# Get the SQL Server performance overview

The Dashboard view contains a graphical representation of the activity on your SQL Server instance. This view not only displays the status of your SQL Server instance, but it allows you to diagnose where problems originate.

The Dashboard view is made up of panels, which include additional information for specific metrics in chart form. Hover your mouse cursor over an area within a chart on which you want to get actual statistics. Click a specific metric to drill down for more detailed information. By using the options in the menu available when you right-click over an area, you can configure alerts, view associated help topics and details, print, save the image, or export the dashboard to Microsoft Excel as a .csv file.

You can also customize your Dashboard view to show only those panels that are important to your monitored SQL Server instance. SQL Diagnostic Manager also allows you to save your customized view on a per-instance basis or use the same view for all of your instances. For more information about customizing your Dashboard view, see Customize your Dashboard view.

# Access the Dashboard view

You can open the Dashboard view of the SQL Diagnostic Manager Overview tab by selecting the appropriate SQL Server instance, and then clicking **Overview > Dashboard**.

# **Dashboard view**

The Dashboard view is organized with panels that display all the key metrics collected by SQL Diagnostic Manager by category.

The available data panels for the Dashboard view include:

### Cache

The Cache panel tracks the database and procedure processes using a buffer pool of memory on your monitored SQL Server instance, and includes the following charts and gauges:

- Page Life Expectancy
- Areas
- Hit Ratios

## **CPU**

The CPU panel includes key CPU metrics for your SQL Server instance and the computer that hosts the instance. The metrics displayed in CPU include the following charts and gauges:

- Usage
- Processor Queue Length
- o Call Rates

#### **Custom Counters**

The Custom Counters panel tracks selected custom counters for your monitored SQL Server instance. You must have at least one c ustom counter to view data in this panel.

## **Databases**

The Databases panel includes key metrics covering the health of the databases on your monitored SQL Server instance. The metrics displayed in Databases include the following charts and gauges:

- Transactions/sec
- Log Flushes/sec
- Reads/sec
- o Writes/sec
- I/O Stall ms/sec

#### Disk

The Disk panel includes key metrics that monitor the health of the disk of your monitored SQL Server instance. The metrics displayed in Disk include the following charts and gauges:

- Latency
- Throughput
- SQL Server Physical I/O

# **File Activity**

The File Activity panel includes the top five database files with the highest relative activity since the last refresh of your monitored SQL Server instance. You can select different metrics and display results for all files, or a single database, disk, or file. The available metrics include:

- o Reads/sec
- o Writes/sec
- Transfers/sec

## **Lock Waits**

The Lock Waits panel tracks the total number waits caused when a task is waiting to acquire a lock on your monitored SQL Server.

# **Memory**

The Memory panel includes key Memory metrics for your SQL Server instance and the computer that hosts the instance. The metrics displayed in Memory include the following charts:

- SQL Server Usage
- SQL Server Paging
- VM Memory Usage
- Host Memory Usage

#### **Network**

The Network panel tracks the performance of the network connection being used by your monitored SQL Server, and includes the following charts and gauge:

- SQL Server Throughput
- VM Network Usage Throughput
- Host Network Usage Throughput
- Response Time

#### **Server Waits**

The Server Waits panel tracks the total number and time spent on waits affecting your monitored SQL Server.

## **Sessions**

The Sessions panel includes session-specific data items. The metrics displayed in Sessions include the following chart and gauge:

- · Activity & Blocking
- Clients

## **Tempdb**

The Tempdb panel tracks the status of the tempdb database on your monitored SQL Server instance, and includes the following charts and gauge:

- Tempdb Space Used
- Tempdb Contention
- Version Store Cleanup Rate

# Virtualization

The Virtualization panel tracks the performance of the host server that manages your virtual machines and the VM on which the monitored SQL Server instance is running, and includes the following charts and gauge:

- Virtual Machine Memory Areas
- VM Host Memory Areas
- Virtual Machine Disk Usage
- VM Host Disk Usage
- o CPU Ready

# **Understand the Dashboard colors**

The following colors are associated with a status for each of the provided panels.

# Gray

Indicates the status of the data is normal, or within the thresholds assigned to the metric.

### **Blue**

Indicates the status of the data is at an informational level based on your settings.

#### Yellow

Indicates the status of the data is at a warning level, or outside the threshold of normal but not yet at the critical status.

## Red

Indicates the status of the data is at a critical level and requires immediate action.

# Blank metrics on the Dashboard

If a metric on the Dashboard has no value, or displays as blank, SQL Diagnostic Manager is not able to collect the corresponding counter. Causes of this situation include:

- The SQL Diagnostic Manager Console has not captured the metrics. It can take up to two refreshes for this capture to occur.
- · OS metrics are disabled. SQL Diagnostic Manager requires direct WMI or OLE automation to collect data.
- If using OLE automation, those procedures are unavailable. SQL Diagnostic Manager is unable to locate required OLE automation stored procedures.
- If connecting to WMI directly, the WMI Service is not running. SQL Diagnostic Manager requires that the WMI service is running on the computer that hosts the SQL Server instance in order to collect OS metrics.
- The counters do not exist on this SQL Server instance.

You can enable OS metrics monitoring to track the performance of the computers on which your monitored SQL Server instances are hosted.

# Refresh your Dashboard data

The Dashboard view is refreshed according to the time set in the **Server View Refresh** field on the Console Options window, which is accessible by clicking **Tools > Console Options**.

# Understanding your chart data and refresh interval

SQL Diagnostic Manager charts provide data whether collected real-time or as part of a scheduled collection event. For additional information about how SQL Diagnostic Manager displays your chart data, see Charts.

**SQL Diagnostic Manager for SQL Server** performance monitoring, alerting, and diagnostics for SQL Server.

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