

The Hapticon Editor: A Tool in Support of Haptic Communication Research

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Abstract

We define haptic icons, or “hapticons”, as brief programmed forces applied to a user through a haptic interface, with the role of communicating a simple idea in manner similar to visual or auditory icons. In this paper we present the design and implementation of an innovative software tool and graphical interface for the creation and editing of hapticons.

The tool’s features include various methods for creating new icons including direct recording of manual trajectories and creation from a choice of basis waveforms; novel direct-manipulation icon editing

problem by rendering haptically distinct and meaningful sensations for the different functions.

A systematic approach to hapticon design requires tools that allow people without engineering background closer participation in the creative process, thus broadening and enriching the area. The Hapticon Editor, with its simple, efficient approach, is such a tool.

2. Related Work

2.1. Icon Design

There has been a great deal of work relating to the