Subject: Re: IDL -> C : How to save data from IDL?
Posted by hotplainrice@gmail.co on Thu, 11 Sep 2008 09:49:43 GMT
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On Sep 10, 9:23 pm, Joost Aan de Brugh <joost...@gmail.com> wrote:
> On Sep 10, 12:41 pm, "hotplainr...@gmail.com" <hotplainr...@gmail.com>
> wrote:
>
>> Hi guys,
>
>> I have managed to get CUDA interfacing to IDL and so far its all good.
>> However, whenever I get problems in C or CUDA, I can't run a debugger
>> because it doesn't recognise IDL. So I want to separate the C code
>> from IDL and this means I have to be able to load data from within C.
>
>> How do I save data that is IDL for C to use?
>
>> I'm thinking of
>
>> running IDL program -> C program which writes the data into a file
>
>> Thanks
>> Zaki
>
> Hello Zaki,
>
> If you use a file:
> Maybe it is the best to use conventional file formats like NetCDF and
> HDF. They are the most portable.
>
> You can probably also use Call_External (see IDL Help on
> Call_External).
> I used it for Fortran. IO hope that it works similar for C
> You need a shared object file and a method name.
> The method name is probably something like your defined name plus an
> underscore
> You can see what that name is with "nm <shared object file>" in Linux.
> (I do not know for Windows)
>
> You define a method with arguments argc and argv.
> In Fortran, argv is a list of integers which are the memory addresses
> of your arguments (void-pointers). You should be able to write data
> into these addresses.
> Probably, this only works better with C than with Fortran.
> But if you use this, watch out, because you should always write the
> same size as allocated by IDL. Note that non-long integers in IDL are
> only 2 bytes long and if you memcpy a 4-byte C int there, you write 2
> bytes into unknown territory, ruining other data or causing a

> segmentation fault. (Of course, the former is worse). The other way
> round is also dangerous. For example, if you write a 4-byte C-float
> into an address where you have a 8-byte IDL Double, you will get
> idiotic values in IDL.
>
> Best regards,
> Joost Aan de Brugh

Thanks Joost for the reply, I'll look into it soon.
