



# How Not to Document Your System

# What We Will Cover Today



- 1 About QMII
- 2 Why Are We Here?
- 3 How Not to Prepare for an Audit
- 4 Q & A

# About QMII



- QMII has provided best in industry process improvement consulting, auditing, and training since 1986
- Headquartered in Ashburn, Virginia
- ISO 9001:2015-certified
- SBA 8(a) and DBE-certified
- Minority-owned business
- GSA MAS Schedule holder



# About QMII



- US Coast Guard
- DOT
- Bureau of Safety and Environmental Enforcement
- US Navy
- New Jersey Transit
- US Army
- Federal Highway Administration
- Amtrak
- Crowley
- Harley Marine
- Interlake
- Indorama
- The Crosby Group
- Saltchuk Family of Companies
- Valaris Limited
- GE Aerospace



GE Aerospace

# Why Are We Here?



What documents are a must?



Documenting the system for effectiveness



Common mistakes to avoid

## In a snapshot ...



... in case you're in a hurry to get out of here.....

- Document the system for the users not for external parties.
- Involve the people in the lifecycle.
- A system is not set in stone .. As the organization adapts so should the system and its documentation.

# Have you experienced ...



1. Difficulty keeping up with revision control
2. Documents not reflecting the way work is done today
3. Personnel not reporting non-conformities because the documentation is a 'hassle'
4. Poor reviews of documents
5. People not using the documented system



*The above are common symptoms of a non-functioning system*

# Food for thought ...



Is there a correlation between the number of documents and the effectiveness of the system?

Does a documented system guarantee better quality, higher safety etc.?

Why then is so much emphasis placed on it?

- Feeling of being in control?
- Liability?
- Easy fix for problems?
- To evidence conformity ... so others believe we, do it?



# Let's take a step back ...



What is a system?

A system is made up of parts that work together:

- A motivated, competent and knowledgeable workforce
- Well-designed processes, adequately controlled and resourced to achieve objectives
- Information routed across the organization to drive continual improvement

MS enables leadership to communicate the vision to the workforce and get feedback on the effectiveness of implementation

# Noticed something missing?



We never mentioned **documentation** on the last slide.

The ISO standards as also other industry standards like the ISM Code are not prescriptive on documentation

Is there a more effective way to then control processes and the system?

Can we document to the extent needed or should everything be documented?

# So why document systems...



- Knowledge Transfer: Documentation serves as a crucial tool for transferring knowledge between teams, especially in complex systems
- Compliance and Standards: Proper documentation is often required for regulatory compliance and adherence to industry standards.
- Risk Management: Thorough documentation helps in identifying potential risks and planning mitigation strategies.

# How much is enough



- Balancing Detail and Usability: Too much detail can overwhelm users, while too little can lead to gaps in understanding & implementation
- Determining Critical Information: Focus documentation efforts on the most critical aspects of the system, such as core functionalities and key interactions
- Avoiding Redundancy: Streamline documentation to eliminate repetitive information, making it more efficient and easier to maintain.

# Common Errors



- Over-Documentation: Creating excessively detailed documents that are hard to maintain and may never be fully utilized.
- Under-Documentation: Failing to capture essential details, leading to misunderstandings and potential system failures.
- Lack of Consistency: Inconsistent formatting, terminology, and style across documents, making it difficult for users to navigate.

## Good Practices ... (1 of 2)



Value-Driven Content: Focus on creating documentation that delivers clear value to the end-user, avoiding unnecessary information

Simplicity and Clarity: Use straightforward language, clear diagrams, and concise explanations to make documentation accessible

Iterative Improvement: Continuously refine and update documentation based on feedback and evolving system needs.

## Good Practices ... (2 of 2)



- Modular Documentation: Break down documentation into manageable, reusable modules that can be easily updated or replaced.
- Visual Aids: Use diagrams, flowcharts, and other visual tools to complement textual descriptions and clarify complex ideas.
- Collaborative Documentation Tools: Utilize modern tools that allow for collaborative editing and version control to maintain up-to-date documentation.

# Types of documents



- Manuals – 50,000-foot view / Leadership is owner
- Procedures – 30,000-foot view / Department Head OR Management Rep is owner as applicable
- Instructions – 10,000-foot view / Department Head & or supervisors are the owner
- Forms – In the weeds .. Department Head or (more likely) Supervisors are the owner
- Checklists – As needed where adding value
- Policies – Leadership is owner
- Placards
- Tags and more ...



# Key elements of documentation process



- Review and control of adequacy and suitability
- Making sure available and suitable for use, where and when needed
- Protected to secure, prevent unintended use, alteration etc.
- Control of external documents

# Case Study – National Maritime Center



Changed from a decentralized to centralized system

Revamped documentation using practices outlined above

Engagement stakeholders throughout process

Set clear goals for each process

Result = WIP reduced from over 120 days to 21 days in less than a year!

# How to document your system – Engage Stakeholders Early



- Identify Key Stakeholders: Determine who will use the documentation and involve them early in the process to gather requirements
- Understand Their Needs: Tailor documentation to address the specific needs and pain points of different stakeholders, such as developers, testers, and managers
- Regular Feedback Loops: Establish regular feedback loops with stakeholders to ensure the documentation remains relevant and useful

# How to document your system – Standardize Documentation Practices



- Develop a Style Guide: Create a style guide that outlines formatting, terminology, and structure for all documentation to ensure consistency
- Use Templates: Once designed based on "As-IS" of the system, implement templates for common document types to save time and ensure that essential information is consistently captured
- Train Your Team: Provide training on documentation tools and best practices to ensure all team members contribute effectively.



## How to document your system – Maintain and Evolve Documentation



- Regular Reviews: Schedule periodic reviews to update documentation in line with system changes and to retire outdated information
- Version Control: Utilize version control systems to track changes and manage multiple versions of documents, ensuring traceability
- Encourage Continual Improvement: Foster a culture where documentation is seen as a living asset that evolves with the system and its users' needs

## *Foster a “Culture for conformity”?*



- Everyone in the organization truly believes in, understands and follows the established procedures with a means to improving them.
- Underlying causes of non-conformities have demonstrated that the root cause often was a failure to follow procedures despite competent and trained personnel being employed.

*Blame the process not the people!*

## In Conclusion



If the system is used by all daily, internal audits are providing adequate inputs, the workforce engaged, and the leadership committed:

- The MS will have ownership
- The Documentation will be an asset
- Road to MS producing confirming products & services will be smoother

# Procurement Options



GSA MAS: 47QTCA20D0050

SAM UEI: E8KYQBSFJ6V6

CAGE: 1GFC9

STARS 8(a) III

SDVOSB Partners

WOSB Partners

HUBZONE Partners

Other Vehicles





# Thank You!!!

A photograph of Dr. Inderjit Arora, President & CEO of QMII. He is an elderly man with a white beard and glasses, wearing a light blue button-down shirt with the QMII logo on the pocket. He is standing in front of a world map background with the QMII logo repeated across it. An American flag is visible in the background behind him.

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