

Re: Porting from Windows to Linux

Source: http://coding.derkeiler.com/Archive/C_CPP/comp.lang.cpp/2004-06/2714.html

From: Prasanna (prasan8181_at_dacafe.com)

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I was able to locate the problem. The problem is:

```
class GF{

public:
    GF(){};
    GF(vector<unsigned>);
    GF(vector<unsigned>, unsigned);
    GF(GF&);

    GF& operator=(vector<unsigned>&);
    GF& operator=(GF&);

    vector<unsigned> primitive();
    vector<unsigned> element();

protected:

    vector<unsigned> ir;
    vector<unsigned> el;
};
```

I am using the above class in a code segment like this:

```
//////////
....
vector<GF> f;
GF local;
f.push_back(local); // just to demonstrate the problem

unsigned m = f.size();

for(int i=0;i<m;i++)
    f[i] = GF(local.primitive(),i).element(); //<--- this is where it
crashes
.....
//////////
```

What i want the above line to do is create a GF object and assign its element to f[i] using operator =. VC++ is doing only that. But gcc does the following. It creates a GF object and uses its element returned by GF::element() to create another GF object using the GF::GF(vector<unsigned>) constructor and then uses GF::operator=(GF&) to assign it to f[i].

May be this is a ill formed situation. But neither gcc nor vc++ issues any warnings about it. Can u suggest me some good solution, coz i also want this GF::GF(vector<unsigned>). That makes usage of the class quite easier.

Regards,
Prasanna.

Ioannis Vranos <ivr@guesswh.at.grad.com> wrote in message news:<caue90\$1af8\$1@ulysses.noc.ntua.gr>...

> *Prasanna wrote:*

> > *Hi,*

> >

> > *I have been developing some libraries using VC++ 6.0. My work is complete now and the code works just fine. It has been tested under many circumstances and i have not encountered any problems. Now, I would like to port it to gcc. Initially compiling it with gcc produced a few errors, asking for some 'const' declarations in places where VC++ would not bother to. But then, i was able to compile it and create an executable. The problem is the executable crashes when i run it.*

> >

> > *I tried it with cygwin latest version and g++ in suse 8.1. When i tried to debug it with DDD in suse, the program halts when i am returning a reference. I checked for possible memory problems, like returning a reference for a local variable or changing the address of an allocated memory. But there are none like that.*

> >

> > *For example, the place where my program halts is this:*

> >

> > *vector<unsigned>& GF::primitive()*

> > {

> > *return ir;*

> > }

> >

> > *where 'ir' is a protected data member of class GF, as shown.*

> >

> > *class GF{*

> > *....*

> > *protected:*

> > *vector<unsigned> ir;*

> > *};*

> >

> > *If i try to step through return, it goes inside vector class and i get*

> > *lost.*

> > *I have no idea why this happens. Can someone enlighten me on this.*

> >

> > *Regards,*

> > *Prasanna.*

>

>

>

> *Does the following code crash to you?*

>

>

> *#include <vector>*

>

>

> *int main()*

> *{*

> *using std::vector;*

>

> *class test*

> *{*

> *protected:*

> *vector<unsigned> ir;*

>

> *public:*

> *vector<unsigned>& primitive() { return ir; }*

> *};*

>

>

> *test a;*

>

> *vector<unsigned> &rir=a.primitive();*

> *}*

>

>

>

>

>

>

> *Regards,*

>

> *Ioannis Vranos*