



## EIN 5226 Lecture 5

# Process Flowcharting / Process Mapping Chapter 4

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## Introduction

A flowchart provides a picture of the steps that are needed to create a deliverable.

Why create a flowchart

- Improve understanding of processes
- Communicate process with others
- Maintain consistency of application
- Identify opportunities for improvement

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## When to create a flowchart

When there is need to understand the process and relationships between the steps of the process

- Key processes within a management system
- Transactions between departments
- Procedures within a department
- Problem solving/corrective actions
- Improvement projects

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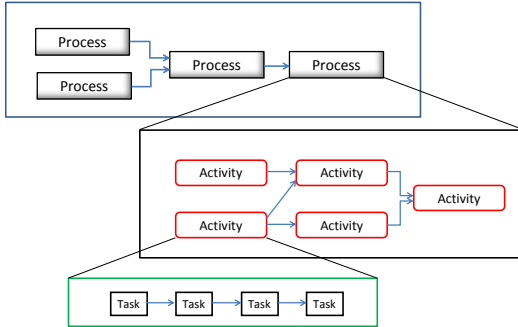
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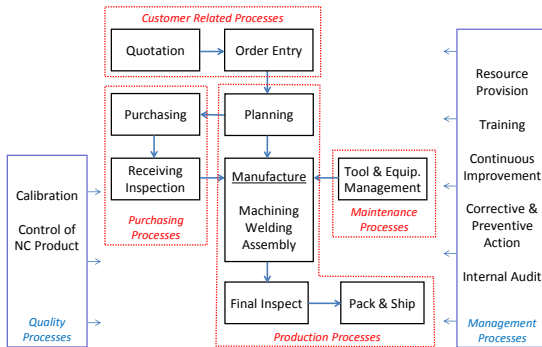
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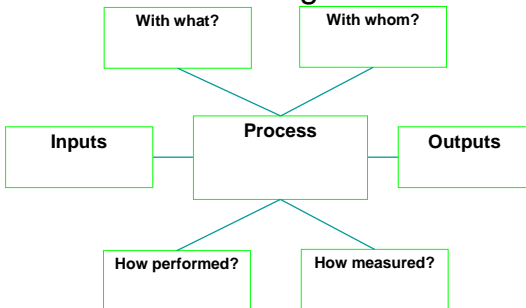


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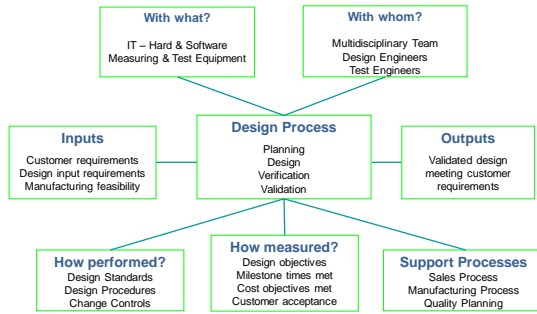
### Key Process Interaction Diagram



### Turtle Diagram



## Design Process Turtle



# Introduction

In 6 sigma projects, a flowchart provides a complete pictorial sequence of what happens from start to finish of a procedure.

- Procedure documentation
- Manufacturing processes
- Work instructions
- Product development steps



# Introduction

- SIPOC (suppliers, inputs, process, outputs, and customers) is a high-level process map that adds supplier and customer to the IPO.
- SIPOC can be useful as a communication tool that helps team members view the project the same way and helps management know where the team is focusing its efforts.
- For each category of SIPOC the team creates a list.

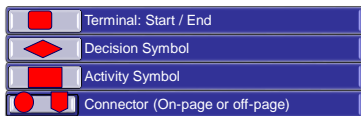


## SIPOC Example

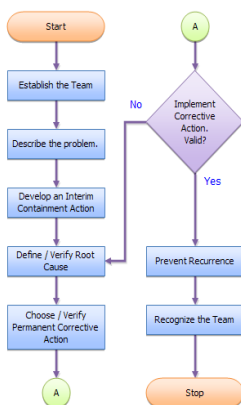
SUPPLIERS	INPUTS	PROCESS	OUTPUTS	CUSTOMERS
Computer owner	Computer	<b>Process Description: Repair of computer</b>	Repaired Computer	Computer owner
Parts Suppliers	Components	Customer drops off computer	Invoice	
		Diagnostics performed.		
		Estimate repair cost and time		
		Get customer approval for repairs		
		Perform repairs		
		Test/verify repairs		
		Customer picks up computer.		
Software suppliers	Software			

## 4.2 Description

Standard symbols:



## Example: Process Flowchart



[www.breezetreecom/.../8D-process-flowchart.png](http://www.breezetreecom/.../8D-process-flowchart.png)



### 4.3 Defining a Process and Determining KPIVs / KPOVs

- Consider and describe the purpose and the process that is to be evaluated.
- Define all steps to create a product or service deliverable.

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### 4.5 Focusing Efforts After Process Documentation

- Baseline for start of project
- Brainstorming sessions
  - Value-add / no-value-add steps
  - Causes of a problem/issue
  - Inhibitors to success.
- SOP for the process are examined to minimize the impact of the identified causes.
- New procedures created to institutionalize the process.

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### Why are flowcharts so important?

- Provides view of overall process
- Understanding gained in creation
- Communication tool with others
- Sets a baseline for large improvement projects  
i.e. Lean/value stream mapping (Chapter 44)
- In any problem solving situation makes sure all aspects of process are considered.

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## Related Assignments

None with this section

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