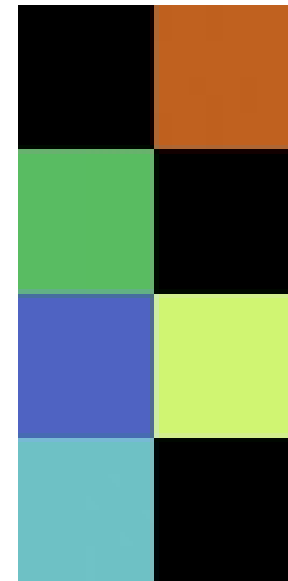


# Tvorba hier - Flixel



Slovakia FUG  
Bratislava  
13.1. 2010

Mgr. Juraj Michálek  
SinusGear



Twitter: <http://twitter.com/georgiksk>  
Blog: <http://georgik.sinusgear.com>

# Ako vytvoriť hru?

---

Flixel

Adobe Flex

Tvorba mapy a animácie

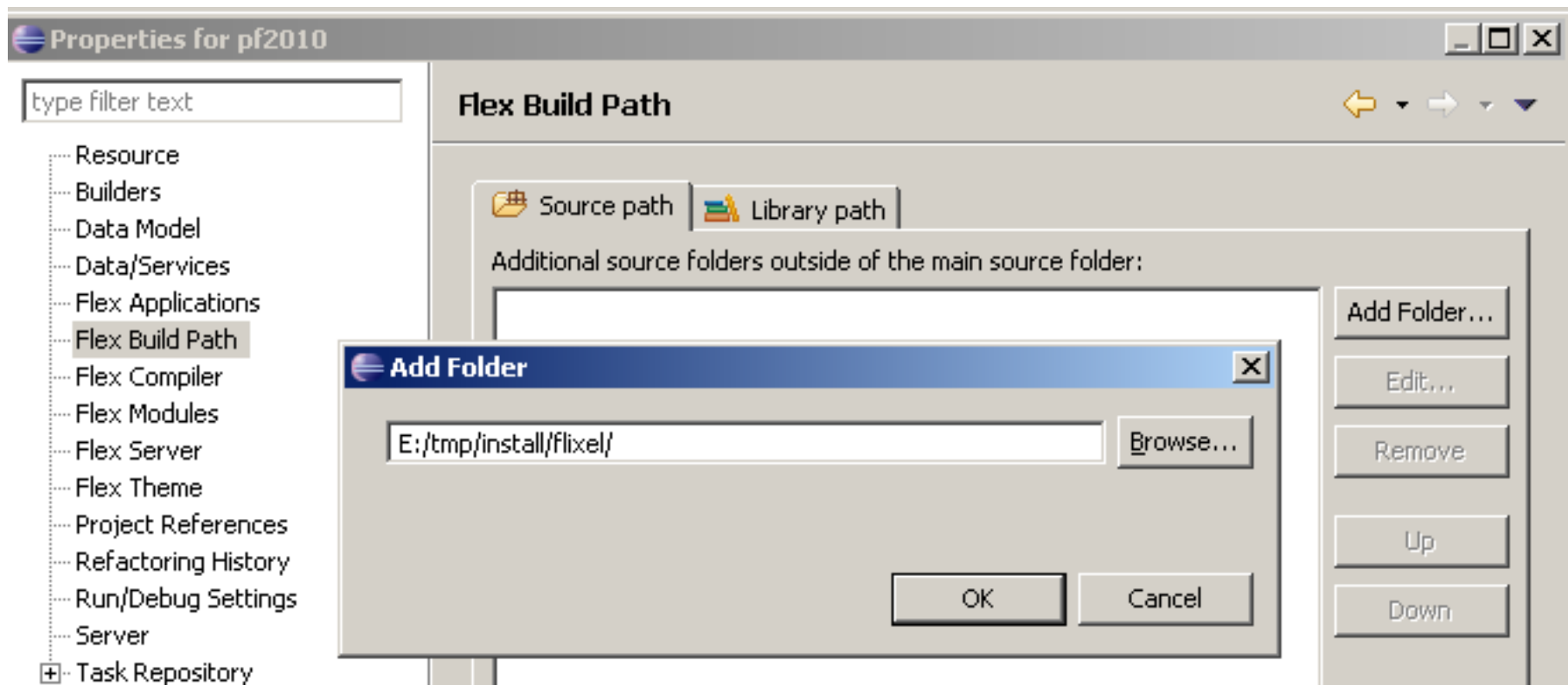
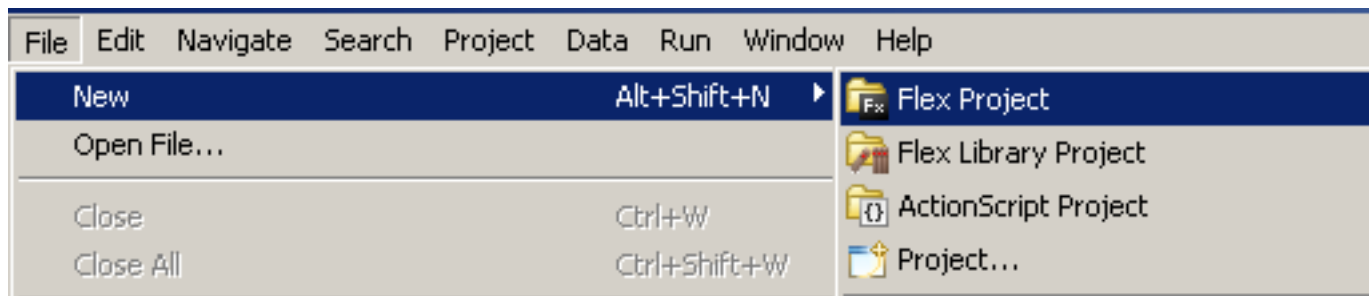
# Fixel

<http://www.fixel.org>

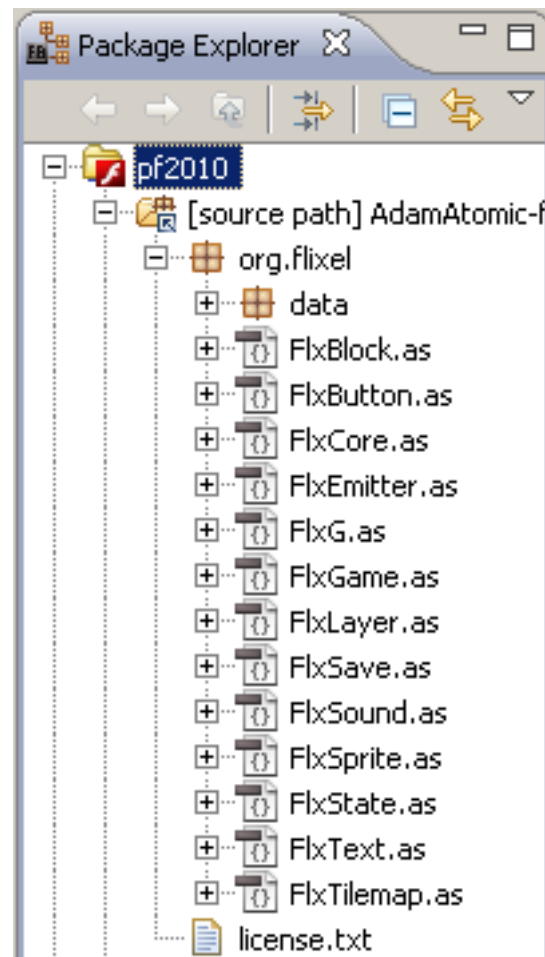


```
git clone git://github.com/AdamAtomic/fixel.git
```

# Začínáme vytvářet hru



# Flixel v projekte



# Implementujeme PF2010



# Vloženie objektu s hrou

**Vlastná implementácia**

```
<fx:Script>
  <![CDATA[
    import org.flixel.*;
    import com.sinusgear.DisplayObjectUIComponent;
    import com.sinusgear.FlixelGame;

    /**
     * Initialize application.
     */
    public function init():void
    {
        this.addElement(new DisplayObjectUIComponent(new FlixelGame()));
    }
  ]]>
</fx:Script>
```

# extends UIComponent

```
public class DisplayObjectUIComponent extends UIComponent
{
    public function DisplayObjectUIComponent(sprite:DisplayObject)
    {
        super ();

        explicitHeight = sprite.height;
        explicitWidth = sprite.width;

        addChild (sprite);
    }
}
```



# FlixelGame class

```
import com.sinusgear.GameState;  
import com.sinusgear.MenuState;  
import org.flixel.*;
```

Triedy pre herné stavy

```
public class FlixelGame extends FlxGame  
{  
    public function FlixelGame():void  
    {  
        super(450, 400, MenuState, 1);  
  
        // Do not display Flixel logo  
        this.showLogo = false;  
    }  
}
```

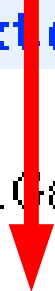
# Počiatočný stav

```
import com.sinusgear.GameState;
import com.sinusgear.MenuState;
import org.flixel.*;
```

Triedy pre herné stavy

```
public class FlixelGame extends FlxGame
{
    public function FlixelGame():void
    {
        super(450, 400, MenuState, 1);

        // Do not display Flixel logo
        this.showLogo = false;
    }
}
```



# FlixelGame class

```
import com.sinusgear.GameState;
import com.sinusgear.MenuState;
import org.flixel.*;

public class FlixelGame extends FlxGame
{
    public function FlixelGame():void
    {
        super(450, 400, MenuState, 1);

        // Do not display Flixel logo
        this.showLogo = false;
    }
}
```



Pixel Zoom



# extends FlxState



```
public class MenuState extends FlxState
{
    [Embed(source=" ../assets/star-tiles.png" )]
    protected var StarTiles:Class;

    public function MenuState()
    {
        ...
    }

    public override function update():void
    {
        super.update();
        if (FlxG.mouse.justPressed())
        {
            FlxG.switchState(GameState);
        }
    }
    ...
}
```

Zmena stavu



# Player

```
public class Player extends FlxSprite
{
    [Embed(source="../assets/penguin-tiles.png")]
    protected var PlayerImage:Class;

    public function Player()
    {
        super(PPLAYER_START_X, PPLAYER_START_Y);
        loadGraphic(PlayerImage, true, true, 32,32);

        drag.x = PPLAYER_RUN_SPEED * 8;
        acceleration.y = GRAVITY_ACCELERATION;
        maxVelocity.x = PPLAYER_RUN_SPEED;
        maxVelocity.y = JUMP_ACCELERATION;

        addAnimation("idle", [0]);
        addAnimation("run", [1, 2, 3, 0], 12);
        addAnimation("jump", [4]);
        addAnimation("idle_up", [5]);
        addAnimation("run_up", [6, 7, 8, 5], 12);
        addAnimation("jump_up", [9]);
        addAnimation("jump_down", [10]);
    }
}
```

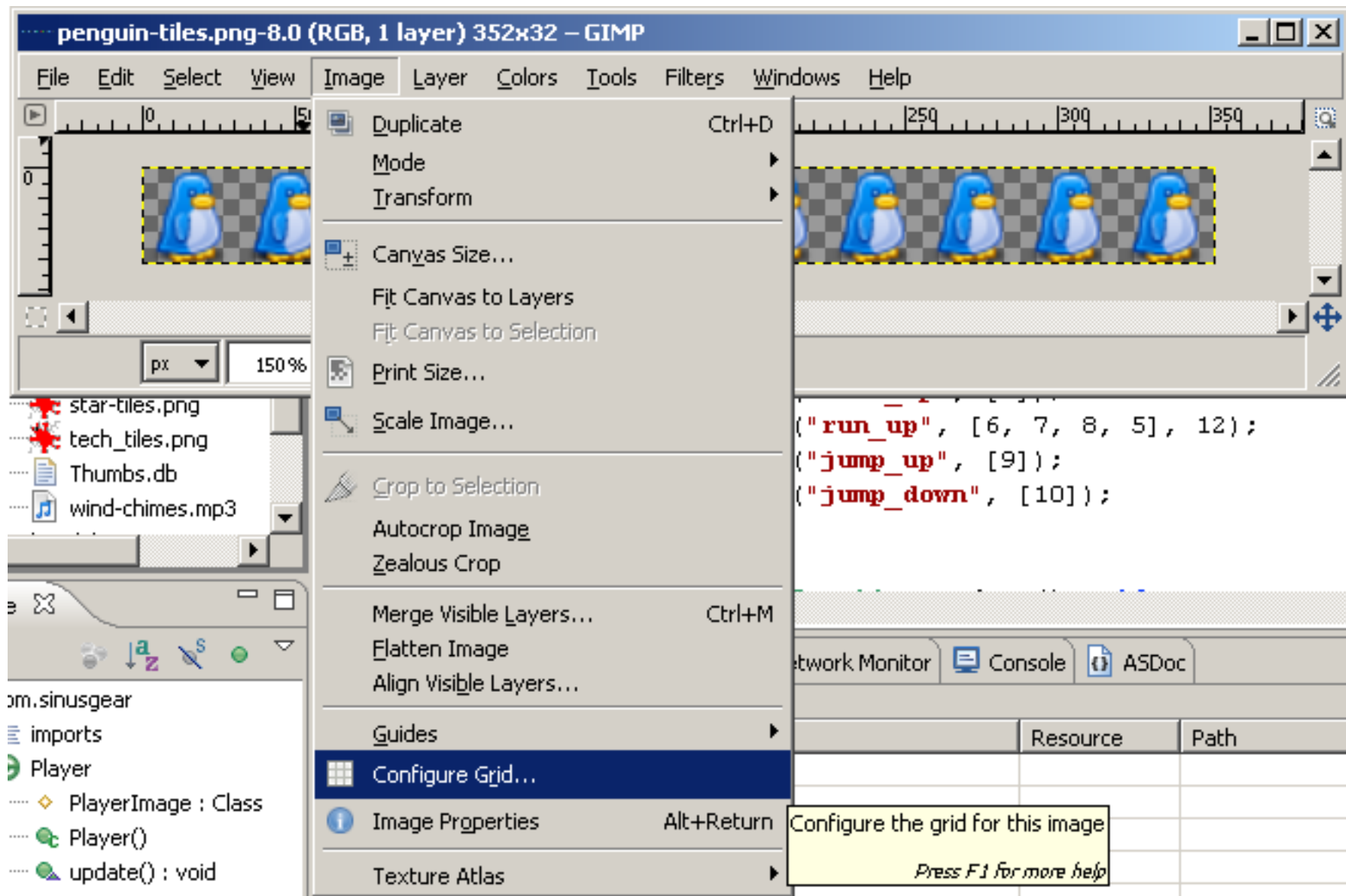
# Tvorba animácie

---

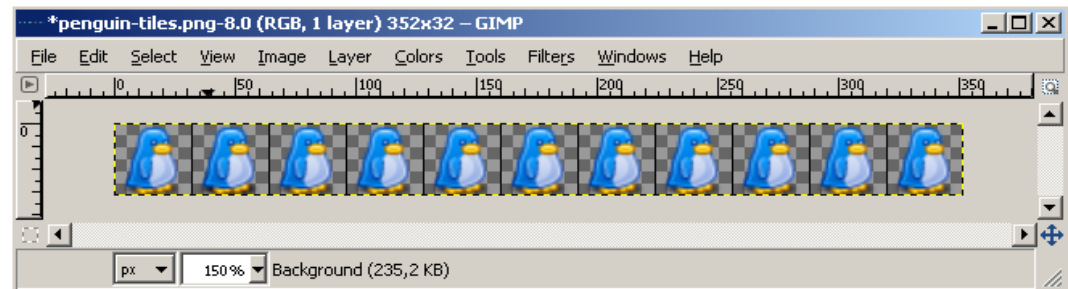
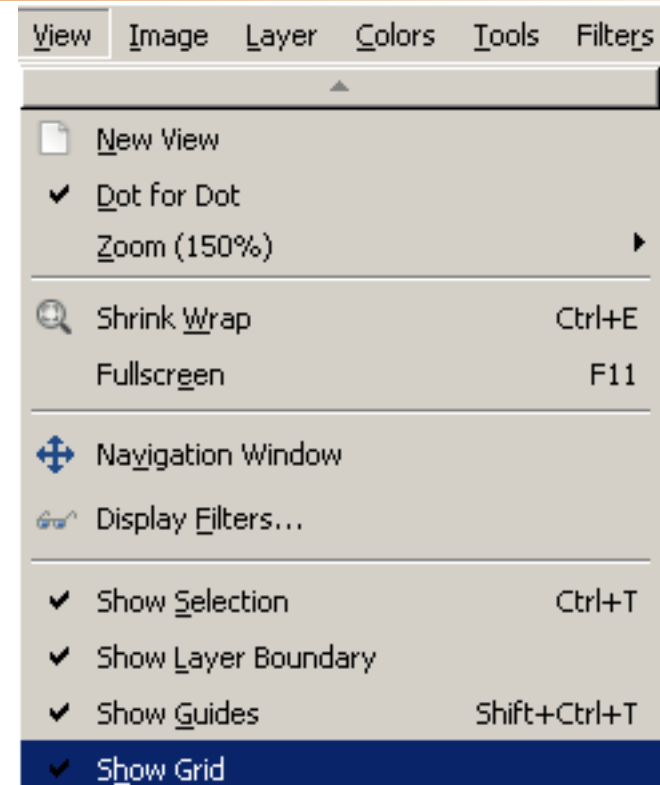
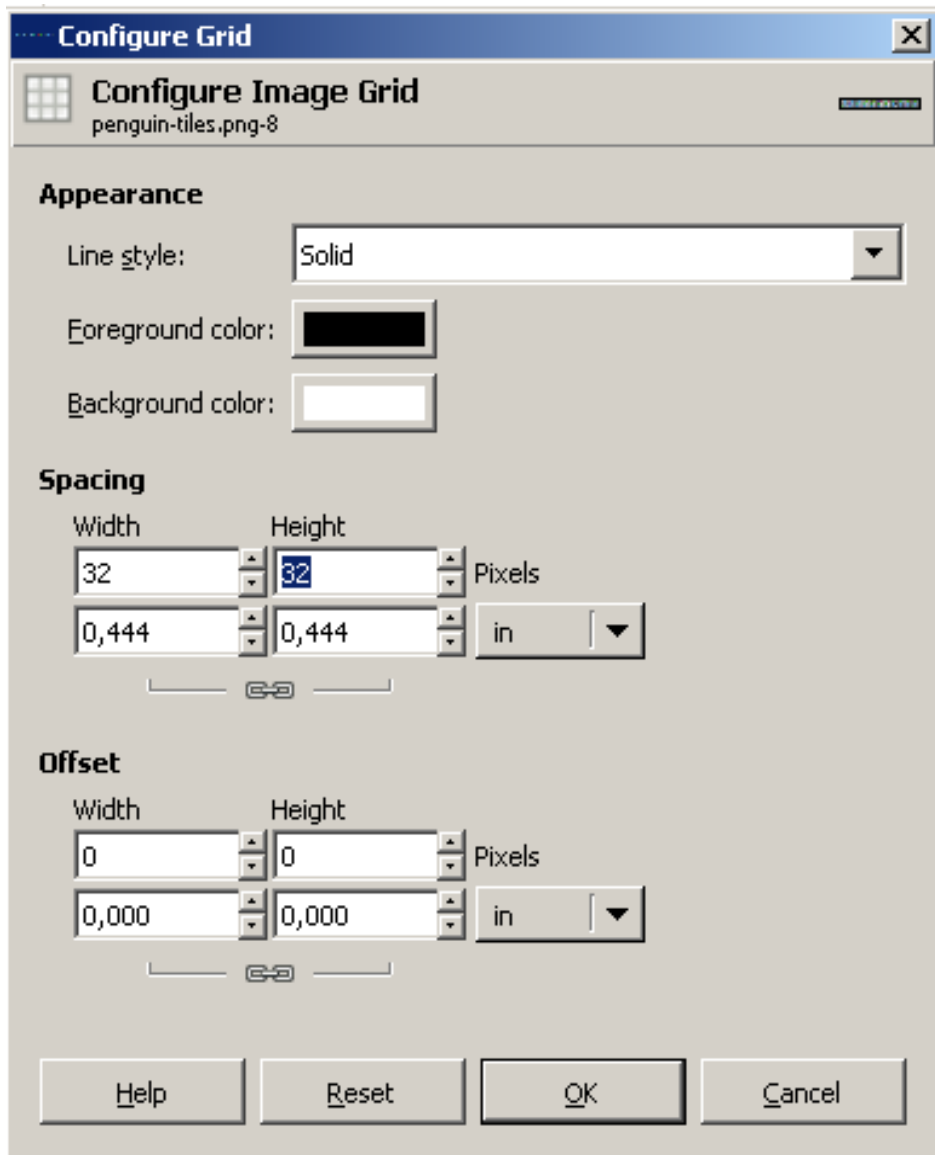


Postupnosť obrázkov  
`addAnimation(...)`

# Animácia s použitím GIMPU

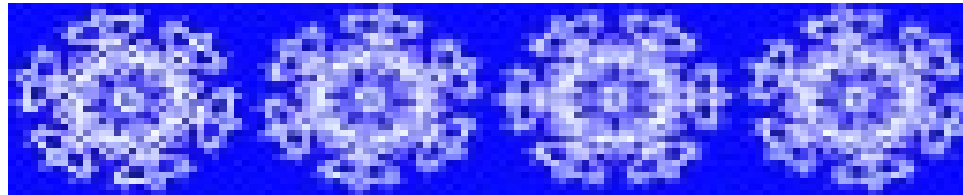


# Nastavenie gridu v GIMPe





# Objekty v hře - FlxSprite



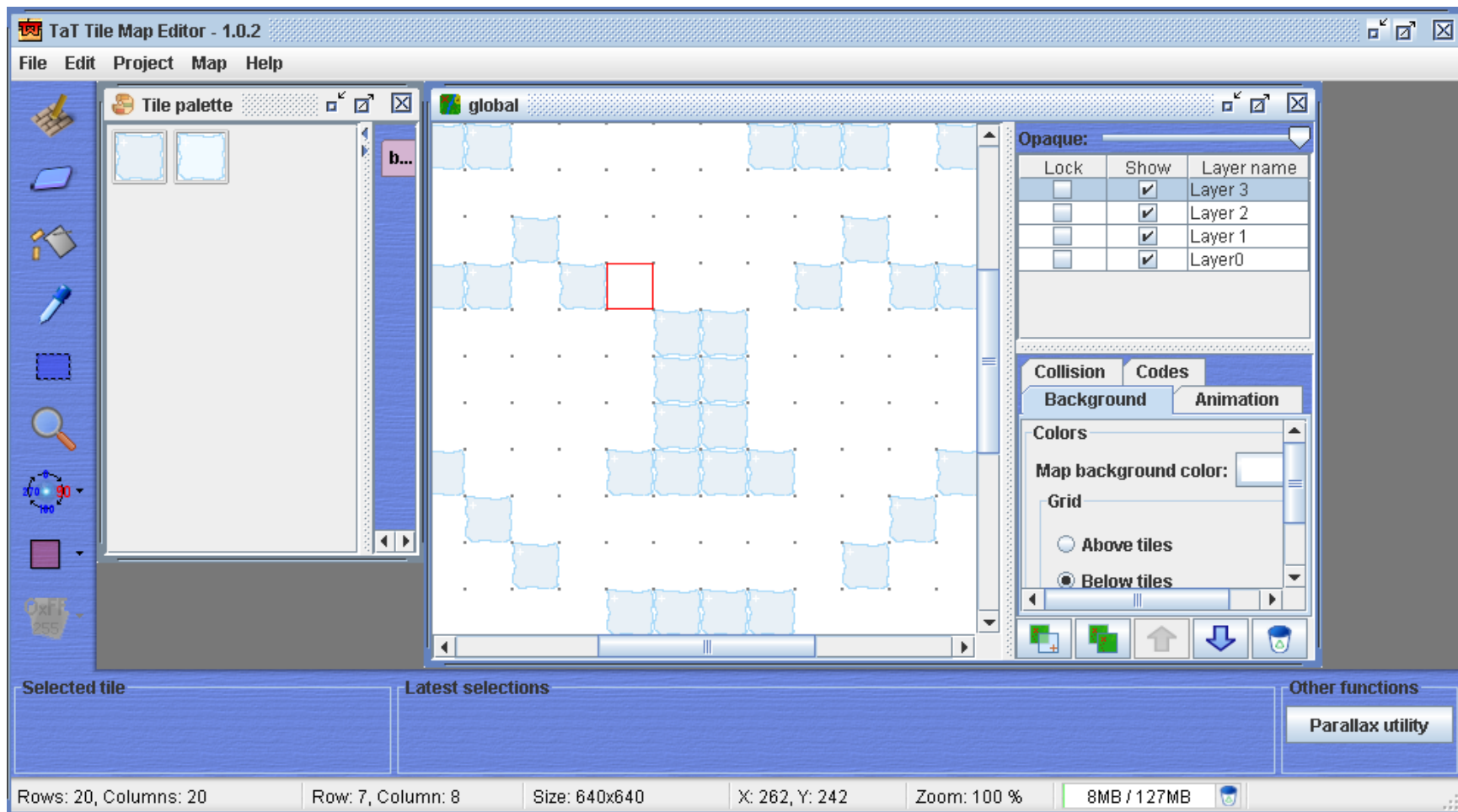
```
public class Coin extends FlxSprite
{
    public function Coin(X:int=0, Y:int=0, Graphic:Class=null)
    {
        super(X, Y, Graphic);
        this.y -= this.height;
        this.acceleration.y = 420;
        this.addAnimation("spin", [0,1,2,3], 3);
        this.play("spin");
    }
}
```

framerate

# Čo ešte chýba?



# Mapa



<http://kotisivu.dnainternet.net/ttilli/tilemapeditor/main.htm>

## TaT The Map Tile Editor

# Mapa zo ZIPu



pf2010.TaT\_TME  
3 KB



global

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- This is a map file for TaT Tile Map Editor. -->
<!-- Tile IDs are described in a tileset file (tileset.xml). -->

<TilemapFile version="1.0.0">
  <tilemap name="global" backgroundRGB="255,255,255" layers="4" rows="20" columns="20" tileWidth="32" tileHeight="32">
    <layer name="Layer0" index="0">
      <data>
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,1,1,0,0,0,0,0,0,0,0,0,0,0,
        1,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,
        1,1,1,1,1,1,1,1,1,1
      </data>
    </layer>
    <layer name="Layer 1" index="1">
      <data>
        0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
        0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,
      </data>
    </layer>
  </tilemap>
</TilemapFile>
```

# Load levelu

```
public function loadLevel(path:String):void
{
    var loader:HTTPService = new HTTPService();
    loader.url = path;
    loader.addEventListener(FaultEvent.FAULT, loadLevelFaultHandler);
    loader.addEventListener(ResultEvent.RESULT, loadLevelCompleteHandler);

    loader.send();
}
```



# Parsing levelu

```
public function loadLevelCompleteHandler(event:ResultEvent = null):void
{
    var layers:ArrayCollection = event.result.TilemapFile.tilemap.layer;
    var i:int;
    this.mapLayers = new Array();

    // Parse data block from maps.
    for (i=0; i<layers.length; i++)
    {
        var data:String = layers[i].data;
        var myPattern:RegExp = /[ |\\n|\\r|\\t]/g;
        data = data.replace(myPattern, '');

        var dataMap:Array = data.split(',');
        this.mapLayers.push(dataMap);
    }
}
```

**Ako sa zbaviť  
nepotrebných  
znakov**

# Pridanie bloku do hry

```
public function addBlock(x:uint, y:uint, w:uint, h:uint):void
{
    var block:FlxBlock = new FlxBlock(x,y,w,h);
    block.loadGraphic(TechTilesImage);
    levelBlocks.push(this.add(block));
}
```



# Výsledok





# Trocha muziky

```
[Embed(source=" ../assets/noriko-outro.mp3" )]  
protected var OutroSFX:Class;  
  
// All coins collected  
if (this.availableCoins == 0)  
{  
    FlxG.switchState(OutroState);  
    FlxG.play(OutroSFX);  
}
```



# Flash Builder 4 (Flex 4)

Problém s výpisom textu.

Nutné zapnúť Use Flex 3 compatibility mode

A screenshot of the 'Properties for pf2010' dialog box in Flash Builder 4. The 'Flex Compiler' tab is selected. In the 'Flex SDK version' section, the 'Use Flex 3 compatibility mode' checkbox is checked, and a red arrow points to it. The 'Use default SDK (currently "Flex 4.0")' radio button is selected. The 'Adobe Flash Player options' section shows the 'Use minimum version required by the Flex SDK' radio button selected. The 'Flex Build Path' and 'Flex Applications' sections are also visible in the left-hand tree view.

Properties for pf2010

type filter text

- Resource
- Builders
- Data Model
- Data/Services
- Flex Applications
- Flex Build Path
- Flex Compiler**
- Flex Modules
- Flex Server
- Flex Theme
- Project References

### Flex Compiler

Flex SDK version

- Use default SDK (currently "Flex 4.0") [Configure Flex SDKs...](#)
- Use a specific SDK: Flex 4.0
- Use Flex 3 compatibility mode

Adobe Flash Player options

- Use minimum version required by the Flex SDK
- Use a specific version: 10 . 0 . 0

# Pár odkazov

---

Games for Linux

<http://games.linux.sk>

FlexGarden

<http://www.flexgarden.net>

# Priestor na otázky.

---



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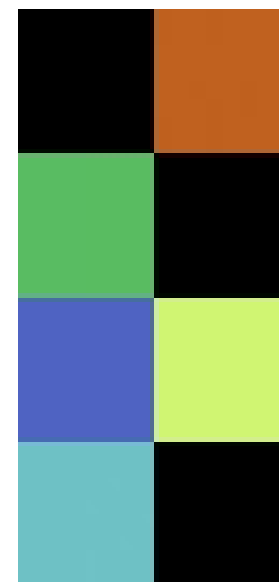
Blog: <http://georgik.sinusgear.com>

# Ďakujem za pozornosť



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