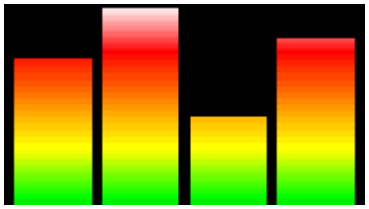
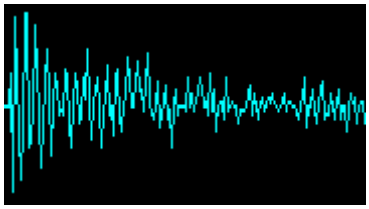
Tutorials Listed By Subject

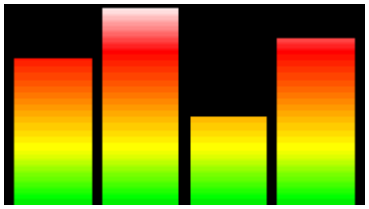
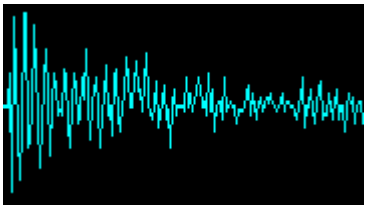
This section contains all tutorials indexed by subject for orx, an opensource, portable, lightweight, data-driven & 2D-oriented game engine.

Contributions are very welcome.

Search

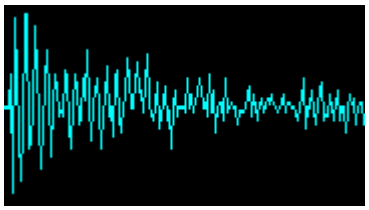
Audio


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

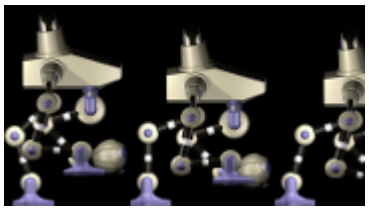
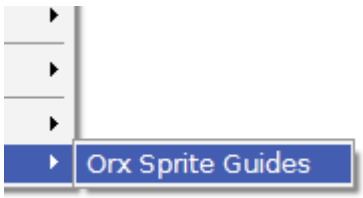
Project Android Demo as a template project

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

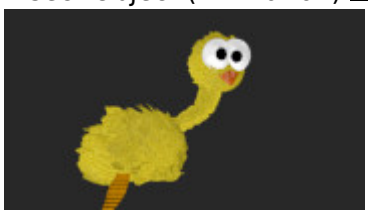
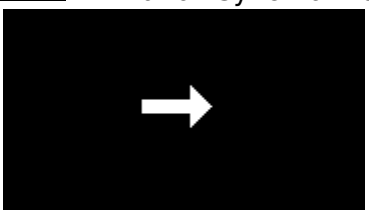
 Realistic Walk Movement  Creating Particle Explosions 

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

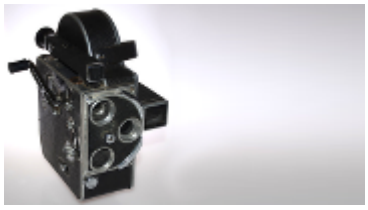
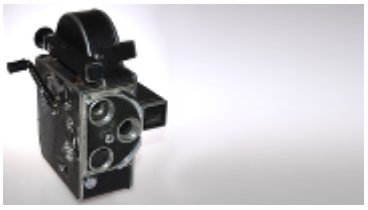
C++

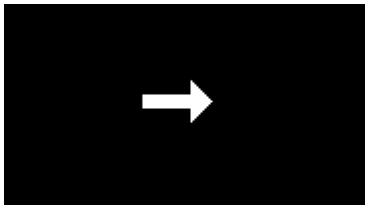
 Localization  Stand Alone Application

 Using orxObjects in Classes with an EventHandler

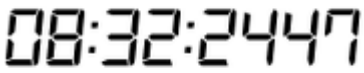
 An Introduction to orx/Scroll  Compiling hidapi in a game

Cameras

 Viewport and Camera  Cameras and Frustums

 orxScroll, Cameras and Viewports  See more Camera Examples

Clocks

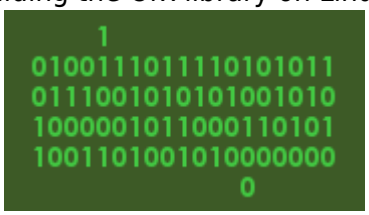


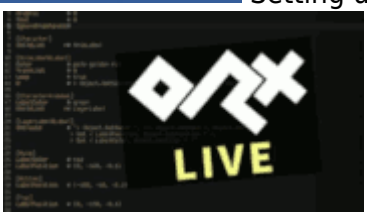
Clock

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 

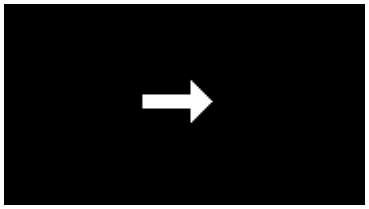
Stand Alone Application 

Codelite & Environment Variables Video

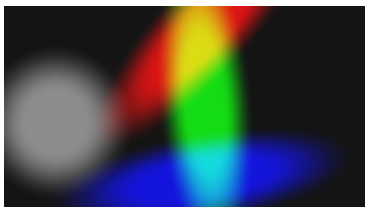
Color / Colour

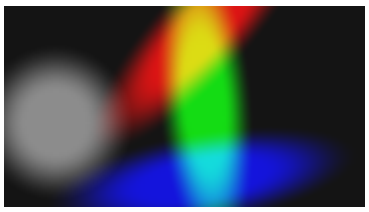
 orxCOLOR and how to colour an object 

Converting a percentage to a color  Web Color Literals

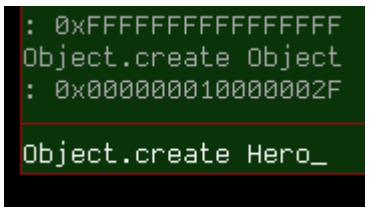
 A natural-looking glowing ball effect  See more Color Examples

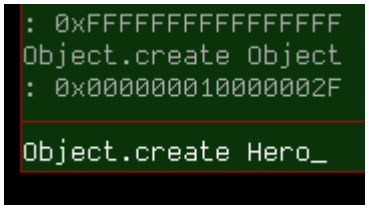
Compositing

 Compositing (2D lighting with offscreen rendering)

 Viewport Render to Texture

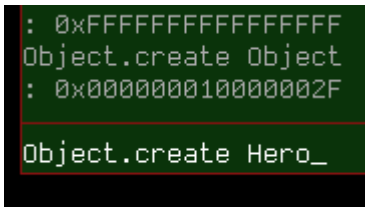
Console

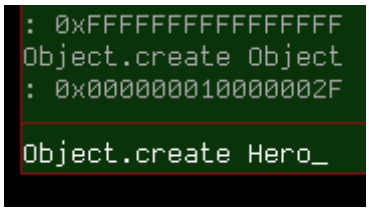


Guide to the Orx Console and Commands  The Bounce Demo 

Custom Console Colors

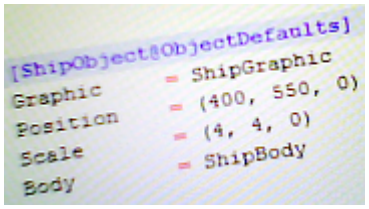
Command Module

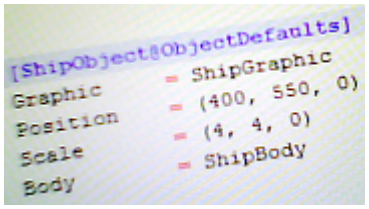


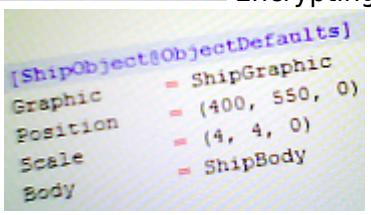
Command Module Syntax 

Command and Timeline Notes

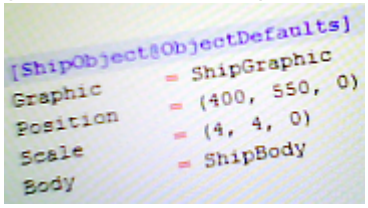
Config

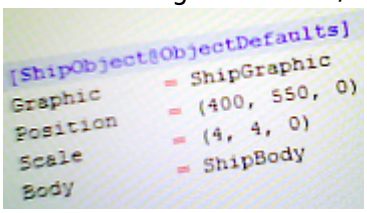


Encrypting Config Files 

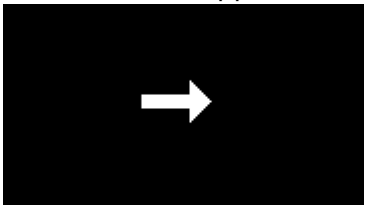
Saving information to a config file 

Changing the Default Config File 

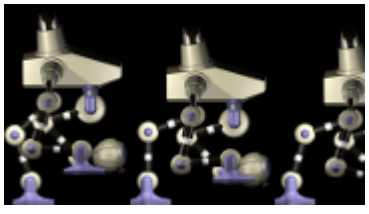
Changing the Default Config File for orx/Scroll 

Retrieving and Updating Config Values 

Stepped Random Values 

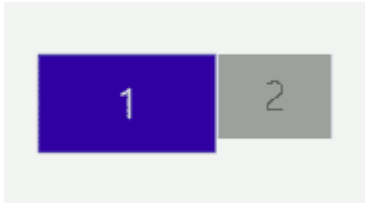
Local-only Config Overriding Video 
See more Config Examples

Controls

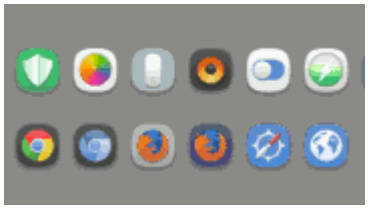
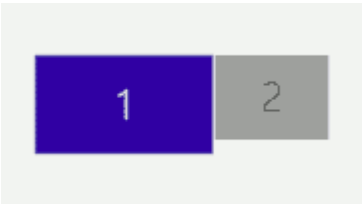

Interaction, Control and Physics 
Realistic Walk

Movement  Creating Particle Explosions

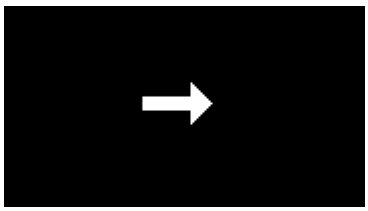
Display



Multiple Monitors  Custom Mouse Cursors

 Application Icons 

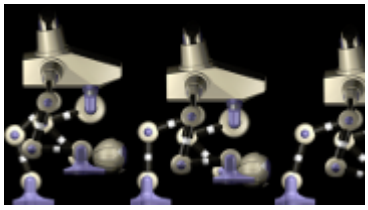
Borderless Window Mode

 See more Display Examples

Downloads

 Getting Started with Orx

Events

 Realistic Walk Movement 

Using orxObjects in Classes with an EventHandler  Creating Particle Explosions

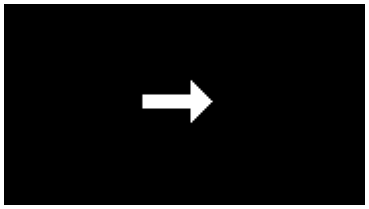
Fonts



Fun with Text and Shaders 

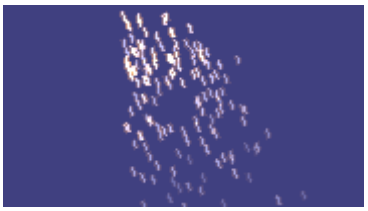
orxFontGen

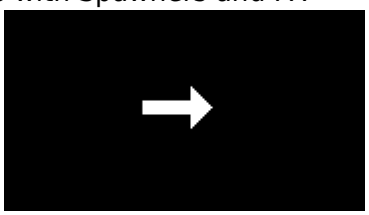


Font tool for unicode, including Chinese 

See more Font Examples

FX


FX 
Sparks with Spawners and FX


Creating an Insect Object (Speed FX) 

See more FX Examples

Game Guides


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

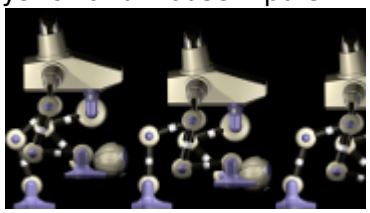

Analog Stick Threshold


Overriding a Controller Mapping


Remapping Controller Inputs


Testing Key, Joystick and Mouse Inputs


Interaction, Control and Physics


Realistic Walk Movement

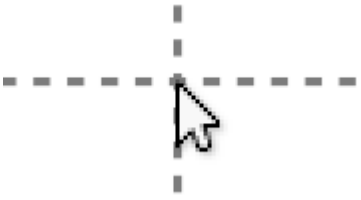

Creating Particle Explosions



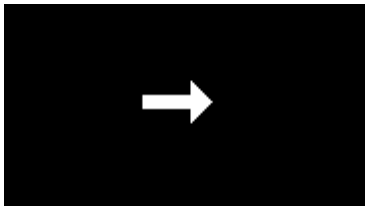
Mouse over effect for buttons


Notes on input


Keyboard Inputs

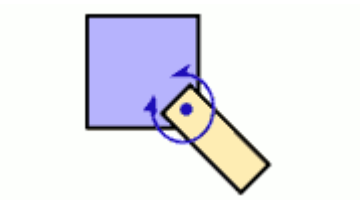

Mouse Grab

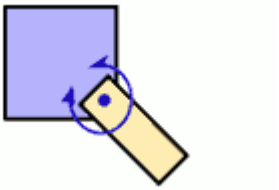

Compiling hidapi


in a game See more Input Examples

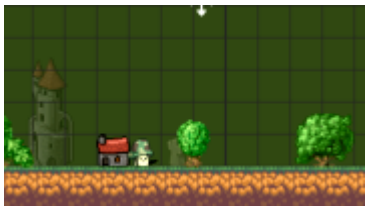
Joints

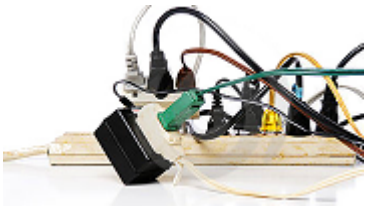

Creating an Insect Object (Revolute Joint)


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

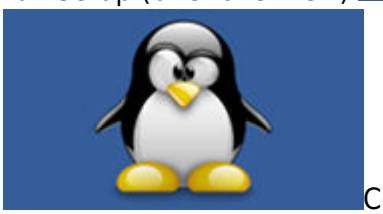
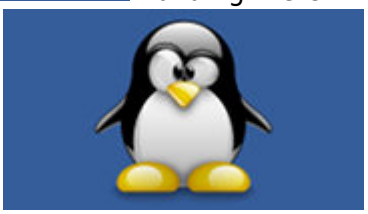

Hexagon Grid Tutorial


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

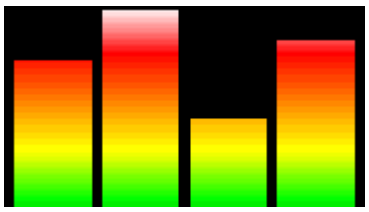
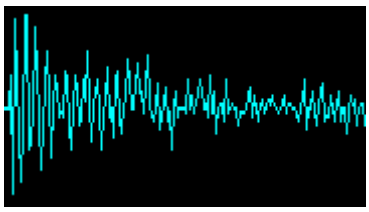
 Building the Orx Library with Xcode on Mac OS X

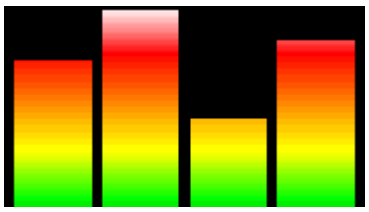
 Building the Orx Library with Codelite on Mac OS X


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

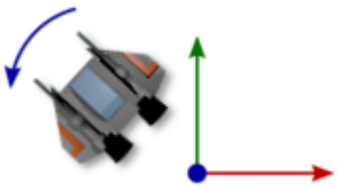

Setting up a game project on Mac OS X

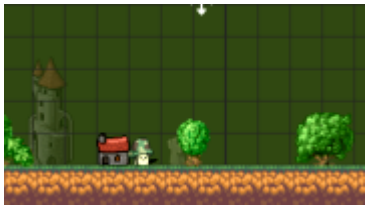
Music

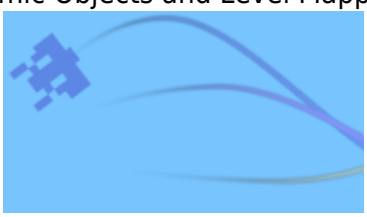

Sound & Music 
Sound Recording


Sound Buses

Objects

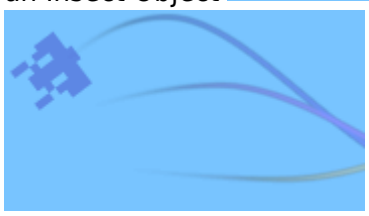

Basic Object 
Object Transformation

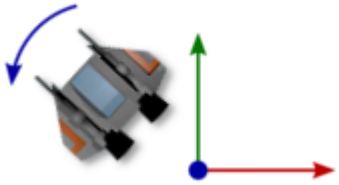

Semi-dynamic Objects and Level Mapping 

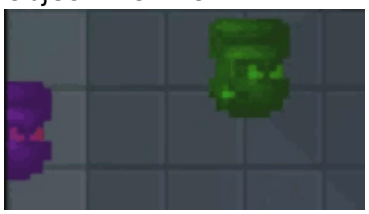
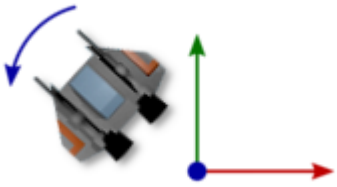
Objects in Classes with EventHandlers 
The Binding of Objects

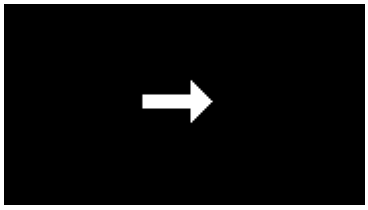
 Object Traversing  Notes on Rotation

 A natural-looking glowing ball effect  Creating an Insect Object  Creating an Object made of many Parts

 Passing items from one Object to another 

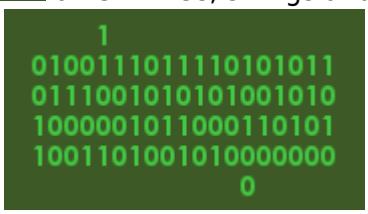
 Object Lifetime Relative Object Positioning and Scaling

 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

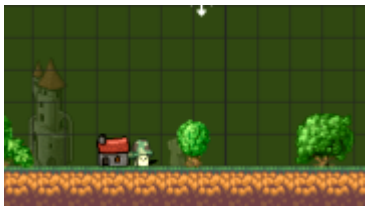
Access Scroll class from ScrollObject

ScrollObject to ScrollObject Communication

Changing the Default Config File for orx/Scroll

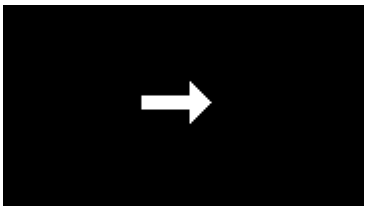
Moving a ScrollObject along a curve

orxScroll, Cameras and Viewports



ProgressBars in orxScroll

Pathfinding



See more orx/Scroll Examples

Physics

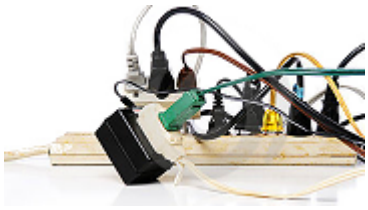
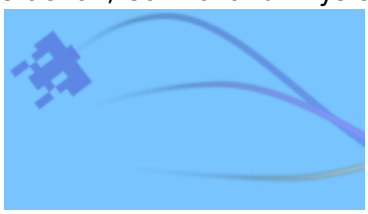


Basic Physics and Collisions

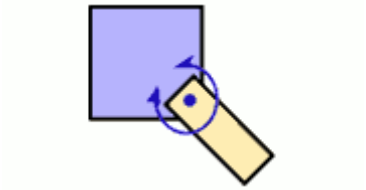


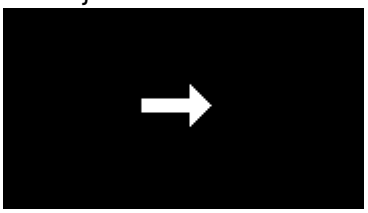
Physics

 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



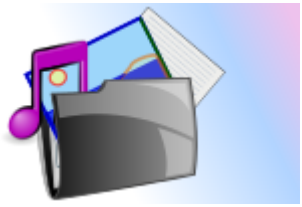
Common Release Checklist

Scrolling

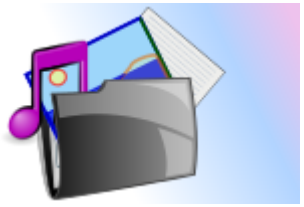


Scrolling

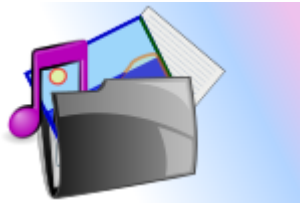
Resources



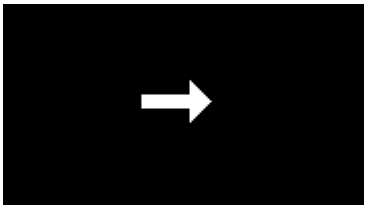
Zip Archive Resources



Resources over HTTP



Resource Reloading



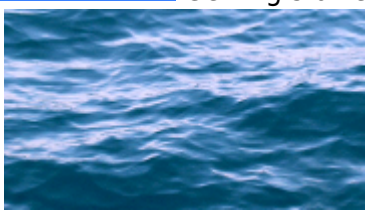
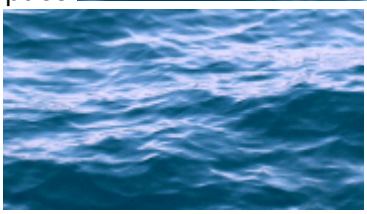
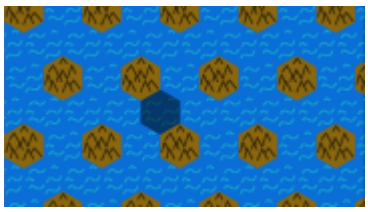
See more Resource Examples

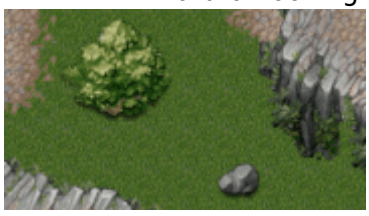
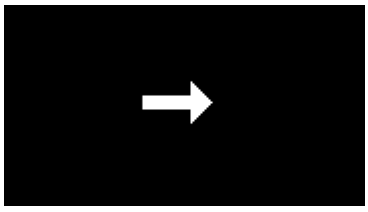
Scenes



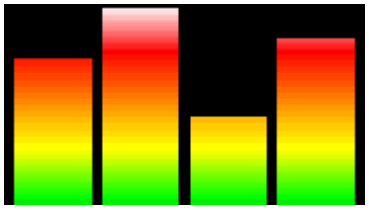
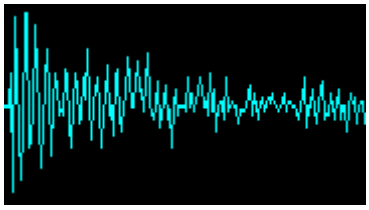
Data-Driven Scene Transitions

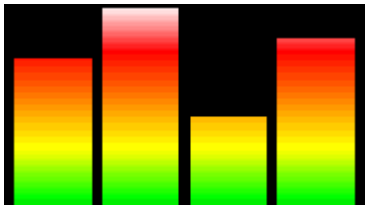
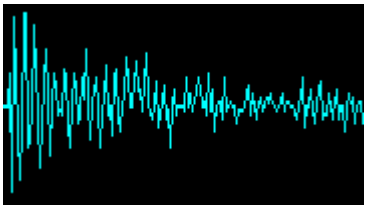
Shaders

 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

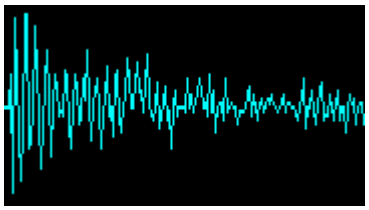
Sound

 Sound & Music  Sound Recording

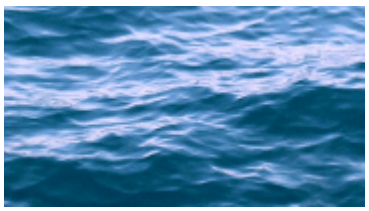
 Sound Buses  Audio Filters

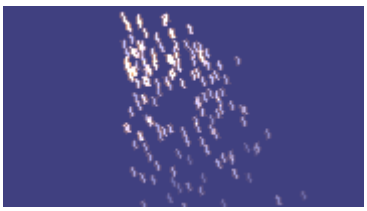
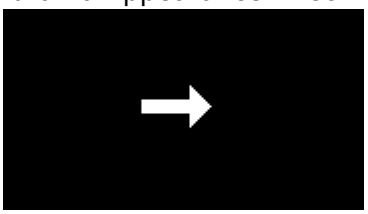


Audio filters, miniaudio & audio extensions Video

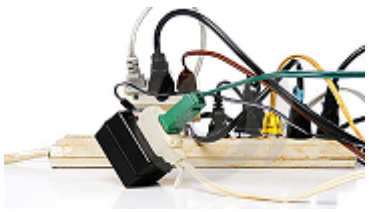
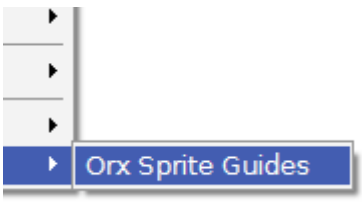

Sound Spatialization

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

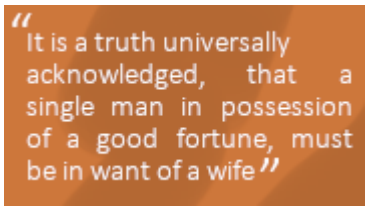


Drag and Drop



Commandline Parameters

Text



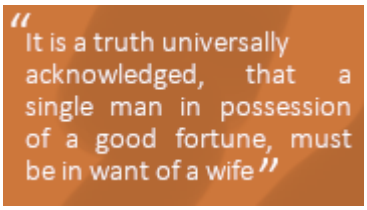
Text Boundaries



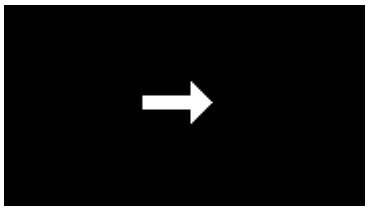
Fun with Text and Shaders



orxFontGen



Text Background



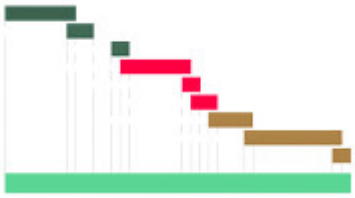
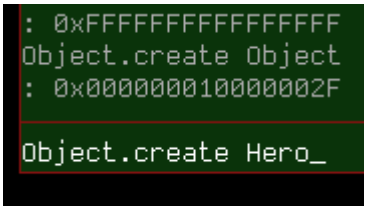
See more Text Examples

Textures

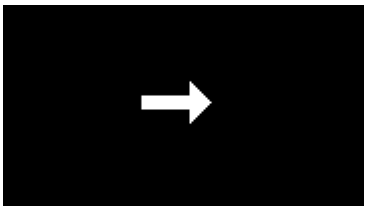


Using compressed textures on the iPad

Timelines / Tracks

 Timelines / Tracks 

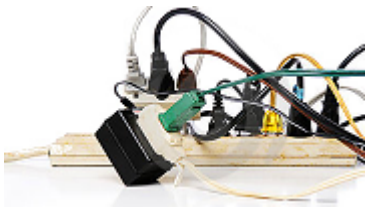
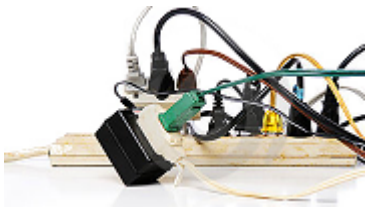
Command and Timeline

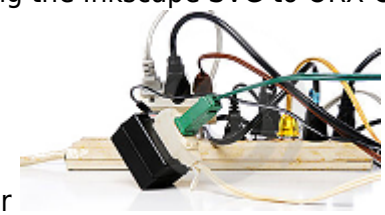
Notes  See more Track and Command Examples

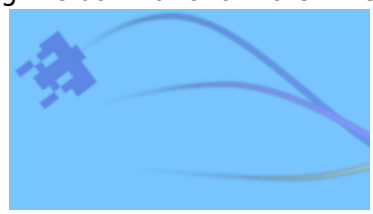
Tools

 The Orx Profiler 

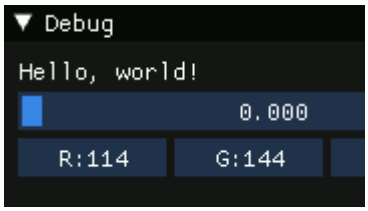
orxFontGen

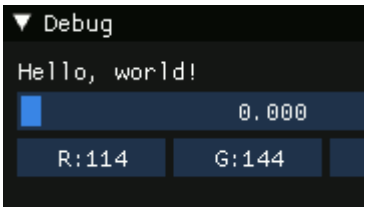
 Using the Inkscape SVG to ORX Converter 

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

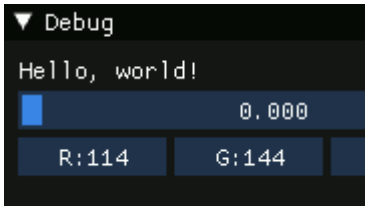
 Using SWIG to talk to Java on Android  Logging all Structures to a Tree

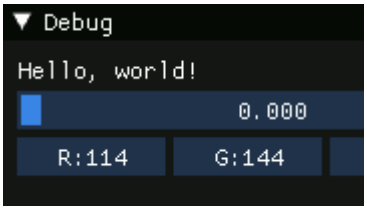
UI / User Interface

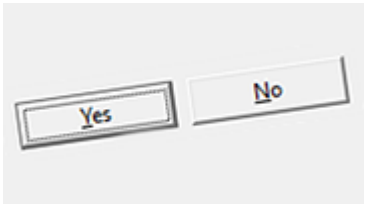


Using ImGui with Orx 

Using Nuklear with Orx



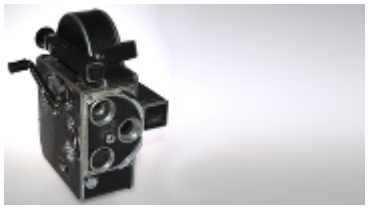
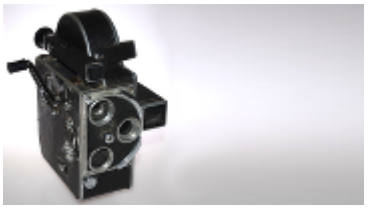
Nuklear Font Management


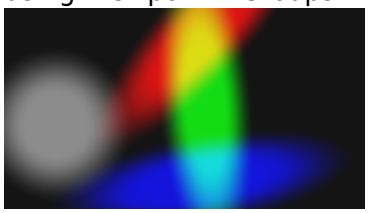
Notes on Nuklear with Orx


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

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

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Last update: **2025/09/30 17:26 (14 months ago)**