


## Chapter 12

### The Accounting Information System

- Data Processing
- AIS Characteristics and Functions
- AIS Systems and Sub-Systems
- DFD Examples


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The CBIS have generally evolved in the sequence presented.

AIS	1954 - present
MIS	1964 - present
DSS	1971 - present
OA	1980s
ES	1980s


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## What is Data Processing?

- Manipulation or transformation of symbols for the purpose of increasing their usefulness.
- Data processing (DP) and transaction processing (TP) are often used interchangeably.
- Applied to business data

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## Accounting Information Systems (AIS)

- Gathers data describing a firm's activity
- Transforms data into information
- Makes information available to users inside and outside the firm

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## Data Processing Tasks

### 1. Gather data

- Each transaction is documented
- What happened?
- When did it happen?
- How much (volume, value)?
- Transactions describe
  - Internal actions
  - Environmental transactions

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## Data Processing Tasks [cont.]

### 2. Manipulate data

- Classify (use codes)
- Sort
- Calculate
- Summarize

### 3. Store data

- Describes each transaction
- Represents most of the database

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## Data Processing Tasks [cont.]

### 4. Document preparation

- Triggers
  - By an action
  - By a time schedule
- Hardcopy or on-screen

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## Characteristics of the AIS

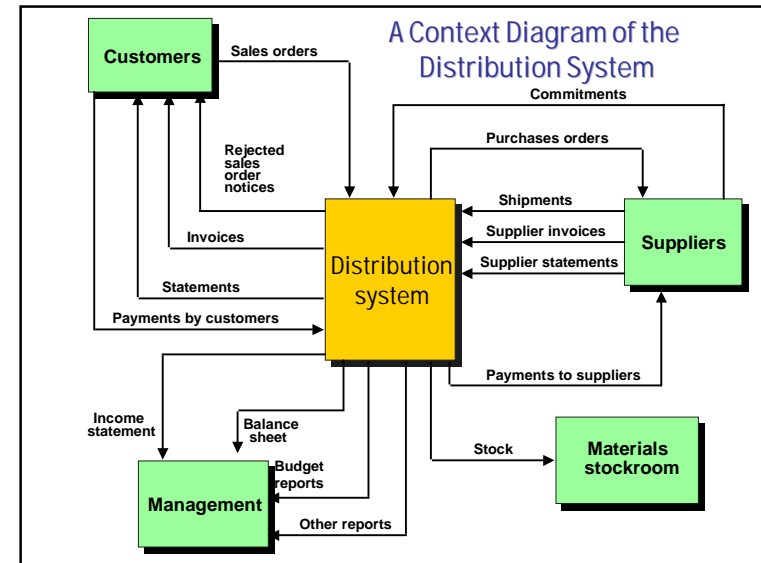
- Performs necessary tasks
- Standard procedures
- Detailed data
- Historical focus
- Provides minimal problem-solving information

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**DFDs**

- Data flow diagram
  - Document a system in a hierarchical manner
  - Data flows, processes, environmental elements
- Context level is overall system within environment
- Leveled and Balanced DFDs

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**Leveled DFDs for Distribution System**

**Level 0 = Figure 0 Diagram**

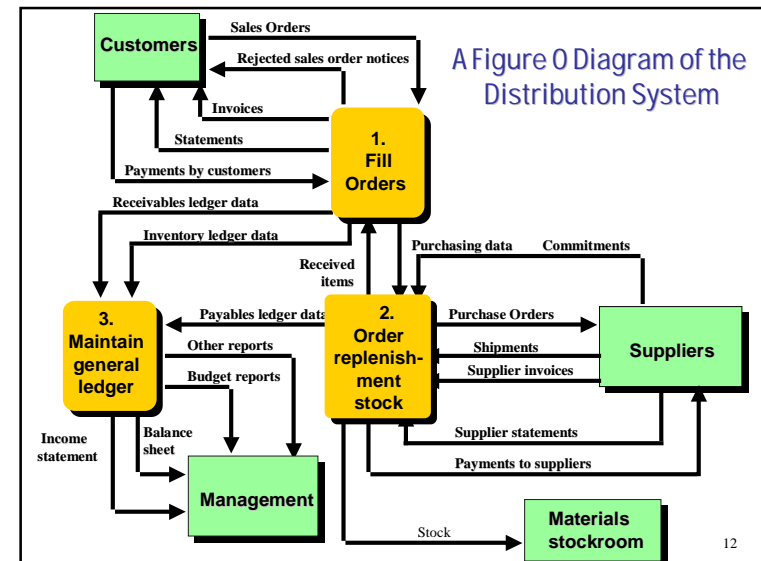
**Figure 11.3**

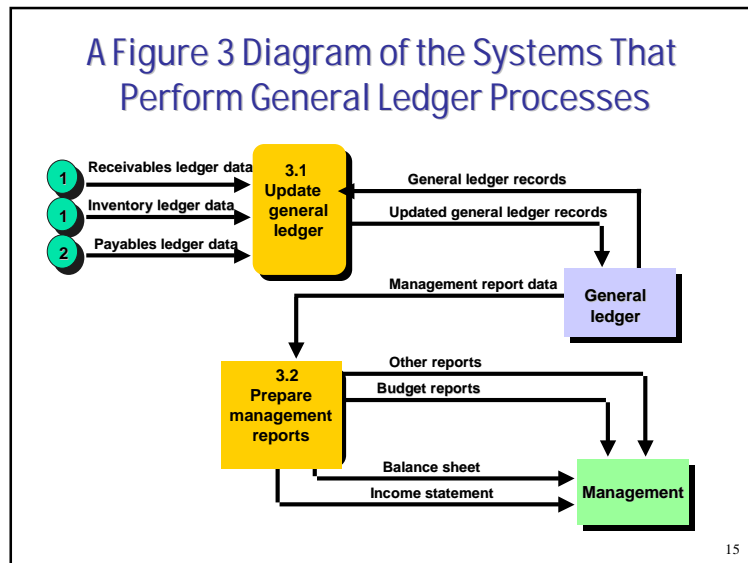
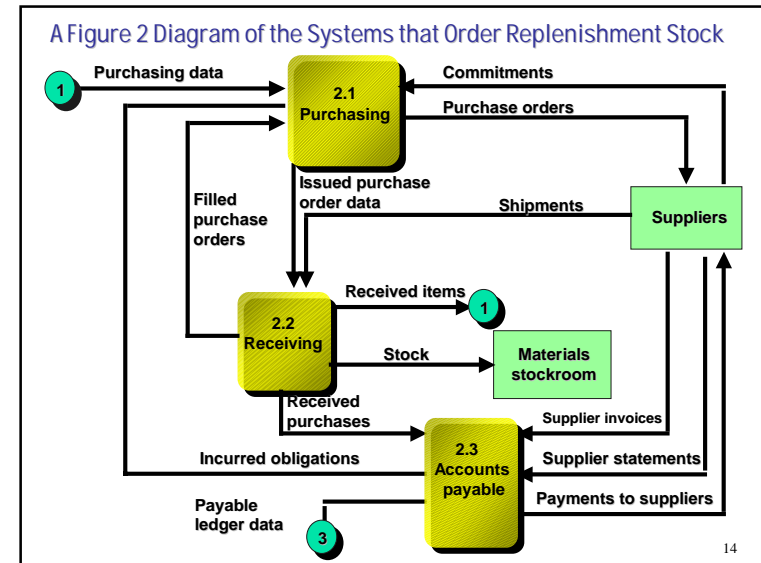
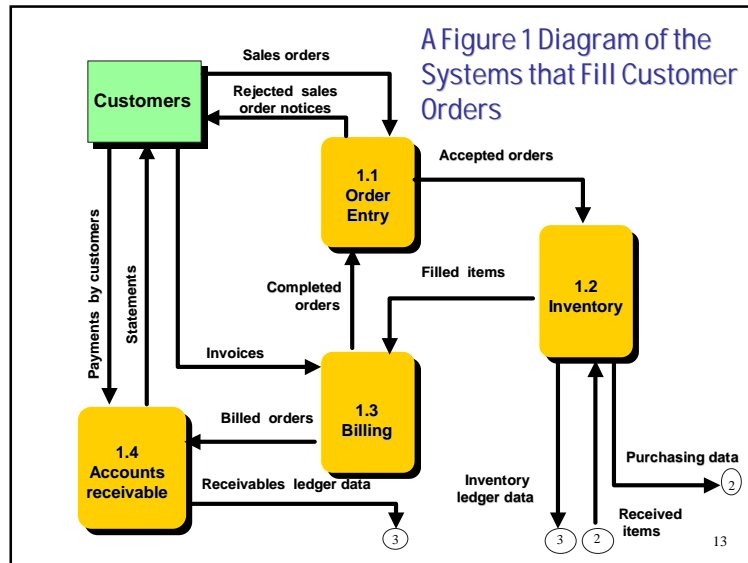
**Top Hierarchy**

**Defined Three Major Subsystems**

1. Fill Orders
2. Order Replenishment Stock
3. Maintain General Ledger

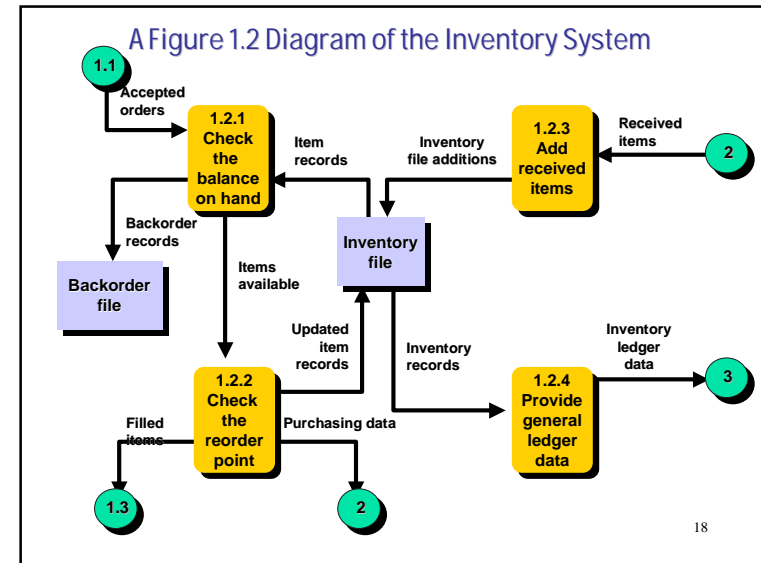
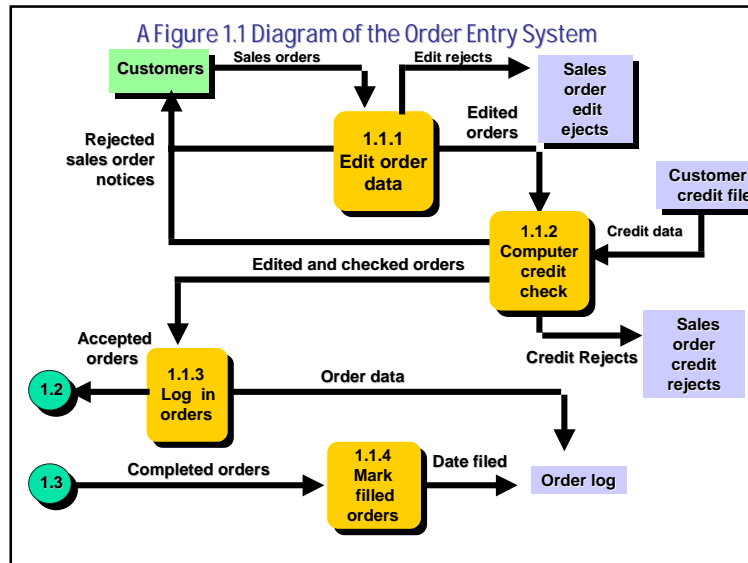
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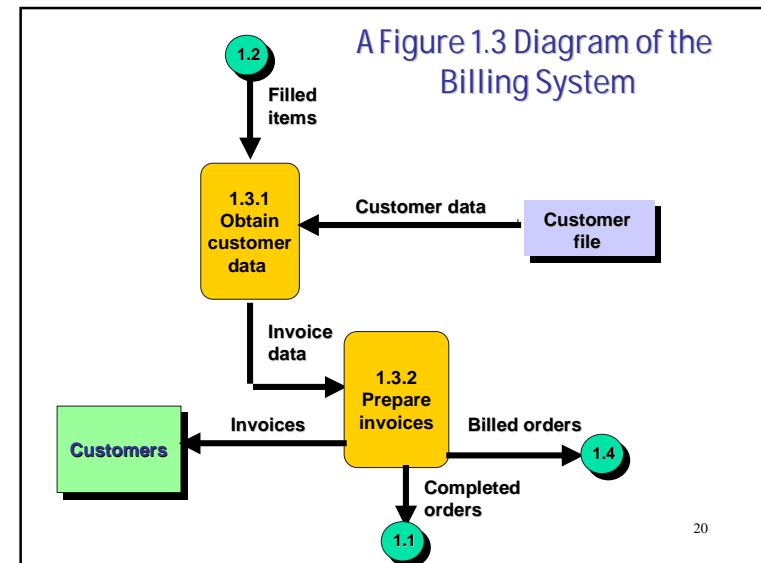
**Fill Customer Orders**

- **Order entry**
  - Sales order form
- **Inventory**
  - Process sales
  - Process receipts
  - Feed general ledger



**Billing**

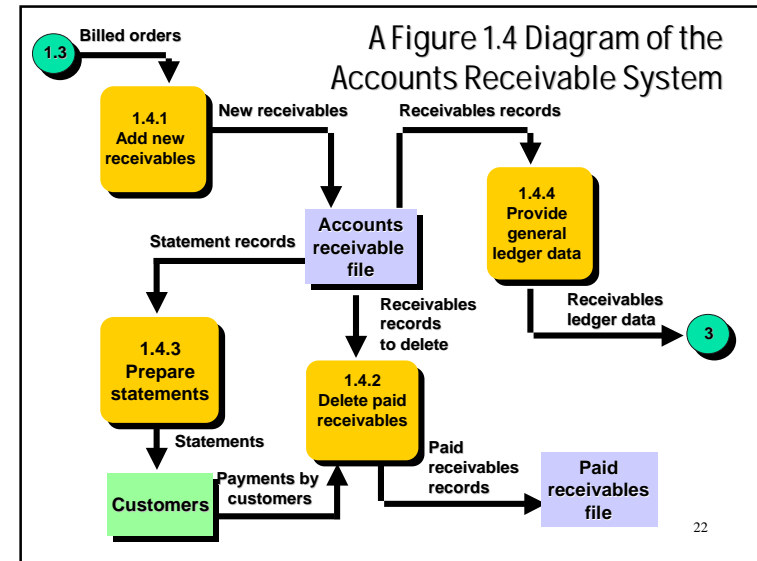
- Invoice
  - Note:
    - 1. Customer data
    - 2. Item data



## Accounts Receivable

- **Four separate triggers**
  - Today's sales
  - Today's payments
  - Time to send statements
  - Need to provide general ledger data

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## AIS is the Foundation System

- **The AIS must be implemented first**
  - MIS
  - DSS
  - ES

Depends on a well-designed AIS

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## Summary

- **AIS maintains financial records of the firm**
- **Data processing components**
  - Data gathering
  - Data manipulation
  - Data storage
  - Document preparation
- **AIS Subsystems**
- **AIS contributes to problem solving**

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