
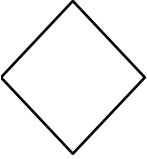
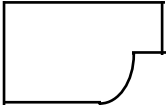
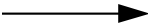
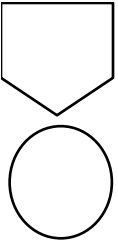


Process Mapping Guidelines

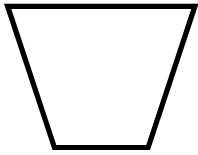
FLOWCHART SYMBOLS

The following are the primary symbols:

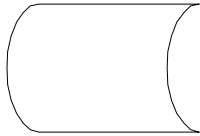
SYMBOL	NAME	DESCRIPTION
	Activity/Processing	Indicates that an activity or task is being performed. Write the specific activity, such as "Check for Errors" or "Prepare Form" inside the symbol.
	Decision	When this symbol appears, the task sequence flows to the right if the decision is "no" or down if the decision is "yes". As with other symbols, write a brief description inside the symbol, keeping it as simple as possible. Often a simple "Approved?" or "OK?" is sufficient.
	Document	Represents the generation of a physical document. Multiple overlaying symbols are used if multiple documents are generated. Write the specific document inside the symbol.
	Direction of Flow	Flow arrows show the order in which activities are completed. The arrows depict the process flow.
	Chart Connections	Shows the continuation of the flow from page to page of a Process Map. When you reach the bottom of a page, draw a flow chart connector symbol and connect it to the last item on the chart. Label the inside of the symbol with a letter beginning with "A" and the page number on which the process continues. The label A/2 for example, instructs the reader to look for Point A on page 2.

Remember: When using flowchart symbols, make sure you are consistent and use a legend.

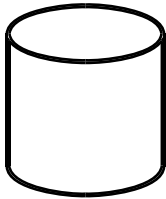
When preparing flowcharts at detail level, the activity box is often replaced by more specific symbols, such as:



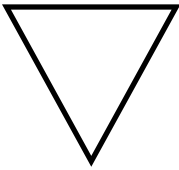
Manual Input



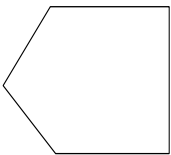
Tape Storage



Computer Storage



Manual Filing



On-line Activity

Preparing charts at this detailed level requires you to gather information on the who's and what's:

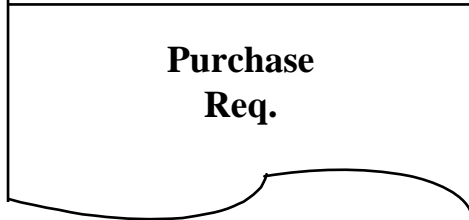
- What activities are performed?
- Who performs each activity?
- What sequence the activities are performed in?
- What forms and reports are used?
- What computer systems and files are used?
- What decisions are made in the process?

Specific Guidelines

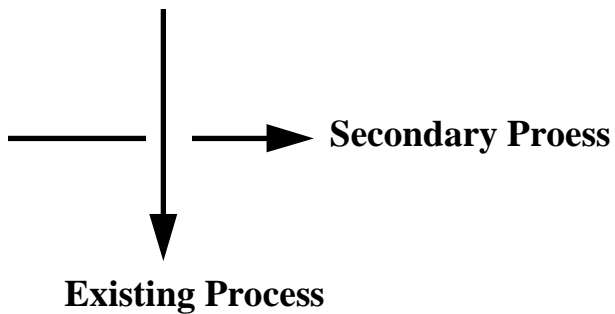
Here are some guidelines intended to help you complete your own flowcharts.

- ❑ *Label origins and destinations.* Always print the origin of input and destination of output above the respective symbols.

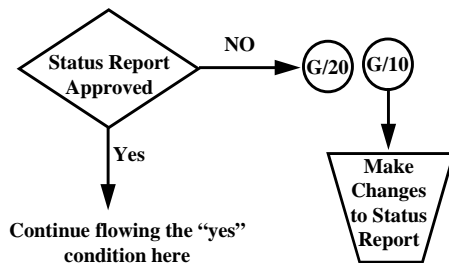
Sales Rep.



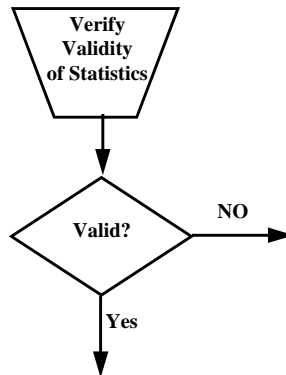
- ❑ *Use flow lines carefully.* If the line from one process to another crosses over an already existing flow line, draw the secondary line as shown below:



- ❑ *Number the symbols.* Numbering each process symbol can be useful to cross-reference to a system narrative or the same task number on a process description chart.
- ❑ *Be sure to connect flows.* Always use a flowchart connector symbol when you continue a diagram to another page or carry it over to another process.



- ❑ Remember to denote the Responsible department or Individual. Place the department name or the Responsible Individual above each process symbol or area of the map.
- ❑ Use a manual activity symbol before a decision diamond. If you show the flow branching in a yes/no response, someone has made a decision. Indicate that by using a decision diagram. Since decisions and approvals are seldom made in a void, a manual activity symbol generally precedes the decision symbol.



- ❑ Be certain the “No” comes off to the right and the “Yes” flows with the mainstream. There may be instances in which this will not be feasible, but in general the rule is to have the “Yes” flow downward.
- ❑ Attach samples of forms. Logbook sheets, routing sheets, reports and any other documents that are referenced and used within the activity should be attached to your Process Mapping report.
- ❑ Level of detail. The level of detail included in a flowchart should be driven by the objectives of the project. A flowchart should only go to the level of detail needed to sufficiently document the process and perform the necessary analysis. In many cases high level maps and detailed maps are needed. The high level map shows how the process under review relates to other processes (This could be a transaction flowchart or a process interfunctional chart). The detailed map is the primary tool for analysis. Examples of high level, mid level and detailed process maps can be found in the interfunctional flowcharts tool on this CD.
- ❑ Label key control points using specific symbols described in the legend.

Consider these additions to the flowchart:

Time per activity - How long does a task or activity take to perform. For example, in Accounts Payable, there is often a coding function. Depending upon the client's procedures, this task may take little time (especially if automated) or hours.

"Delay" time - How long does an activity "wait in queue" or form "sit on a desk," or an activity wait for an approval. For example, in the vouching task mentioned above, the actual coding may take 2 minutes, but if each voucher must be approved by the Accounting Manager, any given code may be delayed (sit on his or her desk) for days or weeks.

Number of activities - How many activities or tasks a function takes to perform. Generally, each activity should have a corresponding symbol.

Number of reviews - How many times does someone check for errors, approve, review for completeness, etc.? Generally, reviews are performed because, historically, errors have permeated the process. Rather than increase the number of reviews, organizations should prevent the error from happening. Typically, the greater the risk for a given activity, the more likely multiple level reviews are necessary. Performance measures are useful in preventing errors and, therefore, reducing the need for multiple reviews.

Cost of each activity - How much in payroll, benefits, materials, and sometimes opportunity costs does a task or activity cost. This is a measure in currency and Full Time Equivalentents (FTE's). Full Time Equivalentents are the total effort needed in manpower to perform. For example, 10 people spend 30% of their time filing. In order to convert this to payroll, multiply the average payroll for a given activity (we often use department payroll for this) plus benefits (i.e., loaded payroll) times the number of FTE's.

Errors - This is often called exception-related activity. Typically, processes with numerous errors often have numerous reviews. These errors often are passed on to other departments who correct them without feedback to the error generating department. In the Accounts Payable example, if the retail outlet completes the initial voucher form incorrectly or incompletely, Accounts Payable often records the incorrect voucher and forwards it without feedback. Processes with numerous errors are excellent candidates for process improvement.