
Subject: Optimizing IDL on a Beowulf Cluster
Posted by [FSD](#) on Sat, 12 Feb 2005 18:21:31 GMT
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All;

I have access to IDL on a 48 node, 96 CPU Linux cluster. Is it possible for IDL to make use of multiple nodes?

If so, is there any documentation available on the subject?

Thanks

Frank

Subject: Re: Optimizing IDL on a Beowulf Cluster
Posted by [Robert Barnett](#) on Tue, 15 Feb 2005 05:39:24 GMT
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> Is it possible
> for IDL to make use of multiple nodes?

Yes. You can do this with any language which can call C functions.
Provided you only need to use PVM.

> Is there any documentation available on the subject?

No. There don't appear to be many people who actually use beowulf and IDL.

Have a look at FastDL. It might be more up your alley.

--

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Subject: Re: Optimizing IDL on a Beowulf Cluster
Posted by [Michael C Schrick](#) on Wed, 24 Aug 2005 13:52:24 GMT
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Frank,

I don't know if this will help or not, but I have written an interface to LAM/MPI for PV-Wave which I am currently using, which is available for download at:

<http://schrack.fastem.com/beowave/>

I have access to an 8-node 3.6 GHz Athlon Beowulf cluster. The problem is that the length of your analysis programs will grow to meet the size of your computer. Once you go down this path, you'll never be able to go back.

I realize that PV-Wave and IDL are not the same and I don't know how much time or effort your willing to invest, or even how compatible this package will be with IDL. Maybe, someone else will respond with a package which is more compatible with IDL.

I'm also interested in how other people are using these types of tools in a Beowulf environment.

thanks,

Mike
Schrack@fastem.com

FSD <frank@digennaro.com> wrote:

> All;
> I have access to IDL on a 48 node, 96 CPU Linux cluster. Is it possible
> for IDL to make use of multiple nodes?
> If so, is there any documentation available on the subject?
> Thanks
> Frank
>
>

Subject: Re: Optimizing IDL on a Beowulf Cluster
Posted by [cgguido](#) on Thu, 25 Aug 2005 22:55:39 GMT
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Hi all,

this post brings to mind a question: what happens with the licenses?
AFAIK, idl uses one license per screen-motherboard combination (so you can use dual-proc machines easily). What happens in the case of a big mamma cluster? I am not so interested in running idl code in parallel but rather having loads of idl jobs run independently on different chips... any clues?

thanks,
Gianguido

Subject: Re: Optimizing IDL on a Beowulf Cluster
Posted by [Michael C Schrick](#) on Fri, 26 Aug 2005 15:24:38 GMT
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If you can, get your licenses setup to key off of the user name, the machine (host) name, and the display name. Then setup your serf nodes to all have the same name (i.e. serfxx). The master node can still maintain a separate name for each node (i.e. serf01, serf02, ...). When you fire up the cluster, the user/host/display names for the serf nodes will all be the same and will only require one license. Thus, two licenses will be required, one for the master node and one for the serf nodes.

In effect, this is the same thing as having multiple processors on the single motherboard, which would be a single user/host/display. There are now multiple processors on multiple motherboards, with a single user/host/display name.

regards,

Mike

Gianguido Cianci <gianguido.cianci@gmail.com> wrote:

> Hi all,
>
> this post brings to mind a question: what happens with the licenses?
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> but rather having loads of idl jobs run independently on different
> chips... any clues?
>
> thanks,
> Gianguido
>

Subject: Re: Optimizing IDL on a Beowulf Cluster
Posted by [George N. White III](#) on Sat, 27 Aug 2005 11:51:27 GMT
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On Thu, 25 Aug 2005, Gianguido Cianci wrote:

- > this post brings to mind a question: what happens with the licenses?
- > AFAIK, idl uses one license per screen-motherboard combination (so you
- > can use dual-proc machines easily). What happens in the case of a big
- > mamma cluster? I am not so interested in running idl code in parallel
- > but rather having loads of idl jobs run independently on different
- > chips... any clues?

Does each job need full IDL? My understanding is that IDL licensing uses more units on faster CPU's, so in principle, each job in a cluster should consume some license units. Can the jobs use a runtime IDL environment or maybe GDL?

--

George N. White III <aa056@chebucto.ns.ca>
