Policy and Procedure Library Flowchart Guide

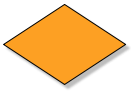
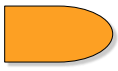
University of Southern Queensland

A flowchart is a pictorial representation of system transactions, definitions, solutions or analysis of a problem, process or procedure. It documents a sequenced flow of important aspects and/or actions and can simplify complex relationships.

There are various types of flowcharts e.g. process, process flow diagram, macro, top-down, detailed or process map, deployment or cross-functional. A cross-functional flowchart is a detailed flowchart that also shows who (which person or group) performs each step.

Due to the complexity of processes, the Policy Library mainly uses cross-functional flowcharts. The software application used is Microsoft Visio. Templates are located within the Policy and Procedure Library Tools. All Policy Library Flowcharts are USQ branded and developed to in accordance with Brand Guidelines. For web publication, use Arial font. For print versions, use Verdana font.

1 Basic Flowchart Symbols

Start/End		The 'start / end' symbol is used to indicate where the beginning or ending of a flowchart occurs
Process		The 'process' symbol is used as one step in a process with the step written inside the box. Usually one arrow comes out of the box.
Sub-process		The 'sub-process' symbol is used
Arrow		The 'arrow' symbol shows the direction of flow from one step or decision to another. It can be positioned at any angle.
Decision		The 'Decision' symbol is used for a point where a decision is required and is based on a question and an alternate path. The question is written in the diamond. More than one arrow flows from the diamond, each one showing the direction the process takes for a given answer to the question. The answers are often 'yes' or 'no'.
Delay or Wait		The 'Delay' symbol is used for a point where a process is paused e.g. it can be used where a cross-functional section of a process is paused temporarily.

Document		The 'Document' symbol is used where a document is required in a process.
Connector or Link		The 'link or connector' symbol is used to indicate the continuity is broken. It can also indicate a link to another page. The same symbol on the other page indicates that the flow continues there.
Input or Output		The 'input or output' symbol can often be referred to as the 'data' symbol to indicate where it is collected.
File or Stored Data		The 'file' symbol is used to indicate that the information or data is stored or filed.
Manual Input		The 'manual input' indicates where data or information enters into the system particularly when under review.

2 Basic uses

Flowcharts are used to provide understanding of how a process is undertaken or study a process for improvement. They can also be used:

- when different individuals or groups are involved;
- to understand, communicate responsibilities or identify relationships;
- for sequential or parallel steps that affect cycles times;
- when allocating and tracking responsibilities on a project.

2.1 Process

Define the process to be diagrammed.

1. It is easier first to construct a detailed flowchart on paper and then convert it to a chart.
2. Write it on a large piece of paper or newsprint. Discuss and decide the boundaries of your process; e.g.
    a. Where or when does the process start and end?
    b. What is the level of detail to be included in the diagram?
3. Brainstorm the activities that take place and write them down. Remember sequencing is not important at this point, although thinking in sequence may help.
4. Arrange the activities in the proper sequence.

5. List all the players (individuals or groups) involved in the process and their steps. These can be written on the newsprint in columns or rows; e.g. 'actual or theoretical timing in the process'.

6. Draw arrows on the newsprint arrows to connect the flow of the process.

7. Draw up the process using the symbols when complete.

2.2 Considerations

Process-related considerations:

- You may want to indicate who does what when and include primary, secondary or multiple responsibilities by placing a step under names with different symbols or colours.
- Look for sequential steps carried out by different players that could be done simultaneously.
- When a process flow moves between players, a customer-supplier relationship is involved.
- An as-is process map shows the process as it currently is, arts and all and should include recycle loops, rework, delays, excessive handoffs and other non-value added steps.
- What would happen if a substitute or new employee operated the process?
- What unexpected things might happen if the process was completed differently?
- A should-be process map shows the ideal process i.e. non-value added steps are eliminated and the flow is streamlined. All other improvements are incorporated.
- Where does the (service, material) come from?
- Who makes the decisions?
- What tests, monitoring is conducted on the process, should it be included?
- What happens when the tests fail?
- What are the error detection methods used or internal controls?
- What is the alternative path when errors or negative directions occur?
- What procedures are performed and documents completed?
- What is recorded and what type of official or unofficial records require to be maintained?
- What happens if the decision is yes or no?
- 'Mistake-proof' the process; i.e. identify common mistakes or problems at each step of the process. What can go wrong?

2.3 Records management

Flowcharts form part of the University's record and, accordingly, should be retained within the University records management system and as per the provisions of the Records Management Governance Policy and Procedure.