

My Insanely Great Computer Graphics Model

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Abstract

Describe your paper in 100-200 words, give or take. The command-line `wc` utility is really useful here!

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1 Introduction

Provide the reader with an overview or summary of your paper.

2 Previous Work

Review any papers, sources, or references used in your work. A good “previous work” section not only acknowledges any information that you used but also states how your own work (in this paper) is new or different.

This section is likely to be the heaviest user of \LaTeX 's excellent bibliography features. Citations and references are handled automatically by \LaTeX through its companion program, BibTeX . All you have to do is provide a bibliography file that provides the reference information and internal keys (very much like variable names) that you use in your document.

BibTeX supports virtually all kinds of references, including books [Ang06, SWND06], articles [BWRB05, HNAH04], and conference proceedings [DNC03, OBH02], to name a few.

3 The Subject

Describe the real-world entity that you are modeling here. Discuss the properties that are relevant to the entity, how they are quantified or structured, and how they affect the entity's visual appearance.

4 The Model

This section describes how the subject has been translated into programmatic form. This includes but is not limited to any data structures, algorithms, assumptions, or reductions involved in modeling the subject.

Assumptions and reductions are of particular relevance in computer graphics because it is almost never possible to completely simulate reality, in deference to performance or scalability issues.

5 Rendering the Model

Describe how your model translates into graphics commands that render the model properly. Take note of any special techniques that were required to accomplish a satisfactory render.

6 Interacting with the Model

Describe the ways by which a user can affect the model. Note that different input mechanisms may be applicable to the same types of control, some of which you might not have implemented, and some of which might be preferred over others.

7 Conclusion

Summarize the overall work that you have accomplished, and assess the relative success of your model. Talk about potential future work as well as alternatives to your modeling approach that might be worth exploring.

A Source Code

Include your model's common source code as well as any tester or demonstration programs that you've written to show how your model is used.

A.1 Main Model

The main model consists of all the code that programs need in order to represent, display, and modify your real world entity. It is the code that must be shared or reused by programs in order to implement your model.

```
public class GraphicsModel {
    public static void main(String[] argv) {
        System.exit(0);
    }
}
```

A.2 Tester or Demo Program(s)

Include one or more programs that illustrate effective use of your model. Such programs range from unit tests that validate your model to full-blown interactive applications.

References

- [Ang06] Edward Angel. *Interactive Computer Graphics: A Top-Down Approach with OpenGL*. Addison Wesley, 4th edition, 2006.
- [BWRB05] Gladimir V. G. Baranoski, Justin Wan, Jon G. Rokne, and Ian Bell. Simulating the dynamics of auroral phenomena. *ACM Transactions on Graphics (TOG)*, 24:37–59, January 2005.
- [DNC03] Laurent Denoue, Les Nelson, and Elizabeth Churchill. Implementing a paper flier metaphor using cloth simulation. In *GRAPH '03: Proceedings of the SIGGRAPH 2003 conference on Sketches & Applications*. ACM Press, 2003.
- [HNAH04] Mike Houston, Chris Niederauer, Maneesh Agrawala, and Greg Humphreys. Visualizing dynamic architectural environments. *Communications of the ACM*, 47:54–59, August 2004.
- [OBH02] James F. O'Brien, Adam W. Bargteil, and Jessica K. Hodgins. Graphical modeling and animation of ductile fracture. In *SIGGRAPH '02: Proceedings of the 29th annual conference on Computer graphics and interactive techniques*, pages 291–294. ACM Press, 2002.

[SWND06] Dave Shreiner, Mason Woo, Jackie Neider, and Tom Davis.
*OpenGL Programming Guide: The Official Guide to Learning
OpenGL, Version 2*. Addison Wesley, 5th edition, 2006.