Packages - Freedom Issue #3229

[blender] Various issues

2022-04-08 03:18 AM - gap

Status:	info needed	**% Done:**	100%
Priority:	bug		
Assignee:			
Category:			

Description

1. No issue reference exists in the blacklist, nor does a tracking issue.
This issue could become the latter.
(I didn't check the mailing list archives, which is where I presume the original discussion of blacklisting Blender originated.)
2. "OptiX" is not capitalised correctly in the description.
3. The package is outdated, so this next issue may go away once it is updated:
4. There are many file paths containing "cuda" or "optix", and some .cu (CUDA) files which lead me to believe some remnants of support for CUDA and OptiX are not fully removed:
- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernel_compat_cuda.h
- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/cuda/
-- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/cuda/filter.cu
-- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/cuda/kernel.cu
-- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/cuda/kernel_config.h
-- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/cuda/kernel_cuda_image.h
-- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/cuda/kernel_split.cu
- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernel_compat_optix.h
- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/optix/
-- usr/share/blender/2.93/scripts/addons/cycles/source/kernel/kernels/optix/kernel_optix.cu
5. Newer versions of Blender include Apple Metal support, which I think has no libre implementation and I presume is pre-disabled on non-macOS builds.
6. Newer versions of Blender include HIP support, which I think is libre, but is only implemented on Windows at the moment.

Perhaps lines 109-112 (inclusive) of the PKGBUILD do not do this fully(?):
libre changes
local _extra_opts=(-DWITH_CYCLES_CUDA_BINARIES=OFF \
-DWITH_CYCLES_DEVICE_CUDA=OFF   \
-DWITH_CYCLES_DEVICE_OPTIX=OFF)

I'd also like to thank bill-auger for maintaining the package, which I suspect is quite the chore.

Subtasks:

Bug # 3089: WARNING: CANNOT RESOLVE "openexr" A DEPENDENCY OF "blender"	**fixed**
Packaging Request # 3268: [blender] Update package to 3.1.2	**in progress**

History

#1 - 2022-05-05 09:31 AM - bill-auger

- Status changed from unconfirmed to info needed

- Description updated

> 1. No issue reference exists in the blacklist (I didn't check the mailing list archives,
> which is where I presume the original discussion of blacklisting Blender originated.)

it is difficult to know - there may have been no discussion - the reason is obvious when the reason is "it depends on another blacklisted package" - this would be a good one to use as a reference - this ticket already contains ample information to justify it being on the blacklist

> 2. "OptiX" is not capitalised correctly in the description.

i have been removing those reference to non-free software from the descriptions - the purpose of those descriptions are to state what the program does - it makes no sense to me, to state what the program does *not* do - it also does not make coffee, or support blending pina-coladas

> 4. some remnants of support for CUDA and OptiX are not fully removed:

unless those .cu files are blobs, they are probably harmless - "remnants of support" do not necessarily need to be removed - they would need to be removed if they were non-free themselves, or suggesting to use something non-free, or assisting to install it - IMHO, mere existence is not a suggestion - it is just useless noise

> 5. Newer versions of Blender include Apple Metal support, which I think has no libre implementation and I presume is pre-disabled on non-macOS builds.
> 6. Newer versions of Blender include HIP support, which I think is libre, but is only implemented on Windows at the moment.

likewise - it is not important what it *can* do - it is only important what it *does* do on a parabola system - if it does nothing, and suggests nothing, then it is harmless

> Perhaps lines 109-112 (inclusive) of the PKGBUILD do not do this fully(?):
> local _extra_opts=(-DWITH_CYCLES_CUDA_BINARIES=OFF \
> -DWITH_CYCLES_DEVICE_CUDA=OFF   \
> -DWITH_CYCLES_DEVICE_OPTIX=OFF)@

generally, those features are implemented as
linked libraries; and the code for those libraries is not in the
source code being compiled - the code for those libraries is in
a separate package; and a package like blender includes those
external packages in the depends=() array; so that they get
installed along with blender

setting the build flags like USE_CUDA=NO, only makes the build
ignore it's own code which would use the external library - that
code itself is usually totally libre - the fact that it can
link to a non-free library, does not make that code non-free -
at least that is how i understand the FSF's opinion

if compiled without that flag, and if that library is not
present on the machine running the main program, the main
program will usually fail to start - that is the reason why the
parabola PKGBUILD will set some flag like USE_CUDA=NO; because
the 'cuda' libraries are not available from parabola, so they
would not be present

> I'd also like to thank [bill-auger](#) for maintaining the package, which I suspect is quite the chore.

it is, thanks

#2 - 2022-06-08 05:44 PM - gap

Blender 3.2 was released with ROCm/HIP support for GNU+Linux, which I suspect may need deblobbing.