ALLOCATION = 95.312 AT 14.03.14              PUT THE INSTALLATION NAME HERE                MONITOR END = 95.313 AT 07.03.13
    MOUNT            NUM          ACCUM              NUM          ACCUM              TOTAL          ACCUM
   PENDING       SPECIFIC   SPECIFIC_____%          SCRATCH    SCRATCH_____%          MOUNTS     MOUNTS_____%
  >10 MIN               8          8    1.7               2          2    0.2              10         10    0.7
  >8-10 MIN             2         10    2.1                                                2         12    0.8
  >6-8 MIN              4         14    3.0               6          8    0.8              10         22    1.6
  >5-6 MIN              1         15    3.2               2         10    1.1               3         25    1.8
  >4-5 MIN                                                2         12    1.3               2         27    1.9
  >3-4 MIN                                                4         16    1.7               4         31    2.2
 151-180 SEC            1         16    3.5               4         20    2.2               5         36    2.6
 121-150 SEC            6         22    4.8               5         25    2.7              11         47    3.4
 106-120 SEC                                             4         29    3.2               4         51    3.7
  91-105 SEC            1         23    5.0              11         40    4.4              12         63    4.6
  76-90 SEC             3         26    5.6              10         50    5.5              13         76    5.6
  61-75 SEC             7         33    7.2              17         67    7.4              24        100    7.3
  46-60 SEC            18         51   11.1              58        125   13.9              76        176   12.9
  31-45 SEC            48         99   21.6             123        248   27.6             171        347   25.6
  16-30 SEC           170        269   58.8             379        627   69.8             549        896   66.1
  11-15 SEC           169        438   95.8             259        886   98.6             428      1,324   97.7
   6-10 SEC            16        454   99.3              11        897   99.8              27      1,351   99.7
   1- 5 SEC             3        457  100.0               1        898  100.0               4      1,355  100.0
```

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
MONR043                                TAPE DRIVE MOUNT DISTRIBUTION          VER 5.11                                PAGE 002
FIRST ALLOCATION = 95.312 AT 14.03.14              PUT THE INSTALLATION NAME HERE                MONITOR END = 95.313 AT 07.03.13
    MOUNT            NUM          ACCUM              NUM          ACCUM              TOTAL          ACCUM
   PENDING       SPECIFIC   SPECIFIC_____%          SCRATCH    SCRATCH_____%          MOUNTS     MOUNTS_____%
   1- 5 SEC             3          3    0.6               1          1    0.1               4          4    0.2
   6-10 SEC            16         19    4.1              11         12    1.3              27         31    2.2
  11-15 SEC           169        188   41.1             259        271   30.1             428        459   33.8
  16-30 SEC           170        358   78.3             379        650   72.3             549      1,008   74.3
  31-45 SEC            48        406   88.8             123        773   86.0             171      1,179   87.0
  46-60 SEC            18        424   92.7              58        831   92.5              76      1,255   92.6
  61-75 SEC             7        431   94.3              17        848   94.4              24      1,279   94.3
  76-90 SEC             3        434   94.9              10        858   95.5              13      1,292   95.3
  91-105 SEC            1        435   95.1              11        869   96.7              12      1,304   96.2
 106-120 SEC                                             4        873   97.2               4      1,308   96.5
 121-150 SEC            6        441   96.4               5        878   97.7              11      1,319   97.3
 151-180 SEC            1        442   96.7               4        882   98.2               5      1,324   97.7
  >3-4 MIN                                               4        886   98.6               4      1,328   98.0
  >4-5 MIN                                               2        888   98.8               2      1,330   98.1
  >5-6 MIN              1        443   96.9               2        890   99.1               3      1,333   98.3
  >6-8 MIN              4        447   97.8               6        896   99.7              10      1,343   99.1
  >8-10 MIN             2        449   98.2                                                2      1,345   99.2
  >10 MIN               8        457  100.0               2        898  100.0              10      1,355  100.0
```

The Tape Drive Mount Distribution report describes the mount pending times for all mounts regardless of device type.

MOUNT PENDING
The distribution range being reported.

NUM SPECIFIC
The number of specific mounts that were satisfied in this range of time values.

ACCUM SPECIFIC
The accumulated number of specific mounts that were satisfied in up to and including this range of time values.

ACCUM %
The accumulated percent of specific mounts that were satisfied in up to and including this range of time values.

NUM SCRATCH
The number of scratch mounts that were satisfied in this range of time values.

ACCUM SCRATCH
The accumulated number of scratch mounts that were satisfied in up to and including this range of time values.

ACCUM %
The accumulated percent of scratch mounts that were satisfied in up to and including this range of time values.

TOTAL MOUNTS
The total number of mounts that were satisfied in this range of time values.

ACCUM MOUNTS
The accumulated number of total mounts that were satisfied in up to and including this range of time values.

ACCUM %
The accumulated percent of total mounts that were satisfied in up to and including this range of time values.

Tape Drive Mount Statistics (MONR044)

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
 MONR044                                TAPE DRIVE MOUNT STATISTICS          VER 5.11                                  PAGE 002
349R_ ALLOC     ALLOC     MOUNT                                              M   UCB   DRIVE   MOUNT     PEND    CONN    DISC    WAIT  BUSY  SAVE
ADDR   DATE      TIME   REQUEST   SID JOBNAME  STEPNAME PROCSTEP VOLSER T    SIO   ALLOC   PEND     TIME    TIME    TIME    W/IO   PCT  W/TL
                                                                                  | - - - S   E    C   O    N   D   S - - - |         SECS
 2A3 95.313 00:29:28 00:32:06 MVSA TLTMS280 ACSLABEL          105310 V    16     188     28D    .00    .02    .00           2.0     4
 2A3 95.313 00:32:36 00:39:01 MVSA TLTMS280 ACSLABEL          133050 V    15     417     29D    .61    .02    .06          23.5     5
 2A3 95.313          00:40:20 MVSA BSMVIN00 BSMVIN00 S030     126263 P  4653     604      83  16.54  49.22  53.09    103  22.8     67
 2A3 95.313          00:54:22 MVSA MV1SIFT0 S020     SAS      126263 V  2661     103      19   3.85  46.13  12.26     62  74.1     42
 2A3   HOUR     4 MOUNTS     4 ALLOCATIONS   AVG ALLOC TIME=     328 SEC      MPEND=   2:39   AVG MPEND=    40 SAVED HMS= PARALLEL ?
 2A3 95.313          01:02:05 MVSA IDLP1A10 S010             115290 V    46     104      45     .07    .06   2.64      2   4.7     27
 2A3 95.313          01:03:49 MVSA IDLP1A10 S010             126433 V    20      44      40     .02    .39   1.62      2  51.0      5
 2A3 95.313 01:04:39 01:04:40 MVSA IDLP1A40 IDLP1A40 S020    126816 V   549      70      44    1.43   9.67   9.28     20  81.5     20
 2A3 95.313          01:06:22 MVSA IDSP1D00 IDSP1D00 STEP010 126816 V  1292      47      19    1.47  10.46  12.00     23  85.5     21
 2A3 95.313 01:07:51 01:08:09 MVSA MKIBKP00 BACKUP   DMS      128112 P   346      80     23D   3.86   3.12  14.10     21  54.0     15
 2A3 95.313          01:10:45 MVSA IDJP1A20 S010             105045 V    56      80      41     .01    .05   1.44      1   3.8     29
 2A3 95.313 01:12:05 01:12:06 MVSA IDJP1A20 S010             105256 V    60     103      63     .05  26.92   2.03     29  74.4     26
 2A3 95.313 01:13:48 01:13:49 MVSA IDJP1A20 S010             122837 V    66      97      53     .02  30.48   1.64     32  74.7     27
 2A3 95.313 01:15:25 01:15:26 MVSA IDJP1A20 S010             131582 V    56     100      65     .02  23.69   1.84     25  75.2     23
 2A3 95.313 01:17:05 01:17:06 MVSA IDJP1A20 S010             127388 V    59      77      40     .03  25.89   1.71     27  76.8     23
 2A3 95.313          01:21:54 MVSA MV6BKP10 BKUP900  MICS     129726 P   317     194      92    5.43   1.31  22.31     27  28.4     19
 2A3 95.313          01:45:29 MVSA JZWCOA00 JZWCOA00 S030     123139 P    50      43      22    4.02    .08  13.14     16  82.2     12
 2A3 95.313          01:56:29 MVSA MKNPB330 MKNPB330 S050     125168 P    68      48      20    4.20    .21  14.76     19  68.5     15
 2A3 95.313          01:57:39 MVSA RMSIRSM0 RMSIRSM0 S010     102818 P   453     217      42     .52  50.62  21.43     64  41.4     41
 2A3   HOUR    14 MOUNTS    14 ALLOCATIONS   AVG ALLOC TIME=      93 SEC      MPEND=  10:09   AVG MPEND=    44 SAVED HMS= PARALLEL ?
 2A3 95.313          02:01:18 MVSA RMSIRSM0 RMSIRSM0 S020     126352 P   297     447      84    3.13 163.74 106.65    273  75.3    174
 2A3 95.313          02:09:23 MVSA RMTIRSM0 RMTIRSM0 S010     120309 P   163     247      28    4.35  73.19  97.55    172  79.9    106
 2A3 95.313 02:14:33 02:14:51 MVSA FFPBKP30 S010     DMS      120911 P  1514     305     19D   1.96  15.62  49.14     66  24.9     42
 2A3 95.313          02:30:16 MVSA MKRPR810 MKRPR810 S010     123819 P   366     601     357     .50 204.24  16.28    216  90.5    131
 2A3 95.313 02:41:38 02:41:43 MVSA FFPBKP40 S010     DMS      113276 P 14015     408      54D 37.86 146.22  89.67    236  78.4    150
 2A3 95.313 02:50:24 02:50:32 MVSA RMJGL680 S020     DMS      131772 P  5996     162      21D 17.55  62.57  30.86    106  83.4     69
 2A3 95.313          02:58:42 MVSA MKTORDX0 MKTORDX0 S050     105382 P    53      67      24     .18  16.69  10.20     27  62.9     19
 2A3   HOUR     7 MOUNTS     7 ALLOCATIONS   AVG ALLOC TIME=     320 SEC      MPEND=   9:47   AVG MPEND=    84 SAVED HMS= PARALLEL ?
 2A3 95.313 03:00:42 03:00:49 MVSA FFPBKP50 S010     DMS      111660 P 28211     411      20D   5.46 290.78  16.04    272  81.3    165
 2A3 95.313          03:13:21 MVSA DEODSAV0 S020             125718 V    39      52      19     .03    .04   1.53      1   4.8     21
 2A3 95.313          03:16:21 MVSA IDSP3D00 IDSP3D00 S010     110756 V  1159      40      20    2.31   9.17   4.97     16  82.3     16
 2A3 95.313 03:26:21 03:26:22 MVSA MKRPR810 MKRPR810 S030     113307 P   397     657     434     .20 199.32   9.73    203  94.2    124
 2A3 95.313 03:37:19          MVSA MKRPR810 MKRPR810 S040     113307 V 11193     419           56.77 211.62 125.92    394  94.1    252
 2A3 95.313 03:44:20          MVSA MKRPR810 MKRPR810 S050             V     3       6            .00    .00    .00           .0      0
 2A3 95.313 03:47:09 03:47:30 MVSA RMERPT10 RMERPT10 S020     113707 P  7685     469      21D  25.54 174.14  58.80    248  60.5    155
 2A3 95.313 03:55:00          MVSA RMERPT10 RMERPT10 S030     113707 V   201     713            .01    .06   1.53      1   .2    175
 2A3   HOUR     5 MOUNTS     8 ALLOCATIONS   AVG ALLOC TIME=     346 SEC      MPEND=   8:34   AVG MPEND=   103 SAVED HMS= PARALLEL ?
 2A3 95.313 04:06:54          MVSA RMERPT10 RMERPT10 S040             V     3     413            .00    .00    .00           .0      0
 2A3 95.313 04:13:48          MVSA RMERPT10 RMERPT10 S050             V     3     322            .00    .00    .00           .0      0
 2A3 95.313 04:19:12 04:26:05 MVSA RMERPT10 RMERPT10 S060     123225 P   534     618     18D    .22 163.90  11.77    173  94.0    106
     BLANK ALLOCATION TIME MEANS SAME AS MOUNT REQUEST TIME.   A 'D' AFTER MPEND INDICATES DEFERRED MOUNTING WAS SEEN.
     MT=MOUNT TYPE. V=VOLSER MOUNT REQUEST, P=PRIVATE (SCRATCH) MOUNT REQUEST.  VALUES ARE REPORTED IN SECONDS (OR HH:MM:SS).
     AN * AFTER MOUNT PENDING INDICATES THAT THE PREVIOUS VOLUMES REWIND TIME IS INCLUDED IN THIS VOLUMES MOUNT PENDING TIME.
  ***NOTE: SAVE W/TL BASED ON ASSUMED % REDUCTION OF PEND, CONN, AND DISC TIMES.  VALUES USED FOR THIS RUN WERE (80%,60%,60%).
  THE OVER-ALL HARDWARE SAVINGS PERCENT IS APPLIED TO THE WAIT W/IO VALUE TO GET THE ACTUAL JOB ELAPSED TIME SAVINGS.
```

The Tape Drive Mount Statistics report is the detail report of mount activity. It is in user-requested sequence and shows all of the detail records that met the requirements specified with the DETAIL control statement.

CUA ADDR
The device address where the allocation occurred.

ALLOC DATE
The date on which allocation occurred.

ALLOC TIME
The time at which allocation occurred. This field will be blank if it is equal to the mount request time. A difference in the values between allocation time and mount request time could indicate DEFER mounting or allocation recovery where “HOLD” was specified.

MOUNT REQUEST
The time at which the mount message was issued.

Note: The word “PARTIAL” on a detail line means that the monitor either started or stopped during this allocation an did not record the entire volume allocation.

DEVT
The device type of the assigned unit. Current values could include 3420, 3480, 348S (3480 in ACL mode), 348R (3480 attached to ACS), 3490, 349S (3490 in ACL mode), and 349R (3490 attached to ACS). The same device address could appear in both 3480/348S or 3490/349S indicating that the drive was used in both ACL mode and manual mode.

JOBNAME
The jobname of the job that caused the allocation.

STEPNAME
The stepname within the job that caused the allocation.

PROCSTEP
The stepname that executed a PROC within the job that caused the allocation.

VOLSER
The volume serial number that was requested for a specific mount or the serial number of the volume that was mounted as the result of a scratch request.

M T
Mount type. “V” is a specific volume request and “P” is a private or scratch mount request.

UCB SIO
The SIO (Start IO) count extracted from the UCB indicating the number of SIOs that were done to the volume during the monitor interval.

DRIVE ALLOC
The number of seconds that the volume was allocated to this drive during the monitor interval.

MOUNT PEND
The number of seconds that the mount request was outstanding.

PEND TIME
Device pend time in seconds as obtained from the CMB. Pend time represents time waiting to connect to control unit or channel.

CONN TIME
Device connect time in seconds as obtained from the Channel Measurement Block (CMB). Connect time represents data transfer time.

DISC TIME

Device disconnect time in seconds as obtained from the CMB. Disconnect time represents tape positioning operations like FSF (forward space file) or search. It could also be from transmitting data to a remote drive.

IDLE TIME

A calculated value (reported only if MODE=SIMULATE was not used) representing the number of seconds that the tape drive was not being mounted or attempting to transfer data.

WAIT W/IO

The number of seconds that the program was in a wait state while there was an outstanding I/O on the tape drive.

BUSY PCT

Calculated percent of time that the device was trying to transfer data.

BUSY = (PEND + CONN + DISC) / (ALLOC - MPEND)

SAVE W/TL

Calculated number of seconds that could be saved if processed on a TimberLine device. The SAVEPCT values are applied to PEND, CONN, and DISC. The total drive savings percent is then applied to the WAIT W/IO value to determine potential program savings. If the program is not waiting for tape I/O, a faster drive will not make the job run any faster.

Note: The word "PARALLEL" on a total line when using MODE=SIMULATE means that the sum of all tape PEND, CONN, and DISC for the step is greater than the step's elapsed time. This could only happen if there was parallel processing. Therefore, we can not accurately calculate saving with TimberLine.

Tape Drive Allocation without Mount (MONR046)

```
(C) COPYRIGHT     * * * * *    S T O R A G E    T E C H N O L O G Y    C O R P O R A T I O N    * * * * *
 MONR046                                TAPE DRIVE ALLOCATION WITHOUT MOUNT   VER 5.11                                  PAGE 001
349R_ ALLOC    ALLOC    MOUNT                                                M   UCB   DRIVE   MOUNT    PEND    CONN    DISC   WAIT  BUSY  SAVE
ADDR   DATE     TIME  REQUEST  SID JOBNAME  STEPNAME PROCSTEP VOLSER T   SIO   ALLOC   PEND    TIME    TIME    TIME   W/IO   PCT  W/TL
                                                                                | - - - S   E   C   O   N   D   S - - - |        SECS
 2A3 95.313 03:44:20          MVSA MKRPR810 MKRPR810 S050            V     3       6             .00   .00   .00            .0     0
 2A3 95.313 04:06:54          MVSA RMERPT10 RMERPT10 S040            V     3     413             .00   .00   .00            .0     0
 2A3 95.313 04:13:48          MVSA RMERPT10 RMERPT10 S050            V     3     322             .00   .00   .00            .0     0
 2A5 95.313 03:07:20          MVSA MKRPR810 MKRPR810 S020            P     3     712             .00   .00   .00            .0     0
 2A8 95.313 04:41:16          MVSA RMERPT10 RMERPT10 S090            V     3     367             .00   .00   .00            .0     0
 2A9 95.313 03:26:21          MVSA MKRPR810 MKRPR810 S030            P     3     657             .00   .00   .00            .0     0
 2A9 95.313 03:44:20          MVSA MKRPR810 MKRPR810 S050            V     3       6             .00   .00   .00            .0     0
 2AA 95.313 02:30:16          MVSA MKRPR810 MKRPR810 S010            P     3     601             .00   .00   .00            .0     0
 2AA 95.313 02:50:24          MVSA DEODSAV0 S020             125718 V     3     580             .00   .00   .00            .0     0
 2AA 95.313 03:44:20          MVSA MKRPR810 MKRPR810 S050            V     3       6             .00   .00   .00            .0     0
 2AA 95.313 04:29:31          MVSA RMERPT10 RMERPT10 S070            V     3     323             .00   .00   .00            .0     0
 2B0 95.312 19:32:46          MVSA OVARCHD0 S240     DMS             P     3     216             .00   .00   .00            .0     0
 2B3 95.312 17:38:13          MVSA MAINT14T S010     ARCHIVE         P     3       7             .00   .00   .00            .0     0
 2B3 95.312 17:59:41          MVSA OVARCHD0 S130     DMS             P     3     164             .00   .00   .00            .0     0
 2B3 95.312 18:02:32          MVSA OVARCHD0 S140     DMS             P     3     219             .00   .00   .00            .0     0
 2B3 95.312 23:34:53          MVSA IDJP2D10 S030                     V     4       1             .00   .00   .00            .0     0
 2B6 95.312 14:51:08          MVSA T620250I PYADJ000 S020     124453 V     4      23             .00   .00   .00            .0     0
 2B6 95.312 19:24:37          MVSA OVARCHD0 S220     DMS             P     3     247             .00   .00   .00            .0     0
 2B7 95.312 15:42:44          MVSA SSNCM330 DMS      DMS             P     3       9             .00   .00   .00            .0     0
 2B7 95.312 18:00:38          MVSA RMNRPT00 RMN95100 S000            V     2       1             .00   .00   .00            .0     0
 2B7 95.312 21:08:40          MVSA IDLT1D10 S020                     V     2       1             .00   .00   .00            .0     0
 2B7 95.312 22:23:50          MVSA RMETXM20 RMETXM20 S999            V     3       6             .00   .00   .00            .0     0
 2B7 95.312 22:40:07          MVSA TADLY500 TADLY500 S998     127836 V     2       1             .00   .00   .00            .0     0
 2B8 95.312 14:06:37          MVSA SSNCM370 DMS      DMS             P     3      12             .00   .00   .00            .0     0
 2B8 95.312 17:31:24          MVSA OVARCHD0 S020     DMS             P     3     152             .00   .00   .00            .0     0
 2B8 95.312 17:34:01          MVSA OVARCHD0 S030     DMS             P     3     126             .00   .00   .00            .0     0
 2B9 95.312 19:28:49          MVSA OVARCHD0 S230     DMS             P     3     232             .00   .00   .00            .0     0
 2BA 95.312 19:36:28          MVSA OVARCHD0 S250     DMS             P     3     168             .00   .00   .00            .0     0
 2BA 95.312 19:47:55          MVSA FF204010 FF204010 S140            V     3      25             .00   .00   .00            .0     0
 2BB 95.312 18:48:41          MVSA RMECXTR0 RMECXTR0 S050            V     3       1             .00   .00   .00            .0     0
 2BB 95.312 22:23:50          MVSA RMETXM20 RMETXM20 S999            V     3       6             .00   .00   .00            .0     0
 2D6 95.312 20:01:35          MVSA CZBKPDB0 DMS      DMS             P     2     184             .00   .00   .00            .0     0
 2DA 95.312 15:42:44          MVSA SSNCM330 DMS      DMS             P     2       9             .00   .00   .00            .0     0
 2DB 95.312 14:06:37          MVSA SSNCM370 DMS      DMS             P     2      12             .00   .00   .00            .0     0
 2E0 95.312 17:43:33          MVSA RMNRPT00 RMN95100 S000            V     3       1             .00   .00   .00            .0     0
 2E0 95.313 00:11:10          MVSA RMIEXT00 RMIEXT00 S020            V     3      41             .00   .00   .00            .0     0
 2E1 95.312 17:40:10          MVSA OVARCHD0 S050     DMS             P     3     125             .00   .00   .00            .0     0
 2E1 95.312 17:53:51          MVSA OVARCHD0 S100     DMS             P     3     105             .00   .00   .00            .0     0
 2E1 95.312 17:55:41          MVSA OVARCHD0 S110     DMS             P     3     118             .00   .00   .00            .0     0
 2E1 95.312 17:57:43          MVSA OVARCHD0 S120     DMS             P     3     113             .00   .00   .00            .0     0
 2E1 95.312 18:06:17          MVSA OVARCHD0 S150     DMS             P     3     217             .00   .00   .00            .0     0
 2E1 95.312 20:01:35          MVSA CZBKPDB0 DMS      DMS             P     3     184             .00   .00   .00            .0     0
 2E2 95.312 17:52:08          MVSA OVARCHD0 S090     DMS             P     3      99             .00   .00   .00            .0     0
 2E2 95.312 18:48:41          MVSA RMECXTR0 RMECXTR0 S050            V     3       1             .00   .00   .00            .0     0
 2E5 95.312 22:39:12          MVSA IDJQ3D10 S020                     V     2       1             .00   .00   .00            .0     0
```

The Tape Drive Allocation without Mount report is the detail report of mount activity that was never opened by the application program. It is in sequence by device type and shows all of the detail records that did not have mount pending. The report is only produced if DETAIL=M is requested since these records would already be in the report produced by DETAIL=A.

The field descriptions for the Tape Drive Allocation without Mount report are the same as those for the Tape Drive Mount Statistics report, and are listed on the previous two pages.

Tape Drive Allocation Summary of MONR044 Detail (MONR047)

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
 MONR047                                TAPE DRIVE ALLOCATION SUMMARY OF MONR044 DETAIL        VER 5.11                PAGE 002
 FIRST ALLOCATION = 95.312 AT 14.03.14              PUT THE INSTALLATION NAME HERE               MONITOR END = 95.313 AT 07.03.13
349R       NUM    %TIME_ALLOC            1    1    2    2    3    3    4    4    5    5    6    6    7    7    8    8    9    9    0
ADDR       ALC   IN_RPT_INTVL    1...5....0....5....0....5....0....5....0....5....0....5....0....5....0....5....0....5....0....5....0
 2A3        47        20.6       AAAAAAAAAAAAAAAAAAAA
 2A5        26        17.8       AAAAAAAAAAAAAAAAA
 2A6        17        13.5       AAAAAAAAAAAAA
 2A7        24        14.3       AAAAAAAAAAAAA
 2A8        30        23.4       AAAAAAAAAAAAAAAAAAAAA
 2A9        31        22.8       AAAAAAAAAAAAAAAAAAAAA
 2AA        33        23.7       AAAAAAAAAAAAAAAAAAAAA
 2AB        18        26.0       AAAAAAAAAAAAAAAAAAAAAAAAA
 2B0        42        19.4       AAAAAAAAAAAAAAAAAA
 2B1        37        19.9       AAAAAAAAAAAAAAAAAA
 2B3        48        27.1       AAAAAAAAAAAAAAAAAAAAAAAAA
 2B4        53        39.1       AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 2B5        60        37.8       AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 2B6        62        34.4       AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 2B7        86        25.9       AAAAAAAAAAAAAAAAAAAAAAAAA
 2B8        31        17.9       AAAAAAAAAAAAAAAAA
 2B9        35        19.9       AAAAAAAAAAAAAAAAAA
 2BA        36        29.9       AAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 2BB        30        23.5       AAAAAAAAAAAAAAAAAAAAAAAAA
```

The Tape Drive Allocation Summary of MONR044 Detail report shows the percent of time during the monitored interval that the drive was allocated.

DEVT ADDR

The column heading will have the DEVT value replaced by the device type that is being reported on this page (i.e., 3420, 3480, 348R, 348S, 3490, 349S, 349R, or LSM ID). The data in this column will be the address of the device being reported.

NUM ALC

The number of different allocations that were seen on this device.

%TIME_ALLOC IN_RPT_INTVL

The percent of the reporting interval time that the drive was allocated.

1...5..

The bar graph representation of the percent of the interval time that the drive was allocated.

Tape Drive Mount Summary (MONR045)

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
 MONR045                                TAPE DRIVE MOUNT SUMMARY              VER 5.11                                PAGE 002
                  08.00  -   16.00            16.00  -   00.00            00.00  -   08.00            00.00  -   24.00
349R  MOUNT      NUM   AVG    NUM   AVG       NUM   AVG    NUM   AVG       NUM   AVG    NUM   AVG       NUM   AVG    NUM   AVG  MOUNT
ADDR  DATE/HR SPCFC  MPND SCRTCH  MPND     SPCFC  MPND SCRTCH  MPND     SPCFC  MPND SCRTCH  MPND     SPCFC  MPND SCRTCH  MPND   DATE
 2A3 95.313/00                                                            3    25      1    83         3    25      1    83 95.313
 2A3 95.313/01                                                            9    46      5    40         9    46      5    40 95.313
 2A3 95.313/02                                                                 7    84                                 7    84 95.313
 2A3 95.313/03                                                            2    20      3   158         2    20      3   158 95.313
 2A3 95.313/04                                                                 2    20                                 2    20 95.313
 2A3 95.313/05                                                                 5    44                                 5    44 95.313
 2A3 95.313/06                                                                 2    20                                 2    20 95.313
 2A3  TOTAL                                                              14    38     25    66        14    38     25    66 TOTAL
 2A5 95.313/00                                                                 1    19                                 1    19 95.313
 2A5 95.313/01                                                                 2    42                                 2    42 95.313
 2A5 95.313/02                                                            6    49      4    27         6    49      4    27 95.313
 2A5 95.313/03                                                                 3    33                                 3    33 95.313
 2A5 95.313/04                                                                 3    30                                 3    30 95.313
 2A5 95.313/05                                                                 2    59                                 2    59 95.313
 2A5 95.313/06                                                            3    28                      3    28              95.313
 2A5  TOTAL                                                               9    42     15    34         9    42     15    34 TOTAL
 2A6 95.313/00                                                                 1    21                                 1    21 95.313
 2A6 95.313/01                                                            1    22                      1    22              95.313
 2A6 95.313/02                                                            3    30      1    30         3    30      1    30 95.313
 2A6 95.313/03                                                                 4    38                                 4    38 95.313
 2A6 95.313/04                                                                 3    32                                 3    32 95.313
 2A6 95.313/05                                                            3    39      1    30         3    39      1    30 95.313
 2A6  TOTAL                                                               7    33     10    33         7    33     10    33 TOTAL
 2A7 95.313/00                                                            3    28      2    47         3    28      2    47 95.313
 2A7 95.313/01                                                            1  1218                      1  1218              95.313
 2A7 95.313/02                                                                 1    23                                 1    23 95.313
 2A7 95.313/03                                                                 2    65                                 2    65 95.313
 2A7 95.313/04                                                                 3    44                                 3    44 95.313
 2A7 95.313/05                                                            8    33                      8    33              95.313
 2A7 95.313/06                                                            3    24      1    33         3    24      1    33 95.313
 2A7  TOTAL                                                              15   109      9    46        15   109      9    46 TOTAL
 2A8 95.313/00                                                                 1    22                                 1    22 95.313
 2A8 95.313/01                                                                 2    53                                 2    53 95.313
 2A8 95.313/02                                                                 4    65                                 4    65 95.313
 2A8 95.313/03                                                                 5    30                                 5    30 95.313
 2A8 95.313/04                                                                 3    33                                 3    33 95.313
 2A8 95.313/05                                                                 6    44                                 6    44 95.313
 2A8 95.313/06                                                                 3    24                                 3    24 95.313
 2A8  TOTAL                                                                   24    40                                24    40 TOTAL
 2A9 95.313/00                                                            1   463      2    40         1   463      2    40 95.313
 2A9 95.313/01                                                                 2    40                                 2    40 95.313
 2A9 95.313/02                                                                 4    38                                 4    38 95.313
 2A9 95.313/03                                                            3    27      2    28         3    27      2    28 95.313
```

The Tape Drive Mount Summary report shows the number of specific and scratch mounts by shift, and the average mount pending for each drive address.

DEVT ADDR

The column heading will have the DEVT value replaced by the device type that is being reported on this page (i.e., 3420, 3480, 348R, 348S, 3490, 349S, 349R, or LSM ID). The data in this column will be the address of the device being reported.

MOUNT DATE

The date on which the reported activity occurred.

HH.MM - HH.MM

The shift start and end times as defined in the SHIFT*n* control statement or the default times.

NUM SPCFC

The number of specific mounts that occurred for this drive/date.

AVG MPND
The average mount pending for this drive/date/category.

NUM SCRTCH
The number of scratch mounts that occurred for this drive/date.

AVG MPND
The average mount pending for this drive/date/category.

Mount Requests by Hour of the Day

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
 HRLYRPT                              ROBOTIC MOUNT REQUESTS BY HOUR OF DAY         VER 5.06                                  PAGE 001
   MOUNT                                       PUT THE INSTALLATION NAME HERE                                                   MOUNT
    DATE   00  01  02  03  04  05  06  07  08  09  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24 TOTAL      MAX      DAY
 08NOV95                                                                 21  36  16  68  50  61  35  80  43  30       440     80  WEDNES
  95.312                                                                 5%  8%  4% 15% 11% 14%  8% 18% 10%  7%                  HRLY%
   INPUT                                                                 10  31   8  28   6  14  18  16  12  14     157     31   HOUR 15
  OUTPUT                                                                 11   5   8  40  44  47  17  64  31  16     283     64   HOUR 21
 09NOV95     41  33  40  33  30  42  16   4                                                                          239     42  THURSD
  95.313    17% 14% 17% 14% 13% 18%  7%  2%                                                                                   HRLY%
   INPUT     17  15  10   8      11   6   4                                                                           71     17   HOUR 00
  OUTPUT     24  18  30  25  30  31  10                                                                             168     31   HOUR 05

(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
 HRLYRPT                              ROBOTIC MOUNT REQUESTS BY HOUR OF DAY         VER 5.06                                  PAGE 002
   MOUNT                                       PUT THE INSTALLATION NAME HERE                                                   MOUNT
    DATE   00  01  02  03  04  05  06  07  08  09  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24 TOTAL      MAX      DAY
 WEEKDAY                                                                                                                      SATURD
  TOTALS                                                                                                                      HRLY%
   INPUT                                                                                                                     HOUR
  OUTPUT                                                                                                                     HOUR
 WEEKDAY                                                                                                                      SUNDAY
  TOTALS                                                                                                                      HRLY%
   INPUT                                                                                                                     HOUR
  OUTPUT                                                                                                                     HOUR
 WEEKDAY                                                                                                                      MONDAY
  TOTALS                                                                                                                      HRLY%
   INPUT                                                                                                                     HOUR
  OUTPUT                                                                                                                     HOUR
 WEEKDAY                                                                                                                      TUESDA
  TOTALS                                                                                                                      HRLY%
   INPUT                                                                                                                     HOUR
  OUTPUT                                                                                                                     HOUR
 WEEKDAY                                                                 21  36  16  68  50  61  35  80  43  30       440     80  WEDNES
  TOTALS                                                                 5%  8%  4% 15% 11% 14%  8% 18% 10%  7%                  HRLY%
   INPUT                                                                 10  31   8  28   6  14  18  16  12  14     157     31   HOUR 15
  OUTPUT                                                                 11   5   8  40  44  47  17  64  31  16     283     64   HOUR 21
 WEEKDAY     41  33  40  33  30  42  16   4                                                                          239     42  THURSD
  TOTALS    17% 14% 17% 14% 13% 18%  7%  2%                                                                                   HRLY%
   INPUT     17  15  10   8      11   6   4                                                                           71     17   HOUR 00
  OUTPUT     24  18  30  25  30  31  10                                                                             168     31   HOUR 05
 WEEKDAY                                                                                                                      FRIDAY
  TOTALS                                                                                                                      HRLY%
   INPUT                                                                                                                     HOUR
  OUTPUT                                                                                                                     HOUR
 WEEKDAY     41  33  40  33  30  42  16   4                          21  36  16  68  50  61  35  80  43  30       679     80  TOTAL
  TOTALS     6%  5%  6%  5%  4%  6%  2%  1%                          3%  5%  2% 10%  7%  9%  5% 12%  6%  4%                  HRLY%
   INPUT     17  15  10   8      11   6   4                          10  31   8  28   6  14  18  16  12  14     228     31   HOUR 15
  OUTPUT     24  18  30  25  30  31  10                             11   5   8  40  44  47  17  64  31  16     451     64   HOUR 21

(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
 HRLYRPT                              DISTRIBUTION OF MOUNTS BY HOUR OF DAY         VER 5.06                                  PAGE 003
 MOUNT RATE      NUMBER OF HOURS
      RANGE    WITH THIS MOUNT RATE      ACCUM_%
     0-   0             30                62.5%
     1-  25              4                70.8%
    26-  50             11                93.7%
    51-  75              2                97.9%
    76- 100              1               100.0%
```

```
(C) COPYRIGHT     * * * * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * * * * *
HRLYRPT                          ROBOTIC MOUNT REQUESTS BY HOUR OF DAY         VER 5.06                                PAGE 004
  MOUNT                                    PUT THE INSTALLATION NAME HERE                                              MOUNT
   DATE   00  01  02  03  04  05  06  07  08  09  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24 TOTAL      MAX     DAY
WEEKDAY                                                                                                                SATURD
AVERAGE                                                                                                                HRLY%
  INPUT                                                                                                               HOUR
 OUTPUT                                                                                                               HOUR
WEEKDAY                                                                                                                SUNDAY
AVERAGE                                                                                                                HRLY%
  INPUT                                                                                                               HOUR
 OUTPUT                                                                                                               HOUR
WEEKDAY                                                                                                                MONDAY
AVERAGE                                                                                                                HRLY%
  INPUT                                                                                                               HOUR
 OUTPUT                                                                                                               HOUR
WEEKDAY                                                                                                                TUESDA
AVERAGE                                                                                                                HRLY%
  INPUT                                                                                                               HOUR
 OUTPUT                                                                                                               HOUR
WEEKDAY                                                          21  36  16  68  50  61  35  80  43  30       440     80  WEDNES
AVERAGE                                                          5%  8%  4% 15% 11% 14%  8% 18% 10%  7%                     HRLY%
  INPUT                                                          10  31   8  28   6  14  18  16  12  14      157     31   HOUR 15
 OUTPUT                                                          11   5   8  40  44  47  17  64  31  16      283     64   HOUR 21
WEEKDAY     41  33  40  33  30  42  16   4                                                                       239     42  THURSD
AVERAGE    17% 14% 17% 14% 13% 18%  7%  2%                                                                             HRLY%
  INPUT     17  15  10   8      11   6   4                                                                       71     17   HOUR 00
 OUTPUT     24  18  30  25  30  31  10                                                                          168     31   HOUR 05
WEEKDAY                                                                                                                FRIDAY
AVERAGE                                                                                                                HRLY%
  INPUT                                                                                                               HOUR
 OUTPUT                                                                                                               HOUR
WEEKDAY     21  17  20  17  15  21   8   2                       11  18   8  34  25  31  18  40  22  15       343     40  TOTAL
AVERAGE     6%  5%  6%  5%  4%  6%  2%  1%                       3%  5%  2% 10%  7%  9%  5% 12%  6%  4%                     HRLY%
  INPUT      9   8   5   4       6   3   2                        5  16   4  14   3   7   9   8   6   7      116     16   HOUR 15
 OUTPUT     12   9  15  13  15  16   5                           6   3   4  20  22  24   9  32  16   8      229     32   HOUR 21
 HOURLY AVERAGES WILL BE INCORRECT FOR THOSE DAYS THAT DID NOT HAVE DATA FOR ALL HOURS FROM 00 THRU 23.
```

On the Mount Requests by Hour of Day report, the hourly numbers are printed so that the column headings are shifted one position to the right. This is so the hourly numbers can be interpreted as occurring between the hours of *n* and *n*+1. Each day shows hourly totals, which are then separated into specific and scratch mounts per hour. The individual hours percent of the total days activity is also shown. Totals for the day are given, and the one hour during the day that had the peak activity is also reported.

After the individual days are reported, there is a page of WEEKDAY totals followed by a page of WEEKDAY averages in the same format as the daily pages. There is also a distribution page that shows the number of hours that had a given mount rate.

DRIVEPLOT Histogram

```
DATE: 95.314 (C) COPYRIGHT  S T O R A G E   T E C H N O L O G Y   T A P E   D R I V E   U S A G E   A N A L Y S I S            PAGE  17
                                                PUT THE INSTALLATION NAME HERE
DRIVEPLOT 3490                                   H I S T O G R A M      LOCAL ACS ACTIVITY                          VERSION 5.07
  DATE  HHMM ALOC    OVR     1...5...10...15...20...25...30...35...40...45...50...55...60...65...70...75...80...85...90...95..100
 95313  0220   9             *********
 95313  0221   6             ******
 95313  0222   6             ******
 95313  0223   6             ******
 95313  0224   6             ******
 95313  0225   6             ******
 95313  0226   6             ******
 95313  0227   4             ****
 95313  0228   4             ****
 95313  0229   4             ****
 95313  0230   3             ***
 95313  0231   6             ******
 95313  0232   6             ******
 95313  0233   5             *****
 95313  0234   6             ******
 95313  0235   6             ******
 95313  0236   5             *****
 95313  0237   5             *****
 95313  0238   5             *****
 95313  0239   6             ******
 95313  0240   7             *******
 95313  0241   5             *****
 95313  0242   7             *******
 95313  0243   7             *******
 95313  0244   6             ******
 95313  0245   6             ******
 95313  0246   6             ******
 95313  0247   6             ******
 95313  0248   8             ********
 95313  0249   5             *****
 95313  0250   5             *****
 95313  0251   7             *******
 95313  0252   7             *******
 95313  0253   7             *******
 95313  0254   6             ******
 95313  0255   5             *****
 95313  0256   5             *****
 95313  0257   5             *****
 95313  0258   4             ****
 95313  0259   5             *****
 95313  0300   4             ****
 95313  0301   4             ****
 95313  0302   4             ****
 95313  0303   4             ****
 95313  0304   4             ****
 95313  0305   4             ****
                              * = OPEN TAPE FILES      - = DRIVES OVER MAX VALUE SPECIFIED IN CONTROL CARDS
```

The Histogram report shows the number of allocated tape data sets at user-defined reporting intervals (INTV=*nn*). The report shows the number allocated at exactly that interval, *not* the maximum number that were allocated during the period between intervals.

DATE HHMM
The date and time of the reported interval.

ALOC
The number of allocated tape data sets as calculated from analyzing the time stamps of the MONTAPE records.

OVR
The number of allocated data sets that exceeds the MAXDR=*nn* control statement value. The MAXDR value is user defined and is not necessarily equal to the number of drives available.

1...5..

Each asterisk represents the number of allocated data sets at that interval. If there are more allocated data sets than the MAXDR=*n* value, all asterisks greater than *n* are changed to "-" (dash) as an eye catcher value.

DRIVEPLOT Distribution

```
DATE: 95.314 (C) COPYRIGHT  S T O R A G E   T E C H N O L O G Y   T A P E   D R I V E   U S A G E   A N A L Y S I S            PAGE   1
                                          PUT THE INSTALLATION NAME HERE
DRIVEPLOT 3490               24HOUR              DISTRIBUTION REPORT     LOCAL ACS ACTIVITY                          VERSION 5.07
                NUMBER OF
    DRIVES    INCR= OCCURANCES    PERCENT      CUM %              (N)
       0               50          4.9         4.9                0
       1              126         12.3        17.2                1
       2              115         11.2        28.5                2
       3              145         14.2        42.7                3
       4              111         10.8        53.6                4
       5              103         10.0        63.7                5
       6               88          8.6        72.3                6
       7               82          8.0        80.3                7
       8               67          6.5        86.9                8
       9               76          7.4        94.4                9
      10               39          3.8        98.2               10
      11               17          1.6        99.9               11
      12                1           .0       100.0               12
  IF MORE DRIVES ARE REPORTED THAN ARE PHYSICALLY
  AVAILABLE, THEN EITHER MODE=ALLOCTIME WAS USED
  OR SOME SMF 04 RECORDS DOING DYNAMIC ALLOCATION
  NEED TO BE REMOVED USING EXCPGM= CONTROL CARDS
  OR TOD CLOCKS ARE OFF IN MULTI-HOST ENVIRONMENT.
```

The Distribution report shows a distribution of the number of drives used by allocated data sets and for how many intervals that number was in use. This report is available on a shift basis if the PRINT option is used on the corresponding SHIFT control statement.

DRIVES

This field represents the number of drives allocated to tape data sets.

NUMBER SAMPLES

The number of intervals that had this number of drives allocated.

PERCENT

The percent of the total intervals that this allocated number represents.

CUM %

The cumulative percent of intervals using the number of drives. For a given line on the report, *nn*% of the time *n* or fewer drives were allocated.

DRIVEPLOT Summary

```
DATE: 95.314 (C) COPYRIGHT  S T O R A G E   T E C H N O L O G Y   T A P E   D R I V E   U S A G E   A N A L Y S I S            PAGE   1
                                        PUT THE INSTALLATION NAME HERE
DRIVEPLOT 3490                            S U M M A R Y        LOCAL ACS ACTIVITY                        VERSION 5.07
          ****************************************
          *                                      *              ALLOC INTVL               ALLOCATIONS      ACCUM_______%
          *    START DATE-TIME...95.312-14:04    *
          *                                      *                >0-2 MINS                       336        336      45.0
          *    END   DATE-TIME...95.313-07:03    *
          *                                      *                >2-5 MINS                       166        502      67.2
          *    SAMPLE INTERVAL (MIN) .......1    *
          *                                      *                >5-10 MINS                      126        628      84.1
          *    NUMBER OF SAMPLES.....1020        *
          *                                      *               >10-15 MINS                       37        665      89.1
          *          SHIFT STATISTICS            *
          *                                      *               >15-20 MINS                       29        694      93.0
          *    08:00 - 16:00 AVG............2    *
          *                                      *               >20-30 MINS                       33        727      97.4
          *    08:00 - 16:00 AVG(NO 0.......2    *
          *                                      *               >30-45 MINS                       11        738      98.9
          *    08:00 - 16:00 MAX............5    *
          *                                      *               >45-60 MINS                        6        744      99.7
          *    16:00 - 00:00 AVG............4    *
          *                                      *                >1-2  HRS                         2        746     100.0
          *    16:00 - 00:00 AVG(NO 0.......5    *
          *                                      *                >2-4  HRS
          *    16:00 - 00:00 MAX............11    *
          *                                      *                >4-8  HRS
          *    00:00 - 08:00 AVG............4    *
          *                                      *                  >8  HRS
          *    00:00 - 08:00 AVG(NO 0.......5    *
          *                                      *
          *    00:00 - 08:00 MAX............12    *
          *                                      *
          ****************************************
```

The Summary report is two reports in one. The left side, within the box of asterisks, gives average and maximum number of drives used for the three shift periods defined. The right side gives a distribution of the allocated interval for each volume access.

Left side explanations:

HH:MM - HH:MM AVG
The average number of drives in use during this shift interval.

HH:MM - HH:MM AVG(NO 0
The average number of drives in use during this shift without those intervals using no drives averaged in. For example, only those intervals actually using drives are used to compute the average.

HH:MM - HH:MM MAX
The maximum number of drives in use during this shift.

Right side explanations:

ALLOC INTVL
The arbitrary interval values chosen for the distribution.

ALLOCATIONS
The number of allocations to volumes whose allocated interval falls into this range.

ACCUM_____%
The cumulative number and percent of accesses that were for allocation intervals less than or equal to this range.

DRIVEPLOT Mounts by Address

```
DATE: 95.314 (C) COPYRIGHT  S T O R A G E   T E C H N O L O G Y   T A P E   D R I V E   U S A G E   A N A L Y S I S            PAGE   2
                                                PUT THE INSTALLATION NAME HERE
DRIVEPLOT 3490                                    MOUNTS BY ADDRESS       LOCAL ACS ACTIVITY                          VERSION 5.07
     CUA  MOUNTS     CUA  MOUNTS     CUA  MOUNTS     CUA  MOUNTS     CUA  MOUNTS     CUA  MOUNTS     CUA  MOUNTS     CUA  MOUNTS
     2AA      26     2AB      16     2A3      39     2A5      24     2A6      17     2A7      24     2A8      24     2A9      26
     2BA      34     2BB      27     2B0      39     2B1      37     2B3      44     2B4      52     2B5      54     2B6      58
     2B7      73     2B8      27     2B9      34
              19    ADDRESSES SEEN
```

The Mounts by Address report shows the number of mounts that were done to each of the different addresses seen. Up to eight addresses and counts are reported on each line.

Control Card Edit Report

```
(C) COPYRIGHT  1990       * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * *   ALL RIGHTS RESERVED
SYBR000   VERSION = 5.11           CONTROL CARD EDIT REPORT                                      11/10/95  13:33:08     PAGE 1

----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
* AN ASTERISK AS A KEYWORD COMMENTS THE REST OF THE RECORD              01450099
CONFIG = PUT THE INSTALLATION NAME HERE                                01460099
*  SDATE/EDATE VALUES ARE ONLY NEEDED IF YOU WISH TO REPORT ON A       01470099
*   SUB-SET OF THE MONITORED DATA                                      01480099
*SDATE=YYDDD               *  REPORTING START DATE                     01490099
*STIME=HH.MM.SS            *  REPORTING START TIME                     01500099
*EDATE=YYDDD               *  REPORTING END DATE                       01510099
*ETIME=HH.MM.SS            *  REPORTING END TIME                       01520099
*   THE SDATE/EDATE RANGE IS LIMITED TO 200 DAYS                        01530099
*                                                                      01540099
*MONRECNUM=NNN       SMF RECORD NUMBER, IF READING FROM SMF FILE        01550099
*                                                                      01560099
MANDRIVE=2C*         * IDENTIFY MANUAL ADDRESSES                       01561099 * CC NOT USED BY CALLING PROGRAM
MANDRIVE=2AC         * IDENTIFY MANUAL ADDRESSES                       01561199 * CC NOT USED BY CALLING PROGRAM
MANDRIVE=2AD         * IDENTIFY MANUAL ADDRESSES                       01562099 * CC NOT USED BY CALLING PROGRAM
ACSDRIVE=2A*         * IDENTIFY ACS DRIVE ADDRESSES                    01570099 * CC NOT USED BY CALLING PROGRAM
ACSDRIVE=2B*         * IDENTIFY ACS DRIVE ADDRESSES                    01580099 * CC NOT USED BY CALLING PROGRAM
RMT1DRIVE=2D*        * IDENTIFY REMOTE ROBOTIC ADDRESSES               01590099 * CC NOT USED BY CALLING PROGRAM
RMT1DRIVE=2E*        * IDENTIFY REMOTE ROBOTIC ADDRESSES               01600099 * CC NOT USED BY CALLING PROGRAM
*MANDRIVE=49*         * IDENTIFY MANUAL ADDRESSES                      01610099
*RMT1DRIVE=62*        * IDENTIFY REMOTE ROBOTIC ADDRESSES              01620099
*MAN1DRIVE=62*        * IDENTIFY REMOTE MANUAL ADDRESSES               01630099
*ACSDRIVE=28*,NNN     * ALSO IDENTIFY LSM ID FOR SEPARATE REPORTING    01640099
*                      *  NNN VALUES CAN BE IN THE RANGE OF 0-127       01650099
*      WHEN REPORTING, THE DRIVES WILL BE SEPARATED BY DEVICE TYPE.    01660099
*      348R/349R ARE ROBOTIC                                           01670099
*      3481/3491 ARE ROBOTIC IN REMOTE1                                01680099
*      3482/3492 ARE ROBOTIC IN REMOTE2                                01690099
*      3483/3493 ARE ROBOTIC IN REMOTE3                                01700099
*      3480/3490 ARE MANUAL                                            01710099
*      348A/349A ARE MANUAL AT REMOTE1                                 01720099
*      348B/349B ARE MANUAL AT REMOTE2                                 01730099
*      348C/349C ARE MANUAL AT REMOTE3                                 01740099
*      S480/S490 ARE MANUAL WITH SCRATCH LOADERS                       01750099
*      S48A/S49A ARE MANUAL WITH SCRATCH LOADERS AT REMOTE1            01760099
*      S48B/S49B ARE MANUAL WITH SCRATCH LOADERS AT REMOTE2            01770099
*      S48C/S49C ARE MANUAL WITH SCRATCH LOADERS AT REMOTE3            01780099
*********************************************************************** 01790099
*DOCARTONLY            *  REPORT ONLY CARTRIDGE ACTIVITY               01800099
*DO3420ONLY            *  REPORT ONLY 3420 ACTIVITY                    01810099
DETAIL=A               *   N, M, A, OR NNN                             01820099
*                     A=ALL ALLOCATIONS (MOST ACCURATE FOR MONR047)    01830099
*                     N=NONE, M=MOUNTS ONLY                            01840099
```

```
*                    =NNN REPORTS MOUNTS REQUIRING >NNN SECS.          01850099
HOURLYRPT=YES      (DEFAULT IS NO) SHOW MOUNTS BY HOUR OF THE DAY      01860099 * CC NOT USED BY CALLING PROGRAM
*                     MBALSO OPTION IS NOT AVAILABLE HERE              01870099
*INCJOB=STCFE*             *  REPORT ONLY CERTAIN JOBS                 01880099
*EXCJOB=MIM*               *  EXCLUDE CERTAIN JOBS FROM REPORTING      01890099
*INCVOL=W01234             *  INCLUDE CERTAIN VOLUMES ONLY             01900099
*EXCVOL=X*                 *  EXCLUDE CERTAIN VOLUMES ONLY             01910099
*INCUNIT=14*               *  REPORT CERTAIN ADDRESSES                 01920099
*EXCUNIT=14*               *  EXCLUDE CERTAIN ADDRESSES FROM REPORTING 01930099


(C) COPYRIGHT  1990       * *     S T O R A G E     T E C H N O L O G Y     C O R P O R A T I O N     * *   ALL RIGHTS RESERVED
SYBR000   VERSION = 5.11           CONTROL CARD EDIT REPORT                                  11/10/95  13:33:08     PAGE 2

----+----1----+----2----+----3----+----4----+----5----+----6----+----7----+----8
*LINES=55                  *  LINES PER PAGE OF REPORT OUTPUT          01940099
*MAXDR=16           * IF OVER MAX DRIVES REPORT AS "-" ON HISTOGRAM     01950099
INCR=01            * HISTOGRAM REPORTING INTERVAL MINUTES (MAXIMUM 15)  01960099 * CC NOT USED BY CALLING PROGRAM
*  INCR REPORTING IS A SNAPSHOT, NOT MAX DURING LAST INTERVAL SO =1     01970099
*  WILL GIVE THE MOST ACCURATE REPORTING, BUT USE TWICE AS MUCH         01980099
*  REGION SIZE AS INCR=2.  CPU CYCLES ARE MINIMAL WITH EITHER VALUE.    01990099
HISTOGRAM=YES      * YES, NO, OR A NUMBER FOR HISTOGRAM REPORTING       02000099 * CC NOT USED BY CALLING PROGRAM
                   * HISTOGRAM=NUMBER WILL REPORT ANY HISTOGRAM ...     02010099
*                  *   ... INCR USING THAT NUMBER OR MORE DRIVES        02020099
*      HISTOGRAM PRODUCES ONE LINE FOR EACH "INCR" ON EACH DAY          02030099
SHIFT1=(08.00,16.00,NOPRINT)                                           02040099
              * SHIFT1 SUMMARY (START TM,END TM,DISTRIBUTION OPTION)    02050099
SHIFT2=(16.00,00.00,NOPRINT)                                           02060099
              * SHIFT2 SUMMARY (START TM,END TM,DISTRIBUTION OPTION)    02070099
SHIFT3=(00.00,08.00,NOPRINT)                                           02080099
              * SHIFT3 SUMMARY (START TM,END TM,DISTRIBUTION OPTION)    02090099
*  THE END TIME OF SHIFT1 MUST BE EQUAL TO THE START TIME OF SHIFT2     02100099
*  THE END TIME OF SHIFT2 MUST BE EQUAL TO THE START TIME OF SHIFT3     02110099
*  THE END TIME OF SHIFT3 MUST BE EQUAL TO THE START TIME OF SHIFT1     02120099
*                                                                       02130099
************************************************************************ 02140099
*                                                                       02150099
*   MONREPT HAS THE ABILITY TO SIMULATE THE POTENTIAL SAVINGS THAT      02160099
*   COULD BE OBTAINED BY PROCESSING TAPE DATA SETS ON TIMBERLINE        02170099
*   DEVICES RATHER THAN 3490 DEVICE TYPES.  MONTAPE HAS KEPT TRACK      02180099
*   OF THE AMOUNT OF WAIT TIME A PROGRAM HAD WHILE IT WAS DOING TAPE    02190099
*   I/O.  MONREPT WILL CALCULATE THE HARDWARE SAVINGS BASED ON THE      02200099
*   VALUES YOU SUPPLY FOR SAVEPCT.  IT WILL THEN APPLY THAT OVER-ALL    02210099
*   PERCENT SAVED TO THE 'WAIT W/IO' VALUE TO DETERMINE THE JOB SAVINGS 02220099
*   THAT COULD BE SEEN.  JOBS THAT DO NOT WAIT FOR THE TAPE I/O WILL    02230099
*   NOT SHOW AS GREAT A SAVINGS AS THOSE THAT DO WAIT FOR TAPE I/O.     02240099
*   IF THERE ARE ANY REMOTE DRIVES, USE THE RMTNDRIVE CONTROL CARD TO   02250099
*   DEFINE THEIR ADDRESSES SINCE THE DISCONNECT SAVINGS WOULD NOT       02260099
*   APPLY TO THEM.                                                      02270099
*                                                                       02280099
*   YOU CAN PRODUCE THE SIMULATION REPORTING BY ACTIVATING THE CONTROL  02290099
*   CARDS BELOW:                                                        02300099
*INCJOB=JOBNAME     (OPTIONAL) SELECT ONLY SOME JOBS                    02310099
MODE=SIMULATE                                                          02320099 * CC NOT USED BY CALLING PROGRAM
SAVEPCT=80,60,60     % SAVED OF PEND,CONN,DISC FOR EACH VOLUME ACCESS   02330099 * CC NOT USED BY CALLING PROGRAM
*                                                                      02340099
STC0000I - ONLY THE FOLLOWING CONTROL CARDS, IF PRESENT, WILL BE USED BY THE CALLING PROGRAM, MONREPT
CONFIG, SDATE, STIME, EDATE, ETIME, DOCARTONLY, DO3420ONLY, DETAIL, INCJOB, EXCJOB, INCUNIT, EXCUNIT, INCVOL, EXCVOL
SHIFT1, SHIFT2, SHIFT3, LINES
```

Appendix A: Record Layouts

```
MONREC   DSECT
MONREC DS      0CL100
MONADATE DS    PL4           ALLOC DATE IN THE FORM OF 00YYDDDF
MONATIME DS    F             ALLOC TIME IN HUNDREDTHS OF SECONDS
*                                  HHMMSSTH
MONMDATE DS    PL4           MOUNT DATE IN THE FORM 00YYDDDF
MONMTIME DS    F             MOUNT TIME IN HUNDREDTHS OF SECONDS
*                                  HHMMSSTH
MONSID DS      CL4                 SMCA SYSTEM ID
MONSTPNM DS    CL8                STEPNAME FROM CSCB
*                                  OR NO-NAME
MONJOBNM DS    CL8                 JOBNAME FROM CSCB
*                                  OR NO-NAME
MONASID DS     XL2                 ASID OF JOB FROM UCBASID
         SPACE
MONNAME DC     X'000000'       CUA/DEVICE NAME FROM UCBNAME FIELD
MONCLC1 EQU    *-MONSID            SID,STEP,JOB,ASID,INTV,CUA
MONVOLI DS     CL6                 VOLUME SERIAL NUMBER FROM
*                                  UCBVOLI FIELD
MONCLC2 EQU    *-MONJOBNM          JOB,ASID,INTV,CUA,VOLSER
MONFLAGL EQU *-MONREC              DISPLACEMENT FOR MONFLAG
MONFLAG DC     X'00'               FLAG BYTE
MONSPEC EQU    X'80'               SPECIFIC VOLUME
MONTERM EQU    X'40'               WRITTEN AT TERMINATION
MONSTRT EQU    X'20'               ALREADY MOUNTED AT START
MONRWD    EQU  X'10'               MOUNT TIME INCLUDES REWIND TIME
MONMULT EQU    X'08'               MULTIPLE STEPS COMBINED
MONRMF    EQU  X'04'               RMF STATS INCLUDED
MONCBSY EQU    X'02'               CONTROL UNIT BUSY AVAILABLE
         SPACE
MONSIO DC      XL2'00'             SIO COUNT FROM UCB
         SPACE
MONTYP DC      XL1'00'             BYTE +3 FROM UCBTYP FIELD
MONACS DC      XL1'00'             ACS, ACL, OR MANUAL TYPE INDICATOR
MONLSM DC      XL1'00'             LSM ID FROM ACSDRIVE CC IF USED
*                                  X'80' SET IF USED
*
MONCUA1 DC      XL1'00'            HIGH ORDER OF 4 DIGIT CUA
MONREW DC      XL2'00'             NUMBER OF SAMPLES TAPE REWINDING
*
MONRDATE DS    PL4      LAST MPEND DATE IN THE FORM OF YYDDDF
MONRTIME DS    XL4'00'  LAST MPEND TIME IN HUNDREDTHS OF SECONDS
*                                  HHMMSSTH
MONPRST DS     CL8                 PROC STEPNAME
MONWDATE DS    PL4       REC WRITE DATE IN THE FORM OF YYDDDF
MONWTIME DS    F         REC WRITE TIME IN HUNDREDTHS OF SECONDS
*                                  HHMMSSTH
MONCMB     DS  0CL20               CHANNEL MEASUREMENT BLOCK DATA (MON)
MONSSCHC DS    H                   # SEC WAIT WITH TAPE I/O
MONSAMPC DS    H                   # SSCH INSTRUCTIONS WITH DATA
MONCONNT DS    F                   TOTAL CONNECT TIME
MONPENDT DS    F                   TOTAL PENDING TIME
MONDISCT DS    F                   TOTAL DISCONNECT TIME
MONBUSYT DS    F                   TOTAL CU BUSY TIME
*
MONEND EQU     *-MONREC
```

```
*                   MONREPT BINARY FILE DSECT                                   36160048
*                                                                               36170048
* HEADER RECORD                                                                 36180048
PCHDR    DS    CL8     "MONREPT "                                               36190048
HDRVSN   DS    CL8     "PCY.MM  "   VERSION (TOOLS TAPE) IDENTIFIER             36200048
HDRFILL  DS    CL48    PAD TO 64 BYTES.                                         36210048
*                                                                               36220048
* FIRST DATA RECORD                                                             36230048
*                                                                               36240048
MNT1ID   DS    CL8     "MNTSPFC "                                               36250048
MNTF01N  DS    H       >10 MIN.      SPECIFIC                                   36260048
MNTF02N  DS    H       >9-10 MIN.    SPECIFIC                                   36270048
MNTF03N  DS    H       >8-9 MIN.     SPECIFIC                                   36280048
MNTF04N  DS    H       >7-8 MIN.     SPECIFIC                                   36290048
MNTF05N  DS    H       >6-7 MIN.     SPECIFIC                                   36300048
MNTF06N  DS    H       >5-6 MIN.     SPECIFIC                                   36310048
MNTF07N  DS    H       >4-5 MIN.     SPECIFIC                                   36320048
MNTF08N  DS    H       >3-4 MIN.     SPECIFIC                                   36330048
MNTF09N  DS    H       >151-180 SEC. SPECIFIC                                   36340048
MNTF10N  DS    H       >121-150 SEC. SPECIFIC                                   36350048
MNTF11N  DS    H       >106-120 SEC. SPECIFIC                                   36360048
MNTF12N  DS    H       >91-105 SEC.  SPECIFIC                                   36370048
MNTF13N  DS    H       >76-90 SEC.   SPECIFIC                                   36380048
MNTF14N  DS    H       >61-75 SEC.   SPECIFIC                                   36390048
MNTF15N  DS    H       >46-60 SEC.   SPECIFIC                                   36400048
MNTF16N  DS    H       >31-45 SEC.   SPECIFIC                                   36410048
MNTF17N  DS    H       >16-30 SEC.   SPECIFIC                                   36420048
MNTF18N  DS    H       >1-15 SEC.    SPECIFIC                                   36430048
         DS    5F      FILL TO 64 BYTES.                                        36440048
*                                                                               36450048
* SECOND DATA RECORD                                                            36460048
*                                                                               36470048
MNT2ID   DS    CL8     "MNTSCRCH" (SAME AS ABOVE ON PURPOSE.)                   36480048
MNTF01S  DS    H       >10 MIN.      SCRATCH                                    36490048
MNTF02S  DS    H       >9-10 MIN.    SCRATCH                                    36500048
MNTF03S  DS    H       >8-9 MIN.     SCRATCH                                    36510048
MNTF04S  DS    H       >7-8 MIN.     SCRATCH                                    36520048
MNTF05S  DS    H       >6-7 MIN.     SCRATCH                                    36530048
MNTF06S  DS    H       >5-6 MIN.     SCRATCH                                    36540048
MNTF07S  DS    H       >4-5 MIN.     SCRATCH                                    36550048
MNTF08S  DS    H       >3-4 MIN.     SCRATCH                                    36560048
MNTF09S  DS    H       >151-180 SEC. SCRATCH                                    36570048
MNTF10S  DS    H       >121-150 SEC. SCRATCH                                    36580048
MNTF11S  DS    H       >106-120 SEC. SCRATCH                                    36590048
MNTF12S  DS    H       >91-105 SEC.  SCRATCH                                    36600048
MNTF13S  DS    H       >76-90 SEC.   SCRATCH                                    36610048
MNTF14S  DS    H       >61-75 SEC.   SCRATCH                                    36620048
MNTF15S  DS    H       >46-60 SEC.   SCRATCH                                    36630048
MNTF16S  DS    H       >31-45 SEC.   SCRATCH                                    36640048
MNTF17S  DS    H       >16-30 SEC.   SCRATCH                                    36650048
MNTF18S  DS    H       >1-15 SEC.    SCRATCH                                    36660048
         DS    5F      FILL TO 64 BYTES.                                        36670048
*
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Note: Refer to the “ACS Sizing Analysis Tool User’s Guide and Reference” manual for ACSPLOT PC record layout.

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