

This technical report presents the main aspects of the 2D-VLIW architecture. This architecture is being developed in the Computer Systems Laboratory at the Institute of Computing of the State University of Campinas. The main purpose of the 2D-VLIW architecture is to provide resources to carry out a broad class of applications through a compromise between architectural arrangement and compiler assistance. Some preliminary experiments have shown that this combination can achieve an appealing performance over mainstream architectures like VLIW and EPIC.