

## The Application of Simulation in Large Scale Traffic Flows System Based on Grid Computing

Yun Wu

College of Management, Huazhong University of Science and Technology

Wuhan, Hubei, 430077, China

Email: wuyun1974@hotmail.com      Tel.: 027-8725702

### ABSTRACT

In this paper, we study large-scale traffic flows system simulation problem based on computer parallel process technology and object oriented model theory on distributed network. We give a grid computing method to build traffic system simulation model, and apply the visual reality technology of simulation for display. In practice, we use Globus Toolkit (grid computing software tool) and World Toolkit (visual reality software tool) to create a traffic flows system model and to simulate the traffic system. The traffic flows simulation system gives a way for large-scale traffic simulation system on grid computing. We give a preliminary examination and theory guidance about complex large-scale traffic simulation system in distributed environment.

**Keywords:** grid computing, traffic flows system, simulation, traffic system model, globus toolkit virtual reality