

Re: how to pass smart pointers to function.

Source: http://coding.derkeiler.com/Archive/C_CPP/comp.lang.cpp/2004-07/1135.html

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lokbo wrote:

```
> I have a structure which and defined a smart pointer to the structure.  
>  
> /* Structure of Begin Document Index Record */  
> typedef struct BDI_Struct{  
> unsigned char rname;  
> unsigned short int rlen;  
> int code;  
> short int reserved;  
> char indexName[9];  
> unsigned char tripLen;  
> unsigned char tripCode;  
> TRIPLET01 t01;  
> }BDIStruct;
```

Why are you writing C style C++ code? Just say struct BDI_Struct.

```
> /* Structure of Index Element Record */  
> typedef struct record{  
> unsigned char rname;  
> unsigned short int rlen;  
> int code;  
> short int reserved;  
> unsigned char tripLen;  
> unsigned char tripCode;  
> union  
> {  
> TRIPLET01 t01;  
> TRIPLET57 t57;  
> TRIPLET2D t2D;  
> TRIPLET36 t36;  
> TRIPLET02 t02;  
> TRIPLET80 t80;  
> TRIPLETGEN tgen;  
> }TRec;  
> }IndexStruct;
```

comp.lang.c++. Re: how to pass smart pointers to function.

Why are you using a union? Just list the members you need, and don't use all of them at the same time.

The answers to both questions might well be "I'm matching a binary format that someone else wrote". If so, ignore my complaints.

```
> Defined the smart pointer as below:
> where ObjVar returns the pointer.
> typedef ObjVar<IELStruct> IELStruct_sptr;
> typedef ObjVar<BDIStruct> BDIStruct_sptr;
>
> Now when i am passing the smart pointers to the function i get compilation
> errors
> I am passing the smart pointers as
>
> int vValidateIndModcaFile(ObjVar<BDIStruct>& bdirec,ObjVar<IndexStruct>&
> ielrec);
```

Why does vValidateIndModcalFile() have such a tortuous name?

Also, why does vValidateIndModcalFile() care how its BDIStruct and IndexStruct are stored? Will it ever delete or re-seat the smart pointer's object?

Just pass in the raw objects:

```
int vValidateIndModcaFile(BDIStruct & bdirec, IndexStruct & ielrec);
```

```
> I am getting the errors like
>
> "/vpapp/accenture/ISIXRelease1206302004/include/sptr.hpp", line 68.11:
> 1540-1101 (W) A return value of type "BDI_Struct *" is expected.
> "/vpapp/accenture/ISIXRelease1206302004/include/sptr.hpp", line 63.12:
> 1540-0700 (I) The previous message was produced while processing
> "ObjVar<BDI_Struct>::operator->()".
```

My suggestion will probably fix all that.

But you get operator->() errors from a smart pointer by writing something like sp->method(). Your controlled objects have no methods, so if you still have a problem post the code that actually appears inside vValidateIndModcaFile().

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Philip

<http://industrialxp.org/community/bin/view/Main/TestFirstUserInterfaces>