Memory panel

The Memory panel tracks the usage and availability of memory on your monitored SQL Server computer. Unexpected spikes in memory usage can warn you about the beginning of a serious performance issue. Chronically high memory metrics may indicate the need for server maintenance, query tuning, or other diagnostics to better handle the ongoing workload. Use the **Memory** view on the **Resources** tab to track key memory statistics over a period of time. For additional information, see Get memory performance details.

SQL Server Usage chart

The **SQL Server Usage** chart compares the amount of memory allocated and used by SQL Server to the total memory consumed by a computer.

Metric	Why it is important
SQL allocated	Indicates how much available memory is allocated to SQL Server from the operating system (SQLOS). Compare this metric to how much memory is actually being used by SQL Server.
SQL used	Indicates how much memory is currently used by SQL Server from the total allocated (SQL allocated) to this application. A higher SQL memory percentage indicates that you may have poorly performing queries or a fragmented database.
Total used	Indicates how much physical memory is used by the operating system (SQL Server and other applications). A higher total memory percentage indicates that the overall workload of the SQL Server computer is too intensive for the available resources.

SQL Server Paging chart

The **SQL Server Paging** chart plots the number of swapped pages per second, over time, as calculated by the memory paging metric.

VM Memory Usage chart

The **VM Memory Usage** chart compares the amount of memory allocated and used by SQL Server to the total memory consumed by this virtual machine. For additional information about how SQL Diagnostic Manager works with virtual machines and collects metrics, see How SQL Diagnostic Manager works with a virtual environment.

Metric	Why it is important
Active	Indicates the amount of memory actively used by this virtual machine.
Ballooned	Indicates the amount of memory temporarily reclaimed by the host system for use in other areas. A higher ballooned value indicates that the host server is under memory pressure. Review your load balancing for the host server.
Consumed	Indicates the amount of memory consumed by this virtual machine. This value does not include shared memory or overhead memory for this VM.
Granted	Indicates the amount of physical memory granted by the host to this virtual machine.
Swapped	Indicates the amount of memory swapped to disk by the hypervisor.

Host Memory Usage chart

The **Host Memory Usage** chart compares the amount of memory allocated and used by SQL Server to the total memory consumed on this host server. For additional information about how SQL Diagnostic Manager works with virtual machines and collects metrics, see How SQL Diagnostic Manager works with a virtual environment.

Metric	Why it is important
Active	Indicates the amount of memory actively used by all of your VMs on this host server.
Ballooned	Indicates the amount of memory temporarily reclaimed by all of your VMs on the host system for use in other areas. A higher ballooned value indicates that the host server is under memory pressure. Review your load balancing for the host server.

Consumed	Indicates the amount of memory consumed by all of your VMs on this host server. This value does not include shared memory or overhead memory for these VMs.
Granted	Indicates the amount of physical memory granted by the host to all of your VMs.
Swapped	Indicates the amount of memory swapped to disk by the hypervisor.

Available alerts

- Host Memory Usage (Percent) Alert
- O/S Memory Usage (Percent) Alert
- O/S Paging Alert
- SQL Memory Usage (Percent) Alert
- VM Memory Usage (Percent)