

COMPUTER ANIMATION AT LUCASFILM

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ABSTRACT

The goal of the Computer Research and Development Division of Lucasfilm Ltd is to introduce state of the art computer technology to the feature length film industry. Our major projects include: a computer controlled video editing project, a digital audio project, and a computer graphics project. Research within the graphics project is to provide film makers with another tool for making images -- computer animation.

This talk presents an overview and a current status report of our animation work. We will discuss with words and pictures the software and hardware systems we are building to solve problems in the four main areas of computer animation: 1) creating computer models of objects, 2) composing and articulating models to form a scene, 3) rendering scenes to make digital images, and 4) transferring digital images to film and possibly combining them with live action. There are many parallels between the activities of a state of the art special effects house and ours in computer animation. The often ignored yet very important problem of managing and coordinating a film production will also be discussed.

KEYWORDS: computer animation, image synthesis, computer modelling