

# Large-scale 4-D WebGIS applications to synchronize space and time (1)

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Various types of earth observation data, including meteorology and environment data, have become in large-scale, and Web applications for visualizing and analyzing them have become increasingly complex. On the other hand, cooperative visualization between data is essential from interdisciplinary viewpoints, thus WebGIS technologies that integrates and visualizes them are required. Authors have developed STARS (Spatially and Temporally Acquired Records Synchronizer), which is a technique to virtually link the time and space of each browser. WebGIS tools so far have been able to display space, but few of them provides functions of time management. We have developed and released “Timeline” , a jquery plugin for time management that is available with various WebGIS tools (<http://k2go.jp/public/Timeline/>). We present a method of synchronizing multiple WebGIS or graph applications using Timeline, and demonstrate examples of these synchronizations.