
Subject: : AmigaOS4

Topic: : SDL1 open issues

Re: SDL1 open issues

Author: : kas1e

Date: : 2019/8/22 19:17:04

URL:

@Capehill

I working on port of IrrLicht engine: <http://irrlicht.sourceforge.net/> and currently it can be build only with SDL1. While port is working, found 2 issues with it, maybe you can be of any help there.

Issue #1:

When any binary compiled with Irrlicht's "isWindowActive()" function check, then our window always stays black, till i not move mouse cursor inside of the window. Like our window is not active (while it is). On win32 it of course works as expected.

See the usuall rendering loop:

```
while(device->run())
  if (device->isWindowActive())
  {
    driver->beginScene(true, true, video::SColor(0,200,200,200));
    smgr->drawAll();
    driver->endScene();

    int fps = driver->getFPS();

    if (lastFPS != fps)
    {
      core::stringw str = L"Load Irrlicht File example - Irrlicht Engine [";
      str += driver->getName();
      str += "] FPS:";
      str += fps;

      device->setWindowCaption(str.c_str());
      lastFPS = fps;
    }
  }
}
```

Once i remove that "if (device->isWindowActive())" , it renders then from the begining. But what for sure, is that

Window is active after running. Just seems Irrlicht's isWindowActive() fail by some reasons. There is source of it:

```
///  
//! returns if window is active. if not, nothing need to be drawn  
bool CIrrDeviceSDL::isWindowActive() const  
{  
    return (WindowHasFocus && !WindowMinimized);  
}
```

And those WindowHasFocus and WindowMinimized , handled as SDL_Events, like this:

```
case SDL_ACTIVEEVENT:  
    if ((SDL_event.active.state == SDL_APPMOUSEFOCUS) ||  
        (SDL_event.active.state == SDL_APPINPUTFOCUS))  
        WindowHasFocus = (SDL_event.active.gain==1);  
    else  
    if (SDL_event.active.state == SDL_APPACTIVE)  
        WindowMinimized = (SDL_event.active.gain!=1);  
    break;
```

So maybe something there fail on our side ?

Issue #2:

On amigaos4 initialising/deinitialising engine more than 2 times from the same binary , cause SDL1 to be not able to reinitialize video modes , and i just have for second time:

"Unable to initialize SDL!: No available video device"

I create simple test case for that bug:

```
#include <irrlicht.h>  
#include <unistd.h>  
  
using namespace irr;  
using namespace core;  
  
int main()  
{  
  
    // 1st run  
  
    IrrlichtDevice *device = createDevice( video::EDT_SOFTWARE, dimension2d<u32>(640, 480), 16, false,  
false, false, 0);
```

```

if (!device) {
    return 1;
}

device->setWindowCaption(L"First run !");

sleep(10);

device->drop();

// 2st run

IrrlichtDevice *device2 = createDevice( video::EDT_SOFTWARE, dimension2d<u32>(640, 480), 16, false,
false, false, 0);

if (!device2) {
    return 1;
}

device2->setWindowCaption(L"Second run!");

sleep(10);

device2->drop();

return 0;
}

```

So on win32 , it just runs second window second time and all fine, but on os4, window from first init open/closes, and then second never come up, as i have "Unable to initialize SDL!: No available video device". But it should , from programm point of view we just init/deinit SDL, nothing else..

I can made archive with those 2 simple test-cases working (with sources, and necessary lib to just compile it easy), so you can check it too if you want to. Issues happens even with software renderer, so it just about out SDL1.

PS. There is full source related to SDL in Irrlicht (1 file), which probabaly can help to understand why both issues happens:

<https://gitlab.com/pgimeno/irrlicht-mi...rrlicht/CIrrDeviceSDL.cpp>