

Re: Question about WMI connection and concurrent use

Source:

<http://www.tech-archive.net/Archive/Development/microsoft.public.win32.programmer.wmi/2005-05/msg00145.htm>

- *From:* "Manfred Braun" <aa@xxxxx>
 - *Date:* Fri, 20 May 2005 09:35:55 +0200
-

Hello Jim !

Why should I spawn external processes when a simple thread from the CLR does it all with much less resources and even faster [I plan to query about 100 network boxes from within our country]. Since the event of .Net, I try do make all my admin jobs in C#. Additionally, you can avoid a lot of runtime errors [introduced in scripting at V5.1 with the "eval" and "execute" statements], the CLR is MUCH more solid in handling this.

I have done this – not using a proxy server like in this case, but with point to point wmi connections – to about 1.200 PCs from 1.200 different threads within one application exe program and this works like a charm [this was my "inventory overview", pulled it from that number of machines within 6 minutes!!!].

Best regards,
Manfred

"Jim Vierra" <jvierra@xxxxxxxx> wrote in message

news:uqcrYwOXFHA.3184@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

> The issue from a programming perspective is – does the call return before
> it is complete?

>

> Using Shell.Exec you can start multiple scripts and wait on completion
> events. Each one should act as an independent client to the proxy. This
> may give you the effect you need. It should run multiple threads – one
for

> each host being queried. WMI is multi-threaded and has an asynchronous
> interface by definition.

>

> Try it. Start multiple ping scripts from one master script and watch them
> all run side-by-side.

>

>

> --

> Jim Vierra

Re: Question about WMI connection and concurrent use

>
> "Manfred Braun" <aa@xxxxx> wrote in message
> news:OJd4M9KXFHA.3032@xxxxxxxxxxxxxxxxxxxxxxxxxxxx
>> Hello Jim
>>
>> and thanks for investigation.
>>
>> You would probably spent a lot of time making all the steps to follow
your
>> recommendations

>> Why not ask the experts, because they usually knows the answer????
>> I just shortly registered a new alias for the managed newsgroup –
>> according
>> to some recommendations from the msdn.general group and hope, the
request
>> will be read soon !!
>>
>> In my company, I have currently not the resources to follow all this
>> steps.
>> My only server, which is allowed to make snmp queries [which I call the
>> proxy] is blocked by huge load and some other long time taking admin
>> jobs[it
>> is also our management server].
>>
>> The only chance I see, is to build a similar environment with
simulation.
>> In
>> real life, there are many other WMI related task active, so I would
never
>> be
>> sure, what the number of threads is really telling me.
>>
>> Anyway if the proxy server does it's job synchronously or not is not my
>> main
>> interest. I need mainly to know if it makes sense to create multiple
>> connections from my management station, which starts the job, to the
proxy
>> server itself. Just, is one connection able to serve multiple outgoing
>> threads or if I have to create multiple connections. It is at all no
>> question about the best overall performance.
>>
>> I just hope, the managed newsgroups are of some help!
>> Thanks a lot and best regards,
>> Manfred
>>
>> "Jim Vierra" <jvierra@xxxxxxx> wrote in message
>> news:OjckkWJXFHA.1384@xxxxxxxxxxxxxxxxxxxxxxxxxxxx
>>> Manfred,
>>> To find the answer to your threading questions why not try using
Process
>>> Explorer from sysinternals.com. It will show you the threads in use

Re: Question about WMI connection and concurrent use

for
> > any
> >> instance. Monitor WMI to see how many threads it is using and then
> > connect
> >> you application.
> >>
> >> My guess is that it will release one thread per remote host connection
as
> > it
> >> runs it query semi-synchronously. You can change hat to run the fully
> >> asynchronous which will release the call and allow program
continuation.
> >> There is a earning about security issues with async calls in WMI. I
have
> >> not read the security issue in detail so you might want to visit that.
> >>
> >> You r environment is one of a WMI proxy so I would start with the
calling
> >> workstation and see how many WMI threads are release to be sure it will
> > work
> >> as intended. You may have to "remote" your process with an object on
the
> >> management server that can have multiple instances in order to gain
> > maximum
> >> performance.
> >>
> >> You can also use WMI to query a process for it's thread information.
> >> This
> >> may be easier than using API calls. Set up an event monitor on the
> >> thread
> >> creation and deletion and look at the thread info.
> >>
> >> --
> >> Jim Vierra
> >>
> >> "Manfred Braun" <manfred.braun@xxxxxxx(NOSPAM)> wrote in message
> >> news:A577C305-8DAC-440D-AD27-78DCAEFBDE51@xxxxxxxxxxxxxxxxxxxx
> >> > Hi All,
> >> >
> >> > [Even I posted this sometimes ago via "managed newsgroups" {I am
> > > universal
> >> > msdn abonnement and pay for support}, I could not get an answer or
any
> >> > notifications. This is my third attempt. If my question is not to
> >> > understand
> >> > – bear with me for my english – but I could give additional
> >> > information/explanations. On the other hand, I cannot image, that
this
> > is
> >> > really unclear and not to understand/to explain by the experts].
> >> >

Re: Question about WMI connection and concurrent use

Re: Question about WMI connection and concurrent use

>>>> I'll use one wmi connection by several concurrently running threads
to
>> one
>>>> server. I've already made a lot of outgoing calls from different
>>>> threads
>>>> [I
>>>> am using the .Net framework],
>>>> but that's another scenario.
>>>> Only my management server is allowed to connect network devices via
>> snmp.
>>>> So
>>>> I'll use this server as a proxy to ask network devices. In this case,
>>>> my
>>>> local workstation will open a wmi connection to the system management
>>>> server
>>>> and advise it to contact box x1, box x2, and so on [using additional
>>>> WBemObjectSet objects]. I know all this to handle, but:How many
threads
>>>> can
>>>> this handle, or do I need
>>>> multiple connections?? Are the calls internally serialized or handled
>>>> by
>>>> multiple threads?
>>>>
>>>> I made already a similar thing, using this management servers WMI
Ping
>>>> Provider, and found this extremely slow, but could not find the
reason.
>>>>
>>>> I could not find anything in the SDK, wether scripting nor COM API.
I
>> am
>>>> using the .Net Framework to build my tool, not scripts.
>>>>
>>>> Any help would be really very welcomed!
>>>>
>>>> Best regards,
>>>> Manfred Braun
>>>>
>>>> [Hopefully I get it managed this time to post it as a top-level
entry;I
>> am
>>>> afraid, only this level is watched for "managed newsgroups" ??]
>>>>
>>>>
>>>>
>>
>>
>
>

- *Follow-Ups:*
 - ◆ **Re: Question about WMI connection and concurrent use**
 - ◇ *From: Jim Vierra*

- *References:*
 - ◆ **Question about WMI connection and concurrent use**
 - ◇ *From: Manfred Braun*
 - ◆ **Re: Question about WMI connection and concurrent use**
 - ◇ *From: Jim Vierra*
 - ◆ **Re: Question about WMI connection and concurrent use**
 - ◇ *From: Manfred Braun*
 - ◆ **Re: Question about WMI connection and concurrent use**
 - ◇ *From: Jim Vierra*

- Prev by Date: **Re: WMI and component services**
- Next by Date: **Re: Remotely installing filters and consumers**
- Previous by thread: **Re: Question about WMI connection and concurrent use**
- Next by thread: **Re: Question about WMI connection and concurrent use**
- Index(es):
 - ◆ **Date**
 - ◆ **Thread**