

City Rendering In Gangland



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Overview

- Motivation
- Tile structure
- City construction
- Game logic
- Rendering
- Questions

Motivation (1)

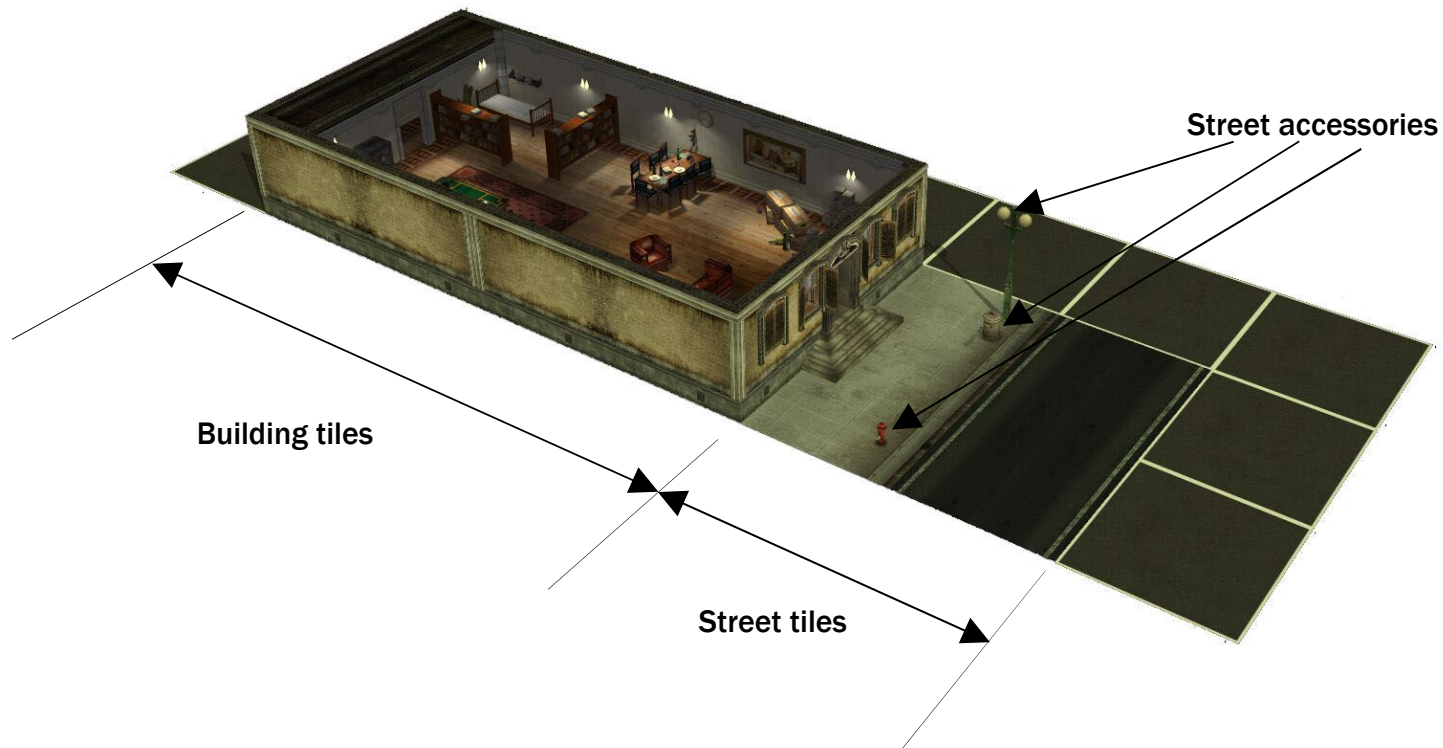
- Game type: RTS controlled
- 2D Legacy, from 2D to 3D
- Tile based engine
- Cityscape vs. Landscape

Motivation (2)

- **Building blocks**
 - **Reuse assets**
 - **Memory usage**
 - **Planar city**
 - **Buildings**
 - **City diversity**
- **Map Construction**
 - **Map verification**

Tile Structure

- 5 x 5 meters
- List of objects per tile: [id1, id2, id3, ...]
- 'Street' and 'Building' type tiles



City Construction

- Editor demo

Game Logic - Path finding



Game Logic - Spatial partitioning

- **Character visibility**
 - **Occlusion & 180 degrees line of sight**
 - **Tile based**
 - **Precalced solution**

- **Shooting**
 - **Exact visibility**
 - **Bullet traces**

Rendering - City

- View frustum scan converting of tiles
- Top down view
 - Occlusion culling
 - Level Of Detail
- Dynamic (stencil) shadows and lighting outside
- Sun, light posts, gunfire

Rendering - Buildings

- Static illuminated building interiors
- Tops – building blocks, windows
- Street dirt
- Fog Of War



Questions

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