

**A**s a 12-year-old in western New York, Walt Woltosz learned Morse code to obtain a ham radio license; its dots and dashes communicated without speech. In adulthood, Woltosz made it his mission to help physically disabled people generate words they could not speak. University of Cambridge Professor Stephen Hawking gives lectures on astrophysics using technology Woltosz developed. Hawking's fame means many of us have heard Woltosz's "Words+ Equalizer," though perhaps we had not heard of it. (Hawking wrote *A Brief History of Time* using the system.)

Woltosz, chief executive officer of Words+ and its parent company, publicly traded Simulations Plus Inc., entered engineering as an aerospace enthusiast. Having a love for flying, he joined the Air Force in 1963 and was tapped for a commissioning program and sent to Auburn in 1967 after four years in the Strategic Air Command. He completed his bachelor's in aerospace engineering in 1969, his master's coursework in 1970, and then received a National Science Foundation doctoral fellowship, which he declined because of the poor aerospace economy in 1970. Woltosz later became a recognized expert in simulating and optimizing rocket and missile performance.

Change came rocketing in 1981 with the incorporation of Words+, a company built on Woltosz's effort to help his wife's mother, who had Lou Gehrig's disease. Woltosz shopped one evening for a home computer—new in stores then—determined to repurpose it for his mother-in-law's needs. By morning, he had a first iteration; within two decades, its progeny was in the Smithsonian Institution.

Words+ offered the first personal-computer-based augmentative communication system. More life-changing firsts followed: first portable speech



**WALTER STANLEY WOLTOSZ**  
*First Word in Computer Simulation*

synthesizer, first keyboard emulator with integrated speech, first use of word prediction, first picture-based system for preliterate users. Each advance signified a further unlocking of human potential—what had driven Woltosz from rocket science into a business with an old-fashioned key as its logo.

The passion he had developed in aerospace for computer simulation and modeling drove Woltosz to apply these technologies in health care, landing on "simulation of oral drug absorption," a way to minimize

animal testing, failed clinical trials, delays, and cost. Woltosz launched Simulations Plus in 1996. Eleven years later, nearly 100 firms license the company's software, and Woltosz is an acknowledged leader in the emerging science of computational biopharmaceuticals. The company's flagship program, GastroPlus, shifted the paradigm in an industry that had invariably based decisions on empirical tests.

Simulations Plus also developed molecular-property-predicting software, which uses a molecule's structure alone to anticipate its behavior. The staff of life scientists and engineers—most of whom program—saw their firm's earnings rise 1,384 percent in the first six months of fiscal 2007.

Woltosz contributes generously to Auburn University engineering. He holds membership in the AU Engineering Keystone and Engineering Eagles societies, serves on the Alumni Engineering Council, and received the Distinguished Auburn Engineer Award. Words+ provides scholarships for disabled Americans and helped found CAMA, a group who sponsors conferences that bring together new products and disabled people who need them.

Woltosz and his wife, Ginger, are California residents. Ginger has a master of business administration and is a director of Simulations Plus.