Subject: Compilation warnings and random crashes Posted by Novo on Tue, 21 May 2024 22:10:42 GMT View Forum Message <> Reply to Message

I get a bunch of warnings like below when compiling on MacOS 10.15: /Users/XXX/dvlp/cpp/code/upp/git/uppsrc/ide/RepoSync.cpp:283:6: note: use non-reference type 'Upp::KeyValueRef<Upp::String, int>'

for(const auto& w : ~work) {

Basically, a reference is pointing to a temporary object.

And I'm getting random crashes with TheIDE when launching it on Linux (I'm not using a binary compiled on MacOS :))

I guess, these crashes and references to temporary objects are related.

TIA

Subject: Re: Compilation warnings and random crashes Posted by Novo on Sun, 26 May 2024 04:54:06 GMT View Forum Message <> Reply to Message

VectorMap<String, int> work;

work is VectorMap ... MapKVRange<AMap, K, T> operator~()

{ return MapKVRange<AMap, K, T>(*this); }

operator~() returns a newly created object. So, compiler is right: you are referencing temporary objects ...

Subject: Re: Compilation warnings and random crashes Posted by mirek on Wed, 26 Jun 2024 12:44:40 GMT View Forum Message <> Reply to Message

It is allowed. Range in for loop can be temporary.

Here is the disscussion (note that it discusses UB case, but U++ use is the first legal one):

https://www.sandordargo.com/blog/2022/04/20/range-base-p2012

I am currently testing with MacOS 14.5 and getting no such warning. Crashes in Linux are probably caused by something else.

Mirek

Hi,

I think I can confirm Novo here.

TheIDE crashes frequently on linux (gtk), on the main package selection screen if I close a project and try to open a new one.

It appears to happen while TheIDE is trying to load the packages list.

I am using the nightly builds.

P.s.: One other point is, I don't get any crashes or warnings on debug builds. No matter how I tried, it just did not crash. (in release builds I get the invalid memory access error a lot.)

Best regards,

Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 09:34:44 GMT View Forum Message <> Reply to Message

Oblivion wrote on Sun, 13 October 2024 12:50Hi,

I think I can confirm Novo here.

TheIDE crashes frequently on linux (gtk), on the main package selection screen if I close a project and try to open a new one.

You mean completely close theide, then start it again? Or choose File / Open main package?

If the first one, does it depend on the interval between closing and starting again?

In both cases, does it crash without user inputs or do you do something?

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 09:36:14 GMT View Forum Message <> Reply to Message Oblivion wrote on Sun, 13 October 2024 12:50

P.s.: One other point is, I don't get any crashes or warnings on debug builds. No matter how I tried, it just did not crash. (in release builds I get the invalid memory access error a lot.)

What about release build with full debug info, started from gdb?

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 09:47:20 GMT View Forum Message <> Reply to Message

Hello Mirek,

It does not happen when I completely exit TheIdE. It only happens when I try to open another project. The package selection screen comes up and the app crashes (not always, but most of the time).

TheIDE on release mode (FULL_DEBUG flag) points to below line:

Thread 1 "theide" received signal SIGSEGV, Segmentation fault. Upp::Image::Image (this=0x7ffffffe71e0, img=...) at /home/user/upp/devel/uppsrc/Draw/Image.cpp:295 295 data->Retain();

I hope this helps.

Best regards,

Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 10:03:05 GMT View Forum Message <> Reply to Message

Oblivion wrote on Thu, 17 October 2024 11:47Hello Mirek,

It does not happen when I completely exit TheIdE. It only happens when I try to open another project. The package selection screen comes up and the app crashes (not always, but most of the time).

TheIDE on release mode (FULL_DEBUG flag) points to below line:

```
Thread 1 "theide" received signal SIGSEGV, Segmentation fault.
Upp::Image::Image (this=0x7ffffffe71e0, img=...) at
/home/user/upp/devel/uppsrc/Draw/Image.cpp:295
295 data->Retain();
```

Excellent, that narrows it down probably to loading icons, but I bet there is a backtrace ("bt") ?

Mirek

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 10:11:20 GMT View Forum Message <> Reply to Message

Oops, I forgot to attach that. :roll:

#0 Upp::Image::Image (this=0x7fffffe71e0, img=...) at /home/user/upp/devel/uppsrc/Draw/Image.cpp:295 #1 Upp::ImI::Get (this=<optimized out>, i=<optimized out>) at /home/user/upp/devel/uppsrc/Draw/Iml.cpp:154 #2 0x00005555556e76e9 in SelectPackageDlg::SyncList (this=this@entry=0x7ffffffe7750, find=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:677 #3 0x00005555556deead in SelectPackageDlg::Load (this=this@entry=0x7ffffffe7750, find=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:761 #4 0x00005555556e3ac4 in SelectPackageDlg::OnBase (this=0x7ffffffe7750) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:420 #5 0x0000555555996e1f in Upp::Function<void()>::operator() (this=0x7fffffe8800) at /home/user/upp/devel/uppsrc/Core/Function.h:76 #6 Upp::ArrayCtrl::SetCursor0 (this=0x7fffffe8290, i=8, dosel=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlLib/ArrayCtrl.cpp:1487 #7 0x00005555556e6a76 in SelectPackageDlg::SyncBase (this=this@entry=0x7fffffe7750, initvars=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:837 #8 0x00005555556e630d in SelectPackageDlg::Run (this=this@entry=0x7ffffffe7750, nest=..., startwith=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:362 #9 0x00005555556ecd3b in SelectPackage (nest=..., title=title@entry=0x7ffff25d4bc8 "Select main package (TheIDE 17514)", startwith=0x7ffff273f748 "examples/SshTerminalSplitterExample", selectvars=<optimized out>, main=<optimized out>) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:864 #10 0x000055555572ae45 in Ide::OpenMainPackage (this=0x7ffffffe9e10) at

/home/user/upp/devel/uppsrc/ide/ide.cpp:215 #11 0x000055555572b0a2 in Ide::NewMainPackage (this=0x7ffffffe71e0) at /home/user/upp/devel/uppsrc/ide/ide.cpp:234 #12 0x00005555555cd932e in Upp::Function<void()>::operator() (this=<optimized out>) at /home/user/upp/devel/uppsrc/Core/Function.h:76 #13 Upp::Ctrl::Action (this=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/Ctrl.cpp:414 #14 0x00005555555226f0b in Upp::MenuItem::LeftUp (this=0x7ffff26cdd60) at /home/user/upp/devel/uppsrc/CtrlLib/MenuItem.cpp:382 #15 0x00005555555ce71b0 in Upp::Ctrl::MouseEvent (this=0x7fffffe71e0, event=<optimized out>, p=..., zdelta=115, keyflags=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:190 #16 0x00005555555ce67bf in Upp::Ctrl::MouseEvent0 (this=this@entry=0x7ffff26cdd60, event=event@entry=145, p=..., zdelta=zdelta@entry=0, keyflags=keyflags@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:96 #17 0x00005555555ce6b46 in Upp::Ctrl::MouseEventH (this=this@entry=0x7ffff26cdd60, event=event@entry=145, p=..., zdelta=zdelta@entry=0, keyflags=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:116 #18 0x00005555555ce81de in Upp::Ctrl::MEvent0 (this=this@entry=0x7ffff26cdd60, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:364 #19 0x0000555555ce8837 in Upp::Ctrl::DispatchMouseEvent (this=<optimized out>, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:648 #20 0x00005555555ce8810 in Upp::Ctrl::DispatchMouseEvent (this=<optimized out>, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:648 #21 0x00005555555ce8810 in Upp::Ctrl::DispatchMouseEvent (this=this@entry=0x7ffff260ada0, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:648 #22 0x00005555555ceaa88 in Upp::Ctrl::DispatchMouse (this=this@entry=0x7ffff260ada0, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:622 #23 0x00005555555cfddb6 in Upp::Ctrl::DispatchMouseIn (this=0x7ffff260ada0, act=145, zd=0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:444 #24 Upp::Ctrl::GtkMouseEvent (this=<optimized out>, action=<optimized out>, act=145, zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:454 #25 0x00005555555cfe04b in Upp::Ctrl::GtkButtonEvent (this=this@entry=0x7ffff260ada0, action=action@entry=144) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:478 #26 0x000055555555cfec24 in Upp::Ctrl::Proc (this=this@entry=0x7ffff260ada0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:581 #27 0x0000555555556ffb84 in Upp::Ctrl::ProcessEvent0 (quit=quit@entry=0x0, fetch=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:766 #28 0x00005555555cffd81 in Upp::Ctrl::ProcessEvents0 (quit=quit@entry=0x0, fetch=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:793 #29 0x00005555555cf171e in Upp::Ctrl::ProcessEvents (quit=0x0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:810 #30 Upp::Ctrl::EventLoop (ctrl=ctrl@entry=0x7ffffffe9e10) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:844 #31 0x00005555555cf4ded in Upp::TopWindow::Run (this=0x7fffffe9e10, appmodal=<optimized

out>) at /home/user/upp/devel/uppsrc/CtrlCore/TopWindow.cpp:323 #32 0x00005555557bbdb6 in GuiMainFn_ () at /home/user/upp/devel/uppsrc/ide/main.cpp:435 #33 0x0000555555ae38ab in Upp::AppExecute_ (app=0x5555557bac20 <GuiMainFn_()>) at /home/user/upp/devel/uppsrc/Core/App.cpp:479 #34 0x00005555557bab45 in main (argc=1, argv=0x7fffffffe088, envptr=0x55555683fe00) at /home/user/upp/devel/uppsrc/ide/main.cpp:177

Best regards, Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 11:01:41 GMT View Forum Message <> Reply to Message

Can I ask for a little experiment:

```
ide/SelectPkg.cpp:671
```

```
for(int i = 0; i < packages.GetCount(); i++) {</pre>
 const PkInfo& pkg = packages[i];
 Image icon = IdeImg::Package();
/*
 Image icon = pkg.icon;
 if(IsNull(icon)) {
 if(pkg.main)
  icon = pkg.upphub ? IdeImg::HubMainPackage() : IdeImg::MainPackage();
 else
  icon = pkg.upphub ? IdeImg::HubPackage() : IdeImg::Package();
 }
*/
 nest_list.Add(pkg.nest);
 clist.Add(pkg.package, DPI(icon, 16));
 alist.Add(pkg.package, GetFileName(pkg.nest), pkg.description, icon);
 alist.SetDisplay(alist.GetCount() - 1, 0, pkg.main ? bpd : pd);
}
ide/SelectPkg.cpp:790
```

```
if(d.ispackage && 0) {
   String icon_path;
   if(IsUHDMode())
```

Does it crash with these?

Mirek

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 11:10:24 GMT View Forum Message <> Reply to Message

Done.

No crashes. Tried it ovew 30 times. Usually it should have crashed at my every 2nd or 3rd attempt.

If you need any more test, let me know.

Best regards, Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 11:18:08 GMT View Forum Message <> Reply to Message

Oblivion wrote on Thu, 17 October 2024 13:10Done. No crashes.Tried it ovew 30 times. Usually it should have crashed at my every 2nd or 3rd attempt.

If you need any more test, let me know.

Best regards, Oblivion

Well, try to reactivate the first oneand leave the second one (... && 0)

And then maybe reversed :)

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 11:22:55 GMT View Forum Message <> Reply to Message

The first one crashes. The second one doesn't.

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 11:30:51 GMT View Forum Message <> Reply to Message

What about (after reverting to master to remove both changes):

```
ide/SelectPkg.cpp:787
```

```
if(d.ispackage) {
String icon path;
if(IsUHDMode())
 icon_path = AppendFileName(path, "icon32x32.png");
if(IsNull(icon_path) || !FileExists(icon_path))
 icon_path = AppendFileName(path, "icon16x16.png");
tm = FileGetTime(icon_path);
if(IsNull(tm)) // package icon does not exist
 d.icon = Null;
else
if(tm != d.itm || d.icon.GetSize().cx != DPI(16)) { // chached package icon outdated
 d.icon = StreamRaster::LoadFileAny(icon_path);
 d.itm = tm:
}
d.icon.Clear();
}
```

(added d.icon.Clear to make it Null)

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 11:53:46 GMT View Forum Message <> Reply to Message

No, reverting to master and clearing the icon didn't help. Crashes returned.

Best regards, Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 12:00:52 GMT View Forum Message <> Reply to Message What about this:

```
DLOG("=========");
for(int i = 0; i < packages.GetCount(); i++) {
 const PkInfo& pkg = packages[i];
 Image icon = pkg.icon;
 RDUMP(IdeImg::HubMainPackage().GetSize());
 RDUMP(IdeImg::MainPackage().GetSize());
 RDUMP(IdeImg::HubPackage().GetSize());
 RDUMP(IdeImg::Package().GetSize());
 RDUMP(~IdeImg::HubMainPackage()):
 RDUMP(~IdeImg::MainPackage());
 RDUMP(~IdeImg::HubPackage());
 RDUMP(~IdeImg::Package());
 if(IsNull(icon)) {
 if(pkg.main)
  icon = pkg.upphub ? IdeImg::HubMainPackage() : IdeImg::MainPackage();
 else
  icon = pkg.upphub ? IdeImg::HubPackage() : IdeImg::Package();
 }
 nest list.Add(pkg.nest);
 clist.Add(pkg.package, DPI(icon, 16));
 alist.Add(pkg.package, GetFileName(pkg.nest), pkg.description, icon);
 alist.SetDisplay(alist.GetCount() - 1, 0, pkg.main ? bpd : pd);
}
```

(log after crash...)

Mirek

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 12:40:37 GMT View Forum Message <> Reply to Message

IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 ****************************** PANIC: Invalid memory access!

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Thu, 17 Oct 2024 12:48:19 GMT View Forum Message <> Reply to Message

This time I get another error

LOG

IdeImg::HubMainPackage().GetSize() = (16, 16)

IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7ffff25a8850 ~IdeImg::MainPackage() = 0x7ffff24edb50 ~IdeImg::HubPackage() = 0x7ffff2731750 ~IdeImg::Package() = 0x7ffff2579a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7ffff25a8850 ~IdeImg::MainPackage() = 0x7ffff24edb50 ~IdeImg::HubPackage() = 0x7ffff2731750 ~IdeImg::Package() = 0x7ffff2579a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7ffff25a8850 ~IdeImg::MainPackage() = 0x7ffff24edb50 ~IdeImg::HubPackage() = 0x7ffff2731750 ~IdeImg::Package() = 0x7ffff2579a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7ffff25a8850 ~IdeImg::MainPackage() = 0x7ffff24edb50 ~IdeImg::HubPackage() = 0x7ffff2731750 ~IdeImg::Package() = 0x7ffff2579a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7ffff25a8850 ~IdeImg::MainPackage() = 0x7ffff24edb50 ~IdeImg::HubPackage() = 0x7ffff2731750 ~IdeImg::Package() = 0x7ffff2579a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7ffff25a8850 ~IdeImg::MainPackage() = 0x7ffff24edb50 ~IdeImg::HubPackage() = 0x7ffff2731750 ~IdeImg::Package() = 0x7ffff2579a50

Backtrace:

#0 Upp::String0::LSet (this=0x7fffffe70e0, s=...) at /home/user/upp/devel/uppsrc/Core/StringMem.i:10 #1 0x0000555555565b47 in Upp::String0::Set0 (this=0x7fffffe70e0, s=...) at /home/user/upp/devel/uppsrc/Core/String.h:264 #2 Upp::String::String (this=0x7fffffe70e0, s=...) at /home/user/upp/devel/uppsrc/Core/String.h:385 #3 Upp::Iml::GetId (this=0x5555566b3250 <IdeImg::Iml()::iml>, i=<optimized out>) at /home/user/upp/devel/uppsrc/Draw/Image.h:317 #4 Upp::Iml::Get (this=0x5555566b3250 <IdeImg::Iml()::iml>, i=<optimized out>) at /home/user/upp/devel/uppsrc/Draw/Iml.cpp:150 #5 0x000055555557a11ff in IdeImg::Get (i=327) at /home/user/upp/devel/uppsrc/Draw/iml source.h:113 #6 0x000055555588db97 in SelectPackageDlg::SyncList (this=this@entry=0x7ffffffe7750, find=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:686 #7 0x000055555588556b in SelectPackageDlg::Load (this=this@entry=0x7ffffffe7750, find=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:769 #8 0x0000555555889ea4 in SelectPackageDlg::OnBase (this=0x7ffffffe7750) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:420 #9 0x000055555599743f in Upp::Function<void()>::operator() (this=0x7fffffe8800) at /home/user/upp/devel/uppsrc/Core/Function.h:76 #10 Upp::ArrayCtrl::SetCursor0 (this=0x7fffffe8290, i=8, dosel=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlLib/ArrayCtrl.cpp:1487 #11 0x000055555588c9c6 in SelectPackageDlg::SyncBase (this=this@entry=0x7ffffffe7750, initvars=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:846 #12 0x000055555588c2b7 in SelectPackageDlg::Run (this=this@entry=0x7ffffffe7750, nest=..., startwith=...) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:362 #13 0x0000555555891c3b in SelectPackage (nest=..., title=title@entry=0x7fff9a50a388 "Select main package (TheIDE 17522)", startwith=0x7fffffea630 "GLDrawDemo", selectvars=<optimized out>, main=<optimized out>) at /home/user/upp/devel/uppsrc/ide/SelectPkg.cpp:873 #14 0x000055555571c835 in Ide::OpenMainPackage (this=0x7ffffffe9e10) at /home/user/upp/devel/uppsrc/ide/ide.cpp:215 #15 0x000055555571ca92 in Ide::NewMainPackage (this=0x7ffffffe70e0) at /home/user/upp/devel/uppsrc/ide/ide.cpp:234 #16 0x00005555555cd9d2e in Upp::Function<void()>::operator() (this=<optimized out>) at /home/user/upp/devel/uppsrc/Core/Function.h:76 #17 Upp::Ctrl::Action (this=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/Ctrl.cpp:414 #18 0x00005555555a2752b in Upp::MenuItem::LeftUp (this=0x7ffff26cdd60) at /home/user/upp/devel/uppsrc/CtrlLib/MenuItem.cpp:382 #19 0x00005555555ce7b00 in Upp::Ctrl::MouseEvent (this=0x7fffffe70e0, event=<optimized out>, p=..., zdelta=0, keyflags=1447356480) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:190 #20 0x00005555555ce710f in Upp::Ctrl::MouseEvent0 (this=this@entry=0x7ffff26cdd60,

event=event@entry=145, p=..., zdelta=zdelta@entry=0, keyflags=keyflags@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:96 #21 0x00005555555ce7496 in Upp::Ctrl::MouseEventH (this=this@entry=0x7ffff26cdd60, event=event@entry=145, p=..., zdelta=zdelta@entry=0, keyflags=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:116 #22 0x00005555555ce8b2e in Upp::Ctrl::MEvent0 (this=this@entry=0x7ffff26cdd60, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:364 #23 0x0000555555ce9187 in Upp::Ctrl::DispatchMouseEvent (this=<optimized out>, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:648 #24 0x00005555555ce9160 in Upp::Ctrl::DispatchMouseEvent (this=<optimized out>, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:648 #25 0x00005555555ce9160 in Upp::Ctrl::DispatchMouseEvent (this=this@entry=0x7ffff260aa80, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:648 #26 0x00005555555ceb3d8 in Upp::Ctrl::DispatchMouse (this=this@entry=0x7ffff260aa80, e=e@entry=145, p=..., zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/CtrlMouse.cpp:622 #27 0x00005555555cfea56 in Upp::Ctrl::DispatchMouseIn (this=0x7ffff260aa80, act=145, zd=0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:444 #28 Upp::Ctrl::GtkMouseEvent (this=<optimized out>, action=<optimized out>, act=145, zd=zd@entry=0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:454 #29 0x00005555555cfeceb in Upp::Ctrl::GtkButtonEvent (this=this@entry=0x7ffff260aa80, action=action@entry=144) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:478 #30 0x00005555555cff8c4 in Upp::Ctrl::Proc (this=this@entry=0x7ffff260aa80) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:581 #31 0x0000555555d00824 in Upp::Ctrl::ProcessEvent0 (guit=guit@entry=0x0, fetch=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:766 #32 0x0000555555d00a21 in Upp::Ctrl::ProcessEvents0 (guit=guit@entry=0x0, fetch=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:793 #33 0x00005555555cf206e in Upp::Ctrl::ProcessEvents (quit=0x0) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:810 #34 Upp::Ctrl::EventLoop (ctrl=ctrl@entry=0x7ffffffe9e10) at /home/user/upp/devel/uppsrc/CtrlCore/GtkEvent.cpp:844 #35 0x00005555555cf573d in Upp::TopWindow::Run (this=0x7fffffe9e10, appmodal=<optimized out>) at /home/user/upp/devel/uppsrc/CtrlCore/TopWindow.cpp:323 #36 0x00005555557adda6 in GuiMainFn_ () at /home/user/upp/devel/uppsrc/ide/main.cpp:435 #37 0x0000555555ae3ecb in Upp::AppExecute__ (app=0x5555557acc10 <GuiMainFn_()>) at /home/user/upp/devel/uppsrc/Core/App.cpp:479 #38 0x000055555557acb35 in main (argc=1, argv=0x7ffffffe088, envptr=0x55555683fe00) at /home/user/upp/devel/uppsrc/ide/main.cpp:177

Subject: Re: Compilation warnings and random crashes Posted by mirek on Thu, 17 Oct 2024 13:08:02 GMT View Forum Message <> Reply to Message

Oblivion wrote on Thu, 17 October 2024 14:40 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 IdeImg::HubMainPackage().GetSize() = (16, 16) IdeImg::MainPackage().GetSize() = (16, 16) IdeImg::HubPackage().GetSize() = (16, 16) IdeImg::Package().GetSize() = (16, 16) ~IdeImg::HubMainPackage() = 0x7e845c9a8850 ~IdeImg::MainPackage() = 0x7e845c8edb50 ~IdeImg::HubPackage() = 0x7e845cb31750 ~IdeImg::Package() = 0x7e845c979a50 ******************************** PANIC: Invalid memory access!

Weird...

What about

```
for(int i = 0; i < packages.GetCount(); i++) {
    const PkInfo& pkg = packages[i];
    Image icon = pkg.icon;
    #define DD(x) RDUMP(x.GetSize()); RLOGHEXDUMP(~x, min(32, int(x.GetLength() *
    sizeof(RGBA))));
    DD(IdeImg::HubMainPackage());
    DD(IdeImg::MainPackage());
    DD(IdeImg::Package());
    DD(IdeImg::HubPackage());
    IdeImg();
    IdeImg();
```

As far I can see it is either

- compiler bug

- IdeImg is busted, but it is weird that it does not happen in the first iteration

- pkg.icon is busted, although this is hardly explains final crash in Image copy contructor (that AFAIK is call to Retain the data from ImI)

Another thing to try is

Uh and please send the whole log - want to compare with "good run" (first invocation of dialog)

Oblivion wrote on Thu, 17 October 2024 14:48This time I get another error

After a lot of thinking I believe that the only plausible explanation is that another thread calls ImI::Reset somehow.

Can you crash it and then send backtrace of ALL threads?

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Fri, 18 Oct 2024 07:42:04 GMT View Forum Message <> Reply to Message

Quote:

After a lot of thinking I believe that the only plausible explanation is that another thread calls ImI::Reset somehow.

Can you crash it and then send backtrace of ALL threads?

Thank you for your efforts. Will do, but this weekend. I am away from my computer today.

Best regards, Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sat, 19 Oct 2024 07:54:32 GMT View Forum Message <> Reply to Message

Oblivion wrote on Fri, 18 October 2024 09:42Quote: After a lot of thinking I believe that the only plausible explanation is that another thread calls ImI::Reset somehow.

Can you crash it and then send backtrace of ALL threads?

Thank you for your efforts. Will do, but this weekend. I am away from my computer today.

Best regards, Oblivion Also, can you try with this attempt at fix (but it would explain it just partly, still would like to have bt of all threads after the crash without the fix):

```
void Iml::Reset()
{
 for(IImage& m : map)
 m.loaded = false;
}
```

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Sat, 19 Oct 2024 08:20:54 GMT View Forum Message <> Reply to Message

I have attached TheIDe's log and full backtrace. Quote:

Also, can you try with this attempt at fix (but it would explain it just partly, still would like to have bt of all threads after the crash without the fix):

```
void Iml::Reset()
{
for(IImage& m : map)
m.loaded = false;
}
```

Tried but didn't fix it.

One interesting thing I've noticed is that the crash seems to be triggered in certain assemblies. But to be sure, it needs more test...

Best regards, Oblivion

```
File Attachments
1) logs.zip, downloaded 62 times
```

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sat, 19 Oct 2024 09:01:51 GMT View Forum Message <> Reply to Message

(maybe those specific assemblies have custom icons to display in package list?)

Anyway, from backtraces it looks like indexer/libclang is running full steam. Can you try with assist++ off?

Also, can you please update logging to:

https://www.ultimatepp.org/forums/index.php?t=msg&th=122 73&goto=61004&#msg_61004

and perhaps separately try setting Image icon = Null;

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Sat, 19 Oct 2024 11:24:52 GMT View Forum Message <> Reply to Message

Quote:

(maybe those specific assemblies have custom icons to display in package list?)

No.

Quote:

Anyway, from backtraces it looks like indexer/libclang is running full steam. Can you try with assist++ off?

I have attached the logs. However, I noticed that it crashes less frequently when the indexer/assist++ is off.

Quote:

and perhaps separately try setting Image icon = Null;

Will try.

Best regards, Oblivion

File Attachments
1) logs2.zip, downloaded 72 times

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sat, 19 Oct 2024 14:26:35 GMT View Forum Message <> Reply to Message

Oblivion wrote on Sat, 19 October 2024 13:24Quote: (maybe those specific assemblies have custom icons to display in package list?) No.

Quote:

Anyway, from backtraces it looks like indexer/libclang is running full steam. Can you try with assist++ off?

I have attached the logs. However, I noticed that it crashes less frequently when the indexer/assist++ is off. Quote: and perhaps separately try setting Image icon = Null;

Will try.

Best regards, Oblivion

And the last obligatory question: It really is crashing only on opening new main package, right?

And BTW, when you test, do you test like for(;;) { Ctrl+M, Esc } or like for(;;) { Ctrl+M, select package, Enter } ?

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Sat, 19 Oct 2024 15:09:02 GMT View Forum Message <> Reply to Message

Quote:And the last obligatory question: It really is crashing only on opening new main package, right?

Yes, while TheIDE is loading the main packages list.

Quote:

And BTW, when you test, do you test like for(;;) { Ctrl+M, Esc } or like for(;;) { Ctrl+M, select package, Enter } ?

Doesn't make any difference, TheIDE crashes after it switches to the package selection dialog.

However, I'm suspecting this is a compiler error now. (maybe O3 optimization level related?). I'll try other options (O2 and GCC), report back asap.

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sat, 19 Oct 2024 15:32:50 GMT View Forum Message <> Reply to Message

[quote title=Oblivion wrote on Sat, 19 October 2024 17:09]Quote:And the last obligatory question: It really is crashing only on opening new main package, right? However, I'm suspecting this is a compiler error now. (maybe O3 optimization level related?). I'll try other options (O2 and GCC), report back asap.

Well, clang got picky over unaligned access undefined behaviour, simply ignoring code like dword x[2]; dword y = *(dword)((const char *)x + 1); which caused some problems, but I think compiler error there would appear with some regularity. Irregular pattern like this is usually a race condition or uninitialised data...

Anyway, other things to try

for(int i = 0; i < packages.GetCount(); i++) {
 const PkInfo& pkg = packages[i];
 DDUMP(IdeImg::GetCount());</pre>

Adding this log should might help to resolve whether IdeImg iml indeed gets damaged

And possibly

// alist.SetDisplay(alist.GetCount() - 1, 0, pkg.main ? bpd : pd);

Comment display out, just to test if it is somehow related (the only other thing that does something with icons in the loop).

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sat, 19 Oct 2024 15:57:09 GMT View Forum Message <> Reply to Message

And maybe

for(int i = 0; i < packages.GetCount(); i++) {
 const PkInfo& pkg = packages[i];
 DDUMP(IdeImg::GetCount());
 DDUMP(pkg.package);</pre>

(Just to check whether maybe it is always the same package that causes problems)

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Sat, 19 Oct 2024 15:58:34 GMT View Forum Message <> Reply to Message

I've attached the logs (3)

File Attachments
1) logs3.zip, downloaded 64 times

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sun, 20 Oct 2024 07:23:45 GMT View Forum Message <> Reply to Message

Noticed something:

#2 0x00005555557a129f in IdeImg::Get (i=225) at

If gdb gets it right, 225 is out of range. Which would be consistent with random crashes in release mode and probably a compiler bug.

Can you try

```
DLOG("====== LOAD");
for(int i = 0; i < packages.GetCount(); i++) {
  const PkInfo& pkg = packages[i];
  Image icon = pkg.icon;
  if(IsNull(icon)) {
    if(pkg.main)
    icon = pkg.upphub ? IdeImg::HubMainPackage() : IdeImg::MainPackage();
    else
    icon = pkg.upphub ? IdeImg::HubPackage() : IdeImg::Package();
  }
  nest_list.Add(pkg.nest);
```

```
clist.Add(pkg.package, DPI(icon, 16));
 alist.Add(pkg.package, GetFileName(pkg.nest), pkg.description, icon);
 alist.SetDisplay(alist.GetCount() - 1, 0, pkg.main ? bpd : pd);
}
DLOG("~~~ LOAD");
Image Iml::Get(int i)
{
DDUMP(i);
IImage& m = map[i];
if(!m.loaded) {
 Mutex::Lock __(sImILock);
 if(!m.loaded) {
 m.image = Makelmllmage(GetId(i), [&](int mode, const String& id) { return GetRaw(mode, id); },
global flags);
 m.loaded = true;
 }
}
return m.image;
}
```

If it really dumps out of range numbers in the loop, can you send me disassembly of void SelectPackageDlg::SyncList(const String& find) ?

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Sun, 20 Oct 2024 07:45:40 GMT View Forum Message <> Reply to Message

Ok, I will do that later today.

But in the meantime I have found out that TheIDE compiled with GCC with the same level of optimization (O3) didn't crash, however I tried since yesterday (on the same machine/setup). Not once.

It does "appear" to be a compiler bug, but with the above tests -hopefully- we'll see.

Best regards, Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sun, 20 Oct 2024 07:55:23 GMT View Forum Message <> Reply to Message Oblivion wrote on Sun, 20 October 2024 09:45Ok, I will do that later today.

But in the meantime I have found out that TheIDE compiled with GCC with the same level of optimization (O3) didn't crash, however I tried since yesterday (on the same machine/setup). Not once.

It does "appear" to be a compiler bug, but with the above tests -hopefully- we'll see.

Best regards, Oblivion

I already have a workaround in the mind (just move image constants from inline to offline functions so that compiler does not try to optimise it), but frankly I am feeling pretty uneasy about bugged compilers...

Maybe we should move to gcc?

Subject: Re: Compilation warnings and random crashes Posted by Tom1 on Sun, 20 Oct 2024 11:45:06 GMT View Forum Message <> Reply to Message

mirek wrote on Sun, 20 October 2024 10:55 Maybe we should move to gcc? Hi.

I hope that 'moving to gcc' does not mean dropping support for clang.

My policy with platforms (including compilers) is to try to support more than one. When intermittent issues appear on one compiler, it is then easier to switch to another working compiler until the issue is resolved. When the code base is built to be compatible with MSC, CLANG and GCC (avoiding the known weak spots and/or bugs of each), the capability to handle new issues and avoid down time in such situations is far better.

Best regards,

Tom

Subject: Re: Compilation warnings and random crashes Posted by mirek on Sun, 20 Oct 2024 12:01:13 GMT View Forum Message <> Reply to Message

Tom1 wrote on Sun, 20 October 2024 13:45mirek wrote on Sun, 20 October 2024 10:55 Maybe we should move to gcc? Hi, I hope that 'moving to gcc' does not mean dropping support for clang.

My policy with platforms (including compilers) is to try to support more than one. When intermittent issues appear on one compiler, it is then easier to switch to another working compiler until the issue is resolved. When the code base is built to be compatible with MSC, CLANG and GCC (avoiding the known weak spots and/or bugs of each), the capability to handle new issues and avoid down time in such situations is far better.

Best regards,

Tom

Definitely not. Just swap preference in POSIX install script from clang to gcc.

if clang++ --version >/dev/null; then echo \$UMK ./uppsrc ide CLANG -brs ./theide \$UMK ./uppsrc ide CLANG -brs ./theide \$UMK ./uppsrc umk CLANG -brs ./umk else echo \$UMK ./uppsrc ide GCC -brs ./theide \$UMK ./uppsrc ide GCC -brs ./theide \$UMK ./uppsrc umk GCC -brs ./umk fi

->

if g++ --version >/dev/null; then echo \$UMK ./uppsrc ide GCC -brs ./theide \$UMK ./uppsrc ide GCC -brs ./theide \$UMK ./uppsrc umk GCC -brs ./umk else echo \$UMK ./uppsrc ide CLANG -brs ./theide \$UMK ./uppsrc ide CLANG -brs ./theide \$UMK ./uppsrc umk CLANG -brs ./umk fi

Still install both build methods. Also keep CLANG in win32 where we do have a control about clang version.

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Mon, 21 Oct 2024 18:07:49 GMT

Hello Mirek,

I have attached the new logs.

Assuming that this is a compiler bug, I still wouldn't change the default on Linux. My reasons:

1) I didn't encounter it anywhere else. I have a lot of apps, tests etc, some have heavy inlining, and built with the same clang config. They are all stable (at least, they have yet to crash because of a really puzzling error.)

2) I tend to use ArchLinux on my machines (and other distros on VM), which ships the latest LLVM/clang, so this might be a bug in the latest version of the compiler. (At least, I did not have such crashes several months ago.)

3) GCC has significantly slower compilation speed.

4) I don't know of anyone else complaining about this bug, and I am fine with using the GCC build, it works as expected.

Best regards,

Oblivion

File Attachments
1) log4.zip, downloaded 68 times

Subject: Re: Compilation warnings and random crashes Posted by mirek on Mon, 21 Oct 2024 20:54:42 GMT View Forum Message <> Reply to Message

Oblivion wrote on Mon, 21 October 2024 20:07 Hello Mirek,

I have attached the new logs.

Assuming that this is a compiler bug, I still wouldn't change the default on Linux. My reasons:

1) I didn't encounter it anywhere else. I have a lot of apps, tests etc, some have heavy inlining, and built with the same clang config. They are all stable (at least, they have yet to crash because of a really puzzling error.)

2) I tend to use ArchLinux on my machines (and other distros on VM), which ships the latest LLVM/clang, so this might be a bug in the latest version of the compiler. (At least, I did not have such crashes several months ago.)

3) GCC has significantly slower compilation speed.

4) I don't know of anyone else complaining about this bug, and I am fine with using the GCC build, it works as expected.

Best regards,

Oblivion

====== LOAD i = 39 i = 335 i = 335

Yep, out of range...

What is clang --version?

Should we file this in clang's bugzilla?

I have also pushed a bunch of changes which I suppose should fix this. Can you try master?

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Mon, 21 Oct 2024 21:24:02 GMT View Forum Message <> Reply to Message

Quote:What is clang --version?

clang version 18.1.8 Target: x86_64-pc-linux-gnu Thread model: posix InstalledDir: /usr/bin

Quote:

I have also pushed a bunch of changes which I suppose should fix this. Can you try master?

If you mean commit 509e32c, I just tried it and no, unfortunately, TheIDE is still crashing with the

same behaviour. :(

Quote: Should we file this in clang's bugzilla?

At this point, yes.

Best regards, Oblivion

Subject: Re: Compilation warnings and random crashes Posted by mirek on Tue, 22 Oct 2024 09:37:17 GMT View Forum Message <> Reply to Message

Oblivion wrote on Mon, 21 October 2024 23:24Quote:What is clang --version?

clang version 18.1.8 Target: x86_64-pc-linux-gnu Thread model: posix InstalledDir: /usr/bin

Quote:

I have also pushed a bunch of changes which I suppose should fix this. Can you try master?

If you mean commit 509e32c, I just tried it and no, unfortunately, TheIDE is still crashing with the same behaviour. :(

Weird. Any chance of getting the .log?

Quote: Quote: Should we file this in clang's bugzilla?

At this point, yes.

That would mean isolating the issue into some small example, which we are still far from :(

Mirek

After digging deeper, I have fixed a bunch of errors related to handling non-existent files which in theory might fix the issue. Please retest master...

Mirek

Subject: Re: Compilation warnings and random crashes Posted by Oblivion on Sun, 24 Nov 2024 07:57:50 GMT View Forum Message <> Reply to Message

Hi Mirek,

I've been testing it since yesterday, and all seems fine. No crashes anymore on CLANG.

Best regards, Oblivion

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