Subject: call_external with auto_glue
Posted by jingdaniel2007 on Wed, 13 Feb 2008 20:18:25 GMT
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Hi,

I am learning to use call_external to call some C programs (from
slalib library) in idl. By checking the IDL help page, I found that
the keyword anto_glue can help generate the glue funtions to avoid the
argc-argv calling convention. This is helpful since I am not quite
familiar with C programming. But it didn't seem to work for me even
I tried on some simple routine like this one:

```
#include "slalib.h"
#include "slamac.h"
void slaCs2c ( float a, float b, float v[3] )
{
   float cosb;
   cosb = (float) cos ( b );
   v[0] = (float) cos ( a ) * cosb;
   v[1] = (float) sin ( a ) * cosb;
   v[2] = (float) sin ( b );
}
```

I used get_callext_exlib.pro to build the sharable libary of external
C code and return the path as its result, which is from the examples
of call_external in idl (external/call_external/C) :

```
function get_callext_exlib
common GET_CALLEXT_EXLIB_BLK, shlib
....
   source = 'cs2c'
   export_rtns = 'slaCs2c'
   MAKE_DLL, source, 'call_external_examples', export_rtns, $
      INPUT_DIR=call_ex_dir, DLL_PATH=shlib
 return, shlib
end
```

I am pretty sure get_callext_exlib and MAKE_DLL works since all the
examples of call_external in idl directory work for me. So I called
the C program in idl like this:

```
IDL> a=1.  & b=2. & c=fltarr(3)
IDL>  r=call_external(get_callext_exlib(),'slaCs2c',a,b,c,/auto_gl ue)
```

The commands ran without any problem, but I got all 0s for c. I am
very puzzled what could be wrong. I really appreciate if anyone can
help me. Thanks in advance !