

# A Multi-User Visual Object-Oriented Programming Environment

Chung-Hua Hu and Feng-Jian Wang

Department of Computer Science and Information Engineering

National Chiao Tung University

Hsinchu, Taiwan, R.O.C.

e-mail: (chhu, fjwang)@csie.nctu.edu.tw

## Abstract

*Software systems are growing larger and more complex. The development of a large-scale software system usually requires the collaboration of multiple developers. This paper addresses several desirable features of a practical multi-user, visual object-oriented programming environment (mVOOPE), whose constituent components may be distributed over a long distance, unreliable communication environment such as the Internet. By incorporating three design rationales, more local processing, compact remote communication, and multi-threaded collaboration, our mVOOPE makes a trade-off between performance and consistency requirements. The mVOOPE provides programm*