All comments

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COMMENTS

"I did some experiments with Amy's new CL (https://chromium-review.googlesource.com/c/angle/angle/+/2534210)."

I'm adding new pre-rotation end2end tests recently, and I'll add steps 5-8 to ensure a successful change. Thanks again!

I did some experiments with Amy's new CL (https://chromium-review.googlesource.com/c/angle/angle/+/2534210).

" Reviewed-on: https://chromium-review.googlesource.com/c/angle/angle/+/4590228

Thanks a lot for your discovery and explanation of the issue!!

Tue Nov 10 2020 11:34:33 GMT+0800 (China Standard Time).png

"https://chromium-review.googlesource.com/4590228"

Am...@arm.com <Am...@arm.com>#2

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I added the suggested while loop to the following tests:

- EGLPreRotationBlitFramebufferTest, BlitStencilWithRotation
- $\bullet \ \ \mathsf{EGLPreRotationBlitFramebufferTest}, Blit \mathbf{MultisampleStencilWithRotation}$

It did not make a difference in whether the tests passed. The only thing that made a difference was how I "rotated" the device (a Pixel 4 XL in my case). If I turned on "auto rotate" and manually turned the phone to 90 or 270, the tests passed with all of the expected pixel values being checked (the CL comments some lines out).

If I use the "Rotation - Orientation Manager" application (by Pranav Pandey) to force the rotation of the device, those tests fail with all expected values un-commented.

I don't know what the Rotation program is doing differently than auto-rotate, and so I don't understand why the difference in behavior

I am not confident in the OSWindow methods that that allow the EGLPreRotation* tests to change the size and orientation of a window. They are not using a supported native API. They are using a reverse-JNI call to call a Java API that causes other processes to change the window's size and orientation in an asynchronous manner. Given the behavior I have observed, the behavior is not fully predictable. This results in things like the following:

- Some tests seem to need a sleep and/or while loop and other tests don't
- Some tests need to call both OSWindow::resize() and OSWindow::setOrientation() and others don't
- · Two tests clearly pass or fail based on how the device is rotated

At this point, my recommendation is to be cautious in the use of these methods, until we understand them well enough to make predictable tests.

	me@google.com <me@google.com></me@google.com>	Oct 27, 2022 07:32AM	
	Assigned to yu@google.com.		
	yu@google.com <yu@google.com><u>#4</u></yu@google.com>	Nov 12, 2022 12:00PM	
	Verified on ANGLE git hash 1c197e0690a58d1771fa7052810c286d518b3b1e, below tests are still failing on Pixel 4:		
	EGLPreRotationBlitFramebufferTest.BlitStencilWithFlip/ES3_Vulkan_NoFixturePreRotationDisabled EGLPreRotationBlitFramebufferTest.BlitStencilWithFlip/ES2_Vulkan_NoFixturePreRotationDisabled EGLPreRotationBlitFramebufferTest.BlitStencilWithFlip/ES3_Vulkan_NoFixturePreRotationEnabled EGLPreRotationBlitFramebufferTest.BlitStencilWithFlip/ES2_Vulkan_NoFixturePreRotationEnabled		
	ia@google.com <ia@google.com><u>#5</u></ia@google.com>	Nov 12, 2022 12:06PM	
	Are these tests passing on Pixel 6? If so, I suggest skipping on Pixel 4 (which may have a driver bug that won't be fixed at this point).		
	yu@google.com <yu@google.com><u>#6</u></yu@google.com>	Nov 12, 2022 12:54PM	
	I verified that those tests are passing on Pixel 6:		
	ANGLE git hash 1c197e0690a58d1771fa7052810c286d518b3b1e Android Build: TP1A. 220624. 021 (8877034)		
	lp@google.com <lp@google.com><u>#7</u></lp@google.com>	Jun 6, 2023 04:23AM	
	Yuxin, is there more work we need to do?		
	ap@google.com <ap@google.com><u>#8</u></ap@google.com>	Jun 7, 2023 07:34AM	
	Project: angle/angle Branch: main		
	commit 1ad4ae4d63bfa7272debdd6b8972cf6ef6738c1c Author: Yuxin Hu < <u>yuxinhu@google.com</u> > Date: Mon Jun 05 18:45:19 2023		
	Clean up EGLPreRotation Test		
	EGLPreRotationBlitFramebufferTest are passing on Pixel 6. Skip the failed tests on Pixel 4 devices only.		
	Bug: <u>b/172867704</u> Bug: angleproject:5044 Change-Id: I23744cec20bf7e74272532a00420d1488398cda8 Reviewed-on: https://chromium-review.googlesource.com/c/angle/angle/+/459022 Commit-Queue: Yuxin Hu < yuxinhu@google.com Reviewed-by: Ian Elliott ianelliott@google.com	<u>8</u>	

M src/tests/egl_tests/EGLPreRotationTest.cpp
https://chromium-review.googlesource.com/4590228

