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Subject: Re: Newbie Mac PPC shared lib

Posted by [John-David T. Smith](#) on Thu, 02 Mar 2000 08:00:00 GMT

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Irene Barg wrote:

>  
> Hello to all,  
>  
> My development environment:  
>     Mac G4 450MHz 512MB RAM OS 9  
>     IDL 5.2 for Mac  
>     CodeWarrior V5 for Mac  
>  
> I'm new to the Macintosh, however, after reading several  
> posts regarding "shared libraries" on this newsgroup, I was  
> able to get my code up and running. Now, I have a question.  
>  
> Our UNIX users use IDL, Interactive Data Language, package  
> from RSI, for interactive analysis and visualization. We have  
> a set of C routines that we have been able to call from IDL  
> using the IDL CALL\_EXTERNAL function which loads and calls  
> routines contained in shareable object libraries. My task was  
> to port this C code to the Macintosh environment so that our  
> Mac/IDL users could use it as well.  
>  
> Inside my IDL procedure, I call a C routine with the following:  
>  
> s = CALL\_EXTERNAL('calnica.shlb','do\_cridcalc',nic,input,crimage )  
>  
> Where:  
>   "calnica.shlb" is my PowerPC shared library created with CW.  
>   "do\_cridcalc" is my entry point name to my shared code.  
>   "nic, input, crimage" are pointers to data.  
>  
> I created "shlb" using CW PPC Std C Console stationary. The  
> code works, but, while it's running, I can't do anything else  
> with the Mac. Normally, one processes more than one image at  
> a time, so I have to free up the Mac, but how? This is not  
> a problem on the UNIX platform. I'm not certain if it's an  
> IDL or Mac problem. Any insight you may have will be most  
> appreciated.

How do you do the multiple processing? With multiple instances of IDL running?  
Or is there some other way you "background" the calculation. Is there user  
input required to get the calculations started? Without a multi-CPU machine,  
running the processes concurrently is not any faster, and most likely slightly  
slower, than running them in series, say from a batch file (unless, of course,  
the time required for human interaction can be interleaved -- the strength of

multi-processing). This technique could be adopted on the Mac (start the batch file running and then go to lunch).

If you use multiple IDL sessions, it's definitely a Mac problem -- no preemptive multi-tasking support. MacOS X, based on the Mach microkernel and BSD, will have robust PMT and protected memory, so, assuming RSI supports it in a timely fashion, that will satisfy your Mac user's needs. It's due out at the end of the year.

Good Luck,

JD

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