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# 基于构件的分布式虚拟现实应用系统

段作义, 吴 威, 赵沁平

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段作义, 吴 威, 赵沁平

(北京航空航天大学 计算机学院, 北京 100083)

作者简介:

段作义(1974—), 男, 天津人, 博士生, 主要研究领域为分布式虚拟现实. 吴威(1961—), 男, 博士, 教授, 博士生导师, CCF高级会员, 主要研究领域为虚拟现实, 分布式系统. 赵沁平(1948—), 博士, 教授, 博士生导师, CCF高级会员, 主要研究领域为虚拟现实, 可视化, 人工智能.

联系人: 段作义 Phn: +86-10-82317109 ext 805, Fax: +86-10-82317644, E-mail: duanzy@vrlab.buaa.edu.cn

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## Abstract

This paper presents an approach of constructing the application system in Distributed Virtual Reality. Based on a component model of application system in which three types of the basic components are discussed, this paper first focuses on the "semantic" interoperability among components, and presents a Primitive-Semantic component constructing method through a semantic model to deal with the semantic interoperability while the communication protocol among components doesn't exist. It then presents a composable Distributed Virtual Reality Component-Based Architecture, including its key mechanism and algorithms. Finally the experimental result demonstrates the usability of this architecture.

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## 摘要

针对分布式虚拟现实应用系统的构建问题, 给出一种分布式虚拟现实应用系统的构造方法. 指出分布式虚拟现实系统中存在的3种基本构件; 重点讨论构件的"语义"互操作问题, 通过建立构件的语义模型, 提出一种原语-语义构件的构件构造方法, 该方法可以解决不存在通信协议情况下的构件之间"语义"互操作问题; 给出一种支持可组装的分布式虚拟现实应用系统的基于构件的体系结构以及其中的核心机制和算法. 实验结果表明了该体系结构的可用性.

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