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-- file: NMVmsMon.mib
--
-- COMTEK Services, Inc.
-- MIB for VMS NM*VmsMon Subagent
-- Release      3.5
-- Date        January 2002
-- Author      NF
--
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--
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--
-- This MIB is designed to closely resemble the VMS MONITOR Utility.
-- This MIB contains the following 12 groups which correspond to the
-- VMS MONITOR Utility classes by the same name.
--
--     1. modes (by CPU and total for all CPUs)
--     2. file_system_cache
--     3. fcp
--     4. io
--     5. page
--     6. decnet
--     7. states
--     8. cluster
--     9. mscp_server
--    10. lock
--    11. dlock
--    12. system
--
-- Many of the above variables are counters which reflect the number
-- of operations since the system was booted.  The following additional
-- variables are provided to assist in tracking how much these
-- counters have changed during the most recent update interval.  All
-- of the variables which track these delta values are contained in
-- the following groups:
--
--     1. delta modes (by CPU and total for all CPUs)
--     2. delta file_system_cache
--     3. delta fcp
--     4. delta io
--     5. delta page
--     6. delta decnet
--     8. delta cluster
--     9. delta mscp_server
--    10. delta lock
--    11. delta dlock
--    12. delta system
```

```
COMTEK-VMS-NM-VMS-MONITOR-MIB DEFINITIONS ::= BEGIN
```

```

IMPORTS
    OBJECT-TYPE          FROM RFC-1212
    TimeTicks, Counter FROM RFC1155-SMI
    comtekVmsNMVmsMonMib
        FROM COMTEK-DEFINITIONS-MIB;

-- All Delta variables are include in this following group
vmsDeltas OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 20 }

-- MONITOR MODES

vmsModes OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 1 }

vmsModeUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when CPU mode statistics were last gathered."
    ::= { vmsModes 1 }

vmsModeUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often CPU mode statistics are to be gathered. A value
        of 0 disables gathering of CPU mode statistics. This value
        is expressed in minutes."
    DEFVAL { 1 }
    ::= { vmsModes 2 }

vmsModeCpuCount OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of entries in the CPU Mode table (i.e., the number of
        CPUs being monitored)."
    ::= { vmsModes 3 }

vmsModeTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VmsModeTableEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Table description. "
    ::= { vmsModes 4 }

vmsModeTableEntry OBJECT-TYPE
    SYNTAX VmsModeTableEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Row in table description. "

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```
INDEX { vmsModeCpuId }
 ::= { vmsModeTable 1 }
```

```
VmsModeTableEntry ::= SEQUENCE {
  vmsModeCpuId    INTEGER,
  vmsModeKernel  Counter,
  vmsModeExec    Counter,
  vmsModeSuper   Counter,
  vmsModeUser    Counter,
  vmsModeInter   Counter,
  vmsModeMPSync  Counter,
  vmsModeCompat  Counter,
  vmsModeIdle    Counter
}
```

```
vmsModeCpuId OBJECT-TYPE
  SYNTAX  INTEGER
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "CPU ID for mode data in this row in the mode table."
 ::= { vmsModeTableEntry 1 }
```

```
vmsModeKernel OBJECT-TYPE
  SYNTAX  Counter
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "Number of clock ticks this CPU has spent in kernel mode
    (excluding interrupt stack time) since the system was booted."
 ::= { vmsModeTableEntry 2 }
```

```
vmsModeExec OBJECT-TYPE
  SYNTAX  Counter
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "Number of clock ticks this CPU has spent in Executive mode
    since the system was booted."
 ::= { vmsModeTableEntry 3 }
```

```
vmsModeSuper OBJECT-TYPE
  SYNTAX  Counter
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "Number of clock ticks this CPU has spent in Supervisor mode
    since the system was booted."
 ::= { vmsModeTableEntry 4 }
```

```
vmsModeUser OBJECT-TYPE
  SYNTAX  Counter
  ACCESS  read-only
  STATUS  mandatory
  DESCRIPTION
    "Number of clock ticks this CPU has spent in User mode
    (excluding
```

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        compatibility-mode time) since the system was booted."
 ::= { vmsModeTableEntry 5 }

vmsModeInter OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of clock ticks (10-millisecond units) this CPU has spent
        on the Interrupt stack since the system was booted."
 ::= { vmsModeTableEntry 6 }

vmsModeMPSync OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of clock ticks this CPU has spent synchronizing multiple
        CPUs since the system was booted."
 ::= { vmsModeTableEntry 7 }

vmsModeCompat OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of clock ticks this CPU has spent in Compatibility
        mode since the system was booted."
 ::= { vmsModeTableEntry 8 }

vmsModeIdle OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of clock ticks this CPU has spent executing the NULL
        process since the system was booted."
 ::= { vmsModeTableEntry 9 }

vmsTotalModes OBJECT IDENTIFIER ::= { vmsModes 5 }

vmsTotalKernel OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total number of clock ticks all CPUs have spent in kernel mode
        (excluding interrupt stack time) since the system was booted."
 ::= { vmsTotalModes 1 }

vmsTotalExec OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks all CPUs have spent in Executive mode
        since the system was booted."

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```

::= { vmsTotalModes 2 }

vmsTotalSuper OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks all CPUs have spent in Supervisor mode
        since the system was booted."
    ::= { vmsTotalModes 3 }

vmsTotalUser OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks all CPUs have spent in User mode (excluding
        compatibility-mode time) since the system was booted."
    ::= { vmsTotalModes 4 }

vmsTotalInter OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks (10-millisecond units) all CPUs have spent
        on the Interrupt stack since the system was booted."
    ::= { vmsTotalModes 5 }

vmsTotalMPSync OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks all CPUs have spent synchronizing multiple
        CPUs since the system was booted."
    ::= { vmsTotalModes 6 }

vmsTotalComp OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks all CPUs have spent in Compatibility
        mode since the system was booted."
    ::= { vmsTotalModes 7 }

vmsTotalIdle OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total clock ticks all CPUs have spent executing the NULL
        process since the system was booted."
    ::= { vmsTotalModes 8 }

-- MONITOR FILE_SYSTEM_CACHE

```

```

vmsFile OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 2 }

vmsFileUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when File System statistics were last updated. "
    ::= { vmsFile 1 }

vmsFileUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often File System statistics are to be gathered. A value
        of 0 disables gathering of File System statistics. This
        value is expressed in minutes. "
    DEFVAL { 1 }
    ::= { vmsFile 2 }

vmsFileDirFCBHit OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of hits on directory FCB cache."
    ::= { vmsFile 3 }

vmsFileDirFCBAttempt OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of attempts on directory FCB cache."
    ::= { vmsFile 4 }

vmsFileDirDataHit OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of hits on directory data cache."
    ::= { vmsFile 5 }

vmsFileDirDataAttempt OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of attempts on directory data cache."
    ::= { vmsFile 6 }

vmsFileFileHdrHit OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only

```

```

STATUS mandatory
DESCRIPTION
    "Count of hits on file header cache."
::= { vmsFile 7 }

vmsFileFileHdrAttempt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of attempts on file header cache."
::= { vmsFile 8 }

vmsFileFileIdHit OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of hits on file ID cache."
::= { vmsFile 9 }

vmsFileFileIdAttempt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of attempts on file ID cache."
::= { vmsFile 10 }

vmsFileExtentHit OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of hits on extent cache."
::= { vmsFile 11 }

vmsFileExtentAttempt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of attempts on extent cache."
::= { vmsFile 12 }

vmsFileQuotaHit OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of hits on quota cache."
::= { vmsFile 13 }

vmsFileQuotaAttempt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory

```

```

DESCRIPTION
    "Count of attempts on quota cache."
    ::= { vmsFile 14 }

vmsFileBitmapHit OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of hits on storage bitmap cache."
    ::= { vmsFile 15 }

vmsFileBitmapAttempt OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of attempts on storage bitmap cache."
    ::= { vmsFile 16 }

-- MONITOR FCP

vmsFcp OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 3 }

vmsFcpUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when FCP statistics were last updated. "
    ::= { vmsFcp 1 }

vmsFcpUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often FCP statistics are to be gathered. A value of 0
        disables gathering of File System statistics. This value is
        expressed in minutes. "
    DEFVAL { 1 }
    ::= { vmsFcp 2 }

vmsFcpFCPCall OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of QIO requests received by the file system."
    ::= { vmsFcp 3 }

vmsFcpAllocation OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of QIO requests that caused allocation of disk space."

```

```

        ::= { vmsFcp 4 }

vmsFcpCreate OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of new files created."
    ::= { vmsFcp 5 }

vmsFcpDiskRead OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of read I/O operations from the disk by the file
        system."
    ::= { vmsFcp 6 }

vmsFcpDiskWrite OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of write I/O operations to the disk by the file
        system."
    ::= { vmsFcp 7 }

vmsFcpVolumeLockWait OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of times a wait state was entered by the XQP
        due to volume lock contention."
    ::= { vmsFcp 8 }

vmsFcpCPUTick OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of clock ticks (10-millisecond units) of CPU time
        used by the file system."
    ::= { vmsFcp 9 }

vmsFcpPageFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of page faults for the file system."
    ::= { vmsFcp 10 }

vmsFcpWindowTurn OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only

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```

STATUS mandatory
DESCRIPTION
    "Count of file-map window misses."
::= { vmsFcp 11 }

vmsFcpLookup OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of file name lookup operations in file directories."
::= { vmsFcp 12 }

vmsFcpOpen OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of files opened."
::= { vmsFcp 13 }

vmsFcpErase OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of erase I/O operations issued."
::= { vmsFcp 14 }

-- MONITOR IO

vmsIo OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 4 }

vmsIoUpdateTime OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Time when I/O statistics were last updated."
::= { vmsIo 1 }

vmsIoUpdateInterval OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "How often I/O statistics are to be gathered. A value of 0
    disables gathering of I/O statistics. This value is
    expressed in minutes. "
DEFVAL { 1 }
::= { vmsIo 2 }

vmsIoDirectIO OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

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```

        "Count of direct I/O operations."
 ::= { vmsIo 3 }

vmsIoBufferedIO OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of buffered I/O operations."
 ::= { vmsIo 4 }

vmsIoMailboxWrite OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of write-to-mailbox requests."
 ::= { vmsIo 5 }

vmsIoSplitTransfer OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of split transfers."
 ::= { vmsIo 6 }

vmsIoLogNameTranslation OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of logical name translations."
 ::= { vmsIo 7 }

vmsIoFileOpen OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of files opened."
 ::= { vmsIo 8 }

vmsIoPageFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of page faults for all working sets."
 ::= { vmsIo 9 }

vmsIoPageRead OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of pages read from disk as a result of page faults."

```

```

        ::= { vmsIo 10 }

vmsIoPageReadIO OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of read I/O operations from disk as a result
        of page faults."
    ::= { vmsIo 11 }

vmsIoPageWrite OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of pages written to the page file."
    ::= { vmsIo 12 }

vmsIoPageWriteIO OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of write I/O operations to the page file."
    ::= { vmsIo 13 }

vmsIoInswap OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of working sets read into memory from the swap file."
    ::= { vmsIo 14 }

vmsIoFreePageCount OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of pages currently on free-page list."
    ::= { vmsIo 15 }

vmsIoModifiedPageCount OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of pages currently on modified-page list."
    ::= { vmsIo 16 }

-- MONITOR PAGE

vmsPage OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 5 }

vmsPageUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks

```

ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Time when page statistics were last updated."  
::= { vmsPage 1 }

vmsPageUpdateInterval OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-write  
STATUS mandatory  
DESCRIPTION  
    "How often Page statistics are to be gathered. A value of 0  
    disables gathering of Page statistics. This value is  
    expressed in minutes. "  
DEFVAL { 1 }  
::= { vmsPage 2 }

vmsPageFault OBJECT-TYPE  
SYNTAX Counter  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Count of page faults for all working sets."  
::= { vmsPage 3 }

vmsPageRead OBJECT-TYPE  
SYNTAX Counter  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Count of pages read from disk as a result of page faults."  
::= { vmsPage 4 }

vmsPageReadIO OBJECT-TYPE  
SYNTAX Counter  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Count of read I/Os as a result of operations from disk  
    page faults."  
::= { vmsPage 5 }

vmsPageWrite OBJECT-TYPE  
SYNTAX Counter  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Count of pages written to the page file."  
::= { vmsPage 6 }

vmsPageWriteIO OBJECT-TYPE  
SYNTAX Counter  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Count of write I/O operations to the page file."  
::= { vmsPage 7 }

```

vmsPageFreeListFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of pages read from the free list as a result
        of page faults."
    ::= { vmsPage 8 }

vmsPageModListFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of pages read from the modified list as a
        result of page faults."
    ::= { vmsPage 9 }

vmsPageDemandZeroFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of zero-filled pages allocated as a result of faults."
    ::= { vmsPage 10 }

vmsPageGlobalValidFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of page faults for which the reference page was found
        to be valid in the system global page tables."
    ::= { vmsPage 11 }

vmsPageWrtInProgressFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of pages read that were in the process of being written
        back to disk when faulted."
    ::= { vmsPage 12 }

vmsPageSystemFault OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of page faults for which the referenced page is in
        system space."
    ::= { vmsPage 13 }

vmsPageFreePageCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only

```

```

STATUS mandatory
DESCRIPTION
    "Number of pages currently on free-page list."
::= { vmsPage 14 }

vmsPageModifiedPageCount OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of pages currently on modified-page list."
::= { vmsPage 15 }

-- MONITOR DECNET

vmsDecnet OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 6 }

vmsDecnetUpdateTime OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Time when DECnet statistics were last gathered."
::= { vmsDecnet 1 }

vmsDecnetUpdateInterval OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "How often DECnet statistics are to be gathered. A value
    of 0 disables gathering of DECnet statistics. This value
    is expressed in minutes. "
DEFVAL { 1 }
::= { vmsDecnet 2 }

vmsDecnetArriveLocalPkt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of arriving local packets."
::= { vmsDecnet 3 }

vmsDecnetDepartLocalPkt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of departing local packets."
::= { vmsDecnet 4 }

vmsDecnetArriveTransPkt OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

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```

        "Count of arriving transit packets."
 ::= { vmsDecnet 5 }

vmsDecnetTransCongestLoss OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of packets lost because of transit congestion."
 ::= { vmsDecnet 6 }

vmsDecnetReceiveBufFail OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of receiver buffer failures."
 ::= { vmsDecnet 7 }

-- MONITOR STATES

vmsStates OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 7 }

vmsStatesUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when Process State data was last updated."
 ::= { vmsStates 1 }

vmsStatesUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often Process State data are to be gathered. A value of
        0 disables gathering of Process State statistics. This
        value is expressed in minutes. "
    DEFVAL { 1 }
 ::= { vmsStates 2 }

vmsStatesCOLPG OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Collided Page Wait State (COLPG)."
 ::= { vmsStates 3 }

vmsStatesMWAIT OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Miscellaneous Resource Wait State
(MWAIT)."
```

```

    ::= { vmsStates 4 }

vmsStatesCEF OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Common Event Flag Wait State (CEF)."
```

```

    ::= { vmsStates 5 }

vmsStatesPFW OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Page Fault Wait State (PFW)."
```

```

    ::= { vmsStates 6 }

vmsStatesLEF OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Local Event Flag Wait State (LEF)."
```

```

    ::= { vmsStates 7 }

vmsStatesLEFO OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of Outswapped processes in Local Event Flag Wait
        State (LEFO)."
```

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    ::= { vmsStates 8 }

vmsStatesHIB OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Hibernate State (HIB)."
```

```

    ::= { vmsStates 9 }

vmsStatesHIBO OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of Outswapped processes in Hibernate State (HIBO)."
```

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    ::= { vmsStates 10 }

vmsStatesSUSP OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in Suspended State (SUSP)."
```

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        ::= { vmsStates 11 }

vmsStatesSUSPO OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of Outswapped processes in Suspended State (SUSPO)."
```

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        ::= { vmsStates 12 }

vmsStatesFPG OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of processes in Free Page Wait State (FPG)."
```

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        ::= { vmsStates 13 }

vmsStatesCOM OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of processes in Compute State (COM)."
```

```

        ::= { vmsStates 14 }

vmsStatesCOMO OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of Outswapped processes in Compute State (COMO)."
```

```

        ::= { vmsStates 15 }

vmsStatesCUR OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of current processes (CUR)."
```

```

        ::= { vmsStates 16 }

-- MONITOR CLUSTER

vmsCluster OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 8 }

vmsClusterUpdateTime OBJECT-TYPE
    SYNTAX  TimeTicks
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Time when cluster statistics were last updated. "
```

```

        ::= { vmsCluster 1 }

vmsClusterUpdateInterval OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
```

```

STATUS mandatory
DESCRIPTION
    "How often cluster statistics are to be gathered. A
    value of 0 disables gathering of cluster statistics. This
    value is expressed in minutes. "
DEFVAL { 1 }
::= { vmsCluster 2 }

vmsClusterCpuBusy OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of clock ticks (10-millisecond units) spent in all
    CPU modes since system was booted."
::= { vmsCluster 3 }

vmsClusterFreeListSize OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of pages currently on the free list."
::= { vmsCluster 4 }

vmsClusterTotalLocks OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Total of all incoming, outgoing, and local ENQs,
    DEQs, and conversions."
::= { vmsCluster 5 }

vmsClusterNewEnqLocal OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of new lock requests that originate and are
    performed on the system."
::= { vmsCluster 6 }

vmsClusterNewEnqIncoming OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of new lock requests that originate on other systems
    and are performed on this system (incoming)."
::= { vmsCluster 7 }

vmsClusterNewEnqOutgoing OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

```

        "Count of new lock requests that originate on this system and
        are performed on other systems (outgoing)."
```

::= { vmsCluster 8 }

vmsClusterEnqConversionsLocal OBJECT-TYPE

```

    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock conversion requests (local)."
```

::= { vmsCluster 9 }

vmsClusterEnqConversionsIncoming OBJECT-TYPE

```

    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock conversion requests (incoming)."
```

::= { vmsCluster 10 }

vmsClusterEnqConversionsOutgoing OBJECT-TYPE

```

    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock conversion requests (outgoing)."
```

::= { vmsCluster 11 }

vmsClusterDeqLocal OBJECT-TYPE

```

    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of unlock requests (local)."
```

::= { vmsCluster 12 }

vmsClusterDeqIncoming OBJECT-TYPE

```

    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of unlock requests (incoming)."
```

::= { vmsCluster 13 }

vmsClusterDeqOutgoing OBJECT-TYPE

```

    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of unlock requests (outgoing)."
```

::= { vmsCluster 14 }

-- MONITOR MSCP SERVER

vmsMscp OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 9 }

vmsMscpUpdateTime OBJECT-TYPE

```

SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Time when MSCP Server statistics were last updated. "
::= { vmsMscp 1 }

vmsMscpUpdateInterval OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "How often MSCP Server statistics are to be gathered. A
    value of 0 disables gathering of MSCP statistics. This
    value is expressed in minutes. "
DEFVAL { 1 }
::= { vmsMscp 2 }

vmsMscpRequests OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of requests for I/O transfers by remote processors."
::= { vmsMscp 3 }

vmsMscpReads OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of requests for Read I/O transfers by remote
    processors."
::= { vmsMscp 4 }

vmsMscpWrites OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of requests for Write I/O transfers by remote
    processors."
::= { vmsMscp 5 }

vmsMscpFragments OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Count of extra fragments issued by the server."
::= { vmsMscp 6 }

vmsMscpSplits OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

```

        "Count of fragmented requests issued by the server."
 ::= { vmsMscp 7 }

vmsMscpBufferWaits OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of requests that had to wait for MSCP buffer memory."
 ::= { vmsMscp 8 }

vmsMscp1BlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length of one block."
 ::= { vmsMscp 9 }

vmsMscp2-3BlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length of 2 to 3 blocks."
 ::= { vmsMscp 10 }

vmsMscp4-7BlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length of 4 to 7 blocks."
 ::= { vmsMscp 11 }

vmsMscp8-15BlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length of 8 to 15 blocks."
 ::= { vmsMscp 12 }

vmsMscp16-31BlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length of 16 to 31 blocks."
 ::= { vmsMscp 13 }

vmsMscp32-63BlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length of 32 to 63 blocks."

```

```

 ::= { vmsMscp 14 }

vmsMscp64andOverBlockIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of I/O requests with a length equal to or greater than
        64 blocks."
    ::= { vmsMscp 15 }

-- MONITOR LOCK

vmsLock OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 10 }

vmsLockUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when Lock statistics were last updated. "
    ::= { vmsLock 1 }

vmsLockUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often Lock statistics are to be gathered. A value of 0
        disables gathering of lock statistics. This value is
        expressed in minutes. "
    DEFVAL { 1 }
    ::= { vmsLock 2 }

vmsLockNewEnqs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of new ENQ (lock) requests."
    ::= { vmsLock 3 }

vmsLockConvertedEnqs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of converted ENQ (lock) requests."
    ::= { vmsLock 4 }

vmsLockDeqs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of DEQ (unlock) requests."
    ::= { vmsLock 5 }

```

```

vmsLockBlockingASTs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of blocking ASTs queued."
    ::= { vmsLock 6 }

vmsLockEnqWaits OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of times a lock could not be granted immediately
        and waited."
    ::= { vmsLock 7 }

vmsLockEnqsNotQueued OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of times a lock could not be granted immediately
        and got an error status instead of waiting."
    ::= { vmsLock 8 }

vmsLockDeadlockSearches OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of times that a deadlock search was performed."
    ::= { vmsLock 9 }

vmsLockDeadlocksFound OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of times that a deadlock was found."
    ::= { vmsLock 10 }

vmsLockCurrentLocks OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of locks currently in the system."
    ::= { vmsLock 11 }

vmsLockCurrentResources OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of resources currently in the system."

```

```

        ::= { vmsLock 12 }

-- MONITOR DLOCK

vmsDlock OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 11 }

vmsDlockUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when Distributed Lock statistics were last updated. "
    ::= { vmsDlock 1 }

vmsDlockUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often Lock statistics are to be gathered. A value of 0
        disables gathering of dlock statistics. This value is
        expressed in minutes. "
    DEFVAL { 1 }
    ::= { vmsDlock 2 }

vmsDlockNewLocksLocal OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of new lock requests that originate and are performed on
        this system (local). "
    ::= { vmsDlock 3 }

vmsDlockNewLocksIncoming OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of new lock requests originating on another system
        and performed on this system (incoming). "
    ::= { vmsDlock 4 }

vmsDlockNewLocksOutgoing OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of new lock requests originating on this system
        and performed on another system (outgoing). "
    ::= { vmsDlock 5 }

vmsDlockLockConversionsLocal OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "Count of lock conversion requests (local)."  

 ::= { vmsDlock 6 }

vmsDlockLockConversionsIncoming OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock conversion requests (incoming)."  

 ::= { vmsDlock 7 }

vmsDlockLockConversionsOutgoing OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock conversion requests (outgoing)."  

 ::= { vmsDlock 8 }

vmsDlockUnlocksLocal OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of unlock requests (local)."  

 ::= { vmsDlock 9 }

vmsDlockUnlocksIncoming OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of unlock requests (incoming)."  

 ::= { vmsDlock 10 }

vmsDlockUnlocksOutgoing OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of unlock requests (outgoing)."  

 ::= { vmsDlock 11 }

vmsDlockBlockingASTsLocal OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock manager blocking ASTs (local)."  

 ::= { vmsDlock 12 }

vmsDlockBlockingASTsIncoming OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock manager blocking ASTs (incoming)."
```

```

 ::= { vmsDlock 13 }

vmsDlockBlockingASTsOutgoing OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of lock manager blocking ASTs (outgoing). "
    ::= { vmsDlock 14 }

vmsDlockDirFuncIncoming OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of directory functions (incoming). "
    ::= { vmsDlock 15 }

vmsDlockDirFuncOutgoing OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of directory functions (outgoing). "
    ::= { vmsDlock 16 }

vmsDlockDeadlockMessage OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of incoming and outgoing lock manager
        messages required for deadlock detection."
    ::= { vmsDlock 17 }

-- MONITOR SYSTEM

vmsSystem OBJECT IDENTIFIER ::= { comtekVmsNMVmsMonMib 12 }

vmsSystemUpdateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Time when system statistics were last updated. "
    ::= { vmsSystem 1 }

vmsSystemUpdateInterval OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "How often system statistics are to be gathered. A value of 0
        disables gathering of system statistics. This value is
        expressed in minutes. "
    DEFVAL { 1 }
    ::= { vmsSystem 2 }

```

```

vmsSystemCpuBusy OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of clock ticks (10-millisecond units) spent in all CPU
        modes since system was booted."
    ::= { vmsSystem 3 }

vmsSystemOtherStates OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in states other than LEF, LEFO, HIB,
        HIBO, COM, COMO, PFW, and MWAIT."
    ::= { vmsSystem 4 }

vmsSystemProcessCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of processes in the system."
    ::= { vmsSystem 5 }

vmsSystemPageFaults OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of page faults for all working sets."
    ::= { vmsSystem 6 }

vmsSystemReadIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of read I/Os resulting from disk page faults."
    ::= { vmsSystem 7 }

vmsSystemFreePageCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of pages currently on free-page list."
    ::= { vmsSystem 8 }

vmsSystemModifiedPageCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of pages currently on modified-page list."

```

```

 ::= { vmsSystem 9 }

vmsSystemDirectIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of direct I/O operations."
    ::= { vmsSystem 10 }

vmsSystemBufferedIOs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of buffered I/O operations."
    ::= { vmsSystem 11 }

-- The remainder of this MIB contains delta values for the
-- variable above. Delta values keep track of increases
-- in counter variables.

-- MODE DELTAS

vmsDeltaModes OBJECT IDENTIFIER ::= { vmsDeltas 1 }

vmsDeltaModeTable OBJECT-TYPE
    SYNTAX SEQUENCE OF VmsDeltaModeTableEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Table description. "
    ::= { vmsDeltaModes 1 }

vmsDeltaModeTableEntry OBJECT-TYPE
    SYNTAX VmsDeltaModeTableEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Row in table description. "
    INDEX { vmsDeltaModeCpuId }
    ::= { vmsDeltaModeTable 1 }

VmsDeltaModeTableEntry ::= SEQUENCE {
    vmsDeltaModeCpuId INTEGER,
    vmsDeltaModeKernel INTEGER,
    vmsDeltaModeExec INTEGER,
    vmsDeltaModeSuper INTEGER,
    vmsDeltaModeUser INTEGER,
    vmsDeltaModeInter INTEGER,
    vmsDeltaModeMPSync INTEGER,
    vmsDeltaModeCompat INTEGER,
    vmsDeltaModeIdle INTEGER
}

vmsDeltaModeCpuId OBJECT-TYPE
    SYNTAX INTEGER

```

ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"CPU ID for delta mode data in this row in the mode table."  
::= { vmsDeltaModeTableEntry 1 }

vmsDeltaModeKernel OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of clock ticks this CPU spent in  
kernel mode (excluding interrupt stack time)  
during the last update interval."  
::= { vmsDeltaModeTableEntry 2 }

vmsDeltaModeExec OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of clock ticks this CPU spent in  
Executive mode during the last update interval."  
::= { vmsDeltaModeTableEntry 3 }

vmsDeltaModeSuper OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of clock ticks this CPU spent in  
Supervisor mode during the last update interval."  
::= { vmsDeltaModeTableEntry 4 }

vmsDeltaModeUser OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of clock ticks this CPU spent in User  
mode (excluding compatibility-mode time) during  
the last update interval."  
::= { vmsDeltaModeTableEntry 5 }

vmsDeltaModeInter OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of clock ticks (10-millisecond units) this  
CPU spent on the Interrupt stack during the last  
update interval."  
::= { vmsDeltaModeTableEntry 6 }

vmsDeltaModeMPSync OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only

```

STATUS mandatory
DESCRIPTION
    "Number of clock ticks this CPU spent synchronizing
    multiple CPUs during the last update interval."
 ::= { vmsDeltaModeTableEntry 7 }

vmsDeltaModeCompat OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of clock ticks this CPU spent in Compatibility
    mode during the last update interval."
 ::= { vmsDeltaModeTableEntry 8 }

vmsDeltaModeIdle OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of clock ticks this CPU spent executing the NULL
    process during the last update interval."
 ::= { vmsDeltaModeTableEntry 9 }

vmsDeltaTotalModes OBJECT IDENTIFIER ::= { vmsDeltaModes 2 }

vmsDeltaTotalKernel OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Total number of clock ticks all CPUs spent in kernel mode
    (excluding interrupt stack time) during the last update
    interval."
 ::= { vmsDeltaTotalModes 1 }

vmsDeltaTotalExec OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Total clock ticks all CPUs spent in Executive mode
    during the last update interval."
 ::= { vmsDeltaTotalModes 2 }

vmsDeltaTotalSuper OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Total clock ticks all CPUs spent in Supervisor mode
    during the last update interval."
 ::= { vmsDeltaTotalModes 3 }

vmsDeltaTotalUser OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only

```

```

STATUS  mandatory
DESCRIPTION
    "Total clock ticks all CPUs spent in User mode (excluding
    compatibility-mode time) during the last update interval."
::= { vmsDeltaTotalModes 4 }

vmsDeltaTotalInter OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "Total clock ticks (10-millisecond units) all CPUs spent
    on the Interrupt stack during the last update interval."
::= { vmsDeltaTotalModes 5 }

vmsDeltaTotalMPSync OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "Total clock ticks all CPUs spent synchronizing multiple
    CPUs during the last update interval."
::= { vmsDeltaTotalModes 6 }

vmsDeltaTotalComp OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "Total clock ticks all CPUs spent in Compatibility
    mode during the last update interval."
::= { vmsDeltaTotalModes 7 }

vmsDeltaTotalIdle OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "Total clock ticks all CPUs spent executing the NULL
    process during the last update interval."
::= { vmsDeltaTotalModes 8 }

-- FILE_SYSTEM_CACHE DELTAS

vmsDeltaFile  OBJECT IDENTIFIER ::= { vmsDeltas 2 }

vmsDeltaFileDirFCBHit OBJECT-TYPE
SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "Number of hits on directory FCB cache during
    this update interval."
::= { vmsDeltaFile 1 }

vmsDeltaFileDirFCBAttempt OBJECT-TYPE
SYNTAX  INTEGER

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of attempts on directory FCB cache during
    this update interval."
::= { vmsDeltaFile 2 }

vmsDeltaFileDirDataHit OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of hits on directory data cache during
    this update interval."
::= { vmsDeltaFile 3 }

vmsDeltaFileDirDataAttempt OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of attempts on directory data cache during
    this update interval."
::= { vmsDeltaFile 4 }

vmsDeltaFileFileHdrHit OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of hits on file header cache during
    this update interval."
::= { vmsDeltaFile 5 }

vmsDeltaFileFileHdrAttempt OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of attempts on file header cache during
    this update interval."
::= { vmsDeltaFile 6 }

vmsDeltaFileFileIdHit OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of hits on file ID cache during
    this update interval."
::= { vmsDeltaFile 7 }

vmsDeltaFileFileIdAttempt OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

```

                "Number of attempts on file ID cache during
                this update interval."
        ::= { vmsDeltaFile 8 }

vmsDeltaFileExtentHit OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of hits on extent cache during
        this update interval."
    ::= { vmsDeltaFile 9 }

vmsDeltaFileExtentAttempt OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of attempts on extent cache during
        this update interval."
    ::= { vmsDeltaFile 10 }

vmsDeltaFileQuotaHit OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of hits on quota cache during
        this update interval."
    ::= { vmsDeltaFile 11 }

vmsDeltaFileQuotaAttempt OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of attempts on quota cache during
        this update interval."
    ::= { vmsDeltaFile 12 }

vmsDeltaFileBitmapHit OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of hits on storage bitmap cache during
        this update interval."
    ::= { vmsDeltaFile 13 }

vmsDeltaFileBitmapAttempt OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of attempts on storage bitmap cache during
        this update interval."
    ::= { vmsDeltaFile 14 }

```

-- FCP DELTA

vmsDeltaFcp OBJECT IDENTIFIER ::= { vmsDeltas 3 }

vmsDeltaFcpFCPCall OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of QIO requests received by the file system during the last update interval."

::= { vmsDeltaFcp 1 }

vmsDeltaFcpAllocation OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of QIO requests that caused allocation of disk space during the last update interval."

::= { vmsDeltaFcp 2 }

vmsDeltaFcpCreate OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of new files created during the last update interval."

::= { vmsDeltaFcp 3 }

vmsDeltaFcpDiskRead OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of read I/O operations from the disk by the file system during the last update interval."

::= { vmsDeltaFcp 4 }

vmsDeltaFcpDiskWrite OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of write I/O operations to the disk by the file system during the last update interval."

::= { vmsDeltaFcp 5 }

vmsDeltaFcpVolumeLockWait OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of times a wait state was entered by the XQP due to volume lock contention during

the last update interval."  
 ::= { vmsDeltaFcp 6 }

vmsDeltaFcpCPUTick OBJECT-TYPE

SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of clock ticks (10-millisecond units)  
of CPU time used by the file system during the  
last update interval."  
 ::= { vmsDeltaFcp 7 }

vmsDeltaFcpPageFault OBJECT-TYPE

SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of page faults for the file system during  
the last update interval."  
 ::= { vmsDeltaFcp 8 }

vmsDeltaFcpWindowTurn OBJECT-TYPE

SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of file-map window misses during the  
last update interval."  
 ::= { vmsDeltaFcp 9 }

vmsDeltaFcpLookup OBJECT-TYPE

SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of file name lookup operations in file  
directories during the last update interval."  
 ::= { vmsDeltaFcp 10 }

vmsDeltaFcpOpen OBJECT-TYPE

SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of files opened during the last update  
interval."  
 ::= { vmsDeltaFcp 11 }

vmsDeltaFcpErase OBJECT-TYPE

SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of erase I/O operations issued during  
the last update interval."  
 ::= { vmsDeltaFcp 12 }

-- MONITOR IO

vmsDeltaIo OBJECT IDENTIFIER ::= { vmsDeltas 4 }

vmsDeltaIoDirectIO OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of direct I/O operations during the last update interval."

::= { vmsDeltaIo 1 }

vmsDeltaIoBufferedIO OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of buffered I/O operations during the last update interval."

::= { vmsDeltaIo 2 }

vmsDeltaIoMailboxWrite OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of write-to-mailbox requests during the last update interval."

::= { vmsDeltaIo 3 }

vmsDeltaIoSplitTransfer OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of split transfers during the last update interval."

::= { vmsDeltaIo 4 }

vmsDeltaIoLogNameTranslation OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of logical name translations during the last update interval."

::= { vmsDeltaIo 5 }

vmsDeltaIoFileOpen OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of files opened during the last update interval."

```

::= { vmsDeltaIo 6 }

vmsDeltaIoPageFault OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of page faults for all working sets
        during the last update interval."
    ::= { vmsDeltaIo 7 }

vmsDeltaIoPageRead OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of pages read from disk as a result of
        page faults during the last update interval."
    ::= { vmsDeltaIo 8 }

vmsDeltaIoPageReadIO OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of read I/O operations from disk as a
        result of page faults during the last update interval."
    ::= { vmsDeltaIo 9 }

vmsDeltaIoPageWrite OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of pages written to the page file during
        the last update interval."
    ::= { vmsDeltaIo 10 }

vmsDeltaIoPageWriteIO OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of write I/O operations to the page file
        during the last update interval."
    ::= { vmsDeltaIo 11 }

vmsDeltaIoInswap OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of working sets read into memory from
        the swap file during the last update interval."
    ::= { vmsDeltaIo 12 }

-- PAGE DELTAS

```

vmsDeltaPage OBJECT IDENTIFIER ::= { vmsDeltas 5 }

vmsDeltaPageFault OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of page faults for all working sets during  
the last update interval."

::= { vmsDeltaPage 1 }

vmsDeltaPageRead OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of pages read from disk as a result of  
page faults during the last update interval."

::= { vmsDeltaPage 2 }

vmsDeltaPageReadIO OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of read I/Os as a result of operations  
from disk page faults during the last update interval."

::= { vmsDeltaPage 3 }

vmsDeltaPageWrite OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of pages written to the page file during  
the last update interval."

::= { vmsDeltaPage 4 }

vmsDeltaPageWriteIO OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of write I/O operations to the page file  
during the last update interval."

::= { vmsDeltaPage 5 }

vmsDeltaPageFreeListFault OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of pages read from the free list as a  
result of page faults during the last update interval."

::= { vmsDeltaPage 6 }

```

vmsDeltaPageModListFault OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of pages read from the modified list
        as a result of page faults during the last update
        interval."
    ::= { vmsDeltaPage 7 }

vmsDeltaPageDemandZeroFault OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of zero-filled pages allocated as a result
        of faults during the last update interval."
    ::= { vmsDeltaPage 8 }

vmsDeltaPageGlobalValidFault OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of page faults for which the reference
        page was found to be valid in the system global
        page tables during the last update interval."
    ::= { vmsDeltaPage 9 }

vmsDeltaPageWrtInProgressFault OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of pages read that were in the process
        of being written back to disk when faulted during
        the last update interval."
    ::= { vmsDeltaPage 10 }

vmsDeltaPageSystemFault OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of page faults for which the referenced
        page is in system space during the last update
        interval."
    ::= { vmsDeltaPage 11 }

-- DECNET DELTAS

vmsDeltaDecnet OBJECT IDENTIFIER ::= { vmsDeltas 6 }

vmsDeltaDecnetArriveLocalPkt OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory

```

```

DESCRIPTION
    "Number of arriving local packets during last
    update interval."
 ::= { vmsDeltaDecnet 1 }

vmsDeltaDecnetDepartLocalPkt OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of departing local packets during last
        update interval."
 ::= { vmsDeltaDecnet 2 }

vmsDeltaDecnetArriveTransPkt OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of arriving transit packets during last
        update interval."
 ::= { vmsDeltaDecnet 3 }

vmsDeltaDecnetTransCongestLoss OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of packets lost because of transit congestion
        during last update interval."
 ::= { vmsDeltaDecnet 4 }

vmsDeltaDecnetReceiveBufFail OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of receiver buffer failures during last
        update interval."
 ::= { vmsDeltaDecnet 5 }

-- CLUSTER DELTAS

vmsDeltaCluster OBJECT IDENTIFIER ::= { vmsDeltas 8 }

vmsDeltaClusterCpuBusy OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of clock ticks (10-millisecond units) spent in all
        CPU during the last update interval."
 ::= { vmsDeltaCluster 1 }

vmsDeltaClusterTotalLocks OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only

```

STATUS mandatory  
DESCRIPTION  
"Total of all incoming, outgoing, and local ENQs,  
DEQs, and conversions during the last update interval."  
::= { vmsDeltaCluster 2 }

vmsDeltaClusterNewEnqLocal OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of new lock requests that originate and are  
performed on the system during the last update interval."  
::= { vmsDeltaCluster 3 }

vmsDeltaClusterNewEnqIncoming OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of new lock requests that originate on other systems  
and are performed on this system (incoming) during the last  
update interval."  
::= { vmsDeltaCluster 4 }

vmsDeltaClusterNewEnqOutgoing OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of new lock requests that originate on this system and  
are performed on other systems (outgoing) during the last  
update interval."  
::= { vmsDeltaCluster 5 }

vmsDeltaClusterEnqConversionsLocal OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of lock conversion requests (local) during the  
last update interval"  
::= { vmsDeltaCluster 6 }

vmsDeltaClusterEnqConversionsIncoming OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of lock conversion requests (incoming) during the  
last update interval"  
::= { vmsDeltaCluster 7 }

vmsDeltaClusterEnqConversionsOutgoing OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory

```

DESCRIPTION
    "Number of lock conversion requests (outgoing) during the
    last update interval."
 ::= { vmsDeltaCluster 8 }

vmsDeltaClusterDeqLocal OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of unlock requests (local) during the last update
        interval."
    ::= { vmsDeltaCluster 9 }

vmsDeltaClusterDeqIncoming OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of unlock requests (incoming) during the last
        update interval."
    ::= { vmsDeltaCluster 10 }

vmsDeltaClusterDeqOutgoing OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of unlock requests (outgoing) during the last
        update interval."
    ::= { vmsDeltaCluster 11 }

-- MSCP SERVER DELTAS

vmsDeltaMscp OBJECT IDENTIFIER ::= { vmsDeltas 9 }

vmsDeltaMscpRequests OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of requests for I/O transfers by remote
        processors during the last update interval."
    ::= { vmsDeltaMscp 1 }

vmsDeltaMscpReads OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Number of requests for Read I/O transfers by
        remote processors during the last update interval."
    ::= { vmsDeltaMscp 2 }

vmsDeltaMscpWrites OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only

```

STATUS mandatory  
DESCRIPTION  
"Number of requests for Write I/O transfers by  
remote processors during the last update interval."  
::= { vmsDeltaMscp 3 }

vmsDeltaMscpFragments OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of extra fragments issued by the server  
during the last update interval."  
::= { vmsDeltaMscp 4 }

vmsDeltaMscpSplits OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of fragmented requests issued by the  
server during the last update interval."  
::= { vmsDeltaMscp 5 }

vmsDeltaMscpBufferWaits OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of requests that had to wait for MSCP  
buffer memory during the last update interval."  
::= { vmsDeltaMscp 6 }

vmsDeltaMscp1BlockIOs OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of I/O requests with a length of one  
block during the last update interval."  
::= { vmsDeltaMscp 7 }

vmsDeltaMscp2-3BlockIOs OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of I/O requests with a length of 2 to  
3 blocks during the last update interval."  
::= { vmsDeltaMscp 8 }

vmsDeltaMscp4-7BlockIOs OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
"Number of I/O requests with a length of 4 to

```

        7 blocks during the last update interval."
 ::= { vmsDeltaMscp 9 }

vmsDeltaMscp8-15BlockIOs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of I/O requests with a length of 8 to
        15 blocks during the last update interval."
 ::= { vmsDeltaMscp 10 }

vmsDeltaMscp16-31BlockIOs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of I/O requests with a length of 16 to
        31 blocks during the last update interval."
 ::= { vmsDeltaMscp 11 }

vmsDeltaMscp32-63BlockIOs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of I/O requests with a length of 32 to
        63 blocks during the last update interval."
 ::= { vmsDeltaMscp 12 }

vmsDeltaMscp64andOverBlockIOs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of I/O requests with a length equal to
        or greater than 64 blocks during the last update
        interval."
 ::= { vmsDeltaMscp 13 }

-- LOCK DELTAS

vmsDeltaLock OBJECT IDENTIFIER ::= { vmsDeltas 10 }

vmsDeltaLockNewEnqs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of new ENQ (lock) requests during this
        update interval."
 ::= { vmsDeltaLock 1 }

vmsDeltaLockConvertedEnqs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory

```

DESCRIPTION

"Number of converted ENQ (lock) requests during this update interval."

::= { vmsDeltaLock 2 }

vmsDeltaLockDeqs OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of DEQ (unlock) requests during this update interval."

::= { vmsDeltaLock 3 }

vmsDeltaLockBlockingASTs OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of blocking ASTs queued during this update interval."

::= { vmsDeltaLock 4 }

vmsDeltaLockEnqWaits OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of times a lock could not be granted immediately and waited during this update interval."

::= { vmsDeltaLock 5 }

vmsDeltaLockEnqsNotQueued OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of times a lock could not be granted immediately and got an error status instead of waiting during this update interval."

::= { vmsDeltaLock 6 }

vmsDeltaLockDeadlockSearches OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of times that a deadlock search was performed during this update interval."

::= { vmsDeltaLock 7 }

vmsDeltaLockDeadlocksFound OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Number of times that a deadlock was found during

```

        this update interval."
    ::= { vmsDeltaLock 8 }

-- DLOCK DELTAS

vmsDeltaDlock OBJECT IDENTIFIER ::= { vmsDeltas 11 }

vmsDeltaDlockNewLocksLocal OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of new lock requests that originate and
        are performed on this system (local) during the
        last update interval."
    ::= { vmsDeltaDlock 1 }

vmsDeltaDlockNewLocksIncoming OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of new lock requests originating on another
        system and performed on this system (incoming) during
        the last update interval."
    ::= { vmsDeltaDlock 2 }

vmsDeltaDlockNewLocksOutgoing OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of new lock requests originating on this
        system and performed on another system (outgoing) during
        the last update interval."
    ::= { vmsDeltaDlock 3 }

vmsDeltaDlockLockConversionsLocal OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of lock conversion requests (local) during
        the last update interval."
    ::= { vmsDeltaDlock 4 }

vmsDeltaDlockLockConversionsIncoming OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of lock conversion requests (incoming) during
        the last update interval."
    ::= { vmsDeltaDlock 5 }

vmsDeltaDlockLockConversionsOutgoing OBJECT-TYPE
    SYNTAX INTEGER

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of lock conversion requests (outgoing) during
    the last update interval."
::= { vmsDeltaDlock 6 }

vmsDeltaDlockUnlocksLocal OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of unlock requests (local) during the last
    update interval."
::= { vmsDeltaDlock 7 }

vmsDeltaDlockUnlocksIncoming OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of unlock requests (incoming) during the
    last update interval."
::= { vmsDeltaDlock 8 }

vmsDeltaDlockUnlocksOutgoing OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of unlock requests (outgoing) during the
    last update interval."
::= { vmsDeltaDlock 9 }

vmsDeltaDlockBlockingASTsLocal OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of lock manager blocking ASTs (local)
    during the last update interval."
::= { vmsDeltaDlock 10 }

vmsDeltaDlockBlockingASTsIncoming OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Number of lock manager blocking ASTs (incoming)
    during the last update interval."
::= { vmsDeltaDlock 11 }

vmsDeltaDlockBlockingASTsOutgoing OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

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```

        "Number of lock manager blocking ASTs (outgoing)
        during the last update interval."
 ::= { vmsDeltaDlock 12 }

vmsDeltaDlockDirFuncIncoming OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of directory functions (incoming) during
        the last update interval."
 ::= { vmsDeltaDlock 13 }

vmsDeltaDlockDirFuncOutgoing OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of directory functions (outgoing) during
        the last update interval."
 ::= { vmsDeltaDlock 14 }

vmsDeltaDlockDeadlockMessage OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of incoming and outgoing lock manager
        messages required for deadlock detection during
        the last update interval."
 ::= { vmsDeltaDlock 15 }

-- SYSTEM DELTAS

vmsDeltaSystem OBJECT IDENTIFIER ::= { vmsDeltas 12 }

vmsDeltaSystemCpuBusy OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of clock ticks (10-millisecond units) spent in all CPU
        modes during the last update interval."
 ::= { vmsDeltaSystem 1 }

vmsDeltaSystemPageFaults OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "Number of page faults for all working sets during the last
        update interval."
 ::= { vmsDeltaSystem 2 }

vmsDeltaSystemReadIOs OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only

```

STATUS mandatory  
DESCRIPTION  
    "Number of read I/Os resulting from disk page faults during  
    the last update interval."  
::= { vmsDeltaSystem 3 }

vmsDeltaSystemDirectIOs OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Number of direct I/O operations during the last update  
    interval."  
::= { vmsDeltaSystem 4 }

vmsDeltaSystemBufferedIOs OBJECT-TYPE  
SYNTAX INTEGER  
ACCESS read-only  
STATUS mandatory  
DESCRIPTION  
    "Number of buffered I/O operations during the last update  
    interval."  
::= { vmsDeltaSystem 5 }

END