

# All about sysprocesses



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# What is in this session



- Overview of system tables
- Sysprocesses – what is in it
- Using sysprocesses efficiently
  - Locking
  - Blocking
  - Statements executed
- Difference between sp\_who, sp\_who2 and sysprocesses
- Questions

# Overview of system tables



- System table – why is it created?
- What for it can be used
- Different system tables in SQL Server engine
- Where are they stored
- What's about sysprocesses

# Sysprocessess



- Contains information about processes that are currently being executed or queued for execution in database engine

- ColumnName

- spid            kpid            blocked    waittype    waittime
- lastwaittype            waitresource            dbid            uid            cpu
- physical\_io    memusage            login\_time            last\_batch
- ecid            open\_tran            status            sid            hostname
- program\_name            hostprocess            cmd            nt\_domain
- nt\_username            net\_address            net\_library    loginame
- context\_info            sql\_handle            stmt\_start            stmt\_end
- request\_id

# Using it efficiently



- Columns of interest

- SPID, blocked, waittype, waittime, lastwaittype, waitresource, cpu, physical\_io memusage, open\_tran, hostname, program\_name, hostprocess, context\_info, sql\_handle

- Information that can be combined with DMVs

- Physical\_io - sys.dm\_io\_virtual\_file\_stats
- Cpu - sys.dm\_os\_schedulers
- Memusage - sys.dm\_os\_sys\_info
- sql\_handle - sys.dm\_exec\_requests, sys.dm\_exec\_connections, sys.dm\_exec\_sql\_text

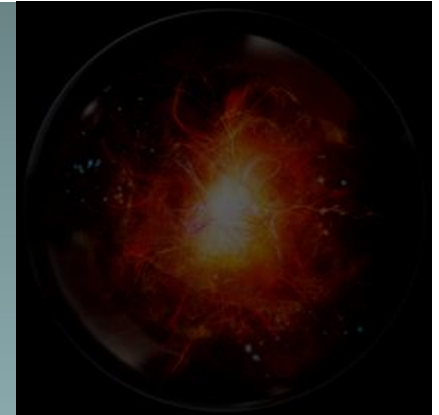
```
SELECT st.text FROM sys.dm_exec_requests r CROSS APPLY  
sys.dm_exec_sql_text(sql_handle) AS st WHERE r.session_id  
= SPID
```

# Using it efficiently



- Waittypes
  - What is the resource waiting for
    - IO\_COMPLETION
    - CXPACKET
    - PAGELATCH
    - PAGEIOLATCH
    - LOCK WAITS
    - Other IO WAITS
  - <http://support.microsoft.com/kb/822101>
- Waitresource
  - 40:1:41356 – Intreperts to DBID:FILEID:PAGEID
  - Info on page can be obtained using DBCC PAGE

# Differences



- What is in sp\_who and sp\_who2

sp_who2	sp_who
SPID	spid
Status	ecid
Login	status
HostName	loginname
BlkBy	hostname
DBName	blk
Command	dbname
CPUTime	cmd
DiskIO	request_id
LastBatch	
ProgramName	
SPID	
REQUESTID	

# Questions



Questions????

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Thank you