# X3D Earth from a Gaming Perspective

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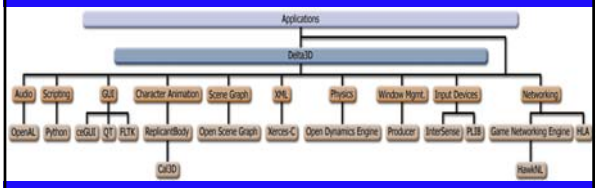
## Delta3D Overview

- Delta3D is an open source game and simulation engine
- Specifically designed for military apps and interacting with tools military commonly uses
- Built atop other open source projects
- Licensed under the Lesser Gnu Public License (LGPL) – not viral

## Detailed Breakdown

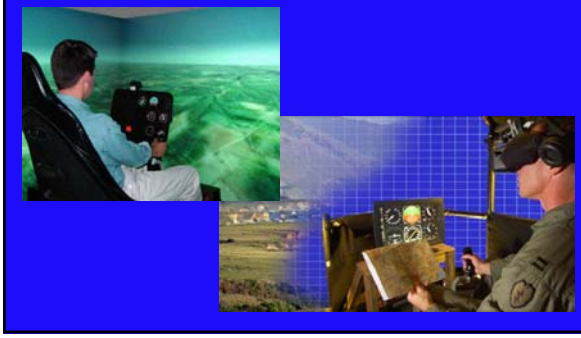



## Delta3D Summary

| | |
|---|---|
| **Features**<br>▪ OpenGL 2.0 rendering<br>▪ Character animation<br>▪ Realistic physics<br>▪ Hi-level classes (rapid development)<br>▪ 2D/3D audio<br>▪ Multiple file formats<br>▪ Python scripting | ▪ Game manager control<br>▪ Multiple terrain rendering methods<br>▪ Particle systems<br>▪ HLA and game networking<br>▪ Advanced environmentals<br>▪ Abstracted input devices<br>▪ Record/playback<br>▪ Licensed under LGPL |
| **Content Creation Tools**<br>▪ STAGE<br>▪ 3D model viewer<br>▪ Graphical particle editor | No licensing costs<br>Cross platform compatible<br>Maintained by a dedicated team<br>User support forums |

## Wide Range of Applications

## Wide Range of Simulations



## Terrain

- Delta3D has several ways to generate terrain
  - Directly from DTED data using CLOD
  - Procedural infinite terrain
  - Generating Enhanced Natural Environments and Terrain for Interactive Combat Simulations
    - GENETICS

## GENETICS

# Gamers Needs from X3D Earth

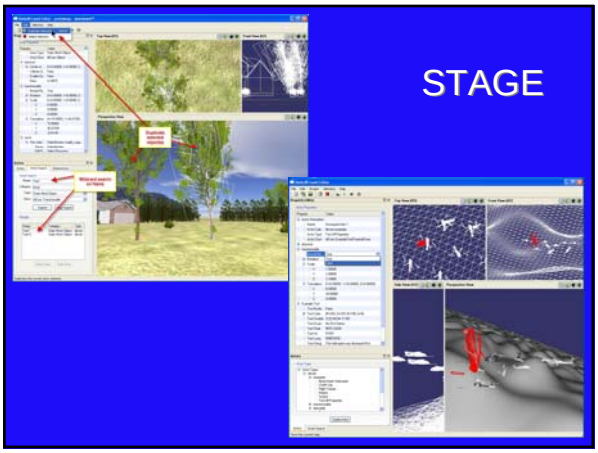
## Basics

- Ground clamping
- Collision detection
- LOS determinations
- Adding geometry to scene
  - Support all common file formats

## Pipeline

- The pipeline is how a game goes from the designer's brain into the gold master
- Most consider it the number one determining factor of whether a game is on time, on budget, or even completed
- Must be easy, fast and user friendly to make changes to the game

## STAGE



## Military Specialties

- Deformable terrain
- Material features (easily determined)
  - Surface characteristics
- IR/Near IR Terrain characteristics
  - Data storage
- Physical properties

## Point of Contact

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