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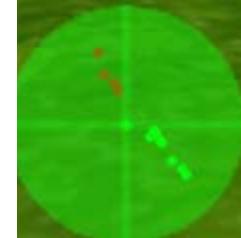
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Tank Terminator 3D

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82.6 M



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Overview

- The Game
 - Game play
 - Technical Details
- The World Editor

Game play

- 1st / 3rd Person Shooting Game
- Two teams are combating in a skirmish!
- Fight with your teammates (AI) to eliminate the enemy!



Technical Details

- Quad-tree and Tile based Terrain
- Modeling
- Particle System
- Decaling System (Trails, Fake Shadows)
- Render States Management System
- Collision Detection
- Finite State Automata AI
- Waypoint-based Navigation

Quad-tree and Tile based Terrain

- Four different types of terrain



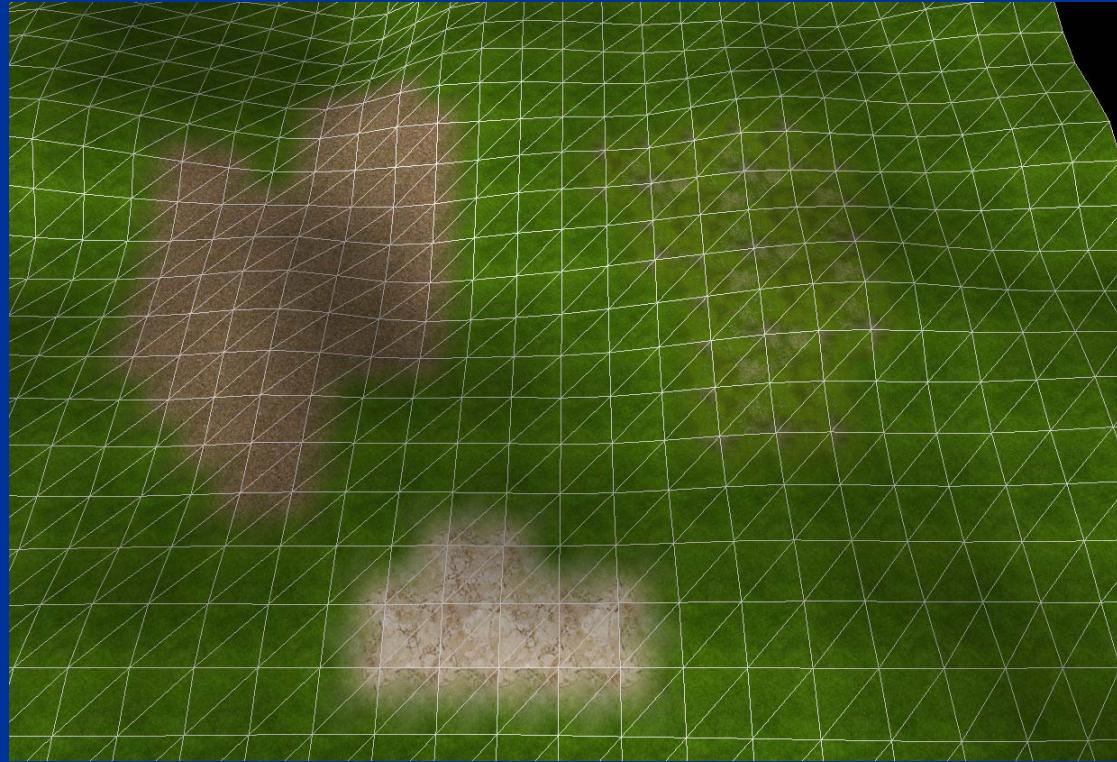
- Automatically blend them to generate intermediate tiles



- Uses the terrain type stored at four vertices of a patch to determine which tile to use.

Quad-tree and Tile based Terrain

- Fractal Height Field
- Quad-tree for fast view-frustum clipping



Modeling



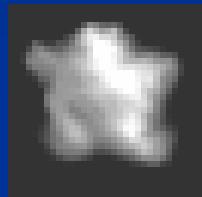
Modeling

- Trees: “X” shaped billboards



Particle System

- Used for various Special Effects (Just 3 types!)



- Explosion, Fire, Smoke



Particle System

- Firing trailers



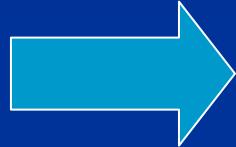
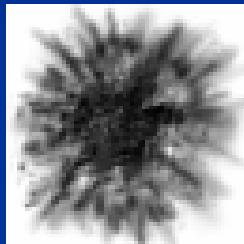
Decaling System

- Generate new triangles for the decals to conform to the underlying geometry

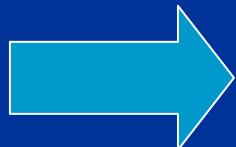


Decaling System

- Scorched land



- Tank Trails



Decaling System

■ Fake Shadow



Render States Management System

- Group all primitives according to their shaders
- Minimizes render states switches
 - Better Performance on video card!

Collision Detection

■ AABB and OBB



Finite State Automata AI

- High-level States
 - Attack a place
 - Attack an object
 - Cruise
- Low-level States
 - Idle
 - Move
 - Attack

Waypoint-based Navigation

- Waypoints are pre-computed for each block of the terrain
 - Objects following waypoints will not hit any static obstacles

World Editor

- Edit Terrain
- Place objects

