Component Based Simulation Environments of Distributed Discrete Event Simulation

Zhang Yaohong ,Luo Xueshan, Luo Aiming, Su Wei
College of Humanities and Management, National University of Defense Technology
Changsha, Hunan, China
Email: zhang_yaohong@263.net **Tel:** +86 (0)731 4573575

ABSTRACT

Component based design is a software design method developing from object-oriented design. It uses hierarchical, modular ideas to analyze and design systems. It improves the reusability of software, decreases the cost of system developments. This paper applies the ideas of component based software design and distributed discrete event simulation (DDES), puts forward simulation component model standards and distributed simulation method, and develops the simulation environment. This method allows the users to reuse existing models and to build simulation by assembling basic models. It is fit for modeling and simulating large and complex systems in especial domain such as communication network, and supports the reuse of models effectively. The simulation environment has good flexibility and expansibility.

Keywords: Component DDES Simulation Environment