

**FIGURE e4.5.7** The high-level view of the finite-state machine control. The first steps are independent of the instruction class; then a series of sequences that depend on the instruction opcode are used to complete each instruction class. After completing the actions needed for that instruction class, the control returns to fetch a new instruction. Each box in this figure may represent one to several states. The arc labeled Start marks the state in which to begin when the first instruction is to be fetched.