
Subject: Re: CALL_EXTERNAL and strarr()
Posted by [rivers](#) on Thu, 09 Dec 1999 08:00:00 GMT
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In article <384E7B7E.6672F751@sbrc.umanitoba.ca>, Richard Tyc <richt@sbrc.umanitoba.ca> writes:

> I need to call an external C function (unix/shared lib method) which
> will collect a string array of different size strings. I have been
> using call_external with success on returning other types (floats,
> strings etc) but this seems more challenging. The problem being I don't
> know how large each string will be in the string array so it needs to be
> dynamically allocated.

>

>

> I know the following can pass IN a string array and return a single
> string:

>

```
> replyStr = CALL_EXTERNAL('IDLquery_call.so','GetPatientList',strarr,$  
>           N_ELEMENTS(strarr), /S_VALUE)
```

>

> the key point in the C function being to make the returned string static
> to avoid memory leaks.

>

> Anyone care to point out how I might be able to retrieve a string array.

I have done this by having IDL pass a 2-D byte array, where the first dimension is the maximum length string which can be returned. Null terminate each string in your C code, and then convert the byte to array into a string with
s = string(byte_array)
after it is returned to IDL.

Mark Rivers
