

Visualization of geodynamo simulation data by CAVE VR system

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We have performed a virtual reality (VR) visualization of large scale simulation data by a CAVE-type VR system. The target data in this talk is a geodynamo simulation on the Earth Simulator super computer. Since this simulation was performed on 512 nodes (4096 processors) of the Earth simulator, the size of the output data is extremely large. In addition to that, the spatial structure of the target fields, such as magnetic field and velocity fields, are essentially three-dimensional. The CAVE system enables us to perform an interactive and three-dimensional analysis of highly complex structure of vector fields in the CAVE's VR space. We have been developing a general purpose VR visualization software for CAVE systems. This software, named VFIVE, is applied in this VR analysis of the geodynamo simulation data. We will also report other VR visualizations in the CAVE for the geodynamo data analysis.