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DDDDDDDD      SSSSSSSS  PPPPPPPP  DDDDDDDD  EEEEEEEEEEE  FFFFFFFF
DDDDDDDD      SSSSSSSS  PPPPPPPP  DDDDDDDD  EEEEEEEEEEE  FFFFFFFF
DD      DD  SS      PP      PP      DD      DD  EE      FF
DD      DD  SS      PP      PP      DD      DD  EE      FF
DD      DD  SS      PP      PP      DD      DD  EE      FF
DD      DD  SS      PP      PP      DD      DD  EE      FF
DD      DD  SSSSSS  PPPPPPPP  DD      DD  EEEEEEEEE  FFFFFFFF
DD      DD  SSSSSS  PPPPPPPP  DD      DD  EEEEEEEEE  FFFFFFFF
DD      DD      SS  PP      PP      DD      DD  EE      FF
DD      DD      SS  PP      PP      DD      DD  EE      FF
DD      DD      SS  PP      PP      DD      DD  EE      FF
DD      DD      SS  PP      PP      DD      DD  EE      FF
DDDDDDDD      SSSSSSSS  PP      DDDDDDDD  EEEEEEEEEEE  FF
DDDDDDDD      SSSSSSSS  PP      DDDDDDDD  EEEEEEEEEEE  FF

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MM      MM  DDDDDDDD  LL
MM      MM  DDDDDDDD  LL
MMMM  MMMM  DD      DD  LL
MMMM  MMMM  DD      DD  LL
MM  MM  MM  DD      DD  LL
MM  MM  MM  DD      DD  LL
MM      MM  DD      DD  LL
MM      MM  DD      DD  LL
MM      MM  DD      DD  LL
MM      MM  DD      DD  LL
MM      MM  DD      DD  LL
MM      MM  DD      DD  LL
MM      MM  DDDDDDDD  LLLLLLLLLL
MM      MM  DDDDDDDD  LLLLLLLLLL

```

Additional data structures for Monitor utility

Version 'V04-000'

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FACILITY: VAX/VMS MONITOR Utility

ABSTRACT:

This module contains the definition of the PMSSC\_..... item identifiers used in the BLDIDB macros in the MONDAT.MAR module. Every data item included in a Monitor class must have an item identifier in this module.

ENVIRONMENT: Non-executable data structures.

AUTHOR: H. M. Levy , CREATION DATE: 2-May-1977

MODIFIED BY:

|         |  |                     |             |       |
|---------|--|---------------------|-------------|-------|
| V03-010 | TLC1066                                  | Thomas L. Cafarella | 01-Apr-1984 | 11:00 |
|         | Add SYSTEM class.                        |                     |             |       |
| V03-009 | PRS1010                                  | Paul R. Senn        | 27-Feb-1984 | 9:00  |
|         | Add Deadlock Message Rate to DLOCK class |                     |             |       |
| V03-009 | PRS1009                                  | Paul R. Senn        | 22-FEB-1984 | 14:00 |
|         | Add Internal-use-only VMS1 Class         |                     |             |       |

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|         |   |                     |             |       |
|---------|---|---------------------|-------------|-------|
| V03-009 | PRS1007   | Paul R. Senn        | 17-FEB-1984 | 14:00 |
|         | Misc. changes to XQPCACHE and FCP classes                     |                     |             |       |
| V03-008 | PRS1004   | Paul R. Senn        | 11-JAN-1983 | 16:00 |
|         | Misc. changes to POOL class                                   |                     |             |       |
| V03-007 | TLC1050   | Thomas L. Cafarella | 06-Dec-1983 | 11:00 |
|         | Change directory information in DLOCK class.                  |                     |             |       |
| V03-006 | SPC0004   | Stephen P. Carney   | 24-Jun-1983 | 16:00 |
|         | Add SCS Class.  |                     |             |       |
| V03-005 | TLC1035   | Thomas L. Cafarella | 06-Jun-1983 | 15:00 |
|         | Add homogeneous class type and DISK class.                    |                     |             |       |
| V03-005 | TLC1034   | Thomas L. Cafarella | 06-Jun-1983 | 15:00 |
|         | Add DLOCK class.  |                     |             |       |
| V03-005 | SPC0003   | Stephen P. Carney   | 06-Jun-1983 | 15:00 |
|         | Add JDEVICE class.  |                     |             |       |
| V03-004 | TLC1032   | Thomas L. Cafarella | 27-May-1983 | 15:00 |
|         | Add Blocking AST Rate to LOCK class.                          |                     |             |       |
| V03-003 | SPC0002   | Stephen P. Carney   | 22-Apr-1983 | 14:00 |
|         | Add ACPCACHE Class.   |                     |             |       |
| V03-002 | TLC1028   | Thomas L. Cafarella | 14-Apr-1983 | 16:00 |
|         | Add interactive user interface.                               |                     |             |       |
| V03-002 | TLC1026   | Thomas L. Cafarella | 14-Apr-1983 | 16:00 |
|         | Miscellaneous updates to JOURNALING, RU and FCP classes       |                     |             |       |
| V03-001 | TLC1022   | Thomas L. Cafarella | 12-Jul-1982 | 16:00 |
|         | Add item identifiers for the JOURNALING and RECOVERY classes. |                     |             |       |

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: Define item identifier numbers. Each data item has an associated
: value which is used to find its IDB in the item table (PERFTABLE).
: The item table is defined by BLDIDB macros in the module MONDAT.MAR.
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## \$STRUCT PMS

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C<
PINTERRUPT      : time on interrupt stack -- primary
PKERNEL         : time in kernel mode -- primary
PEXEC           : time in exec mode -- primary
PSUPER         : time in supervisor mode -- primary
PUSER          : time in user mode -- primary
PCOMPAT        : time in compat. mode -- primary
PIDLE          : idle time -- primary
SINTERRUPT     : time on interrupt stack -- secondary
SKERNEL        : time in kernel mode -- secondary
SEXEC          : time in exec mode -- secondary
SSUPER        : time in supervisor mode -- secondary
SUSER         : time in user mode -- secondary
SCOMPAT       : time in compat. mode -- secondary
SIDLE         : idle time -- secondary
CPUBUSY       : all modes except idle
COLPG        : collided page wait
MWAIT       : memory wait
CEF          : common event flag wait
PFW         : page wait
LEF         : local event flag wait
LEFO        : lef wait out of bal. set
HIB         : hibernating
HIBO        :
SUSP        : suspended
SUSPO       :
FPG         :
COM         : computing
COMO        :
CUR         : current
OTHSTAT     : "other states" for SYSTEM class
PROCS       : process count for SYSTEM class
FRLIST      : size of free list
MODLIST     : size of modified list
FAULTS     : page fault count
PREADS     : page reads
PWRITES    : page writes
PWRITIO    : physical page write I/O's
PREADIO    : physical page read I/O's
GVALFLTS   : global valid faults
WRTINPROG  : faults from write in progress
FREFLTS    : faults from free list
MFYFLTS    : faults from modified list
DZROFLTS   : demand zero faults
SYSAULTS   : system page faults
LRPCNT     : number of LRP packets available
LRPINUSE   : number of LRPs in use
IRPCNT     : number of IRP packets available

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IRPINUSE      : number of IRPs in use
SRPCNT       : number of SRP packets available
SRPINUSE     : number of SRPs in use
HOLECNT      : number of blocks in dyn. memory
BIGHOLE      : largest hole
SMALLHOLE    : smallest hole
HOLESUM      : total space in dyn. memory available
DYNINUSE     : dynamic memory space in use
SMALLCNT     : number of blocks < 32 bytes in size
ISWPCNT      : total inswaps
DIRIO        : count of direct I/Os
BUFIO        : count of buffered I/Os
MBREADS      : total mailbox reads
MBWRITES     : total mailbox writes
LOGNAM       : logical name translations
ACCESS       : number of file accesses
ALLOC        : number of file extends
FCPCALLS     : total fcp calls
FCPCREATE    : number of file creations
FCPREAD      : number of disk reads by FCP
FCPWRITE     : number of disk writes by FCP
FCPCACHE     : number of FCP cache hits
VOLWAIT      : # of times XQP waited for volume lock
FCPCPU       : number of CPU tics by FCP
FCPTURN      : number of window turns
FCPHIT       : number of window hits
FCPSPLIT     : number of split transfers
FCPFAULT     : number of FCP page faults
FCPERASE     : number of erase calls
OPENS        : number of file opens
ENQNEW       : number of ENQ's (new)
ENQCVT       : number of ENQ's (conversions)
DEQ          : number of DEQ's
BLKAST       : number of blocking AST's
ENQWAIT      : number of ENQ's forced to wait
ENQNOTQD     : number of ENQ's not queued
DLCKSRCH     : number of deadlock searches
DLCKFND      : number of deadlocks found
NUMLOCKS     : total locks
NUMRES       : total resources
ARRLOCPK     : arriving local packets
DEPLOCPK     : departing local packets
ARRTRAPK     : arriving transit packets
TRCNGLS     : transit congestion loss
RCVBUFFL     : receiver buffer failures
JNLJRNLS     : active journals
JNLCHNLS     : journal channels assigned
JNLWRTAI     : AI journal write operations
JNLWRTBI     : BI journal write operations
JNLWRTAT     : AT journal write operations
JNLWRTRU     : RU journal write operations
JNLDIRIO     : journal direct I/Os
JNLBUFIO     : journal buffered I/Os
JNLWRTSS     : journal write operations to sec stg
JNLFORNL     : force writes -- NULL operation
JNLFORFL     : force writes -- flushed
    
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JNLBUFWR      : journal buffer-writes
JNLWRTFM      : force modifier writes
RUFACFV       : active recovery units
RUFJNLS       : active RU journals
RUFCHNLS      : RU journal channels
RUFWRTS       : RU journal writes
RUFREADS      : RU journal reads
RUFXTNDS      : RU journal extends
RUFMARK       : count of Mark IDs written
RUFMRKRB      : count of Mark ID rollbacks
RUFABORT      : count of RU abort operations
FIDHITPCNT    : Percentage of File id cache hits/hits+misses
FIDHIT        : count of File Id cache hits
FID TRIES     : count of File Id cache attempts
FIDMISS       : count of File Id cache misses
FILHDR_HITPCNT : Percentage of File header cache hits/hits+misses
FILHDR_HIT    : count of File header cache hits
FILHDR_TRIES  : count of File header cache attempts
DIRFCB_HITPCNT : Percentage of Directory block cache hits/hits+misses
DIRFCB_HIT    : count of Directory block cache hits
DIRFCB_TRIES  : count of Directory block cache attempts
DIRFCB_MISS   : count of Directory block cache misses
DIRDATA_HITPCNT : Percentage of Directory data cache hits/hits+misses
DIRDATA_HIT   : count of Directory data cache hits
DIRDATA_TRIES : count of Directory data cache attempts
EXTHITPCNT    : Percentage of Extent cache hits/hits+misses
EXTHIT        : count of Extent cache hits
EXT TRIES     : count of Extent cache attempts
EXTMISS       : count of Extent cache misses
QUOHITPCNT    : Percentage of Quota cache hits/hits+misses
QUOHIT        : count of Quota cache hits
QUO TRIES     : count of Quota cache attempts
QUOMISS       : count of Quota cache misses
STORAGMAP_HITPCNT : Percentage of storage bitmap cache hits/hits+misses
STORAGMAP_HIT : count of storage bitmap cache hits
STORAGMAP_TRIES : count of storage bitmap cache attempts
OPCNT         : disk i/o operation count
IOQUELEN      : i/o queue length (used by DISK & JDEV)
JNLIOCNT      : journaling i/o op'n count (for DISK)
JDNQLEN       : jdevice normal IRP queue length
JDWQLEN       : jdevice wait IRP queue length
JDFQLEN       : jdevice force IRP queue length
JDEXCNT       : jdevice extend count

ENQNEWLOC     : new lock requests (local)
ENQNEWIN      : new lock requests (incoming)
ENQNEWOUT     : new lock requests (outgoing)
ENQCVTLOC     : lock conversion requests (local)
ENQCVTIN      : lock conversion requests (incoming)
ENQCVTOUT     : lock conversion requests (outgoing)
DEQLOC        : dequeues (local)
DEQIN         : dequeues (incoming)
DEQOUT        : dequeues (outgoing)
BLKLOC        : blocking ASTs queued (local)
BLKIN         : blocking ASTs queued (incoming)
BLKOUT        : blocking ASTs queued (outgoing)
    
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DIRLOOK      : directory lookups
DIRINS       : directory inserts
DIRDEL       : directory deletes
DIRIN        : directory operations (incoming)
DIROUT       : directory operations (outgoing)
DLCKMSGSGS   : deadlock detection messages (in & out)
DGRCVD       : SCS application datagrams sent
DGRCDV       : SCS application datagrams received
DGDISCARD    : SCS application datagrams discarded
MSGSENT      : SCS application messages sent
MSGRCVD      : SCS application messages received
SNDATS       : SCS block send datas initiated
KBYTSENT     : SCS kbytes sent via send datas
REQDATS      : SCS block request datas initiated
KBYTREQD     : SCS kbytes received via request datas
KBYTMAPD     : SCS kbytes mapped for block xfr
QCR_CNT      : SCS times conn. q'd for send credit
QBDT_CNT     : SCS times conn. q'd for buff descr
VOLLCK       : Volume synch locks
SYNCHLCK     : directory and file synch locks
SYNCHWAIT    : # of times XQP waited for a
              : directory or file synch lock
ACCLCK       : access locks
XQPCACHEWAIT : # of times XQP had to wait for free
              : space in a cache

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: the following must be the last entry
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TABLESIZE    : for allocating table space in
              : PERFTABLE

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