

# AS9120 Without the Overwhelm:

## A Hands-On Introduction to the 9120 AIMM to Make Requirements Practical for Distributors

AIMM = Aerospace Improvement Maturity Model

Jim Lee, CEO – simpleQuE

LeAnne Davis, Deputy Quality Management Representative – The Boeing Company

# Who has heard of AIMM?

# Who has done AIMM?

AIMM = Aerospace Improvement Maturity Model

# AS9120 Doesn't Have to Be Overwhelming



**Many distributors struggle with interpreting AS9120—not because of lack of effort, but because applying the standard to daily operations is often unclear.**

- Translating requirements into practical actions can be difficult
- Many requirements feel broad, vague, or open to interpretation
- Uncertainty often exists around what effective implementation should actually look like

**AIMM helps bridge that gap**

- Translates AS9120 requirements into practical, measurable expectations
- Helps define what “good” looks like across key business processes and functions
- Provides clearer direction for implementation, improvement, and audit readiness
- Supports stronger operational consistency—not just compliance

# Various Maturity Models

## Capability Maturity Model Integration (CMMI)

Originally developed for software and systems engineering, now widely used across operations and process management.

## Malcolm Baldrige

Often called the Malcolm Baldrige Model, this focuses on overall business excellence rather than only quality systems.

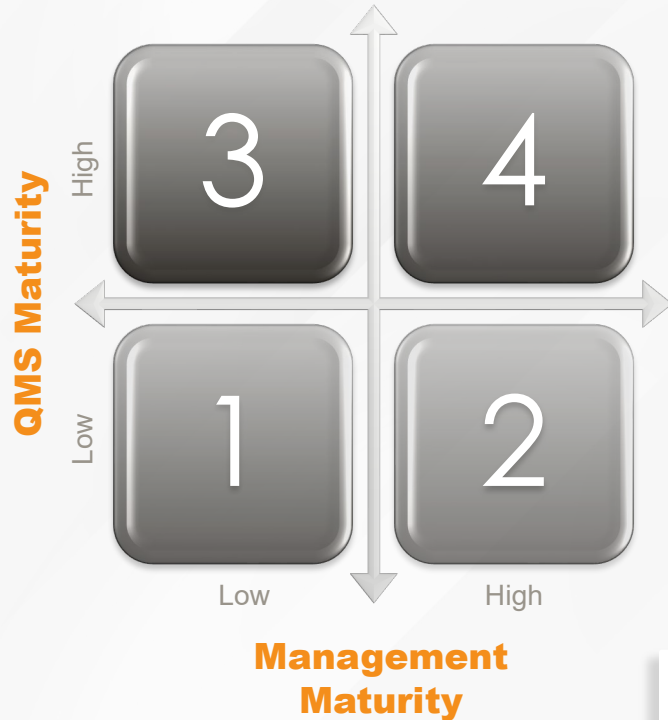
## Lean / Operational Excellence Maturity Models

Focus on lean deployment, continuous improvement, culture maturity, waste reduction.

Often based on Toyota Production System principles or Lean Six Sigma deployment maturity.

AIMM is not a new idea—it applies the same maturity model thinking used in CMMI, Baldrige, and Lean systems, but specifically for aerospace quality management.

# A Simple Maturity Model



- **Quadrant 1**

“Nothing is really working — reactive, inconsistent” Findings.

- **Quadrant 2**

“Leadership wants it... but systems & processes aren't there yet” Management

- **Quadrant 3**

“You have procedures, audits... but leadership isn't engaged – It's Quality's job”

- **Quadrant 4**

“Everything is aligned — All functional areas taking full responsibility. Fully compliant. Risk-based, consistent, proactive.”

Organizations operate at different maturity levels across functions.  
This is normal and expected.

# Where Does Your Organization Sit?



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## 7.2 Training / Competence

- Inconsistent
- Not tied to performance
- Effectiveness unclear

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## 8.5 Warehouse Operations

- Procedures exist
- Inconsistent execution
- Leadership not fully engaged

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## 5 and 4.4 Leadership & KPIs

- Leadership involved
- Metrics not driving decisions
- Systems/metrics not effective

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## 8.4 Supplier Control

- Strong processes forming
- Leadership partially engaged
- Risk not fully driving decisions

# What This Model Doesn't Show



- The quadrant shows a high-level view of overall maturity.
- But what does maturity look like within each AS9120 requirement?

# Introducing AIMM

Once certified, many companies tend to have a sole objective to **maintain their certification** and are **often disappointed in the value and improvement brought by their QMS.**

Despite achieving the same certificate,

- **some companies narrowly reach the required level of conformity for their QMS,**
- while **others reach levels of excellence.**

# Introducing AIMM – What It Does



## Defines maturity with each requirement

AIMM breaks AS9120 requirements into clear maturity stages, helping organizations understand where they are today, whether it is good enough, and what stronger implementation looks like.

## Turns compliance requirements into measurable expectations

Instead of asking “Are we compliant?”, AIMM helps answer “How well are we doing?” and “What does good look like?” It translates broad standard requirements into practical actions across daily business processes like purchasing, warehouse operations, supplier control, traceability, and risk management.

## Provides clarity, structure, and a common language

AIMM helps leadership, quality, and operations align on expectations by defining what “good” looks like and creating a consistent path for improvement.

# AIMM's Maturity Approach

Level 1 Initial	Level 2 Managed	Level 3 Deployed	Level 4 Predictable	Level 5 Optimizing
<p>Informal, Ad hoc, Reactive, Not fully, Unclear, Not Repeatable, Not Always, Not structured, Limited visibility</p>	<p>Effective, Consistent,  At project, process, product, or service level  May vary or differ</p>	<p>Common, Harmonized, Standard, Systematic, Cross-functional,  Across the company</p>	<p>KPI's, On time, On quality, Quantitative targets, Trends, Prediction, Anticipation</p>	<p>Efficiency, Optimization, Benchmark, Best-in-class, Innovation, Evolving context, Organizational culture, Continual improvement</p>
<p><b>Level 1</b> Not yet certifiable</p>	<p><b>Level 2-3 Most probably certifiable</b></p>		<p><b>Level 4-5 Certifiable and beyond the standard for certain aspects</b></p>	

# Example: Supplier Control (8.4.1)

## Expected outcome:

The organization ensures external providers are evaluated, selected, controlled, and re-evaluated based on their performance and ability to meet requirements. The organization maintains documented information of associated activities, including any necessary actions.

Level	What it looks like
1	Supplier added with minimal review
2	Basic approval checklist used
3	Approval consistently applied
4	Supplier performance tracked and reviewed
5	Supplier risk drives sourcing decisions

# WORKSHOP: Now Let's Apply This

## Expected outcome: Supplier Control (8.4.1)

The organization ensures external providers are evaluated, selected, controlled, and re-evaluated based on their performance and ability to meet requirements. The organization maintains documented information of associated activities, including any necessary actions.

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## ADD MORE EXPECTATIONS AND DETAILS FOR EACH LEVEL

**1: We do it Informally**, ad hoc, case-by-case, reactive, not fully, unclear, not repeatable, not always, not structured, limited visibility

**2. We have a defined process**, effective, consistent, at Project/Process/Product/Service level, may vary / may differ

**3. We apply it consistently across the company**, common, harmonized, standard, systematic, cross-functional

**4. We measure and improve it**, KPIs, On Time & On Quality, quantitative targets, trends, prediction, anticipation

**5. We optimize and prevent issues**, efficiency, optimization, bench mark, best-in-class, innovation, evolving context, organizational culture, continual improvement

# AIMM Team's 8.4.1

Expected outcome	Level 1 - Initial	Level 2 - Managed	Level 3 - Deployed	Level 4 - Predictable	Level 5 - Optimizing
<p>The organization ensures external providers are evaluated, selected, controlled, and re-evaluated based on their performance and ability to meet requirements. The organization maintains documented information of associated activities, including any necessary actions.</p>	<p>The organization selects external providers based primarily on defined requirements, rather than their performance, availability, and capability.</p> <p>The organization's actions to address external provider poor performance and/or not meeting requirements are reactive and solely based on nonconforming outputs.</p> <p>Documented information is maintained for external provider selection, but criteria for selection are not defined.</p>	<p>Criteria for evaluating external provider performance, availability, and capability are defined.</p> <p>Selection criteria can include: portfolio, location, capability, strategic alignment, financial stability, ethical performance, external approvals, externally available data, traceability information, and supporting information (e.g., reports, disclosures, satisfaction indexes, performance ratings, reputation, other party feedback).</p> <p>Basic questionnaires or checklists are used to evaluate / re-evaluate external providers.</p> <p>Documented information is maintained for external provider selection, including actions taken to address evaluation results / issues.</p>	<p>A formal process is defined and documented to select external providers, based on documented criteria including analysis of associated risks using performance data, audit / assessment results, and data from external sources (e.g., OASIS database, customer approvals, preferred use of original/authorized manufacturers or authorized/franchised distributors, External Provider Rating).</p> <p>A formal process is defined and documented to monitor, evaluate, and re-evaluate external providers continued performance, compliance to requirements, and capability to meet requirements. Actions are taken and controls are adjusted to address evaluation results / issues.</p> <p>Documented information related to external provider selection activities, including actions taken to address any issues, is maintained and easily accessible by all parties concerned.</p>	<p>External providers are evaluated, selected and monitored taking into account guidance and good practices relevant to the organization (e.g., IAQG SCM topic 4.3).</p> <p>Proactive, predictive, and risk-based methodologies (e.g., Process Failure Mode and Effect Analysis (PFMEA), use of original/authorized manufacturers or authorized/franchised distributors) are used to evaluate and re-evaluate external provider selection and monitoring activities to ensure changes in requirements (e.g., customer, regulatory, industry) are incorporated into the decision to continue usage of an external provider.</p> <p>Activities to address external provider poor performance and address potential failure modes are systematically defined and implemented, and include cross-functional input and responsibility.</p>	<p>Supply chain is continually optimized, based on Total Cost of Quality, lead time and quality improvements. Benchmarking and comparative analysis is performed regularly to align external provider selection with future organizational growth, including process, product, and service changes / opportunities.</p> <p>Best practices are adopted for the evaluation and benchmarking of supplier capabilities</p> <p>External provider selection and approval process is continually improved based on lessons learned.</p>

# WORKSHOP: Now Let's Apply This

Team 1: Expected outcome: 5.1.1.b) Top management ensures the quality objectives are established for the QMS and are compatible with the context and strategic direction of the organization.

Team 2: Expected outcome: 7.2 c) Actions are taken to acquire the competence needed by the organization. The effectiveness of actions taken to acquire the competence needed by the organization is evaluated.

Team 3: Expected outcome: 8.6 Documented information on the release of products and services is retained, to provide evidence of conformity with the acceptance criteria and traceability to the person(s) authorizing the release.

Level	What it looks like
<b>1: We do it Informally</b> , ad hoc, case-by-case, reactive, not fully, unclear, not repeatable, not always, not structured, limited visibility	
<b>2. We have a defined process</b> , effective, consistent, at Project/Process/Product/Service level, may vary / may differ	<b>ADD EXPECTATIONS AND DETAILS FOR EACH LEVEL</b>
<b>3. We apply it consistently across the company</b> , common, harmonized, standard, systematic, cross-functional	
<b>4. We measure and improve it</b> , KPIs, On Time & On Quality, quantitative targets, trends, prediction, anticipation	
<b>5. We optimize and prevent issues</b> , efficiency, optimization, bench mark, best-in-class, innovation, evolving context, organizational culture, continual improvement	

# Workshop Results

## Each group shares:

- Their maturity definitions
- Where they think they fall
- One “aha” moment

# AIMM Team's 5.1.1 b

Expected outcome	Level 1 - Initial	Level 2 - Managed	Level 3 - Deployed	Level 4 - Predictable	Level 5 - Optimizing
<p>b) Top management ensures the quality objectives are established for the QMS and are compatible with the context and strategic direction of the organization.</p>	<p>Quality objectives are not clearly linked to the organization strategy, understood, and applied.</p>	<p>Top management ensures that the quality objectives take into consideration stated business goals.</p>	<p>Top management ensures that a process is in place that requires the periodic review of the quality objectives and their alignment to business goals (e.g. during management reviews, strategic planning meetings, executive board of director's meetings).</p> <p>Objectives are regularly assessed and revised to take into account business context evolution, intermediate operational results and feedback from internal and external stakeholders.</p>	<p>Top management ensures that the quality policy and quality objectives are aligned with business goals and strategic direction of the organization; and proactively translated into the organization's processes, including the review of KPIs of business operation processes.</p> <p>A formal process or method is established to communicate the quality objectives and monitor their effectiveness (e.g., Policy Deployment, Hoshin Kanri, X-Matrix).</p>	<p>Top management ensures that a business management system is deployed across the organization, where quality is fully integrated into all business processes (e.g., there is an integrated management system vs a self-standing QMS) and this is readily visible in the organizational culture.</p> <p>Business development and strategic planning are optimized with key interested parties.</p>

# AIMM Team's 7.2 c

Expected outcome	Level 1 - Initial	Level 2 - Managed	Level 3 - Deployed	Level 4 - Predictable	Level 5 - Optimizing
<p>c) Actions are taken to acquire the competence needed by the organization,</p>	<p>A variety of actions are made available to develop the competence of individuals (e.g., training courses, on-the-job training, mentoring, research, participation in conferences, professional memberships) and to meet the competency needs of the organization (e.g., reassignment, recruitment).</p> <p>Actions are taken on an ad hoc basis, driven by specific needs (e.g., specialized tasks, regulatory requirements), or at the request of managers or the individuals concerned.</p>	<p>Same actions as described at Level 1, but they are taken for all roles and positions in a specific department / process / product / service areas.</p> <p>Examples of actions can include: mentoring the employee, providing training, simplifying the process so that the person can carry it out successfully, or reassigning the employee to another position.</p>	<p>Same actions as described at Level 1, but they are taken systematically using a common process across the organization.</p> <p>Examples of evaluation of the effectiveness of actions taken can include: asking persons who have received training whether they consider themselves to have achieved the necessary competence, observing their performance, examining the results of tasks and projects.</p> <p>The organization determines the action(s) to be taken when a person doing work under its control (e.g. IT support; customer service; security) is from an external provider (e.g. contractor). Actions vary depending on how critical this competence is in ensuring conformity to requirements (e.g., establishing contract and service level agreements, specifying competence requirement).</p>	<p>The competence gaps identified from the periodic reviews are evaluated against the organization's objectives and long term goals, to develop and implement a robust program for personnel competence development.</p>	<p>Competency development programs are established to support the development of skills required for organization innovation and improvement efforts.</p> <p>Recognized best practices for people engagement (e.g., ISO 10018) are implemented, to drive and motivate people to commit themselves to competency development.</p>
<p>c) The effectiveness of actions taken to acquire the competence needed by the organization is evaluated.</p>	<p>The effectiveness of competence development actions is evaluated primarily through self-evaluation by the individuals themselves.</p>	<p>The effectiveness of competence development actions is evaluated by review of performance by the manager / supervisor -to confirm new skills acquired.</p>	<p>A common process for the evaluation of the effectiveness of competence development actions is deployed across the organization (e.g., by test or examination, 360 peer reviews).</p> <p>Records are systematically used to support the competence review and development processes.</p>	<p>There are periodic reviews and evaluations of the effectiveness of competence development actions, to ensure that the achieved competence is maintained over time.</p> <p>Effectiveness results, with appropriate action taken, are used to support continual improvement efforts of the competency development program.</p>	<p>Records are analyzed to improve the effectiveness and efficiency of the competence evaluations and development processes to support future organization needs.</p>

# AIMM Team's 8.6

Expected outcome	Level 1 - Initial	Level 2 – Managed	Level 3 - Deployed	Level 4 - Predictable	Level 5 - Optimizing
<p>Documented information on the release of products and services is retained, to provide evidence of conformity with the acceptance criteria and traceability to the person(s) authorizing the release.</p>	<p>Documented information of the evidence of conformity including traceability to the person authorizing the release is retained in an ad hoc manner.</p>	<p>Documented information of the evidence of conformity including traceability to the person authorizing the release is effectively retained at project / process / product/ service level .</p> <p>Examples of evidence of conformity can include: Certificate of Conformity (COC) (see IAQG SCM topic 5.2 for guidance and 9163), release certificate, and regulatory certificate (e.g., EASA Form 1, FAA 8130).</p> <p>Examples of traceability to the person(s) authorizing the release can include: name, authorized signatories, digital signature, user identification, and stamp impression.</p>	<p>Documented information of the evidence of conformity including traceability to the person authorizing the release is retained across the organization in a standardized and systematic way.</p> <p>Persons able to authorize the release of products and services and sign the related documentation (e.g., CoC, Authorized Release Certificates (ARC)) are identified and have the necessary skills and competencies.</p>	<p>An automated tool (e.g., ERP) is used at organization level to manage the documented information that provides evidence of conformity, and ensure that only authorized persons can allow the release of products and services.</p>	<p>Emerging technologies (e.g., Blockchain) are utilized internally and throughout the supply chain to digitize and create a decentralized, immutable record of all transactions to increase the integrity of the documented information.</p>



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AIMM offers a series of maturity steps, creating a proactive environment

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## EMPOWERING MANAGEMENT SYSTEMS

AIMM offers a series of maturity steps, creating a proactive environment

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This podcast is for all IAQG members to learn more about AIMM, the Aerospace Information Maturity Model.


We spoke to the lead for AIMM, Roberto Ciaschi. He clearly defines AIMM and shares the value, features benefits and usefulness AIMM brings to companies while also highlighting its importance and necessity within the aerospace and defense industry.

We address questions about the safety and security of organizational information and the continuing improvements being made to its 26 modules.


Enjoy the podcast and share it with your co-workers and colleagues.


The IAQG is the International Aerospace Quality Group and sets the standard for quality within the worldwide supply chain within the aviation, space, and defense industry. IAQG currently maintains 26 active standards that establish common/shared tools and methods for quality improvement. To learn more, visit <https://iaqg.org>.

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# Who Uses AIMM?

AIMM is a self-assessment tool for:



**Certified and non-certified companies**



**Companies that voluntarily choose to participate**



**Companies seeking to understand QMS maturity beyond basic conformity**



**Teams preparing for certification or improving an existing certified QMS**

## **Important:**

AIMM is not intended to be used as a requirement for supplier selection. It may, however, be used by customers to support supplier development and improvement.

# How AIMM Can Be Used



**AIMM is a flexible, multi-purpose tool aligned to AS9100, AS9110, and AS9120 clauses.**

It can be used to:

- Assess the maturity of the entire QMS or selected areas of focus
- Identify opportunities to expand, strengthen, or upgrade the QMS
- Support improvement-driven internal audit programs
- Determine improvement plans for critical business areas
- Set clear, measurable improvement targets and verify progress
- Evaluate certification readiness

## **Maturity insight:**

- Level 1 may indicate the organization is not yet certifiable.
- Levels 2–3 may indicate certification readiness.
- Levels 4–5 may indicate performance beyond the standard.



## Study AIMM

Preview of AIMM modules for analysis and comments. Click on a module to view it

VERSION **1.1** LANGUAGE **ENG**

Module 4: Context of the Organization	Module 5: Leadership	Module 6: Planning	Module 7.1: Resources
Module 7.1.5: Monitoring and Measuring Resources	Module 7.2: Competence	Module 7.3 - 4: Awareness and Communication	Module 7.5: Documented Information
Module 8.1: Operational Planning and Control	Module 8.1.1: Operational Risk Management	Module 8.1.2: Configuration Management	Module 8.1.3: Product Safety
Module 8.1.4: Prevention of Counterfeit Parts	Module 8.2: Requirements for Products and Services	Module 8.3: Design and Development of Products and Services	Module 8.4.1: Control of Externally Provided Processes, Products, and Services - General
Module 8.4.2: Type and Extent of Control of Externally Provided Processes, Products, and Services	Module 8.4.3: Information for External Providers	Module 8.5 - A: Control of Production and Service Provision	Module 8.5 - B: Control of Equipment and Special Processes; Production Process Verification
Module 8.5 - C: Identification, Change Control, Preservation, Release, and Post-Delivery	Module 8.7: Control of Nonconforming Outputs	Module 9.1: Monitoring, Measurement, Analysis, and Evaluation	Module 9.2: Internal Audit
Module 9.3: Management Review	Module 10: Improvement		

1.1 ENG

### Welcome

James Lee

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# Key Takeaways: 9120 AIMM



## AIMM helps distributors move beyond “are we compliant?” to “how mature and effective are we?”

- Maturity can vary significantly across functions, processes, and requirements
- Compliance does not automatically equal maturity
- AIMM provides visibility into where the organization (or a department) is today
- AIMM helps identify practical ways to improve, when greater maturity is desired
- AIMM supports better internal conversations across leadership, quality, purchasing, operations, and other functions
- AIMM replaces finger-pointing and opinion-based debate with a structured maturity discussion
- AIMM helps organizations better recognize risk areas and improvement opportunities

### Bottom Line

AIMM gives companies a practical way to understand current maturity, identify risk, focus improvement efforts, and strengthen the QMS where it matters most.

# Questions?

**Jim Lee**

[jlee@simpleque.com](mailto:jlee@simpleque.com)



**LeAnne Davis**

[leanne.davis@boeing.com](mailto:leanne.davis@boeing.com)