MovieMaker: High Performance Movie-Making System for High-Resolution Data

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We have developed a high performance movie-making system called MovieMaker for the visualization of large scale, high-resolution data generated by the Earth Simulator.

In many cases of the simulations on the ES, ore than a Giga-byte data is generated per one-step per one-variable. However, available visualization tools today cannot handle such large scale data with acceptable speed.

This motivated us to develop the MovieMaker for high performance visualization of large scale, high-resolution data. We have implemented the MovieMaker as a parallel rendering system of shared-memory type. The MovieMaker can generate a sequence of high-resolution images within several hours even we make use of heavy rendering methods such as the volume rendering.