

VFIVE : A Scientific VR Visualization Tool for the CAVEs : VTK and Volume Rendering

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The interactive data visualization is indispensable to simulation science. Recent development of supercomputer makes data visualization being a challenging task since the output data has become larger and more complex. It is hard to grasp the data via the computer screens of PCs or graphics workstations. In these ten years the CAVE type virtual reality (VR) system is introduced in the simulation science for the purpose of visualizing the three dimensional data in place of them.

We have been developing an interactive visualization software named VFIVE for several years. This software enables us to interactively analyze the three dimensional data in the CAVE's VR space. Recently we have integrated Visualization Tool Kit (VTK) into VFIVE. Furthermore, volume rendering by using the 3D texture map technique was added to VFIVE, too. Now VFIVE is more powerful than ever as a 3D visualization software.

In the talk, we will report the status of the VFIVE development and its applications to geoscientific data.