

# Process Design/Development Worksheets

<b>PDCA</b>		<b>9-Steps</b>
<b>Plan</b>	1)	<b>Describe the Project</b>
	2)	<b>Explore the Essentials and Narrow the Focus</b>
	3)	<b>Establish the Metrics and Constraints</b>
	4)	<b>Identify Possible Alternatives and Select the Best Alternative</b>
	5)	<b>Develop an Optimistic Plan with Obstacles and Countermeasures</b>
<b>Do</b>	6)	<b>Develop, Implement and Monitor the Detailed Plan</b>
<b>Check</b>	7)	<b>Evaluate the Results</b>
<b>Act</b>	8)	<b>Standardize</b>
	9)	<b>Reflect on the Process</b>

The intent of this form is to formalize the thought process and ensure the proper steps are considered. It may also serve to explain the perspective of the teams approach at some future date. Other supporting documentation should be referenced from this document to provide details relative to ROI, Process Flow Charting,...etc.

Any of the steps shown may require external documents to provide additional information. At the bottom of each page, indicate the name of the appropriate support documents. All supporting documents should be filed in the same folder at this 9 step summary. Hard copy documents can be scanned into electronic form.

(Red dots indicate additional notes that may be helpful in completing this form.)

## **Step 1 - Describe the Project**

### **Purpose:**

- 1) State clearly and succinctly, the nature of the work at hand.
- 2) Supply background information concerning the reason for this project.

**Project Name:**

**Problem to Be Solved:**

**Background Information:**

**Core Team Members:**

**Team Leader:**

**Project Start Date:**

**Supporting Documents:**

## Step 2 - Explore the Essentials and Narrow the Focus

### Purpose:

- 1) a) To examine the importance of the project.  
b) Take a broader perspective:
  - understand the issues
  - confirm the purpose of the team
- c) Gain team consensus, ownership and focus.
- 2) Narrow the focus of the project if necessary.  
(i.e. segment the project into manageable pieces.)

### Why Is This Project Important?

### Quantify the Problem to be Solved in terms of Quality,

### Capacity, Thru-put, and/or Labor Savings Requirements:

### High Level Project Timeline:

#### Milestone

Present Condition:

Date

1

2

3

4

5

6

Desired Outcome:

### Re-State Team Objective:

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### Supporting Documents:

### Step 3 - Establish the Metrics and Constraints

**Purpose:**

- 1) Establish measures which will be used to indicate the teams success in achieving the objective and can be used to provide early warning for late milestone accomplishments.
- 2) Determine the constraints (boundaries) that the team must work within (cannot change) and provide a perspective on the size of the task at hand.

#### **Define Metrics of a Successful Project**

<u>Metric</u>	<u>Value</u>
Quality Required:	<input type="text"/>
Capacity:	<input type="text"/>
Delivery Schedule:	<input type="text"/>
Operator Skill Level:	<input type="text"/>
Other:	<input type="text"/>
Other:	<input type="text"/>
Other:	<input type="text"/>

#### **Constraints**

<u>Constraint</u>	<u>Value</u>
Personnel:	<input type="text"/>
Timeframe:	<input type="text"/>
Cost:	<input type="text"/>
Floor Space:	<input type="text"/>
Other:	<input type="text"/>
Other:	<input type="text"/>
Other:	<input type="text"/>

**Supporting Documents:**

### Step 4 - Identify Possible Alternatives

### and Select the Best Alternative

**Purpose:**

- 1) Consider different approaches that could be used to accomplish the objective or to accomplish the milestones leading to the objective.
- 2) Select the approach the team will use as it proceeds.

**Note:**

**This matrix may need to be employed at several stages of step 4.**

(Example: Technology selection followed by vendor selection.)

**Copy this page to another sheet and attach as a supporting document.**

[illegible]

**5 = Best Condition    1 = Worst Condition**

### Supporting Documents:

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## Step 5 - Develop an Optimistic Plan with Potential Obstacles and Countermeasures

**Purpose:**

- 1) Develop a high level plan for accomplishing the objective.
- 2) Include potential obstacles to the success of the plan.
- 3) Develop countermeasures to overcome and/or prevent the potential obstacles.

**Suggestion:**

Review timeline from Step 2 from the perspective of the alternative selected.

Date	Milestone		Worst Things That Could Happen?		What Can We Do to Avoid It?
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**Supporting Documents:**

## Step 6 - Develop, Implement and Monitor the Detailed Plan

**Purpose:**

- 1) Develop Gantt Chart to highlight the tasks that can be addressed in parallel.
- 2) Develop a detailed plan of implementation.
- 3) Implement and monitor the detailed plan.

**Note:**

This Section Requires Supporting Documents Including a Flow Chart Showing Parallel Tasks and a Gantt Chart to Establish a Specific Timeframe for Results.

What	Who	When	How	Complete By
<b>Gantt Chart (required)</b>				
<b>Capital Plan</b>				
<b>Vendor Evaluation Plan</b>				
<b>Equip. Selection Plan</b>				
<b>Equip. Acceptance Plan</b>				
<b>Facilities Plan</b>				
<b>Documentation Plan</b>				
<b>Training Plan</b>				
<b>Preventive Maintenance Plan</b>				
<b>Process Control Plan</b>				

**Supporting Documents:**

## Step 7 - Evaluate the Results

**Purpose:**

- 1) To confirm that the team has accomplished its objective.
- 2) To provide data that the team can use to PDCA (see overview) its process.

**Note:**

Metrics from Step 3 have been restated.

	Desired Metrics from Step 3	Actual Metric	Conclusions
Quality Required:	0 <input type="text"/>	<input type="text"/>	<input type="text"/>
Capacity:	0 <input type="text"/>	<input type="text"/>	<input type="text"/>
Delivery Schedule:	0 <input type="text"/>	<input type="text"/>	<input type="text"/>
Operator Skill Level:	0 <input type="text"/>	<input type="text"/>	<input type="text"/>
Other:	0 <input type="text"/>	<input type="text"/>	<input type="text"/>
Other:	0 <input type="text"/>	<input type="text"/>	<input type="text"/>
Other:	<input type="text"/>	<input type="text"/>	<input type="text"/>

**Supporting Documents:**



## Step 8 - Standardize

Purpose:

- 1) To standardize the process used or the new process implemented.
- 2) To reduce variation in the process.

### Process Operation Document (POD)

REA:

POD #:

Release  
Date:

### Process Controls

REA:

Critical  
Parameters:

Method of  
Control:

### Preventive Maintenance POD

REA:

POD #:

Release  
Date:

### Process Training Completed

REA:

Date Training  
Records  
Filed:

Supporting Documents:

## **Step 9 - Reflection on the Process**

**Purpose:**

- 1) To reflect on the lessons learned by the team related to the 9-Step process.
- 2) Determine the next activity.
- 3) Recognize the team and other contributors.
- 4) Finalize and communicate this report to others in the organization.

**How did we do?**

What went well?

What could we have done better?

**Have we generated any other needs the team should address?**

**Should any external contributors be given specific recognition?**