

Chapter 1 Summary

- **Three different views of machine structure and function**
- **Machine/assembly language view: registers, memory cells, instructions**
 - **PC, IR**
 - **Fetch-execute cycle**
 - **Programs can be manipulated as data**
 - **No, or almost no, data typing at machine level**
- **Architect views the entire system**
 - **Concerned with price/performance, system balance**
- **Logic designer sees system as collection of functional logic blocks**
 - **Must consider implementation domain**
 - **Tradeoffs: speed, power, gate fan-in, fan-out**