

1. Record Nr.	UNINA9910463592803321
Autore	Perevalov Denis
Titolo	openFrameworks essentials : create stunning, interactive openFrameworks-based applications with this fast-paced guide // Denis Perevalov, Igor (Sodazot) Tatarnikov ; foreword by Dmitry Karpov
Pubbl/distr/stampa	Birmingham, England ; ; Mumbai, [India] : , : Packt Publishing, , 2015 ©2015
Descrizione fisica	1 online resource (206 p.)
Collana	Community Experience Distilled
Disciplina	006.6869
Soggetti	Computer graphics Interactive multimedia - Authoring programs Graphic arts Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover; Copyright; Credits; Foreword; About the Authors; About the Reviewers; www.PacktPub.com; Table of Contents; Preface; Chapter 1: Getting Started with openFrameworks; What is openFrameworks?; Installing openFrameworks; The openFrameworks folder structure; Running your first example; The video synthesizer application; Three reasons to create your own video synthesizer with openFrameworks; Summary; Chapter 2: Creating Your First openFrameworks Project; Creating and running a new project; Creating a project; Running a project; Discovering the project's code structure; Setting up the screen Centering the coordinate systemA simple drawing; Setting drawing color; Drawing primitives; Geometric patterns; The stripe pattern; A stripe pattern made from parallel lines; A stripe pattern made from rotating lines; A stripe pattern made from rotating triangles; Summary; Chapter 3: Adding GUI and Handling Keyboard Events; Creating a GUI using the ofxGui addon; Implementing a simple GUI panel with sliders; Using the sliders' values; Implementing the autosave feature; Creating groups of controls; Using the sliders' values; Implementing a checkbox, a color selector, and a 2D slider

Using the controls' values
Experimenting with the project; Handling keyboard events; Hiding the GUI; Saving a screenshot; Saving a preset using the system save dialog; Loading a preset using the system load dialog; Implementing the matrix pattern generator; Using the sliders' values; Experimenting with the matrix pattern generator; Summary;
Chapter 4: Working with Raster Graphics - Images, Videos, and Shaders; Raster images in openFrameworks; Drawing an image file; Playing a video file; Grabbing a live video from a camera; Mixing layers using additive blending; Creating the mixer's GUI
Implementing the mixer's functionality
Creating the video effect with a shader; Redirecting drawing to the offscreen buffer; Drawing the offscreen buffer contents and enabling smoothing; Implementing the kaleidoscope effect; Creating the fragment shader; Creating the vertex shader; Using created shaders in the project; Summary;
Chapter 5: Creating 3D Graphics; Introduction to 3D graphics with openFrameworks; openFrameworks classes for surface representation; Drawing a wireframe sphere; Creating a camera; Controlling the camera with a mouse
Disabling mouse control for the camera when the GUI is visible
Camera automation; Drawing a solid sphere; The things needed for shading the surface; Drawing a solid sphere with shading; Texturing the sphere; Preparing a texture; Setting texture coordinates; Activating texturing; Mixing 2D and 3D with the GUI; Deforming a sphere; Deforming by formulas; Extruding the sphere; Summary;
Chapter 6: Animating Parameters; Using time values for a parameter's automation; Implementing a simple LFO; Implementing a pseudorandom LFO with Perlin noise; Using the level of sound for a parameter's automation
Playing and analyzing an audio file

Sommario/riassunto

If you are a programmer, visual artist, or designer with experience in creative coding, and want to use openFrameworks to create fun, stunning, and interactive applications, this is the book for you. Basic knowledge of programming languages, such as C++, Java, Python, or JavaScript, will be enough to proceed with the book.
