Subject: CParser: Suggest check for overflow in ReadInt, ReadDouble...
Posted by hans on Thu, 17 Oct 2013 19:35:20 GMT
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Hi,
I would suggest checking the number string for range in the following functions:

```
int    ReadInt() throw(Error);
int    ReadInt(int min, int max) throw(Error);
int64  ReadInt64() throw(Error);
int64  ReadInt64(int64 min, int64 max) throw(Error);
uint32 ReadNumber(int base = 10) throw(Error);
uint64 ReadNumber64(int base = 10) throw(Error);
double ReadDouble() throw(Error);
```

If the number string would overflow the number range silently a garbage number is returned.

Would be nice if range error is thrown instead.

In ReadInt() and ReadInt64() also should be checked if the unsigned number read internal is lower than half of signed before sign can be applied.

Do others agree?

Hans

Subject: Re: CParser: Suggest check for overflow in ReadInt, ReadDouble...
Posted by mirek on Fri, 18 Oct 2013 05:44:59 GMT
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You are definitely right. For now adding to RM.

http://www.ultimatepp.org/redmine/issues/541

I am not quite sure how to implement checks for double thought...

Subject: Re: CParser: Suggest check for overflow in ReadInt, ReadDouble...
Posted by mirek on Mon, 21 Oct 2013 18:36:57 GMT
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Implemented for integer values; have yet to figure out portable way of FP...

Mirek

Subject: Re: CParser: Suggest check for overflow in ReadInt, ReadDouble...
Posted by hans on Mon, 21 Oct 2013 20:57:23 GMT
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Thanks, looks good.

For double no check is needed indeed, it already returns #INF on overflow.

Hans

Subject: Re: CParser: Suggest check for overflow in ReadInt, ReadDouble...
Posted by mirek on Tue, 22 Oct 2013 05:41:37 GMT
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hans wrote on Mon, 21 October 2013 16:57Thanks, looks good.

For double no check is needed indeed, it already returns #INF on overflow.

Hans

Well, I have not checked in Win32, but in Linux it does not seem to work that way. In any case, to make things consistent, it should throw the error too. After some investigation, I plan to reset FP exceptions state at the start of method and check them at the end. The only problem seems to be that this checking is different for Win32 vs Posix....

Subject: Re: CParser: Suggest check for overflow in ReadInt, ReadDouble...
Posted by mirek on Wed, 23 Oct 2013 05:51:49 GMT
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FP overflow checks completed both in Win32/POSIX.

Testing code:

http://code.google.com/p/upp-mirror/source/browse/trunk/uppt st/CParser/main.cpp