Abstract

In this paper a new data structure for the representation of complex volumetric data is presented, and accompanied with a visualization prototype for managing it, particularly for modeling human organs. The data structure is based on hierarchical graphs which permit a multiscale information and a detailed visualization of a region of interest, and a contextual visualization of the global level information. The data structure has been implemented on C++ for its use in immersive environments for research, education and decision support.

Keywords

E-learning and collaborative learning environments, graphical representations, geometric data structures, virtual reality and computer vision.