

# Burden of Proof demo1b

## Game Design Document

September 17, 2013

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# 1 Game

## 1.1 Overview

- genre : crime investigation video game ;
- demographics : 16+ ;
- TODO.

## 1.2 Gameplay

TODO

### 1.3 City design

City built from blueprint using parts specified in figure 1.

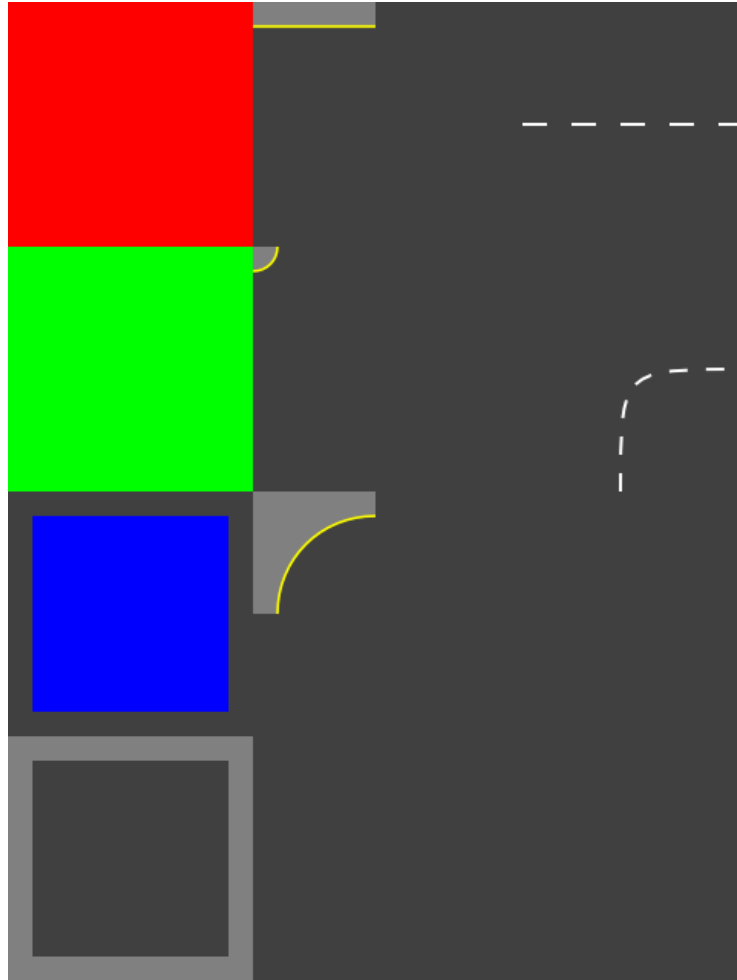


Figure 1: City parts - First column : road block, ground block, building block, building pad - Second column : half sidewalk, interior sidewalk, exterior sidewalk - Third column : straight markings, curved markings - Sidewalks have a roadside curb (yellow)

## 2 Implementation

### 2.1 Code design

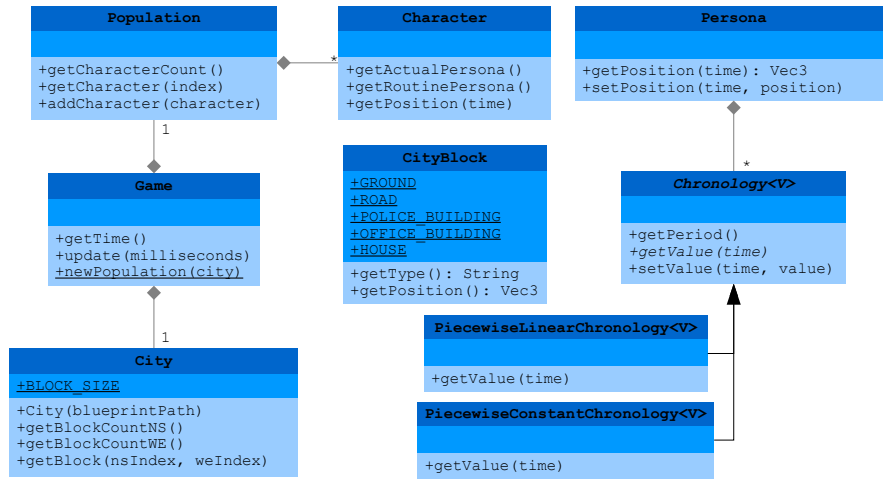


Figure 2: Classes

TODO: more UML diagrams

## 2.2 Coding conventions

- C++: cpplint
- Python: pep8

## 2.3 Planning

1. Application
  - (a) (DONE) Setup project files
  - (b) (DONE) Add basic application code from demo1
2. Model - Essential classes
  - (a) (DONE) Design (figure 2)
  - (b) (DONE) Test and implement
  - (c) (DONE) Integrate with application
3. Model - Crime generation
  - (a) (TODO) Generate more detailed routine motion paths
  - (b) (TODO) Add method `Game.generateCrime()` with `Persona` attribute `murderousIntent`
4. Graphics - City
  - (a) (DONE) Integrate city parts generation from demo1
  - (b) (DONE) Integrate city generation from demo1
  - (c) (DONE) Integrate city visualization from demo1
  - (d) (TODO) Add skybox (blue sky + sun)
  - (e) (TODO) Add trees
  - (f) (TODO) Add streetlights
  - (g) (TODO) Add buildings
5. Graphics - Characters
  - (a) (TODO) Update orientation during motion
  - (b) (TODO) Integrate character generation from `generatehuman`
  - (c) (TODO) Add neutral character visualization
  - (d) (TODO) Add walking animation
  - (e) (TODO) Add levels of detail
  - (f) (TODO) Add clothes
  - (g) (TODO) Add hair
  - (h) (TODO) Add gender visualization
  - (i) (TODO) Add age visualization
  - (j) (TODO) Add ethnicity visualization
6. Graphics - Phone
  - (a) (TODO) Add phone visualization and control from demo1
  - (b) (TODO) Add time display to phone
7. Investigation
  - (a) (TODO) Design and planning