

Graphics Feature Status

- Canvas: **Hardware accelerated**
- 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**
- Video Decode: **Software only, hardware acceleration unavailable**
- Video Encode: **Software only, hardware acceleration 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`
- `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**
- Accelerated video encode is unavailable on Linux
Disabled Features: **accelerated_video_encode**
- 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](#)
- Limited enabling of Chromium GL_INTEL_framebuffer_CMAA: [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**
- 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](#)
- Accelerated rasterization has been disabled, either via blacklist, about:flags or the command line.
Disabled Features: **rasterization**
- Native GpuMemoryBuffers have been disabled, either via about:flags or command line.
Disabled Features: **native_gpu_memory_buffers**

Version Information

Data exported	18/06/2017, 22:22:17
Chrome version	Chrome/59.0.3071.104
Operating system	Linux 4.9.33-gentoo-E540
Software rendering list version	13.8
Driver bug list version	10.102
ANGLE commit id	unknown hash
2D graphics backend	Skia/59 ef6f9c65527412ec4057ea0551f2e051beb94d32
Command Line Args	--extra-plugin-dir=/usr/lib64/nsbrowser/plugins --ppapi-flash-path=/usr/lib64/chromium/PepperFlash/libpepflashplayer.so --ppapi-flash-version=25.0.0.171 --disable-namespace-sandbox --flag-switches-begin --flag-switches-end

Driver Information

Initialization time	11
In-process GPU	false
Passthrough Command Decoder	false
Supports overlays	false
Sandboxed	false
GPU0	VENDOR = 0x8086, DEVICE= 0x0416
Optimus	false
Optimus	false
AMD switchable	false
Driver vendor	Mesa
Driver version	17.0.6
Driver date	
Pixel shader version	4.50
Vertex shader version	4.50
Max. MSAA samples	8
Machine model name	
Machine model version	
GL_VENDOR	Intel Open Source Technology Center
GL_RENDERER	Mesa DRI Intel(R) Haswell Mobile
GL_VERSION	4.5 (Core Profile) Mesa 17.0.6
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_trinary_minmax GL_AMD_vertex_shader_layer GL_AMD_vertex_shader_viewport_index GL_ANGLE_texture_compression_dxt3 GL_ANGLE_texture_compression_dxt5 GL_APPLE_object_purgeable GL_ARB_ES2_compatibility GL_ARB_ES3_1_compatibility GL_ARB_ES3_compatibility GL_ARB_arrays_of_arrays

GL_ARB_base_instance GL_ARB_blend_func_extended
GL_ARB_buffer_storage GL_ARB_clear_buffer_object
GL_ARB_clear_texture GL_ARB_clip_control
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_derivative_control GL_ARB_direct_state_access
GL_ARB_draw_buffers GL_ARB_draw_buffers_blend
GL_ARB_draw_elements_base_vertex GL_ARB_draw_indirect
GL_ARB_draw_instanced GL_ARB_enhanced_layouts
GL_ARB_explicit_attrib_location GL_ARB_explicit_uniform_location
GL_ARB_fragment_coord_conventions
GL_ARB_fragment_layer_viewport 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_gpu_shader5
GL_ARB_gpu_shader_fp64 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_multi_draw_indirect GL_ARB_occlusion_query2
GL_ARB_pipeline_statistics_query GL_ARB_pixel_buffer_object
GL_ARB_point_sprite 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_bit_encoding
GL_ARB_shader_clock GL_ARB_shader_draw_parameters
GL_ARB_shader_image_load_store GL_ARB_shader_image_size
GL_ARB_shader_objects GL_ARB_shader_precision
GL_ARB_shader_storage_buffer_object GL_ARB_shader_subroutine
GL_ARB_shader_texture_image_samples GL_ARB_shader_texture_lod
GL_ARB_shader_viewport_layer_array
GL_ARB_shading_language_420pack
GL_ARB_shading_language_packing GL_ARB_stencil_texturing
GL_ARB_sync GL_ARB_tessellation_shader GL_ARB_texture_barrier
GL_ARB_texture_buffer_object GL_ARB_texture_buffer_object_rgb32
GL_ARB_texture_buffer_range GL_ARB_texture_compression_bptc
GL_ARB_texture_compression_rgtc GL_ARB_texture_cube_map_array
GL_ARB_texture_float GL_ARB_texture_gather
GL_ARB_texture_mirror_clamp_to_edge 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_transform_feedback2
GL_ARB_transform_feedback3

	GL_ARB_transform_feedback_instanced GL_ARB_uniform_buffer_object GL_ARB_vertex_array_bgra GL_ARB_vertex_array_object GL_ARB_vertex_attrib_64bit GL_ARB_vertex_attrib_binding GL_ARB_vertex_shader GL_ARB_vertex_type_10f_11f_11f_rev GL_ARB_vertex_type_2_10_10_10_rev GL_ARB_viewport_array GL_ATI_blend_equation_separate GL_ATI_texture_float GL_EXT_abgr GL_EXT_blend_equation_separate GL_EXT_draw_buffers2 GL_EXT_draw_instanced GL_EXT_framebuffer_blit GL_EXT_framebuffer_multisample GL_EXT_framebuffer_multisample_blit_scaled GL_EXT_framebuffer_sRGB GL_EXT_packed_depth_stencil GL_EXT_packed_float GL_EXT_pixel_buffer_object GL_EXT_polygon_offset_clamp GL_EXT_provoking_vertex GL_EXT_shader_integer_mix GL_EXT_shader_samples_identical GL_EXT_texture_array GL_EXT_texture_compression_dxt1 GL_EXT_texture_compression_rgtc GL_EXT_texture_filter_anisotropic GL_EXT_texture_integer GL_EXT_texture_sRGB GL_EXT_texture_sRGB_decode GL_EXT_texture_shared_exponent GL_EXT_texture_snorm GL_EXT_texture_swizzle GL_EXT_transform_feedback GL_EXT_vertex_array_bgra GL_IBM_multimode_draw_arrays GL_KHR_context_flush_control GL_KHR_debug GL_KHR_robust_buffer_access_behavior GL_KHR_robustness GL_MESA_pack_invert GL_MESA_shader_integer_functions GL_MESA_texture_signed_rgba GL_NV_conditional_render GL_NV_depth_clamp GL_NV_packed_depth_stencil GL_NV_texture_barrier GL_OES_EGL_image GL_S3_s3tc
Disabled Extensions	GL_ARB_timer_query GL_EXT_timer_query GL_KHR_blend_equation_advanced GL_KHR_blend_equation_advanced_coherent
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	KWin
XDG_CURRENT_DES ◀ ▶	KDE
Compositing manager	Yes
Direct rendering	Yes

Reset notification strategy	0x8252
GPU process crash count	0
System visual ID	32
RGBA visual ID	110

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
RG_88	Software only
BGR_565	Software only
RGBA_4444	Software only
RGBX_8888	Software only
RGBA_8888	Software only
BGRX_8888	Software only
BGRA_8888	Software only
RGBA_F16	Software only
YVU_420	Software only
YUV_420_BIPLANAR	Software only
UYVY_422	Software only

Log Messages

- [15694:15694:0618/222207.216031:ERROR:sandbox_linux.cc(343)] : InitializeSandbox() called with multiple threads in process gpu-process.