现代操作系统应用开发实验报告

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一．参考资料

http://blog.csdn.net/hbhhww/article/details/13289319

https://zhidao.baidu.com/question/1541165282406105667.html
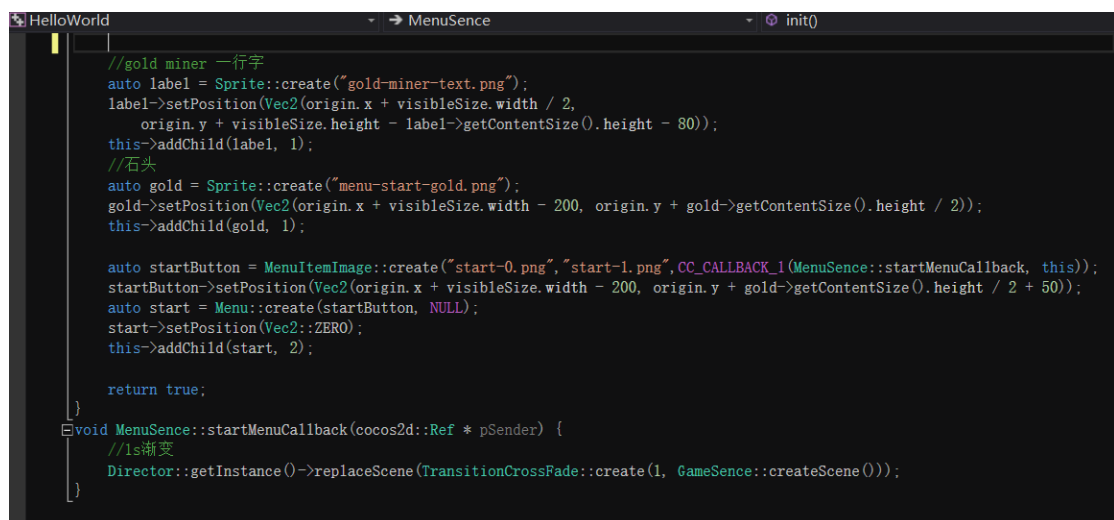
ppt

二．实验步骤

首先是 MenuScene

设置背景与 start，主要是位置放对就好

然后是 game 中背景与图层的设置

```cpp
//背景
Size visibleSize = Director::getInstance()->getVisibleSize();
Vec2 origin = Director::getInstance()->getVisibleOrigin();
auto background = Sprite::create("level1-background-0.jpg");
background->setPosition(Vec2(visibleSize.width / 2 + origin.x, visibleSize.height / 2 + origin.y));
float ScaleTimes = visibleSize.height / background->getContentSize().height;//计算缩放倍数
background->setScale(ScaleTimes);
this->addChild(background, 0);
//stone layer
stoneLayer = Layer::create();
stoneLayer->ignoreAnchorPointForPosition(false);
stoneLayer->setAnchorPoint(Vec2::ZERO);
stoneLayer->setPosition(Vec2::ZERO);
stone = Sprite::create("stone.png");
stone->setPosition(Vec2(560, 480));
stoneLayer->addChild(stone);
this->addChild(stoneLayer, 1);
```

将老鼠，shoot，老鼠的图层加上去，照着上面来就行了

```cpp
// shoot及其点击事件
auto label = Label::createWithTTF("Shoot", "fonts/msyh.ttf", 65); //label
auto shootButton = MenuItemLabel::create(label, CC_CALLBACK_1(GameSence::shootMenuCallback, this)); //menuitemlabel
Menu* shoot = Menu::create(shootButton, NULL); //menu
shoot->setPosition(Vec2(780, 480));
stoneLayer->addChild(shoot);

// mouseLayer
mouseLayer = Layer::create();
mouseLayer->ignoreAnchorPointForPosition(false);
mouseLayer->setAnchorPoint(Vec2::ZERO);
mouseLayer->setPosition(Vec2::ZERO);
this->addChild(mouseLayer, 1);

mouse = Sprite::createWithSpriteFrameName("gem-mouse-0.png");
Animate* mouseAnimate = Animate::create(AnimationCache::getInstance()->getAnimation("mouseAnimation"));
mouse->runAction(RepeatForever::create(mouseAnimate));
mouse->setPosition(visibleSize.width / 2, visibleSize.height/2);
//toPos = Vec2(visibleSize.width / 2, 0);
mouseLayer->addChild(mouse, 2);
```

然后点击事件，首先是 touchbegan，先在点击的位置出现 cheese，再移动老鼠，再让 cheese 淡出

```cpp
bool GameSence::onTouchBegan(Touch *touch, Event *unused_event) {

    auto location = touch->getLocation();
    auto mouselocation = mouse->getPosition();
    Size visibleSize = Director::getInstance()->getVisibleSize();

    cheese = Sprite::create("cheese.png");
    cheese->setPosition(location.x, location.y);
    mouseLayer->addChild(cheese);

    auto moveto = MoveTo::create(2.0, Vec2((int)location.x, (int)location.y));
    mouse->runAction(moveto);
    cheese->runAction(Sequence::create(ScaleTo::create(2.0, 1.0), FadeOut::create(1.0), nullptr));
    return true;
}
```

然后是 shoot 事件，让石头 move 到老鼠的位置，再淡出，留下钻石，并让老鼠

随机移动。

```
void GameSence::shootMenuCallback(Ref * pSender) {
    auto stonelocation = stone->getPosition();
    auto mouselocation = mouse->getPosition();
    Size visibleSize = Director::getInstance()->getVisibleSize();

    auto shootstone = Sprite::create("stone.png");
    shootstone->setPosition(stone->getPosition());
    this->addChild(shootstone, 1);
    auto seq = Sequence::create(MoveTo::create(1.5, Vec2(mouselocation.x, mouselocation.y)), FadeOut::create(0.5), nullptr);
    shootstone->runAction(seq);

    auto diamond = Sprite::create("diamond.png");
    diamond->setPosition(mouselocation);
    mouseLayer->addChild(diamond, 1);

    Vec2 randomloc = Vec2((int)(CCRANDOM_0_1() * 960), (int)(CCRANDOM_0_1() * 420));
    auto mousemoveto = JumpTo::create(1.5, randomloc, 50, 4);
    mouse->runAction(mousemoveto);
}
```
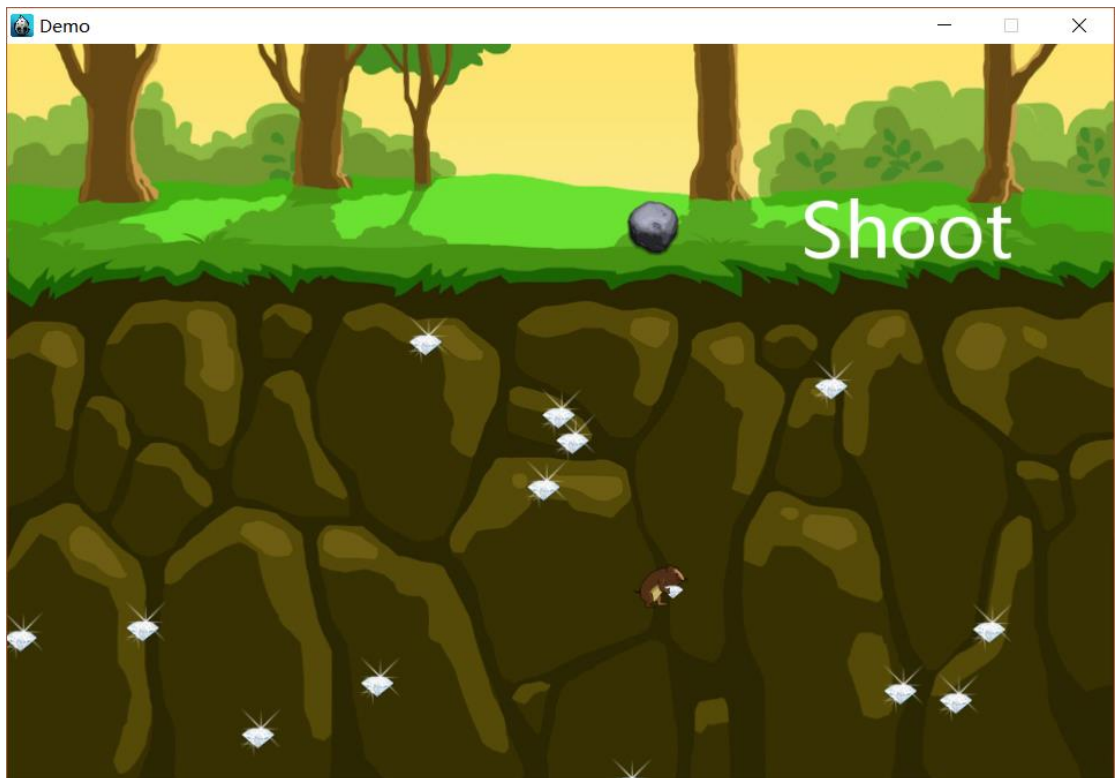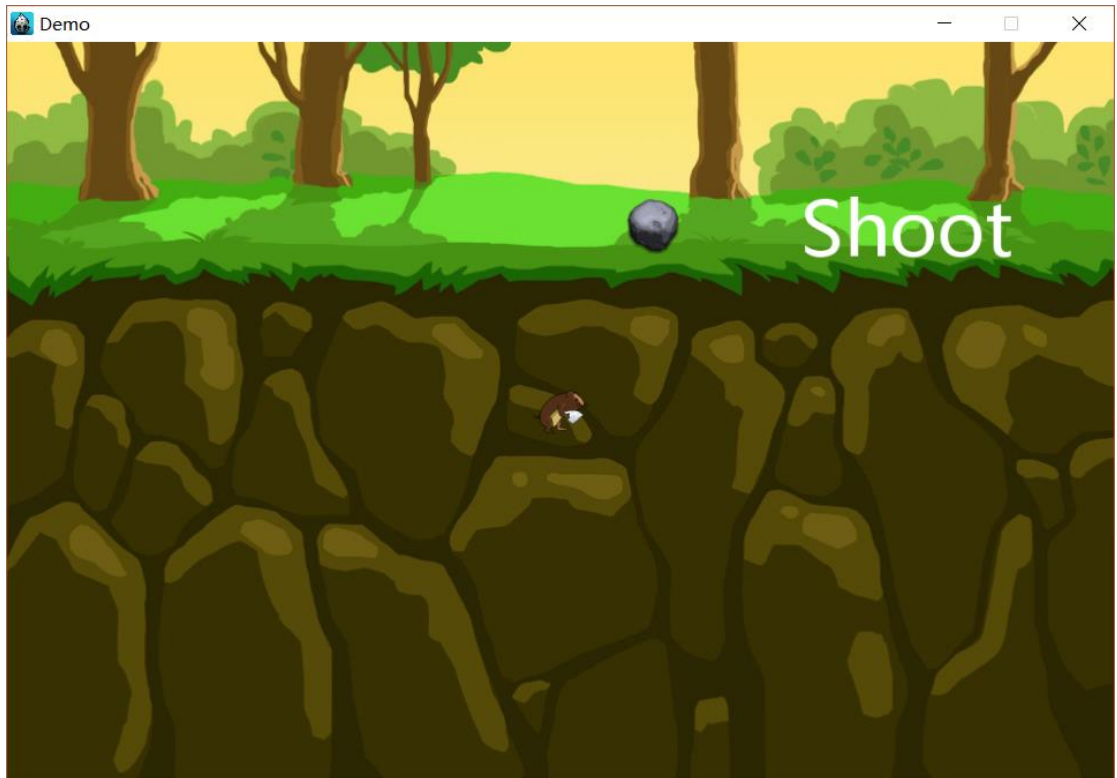
三．实验结果截图

四．实验过程遇到的问题

      1. 背景无法完全覆盖，会有黑边：百度之后发现是可以缩放的，即确定

倍数，放大图片的长宽

2. **图层问题：一开始没有想到要设置多个图层，导致错乱，之后就改过**

   来了

五．思考与总结

这次做的快了很多，主要还是参考 demo 的代码，就可以流畅做出，遗憾的是，如果连续点 shoot，老鼠就会乱跑甚至跑出界面之外，如果可以设置当老鼠到了奶酪的点之后，点击事件才能有效，这样实现就会好很多。