**Analyzing Dangerous Settings in SQL Server**

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**FROM:** [**http://www.sqlservercentral.com/scripts/96886/**](http://www.sqlservercentral.com/scripts/96886/)

Hello everyone,

To analyze dangerous settings in your SQL Server, just copy, paste and execute this script.

Please test this on you development system first.

Once executed the script will detect your SQL server setting and look for any dangerous settings. If dangerous settings are detected, text will be displayed with more information. No settings are changed so you will have to make the changes manually.

Only use/change dangerous SQL server setting when instructed by Microsoft support to fix a specific issue/problem.

Thanks,

Rudy Panigas

-- SQL Server Dangerous Settings

--

-- If any of the below setting are used (other than default) you will experience issues.

-- Only use these settings if recommended by Microsoft Suppport.

SET NOCOUNT ON;

GO

EXEC sp\_configure 'show advanced options', 1;

GO

RECONFIGURE;

GO

SELECT [name], [description], [value\_in\_use]

INTO #SQL\_Server\_Settings

FROM master.sys.configurations

where [name] = 'affinity64 mask'

or [name] = 'affinity I/O mask'

or [name] = 'affinity64 I/O mask'

or [name] = 'lightweight pooling'

or [name] = 'priority boost'

or [name] = 'max worker threads'

GO

EXEC sp\_configure 'show advanced options', 0;

GO

RECONFIGURE;

GO

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-- Testing area - unremark this section of the script to test outputs

--update #SQL\_Server\_Settings set [value\_in\_use] = 1 where [name] = 'affinity64 mask'

--GO

--update #SQL\_Server\_Settings set [value\_in\_use] = 1 where [name] = 'affinity64 I/O mask'

--GO

--update #SQL\_Server\_Settings set [value\_in\_use] = 1 where [name] = 'affinity I/O mask'

--GO

--update #SQL\_Server\_Settings set [value\_in\_use] = 1 where [name] = 'lightweight pooling'

--GO

--update #SQL\_Server\_Settings set [value\_in\_use] = 1 where [name] = 'priority boost'

--GO

--update #SQL\_Server\_Settings set [value\_in\_use] = 1 where [name] = 'max worker threads'

--GO

-- remark the above section to run against actual values

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PRINT ' '

PRINT ' '

PRINT ' Analyzing Dangerous Settings in SQL Server '

PRINT ' '

DECLARE

@Valuedescript VARCHAR(100), @ValueName VARCHAR (100), @ValueInUse VARCHAR (100)

DECLARE DangerousSettings

CURSOR FOR SELECT [description] ,[name] ,CONVERT(VARCHAR (100),[value\_in\_use]) FROM #SQL\_Server\_Settings

OPEN DangerousSettings

FETCH NEXT FROM DangerousSettings INTO @Valuedescript, @ValueName,@ValueInUse

WHILE @@FETCH\_STATUS = 0

BEGIN

IF @ValueInUse = 0

BEGIN

PRINT @Valuedescript +' - '+ @ValueName +' = '+ @ValueInUse + ' --> Setting is good'

END

ELSE

BEGIN

PRINT '\*\*\* WARNING!!! DO NOT USE! ' + @Valuedescript +': is set to '+@ValueInUse + ' --> Change this setting back to default! \*\*\*'

IF @ValueName = 'max worker threads'

BEGIN

PRINT ' '

PRINT 'Max Work Threads setting my cause blocking and thread pool issues/errors.'

PRINT 'When all worker threads are active with long running queries, SQL Server may appear unresponsive until'

PRINT 'a worker thread completes and becomes available. Though not a defect, this can sometimes be undesirable.'

PRINT 'If a process appears to be unresponsive and no new queries can be processed, then connect to SQL Server'

PRINT 'using the dedicated administrator connection (DAC), and kill the process.'

PRINT '\*\* Only use if requested by Microsoft Support \*\*'

PRINT 'The default value for this option in sp\_configure is 0.'

END

IF @ValueName = 'priority boost'

BEGIN

PRINT ' '

PRINT '"Boost SQL Server priority" setting will drain OS and network functions and causes issues/errors.'

PRINT 'Raising the priority too high may drain resources from essential operating system and network functions, '

PRINT 'resulting in problems shutting down SQL Server or using other operating system tasks on the server. '

PRINT '\*\* Only use if requested by Microsoft Support \*\* '

PRINT 'The default value for this option in sp\_configure is 0.'

END

IF @ValueName = 'lightweight pooling'

BEGIN

PRINT ' '

PRINT '"Use Windows fibers (lightweight pooling)". By setting lightweight pooling to 1 causes SQL Server to switch to fiber mode scheduling. '

PRINT 'Common language runtime (CLR) execution is not supported under lightweight pooling. Disable one of two options: "clr enabled" or "lightweight pooling". '

PRINT 'Features that rely upon CLR and that do not work properly in fiber mode include the hierarchy data type, replication, and Policy-Based Management.'

PRINT 'CLR, replication and extended stored procedures will fail and/or not work.'

PRINT '\*\* Only use if requested by Microsoft Support \*\*'

PRINT 'The default value for this option in sp\_configure is 0.'

END

IF @ValueName like 'affinity%'

BEGIN

PRINT ' '

PRINT 'I/O and processor affinity changes will cause strange issues/errors and is not necessary on and 64 bit server.'

PRINT 'Do not configure CPU affinity in the Windows operating system and also configure the affinity mask in SQL Server.'

PRINT 'These settings are attempting to achieve the same result, and if the configurations are inconsistent, you may have'

PRINT 'unpredictable results. SQL Server CPU affinity is best configured using the sp\_configure option in SQL Server.'

PRINT 'Using the GUI, under server properties select the "Automatically set processor affinity mask for all processors" and'

PRINT 'select the "Automatically set I/O affinity mask for all processors". This will correct the issues.'

PRINT '\*\* Only use if requested by Microsoft Support \*\*'

PRINT 'The default value for this option in sp\_configure is 0.'

END

END

PRINT ' '

FETCH NEXT FROM DangerousSettings INTO @Valuedescript, @ValueName,@ValueInUse

END

CLOSE DangerousSettings

DEALLOCATE DangerousSettings

PRINT ' ------------------------------------------------------------------------------------------------------------------------------------------------------------------------------ '

PRINT 'If any of the settings are used (other than default) you will experience issues. Only use these settings if recommended by Microsoft Suppport.'

PRINT 'You can change the settings with SP\_CONFIGURE or the GUI (right click on server, select properties and select Processors'

DROP table #SQL\_Server\_Settings

GO