

Unit-II

Message Passing

Introduction

Two basic methods for for information sharing as as follows

1. Shared Data Approach



Figure: Shared Data Approach

2. Message Passing Approach

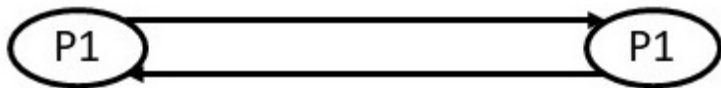


Figure: Message Passing Approach

Desirable Features of a good Message Passing System

1. Simplicity
2. Uniform Semantics
 - ▶ Local Communication
 - ▶ Remote Communication
3. Efficiency
4. Reliability
5. Correctness

Issues related to correctness are

 - ▶ Atomicity
 - ▶ Ordered Delivery
 - ▶ Survivability
6. Flexibility
7. Security
8. Portability

Issues in IPC by Message Passing

A message is a block of information formatted by a sending process in such a manner that it is meaningful to the receiving process. In the designing of an IPC protocol for message-passing system, the following important issues need to be considered.

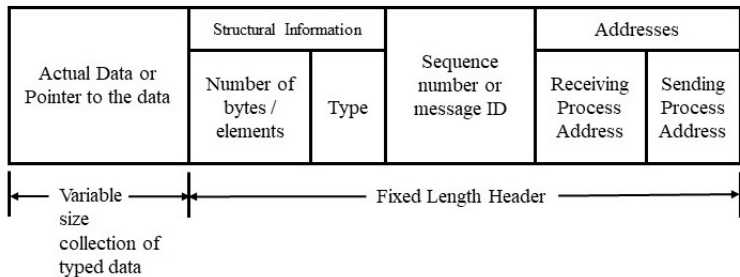


Figure: A Typical Message Structure