

# Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series)

Alexey Boreskov, Evgeniy Shikin

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Complete Coverage of the Current Practice of Computer Graphics

**Computer Graphics: From Pixels to Programmable Graphics Hardware** explores all major areas of modern computer graphics, starting from basic mathematics and algorithms and concluding with OpenGL and real-time graphics. It gives students a firm foundation in today's high-performance graphics.

#### Up-to-Date Techniques, Algorithms, and API

The book includes mathematical background on vectors and matrices as well as quaternions, splines, curves, and surfaces. It presents geometrical algorithms in 2D and 3D for spatial data structures using large data sets. Although the book is mainly based on OpenGL 3.3, it also covers tessellation in OpenGL 4.0, contains an overview of OpenGL ES 2.0, and discusses the new WebGL, which allows students to use OpenGL with shaders directly in their browser. In addition, the authors describe a variety of special effects, including procedural modeling and texturing, fractals, and non-photorealistic rendering. They also explain the fundamentals of the dominant language (OpenCL) and platform (CUDA) of GPGPUs.

#### Web Resource

On the book's CRC Press web page, students can download many ready-to-use examples of C++ code demonstrating various effects. C++ wrappers for basic OpenGL entities, such as textures and programs, are also provided.

In-Depth Guidance on a Programmable Graphics Pipeline

Requiring only basic knowledge of analytic geometry, linear algebra, and C++, this text guides students through the OpenGL pipeline. Using one consistent example, it leads them step by step from simple rendering to animation to lighting and bumpmapping.



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#### **Susan Burroughs:**

Do you one of people who can't read enjoyable if the sentence chained inside the straightway, hold on guys this kind of aren't like that. This Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series) book is readable through you who hate the straight word style. You will find the data here are arrange for enjoyable reading through experience without leaving also decrease the knowledge that want to deliver to you. The writer of Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series) content conveys the idea easily to understand by lots of people. The printed and e-book are not different in the content material but it just different in the form of it. So , do you even now thinking Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series) is not loveable to be your top listing reading book?

#### **Nathan Lawhorn:**

Spent a free time for you to be fun activity to complete! A lot of people spent their sparetime with their family, or their particular friends. Usually they undertaking activity like watching television, going to beach, or picnic inside the park. They actually doing same every week. Do you feel it? Do you want to something different to fill your personal free time/ holiday? Could be reading a book can be option to fill your free of charge time/ holiday. The first thing that you ask may be what kinds of guide that you should read. If you want to consider look for book, may be the guide untitled Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series) can be excellent book to read. May be it is usually best activity to you.

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#### **Carmen Bell:**

Your reading sixth sense will not betray a person, why because this Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series) book written by well-known writer who really knows well how to make book that can be understand by anyone who also read the book. Written with good manner for you, still dripping wet every ideas and writing skill only for eliminate your own personal hunger then you still skepticism Computer Graphics: From Pixels to Programmable Graphics Hardware (Chapman & Hall/CRC Computer Graphics, Geometric Modeling, and Animation Series) as good book not only by the cover but also from the content. This is one reserve that can break don't judge book by its handle, so do you still needing a different sixth sense to pick this kind of!? Oh come on your studying sixth sense already said so why you have to listening to one more sixth sense.

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