
HP OpenView VantagePoint Operations for HP-UX



Supplementary Guide to MPE/iX Templates

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Printing History

This supplementary guide to the VPO MPE/iX templates is available in PDF format in the following directory after installation of the VPO management server:

http://<management_server>:8880/ITO_DOC/C/manuals/MPETemplates.pdf

Note that the guide is not part of the hardcopy VPO manual set and that it cannot be ordered in printed form.

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Overview

This document provides an overview of the content of the templates and scripts that have been developed for VPO MPE/iX managed nodes. These templates enable you to monitor network, system, and application activity on your MPE/iX systems. The areas covered range from monitoring the status of Image/SQL databases, to checking the activity of network interfaces and services, and observing MPE/iX operating system activity. Follow the suggestions provided in the Customization sections of this document to adapt the templates to your individual situation.

TEMPLATES

The following template groups and templates are available for VPO MPE/iX managed nodes:

```
GROUP "Default"

  GROUP "MPE/iX"
    OPCMSG      "opcmsg(1|3) MPE/iX"

  GROUP "MPE/iX Database monitoring"
    LOGFILE     "Image/SQL Databases"

  GROUP "MPE/iX Network monitoring"
    MONITOR     "mpeix_ni_FDDI1"
    MONITOR     "mpeix_ni_LAN1"
    MONITOR     "mpeix_ni_LOOP"
    MONITOR     "mpeix_nsstatus"

  GROUP "MPE/iX OS monitoring"
    CONSOLE     "MPE/iX Console Msgs"
    LOGFILE     "MPE/iX Disk Device Status"
    LOGFILE     "MPE/iX Volume Set Capacity"
    MONITOR     "mpeix_ftpmon"
    MONITOR     "mpeix_inetd"
    MONITOR     "mpeix_lock_mon"
    MONITOR     "mpeix_outfence6"
    MONITOR     "mpeix_printq_lp"
    MONITOR     "mpeix_replies"
    MONITOR     "mpeix_scopejob"
    MONITOR     "msg_file_EXAMPLE"
```

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EXECUTABLES

The following scripts have been developed to support the VPO MPE/iX templates:

ACTIONS

- monctrl - Sets a monitor enable/disable semaphore
- whoas - Displays the user name of anyone running named program

COMMANDS

- mi - Measures run-time statistics (cpu and wall time) of a command file
- wlog - Writes a log record to TRACELOG.LOG.OVOPC.

MONITORS

- abndinfo - Monitors jobs in the ABEND state
- dbinfo - IMAGE/SQL Database monitor
- devinfo - Disk device status monitor
- eofmon - 'End of File' monitor
- lockmon - Lock (or semaphore) monitor
- mirrinfo - Mirrored Disk/iX status monitor
- nistatus - Network Interface status monitor
- nsstatus - Network Services status monitor
- ofmon - Printer outfence monitor
- prntqmon - Printer queue length monitor
- procmon - Job and Process monitor
- replymon - MPE/iX Console replies monitor
- volinfo - Volume disc space utilization monitor

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The MONITOR executables follow a naming convention such that:

- Scripts that are scheduled as MONITORS and return a numeric result have `mon` in their name (e.g. `eofmon`, `procmon`, `ofmon`, etc.).
- Scripts that are scheduled as MONITORS but the result is returned by OPCMSG have `status` in their name (e.g. `nistatus`, `nsstatus`, etc.).
- Scripts that output their result as a file to be read by the Logfile Encapsulation agent have `info` in their name (e.g. `dbinfo`, `devinfo`, `volinfo`, etc.)

All of these scripts have been designed with a logging feature to aid in debugging the runtime execution of these scripts by the VPO agent. To enable logging, a global variable (`setvar TRACELOG, TRUE`) must be set within the VPO agent background job (`OPCAGTJ.BIN.OVOPC`). When trace logging is enabled, each executable script will log debug status messages to the file `TRACELOG.LOG.OVOPC`. (see `COMMANDS` executable `WLOG` for details)

OPCMMSG opcmsg (1|3) MPE/iX

This template provides for the interception of messages submitted by `opcmsg(1)` and `opcmsg(3)`. The conditions defined within this template support messages that are expected from the network MONITOR templates.

Forwarding of unmatched messages is enabled for this template.

To use this template:

- This template should be assigned to all MPE/iX managed nodes.

CONDITIONS:

1. + Alive and Well

```
^<*>alive and well<*>
```

This condition is sent as positive acknowledgement that the event condition was checked and found to be NORMAL. This provides an assurance that the agent is actively monitoring the object and that communication with the Management Server is functional.

This message has an automatic action to acknowledge itself. That is, the operator need not select and acknowledge this message. It will acknowledge itself in 30 seconds.

2. + Network Status: Insufficient capability

```
Unable to retrieve <*>status<*>. Insufficient capability.
```

The network interface and network services monitors require that the agent user (AGENT.OVOPC) have NODE MANAGER (NM) capability.

To use the network monitor templates, the SYSTEM MANAGER must add NM capability to the OVOPC account and the AGENT.OVOPC user. Once the capabilities have been modified, the agent job (OPCAGTJ, AGENT.OVOPC) needs to be stopped and restarted.

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3. + Interface unavailable

`^The <@.interface_name> interface is not started. Result is <#.cierror>`

The network interface name given in this message has not been started. This may have a negative affect on system communication, network processing or system availability.

The annotations window contains the current status of this interface.

An operator-initiated action has been provided for restarting the interface.

4. + Interface available

`^<*>interface is available<*>`

The network interface given in this message has been status checked and appears to have been started successfully. This message provides positive feedback that the interface is available.

This message has an automatic action to acknowledge itself. That is, the operator need not select and acknowledge this message. It will acknowledge itself in 30 seconds.

5. + No NS Services are active

`^NO NETWORK SERVICES ARE CURRENTLY ACTIVE.`

The NS Services are not currently active. This may adversely affect system access availability and network processes.

The Annotations window contains the current status of all of the NS Network Services.

An operator-initiated action has been provided to start the service.

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6. + NS Service not started

```
^NS Service <*.svc_description> (<@.ns_svc>) is  
UNAVAILABLE.
```

The NS Service given in this message is not available. Either the service process has been stopped or has died.

The Annotations window contains the current status of all of the NS Network Services.

An operator-initiated action has been provided to restart the service.

7. + NS Services available

```
^<*>NS Services are available<*>
```

The NS Services have been status checked and all services appear to have been started successfully. This message provides positive feedback that the NS Services are available.

This message has an automatic action to acknowledge itself. That is, the operator need not select and acknowledge this message. It will acknowledge itself in 30 seconds.

LOGFILE Image/SQL Databases

```
EXEFILE:      xeq dbinfo.monitor < dblist.pub.ovopc
READFILE:     dbstatus.pub.ovopc
INTERVAL:     1h30m
```

This template monitors the capacities and database flags for Image/SQL databases. The executed script, `DBINFO.MONITOR.OVOPC`, retrieves the database information and writes it to the file `DBSTATUS.PUB.OVOPC`. (See `DBSTATUS.PUB.OVOPC` sample file)

SPECIAL NOTE: The VPO agent can only obtain this information if the agent has System Manager (SM) capability. The default `OVOPC` account does not have this capability. You must alter the `OVOPC` account and the `AGENT.OVOPC` user capabilities to include SM.

To use this template:

- You need to create the input file, `DBLIST.PUB.OVOPC`, on each MPE/iX managed node that will be assigned this template. The `DBLIST.PUB.OVOPC` should contain the fully qualified root file names for each Image database to be monitored. This file may include comments by preceding any comment lines by the number sign (#).

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Example:

```
:PRINT DBLIST.PUB.OVOPC;PAGE=0

#####
#
# File:          DBLIST.PUB.acct
#
# Description:  This file is the input file for the monitor script
#              dbinfo.monitor.ovopc. This file should contain the
#              names of any TurboIMAGE/iX databases that are to be
#              monitored by dbinfo.monitor.ovopc. The dbinfo monitor
#              monitors dataset capacities and Image database flags
#              within the database.
#
#              The database filenames should be qualified as file.group
#              minimally. The account name will be assumed from the
#              account name for this file itself (DBLIST.PUB.acct).
#
#              If this file is to be maintained in a general location
#              rather than within the account where the database resides
#              (e.g. DBLIST.PUB.OVOPC), then all database filenames
#              should be fully qualified as file.group.account.
#
#              The format for the DBLIST.PUB.appacct file is:
#
#              columns
#              -----
#              1-30  dbfilename (file.group minimally)
#
#                      3
#                      0
#-----+
# Example:
ORDERS.DATA.PROD
```

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1. Assign the template to the desired MPE/iX managed nodes.
2. The default exception conditions are:

Severity	Condition
CRITICAL	Master dataset capacity > 85% full
CRITICAL	Detail dataset capacity > 95% full
MAJOR	Master dataset capacity > 75% full
MAJOR	Detail dataset capacity > 85% full
WARNING	Access is disabled
WARNING	Autodefer is enabled
WARNING	Dumping is enabled
WARNING	Rollback recovery is enabled
WARNING	Recovery is enabled
WARNING	ILR is enabled
WARNING	Mustrecover is enabled
WARNING	Logging is disabled
WARNING	Prefetch is enabled
WARNING	Indexing is enabled
WARNING	HWMPUT is enabled
WARNING	Use of lock table for deadlock detection is disabled
WARNING	Restart is enabled
WARNING	Use of Dependency SEMaphore (DSEM) is enabled
WARNING	Shadowing is enabled

These condition states are provided as the most typical or default states for Image databases. You have the opportunity to modify these conditions to the opposite case or to suppress states that you deem irrelevant.

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EXEFILE: DBINFO.MONITOR.OVOPC

The executed script, DBINFO . MONITOR . OVOPC, expects to use Command I/O Redirection (CIOR) to read a file containing the list of Image/SQL database names to be monitored.

NAME

DBINFO - IMAGE/SQL Database monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

```
dbinfo < <dblist file>
```

OPTIONS

<dblist file> An input file that lists the databases to be monitored. See SPECIAL CONSIDERATIONS below for the file format.

DESCRIPTION

DBINFO monitors the capacities and database flags of TurboIMAGE databases. The capacities are compared against a threshold defined within VPO. The flags are compared against the state that would be considered the exception.

The information is written to the file DBSTATUS . PUB . OVOPC and interpreted by the LOGFILE ENCAPSULATION process.

SPECIAL CONSIDERATIONS

DBINFO expects to read a list of databases from an input file (DBLIST . PUB . OVOPC) read by CIO Redirection.

The format for the DBLIST . PUB . OVOPC file is:

```
columns  
-----  
1-30  dbfilename (file.group minimally)
```

A number sign (#) in column 1 signifies a comment.
This script requires SYSTEM MANAGER (SM) capability.

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OPERATION

The execution flow for the DBINFO script is as follows:

1. Validates that an input file has been supplied to \$STDIN. If not, exits.
2. Reads a record from input file.
3. Validates that it is an Image database root file name. If not, skips. If a comment, writes comment to \$STDLIST.
4. Executes DBUTIL with commands:
 SHOW <dbname.grp.acct> FLAGS
 SHOW <dbname.grp.acct> CAPACITY
Captures output to temp file.
5. Reads temp file from \$STDIN. For each record, concatenates the fully qualified database name with the input record read and writes concatenated record to final output logfile (DBSTATUS.PUB.OVOPC).
6. Reads next database name from the input file.

READFILE: DBSTATUS.PUB.OVOPC

The format of the DBSTATUS.PUB.OVOPC output file is as shown in this example output (in this example, the database name is ORDERS.DATA.PROD):

```
ORDERS.DATA.PROD HP30391C.07.10 TurboIMAGE/XL: DBUTIL (C) COPYRIGHT HEWLETT-PACKARD COMPANY 1987
ORDERS.DATA.PROD >>
ORDERS.DATA.PROD For database ORDERS.DATA.PROD
ORDERS.DATA.PROD Access is enabled.
ORDERS.DATA.PROD Autodefer is disabled.
ORDERS.DATA.PROD Dumping is disabled.
ORDERS.DATA.PROD Rollback recovery is disabled.
ORDERS.DATA.PROD Recovery is disabled.
ORDERS.DATA.PROD ILR is disabled.
ORDERS.DATA.PROD Mustrecover is disabled.
ORDERS.DATA.PROD Logging is disabled.
ORDERS.DATA.PROD Prefetch is disabled.
ORDERS.DATA.PROD Indexing is disabled.
ORDERS.DATA.PROD HWMPUT is disabled.
ORDERS.DATA.PROD Add entry into lock table for deadlock detect is enabled.
ORDERS.DATA.PROD Restart is disabled.
ORDERS.DATA.PROD Database has never been stored.
ORDERS.DATA.PROD Database has been modified since last store date.
ORDERS.DATA.PROD Shadowing is disabled.
ORDERS.DATA.PROD Using Dependency Semaphore(DSEM) is disabled.
ORDERS.DATA.PROD Subsystem access is READ/WRITE.
ORDERS.DATA.PROD >>
ORDERS.DATA.PROD For database ORDERS.DATA.PROD
ORDERS.DATA.PROD
ORDERS.DATA.PROD No. of %Max ----- Capacity ----- Dyn
ORDERS.DATA.PROD Data Set Name Type Entries Cap Maximum Current Initial Increment Exp
ORDERS.DATA.PROD (Hashing)
ORDERS.DATA.PROD DATE-MASTER A 129 35 365 365 0 0 NO
ORDERS.DATA.PROD CUSTOMER M 182 90 201 201 0 0 NO
ORDERS.DATA.PROD PRODUCT M 232 77 300 300 0 0 NO
ORDERS.DATA.PROD SUP-MASTER M 96 47 201 201 0 0 NO
ORDERS.DATA.PROD INVENTORY D 336 19 1800 450 450 45 YES
ORDERS.DATA.PROD SALES D 498 49 1008 504 504 112 YES
ORDERS.DATA.PROD >>
```


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CONDITIONS:

The following are the defined conditions for this template. Forward unmatched is disabled.

1. - Suppress datasets with a capacity of 1

```
^<@.dbname>.<@.grp>.<@.acct> <@.setname><S><[A|D|M].settype> <[1].entries><S><[<<#>
-eg 100>].fullness><S><#.maxent><S><#.curr><S><#.initial><S><#.increment><S><[YES|NO]
.autoexpand>
```

2. + Database capacity of MASTER sets is CRITICAL

```
^<@.dbname>.<@.grp>.<@.acct> <@.setname><S><[A|M].settype> <#.entries><S><[<<#> -gt 85>]
.fullness><S><#.maxent><S><#.curr><S><#.initial><S><#.increment><S><[YES|NO].autoexpand>
```

3. + Database capacity of DETAIL sets is CRITICAL

```
^<@.dbname>.<@.grp>.<@.acct> <@.setname><S><[D].settype> <#.entries><S><[<<#> -gt 95>]
.fullness><S><#.maxent><S><#.curr><S><#.initial><S><#.increment><S><[YES|NO].autoexpand>
```

4. + Database capacity of MASTER sets is MAJOR

```
^<@.dbname>.<@.grp>.<@.acct> <@.setname><S><[A|M].settype> <#.entries><S><[<<#> -gt 75>]
.fullness><S><#.maxent><S><#.curr><S><#.initial><S><#.increment><S><[YES|NO].autoexpand>
```

5. + Database capacity of DETAIL sets is MAJOR

```
^<@.dbname>.<@.grp>.<@.acct> <@.setname><S><[D].settype> <#.entries><S><[<<#> -gt 85>]
.fullness><S><#.maxent><S><#.curr><S><#.initial><S><#.increment><S><[YES|NO].autoexpand>
```

6. + Access is disabled

```
<@.dbname>.<@.group>.<@.acct><S>Access is disabled.
```

7. + Autodefer is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Autodefer is enabled.
```

8. + Dumping is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Dumping is enabled.
```

9. + Rollback recovery is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Rollback recovery is enabled.
```

10. + Recovery is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Recovery is enabled.
```

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11. + ILR is enabled

```
<@.dbname>.<@.group>.<@.acct><S>ILR is enabled.
```

12. + Mustrecover is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Mustrecover is enabled.
```

13. + Logging is disabled

```
<@.dbname>.<@.group>.<@.acct><S>Logging is disabled.
```

14. + Prefetch is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Prefetch is enabled.
```

15. + Indexing is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Indexing is enabled.
```

16. + HWMPUT is enabled

```
<@.dbname>.<@.group>.<@.acct><S>HWMPUT is enabled.
```

17. + Use of lock table for deadlock detection is disabled.

```
<@.dbname>.<@.group>.<@.acct><S>Use of lock table for deadlock detection is disabled.
```

18. + Restart is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Restart is enabled.
```

19. + Use of Dependency SEMaphore(DSEM) is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Use of Dependency SEMaphore(DSEM) is enabled.
```

20. + Shadowing is enabled

```
<@.dbname>.<@.group>.<@.acct><S>Shadowing is enabled.
```

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Customization

For any of the above state conditions, you can create variations that meet your specific site needs. For example, if Shadowing is enabled on one database but disabled on all others:

1. Create a copy of condition #20 (the new condition should come before the one being copied).
2. Change the condition text from `enabled` to `disabled`.
3. Specify the database name explicitly.

```
<PAYDB.dbname>.<DATA.group>.<ACCTG.acct><S>Shadowing is disabled.
```

To change the threshold for database capacity checking:

1. Modify the test in the `<fullness>` parameter of the regular expression to the new threshold:

```
...<[<<#> -gt 85]>.fullness>...
```

2. If a unique threshold is required for a specific database or dataset within the database, qualify the database name and/or the dataset name in the regular expression:

```
^<[ORDERS].dbname>.<[DATA].grp>.<[PROD].acct> <[INVENTORY| SALES].setname><...
```

MONITOR mpeix_ni_FDDI1

MONITOR mpeix_ni_LAN1

MONITOR mpeix_ni_LOOP

```
MONPROG:      xeq nistatus.monitor FDDI1 mpeix_ni_FDDI1
              xeq nistatus.monitor LAN1 mpeix_ni_LAN1
              xeq nistatus.monitor LOOP mpeix_ni_LOOP
INTERVAL:     20m
```

These templates check that the given network interface has been started (this template can be used for any network interface configured on an MPE/iX managed node; the common interface names of LAN1, FDDI1, and LOOP are found on most MPE/iX systems). The actual status of the network interface is returned by `opcmsg`.

SPECIAL NOTE: The VPO agent can only obtain this information if the agent has Node Manager (NM) capability. The default OVOPC account does not have this capability. You must alter the OVOPC account and the `AGENT.OVOPC` user capabilities to include NM.

To use this template:

1. These templates should only be assigned "as is" if your MPE/iX managed nodes have network interfaces by these names.
2. The name LAN1 is the most common interface for LAN interfaces; other LAN interface names are often LAN2, DTSLINK, etc..
3. The name FDDI1 is the most common interface name for FDDI interfaces, however, it is not very typical that a system is connected to an FDDI network. If the system does not have an FDDI interface, it is not expected that the `mpeix_ni_FDDI1` template be assigned.
4. The name LOOP is the most common interface name for the LOOPBACK network interface. This should be expected on all MPE/iX managed nodes.
5. If none of these interface names are typical of your MPE/iX managed nodes, you can modify the templates to use the actual network interface names configured on their systems.

MONPROG: NISTATUS.MONITOR.OVOPC

NAME

NISTATUS - Network Interface status monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

nistatus <ni_name> [<mon_name>]

OPTIONS

ni_name	Network interface name to be monitored.
mon_name	VPO monitor template name to which the result is returned. (optional) (default is ni_name).

DESCRIPTION

nistatus verifies that the network interface is started. The status result is returned by opcmsg.

SPECIAL CONSIDERATIONS

This script requires Node Manager (NM) capability. Also requires that the opcmsg (1|3) MPE/iX template is assigned to the same managed node.

OPERATION

The execution flow for the NISTATUS script is as follows:

1. Checks the agents (AGENT.OVOPC) user capabilities to ensure that it has Node Manager (NM) capability. If not, sends opcmsg stating insufficient capability.
2. Issues the :NETCONTROL STATUS;NET=<ni_name> command.
3. Checks the command output to determine if interface is started. If so, sends opcmsg that the interface is available. If not, sends opcmsg that the interface is not started.
4. The opcmsg result is returned as the value to the monitor <mon_name>.

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Customization

If your network interfaces names are different than the names in the templates provided (FDDI1, LAN1, or LOOP), you will need to customize the template for your interfaces.

To change the network interface name:

1. Copy one of the existing templates.
2. Change the template name to reflect the network interface that will be monitored. Example, for an interface name of DTSLINK, change the monitor name to:

```
mpeix_ni_DTSLINK
```

3. Change the parameters supplied to the monitor program NISTATUS for the new interface name and the new monitor name:

```
xeq nistatus.monitor DTSLINK mpeix_ni_DTSLINK
```

MONITOR mpeix_nsstatus

MONPROG: xeq nsstatus.monitor mpeix_nsstatus
INTERVAL: 20m

This template checks the status of the NS Network Services. The status of the network services are returned by `opcmsg`.

SPECIAL NOTE: The VPO agent can only obtain this information if the agent has Node Manager (NM) capability. The default OVOPC account does not have this capability. You must alter the OVOPC account and the `AGENT.OVOPC` user capabilities to include NM.

To use this template:

- This template should be assigned to all MPE/iX managed nodes that use NS Network Services.

MONPROG: NSSTATUS.MONITOR.OVOPC

NAME

NSSTATUS - NS Network Services status monitor

PATH

`/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/`

`<vpo_version>` is the version of VPO, for example A.06.00.

SYNOPSIS

`nsstatus [<mon_name>]`

OPTIONS

`mon_name` VPO monitor template name to which the result is returned.
(optional) (default is `nsstatus`)

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DESCRIPTION

NSSTATUS verifies that the NS Network Services are started. The status of the services are returned by `opcmsg`.

SPECIAL CONSIDERATIONS

This script requires Node Manager (NM) capability. Also requires that the `opcmsg (1 | 3)` MPE/iX template is assigned to the same managed node.

OPERATION

The execution flow for the NSSTATUS script is as follows:

1. Checks the agents (`AGENT.OVOPC`) user capabilities to ensure that it has Node Manager (NM) capability. If not, sends `opcmsg` stating insufficient capability.
2. Issues the `:NSCONTROL STATUS=SERVICES` command. Captures the command output to a temporary file.
3. Reads the command output to determine if each service is started. If all services are available, sends `opcmsg` that the services are available. If any service is not started, sends `opcmsg` that specifies which service is not started. If no services are started, sends `opcmsg` stating no services are available.
4. The `opcmsg` result is returned as the value to the monitor `<mon_name>`.

Customization

No special customizations are required of this template. Custom actions or messages should be made to the `opcmsg (1 | 3)` MPE/iX template.

LOGFILE MPE/iX Disk Device Status

EXEFILE: xeq devinfo.monitor
READFILE: devdata.pub.ovopc
INTERVAL: 30m

This template monitors the current status of the disk drives on MPE/iX systems. The executed script, DEVINFO.MONITOR.OVOPC, retrieves the disk drive status information and writes it to the file DEVDATA.PUB.OVOPC. (See DEVDATA.PUB.OVOPC sample file)

To use this template:

1. Assign the template to the desired MPE/iX managed nodes.
2. The default exceptions are:

Severity	Condition
CRITICAL	Volume status: DISABLED
CRITICAL	Volume status: PENDING
WARNING	Volume status: Split backup volume MASTER or MEMBER
WARNING	Volume status: Split user volume MASTER or MEMBER

3. The suppressed status states are:

Condition
Volume status: UNKNOWN
Volume status: LONER
Volume status: Mirrored MASTER or MEMBER
Volume status: MASTER or MEMBER

EXEFILE: DEVINFO.MONITOR.OVOPC

NAME

DEVINFO - Disk drive status monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

devinfo <dstat_opt>

OPTIONS

<dstat_opt> Parameter input to MPE/iX DSTAT command. Defaults to ALL.

DESCRIPTION

DEVINFO monitors disk drive status (:DSTAT ALL). The drive status is compared against states defined within VPO.

The information is written to the file DEVDATA.PUB.OVOPC and interpreted by the LOGFILE ENCAPSULATION process.

OPERATION

The execution flow for the DEVINFO script is as follows:

1. Issues the MPE/iX command :DSTAT ALL.
2. Captures the command output to the logfile, DEVDATA.PUB.OVOPC.

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READFILE: DEVDATA.PUB.OVOPC

The format of the DEVDATA . PUB . OVOPC output file is as shown in this example output :

: print devdata. pub. ovopc

LDEV-TYPE	STATUS	VOLUME (VOLUME SET - GEN)	
1-C3010M1	MASTER	MEMBER1	(MPEXL_SYSTEM_VOLUME_SET-0)
2-C2474S	MEMBER	MEMBER2	(MPEXL_SYSTEM_VOLUME_SET-0)
30- 079350	MASTER	MEMBER1	(CUST_SET-0)
31- 079350	MEMBER	MEMBER2	(CUST_SET-0)
32- 079370	MASTER-MD	MEMBER1	(PROD_SET-0)
33- 079370	MASTER-MD	MEMBER1	(PROD_SET-0)
34- 079370	MEMBER-MD	MEMBER2	(PROD_SET-0)
35- 079370	*DISABLED-MD	MEMBER2	(PROD_SET-0)
36- 079370	LONER-SU	MEMBER1	(ADM_SET-0)
37- 079370	LONER-SB	MEMBER1	(ADM_SET-0)
38- 079370	LONER-SU	MEMBER2	(ADM_SET-0)
39- 079370	LONER-SB	MEMBER2	(ADM_SET-0)
40- 079370	MASTER-SU	MEMBER1	(PAYROLL_SET-0)
41- 079370	MASTER-SB	MEMBER1	(PAYROLL_SET-0)
42- 079370	MEMBER-SU	MEMBER2	(PAYROLL_SET-0)
43- 079370	MEMBER-SB	MEMBER2	(PAYROLL_SET-0)
44- 079350	LONER		
45- 079350	SCRATCH		
46- 079350	UNKNOWN		

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CONDITIONS:

The following are the defined conditions for this template.

1. - DSTAT header 1

```
<S>LDEV-TYPE<S>STATUS<S>VOLUME<S>(VOLUME SET - GEN)
```

2. - DSTAT header 2

```
<S>-----<S>-----<S>-----<S>
```

3. + Volume status: DISABLED

```
<#.ldev>-<8*.dev_type><S>[*|]DISABLED<*>
```

4. + Volume status: PENDING

```
<#.ldev>-<8*.dev_type><S>[*|]PENDING<*>
```

5. - Volume status: UNKNOWN

```
<#.ldev>-<8*.dev_type><S>[*|]UNKNOWN<S>
```

6. - Volume status: SCRATCH

```
<#.ldev>-<8*.dev_type><S>[*|]SCRATCH<S>
```

7. + Volume status: LONER

```
<#.ldev>-<8*.dev_type><S>[*|]LONER<S>
```

8. + Volume status: Split backup volume MASTER or MEMBER

```
<#.ldev>-<8*.dev_type><S>[MASTER|MEMBER]-SB<S><@.volume><S>( <@.volume_set>-<#.gen>)
```

9. + Volume status: Split user volume MASTER or MEMBER

```
<#.ldev>-<8*.dev_type><S>[MASTER|MEMBER]-SU<S><@.volume><S>( <@.volume_set>-<#.gen>)
```

10. - Volume status: Mirrored MASTER or MEMBER

```
<#.ldev>-<8*.dev_type><S>[MASTER|MEMBER]-MD<S><@.volume><S>( <@.volume_set>-<#.gen>)
```

11. - Volume status: MASTER or MEMBER

```
<#.ldev>-<8*.dev_type><S>[MASTER|MEMBER]<S><@.volume><S>( <@.volume_set>-<#.gen>)
```

LOGFILE MPE/iX Volume Set Capacity

EXEFILE: xeq volinfo.monitor
READFILE: voldata.pub.ovopc
INTERVAL: 1h

This template monitors the utilization of volume sets and volume members for MPE/iX systems. The executed script, VOLINFO.MONITOR.OVOPC, calculates the current utilization of PERM space, FREE space, and TRANSIENT space in both sectors and percentage used for each volume set on the system and for each volume member within the set. The information is written to the file VOLDATA.PUB.OVOPC. (See VOLDATA.PUB.OVOPC sample file)

To use this template:

1. Assign the template to the desired MPE/iX managed nodes.
2. The default exceptions are:

Severity	Condition
WARNING	Volume set <=10% FREE
WARNING	MPEXL_SYSTEM_VOLUME_SET <= 1000000 SECTORS FREE
WARNING	Volume member <= 5% FREE
WARNING	Member of MPEXL_SYSTEM_VOLUME_SET <= 10% FREE

3. The suppressed status states are:

Condition
Suppress DISKDUMP_VOLUME_SET

EXEFILE: VOLINFO.MONITOR.OVOPC

NAME

VOLINFO - Volume disc space utilization monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

volinfo

OPTIONS

None.

DESCRIPTION

VOLINFO monitors disk space utilization by volume and volume set. The current utilization is compared against thresholds for volume sets and volume members defined within VPO.

The information is written to the file VOLDATA.PUB.OVOPC and interpreted by the LOGFILE ENCAPSULATION process.

OPERATION

The execution flow for the VOLINFO script is as follows:

1. Issues the MPE/iX command `:DSTAT ALL` as a means of discovering the volume set names configured for that managed node. The output is captured to a temporary file.
2. The temporary file is sorted by volume set names.
3. The sorted temporary file is read, and for each volume name, the VOLUTIL command `SHOWSET volume_set_name STORAGE` is issued. The output is captured to a temporary file.
7. The VOLUTIL output file is read. For each record, concatenates the volume set name with the input record read and writes concatenated record to a new temporary file.
8. Reads each record and calculates the percentages for FREE, PERM and TRANSIENT space for the volume. Writes the final output file.
(VOLDATA.PUB.OVOPC).
9. Reads next volume set name from the input file.

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READFILE: VOLDATA.PUB.OVOPC

The format of the VOLDATA.PUB.OVOPC output file is as shown in this example output :

```
:print voldata.pub.ovopc
```

```
MPEXL_SYSTEM_VOLUME_SET:MEMBER1 free: 3126096 (39%) perm: 4386720 (56%) trans: 311520 (3%)  
device total: 7824336  
MPEXL_SYSTEM_VOLUME_SET:MEMBER2 free: 2105456 (39%) perm: 3024400 (57%) trans: 164288 (3%)  
device total: 5294144  
MPEXL_SYSTEM_VOLUME_SET:Total: free: 5231552 (39%) perm: 7411120 (56%) trans: 475808 (3%)  
device total: 13118480
```

CONDITIONS:

The following are the defined conditions for this template.

1. - Suppress DISKDUMP_VOLUME_SET

```
DISKDUMP_VOLUME_SET:<*>
```

2. + Disc utilization for volume set

```
<@.vol_set>:Total: free: <#.free_sectors> (<[<[<#>] -le 10>].free_pct>%)  
perm: <#.perm_sectors> (<#.perm_pct>%) trans: <#.transient_sectors>  
(<#.transient_pct>%) device total: <#.total_sectors>"
```

3. + Disc utilization for MPEXL_SYSTEM_VOLUME_SET

```
<[MPEXL_SYSTEM_VOLUME_SET].vol_set>:Total: free: <[<[<#>] -le 1000000>].free_sectors>  
(<#.free_pct>%) perm: <#.perm_sectors> (<#.perm_pct>%) trans: <#.transient_sectors>  
(<#.transient_pct>%) device total: <#.total_sectors>
```

4. + Disc utilization for volume member

```
<@.vol_set>:<@.member> free: <#.free_sectors> (<[<[<#>] -le 5>].free_pct>%)  
perm: <#.perm_sectors> (<#.perm_pct>%) trans: <#.transient_sectors>  
(<#.transient_pct>%) device total: <#.total_sectors>
```

5. - Disc utilization for member of volume MPEXL_SYSTEM_VOLUME_SET

```
<[MPEXL_SYSTEM_VOLUME_SET].vol_set>:<@.member> free: <#.free_sectors>  
(<[<[<#>] -le 10>].free_pct>%) perm: <#.perm_sectors> (<#.perm_pct>%)  
trans: <#.transient_sectors> (<#.transient_pct>%) device total: <#.total_sectors>
```


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Customization

To change the threshold for volume capacity checking:

1. Modify the test in the *<free_pct>* parameter of the regular expression to the new threshold:

```
...<[<[#>] -le 10>].free_pct>...
```

2. If a unique threshold is required for a specific volume set, qualify the volume set name in the regular expression:

```
<[PAYROLL_SET].vol_set>:<...
```

MONITOR mpeix_ftpmon

MONITOR mpeix_inetd

MONITOR mpeix_scopejob

```
MONPROG:      xeq procmon.monitor -j ftpmon,ftp.sys mpeix_ftpmon
               xeq procmon.monitor -j jinetd,manager.sys mpeix_inetd
               xeq procmon.monitor -j scopejob,manager.sys mpeix_scopejob
INTERVAL:     6m
```

These templates verify that an MPE/iX background job or process is running; FTPMON, JINETD, and SCOPEJOB are all commonly found background jobs found on most MPE/iX systems.

- A value of 0 is returned if the job or process is not found.
- A value greater than 0 is returned if one or more occurrences of the job or process were found in execution.
- A value of -1 is returned if a lock semaphore is set for this process (see SPECIAL CONSIDERATIONS below).

To use this template:

1. These templates should only be assigned "as is" if your MPE/iX managed nodes have background jobs by these names.
2. The `mpeix_inetd` template should be assigned on MPE/iX 6.x systems that use `JINETD, MANAGER.SYS`.
3. The job `SCOPEJOB` is the scope collector that is part of the performance tools for MPE/iX. The `mpeix_scopejob` template should be assigned to those MPE/iX managed nodes that consistently have the `SCOPE` collector running.
4. Most MPE/iX customers have many background jobs on their systems. The templates demonstrate how monitoring of background jobs and processes can be accomplished. You only need copy one of these templates and make some minor parameter modifications to develop new templates for each background job on your system.

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5. This template can be easily modified to monitor background processes (as opposed to jobs) as well. Customers that use ORACLE on their MPE/iX nodes, for example, can easily monitor each instance and the related ORACLE processes. An example MONPROG to monitor ORACLE logging for the ORACLE instance DOCDB . PROD:

```
xex procmon.monitor -p oralgwr.pub.oracle -i docdb.prod  
ora_docdb
```

MONPROG: PROCMON.MONITOR.OVOPC

NAME

PROCMON - Job and Process monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

```
procmon -j|p <proc_name> [-i <info_string>] <mon_name>
```

OPTIONS

-j	describes <proc_name> as a job.
-p	describes <proc_name> as a process.
<proc_name>	the fully qualified job (jobname , user . acct) or the fully qualified process (program . group . acct).
-i	defines the subsequent parameter as an info string (only valid with -p option)
<info_string>	qualifies <proc_name> to the process created using the specified ; INFO= string.
<mon_name>	VPO monitor template name to which the result is returned.

DESCRIPTION

PROCMON checks the status of the background job or process given by <proc_name> and determines if it is currently running.

A value of 0 is returned if the job or process is not found.

A value greater than 0 is returned if one or more occurrences of the job or process were found in execution.

A value of -1 is returned if a lock semaphore is set for this process (see SPECIAL CONSIDERATIONS below).

SPECIAL CONSIDERATIONS

This monitor returns a negative result if a file given by `<proc_name>.LOCK.OVOPC` exists. This creates a special condition that can be used to "disable" normal checking for this process, such as during a planned outage when the job or process is stopped normally.

A special CONSOLE condition exists such that the following:

```
:TELLOP Please disable monitor !hpjobname
```

will invoke this feature automatically. The CONSOLE condition:

```
:TELLOP Please enable monitor !hpjobname
```

will restore the monitoring of the job or process as normal. Using this feature by inserting these commands into a background job's JCL gives that job the ability to automate VPO monitoring of that job. The "please enable" at the start of the job will alert VPO to begin monitoring. The "please disable" just prior to the jobs EOJ will disable monitoring when the job concludes normally. If the job should terminate abnormally, VPO will alarm as the job is no longer running while monitoring was "enabled".

NOTES

This script uses the POSIX utility `ps` (`PS.HPBIN.SYS`) for process monitoring. The `ps` utility must have BA capability to be used by the VPO agent.

To verify if `PS.HPBIN.SYS` has BA capability:

```
:linkedit  
LinkEd> listprog ps.hpbin.sys
```

If BA is not in the capability list, add it by performing the following:

```
:linkedit  
LinkEd> altprog ps.hpbin.sys;cap=ia,ba,pm,ph
```

OPERATION

The execution flow for the PROCMON script is as follows:

1. Because of the number of parameters and strict syntax, the script first validates that the parameters are valid and that the syntax is correct.
2. If the script is used to monitor a job, a `:SHOWJOB;EXEC` command is issued. If the script is used to monitor a process, a `:PS.HPBIN.SYS -ef` is issued. In either case, the output is captured to a temporary file.
3. The temporary file is searched for the job or process name tallying the number of occurrences. When the `-i` option is used, a two pass search is used; first to reduce the records to those matching the `info_string`, then the subfile is searched for the process name, again, tallying the number of occurrences.
4. The script then checks for the presence of a "lock semaphore" (actually, it checks for a file with the same name as the job name or the process file name in the LOCK group of the OVOPC account). If the "semaphore" is found, a `-1` is returned as the monitor result.
5. Otherwise, the number of occurrences found is returned as the monitor result.

CONDITIONS:

The following are the defined conditions for this template.

1. `-1` MPE/iX background job is disabled.
2. `0` MPE/iX background job is not running
3. `+1` MPE/iX background job is alive and well

Customization

These templates are provided as useful examples for a customer who needs to monitor their own background jobs and processes. It is to this end that the PROCMON script was designed with the flexible parameter set.

To use the "semaphore" feature, described above, you will need to create the LOCK group within the OVOPC account. To create the LOCK group:

```
:NEWGROUP LOCK.OVOPC;ACCESS=(R,W,A,L,S,X:AC)
```

MONITOR mpeix_lock_mon

```
MONPROG:      xeq lockmon.monitor mpeix_lock_mon
INTERVAL:     1h
```

This template checks to see if any background job or process are currently "disabled". That is, it checks to see if any files have been built in the group LOCK.OVOPC (see the discussion on "lock semaphores" for the PROCMON script above). The number of files found is reflected in the monitor result.

This template is intended to be used as a "reminder" that some background jobs are not being monitored because they are "disabled". This can be quite normal whenever this is a planned shutdown of background processes or jobs (such as before a system backup is performed). However, if the operator is unaware that the lock files exist, it may result in a false sense that all processes are being monitored.

To use this template:

- This template should be assigned to an MPE/iX managed node if the "lock semaphore" feature is being used for any of the background job or process monitors.

MONPROG: LOCKMON.MONITOR.OVOPC

NAME

LOCKMON - Lock (or semaphore) monitor

PATH

```
/var/opt/OV/share/databases/OpC/mgd_node\  
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/
```

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

```
lockmon [ <mon_name> ]
```

OPTIONS

```
<mon_name> VPO monitor template name to which the result is returned.  
(optional) (default is mpe_lock_mon)
```

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DESCRIPTION

LOCKMON checks to see if any monitors are currently disabled. That is, it checks to see if any files have been built in the group LOCK.OVOPC. The number of files found is returned as the value for the monitor.

SPECIAL CONSIDERATIONS

This script expects that the group LOCK.OVOPC has been created in the OVOPC account.

OPERATION

The execution flow for the LOCKMON script is as follows:

1. Issues a :LISTF @.LOCK.OVOPC , 6 command directed to a temporary file.
2. Returns the EOF of the temporary file as the monitor result.

Customization

No special customizations are required of this template.

MONITOR mpeix_outfence

```
MONPROG:      xeq ofmon.monitor mon_name=mpeix_outfence
INTERVAL:     8m
```

MONITOR mpeix_outfence6

```
MONPROG:      xeq ofmon.monitor 6 mpeix_outfence
INTERVAL:     7m
```

This template monitors the current value of the printer outfence. If an LDEV is specified, it returns the value for that printer. If no printer LDEV is given, the global outfence value is returned. The threshold can be defined as increasing or decreasing depending on how the outfence is normally used for the given device.

If the outfence is higher than expected then spoolfiles that would otherwise be printed will be deferred. If the outfence is lower than expected, spoolfiles that should have been deferred are printed. The monitor can be used to monitor either of these conditions.

The `mpeix_outfence` template checks the value of the system global outfence. The `mpeix_outfence6` template checks the value of the outfence for ldev 6.

To use this template:

1. These templates should be assigned to any MPE/iX managed node where the monitoring of the printer outfence is desired. The default exception condition checks for a value of the outfence that is greater than the default value of 8.
2. If there is a template configured to monitor a specific ldev that is assigned to a node, such as the `mpeix_outfence6` template, then the `mpeix_outfence` template must also be assigned to the same node.

MONPROG: OFMON.MONITOR.OVOPC

NAME

OFMON - Printer outfence monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

ofmon [<ldev>] [<mon_name>]

OPTIONS

<ldev> Specific LDEV (not DEVICE CLASS) whose outfence is to
 be checked. (optional)
<mon_name> VPO monitor template name to which the result is returned.
 (optional) (default is mpe_outfence)

NOTE: Both parameters are optional. However, they are also positional. If it is desired to monitor the global outfence, but return the value to a monitor name different than the default, you must precede the parameter with its label. For example:

```
xeq ofmon.monitor.ovopc mon_name=global_outfence
```

If both parameters are supplied, the monitor name is made from the concatenation of both parameters. Example:

```
xeq ofmon.monitor.ovopc 6 lp_outfence
```

For this example, the monitor template name should be lp_outfence6.

DESCRIPTION

OFMON monitors the current value of the printer outfence. If LDEV is specified, returns the value for that printer. If no parameter is given, the global outfence value is returned.

The monitor name defaults to:

```
mpe_outfence      for global outfence
mpe_outfenceLDEV  for specified LDEV
```

OPERATION

The execution flow for the OFMON script is as follows:

1. Issues a `:SHOWOUT STATUS` command directed to a temporary file.
2. Searches the command output for the occurrence of the specific LDEV. If found, gets the outfence value for that LDEV. If the specific LDEV isn't found, retrieves the global outfence value.
3. Returns the value to the monitor.

Customization

This template is provided as an example of monitoring the printer outfence. The default template specifies an increasing threshold set at 8 (the system default fence value) and LDEV 6 (the default system printer LDEV). It is expected that you will have several printer devices that are managed by the outfence. You may copy this template, change the LDEV references to your specific printer LDEVs, and determine if the outfence should be monitored as a value that the outfence should not exceed, or as an outfence value that should not be set lower than.

MONITOR mpeix_printq_lp

```
MONPROG:      xeq prntqmon.monitor lp mpeix_printq_  
INTERVAL:    15m"
```

PRNTQMON monitors the queue length for the printer specified for *<ldev>*. That is, it returns the number of READY spoolfiles for that specific print device that have a priority higher than the global outfence. If the specified ldev has an outfence that is set to a value different than the global outfence then the number of reported READY spoolfiles may be different than the actual number of READY spoolfiles.

The monitor name defaults to:

```
print_queue_LDEV      for specified device (LDEV or CLASS)
```

but can be overridden by supplying the monitor name in the second parameter.

Special Considerations

This template has an operator initiated action that will execute the LISTSPF command to display the READY spoolfiles for the device. The user AGENT.OVOPC and account OVOPC must have System Manager (SM) capability in order to be able to display all the spoolfiles for the device.

To use this template:

- This template should be assigned to an MPE/iX managed node where the monitoring of the printer queue length is desired. The default exception condition is for an queue length greater than 35 pending spoolfiles for the system printer LP.

MONPROG: PRNTQMON.MONITOR.OVOPC

NAME

PRNTQMON - Printer queue length monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

prntqmon [<ldev>] [<mon_name>]

OPTIONS

<ldev> Specific LDEV(or DEVICE CLASS) whose queue length is to be monitored.

<mon_name> VPO monitor template name to which the result is returned. (optional) (default is print_queue_LDEV for specified device (ldev))

DESCRIPTION

PRNTQMON monitors the queue length for the printer specified for <ldev>. That is, it returns the number of READY spoolfiles for that specific print device.

The monitor name defaults to:

print_queue_LDEV for specified device (LDEV or CLASS)

but can be overridden by supplying the monitor name in the second parameter.

OPERATION

The execution flow for the PRNTQMON script is as follows:

1. Issues a :LISTSPF O@;SELEQ=[DEV=!device AND STATE=READY];STATUS command directed to a temporary file.
2. Retrieves the number of spoolfiles from the output.
3. Returns the value to the monitor.

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Customization

This template is provided as an example of monitoring the queue length of pending spoolfiles for a printer. The default template specifies an threshold of 35 ready spoolfiles for device LP (the default system printer).

It is expected that you will have several printer devices that require monitoring of the queue length. You may copy this template, change the LDEV references to your specific printer LDEVS, and define the queue length that represents a reduction in service objectives.

MONITOR mpeix_replies

```
MONPROG:      xeq replymon.monitor mpeix_replies
INTERVAL:     12m
```

This template monitors the number of outstanding or pending console replies.

While there is a `CONSOLE` template condition for console replies, this monitor provides notification that replies may not have yet been given a response. This template serves as a useful reminder if the initial `REPLY` event is acknowledged without the `REPLY` being satisfied. The severity is higher as more replies are pending.

To use this template:

1. This template should be assigned to an MPE/iX managed node where the monitoring of the outstanding replies is desired.
2. The default exceptions are:

Severity	Condition
MAJOR	More than three replies outstanding
MINOR	More than one reply outstanding
WARNING	One reply outstanding

MONPROG: REPLYMON.MONITOR.OVOPC

NAME

REPLYMON - Monitors MPE/iX Console replies

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

replymon [*<mon_name>*]

OPTIONS

<mon_name> VPO monitor template name to which the result is returned.
 (optional) (default is *replies*)

DESCRIPTION

REPLYMON monitors the number of outstanding or pending console replies.
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OPERATION

The execution flow for the REPLYMON script is as follows:

1. Issues a :RECALL command directed to a temporary file.
2. Searches the command output tallying the number of reply requests.
3. Returns the value to the monitor.

Customization

No template customization is anticipated.

MONITOR msg_file_EXAMPLE

```
MONPROG:      xeq eofmon.monitor msgfile.pub.sys
              msg_file_EXAMPLE
INTERVAL:     12m
```

This template is provided as an example for monitoring the number of records contained in an MPE/iX message file. This template is used when the number of records contained in the message queue may result in a delay in process communication, that is, it represents a backlog condition.

.

To use this template:

1. This template can not be used without customization. Its usefulness is as an example template.
2. You should modify the template, specifying the message file name and queue threshold values.
3. The default exceptions are:

Severity	Condition
MINOR	Queue length greater than 2500
WARNING	Queue length greater than 1000

MONPROG: EOFMON.MONITOR.OVOPC

NAME

EOFMON - 'End of File' monitor

PATH

/var/opt/OV/share/databases/OpC/mgd_node\
/vendor/hp/s900/mpe-ix/<vpo_version>/RPC_NCS/monitor/

<vpo_version> is the version of VPO, for example A.06.00.

SYNOPSIS

eofmon <file_name> <mon_name>

OPTIONS

<file_name> File name of an MPE/iX message file to be monitored.
<mon_name> VPO monitor template name to which the result is returned.

DESCRIPTION

EOFMON monitors the 'end of file' for the file named in <file_name>. The current 'eof' of the file is passed as the result for <mon_name>.

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OPERATION

The execution flow for the EOFMON script is as follows:

1. Issues a FINFO command to get the current EOF of the message file.
2. Returns the value to the monitor.
3. If the file doesn't exist, returns a value of -1 to the monitor.

Customization

This template can not be assigned without customization. You need to minimally supply the message file name. The queue thresholds should be considered and set to a value that would reflect an exception condition.

CONSOLE MPE/iX Console Msgs

This template provides for the interception of MPE/iX system console messages. The conditions defined within this template address the following systems management areas:

- Volume Management
- Security
- Backup / Tape Volumes
- OpenView System Manager

Forwarding of unmatched messages is disabled for this template. However, some suppress conditions have been defined within the template regardless. The purpose of the suppress conditions is to have the regular expression already defined for those messages. Should you decide you would like those messages forwarded, it is a simple task to modify a condition from suppress to match.

To use this template:

- This template should be assigned to all MPE/iX managed nodes.

CONDITIONS:

1. + Mirrored volume partner missing messages

```
^[?|]<*.time>/[#[S|J]<#>/|]<#.pin>/[<*.user>/|]MIRRORED PARTNER MISSING FOR LDEV#<*.ldev>
```

Volume Management: This condition intercepts messages 301 of SET 15 in CATALOG.PUB.SYS.

2. + Disk array disabled mechanism messages

```
<*/<*/DISK ARRAY HAS DISABLED A MECHANISM IN <*.message>
```

Volume Management: This condition intercepts messages 312 of SET 15 in CATALOG.PUB.SYS.

3. + Mirrored volume disabled messages

```
^[?|]<*.time>/[#[S|J]<#>/|]<#.pin>/[<*.user>/|]MIRRORED VOLUME DISABLED ON LDEV#<*.ldev>
```

Volume Management: This condition intercepts messages 300 of SET 15 in CATALOG.PUB.SYS.

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4. + Request/Reply Msgs (Critical)

```
^?<*.time>/[#[[S|J]<#>/|]<#.pin>/[<*.user>/|]<[<*>DISABLED<*>].text>
```

Volume Management: This condition intercepts messages 302 and 313 of SET 15 in CATALOG.PUB.SYS.

5. + Request/Reply Msgs

```
^?<*.time>/[#[[S|J]<#>/|]<#.pin>/<*.user>/<*.text>
```

Backups: This condition intercepts all other PRINTOPREPLY messages

6. + Enable monitor checking

```
[p|P]lease enable monitor <@.lockname>
```

Job/Process Monitoring: This condition intercepts :TELLOP as discussed in the script PROCMON.MONITOR.OVOPC. It is part of the lock semaphore facility.

7. + Disable monitor checking

```
[p|P]lease disable monitor <@.lockname>
```

Job/Process Monitoring: This condition intercepts :TELLOP as discussed in the script PROCMON.MONITOR.OVOPC. It is part of the lock semaphore facility.

8. + Console returned

```
<*.time>/[#<[[S|J]<#>].jsnum>/|]<#.pin>/[<@.jsname>/|]CONSOLE HAS BEEN SWITCHED FROM LDEV <@.fromdev> TO LDEV 20
```

Security: This condition alerts that the physical console has been returned to the default of LDEV 20. Intercepts message 3145 of Set 7 in CATALOG.PUB.SYS.

9. + Console has been switched

```
<*.time>/[#<[[S|J]<#>].jsnum>/|]<#.pin>/[<@.jsname>/|]CONSOLE HAS BEEN SWITCHED FROM LDEV <@.fromdev> TO LDEV <@.todev>
```

Security: This condition alerts that the physical console has been taken. Intercepts message 3145 of Set 7 in CATALOG.PUB.SYS.

10. + Invalid LOGON: BAD PASSWORD

```
<*.time>/<#.pin>/INVALID PASSWORD FOR <*.logon> DURING LOGON ON LDEV <@.ldev>. <*>
```

Security: This condition intercepts message 65 of Set 35 in CATALOG.PUB.SYS.

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11. – Invalid LOGON: MISSING parameter

```
^<*.time>/[#[S|J]<#>/|]<#.pin>/[<*.user>/|]<*>MISSING <*.parm> FOR <*.logon> ON LDEV <*.ldev>  
<*.jserrnum>
```

Security: This condition intercepts messages 10, 11, 12, 13, 61, 62, 63, 69, 70 of Set 35 in CATALOG.PUB.SYS.

12. + Specific USER logons: SM Capable Users

```
<*.time>/<@.jsnum>/<*.pin>/[MANAGER.SYS|MGR.TELESUP|MGR.NETBASE|MGR.OVOPC]/LOGON FOR:  
<*.logon> ON LDEV #<@.ldev>.
```

Security: This condition intercepts logon messages where the username matches one of the usernames in the list. You may modify this condition to add additional usernames you may have on your systems that also have SM capability.

13. + Specific LDEV logons: LDEV 20 (Console)

```
<*.time>/<@.jsnum>/<*.pin>/<*.useracct>/LOGON FOR: <*.logon> ON LDEV #[20].ldev>.
```

Security: This condition intercepts logon messages to the physical console (LDEV 20). Intercepts message 33 of Set 35 in CATALOG.PUB.SYS.

14. + Specific LDEV logons: LDEV 21 (Remote Console)

```
<*.time>/<@.jsnum>/<*.pin>/<*.useracct>/LOGON FOR: <*.logon> ON LDEV #[21].ldev>.
```

Security: This condition intercepts logon messages to the remote console (LDEV 21). Intercepts message 33 of Set 35 in CATALOG.PUB.SYS.

15. – Specific LDEV logons: LDEV 10 (Jobs)

```
<*.time>/<@.jsnum>/<*.pin>/<*.useracct>/LOGON FOR: <*.logon> ON LDEV #[10].ldev>.
```

Security: This condition intercepts logon messages to the streams device (LDEV 10). Intercepts message 33 of Set 35 in CATALOG.PUB.SYS.

16. – Specific LDEV logons

```
<*.time>/<@.jsnum>/<*.pin>/<*.useracct>/LOGON FOR: <*.logon> ON LDEV #<@.ldev>.
```

Security: This condition demonstrates logon interception by device. Intercepts message 33 of Set 35 in CATALOG.PUB.SYS.

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17. - PROGRAMMATIC logons

```
<*.time>/<@.jsnum>/<*.pin>/<*.useracct>/((PROGRAMMATIC) LOGON FOR: <*.logon> ON LDEV  
#[10].ldev).
```

Security: This condition demonstrates programmatic logon interception. Intercepts message 34 of Set 35 in CATALOG.PUB.SYS.

18. - Logon messages

```
<*>LOGON<*>
```

Security: This condition suppresses general logon messages.

19. - Logoff messages

```
<*>LOGOFF<*>
```

Security: This condition suppresses general logoff messages.

20. + Tape Ldev #7 Not Ready Message

```
<*.time>/<*.pin>/ LDEV #7 NOT READY
```

Backup/Tape Volumes: This condition intercepts device NOT READY messages for specific LDEV. Intercepts message 11 of Set 1 in CATALOG.PUB.SYS.

21. + Tape Ldev #8 Not Ready Message

```
<*.time>/<*.pin>/ LDEV #8 NOT READY
```

Backup/Tape Volumes: This condition intercepts device NOT READY messages for specific LDEV. Intercepts message 11 of Set 1 in CATALOG.PUB.SYS.

22. + General Ldev Not Ready Message

```
<*.time>/<*.pin>/ LDEV #<*.ldev> NOT READY
```

Backup/Tape Volumes: This condition intercepts general device NOT READY messages. Intercepts message 11 of Set 1 in CATALOG.PUB.SYS.

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23. + Tape mount request pending

```
<*.time>/[#<[J|S]<#>/|]<#>/[<@>.<@>/|]MOUNT MEDIA <*.tape_no> FOR STORE ON <*.ldev>
```

Backup/Tape Volumes: This condition intercepts tape mount notification. Intercepts messages 57, 58, 161 of Set 30 and messages 57, 58 of Set 31 in CATALOG.PUB.SYS.

24. - (unlabelled) mounted on Tape volume mount

```
<*>(unlabelled) mounted on<*>
```

Backup/Tape Volumes: This condition suppresses unlabelled volume mount messages.

25. + STORE Bad Media Message 1

```
^<[?|]><*.time>/[#<[[J|S]<#>].jsnum>/|]<#.pin>/[<@.jsname>/|]<*>MEDIA ON LDEV <*.ldev> IS BAD. CONTINUE ANYWAY?(Y/N)
```

Backup/Tape Volumes: This condition intercepts message 71 of Set 30 and message 71 of Set 31 in CATALOG.PUB.SYS.

26. + STORE Bad Media Message 2

```
^<*.time>/[#<[[J|S]<#>].jsnum>/|]<#.pin>/[<@.jsname>/|]STORE IS MARKING MEDIA<*.media>BAD ON LDEV <*.ldev>
```

Backup/Tape Volumes: This condition intercepts message 76, 77, 78 of Set 30 in CATALOG.PUB.SYS.

27. + STORE Bad Media Message 3

```
^<*.time>/[#<[[J|S]<#>].jsnum>/|]<#.pin>/[<@.jsname>/|]<*.media> ON LDEV <@.ldev> IS BEING MARKED BAD
```

Backup/Tape Volumes: This condition intercepts message 157, 158, 159 of Set 30 in CATALOG.PUB.SYS.

28. + STORE 100% Complete Message

```
<*.time>/[<[#<[J|S]<#>].jsnum>/|]<#.pin>/[<[<@>.<@>].user>/|]STORE OPERATION IS 100% COMPLETE
```

Backup/Tape Volumes: This condition intercepts message 463 of Set 29 and message 1701 of Set 30 in CATALOG.PUB.SYS.

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29. + STORE % Complete Message

```
<*.time>/[<[#J|S]<#>].jsnum>/]<#.pin>/[<[<@>.<@>].user>/]STORE OPERATION IS <#.pct>%  
COMPLETE
```

Backup/Tape Volumes: This condition intercepts message 463 of Set 29 and message 1701 of Set 30 in CATALOG.PUB.SYS.

30. + Match all SysMgr messages

```
DTC|Database|Hardware|Job|Logging|Misc|Network|OS|Output|Performance|Security|Storage
```

System Manager: This condition intercepts all messages that have a MSGGRP that matches one of the elements in the list. It is assumed that only messages with NMEV markers will have a MSGGRP assigned as a result of the mappings within the CONSDISC file. This condition is intended to allow OpenView System Manager customers to crossover to VPO and minimally receive all messages that they had been receiving with the OV System Manager product.

APPLICATION LAN Console

APPLICATION GROUP:	MPE Tools
APPLICATION:	LanConsole
APPLICATION CALL	netcons.bin.ovopc lancon

This VPO application will open a Hpterm window and start a session on the MPE/iX managed node or nodes that are selected in the submaps. When the session is started, a program will be run that will give the user the capabilities to execute all console commands, such as OUTFENCE, STARTSPOOL, STOPSPool, except those that are executed via the Cntrl-A or Cntrl-B sequence. This added capability only lasts until the session is logged off. This added capability is achieved by allowing the user all console commands.

This application is configured to log on as `MANAGER . SYS`, and there is no password configured. When the session is started, the CI script `NETCONS . BIN . OVOPC` runs the program `NETALLOW . BIN . OVOPC`.

To use this application:

- If desired, you can enter data in the Customized Startup window to configure a different logon and passwords. Only those users that have the security access to execute the files `NETCONS . BIN . OVOPC` and `NETALLOW . BIN . OVOPC` will be able to run this application.