
Subject: Re: Returning pointers from C DLL
Posted by [davidf](#) on Tue, 25 Aug 1998 07:00:00 GMT
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Simon Hall (shall@atm.ch.cam.ac.uk) writes:

> I need to write a dll that returns a pointer to an array of strings, ie
> I want to return a char** type.
>
> I can get it to return a single string using the /s_value keyword to
> call_external. How do I return an array of strings? I can't see any
> option to return a pointer.

I think you are misunderstanding how things get back from Call_External. You want to pass the string array as an *argument* to Call_External. It is better to think of the return value of Call_External as a value that tells you whether the function call was successful or not.

```
myStringArray = StrArr(10)
ok = Call_External('my.dll', 'fill_string', myStringArray)
```

Cheers,

David

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Subject: Re: Returning pointers from C DLL
Posted by [rivers](#) on Tue, 25 Aug 1998 07:00:00 GMT
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In article <35E2B4EB.E2C2577F@atm.ch.cam.ac.uk>, Simon Hall <shall@atm.ch.cam.ac.uk> writes:

> Hi,
>
> I need to write a dll that returns a pointer to an array of strings, ie
> I want to return a char** type.
>
> I can get it to return a single string using the /s_value keyword to
> call_external. How do I return an array of strings? I can't see any
> option to return a pointer.

I don't think that IDL would know what to do with a `char**` type. IDL stores and passes strings by descriptor. However, if what you want to do is to return an array of strings, there is a workaround which I have used. Return instead a 2-D byte array, where each row of the byte array is one string. You can then just use the IDL `STRING()` function to convert the byte array to a string array. You cannot return this array as the function value, you will have to pass it as a parameter to the function, where you dimension and create the array in IDL before calling your function. If you can't live with these limitations then you will have to use `LINKIMAGE`.

Here is an example from one of my programs:

```
array = bytarr(40, 16)
n = 0L
status = call_external('ezca', 'ezcaIDLGetEnumStrings', n, array)
if (status ne 0) then return, status
strings = string(array(*, 0:n-1))
```

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