

## **Object Oriented Multi-Agent Simulation**

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### **ABSTRACT:**

NASA uses object oriented multi-agent simulation for many of their flight training programs. The current program that NASA uses for its flight simulator is called Vega developed by the Multigen- Paradigm Company. This program was initially installed on a SGI system with software programmed in C. Multigen-Paradigm developed a newer version of the their past object oriented multi-agent simulator called Vega Prime that works on a PC. The task of making an assessment of the compatibility of this new program with the old SGI system and the difficulty of converting the old language, programs, graphics, and hardware to the new Vega Prime was initiated. We evaluated the software over a period, attempted to transfer the file types called cdf to adf between the new and old systems, and studied the utilization of the Vega Prime language, which was a modified version of C++. Transferring to the new Vega Prime program required a large amount of memory, programming, and compatible file types. Until the developing engineers made further analysis as to how to complete the task, we decided to wait to complete the conversion from the SGI system to the PC version of Vega Prime. After examining and developing ways to use the program with a PC, the decision to make a new simulation with Vega Prime was agreed upon, because of the superiority of services offered by Vega Prime.

**KEY WORDS:** Vega Prime, Object Oriented Multi-Agent Simulation

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