

Hvrmaint

Contents

- [Name](#)
- [Synopsis](#)
- [Description](#)
- [Options](#)
- [Configuring HVR Email Alerts Using Gmail SMTP](#)
- [Configuring HVR SNS Alerts](#)
- [Creating Maintenance Task](#)
- [Steps to Schedule hvrmaint](#)
- [Alert Message Example](#)
- [Files](#)

Name

hvrmaint - Housekeeping script for HVR on the hub machine.

Synopsis

hvrmaint [*optfile*] [*-options*]

Description

Command **hvrmaint** is a script for regular housekeeping of the HVR on the hub machine. The script can run on the hub machine and can be scheduled on Unix using crontab or as a Windows scheduled task.

The **hvrmaint** can be used for three main purposes:

1. **Maintenance:** Schedule **hvrmaint** nightly (or weekly) with options **-stop** and **-start**. These options instruct **hvrmaint** to restart the **HVR Scheduler**. Often other options can be used, such as **-scan_hvr_out** (scan log files for HVR errors) or **-archive_files** (move old log files to archive directory `$HVR_CONFIG/logarchive/hub_name/day`). **Email alerts** can be used to send an email with the status summary to operator(s). When used in this way, **hvrmaint** could be scheduled on Unix using crontab, and on Windows as a Windows Scheduled Task.
2. **Monitoring:** Run **hvrmaint** frequently (e.g. every 15 minutes) with options **-scan_hvr_out**, **-test_scheduler**, and **-check_logfile_growth** to check if the **HVR Scheduler** is running and to scan the HVR log files for errors. Running **hvrmaint** this way does not interrupt the **HVR Scheduler**. There is option **-email_only_when_errors** to send emails only if an error has occurred.
3. **Backup:** The last way to use **hvrmaint** is as part of a larger nightly or weekly batch script, which halts all server processes (including the DBMS), does a system backup and then restarts everything again. In this case, **hvrmaint** would be called at the top of the batch script with option **-stop** (stop the **HVR Scheduler**) and would then be called again near the bottom with option **-start** (restart the **HVR Scheduler**).

Command **hvrmaint** cannot process log files containing more than 12 months of data.

Options

This section describes the options available for command **hvrmaint**.

Maintenance Tasks

Tasks: mytask

NEW: /home/hvr/hvr_config/files/hvrmaint-mytask.opt

Scheduler checks

-scan_hvr_out

-scan_channel

-scan_location

-scan_ignore

-test_scheduler

-check_logfile_growth

-task_group

Latency checks

-latency_limit

-latency_channel

-latency_location

Scheduler stop and start

-stop

-start

-start_if_not_running

-quiesce_grace

Logfile archives

-archive_files

-archive_keep_days

-archive_compress

Journal purging

-journal_keep_days

Logging

-output_verbose

-error_limit

Email alerts

-email_to

-email_from

-email_only_when_errors

-email_only_when_errors_or_warnings

-smtp_server

-smtp_port

-smtp_starttls

-smtp_user

-smtp_pass

-mailer

-email_repeat_suppression

Slack alerts

-slack_webhook_url

-slack_channel

-send_slack_only_when_errors

-send_slack_only_when_errors_or_warnings

-slack_repeat_suppression

SNS alerts

-sns_notify

-sns_destination

-sns_only_when_errors

-sns_only_when_errors_or_warnings

-sns_repeat_suppression

-sns_access_key

-sns_secret_key

SNMP alerts

-snmp_notify

-snmp_version

-snmp_heartbeat

-snmp_hostname

-snmp_port

-snmp_community

Disable

-disable

Regular Text

Installation

Parameter	Description
-task_name=task	Task name is used internally by hvrmaint to locate its option file and name its offset files. This allows different tasks defined in the GUI to have a different state. e.g. so that a when a task for one channel has processed today's files a different task for a different channel still remembers to process today's files.
Scheduler checks	
-scan_hvr_out	Scan Scheduler log file hvr.out . Command hvrmaint writes a summary of HVR errors detected in this file to its output and to any emails that it sends.
-scan_channel=chn	Only scan the specified channel(s) <i>chn</i> for errors and warnings. Requires option -scan_hvr_out .
-scan_location=loc	Only scan the specified locations(s) <i>loc</i> for errors and warnings. Requires option -scan_hvr_out .
-scan_ignore=patt	Ignore log records which match specified pattern <i>patt</i> (can be regular expression). Requires option -scan_hvr_out .

-test_scheduler	Check that HVR Scheduler is actually running using hvrtestscheduler . If option -stop is also defined then this test is performed before the HVR Scheduler is stopped. If option -start is supplied then hvrmaint always checks that the HVR Scheduler is running using a test, regardless of whether or not option -test_scheduler is defined.
-check_logfile_growth	Check that logfile hvr.out has grown in size since the last time hvrmaint was run. If this file has not grown then an error message will be written. This option should be used with -scan_hvr_out .
-task_group= <i>group</i>	Task group allows different hvrmaint tasks to share the same state. So a nightly task that processes log files and gives a warning if the latency is >1 hour can use the same 'offset state' as a task that runs during the day which gives a warning if latency is >1 minute.
Latency checks	
-latency_limit= <i>dur</i>	<p>Check for replication latencies and consider jobs over the limit erroneous. Value for <i>dur</i> can be specified in one of the following formats:</p> <ul style="list-style-type: none"> • <i>Nd</i> or <i>Nday</i> or <i>Ndays</i> - Indicates number of days • <i>Nh</i> or <i>Nhour</i> or <i>Nhours</i> - Indicates number of hours • <i>Nm</i> or <i>Nmin</i> or <i>Nmins</i> or <i>Nminute</i> or <i>Nminutes</i> - Indicates number of minutes • <i>Ns</i> or <i>Nsec</i> or <i>Nsecs</i> or <i>Nsecond</i> or <i>Nseconds</i> - Indicates number of seconds • <i>HH:MM:SS[.SSS]</i> - Indicates time format with hour, minute, second, and millisecond • <i>MM:SS[.SSS]</i> - Indicates time format with minute, second, and millisecond <p>Milliseconds [<i>.SSS</i>] is ignored by this parameter.</p>
-latency_channel= <i>chn</i>	Only check latencies of jobs in specified channel(s) <i>chn</i> .
-latency_location= <i>loc</i>	Only check latencies of jobs in specified location(s) <i>loc</i> .
Scheduler stop and start	
-stop	Stop HVR Scheduler .
-start	Start HVR Scheduler .
-quiesce_grace= <i>secs</i>	<p>If jobs are still running when the HVR Scheduler must stop, allow seconds <i>secs</i> grace before killing them.</p> <p>The default is 60 seconds.</p> <p>This parameter is passed with the HVR Scheduler using the -q option.</p>
-start_if_not_running <small>Since v5.6.5/13</small>	<p>Start HVR Scheduler if it is not already running.</p> <p>This option will automatically start the HVR Scheduler, if the hub wallet is enabled and the method to supply wallet password is either Auto-Open Password or Auto-Open Plugin. However, if the method is Manual, the wallet password needs to be supplied by the user manually in the command line using the command hvrwalletopen to start the HVR Scheduler. If the wallet password is not supplied within 30 seconds, then HVR prints error in the log stating that it tried to start HVR Scheduler but wallet password was not supplied. Until the wallet password is supplied, the error message is repeated each time the hvrmaint tries to start the HVR Scheduler.</p>

Logfile archives	
-archive_files=<i>pat</i>	<p>Move any files in directory \$HVR_CONFIG/log/<i>hub_name</i> matching pattern <i>pat</i> to the archive directory (\$HVR_CONFIG/logarchive/<i>hub_name</i> day). Files that do not match pattern <i>pat</i> are deleted. Pattern <i>pat</i> is a regular expression. For example:</p> <ul style="list-style-type: none"> • *\out – matches all files ending with .out. • hvr.* - matches all files starting with 'hvr'. • *\out err - multiple patterns may be specified. In this case, all .out files and all err files will be moved to the archive directory.
-archive_keep_days=<i>N</i>	<p>Retain files in archive directory (\$HVR_CONFIG/logarchive/<i>hub_name</i> day) for <i>N</i> number of days. The retained files are deleted after <i>N</i> number of days. Requires option -archive_files. If this option is not specified, then archived files are kept indefinitely.</p>
-archive_compress	<p>Compress HVR Scheduler log files while moving them to the archive directory (\$HVR_CONFIG/logarchive/<i>hub_name</i> day). For a Windows hub, this option can only be used if command gzip has been installed.</p>
Journal purging	
-journal_keep_days=<i>n</i>	<p>Retain HVR journal files in directory \$HVR_CONFIG/jnl for <i>n</i> number of days. The files are deleted after <i>n</i> number of days. These files are written by integrate jobs if parameter Integrate /JournalRouterFiles is defined.</p>
Logging	
-output_verbose	<p>Prints latency information and error summaries to hvrmaint output.</p>
Email alerts	
-email_to=<i>addr1</i> [<i>addr2</i>]	<p>Send the output from hvrmaint as email to the specified email address <i>addr1</i> [and <i>addr2</i>]. Requires either option -smtp_server or option -mailer.</p> <p>Multiple email addresses can be specified with values separated by a semicolon or using multiple -email_to options (only in CLI).</p>
-email_from=<i>addr</i>	<p>Specify a sender address <i>addr</i> in email header.</p>
-email_only_when_errors	<p>Send an email if hvrmaint encountered an error itself or detected an HVR error while scanning hvr.out or the latency limit is exceeded.</p>
-email_only_when_errors_or_warnings	<p>Send an email if hvrmaint encountered an error itself or detected an HVR error or warning while scanning hvr.out or the latency limit is exceeded.</p>
-error_limit=<i>N</i>	<p>HVR errors reported is limited to <i>N</i> number.</p> <p>Default is 1000.</p> <p>This option prevents the generated emails becoming too large.</p>
-smtp_server=<i>server</i>	<p>SMTP server to use when sending an email. Value <i>server</i> can be either a node name or IP address. Requires option -email.</p>
-smtp_port	<p>SMTP port to use when sending an email.</p>
Since v5.6.5/2	

-smtp_starttls <small>Since v5.6.5/2</small>	Use the STARTTLS method to communicate with the SMTP server.
-smtp_user=<i>user</i>	Username <i>user</i> for authentication SMTP server if needed.
-smtp_pass=<i>pass</i>	Password <i>pass</i> used for authentication on the SMTP server if needed.
-mailer=<i>cmd</i>	Mailer command to use for sending emails, instead of sending them via an SMTP server. Requires option -email . String %s contained in <i>cmd</i> is replaced by the email subject and string %a is replaced by the intended recipients of the email. The body of the email is piped to <i>cmd</i> as stdin . E.g. on Linux: -mailer=/bin/mail -s %s %a
-email_repeat_suppression=<i>dur</i> <small>Since v5.6.5/11</small>	<p>Suppress repetition of the same email alert for the specified duration <i>dur</i>.</p> <p>By default, each time when hvrmaint encounters an error itself or detects an HVR error or warning while scanning hvr.out or the latency limit is exceeded, the hvrmaint sends out an alert until the issue is fixed. The number of the alerts sent depends on the frequency in which hvrmaint runs. As long as the issue is not resolved or the error/warning has not changed, hvrmaint will repeatedly send alerts for the same issue.</p> <p>To avoid repeatedly sending alerts for the same issue, this option forces hvrmaint to remain silent for specified duration <i>dur</i> after the first alert is sent out.</p> <p>Value for <i>dur</i> can be specified in one of the following formats:</p> <ul style="list-style-type: none"> • <i>Nd</i> or <i>Nday</i> or <i>Ndays</i> - Indicates number of days • <i>Nh</i> or <i>Nhour</i> or <i>Nhours</i> - Indicates number of hours • <i>Nm</i> or <i>Nmin</i> or <i>Nmins</i> or <i>Nminute</i> or <i>Nminutes</i> - Indicates number of minutes • <i>Ns</i> or <i>Nsec</i> or <i>Nsecs</i> or <i>Nsecond</i> or <i>Nseconds</i> - Indicates number of seconds • <i>HH:MM:SS[.SSS]</i> - Indicates time format with hour, minute, second, and millisecond • <i>MM:SS[.SSS]</i> - Indicates time format with minute, second, and millisecond <p>Milliseconds [<i>.SSS</i>] is ignored by this parameter.</p>
Slack alerts	
-slack_webhook_url=<i>url</i>	<p>A webhook for a Slack channel in company MyCorp looks like https://hooks.slack.com/services/xxxx/yyyy.</p> <p>To generate a Slack webhook, sign into Slack, then navigate to Apps Manage apps Custom Integrations Incoming WebHooks Add Configuration.</p>
-slack_channel=<i>chn</i>	<p>Hvrmaint will send the message to the specified Slack user (@username) or channel <i>chn</i>. This optional field can be used to override the Slack user or channel defined in the Slack webhook (-slack_webhook_url).</p>
-send_slack_only_when_errors	<p>Send a Slack message if hvrmaint encountered an error itself or detected an HVR error while scanning hvr.out or the latency limit is exceeded.</p>
-send_slack_only_when_errors_or_warnings	<p>Send a Slack message if hvrmaint encountered an error itself or detected an HVR error or warning while scanning hvr.out or the latency limit is exceeded.</p>

<p>- slack_repeat_suppression=<i>dur</i> Since v5.6.5/11</p>	<p>Suppress repetition of the same Slack alert for the specified duration <i>dur</i>.</p> <p>By default, each time when hvrmaint encounters an error itself or detects an HVR error or warning while scanning hvr.out or the latency limit is exceeded, the hvrmaint sends out an alert until the issue is fixed. The number of the alerts sent depends on the frequency in which hvrmaint runs. As long as the issue is not resolved or the error/warning has not changed, hvrmaint will repeatedly send alerts for the same issue.</p> <p>To avoid repeatedly sending alerts for the same issue, this option forces hvrmaint to remain silent for specified duration <i>dur</i> after the first alert is sent out.</p> <p>Value for <i>dur</i> can be specified in one of the following formats:</p> <ul style="list-style-type: none"> • <i>Nd</i> or <i>Nday</i> or <i>Ndays</i> - Indicates number of days • <i>Nh</i> or <i>Nhour</i> or <i>Nhours</i> - Indicates number of hours • <i>Nm</i> or <i>Nmin</i> or <i>Nmins</i> or <i>Nminute</i> or <i>Nminutes</i> - Indicates number of minutes • <i>Ns</i> or <i>Nsec</i> or <i>Nsecs</i> or <i>Nsecond</i> or <i>Nseconds</i> - Indicates number of seconds • <i>HH:MM:SS[.SSS]</i> - Indicates time format with hour, minute, second, and millisecond • <i>MM:SS[.SSS]</i> - Indicates time format with minute, second, and millisecond <p>Milliseconds [<i>.SSS</i>] is ignored by this parameter.</p>
<p>SNS alerts Since v5.6.5/2</p>	
<p>-sns_notify</p>	<p>Send notification to Amazon Simple Notification Service (SNS).</p>
<p>- sns_destination</p>	<p>Amazon Resource Name (ARN) of the SNS topic.</p>
<p>- sns_only_when_errors</p>	<p>Send a notification to Amazon SNS if hvrmaint encountered an error itself or detected an HVR error while scanning hvr.out or the latency limit is exceeded.</p>
<p>- sns_only_when_errors_or_warnings</p>	<p>Send a notification to Amazon SNS if hvrmaint encountered an error itself or detected an HVR error or warning while scanning hvr.out or the latency limit is exceeded.</p>

<p>- sns_repeat_suppression=<i>dur</i> <small>Since v5.6.5/11</small></p>	<p>Suppress repetition of the same SNS alert for the specified duration <i>dur</i>.</p> <p>By default, each time when hvrmaint encounters an error itself or detects an HVR error or warning while scanning hvr.out or the latency limit is exceeded, the hvrmaint sends out an alert until the issue is fixed. The number of the alerts sent depends on the frequency in which hvrmaint runs. As long as the issue is not resolved or the error/warning has not changed, hvrmaint will repeatedly send alerts for the same issue.</p> <p>To avoid repeatedly sending alerts for the same issue, this option forces hvrmaint to remain silent for specified duration <i>dur</i> after the first alert is sent out.</p> <p>Value for <i>dur</i> can be specified in one of the following formats:</p> <ul style="list-style-type: none"> • <i>Nd</i> or <i>Nday</i> or <i>Ndays</i> - Indicates number of days • <i>Nh</i> or <i>Nhour</i> or <i>Nhours</i> - Indicates number of hours • <i>Nm</i> or <i>Nmin</i> or <i>Nmins</i> or <i>Nminute</i> or <i>Nminutes</i> - Indicates number of minutes • <i>Ns</i> or <i>Nsec</i> or <i>Nsecs</i> or <i>Nsecond</i> or <i>Nseconds</i> - Indicates number of seconds • <i>HH:MM:SS[.SSS]</i> - Indicates time format with hour, minute, second, and millisecond • <i>MM:SS[.SSS]</i> - Indicates time format with minute, second, and millisecond <p>Milliseconds [<i>.SSS</i>] is ignored by this parameter.</p>
<p>- sns_access_key</p>	<p>Access key ID of the AWS IAM user. For more information about access key, refer to Managing Access Keys for IAM Users in AWS documentation.</p>
<p>- sns_secret_key</p>	<p>Secret access key of the AWS IAM user. For more information about secret key, refer to Managing Access Keys for IAM Users in AWS documentation.</p>
<p>SNMP alerts</p>	
<p>-snmp_notify</p>	<p>Send SNMP v1 traps or v2c notifications. The -snmp_community option is required. See \$HVR_HOME/lib/mibs/HVR-MIB.txt</p>
<p>-snmp_version=<i>vers</i></p>	<p>Specify SNMP version.</p> <p>Value <i>vers</i> can be 1 or 2c (default).</p>
<p>- snmp_heartbeat</p>	<p>Send a hvrMaintNotifySummary notification, even if there was nothing to report.</p>
<p>- snmp_hostname=<i>host</i></p>	<p>SNMP agent hostname <i>host</i>.</p> <p>Default is localhost.</p>
<p>-snmp_port=<i>port</i></p>	<p>SNMP agent trap <i>port</i>.</p> <p>Default is port 162.</p>
<p>- snmp_community=<i>str</i></p>	<p>Community string <i>str</i> for SNMPv1/v2c transactions.</p>
<p>Disable</p>	
<p>-disable</p>	<p>Disable hvrmaint alerts. This option allows to disable the alerts without stopping the hvrmaint. This can be useful during a maintenance window when channels are being modified or stopped. An alternative is to stop running hvrmaint during the maintenance window and restart it after, but this can generate a lot of alerts caused by the maintenance.</p>

-env=NAME=VALUE	Set environment variable. This option can be repeated to set multiple variables such as \$HVR_HOME , \$HVR_CONFIG , \$HVR_TMP , \$II_SYSTEM , \$ORACLE_HOME etc. In HVRGUI, to view this option, click on the Environment button.
-hub=hub	Hub database for HVR Scheduler . This value has form <i>user/pwd</i> (for an Oracle hub), <i>inghub</i> (for an Ingres hub database), or <i>hub</i> for a (SQL Server hub database). For Oracle, passwords can be encrypted using command hvincrypt . In HVRGUI, this option is only available inside the Text tab.
-sched_option=schedopt	Extra startup parameters for the HVR Scheduler service. Possible examples are -u user/pwd (for a username), -hsqserver (for the hub class) or -c clus/clusgrp (for Windows cluster group). In HVRGUI, this option is only available inside the Text tab.
-output=fil	Append hvrmaint output to file <i>fil</i> . If this option is not supplied, then output is sent to stdout . Output can also be sent to an operator using option -email . In HVRGUI, this option is only available inside the Text tab.

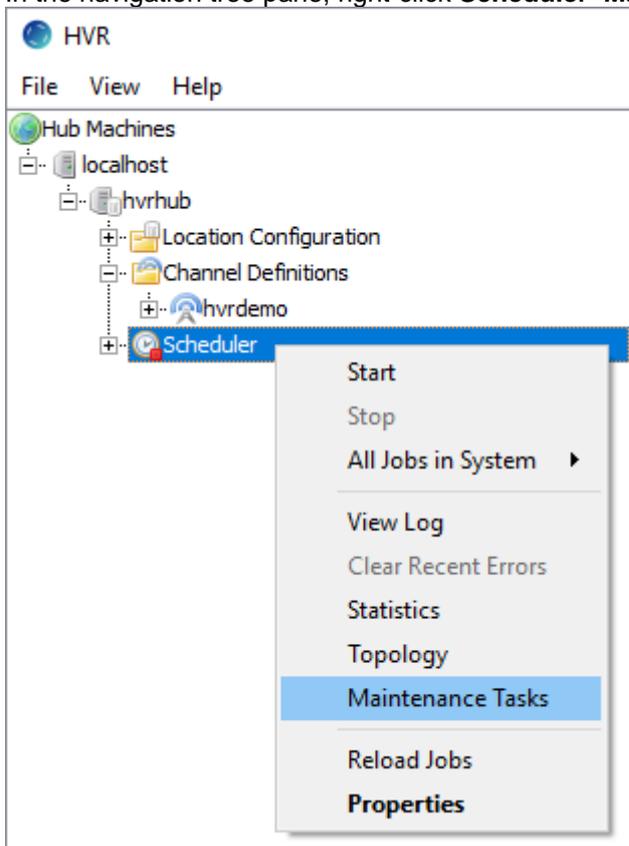
Configuring HVR Email Alerts Using Gmail SMTP

This section describes the steps to set up HVR to send **hvrmaint** email alerts via Gmail SMTP server.

Prerequisite: You must [generate App Password](#) (**-smtp_pass**) for the Gmail account (**-smtp_user**) that will be used to authenticate with the Gmail SMTP server (**-smtp_server**). Also, ensure that the two-factor authentication is activated for the Gmail address (**-smtp_user**).

Perform the following steps in HVR GUI to create a maintenance task:

1. In the navigation tree pane, right-click **Scheduler Maintenance Tasks**.



2. In the **Maintenance Tasks** dialog, click **Add** in the left bottom. Type the name of the task and click **OK**.
3. Under the **Email alerts** section:
 - a. Select **-email_to** and specify the email address(es) to which **hvrmaint** alerts will be sent.
 - b. Select **-smtp_server** and specify the address of the Gmail SMTP server - **smtp.gmail.com**.
 - c. Select **-smtp_port** and specify the Gmail SMTP server port for using TLS/STARTTLS - **587**.
 - d. Select **-smtp_starttls** to enable STARTTLS for secure connection.
 - e. Select **-smtp_user** and specify the Gmail address to authenticate with the Gmail SMTP server. This is the Gmail account, from which the **hvrmaint** email alerts will be sent.
 - f. Select **-smtp_pass** and specify the App Password you have generated.

4. Click **Save** and the task will be added to the list of tasks on the left pane.
5. To run the task manually, select the task in the list and click **Run**. This task will also run automatically if one of the conditions were defined: **-email_only_when_errors** or **-email_only_when_errors_or_warnings**.

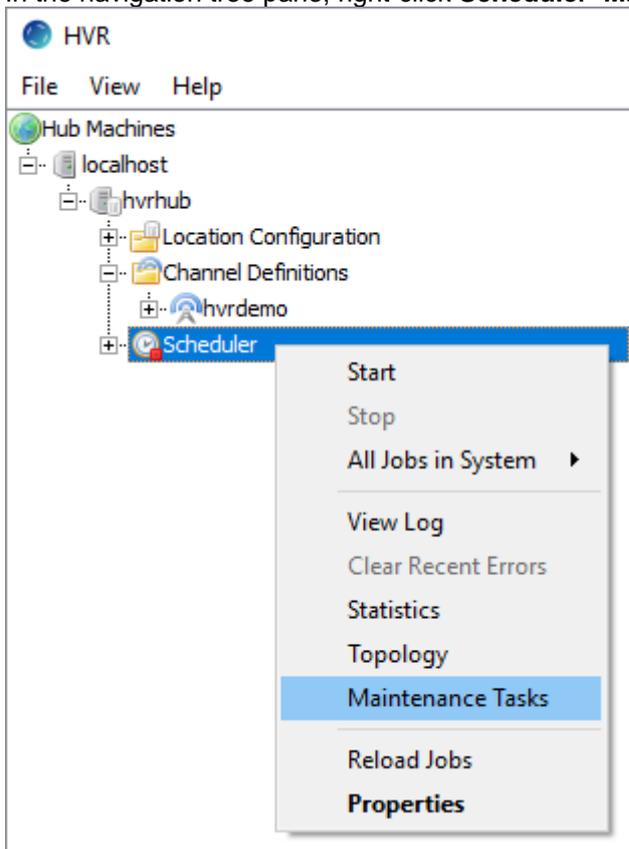
Configuring HVR SNS Alerts

This section describes the steps to set up HVR to send **hvrmaint** SNS alerts.

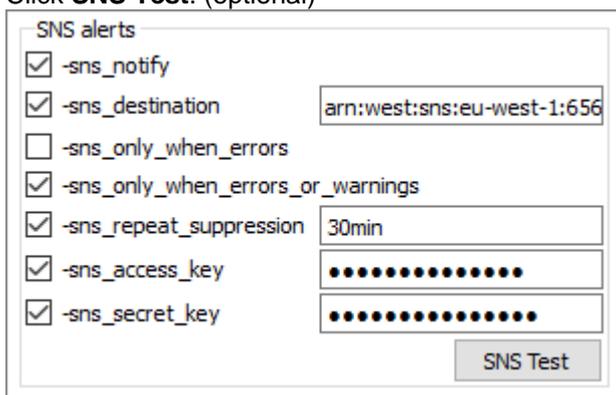
Prerequisite: In AWS, you must [Create an Amazon SNS topic](#) and then [Subscribe an endpoint to this newly created SNS topic](#).

Perform the following steps in HVR GUI to create a maintenance task:

1. In the navigation tree pane, right-click **Scheduler Maintenance Tasks**.



2. In the **Maintenance Tasks** dialog, click **Add** in the left bottom. Type the name of the task and click **OK**.
3. Under the **SNS alerts** section:
 - a. Select **-sns_notify** to enable SNS alerts.
 - b. Select **-sns_destination** and specify ARN of the SNS topic created in AWS.
 - c. Select either **-sns_only_when_errors** or **-sns_only_when_errors_or_warnings**. (optional)
 - d. Select **-sns_repeat_suppression** and specify the duration. (optional)
 - e. Select **-sns_access_key** and specify access key ID of the AWS IAM user.
 - f. Select **-sns_secret_key** and specify secret access key of the AWS IAM user.
 - g. Click **SNS Test**. (optional)



4. Click **Save** and the task will be added to the list of tasks on the left pane.
5. To run the task manually, select the task in the list and click **Run**. This task will also run automatically if one of the conditions were defined: **-email_only_when_errors** or **-email_only_when_errors_or_warnings**.

Creating Maintenance Task

The behavior of **hvrmaint** is controlled by an option file, which can be generated using the HVR **Maintenance Tasks** dialog available from the context menu of the **Scheduler**.

1. Right-click the **Scheduler** node and select **Maintenance Tasks** from the context menu. The **Maintenance Tasks** dialog will open containing the list of tasks on the left pane (if they were previously created) and configuration **options** on the right pane.
2. Click the **Add** button at the bottom of the left pane to create a new maintenance task (option file). Type the name of the task and click **OK**.
3. Select the required options, specify parameters for them, where needed and click **Save**.
4. Click **Run** to run the **hvrmaint** script you created against the hub. You can click **View Log** to watch the output of the script.
5. The time options on the bottom pane allow you to schedule the task to run at a specific time, namely at regular intervals, daily or weekly.

Select **Highest Privileges** option to run the task with administrative permissions.

Steps to Schedule hvrmaint

This section describes the 'option files' and the steps to schedule **hvrmaint** in Unix/Linux and Windows.

- [Unix and Linux](#)
- [Windows](#)

Unix and Linux

hvrmaint can be scheduled to monitor the status of HVR every hour/minute/day and also to restart the **HVR Scheduler** and rotate log files. The environment for such batch programs is very limited, so many **-env** options are needed to pass it sufficient environment variables.

1. Create and save 'option files' in **\$HVR_CONFIGfiles** directory. Following are two sample option files.
 - The first option file (**hvrmaint_hourly.opt**) for hourly monitoring will just check for errors.

```
-hub=hvr/!\{s8Dhx./gsuWHUt\}!           # Encrypted Oracle
password
-sched_option=-h oracle
-env=HVR_HOME=/usr/hvr/hvr_home
-env=HVR_CONFIG=/usr/hvr/hvr_config
-env=HVR_TMP=/tmp
-env=ORACLE_HOME=/distr/oracle/OraHome817
-env=ORACLE_SID=ORA817
-email_from=hvr@prod.mycorp.com
-email_to=bob@mycorp.com;jim@mycorp.com
-email_only_when_errors
-snmpp_server=snmp.mycorp.com
-output=/usr/hvr/hvr_config/files/hvrmaint.log
-scan_hvr_out
```

- The second option file (**hvrmaint_hourly.opt**) for weekly monitoring will restart the **HVR Scheduler** and rotate the log files each week.

```
-hub=hvr/!\{s8Dhx./gsuWHUt\}!           # Encrypted Oracle
password
-sched_option=-h oracle
-env=HVR_HOME=/usr/hvr/hvr_home
-env=HVR_CONFIG=/usr/hvr/hvr_config
-env=HVR_TMP=/tmp
-env=ORACLE_HOME=/distr/oracle/OraHome817
-env=ORACLE_SID=ORA817
-email_from=hvr@prod.mycorp.com
-email_to=bob@mycorp.com;jim@mycorp.com
```

```

-email_only_when_errors
-snmpp_server=snmp.mycorp.com
-output=/usr/hvr/hvr_config/files/hvrmaint.log
-scan_hvr_out
-stop
-archive_files=hvr.out # Only
archive log file hvr.out
-archive_compress
-archive_keep_days=14 # Delete
files after 2 weeks
-journal_keep_days=4
-start

```

2. The following lines should be added to **crontab** for user **hvr** (these should be single lines without wrapping):

```

0 * * * * /usr/hvr/hvr_home/bin/hvrmaint /usr/hvr/hvr_config/files
/hvrmaint_hourly.opt
0 21 * * * /usr/hvr/hvr_home/bin/hvrmaint /usr/hvr/hvr_config/files
/hvrmaint_weekly.opt

```

Alternatively the following line could be added to **crontab** for **root**:

```

0 21 * * 6 su hvr -c /usr/hvr/hvr_home/bin/hvrmaint /usr/hvr/hvr_config
/files/hvrmaint_weekly.opt

```

Instead of scheduling **hvrmaint** on its own, it could also be used as part of a larger nightly batch script run by **root** which halts the HVR Scheduler and DBMS before doing a system backup. This batch script would roughly look like this:

```

su hvr -c /usr/hvr/hvr_home/bin/hvrmaint /opt/hvrmaint.opt -stop -
scan_hvr_out -archive_files=hvr.out
su ingres -c /opt/ingres/utility/ingstop # Stop DBMS
backup -f/dev/rmt/0m # Perform
system backup
su ingres -c /opt/ingres/utility/ingstart # Restart DBMS
su hvr -c /usr/hvr/hvr_home/bin/hvrmaint /opt/hvrmaint.opt -start

```

Windows

hvrmaint can be scheduled to monitor the status of HVR by adding it as a Windows **Scheduled Task**. Following are the steps to create Windows **Schedule Task**:

1. Create and save 'option files' in **%HVR_CONFIG%\files** directory. Following are two sample option files.
 - a. The first option file (**hvrmaint_hourly.opt**) for hourly monitoring will just check for errors.

```

-hub=hvr/!{s8Dhx./gsuWHUt}! # Encrypted
Oracle password
-sched_option=-h oracle
-env=HVR_HOME=c:\\opt\\hvr_home
-env=HVR_CONFIG=c:\\opt\\hvr_config
-env=HVR_TMP=c:\\temp

```

```

-env=ORACLE_HOME=c:\\distr\\oracle\\OraHome817
-env=ORACLE_SID=ORA817
-email_from=hvr@prod.mycorp.com
-email=bob@mycorp.com;jim@mycorp.com
-email_only_when_errors
-snmpp_server=snmp.mycorp.com
-output=c:\\opt\\hvr_config\\files\\hvrmaint.log
-scan_hvr_out<br /><br />

```

- b. The second option file (**hvrmaint_hourly.opt**) for weekly monitoring will restart the **HVR Scheduler** and rotate the log files each week.

```

-hub=hvr/!{s8Dhx./gsuWHUt}! # Encrypted
Oracle password
-sched_option=-h oracle
-env=HVR_HOME=c:\\opt\\hvr_home
-env=HVR_CONFIG=c:\\opt\\hvr_config
-env=HVR_TMP=c:\\temp
-env=ORACLE_HOME=c:\\distr\\oracle\\OraHome817
-env=ORACLE_SID=ORA817
-email_from=hvr@prod.mycorp.com
-email=bob@mycorp.com;jim@mycorp.com
-email_only_when_errors
-snmpp_server=snmp.mycorp.com
-output=c:\\opt\\hvr_config\\files\\hvrmaint.log
-scan_hvr_out
-stop
-archive_files=hvr.out # Only
archive log file hvr.out
-archive_keep_days=14 # Delete
files after 2 weeks
-journal_keep_days=4
-start

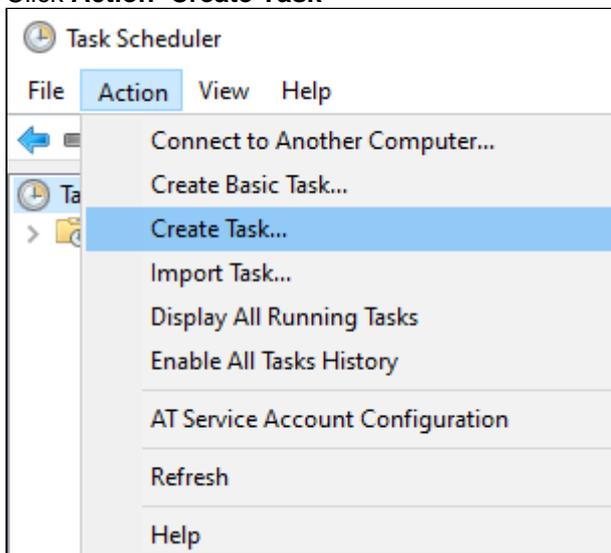
```

2. Create Windows **Scheduled Tasks** :

- a. Open **Task Scheduler**. This can be accessed from **Control Panel Administrative Tools**

Alternatively, **Task Scheduler** can be accessed by running (**Winkey+r**) **taskschd.msc**.

- b. Click **Action Create Task**



c. In **General** tab, enter task **Name**, and optionally a task **Description**.

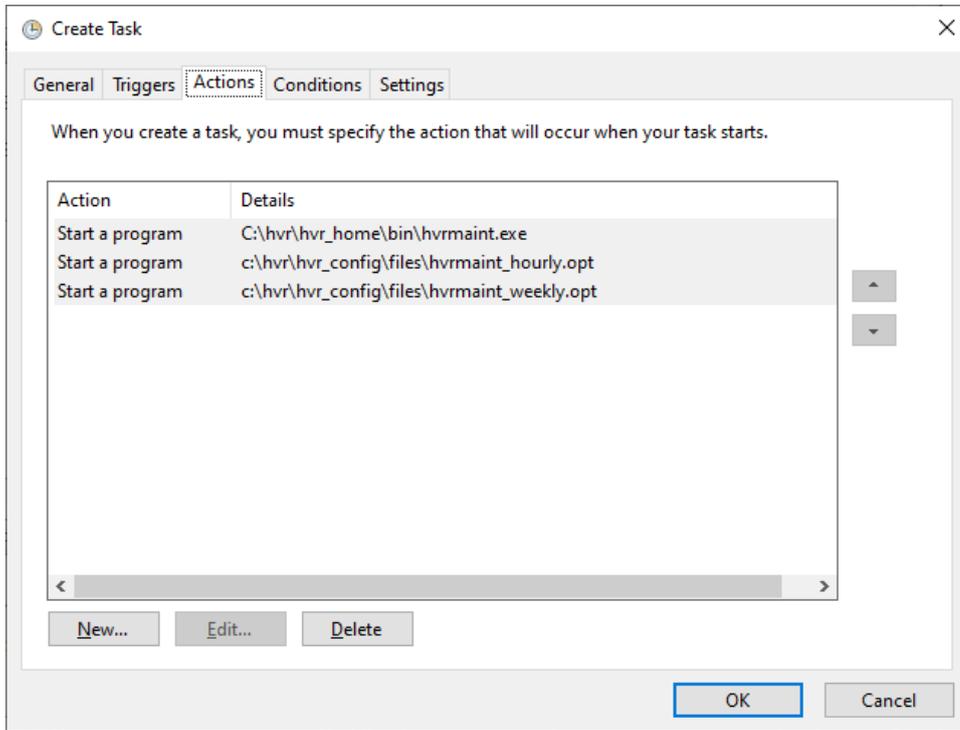
The screenshot shows the 'Create Task' dialog box with the 'General' tab selected. The 'Name' field contains 'task_name', 'Location' is '\', 'Author' is 'admin\hvr', and 'Description' is 'task_description'. Under 'Security options', 'When running the task, use the following user account:' is set to 'admin\hvr' with a 'Change User or Group...' button. The radio button 'Run only when user is logged on' is selected. There are also checkboxes for 'Do not store password. The task will only have access to local computer resources.' and 'Run with highest privileges'. At the bottom, there is a 'Hidden' checkbox and a 'Configure for:' dropdown menu set to 'Windows Vista™, Windows Server™ 2008'. 'OK' and 'Cancel' buttons are at the bottom right.

d. In **Actions** tab, click **New...** to open **New Action** dialog.

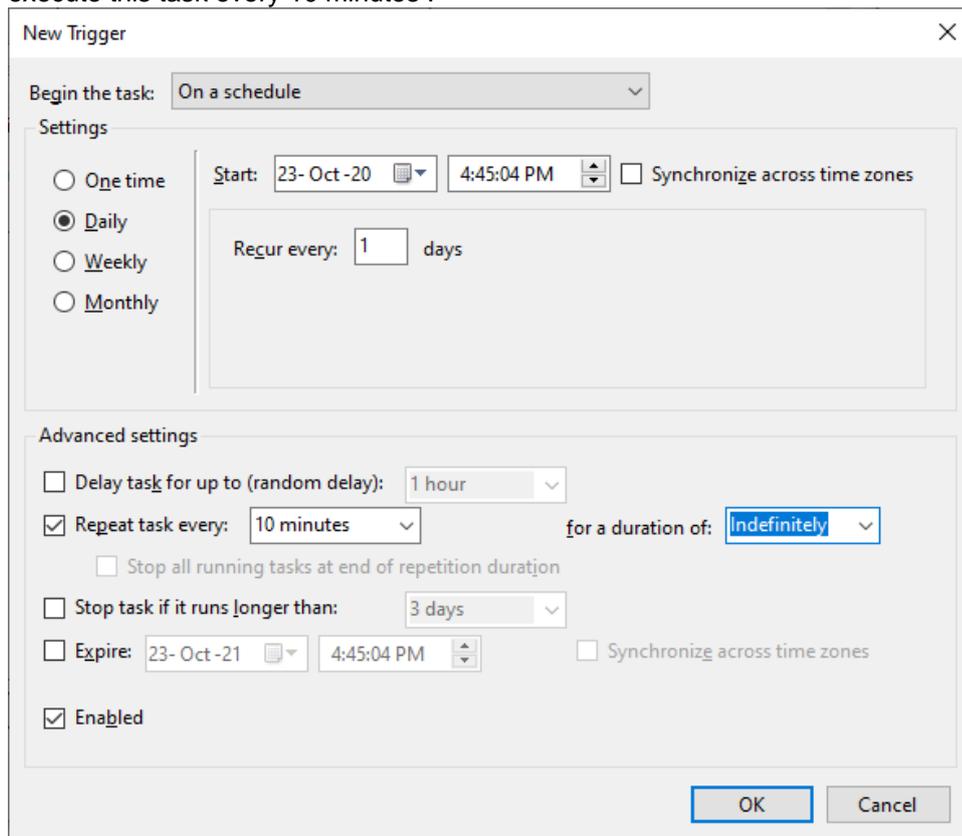
i. Browse and select the directory path for **hvrmaint.exe** (available in **%HVR_HOME%hvr_home\bin**) and click **OK**.

The screenshot shows the 'New Action' dialog box. The 'Action:' dropdown menu is set to 'Start a program'. Under 'Settings', the 'Program/script:' field contains 'C:\hvr\hvr_home\bin\hvrmaint.exe' and has a 'Browse...' button next to it. There are also empty text boxes for 'Add arguments (optional):' and 'Start in (optional):'. 'OK' and 'Cancel' buttons are at the bottom right.

ii. Similarly, create separate actions to specify the directory path for the option file(s).



- e. In **Triggers** tab, click **New...** to open **New Trigger** dialog.
- i. Select the required frequency at which this task should be executed. For example, to execute this task every 10 minutes :



- f. Click **OK** in **Create Task** dialog.

Alert Message Example

```
From: root@bambi.mycorp.com
To: bob@mycorp.com; jim@mycorp.com
Subject: hvrmaint detected 7 errors (323 rows in fail tables) for hub hvr/
on bambi
```

```

2017-11-01T21:00:01-06:30 hvrmaint: Starting hvrmaint c:\tools\hvrmaint.opt -
hub=hvr/ -stop -start
2017-11-01T21:10:21-06:30 hvrmaint: Stopping HVR Scheduler 4.4.4/5 (windows-
x64-64bit).
2017-11-01T21:10:33-06:30 hvrmaint: Scanning d:\hvr_config\log\hvr\hvr.out
(2017-11-01T21:00:03-06:30).
2017-11-01T21:11:13-06:30 hvrmaint: 7 errors (323 rows in fail tables) were
detected during scan.
2017-11-01T21:12:33-06:30 hvrmaint: 3 capture jobs for 1 location did 606
cycles.
2017-11-01T21:12:59-06:30 hvrmaint: 6 integrate jobs for 2 locations did 400
cycles and integrated 50 changes for 3 tables.
2017-11-01T21:13:53-06:30 hvrmaint: Archiving 9 log files to d:
\hvr\archivelog\hvr_20050209.
2017-11-01T21:16:23-06:30 hvrmaint: Purging 0 archive directories older than
14 days.
2017-11-01T21:18:29-06:30 hvrmaint: Starting HVR Scheduler 4.4.4/5 (windows-
x64-64bit).

----- Summary of errors detected during scan-----
F_JD1034_RAISE_ERROR_P3 occurred 6 times between 2017-11-01T19:43:52-06:30
and 2017-11-01T20:14:24-06:30
F_JJ106E_TIMEO_DB occurred 1 time at 2017-11-01T21:10:03-06:30

----- Errors detected during
scan-----
2017-11-01T19:43:52-06:30: channel-cap-d01: F_JD1034_RAISE_ERROR_P3: Error
as raised by user during pl/sql procedure statement on Oracle SID.

----- End of errors detected during scan
-----
2017-11-01T21:19:01 hvrmaint: Sending e-mail to bob@mycorp.com; jim@mycorp.
com

```

Files

