Tempdb queries (Managed Instance)

Last updated by | Vitor Tomaz | Aug 5, 2020 at 12:43 PM PDT

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//*****************************************************************************************************************
// tempdb
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//Tempdb.01
// TEMPDB tempdb version store usage (for databases without CTR)
MonDmTempDbFileSpaceUsage
| where TIMESTAMP > datetime({StartTime}) and TIMESTAMP < datetime({EndTime})
| where LogicalServerName =~ "{LogicalServerName}" and NodeName =~ "{NodeName}" and AppName =~ "
{AppName}"
| extend version_store_usage_mb=round((version_store_reserved_page_count)*8.0/1024,0)
| project PreciseTimeStamp, version_store_usage_mb
| render timechart

// tempdb.02
// error trends
AlrSQLErrorsReported
| where TIMESTAMP > datetime({StartTime}) and TIMESTAMP < datetime({EndTime})
| where LogicalServerName =~ "{LogicalServerName}" and AppName =~ "{AppName}" and NodeName =~ "
{NodeName}"
| where error_number in (1105)
| extend error=strcat(error_number,"")
| summarize error_count=count() by bin(TIMESTAMP, 5min), error
| render timechart

// tempdb.03
// Data and Log File sizes. If Worker.DW app, use MonDwIoVirtualFileStats (as of T41 Worker.DW deployment)
MonDmIoVirtualFileStats
//| where TIMESTAMP > datetime({StartTime}) and TIMESTAMP < datetime({EndTime})
//| where LogicalServerName =~"{LogicalServerName}"
//| where NodeName == '{NodeName}' and AppName == '{AppName}' and (type_desc == 'ROWS' or
type_desc == 'LOG')
| where LogicalServerName == '{LogicalServerName}' and AppName == '{AppName}'
| where database_id ==2
| extend size_on_disk_GB=round(size_on_disk_bytes/1024.0/1024/1024,0), spaceused_GB=round(spaceused_mb
* 1.0  / 1024,0),max_size_GB=round(max_size_mb/1024.0,0)
| project PreciseTimeStamp, NodeName, LogicalServerName,db_name, file_id, type_desc,  size_on_disk_GB,
spaceused_GB, max_size_GB
| order by spaceused_GB desc nulls last
//| summarize arg_max(PreciseTimeStamp,*), arg_min(PreciseTimeStamp,*)   by file_id

// tempdb.03
// top tempdb usage by query hash
MonWiQdsExecStats
| where TIMESTAMP >= datetime({StartTime}) and  TIMESTAMP <= datetime({EndTime})
| where LogicalServerName =~ "{LogicalServerName}" and AppName == "{AppName}"
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| where is_primary  == 1 and tempdb_space_used > 0
| extend query_key = strcat(database_name, ".", query_hash)
| top-nested of TIMESTAMP by sum(tempdb_space_used), top-nested 10 of query_key by
total_tempdb_used_MB=round(sum(tempdb_space_used)*8.0/1024,0) desc
| sort by TIMESTAMP
| project TIMESTAMP, query_key , total_tempdb_used_MB
| render timechart

// tempdb.04
// buffer latch waits for query hash
MonWiQdsWaitStats
| where  TIMESTAMP >= datetime({StartTime}) and  TIMESTAMP <= datetime({EndTime})
| where LogicalServerName =~ "{LogicalServerName}" and   database_name  =~ "{LogicalDatabaseName}" and
AppName == "{AppName}"
| extend execution_count = total_query_wait_time_ms/ avg_query_wait_time_ms
| where wait_category =~  "BUFFERLATCH"
| summarize total_bufferlatch_wat_ms=round(sum(total_query_wait_time_ms),0),
total_execution_count=round(sum(execution_count),0) by query_hash
```

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