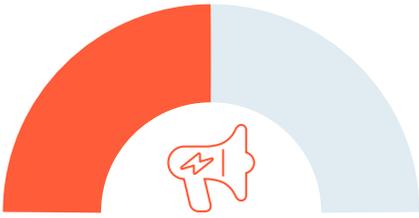




Guide to Becoming a Preventive Maintenance All-Star

Did you know there is a spectrum of maintenance operations?



On one side, you have the proactive maintenance manager or director who feels in control. Evidence of this is that he or she can take a day off and not be worrying about what's happening (or isn't) at the office.



On the other side, you always feel like you're in a reactive maintenance mode. Something is always "on fire" as they say, or about to be, and that keeps you worrying about your work backlog at all hours. Evidence of this is feeling like a firefighter, always running to the next issue and not having a way to get ahead.

No matter where you are on the maintenance spectrum today and where you want to be tomorrow, this guide is here to help you take the next steps as we explore:

- Where you are and where you should be
- A process for continuous improvement
- Pushing up the P-F curve
- How to implement your preventive maintenance plan
- Benefits of becoming a PM All-Star

Let's get started on your journey to becoming a preventive maintenance all-star!

Where You Are & Where You Should Be

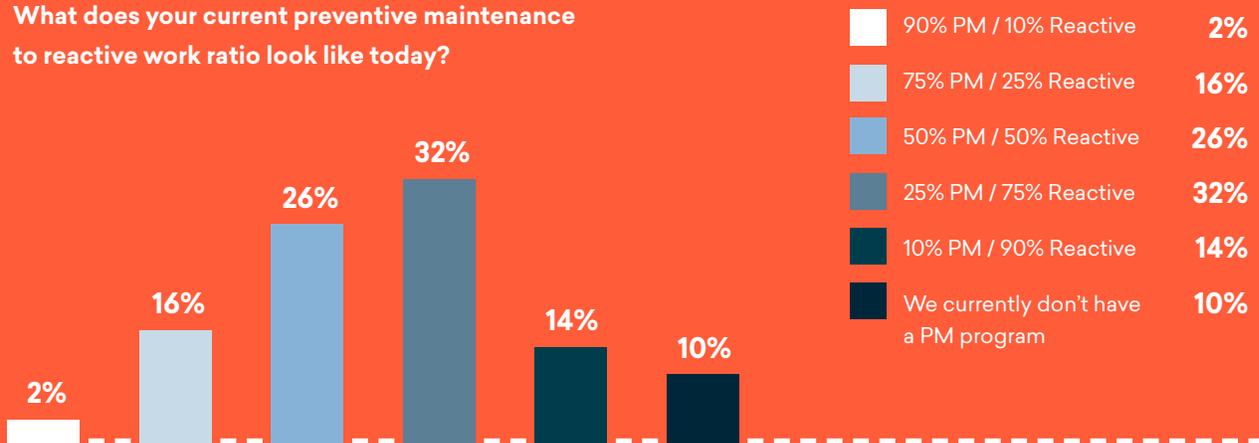
Based on the maintenance spectrum we laid out earlier, where would you place yourself?

As the famous quote says, “You can’t really know where you are going until you know where you have been.” That’s why it’s important to have a baseline of what percentage of preventive to reactive maintenance you are doing today.

How proactive are your peers?

When we asked a group of 100+ operations professionals in the manufacturing space about their work ratio, here’s what they said.

What does your current preventive maintenance to reactive work ratio look like today?



Most respondents put their maintenance work ratio into the 25% PM to 75% reactive bucket.

[Listen to our webinar on Becoming a PM All-Star](#)

The Benchmarks for a PM All-Star

Where should you be with your PM to reactive ratio anyway?

The Society for Maintenance & Reliability Professionals (or SMRP) classifies **80% proactive to 20% corrective** or reactive maintenance as the ideal mix, or the all-star status in our case. Going even further, **90/10 indicates a world-class** maintenance setup.

But don't let that high bar scare you away. It doesn't matter where you are today, just that you can make improvements to become more preventive and less reactive in the future.

[See how JMA Wireless implemented technology](#)

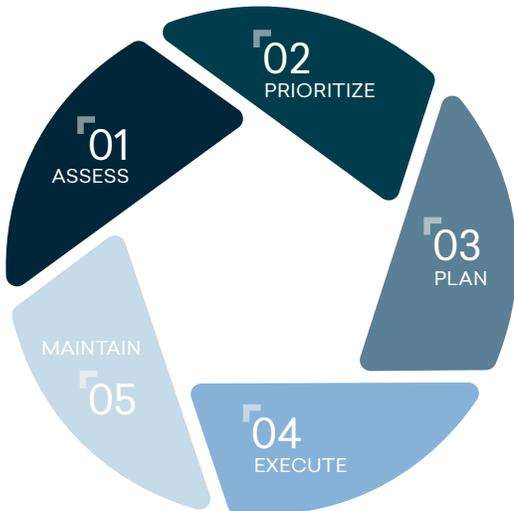
[to get to a 92% preventive mix](#)



Your Continuous Improvement Process

On your journey to preventive maintenance stardom, you need a plan to ensure you're always making improvements and building upon your successes.

We like to use the APPEM process, which looks like this:



- **Assess** the current condition of your facilities, assets, maintenance practices and processes
- **Prioritize** your work based on the most important and achievable action items
- **Plan** how you're going to accomplish the work you need and meet your goals – and how to prevent distractions
- **Execute** on the plan you've created
- **Maintain** (and modify) your plan based on what worked, what didn't work and what you learned

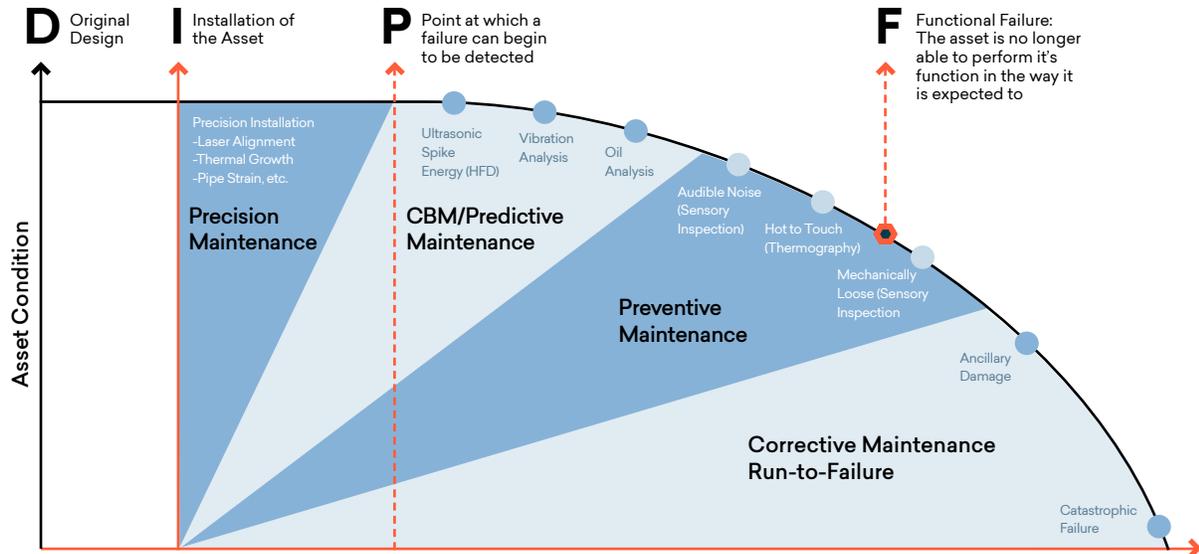
In the APPEM process, it's crucial to remember to stick to your goals with preventive maintenance and focus on your small victories. A small uptick in your preventive maintenance ratio can make a big difference when it comes to your and your team's daily work.

Pushing Up the P-F Curve

Let's start with a term you may or may not be familiar with: asset lifecycle. Simply put, an asset lifecycle refers to the stages that an asset or piece of equipment goes through in its lifetime (from acquisition to disposal).

[Read more about the asset lifecycle in this blog](#)

To better optimize your preventive maintenance, we can look at the P-F curve.



This curve represents the asset lifecycle from P, the point where failure can be detected, to F, or functional failure. Over time, you're going down the curve and if your asset is left unmaintained, then it's going to get closer and closer to failure. And you're more at risk of downtime and a host of other risks.

On the other hand, **preventive maintenance can come in before the point of failure to help you recognize and fix issues before they lead to a failure.**

This type of PM that pushes assets back up the P-F curve can look like:

- Automatic, calendar-based PM reminders
- Weekly or monthly checks or inspections

At an advanced (or predictive) stage, it can look like:

- Meter reading-based PMs (ex. if an asset runs for 500 hours, lubrication and filter changes may be warranted)
- IoT (Internet of Things) and asset sensors

As a PM All-Star, you are actively pushing up the P-F curve, leading to more uptime for your assets, control within your maintenance schedules and profitability for your organization.

How to Implement Better PM

Although it may seem daunting improving your preventive practices, we've boiled it down to a crawl, walk, run process to give you some of the steps to success.



CRAWL

Get a good CMMS - Software like a CMMS (computerized maintenance management system) can help you easily build the framework for your PM program with simple organization, automatic reminders and maintenance data to help you adjust based on your asset's needs. Even more, ensure your CMMS provider is a partner for your future and offers services to help you meet your goals.

"[Your CMMS] is going to be the basis for your entire framework in the future."

- Bill Hoff, JMA Wireless

[Listen to the webinar to learn more](#)

- 1 Add assets**- The next step is to add assets into your CMMS, along with relevant details like location, category, criticality, warranty information, etc.
- 2 Set up basic maintenance reminders**- Your system can allow you to easily set up PM reminders for monthly, weekly and quarterly work orders and inspections. This way you don't even have to think about planning them out – it just reminds you. You can also associate documentation, videos or step-by-step instructions to a PM to help the technician.
- 3 To-do lists for your team**- Help your team know what they need to do each day so they can be more proactive and organized, too. Your system should give each technician a simple to-do list of priority work orders and a way to access these on their mobile device to boost efficiency.



RUN

Embrace total productive maintenance - TPM or total productive maintenance empowers asset operators to do visual inspections and help identify issues. This helps you equip operators to find problems early and keep them fixed.

[Learn more about TPM and avoiding 3](#)

[common mistakes](#)

Here's an example of savings from using IoT (or even manually entered runtime/usage meter readings) for your maintenance schedule:

PM on a major production asset every month on a regular schedule

- +\$2500** 3 hours downtime, lost production
- + \$200** in parts
- + \$200** in labor

\$2900 x 12
\$34,800 in annual cost

PM based on usage (estimated every 6-7 weeks)

- +\$2500** 3 hours downtime, lost production
- + \$200** in parts
- + \$200** in labor

\$2900 x 8.6
\$25,133 in annual cost

\$9,667 in annual savings

“As we move toward becoming truly predictive and preventive, we instituted a full sign-off of operator maintenance. They track it within our CMMS, and we can get their real time input as they proceed through a day.”

- Bill Hoff, JMA Wireless

Beyond the run stage, explore other advanced CMMS features like business intelligence tools to help you get further insights from data pulled from IoT sensors and your preventive and predictive maintenance practices. This can help you move from a system of record to a system of intelligence – and impact the critical daily decisions you make.

[See inside our tool for business intelligence for maintenance](#)

Benefits to Becoming a PM All-Star

Your journey to becoming a PM All-Star will be paved with benefits – they aren't just saved for arriving at that 80/20 level or beyond.

Here are some of the big benefits:

- Minimize unnecessary downtime
- Preserve your assets and improve longevity
- Produce a better product or output
- Use less energy
- Simplify and optimize maintenance planning
- Improve profitability



STATS ON PERFORMING PREVENTIVE MAINTENANCE:

Extend the life of your machines and equipment by as much as



12-18%

saved by using PM over reactive maintenance

After implementing a CMMS, the reliability of your equipment can improve by as much as

35-50%

x5

Every dollar spent on performing PM can save you five dollars on other expenses

We conducted a study of PM All-Stars and found that they experienced a **37% decrease in work order costs and 65% reduction in emergency work orders.**



Now what?

Now that you've got the facts about where you could be with preventive maintenance and how to reach all-star status, let's lay out some initial steps:

- **Know where you are and own it-** Be confident in where you are and own your goals for improvement. Remember, every little step can make a big impact.
- **Get team buy-in-** This step is trickier for some than others, but it's important that you have buy-in across your team to move to more proactive practices that will benefit everyone. Data on where you are and where you could be is incredibly helpful in this stage.
- **Have a process to continuously improve-** Use something like our APPEM model ([see Page 4](#)) to set yourself up for success and check-ins to adjust PM processes along the way.
- **See and share the positive results-** This is the fun part where you can take your new PM practices and asset data to celebrate wins and share improvements with your team and others.

If you stay realistic, focus on your goals and make small improvements in your PM practices, you'll begin to see yourself in the role of a PM All-Star, leading your team into the future with confidence.



"We were able to cut about 40% out of our maintenance budget simply by instituting very basic PM and rolling that cost savings forward. As we engaged in more preventive and proactive maintenance policies, we were able to start bringing more in-house."

- Bill Hoff, JMA Wireless

ABOUT DUDE SOLUTIONS

Dude Solutions is a leading software-as-a-service (SaaS) provider of operations management solutions to education, government, healthcare, senior living, manufacturing and membership-based organizations. For nearly two decades, Dude Solutions has inspired clients to create better work and better lives. We combine innovative, user-friendly technology with the world's smartest operations engine, empowering operations leaders to transform the most important places in our lives. Today, more than 12,000 organizations use our award-winning software to manage maintenance, assets, energy, IT, events and more. For more information, visit dudesolutions.com.

