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Graphics Feature Status

- Canvas: Hardware accelerated
- Canvas out-of-process rasterization: Enabled
- Direct Rendering Display Compositor: Disabled
- Compositing: Hardware accelerated
- Multiple Raster Threads: Enabled
- OpenGL: Enabled
- Rasterization: Hardware accelerated
- Raw Draw: Disabled
- Skia Graphite: Disabled
- Video Decode: Hardware accelerated
- Video Encode: Software only. Hardware acceleration disabled
- Vulkan: Enabled
- WebGL: Hardware accelerated
- WebGL2: Hardware accelerated
- WebGPU: Hardware accelerated
- WebNN: Disabled

Version Information

Data exported	2025-05-27T15:17:07.695Z
Chrome version	Chrome/133.0.6943.53
Operating system	Linux 6.14.6-arch1-1
Software rendering list URL	https://chromium.googlesource.com/chromium/src/+/9a80935019b0925b01cc
Driver bug list URL	https://chromium.googlesource.com/chromium/src/+/9a80935019b0925b01cc
ANGLE commit id	8304737811a7
2D graphics backend	Skia/133 ecebe831881cdf52c65df518777210071f7970dd
Command Line	/home/ryu/.cache/puppeteer/chrome/linux-133.0.6943.53/chrome-linux64/chrome --allow-pre-commit-input --disable-background-networking --disable-background-timer-throttling --disable-backgrounding-occluded-windows --disable-breakpad --disable-client-side-phishing-detection --disable-component-extensions-with-background-pages --disable-crash-reporter --disable-default-apps --disable-dev-shm-usage --disable-extensions --disable-hang-monitor --disable-infobars --disable-ipc-flooding-protection --disable-popup-blocking --disable-prompt-on-repost --disable-renderer-backgrounding --disable-search-engine-choice-screen --disable-sync --enable-automation --export-tagged-pdf --force-color-profile=srgb --generate-pdf-document-outline --metrics-recording-only --no-first-run --password-store=basic --use-mock-keychain --disable-features=Translate,AcceptCHFrame,MediaRouter,OptimizationHints,ProcessI --enable-features=PdfOopif,WebAssemblyExperimentalJSPI,Vulkan,VulkanFromANGL --no-sandbox --enable-unsafe-webgpu --enable-webgpu-developer-features --remote-debugging-port=0 --user-data-dir=/tmp/puppeteer_dev_chrome_profile-XXXXXXsgXu3C --flag-switches-begin --flag-switches-end --ozone-platform-hint=auto --ozone-platform=x11 about:blank

Driver Information

Initialization time	350
In-process GPU	false

Passthrough Command Decoder	true
Sandboxed	false
GPU0	VENDOR= 0x1002, DEVICE=0x1638, DRIVER_VENDOR=NVIDIA, DRIVER_VERSION=570.144.0.0
GPU1	VENDOR= 0x10de, DEVICE=0x2560, DRIVER_VENDOR=NVIDIA, DRIVER_VERSION=570.144.0.0 *ACTIVE*
Optimus	false
AMD switchable	false
Pixel shader version	1.00
Vertex shader version	1.00
Max. MSAA samples	8
Machine model name	
Machine model version	
GL implementation parts	(gl=egl-angle,angle=vulkan)
Display type	ANGLE_VULKAN
GL_VENDOR	Google Inc. (NVIDIA)
GL_RENDERER	ANGLE (NVIDIA, Vulkan 1.4.303 (NVIDIA NVIDIA GeForce RTX 3060 Laptop GPU (0x00002560)), NVIDIA-570.144.0.0)
GL_VERSION	OpenGL ES 2.0.0 (ANGLE 2.1.24600 git hash: 8304737811a7)
GL_EXTENSIONS	GL_AMD_performance_monitor GL_ANGLE_base_vertex_base_instance_shader_builtin GL_ANGLE_blob_cache GL_ANGLE_client_arrays GL_ANGLE_depth_texture GL_ANGLE_framebuffer_blit GL_ANGLE_framebuffer_multisample GL_ANGLE_get_image GL_ANGLE_get_serialized_context_string GL_ANGLE_get_tex_level_parameter GL_ANGLE_instanced_arrays GL_ANGLE_logic_op GL_ANGLE_memory_object_flags GL_ANGLE_memory_size GL_ANGLE_pack_reverse_row_order GL_ANGLE_polygon_mode GL_ANGLE_program_binary_readiness_query GL_ANGLE_program_cache_control GL_ANGLE_read_only_depth_stencil_feedback_loops GL_ANGLE_relaxed_vertex_attribute_type GL_ANGLE_request_extension GL_ANGLE_rgbx_internal_format GL_ANGLE_robust_client_memory GL_ANGLE_robust_fragment_shader_output GL_ANGLE_texture_compression_dxt3 GL_ANGLE_texture_compression_dxt5 GL_ANGLE_texture_usage GL_ANGLE_translated_shader_source GL_ANGLE_vulkan_image GL_APPLE_clip_distance GL_ARM_rgba8 GL_ARM_shader_framebuffer_fetch GL_CHROMIUM_bind_generates_resource GL_CHROMIUM_bind_uniform_location GL_CHROMIUM_color_buffer_float_rgb GL_CHROMIUM_color_buffer_float_rgba GL_CHROMIUM_copy_compressed_texture GL_CHROMIUM_copy_texture GL_CHROMIUM_lose_context GL_EXT_EGL_image_external_wrap_modes GL_EXT_blend_func_extended GL_EXT_blend_minmax GL_EXT_buffer_storage GL_EXT_clear_texture GL_EXT_clip_control GL_EXT_color_buffer_half_float GL_EXT_compressed_ETC1_RGB8_sub_texture GL_EXT_copy_image GL_EXT_debug_label GL_EXT_debug_marker GL_EXT_depth_clamp GL_EXT_discard_framebuffer GL_EXT_disjoint_timer_query GL_EXT_draw_buffers GL_EXT_draw_elements_base_vertex GL_EXT_float_blend GL_EXT_frag_depth GL_EXT_instanced_arrays GL_EXT_map_buffer_range GL_EXT_memory_object

GL_EXT_memory_object_fd GL_EXT_multisample_compatibility
GL_EXT_occlusion_query_boolean GL_EXT_polygon_offset_clamp
GL_EXT_read_format_bgra GL_EXT_robustness GL_EXT_sRGB
GL_EXT_sRGB_write_control GL_EXT_semaphore GL_EXT_semaphore_fd
GL_EXT_separate_shader_objects GL_EXT_shader_framebuffer_fetch
GL_EXT_shader_framebuffer_fetch_non_coherent
GL_EXT_shader_non_constant_global_initializers
GL_EXT_shader_texture_lod GL_EXT_shadow_samplers
GL_EXT_texture_border_clamp GL_EXT_texture_compression_bptc
GL_EXT_texture_compression_dxt1 GL_EXT_texture_compression_rgtc
GL_EXT_texture_compression_s3tc_srgb
GL_EXT_texture_filter_anisotropic GL_EXT_texture_format_BGRA8888
GL_EXT_texture_mirror_clamp_to_edge GL_EXT_texture_norm16
GL_EXT_texture_rg GL_EXT_texture_sRGB_decode
GL_EXT_texture_storage GL_EXT_texture_type_2_10_10_10_REV
GL_EXT_unpack_subimage GL_KHR_blend_equation_advanced
GL_KHR_blend_equation_advanced_coherent GL_KHR_debug
GL_KHR_robustness GL_NV_depth_buffer_float2 GL_NV_fence
GL_NV_framebuffer_blit GL_NV_pack_subimage
GL_NV_pixel_buffer_object GL_NV_polygon_mode GL_NV_read_depth
GL_NV_read_depth_stencil GL_NV_read_stencil GL_OES_EGL_image
GL_OES_EGL_image_external GL_OES_EGL_sync
GL_OES_compressed_EAC_R11_signed_texture
GL_OES_compressed_EAC_R11_unsigned_texture
GL_OES_compressed_EAC_RG11_signed_texture
GL_OES_compressed_EAC_RG11_unsigned_texture
GL_OES_compressed_ETC1_RGB8_texture
GL_OES_compressed_ETC2_RGB8_texture
GL_OES_compressed_ETC2_RGBA8_texture
GL_OES_compressed_ETC2_punchthroughA_RGBA8_texture
GL_OES_compressed_ETC2_punchthroughA_sRGB8_alpha_texture
GL_OES_compressed_ETC2_sRGB8_alpha8_texture
GL_OES_compressed_ETC2_sRGB8_texture GL_OES_copy_image
GL_OES_depth24 GL_OES_depth32 GL_OES_depth_texture
GL_OES_depth_texture_cube_map GL_OES_draw_elements_base_vertex
GL_OES_element_index_uint GL_OES_fbo_render_mipmap
GL_OES_get_program_binary GL_OES_mapbuffer
GL_OES_packed_depth_stencil GL_OES_primitive_bounding_box
GL_OES_required_internalformat GL_OES_rgb8_rgba8
GL_OES_sample_shading GL_OES_standard_derivatives
GL_OES_surfaceless_context GL_OES_texture_3D
GL_OES_texture_border_clamp GL_OES_texture_float
GL_OES_texture_float_linear GL_OES_texture_half_float
GL_OES_texture_half_float_linear GL_OES_texture_npot
GL_OES_vertex_array_object GL_OES_vertex_half_float
GL_QCOM_shading_rate

Disabled Extensions	GL_KHR_blend_equation_advanced GL_KHR_blend_equation_advanced_coherent
Disabled WebGL Extensions	
Window system binding vendor	Google Inc. (NVIDIA)
Window system binding version	1.5 (ANGLE 2.1.24600 git hash: 8304737811a7)
Window system binding extensions	EGL_EXT_create_context_robustness EGL_ANGLE_surface_orientation EGL_KHR_create_context EGL_KHR_image EGL_KHR_image_base EGL_EXT_image_gl_colorspace EGL_KHR_gl_colorspace

	EGL_KHR_gl_texture_2D_image EGL_KHR_gl_texture_cubemap_image EGL_KHR_gl_texture_3D_image EGL_KHR_gl_renderbuffer_image EGL_KHR_get_all_proc_addresses EGL_KHR_fence_sync EGL_KHR_wait_sync EGL_ANGLE_create_context_webgl_compatibility EGL_CHROMIUM_create_context_bind_generates_resource EGL_KHR_swap_buffers_with_damage EGL_EXT_pixel_format_float EGL_KHR_surfaceless_context EGL_ANGLE_display_texture_share_group EGL_ANGLE_display_semaphore_share_group EGL_ANGLE_create_context_client_arrays EGL_ANGLE_program_cache_control EGL_ANGLE_robust_resource_initialization EGL_ANGLE_create_context_extensions_enabled EGL_ANDROID_blob_cache EGL_ANDROID_recordable EGL_ANDROID_native_fence_sync EGL_ANGLE_create_context_backwards_compatible EGL_KHR_no_config_context EGL_IMG_context_priority EGL_KHR_create_context_no_error EGL_EXT_image_dma_buf_import EGL_EXT_image_dma_buf_import_modifiers EGL_KHR_reusable_sync EGL_EXT_buffer_age EGL_KHR_mutable_render_buffer EGL_ANGLE_create_surface_swap_interval EGL_ANGLE_vulkan_image EGL_KHR_partial_update EGL_ANGLE_global_fence_sync EGL_ANGLE_memory_usage_report
XDG_SESSION_TYPE	tty
Ozone platform	x11
Direct rendering version	unknown
Reset notification strategy	0x8252
GPU process crash count	0
gfx::BufferFormats supported for allocation and texturing	R_8: supported, R_16: supported, RG_88: supported, RG_1616: supported, BGR_565: supported, RGBA_4444: supported, RGBX_8888: supported, RGBA_8888: supported, BGRX_8888: supported, BGRA_1010102: supported, RGBA_1010102: supported, BGRA_8888: supported, RGBA_F16: supported, YVU_420: not supported, YUV_420_BIPLANAR: not supported, YUVA_420_TRIPLANAR: supported, P010: not supported

Driver Bug Workarounds

- enable_webgl_timer_query_extensions
- exit_on_context_lost
- disabled_extension_GL_KHR_blend_equation_advanced
- disabled_extension_GL_KHR_blend_equation_advanced_coherent

Problems Detected

- Accelerated video encode has been disabled, either via blocklist, about:flags or the command line.
  Disabled Features: video_encode
- Disable KHR_blend_equation_advanced until cc shaders are updated: 661715
  Applied Workarounds: disable(GL_KHR_blend_equation_advanced), disable(GL_KHR_blend_equation_advanced_coherent)
- Expose WebGL's disjoint_timer_query extensions on platforms with site isolation: 808744, 870491
  Applied Workarounds: enable_webgl_timer_query_extensions
- Some drivers can't recover after OUT_OF_MEM and context lost: 893177
  Applied Workarounds: exit_on_context_lost

ANGLE Features

- **allowCompressedFormats** (Frontend workarounds): Enabled
- **alwaysEnableEmulatedMultidrawExtensions** (Frontend workarounds): Disabled
- **alwaysRunLinkSubJobsThreaded** (Frontend features): Enabled

- **cacheCompiledShader** (Frontend features): Enabled
- **compileJobIsThreadSafe** (Frontend features): Enabled
- **disableAnisotropicFiltering** (Frontend workarounds): Disabled
- **disableDrawBuffersIndexed** (Frontend features): Disabled
- **disableProgramBinary** (Frontend features): Disabled
- **disableProgramCaching** (Frontend features): Disabled
- **disableProgramCachingForTransformFeedback** (Frontend workarounds): Disabled
- **dumpShaderSource** (Frontend features): Disabled
- **dumpTranslatedShaders** (Frontend features): Disabled
- **emulatePixelLocalStorage** (Frontend features): Enabled
- **enableCaptureLimits** (Frontend features): Disabled
- **enableProgramBinaryForCapture** (Frontend features): Disabled
- **enableShaderSubstitution** (Frontend workarounds): Disabled
- **enableTranslatedShaderSubstitution** (Frontend workarounds): Disabled
- **forceDepthAttachmentInitOnClear** (Frontend workarounds): Disabled
- **forceFlushAfterDrawcallUsingShadowmap** (Frontend workarounds): Disabled
- **forceGlErrorChecking** (Frontend features): Disabled
- **forceInitShaderVariables** (Frontend features): Disabled
- **forceMinimumMaxVertexAttributes** (Frontend features): Disabled
- **forceRobustResourceInit** (Frontend features): Disabled
- **linkJobIsThreadSafe** (Frontend features): Enabled
- **loseContextOnOutOfMemory** (Frontend workarounds): Enabled
- **rejectWebglShadersWithUndefinedBehavior** (Frontend workarounds): Enabled
- **singleThreadedTextureDecompression** (Frontend workarounds): Disabled
- **uncurrentEglSurfaceUponSurfaceDestroy** (Frontend workarounds): Enabled
- **adjustClearColorPrecision** (Vulkan workarounds): Disabled
- **allocateNonZeroMemory** (Vulkan features): Disabled
- **allowGenerateMipmapWithCompute** (Vulkan features): Enabled
- **allowHostImageCopyDespiteNonIdenticalLayout** (Vulkan features): Disabled
- **allowMultisampledRenderToTextureEmulation** (Vulkan workarounds): Disabled
- **appendAliasedMemoryDecorations** (Vulkan workarounds): Enabled
- **asyncCommandBufferResetAndGarbageCleanup** (Vulkan features): Enabled
- **avoidOpSelectWithMismatchingRelaxedPrecision** (Vulkan workarounds): Disabled
- **bottomLeftOriginPresentRegionRectangles** (Vulkan workarounds): Disabled
- **bresenhamLineRasterization** (Vulkan features): Enabled
- **clDumpVkSpirv** (Vulkan features): Disabled
- **clampFragDepth** (Vulkan workarounds): Disabled
- **clampPointSize** (Vulkan workarounds): Disabled
- **compressVertexData** (Vulkan workarounds): Disabled
- **descriptorSetCache** (Vulkan features): Enabled
- **disableDepthStencilResolveThroughAttachment** (Vulkan workarounds): Enabled
- **disableFlippingBlitWithCommand** (Vulkan workarounds): Disabled
- **disablePipelineCacheLoadForTesting** (Vulkan workarounds): Disabled
- **disableSeparateShaderObjects** (Vulkan app workarounds): Disabled
- **disallowMixedDepthStencilLoadOpNoneAndLoad** (Vulkan workarounds): Disabled
- **doubleDepthBiasConstantFactor** (Vulkan workarounds): Enabled
- **eglColorspaceAttributePassthrough** (Vulkan features): Disabled
- **emulateAdvancedBlendEquations** (Vulkan features): Disabled
- **emulateDithering** (Vulkan features): Disabled
- **emulateR32fImageAtomicExchange** (Vulkan workarounds): Disabled
- **emulateTransformFeedback** (Vulkan features): Disabled
- **emulatedPrerotation180** (Vulkan features): Disabled
- **emulatedPrerotation270** (Vulkan features): Disabled
- **emulatedPrerotation90** (Vulkan features): Disabled
- **enableAdditionalBlendFactorsForDithering** (Vulkan app workarounds): Disabled
- **enableAsyncPipelineCacheCompression** (Vulkan workarounds): Enabled
- **enableMergeClientAttribBuffer** (Vulkan features): Disabled
- **enableMultisampledRenderToTexture** (Vulkan workarounds): Disabled

- **enableParallelCompileAndLink** (Vulkan features): Disabled
- **enablePipelineCacheDataCompression** (Vulkan features): Enabled
- **enablePortabilityEnumeration** (Vulkan workarounds): Disabled
- **enablePreRotateSurfaces** (Vulkan features): Disabled
- **enablePrecisionQualifiers** (Vulkan features): Enabled
- **explicitlyCastMediumpFloatTo16Bit** (Vulkan workarounds): Disabled
- **explicitlyEnablePerSampleShading** (Vulkan workarounds): Enabled
- **exposeES32ForTesting** (Vulkan workarounds): Disabled
- **exposeNonConformantExtensionsAndVersions** (Vulkan workarounds): Disabled
- **forceContinuousRefreshOnSharedPresent** (Vulkan features): Disabled
- **forceD16TexFilter** (Vulkan workarounds): Disabled
- **forceDisableFullScreenExclusive** (Vulkan workarounds): Disabled
- **forceFallbackFormat** (Vulkan workarounds): Disabled
- **forceFragmentShaderPrecisionHighpToMediump** (Vulkan workarounds): Disabled
- **forceMaxUniformBufferSize16KB** (Vulkan workarounds): Disabled
- **forceNearestFiltering** (Vulkan workarounds): Disabled
- **forceNearestMipFiltering** (Vulkan workarounds): Disabled
- **forceSampleUsageForAhbBackedImages** (Vulkan app workarounds): Disabled
- **forceSubmitImmutableTextureUpdates** (Vulkan app workarounds): Disabled
- **forceTextureLodOffset1** (Vulkan workarounds): Disabled
- **forceTextureLodOffset2** (Vulkan workarounds): Disabled
- **forceTextureLodOffset3** (Vulkan workarounds): Disabled
- **forceTextureLodOffset4** (Vulkan workarounds): Disabled
- **forceWaitForSubmissionToCompleteForQueryResult** (Vulkan workarounds): Disabled
- **generateFragmentShadingRateAttchementWithCpu** (Vulkan features): Disabled
- **hasBlobCacheThatEvictsOldItemsFirst** (Vulkan features): Enabled
- **hasEffectivePipelineCacheSerialization** (Vulkan features): Enabled
- **limitMaxStorageBufferSize** (Vulkan workarounds): Disabled
- **limitSampleCountTo2** (Vulkan workarounds): Disabled
- **logMemoryReportCallbacks** (Vulkan features): Disabled
- **logMemoryReportStats** (Vulkan features): Disabled
- **mapUnspecifiedColorSpaceToPassThrough** (Vulkan features): Enabled
- **mergeProgramPipelineCachesToGlobalCache** (Vulkan workarounds): Enabled
- **mutableMipmapTextureUpload** (Vulkan features): Disabled
- **overrideSurfaceFormatRGB8ToRGBA8** (Vulkan workarounds): Enabled
- **padBuffersToMaxVertexAttribStride** (Vulkan workarounds): Disabled
- **perFrameWindowSizeQuery** (Vulkan workarounds): Disabled
- **permanentlySwitchToFramebufferFetchMode** (Vulkan features): Disabled
- **persistentlyMappedBuffers** (Vulkan features): Enabled
- **preferAggregateBarrierCalls** (Vulkan workarounds): Enabled
- **preferCPUForBufferSubData** (Vulkan features): Disabled
- **preferCachedNoncoherentForDynamicStreamBufferUsage** (Vulkan features): Disabled
- **preferDeviceLocalMemoryHostVisible** (Vulkan features): Disabled
- **preferDoubleBufferSwapchainOnFifoMode** (Vulkan features): Disabled
- **preferDrawClearOverVkCmdClearAttachments** (Vulkan workarounds): Disabled
- **preferDriverUniformOverSpecConst** (Vulkan features): Disabled
- **preferDynamicRendering** (Vulkan features): Disabled
- **preferHostCachedForNonStaticBufferUsage** (Vulkan features): Disabled
- **preferLinearFilterForYUV** (Vulkan features): Disabled
- **preferMSRTSSFlagByDefault** (Vulkan features): Disabled
- **preferMonolithicPipelinesOverLibraries** (Vulkan workarounds): Enabled
- **preferSkippingInvalidateForEmulatedFormats** (Vulkan workarounds): Enabled
- **preferSubmitAtFBOBoundary** (Vulkan workarounds): Disabled
- **preferSubmitOnAnySamplesPassedQueryEnd** (Vulkan workarounds): Disabled
- **provokingVertex** (Vulkan features): Enabled
- **retainSPIRVDebugInfo** (Vulkan features): Disabled
- **roundOutputAfterDithering** (Vulkan workarounds): Disabled
- **slowDownMonolithicPipelineCreationForTesting** (Vulkan workarounds): Disabled

- **supports16BitInputOutput** (Vulkan features): Disabled
- **supports16BitPushConstant** (Vulkan features): Enabled
- **supports16BitStorageBuffer** (Vulkan features): Enabled
- **supports16BitUniformAndStorageBuffer** (Vulkan features): Enabled
- **supports8BitPushConstant** (Vulkan features): Enabled
- **supports8BitStorageBuffer** (Vulkan features): Enabled
- **supports8BitUniformAndStorageBuffer** (Vulkan features): Enabled
- **supportsAndroidHardwareBuffer** (Vulkan features): Disabled
- **supportsAndroidNativeFenceSync** (Vulkan features): Enabled
- **supportsAstcSliced3d** (Vulkan features): Disabled
- **supportsBindMemory2** (Vulkan features): Enabled
- **supportsBlendOperationAdvanced** (Vulkan features): Enabled
- **supportsBlendOperationAdvancedCoherent** (Vulkan features): Enabled
- **supportsColorWriteEnable** (Vulkan features): Disabled
- **supportsComputeTranscodeEtcToBc** (Vulkan features): Disabled
- **supportsCustomBorderColor** (Vulkan features): Enabled
- **supportsDenormFtzFp16** (Vulkan features): Disabled
- **supportsDenormFtzFp32** (Vulkan features): Disabled
- **supportsDenormFtzFp64** (Vulkan features): Disabled
- **supportsDenormPreserveFp16** (Vulkan features): Enabled
- **supportsDenormPreserveFp32** (Vulkan features): Disabled
- **supportsDenormPreserveFp64** (Vulkan features): Disabled
- **supportsDepthClampZeroOne** (Vulkan features): Enabled
- **supportsDepthClipControl** (Vulkan features): Enabled
- **supportsDepthStencilIndependentResolveNone** (Vulkan features): Enabled
- **supportsDepthStencilResolve** (Vulkan features): Enabled
- **supportsDynamicRendering** (Vulkan features): Enabled
- **supportsDynamicRenderingLocalRead** (Vulkan features): Disabled
- **supportsExtendedDynamicState** (Vulkan features): Enabled
- **supportsExtendedDynamicState2** (Vulkan features): Enabled
- **supportsExternalFenceCapabilities** (Vulkan features): Enabled
- **supportsExternalFenceFd** (Vulkan features): Enabled
- **supportsExternalFormatResolve** (Vulkan features): Disabled
- **supportsExternalMemoryDmaBufAndModifiers** (Vulkan features): Enabled
- **supportsExternalMemoryFd** (Vulkan features): Enabled
- **supportsExternalMemoryFuchsia** (Vulkan features): Disabled
- **supportsExternalMemoryHost** (Vulkan features): Enabled
- **supportsExternalSemaphoreCapabilities** (Vulkan features): Enabled
- **supportsExternalSemaphoreFd** (Vulkan features): Enabled
- **supportsExternalSemaphoreFuchsia** (Vulkan features): Disabled
- **supportsFormatFeatureFlags2** (Vulkan features): Enabled
- **supportsFoveatedRendering** (Vulkan features): Disabled
- **supportsFragmentShaderPixelInterlock** (Vulkan features): Enabled
- **supportsFragmentShadingRate** (Vulkan features): Enabled
- **supportsFullScreenExclusive** (Vulkan features): Disabled
- **supportsGGPFrameToken** (Vulkan features): Disabled
- **supportsGeometryStreamsCapability** (Vulkan features): Enabled
- **supportsGetMemoryRequirements2** (Vulkan features): Enabled
- **supportsGraphicsPipelineLibrary** (Vulkan features): Enabled
- **supportsHostImageCopy** (Vulkan features): Disabled
- **supportsHostQueryReset** (Vulkan features): Enabled
- **supportsImage2dViewOf3d** (Vulkan features): Enabled
- **supportsImageCompressionControl** (Vulkan features): Disabled
- **supportsImageCompressionControlSwapchain** (Vulkan features): Disabled
- **supportsImageCubeArray** (Vulkan features): Enabled
- **supportsImageFormatList** (Vulkan features): Enabled
- **supportsImagelessFramebuffer** (Vulkan features): Enabled
- **supportsIncrementalPresent** (Vulkan features): Enabled

- **supportsIndexTypeUint8** (Vulkan features): Enabled
- **supportsLegacyDithering** (Vulkan features): Disabled
- **supportsLockSurfaceExtension** (Vulkan features): Disabled
- **supportsLogicOpDynamicState** (Vulkan features): Enabled
- **supportsMaintenance5** (Vulkan features): Enabled
- **supportsMemoryBudget** (Vulkan features): Enabled
- **supportsMixedReadWriteDepthStencilLayouts** (Vulkan features): Enabled
- **supportsMultiDrawIndirect** (Vulkan features): Enabled
- **supportsMultisampledRenderToSingleSampled** (Vulkan features): Disabled
- **supportsMultiview** (Vulkan features): Enabled
- **supportsPipelineCreationFeedback** (Vulkan features): Enabled
- **supportsPipelineProtectedAccess** (Vulkan features): Disabled
- **supportsPipelineRobustness** (Vulkan features): Enabled
- **supportsPipelineStatisticsQuery** (Vulkan features): Enabled
- **supportsPortabilityEnumeration** (Vulkan features): Enabled
- **supportsPresentation** (Vulkan features): Enabled
- **supportsPrimitiveTopologyListRestart** (Vulkan features): Enabled
- **supportsPrimitivesGeneratedQuery** (Vulkan features): Enabled
- **supportsProtectedMemory** (Vulkan features): Disabled
- **supportsRasterizationOrderAttachmentAccess** (Vulkan features): Disabled
- **supportsRenderPassLoadStoreOpNone** (Vulkan features): Enabled
- **supportsRenderPassStoreOpNone** (Vulkan features): Disabled
- **supportsRenderpass2** (Vulkan features): Enabled
- **supportsRoundingModeRteFp16** (Vulkan features): Enabled
- **supportsRoundingModeRteFp32** (Vulkan features): Enabled
- **supportsRoundingModeRteFp64** (Vulkan features): Enabled
- **supportsRoundingModeRtzFp16** (Vulkan features): Disabled
- **supportsRoundingModeRtzFp32** (Vulkan features): Enabled
- **supportsRoundingModeRtzFp64** (Vulkan features): Enabled
- **supportsSPIRV14** (Vulkan features): Enabled
- **supportsSampler2dViewOf3d** (Vulkan features): Enabled
- **supportsSamplerMirrorClampToEdge** (Vulkan features): Enabled
- **supportsShaderFloat16** (Vulkan features): Enabled
- **supportsShaderFloat64** (Vulkan features): Enabled
- **supportsShaderFramebufferFetch** (Vulkan features): Enabled
- **supportsShaderFramebufferFetchDepthStencil** (Vulkan features): Disabled
- **supportsShaderFramebufferFetchNonCoherent** (Vulkan features): Enabled
- **supportsShaderInt8** (Vulkan features): Enabled
- **supportsShaderNonSemanticInfo** (Vulkan features): Disabled
- **supportsShaderStencilExport** (Vulkan features): Disabled
- **supportsSharedPresentableImageExtension** (Vulkan features): Enabled
- **supportsSignedZeroInfNanPreserveFp16** (Vulkan features): Enabled
- **supportsSignedZeroInfNanPreserveFp32** (Vulkan features): Enabled
- **supportsSignedZeroInfNanPreserveFp64** (Vulkan features): Enabled
- **supportsSurfaceCapabilities2Extension** (Vulkan features): Enabled
- **supportsSurfaceMaintenance1** (Vulkan features): Enabled
- **supportsSurfaceProtectedCapabilitiesExtension** (Vulkan features): Enabled
- **supportsSurfaceProtectedSwapchains** (Vulkan features): Disabled
- **supportsSurfacelessQueryExtension** (Vulkan features): Disabled
- **supportsSwapchainMaintenance1** (Vulkan features): Enabled
- **supportsSynchronization2** (Vulkan features): Enabled
- **supportsTextureCompressionAstcHdr** (Vulkan features): Disabled
- **supportsTimelineSemaphore** (Vulkan features): Enabled
- **supportsTimestampSurfaceAttribute** (Vulkan features): Disabled
- **supportsTransformFeedbackExtension** (Vulkan features): Enabled
- **supportsVertexInputDynamicState** (Vulkan features): Enabled
- **supportsYUVSamplerConversion** (Vulkan features): Enabled
- **supportsYuvTarget** (Vulkan features): Disabled

- **swapbuffersOnFlushOrFinishWithSingleBuffer** (Vulkan features): Disabled
- **syncMonolithicPipelinesToBlobCache** (Vulkan workarounds): Enabled
- **useCullModeDynamicState** (Vulkan workarounds): Enabled
- **useDepthBiasEnableDynamicState** (Vulkan workarounds): Enabled
- **useDepthCompareOpDynamicState** (Vulkan workarounds): Enabled
- **useDepthTestEnableDynamicState** (Vulkan workarounds): Enabled
- **useDepthWriteEnableDynamicState** (Vulkan workarounds): Enabled
- **useDualPipelineBlobCacheSlots** (Vulkan features): Disabled
- **useEmptyBlobsToEraseOldPipelineCacheFromBlobCache** (Vulkan features): Disabled
- **useFrontFaceDynamicState** (Vulkan workarounds): Enabled
- **useMultipleDescriptorsForExternalFormats** (Vulkan workarounds): Enabled
- **useNonZeroStencilWriteMaskStaticState** (Vulkan workarounds): Disabled
- **usePrimitiveRestartEnableDynamicState** (Vulkan workarounds): Enabled
- **useRasterizerDiscardEnableDynamicState** (Vulkan workarounds): Enabled
- **useResetCommandBufferBitForSecondaryPools** (Vulkan workarounds): Disabled
- **useStencilOpDynamicState** (Vulkan workarounds): Enabled
- **useStencilTestEnableDynamicState** (Vulkan workarounds): Enabled
- **useVertexInputBindingStrideDynamicState** (Vulkan workarounds): Disabled
- **useVkEventForImageBarrier** (Vulkan features): Disabled
- **useVmaForImageSuballocation** (Vulkan features): Enabled
- **varyingsRequireMatchingPrecisionInSpirv** (Vulkan workarounds): Disabled
- **verifyPipelineCacheInBlobCache** (Vulkan features): Disabled
- **waitIdleBeforeSwapchainRecreation** (Vulkan workarounds): Disabled
- **warmUpPipelineCacheAtLink** (Vulkan features): Enabled
- **wrapSwitchInIfTrue** (Vulkan workarounds): Disabled

Compositor Information

Tile Update Mode	One-copy
Partial Raster	Enabled

GpuMemoryBuffers Status

R_8	Software only
R_16	Software only
RG_88	Software only
RG_1616	Software only
BGR_565	Software only
RGBA_4444	Software only
RGBX_8888	Software only
RGBA_8888	Software only
BGRX_8888	Software only
BGRA_1010102	Software only
RGBA_1010102	Software only
BGRA_8888	Software only
RGBA_F16	Software only
YVU_420	Software only
YUV_420_BIPLANAR	Software only
YUVA_420_TRIPLANAR	Software only
P010	Software only

Display(s) Information

Info	Display[66] bounds=[0,0 1920x1080], workarea=[0,0 1920x1080], scale=1, rotation=0, panel_rotation=0 internal detected
Color space (all)	{primaries:BT709, transfer:SRGB, matrix:RGB, range:FULL}
Buffer format (all)	RGBA_8888

Color volume	{name:'srgb', r:[0.6400, 0.3300], g:[0.3000, 0.6000], b:[0.1500, 0.0600], w:[0.3127, 0.3290]}
SDR white level in nits	203
HDR relative maximum luminance	1
Bits per color component	8
Bits per pixel	24
Refresh Rate in Hz	165.0037841796875

Video Acceleration Information

Decoding	
Encoding	

Vulkan Information

info	

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   "VK_KHR_external_semaphore_capabilities": 1,
   "VK_KHR_get_display_properties2": 1,
   "VK_KHR_get_physical_device_properties2": 2,
   "VK_KHR_get_surface_capabilities2": 1,
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   "VK_KHR_surface_protected_capabilities": 1,
   "VK_KHR_wayland_surface": 6,
   "VK_KHR_xcb_surface": 6,
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   "VK_EXT_direct_mode_display": 1,
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   "VK_EXT_swapchain_colorspace": 5,
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   "VK_LUNARG_direct_driver_loading": 1
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Device Performance Information

Log Messages