

QGRIP

External Monitoring

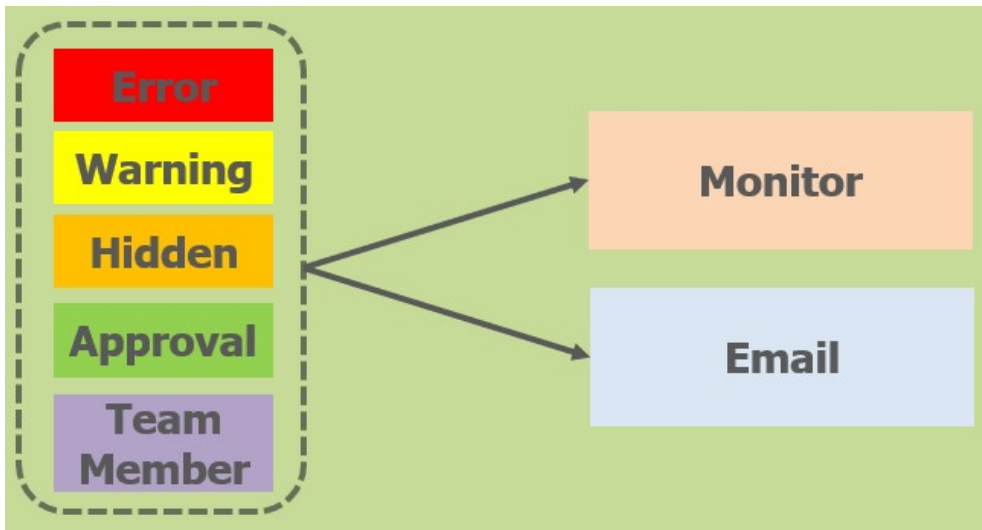
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2024-04-16

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1 External Monitoring



This document contains a detailed description of the External Monitoring that can be used to show Warnings and Errors on a monitor or notify QGrip users via email.

Email Receivers

QGrip Users

- Same as message receivers in QGrip UI
- Email address from MyDetails

The messages are the same as the messages shown in the message bar in the QGrip-UI. The Email receivers are the same users that would receive the message in the QGrip-UI. The email addresses used are from the My Details of the QGrip users.

2 Message

2.1 Numbers and/or Details

MsgType	Number
Approval	1
Error	5
Warning	1

Numbers will only show the number of messages per Message Type.

Category	Domain	Type	Details	Message
Warning		Jobs	Longrunning	1 jobs are running longer than estimated.

Details will show the details the message. The details are per Message Type because the columns in the message differs per Message type.

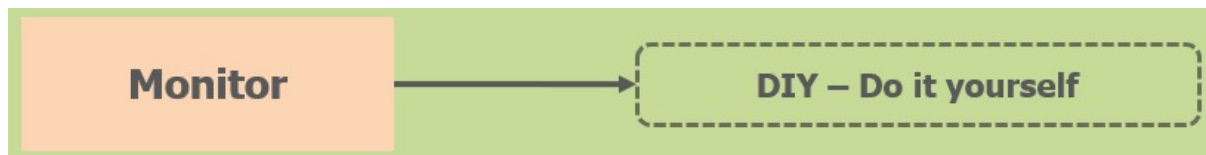
2.2 New and/or Open

- **New**
 - Since last check
- **Open**
 - Not yet solved

New will only show new messages since the last check. QGrip keeps track of when the messages were last collected for external monitoring.

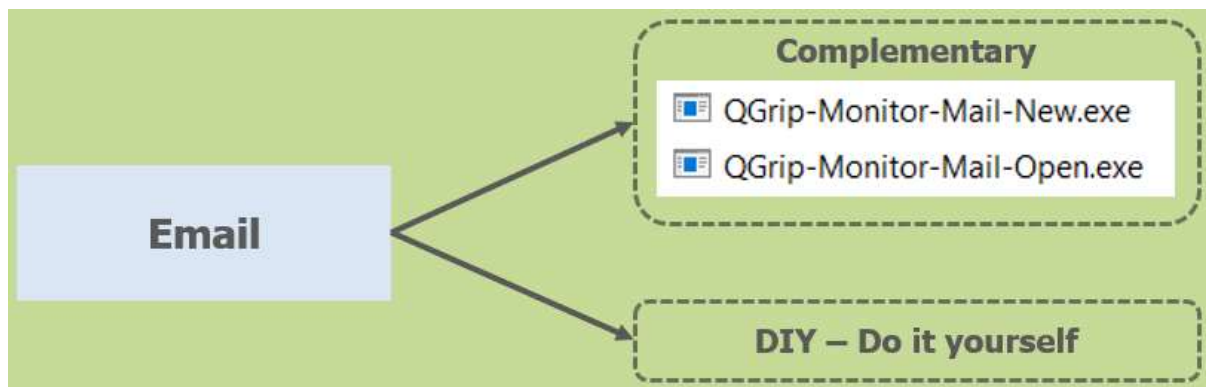
Open will show the all messages that have not yet been solved.

3 Monitor



If you want to show messages on a Monitor, you will need to some piece of code to collect the Messages from the QGrip database and show them on the Monitor. More details are given in the DIY section of this document.





4 Email



If you want to send the message by mail, you can either use the complementary executables or produce your own piece of code.

5 Email – Complementary

- **Task Scheduler QGrip Server**
- **gMSA_QGrip\$ (System User)**
- **HTML created and mailed**
- **Uses Monitor stored procedures**

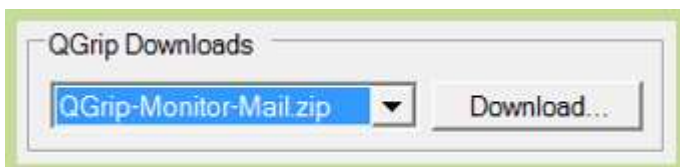
Every 5 minutes (?)	Daily at 07:00 (?)
 QGrip-Monitor-Mail-New.exe  QGrip-Monitor-Mail-New.ini	 QGrip-Monitor-Mail-Open.exe  QGrip-Monitor-Mail-Open.ini
<pre>DBHostPort=VMSQL1201\PRD,1460 Database=QGrip MailAddressSender=noreply@griponsql.org SmtpClient=Smtp.intra.griponsql.org MsgNumbers=0 Warning=1 Error=1 Hidden=1 Approval=1 TeamMember=1</pre>	<pre>DBHostPort=VMSQL1201\PRD,1460 Database=QGrip MailAddressSender=noreply@griponsql.org SmtpClient=Smtp.intra.griponsql.org MsgNumbers=1 Warning=1 Error=1 Hidden=1 Approval=1 TeamMember=1</pre>

There two complementary executable available to mail message from one of the QGrip Servers.

- QGrip-Monitor-Mail-New.exe (New messages)
- QGrip-Monitor-Mail-Open.exe (Open messages)

Both have their own ini-file where you can configure which message types you want to send via mail (1=send mail, 0=do not send mail).

A smtp client is needed and the ini-file must be adjusted and be placed in the same directory as the executable. The QGrip System Account (gMSA_QGrip\$) must be authorised for the directory where the executable and ini-file are placed.



A zip file with the executables, the ini-files and the scripts below can be downloaded from the QGrip database from the QGrip setup on one of the QGrip Servers. The zip-file does also contain the executable/ini-file for the Mail Backup Report.

New Errors/Warnings every 5 minutes

To add a task to the task scheduler, edit the following piece of code, and run it on the QGrip Server in a PowerShell window as administrator:

```
#####
# New Errors/Warnings every 5 minutes
#####
$action = New-ScheduledTaskAction "D:\Apps\QGrip-Monitor\QGrip-Monitor-Mail-New.exe" -WorkingDirectory "D:\Apps\QGrip-Monitor"
$trigger = New-ScheduledTaskTrigger -Once -At 7am -RepetitionDuration ([Timespan]::MaxValue) -RepetitionInterval (New-Timespan -Minutes 5)
```

```
$principal = New-ScheduledTaskPrincipal -UserID AD\gMSA_QGrip$ -LogonType  
password  
$settings = New-ScheduledTaskSettingsSet -ExecutionTimeLimit (New-  
Timespan -Minutes 5)  
Register-ScheduledTask -TaskName QGrip-Monitor-Mail-New -TaskPath  
"\QGrip" -Action $action -Settings $settings -Trigger $trigger -Principal  
$principal
```

Open Errors/Warnings at 07.00 every day

To add a task to the task scheduler, edit the following piece of code, and run it on the QGrip Server in a PowerShell window as administrator:

```
#####  
# Open Errors/Warnings at 07.00 every day  
#####  
$action = New-ScheduledTaskAction "D:\Apps\QGrip-Monitor\QGrip-  
Monitor-Mail-Open.exe" -WorkingDirectory "D:\Apps\QGrip-Monitor"  
$trigger = New-ScheduledTaskTrigger -Daily -At 7am  
$principal = New-ScheduledTaskPrincipal -UserID AD\gMSA_QGrip$ -LogonType  
password  
$settings = New-ScheduledTaskSettingsSet -ExecutionTimeLimit (New-  
Timespan -Minutes 5)  
Register-ScheduledTask -TaskName QGrip-Monitor-Mail-Open -TaskPath  
"\QGrip" -Action $action -Settings $settings -Trigger $trigger -Principal  
$principal
```

6 DIY – Do it yourself

QGrip Login

- **Monitor Login**
 - AD-Group, AD-User, SQL Login
 - External Monitoring

Create using QGrip UI

Admin->Access to QGrip->QGrip Logins

The login to extract the data from QGrip can easily be added in the QGrip-UI as explained in:

Doc-Tab	Title	Section
QGrip-UI	Admin Menu – Access to QGrip	QGrip Login

Create program/code and use stored procedures

[Monitor].[UspGetMsgNumbers]

[Monitor].[UspGetMsgDetailsForType]

QGrip has a set of stored procedures that can be called to monitor errors and warnings. They can either be shown on a monitor or sent via email to the QGrip Admin users. The email addresses are collected from the MyDetails entered by the QGrip Admin users. Email addresses are separated by comma.

6.1 [Monitor].[UspGetMsgNumbers]

This stored procedure can be called to get an overview of number of messages per message type without any further details:

MsgType	Number
Approval	2
Warning	15

Arguments

Argument	Possible Values	Description
@MsgStatus	'Open'	Counts all “unsolved” messages.
	'New'	Counts all messages that have been added since the last time the procedure was called with status New
@MonitorType	'Monitor'	Only the Message number overview is returned.
	'Mail'	Message number overview is returned as first result set and a second result set with email addresses and email subject. The second result set will not be returned if the first is empty (there are no Messages).

Examples:

EXEC [Monitor].[UspGetMsgNumbers] @MsgStatus='Open', @MonitorType='Mail'

MsgType	Number
Approval	2
Warning	15

MailAddressList	MailSubject
dan.jernberg@griponsql.org,rob.williams@qgrip.nl	QGrip Message(s) Open

EXEC [Monitor].[UspGetMsgNumbers] @MsgStatus='New', @MonitorType='Mail'

MsgType	Number
Approval	2
Warning	12

MailAddressList	MailSubject
dan.jernberg@griponsql.org,rob.williams@qgrip.nl	QGrip Message(s) New (2020-12-30 15:00:56--2021-01-30 15:00:56)

EXEC [Monitor].[UspGetMsgNumbers] @MsgStatus='Open', @MonitorType='Monitor'

MsgType	Number
Approval	2
Warning	15

6.2 [Monitor].[UspGetMsgDetailsForType]

This stored procedure can be called to get a detailed overview of a specific message type. The columns differ per message type and are described below.

Arguments

Argument	Possible Values	Description
@MsgStatus	'Open'	Selects all "unsolved" messages.
	'New'	Selects all messages that have been added since the last time the procedure was called with status New for MsgType.
@MonitorType	'Monitor'	Only the detail overview is returned.
	'Mail'	Detail overview is returned as first result set and a second result set with email addresses and email subject. The second result set will not be returned if the first is empty.
@MsgType	'Error' 'Warning' 'Hidden' 'Approval' 'TeamMember'	

6.2.1 Result set Error

Column	Description
Queue	The name of the Queue.

Domain	Domain if applicable
JobType	The JobType.
Environment	On which environment did the job run.
JobStatus	The job status, Failed.
Object	The name of the object(s), Instance/Listener + Database if applicable.
Application	Display name of Application if applicable
Description	Short description of the Job
JobEnded	When did the job end/fail?
ErrorMessage	Mostly technical Error message

6.2.2 Result set Warning/Hidden

Column	Description
Category	The warning category (Incomplete, Inconsistent, NotActivated, etc.).
Domain	Domain if applicable
Type	Type of object (Server, Application, Team, etc.)
Details	Short description of Warning.
Message	Additional information / message.

6.2.3 Result set Approval

Column	Description
Queue	The name of the Queue.
JobType	The JobType.
Environment	On which environment did the job run.
Object	The name of the object(s), Instance + Database if applicable.
Application	Display name of Application if applicable.
Description	Short description of the request.
ChangeID	The change ID if applicable.
StartAfter	When should the job start running?
RequestedBy	Who has requested the job and is waiting for approval?
RequestedDate	When was the job request pushed on the Queue?

6.2.4 Result set TeamMember

Column	Description
TeamName	For which team was membership requested?
LevelPath	The path of the Team (GripOnSQL->Finance).
UserName	The name of the user.
RequestedBy	The UserID of the requester.
RequestedDate	When was the request submitted?

6.2.5 Examples

```
EXEC [Monitor].[UspGetMsgDetailsForType] @MsgStatus='Open',@MonitorType='Monitor',
@MsgType='Warning'
```

Category	Domain	Type	Details	Message
FreeSpace-Forecast	AD	BackupShare	BackupShare : [CopyOnly]	Forecast Full 2021-04-29 (in 89 days)
FreeSpace-Forecast	AD	BackupShare	BackupShare : [Regular-All]	Forecast Full 2021-04-29 (in 89 days)
Incomplete	NULL	Application	Application : [PP-PietPort]	No Environment/Default Host Defined.
Incomplete	NULL	Application	Application : [Pushy]	Databases without Database Alias.
Incomplete	NULL	Link2App	Link2App	33 Unlinked Objects.
Incomplete	NULL	Password	Password : [Not in Safe]	24 password(s)
Incomplete	NULL	Team	Team : [GripSQL-DevOps]	No members.
Incomplete	NULL	Team	Team : [IT-Service-DevOps]	No members.
Incomplete	NULL	Team	Team : [Pushy-FA-Tester]	No members.
Incomplete	NULL	Team	Team : [Sales-DevOps-Inherit]	No members.
Incomplete	NULL	Template	Template : Teams	Template Teams need to be re-created.
Inconsistent	AD	Cluster	Cluster : [CLUSTER01] Login [SQL_MA_P_Messy-App_SvcUser] Password	Password Inconsistent on Instance(s)
Inconsistent	NULL	Password	Password : [Safe <> Instance]	1 password(s)
Inconsistent	NULL	Team	Team : [Pushy-FA-Tester]	Defined for inactive environment: Test
Warning	All	License	QGrip License Max Instances	Max number of licensed instances, 5, has been reached.

```
EXEC [Monitor].[UspGetMsgDetailsForType] @MsgStatus='New',@MonitorType='Mail',
@MsgType='Warning'
```

Category	Domain	Type	Details	Message
FreeSpace-Forecast	AD	BackupShare	BackupShare : [CopyOnly]	Forecast Full 2021-04-29 (in 89 days)
FreeSpace-Forecast	AD	BackupShare	BackupShare : [Regular-All]	Forecast Full 2021-04-29 (in 89 days)
Incomplete	NULL	Application	Application : [PP-PietPort]	No Environment/Default Host Defined.
Incomplete	NULL	Application	Application : [Pushy]	Databases without Database Alias.
Incomplete	NULL	Link2App	Link2App	33 Unlinked Objects.
Incomplete	NULL	Password	Password : [Not in Safe]	24 password(s)
Incomplete	NULL	Team	Team : [Pushy-FA-Tester]	No members.
Incomplete	NULL	Team	Team : [Sales-DevOps-Inherit]	No members.
Incomplete	NULL	Template	Template : Teams	Template Teams need to be re-created.
Inconsistent	AD	Cluster	Cluster : [CLUSTER01] Login [SQL_MA_P_Messy-App_SvcUser] Password	Password Inconsistent on Instance(s)
Inconsistent	NULL	Team	Team : [Pushy-FA-Tester]	Defined for inactive environment: Test
Warning	All	License	QGrip License Max Instances	Max number of licensed instances, 5, has been reached.

MailAddressList	MailSubject
dan.jernberg@gripsonsql.org.rob.williams@qgrip.nl	QGrip Warning Details New : 12 (2020-12-30 15:09:28--2021-01-30 15:09:28)

```
EXEC [Monitor].[UspGetMsgDetailsForType] @MsgStatus='New',@MonitorType='Mail',
@MsgType='Approval'
```

Queue	JobType	Environment	Object	Application	Description	ChangeID	StartAfter	RequestedBy	RequestedDate
BackupMaintenance	DBBackup - DIFF	Acceptance	[VMSQL1201ACC].[MA_A_Main]	Messy	Trigger: Request	NULL	2021-01-30 14:59:00.000	Dan	2021-01-30 14:59:13.637
BackupMaintenance	LogBackup	Production	[VMSQL1201PRD].[TestApp_F]	Pushy	Trigger: Request	NULL	2021-01-30 14:59:00.000	Dan	2021-01-30 14:59:24.013

MailAddressList	MailSubject
dan.jernberg@gripsonsql.org.rob.williams@qgrip.nl	QGrip Approval Details New : 2 (2020-12-30 15:11:46--2021-01-30 15:11:46)