

WHAT IS A FLOWCHART?

A flowchart is a picture of the separate steps of a process in sequential order. It is a generic tool that can be adapted for a wide variety of purposes, and can be used to describe various processes, such as a manufacturing process, an administrative or service process, or a project plan. It's a common [process analysis tool \(/quality-resources/process-analysis-tools\)](/quality-resources/process-analysis-tools) and one of the [seven basic quality tools \(/quality-resources/seven-basicquality-tools\)](/quality-resources/seven-basicquality-tools).

Elements that may be included in a flowchart are a sequence of actions, materials or services entering or leaving the process (inputs and outputs), decisions that must be made, people who become involved, time involved at each step, and/or process measurements.

WHEN TO USE A FLOWCHART

- To develop understanding of how a process is done
- To study a process for improvement
- To communicate to others how a process is done
- When better communication is needed between people involved with the same process
- To document a process
- When planning a project

FLOWCHART BASIC PROCEDURE

Materials needed: Sticky notes or cards, a large piece of flipchart paper or newsprint, and marking pens.

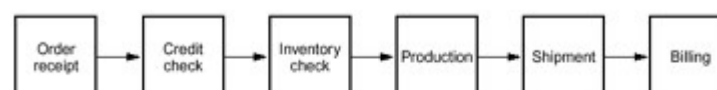
1. Define the process to be diagrammed. Write its title at the top of the work surface.
2. Discuss and decide on the boundaries of your process: Where or when does the process start? Where or when does it end? Discuss and decide on the level of detail to be included in the diagram.
3. Brainstorm the activities that take place. Write each on a card or sticky note.
4. Arrange the activities in proper sequence.
5. When all activities are included and everyone agrees that the sequence is correct, draw arrows to show the flow of the process.
6. Review the flowchart with others involved in the process (workers, supervisors, suppliers, customers) to see if they agree that the process is drawn accurately.

FLOWCHART CONSIDERATIONS

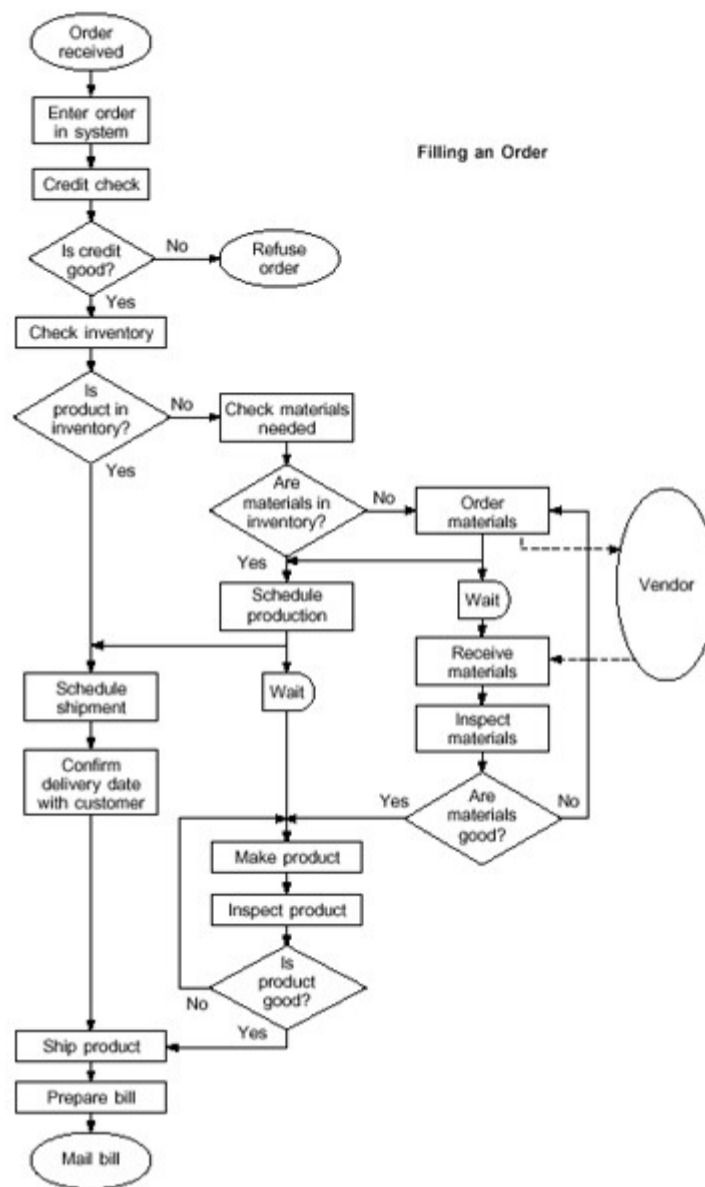
- Don't worry about drawing the flowchart the "right way." Ultimately, the right way is the way that helps those involved understand the process.
- Identify and involve in the flowcharting process all key people involved with the process. This includes suppliers, customers, and supervisors. Involve them in the actual flowcharting sessions by interviewing them before the sessions and/or by showing them the developing flowchart between work sessions and obtaining their feedback.
- Do not assign a "technical expert" to draw the flowchart. People who actually perform the process should do it.

FLOWCHART EXAMPLES

1. High-Level Flowchart for an Order-Filling Process



2. Detailed Flowchart



COMMONLY USED SYMBOLS IN DETAILED FLOWCHARTS



One step in the process. The step is written inside the box. Usually, only one arrow goes out of the box.



Direction of flow from one step or decision to another.



Decision based on a question. The question is written in the diamond. More than one arrow goes out of the diamond, each one showing the direction the process takes for a given answer to the question. (Often the answers are "yes" and "no.")



Delay or wait



Link to another page or another flowchart. The same symbol on the other page indicates that the flow continues there.



Input or output



Document



Alternate symbols for start and end points