System Usage

GRIP ON SQL

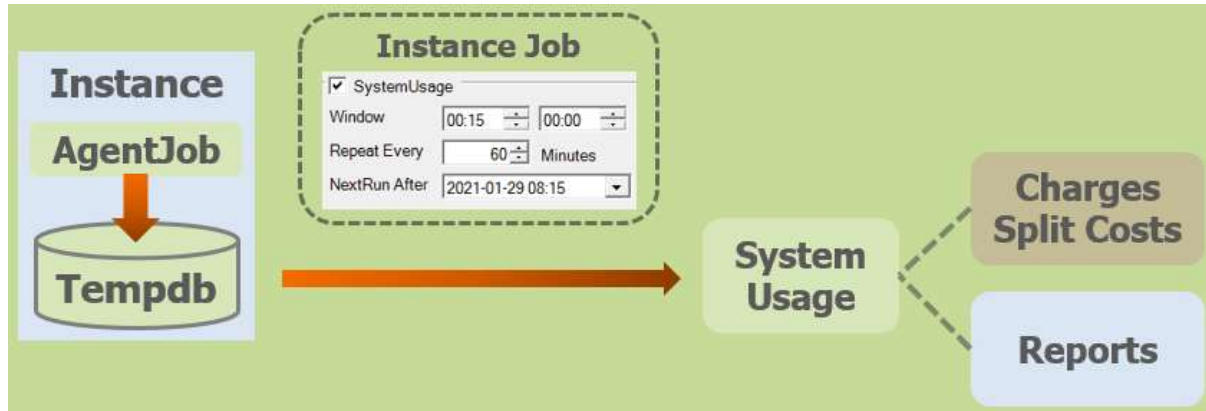Contents

1   Introduction

Agent Job: QGrip-SystemUsage
– **Runs every 17 Seconds**
– **Registers Cpu, IO, Connects, Memory**
– **Approximated (Not 100%)**
– **Result in tempdb**
– **Transferred to QGrip with scheduled Instance Job System Usage**

- ## QGrip UI: Report->SystemUsage
- ## Used in Charges, Split Costs

SystemUsage cannot not be configured for SQL Server Express editions as it misses the SQL Server Agent jobs.
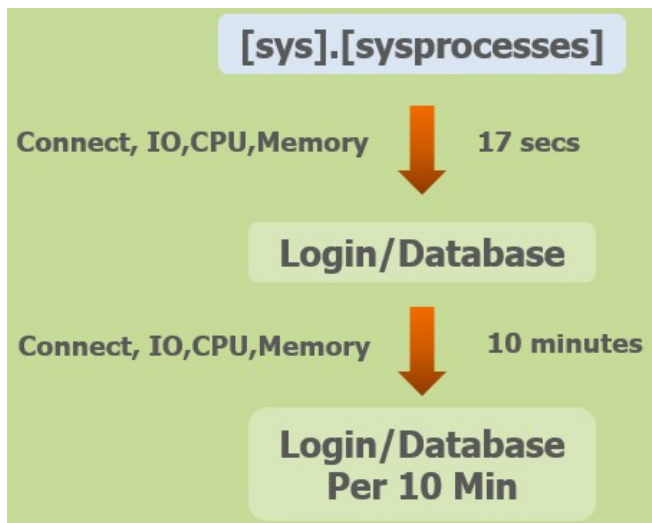
2   System Usage

The global System Usage process. System Usage job cannot be requested (run manually) for an instance.

2.1   Agent Job: QGrip-SystemUsage

When the SystemUsage job has been configured to run on an Instance, the SQL Server Agent job QGrip-SystemUsage will be created if it is not already present.

The job runs every 17 seconds to make sure that it runs on different moments throughout the day. The information in sysprocesses is used to make a snapshot or processes Connects, IO, CPU and Memory usage on the Instance. The information is aggregated in periods of 10 minutes.

The job creates the following objects, in tempdb:
- [dbo].[QGripSystemUsageHistory]   (Table)
- [dbo].[QGripSystemUsageNow]   (Table)
- [dbo].[QGripSystemUsageOpen]   (Table)
- [dbo].[QGripSystemUsagePeriod]   (Table)
- [dbo].[QGripSystemUsagePeriodLogin] (Table)
- [dbo].[UspQGripSystemUsage]   (Stored Procedure)

2.2   Instance Job: System Usage

The Scheduled Instance Job SystemUsage collects the information on the Instance and aggregates the System Usage per 10 minutes, hour and day.

System Usage job at yy.15?
Why we recommend that the System Usage jobs runs for each instance at xx.15 is explained below.

The blocks of 10 minutes are aggregated with a delay of 10 minutes. To gen the last hour (and day) in QGrip as soon as possible, the job should run just a little bit later than 10 minutes past every hour.

When QGrip is processing the System Usage, it is linked to an Application. This is no problem if the remote login or process is also a login on the server. But if the login (or AD-User) has access to the instance via an AD-group, the Application linked to the database is used.

When processing System Usage, old records per 10 minutes and per hour are deleted. The config parameter 'Keep System Usage' is used to determine what can be deleted.

3   System Usage – Reports

The tabs 'Per Day' and 'Per Hour' are always present in the report.
The tab 'Per Day' will never contain data for 'today, only for yesterday and earlier.

To add the tab 'Per 10 Minutes', check the checkbox. Hit 'Get Report' is needed to fill the tab with data.

Instance selection. If System Usage has not been activated for selected instance, no data will be shown.

Level selection. Select either Login, Database, Application or All.
It is also possible to select just one specific Login, Database or Application.

Application	Login	Database
QGrip	AD\Dan_Admin	QGrip
QGrip	AD\QGrip_gMSA$	QGrip

Level All, all 3 levels are shown.

Choose the start date or the period and for how many days you want to see the System Usage.
It is also possible to compare the usage with another day.

The parameters just show/hide columns in the already collected report. Switch between different memory units (KB, MB, GB). Conn = Connects.