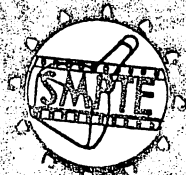


104TH



Technical Conference
and
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Washington

2:45

#28

Realistic Pseudo-Photography by Computer: The Fantasm System

THEODOR H. NELSON, The Nelson Organization, Inc., New York

The Fantasm system is a new alternative for motion-picture and video-tape production. Instead of using the customary scenery and actors, imaginary animated scenes are created with a computer system and photographic film or video tape. This system's output is indistinguishable from ordinary photographs of real people and settings. Scenery, props and actors are created as required. Since the system can produce its own traveling mattes, its contributions may be used to supplement conventional production in foreground, background or both. Sculpture and puppet theaters are used for easy modeling and smooth manipulation. In the production system, "roughs" will probably be made on video tape before going to more expensive high resolution on film. Cost parameters for everything can be completely controllable through the choice of resolution or deletion of material. The objects are stored in the computer only as coordinates of surfaces, color descriptions and other parameters. By appropriate manipulations and calculations, however, the system will handle curves, shadows and specular reflections. All systematic departures from realism can be eliminated.