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Graphics Feature Status

- Canvas: Hardware accelerated
- CheckerImaging: Disabled
- Flash: Hardware accelerated
- Flash Stage3D: Hardware accelerated
- Flash Stage3D Baseline profile: Hardware accelerated
- Compositing: Hardware accelerated
- Multiple Raster Threads: Enabled
- Native GpuMemoryBuffers: Software only. Hardware acceleration disabled
- Rasterization: Software only. Hardware acceleration disabled
- Surface Synchronization: Enabled
- Video Decode: Unavailable
- WebGL: Hardware accelerated
- WebGL2: Hardware accelerated

Driver Bug Workarounds

- adjust_src_dst_region_for_blitframebuffer
- clear_uniforms_before_first_program_use
- count_all_in_varyings_packing
- decode_encode_srgb_for_generatemipmap
- disable_framebuffer_cmaa
- disable_post_sub_buffers_for_onscreen_surfaces
- msaa_is_slow
- scalarize_vec_and_mat_constructor_args

Problems Detected

- Accelerated video decode is unavailable on Linux: 137247
  Disabled Features: accelerated_video_decode
- Clear uniforms before first program use on all platforms: 124764, 349137
  Applied Workarounds: clear_uniforms_before_first_program_use
- Mesa drivers in Linux handle varyings without static use incorrectly: 333885
  Applied Workarounds: count_all_in_varyings_packing
- Disable partial swaps on Mesa drivers (detected with GL_RENDERER): 339493
  Applied Workarounds: disable_post_sub_buffers_for_onscreen_surfaces
- Always rewrite vec/mat constructors to be consistent: 398694
  Applied Workarounds: scalarize_vec_and_mat_constructor_args
- On Intel GPUs MSAA performance is not acceptable for GPU rasterization: 527565
  Applied Workarounds: msaa_is_slow
- Timer queries crash on Intel GPUs on Linux: 540543, 576991
  Applied Workarounds: disable(GL_ARB_timer_query), disable(GL_EXT_timer_query)
- Use GL_INTEL_framebuffer_CMAA on ChromeOS: 535198
  Applied Workarounds: disable_framebuffer_cmaa
- Disable partial swaps on Mesa drivers (detected with GL_VERSION): 339493
  Applied Workarounds: disable_post_sub_buffers_for_onscreen_surfaces
- Decode and encode before generateMipmap for srgb format textures on os except macosx: 634519
  Applied Workarounds: decode_encode_srgb_for_generatemipmap
- adjust src/dst region if blitting pixels outside read framebuffer on Linux Intel: 664740
  Applied Workarounds: adjust_src_dst_region_for_blitframebuffer
- 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)
- Don't expose disjoint_timer_query extensions to WebGL: 808744

- Native GpuMemoryBuffers have been disabled, either via about:flags or command line.
  Disabled Features: native_gpu_memory_buffers
- Checker-imaging has been disabled via finch trial or the command line.
  Disabled Features: checker_imaging

Version Information

Data exported	2018-04-27T15:39:30.897Z
Chrome version	Chrome/66.0.3359.139
Operating system	Linux 4.15.0-20-generic
Software rendering list URL	https://chromium.googlesource.com/chromium/src/+/a020eddf0d85fe84d4
Driver bug list URL	https://chromium.googlesource.com/chromium/src/+/a020eddf0d85fe84d4
ANGLE commit id	22c768fbda54
2D graphics backend	Skia/66 773868fdade5f9f0e7697e6d09c9bd80aaa9b402-
Command Line	/usr/bin/google-chrome-stable --flag-switches-begin --flag-switches-end

Driver Information

Initialization time	60
In-process GPU	false
Passthrough Command Decoder	false
Direct Composition	false
Supports overlays	false
Sandboxed	true
GPU0	VENDOR = 0x8086, DEVICE= 0x5912 *ACTIVE*
Optimus	false
Optimus	false
AMD switchable	false
Driver vendor	Mesa
Driver version	18.0.0
Driver date	
Pixel shader version	1.30
Vertex shader version	1.30
Max. MSAA samples	16
Machine model name	
Machine model version	
GL_VENDOR	Intel Open Source Technology Center
GL_RENDERER	Mesa DRI Intel(R) HD Graphics 630 (Kaby Lake GT2)
GL_VERSION	3.0 Mesa 18.0.0-rc5
GL_EXTENSIONS	GL_3DFX_texture_compression_FXT1 GL_AMD_conservative_depth GL_AMD_draw_buffers_blend GL_AMD_seamless_cubemap_per_texture GL_AMD_shader_stencil_export GL_AMD_shader_trinary_minmax GL_ANGLE_texture_compression_dxt3 GL_ANGLE_texture_compression_dxt5 GL_APPLE_object_purgeable GL_APPLE_packed_pixels GL_ARB_ES2_compatibility GL_ARB_ES3_compatibility GL_ARB_arrays_of_arrays GL_ARB_blend_func_extended GL_ARB_buffer_storage GL_ARB_clear_buffer_object GL_ARB_clear_texture GL_ARB_clip_control GL_ARB_color_buffer_float

GL_ARB_compressed_texture_pixel_storage
GL_ARB_compute_shader GL_ARB_conditional_render_inverted
GL_ARB_conservative_depth GL_ARB_copy_buffer
GL_ARB_copy_image GL_ARB_cull_distance GL_ARB_debug_output
GL_ARB_depth_buffer_float GL_ARB_depth_clamp
GL_ARB_depth_texture GL_ARB_derivative_control
GL_ARB_draw_buffers GL_ARB_draw_buffers_blend
GL_ARB_draw_elements_base_vertex GL_ARB_draw_instanced
GL_ARB_explicit_attrib_location GL_ARB_explicit_uniform_location
GL_ARB_fragment_coord_conventions GL_ARB_fragment_program
GL_ARB_fragment_program_shadow GL_ARB_fragment_shader
GL_ARB_framebuffer_no_attachments GL_ARB_framebuffer_object
GL_ARB_framebuffer_sRGB GL_ARB_get_program_binary
GL_ARB_get_texture_sub_image GL_ARB_half_float_pixel
GL_ARB_half_float_vertex GL_ARB_instanced_arrays
GL_ARB_internalformat_query GL_ARB_internalformat_query2
GL_ARB_invalidate_subdata GL_ARB_map_buffer_alignment
GL_ARB_map_buffer_range GL_ARB_multi_bind GL_ARB_multisample
GL_ARB_multitexture GL_ARB_occlusion_query
GL_ARB_occlusion_query2 GL_ARB_pipeline_statistics_query
GL_ARB_pixel_buffer_object GL_ARB_point_parameters
GL_ARB_point_sprite GL_ARB_polygon_offset_clamp
GL_ARB_program_interface_query GL_ARB_provoking_vertex
GL_ARB_query_buffer_object GL_ARB_robust_buffer_access_behavior
GL_ARB_robustness GL_ARB_sample_shading
GL_ARB_sampler_objects GL_ARB_seamless_cube_map
GL_ARB_seamless_cubemap_per_texture
GL_ARB_separate_shader_objects
GL_ARB_shader_atomic_counter_ops
GL_ARB_shader_atomic_counters GL_ARB_shader_ballot
GL_ARB_shader_bit_encoding GL_ARB_shader_clock
GL_ARB_shader_draw_parameters GL_ARB_shader_group_vote
GL_ARB_shader_image_load_store GL_ARB_shader_image_size
GL_ARB_shader_objects GL_ARB_shader_precision
GL_ARB_shader_stencil_export
GL_ARB_shader_storage_buffer_object
GL_ARB_shader_texture_image_samples GL_ARB_shader_texture_lod
GL_ARB_shading_language_100 GL_ARB_shading_language_420pack
GL_ARB_shading_language_packing GL_ARB_shadow
GL_ARB_stencil_texturing GL_ARB_sync GL_ARB_texture_barrier
GL_ARB_texture_border_clamp GL_ARB_texture_compression
GL_ARB_texture_compression_bptc
GL_ARB_texture_compression_rgtc GL_ARB_texture_cube_map
GL_ARB_texture_cube_map_array GL_ARB_texture_env_add
GL_ARB_texture_env_combine GL_ARB_texture_env_crossbar
GL_ARB_texture_env_dot3 GL_ARB_texture_filter_anisotropic
GL_ARB_texture_float GL_ARB_texture_gather
GL_ARB_texture_mirror_clamp_to_edge
GL_ARB_texture_mirrored_repeat GL_ARB_texture_multisample
GL_ARB_texture_non_power_of_two GL_ARB_texture_query_levels
GL_ARB_texture_query_lod GL_ARB_texture_rectangle
GL_ARB_texture_rg GL_ARB_texture_rgb10_a2ui
GL_ARB_texture_stencil8 GL_ARB_texture_storage
GL_ARB_texture_storage_multisample GL_ARB_texture_swizzle
GL_ARB_texture_view GL_ARB_timer_query
GL_ARB_transform_feedback2 GL_ARB_transform_feedback3
GL_ARB_transform_feedback_instanced
GL_ARB_transform_feedback_overflow_query

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GL_ARB_transpose_matrix GL_ARB_uniform_buffer_object
GL_ARB_vertex_array_bgra GL_ARB_vertex_array_object
GL_ARB_vertex_attrib_binding GL_ARB_vertex_buffer_object
GL_ARB_vertex_program GL_ARB_vertex_shader
GL_ARB_vertex_type_10f_11f_11f_rev
GL_ARB_vertex_type_2_10_10_10_rev GL_ARB_window_pos
GL_ATI_blend_equation_separate GL_ATI_draw_buffers
GL_ATI_separate_stencil GL_ATI_texture_env_combine3
GL_ATI_texture_float GL_EXT_abgr GL_EXT_bgra
GL_EXT_blend_color GL_EXT_blend_equation_separate
GL_EXT_blend_func_separate GL_EXT_blend_minmax
GL_EXT_blend_subtract GL_EXT_compiled_vertex_array
GL_EXT_copy_texture GL_EXT_draw_buffers2
GL_EXT_draw_instanced GL_EXT_draw_range_elements
GL_EXT_fog_coord GL_EXT_framebuffer_blit
GL_EXT_framebuffer_multisample
GL_EXT_framebuffer_multisample_blit_scaled
GL_EXT_framebuffer_object GL_EXT_framebuffer_sRGB
GL_EXT_gpu_program_parameters GL_EXT_multi_draw_arrays
GL_EXT_packed_depth_stencil GL_EXT_packed_float
GL_EXT_packed_pixels GL_EXT_pixel_buffer_object
GL_EXT_point_parameters GL_EXT_polygon_offset
GL_EXT_polygon_offset_clamp GL_EXT_provoking_vertex
GL_EXT_rescale_normal GL_EXT_secondary_color
GL_EXT_separate_specular_color GL_EXT_shader_integer_mix
GL_EXT_shader_samples_identical GL_EXT_shadow_funcs
GL_EXT_stencil_two_side GL_EXT_stencil_wrap GL_EXT_subtexture
GL_EXT_texture GL_EXT_texture3D GL_EXT_texture_array
GL_EXT_texture_compression_dxt1
GL_EXT_texture_compression_rgtc GL_EXT_texture_compression_s3tc
GL_EXT_texture_cube_map GL_EXT_texture_edge_clamp
GL_EXT_texture_env_add GL_EXT_texture_env_combine
GL_EXT_texture_env_dot3 GL_EXT_texture_filter_anisotropic
GL_EXT_texture_integer GL_EXT_texture_lod_bias
GL_EXT_texture_object GL_EXT_texture_rectangle
GL_EXT_texture_sRGB GL_EXT_texture_sRGB_decode
GL_EXT_texture_shared_exponent GL_EXT_texture_snorm
GL_EXT_texture_swizzle GL_EXT_timer_query
GL_EXT_transform_feedback GL_EXT_vertex_array
GL_EXT_vertex_array_bgra GL_IBM_multimode_draw_arrays
GL_IBM_rasterpos_clip GL_IBM_texture_mirrored_repeat
GL_INGR_blend_func_separate GL_INTEL_performance_query
GL_KHR_blend_equation_advanced
GL_KHR_blend_equation_advanced_coherent
GL_KHR_context_flush_control GL_KHR_debug GL_KHR_no_error
GL_KHR_robust_buffer_access_behavior GL_KHR_robustness
GL_KHR_texture_compression_astc_ldr
GL_KHR_texture_compression_astc_sliced_3d GL_MESA_pack_invert
GL_MESA_shader_integer_functions GL_MESA_texture_signed_rgba
GL_MESA_window_pos GL_NV_blend_square
GL_NV_conditional_render GL_NV_depth_clamp
GL_NV_light_max_exponent GL_NV_packed_depth_stencil
GL_NV_primitive_restart GL_NV_texgen_reflection
GL_NV_texture_barrier GL_NV_texture_env_combine4
GL_NV_texture_rectangle GL_OES_EGL_image GL_OES_read_format
GL_S3_s3tc GL_SGIS_generate_mipmap
GL_SGIS_texture_border_clamp GL_SGIS_texture_edge_clamp
GL_SGIS_texture_lod GL_SUN_multi_draw_arrays

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Disabled Extensions	GL_ARB_timer_query GL_EXT_timer_query GL_KHR_blend_equation_advanced GL_KHR_blend_equation_advanced_coherent
Disabled WebGL Extensions	EXT_disjoint_timer_query EXT_disjoint_timer_query_webgl2
Window system binding vendor	SGI
Window system binding version	1.4
Window system binding extensions	GLX_ARB_create_context GLX_ARB_create_context_profile GLX_ARB_create_context_robustness GLX_ARB_fbconfig_float GLX_ARB_framebuffer_sRGB GLX_ARB_multisample GLX_EXT_create_context_es_profile GLX_EXT_create_context_es2_profile GLX_EXT_fbconfig_packed_float GLX_EXT_framebuffer_sRGB GLX_EXT_import_context GLX_EXT_libglvnd GLX_EXT_texture_from_pixmap GLX_EXT_visual_info GLX_EXT_visual_rating GLX_MESA_copy_sub_buffer GLX_OML_swap_method GLX_SGI_make_current_read GLX_SGI_swap_control GLX_SGIS_multisample GLX_SGIX_fbconfig GLX_SGIX_pbuffer GLX_SGIX_visual_select_group GLX_INTEL_swap_event
Window manager	GNOME Shell
XDG_CURRENT_DESK	GNOME
GDMSESSION	gnome-xorg
Compositing manager	Yes
Direct rendering	Yes
Reset notification strategy	0x8261
GPU process crash count	0
System visual ID	33
RGBA visual ID	328

Compositor Information

Tile Update Mode	One-copy
Partial Raster	Enabled

GpuMemoryBuffers Status

ATC	Software only
ATCIA	Software only
DXT1	Software only
DXT5	Software only
ETC1	Software only
R_8	Software only
R_16	Software only
RG_88	Software only
BGR_565	Software only
RGBA_4444	Software only
RGBX_8888	Software only
RGBA_8888	Software only

BGRX_8888	Software only
BGRX_1010102	Software only
RGBX_1010102	Software only
BGRA_8888	Software only
RGBA_F16	Software only
YVU_420	Software only
YUV_420_BIPLANAR	Software only
UYVY_422	Software only

Display(s) Information

Info	Display[2763557231571713] bounds=0,0 1969x1107, workarea=0,26 1969x1081, scale=1,3, external
Color space information	{primaries:[[0.4482,0.3716,0.1444,],[0.2234,0.7242,0.0524,], [0.0031,0.0694,0.7524,],], transfer:0.0000*x + 0.0000 if x < 0.0000 else (1.0000*x + 0.0000)**2.2000 + 0.0000, matrix:RGB, range:FULL}
Bits per color component	8
Bits per pixel	24

Video Acceleration Information