

Rapid 3D Game Development in Blender 2.5

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- INTRODUCTION TO 3D GAME PROGRAMMING
 - COMPONENTS OF TYPICAL 3D GAMES
 - PYTHON 3D GAME DEVELOPMENT
 - BLENDER 2.5 BASICS
 - BLENDER MODELING TUTORIAL
 - BLENDER GAME ENGINE
 - GAME TUTORIAL IN BLENDER
 - ADVANCED STUFF
 - FURTHER READING

Blender Game engine (BGE)

Where has BGE been used?



ColorCube \$

SAAB-91 Virtual Race

BFight

"A Furry Vendetta", Yo Frankie! Project

Architectural Visualizations

Physics Simulations

**What kind of games can be made with
BGE?**



FPS?

Multiplayer?


Orthographic?

Platform?

All of them

Two ways of making games

1. Code a Game loop



```
do  
    get player input  
    do calculations  
    repaint screen  
loop while not game over
```

Yawn!

2. Use logic (the **Blender way)**

100% Code-free **

**** Conditions Apply***:** The conditions under which you do not need to write any code are as follows: 1. The game you are trying to build is completely free of any complex logic such as bot AI, path finding, complex simulations 2. There is no multiplayer requirement. 3. There are no complex collisions outside that can be handled by default bullet engine

*** All these conditions are fake

Understanding the way of Logic

Understanding the way of ~~Logic~~ Machines

What is a Machine?

Reacts to Stimulus
Evaluates some logic
Performs an action

Take any Machine

coffee machine | fire alarm | firecracker

Reacts to Stimulus
Evaluates some logic
Performs an action

A Crash Course to Blender 2.5 (Beta)

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Yes, it crashes!

GUI finally works!
New Smoke System
Python Based GUI

Pros & Cons of BGE

😊 No code

😊 No Compilation

😊 Out-of-the-box Physics

😊 Blender toolchain

😊 😊 Python

- ☹ **Graphical Logic Complexity**
- ☹ **Unconventional Approach**
- ☹ **Whacky Physics?**

Case Study: Pacman 3D