Subject: Bug (?) in ide\Debuggers\Exp.cpp
Posted by mr_ped on Tue, 23 May 2006 10:25:56 GMT
View Forum Message <> Reply to Message

(I'm just trying to figure out why the "data[2]" does lead to "Only pointer can be dereferenced" ... still reading the Exp.cpp + parser.cpp classes, I will need probably some more time (like couple of days, as I have just couple of minutes per day for Ultimate++) to get familiar with those classes)

I found out suspicious code in Exp.cpp (line 136, 605dev1 src):

```
Pdb::Val Pdb::Compute(Pdb::Val v1, Pdb::Val v2, int oper)
{
 if(v1.ref) {
  int q = (int)GetInt(v2) * (v1.ref > 1 ? 4 : SizeOfType(v1.type));
  v1 = GetRVal(v1);
  switch(oper) {
  case '+': v1.address += q; break;
  case '-': v1.address -= q; break;
  default: ThrowError("Invalid pointer arithmetics");
  }
  return v1;
 }
 if(v1.ref) {
  int q = (int)GetInt(v1) * (v2.ref ? 4 : SizeOfType(v2.type));
  v2 = GetRVal(v2);
  if(oper == '+')
   v2.address += q;
  else
   ThrowError("Invalid pointer arithmetics");
  return v2;
 }
```

Looks to me like the second if should be:
if (v2.ref) {

Besides that it looks to me like (almost) duplicite code... which I personally quite dislike, when it can be avoided easily.
Maybe some

```
Pdb::val & _v1 = v1;
Pdb::val & _v2 = v2;
if (!v1.ref && v2.ref) _v1 = v2, _v2 = v1;
//further _v1 and _v2 are used instead of v1/v2
```

would be more elegant and more powerful (supporting "-" operator even if v2 is "ref"), but I don't have enough insight into the code to judge whether the "more powerful" part is actually needed, or counterproductive. And it would maybe still look somewhat cumbersome anyway. (And I didn't try

that proposal, so I'm not sure if it doesn't have some further catch.)

Edit: now I'm not sure if _v1 = v2 would not overwrite also original v1 content ... probably yes?
Once the reference is set, how to change it in C++?
I already forgot how references work exactly (as I do use plain C in work right now, for last year or so)... Maybe I should check the C++ language reference again.
