

Instruction		Comment	
S_0	b R S_1	Move read-write head one square to right.	
S_1	1 R S_1	Move read-write head rightward across n_1 .	
S_1	b 1 S_2	Replace blank between n_1 and n_2 by 1.	
S_2	1 L S_2	Move read-write head leftward across n_1 .	
S_2	b R S_3	Blank square reached; move one square to right.	
S_3	1 b S_3	Replace left-most 1 by blank.	
S_3	b H S_3	Halt; the result $n_1 + n_2$ is now on the tape.	

Figure 1.4
Turing machine program to add two unary numbers.

Figure 1: Turing Machine to Add Unary Numbers

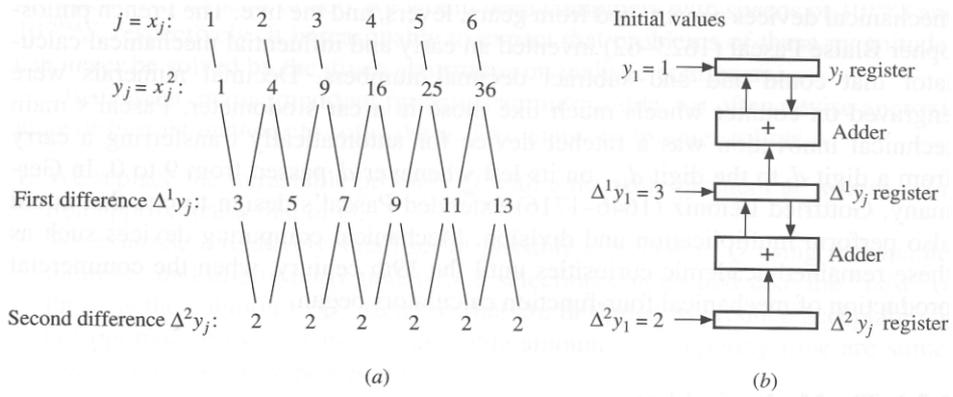


Figure 1.8
 Computing x^2 by the method of differences: (a) a representative computation and (b) the corresponding Difference Engine configuration.

Figure 2: Calculating Squares Using Addition Only (Method of Finite Differences)

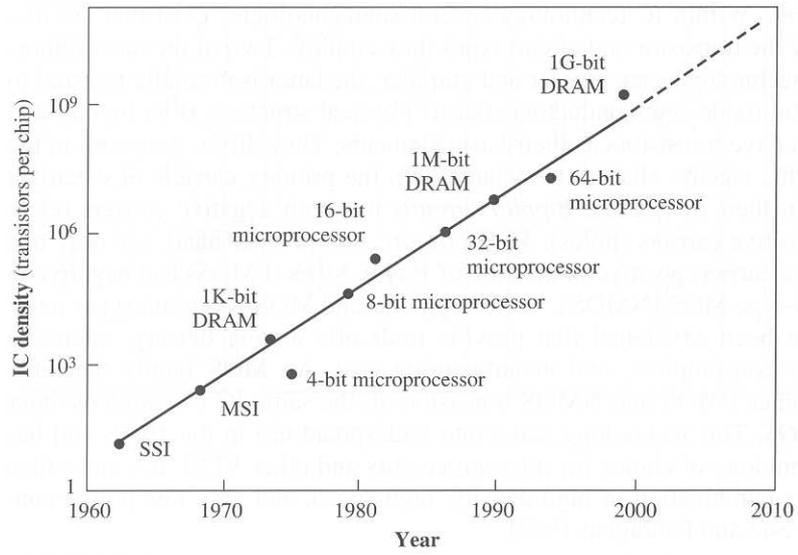


Figure 1.19
Evolution of the density of commercial ICs.

Figure 3: IC Density *vs.* Time

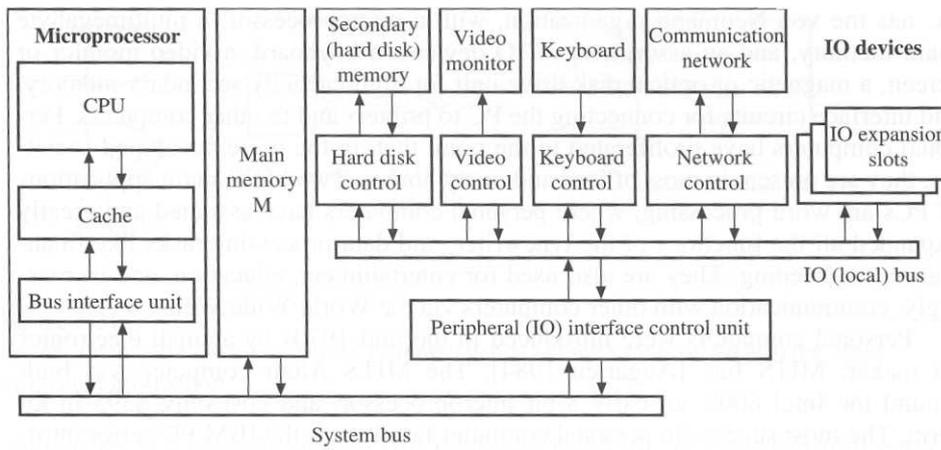


Figure 1.22
A typical personal computer system.

Figure 4: Modern Architecture

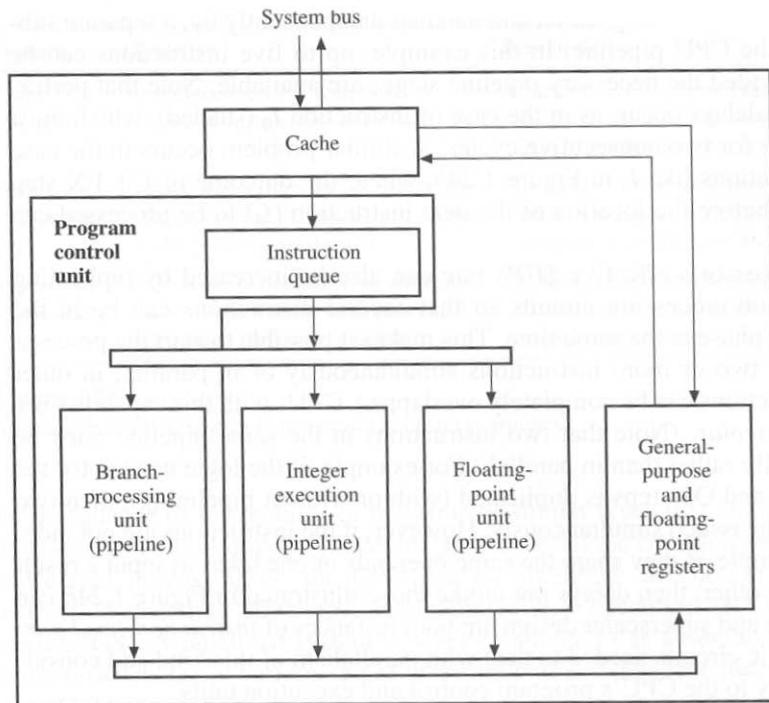


Figure 1.25
Overall organization of the PowerPC.

Figure 5: Power PC Architecture

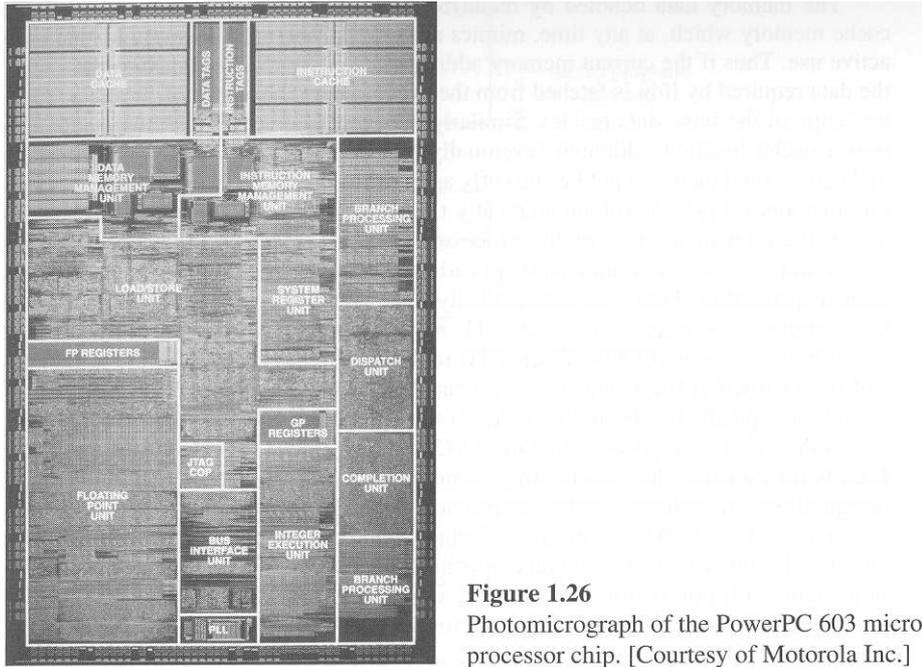


Figure 1.26
Photomicrograph of the PowerPC 603 micro-processor chip. [Courtesy of Motorola Inc.]

Figure 6: Power PC Photomicrograph