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Subject: Re: limiting the CPU time allowed

Posted by [John-David T. Smith](#) on Mon, 26 Feb 2001 22:30:53 GMT

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"A. Roubicek" wrote:

>  
> Hi all,  
>  
> I'm trying to find a way to limit the CPU time an IDL process can  
> take (on unix, running from cron), to prevent clugging the system  
> with runaway processes. Any leads would be greatly appreciated!  
>  
> Thank you,  
> A.R.

nice 15 idl "domyjob.pro"

jd

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Subject: Re: limiting the CPU time allowed

Posted by [A. Roubicek](#) on Mon, 26 Feb 2001 22:36:07 GMT

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Hi JD, thank you for your reply,

I am sorry, I was not clear. I mean that "if the job takes more than certain amount of CPU time, it should be killed". Is there any way to do it from within IDL? Some applications have an option in the calling command to set this kind of limit.

On Mon, 26 Feb 2001, JD Smith wrote:

> "A. Roubicek" wrote:  
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> jd  
>

>

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Subject: Re: limiting the CPU time allowed  
Posted by [Liam E. Gumley](#) on Mon, 26 Feb 2001 23:02:41 GMT  
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"A. Roubicek" wrote:

>

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> On Mon, 26 Feb 2001, JD Smith wrote:

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>> "A. Roubicek" wrote:

>>>

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>>> Thank you,

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>>

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>>

>> jd

If runaway IDL processes are begin created by cron, then killing them after the fact would seem to be treating the symptom and not the disease. Do the IDL scripts created by your cron job have adequate error handling? Does each IDL script invoked by cron have an EXIT statement at the end?

To kill runaway jobs, you might be able to parse the output of 'ps',  
e.g.,

IDL> spawn, 'ps -ef | fgrep idl | sort', result

Don't kill the IDL license manager though...

Cheers,

Liam.

<http://cimss.ssec.wisc.edu/~gumley>

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Subject: Re: limiting the CPU time allowed  
Posted by [Craig Markwardt](#) on Tue, 27 Feb 2001 01:37:22 GMT  
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"A. Roubicek" <aro@cdc.noaa.gov> writes:

- > Hi JD, thank you for your reply,
- > I am sorry, I was not clear. I mean that "if the job takes more than
- > certain amount of CPU time, it should be killed". Is there any way to do
- > it from within IDL? Some applications have an option in the calling
- > command to set this kind of limit.

If you are running under Unix you can set a CPU processing limit. Under csh, you would do "limit cputime nnn" where nnn is the number of CPU seconds. You would do this in the shell *before* invoking your IDL script. Hopefully you can use this, or else the equivalent in your shell.

Craig

—

Craig B. Markwardt, Ph.D.      EMAIL:    craigmnet@cow.physics.wisc.edu  
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response

Subject: Re: limiting the CPU time allowed  
Posted by [Nigel Wade](#) on Tue, 27 Feb 2001 10:09:48 GMT  
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>>> >>>>>>>>>>>>> Original Message <<<<<<<<<<<<<<<<<

On 26/02/01, 22:17:59, "A. Roubicek" <aro@cdc.noaa.gov> wrote regarding limiting the CPU time allowed:

> Hi all,

- > I'm trying to find a way to limit the CPU time an IDL process can
- > take (on unix, running from cron), to prevent clugging the system
- > with runaway processes. Any leads would be greatly appreciated!

> Thank you,  
> A.R.

As Craig mentioned you can set per-process CPU limits (for sh/ksh the command is `ulimit`, BTW).

Alternatively you might consider installing a batch system such as GNQS (which should be free, it's covered by the GNU GPL) and then set up batch queues with time limits to process your IDL (and anything else you want to have processed in the background).

Of course, a batch system may be total overkill for your requirements; I just thought I'd throw the suggestion into the discussion.

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