



Staff photo by DAN PELLE

Lon Safko, with head mouse, shows his computer system for the handicapped. Potential buyer watches.

Computer control is all in the head

By Bert Caldwell

Staff writer

Lon Safko bobs his wired head like a boxer feigning a punch.

In response, a small fist-like cursor on a computer screen in front of him darts to a table-lamp symbol on the screen. He clicks his tongue, then zips the cursor to a panel marked "Light on."

Another click, a nearby light bulb in the room brightens.

Simple.

Unless you're a quadriplegic.

"How the hell do you turn on the lights, answer the phone?" asks Safko, a Richland systems analyst. Not only is your personal environment out of control, he said, almost any kind of worthwhile work is out of the question.

"Sensei," Japanese for master, is his solution to the problem. A quadriplegic or other handicapped person can master any number of household appliances, type or do other clerical tasks using a so-called head mouse that communicates by way of ultrasound with the computer.

The computer, in turn, plugs into a home's electrical system by radio wave. The handicapped "draw" their environments with the mouse, then manipulate it using the same tool.

Safko, who is not handicapped, said

he developed his hardware and software package fitfully. He started with a voice-activated prototype requested by a friend caring for a quadriplegic.

Bug-ridden and difficult to use, the system nevertheless showed enough potential that therapists and Apple Computer encouraged Safko to continue perfecting his equipment. Safko, who worked part time as a systems analyst for Apple's Richland dealer, demonstrated his handicapped computer package to Spokane investors.

But Safko said he set the handicapped program aside while he worked under contract with Westinghouse Hanford Co. Still, Safko said, he kept getting appeals from area hospitals, including one in Boise with a young female patient who couldn't even breathe on her own because of a tumor against her spinal cord.

In a demonstration last September, she was able to use Sensei, he said.

Though offers for other nuclear-related work came in from other major contractors, Safko said he finally decided to devoted himself to Sensei.

He said he had begun an earnest effort to sell his equipment to hospitals for the handicapped and to agencies like the Veterans Administration. The reception has been great, he said.

"It sounds like it has a lot of poten-

tial for people who just have head control," said David Orris of Washington, D.C. of the Paralyzed Veterans of America. Orris did not attend Safko's demonstration, but said those who did were enthusiastic.

"We're real high on what he's trying to do," added Jane Lee, manager of Apple's Special Education Department. "We think his product is very useful."

Safko said he is negotiating with Apple to become only the 16th value-added reseller of the firm's equipment, a designation that will make Apple's hardware cheaper and also provide technical and marketing help.

VA hospitals in Texas and California are prepared to order 100 units at about \$8,000 apiece, he said. To obtain financing, he recently signed a letter of intent to be acquired by Datex Resources Inc., a Spokane investment firm that is traded over-the-counter.

Safko said he needs capital to provide top-quality training and service.

Of an estimated 45 million people in the United States with handicaps, Apple's Lee said, only a small portion can use Safko's product. But she said a market also exists among the non-handicapped who want to control their environments through computers.