DATABASE CONFIGURATION

Klik rechts op DB en ga naar properties en vervolgens naar options

MAXDOP (max degree of parallelism) settings:

* If the total number of processor cores is greater than or equal to 16, set the MaxDOP to a value of 8.
* If the total number of processor cores is less than 16, set the MaxDOP to a value equal to half the number of available cores.

MAXDOP is het max aantal CPU cores dat gebruikt mag worden voor 1 statement. Dit staat default op 0, wat wil zeggen dat een statement alle cores mag gebruiken die het ter beschikking heeft. Als dat statement die ook allemaal gebruikt, dan blokkeert het andere statements die parallel uitgevoerd worden.

SQL Server max memory: max RAM instellen afhankelijk van server waarop dit draait. Als het draait op dedicated server, dan 90% van de beschikbare RAM toewijzen aan SQL Server. Dient er vooral voor dat SQL Server niet alle RAM van een server in beslag neemt als er nog andere productie apps op draaien. Geen idee of dit belangrijk is om te vermelden hier?

Autogrow van log en data file: antwoord is ‘it depends’, hoe gaat DB groeien? Relatie met instant file initialization?

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Cache query plans die vaak uitgevoerd worden (voor bepaalde selects/inserts? Denk dan aan insert voor logging?) Anders wordt een query plan elke keer opnieuw aangemaakt, als we dit cachen zal dit elke keer tijd besparen.

*Cache can store both plans for queries that are executed on a regular basis, as well as those that had been run only once. It is all depends on the buffer pool size. The pool can be cleared if necessary. Cache can be cleaned manually, or automatically by Database Engine. When Database Engine needs to add new plan, it looks for old plans that require less resources to execute and replaces them.*

*Moreover, you can control the size of the buffer. It can be done by changing the max server memory parameter in the sp\_config procedure (*[*https://technet.microsoft.com/en-us/library/ms188787(v=sql.105).aspx*](https://technet.microsoft.com/en-us/library/ms188787(v=sql.105).aspx)*).*

Tools aanzetten om query optimalisaties te checken:

1. Time statistics aanzetten:

In order to always track query execution time, you can turn on Time statistics and receive execution time in milliseconds. In order to turn it on, you need to execute the following command:

SET STATISTICS TIME ON

1. Client statistics aanzetten:

SLQ Server Management Studio also has built-in statistics. Client Statistics can show not only how much time particular query took, but also the number and type of operations that have been performed in a query, as well as the size of data that has been processed.

You can read here how to turn on and use Client statistics in SQL Server Management Studio:

<https://www.brentozar.com/archive/2012/12/sql-server-management-studio-include-client-statistics-button/>

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Uit het boek:

Since the SQL Server configurations are applicable for the complete SQL Server installation, a standard

configuration is usually preferred. The good news is that, generally, you need not modify the majority of these

configurations; the default settings work best for most situations. In fact, the general recommendation is to keep

most SQL Server configurations at the default values. I discuss the configuration parameters in detail throughout this

book and make a few recommendations for changing some. The same thing applies to database options. The default

settings on the model database are adequate for most systems. You should probably adjust autogrowth settings from

the defaults, but many of the other properties, such as autoclose or autoshrink, should be left off, while others, such as

the automatic creation of statistics, should be left on in most circumstances.