

## Packages - Bug #3176

### [vtk]: should depend on openvr

2022-02-06 07:32 PM - nona

<b>Status:</b> not-a-bug	<b>% Done:</b> 0%
<b>Priority:</b> bug	
<b>Assignee:</b>	
<b>Category:</b>	
<b>Description</b>	
<ul style="list-style-type: none"><li>Steps to reproduce:<ol style="list-style-type: none"><li><code>`# pacman -Sy vtk`</code></li><li>Start Python (run this in a terminal: <code>`\$ python`</code>)</li><li>Inside the session, type <code>`import vtk`</code></li></ol></li><li>Expected result: Being able to use vtk inside of a Python session</li><li>Actual result: <code>ImportError: libopenvr_api.so: cannot open shared object file: No such file or directory</code></li><li>Suggestions and workaround: To go around this, install openvr (<code>`pacman -F libopenvr_api.so`</code>): <code>`# pacman -Sy openvr`</code>.</li></ul> <p>I would suggest to add openvr as a runtime dependency (I still haven't created a building environment to do it myself, sorry).</p> <ul style="list-style-type: none"><li>Software version vtk 9.1.0-9 python 3.10.1 openvr 1.16.8-2</li></ul>	

### History

#### #1 - 2022-02-06 08:23 PM - bill-auger

'openvr' is an optional dependency (so is python) - that normally suggests a package which is mostly useful without any optional dependencies; but has some extra functionality when some/any optional dependencies are present

if that describes the relationship between 'vtk' and 'openvr', the depends/optdepends are probably correct now (understood semantically, and expected by savvy users of an arch system)

that python error makes it appear that there is an intrinsic dependency; but it may not be so, or it may be so only for python programs

it appears that all related packages ('vtk', 'openvr', and 'python') come directly from arch; so the first thing to do is to see if arch's python behaves the same, and/or if a bug report exists already about it

#### #2 - 2022-02-06 08:30 PM - bill-auger

- Status changed from *unconfirmed* to *info needed*

- Subject changed from *vtk should depend on openvr* to *[vtk]: should depend on openvr*

#### #3 - 2022-02-06 08:51 PM - bill-auger

it looks like this is a known issue in arch <https://bugs.archlinux.org/task/61655>

that BR suggests, contrary to the normal general cases i described before, that 'vtk', especially when used via python, will fail if any libs are missing, which the vtk lib was compiled to support

this is what i get on arch:

```
$ python -c 'import vtk'
Traceback (most recent call last):
  File "<string>", line 1, in <module>
  File "/usr/lib/python3.10/site-packages/vtk.py", line 31, in <module>
    all_m = importlib.import_module('vtkmodules.all')
  File "/usr/lib/python3.10/importlib/__init__.py", line 126, in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
  File "/usr/lib/python3.10/site-packages/vtkmodules/all.py", line 8, in <module>
    from .vtkWebCore import *
ImportError: libpugixml.so.1: cannot open shared object file: No such file or directory
```

this is what i get on parabola:

```
$ python -c 'import vtk'
Traceback (most recent call last):
  File "<string>", line 1, in <module>
  File "/usr/lib/python3.10/site-packages/vtk.py", line 31, in <module>
    all_m = importlib.import_module('vtkmodules.all')
  File "/usr/lib/python3.10/importlib/__init__.py", line 126, in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
  File "/usr/lib/python3.10/site-packages/vtkmodules/all.py", line 8, in <module>
    from .vtkWebCore import *
ImportError: libfmt.so.8: cannot open shared object file: No such file or directory
```

the exact error depends on which of vtk's true dependencies are and are not installed - i had 'pugixml' installed already - after installing 'fmt':

```
$ python -c 'import vtk'
Traceback (most recent call last):
  File "<string>", line 1, in <module>
  File "/usr/lib/python3.10/site-packages/vtk.py", line 31, in <module>
    all_m = importlib.import_module('vtkmodules.all')
  File "/usr/lib/python3.10/importlib/__init__.py", line 126, in import_module
    return _bootstrap._gcd_import(name[level:], package, level)
  File "/usr/lib/python3.10/site-packages/vtkmodules/all.py", line 46, in <module>
    from .vtkRenderingRayTracing import *
ImportError: libospray.so.2: cannot open shared object file: No such file or directory
```

'openvr', 'ospray', and 'pugixml' are all in optdepends - 'fmt' is not - ive a feeling this is a deep rabbit-hole

#### #4 - 2022-02-06 09:31 PM - nona

Plop! (comical fall).

Should we then mark this as "forwarded upstream" or "confirmed"?

#### #5 - 2022-02-06 10:01 PM - bill-auger

- Status changed from info needed to forwarded upstream

yes, it looks like the typical case for 'forwarded-upstream' status - generally, if the problem exists in arch, the problem must be fixed in arch, and there should be a BR on the arch bug tracker - if not, i would add one, reference it on the parabola BR, and set the status to 'forwarded-upstream' - likewise if the same problem is already described in an open BR on the arch bug tracker, save one step

#### #6 - 2022-03-31 08:43 PM - bill-auger

as an update, the arch packager believes that since v9 of vtk, it is recommended for any script *not* to import the entire 'vtk' module - seems like a poor design to me (why not simply make them separate modules, and avoid the confusion with a technical solution); but my mind is admittedly not very "pythonical"

#### #7 - 2022-05-03 03:20 AM - bill-auger

- Status changed from forwarded upstream to not-a-bug

#### #8 - 2024-04-02 09:28 AM - nona

Hi. I think I got a reincarnation of this with a package from the AUR that tries to use VTK (without importing the full vtk):

```
import pyvista
```

```
File "/usr/lib/python3.11/site-packages/pyvista/__init__.py", line 9, in <module>
    from pyvista.core import *
File "/usr/lib/python3.11/site-packages/pyvista/core/__init__.py", line 4, in <module>
    from . import _vtk_core
File "/usr/lib/python3.11/site-packages/pyvista/core/_vtk_core.py", line 249, in <module>
    from vtkmodules.vtkFiltersExtraction import (
ImportError: libfmt.so.10: cannot open shared object file: No such file or directory
```

```
# pacman -S --asdep fmt
```

```
import pyvista
```

```
Traceback (most recent call last):
```

```
File "<string>", line 17, in __PYTHON_EL_eval
File "/home/edgar/GlassFibre/Code/examples/dolfinx_cyclic_softening.py", line 29, in <module>
    import pyvista as pv
File "/usr/lib/python3.11/site-packages/pyvista/__init__.py", line 9, in <module>
    from pyvista.core import *
File "/usr/lib/python3.11/site-packages/pyvista/core/__init__.py", line 4, in <module>
    from . import _vtk_core
File "/usr/lib/python3.11/site-packages/pyvista/core/_vtk_core.py", line 249, in <module>
    from vtkmodules.vtkFiltersExtraction import (
ImportError: libverdict.so.1.4: cannot open shared object file: No such file or directory
```

```
# pacman -S --asdep verdict
```

```
import pyvista
```

```
(success)
```

```
>>> import pyvista
```

```
>>>
```

I will try to report it as a bug upstream