

Controllable computer graphics for compelling depiction and animation

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Abstract—A full-length feature film such as Pixar's *Toy Story*, or the award-winning educational programs such as *Walking with Dinosaurs*, require a production time of several years and draw on the full-time efforts of several hundred skilled employees. Digital videography and photography has equally broad impact as everyone uses photos and videos to record memories of friends, family and events. Despite a wealth of sophisticated techniques for manipulating photographs, illustrations, and motions the compelling images in educational videos and feature films are more commonly the results of artistry and of painstaking work than of intuitive tools. As a result, despite their potential to revolutionize all educational material, high quality visual aids are used infrequently because of the extensive production costs. In the MIT Computer Graphics Group, we evolve these techniques to make them more accessible to inexperienced authors: scientists, educators, storytellers, and other broad public. We present easy-to-use tools that reduce the cost of producing compelling photographs, illustrations, and motions.

[Full Text Not Available]