

The Savision Community

1. Introduction

The Database Query Result Monitoring Management Pack is a powerful add-on for SCOM that enables users to easily create monitors for SQL query results with SCOM authoring templates.

Here is a list of the key features:

- Easy Authoring template to create and delete queries.
- Support for SQL Authentication.
- Dedicated views in SCOM console.
- Historical data collection.
- Monitor using consecutive samples condition and schedule filter.
- Two and Three states monitor.
- Recalculate state is enabled.
- Organizing multiple queries into a group.

2. Requirements

- a) SCOM 2012 and above.
- b) The SQL management packs listed in the table below

MP name	Description
Microsoft SQL Server Core Library	Microsoft SQL Server Core Library defines base classes and relationships required for SQL Server 2008, 2008 R2 and 2012 Management Packs.
Microsoft SQL Server 2014 (Discovery)	The Microsoft SQL Server 2014 (Discovery) Management Pack discovers Microsoft SQL Server 2014 and related objects. The management pack only contains the discovery logic and requires the separate monitoring management pack to be imported to monitor the discovered objects.
Microsoft SQL Server 2016 (Discovery)	The Microsoft SQL Server 2016 (Discovery) Management Pack discovers Microsoft SQL Server 2016 and related objects. The management pack only contains the discovery logic and requires the separate monitoring management pack to be imported to monitor the discovered objects.
Microsoft SQL Server 2017 on Windows (Discovery)	Microsoft SQL Server 2017 on Windows (Discovery) Management Pack discovers Microsoft SQL Server 2017 and related objects on Windows. It requires Microsoft SQL Server 2017 Core Library Management Pack. The management pack only contains the discovery logic and requires the separate monitoring management pack to be imported to monitor the discovered objects.

- c) Non-Microsoft SQL require an ODBC driver (monitoring non-Microsoft SQL is a *beta feature*).

3. Installation and Import

Files in this Management Pack

The Management Pack includes the following files:

MP name	Description
Savision_Community_Monitor_Query_Result_Library.mp	This management pack contain all the type definitions, monitors and etc.
Savision_Community_Monitor_Query_Result_Template.mpb	This management pack includes the templates.

How to import a Management Pack

For more information about importing a management pack, see [How to Import an Operations Manager Management Pack](#).

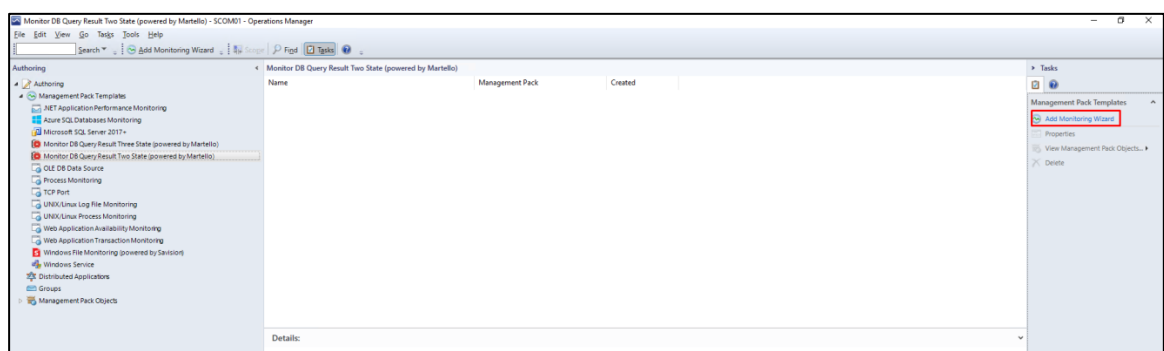
Installing the Management Pack

- 3.1. Open the SCOM Operations Console and connect to your Management Server.
- 3.2. Click **Administration** in the left pane of the console.
- 3.3. Right-click **Management Packs** and select **Import Management Packs**.
- 3.4. Click **Add > Add from disk**.
- 3.5. From the Select Management Packs to Import dialog, browse to the location of the **Savision Community – Database Query Result Monitoring Management Pack**.
- 3.6. Click **Open**. The import list shows the selected management packs.
- 3.7. Click **Install**. The wizard starts the installation, showing the status of each import.
- 3.8. When the import completes, click **Close**.

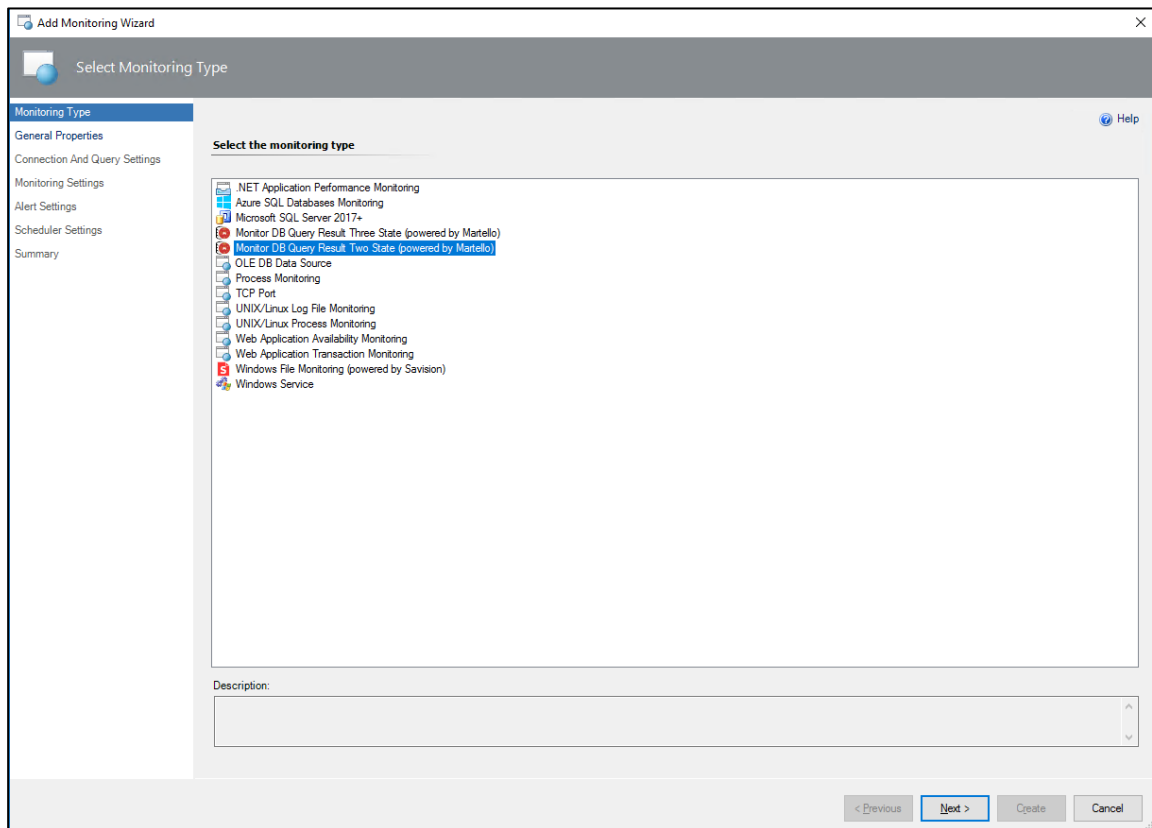
4. Configuration

Two-state and Three-state Monitor Setup

- 4.1. Open the Authoring pane.



- 4.2. Click on **Add Monitoring Wizard**.
- 4.3. Select the **Monitor DB Query Result Two State (Powered by Martello)**.



4.4. Follow the wizard.

The screenshot shows the 'Add Monitoring Wizard' dialog box, specifically the 'Name and Description' step. The dialog has a title bar with 'Add Monitoring Wizard' and a close button. Below the title bar is a header area with a blue circle icon and the text 'Name and Description'. On the left side, there is a vertical list of steps: 'Monitoring Type', 'General Properties' (which is highlighted with a blue bar), 'Connection And Query Settings', 'Monitoring Settings', 'Alert Settings', 'Scheduler Settings', and 'Summary'. The main area of the dialog is divided into two sections. The top section is titled 'Enter a friendly name and description' and contains two text input fields: 'Name:' with the value 'Space iQ Two State Monitor' and 'Description:' which is empty. The bottom section is titled 'Management pack' and contains a label 'Select destination management pack:' followed by a dropdown menu showing 'Space iQ DB monitor' and a 'New...' button. At the bottom right of the dialog, there are four buttons: '< Previous', 'Next >', 'Create', and 'Cancel'.

4.5. Configure the SQL connection string and the query.

Add Monitoring Wizard

Connection And Query Settings

Monitoring Type
General Properties
Connection And Query Settings
Monitoring Settings
Alert Settings
Scheduler Settings
Summary

Connection string and query definition

Microsoft SQL: select database engine
☒

Select a database

Provider

Authentication
☒ Windows Authentication
☐ SQL Authentication

Run As Account

Non-Microsoft SQL: select watcher
☐

*Note: A proper odbc driver must be installed on the watcher server.
 To learn more about the connection string and related drivers go to <https://www.connectionstrings.com>

Connection String
 Provider=SQLOLEDB;Server=.;Initial Catalog=OperationsManager;Integrated Security=SSPI;

Query
 SELECT COUNT(*) FROM Alert
 Where ResolutionState <> 255

Note: Query result must be a single numeric value

Give a name to the result for purposes performance collection
 (Metric name)

< Previous Next > Create Cancel

- Use the **Test** button to verify your result. The test is executed by the Health Service installed on the DB Engine (The test is enabled only for Windows Server SQL query).
- Make sure the query result is a numeric value.

4.6. Configure the monitor

Add Monitoring Wizard

Monitoring Settings

Monitoring Type
General Properties
Connection And Query Settings
Monitoring Settings
Alert Settings
Scheduler Settings
Summary

Monitoring settings

Define critical state:

Direction: **greater than**

Threshold: **4.00000**

Specify number of samples

Specify the number of consecutive samples that should exceed a threshold before a state is change.

2

< Previous **Next >** Create Cancel

4.7. Configure the Alert

Add Monitoring Wizard

Alert Settings

Monitoring Type
General Properties
Connection And Query Settings
Monitoring Settings
Alert Settings
Scheduler Settings
Summary

Alert info and monitor group define

Add more information to the alert content.

Alert impact content

There are too many open alert, please verify that is fine.

☐ Select existing group ☒ Create new group

Application Layer

< Previous **Next >** Create Cancel

- The groups feature allows you to aggregate monitors into one group.

4.8. Schedule Configuration

Add Monitoring Wizard

Scheduler Settings

Monitoring Type
General Properties
Connection And Query Settings
Monitoring Settings
Alert Settings
Scheduler Settings
Summary

Specify schedule settings

Start Time: 00:00 End Time: 23:59

Sample Interval: 5 Minutes

Synchronize at: 00:01

Specify days of week

- ☒ Sunday
- ☒ Monday
- ☒ Tuesday
- ☒ Wednesday
- ☒ Thursday
- ☒ Friday
- ☒ Saturday

< Previous Next > Create Cancel

4.9. Save the monitor by clicking on Create.

Add Monitoring Wizard

Summary

Monitoring Type
General Properties
Connection And Query Settings
Monitoring Settings
Alert Settings
Scheduler Settings
Summary

Confirm the settings

Name: Space IQ Two State Monitor
Management Pack: Space IQ DB monitor
Instance: KLAASR2-OM.KLAASR2.LOCAL
Database: OperationsManager
Query: SELECT COUNT(*) FROM Alert Where ResolutionState <> 255

< Previous Next > **Create** Cancel

Three-state Monitor - Critical and Warning Threshold

Add Monitoring Wizard

Monitoring Settings

Monitoring Type
General Properties
Connection And Query Settings
Monitoring Settings
Alert Settings
Scheduler Settings
Summary

Monitoring settings

Define warning and critical states:

Warning state
Direction: greater then Threshold: 3.00000

Critical state
Direction: greater then Threshold: 7.00000

Specify number of samples

Specify the number of consecutive samples that should exceed a threshold before an alert is generated

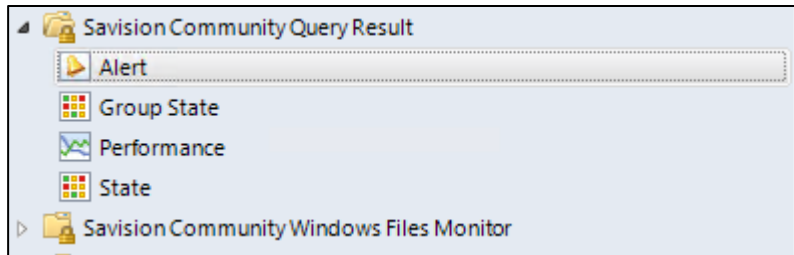
2

< Previous Next > Create Cancel

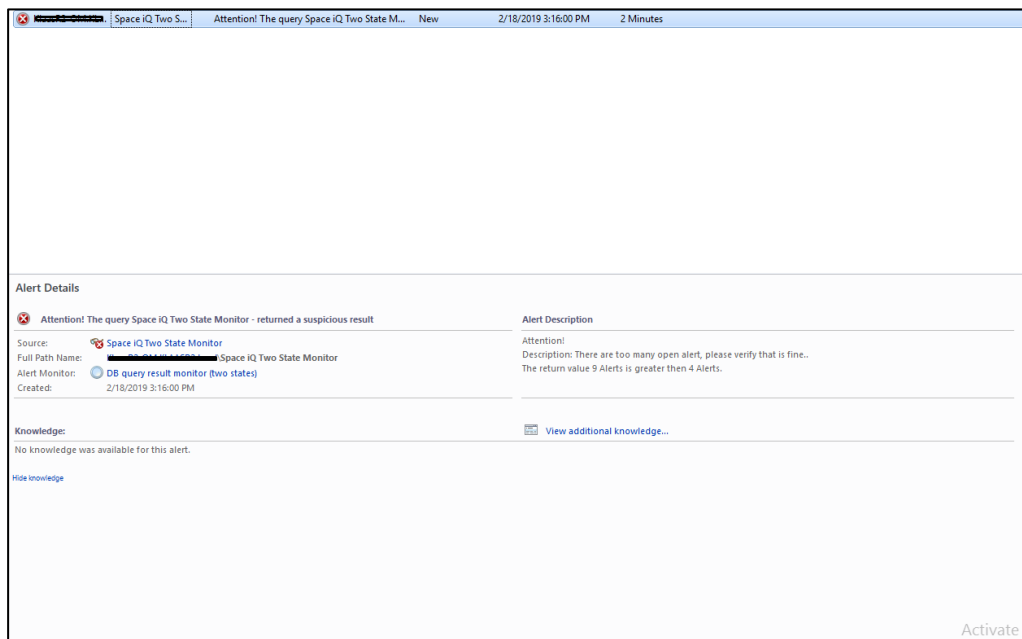
5. SCOM Views

Views related to the Management Pack.

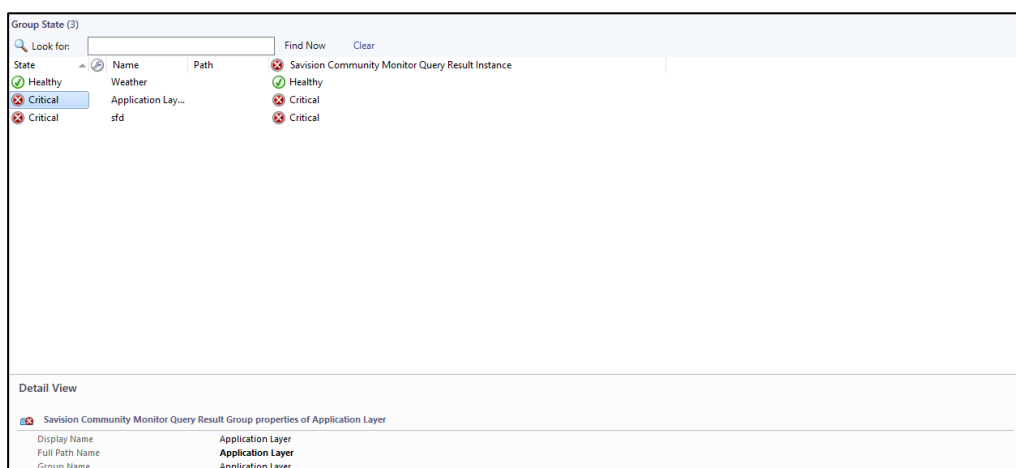
5.1. Open the Savision Community Query Result folde.



a. Alerts.



b. Groups state.



c. Query monitor State.

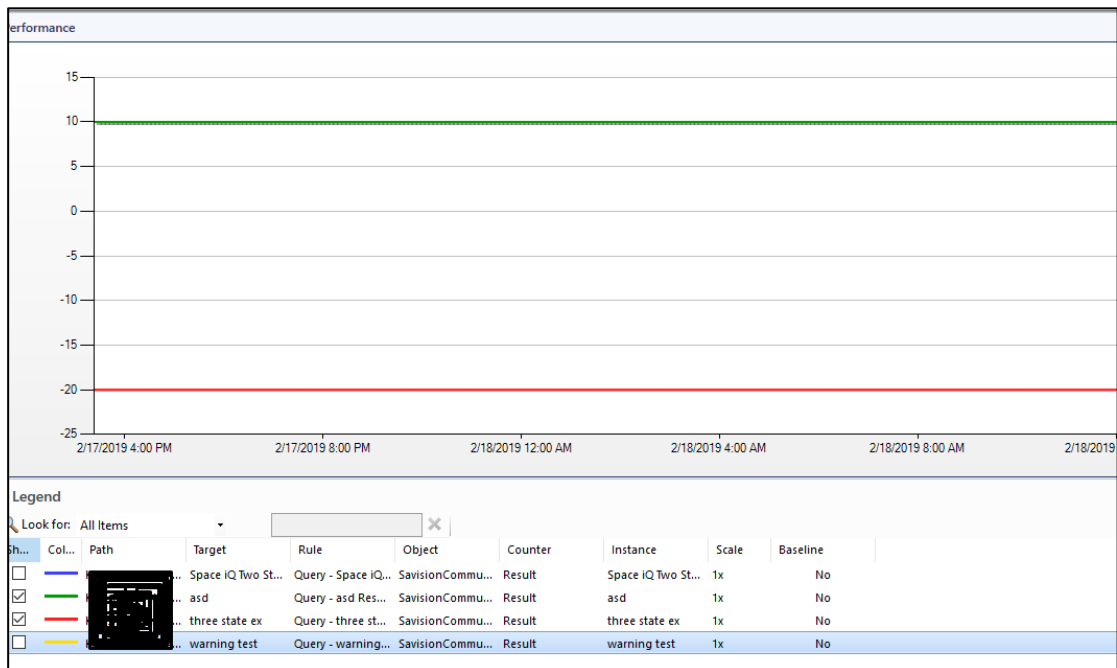
State (4)

Look for: Find Now Clear

Maintenan...

State	Name
Critical	Space iQ Two State Monitor
Critical	asd
Healthy	three state ex
Warning	warning test

d. Performance (historical result data).



6. About Savision

Savision is a Microsoft Gold Partner founded in 2006 that provides enterprise software for the visualization of IT systems management data such as performance metrics, outage information and incidents. Deployed in over 50 countries around the world with more than 900 customers, Savision's software is an ITOps solution that integrates and controls monitoring, cloud, and service management tools data in a single pane of glass. Savision's products help IT teams reduce alert noise and control their IT environment.

For more information, visit: <http://www.savision.com>

7. About Martello

Martello's solutions manage and optimize the performance of real-time services on cloud and enterprise networks. Our solutions, which include network performance management software and SD-WAN technology, allow over the top (OTT) service providers and enterprises around the world to deliver better service quality and a reliable user experience. Designed for real-time communications such as voice and video, Martello's solutions detect, identify and address network performance problems BEFORE service quality is impacted.

For information, visit: <http://www.martellotech.com>

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