List of C++ components:

- destination
  - Regions in which other entities can stand in when interacting with this entity
- effect_list
  - All the effects that are currently playing for this entity. A default effect can be specified through the entity json.
- entity_container
  - Entities that have children (such as crates with items, workshops with an item placed on it, or a giant pool of water with hearthlings swimming in it) will have entity containers. This component has a reference to all of the children that are parented to it.
- mob
  - Defines information about the entity's location, movement, model/region origin, orientation (which way its facing), what this entity is parented to, etc.
- model_variants
  - Model variants allow you to define different "variants". A variant is a set of models (qb files) that determine what an entity looks like in the game. For example, a comfy bed has a "default" variant that consists of the comfy_bed.qb file, but when a hearthling is sleeping in the bed, the bed switches to the "sleeping" variant that uses the comfy_beed_sleeping.qb file, where the blanket is propped up over the hearthling.
- movement_modifier_shape
  - Used exclusively by regions that slow/speed entity movement. Leave this empty for default movement speed. Roads, for example, have a movement-modifier shape set, so that hearthlings will prefer them when pathing around the world. You specify an increase in speed with a floating point number (e.g. 0.2 for a 20% increase in speed, -0.5 for a 50% reduction in speed.)   There are two fields you can specify, and generally they should take the same value. `modifier` controls the speed at which an entity will move when within the shape. `nav_preference_modifier` affects how entities will perceive speed in that shape when conducting pathfinding. So, setting `modifier` to 0 and `nav_preference_modifier` to -0.5 would effectively tell entities to strongly bias away from using that shape when looking for a path, but would not actually change their speed when walking on it.
- region_collision_shape
  - The region collision shape defines the underlying physical size and shape of the entity. For example, firepits have a 3x5x5 region collision shape so that citizens won't walk on top of the fire. Without a region collision shape, citizens in the world will simply walk through the entity (iconics are an example of this).
- render_info

- ○ The render_info component holds data that is relevant to how this entity is rendered. So it has data such as the animation table, attached entities (like equipment and weapons), color map, material, material maps, model variant, scale, and visibility.
- ● sensor_list
  - ○ This component holds a list of sensors. Sensors simply trace when entities come within some radius of your entity.
- ● terrain
  - ○ A component that holds data and methods for a terrain. Nothing other than the terrain entity should have this component.
- ● vertical_pathing_region
  - ○ Just used for ladders. Allows entities to path vertically up/down the region for this entity.

List of functions from the C++ side that we can call from Lua and/or Javascript:

Server core functions
- ● simulation.cpp
  - radiant:authenticate
  - radiant:discover_mods_and_version
  - radiant:saved_mods_match_loaded_game
  - radiant:start_streaming
  - radiant:server:dump_memory_stats
  - radiant:server:dump_trace_stats
  - radiant:debug_navgrid
  - radiant:show_building_topology
  - radiant:query_pathfinder_info
  - radiant:dump_cache_stats
  - radiant:toggle_debug_nodes
  - radiant:toggle_step_paths
  - radiant:step_path_with_jobid
  - radiant:dump_pathfinder_with_jobid
  - radiant:server:get_task_manager
  - radiant:server:get_perf_counters
  - radiant:server:get_job_metrics
  - radiant:game:set_game_speed
  - radiant:game:get_game_speed
  - radiant:toggle_cpu_profile
  - radiant:toggle_profile_long_ticks
  - radiant:server:collect_cpu_profile
  - radiant:write_lua_memory_profiler

radiant:server:get_error_browser
radiant:server:clear_error_browser
radiant:server:save
radiant:server:restart
radiant:show_pathfinder_time

Client route handlers:
- /r/call/
- /r/screenshot/
- /r/steam_avatar/
- /r/saved_objects/
- /r/building_templates/

Client core functions:
- radiant:get_modules
- radiant:get_loaded_manifests
- radiant:hotload_manifest
- radiant:install_trace
- radiant:remove_trace
- radiant:client_about_info
- radiant:set_audio_config
- radiant:get_audio_config
- radiant:play_sound
- radiant:stop_sound
- radiant:exit
- radiant:get_current_ui_screen
- radiant:set_current_ui_screen
- radiant:get_ui_route_datastore
- radiant:get_config_options
- radiant:set_config_options
- radiant:ace_available
- radiant:get_all_mods
- radiant:get_steam_workshop_trace
- radiant:get_steam_item_updates_trace
- radiant:get_steam_item_query_complete_trace
- radiant:get_host_data
- radiant:set_workshop_polling_enabled
- radiant:subscribe_to_workshop_item
- radiant:unsubscribe_from_workshop_item
- radiant:download_workshop_item_update
- radiant:apply_saved_mods_and_join
- radiant:apply_host_mods_and_join

- radiant:create_steam_mod
- radiant:update_steam_mod
- radiant:can_see_steam_avatar
- radiant:client:open_mod_folder
- radiant:client:run_file_dialog
- radiant:client:copy_building_templates_to_mod
- radiant:client:remove_building_templates_from_mod
- radiant:client:get_error_browser
- radiant:client:clear_error_browser
- radiant:get_steam_workshop_item_details
- radiant:client:select_entity
- radiant:client:save_game
- radiant:client:rename_save
- radiant:client:load_game
- radiant:client:load_game_async
- radiant:client:restart
- radiant:client:return_to_main_menu
- radiant:client:delete_save_game
- radiant:client:get_save_games
- radiant:client:get_perf_counters
- radiant:client:log_profile
- radiant:get_config
- radiant:set_config
- radiant:reload_browser
- radiant:debug_clear_rm_json_cache
- radiant:show_debug_shapes_for_entity
- radiant:get_load_progress_deferred
- radiant:get_hotkey_categories
- radiant:get_hotkey_definitions
- radiant:get_user_hotkey_bindings
- radiant:set_user_hotkey_bindings
- radiant:set_hotkeys_enabled
- radiant:get_user_facing_hotkey_names
- radiant:open_friends_list_overlay
- radiant:get_friends_list
- radiant:invite_friend_to_game
- radiant:open_url_external
- radiant:is_steam_present
- radiant:is_multiplayer_enabled

Example use: `_radiant.call('stonehearth:set_ui_mode', mode);`

The various Lua functions can be found within the manifest.json, the command to call is listed under the heading 'functions', and each specifies whether or not it is a server or client endpoint.

For C++ components:
- clock
  - `get_time`
  - `set_time`
  - `trace_time (sync and async)`
- destination
  - `get_adjacency_flags`
  - `set_adjacency_flags`
  - `get_adjacent`
  - `set_adjacent`
  - `get_auto_update_adjacent`
  - `set_auto_update_adjacent`
  - `get_region`
  - `set_region`
  - `get_reserved`
  - `set_reserved`
  - `trace_adjacency_flags (sync and async)`
  - `trace_adjacent (sync and async)`
  - `trace_auto_update_adjacent (sync and async)`
  - `trace_region (sync and async)`
  - `trace_reserved (sync and async)`
  - `get_point_of_interest`
- effect_list
  - `get_initial_pose_animation`
  - `contains_effect`
  - `each_effect`
  - `first_effect`
  - `num_effects`
  - `trace_effects (sync and async)`
  - `add_effect`
  - `remove_effect`
- entity_container
  - `get_attached_item`
  - `contains_attached_item`
  - `each_attached_item`
  - `first_attached_item`
  - `num_attached_items`
  - `remove_child`
  - `get_child`
  - `first_child`

- num_children
- trace_attached_items (sync and async)
- trace_children (sync and async)
- add_child
- add_child_to_bone
- mob
  - get_align_to_grid_flags
  - set_align_to_grid_flags
  - get_bone
  - set_bone
  - get_flags
  - set_flags
  - get_mob_collision_type
  - set_mob_collision_type
  - get_model_origin
  - set_model_origin
  - get_parent
  - set_parent
  - get_region_origin
  - set_region_origin
  - get_transform
  - set_transform
  - get_velocity
  - set_velocity
  - trace_align_to_grid_flags (sync and async)
  - trace_bone (sync and async)
  - trace_flags (sync and async)
  - trace_mob_collision_type (sync and async)
  - trace_model_origin (sync and async)
  - trace_parent (sync and async)
  - trace_region_origin (sync and async)
  - trace_transform (sync and async)
  - trace_velocity (sync and async)
  - get_allow_vertical_adjacent
  - get_facing
  - get_flag
  - get_grid_location
  - get_has_free_will
  - get_ignore_gravity
  - get_in_free_motion
  - get_interpolate_movement
  - get_location
  - get_location_in_front

- ○ get_nav_grid_index
- ○ get_rotation
- ○ get_skip_interpolation
- ○ get_world_grid_location
- ○ get_world_location
- ○ get_world_transform
- ○ move_to
- ○ move_to_grid_aligned
- ○ set_allow_vertical_adjacent
- ○ set_flag
- ○ set_has_free_will
- ○ set_ignore_gravity
- ○ set_in_free_motion
- ○ set_interpolate_movement
- ○ set_rotation
- ○ set_skip_interpolation
- ○ turn_to
- ○ turn_to_face_point
- model_variants
  - ○ remove_variant
  - ○ get_variant
  - ○ contains_variant
  - ○ each_variant
  - ○ first_variant
  - ○ num_variants
  - ○ trace_variants (sync and async)
  - ○ add_variant
- movement_modifier_shape
  - ○ get_modifier
  - ○ set_modifier
  - ○ get_nav_preference_modifier
  - ○ set_nav_preference_modifier
  - ○ get_region
  - ○ set_region
  - ○ trace_modifier (sync and async)
  - ○ trace_nav_preference_modifier (sync and async)
  - ○ trace_region (sync and async)
- region_collision_shape
  - ○ get_region
  - ○ set_region
  - ○ get_region_collision_type
  - ○ set_region_collision_type
  - ○ trace_region (sync and async)

- ○ trace_region_collision_type (sync and async)
- render_info
  - ○ get_animation_table
  - ○ set_animation_table
  - ○ get_color_map
  - ○ set_color_map
  - ○ get_flags
  - ○ get_material
  - ○ set_material
  - ○ get_model_variant
  - ○ set_model_variant
  - ○ get_scale
  - ○ set_scale
  - ○ get_visible
  - ○ set_visible
  - ○ each_attached_entity
  - ○ first_attached_entity
  - ○ num_attached_entities
  - ○ add_material_map
  - ○ remove_material_map
  - ○ each_material_map
  - ○ first_material_map
  - ○ num_material_maps
  - ○ trace_animation_table
  - ○ trace_animation_table
  - ○ trace_attached_entities
  - ○ trace_attached_entities
  - ○ trace_color_map
  - ○ trace_color_map
  - ○ trace_flags
  - ○ trace_flags
  - ○ trace_material
  - ○ trace_material
  - ○ trace_material_maps
  - ○ trace_material_maps
  - ○ trace_model_variant
  - ○ trace_model_variant
  - ○ trace_scale
  - ○ trace_scale
  - ○ trace_visible
  - ○ trace_visible
  - ○ attach_entity
  - ○ get_flag

- - on_model_variants_added
  - remove_entity
- sensor_list
  - remove_sensor
  - get_sensor
  - contains_sensor
  - num_sensors
  - trace_sensors (sync and async)
  - add_sensor
- terrain
  - get_bock_types_config_file
  - set_block_types_config_file
  - get_nav_grid_index
  - get_ring_tesselator_config_file
  - trace_block_types_config_file (sync and async)
  - trace_bounds (sync and async)
  - trace_delta_region (sync and async)
  - trace_interior_tiles (sync and async)
  - trace_mined_region_tiles (sync and async)
  - trace_ring_tesselator_config_file (sync and async)
  - trace_tiles (sync and async)
  - trace_water_tight_region_delta (sync and async)
  - add_tile
  - get_bounds
  - get_interior_tiles
  - get_mined_region
  - get_point_on_terrain
  - get_terrain_ring_tesselator
  - get_tiles
  - get_water_tight_region
  - is_empty
  - set_generation_file
- unit_info
  - get_custom_name
  - set_custom_name
  - get_description
  - set_description
  - get_display_name
  - set_display_name
  - get_icon
  - set_icon
  - get_player_id
  - set_player_id

- - ○ trace_custom_name (sync and async)
    - ○ trace_description (sync and async)
    - ○ trace_display_name (sync and async)
    - ○ trace_icon (sync and async)
    - ○ trace_player_id (sync and async)
- vertical_pathing_region
    - ○ get_normal
    - ○ set_normal
    - ○ get_region
    - ○ set_region
    - ○ trace_normal (sync and async)
    - ○ trace_region (sync and async)

Open Lua functions:
- lua_render_entity.cpp
    - ○ _radiant
        - ■ renderer
            - RenderEntity (has tostring)
                - ○ is_valid
                - ○ get_node
                - ○ find_node
                - ○ get_model
                - ○ destroy
                - ○ get_entity
                - ○ get_position
                - ○ get_material_override
                - ○ set_material_override
                - ○ get_parent_override
                - ○ set_parent_override
                - ○ add_query_flag
                - ○ remove_query_flag
                - ○ has_query_flag
                - ○ get_skeleton
                - ○ get_animation_controller
                - ○ get_material_path
                - ○ get_visibility_override_handle
                - ○ start_client_only_effect (args and no args)
                - ○ stop_client_only_effect
            - Skeleton
                - ○ get_bones
                - ○ get_bone_node
                - ○ get_scale
                - ○ set_scale

- AnimationController (has tostring)
  - rotate_bones_to_face
  - clear_bone_transforms
  - set_bone_transform_nodes
  - apply_custom_pose
- VisibilityHandle
  - get_visible
  - set_visible
  - destroy
- QueryFlags

- lua_renderer.cpp
  - _radiant (namespace)
    - renderer (namespace)
      - set_global_uniform
      - set_global_uniform_vec4
      - set_pipeline_stage_enabled
      - draw_gridlines
      - get_root_node
      - render_terrain_is_available
      - has_color_map
      - set_terrain_color_map
      - mark_dirty
      - mark_dirty_index
      - set_clip_height
      - add_terrain_cut
      - remove_terrain_cut
      - get_xray_tiles
      - enable_xray_mode
      - enable_perf_logging
      - get_color
      - get_camera
      - Cubemitter
        - destroy
        - stop
        - get_particle_data
        - get_emission_data
        - set_transform
      - CubemitterParticleData
        - get_color
        - get_lifetime
        - get_speed_curve

- - get_velocity_curve
    - get_acceleration_curve
  - CubemitterEmissionData
    - set_rate
    - set_angle
    - set_origin
  - CubemitterDataCurveF
    - set_start
    - set_lifetime_x
    - set_lifetime_y
    - set_lifetime_z
    - over_lifetime_rgb
    - set_lifetime_a
  - CubemitterDataF
    - as_constant
    - as_rectangle
    - as_random_between
    - as_color
  - scene (namespace)
    - RaycastResultEntry
      - intersection
      - normal
      - brick
      - entity
      - node_name
    - RaycastResult
      - get_result_count
      - each_result
      - get_ray
      - get_result
    - cast_screen_ray
    - cast_ray
    - get_screen_ray
  - screen (namespace)
    - get_width
    - get_height
  - sky (namespace)
    - set_sky_parameter
    - set_sky_texture
    - set_starfield_brightness
  - visibility (namespace)
    - set_visible_region
    - Set_explored_region

- **perf (namespace)**
  - get_tri_count
- RenderNode
  - get_type
  - get_name
  - set_transform
  - set_transform (2)
  - set_position
  - get_position
  - set_rotation
  - set_scale
  - set_selected
  - set_name
  - set_visible
  - set_casts_shadows
  - set_can_query
  - get_aabb
  - set_aabb
  - destroy
  - add_group_node
  - add_debug_shapes_node
  - add_debug_shapes_node (without material)
  - add_directional_light
  - add_animated_light
  - add_text_node
  - add_ui_billboard_node
  - as_model
  - as_debug_shapes
  - as_camera
  - as_light
  - as_billboard
  - as_ui_billboard
  - add_reference_to
  - set_parent
- RenderModel
  - set_model_scale
  - set_material
  - set_material (clones material)
  - get_material
  - set_ignored_by_ray_queries
- TextNode
- Light
  - set_active

- - - set_radius_1
    - set_radius_2
    - set_fov
    - set_color
    - set_ambient_color
    - set_color_multiplier
    - set_shadow_split_lambda
    - set_shadow_map_bias
    - set_shadow_factor
    - set_shadow_map_count
    - set_shadows_enabled
    - set_importance
    - set_shadow_map_quality
    - get_color
    - get_ambient_color
  - Billboard
    - get_material
  - UiBillboard
  - Camera
    - translate
    - get_forward
    - get_left
    - get_position
    - look_at
    - set_orientation
    - get_orientation
    - world_to_screen
    - set_fov
    - set_is_orthographic
    - rotate_to_center_on_screen_coord
  - Material
    - set_vector_parameter
    - set_texture_parameter
    - set_texture_parameter (detailed)
- open_audio.cpp
  - _radiant
    - audio
      - play_music
      - queue_music
- open_client.cpp
  - _radiant
    - client
      - get_player_id

- get_nav_grid_root
- is_authenticated_as_host
- get_disconnect_reason
- get_entity
- get_authored_entity
- select_entity
- hilight_entity
- unhilight_entity
- get_authoring_root_entity
- create_authoring_entity
- destroy_authoring_entity
- get_ui_route_datastore
- create_render_entity
- create_unmanaged_render_entity
- get_render_entity
- capture_input
- query_scene
- trace_render_frame
- set_cursor
- get_cursor
- set_show_hover_cursor
- get_steam_name
- create_voxel_node
- create_cubemitter
- create_obj_render_node
- create_qubicle_matrix_node
- create_designation_node
- create_designation_node (with collision box)
- create_selection_node
- create_region_outline_node
- create_region_outline_node (one material)
- create_region2_outline_node
- create_mesh_node
- create_stockpile_node
- alloc_region3
- alloc_region2
- alloc_number_map
- alloc_point2_map
- alloc_point3_map
- alloc_string_map
- create_datastore
- is_valid_standing_region
- is_key_down

- is_mouse_button_down
- get_mouse_position
- snap_screenshot
- get_current_ui_screen
- set_route_handler
- render_staged_scene
- generate_icon
- save_offscreen_image
- activate_overlay_to_workshop_item
- activate_overlay_to_workshop
- activate_overlay_to_webpage
- get_binding_system
- get_explored_region
- DebugShapesNode
- destroy
- clear
- add_line
- add_filled_xz_quad
- set_use_custom_alpha
- create_buffers
- CaptureInputPromise
  - On_input
  - destroy
- TraceRenderFramePromise
  - On_server_tick
  - On_frame_start
  - On_frame_finished
  - destroy
- SetCursorPromise
  - destroy
- HttpDeferred
  - add_header
  - resolve_with_file
  - resolve_with_content
  - reject_with_error
- Input
  - type (readonly)
  - mouse (readonly)
  - keyboard (readonly)
  - raw_input (readonly)
  - focused (readonly)
- MouseInput
  - Values

- ■ MOUSE_BUTTON_1
- ■ MOUSE_BUTTON_2
- ■ MOUSE_BUTTON_3
- ■ MOUSE_BUTTON_4
  - ○ x (readonly)
  - ○ y (readonly)
  - ○ dx (readonly)
  - ○ dy (readonly)
  - ○ wheel (readonly)
  - ○ in_client_area (readonly)
  - ○ up
  - ○ down
  - ○ button
  - ○ dragging (readonly)
- ● KeyboardInput
  - ○ Values
    - ■ KEY_SPACE
    - ■ KEY_APOSTROPHE
    - ■ KEY_COMMA
    - ■ KEY_MINUS
    - ■ KEY_PERIOD
    - ■ KEY_SLASH
    - ■ KEY_0
    - ■ KEY_1
    - ■ KEY_2
    - ■ KEY_3
    - ■ KEY_4
    - ■ KEY_5
    - ■ KEY_6
    - ■ KEY_7
    - ■ KEY_8
    - ■ KEY_9
    - ■ KEY_SEMICOLON
    - ■ KEY_EQUAL
    - ■ KEY_A
    - ■ KEY_B
    - ■ KEY_C
    - ■ KEY_D
    - ■ KEY_E
    - ■ KEY_F
    - ■ KEY_G
    - ■ KEY_H
    - ■ KEY_I

- KEY_J
- KEY_K
- KEY_L
- KEY_M
- KEY_N
- KEY_O
- KEY_P
- KEY_Q
- KEY_R
- KEY_S
- KEY_T
- KEY_U
- KEY_V
- KEY_W
- KEY_X
- KEY_Y
- KEY_Z
- KEY_LEFT_BRACKET
- KEY_BACKSLASH
- KEY_RIGHT_BRACKET
- KEY_GRAVE_ACCENT
- KEY_WORLD_1
- KEY_WORLD_2
- KEY_ESC",
- KEY_ENTER
- KEY_TAB
- KEY_BACKSPACE
- KEY_INSERT
- KEY_DELETE
- KEY_RIGHT
- KEY_LEFT
- KEY_DOWN
- KEY_UP
- KEY_PAGE_UP
- KEY_PAGE_DOWN
- KEY_HOME
- KEY_END
- KEY_CAPS_LOCK
- KEY_SCROLL_LOCK
- KEY_NUM_LOCK
- KEY_PRINT_SCREEN
- KEY_PAUSE
- KEY_F1

- ■ KEY_F2
- ■ KEY_F3
- ■ KEY_F4
- ■ KEY_F5
- ■ KEY_F6
- ■ KEY_F7
- ■ KEY_F8
- ■ KEY_F9
- ■ KEY_F10
- ■ KEY_F11
- ■ KEY_F12
- ■ KEY_KP_0
- ■ KEY_KP_1
- ■ KEY_KP_2
- ■ KEY_KP_3
- ■ KEY_KP_4
- ■ KEY_KP_5
- ■ KEY_KP_6
- ■ KEY_KP_7
- ■ KEY_KP_8
- ■ KEY_KP_9
- ■ KEY_KP_DECIMAL
- ■ KEY_KP_DIVIDE
- ■ KEY_KP_MULTIPLY
- ■ KEY_KP_SUBTRACT
- ■ KEY_KP_ADD
- ■ KEY_KP_ENTER
- ■ KEY_KP_EQUAL
- ■ KEY_LEFT_SHIFT
- ■ KEY_LEFT_CONTROL
- ■ KEY_LEFT_ALT
- ■ KEY_LEFT_SUPER
- ■ KEY_RIGHT_SHIFT
- ■ KEY_RIGHT_CONTROL
- ■ KEY_RIGHT_ALT
- ■ KEY_RIGHT_SUPER
- ■ KEY_MENU
  - ○ key (readonly)
  - ○ mods (readonly)
  - ○ down (readonly)
- ● RawInput
- ● Bindings
  - ○ actions_for_combo

- - - is_action_active
    - any_actions_active
  - NonPersistentTimer
    - destroy
    - is_active
    - get_expire_time
    - get_duration
    - set_duration
    - get_reason
    - fire
    - reset
- open_events.cpp
  - _radiant
    - events
      - create_event_manager
      - EventManager
        - listen
        - listen (with instance)
        - listen_once
        - listen_once (with instance)
        - unpublish
        - update
        - trigger
        - trigger (one arg)
        - trigger (two args)
        - trigger_async
        - trigger_async (one arg)
        - trigger_async (two args)
- open_physics.cpp
  - _radiant
    - physics
      - Physics
        - clip_region
        - clip_region_ignoring_bounds
        - get_world_bounds
        - clip_region_to_world_bounds
        - project_region
        - is_standable
        - is_standable (point)
        - is_blocked
        - is_blocked (point)
        - is_supported
        - is_supported (point)

- - - - - is_support
            - is_terrain
            - is_occupied
            - is_occupied (point)
            - get_standable_point
            - get_standable_point (point)
            - get_supported_region
            - get_entities_in_cube
            - get_entities_in_tile
            - get_physics_entities_in_tile
            - get_physics_entities_in_cube
            - get_entities_in_region
            - get_blocking_entities
            - get_movement_speed_modifier
            - add_notify_dirty_tile_fn
            - get_vision_offset
            - has_line_of_sight (point)
            - has_line_of_sight (entity)
            - has_line_of_sight (entity location)
            - has_line_of_sight (entity to point)
            - shoot_ray
        - walk_line
        - local_to_world (point3)
        - local_to_world (cube3)
        - local_to_world (region3)
        - world_to_local
        - world_region3_to_local
- open_dm.cpp
    - _radiant
        - dm
            - Trace
                - on_changed
                - on_destroyed
                - push_object_state
                - destroy
            - NumberMap
                - get_keys_unordered
            - StringMap
                - get_keys_unordered
            - Point2Map
            - Point3Map
            - All of the above have the following functions
                - add

- ○ remove
- ○ get
- ○ contains
- ○ each
- ○ get_size
- ○ invalidate
- ○ get_keys
- ○ remove_nil_values
- ○ clear
- ● open_sim.cpp
  - ○ _radiant
    - ■ sim
      - ● topology
        - ○ start
        - ○ stop
        - ○ are_connected (entity, entity)
        - ○ are_connected (entity, point)
        - ○ are_connected (entity, region)
        - ○ are_connected (region, region)
        - ○ are_connected (region, region with navgrid index)
        - ○ are_connected (point, point)
        - ○ are_connected (point, region)
        - ○ are_strictly_connected (point, point)
        - ○ are_strictly_connected (point, region)
        - ○ are_all_connected (point, region)
        - ○ force_reflow
        - ○ set_manual_mode
        - ○ to_regions
        - ○ process_mutations
        - ○ on_togology_processed
      - ● adjacency
        - ○ Path
          - ■ get_points
        - ○ query
        - ○ query_sync
        - ○ remove_query
        - ○ on_adjacency_complete
      - ● Simulation
      - ● get_nav_grid_root
      - ● clone_nav_grid
      - ● destroy_nav_grid
      - ● start_game

- get_server_port
- get_authenticated_client_count
- is_client_authenticated
- get_steam_id
- disconnect_player
- remove_player
- destroy_player_entities
- transfer_player_entities
- get_host_player_id
- set_remote_connections_enabled
- get_remote_connections_enabled
- is_game_open_to_remote_players
- set_max_players
- get_max_players
- get_product_version_string
- create_entity
- create_entity (no player id)
- gameloop_time_remaining
- get_entity
- get_all_entities
- destroy_entity
- alloc_number_map
- alloc_string_map
- alloc_point2_map
- alloc_point3_map
- alloc_region3
- alloc_region2
- create_datastore
- create_astar_path_finder
- create_bfs_path_finder
- create_item_path_finder
- create_item_finder
- create_item_filter_finder
- create_direct_path_finder
- create_spatial_cache
- create_job
- create_save_state
- load_object
- save_object
- dump_region
- create_tracer
- get_base_walk_speed
- is_valid_move

- get_game_tick_interval
- generate_uuid
- debug_break
- reconsider_entities
- clear_data_object_byte_counts
- FollowPath
  - set_speed
  - set_stop_distance
  - set_move_on_current_gameloop
  - set_arrived_cb
  - set_aborted_cb
  - set_unstick_cb
  - set_pursuing_changed_cb
  - get_path_points
  - get_current_path_index
  - get_stop_index
  - start
  - stop
- Path
  - is_empty
  - get_distance
  - get_path_length
  - get_points
  - get_pruned_points
  - get_source
  - get_destination
  - get_start_point
  - get_finish_point
  - get_destination_point_of_interest
- AStarPathFinder
  - get_id
  - get_name
  - get_progress
  - set_source
  - add_destination (entity)
  - add_destination (region)
  - remove_destination
  - set_max_steps
  - set_solved_cb
  - set_search_exhausted_cb
  - get_solution
  - set_debug_color
  - stop

- ○ reset
- ○ start
- ○ search_until_travelled
- ○ destroy
- ○ restart
- ○ set_is_managed
- ● ItemPathFinder
  - ○ get_id
  - ○ get_progress
  - ○ get_name
  - ○ get_start_location
  - ○ set_source
  - ○ add_query
  - ○ get_search_count
  - ○ stop
  - ○ start
  - ○ destroy
- ● ItemFinder
  - ○ get_start_location
  - ○ get_id
  - ○ set_source
  - ○ stop
  - ○ start
  - ○ set_found_cb
  - ○ set_reappraise_cb
  - ○ set_exhausted_cb
  - ○ destroy
  - ○ set_should_sort
  - ○ set_max_distance
- ● ItemFilterFinder
  - ○ get_id
  - ○ stop
  - ○ start
  - ○ set_added_cb
  - ○ set_removed_cb
  - ○ set_reappraise_cb
  - ○ destroy
- ● BfsPathFinder
  - ○ get_id
  - ○ get_progress
  - ○ get_name
  - ○ get_start_location
  - ○ set_source

- ○ reconsider_destination
- ○ add_search
- ○ get_search_count
- ○ stop
- ○ start
- ○ destroy
- ● BfsSearchEntry
  - ○ get_id
  - ○ set_solved_cb
  - ○ set_search_exhausted_cb
  - ○ get_progress
  - ○ destroy
- ● SpatialCacheQuery
  - ○ get_id
  - ○ set_solved_cb
  - ○ set_search_exhausted_cb
  - ○ get_progress
  - ○ destroy
- ● FilterResultCache
  - ○ clear
  - ○ clear_cache_entry
  - ○ set_filter_fn
  - ○ Consider_entity
- ● SpatialCache
- ● DirectPathFinder
  - ○ set_start_location
  - ○ set_end_location
  - ○ set_destination_entity
  - ○ set_allow_incomplete_path
  - ○ set_reversible_path
  - ○ get_path
- ● TracerBuffered
  - ○ flush
  - ○ start
  - ○ stop
  - ○ category (readonly)
- ● LuaJob
  - ○ set_priority
  - ○ set_active
  - ○ get_id
- ● LocationPriorityQueue
  - ○ push
  - ○ pop

- - - - - top
      - clear
      - empty
      - reserve
      - size
    - NonPersistentTimer
      - destroy
      - is_active
      - get_expire_time
      - get_duration
      - set_duration
      - get_reason
      - fire
      - reset
    - create_location_priority_queue
    - combine_paths
    - create_path_subset
    - is_adjacent_to
    - get_entity_reach
    - get_unix_time_seconds
- open_voxel.cpp
  - _radiant
    - voxel
      - create_color_brush
      - create_qubicle_brush
      - create_nine_grid_brush
      - ColorBrush
        - paint_once
        - paint_through_stencil
      - QubicleBrush
        - set_normal
        - set_origin
        - set_paint_mode
        - set_clip_whitespace
        - paint_once
        - paint_through_stencil
      - NineGridBrush
        - set_normal
        - set_y_offset
        - set_paint_mode
        - set_grid_shape
        - set_clip_whitespace
        - set_slope

- - - - ○ set_max_height
        - ○ set_gradient_flags
        - ○ set_flat_mode
        - ○ set_fill_transparent
        - ○ paint_once
        - ○ paint_through_stencil
- lua_math.cpp
    - ○ _radiant
        - ■ math
            - calculate_xz_polygon_area
- open_res.cpp
    - ○ _radiant
        - ■ res
            - reset
            - load_json
            - load_animation
            - load_manifest
            - convert_to_canonical_path
            - apply_manifest
            - watch_path
            - unwatch_path
            - clear_json_cache
            - remove_from_json_cache
            - get_custom_building_template
            - load_custom_building_templates
            - load_custom_building_template_headers
            - write_custom_building_template
            - remove_custom_building_template
            - load_building_templates_from_mod
            - Animation
                - ○ get_duration
                - ○ get_reposition
- lua_csg.cpp
    - ○ _radiant
        - ■ csg
            - points_are_axis_aligned (point2)
            - points_are_axis_aligned (point3)
            - get_xz_distance
            - get_xz_distance_squared
            - get_triangle_winding
            - AdjacencyFlags
                - ○ NONE
                - ○ FRONT

- - - - - LEFT
      - BACK
      - RIGHT
      - RONT_LEFT
      - FRONT_RIGHT
      - BACK_LEFT
      - BACK_RIGHT
      - ALL_EDGES
      - ALL_CORNERS
      - CENTER
      - ALL
  - Constants
    - `Point4f.zero`
    - `Cube3f.zero`
    - `Cube3f.one`
    - `Point3f.zero`
    - `Point3f.one`
    - `Point3f.unit_x`
    - `Point3f.unit_y`
    - `Point3f.unit_z`
    - `Point2f.zero`
    - `Point2f.one`
    - `Point2f.unit_x`
    - `Point2f.unit_y`
    - `Region3f.zero`
    - `Region2f.zero`
    - `Color3.is_color (function)`
- `open_ai.cpp`
  - `_radiant`
    - `ai`
      - `set_log_level_override`
      - `set_entity_log_level_override`
      - `get_num_compound_actions`
      - `set_eventable_activities`
      - `CompoundAction`
        - `initialize`
        - `get_parent_node`
        - `get_friendly_name`
        - `_change_entity_state`
        - `start_thinking`
        - `stop_thinking`
        - `start`
        - `run`

- stop
- destroy
- get_debug_info
- change_entity_state
- _get_args
- _get_argument_template
- _get_previous_think_output
- _get_current_entity_state
- _get_entity
- ChildUtilityAccessor
  - get (by activity)
  - get (by index)
- ExecutionFrame
  - create_execution_units
  - get_id
  - get_debug_info
  - start
  - run
  - run (no args)
  - stop
  - abort
  - destroy
  - is_aborting
  - get_state
  - get_utility
  - _change_entity_state
  - start_thinking
  - stop_thinking
  - set_think_progress_cb
  - set_utility_changed_cb
  - on_action_index_changed
  - get_friendly_name
  - get_parent_node
  - get_activity
  - set_disable_preemption
  - get_last_abort_reason
  - append_active_activities
  - dump_stats
- ActionIndex
  - add_action
  - remove_action
- AIContext
  - set_think_output

- set_think_output (no args)
- clear_think_output
- clear_think_output (no args)
- spawn
- execute
- execute (no args)
- suspend
- suspend (no args)
- resume
- resume (no args)
- abort
- abort (no args)
- reject
- reject (no args)
- get_log
- set_status_text_key
- set_status_text_key (no data)
- set_utility
- protect_argument
- unprotect_argument
- set_debug_progress
- get_debug_info_datastore
- get_parent_node
- get_friendly_name
- LuaAIContext
  - set_think_output
  - set_think_output (no args)
  - clear_think_output
  - clear_think_output (no args)
  - spawn
  - execute
  - execute (no args)
  - suspend
  - suspend (no args)
  - resume
  - resume (no args)
  - abort
  - abort (no args)
  - reject
  - reject (no args)
  - get_log
  - set_status_text_key
  - set_status_text_key (no data)

- set_utility
- protect_argument
- unprotect_argument
- set_debug_progress
- get_debug_info_datastore
- get_parent_node
- get_friendly_name
- **ExecutionFrameStack**
  - get_size
  - get
- **EntityState**
  - location (property)
  - carrying (property)
  - self_reserved (property)
  - self_region_reserved (property)
  - storage (property)
  - carrying_changed (property)
  - location_changed (property)
  - copy_from
- **EntityStateStorage**
  - full (property)
  - items (property)
  - add_item
  - remove_item
- **LuaThread**
  - get_type_id
  - get_type_name
  - get_id
  - is_autotest_thread
  - set_is_autotest_thread
  - get_unwind_target_frame
  - set_unwind_target_frame
  - set_name
  - get_name
  - is_finished
  - is_running
  - set_thread_main
  - set_exit_handler
  - send_call_message
  - send_exit_message
  - start
  - wait
  - suspend

- ○ resume
- ○ interrupt
- ○ terminate
- ○ terminate
- ○ sleep_realtime
- ○ Scope
  - ■ get_type_id
  - ■ get_type_name
  - ■ get_thread_by_id
  - ■ get_current_thread
  - ■ loop
- open_queue.cpp
  - ○ _radiant
    - ■ queue
      - PriorityQueue
        - ○ push
        - ○ top
        - ○ pop
        - ○ get_size
      - Queue
        - ○ push
        - ○ top
        - ○ pop
        - ○ get_size
- open_rpc.cpp
  - ○ _radiant
    - ■ rpc
      - CoreReactor
      - LuaFuture
        - ○ resolve
        - ○ reject
        - ○ notify
        - ○ destroy
      - LuaPromise
        - ○ done
        - ○ fail
        - ○ progress
        - ○ always
        - ○ destroy
      - Session
        - ○ player_id (readonly)