

Re: Running profiler on busy 8-cpu Sql Server

Source:

<http://www.tech-archive.net/Archive/SQL-Server/microsoft.public.sqlserver.server/2004-03/3727.html>

From: Brian Moran (brian_at_solidqualitylearning.com)

Date: 03/25/04

Date: Thu, 25 Mar 2004 08:54:35 -0500

Couldn't agree more...

I always start with a light trace and add more detail as I go along to ensure it's not having a significant impact.... that's probably the most important advice of all...

--

Brian Moran
Principal Mentor
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SQL Server MVP

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"Greg Linwood" <g_linwood@hotmail.com> wrote in message
news:%23QFbVjVEEHA.3256@TK2MSFTNGP09.phx.gbl...

> Yes, I'll add that my post is intended to encourage a better understanding
> of the Profiler rather than discounting it's use out of hand on busy
> servers. I also regularly use it on VERY busy servers nearly always
without
> incident.

>

> I think it's also worth saying that you should introduce Profiler
gradually

> on a busy server - eg, if you're capturing long running queries, select
just

> the essential columns / events & set the duration filter high and work
> backwards until you get data. Don't just jump in with all events / columns
&

> no filters as you're sure to clog the system that way.

>

> So, Profiler's ok to use on busy servers - just use it with some care &
> don't make the classic mistake of performing blanket profiling everything.
> Develop an understanding of how it works, what it's capturing & try to use
> it strategically / effectively.

>

> Regards,
> Greg Linwood
> SQL Server MVP

>

> "Brian Moran" <brian@solidqualitylearning.com> wrote in message
> news:OX%23of1UEEHA.2408@TK2MSFTNGP10.phx.gbl...

> > I agree with Greg's comments. Here are some additional thoughts...

> >

> > * I regularly run Profiler on VERY busy servers. I've done it on servers
> > where customers have told me 'theres no way to run Profiler, our server

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is
> > way too busy, we've tried it and it's killed our server'
> > * Last week I was tracing on an 8X with over 1000 batches per second....
> > granted that's not outrageously high... but it's not light either.
> > * tricks to remember include:
> > - avoid using the GUI.
> > - NEVER use the GUI if you're also going to specify a 'server processes
> > trace data'. Trace what THAT instance of Profiler does and you'll see it
> > starts TWO traces... one for hte GUI and one for the file that is being
> > written too.. yikes! <g>
> > - ALWAYS include a max cap on the trace size so the trace quickly stops
if
> > you've stared a 'killer' trace.
> > - You WILL hit the max cap size VERY quickly on a busy server if you're
> > tracing too much.
> > - round trips events (rpc:completed and sql:batchcompleted) are usually
> > reasonable to grab everything even on a busy server...
> > - unfortunately, the 'stmtcompleted' events are often very handy...
> > - UDF's will KILL you if you're tracing them... I've generated 100M of
> trace
> > data in a few seconds on moderately busy servers with lots of UDFs...
> > - you can get the trace down to a manageable size by:
> > * filtering our commands that have duration and CPU = 0.
> > * setting nest level = 1 or 0. That will prevent you from drilling down
> into
> > nested procs and you won't see the UDF's. However, you will be able to
see
> > top line stmts in procs and it's usually enough to track down a lot of
> > problems on a busy server....
> >
> > Let me know if you have any other questions. I love Profiler and have
> gotten
> > handy at working around it's quirks to let me use it safely in almost
any
> > production envrionment.
> >
> > --
> >
> > Brian Moran
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> >
> >
> > "Greg Linwood" <g_linwoodQhotmail.com> wrote in message
> > news:edxz$2SEEHA.3696@TK2MSFTNGP10.phx.gbl...
> > > Hi Dan.
> > >
> > > SQL Profiler puts load on a SQL Server machine in a few ways, so there
> > are
> > > a
> > > few options you have as to how you go about minimalising its
> > interference
> > > with SQL Server.
> > >
> > > First, it's a GUI which means that when you run it directly on a busy
> > > server's console, that server not only has to keep up with the
> > background
> > > processing that SQL Server's doing, it also has to constantly switch
> > > contexts to update the GUI. Not only does the Profiler GUI's screen
need
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> > to
> > > be rendered, it also has to format all of the data columns which are
> > > actually collected on separate "rows" into individual rows, so there's
a
> > lot
> > > of work going on in the background in the GUI. This in itself can
cause
> a
> > > pronounced performance hit on a SQL Server. So, running the Profiler
GUI
> > on
> > > a separate machine can mitigate this problem, assuming it's the
> > bottleneck.
> > >
> > > Then there's the back-end component of SQL Profiler - "SQL Trace"
which
> > SQL
> > > Server has to run. This is the part that actually captures the data
from
> > SQL
> > > Server & places it on queues that the Profiler GUI picks up. The more
> > events
> > > / data columns & filters you define in a profiler trace, the more work
> SQL
> > > Trace has to do. Adding fewer data columns can help minimalise it's
> work.
> > > Make sure you're only collecting the events / columns you actually
need
> &
> > > not gathering all columns / events for the heck of it..
> > >
> > > Generally, when Profiling a busy production server, the least
intrusive
> > > method will be to use the back end SQL Trace components alone, writing
> the
> > > output to a local file on the server, then viewing that file later in
> the
> > > Profiler GUI. This is performed with sp_trace_create on SQL2K
(different
> > on
> > > SQL70) and the Profiler GUI can even script these stored procs using
> File
> > /
> > > Save As / SQL Script..
> > >
> > > The only caveat is that when writing to a local file, if you're trying
> to
> > > capture a lot of Profiler data and the system's disk system is already
> > > heavily loaded, it may be better to write the data to a network share,
> > > assuming the NIC isn't overloaded.. Hence my earlier comments - there
> are
> > > a
> > > few options you can choose from when profiling heavy loaded servers &
it
> > > pays to read up on the Profiler architecture a bit. I recommend
"Inside
> > SQL
> > > Server" - MS Press as there's an excellent section dedicated in that
> back
> > > (toward the back) on this topic..
> > >
> > > Additionally, you might want to have a look on
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