
Subject: gcc-4.9.0

Posted by [piotr5](#) on Sun, 29 Jun 2014 21:44:31 GMT

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an interesting new feature is detecting undefined behaviour. in my debug options I use:

-Og -fsanitize=undefined

where -Og is optimization specialized for debugging. to avoid linking-errors I use the link-option

-lubsan

in debug mode. applied to theide I get:

```
/home/p/upp/upsrsrc/Core/BlockStream.cpp:19:23: runtime error: left shift of negative value -1
/home/p/upp/upsrsrc/RichText/Txt.h:248:2: runtime error: load of value 96, which is not a valid
value for type 'bool'
/home/p/upp/upsrsrc/RichText/Txt.h:248:2: runtime error: load of value 223, which is not a valid
value for type 'bool'
/home/p/upp/upsrsrc/RichText/Txt.h:248:2: runtime error: load of value 209, which is not a valid
value for type 'bool'
/home/p/upp/upsrsrc/RichText/Txt.h:1:7: runtime error: load of value 70, which is not a valid value
for type 'bool'
/home/p/upp/upsrsrc/RichText/Txt.h:1:7: runtime error: load of value 114, which is not a valid value
for type 'bool'
/home/p/upp/upsrsrc/RichText/Txt.h:1:7: runtime error: load of value 101, which is not a valid value
for type 'bool'
/home/p/upp/upsrsrc/RichText/Table.h:107:9: runtime error: load of value 70, which is not a valid
value for type 'bool'
/home/p/upp/upsrsrc/CppBase/CppBase.h:222:8: runtime error: load of value 101, which is not a
valid value for type 'bool'
/usr/bin/valgrind
/home/p/upp/upsrsrc/Core/Color.cpp:164:25: runtime error: signed integer overflow: -16777216 +
-2147483648 cannot be represented in type 'int'
/home/p/upp/upsrsrc/Core/Color.cpp:167:23: runtime error: signed integer overflow: -187 *
2130706432 cannot be represented in type 'int'
/home/p/upp/upsrsrc/Core/Color.cpp:166:23: runtime error: signed integer overflow: 66 *
2130706432 cannot be represented in type 'int'
/home/p/upp/upsrsrc/Core/Color.cpp:165:23: runtime error: signed integer overflow: 64 *
2130706432 cannot be represented in type 'int'

/home/p/upp/upsrsrc/CtrlLib/MenuItem.cpp:205:27: runtime error: load of value 70, which is not a
valid value for type 'bool'
/home/p/upp/upsrsrc/CtrlLib/MenuItem.cpp:214:27: runtime error: load of value 70, which is not a
valid value for type 'bool'

/home/p/upp/upsrsrc/CppBase/CppBase.h:294:9: runtime error: load of value 127, which is not a
valid value for type 'bool'
/home/p/upp/upsrsrc/CppBase/CppBase.h:222:8: runtime error: load of value 49, which is not a
valid value for type 'bool'
```

I haven't tested much though, but program speed is acceptable.

as for optimizations, the problem with graphite re-organizing loops in theide still prevails.
maybe -lto will at least work a bit better...

also I heard the problem with std::move being needed in every return statement has been solved.
will need to test this too...
