



# WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL)

*By Kouichi Matsuda, Rodger Lea*

Download now

Read Online ➔

## WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea

Using WebGL®, you can create sophisticated interactive 3D graphics inside web browsers, without plug-ins. WebGL makes it possible to build a new generation of 3D web games, user interfaces, and information visualization solutions that will run on any standard web browser, and on PCs, smartphones, tablets, game consoles, or other devices. WebGL Programming Guide will help you get started quickly with interactive WebGL 3D programming, even if you have no prior knowledge of HTML5, JavaScript, 3D graphics, mathematics, or OpenGL.

You'll learn step-by-step, through realistic examples, building your skills as you move from simple to complex solutions for building visually appealing web pages and 3D applications with WebGL. Media, 3D graphics, and WebGL pioneers Dr. Kouichi Matsuda and Dr. Rodger Lea offer easy-to-understand tutorials on key aspects of WebGL, plus 100 downloadable sample programs, each demonstrating a specific WebGL topic.

You'll move from basic techniques such as rendering, animating, and texturing triangles, all the way to advanced techniques such as fogging, shadowing, shader switching, and displaying 3D models generated by Blender or other authoring tools. This book won't just teach you WebGL best practices, it will give you a library of code to jumpstart your own projects.

Coverage includes:

- WebGL's origin, core concepts, features, advantages, and integration with other web standards
- How and basic WebGL functions work together to deliver 3D graphics
- Shader development with OpenGL ES Shading Language (GLSL ES)
- 3D scene drawing: representing user views, controlling space volume, clipping, object creation, and perspective
- Achieving greater realism through lighting and hierarchical objects
- Advanced techniques: object manipulation, heads-up displays, alpha blending, shader switching, and more

- Valuable reference appendixes covering key issues ranging from coordinate systems to matrices and shader loading to web browser settings

This is the newest text in the OpenGL Technical Library, Addison-Wesley's definitive collection of programming guides and reference manuals for OpenGL and its related technologies. The Library enables programmers to gain a practical understanding of OpenGL and the other Khronos application-programming libraries including OpenGL ES and OpenCL. All of the technologies in the OpenGL Technical Library evolve under the auspices of the Khronos Group, the industry consortium guiding the evolution of modern, open-standards media APIs.

 [Download WebGL Programming Guide: Interactive 3D Graphics P...pdf](#)

 [Read Online WebGL Programming Guide: Interactive 3D Graphics...pdf](#)

# WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL)

*By Kouichi Matsuda, Rodger Lea*

**WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL)** By Kouichi Matsuda, Rodger Lea

Using WebGL®, you can create sophisticated interactive 3D graphics inside web browsers, without plug-ins. WebGL makes it possible to build a new generation of 3D web games, user interfaces, and information visualization solutions that will run on any standard web browser, and on PCs, smartphones, tablets, game consoles, or other devices. WebGL Programming Guide will help you get started quickly with interactive WebGL 3D programming, even if you have no prior knowledge of HTML5, JavaScript, 3D graphics, mathematics, or OpenGL.

You'll learn step-by-step, through realistic examples, building your skills as you move from simple to complex solutions for building visually appealing web pages and 3D applications with WebGL. Media, 3D graphics, and WebGL pioneers Dr. Kouichi Matsuda and Dr. Rodger Lea offer easy-to-understand tutorials on key aspects of WebGL, plus 100 downloadable sample programs, each demonstrating a specific WebGL topic.

You'll move from basic techniques such as rendering, animating, and texturing triangles, all the way to advanced techniques such as fogging, shadowing, shader switching, and displaying 3D models generated by Blender or other authoring tools. This book won't just teach you WebGL best practices, it will give you a library of code to jumpstart your own projects.

Coverage includes:

- WebGL's origin, core concepts, features, advantages, and integration with other web standards
- How and basic WebGL functions work together to deliver 3D graphics
- Shader development with OpenGL ES Shading Language (GLSL ES)
- 3D scene drawing: representing user views, controlling space volume, clipping, object creation, and perspective
- Achieving greater realism through lighting and hierarchical objects
- Advanced techniques: object manipulation, heads-up displays, alpha blending, shader switching, and more
- Valuable reference appendixes covering key issues ranging from coordinate systems to matrices and shader loading to web browser settings

This is the newest text in the OpenGL Technical Library, Addison-Wesley's definitive collection of programming guides and reference manuals for OpenGL and its related technologies. The Library enables programmers to gain a practical understanding of OpenGL and the other Khronos application-programming libraries including OpenGL ES and OpenCL. All of the technologies in the OpenGL Technical Library evolve under the auspices of the Khronos Group, the industry consortium guiding the evolution of modern, open-standards media APIs.

**WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea Bibliography**

- Sales Rank: #371628 in Books
- Published on: 2013-07-19
- Original language: English
- Number of items: 1
- Dimensions: 8.70" h x 1.30" w x 6.90" l, 1.90 pounds
- Binding: Paperback
- 600 pages

 [Download WebGL Programming Guide: Interactive 3D Graphics P ...pdf](#)

 [Read Online WebGL Programming Guide: Interactive 3D Graphics ...pdf](#)

## Download and Read Free Online WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea

---

### Editorial Review

#### About the Author

**Dr. Kouichi Matsuda** has a broad background in user interface and user experience design and its application to novel multimedia products. His work has taken him from product development, through research, and back to development, having spent time at NEC, Sony Corporate Research, and Sony Computer Science Laboratories. He is currently a chief distinguished researcher focused on user experience and human computer interaction across a range of consumer electronics. He was the designer of the social 3D virtual world called "PAW" (personal agent-oriented virtual world), was involved in the development of the VRML97 (ISO/IEC 14772-1:1997) standard from the start, and has remained active in both VRML and X3D communities (precursors to WebGL). He has written 15 books on computer technologies and translated a further 25 into Japanese. His expertise covers user experiences, user interface, human computer interaction, natural language understanding, entertainment-oriented network services, and interface agent systems. Always on the lookout for new and exciting possibilities in the technology space, he combines his professional life with a love of hot springs, sea in summer, wines, and MANGA (at which he dabbles in drawing and illustrations). He received his Ph.D. (Engineering) from the Graduate School of Engineering, University of Tokyo.

**Dr. Rodger Lea** is an adjunct professor with the Media and Graphics Interdisciplinary Centre at the University of British Columbia, with an interest in systems aspects of multimedia and distributed computing. With more than 20 years of experience leading research groups in both academic and industrial settings, he has worked on early versions of shared 3D worlds, helped define VRML97, developed multimedia operating systems, prototyped interactive digital TV, and led developments on multimedia home networking standards. He has published more than 60 research papers and three books, and he holds 12 patents. His current research explores the growing "Internet of Things," but he retains a passion for all things media and graphics.

### Users Review

#### From reader reviews:

##### Rafael Brooks:

The feeling that you get from WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) is a more deep you excavating the information that hide inside words the more you get interested in reading it. It doesn't mean that this book is hard to understand but WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) giving you excitement feeling of reading. The author conveys their point in particular way that can be understood through anyone who read that because the author of this publication is well-known enough. This book also makes your own vocabulary increase well. That makes it easy to understand then can go along, both in printed or e-book style are available. We suggest you for having this specific WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) instantly.

**Phyllis Spencer:**

The guide untitled WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) is the guide that recommended to you you just read. You can see the quality of the book content that will be shown to anyone. The language that publisher use to explained their ideas are easily to understand. The copy writer was did a lot of study when write the book, to ensure the information that they share for you is absolutely accurate. You also will get the e-book of WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) from the publisher to make you considerably more enjoy free time.

**Ronda Tollison:**

Playing with family in a park, coming to see the marine world or hanging out with pals is thing that usually you may have done when you have spare time, then why you don't try thing that really opposite from that. One particular activity that make you not experience tired but still relaxing, trilling like on roller coaster you have been ride on and with addition associated with. Even you love WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL), you are able to enjoy both. It is excellent combination right, you still need to miss it? What kind of hangout type is it? Oh come on its mind hangout fellas. What? Still don't understand it, oh come on its known as reading friends.

**Robert Murphy:**

Many people spending their time period by playing outside using friends, fun activity using family or just watching TV all day long. You can have new activity to spend your whole day by reading through a book. Ugh, do you consider reading a book really can hard because you have to use the book everywhere? It alright you can have the e-book, delivering everywhere you want in your Smartphone. Like WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) which is keeping the e-book version. So , try out this book? Let's view.

**Download and Read Online WebGL Programming Guide:  
Interactive 3D Graphics Programming with WebGL (OpenGL) By  
Kouichi Matsuda, Rodger Lea #SBDPVFE1M80**

# **Read WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea for online ebook**

WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea books to read online.

## **Online WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea ebook PDF download**

**WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea Doc**

**WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea Mobipocket**

**WebGL Programming Guide: Interactive 3D Graphics Programming with WebGL (OpenGL) By Kouichi Matsuda, Rodger Lea EPub**