

# CGEMS - a refereed server to support the community of CG educators

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## 1 Introduction

CGEMS, the online Computer Graphics Educational Materials Source is a web-based groupware application that supports the submission, review, acquisition and archiving of curricular resources to be used by educators.

The rapid change of technology associated with computer graphics requires educators to learn new techniques and develop deeper insights on computer-generated images. As the core field becomes more mature, educators in all computer graphics disciplines have a greater need for high-quality curricular resources. By providing a repository for such materials, we can achieve a higher standard of teaching worldwide.

The purpose of CGEMS is to provide tools to support the community of Computer Graphics educators. CGEMS will allow their work to be appraised, assessed and made available to others through an online server for refereed educational content.

Although small systems and groups of people exist who are trying to address this issue, there is currently no centralized worldwide-refereed repository for computer graphics educational materials. Here we present a system that supports a way for educators to easily access quality course materials and for contributors to share and get recognition for their curricular innovations.

The Computer Graphics Educational Materials Source (CGEMS) is an online system available through the URL <http://cgems.inesc.pt>. The system includes a method for contributors to submit and editors to jury and control the quality of content to ensure sound and robust materials. The shape and components of CGEMS arose from fruitful discussions around, during, and after the Workshop on Computer Graphics Education [CGE02] held in Bristol, UK in July 2002. Figure 1 shows the CGEMS initial page.

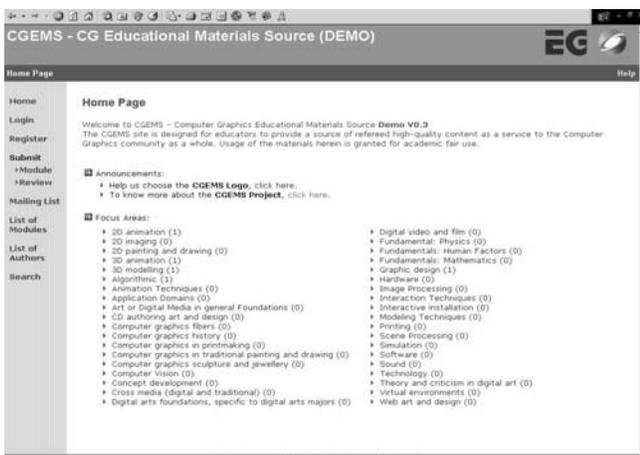


Figure 1. CGEMS Initial Page

## 2 Editorial policy and submissions

Many discussions took place during and after CGE02 to shape the structure and policies of CGEMS. To serve the community of CG educators worldwide, we wanted to ensure (a) timely submission, (b) regular updates, (c) rigorous quality control, and (d) peer recognition. This led to establishing a journal-like system with several review cycles without a fixed deadline. This enables flexible review workflow and encourages timely updates of content. However, there will be regular calls for submissions possibly at the end of each academic semester in fall and spring. In this way, we hope to get notes, assignments, and examples from successful courses.

Ideally, we would like to have content organized in *course modules*, or a complete group of materials including notes, assignments, and examples that cover a specific subject. In other words, a module is a self-contained teaching unit including some or all of the above materials as part to an articulated whole. For example, a module could discuss shading networks for 3D modeling and the materials might include course notes, interactive demonstrations, assignments, and sample student work.

There are many quality-teaching materials that do not fall neatly into the module format, so the CGEMS server will also accept high-quality submissions that fall short of a full-fledged module in content, such as individual assignments or course notes. We are specifically looking for the following materials in order of preference:

- (1) Complete Modules.
- (2) Annotated Course Syllabi
- (3) Individual Lessons / Teaching Gems.
- (4) Annotated Problem Sets.
- (5) Lab Notes.
- (5) Annotated Student Work

We will accept the material in most common formats for which there are freely-available document readers. While most if not all the materials currently assembled are written in English, we envisage and encourage both localizations and submissions in different languages, including Portuguese, German, French, Spanish, Swedish etc. While many educators in Sweden find it is still hard to cover all aspects of Computer Graphics in university courses, CGEMS offers a framework for using and providing material from and to other universities both within Sweden and worldwide, in an endeavor we hope will be useful to both educators as individuals and the community as a whole.

## References

- [Fred03a] CGEMS – Computer Graphics Educational Materials Server, Frederico Figueiredo, Dena Eber, J. Jorge, ACM/SIGGRAPH Educators Program, 27-29 Julho 2003, San Diego, EUA.
- [Fred03b] A Refereed Server for Educational CG Content, Eurographics 2003 Education Program, Granada, September 2003.
- [CGE02] Proceedings, Eurographics/SIGGRAPH Workshop on Computer Graphics Education, Bristol UK, July 2002. <http://virtual.inesc.pt/cge02>