apticWeb is a World Wide Web client that enables users to feel the rigidity or weight of virtual objects. It is based on a six-degree-of-freedom force feedback device, HapticMaster, which applies three-degree-offreedom force and threedegree-of-freedom torque at the user's hand. The user can manipulate and feel virtual objects by holding a knob at the top of the HapticMaster.

Haptic interface research is expanding. In most cases, the software and hardware systems are designed to work together, which restricts application development. In this research, the software is divided into two modules: the device driver for force display and the "renderer" of the virtual object. Currently, "rendering" refers to generation of visual images, but in virtual environments, hardness, weight, viscosity, and other forces must also be rendered. In HapticWeb, force feedback is rendered from a VRML dataset.

The research team has also developed an authoring tool for *HapticWeb*. The rigidity and weight of virtual objects are represented by 3D icons. Users can change the rigidity or weight by manipulating the size of the icons.

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