



INTERPRET TECHNICAL DRAWING

SIMPLE REMINDER IN USING A FLOWCHART

- There is no such thing as a proper way of constructing a flowchart. What's important is how the people involved understand the process.
- Involve only the key people in the flowcharting process.

- A technical expert is not necessary to draw a flowchart. It should be you who performs the process.
- There are a lot of free flowcharting software that you can use.

MISTAKE-PROOFING

- Mistake cannot be avoided sometimes when making flowcharts, but the chances for errors in the process can be reduced by deviating from the usual steps or actions that have resulted in mistakes.

- In Japan, where the work ethic is admired worldwide, mistake-proofing is known as poka-yoke (PO-ka yo-KAY).

POKA YOKE

- It is simply a system that reduces mistakes and in Flowchart instances when an error does occur, it is quickly identified and addressed.

MISTAKE-PROOFING IN YOUR DAY-TO-DAY ACTIVITY

- Although you often don't see it poka-yoke is all around us.
- An example is the thumb drive. The thumb device can only be inserted if it is oriented properly. It cannot be inserted in the reverse side or sideways.

How do you interpret flowcharts?

- Determine who is involved in the process.
- Form theories about root causes.
- Identify ways to streamline the process.

Below is a sequence of steps that will help you through an orderly analysis of your flowchart.

- Step 1 - Examine each process step for the following conditions that indicate a need to improve the process:

Bottlenecks.

- These points in the process where it slows down may be caused by redundant or unnecessary steps, rework, lack of capacity, or other factors.

Weak links

- These are steps where problems occur because of inadequate training of process workers, equipment that needs to be repaired or replaced, or insufficient technical documentation. "Inform the drill leader and improvise" is one of the weak links.

Step 2 - Examine each decision symbol

- You may want to collect data on how often there is a "yes" or "no" answer at decision points marked by a diamond shaped symbol.

Step 3 - Examine each rework loop

- Processes with numerous checks generate rework and waste. Examine the activities preceding the rework loop and identify those that need to be improved. Look for ways to shorten or eliminate the loop.

- Two main types of flowcharts namely, ***linear*** and ***deployment***

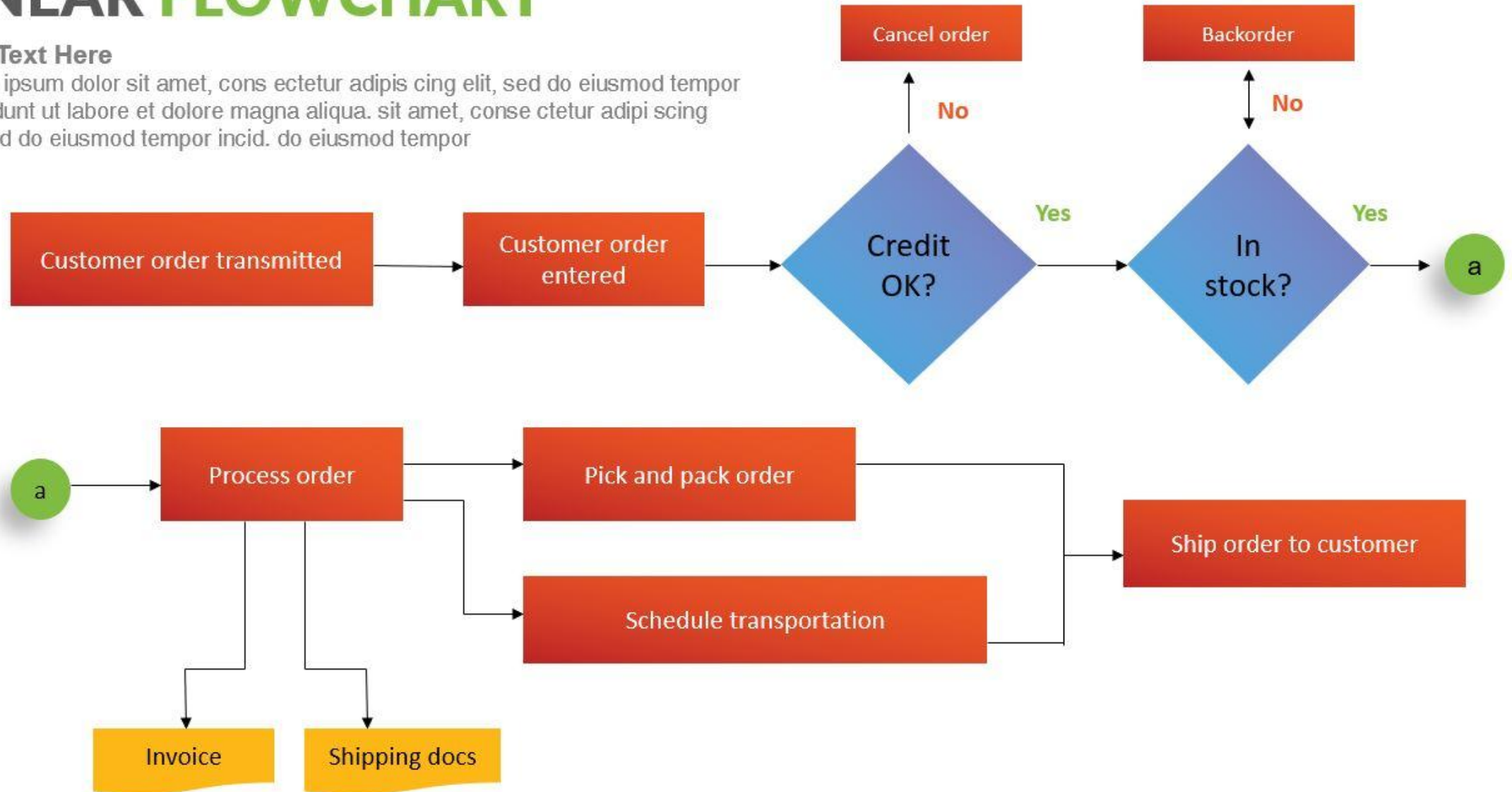
1. Linear Flowchart

- Linear flowchart is a diagram that displays the sequence of work steps that make up a process. This tool can help identify rework and redundant or unnecessary steps within a process.

LINEAR FLOWCHART

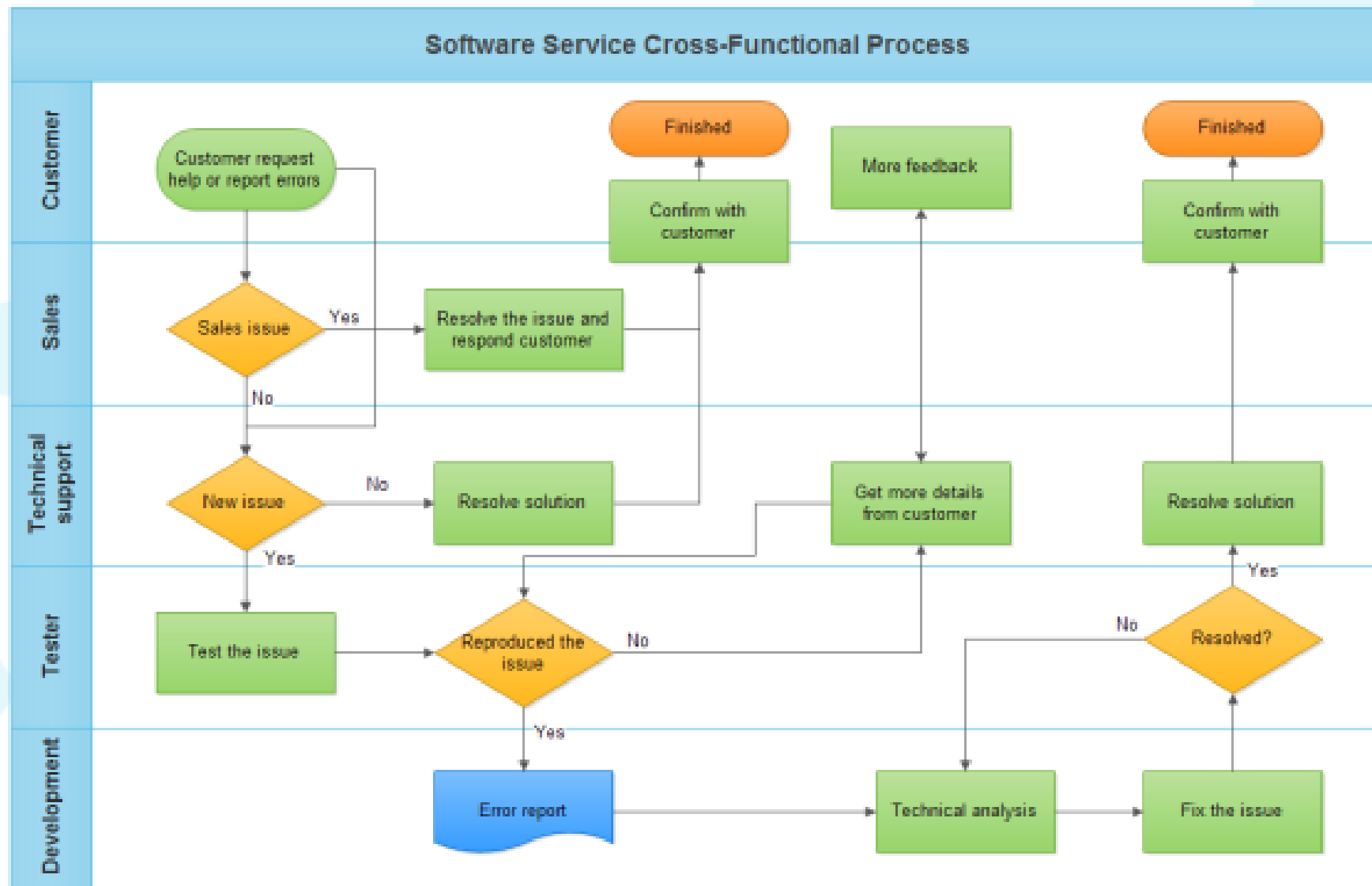
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2. Deployment Flowchart

- A deployment flowchart shows the actual process flow and identifies the people or groups involved at each step. Horizontal lines define customer-supplier relationships.



How do we construct a linear flowchart?

1. Define the process to be flowcharted, and the purpose for flowcharting
2. Assemble the right people to develop the flowchart—those operators, technicians, or office workers who are actually involved in the process.

How do we construct a linear flowchart?

3. Establish process boundaries—the starting and ending points.
 - Identify the major activities or sub processes that are included in the process.
 - Determine what is not included in the scope of the process to remove any doubt or confusion about the boundaries. This may also help establish the scope of related processes.

4. List the steps, activities, and decisions to be charted. If your team is not sure about a step, mark it to be investigated later.

5. Put the steps in chronological sequence. Sometimes it's easier to start with the last step and work back to the first step.

6. Assign flowchart symbols such as boxes, diamonds, and triangles.

7. Review and title the Flowchart.

Constructing a Linear Flowchart

