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EAM & CMMS Best Practices

Seven Practices to Get the Most Out of Your Maintenance System

TECHNICAL GUIDANCE PAPER

EAM & CMMS Best Practices is a technical guidance paper for maintenance, reliability, and operations leaders who want more value from the system they already own.

THE SEVEN PRACTICES

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|-------------------------------------|--------------------------------|
| 1 Comprehensive asset inventory | 5 Resource optimization |
| 2 Standardized data entry | 6 Performance metrics and KPIs |
| 3 Preventive maintenance scheduling | 7 User training and engagement |
| 4 Work order prioritization | |

01 — WHY THESE PRACTICES MATTER

Get the Most Out of Your System

An EAM or CMMS is only as valuable as the data it holds and the processes built around it. Many organizations invest in a capable system and then use a fraction of it: asset records are incomplete, work orders are closed without the details that explain what failed, and preventive maintenance follows intervals no one has reviewed in years.

By adhering to the best practices in this paper, organizations can optimize their EAM and CMMS implementations and processes, ensuring they derive maximum value from their investment while maintaining high levels of asset performance and reliability. The practices apply whether you run IBM Maximo, IBM Maximo Application Suite, or another system, and they build on each other: an accurate asset inventory makes prioritization possible, consistent data makes KPIs meaningful, and trained users keep both in place.

THE SHORT ANSWER

Seven practices separate a system that records work from one that improves it: **a comprehensive asset inventory, standardized data entry, evidence-based preventive maintenance, consistent work order prioritization, optimized labor and spare parts, performance metrics that drive decisions, and role-based training.** Start with the first two. Every other practice depends on accurate, consistent data.

02 — THE FOUNDATION

Know What You Own, and Record It the Same Way Every Time

Every report, schedule, and decision in an EAM or CMMS draws on the asset record. These two practices make that record trustworthy.

1. Build a Comprehensive Asset Inventory

Maintain a detailed and accurate inventory of every asset, including its location, category, classification, unique ID, and maintenance history. A comprehensive asset inventory is the foundation of asset management: every work order, PM, cost report, and KPI depends on it.

WHERE TO START

- Give every asset a unique ID and a place in a functional hierarchy, so that costs and work history roll up correctly.
- Rank asset criticality, so that work order priority, PM effort, and spare parts decisions all start from the same view of what matters most.
- Verify the inventory in the field, starting with critical assets, and retire records for equipment that is no longer in service.

2. Standardize Data Entry

Implement standardized procedures for data entry to ensure consistency and accuracy across the EAM or CMMS. This includes uniform naming conventions, codes, and categories, applied the same way at every site and by every user.

WHERE TO START

- Publish a short data standard covering naming conventions, classification codes, required fields, and who may create or change asset records.
- Close corrective work orders with failure codes (problem, cause, and remedy), so that history can be analyzed rather than read line by line.
- Enforce the standard in the system with required fields, value lists, and validation, not only in a written procedure.

03 — PLANNING AND EXECUTION

Do the Right Work, at the Right Time, With the Right Resources

With a reliable asset base in place, the next three practices determine how well maintenance work is planned, ranked, and resourced.

3. Schedule Preventive Maintenance on Evidence

Develop a robust preventive maintenance schedule based on manufacturers' recommendations, historical data, and feedback from technicians and operators. The goal is to reduce unexpected breakdowns without over-maintaining, prolonging asset life and making better use of resources.

WHERE TO START

- Use meter-based or condition-based triggers where usage varies, rather than calendar intervals alone.

- Review PM tasks and frequencies at least once a year against failure history. Remove tasks that consistently find nothing, and add tasks where failures recur.
- Attach job plans with steps, parts, tools, and safety requirements, so that each PM is performed the same way every time.

4. Prioritize Work Orders Consistently

Develop clear criteria for prioritizing work orders based on factors such as asset criticality, safety implications, operational impact, and regulatory requirements.

WHERE TO START

- Combine asset criticality with the urgency of the request in a simple priority matrix, so that two planners rank the same request the same way.
- Define what each priority level means in target response time, and who is authorized to declare an emergency.
- Review the backlog regularly, so that low-priority work is scheduled or closed rather than left to age.

5. Optimize Labor, Tools, and Spare Parts

Optimize the allocation of people, tools, and spare parts by analyzing demand patterns and aligning them with maintenance schedules, improving both availability and utilization.

WHERE TO START

- Plan work before it is scheduled: estimate labor, reserve parts, and kit materials before the work week begins.
- Link spare parts to the assets they serve, set reorder points from actual usage, and hold critical spares for critical assets.
- Compare scheduled hours with available hours each week, so that the schedule is one the team can actually complete.

04 — MEASUREMENT AND PEOPLE

Measure Results and Bring Your People With You

The last two practices keep the gains from eroding. Metrics show what is working, and trained, engaged users keep the data and processes in good shape.

6. Track Performance Metrics and KPIs

Define and regularly review key performance indicators (KPIs) to assess the effectiveness of your maintenance strategies and asset performance. Use these insights to drive continuous improvement.

WHERE TO START

- Begin with a small set of measures: PM compliance, schedule compliance, planned versus reactive work, backlog, mean time between failures (MTBF), and mean time to repair (MTTR).
- Give each KPI an owner, a written definition, and a review cadence, and confirm that the data behind it is captured in the system.
- Act on what the numbers show. Each review should end with decisions, not just a report.

7. Train and Engage Users

Provide comprehensive training for everyone who uses the EAM or CMMS, so that the organization gets the full value of its functionality. Foster an environment where users are encouraged to give feedback for continuous improvement.

WHERE TO START

- Train by role. Technicians, planners, storeroom staff, and supervisors each work in different parts of the system.
- Refresh training after upgrades and whenever data quality slips, and make system training part of onboarding.
- Create a simple channel for feedback, and show users what has changed as a result of it.

05 — THE PRACTICES AT A GLANCE

What to Put in Place, and How to Know It Is Working

Practice	What to put in place	Signs it is working
1. Asset inventory	Unique IDs, a functional hierarchy, and criticality rankings	Work history and costs roll up to the right assets
2. Data entry	A data standard, failure codes, and required fields	Reports can be filtered and trended without manual cleanup
3. PM scheduling	Evidence-based tasks, job plans, and meter or condition triggers	Fewer breakdowns on assets with PMs; tasks that find nothing are retired
4. Work order prioritization	A priority matrix and response-time definitions	Emergency work is rare and genuinely urgent; the backlog stays current
5. Resource optimization	Planning, kitting, and spare parts linked to assets	Fewer delays waiting on parts; weekly schedules are completed
6. Performance metrics	A small KPI set with owners and a review cadence	Reviews produce decisions, and the trends improve
7. Training and engagement	Role-based training and a feedback channel	Consistent use of the system and steadily better data

06 — QUICK SELF-CHECK

Where Does Your Organization Stand?

Count one point for each statement that is true today.

- ☐ **01** Every critical asset has a unique ID, a location, and a criticality ranking.
- ☐ **02** We follow a written data standard and close corrective work with failure codes.
- ☐ **03** PM tasks and frequencies have been reviewed against failure history in the past year.
- ☐ **04** Planners and supervisors use the same written criteria to prioritize work.
- ☐ **05** Labor and parts are planned before work is scheduled.
- ☐ **06** A defined set of KPIs is reviewed on a regular cadence.
- ☐ **07** Every user role has been trained on its own workflows in the system.

YOUR SCORE

0–2

Start with the foundation

Focus on the asset inventory and data standards before anything else.

3–5

Close the gaps

Target the statements you could not check, beginning with the lowest-numbered ones.

6–7

Build on strength

Use your KPIs to choose the next improvement, and consider asset health and predictive capabilities.

07 — MOVING FORWARD

Best Practices Turn a System Into Results

An EAM or CMMS is an investment in information. The seven practices in this paper turn that information into results: an accurate asset base, consistent data, maintenance planned on evidence, work done in the right order with the right resources, measured performance, and people who know the system. None of them requires a new system, and together they form the foundation for advanced capabilities such as asset health scoring and predictive maintenance.

PARTNER WITH SMS

As an **IBM Platinum Partner** with 25+ years of EAM expertise and more than 1,000 projects delivered, **Strategic Maintenance Solutions** helps organizations put these practices in place on IBM Maximo and Maximo Application Suite: we assess where you stand, prioritize the gaps that matter most, and work alongside your team to close them. Contact sales@sms-inc.net or **+1 207-854-9400**.

