



Understanding Lean A3 Thinking

A3 Tool Overview

A3 Thinking/Reporting Overview

PDCA Management



- It can be argued that Toyota's much publicized success is mainly derived from a management philosophy and culture that is grounded in PDCA.
- In the case of Toyota, PDCA is key to the promise and use of lean.
- The A3 is a concrete structure to implement PDCA management.



PDCA-Cycle

PDCA Management and A3's



- A3 reports are named A3's because they fit on one side of an A3-sized sheet of paper, which is about the same size as the 11X17-inch paper used in North America.
- Their purpose is to document and show, on one page, the results from the PDCA cycle.
- The A3 template is a guideline for addressing root causes of problems in the workplace in a rigorous and systematic way.



PDCA-Cycle

A3 Thinking



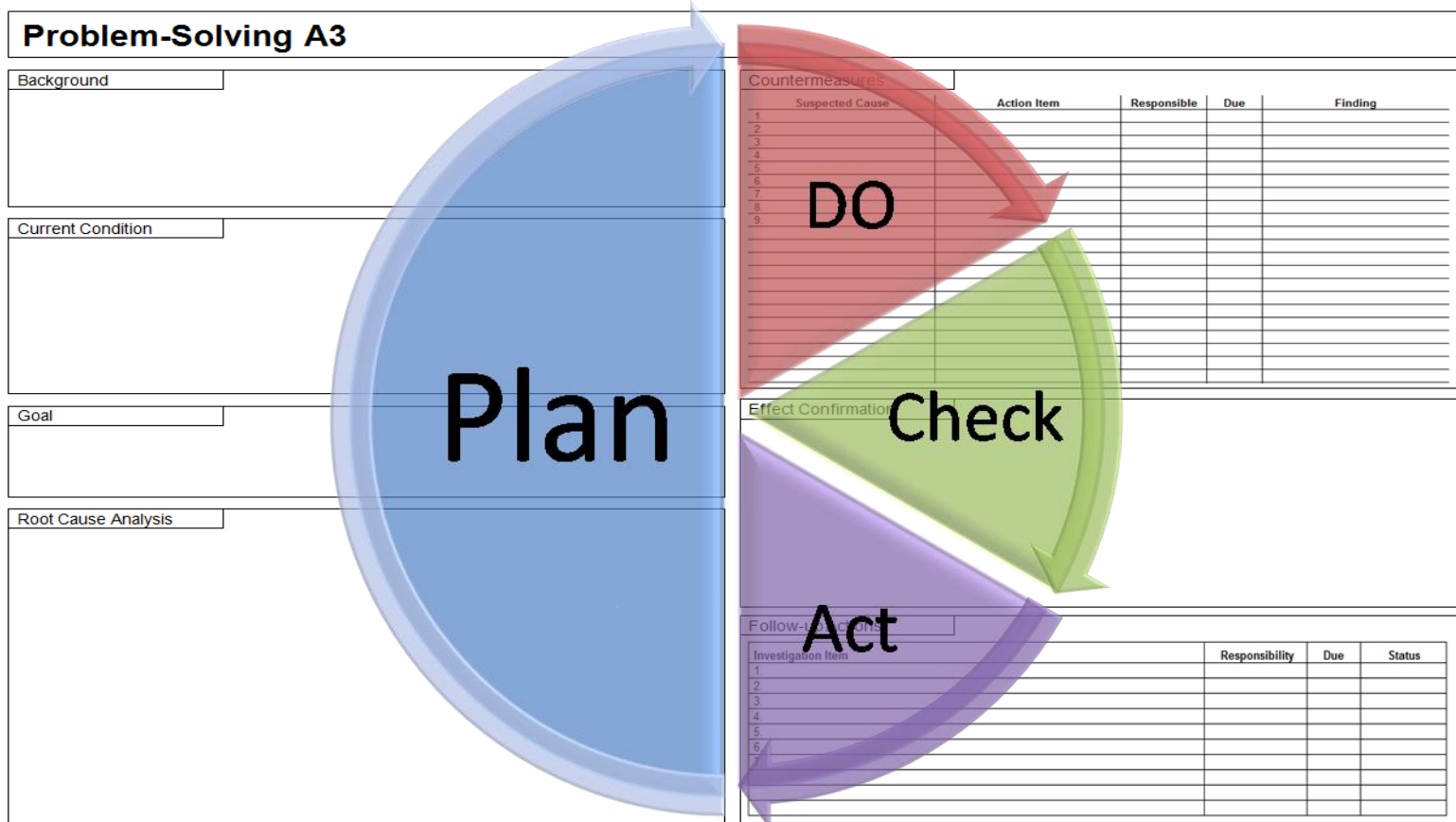
- The mind-set behind the A3 system can be distilled down to seven elements:
 1. Logical thinking process
 2. Presenting information in a nonjudgmental way
 3. Results achieved and processes used
 4. Using only critical information and visualization
 5. Alignment of the effort with strategy/objectives
 6. Being consistent throughout the organization
 7. A systems approach to problem solving



Problem-Solving A3



The PDCA cycle is overlaid on the A3 template:



Problem-Solving A3



Typical flow of the problem-solving A3 is below:

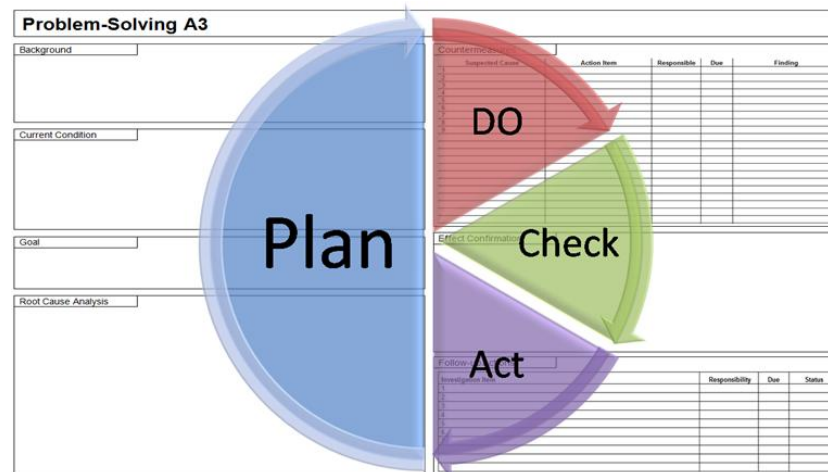
Problem-Solving A3						
Background		Countermeasures				
Current Condition		Suspected Cause	Action Item	Responsible	Due	Finding
		1.				
		2.				
		3.				
		4.				
		5.				
		6.				
		7.				
		8.				
		9.				
Goal		Effect Confirmation				
Root Cause Analysis		Follow-up Actions				
		Investigation Item	Responsibility	Due	Status	
		1.				
		2.				
		3.				
		4.				
		5.				
		6.				
		7.				



Problem-Solving A3



- As you can see, the planning half of the A3 is the most heavily weighted. This is completely consistent with the lean A3 thinking approach where we know the end results will benefit greatly from our upfront efforts in planning what we are doing, as opposed to just jumping in to solve the problem (which is all too common).



PDCA-Cycle



Theme Section



- The Theme section is the title of the A3.
- For example, it might be “Reducing Patient Admission Times” or “Improving On-Time Delivery.”
- The theme should focus on the problem observed – describing this particular A3 document and its overall purpose.



Theme section →

Problem-Solving A3 [Theme section]	
Background	Context/Issues
Current Condition	Current State
Goal	Effect Confirmation
Root Cause Analysis	Follow-up/Actions

The diagram shows a flow from the 'Background' section to the 'Current Condition' section, then to the 'Goal' section, and finally to the 'Root Cause Analysis' section. A yellow arrow points from the 'Current Condition' section to the 'Context/Issues' section, which is labeled as the 'Theme section'.

Background Section



- The Background section highlights information essential for understanding the extent and importance of the problem.
- Two items are critical here:
 1. The author needs to be aware of his/her audience.
 2. Tying the background to the company's goals is very important.



Background section →

Problem-Solving A3			
Situation	[Background section]	Context/Requirements	Who/What/Where/When/Why/How
Current Condition	↓	Current Condition	↓
Goal	↓	Effect Confirmation	↓
Root Cause Analysis	↓	Follow-up Actions	↓

Current Condition/Problem Statement



- The Current Condition section is probably the most important one. The purpose is to outline the situation in a simple way for the reader (and not just the author).
- It should use charts, tables, graphs or other techniques to illustrate the current condition (avoid just text, bullet lists, etc.).



Current Condition section →

Problem-Solving A3	
Background	Conditions
Current Condition	Effect/Countermeasures
Cause	Countermeasures
Final Cause Analysis	Completion

Goal Statement Section



- The Goal section should address at least two fundamental issues:
 - How we will know that the project is successful at the end of the implementation, and
 - What standard or basis for comparison will be used. For example: Our goal is to reduce patient errors by 50% versus 2009 results.



Goal Statement section

Root-Cause Analysis



- The Root-Cause Analysis section concerns the investigation of the current condition until the root-cause of the problem is identified.
- The most common technique used by lean practitioners, and heavily emphasized by Toyota, is the 5 Why's method.



Root Cause Analysis →

Problem-Solving A3

Background	Countermeasures
Current Condition	Effect Countermeasures
Cause	Countermeasures
Root Cause Analysis	Countermeasures

[Root Cause Analysis]

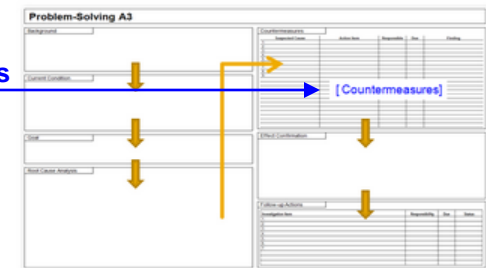
Countermeasures Section



- The Countermeasures section is focused on what might be termed improvements.
- The countermeasures section is basically an action list for tackling the problem.
- The early version of the countermeasures section serves as an action plan that outlines who will do what, by when.



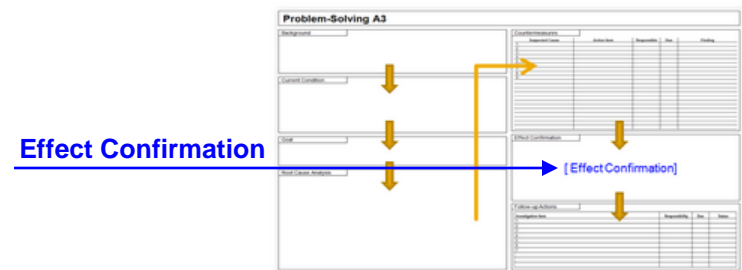
Countermeasures



Effect Confirmation Section



- The Effect Confirmation section is simply “walking the talk” relative to the Plan-Do-**Check**-Act cycle management philosophy.
- Often something is implemented, and then we just move on, without verifying whether the problem has actually been eliminated or solved. Did the counter-measure have an effect, or not?



Follow-up Actions Section



- The Follow-up Actions section reflects the Act step in the Plan-Do-Check-Act cycle management philosophy.
- Here we reflect what further changes should be made to the system to sustain the improvement and what remains to be done.



Follow-up Actions

PDCA Management and A3 Thinking



- The A3 template provides us with a tool that keeps us focused on solving the right problems, while making our progress (or lack thereof) visible to the team and the whole organization.
- Management loves this approach because it is a “one stop shop” for understanding an initiative and seeing how things are progressing.



PDCA-Cycle



Download your own A3 template

For the A3 template

go to: <http://www.diylean.com>

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