WHAT IT IS

A flowchart is a pictorial representation showing all the steps of a process. Flowcharts provide excellent documentation and can be useful in examining how steps in a process relate to one another.

WHEN TO USE IT

Flowcharts are most often used to document internal control structure and electronic data processing operations; however, they can be used to represent any process having discrete steps or stages. A systems flowchart provides the inputs, processes, and outputs of a system. A document flowchart shows the flow of documents through the entity. A program flowchart represents the sequential steps in an operation.

By creating, studying, and walking through flowcharts, you can sometimes identify problems such as gaps, duplication of effort, nonsegregation of duties, inadequate reviews and approvals, illogical if-then relationships, and variances between prescribed and actual procedures.

HOW TO PREPARE

The process of flowcharting should contain the following steps:

1. Review the entity's system documentation for existing flowcharts and other items of information used in creating or modifying existing flowcharts.
2. Interview appropriate personnel and note the operations performed and their level of responsibility.
3. Prepare the system flowchart. The following chart illustrates some standard symbols and conventions:

- As the chart illustrates, each symbol (shape) has a specific meaning. (Additional symbols are shown at page 2-E-12 in the SAO Project Manual System's "The Hub.")
- Arrows are used to connect the symbols, indicating the sequence of the process. Sometimes dotted lines or bidirectional arrows are used to represent indirect or interactive relationships, respectively, and zig-zagged lines may represent communication links.
- Flowcharts typically work from left to right and from top to bottom.
- Levels of management are sometimes grouped in horizontal rows, and functions or departments are sometimes grouped in vertical columns.
- Explanatory notes can be used for clarification.

4. Have the client verify that the flowchart is accurate.
5. Trace one or more examples (i.e. transactions) through the system to help validate the accuracy of the flowchart; "walk-through" the system backwards and forwards.
6. Identify system strengths and weaknesses on the flowcharts and reference them to appropriate working papers.

ADVANTAGES
- Helps to ensure that the preparer has considered the entire system.
- Aids the reviewer in obtaining a quick overview of an entity's system.
- Produces a more thorough identification of control weaknesses and strengths.
- Concentrates on material procedures unique to a given system.

DISADVANTAGES
- Can be time consuming.
- Symbols may not always be consistently applied.

RELATED TOPICS   Decision Making/Problem Solving

RESOURCES
  Books   Gleim, Irvin N. *CIA Examination Review, Vol. 1, Outlines and Study Guides*, Fifth Edition, 1991, pp. 220-225

  Human Resources   The following staff members have specialized training or ongoing interest in flowcharting:

SAO Employee	Title/Function
Joyce Keller, CPA Kim Kirk Kenneth Lovoy, MA John Swinton, MPAff Bruce TruittMPAff	Methodology Project Team and/or Subject Matter Experts

Marcia Carlson Linda Lansdowne, CPA John Swinton, MPAff Bruce Truitt, MPAff	Module Writers/Editors
Will Hirsch, CPA Charlie Hrncir, CPA Cathy Smock, CPA	Reviewers