Ryzom - Feature # 1080

Status:	Closed	**Priority:**	Normal
Author:	kervala	**Category:**	OS: GNU/Linux
Created:	08/27/2010	**Assignee:**	kervala
Updated:	09/15/2010	**Due date:**	
Subject:	Under Linux, load NeL drivers from a specific directory		
Description			

/usr/lib, /usr/local/lib, etc... directories are for libs which can be linked with a -l. NeL drivers are plugins, they have to be loaded dynamically with dlopen and there is a convention to put them in a subfolder. For example, mozilla/firefox plugins are in /usr/lib/mozilla.

So NeL drivers should be installed in /usr/lib/nel or /usr/local/lib/nel and loaded from there.

History

#1 - 08/28/2010 01:31 pm - kervala

- Status changed from New to Assigned

- Assignee set to kervala

#2 - 08/28/2010 04:12 pm - rti

As long as there are no .framework / .bundle etc things on Mac, this could be the way to do it on Mac as well...

#3 - 08/28/2010 04:17 pm - sfb

How would this work if we use .framework/.bundle on OSX? CPack is capable of generating these but I don't know what the advantage/disadvantage is...

#4 - 08/28/2010 04:20 pm - kervala

- Status changed from Assigned to Resolved

- Target version set to Version 0.8.0

- % Done changed from 0 to 100

I set drivers to "MODULE" type so I don't know if it changes anything on Mac OS :s

Please fix things which need to be fixed under Mac OS :) Thanks.

As repository browser is not working anymore, you can see changes on :

http://ryzom.hg.sourceforge.net/hgweb/ryzom/ryzom/rev/143fa5a809c7

I basically changed SHARED to MODULE for drivers, added NL_DRIVER_PREFIX which specify where to find NeL drivers (it's defined in config.h because i don't want to polute GCC command line with a lot of -D ^^), in dru.cpp and sound_driver.cpp it adds this directory as alternate path to find the driver. I removed SOVERSION and VERSION from modules to have only one .so for each module and no symbolic link.

#5 - 08/28/2010 05:42 pm - rti

The change to MODULE made the drivers compile into .so files on Mac. So the dynamic loader needed an adjustment concerning the filename to use.

The file command shows some difference between the libraries and the modules, but I am not sure what makes the real difference between them.

```
rti@shilver ~ % file /usr/local/lib/libnel3d.dylib
/usr/local/lib/libnel3d.dylib: Mach-O 64-bit dynamically linked shared library x86_64
rti@shilver ~ % file /usr/local/lib/nel/libnel_drv_opengl.so
/usr/local/lib/nel/libnel_drv_opengl.so: Mach-O 64-bit bundle x86_64
```

So everything is fine now as long as it is ok to go the "unix-way" on Mac OS.

If we want more Mac-like stuff, the NeL libraries should be wrapped into .framework directories, containing libs and headers. The drivers might fit into .plugin folders (e.g. browser plugins like the flash player work that way) which again contain the library and some meta data. I'll create a separate issue for that.

#6 - 08/28/2010 05:55 pm - rti

btw, the change http://ryzom.hg.sourceforge.net/hgweb/ryzom/ryzom/rev/bc823c5889b0 for loading .so not .dylib :)

#7 - 08/28/2010 06:18 pm - kervala

Thanks a lot rti :)

It seems like MODULE changed something on Mac in the right way because "bundles" are plugins (see http://itk.org/Wiki/CMake:Bundles_And_Frameworks) :)

#8 - 08/28/2010 06:26 pm - rti

Yes, doing file on the library in a .plugin directory shows the same output like doing file on the new driver .so (see above)

#9 - 09/15/2010 08:37 am - kervala

Applied in changeset r661.

#10 - 09/15/2010 08:37 am - rti

Applied in changeset r666.

#11 - 09/15/2010 09:48 am - kervala
- Status changed from Resolved to Closed