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Subject: Remote a CCD by a Matrox Frabe grabber  
Posted by [fabrice.monti](#) on Thu, 17 Feb 2005 08:48:46 GMT  
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Hi,

I use IDL for a lot a applications, but now I have a Big problem.  
I would like to capture an image from a CCD. I use a frame grabber  
(matrox meteor2).

For the moment, i use Matlab with a external call to the "Mil". It's a  
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But i wrote a IDL to calculate a lot of think on this image.  
I must save the image in a file with Matlab and read it with IDL...  
Grrrr...

Do you think is it possible to replace to call external of Matlab by  
the same function in IDL... i tried to use "call\_external" and  
"socket" function whitout succes....

is it possible to call a external library like "Mil" whit IDL, and  
how?

Thanks

FM

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Subject: Re: Remote a CCD by a Matrox Frabe grabber  
Posted by [Rick Towler](#) on Thu, 17 Feb 2005 21:11:11 GMT  
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Fabrice Monti wrote:

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It probably is possible with CALL\_EXTERNAL. I doubt SOCKET would work unless your frame grabber is attached to the network and it serves up data via TCP/IP. You'd have to check your frame grabber docs.

Why don't you post what you have tried with CALL\_EXTERNAL. You should be able to glean relevant information from your MATLAB loadlibrary/calllib functions to get you started in IDL.

-Rick

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Subject: Re: Remote a CCD by a Matrox Frabe grabber  
Posted by [Marc R. Reinig](#) on Thu, 17 Feb 2005 23:10:56 GMT  
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Why not write a DLM?

-- Marco

=====  
Marc Reinig  
UCO/Lick Observatory  
Laboratory for Adaptive Optics

"Fabrice Monti" <fabrice.monti@espci.fr> wrote in message  
news:ba06b53f.0502170048.47a67960@posting.google.com...

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Subject: Re: Remote a CCD by a Matrox Frabe grabber  
Posted by [fabrice.monti](#) on Fri, 18 Feb 2005 08:51:33 GMT  
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thanks to help me...  
this is a part of my matlab code:

```
.....  
mydcf= '6703c60.dcf'  
  
loadlibrary('mil', 'mil.h');  
M_default= '10000000';  
M_default= 'hex2dec(M_default);  
  
v= int32(1);  
p_app= libpointer('int32ptr',v);  
calllib('mil', 'MAppAlloc', M_default, p_app);  
  
psys= libpointer('int32ptr',v);  
calllib('mil', 'MsysAlloc', 'M_system_meteor_II',M_default,  
M_default,psys);  
  
.....
```

In this code i used a call to 'Mil.h'. I found this file on the net,  
this file is write only for Matlab.. but I can't used it with IDL...  
I have a library called 'Mil.dll' and i tried to 'translate' this part  
to IDL:

```
...  
mydcf= '6703c60.dcf'  
path= 'c:\test\mil.dll'  
res =call_external('mil', path)  
  
m_default='10000000'x  
  
v= float(1)  
p_app= ptr_new(v)  
return, call_external('mil', 'MAppAlloc', M_default, p_app)  
  
psys= ptr_new(v)  
return, call_external('mil', 'MsysAlloc',  
'M_system_meteor_II',M_default, M_default,psys)  
...
```

but it doesn't work...

the first error it's in the first call\_external... The dll isn't  
open...

if you have a idea....

thank

Rick Towler <rick.towler@nomail.noaa.gov> wrote in message  
news:<cv319h\$v9a\$1@news.nems.noaa.gov>...

> Fabrice Monti wrote:

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> be able to glean relevant information from your MATLAB

> loadlibrary/calllib functions to get you started in IDL.

>

> -Rick

---

Subject: Re: Remote a CCD by a Matrox Frabe grabber  
Posted by [fabrice.monti](#) on Fri, 18 Feb 2005 08:53:35 GMT

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just because i don't know the procedure and the reason to do this...

could you expain what is the DLM and what is my avantage to create this file?

thanks

"Marc Reinig" <mreinig@ucolick.org> wrote in message news:<42152710\$1@darkstar>...

> Why not write a DLM?

>

> -- Marco

>

> =====  
> Marc Reinig  
> UCO/Lick Observatory  
> Laboratory for Adaptive Optics  
>  
>  
> "Fabrice Monti" <fabrice.monti@espci.fr> wrote in message  
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Subject: Re: Remote a CCD by a Matrox Frabe grabber  
Posted by [Marc Reinig](#) on Fri, 18 Feb 2005 21:58:16 GMT  
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You program a dll (Windows) or an so (UNIX) in 'C' that implements the functionality you want. You do this in a specific way so IDL can use it. (see the docs on DLM's and get Ronn Kling's book "Calling C from IDL", <http://www.rlkling.com>).

Then , you can create a custom IDL function of procedure that implements all the external calls you would have made. I have one for capturing images that looks like:

```
res = lao_get_phx_image ( camera_number, rawimg, $  
  
    averaging, binning, roi_xstart, roi_ystart, $  
  
    roi_xsize, roi_ysize )
```

It captures an image (or a part of an image) from a camera. The code behind it is about three pages of C, but I never have to do anything and it's always there just like a regular IDL built-in function.

Marco

---

Marc Reinig  
UCO/Lick Observatory  
Laboratory for Adaptive Optics

"Fabrice Monti" <fabrice.monti@espci.fr> wrote in message  
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Subject: Re: Remote a CCD by a Matrox Frabe grabber  
Posted by [Rick Towler](#) on Fri, 18 Feb 2005 23:16:20 GMT  
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Fabrice,

I can't help out much more than to say that you'll need that .dll and some quality time with the IDL documentaion on CALL\_EXTERNAL. At the bottom of the mil.h file you'll see the function prototypes which will be very helpful too. Looking at your code I don't think you read the documentation for CALL\_EXTERNAL. Also read the documentation on CALL\_EXTERNAL in the "External Development Guide".

One option as Marc has pointed out is writing your own .dlm but if you don't have experience with C, that could be a quite a project to tackle.

Sometimes this is the only option though. Ronn's book is a requirement if you decide to go this route.

Good luck!

-Rick

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> .....
>
```

```

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