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Subject: Re: Connecting GPC to IDL

Posted by [KRDean](#) on Mon, 20 Jun 2011 21:19:07 GMT

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On Jun 20, 10:00 am, kBob <krd...@gmail.com> wrote:

> On Jun 17, 1:00 pm, Haje Korth <hajeko...@gmail.com> wrote:

>

>

>

>

>

>> Ok, typically when using visual studio from the command line you need  
>> to execute a batch file so set the paths correctly. On my machine this  
>> is vsvars32.bat. It is somewhere in the visual studio tree. I copied  
>> it to c:\windows so that it is always found. Then try the examples  
>> again, and do not attempt to compile gpc until the examples work. The  
>> next question I have is whether you wrote the proper wrapper routines  
>> to interface from IDL to gpc?

>

>> On Jun 17, 10:15 am, kBob <krd...@gmail.com> wrote:

>

>>> On Jun 17, 6:46 am, Haje Korth <hajeko...@gmail.com> wrote:

>

>>>> Were you able to successfully compile any of the small example  
>>>> programs in the IDL external directory?

>

>>>> On Jun 16, 5:21 pm, kBob <krd...@gmail.com> wrote:

>

>>>> > On Jun 14, 3:44 pm, kBob <krd...@gmail.com> wrote:

>

>>>> > > On Jun 11, 10:07 am, Michael Galloy <mgal...@gmail.com> wrote:

>

>>>> > > > kBob <krd...@gmail.com> wrote:

>>>> > > > > On Jun 10, 7:52 am, Haje Korth <hajeko...@gmail.com> wrote:

>>>> > > > > Kelly: I have always found using gcc with IDL on Windows to be a

>>>> > > > > difficult endeavor. Also, the use of make\_dll is optional and in the

>>>> > > > > past has made life more difficult rather than easier. I suggest

>>>> > > > > grabbing the free edition of Visual Studio Express and creating the

>>>> > > > > dll this way. Just remember to export the functions you will be

>>>> > > > > accessing from IDL. This is definitely an advanced topic, so start

>>>> > > > > with the simple examples in the external directory of the IDL distro.

>>>> > > > > Haje

>

>>>> > > > > On Jun 9, 10:35 am, kBob <krd...@gmail.com> wrote:

>

>>>> > > > > On Jun 6, 2:11 pm, kBob <krd...@gmail.com> wrote:

>

>>>> > > > > > I would like to use the General Polygon Clipper (GPC) thru IDL.

>  
 >>>> > > >>>> This is a software package written in C that is available from  
 >>>> > > >>>> Manchester that clips polygons.  
 >  
 >>>> > > >>>> Has anyone implement this in IDL, already?  
 >  
 >>>> > > >>>> I assume MAKE\_DLL is the way to go.  
 >  
 >>>> > > >>>> Kelly Dean  
 >>>> > > >>>> Milliken, CO  
 >  
 >>>> > > >>>> I am still looking into this, as time allows.  
 >  
 >>>> > > >>>> I ahve reviewed some different ways to implement this, I have  
 >>>> > > >>>> determine that the following routines can be used :  
 >  
 >>>> > > >>>> LINKIMAGE  
 >>>> > > >>>> SPAWN  
 >>>> > > >>>> MAKE\_DLL  
 >>>> > > >>>> CALL\_EXTERNAL  
 >>>> > > >>>> CALL\_EXTERNAL/MAKE\_DLL  
 >  
 >>>> > > >>>> There is a nice example to use CALL\_EXTERNAL/MAKE\_DLL, but MAKE\_DLL  
 is  
 >>>> > > >>>> giving me problems as I am trying to use the gcc compiler. There is a  
 >>>> > > >>>> ITTVIS Tech Tip that helps, but another problem appears while dealing  
 >>>> > > >>>> with the IDL example.  
 >  
 >>>> > > >>>> There is a GCP DLL provided thru the MatLab Contrib site. I am playing  
 >>>> > > >>>> around with this in CALL\_EXTERNAL, bypassing the MAKE\_DLL.  
 >  
 >>>> > > >>>> Sorry, that this is turning into a blog, but I find it helps to scatch  
 >>>> > > >>>> some notes down once in awhile for future reference.  
 >  
 >>>> > > >>>> Kelly Dean  
 >>>> > > >>>> Milliken, CO- Hide quoted text -  
 >  
 >>>> > > >>>> - Show quoted text -  
 >  
 >>>> > > >>>> Yes, apparently the ITTVIS example assumes you have Microsoft Visual  
 >>>> > > >>>> installed.  
 >  
 >>>> > > >>>> Well, I spent most of the day installing Microsoft Visual C++ 10.0 and  
 >>>> > > >>>> regist for the free version.  
 >  
 >>>> > > >>>> So far, here are the problems I am having :  
 >  
 >>>> > > >>>> cl.exe : Solution ?

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>>>> > > > mspdb100.dll pop-up : Solution ?
>>>> > > > stdio.h 'no such file' : Solution ?
>
>>>> > > > I am sure the problems are related to path, as all these file are
>>>> > > > within the new install of MS Visual Studio 10.0.
>
>>>> > > > Kelly
>
>>>> > > > Make sure to launch IDL from the special command line provided by VS (or
>>>> > > > set your path and possibly other environment variables accordingly).
>
>>>> > > > Mike
>>>> > > > --www.michaelgalloy.com
>>>> > > > Research Mathematician
>>>> > > > Tech-X Corporation- Hide quoted text -
>
>>>> > > > - Show quoted text -
>
>>>> > > > Becoming a little wiser.
>
>>>> > > > Visual Studio Command Prompt is looking for "vcvarsall.bat"
>
>>>> > > > I did install MinGW. From the MinGW shell prompt I was able to make a
>>>> > > > DLL -
>
>>>> > > > gcc -Wall -shared gpc.c -o gpc.dll
>
>>>> > > > However, this is a 32-bit DLL. The IDL 64-bit version using
>>>> > > > CALL_EXTERNAL doesn't like the DLL.
>
>>>> > > > Although, the IDL 32-bit version does like the DLL, but IDL promptly
>>>> > > > crashes.
>
>>>> > > > Progress!
>
>>>> > > > Kelly- Hide quoted text -
>
>>>> > > > - Show quoted text -
>
>>>> > > > Still working on it, but starting to lose steam.
>
>>>> > > > Tried to use gcc from CYGWIN to compile C source code. Failed. Reports
>>>> > > > from
>>>> > > > from tech support and other IDL users, avoid doing this.
>
>>>> > > > Installed Visual C++ (express) as recommended by tech support and
>>>> > > > other IDL
>>>> > > > users. Used the Visual Command Prompt, but still unable to make a 32-

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>>>> > bit
>>>> > DLL without getting some kind of warning or error.
>
>>>> > Installed MinGW as suggested by tech support and other IDL users. From
>>>> > their
>>>> > experience, they have more success with compiling 3rd party packages
>>>> > with this
>>>> > package. I was able to creating a 32-bit DLL with gcc in the MinGW
>>>> > shell. Used
>>>> > -shared option to gcc to create a DLL. For example :
>
>>>> > gcc -Wall -shared gpc.c -o gpc.dll
>
>>>> > Despite the success of creating a DLL, the 32-bit IDL 6.4 crashes when
>>>> > CALL_EXTERNAL
>>>> > is used to access this sharable library. For sure, I didn't use the
>>>> > compiler properly
>>>> > to create a sharable DLL.
>
>>>> > Found a sharable DLL for the General Polygon Clipper at Mathworks
>>>> > (circa 2005). Needs
>>>> > a MatLab library to work. I didn't pursue this much further, as I no
>>>> > long have MatLab
>>>> > on my desktop.
>
>>>> > New Life! Michael Galloy announced his book is available - Modern IDL.
>>>> > There is a whole
>>>> > chapter about this External Development. So, there is lots of new
>>>> > ideas to try. Even
>>>> > a Python example. GPC has a Python wrapper.
>
>>>> > Kelly- Hide quoted text -
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>>>> - Show quoted text -
>
>>> Nope!
>
>>> I have been working with the ITTVIS example routine SIMPLE_VARS.pro
>
>>> Common errors are undefine reference, unrecognized commands (CL),
>>> missing libraries (mspdb100.dll), and cannot find <stdio.h>.
>
>>> Kelly- Hide quoted text -
>
>>> - Show quoted text -
>
> Will the vsvarall.bat file work? It is in the Visual C++ 10.0
> directory.

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> The vsvar32.bat is in the VC /bin directory.  
>  
> I moved the vsvarall.bat (as well as the vsvar32.bat) to the C:  
> \windows  
> directory and the same problems persist. You move it there to be found  
> by what app? I assume MAKE\_DLL is starting a administrator command  
> prompt.  
>  
> I have yet to work on the IDL wrapper for GPC. I am still working to  
> get  
> the ITTVIS examples to work.  
>  
> Kelly- Hide quoted text -  
>  
> - Show quoted text -

Well this works (ITTVIS example) ...

Start up a Command Prompt ...

Drag-n-drop the vsvarall.bat from the Visual Studio C++ 10.0 VC  
directory into the command prompt ...

"C:\Program Files (x86)\Microsoft Visual Studio 10.0\VC  
\vcvarsall.bat"

Drag-n-Drop the (IDL 6.4) idlde.exe into the same Command Prompt ...

"C:\Program Files\ITT\IDL64\bin\bin.x86\idlde.exe"

Hit return in the active command prompt and the IDL DE starts up.

Now you can running the ITTVIS CALL\_EXTERNAL examples work just fine.

However, is this a viable solution?

Maybe for a quick and dirty - get-it-done - option.

Kelly

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