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FIVE STEPS FOR PROCESS MAPPING IN QUALITY

It's critical to have a good understanding of the processes used within your company, but how do we best document them? One key quality tool used to clearly show how a process works is process mapping. In this piece, we outline how this quality tool can help your organization identify areas for improvement or enhancement and also share five steps for process mapping in quality.

WHAT IS PROCESS MAPPING?

Process mapping is a quality improvement tool used to generate a visual map of workflows and processes. It provides a way to show how processes work in a very clear and concise way using flow charts or workflow diagrams with graphical illustrations of the steps. It clearly shows the steps, timing, handoffs, inputs, outputs, and people involved in a process.

WHEN IS PROCESS MAPPING USED?

A process map is used when you want to better understand and potentially improve a process. By mapping out the process visually, and analyzing and capturing the required steps, you will increase understanding of the process. These tools can be used for any type of process that involves multiple people, departments, steps, and inputs/outputs and when you want to get a clear picture of who does what in what order. It can be used for something as simple as ordering a sandwich at a deli to as complex as a space shuttle launch.

Process mapping is often used in process improvement initiatives, such as Lean Six Sigma or business process reengineering, or for the development of Standard Operating Procedures (SOPs) for processes such as document approval, steps in a manufacturing process, or onboarding new employees. The goal of process mapping is to help organizations streamline their processes by identifying inefficiencies, bottlenecks, and areas for improvement.

WHAT ARE THE BENEFITS OF PROCESS MAPPING?

Generating a process map will help people to follow the process flow without difficulty. It allows you to analyze the steps to see where the process can be improved by eliminating redundant steps, streamlining the process, eliminating bottlenecks, and optimizing the workflow.

Procedures are typically written in a narrative format, which can be difficult to visualize. As is often said, "a picture is worth 1,000 words," so we know that a visual representation of the flow will appeal to those who are visual learners and help address different learning styles. The process will be clearer, more concise, and easier to analyze for all users. Understanding the current status of a process is a fundamental step in being able to improve it.

Additionally, a process map will clearly communicate who is responsible for each step in the process and illustrate where handoffs occur. This is especially useful when you have multiple departments involved in a process, as they may not realize the interdependencies of their work.

PROCESS MAPPING TOOLS

There are several tools and approaches to process mapping. The key is to make your process maps as easy and simple as possible to read and understand by anyone in your company while providing the needed information. You will want to include only the necessary details on your map – no more or less than what's needed to identify areas for improvement.

Below are a few process mapping tools and approaches that you can leverage:

- **Basic Flowchart:** A basic flowchart is useful for creating a simple map that illustrates the main steps in a process. It will provide a quick snapshot of what a process does, without going into detail about how a process is performed. Basic flowcharts are good for planning new projects, analyzing and managing workflows, and improving collaboration among team members. They can be helpful for discussing processes with department management or contract organizations that don't need to know the specifics.

- **Detailed Process Flowchart:** A detailed process flowchart is useful for understanding the intricacies of a process. The detailed map will include subprocesses, decision points, and handoffs. It describes each step in more detail, which makes it a useful tool for identifying inefficiencies, wastefulness, and gaps within a process. This is beneficial for all types of efficiency analysis, and continuous improvement activities.

- **Swimlane Diagram:** Swimlane diagrams are also known as cross-functional maps and are a wonderful tool to visually show "who does what" in a process. Activities are shown in separate lanes or channels according to who is responsible for the step. Swimlane diagrams help stakeholders understand their responsibilities within a workflow and how they relate to and interact with other business processes. They are ideal for increasing understanding of interactions among departments/roles involved in the process.

- **SIPOC Diagram:** SIPOC stands for Supplier – Inputs – Process – Outputs – Customer. These are the key elements that must be identified to define the scope of a process. It identifies who is providing the input to the process, what they are providing, and what outputs are expected to be delivered to the identified customer. A SIPOC diagram looks more like a table than a traditional process map and will help put boundaries around the process to be mapped as you move into creating a more detailed process map.

- **Value Stream Map:** Value stream maps show the steps required to deliver a product or service to customers. In addition to showing the steps in a process, they include the flow of materials

and information involved at each step. Value stream maps are particularly useful for identifying waste within and between processes. They also serve a significant role in identifying opportunities and planning future projects.

See Appendix for examples of these process mapping tools.

FIVE STEPS FOR PROCESS MAPPING IN QUALITY

Once you have decided what type of map or diagram is most useful for you, there are plenty of tools available to help you create and draw the process map. The software used is not nearly as important as the process you use to gather the relevant information. By following these key steps, you will generate an accurate and useful process map.

1 **Identify the problem/define the goals:**
The first step is to clearly identify why you are generating a process map. What is the issue you are trying to resolve, and what are your goals? You will need to establish the beginning and end of the process you are mapping and set the boundaries.

2 **Identify participants:**
A process mapping session must include all the stakeholders, especially those involved in actually performing the process, such as team members, workers, supervisors, suppliers, customers, etc. The right team would include those who perform the tasks and manage the process, those who provide inputs, and those who require the outputs.

3 **Identify the process steps:**
This is a brainstorming activity. The goal is to determine who does what, when it's done, and how it's performed. It's essential to create an atmosphere where people feel safe to share. For example, if the actual process being performed doesn't match what's written in the SOP, people must be willing to express that. Issues need to be identified in order to be improved.

As you discuss the process, you will want to organize the steps in a sequential manner. It's best to start with the basics – five or six steps in the process. Then, list each sub-step under the main steps to expand on the process. For each step, identify the inputs, outputs, and people/departments involved. Be sure to include any decision points and handoffs of materials or information.

4 **Draw it out:**
Standard flowcharting symbols are used, which again aids in the understanding of a process. People can quickly review a flowchart to see the inputs and outputs and identify the decision points. In a process mapping session, work together with the team to move steps around until all stakeholders agree that the map drawn captures the process correctly.

5 **Analyze and improve:**
After you have drawn out a visual map of the process, you can look for ways to optimize it. You want to identify any inefficiencies and bottlenecks within the processes. Look for any redundant steps that can be eliminated and any areas where you can make improvements. This will be an iterative process. As you make improvements, you can monitor the new process to see how it's functioning and determine if further optimization is needed.

PROCESS MAPPING: IDENTIFYING AREAS FOR OPTIMIZATION

Analyzing and understanding the processes used within your company can be difficult, confusing, and time-consuming. Clarkston Consulting can guide you through these activities by providing an independent facilitator to help you look at your processes. By looking with a new set of eyes and a new perspective, the assessment will be made independent of any underlying assumptions that may exist due to previous involvement in the current process. Our stewards have the experience and skills to assist you in understanding your current processes, documenting them in clear and effective process maps, and helping identify areas for optimization.

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For more information about how we can help your company, please contact us.

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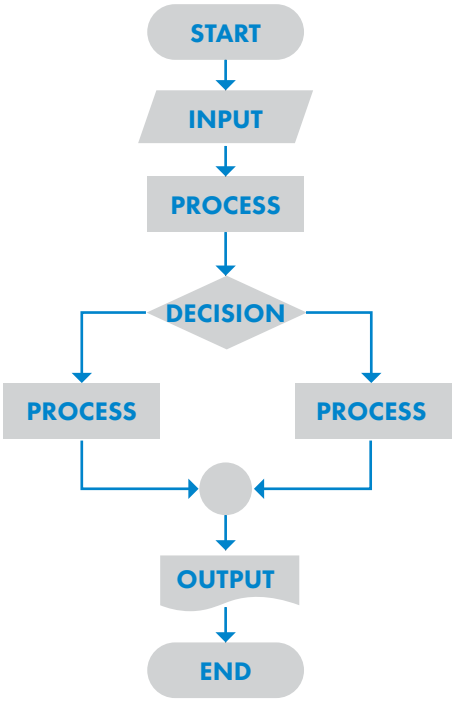
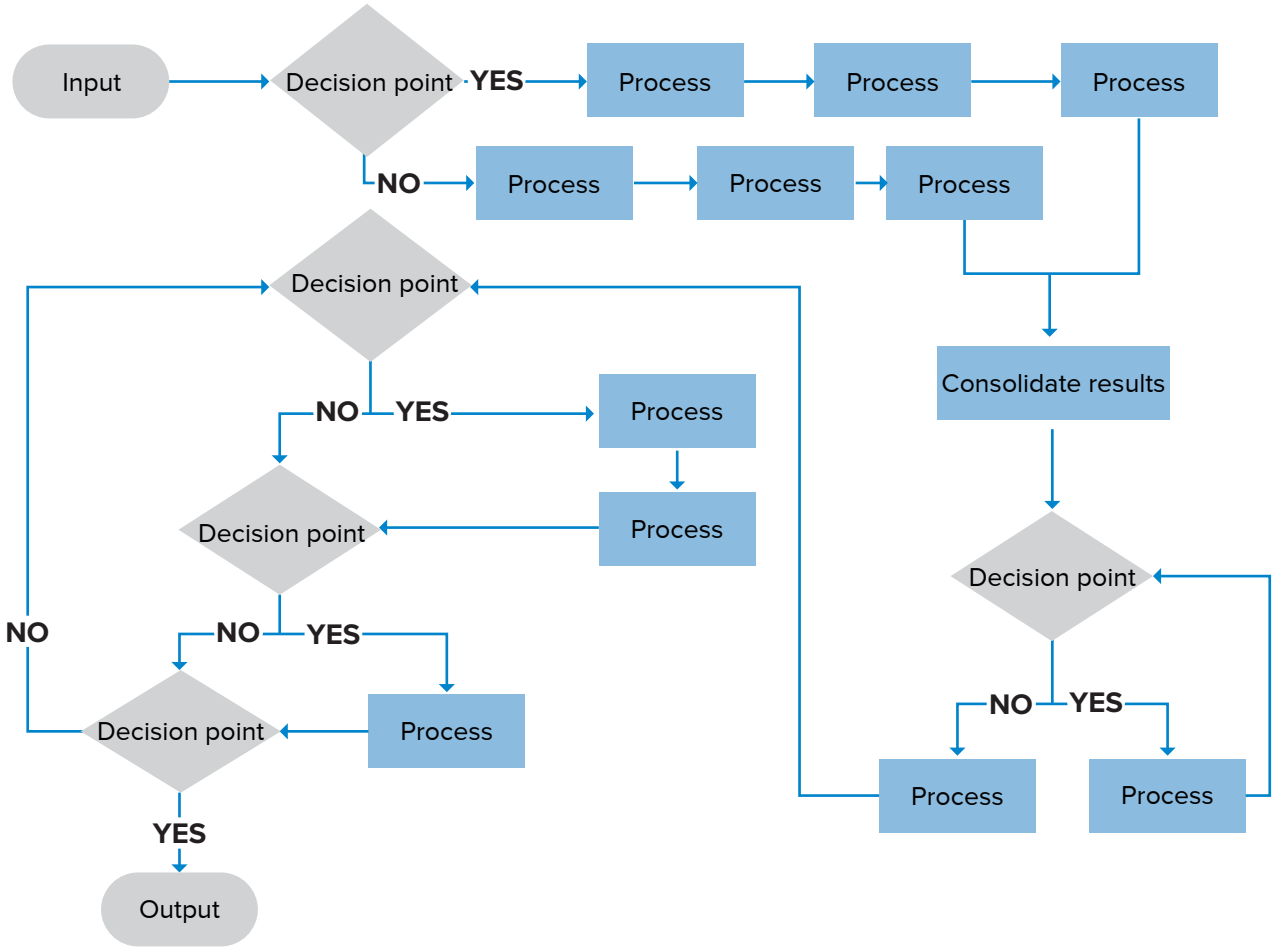
APPENDIX

Basic Flowchart:



Detailed Process Flowchart:



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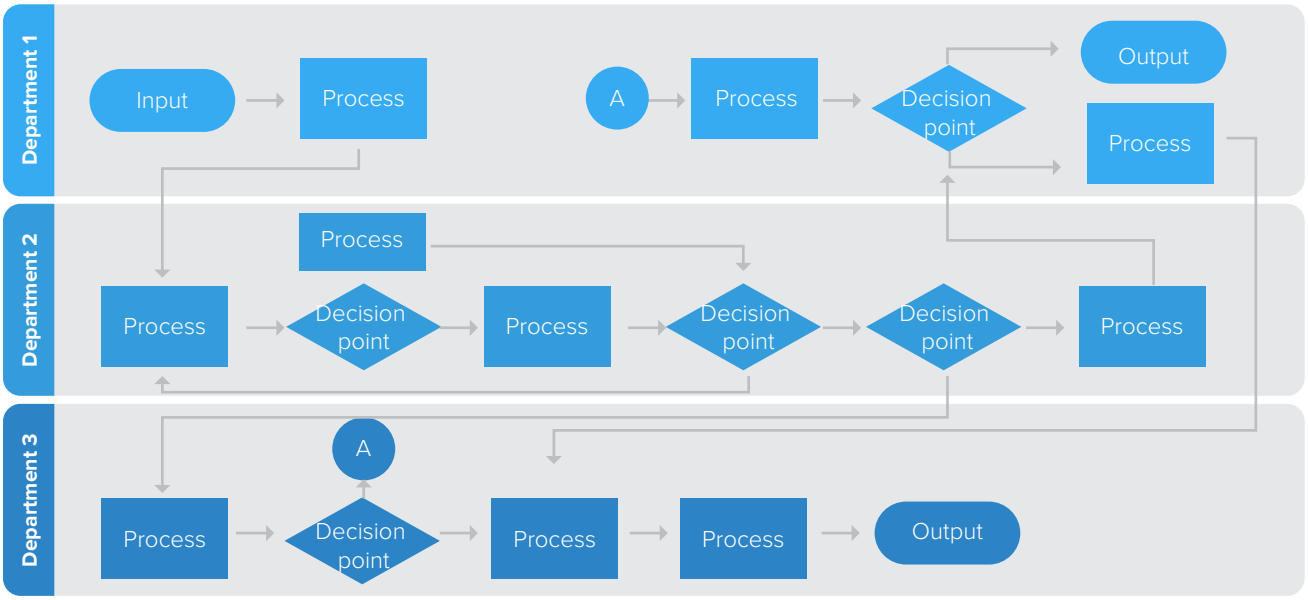
Swimlane Diagram:

Key Steps of **The Process** (Department Detail)



SIPOC Diagram:

S	I	P	O	C
Suppliers	**Inputs**	**Process**	**Outputs**	**Customers**
Who is providing any materials and/or resources as inputs?	**What inputs are being provided? Could be materials or information.**	**What steps or activities are being done to create what the customer needs?**	**What is the result of the process to be provided to the customer?**	**Who is the customer receiving the end result?**

APPENDIX

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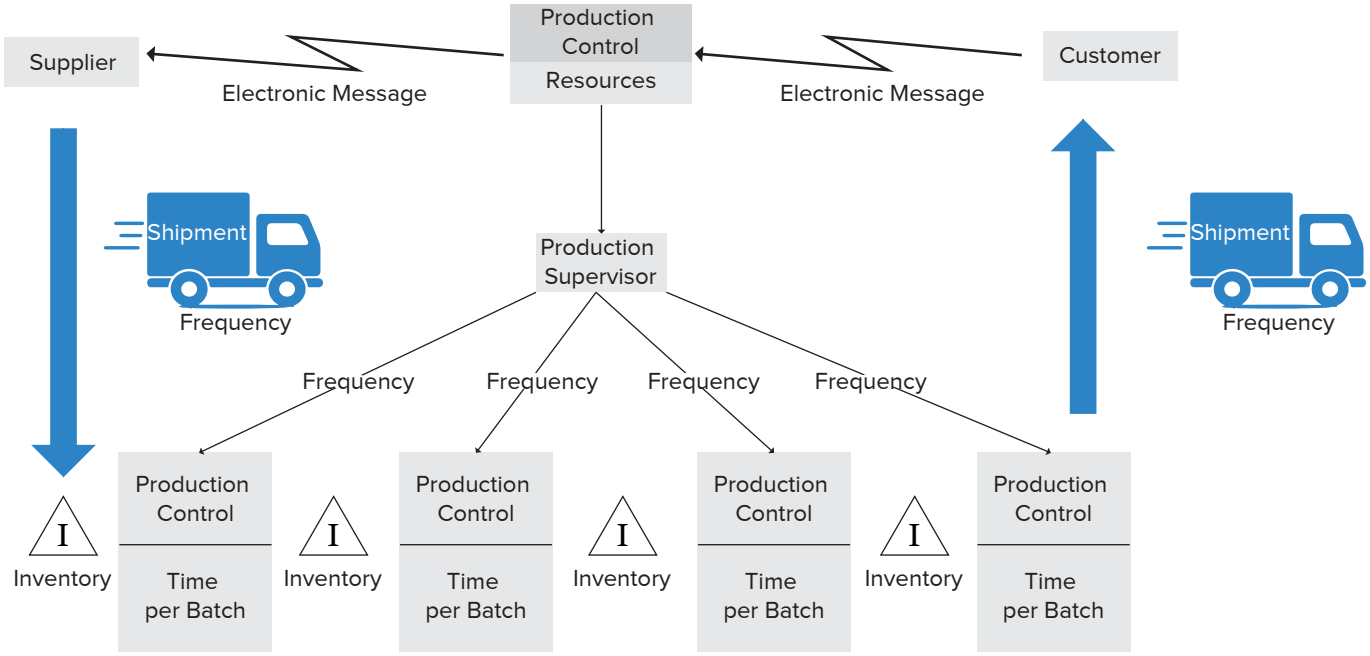
Value Stream Map:



Process maps shown above are examples for illustrative purposes only.

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