

MAXIMO KPI GUIDE SERIES

PM/PdM Compliance Industry Benchmark

Typical on-time compliance ranges by industry and maturity, and why the number means nothing without a defined window.

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What Is PM/PdM Compliance?

PM/PdM Compliance measures how much of your scheduled preventive and predictive maintenance actually gets done on time. It answers a simple question that turns out to be harder than it looks: are the PMs you committed to actually happening when they are supposed to, or are they slipping, getting deferred, or quietly closing without the work being done?

A higher number means your program is doing what it planned to do. A lower number means work is slipping, and the equipment that work protects is running on borrowed time. But the number is only as honest as your definition of on time and the quality of your data. A plant reporting 95 percent against a generous window, with PMs auto-completing and labor never recorded, can have worse real compliance than a shop reporting 78 percent against a hard due date with every completion verified. Context matters, and with this metric the definition matters more than with almost any other KPI in maintenance.

THE FORMULA

$$\text{PM/PdM Compliance} = (\text{PMs Completed On Time} / \text{PMs Due}) \times 100$$

EXAMPLE

PMs Due (period): 240

PMs Completed On Time: 192

PM/PdM Compliance: 80%

PMs Due is every preventive or predictive work order generated for the measurement period, not just active PM records. PMs Completed On Time is the count of those finished within your compliance window. A PM that should have come due but never generated, because the generation job failed or the PM was inactivated, is an invisible gap your compliance number will never show. The whole metric hinges on two definitions you have to make explicit: what makes a PM due in the period, and what makes a completion on time. Get sloppy with either and the number stops meaning anything.

CALCULATION NOTE

This is the part nobody pins down, and it is the single biggest reason two honest people report different compliance from the same data. On time can mean completed on or before the work order target finish date, completed within a tolerance window (often plus or minus 10 percent of the PM interval), completed within the same calendar month, or completed within the fiscal period. Each definition produces a different number from identical work. A program that finishes a monthly PM on day 38 is compliant under a calendar-month definition and badly late under a strict due-date definition. Pick one window, write it down, and hold it. Do not compare your compliance to another site, a published benchmark, or even your own prior year unless the window is defined the same way.

In Maximo, compliance comes from the work orders your PMs generate. The PM record (PM) carries the frequency, frequency units, lead time, and estimated next due date (NEXTDATE) that decide when a PM comes due. When it generates, it creates a work order (WORKORDER) linked back by PMNUM, with a Target Finish (TARGCOMPDATE) and, once done, an Actual Finish (ACTFINISH) and a completed status. Compliance is the comparison between Target Finish and Actual Finish across the PMs due in the period. Keep the rules consistent: decide once whether you count by work order or by PM, whether tasks (ISTASK) and history records

(HISTORYFLAG) are included, and how you treat PMs that were canceled, deferred with approval, or rescheduled. Changing those rules between periods makes your trend line fiction.

A Note on the Number Itself

PM/PdM Compliance is an aggregate, and the aggregate hides the things that matter most. A single 90 percent can be built from honest, verified completions, or from PMs that auto-completed on the due date with no labor reported, PMs closed inside a generous window that were really weeks late, and ghost PMs that get deferred every cycle and never counted as missed. If those are in your data, your dashboard is reporting closure, not work.

The number gets useful when you segment it: PM versus PdM, by craft, by site, by equipment criticality. PdM compliance almost always trails calendar PM compliance, because condition-based routes need specialized labor and tools, and that gap stays invisible until you separate the two. The aggregate tells you whether to investigate. The segments tell you where to act.

Industry Benchmarks

These are the ranges I typically see for mature programs, expressed as on-time compliance. They are working references, not research claims, and the real driver here is less your industry than your program maturity, your regulatory environment, and the window you chose. Use them to frame the conversation, not to grade yourself.

Typical field reference ranges, not formal benchmarks.

MATURITY	TYPICAL ON-TIME COMPLIANCE
Reactive / firefighting	Under 60%
Developing	60% to 80%
Proactive	80% to 90%
World-class	90% and up (95% and up in regulated sectors)

INDUSTRY	TYPICAL ON-TIME RANGE	MAXIMO ADD-ON
Aviation	95 to 100%	MAS Aviation
Oil & Gas	90 to 98%	MAS Oil & Gas
Transportation	85 to 95%	MAS Transportation
Utilities	85 to 95%	MAS Utilities
Nuclear	98 to 100%	MAS Nuclear

The regulated, safety-critical industries sit high because they have to. In aviation and nuclear, on-time completion of safety-related PMs is not a goal, it is a license condition, and the tolerance on those specific PMs is often zero. The wider ranges in transportation and utilities reflect a mix of regulated and non-regulated assets under one roof. If you run a non-regulated operation, do not assume the 95 percent figure applies to you. Work the maturity ladder first. Even inside regulated industries, not every PM carries the same compliance risk. Separate safety, regulatory, environmental, and production-critical PMs from general housekeeping PMs before comparing performance.

Do not compare your result to another site, company, or published benchmark unless the definition of due, the definition of on time, and the compliance window are the same.

Read It With Reactive Work

Read PM/PdM Compliance next to Reactive Work Percentage. The two move together when the program is real. If compliance climbs and reactive work falls, your PMs are doing their job. If compliance is high but reactive work stays high, one of two things is happening: the compliance number is hollow, with work being closed but not done, or your PMs are getting done but they are the wrong PMs, on the wrong assets, at the wrong frequency. A high compliance number on its own is not proof of a healthy program. It is only proof when reactive work is falling alongside it.

Best Next Action

Before you trust your compliance number, audit it. Pull the PM-generated work orders for the last period (WORKORDER records with a PMNUM) and check three things. First, compare Target Finish to Actual Finish and recount compliance against a single, hard window. Second, find completions with no labor hours recorded, because those records need verification before you treat them as confirmed work. Third, look for PMs that auto-completed exactly on the due date, and confirm the work actually happened. Then segment the result by PM versus PdM, craft, site, and asset criticality. The gap between your reported number and what you find is your real starting point.

Do not use this benchmark to punish crews, force a 95 percent target, or compare sites without first standardizing the compliance window. Use it to start the conversation and decide what to audit.

Go Deeper: The PM/PdM Compliance Guide

This benchmark tells you what good looks like. The full Maximo KPI Guide: PM/PdM Compliance covers the on-time definition choices and how to set a defensible compliance window, the KPI Manager SQL for compliance percentage and overdue counts, the segmentation methodology, the drilldown from aggregate number to root cause, and the business case for a compliance program. Available on Amazon.com.

See also: PM/PdM Compliance Self-Assessment and the free PM/PdM Compliance calculators at brockindustries.io/tools

Quick Maximo questions are always free. Reach out on LinkedIn at linkedin.com/in/brockjason. I never charge for chatting.

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