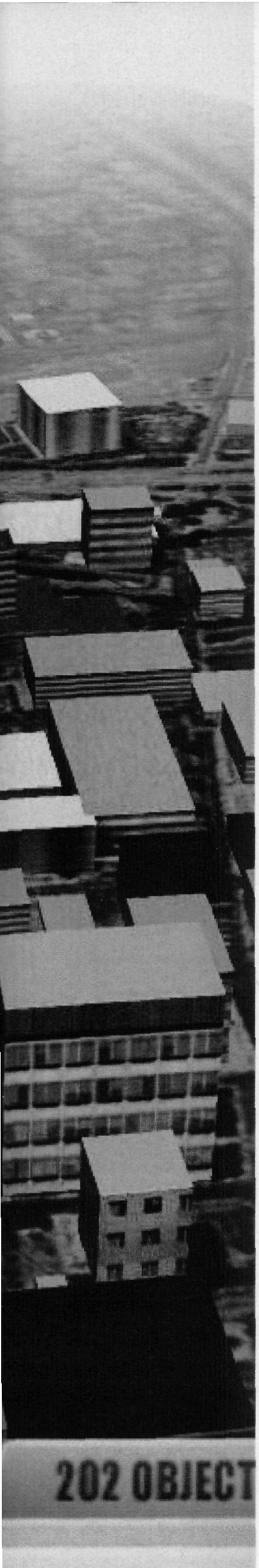

CREATING A SCIENCE OF GAMES

The same technology that makes interactive 3D games so entertaining in the physical action domain is just as effective in education, training, and other more serious applications.

By MICHAEL ZYDA, Guest Editor

The video game industry will grow to about $60 billion in revenue this year [1], almost the size of the U.S. Department of Defense expenditure on research, development, testing, and evaluation [4]. Game play has begun to surpass television viewing among some segments of the population [3]. Video game development budgets are already the size of motion picture development budgets, on the order of $20 million to $100 million, with expected revenue for a hit game reaching from $250 million to more than $1 billion [2]. The world's youth spends enormous numbers of hours inside games. Massively multiplayer online games involve millions of live, human players participating in virtual worlds of substantial complexity—in which individual games claim some 18,000 to more than 180,000 years of aggregate in-game play. Developers have also begun to

Firescope, a real-time strategy incident-commander training game built for the Los Angeles Fire Department. (Fred Zyda, USC GamePipe Laboratory and USC Center for Risk and Economic Analysis of Terrorism Events.)