
Subject: Re: IDL and DLL under windows
Posted by [Dominik\[1\]](#) on Tue, 10 Apr 2001 10:57:29 GMT
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I think, 'undefined symbol' means, that IDL can't find the routine in the DLL. Routines in a DLL must be exported. You can do this with a .def file or with eg following entry in the header file:

```
#ifndef IDL_RETURN
#define IDL_RETURN __declspec(dllexport)
#endif
```

```
IDL_RETURN int function_name(int argc, void *argv[]);
```

The parameters are always passed by reference, so the DLL can change them.

I added example.h and example.c. Build a DLL with them and try this with IDL:

```
temp = fltarr
temp=1.1
temp=2.1
temp=3.1
temp=4.1
temp=5.1
number = 5
out = 1.1 ; this is because out must also be a float!!
```

```
result = call_external('example.dll','sumarray',temp, number, out)
```

In out should now be the correct sum of the array.

Dominik

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Abt. PET/Nuklearmedizin

"StefanoM" <massetti@tiscalinet.it> schrieb im Newsbeitrag
news:9auh62\$o6p\$1@suite03.caspur.it...

> sorry for this long post.

>

> well, I would like to use my Fortran subroutine with IDL.

> To do this I have created a DLL whit MS Develop. Studio and then called
the

```

> subroutines from IDL with CALL_EXTERNAL. The problem is that ... it
doesn't
> work!!! This could be related to the way the parameters are passed to the
> subroutines, by value or by reference. If I simply compile and link the
> subroutines 'as they are' into a DLL, then it is impossible to call them
> from IDL, otherwise, if I follow the example given with IDL (5.2):
>
>
>     SUBROUTINE SUM_ARRAY(argc, argv) !Called by IDL
>     INTEGER*4 argc, argv(*)         !Argc and Argv
> are integers
>
>     j = LOC(argc)
> !Obtains the number of arguments (argc)
>
> !Because argc is passed by VALUE.
>
> c Call subroutine SUM_ARRAY1, converting the IDL parameters
> c to standard FORTRAN, passed by reference arguments:
>
>     CALL SUM_ARRAY1(%VAL(argv(1)), %VAL(argv(2)), %VAL(argv(3)))
>     RETURN
>     END
>
> c This subroutine is called by SUM_ARRAY and has no
> c IDL specific code.
> c
>     SUBROUTINE SUM_ARRAY1(array, n, sum)
>     INTEGER*4 n
>     REAL*4 array(n), sum
>
>     sum=0.0
>     DO i=1,n
>     sum = sum + array(i)
>     ENDDO
>     RETURN
>     END
>
>
> I get errors during the linking of the DLL, in particular: 'undefined
> symbol' related to the subroutine (SUM_ARRAY1) called from the 'interface'
> subroutine (i.e. SUM_ARRAY that manages the passage of the parameters from
> IDL to DLL).
>
> Does anyone have experience about this ? Any suggestion ?
>
> Stefano
>

```

> stefano.masseti@katamail.com

>

>

>

begin 666 example.h

```
M(VEF;F1E9B!)1$Q?4D5455).#0H@(V1E9FEN92!)1$Q?4D5455).(%)?9&a mp;5C
M;'-P96,H9&QL97AP;W)T*0T*(V5N9&EF#0H-"DE$3%]215154DX@ <W5M87)R
=87DH:6YT(&%R9V,L('9O:60@*F%R9W9;72DI9" J87)G=EM=*0T*>PT*:6YT(&XA="!S+"IF
M+" J<W5M.PT*#0IF(#T@*&9L;V%T("HI(&%R9W9;,%T[#0IN(#T@*BAI;G0@
M*BD@87)G=ELQ73L-"G-U;2 ]("AF;&]A=" J*2!A<F=V6S)=.PT*#0IF;W(@
H*',@/3 N,#L@;BTM.RD@<RL]("IF*RL[#0HJ<W5M(#T@<SL-"@T*?0`
\
```

end
