

CS-1988-6

The Architecture of the Butterfly Plus Parallel Processor

David Kotz

Department of Computer Science

Duke University

Durham, North Carolina 27708-0129

January 22, 1988

The Architecture of the Butterfly Plus Parallel Processor

David Kotz

December 16, 1987

Abstract

This paper investigates the architecture of the Butterfly Plus Parallel Processor, an MIMD shared-memory machine based on the Motorola MC68020 microprocessor and a multi-stage interconnection network. The primary emphasis is on the interaction of components of the system rather than the details of its components, especially the standard Motorola components. However, particular attention is paid to the memory management issues since this is the significant difference between the Butterfly Plus and its predecessor, the Butterfly Parallel Processor.

This technical report contains hand-pasted figures and cannot be distributed electronically. It is still available on hardcopy from Duke University. For more information, write to

Technical Reports
Department of Computer Science
Duke University
Durham, North Carolina 27708-0129
techreports@cs.duke.edu