Subject: [Question] Is compiling TheIDE as a 32-Bit Binary still supported?
Posted by MeerMusik on Sat, 04 Dec 2021 19:31:36 GMT
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Hello.

Is anyone(TM) still compiling "TheIDE" (when building from the Archive) AKA "IDE" (when building from Git Source) as a X86 Binary under any Operating System?

I am currently creating some Scripts to compile "theide" etc. from Git Source. Which works fine on Manjaro KDE X86_64.

When I try to compile it as a X86 Binary with "-m32", I run into an Assert with GCC 11.2 - but that is an old Bug which was never fully fixed.

Anyway, while trying to work-around this old Bug, I was wondering if building the UPP Tools in X86 mode is supported at all these days!? If not, I can stop wasting my time.

Thanks in advance!
Olli

Subject: Re: [Question] Is compiling TheIDE as a 32-Bit Binary still supported?
Posted by MeerMusik on Wed, 08 Dec 2021 23:08:05 GMT
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Partial Answer from myself: It is at least with GCC 11.2 and older not possible to build the IDE and UMK as 32-Bit Binaries. You will always run into this "Must be 64-Bit" Check with GLIBC and get an Assert:

```
/usr/include/glib-2.0/glib/gtypes.h: In function 'gboolean _GLIB_CHECKED_ADD_U64(guint64*, guint64, guint64)':
/usr/include/glib-2.0/glib/gtypes.h:463:47: error: static assertion failed: Expression evaluates to false
  463 |   G_STATIC_ASSERT(sizeof (unsigned long long) == sizeof (guint64));
      |                   ~~~~~~~~~~~~~~~~~~~~~~~~~~~~^~~~~~~~~~~~~~~~~~
/usr/include/glib-2.0/glib/gmacros.h:823:46: note: in definition of macro 'G_STATIC_ASSERT'
  823 | #define G_STATIC_ASSERT(expr) static_assert (expr, "Expression evaluates to false")
```

Seems like an regression but as I am only interested in building the Libraries themself in 64-Bit and 32-Bit mode, I am not submitting a Bug / Regression Report to whoever fault it is this time around.

And Yes, all necessary Libs are installed as Multilib or Lib32 Variants of course.

Subject: Re: [SOLVED][Question] Is compiling TheIDE as a 32-Bit Binary still supported?
Posted by MeerMusik on Thu, 09 Dec 2021 08:27:44 GMT
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The Problem is solved by:

export PKG_CONFIG_PATH="/usr/lib32/pkgconfig/"
export LD_LIBRARY_PATH="/usr/lib32/"
export CPPFLAGS="-L/usr/lib32/"

And also add
-Wl,-melf_i386
to the CFLAGS and CXXFLAGS.

Which results in:

make -j$(nproc) V=1 -f Makefile CC="cc -m32" CXX="c++ -m32" CFLAGS="-O3 -ffunction-sections -fdata-sections -std=c2x -Wl,-melf_i386 -Wl,--gc-sections" CXXFLAGS="-O3 -ffunction-sections -fdata-sections -std=c++20 -Wl,--gc-sections -Wl,-melf_i386"

With that the IDE compiles fine. Will update the other Thread soon.

Sorry and have a nice Day :)