VroemVroem - Class diagram

Game

- <u>- instance: Game *</u>
- title: const char *
- width: int
- height int - fullscreen: bool
- running: bool = false
- time: uint64 t = 0
- window: std::unique ptr<SDL Window, SDL Deleter>
- canvas: std::shared ptr<Canvas>
- page: std::unique ptr<Pages::Page>
- + Game(const char *, int, int, bool)
- + getInstance(): Game *
- + getTitle(): const char *
- + getWidth(): int
- + getHeight(): int
- + getFullscreen(): bool
- + setFullscreen(bool)
- + getTime(): uint64 t
- + getCanvas(): std::shared ptr<Canvas>
- + getPage(): Pages::Page *
- + setPage(std::unique ptr<Pages::Page>)
- + start()
- + stop()
- handleEvent(const SDL Event *): bool

Config

- + name: const char *
- + version: const char *
- + gitRepoUrl: const char *

Rect

- + x: int
- + y: int
- + width: int
- + height: int
- + Rect()
- + Rect(int, int, int, int)
- + containsPoint(int, int): bool
- + collides(Rect *): bool

Color

- + red: uint8 t
- + blue: uint8 t
- + green: uint8 t
- + alpha: uint8 t
- + Color()
- + Color(uint8 t, uint8 t, uint8 t)
- + Color(uint8 t, uint8 t, uint8 t, uint8 t)

Camera

- + zoomLevels: int∏
- + zoomLevelsSize: int
- x: float
- y: float
- width: int
- height: int
- zoom: int
- drag: struct
- enabled: bool
- begin: struct
 - x: float
- y: float
- mouse: struct
 - x: int
 - y: int
- + Camera(const WorldInfo *, float, float, int, int, int)
- + getX(): float
- + setX(float)
- + getY(): float
- + setY(float)
- + getWidth(): int
- + getHeight(): int
- + getZoom(): int
- + setZoom(int)
- + handleEvent(const SDL Event *): bool

- seed uint64 t

- width: int

- height: int

- + Canvas(SDL Window *) + getRenderer(): SDL Renderer *
- + getRect(): std::unique_ptr<Rect>
- + clear(const Color *)
- + fillRect(const Rect *, const Color *)
- + drawTexture(SDL Texture *, const Rect *)
- + drawTexture(SDL Texture *, const Rect *, float)

World

- random: std::unique ptr<Random>

+ World(uint64 t, int, int)

+ getSeed(): uint64 t

+ getWidth(): int

+ getHeight(): int

+ update(float)

terrainMap: std::unique ptr<uint8 t∏>

- objectMap: std::unique ptr<uint8 t[]>

- natures: std::vector<std::unique ptr<Nature>>

- houses: std::vector<std::unique ptr<House>>

- vehicles: std::vector<std::unique ptr<Vehicle>>

- cities: std::vector<std::unique ptr<City>>

- roads: std::vector<std::unique ptr<Road>>

+ getNatures(): std::vector<const Nature *>

+ getHouses(): std::vector<const House *>

+ getVehicles(): std::vector<const Vehicle *>

+ draw(std::shared ptr<Canvas>, const Camera *)

renderer: std::unique ptr<SDL Renderer>

Canvas

+ getCities(): std::vector<const City *>

+ getRoads(): std::vector<const Road *>

+ present()

Fonts

- instance: unique ptr<Fonts>
- titleFont: std::unique ptr
- textFont: std::unique ptr
- + Fonts()
- + getInstance(): Fonts *
- + getTitleFont(): Font *
- + getTextFont(): Font *

Font

- fontBuffer: std::unique_ptr<uint8_t[]>
- fontInfo: stbtt_fontinfo
- + Font(const char *)
- + measure(const char *, int): int
- + render(std::shared ptr<Canvas>, const char *, int, uint32_t): std::unique_ptr<Image>

Image

- canvas: std::shared ptr<Canvas>
- width: int
- height: int
- transparent: bool
- texture: std::unique ptr<SDL Texture, SDL Deleter>
- + Image(std::shared ptr<Canvas>, const char *, bool)
- + Image(std::shared_ptr<Canvas>, int, int, bool, const uint8 t *)
- + getCanvas(): std::shared ptr<Canvas>
- + getWidth(): int

- + getHeight(): int
- + isTransparent(): bool
- + getTexture(): SDL Texture *
- + draw(const Rect *)
- + draw(const Rect *, float)
- loadBitmap(const uint8 t *)

Random

- instance: std::unique ptr<Random>
- seed: uint64 t
- + Random(uint64 t)
- + getInstance(): Random *
- + setSeed(uint64 t)
- + getSeed(): uint64 t
- + random(): double
- + random(int, int): int







