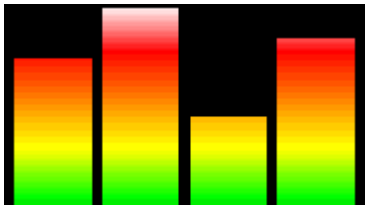
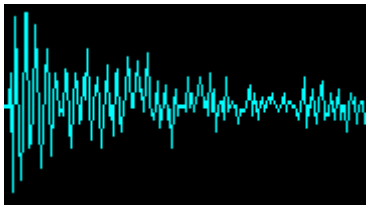
Tutorials Listed By Subject

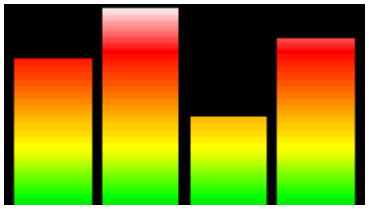
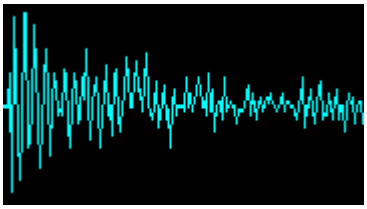
This section contains all tutorials indexed by subject for orx, an opensource, portable, lightweight, data-driven & 2D-oriented game engine.

Those tutorials operates under a model of community contribution, ensuring its content is both created and utilized by its members. So your contributions will be very welcome. If you spot any problems, or if anything is not clear, please get in touch with us on the Orx Discord's Server. Thank you and Happy reading!

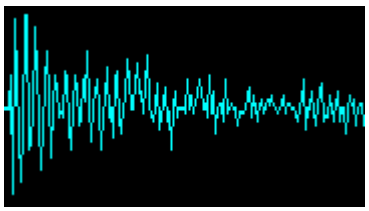
Search

Audio

 Sound & Music  Sound Recording

 Sound Buses  Audio Filters

Audio filters, miniaudio & audio extensions Video

 Sound Spatialization

Android

 Working with Android (new users start here!) 

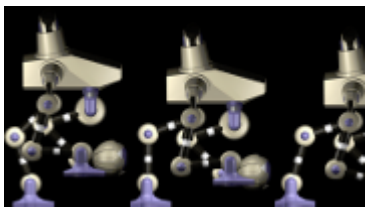
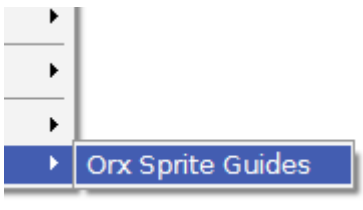
Android Studio, NDK, and Orx library Project

Compiling Orx Library & Demo Android Demo as a template project

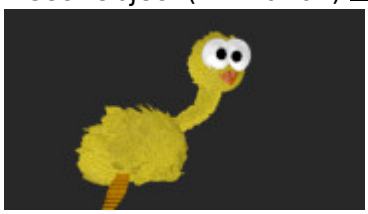
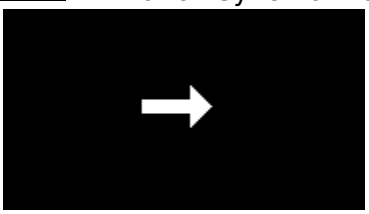
Using SWIG to talk to Java on Android

Android Packaging Scripts for continued deployments

Animation

 New Animation System Walkthrough  Basic Animation  Animation and Clearing Targets  Animation Inheritance with Prefixes  Text Animation  Realistic Walk Movement  Creating Particle Explosions 

Addin for The Gimp to Extract Guides for Configuration

Mouse over effect for buttons  Creating an Insect Object (Animation)  Animation Synchronization  Zero Length Frames  See more Animation Examples

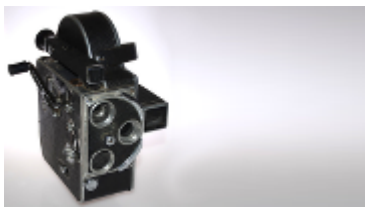
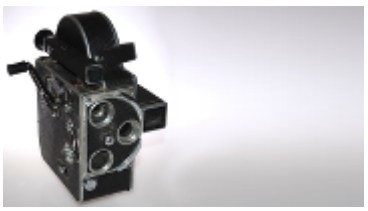
C++

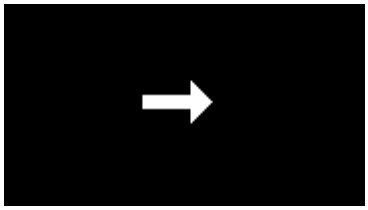
 Localization 

Stand Alone Application  Using orxObjects in Classes with an EventHandler 

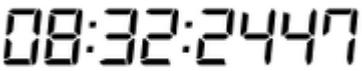
An Introduction to orx/Scroll  Compiling hidapi in a game

Cameras

 Viewport and Camera  Cameras and Frustums

orxScroll, Cameras and Viewports  See more Camera Examples

Clocks

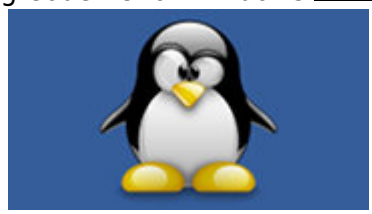


Clock

Code::Blocks

 Getting Code::Blocks for Windows  Building the Orx Library with Code::Blocks on Mac OS X  Building the Orx Library with Code::Blocks on Linux

Codelite

 Getting Codelite for Windows  Building the Orx Library with Codelite on Mac OS X  Building the Orx library on Linux with

Codelite  Setting up Codelite on Linux 

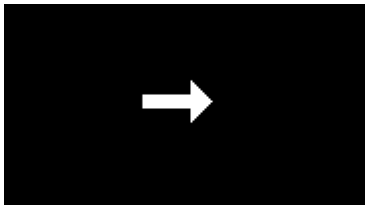
Stand Alone Application 

Codelite & Environment Variables Video

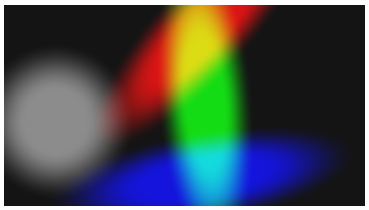
Color / Colour

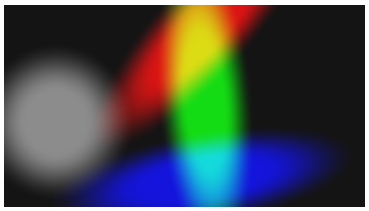
 orxCOLOR and how to colour an object 

Converting a percentage to a color  Web Color Literals

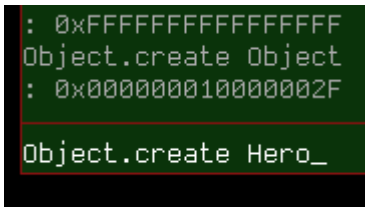
 A natural-looking glowing ball effect  See more Color Examples

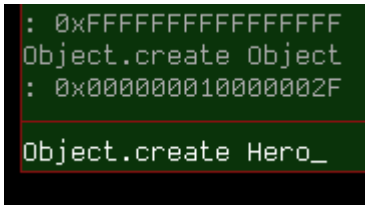
Compositing

 Compositing (2D lighting with offscreen rendering)

 Viewport Render to Texture

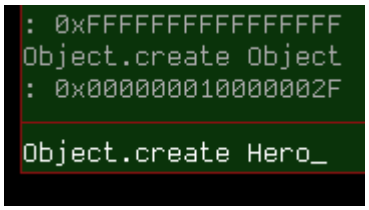
Console

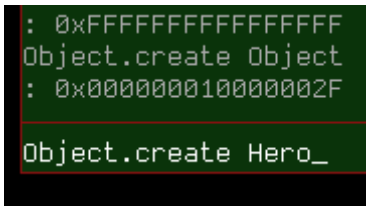


Guide to the Orx Console and Commands  The Bounce Demo 

Custom Console Colors

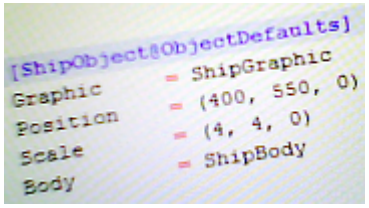
Command Module

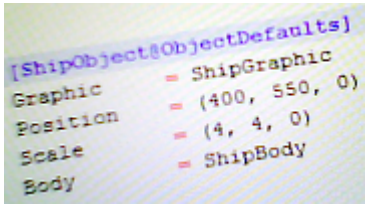


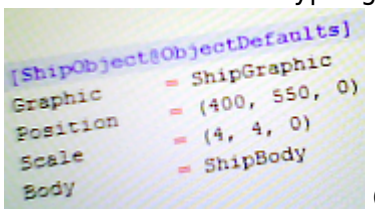
Command Module Syntax 

Command and Timeline Notes

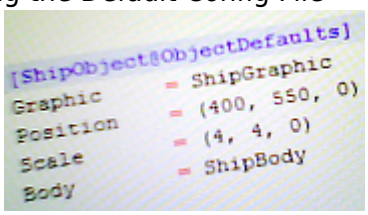
Config

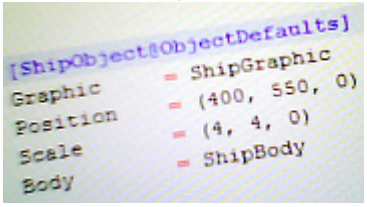


Encrypting Config Files 

Saving information to a config file 

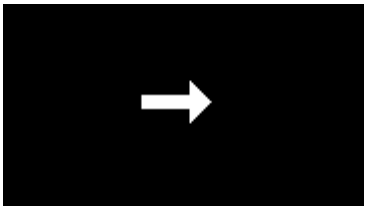
Changing the Default Config File

Changing the Default Config File for orx/Scroll 

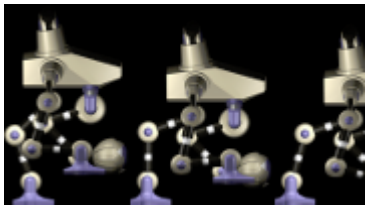
Retrieving and Updating Config Values 

Stepped Random Values 

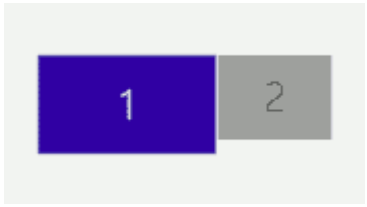
Local-

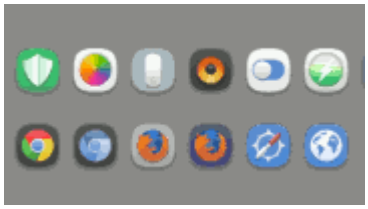
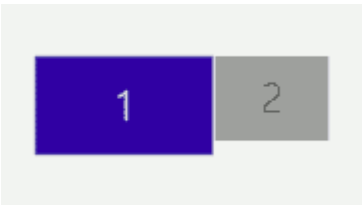
only Config Overriding Video  See more Config Examples

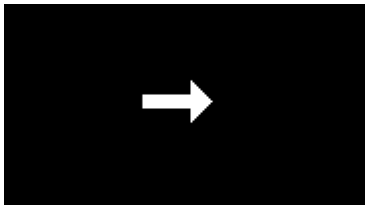
Controls

 Interaction, Control and Physics  Realistic Walk Movement  Creating Particle Explosions

Display

 Multiple Monitors  Custom Mouse Cursors

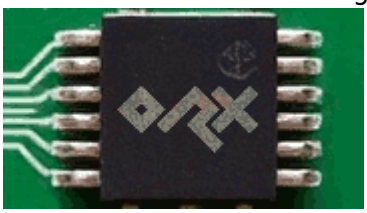
 Application Icons  Borderless Window Mode

 See more Display Examples

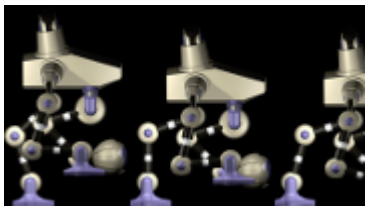
Downloads

 Getting Started with Orx

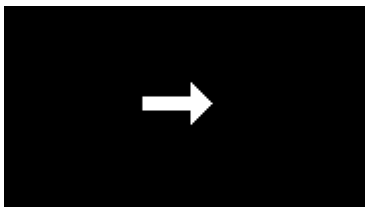
Engine

 Embedding parts of Orx in other engines  Orx Extensions  Extending Orx with Plugins and Bundling

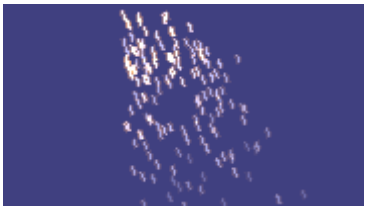
Events

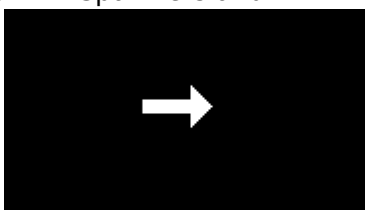
 Realistic Walk Movement  Using orxObjects in Classes with an EventHandler  Creating Particle Explosions

Fonts

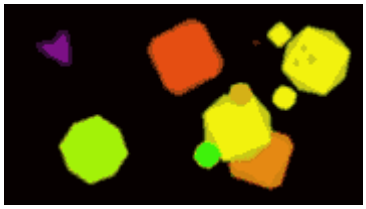
 Fun with Text and Shaders  orxFontGen  Font tool for unicode, including Chinese  See more Font Examples

FX


FX 
Sparks with Spawners and FX


Creating an Insect Object (Speed FX) 
See more FX Examples

Game Writing Guides


Writing a local multiplayer Asteroids game 
Beginner's Guide - Platform Game 
Beginner's Guide - 2D UFO Game


Beginner's Guide - UFO Game Video Version

iPad / iOS / iPhone


Using compressed textures on the iPad 
Porting a game to the iPad

Input

8 Way Joystick / Gamepad Control

Analog Joystick / Gamepad Control

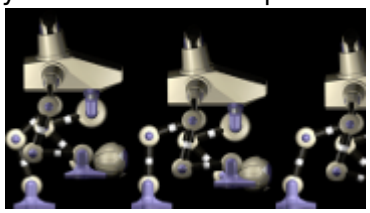
Analog Stick Threshold

Overriding a Controller Mapping

Remapping Controller Inputs

Testing Key, Joystick and Mouse Inputs

Interaction, Control and Physics



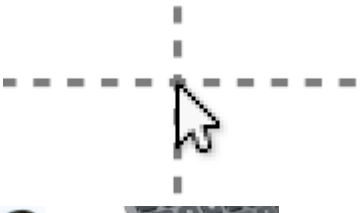
Realistic Walk Movement

Creating Particle Explosions

Mouse over effect for buttons

Notes on input

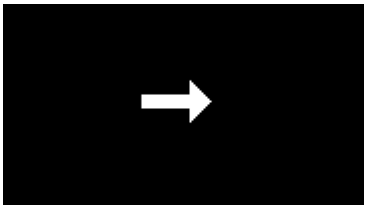
Keyboard Inputs



Mouse Grab

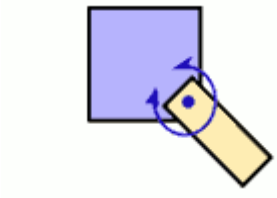
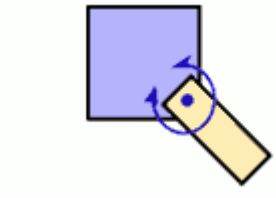
Compiling hidapi in a game

Input Triggers

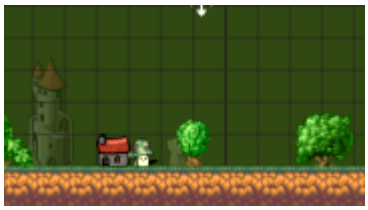
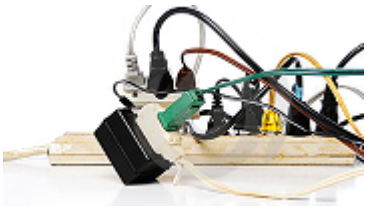


See more Input Examples

Joints

 Creating an Insect Object (Revolute Joint)  Weld Joint on parent/child Objects with Bodies  Z-order of Objects with Joints

Level Mapping

 Semi-dynamic Objects and Level Mapping  Using the Tiled to ORX Converter  Hexagon Grid Tutorial

 Creating Maps in ScrollEd  Pathfinding

Linux

 Setting up a Development Environment on Linux

 Linux Setup (brief overview)  Building the Orx


library on Linux with Codelite 
Codelite in Linux
Building the Orx Library with Code::Blocks on Linux

Localisation


Localization 
Localization and Multiple Languages

Mac OS X


Setting up a Development Environment for Mac OS X


Cloning and building the Orx library on Mac OS X

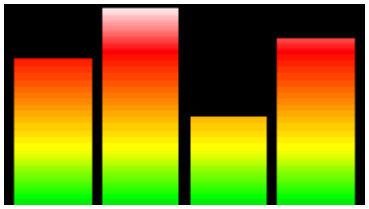
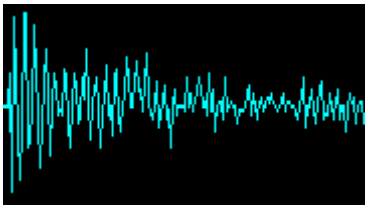

Building the Orx Library with Xcode on Mac OS X

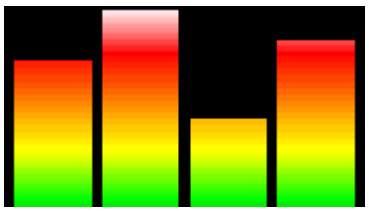

Building the Orx Library with Codelite on Mac OS X


Building the Orx Library with Code::Blocks on Mac OS X

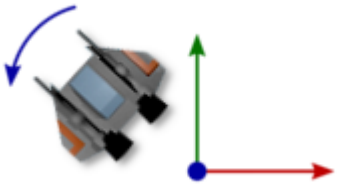

Setting up a game project on Mac OS X

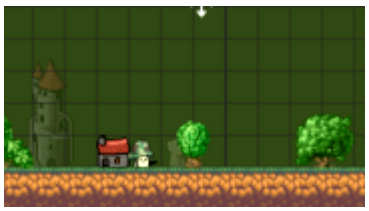
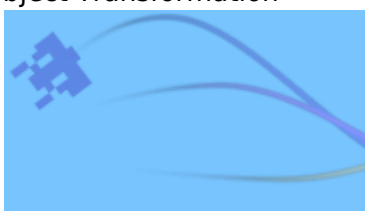
Music

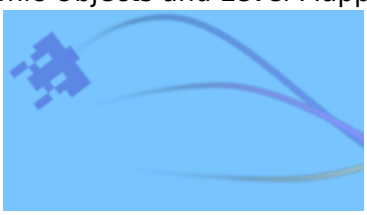

Sound & Music 
Sound Recording

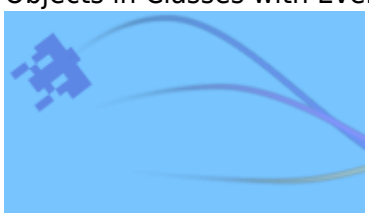

Sound Buses

Objects


Basic Object 
Object Transformation

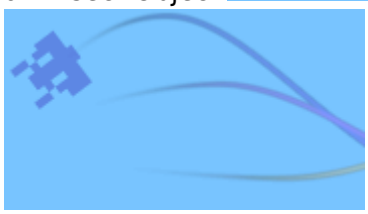

Semi-dynamic Objects and Level Mapping 

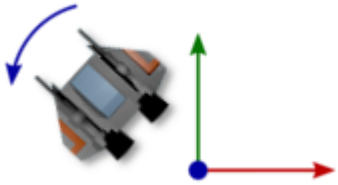
Objects in Classes with EventHandlers 
The Binding of Objects

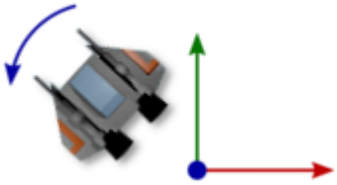

Object Traversing 
Notes on Rotation


A natural-looking glowing ball effect

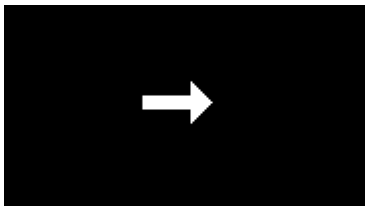
Creating an Insect Object

Creating an Object made of many Parts

Passing items from one Object to another

Object Lifetime

Relative Object Positioning and Scaling

Teleporting on Screen Edges

Literals for Objects

Command Hooks for Object Events

Aged Objects

See more Object Examples

Orx Code (General)

orxSTRINGs, strings and chars

orxCOLOR and

how to colour an object Lists, HashTables and Trees

Orx (Setting up)

Cloning Orx from Github  Using Premake to create a Build Project to compile ORX from scratch  Compiling Orx with mingw32/gmake  Download a pre-built Orx for your environment

The Bounce Demo 

Getting & setting up Orx Video

Orx/Scroll (C++ Abstraction layer for Orx)

An Introduction to Orx/Scroll 

The Binding of Objects 

Creating an orx/Scroll project using 'init'


Creating Maps in ScrollEd

Colliding

ScrollObjects with Orx Objects

Access Scroll class from ScrollObject

ScrollObject to ScrollObject Communication

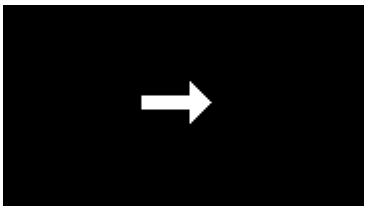
Changing the Default Config File for orx/Scroll

Moving a ScrollObject along a curve

orxScroll, Cameras and Viewports


ProgressBars in orxScroll

Pathfinding


See more orx/Scroll Examples

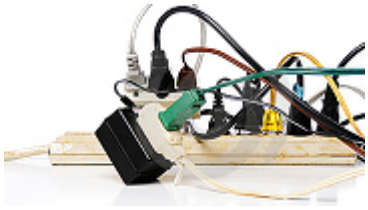
Physics


Basic Physics and Collisions

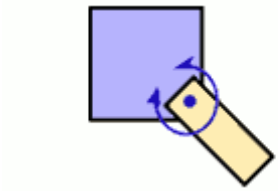

Physics

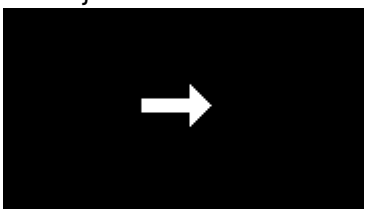

Raycasting


Interaction, Control and Physics

 Using the Inkscape SVG to ORX Converter 

Creating an Object made of many Parts  Creating an Insect Object

(Animation)  Weld Joint on parent/child Objects with Bodies

 Applying a force at a position point  See more Physics Examples

Premake (deprecated)

Using Premake to create a Build Project to compile ORX from scratch

Projects

Creating your own project using 'init'  The 'init' command & available extensions Video  How to update an existing project

Creating an orx/Scroll project using 'init' How to use Premake to create a build configuration for your own project in any IDE/OS

XCode 3 Tutorial

Working with Android

~~Native Tutorial~~ (deprecated)

Using the Android Demo as a template for your own projects

Publishing

Preparing for a release under Windows

Preparing for a release under MacOSX

Console-less Applications

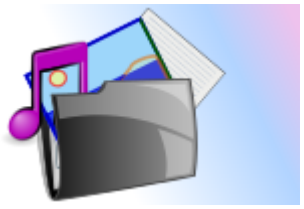
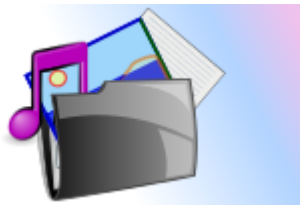
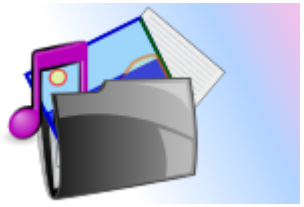
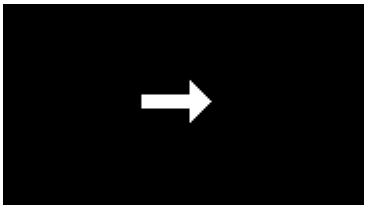
Android Packaging Scripts for continued deployments

Common Release Checklist

Scrolling

Scrolling

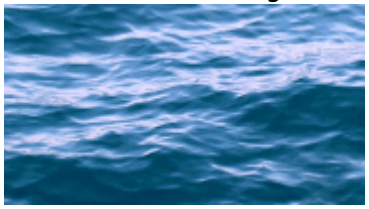
Resources

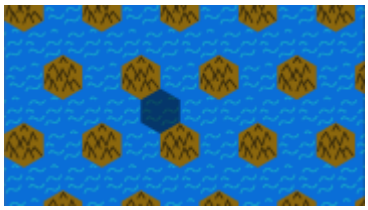

Zip Archive Resources 
Resources over HTTP 
Resource Reloading 
See more Resource Examples

Scenes

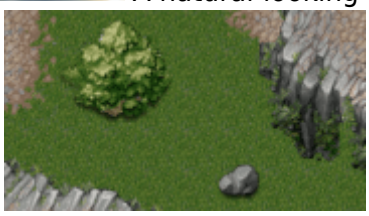
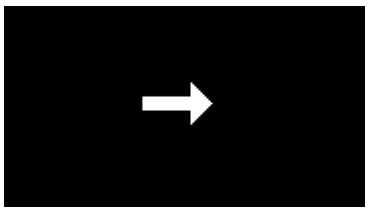

Data-Driven Scene Transitions

Shaders

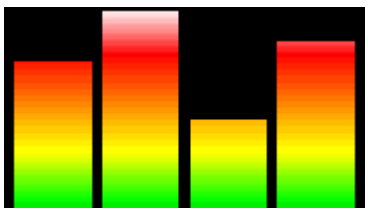
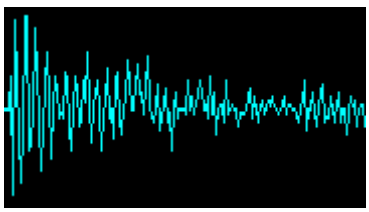

Getting started with Shaders in Orx 
Shaders in Screen Space 
Spawner & Shader 
Shader &

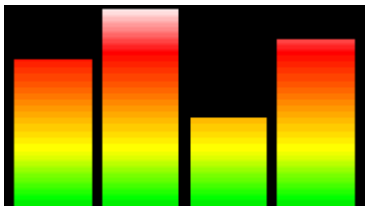
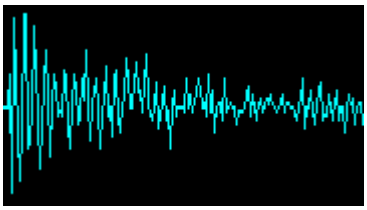

Lighting Shader coordinates tutorial 
Hexagon Grid Tutorial 
Hexagon Grid Tutorial (Axial/Cubial Coordinates)


A natural-looking glowing ball effect 

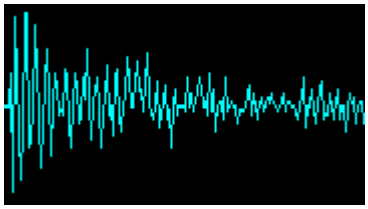
Fun with Text and Shaders 
Maps in a Shader 
See more Shader Examples

Sound


Sound & Music 
Sound Recording

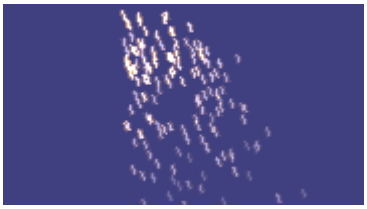
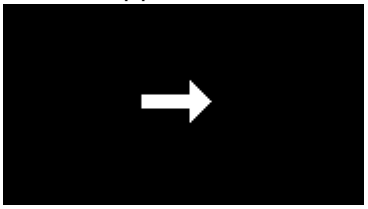

Sound Buses 
Audio Filters

Audio filters, miniaudio & audio extensions Video

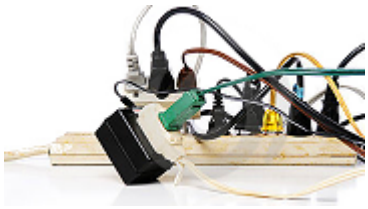
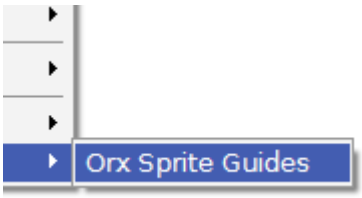

Sound Spatialization

Spawners

 Spawner & Shader  Creating Particle Explosions

 Spawning Bullets  Sparks with Spawners and FX  Futurama Appearance Effect  Spawners using Relative Position and Scale  See more Spawner Examples

Sprites

 Using the darkFunction to ORX Converter 

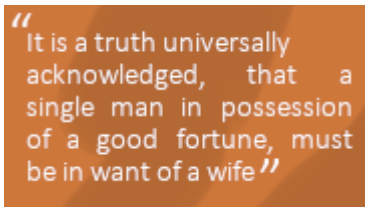
Addin for The Gimp to Extract Guides for Configuration

System

 The Clipboard  Drag and Drop

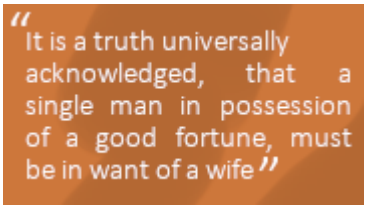
 Commandline Parameters

Text

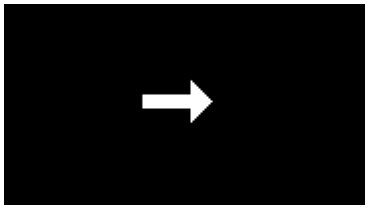


Text Boundaries


Fun with Text and Shaders

orxFontGen


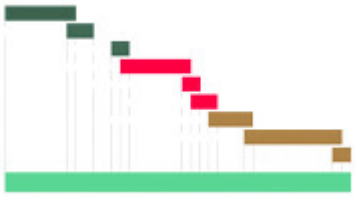
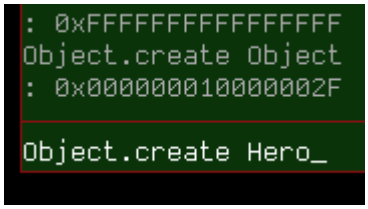
Text Background


See more Text Examples

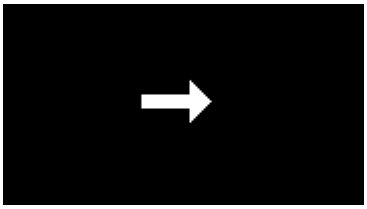
Textures


Using compressed textures on the iPad

Timelines / Tracks

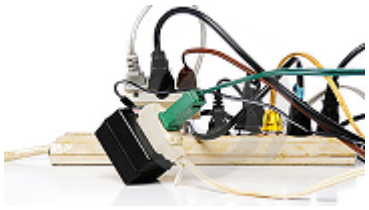
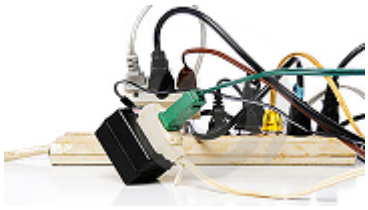

Timelines / Tracks


Command and Timeline

Notes

See more Track and Command Examples

Tools

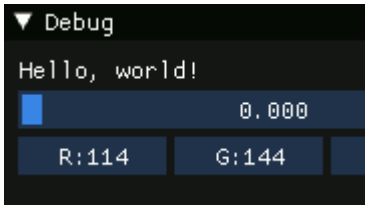
 The Orx Profiler  orxFontGen

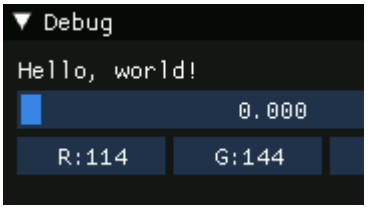
 Using the Inkscape SVG to ORX Converter 

Using the TMX to ORX Converter  Using the darkFunction to ORX Converter

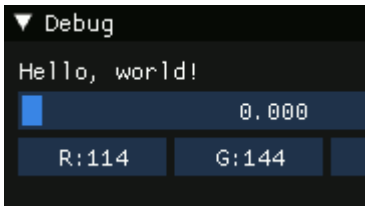
 Using SWIG to talk to Java on Android  Logging all Structures to a Tree

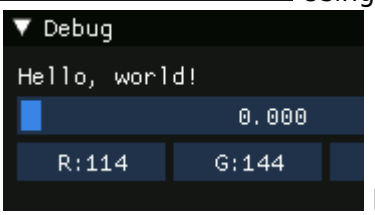
UI / User Interface

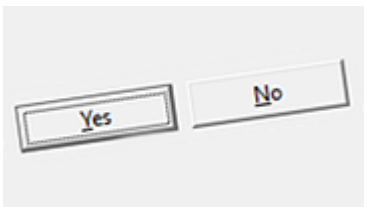


Using ImGui with Orx 

Using Nuklear with Orx



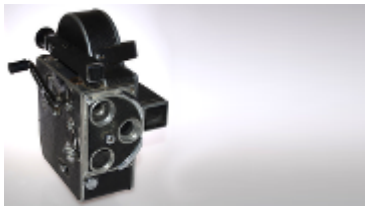
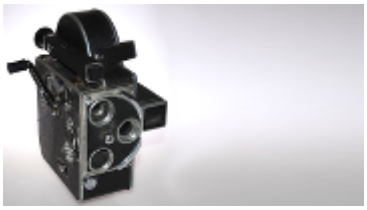
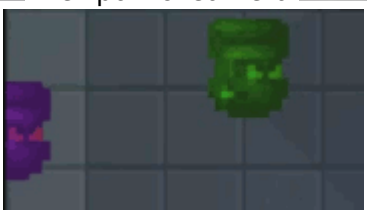
Nuklear Font Management 

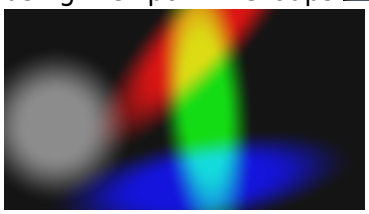
Notes on Nuklear with Orx 

File Dialogs and Messageboxes

Mouser over effect for buttons

Viewports

 Viewport & Camera  Heads Up Display (HUD) using Viewport + Groups  Teleporting on Screen Edges

 Viewport Render to Texture

Visual Studio

 Building the Orx library with Visual Studio 

Stand Alone Application

Windows

 Compiling Orx with mingw32/gmake  Building the Orx library with Visual Studio

XCode

 Xcode4 Scroll, Console-less, Resources 
Building the Orx Library with Xcode on Mac OS X