

Re: AWE settings.

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Source:

<http://www.tech-archive.net/Archive/SQL-Server/microsoft.public.sqlserver.setup/2006-12/msg00093.html>

- *From:* Don <Don@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Thu, 7 Dec 2006 17:40:01 -0800
-

Thank you for taking time to answer my questions so promptly.

"Geoff N. Hiten" wrote:

SQL 2005 is different. IIRC, you have to be on Windows Server 2003 R2 for dynamic AWE to work using SQL 2005, but don't quote me on that. Then there is 64-bit which works completely differently with memory access since it can count higher than 4GB.

—
Geoff N. Hiten
Senior Database Administrator
Microsoft SQL Server MVP

"Don" <Don@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message
<news:6B90CA00-2163-4850-A6DA-DF055F26860F@xxxxxxxxxxxxxxxxxxxx>

Does this work the same for SQL 2005? Or is it dynamic memory adjustment with awe enabled in SQL 2005?

"Geoff N. Hiten" wrote:

AWE usage kills dynamic memory adjustment in SQL Server. The system immediately allocates memory at system startup. With your system settings, SQL will allocate 4.5 GB for the buffer pool, plus up to ~2.6 GB for internal operations with /3G engaged (~1.6 GB otherwise).

AWE allocations show up as PF commitments due to Windows memory

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internals,
so that is why you see the usage in perfmon and task
manager. AWE in SQL
requires locking pages in memory, so when you remove that
ability from
the
service account, you are back to the 3GB limit.

It sounds like your system is running exactly as expected,
given your
configuration. I would not adjust any memory settings. I
would monitor
system free memory to see if any processes consume the
remaining memory
(replication tasks are notorious for slowly stealing memory).

—
Geoff N. Hiten
Senior Database Administrator
Microsoft SQL Server MVP

"Don" <Don@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in
message
news:6603D565-D5F8-4E7F-82EC-33FCD46348CB@xxxxxxxxxxxxxxxxxxxx

Present Server configuration
32 bit.

4 cpus, 6 gb ram.
WINDOWS 2003 enterprise
with
service pack 1

Sql 2000 Enterprise edition
Service pack 3

SQL configured for maxium
server memory is 4.5 gb
with awe enabled.

The startup switches used
are /3GB and /PAE.

Local Security Settings
window/Local Policies/User

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Rights
Assignment/Lock Pages in
Memory is set for sql
server start up user
account.

ISSUE

O.S is showing low
available memory like 200
MB

PF is 5.5 GB all the time.

Presently if we remove the
setting Local Security
Settings window/Local
Policies/User Rights
Assignment/Lock Pages in
Memory
it shows around
3GB available memory. If
this policy setting is
enabled the available
memory is too low around
in the range of 140 MB to
260 MB.

There is no heavy load on
the system and it is a
dedicated SQL server
box. Memory used by SQL
server engine is around 1.6
GB most of the
time.

I was under the impression
the sql server memory
usage is on demand
based upon the load and the
memory configuration.
Looks like by enabling
this option in the policy it
reserves more memory
and leaves very less
memory for the O.S.

If there is any article or
document supporting if

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the policy setting needs to be there will be of
great
help.

Thanks in advance.

Don