

Re: Calling dll functions from vb.net with pointer returns!

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The recommended way to pass string buffers when using P/Invoke is to use a StringBuilder object
Something like this should work (watch out for line breaks)

```
Declare Auto Function CM_Get_Device_ID_List_Size Lib "cfgmgr32.dll" Alias  
(ByRef pulLen As Integer, ByVal pszFilter As String, ByVal ulFlags As  
Integer) As Integer
```

```
Declare Auto Function CM_Get_Device_ID_List Lib "cfgmgr32.dll" (ByVal  
pszFilter As String, ByVal ptChar As System.Text.StringBuilder, ByVal  
bufferLen As Integer, ByVal ulFlags As Integer) As Integer
```

```
Dim filter As String ' TODO: Initialize  
Dim flags As Integer ' TODO: Initialize  
Dim len As Integer  
CM_Get_Device_ID_List_Size(len, filter, flags)
```

```
Dim sb As New StringBuilder(len + 1)  
CM_Get_Device_ID_List(filter, sb, sb.Capacity, flags)
```

/claes

"Henning M" <henning@xxxxxxxxxx> wrote in message
[news:38bf7\\$44366247\\$3e3d8433\\$21013@xxxxxxxxxxxxxxxxxxxxxx](mailto:news:38bf7$44366247$3e3d8433$21013@xxxxxxxxxxxxxxxxxxxxxx)

Hej All

Im relativ new to VB.net and im trying to collect som device information
using cfgmgr32.dll

I use – Declare Function GetListLength Lib "cfgmgr32.dll" Alias
"CM_Get_Device_ID_List_SizeA" (ByRef pulLen As Integer, ByVal pszFilter As
Integer, ByVal UIFlags As Integer) As Integer –
To get the length of the device list. This seems to work as I get a

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CR_SUCCESS (I get a number around 8500. But as I'm not sure what is in the list I do not know if this is a valid number)

The problem arises when I want to retrieve the list itself..

MSDN:

```
CM_Get_Device_ID_List(  
IN PCTSTR pszFilter, OPTIONAL  
OUT PTCHAR Buffer,  
IN ULONG BufferLen,  
IN ULONG ulFlags  
);
```

I can't get this to work, neither the declaration or the call of the function :(I have tried everything I know (and could find on the net) but it all crashes or give no information. To the best of my knowledge there are no thing like pointers in vb and as I read this, it gives you a pointer..?!?

Anyone out there that can show how to retrieve the list or an example that explains the workings of functions like this?

Hope someone out there can help.

Thanks
Henning

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MSDN

INFORMATION

-----http://msdn.microsoft.com/library/default.asp?url=/library/en-us/DevInst_r/hh/DevInst_r/cfgmgrfn-----

CM_Get_Device_ID_List

The CM_Get_Device_ID_List function retrieves a list of device instance IDs for the local machine's device instances.

CMAPI CONFIGRET WINAPI

```
CM_Get_Device_ID_List(  
IN PCTSTR pszFilter, OPTIONAL  
OUT PTCHAR Buffer,  
IN ULONG BufferLen,  
IN ULONG ulFlags  
);
```

Parameters

pszFilter

Caller-supplied pointer to a character string specifying a subset of the machine's device instance identifiers, or NULL. See the following description of ulFlags.

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Buffer

Address of a buffer to receive a set of NULL-terminated device instance identifier strings. The end of the set is terminated by an extra NULL. The required buffer size should be obtained by calling `CM_Get_Device_ID_List_Size`.

BufferLen

Caller-supplied length, in characters, of the buffer specified by `Buffer`.

ulFlags

One of the optional, caller-supplied bit flags, listed in the following table, which specify search filters. If no flags are specified, the function returns all device instance IDs for all device instances.

CM_GETIDLIST_FILTER_ENUMERATOR

If this flag is set, `pszFilter` must specify the name of a device enumerator, optionally followed by a device identifier. The string format is `EnumeratorName\<DeviceID>`, such as `ROOT` or `ROOT*PNP0500`. If `pszFilter` supplies only an enumerator name, the function returns device instance IDs for the instances of each device associated with the enumerator. Enumerator names can be obtained by calling `CM_Enumerate_Enumerators`.

If `pszFilter` supplies both an enumerator and a device ID, the function returns device instance IDs only for the device instances of the specified device, associated with the enumerator.

CM_GETIDLIST_FILTER_SERVICE

If this flag is set, `pszFilter` must specify the name of a Windows service (typically a driver). The function returns device instance IDs for the device instances controlled by the specified service.

Note that if the device tree does not contain a device node for the specified service, this function creates one by default. To inhibit this behavior, also set `CM_GETIDLIST_DONOTGENERATE`.

CM_GETIDLIST_FILTER_EJECTRELATIONS

If this flag is set, `pszFilter` must specify a device name. The function returns device instance IDs for the ejection relations of the specified device instance.

CM_GETIDLIST_FILTER_REMOVALRELATIONS

If this flag is set, `pszFilter` must specify a device name. The function returns device instance IDs for the removal relations of the specified device instance.

CM_GETIDLIST_FILTER_POWERRELATIONS

Not used.

CM_GETIDLIST_FILTER_BUSRELATIONS

Not used.

CM_GETIDLIST_DONOTGENERATE

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Used only with `CM_GETIDLIST_FILTER_SERVICE`. If set, and if the device tree does not contain a device node for the specified service, this flag prevents the function from creating a device node for the service.

Return Value

If the operation succeeds, the function returns `CR_SUCCESS`. Otherwise, it returns one of the `CR_`-prefixed error codes defined in `cfgmgr32.h`.

Headers

Declared in `cfgmgr32.h`. Include `cfgmgr32.h`.

Comments

For information about device instance IDs, see [Device Identification Strings](#).