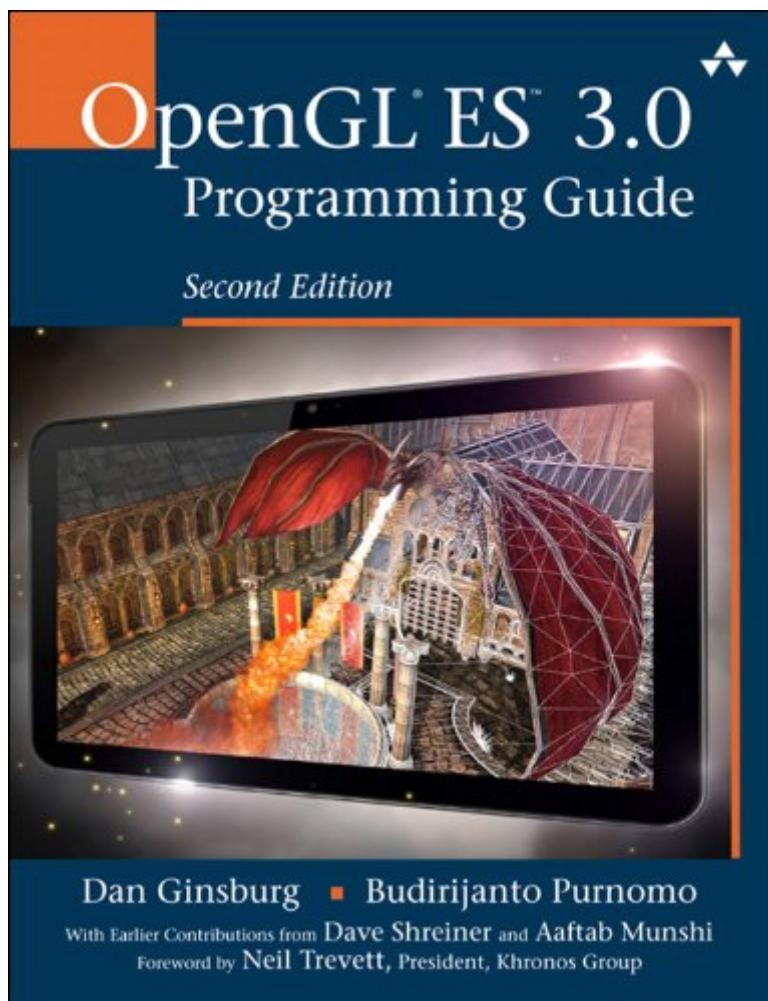


The book was found

# OpenGL ES 3.0 Programming Guide



## Synopsis

OpenGL® ES is the industry's leading software interface and graphics library for rendering sophisticated 3D graphics on handheld and embedded devices. The newest version, OpenGL ES 3.0, makes it possible to create stunning visuals for new games and apps, without compromising device performance or battery life. In the OpenGL® ES 3.0 Programming Guide, Second Edition, the authors cover the entire API and Shading Language. They carefully introduce OpenGL ES 3.0 features such as shadow mapping, instancing, multiple render targets, uniform buffer objects, texture compression, program binaries, and transform feedback. Through detailed, downloadable C-based code examples, you'll learn how to set up and program every aspect of the graphics pipeline. Step by step, you'll move from introductory techniques all the way to advanced per-pixel lighting and particle systems. Throughout, you'll find cutting-edge tips for optimizing performance, maximizing efficiency with both the API and hardware, and fully leveraging OpenGL ES 3.0 in a wide spectrum of applications. All code has been built and tested on iOS 7, Android 4.3, Windows (OpenGL ES 3.0 Emulation), and Ubuntu Linux, and the authors demonstrate how to build OpenGL ES code for each platform. Coverage includes EGL API: communicating with the native windowing system, choosing configurations, and creating rendering contexts and surfaces Shaders: creating and attaching shader objects; compiling shaders; checking for compile errors; creating, linking, and querying program objects; and using source shaders and program binaries OpenGL ES Shading Language: variables, types, constructors, structures, arrays, attributes, uniform blocks, I/O variables, precision qualifiers, and invariance Geometry, vertices, and primitives: inputting geometry into the pipeline, and assembling it into primitives 2D/3D, Cubemap, Array texturing: creation, loading, and rendering; texture wrap modes, filtering, and formats; compressed textures, sampler objects, immutable textures, pixel unpack buffer objects, and mipmapping Fragment shaders: multitexturing, fog, alpha test, and user clip planes Fragment operations: scissor, stencil, and depth tests; multisampling, blending, and dithering Framebuffer objects: rendering to offscreen surfaces for advanced effects Advanced rendering: per-pixel lighting, environment mapping, particle systems, image post-processing, procedural textures, shadow mapping, terrain, and projective texturing Sync objects and fences: synchronizing within host application and GPU execution This edition of the book includes a color insert of the OpenGL ES 3.0 API and OpenGL ES Shading Language 3.0 Reference Cards created by Khronos. The reference cards contain a complete list of all of the functions in OpenGL ES 3.0 along with all of the types, operators, qualifiers, built-ins, and functions in the OpenGL ES Shading Language.

## Book Information

File Size: 51856 KB

Print Length: 560 pages

Simultaneous Device Usage: Up to 5 simultaneous devices, per publisher limits

Publisher: Addison-Wesley Professional; 2 edition (February 28, 2014)

Publication Date: February 28, 2014

Sold by: Digital Services LLC

Language: English

ASIN: B00IPIYA64

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Enabled

Best Sellers Rank: #574,877 Paid in Kindle Store (See Top 100 Paid in Kindle Store) #31

in Books > Computers & Technology > Programming > Graphics & Multimedia > OpenGL #168

in Books > Computers & Technology > Graphics & Design > 3D Graphics #336 in Kindle Store > Kindle eBooks > Computers & Technology > Web Graphics

## Customer Reviews

This book is not a tutorial on OpenGL. You really need to already understand all the concepts of OpenGL, C style programming languages, and 3D programming in general before this book will be of any use to you. It is geared toward people who are ready to move from an older version to 3.0. We are not looking at a book that starts with a small sample and takes you to the end of a project. Instead the book takes each aspect of OpenGL 3.0 and covers it as a standalone topic. The back of the book covers what platforms support OpenGL 3.0 and have been tested with the contents of the book including Android 4.3, iOS 7+, Windows and Ubuntu Linux while setting up and using OpenGL on the platforms is not covered until chapter 16. Each chapter covers a small area and explains why things changed in the 3.0 version and why you would want to use the new way of doing things. A lot of areas have improved or have been optimized for 3.0 and doing things the old way will end up in subpar performance or a lot of extra code. If there are multiple ways to accomplish something in 3.0 the book covers them and tells you which way is the most common and why. While there is not a start to end project happening each section does have code examples to show real world usage of the example being presented. Since OpenGL is not simple it is handy to see the set up and tear

down needed to use the feature being covered. The middle of the book is a full color quick reference section. There is no easy way to remove this section to use as a separate guide. It does have a link to a PDF you can download or you can purchase it as a laminated card from . This book contains very dense information. It explains how to get the most out of OpenGL ES 3.

[Download to continue reading...](#)

Programming #8:C Programming Success in a Day & Android Programming In a Day! (C Programming, C++programming, C++ programming language, Android , Android Programming, Android Games) Programming #57: C++ Programming Professional Made Easy & Android Programming in a Day (C++ Programming, C++ Language, C++for beginners, C++, Programming ... Programming, Android, C, C Programming) OpenGL Programming Guide: The Official Guide to Learning OpenGL, Version 4.5 with SPIR-V OpenGL Programming Guide: The Official Guide to Learning OpenGL, Version 4.3 (8th Edition) OpenGL Programming Guide: The Official Guide to Learning OpenGL, Versions 3.0 and 3.1 (7th Edition) OpenGL Programming Guide: The Official Guide to Learning OpenGL, Version 4.3 OpenGL(R) Programming Guide: The Official Guide to Learning OpenGL(R), Version 2.1 (6th Edition) Programming #45: Python Programming Professional Made Easy & Android Programming In a Day! (Python Programming, Python Language, Python for beginners, ... Programming Languages, Android Programming) C#: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of C# programming (C#, C# Programming, C++ Programming, C++, C, C Programming, C# Language, C# Guide, C# Coding) Android: Programming in a Day! The Power Guide for Beginners In Android App Programming (Android, Android Programming, App Development, Android App Development, ... App Programming, Rails, Ruby Programming) DOS: Programming Success in a Day: Beginners guide to fast, easy and efficient learning of DOS programming (DOS, ADA, Programming, DOS Programming, ADA ... LINUX, RPG, ADA Programming, Android, JAVA) ASP.NET: Programming success in a day: Beginners guide to fast, easy and efficient learning of ASP.NET programming (ASP.NET, ASP.NET Programming, ASP.NET ... ADA, Web Programming, Programming) FORTRAN Programming success in a day:Beginners guide to fast, easy and efficient learning of FORTRAN programming (Fortran, Css, C++, C, C programming, ... Programming, MYSQL, SQL Programming) Prolog Programming; Success in a Day: Beginners Guide to Fast, Easy and Efficient Learning of Prolog Programming (Prolog, Prolog Programming, Prolog Logic, ... Programming, Programming Code, Java) Parallel Programming: Success in a Day: Beginners' Guide to Fast, Easy, and Efficient Learning of Parallel Programming (Parallel Programming, Programming, ... C++ Programming, Multiprocessor, MPI) Programming: Computer Programming for Beginners: Learn the

Basics of Java, SQL & C++ - 3. Edition (Coding, C Programming, Java Programming, SQL Programming, JavaScript, Python, PHP) Raspberry Pi 2: Raspberry Pi 2 Programming Made Easy (Raspberry Pi, Android Programming, Programming, Linux, Unix, C Programming, C+ Programming) R Programming: Learn R Programming In A DAY! - The Ultimate Crash Course to Learning the Basics of R Programming Language In No Time (R, R Programming, ... Course, R Programming Development Book 1) WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) XML Programming Success in a Day: Beginner's Guide to Fast, Easy, and Efficient Learning of XML Programming (XML, XML Programming, Programming, XML Guide, ... XSL, DTD's, Schemas, HTML5, JavaScript)

[Dmca](#)