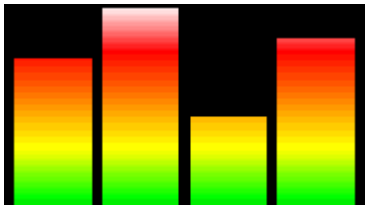
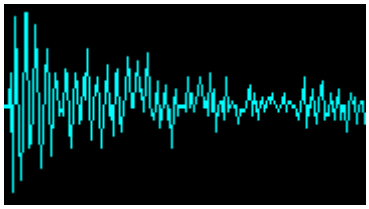
# Tutorials Listed By Subject

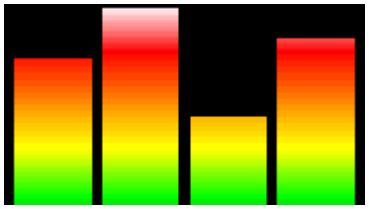
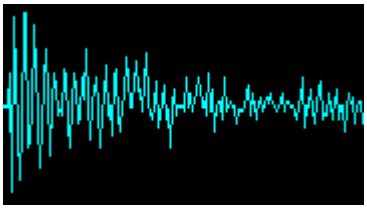
This section contains all tutorials indexed by subject for orx, an opensource, portable, lightweight, data-driven & 2D-oriented game engine.

Contributions are very welcome.

Search

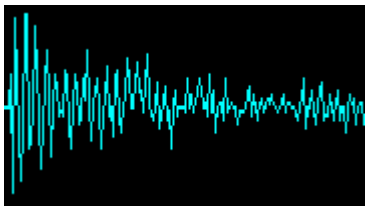
## Audio

 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

Compiling Orx Library & Demo



Project Android Demo as a template project





Using SWIG to talk to Java on Android Android Packaging Scripts for continued deployments

## Animation



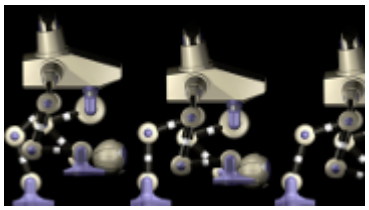
New Animation System Walkthrough 

Basic Animation 

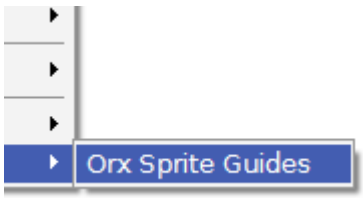
Animation and Clearing Targets 

Animation Inheritance with Prefixes 

Text Animation



Realistic Walk Movement 

Creating Particle Explosions 

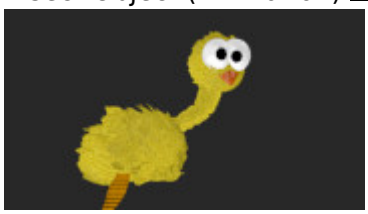
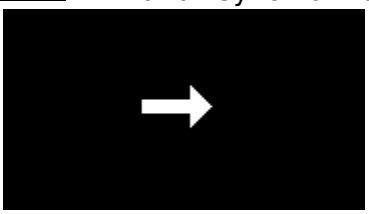

Addin for The Gimp to Extract Guides for Configuration




Mouse over effect for buttons 

Creating an

Insect Object (Animation)  Animation Synchronization

 Zero Length Frames  See more Animation Examples

## C++

 Localization 

Stand Alone Application

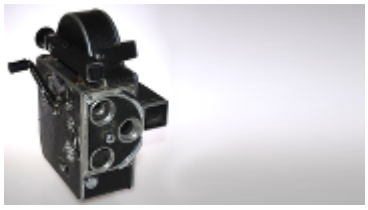
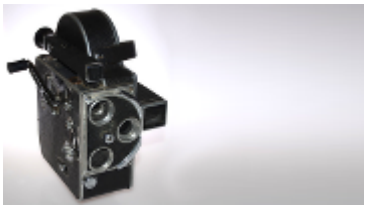


Using orxObjects in Classes with an EventHandler

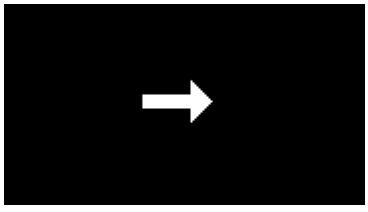


An Introduction to orx/Scroll  Compiling hidapi in a game

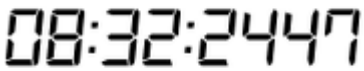
## Cameras

 Viewport and Camera  Cameras and Frustums



orxScroll, Cameras and Viewports  See more Camera Examples

## Clocks

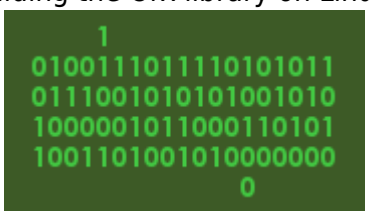


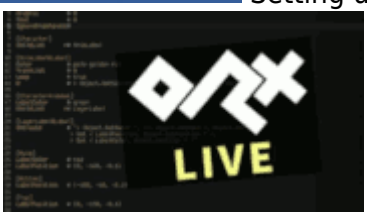
Clock

## 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 

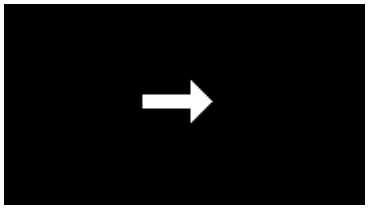
Stand Alone Application 

Codelite & Environment Variables Video

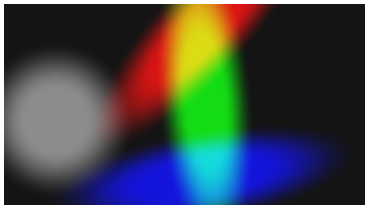
## Color / Colour

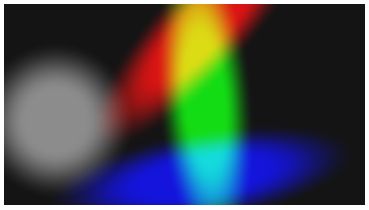
 orxCOLOR and how to colour an object 

Converting a percentage to a color  Web Color Literals

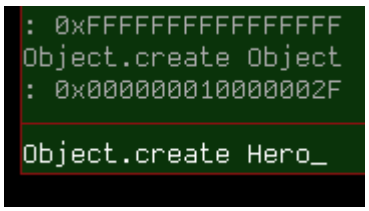
 A natural-looking glowing ball effect  See more Color Examples

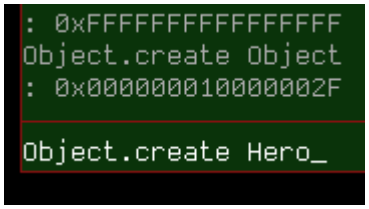
## Compositing

 Compositing (2D lighting with offscreen rendering)

 Viewport Render to Texture

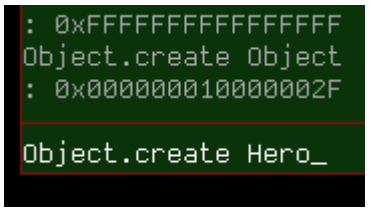
## Console

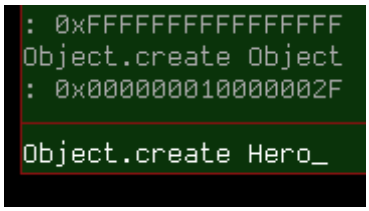



Guide to the Orx Console and Commands  The Bounce Demo 


Custom Console Colors

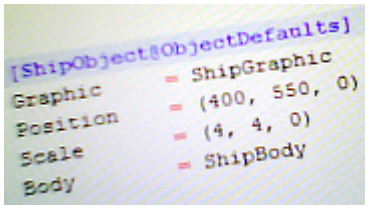
## Command Module

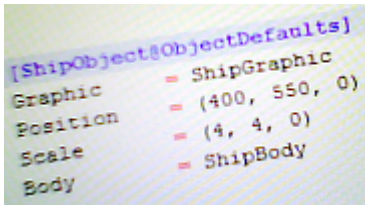


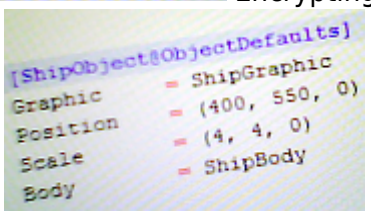
Command Module Syntax 

Command and Timeline Notes

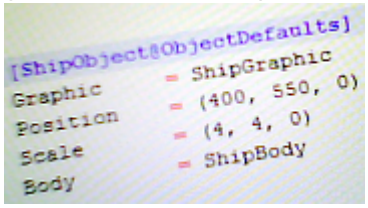
## Config

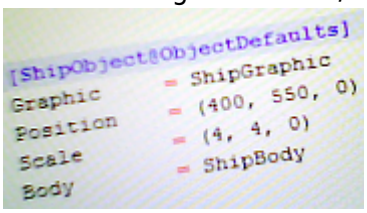


Encrypting Config Files 

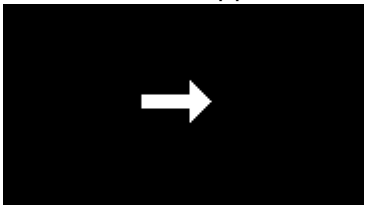
Saving information to a config file 

Changing the Default Config File 

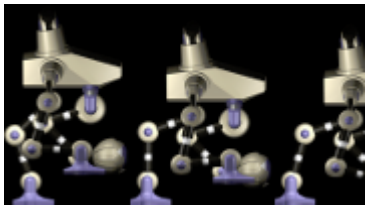
Changing the Default Config File for orx/Scroll 

Retrieving and Updating Config Values 

Stepped Random Values 

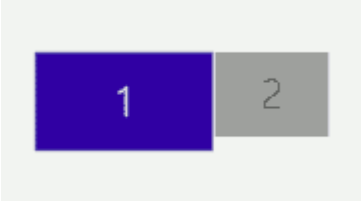
Local-only Config Overriding Video 
See more Config Examples

## Controls

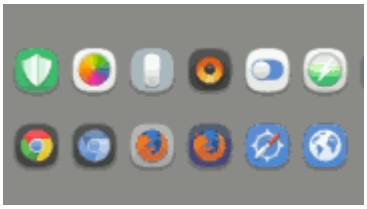
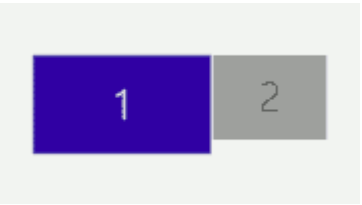

Interaction, Control and Physics 
Realistic Walk

Movement  Creating Particle Explosions

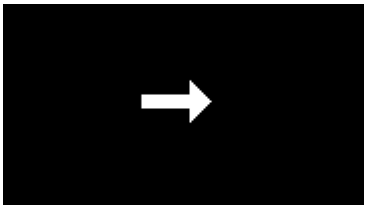
## Display



Multiple Monitors  Custom Mouse Cursors

 Application Icons 

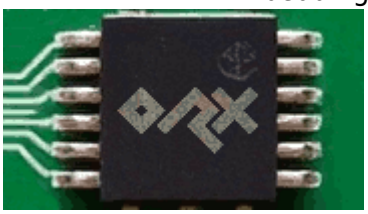
Borderless Window Mode

 See more Display Examples

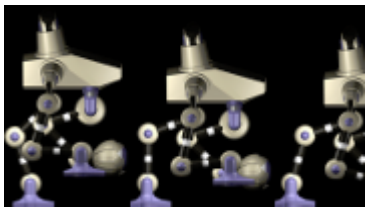
## Downloads

 Getting Started with Orx

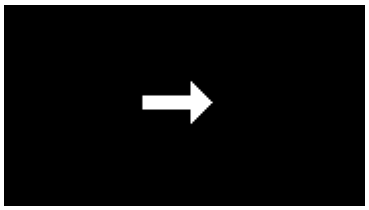
## Engine

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

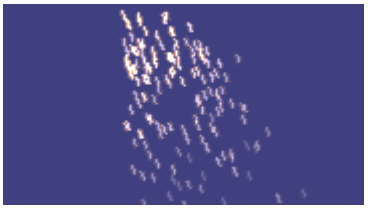
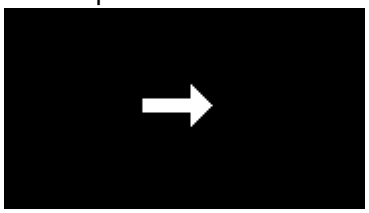
## Events

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

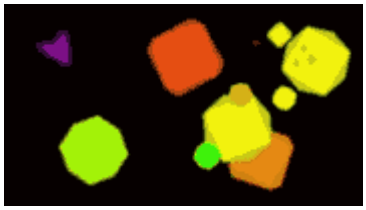
## Fonts

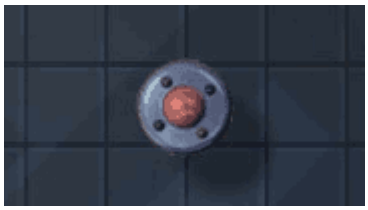
 Fun with Text and Shaders  orxFontGen  Font tool for unicode, including Chinese  See more Font Examples

## FX

 FX  Sparks with Spawners and FX  Creating an Insect Object (Speed FX)  See more FX Examples

## Game Writing Guides

 Learning Orx with Asteroids  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

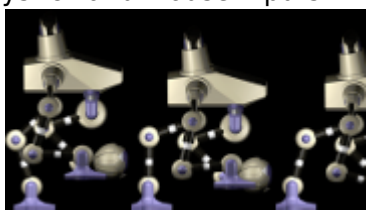
 Overriding a Controller Mapping  Remapping



Controller Inputs Testing Key, Joystick and Mouse Inputs



Interaction, Control and Physics



Realistic Walk



Movement Creating Particle Explosions



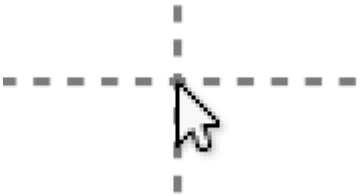

Mouse over effect for buttons



Notes on input



Keyboard Inputs



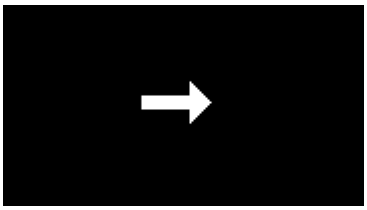
Mouse Grab



Compiling hidapi in a game



Input Triggers

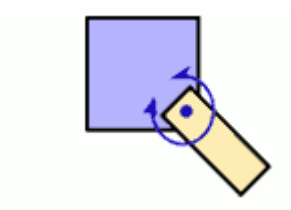


See more Input Examples

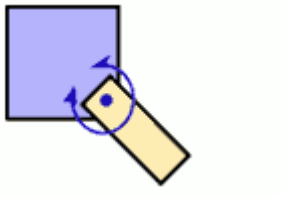
## Joints



Creating an Insect Object (Revolute Joint)

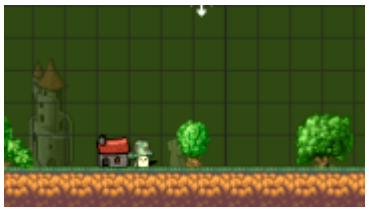
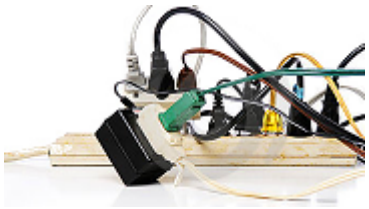


Weld Joint on parent/child Objects with Bodies



Z-order of Objects with Joints

## Level Mapping

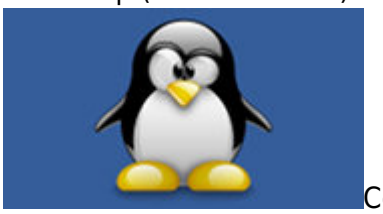
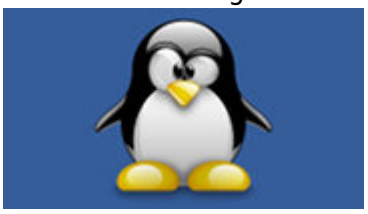
 Semi-dynamic Objects and Level Mapping 

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

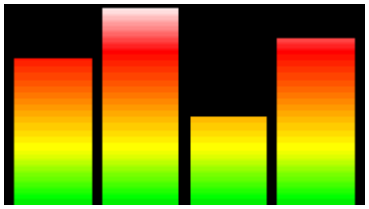
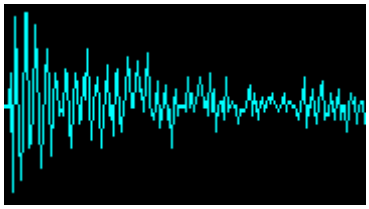
 Building the Orx Library with Xcode on Mac OS X

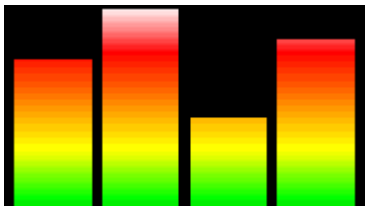
 Building the Orx Library with Codelite on Mac OS X

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

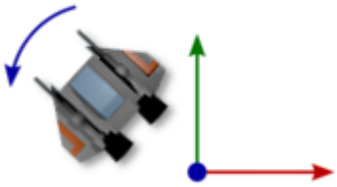
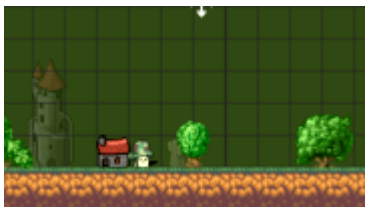
 Setting up a game project on Mac OS X

## Music

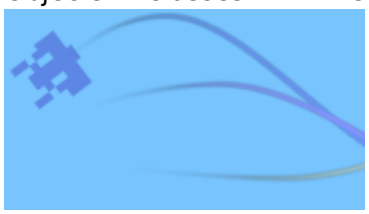
 Sound & Music  Sound Recording

 Sound Buses

## Objects


Basic Object

Object Transformation

Semi-dynamic Objects and Level Mapping

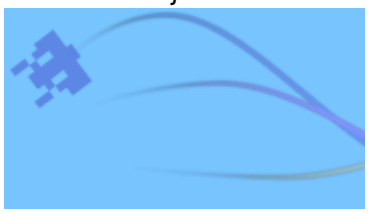
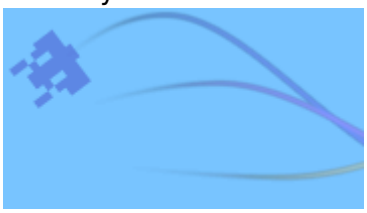
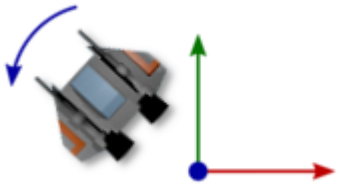
Objects in Classes with EventHandlers

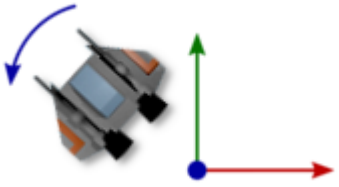
The Binding of Objects

Object Traversing

Notes on Rotation

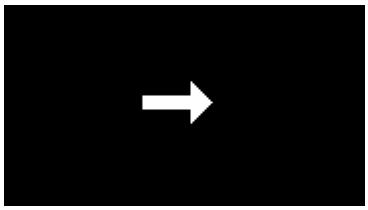
A natural-looking glowing ball effect

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

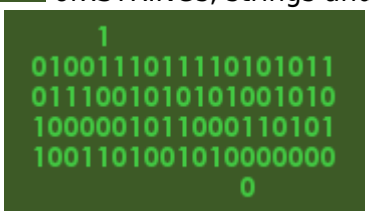

Objects

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

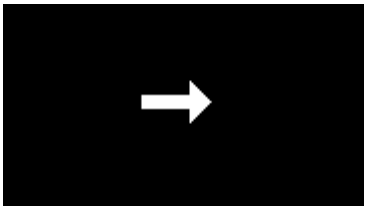
Access Scroll class from ScrollObject

ScrollObject to ScrollObject Communication

Changing the Default Config File for orx/Scroll

Moving a ScrollObject along a curve

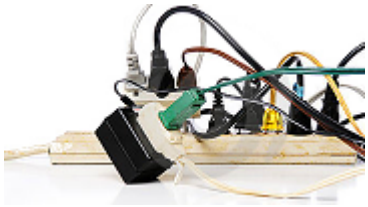
orxScroll, Cameras and Viewports


ProgressBars in orxScroll 
Pathfinding See more orx/Scroll Examples

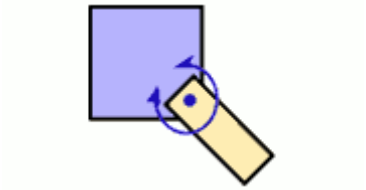
## Physics

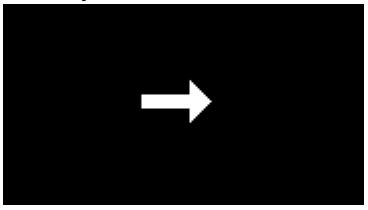

Basic Physics and Collisions 
Physics


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




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



~~Using orxhub~~ (deprecated)

## 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

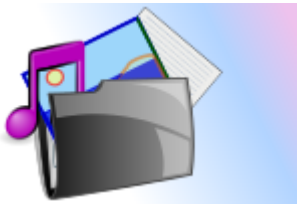



Scrolling

## Resources



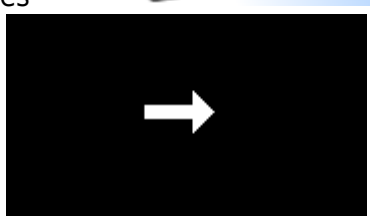
Zip Archive Resources



Resources over HTTP



Resource Reloading

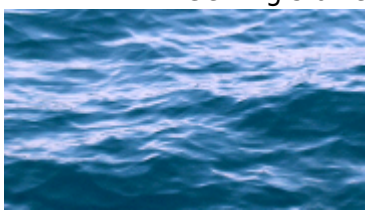
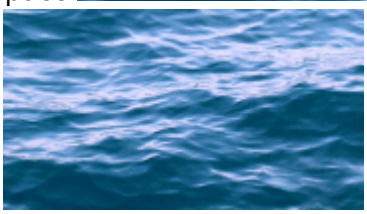
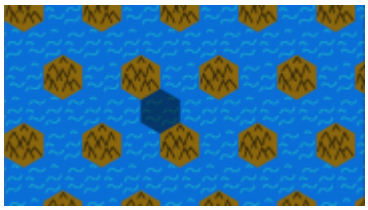
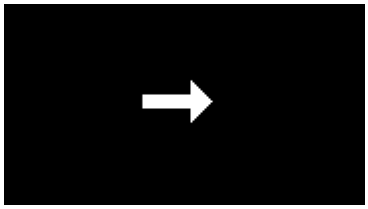


See more Resource Examples

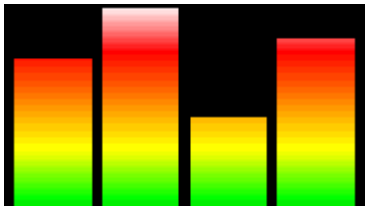
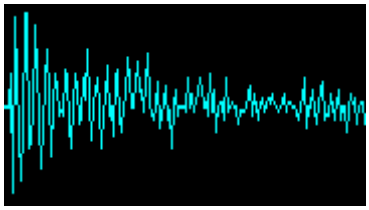
## Scenes

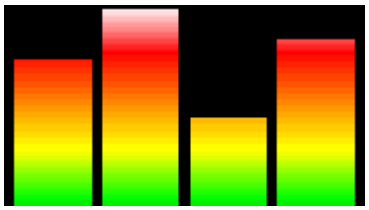
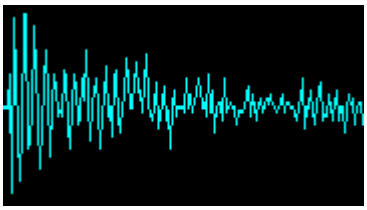
 Data-Driven Scene Transitions

## 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

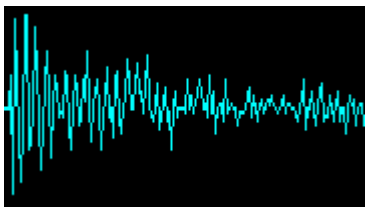
## Sound


Sound & Music

Sound Recording

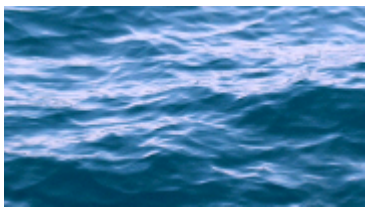

Sound Buses

Audio Filters



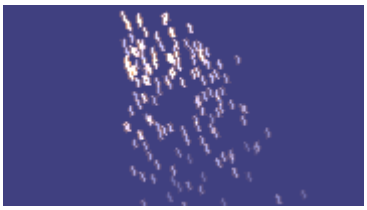
Audio filters, miniaudio & audio extensions Video


Sound Spatialization

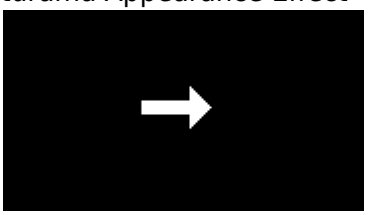
## Spawners


Spawner & Shader

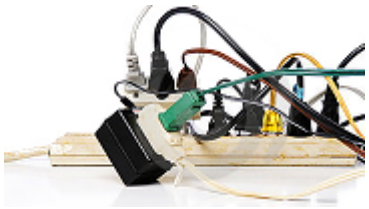
Creating Particle Explosions

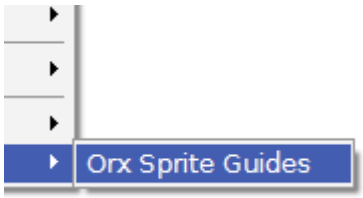

Spawning Bullets

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



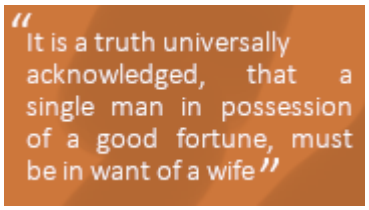

## System


The Clipboard


Drag and Drop


Commandline Parameters

## Text



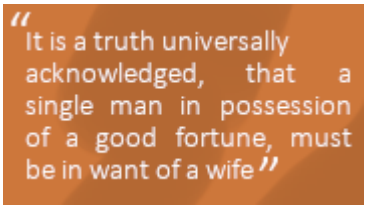
Text Boundaries



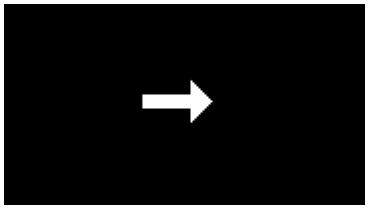
Fun with Text and Shaders



orxFontGen



Text Background

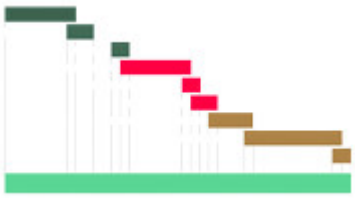

See more Text Examples

## Textures

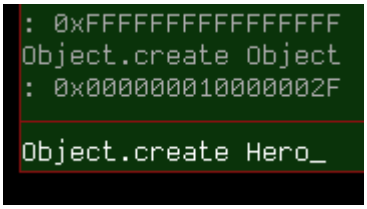


Using compressed textures on the iPad

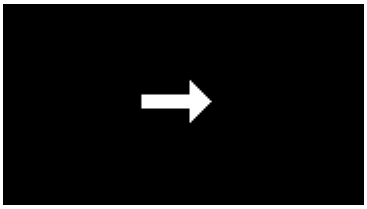
## Timelines / Tracks



Timelines / Tracks




Command and Timeline Notes



See more Track and Command Examples

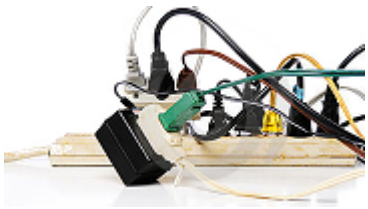
## Tools



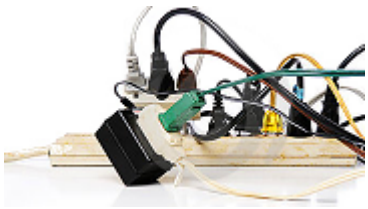
The Orx Profiler



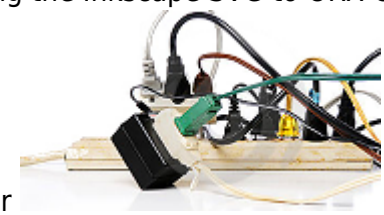

orxFontGen



Using the Inkscape SVG to ORX Converter



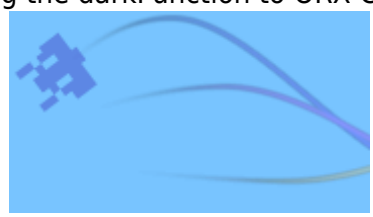
Using the TMX to ORX Converter



Using the darkFunction to ORX Converter

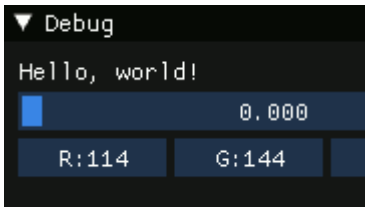


Using SWIG to talk to Java on Android

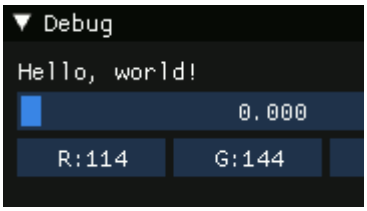


Logging all Structures to a Tree

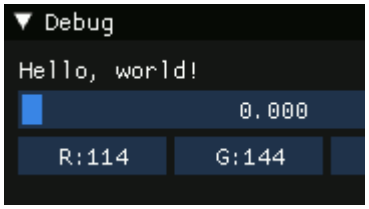
## UI / User Interface



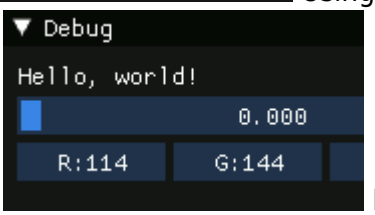
Using ImGui with Orx



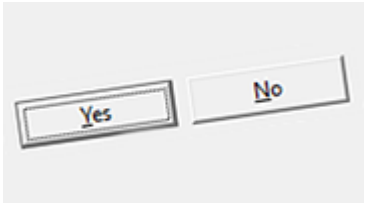
Using Nuklear with Orx



Nuklear Font Management



Notes on Nuklear with Orx

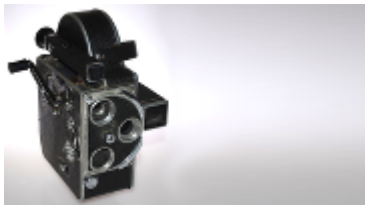


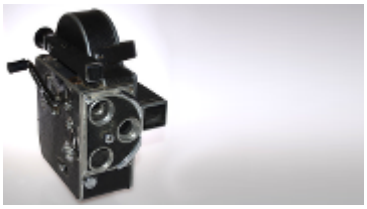
File Dialogs and Messageboxes



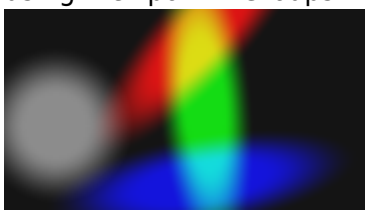
Mouser over effect for buttons

## 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

From:
https://orx-project.org/wiki/ - **Orx Learning**

Permanent link:
**https://orx-project.org/wiki/en/tutorials/main?rev=1732881810**

Last update: **2025/09/30 17:26 (13 months ago)**