https://github.com/rz4/SpaceManBash

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Introduction

Space Man Bash

Platformer

10 levels (including a tutorial)

Many game features

Built from scratch (not modified code)

Level design

```
{
        "camera_pos": [0.0, 0.0, 0.0, 0.0],

        "game_objects": [
            ["Wall", 0.0, 500.0, 550.0, 1000.0, 0.75, 0.1],
            ["Wall", 0.0, 0.0, 150.0, 1000.0, 0.75, 0.1],
            ["Wall", 350.0, 0.0, 150.0, 1000.0, 0.75, 0.1],
            ["GravityField", 0.0, 0.0, 550.0, 1000.0, 0.0, 6.0],
            ["Player", 20, 20.0]
        ]
}
```

Custom levels (not procedurally generated)

Written in JSON

.lev file

Available Game Objects

> Player, Floor, Wall, Gravity Field, Electric Sheep, Crate, Lava Pit, Death Pit, Dragon, Background Dragons, Teleporter, Health Pad

Music

Intro music

Music on title screen

In-game music

Enemies

Electric Sheep

Very Dangerous at short/medium range

One attack: lightning strike

Becomes aggressive when player gets too close, but is docile otherwise

Aggressiveness can be modified

Ability to save your progress

If player leaves the game, there is the ability to resume your last saved progress

Go to the title screen, hit continue, and the game will load where you last were

Combat

Swing

    Horizontal velocity, little vertical velocity

    Stronger attack, does
        more damage (minus 30
        on health of enemy)

Bash

    Does 20 damage

Environmental Objects

Lava pits
> Hurts player when player comes into contact
> 1 hit point for every frame

Death pits
> Instant death

Walls/Floors
> Friction value
> Bounce value

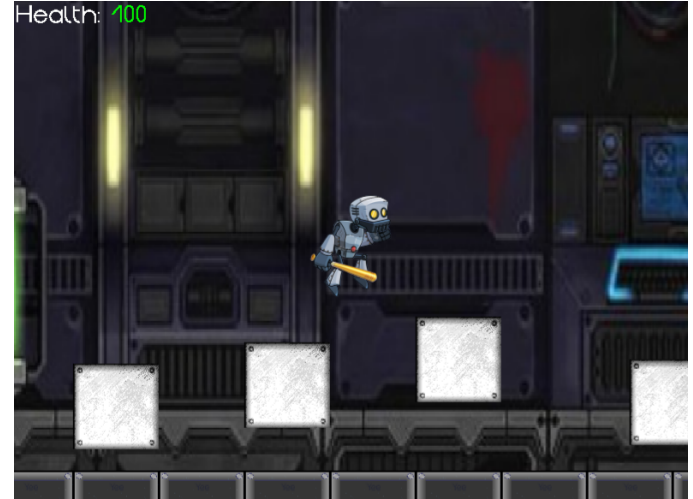Gravity Fields

Crates
> Push/hit them
> Have physics to them
> Ability to change how heavier they are (the heavier the crate, the harder to push)

Dialogue Boxes
> Once player enters the "field", text will appear

Health Pad
> Player gains health when stepped on

Health: 100

Health Bar

Displayed on top left corner of screen

Default Health total: 100

If player takes damage (either through falling in the lava pits or being hit by the electric sheep), the health bar will decrease

If player falls in the death pits, health will drop automatically to 0

Main menu

Three features:

New

    Start a new game

Continue

    Continue where you last left off

Quit

    Leave the game

Pause menu

Two features:

Resume game

   Continue playing

Quit

   Leave the game

   If you quit mid-level, progress will not be saved

Camera

Is movable

Does have boundaries

Can be centered on an individual game object
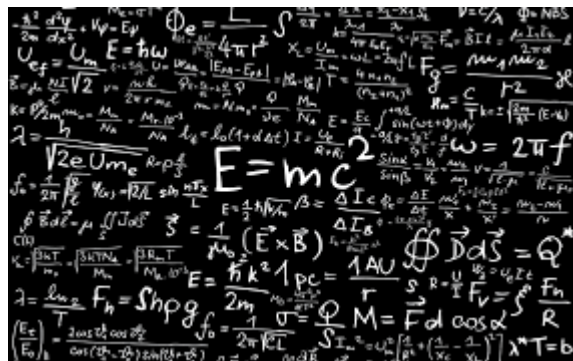
Collision detection/Physics

Each game object has acceleration, velocity (updated)

Parabolic motion

Hitbox collision detection

Stored in dictionary data structure

Can look up what any game object collided

Scripting events

Can be assigned to a level

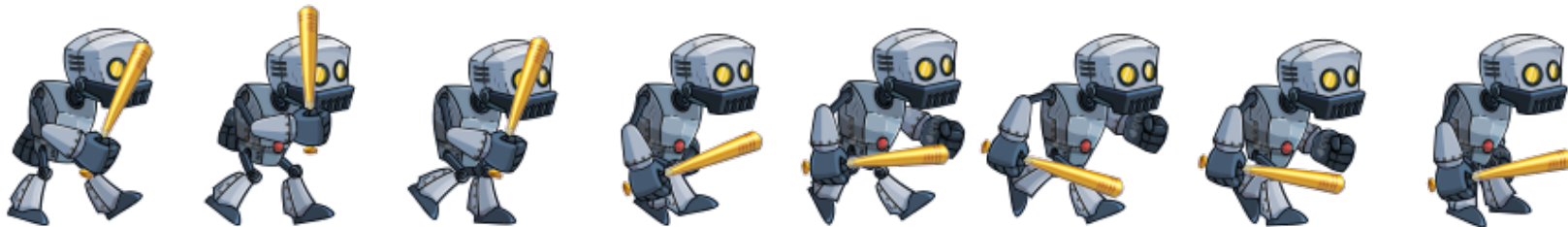Do specific things depending on what the script is

Level-specific events

Custom animations
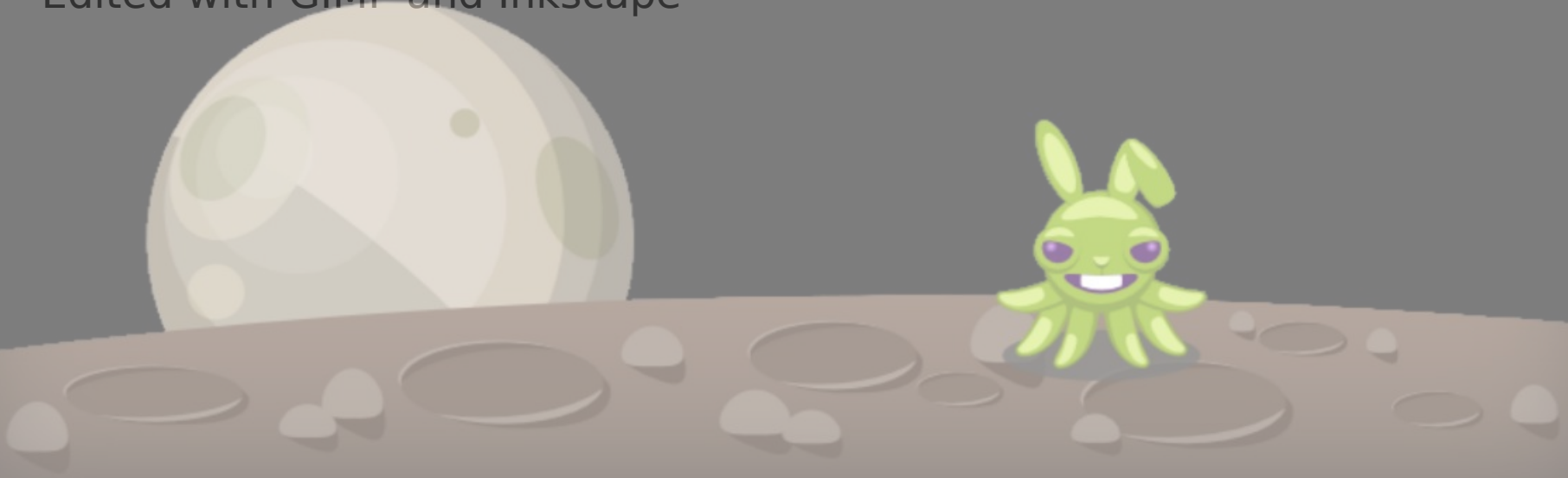
Inkscape vector graphics program

Robot, Electric Sheep, Button, Dragons

Backgrounds

All backgrounds found on Google images

Edited with GIMP and Inkscape

Demo:

Summary

Built from scratch in exception to some images

Levels can be created by anyone with ease

Quick processing

Well written that is easy to understand and change

Fun, but hard!!!

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