

FrameLock

Introduction

This sample shows how to enable *FrameLock* in an application using the `WGL_NV_swap_group` extension.

FrameLock is available on systems that have their AMD FirePro GPUs connected to an ATI FirePro S400 board. More information on the S400 is available on:

<http://www.amd.com/us/products/workstation/graphics/s400/Pages/s400.aspx>

FrameLock can be used to synchronize the SwapBuffers of several application instances running on different GPUs. Those can be either multiple GPUs in one system or multiple systems each with one or more GPUs. Having Framelock enabled will ensure that all participating GPUs will execute the SwapBuffer of the application at exactly the same time.

Running the sample

In order to run the sample and to get *FrameLock* enabled you need to have your AMD Firepro GPU connected to the ATI FirePro S400. In AMD Catalyst™ Control Center the S400 synchronization must be configured. You can run the sample on any display that acts either as Timing Server or as Timing Client. The configuration of a Timing Server and a Timing Client on the same system would look as follow:



- start wgl-framelock on a display that acts as Timing Server
- press 'f' to toggle *FrameLock*
- Optional: start another instance of wgl-framelock on a different GPU/system that acts as Timing Client and press 'f'

If *FrameLock* is enabled the refresh rate is at the same rate as the monitor refresh and the line is drawn at a position that is based on the frame counter.