

## Metric alerts

SQL Diagnostic Manager offers numerous alerts to successfully monitor and warn you about your SQL Server instances and availability groups. Proper configuration is key to making sure you receive alerts only on those metrics that actually fall outside the typical performance of your environment. SQL Diagnostic Manager includes the following metric alerts for your use:



The alerts are listed by default as Rank and categories. The default Ranks are classified as follows:

- Rank 10 = Service High
- Rank 20 = Resource High
- Rank 30 = Database High
- Rank 40 = Process High
- Rank 50 = Service Low
- Rank 60 = Resource Low
- Rank 70 = Database Low
- Rank 80 = Process Low
- Rank 90 = Other

### Category: Amazon RDS

| Metric                  | Rank |
|-------------------------|------|
| CPU Credit balance High | 100  |
| CPU Credit balance Low  | 100  |
| CPU Credit Usage        | 100  |
| Disk Queue Depth        | 100  |
| Read Latency High       | 100  |
| Read Latency Low        | 100  |
| Read Throughput         | 100  |
| Swap Usage              | 100  |
| Write Latency High      | 100  |
| Write Latency Low       | 100  |
| Write Throughput        | 100  |

### Category: Azure DB

| Metric                                     | Rank |
|--------------------------------------------|------|
| Average Data IO Percent High               | 100  |
| Average Data IO Percent Low                | 100  |
| Average Log Write Percent High             | 100  |
| Average Log Write Percent Low              | 100  |
| Database Average Memory Usage Percent High | 100  |
| Database Average Memory Usage Percent Low  | 100  |
| In-Memory Storage Usage Percent High       | 100  |
| In-Memory Storage Usage Percent Low        | 100  |
| Max Session Percent High                   | 100  |
| Max Session Percent Low                    | 100  |

|                         |     |
|-------------------------|-----|
| Max Worker Percent High | 100 |
| Max Worker Percent Low  | 100 |
| Service Tier Changes    | 100 |

## Category: Backup

| Metric                 | Rank |
|------------------------|------|
| Days since last backup | 40   |

## Category: Databases

| Metric                                                   | Rank |
|----------------------------------------------------------|------|
| Availability Group Estimated Data Loss (Seconds)         | 20   |
| Availability Group Estimated Recovery time (Seconds)     | 20   |
| Availability Group Log Send Queue Size (KB)              | 20   |
| Availability Group Preferred Replica                     | 10   |
| Availability Group Redo Queue Size (KB)                  | 20   |
| Availability Group Redo Rate (KB/sec)                    | 20   |
| Availability Group Role Change                           | 10   |
| Availability Group Synchronization Health                | 20   |
| Availability Group Synchronization Performance (Seconds) | 20   |
| Data File Autogrow                                       | 70   |
| Database Full (Percent)                                  | 30   |
| Database Full (Size)                                     | 30   |
| Database Read/Write Error Occurred                       | 30   |
| Database Status                                          | 30   |
| Filegroup Space Full (Percent)                           | 30   |
| Filegroup Space Full (Size)                              | 30   |
| Index Row Hits (Percent)                                 | 70   |
| Log File Autogrow                                        | 70   |
| Log Full (Percent)                                       | 30   |
| Log Full (Size)                                          | 30   |
| Longest Running Version Store Transaction (Minutes)      | 30   |
| Mirror Commit Overhead (Milliseconds)                    | 30   |
| Mirrored Server Role Change                              | 30   |
| Mirroring Oldest Unsent Transactions                     | 30   |
| Mirroring Preferred Configuration                        | 30   |
| Mirroring Status                                         | 30   |
| Mirroring Unrestored Log (KB)                            | 30   |

|                                 |    |
|---------------------------------|----|
| Mirroring Unsent Log (KB)       | 30 |
| Mirroring Witness Connection    | 30 |
| Session Tempdb Space Usage (MB) | 80 |
| Table Fragmentation (Percent)   | 70 |
| Tempdb Contention (ms)          | 20 |
| Version Store Generation Ratio  | 30 |
| Version Store Size (MB)         | 30 |

## Category: Logs

| Metric               | Rank |
|----------------------|------|
| SQL Server Agent Log | 40   |
| SQL Server Error Log | 40   |

## Category: Operational

| Metric                              | Rank |
|-------------------------------------|------|
| CLR Enabled                         | 90   |
| OLE Automation Disabled             | 90   |
| OS Metrics Collection Status        | 90   |
| SQL Server Agent XPs Disabled       | 50   |
| SQL Server Data Used (Percent)      | 30   |
| SQL Server Log Used (Percent)       | 30   |
| SQLdm Repository Grooming Timed Out | 90   |
| WMI Service Unavailable             | 50   |

## Category: Queries

| Metric                        | Rank |
|-------------------------------|------|
| Query Monitor Events (Counts) | 80   |

## Category: Resources

| Metric                                 | Rank |
|----------------------------------------|------|
| Average Disk Milliseconds Per Read     | 20   |
| Average Disk Milliseconds Per Transfer | 20   |
| Average Disk Milliseconds Per Write    | 20   |
| Disk Reads Per Second                  | 60   |
| Disk Transfers Per Second              | 60   |
| Disk Writes Per Second                 | 60   |
| OS Average Disk Queue Length (Count)   | 20   |

|                                               |    |
|-----------------------------------------------|----|
| OS Average Disk Queue Length Per Disk (Count) | 60 |
| OS Disk Free Space (Size)                     | 20 |
| OS Disk Full (Percent)                        | 20 |
| OS Disk Time (Percent)                        | 60 |
| OS Disk Time Per Disk (Percent)               | 60 |
| OS Memory Usage (Percent)                     | 20 |
| OS Paging (Per Second)                        | 60 |
| OS Privileged Time (Percent)                  | 60 |
| OS Processor Queue Length (Count)             | 20 |
| OS Processor Time (Percent)                   | 20 |
| OS User Time (Percent)                        | 60 |
| Page Life Expectancy                          | 60 |
| Procedure Cache Hit Ratio                     | 20 |
| SQL Server CPU Usage (Percent)                | 20 |
| SQL Server Memory Usage (Percent)             | 20 |

## Category: Services

| Metric                                            | Rank |
|---------------------------------------------------|------|
| Cluster Active Node                               | 10   |
| Cluster Failover                                  | 10   |
| Distribution Latency (Seconds)                    | 40   |
| DTC Status                                        | 10   |
| Full-Text Search Status                           | 50   |
| Last Full-Text Catalog Update (Hours)             | 50   |
| Latent replication transaction (Count)            | 40   |
| SQL Server Active Directory Helper Service Status | 50   |
| SQL Server Agent Job Completion                   | 80   |
| SQL Server Agent Job Failure                      | 40   |
| SQL Server Agent Long Running Job (Minutes)       | 80   |
| SQL Server Agent Long Running Job (Percent)       | 80   |
| SQL Server Agent Status                           | 10   |
| SQL Server Browser Service Status                 | 50   |
| SQL Server Status                                 | 10   |
| Unsubscribed Transactions (Count)                 | 40   |
| Unsubscribed Transactions (Seconds)               | 80   |

## Category: Sessions

| Metric                                  | Rank |
|-----------------------------------------|------|
| Blocked Sessions                        | 40   |
| Blocked Sessions Wait Time (Seconds)    | 40   |
| Client Computers (Count)                | 60   |
| Deadlock                                | 80   |
| Oldest Open Transaction (Minutes)       | 40   |
| Session CPU Time (Seconds)              | 80   |
| SQL Server Response Time (Milliseconds) | 40   |
| User Connections (Percent)              | 20   |

## Category: Virtualization

| Metric                             | Rank |
|------------------------------------|------|
| Host CPU Usage (Percent)           | 20   |
| Host Memory Swap Detected          | 20   |
| Host Memory Usage (Percent)        | 20   |
| Host Power State                   | 20   |
| VM CPU Ready Wait Time (ms)        | 20   |
| VM CPU Usage (Percent)             | 20   |
| VM Host Server Change              | 20   |
| VM Memory Swap Delay Detected      | 20   |
| VM Memory Usage (Percent)          | 20   |
| VM Power State                     | 20   |
| VM Reclaimed/Ballooned Memory (KB) | 20   |
| VM Resource Configuration Change   | 20   |
| VM Resource Limits Detected        | 20   |

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

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