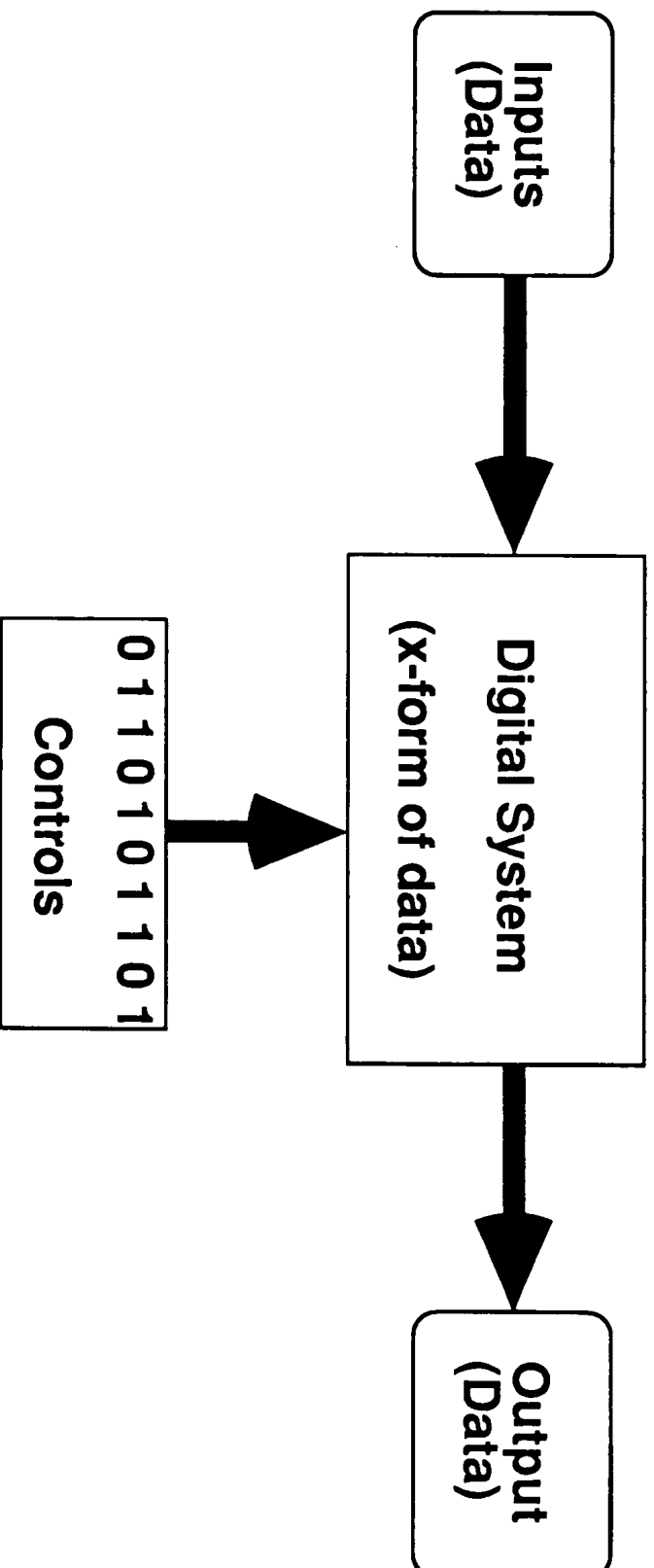


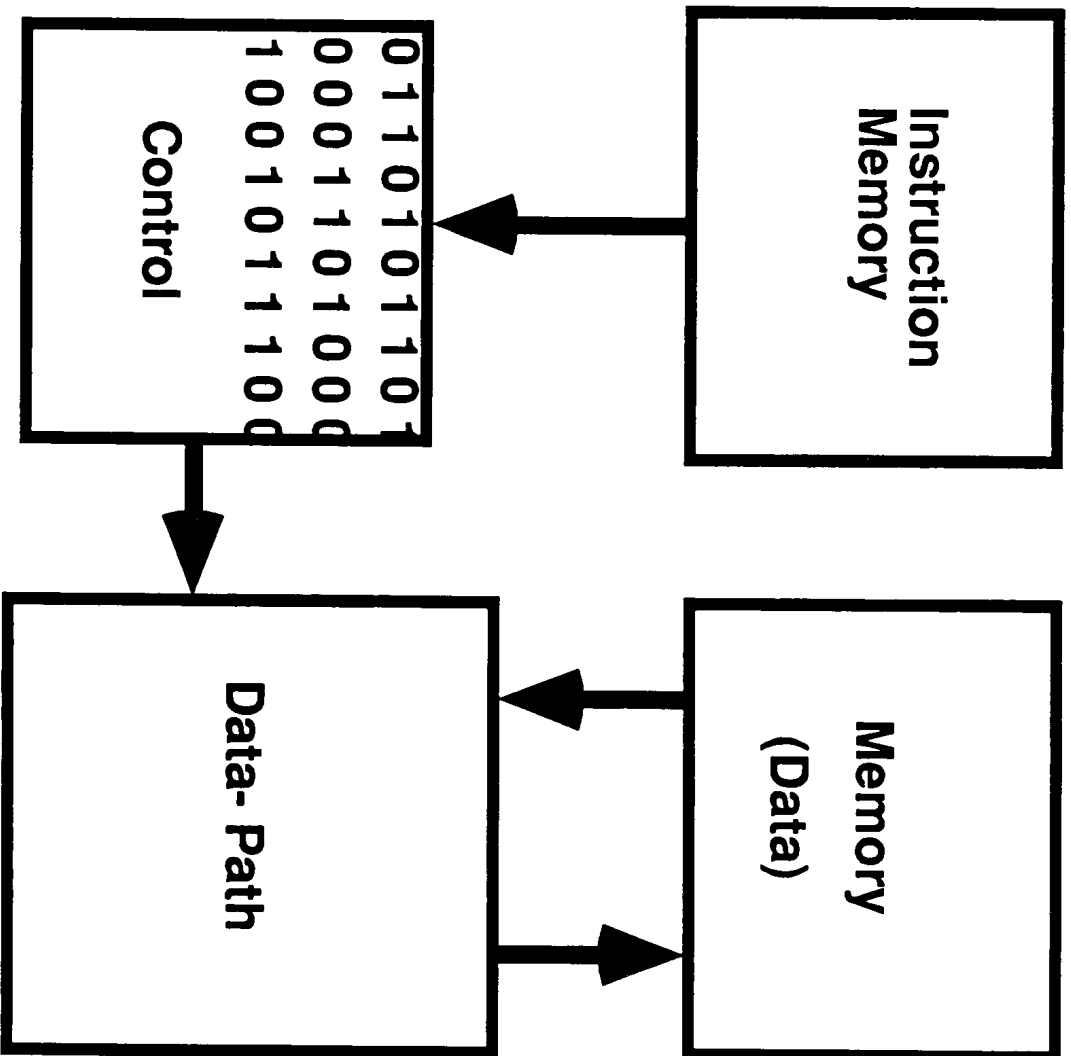
## Data-Path and Control

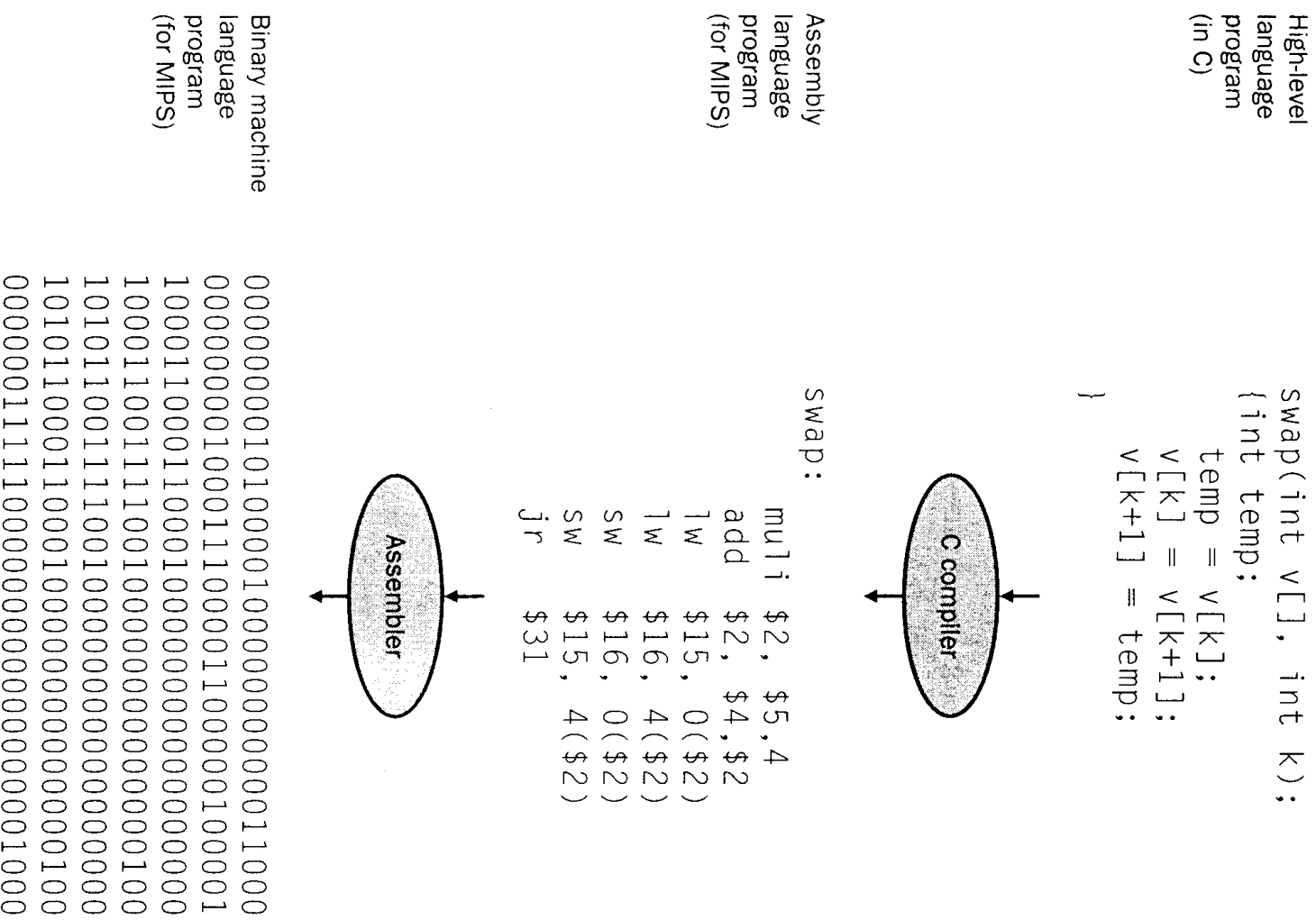
### General View:



# Data-Path and Control

Processor View:



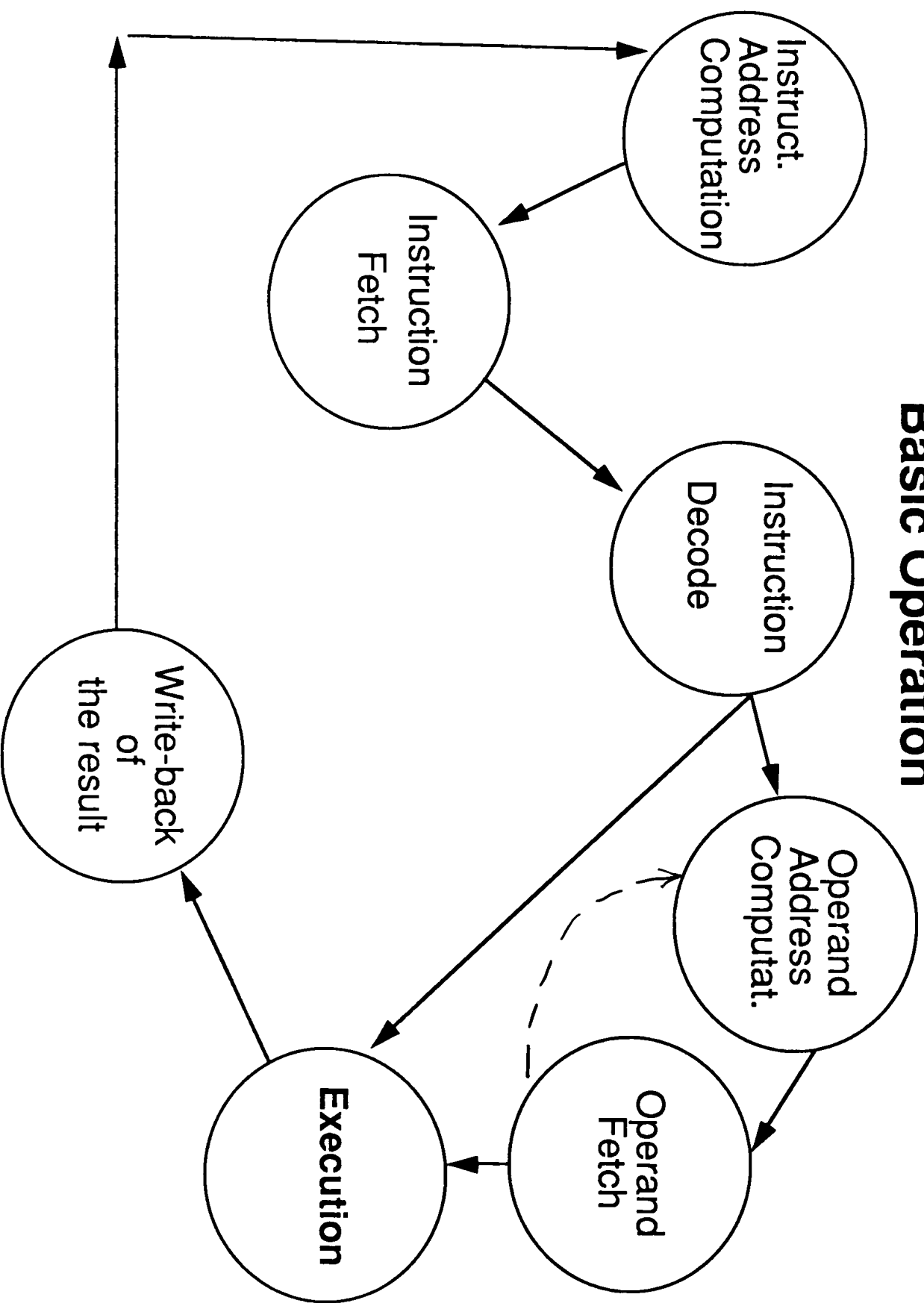


**FIGURE 1.1 C program compiled into assembly language and then assembled into binary machine language.** Although the translation from high-level language to binary machine language is shown in two steps, some compilers cut out the middleman and produce binary machine language directly. These languages and this program are examined in more detail in Chapter 3.

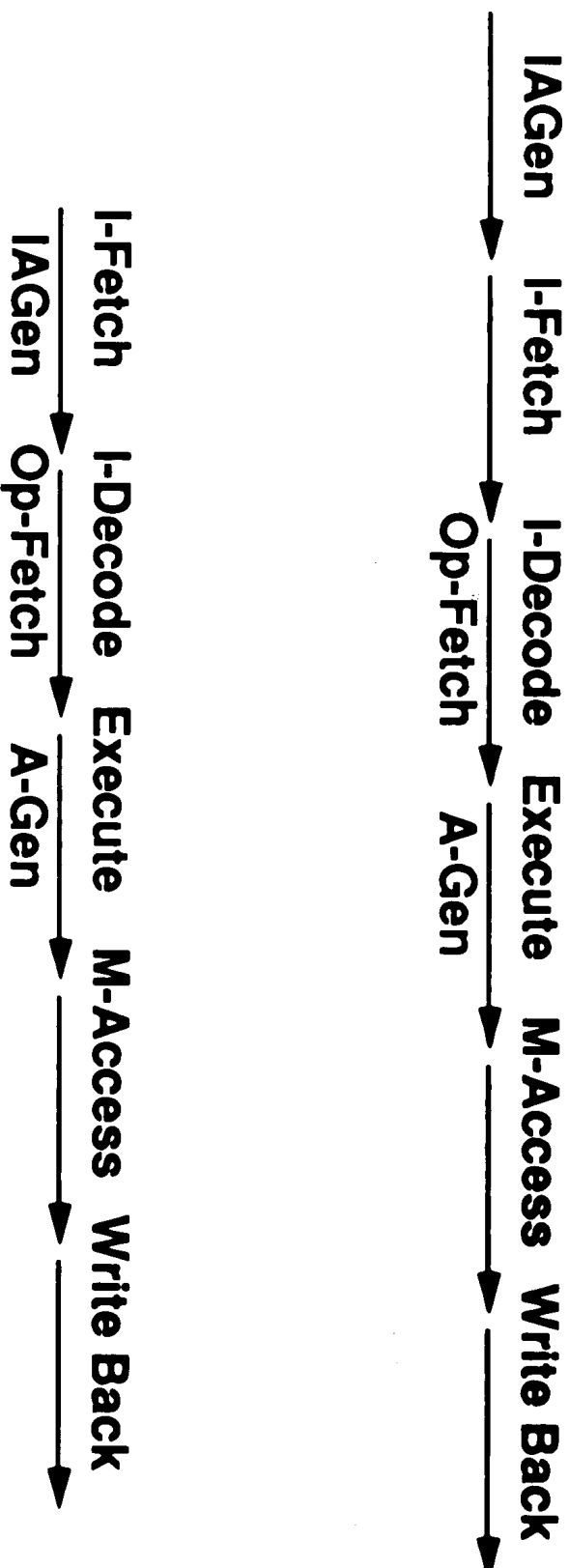
**INSTRUCTION CLASSES:**

- 1. Movement of Data (Load, Store, (I/O), Move characters/ blocks)**
- 2. Arithmetic and Logic Instructions: Transformation of Data**
- 3. Changing the Program Sequence: Jump and Branch  
(conditional / unconditional)**
- 4. I/O Instructions**
- 5. Special Instructions: Traps, Interrupts, SVC, System Instructions**

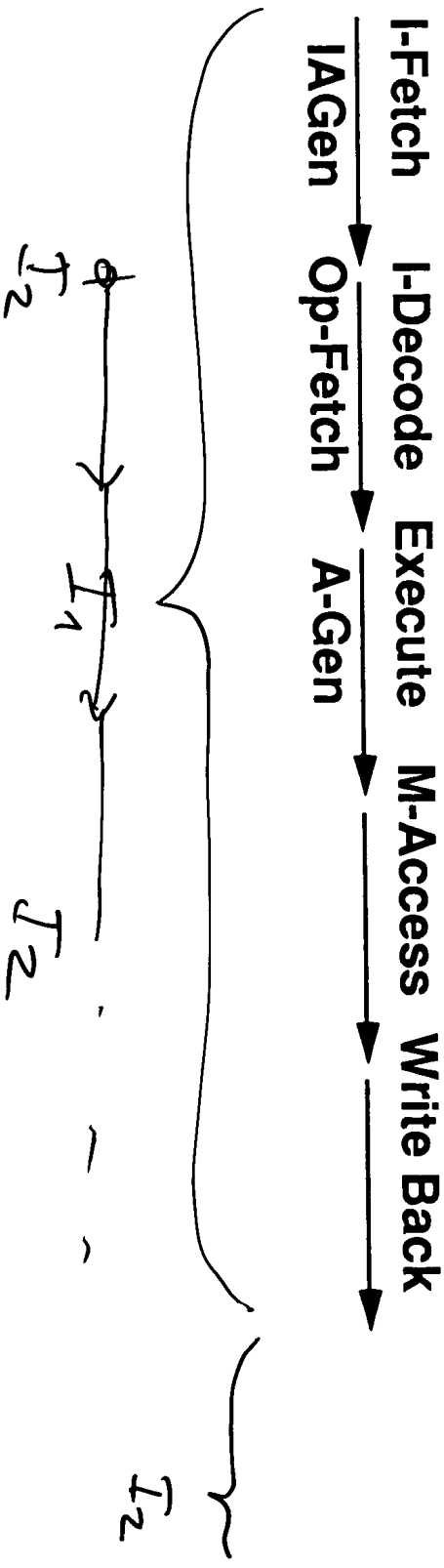
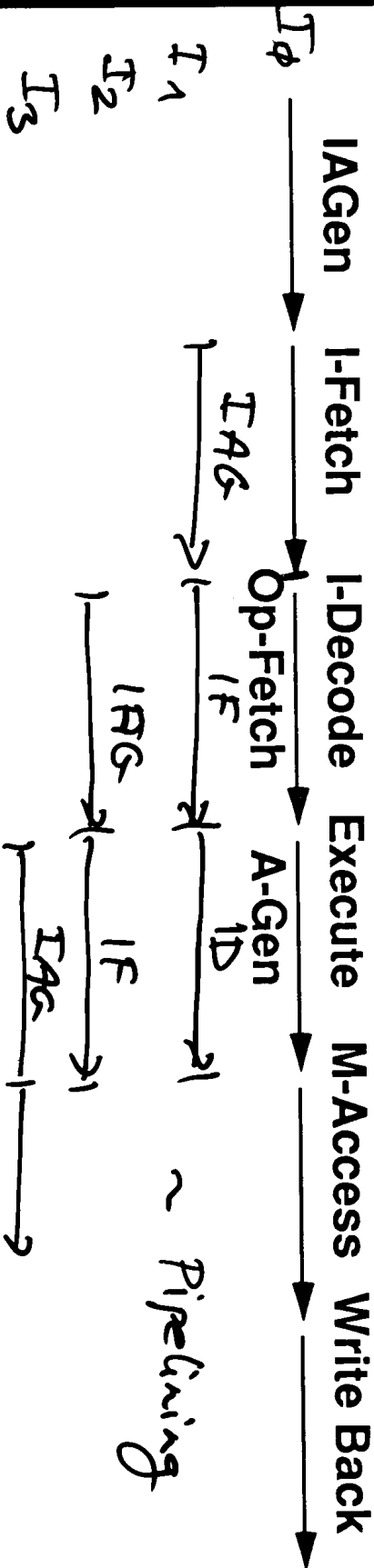
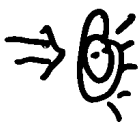
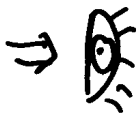
## Basic Operation



## Instruction Sequencing



# Instruction Sequencing



## Basic Operation

