

Re: How would you marshal this?

Source:

<http://www.tech-archive.net/Archive/DotNet/microsoft.public.dotnet.framework.interop/2007-03/msg00138.html>

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 - *Date:* Fri, 30 Mar 2007 16:29:40 +0200
-

Hi,

I didn't have a closer look, but you may want to try

[MarshalAs(UnmanagedType.LPStr)]

added to the member of type char*

Max

"Christoffer" <christoffer@xxxxxxxxxx> schrieb im Newsbeitrag
<news:%2383GvcgcHHA.4632@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

I'm trying to marshal these structs but I keep getting an access violation...

```
typedef struct
{
  BYTE Line;
  BYTE Pr;
  char * Name;
  tEXTERNAL_NUMERIC Quantity;
  char Vat;
  tEXTERNAL_NUMERIC Price;
  tEXTERNAL_NUMERIC Gross;
  tEXTERNAL_NUMERIC Discount;
} tFUNC_PARAMS;
```

```
typedef struct
{
  tTRANSL_FUNC TranslFuncPtr;
  LPVOID ValuePtr;
} tEXTERNAL_NUMERIC;
```

```
typedef int ( *tTRANSL_FUNC )( LPVOID, char * );
```

I tried to Marshal it as

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```
[StructLayout(LayoutKind.Sequential, Pack = 0)]
internal struct tFUNC_PARAMS
{
    public byte Line;
    public byte Pr;
    public string Name;
    public tEXTERNAL_NUMERIC Quantity;
    public char Vat;
    public tEXTERNAL_NUMERIC Price;
    public tEXTERNAL_NUMERIC Gross;
    public tEXTERNAL_NUMERIC Discount;
}
```

```
[StructLayout(LayoutKind.Sequential, Pack = 0)]
internal struct tEXTERNAL_NUMERIC
{
    [MarshalAs(UnmanagedType.FunctionPtr)]
    public tTRANSL_FUNC TranslFuncPtr;
    public IntPtr ValuePtr;
}
```

```
internal delegate int tTRANSL_FUNC(IntPtr o, string s);
```

I'm trying the following code:

```
byte line = 1;
string name = "kaka";
string quantity = "10";
char vat = 'A';
string price = "10";
string gross = "10";
byte pr = 2;
string discount = null;
```

```
tFUNC_PARAMS addParams = new tFUNC_PARAMS();
addParams.Line = line;
addParams.Pr = pr;
addParams.Name = name;
```

```
IntPtr quantityPtr = IntPtr.Zero;
IntPtr pricePtr = IntPtr.Zero;
IntPtr grossPtr = IntPtr.Zero;
IntPtr discountPtr = IntPtr.Zero;
```

```
quantityPtr = Marshal.StringToHGlobalAuto(quantity);
addParams.Quantity.ValuePtr = quantityPtr;
addParams.Quantity.TranslFuncPtr = null;
```

```
addParams.Vat = vat;
```

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```
pricePtr = Marshal.StringToHGlobalAuto(price);  
addParams.Price.ValuePtr = pricePtr;  
addParams.Price.TranslFuncPtr = null;
```

```
grossPtr = Marshal.StringToHGlobalAuto(gross);  
addParams.Gross.ValuePtr = grossPtr;  
addParams.Gross.TranslFuncPtr = null;
```

```
if (!String.IsNullOrEmpty(discount))  
{  
    discountPtr = Marshal.StringToHGlobalAuto(discount);  
}  
addParams.Discount.ValuePtr = discountPtr;  
addParams.Discount.TranslFuncPtr = null;
```

```
NativeMethods.Func(ref addParams); // int Func( tFUNC_PARAMS *paramsPtr )
```

Where have I gone wrong?

Cheers,
Chris