

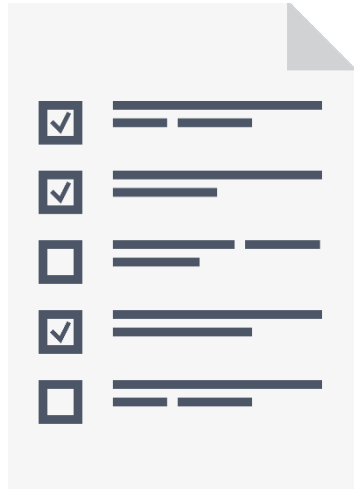
# Database Configuration Settings



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# What This Module Covers



Key database property settings

Database filegroup considerations

Database file layout considerations

Database file property settings

# Statistics-related Database Properties

auto create  
statistics

auto create  
statistics  
incremental

auto update  
statistics

auto update  
statistics async

# Recovery Model and Compatibility Level

## Recovery model

- Full
- Bulk-logged
- Simple

## Compatibility level

- 120 (SQL Server 2014)
- 110 (SQL Server 2012)
- Lower levels for earlier releases

# Undesirable Database Properties



AUTO\_CLOSE

AUTO\_SHRINK

TARGET\_RECOVERY\_TIME set to anything except zero

PAGE\_VERIFY set to anything except CHECKSUM

- Older databases that have been upgraded to newer versions may be using TORN\_PAGE\_DETECTION
- Someone may have changed page verify to NONE, thinking it would help performance

## Miscellaneous Settings to Consider

DATE\_CORRELATION\_OPTIMIZATION

DELAYED\_DURABILITY

PARAMETERIZATION

READ\_COMMITTED\_SNAPSHOT

Filegroup(s) with  
MEMORY\_OPTIMIZED\_DATA

# Database Filegroup Considerations

Create a MAIN filegroup when creating a database and make it the default

Keeps only system objects in a small PRIMARY filegroup

Having at least two files per filegroup gives more flexibility for file placement

# Database File Layout Considerations

Consider workload  
when planning  
database file layout

Different database file  
types have different  
I/O characteristics

Affects provisioning  
and configuration of  
logical drives



# Database File Size and Growth Settings

Choose initial size  
of files

Try to manually,  
explicitly manage  
file growth

Leave auto-growth  
enabled, and set to  
specific amount

Growth increment  
amount is very  
important for  
transaction log

Default growth  
setting for log files  
is 10 percent

Can lead to poor log  
performance from  
high virtual log file  
(VLF) counts, and  
uneven VLF sizes

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