

Doomsday Engine - Feature #1548

Multi-monitor support

2011-10-09 17:58 - znerolnoht

Status: Progressed	Start date: 2011-10-09
Priority: Normal	% Done: 40%
Assignee:	
Category: Redesign	
Target version: Rendering II	
Description Is Multi-Monitor support, playback of doomsday games spanning multiple monitors, possible? I have 3 monitors and it would be amazing if we could get a peripheral view on the second and third monitors. I think it would be a great feature. Please let me know if this is something you guys would add. Thanks, ~Long time fan Labels: Graphics	

History

#1 - 2012-08-27 21:08 - danij

Indeed it would be a great feature and is one I have been working on in the ringzero branch in fact. I hope to have multi-monitor support complete when it is time to merge this work back to the master.

#2 - 2012-08-27 21:08 - danij

- **assigned_to:** Daniel Swanson --> nobody

#3 - 2012-08-28 16:51 - danij

Removing myself as owner of this item as I no longer use have a multi-monitor setup to test support with.

#4 - 2013-10-22 12:09 - skyjake

- *Tags set to WindowManager, GL2*
- *Subject changed from Multi-Monitor Support to Multi-monitor support*
- *Category set to Redesign*
- *Status changed from New to In Progress*
- *% Done changed from 0 to 30*

Proper multi-monitor support implies support for multiple/split game windows. In recent times Doomsday's window manager has been OO-ifying, making it realistic to start implementing well-behaved multi-window rendering, where the separate GL surfaces share a single GL context.

#5 - 2013-10-22 23:10 - danij

I question whether sharing of a GL-context is possible. Surely, this mandates that both monitors are exactly the same and configured in exactly the same way.

#6 - 2013-10-23 07:52 - skyjake

danij wrote:

Surely, this mandates that both monitors are exactly the same and configured in exactly the same way.

I think what sharing in this situation actually means that there are two or more GL surfaces+contexts that use the same buffers, FBOs, and texture objects (and shaders, I suppose?).

The sharing mechanism is already in use in CanvasWindow when one recreates the GL surface due to runtime FSAA change: the new Canvas shares the old one's objects (but not state).

#7 - 2015-03-07 16:59 - skyjake

Assuming that the monitors are set up as an extended desktop, it would be possible to configure a Nx1 viewgrid with a separate 3D viewpoint for each monitor. The advantage compared to a multi-window approach would be simplicity since there would only be a single OpenGL surface in use.

#8 - 2016-07-05 23:56 - skyjake

- *Status changed from In Progress to Progressed*

#9 - 2019-11-29 16:33 - skyjake

- *Target version set to Rendering II*

- *% Done changed from 30 to 40*

Incrementing progress as 3.0 supports rendering to multiple windows with a shared GL context.