

Re: Reading specific memory address into variable

Source: http://coding.derkeiler.com/Archive/C_CPP/comp.lang.cpp/2004-10/2796.html

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On Tue, 19 Oct 2004 21:26:51 -0700, Gianni Mariani wrote in
<news:PZOdnb9TpMCTdOjcRVn-3w@speakeasy.net>:

[snip!]

> *When exp is at the limits of what the double can store, the mantissa is
> not normalized, so you can simply call frexp twice and compare the
> exponents to be equal both times. Then you can subtract the 2 resulting
> mantissas and call std::frexp on the result and the exponent on the
> third call will be the negative of the number of significant binary
> digits which you can convert to decimal by the suggestion I made earlier.*

I hadn't thought of using stuff like that, but I have found a way which works great and is about as simple as you can get.

Okay, the variables I'm comparing are a constant which in my program I call cons_pi and it equals 3.14159265358979. The user enters an integer number for how many times they want to do that calculation to figure out pi (4/1 - 4/3 + 4/5 - 4/7 etc.). That calculation is placed into calc_pi. Both these numbers are long doubles to get as many decimal places as I can.

Anyway, the teacher wants us to figure the accuracy of our calculated value which is where I was stuck trying to figure out a way to compare the two numeric values.

Well, I decided to multiply each value starting with 10 and then comparing the int() of each of the variables. If the variables are equal then that is one position of accuracy and the do-while loop continues while incrementing the accuracy variable by 1 and incrementing the multiply variable times 10. If the variables are not equal then there is no more accuracy possible with the calculated value so flag is set to on and the do-while loop ends returning the accuracy variable to main().

I just ran from 1 to 50 one-by-one and then various values up to 100,000,000 and it works great. After I clean up the code and give it the once over again I'll set the program to run through 2,147,483,647 and head off to bed. Maybe it will be done in the morning when I get up to go to class. ;-)

comp.lang.c++. Re: Reading specific memory address into variable

It seems I was trying a bit too hard looking for a difficult method to get the job done with it really ended up being a heck of a lot easier.

Dave

Now I can get to sleep. :-)

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