



TTE Training Ltd.

**Phase 2
Electrical Course Notes**

E2-CN-010

Flowcharts

How a process works

Related variants: process maps and process flow diagrams

Flow charts are easy to understand diagrams showing how steps in a process fit together. This makes them useful tools for communicating how processes work, and for clearly documenting how a particular job is done. Furthermore, the act of mapping a process out in flow chart format helps you clarify your understanding of the process, and helps you think about where the process can be improved.

A flow chart can therefore be used to: -

- Define and analyse processes.
- Build a step by step picture of the process for analysis, discussion, or communication, and
- Define, standardise or find areas for improvement in a process.

Also, by conveying the information or processes in a step by step flow, you can then concentrate more intently on each individual step, without feeling overwhelmed by the bigger picture.

How to use the flowchart tool:

Most flow charts are made up of three main types of symbols: -

- Elongated circles, which signify the start or end of a process.



- Rectangles, which show instructions or actions.



- Diamonds, which show decisions that must be made



Within each symbol, write down what the symbol represents. This could be the start or finish of the process, the action to be taken, or the decision to be made.

Symbols are connected one to the other by arrows, showing the flow of the process.

To draw the flow chart, brainstorm process tasks, and list them in the order as they occur. Ask questions such as “what really happens next in the process?” and “Does a decision need to be made before the next step?” or “what approvals are required before moving on to the next task?”

Start the flow chart by drawing the elongated circle shape and labelling it “start”.

Then move to the first action or question and draw a rectangle or diamond appropriately. Write the action or question down and draw an arrow from the start symbol to this shape.

Work through your process, showing the actions and decision needs to be made, draw arrows leaving the decision diamond for each possible outcome, and label them with the outcome, remember to show the end of the process using an elongated circle labelled “Finish or End”.

Finally, challenge your flow chart. Work from step to step asking yourself if the process makes sense, then (if you’re looking to improve the process) look at the steps identified and think about whether work is duplicated, whether other steps should be involved, and whether the right people are doing the right jobs.

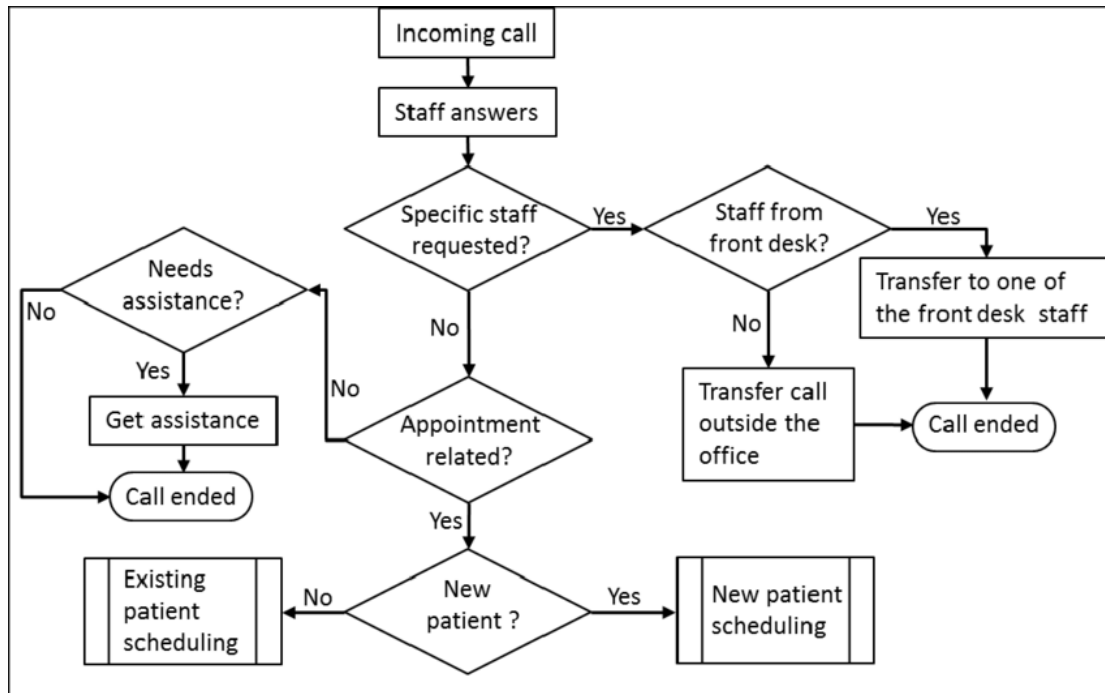
Tip: -

Flow charts can quickly become so complicated that you can’t show them on one piece of paper. This is where you can use “connectors” (shown as numbered circles) where the flow moves off one page, and where it moves onto another. By using the same number for the off-page connector and the on-page connector, you can show that the flow is moving from one page to the next.

Example:

The example below shows part of a simple flow chart which helps receptionists' route incoming phone calls to the correct department in a company.

Figure 1: part of an example flow chart showing how to route incoming phone calls

**Key Points:**

Flow charts are simple diagrams that map out a process so that it can easily be communicated to other people. To draw a flowchart, brainstorm the tasks and decisions made during a process, and write them down in order. Then map these out in flow chart format using appropriate symbols for the start and end of a process, for actions to be taken and for decisions to be made. Finally, challenge your flow chart to make sure that it's an accurate representation on the process.