

Python - Minecraft

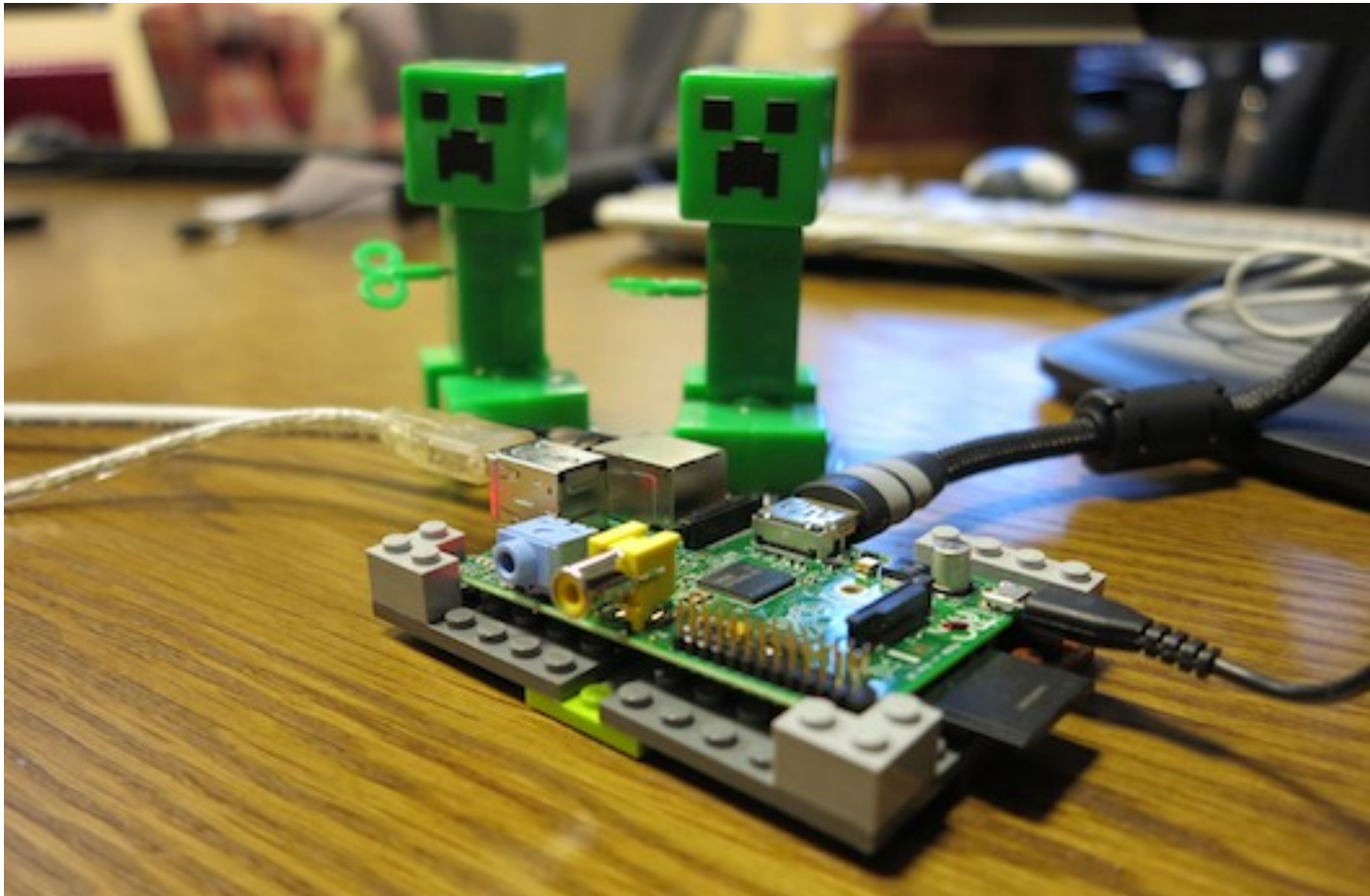


Origens

Minecraft



Raspberry Pi



Minecraft PI Edition



Motivações

Popularidade



Público Alvo



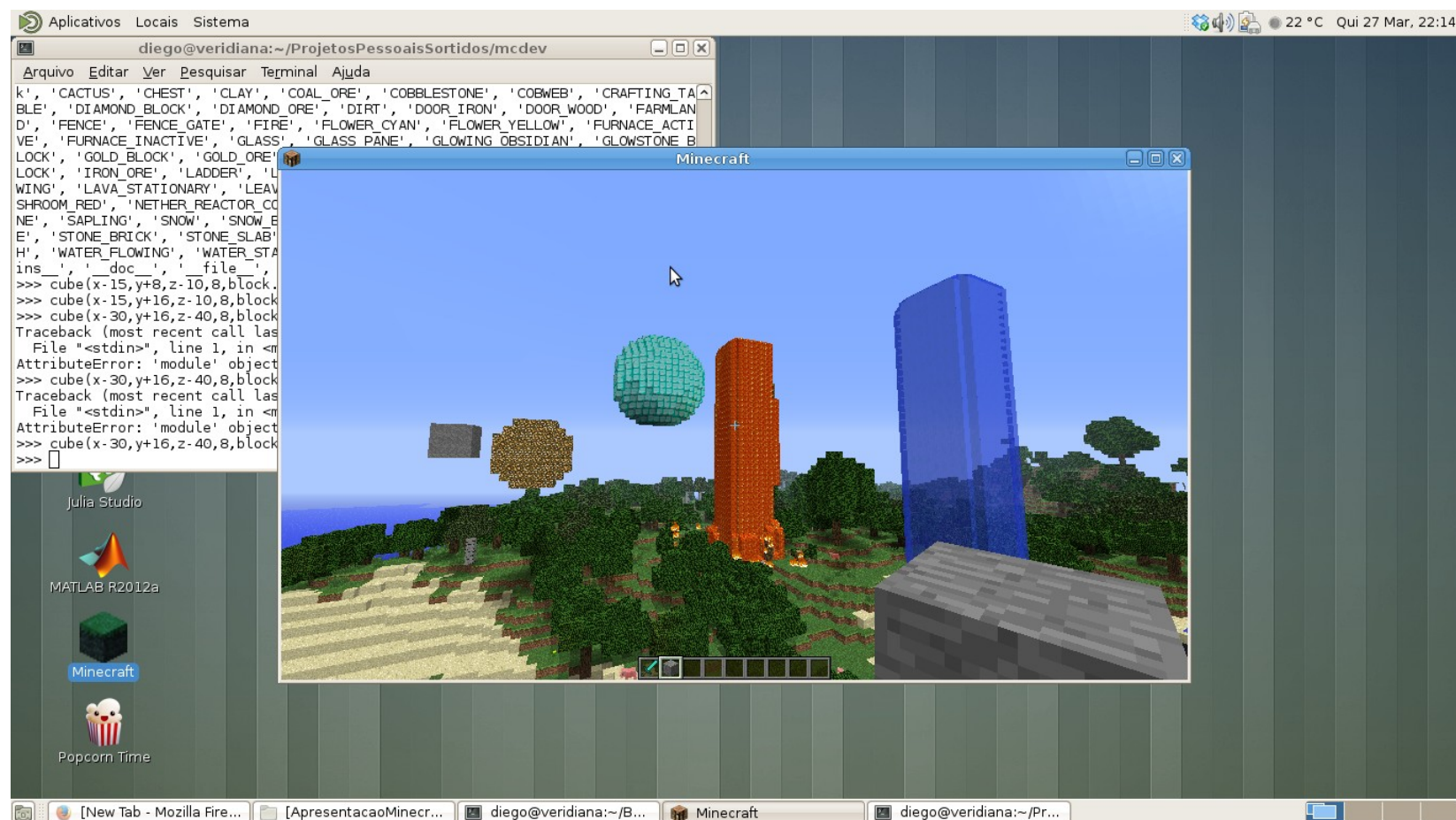
Diversão



Diversão e Aplicação



Concretização de Abstrações



Ferramentas

Minecraft 1.4.7



Bukkit Server 1.4.7



MCPI

```
pi@raspberrypi ~ $ wget https://s3.amazonaws.com/assets.minecraft.net/pi/minecraft-pi-0.1.1.tar.gz
--2013-10-01 09:13:57-- https://s3.amazonaws.com/assets.minecraft.net/pi/minecraft-pi-0.1.1.tar.gz
Resolving s3.amazonaws.com (s3.amazonaws.com)... 205.251.243.82
Connecting to s3.amazonaws.com (s3.amazonaws.com)|205.251.243.82|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1459472 (1.4M) [application/x-gzip]
Saving to: `minecraft-pi-0.1.1.tar.gz'

100%[=====>] 1,459,472    538K/s   in 2.6s

2013-10-01 09:14:07 (538 KB/s) - `minecraft-pi-0.1.1.tar.gz' saved [1459472/1459472]

pi@raspberrypi ~ $ tar -zxvf minecraft-pi-0.1.1.tar.gz
mcpi/
mcpi/api/
mcpi/CONTROLS.txt
mcpi/data/
mcpi/HOW_TO_RUN.txt
mcpi/LICENSE.txt
mcpi/minecraft-pi
mcpi/VERSION.txt
mcpi/data/images/
```

Raspberry Juice 1.2



Exemplos

Hello World



Hello World

```
import mcpi.minecraft as minecraft  
mc = minecraft.Minecraft.create()  
mc.postToChat('Hello Minecraft World!')
```

Bloco



Bloco

```
import mcpi.minecraft as minecraft
import mcpi.block as block
mc = minecraft.Minecraft.create()

# coloca um bloco de pedra 3 blocos acima da cabeça do jogador
[x,y,z] = mc.player.getPos()
mc.setBlock(x,y+3,z,block.STONE)
```

Linha e Parede



```
import mcpi.minecraft as minecraft
import mcpi.block as block
mc = minecraft.Minecraft.create()

# desenha uma linha de 5 blocos de pedra à frente do jogador
[x,y,z] = mc.player.getPos()
i = 0
while i < 5:
    mc.setBlock(x+i,y,z+3,block.STONE)
    i += 1
```



```
# desenha uma parede de 5 x 8 à frente do jogador
[x,y,z] = mc.player.getPos()
i = 0
while i < 5:
    j = 0
    while j < 8:
        mc.setBlock(x+i,y+j,z+3,block.STONE)
        j += 1
    i += 1
```

Sólidos - Cubo



Cubo

```
def cube(x, y, z, side, material):  
    for i in range (0,side):  
        for j in range (0,side):  
            for k in range (0,side):  
                mc.setBlock(x+i,y+j,z+k,material)
```

Sólidos - Esfera



Alguns Desafios

- Buildings em geral
- Redstone Circuitry
- Interação Player – Server – Chat
- Integração Minecraft / Mundo Real

The End



Referências

- Minecraft 1.4.7 (Disponível no Launcher)
- Minecraft Pi Edition:
<http://pi.minecraft.net/>
- Pi Programming – Minecraft:
<http://tinyurl.com/introducao-minecraft-pi>
- Raspberry Juice + MCPI:
<http://dev.bukkit.org/bukkit-plugins/raspberryjuice/files/3-raspberry-juice-v1-2/>
- Bukkit Server 1.4.7:
http://dl.bukkit.org/downloads/craftbukkit/view/01845_1.4.7-R1.0/