The Arizona Management System
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<td>Overview of AMS</td>
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<td>Visual Management</td>
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<td>Basic Problem Solving</td>
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<td>Challenges</td>
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<td>Q&amp;A</td>
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About me
A History of Collaboration

Great Ideas
Game Changer

Goal 5:
Effective, Efficient and Accountable Government

Easy to work with
Cost Effective
Respectful
Responsive
Transparent & Accountable
Innovative Employees

Outcome Measure

Goal
Topic

Sub Topic

Leading Indicators

Outcome

1.1 Increase total number of customers who have one single sign on
1.2 Increase the number of services available online by xx
1.3 Reduce number of customer complaints by xx
1.4 Increase number of transactions completed online by xx
1.5 Increase number of services available online by xx

Process Improvements

2.1 Increase number of services available online by xx
2.2 Reduce number of customer complaints by xx
2.3 Hold for IT plan indicators

Environmental Footprint

3.1 Increase the number of agencies that are LEED certified
3.2 Increase number of data centers that have a defined energy usage plan
3.3 Increase the number of agencies that have a defined contingency plan

Risk Management

4.1 Increase the number of agencies that have a defined safety plan
4.2 Increase the number of agencies that have a defined disaster recovery plan
4.3 Increase the number of agencies that have a defined business continuity plan

Customer Satisfaction

5.1 Increase the number of customers who score state agencies at 90% for overall satisfaction
5.2 Increase the number of employees who complete the survey for the state

Service Delivery

6.1 Increase the number of employees who complete the survey for the state
6.2 Increase the number of employees who report being blocked

Transparent & Accountable

Project Success

Innovation

Health

Engagement

Agencies
- Chief Information Officer – Michael Costrell
- Consolidated Technology Services – Rob St. John
- Enterprise Services – Joyce Turner (Chris Liu – 6/1)
- Military – Brett Dougherty
- Office of Financial Management – David Schumacher
- Retirement Systems – Marcie Frost
- Administrative Hearings – Lorraine Lee
- Liquor Control Board – Sharen Foster
- Lottery – Bill Hanson
- Environmental & Land Use Hearings Office – Kathy Mix
- Governor’s Policy Office – John Lane
- Office of Financial Management – Tracy Guerin
- Results Washington – Wendy Korhus-Smith
- Results Washington – Jessica Dang
ARIZONA MANAGEMENT SYSTEM

PERFORMANCE MANAGEMENT

- Goals, Metrics, & Targets: Connecting the Organization
- Business / Performance Reviews
- Visual Management: Performance & Process Adherence
- Tiered Huddles & Huddle Boards

BUSINESS / PERFORMANCE REVIEW - The foundation of the management system, this comprises a review of the agency performance metrics and countermeasures, financials, and business breakthrough projects.

VISUAL MANAGEMENT - The visual indicators that enable quick, informed assessment of how a process is performing whether standard work is being adhered to and if outcomes are being met.

TIERED HUDDLES & HUDDLE BOARDS - Brief daily or weekly meetings performed by teams using visual management to reflect on performance, identify and solve problems, and commit to making adjustments. The tiered structure facilitates communication and problem solving at each level of the organization.

LEADER BEHAVIORS

- Leader Standard Work
- Gemba Walks
- Andon Response
- One-On-One Coaching

LEADER STANDARD WORK - The maintenance system for processes and the overall management system. It is the written plan that ensures leaders model AMS behaviors and provide coaching to teams. The plan includes Gemba Walks, Andon Response, and One-On-One Coaching.

GEMBA WALKS - The personal observation of work by leadership for confirming standardized work and providing coaching.

ANDON RESPONSE - The Andon is a communication tool that announces a process problem at the place and time it occurs so that leaders provide support in a timely, effective manner.

ONE-ON-ONE COACHING - The regular cadence of discussion between managers and staff for the purpose of developing employees and providing regular feedback.

PROBLEM SOLVING

- Process Standardization & Standardized Work
- Basic Problem Solving: All Employees
- Intermediate Problem Solving: Managers & Select Employees
- Complex Problem Solving: Continuous Improvement Staff

STANDARDIZED WORK - The documented current one best way to perform a process. It is the foundation for the Plan-Do-Check-Act cycle of continuous improvement.

BASIC PROBLEM SOLVING - A simple and effective set of problem solving tools that everyone in the organization is expected to apply as problems are surfaced.

INTERMEDIATE PROBLEM SOLVING - This builds on the basic problem solving methods with a structured approach to identifying and documenting root causes and potential countermeasures. Problem solving at this level is documented using an A3.

COMPLEX PROBLEM SOLVING - Advanced skill sets and tools for breakthrough or high-impact, cross-agency projects involving staff trained in Lean/Six Sigma techniques.
**ARIZONA MANAGEMENT SYSTEM**

**PERFORMANCE MANAGEMENT**
- Goals, Metrics, & Targets: Connecting the Organization
- Business / Performance Reviews
- Visual Management: Performance & Process Adherence
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**PROBLEM SOLVING**
- Process Standardization & Standardized Work
- Basic Problem Solving: All Employees
- Intermediate Problem Solving: Managers & Select Employees
- Complex Problem Solving: Continuous Improvement Staff
Anatomy of Culture

Our Goal in Arizona:
Everyone, every day, asking:

- How did we do yesterday?
- Where is the waste?
- How can we do better today?
High Performance Culture

- Set Targets, Expectations and Standards
- Measure Results against Targets
- Identify Gaps between targets and results
- Take action to close gaps
**Breakthrough Performance**

FY17 - FY18 Breakthrough Environment

- **BT’s Open: 54**
- **BT’s Achieved: 52**
- **New BT’s: 71**
- **FY17 Carryover: 42**

FY17 (106 Projects) vs. FY18 (113 Projects)
Visual Management
Principles of Visual Management

Quickly communicate standards and status

Shows normal vs. abnormal or plan vs. actual in near real time
Principles of Visual Management

Directs leadership to areas that need support.
Principles of Visual Management

Primarily through surfacing and solving problems (Indicates actions or countermeasures in process)

Enhance learning in the workplace
Visual Process Performance

- **Process**
  - Touch time to produce
  - % Complete & Accurate at each step (rework)
  - Cost to produce

- **Product**
  - Volume
  - Quality

- **Customer**
  - Customer Satisfaction
  - Lead time
  - Ease of use

- **Outcomes**
  - Results
  - Mission Outcomes
Keys to Effective Process Metrics

Enable rapid problem identification by front line.

(Stop & Notify)

Enable rapid problem response by management.

(Sense & Respond)

Make it normal for the flow of the product to be continuous. Reduce or eliminate stagnation.
Visual Process Adherence

- Each step includes time

Confirmed Releases (Less than 3 years)

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<th>Remediation Ongoing</th>
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- Suspected Release [45]
- Yes [25]
- Don't know
- Confirmed
- Discovered [60]
- LUST Closure
- Remediation [170]
**SIMULATING “PRODUCT” BY PROXY**

To simulate the “product” on the flow board we use a proxy, “cards” or post-its containing necessary information to help track and identify.

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<th></th>
<th>Assessment Started</th>
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<th>Risk Assessment</th>
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**UST/LUST Remediation Work Flow w/ Andons**
PRODUCT PROXY

• Includes data crucial to the product and tracking for that function of the process. It may change as it passes thru the VS.
• Do not make the card more complex than it needs to be. Radical Simplicity!
• Examples include Customer Name, Start Date, and Due Date

The entire Value Stream (VS) inventory must be shown on the Flow Board, consider this when sizing the “card”
ADOT Procurement - Tracking Boards
Visual Tracking Forms

Direct Contracts

Solicitations

Assistance Needed
Tiered Huddles
Huddle Boards
“Tiered” Huddle Boards

Governor

Agency Director

Division Director

Division Director

Unit Leader

Unit Leader

Unit Leader

Unit Leader

Front Line Worker

Front Line Worker

Front Line Worker

Front Line Worker
Huddle Board Standardized Work

HUDDLE BOARD TIER 1

Today's Date
Huddle Lead
Board Refresh Date

Celebration Corner!

Problems!

People
Quality
Service

Other
If you take only one thing away...

<table>
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<tr>
<th>#</th>
<th>Date (B)</th>
<th>Issue or Problem Statement (C)</th>
<th>Owner (D)</th>
<th>Next Action (E)</th>
<th>Next Action Due Date (F)</th>
<th>Status (G) (R,Y,G) (H)</th>
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A Real World Huddle Board

Stop and Notify:
• Problem Identification by the front line

Acknowledge and Respond:
• Problem Response by Management
• Prioritize problem solving effort
A Real World Huddle Board

This team identifies at least one problem every day!
Basic Problem Solving

1. Identify the Problem
2. Uncover potential causes
3. Develop & test countermeasures
4. Standardize & Sustain
Basic Problem Solving
Conventional Problem Solving

1. Don’t Mess With It!
2. Is It Working?
   - YES
   - NO
3. Will it Blow Up In Your Hands?
   - YES
   - NO
4. Anyone Else Know?
   - YES
   - NO
5. Can You Blame Anyone Else?
   - YES
   - NO
6. Hide It
7. NO PROBLEM!
8. #&%@%!!!
9. You’re SUNK!
10. Did You Mess With It?
    - YES
    - NO
11. Look The Other Way
12. NO PROBLEM!
Basic Problem Solving

**PROBLEM**
- Clearly define the “Real” Problem
  - What data do we have and what have we observed?
  - What do we know?
  - What don’t we know?
  - How do we learn what we don’t know?

**CAUSES**
- Explore the potential causes with appropriate tools.
  - Practice the 5 Whys
  - Checksheets, Fishbone, Pareto

**SOLUTIONS**
- Explore solutions
  - Consider risks and benefits
  - Consider impact and difficulty, urgency and priority

**STANDARDIZE**
- Keep the solutions from rolling back to the previous condition

Only then...

Evaluate each to choose the best known at the time
Continuum of Problem Solving

**PROBLEM**
- What do we know?
- What don't we know?
- How do we learn what we don't know?
- What data do we have and what have we observed?

**CAUSES**
- Explore the potential causes
- Practice the 5 Whys
- Fishbone, Pareto

**SOLUTIONS**
- Evaluate each to choose the best
- Consider the benefits and challenges
- Consider risks and urgency and priority

**STANDARDIZE**
- Keep the solutions from the previous condition

Consistent methods build upon one another:
Simple Four Box vs A3

Low Complexity

High Complexity
Box 1 - The Problem

Make ambiguous problems clear

Visualize the gap between the “Current Situation” and the “Desired Situation”
The Problem Statement

A Problem Statement includes:
◦ What's wrong
◦ Where the problem appears
◦ How big the problem is
◦ The business impact

A Problem Statement does not include:
◦ Solutions
◦ Speculation on causes
Problem Statement Exercise

Evaluate this problem statement

◦ “We need a bigger budget because we do not have enough people to get our jobs done measured by the growing pile of backlogged work.”
Problem Statement Exercise

Evaluate this problem statement

◦ “We need a bigger budget because we do not have enough people to get our jobs done measured by the growing pile of backlogged work.”

Or how about this?

◦ “Our monthly report shows our backlog growing by 15% and our service times growing from the standard of 15 days to over 30 days to issue a permit. This is causing our customer an unacceptable wait times which impacts their ability to grow their business and create jobs.”
Analysis

Basic Tools Help You Understand, Analyze, and Communicate Facts

◦ Check Sheet
◦ Pareto Chart
◦ Process Map
◦ Five Why’s

• These basic quality tools are useful for addressing most problems and process-improvement opportunities
• Additional quality tools (e.g., Scatter Diagram, Control Charts, Affinity Diagram, Analysis Of Variation, and others) enable more advanced analysis and decision making
Check Sheet

Use when data can’t be pulled from a computer report

A generic tool for a wide variety of purposes

A structured, thoughtfully prepared form for collecting data

Useful when:

- Collecting data on the frequency of events, problems, defects, causes, etc.
- Data will be observed and collected by one or multiple people
- Data will be observed in one location or many (virtual shared form)

### C15 Extension Tracker

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Date:
Reviewer's name:
Pareto Chart

Displays the Factors that Contribute Most to a Problem

When to use: For identifying the “vital few” factors

Key points:
- Decide on how to stratify the factors, then collect data
- Consider plotting both cost and count data on separate charts (they may give different answers)
- Document improvement with before and after Pareto Charts

Pareto Principle

Also known as the 80/20 Rule
80% of the problem from 20% of the factors
Process Map

Illustrates the Major Steps in a Process

When to use:
- For starting an analysis (understand the flow of the process)
- For aligning everyone to the start, end, and actual steps of the process
- Key points:
  - Rigorously follow one service or product
  - Note problems and wastes

Some Standard Flowchart Symbols

- Start/Stop
- Activity
- Delay
- Decision
- Connector
Process Map
Box 2 – Root Cause Analysis

Keep asking Why?
Keep asking Why?
Keep asking Why?
Keep asking Why?
Jefferson Memorial Problem

The Jefferson Memorial was disintegrating rapidly because of the frequent cleaning needed to remove the bird droppings.

How would your team solve this problem for the National Park Service?

What information would you like to have?
5 Whys Worksheet

Define the Problem:

1. Why?

2. Why?

3. Why?

4. Why?

5. Why?

Therefore...

Why?

Therefore...

Why?

Therefore...

Why?

Therefore...

Why?

Therefore...

Root Cause:

Therefore...

Action(s) to solve the problem::
Box 3 – Solutions

Problem | Causes | Solutions | Standardize

Root Cause

Can We Get Rid of it?

Develop as many potential countermeasures as possible

Countermeasure
Countermeasure
Countermeasure
Countermeasure

What are the risks involved?

What people or parties are involved?
Evaluation Factors

Low Cost
Easy buy-in
Direct impact on causes
Sustainable
Fast implementation

Use these to evaluate the alternative solutions and find the best!
Simple Fixes

Many common issues have very simple fixes
• More training is not usually the answer

Focus on truly eliminating problems by making a “physical or structural change” and training the physical change

Make the solution visual whenever possible

Just Do It!
• Once the team has agreed on the path, document the action and just go do it
Effort

High

Impact

Low

High

Low

Important Problems but easy to fix

Important Problems for longer-term investment

Just Do It Quick Wins

Easy to waste too much time
Box 4 – Standardize

Establish successful processes as precedent, and continue to raise the standard level of success

To ensure that the result will not slide back to the previous condition

- Embed the solution into people’s methods or way of working
- Be sure that the solution will remain over time, even if current stakeholders were moved/relocated
Standardization

Will make improvements consistent

Will make results predictable

Will ensure improvements stay in place

Will allow a continuous improvement instead of a repetitive one

Small Improvements become BIG gains over time
Remember this picture?

**Basic Problem Solving**

1. Identify the Problem
2. Uncover potential causes
3. Develop & test countermeasures
4. Standardize & Sustain
After Action/Reflection/Retrospective

When you’ve solved a problem, take a few minutes to reflect on what you learned through that process
◦ Could add 5 minutes to a Thursday Huddle to discuss what things the team discovered in solving problems that week
◦ Make a point to review the problem, how you may have changed the problem statement, how you found the root cause and how you developed solutions.
◦ Ask if you followed the process well or if there is something else you should have done
◦ This is a BRIEF reflection. Bigger problems and projects will require more focused and structured sessions.
Success Story: Motor Vehicle Department
Breakthrough Project: MVD Customer Wait Times

63-minute average wait time
Without data, you’re just another person with an opinion.

— W. Edwards Deming
Breakthrough Project: **MVD Customer Wait Times**

- **Plan, Do, Check, Act**
  - 5 Whys
  - Time Studies
  - Root Cause Analysis

- **5S Organization**
  - Fail Fast Concept
  - Standardization
  - Visual Management
Breakthrough Project: MVD Customer Wait Times
Breakthrough Project: MVD Customer Wait Times

24-minute average wait time
Other Wins & Challenges
Other Wins

1. Reduced backlog at DCS from over 30,000 open reports to under 6,000
2. Veteran hunting and fishing license permit reduction – from 38 days to 7 days
3. Completely eliminate ROC application backlog – 700 to 0
4. DES Unemployment Insurance call center reduction – 100 minutes to 10 seconds
5. DES Adult Protective Services backlog reduction by more than 60%
6. DEQ has reduced permit lead times from a JOP of 138 days to under 50 days (on average across the agency)
7. State Procurement Office negotiated savings over $37M in FY’17
Where we still need help

Internal Mindset – “Embrace the Red”

Complexity – Is Unemployment like MVD wait times?
- Case Management, Call Centers, Investigations, Permitting
- Opioid Deaths, Recidivism Reduction are large social issues
- & more

Balancing AMS with our “real work”
- This thinking shows how far we still have to go

Interagency Collaboration
Questions?

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Administrator
Arizona Government Transformation Office

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https://ams.az.gov/
http://azgovernor.gov/