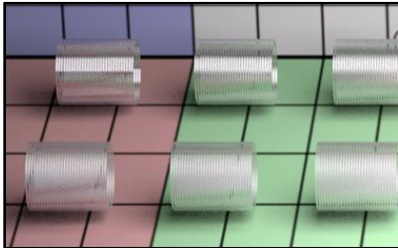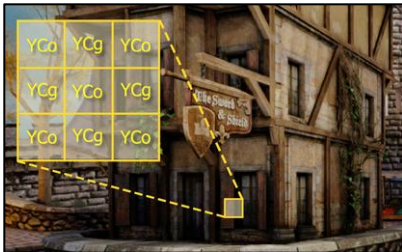*Volume 1, Issue 1, December 31, 2013*
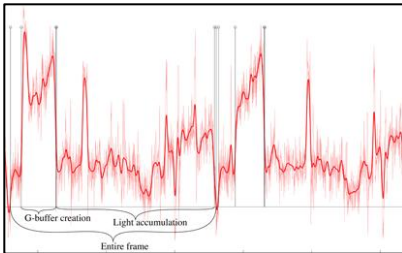
Importance Sampling of Reflection from Hair Fibers
Hery and Ramamoorthi

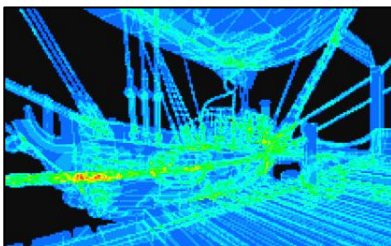**The Compact YCoCg Frame Buffer**
Mavridis and Papaioannou

Performance per What?
Akenine-Möller and Johnsson

The *Deco* Framework for Interactive Procedural Modeling
Měch and Miller

A Compressed Depth Cache
Hasselgren, Andersson, Nilsson, and Akenine-Möller

Masthead

Editorial

We proudly introduce the inaugural volume of ***The Journal of Computer Graphics Techniques***. *JCGT* embraces the changing world of scientific publishing, which is moving away from for-profit print journals and towards free, online, digital publications. *JCGT* is a high-quality, peer-reviewed, and free journal for techniques, which we define as short papers of clear practical or theoretical value. We are dedicated to advancing the field of computer graphics through the publication of techniques in all areas of computer graphics, including software, hardware, games, and interaction.

JCGT is the next step in a respected tradition. When the best way to disseminate new, self-contained graphics techniques was in book form, the *Graphics Gems Series* was born. When we wanted to add peer review and a more timely publication schedule, many of the former *Graphics Gems* editors banded together to form the *Journal of Graphics Tools*. Today, we can publish even more promptly and eliminate all subscription and author's fees by moving to online digital publication. Thus, the *JGT* founding editor, advisory board, and much of the 2012 editorial board have resigned from *JGT*, and together we have created the free and non-profit *Journal of Computer Graphics Techniques*.

JCGT's editorial board will continue our commitment to rigorous peer review in a tight review cycle with high-quality editorial feedback. We will use modern online tools to produce and host our articles. Thanks to the nature of online publishing, papers can be published immediately after their review cycle concludes and the Editor-in-Chief approves them. Because it is published exclusively online, *JCGT* can host supplementary material such as source code and images, and link them to the original article. In keeping with volunteer-driven, non-profit Open Access models, *JCGT* uses a minimal, non-exclusive Creative Commons copyright and publishes all source code as Open Source.

Volume 1, Issue 1 of *JCGT* contains five articles written and accepted in 2012. They total 118 pages. As of December 31, 2012, these papers were collectively **downloaded more than 40,000 times** in the past six months. These are strong and diverse papers that span the intended breadth of *JCGT*, including novel research, long-form systems, and position papers that are all of immediate practical value in computer graphics. Note that these papers are all Creative Commons licensed so that they may be distributed freely.

The average time from submission until a first decision for the first volume was **four weeks**, with an average of 25 days from that point to publication for recommended papers. Those are exceptionally fast turnaround times for thorough

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http://jcgt.org   2012

reviewing and editing. That process is made possible by our dedicated editorial board listed on the masthead on the right and by our anonymous reviewers. We anticipate a slight increase in those durations during January and February in the future, to holidays and the SIGGRAPH papers deadline and paper reviewing. The editing and reviewing at *JCGT* are the best that we've seen in the field for contemporary publication venues.

The authors, editors, and reviewers are committed to *JCGT*'s success as a high-quality, peer-reviewed publication. We invite your submissions for Volume 2 now at **http://jcgt.org**.

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Submission and Review Process

JCGT accepts single-blind submissions of formal scientific and engineering articles on computer graphics. Papers may be:

- **Clever hacks and tricks**: previously unpublished conventional wisdom or new implementation tweaks
- **Novel techniques and algorithms**: "battle-tested" new methods with well-analyzed characteristics, especially ones used in real production
- **Implementation and case studies**: production notes, implementation details, discussion of practical workflow around a technique, or new and extensive analysis of previous work
- **Surveys**: summary and discussion of a family of published techniques, similar to a textbook chapter

These may apply to any area of computer graphics, including rendering, user interfaces, modeling, animation, hardware design, geometry, topology, games, film, CAD, DCC, and visualization.

Articles should be "gems" that emphasize simplicity, clarity, and utility. Their goal is to help implementers decide if the technique is appropriate for their application and then assist in that implementation.

The limitations, border cases, and artifacts of a technique should be explained in detail. For example, it is fine for a technique to work only well 5% of the time, so long as the reader understands the conditions that trigger that case and what happens in the other cases. "Battle-tested" means that you have thoroughly investigated these limits. There are many ways to accomplish this, including experiments on many and diverse scenes or platforms, careful analytic analysis of the entire input domain followed by experiments, or widespread distribution of the technique among practitioners. Production use is of course the gold standard for battle-testing: if you made a product, then it is definitely useful and something that the community wants to know about.

There is no minimum or maximum article length, however we recommend short articles with supplemental code, data, and video. Only directly relevant related work should be cited. As a coarse rule of thumb, a typical paper is four pages, with four citations, six color images, some inline code examples, and a supplemental code file. Papers that include all implementation details and supplemental code are much more likely to be accepted.

Papers must be original work for which the author owns the copyright on the text and has permission to distribute the images, code, and data.

Papers may be typeset in any tool (since authors need never submit their document source) but must exactly match our **formatting template**. We

recommend the use of PDFLaTeX and BibTeX, which the template directly supports. We encourage taking advantage of the electronic distribution format with high-resolution color images and text that explicitly refers to the supplemental files that will be distributed alongside it.

To submit your manuscript:

1. E-mail a zipfile containing a PDF of your paper and any supplemental files to **Morgan McGuire (editor-in-chief@jcgt.org)**. Your name, affiliation, and e-mail address should appear on the paper.

2. You will receive confirmation e-mail after the EIC has verified that the submission is in order and solicited anonymous peer review.

3. The editorial board will make a determination after the reviews are received. The article will either be **recommended** for publication or **rejected**. Rejected articles may be resubmitted later. Recommended articles are assigned a corresponding editor who will work with the authors to revise the manuscript. Those articles are guaranteed to be published if the author makes the required changes.

4. Recommended articles may progress through several rounds of external review or editing before acceptance.

5. On acceptance, the board appends an article to the current issue and assigns it page numbers. They then post the article on http://jcgt.org. The current issue number increments at the end of each quarter and the volume number increments at the end of each calendar year.

JCGT board members are encouraged to submit articles of their own. Board members have no access to information about their own submissions or the identity of reviewers and cannot affect the review process. When the editor-in-chief submits an article, the advisory board selects one of its members to act as editor-in-chief for that article. The process is completely blind to the editor-in-chief in that case.