

# A Monitoring Facility for an Object-Oriented Distributed Problem Solving Kernel

Jaime Simão SICHMAN\*

Escola Politécnica da Universidade de São Paulo (EPUSP)  
Depto. de Engenharia de Computação e Sistemas Digitais (PCS)  
Av. Prof. Luciano Gualberto, 158, trav. 3  
05508 - São Paulo - SP - Brazil  
jssichma@brusp.bitnet

Eleri CARDOZO

Instituto Tecnológico da Aeronáutica (CTA-ITA)  
Depto. de Engenharia Eletrônica (IEE)  
12225 - Sao José dos Campos - SP - Brazil

## Abstract

This paper presents a monitoring facility for an object-oriented distributed problem solving kernel named DPSK+P [?] [?]. This kernel allows both data and method sharing between agents, which may have been developed in different object-oriented programming languages, so that they can cooperate in a problem solving activity. The monitoring facility is based on control and communication events, and its exhibition of results uses process animation techniques. It also presents an efficient framework for the exhibition of the communication flow in shared memory based systems, which benefits from the existing compactness in object-oriented class hierarchies.

**Keywords:** Distributed Problem Solving, Object-Oriented Development Environments, Debugging and Monitoring Distributed Systems.

---

\* Jaime Simão Sichman is currently at LIFIA-Institut IMAG, 46, avenue Felix Viallet F-38031 Grenoble, France, jaime@lifia.imag.fr, phone: (33) 76574807, fax: (33) 76574602