MOTIVATING MAINTENANCE TECHNICIANS 101 WEBINAR

BY: RICKY SMITH, CMRP, CMRT, CRL

UpKeep

WORLD CLASS MAINTENANCE

GIVING BACK TO MOVE MAINTENANCE FORWARD
TMCC
THE MAINTENANCE COMMUNITY COALITION
upkeep.org

Motivating Maintenance Technicians 101 Webinar

By Ricky Smith CMRP, CMRT

Fri, Dec 5, 5:00 –6:00EST (US)

UpKeep / WORLD CLASS MAINTENANCE

"A Maintenance Technician seek no reward or praise; they take pride in knowing the equipment/assets are running to specifications"

UpKeep

WORLD CLASS MAINTENANCE

GIVING BACK TO MOVE MAINTENANCE FORWARD
TMCC
THE MAINTENANCE COMMUNITY COALITION
upkeep.org

"Maintenance Technicians look for leaders to lead them effectively and efficiently. Technicians want to know their "Score in the Game" through KPI Dashboards. Technicians are trained to meet the requirements of plant reliability and maintainability through

"Known Best Repair and Maintainability Practices"

Ricky Smith, former Maintenance Technician
Alumax Mt Holly (Alcoa Mt Holly), US Army

UpKeep

WORLD CLASS MAINTENANCE

GIVING BACK TO MOVE MAINTENANCE FORWARD
TMCC
THE MAINTENANCE COMMUNITY COALITION
upkeep.org

What does a Day in the Life of a Proactive Maintenance Supervisor look like?

Working with Production on Issues

Check on Maintenance Techs to see if they need anything

Attend Training

Recognizing great work by employees

Review Equipment History with Techs

Review issues in Plant

UpKeep

WORLD CLASS MAINTENANCE

GIVING BACK TO MOVE MAINTENANCE FORWARD
TMCC
THE MAINTENANCE COMMUNITY COALITION
upkeep.org

Questions

1.How effective is your current Maintenance Staff

1 –slow to respond.....10 –Great

2.How is the attitude of your Maintenance Team?

1 –not good ..... 10 –High Spirits

3.What is the “Number 1” Reason your Techs are Where they are?

What is Motivation?

Motivation is a reason for actions, willingness, and goals.

Motivation is derived from the word motive, or a need that requires satisfaction.

These needs, wants or desires may be acquired through influence of culture, society, lifestyle, or may be generally innate.

Maintenance Technician Hierarchy of Needs

- Job Security
- Money
- Respect
- Feeling like they are part of a team
- Having the parts available when a job is scheduled
- Given the time to make repairs correctly, if not then another work order is written to come back and restored later
- Knowing who to go to for advice
- Time to learn and expand their knowledge through training
- (Maintenance should designate “X” amount per year for training and this money must be protected and only used for Maintenance Training)
- Mitigation of Equipment Failures

Causes of Equipment Failure

- **Lack of consistent definitions (without consistent definitions you have chaos)**

  Examples:

  –Maintenance: To Maintain, Keep, Preserve, Protect from Failure

  –Preventive Maintenance: Actions performed on a time-or machine-run-based schedule that detect, preclude or mitigate degradation of a component or system with the aim of sustaining or extending its useful life through controlling degradation to an acceptable level. -Source: SMRP Best Practices

  –Rework: Rework is corrective work done on previously maintained equipment that has prematurely failed due to maintenance, operations or material problems.

  –The typical causes of rework are maintenance, operational or material quality issues.

  -Source: SMRP Metrics

- **Equipment not in a Maintainable Condition**

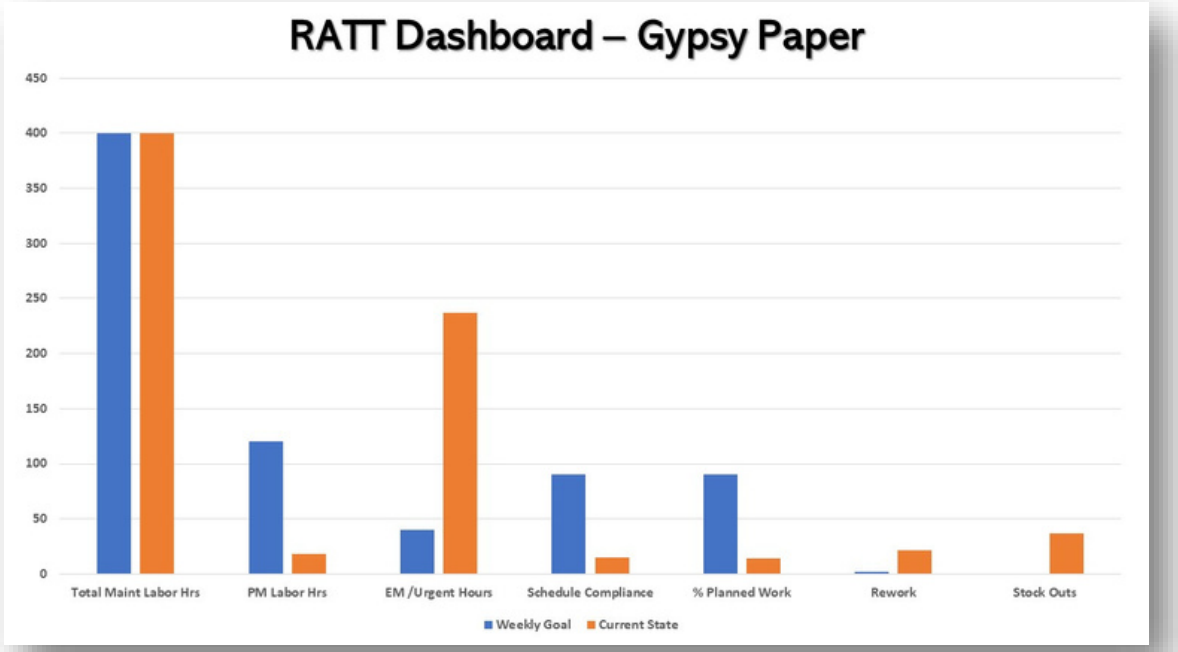
  Examples:

  –Performing Preventive Maintenance on equipment that continues to fail

  –Maintenance Rework continues because equipment is not repaired / restored to specifications

Motivation Proven Concepts

- Provide people a great place to work. ...
- Offer opportunities for self-development. ...
- Foster collaboration within theteam. ... (No “I” in the word TEAM)
- Encourage happiness. ...
- Don't punish failure. ...
- Set clear goals. …
- Never show anger or discouragement to your subordinates
- Never ask someone to do something you would not do
- Set the example
- Give people their score



Why Maintenance Technicians are not Motivated?

1. **Lack of Appreciation by Leadership (not demonstrated)**
2. **Maintenance Schedules are not met (technicians arrive at work expecting to execute a specific job and then job changed)**
3. **The right part or material not available to accomplish maintenance work**
4. **Lack of information when working on a job**
5. **Rushed to complete work without focus on “doing the job right”**
6. **Patching equipment and never coming back to restore asset to maintainable level**
7. **Overtime is high thus family life or fun time is sacrificed**
8. **Leadership**

UpKeep

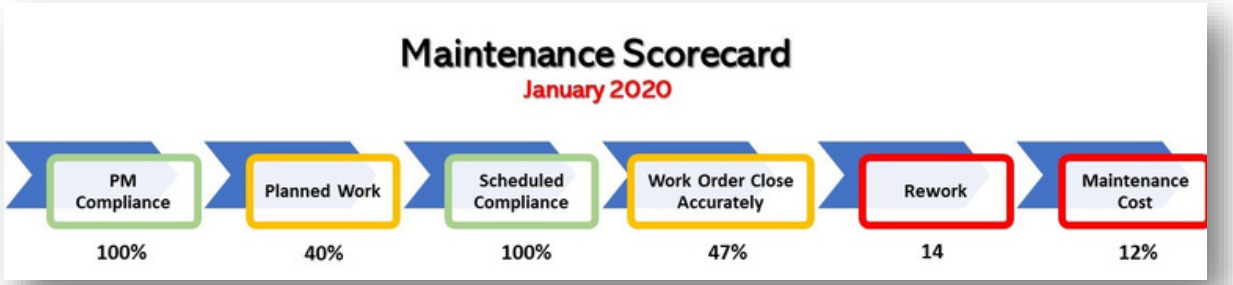
WORLD CLASS MAINTENANCE

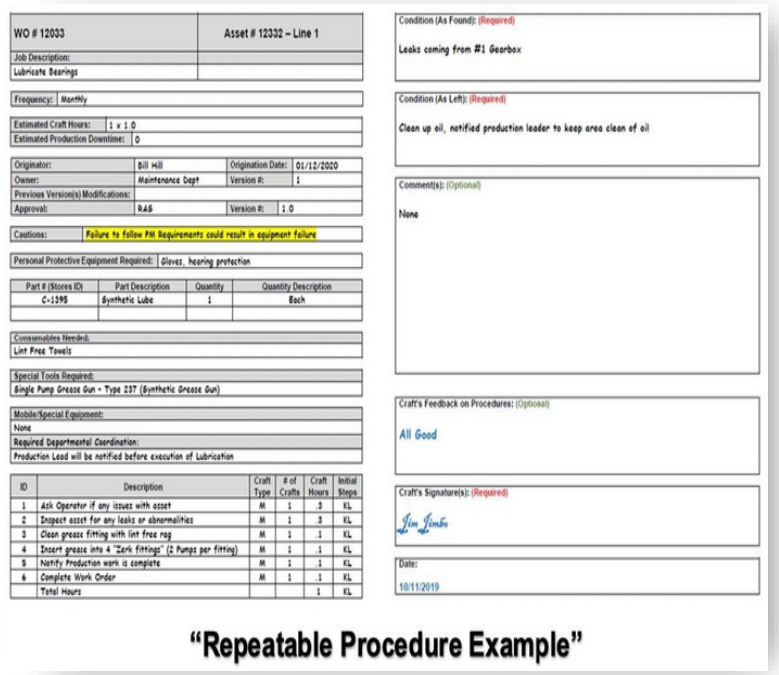
TMCC
GIVING BACK TO MOVE MAINTENANCE FORWARD
THE MAINTENANCE COMMUNITY COALITION
upkeep.org

Technician Knowledge of Proactive Maintenance

Maintenance Process/Processes

- Maintenance Planning
- Maintenance Scheduling
- Work Execution to Specifications using Repeatable Procedures
- Equipment Turnover to Production
- Work Order Close Out
- Failure Reporting, Analysis and Corrective Action System
- Leading and Lagging KPIs





"Repeatable Procedure Example"

As Humans (Technicians) they are motivated based on…

1. **Self-actualization-Everyone will try to accomplish what they can as long as they feel that they have the capacity to do it.**
2. **Achievement–We all want to feel good when we achieve specific tasks (ie. Troubleshoot a Problem others found difficult to solve**
3. **Autonomy–A maintenance technician is not motivated by someone watching "over their should" or asking "how much longer is it going to take"**
4. **Personal Growth –Everyone is different however becoming Certified Maintenance and Reliability**
5. **Technician is a great step in any technician's career.**
6. **Recognition–Most maintenance techs do not like recognition however a "handshake and a thank you is all they want or need"**

The Work Itself –Technicians take pride when they can see the results of their work

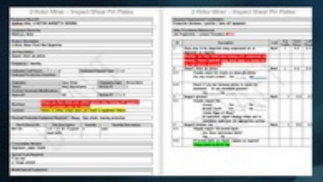
Attributes of Proactive Maintenance Technician

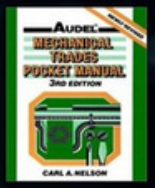
- Ensures all Maintenance Work is executed “to specifications”
- Perform Preventive Maintenance as a “Controlled Experiment”
- They always seek to advance their “technical knowledge” through onsite, offsite, and vendor training
- If a “patch” is required on a rushed or emergency job they always write corrective maintenance work order so the equipment “can be restored to specifications at a later date”
- Arrives at work “100% on time”
- If they observe equipment not performing to specifications or an operator having problems, they “notify their supervisor of the problem immediately”

What Motivates Maintenance Technicians?

7 HABITS OF A HIGHLY EFFECTIVE MAINTENANCE TECHNICIAN

1. Begins each day with the attitude, "I am a Professional and my focus is always to do the best I can no matter the challenges I face today"
2. Seeks knowledge to grow their ability to be the best they can be through:
   - Online Webinars (ie. SMRP Webinars, CMRT Certification, Vendor Technical Webinars, etc.)
   - Books (Audel Mechanical Trades Pocket Manual, Industrial Machinery Repair, etc.)
   - Parts Vendor Documents and Toolbox Talks
3. Performs all "Proactive Maintenance activities Utilizing "Repeatable Procedures" to minimize "human induced failures"





4. Has a Positive Attitude not matter how difficult others may try to affect a tech's attitude
5. If a "patch" is required on a rushed or emergency job they always write a corrective maintenance work order so the equipment "can be restored to specifications at a later date"
6. If they observe equipment not performing to specifications or an operator having problems, they "notify their supervisor of the problem immediately"
7. Performs Preventive Maintenance as a "Controlled Experiment"

www.worldclassmaintenance.org

UpKeep

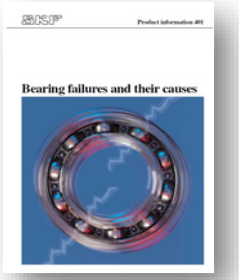
WORLD CLASS MAINTENANCE

GIVING BACK TO MOVE MAINTENANCE FORWARD
TMCC
THE MAINTENANCE COMMUNITY COALITION
upkeep.org

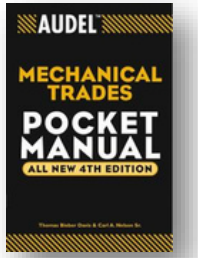
Steps to Increase Motivation of Your Maintenance Technicians

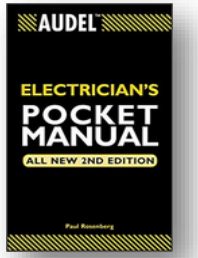
Step 1: Once a Year, Ask your technicians to answer a survey and offer everyone who completes the survey their name will be put into a bucket and the Maintenance Manager pulls the 2 names. These two individuals will be given dinner for 2 at a restaurant of their choice.

Step 2: Bring in a salesman or a maintenance trainer once a week to educate the team on specific topics. Example:



Step 3: Purchase a specific book which provide information to assist your maintenance technician to advance their knowledge and skills.



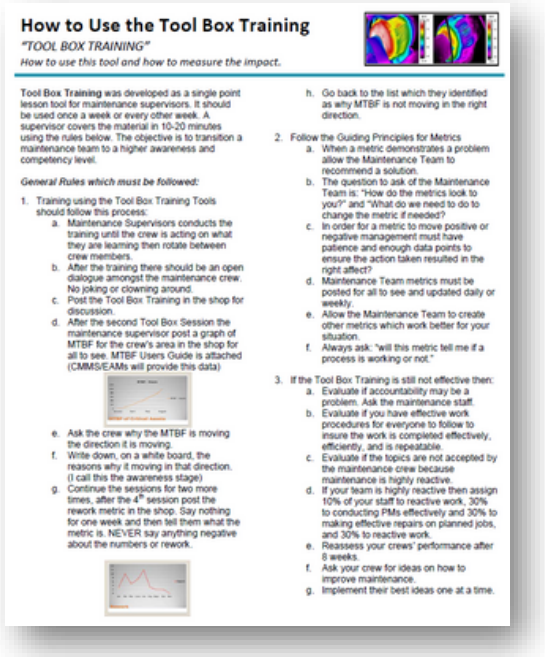


Steps Required to Increase Motivation of Your Maintenance Technicians (cont.)

Step 4: Design a simple/quick win training program which is taught by one Maintenance Technician a week, this technician is given 4 hours of overtime or straight time to prepare for the training with focus on something simple.

Example:

Tool-Box Talks



How to Use the Tool Box Training

"TOOL BOX TRAINING"

How to use this tool and how to measure the impact.

Tool Box Training was developed as a single point lesson tool for maintenance supervisors. It should be used once a week or every other week. A supervisor covers the material in 10-20 minutes using the rules below. The objective is to transition a maintenance team to a higher awareness and competency level.

General Rules which must be followed:

1. Training using the Tool Box Training Tools should follow this process:
   a. Maintenance Supervisors conducts the training until the crew is acting on what they are learning then rotate between crew members.
   b. After the training there should be an open dialogue amongst the maintenance crew. No joking or clowning around.
   c. Post the Tool Box Training in the shop for discussion.
   d. After the second Tool Box Session the maintenance supervisor post a graph of MTBF for the crew's area in the shop for all to see. MTBF Users Guide is attached (CMMS/EAMs will provide this data)
   e. Ask the crew why the MTBF is moving the direction it is moving.
   f. Write down, on a white board, the reasons why it moving in that direction. (I call this the awareness stage)
   g. Continue the sessions for two more times, after the 4th session post the rework metric in the shop. Say nothing for one week and then tell them what the metric is. NEVER say anything negative about the numbers or rework.
   h. Go back to the list which they identified as why MTBF is not moving in the right direction.
2. Follow the Guiding Principles for Metrics
   a. When a metric demonstrates a problem allow the Maintenance Team to recommend a solution.
   b. The question to ask of the Maintenance Team is: "How do the metrics look to you?" and "What do we need to do to change the metric if needed?
   c. In order for a metric to move positive or negative management must have patience and enough data points to ensure the action taken resulted in the right affect?
   d. Maintenance Team metrics must be posted for all to see and updated daily or weekly.
   e. Allow the Maintenance Team to create other metrics which work better for your situation.
   f. Always ask: "will this metric tell me if a process is working or not."
3. If the Tool Box Training is still not effective then:
   a. Evaluate if accountability may be a problem. Ask the maintenance staff.
   b. Evaluate if you have effective work procedures for everyone to follow to insure the work is completed effectively, efficiently, and is repeatable.
   c. Evaluate if the topics are not accepted by the maintenance crew because maintenance is highly reactive.
   d. If your team is highly reactive then assign 10% of your staff to reactive work, 30% to conducting PMs effectively and 30% to making effective repairs on planned jobs, and 30% to reactive work.
   e. Reassess your crews' performance after 8 weeks.
   f. Ask your crew for ideas on how to improve maintenance.
   g. Implement their best ideas one at a time.

TheTool-Box Training was developed as a single point lesson tool for maintenance supervisors withultimate goal for technicians to provide this training. It should be used once a week or every other week.

A supervisor covers the material in 10-20 minutes using the rules below.
The objective is to transition a maintenance team to a higher awareness and competency level.

General Rules which must be followed:

1. Training using the Tool-Box Training Tools should follow this process: a. Maintenance Supervisors conducts the training until the crew takesresponsibility on what they are learning then rotate between crew members.
2. After the training there should be an open dialogue amongst the maintenance crew. No joking or clowning around.
3. Post the Tool-Box Training in the shop for discussion
4. After the second Tool-Box Session the maintenance supervisor post a graph ofrework for the crew's area of responsibilities in the shop for all to see. (CMMS/EAMs will provide this data)
5. Write down, on a white board, the reasons whether Rework is moving in that direction. (I call this the awareness stage)
6. Ask the crew whatwas the Root Cause of a recent failure
7. Continue the sessions for fourmore times, after the 4th session post the rework metric in the shop. Say nothing for one week and then tell them what the metric is. NEVER say anything negative about the numbers or rework. (the numbers are the numbers)

Steps Required to Increase Motivation of Your Maintenance Technicians (cont.)

Step 5: Offer formal Training –Example: Best Maintenance Technician Practices

Step 6: Offer technicians to take the CMRT Exam (Certified Maintenance and Reliability Technician Exam)

SMRP | CMRT
Certified Maintenance & Reliability Technician

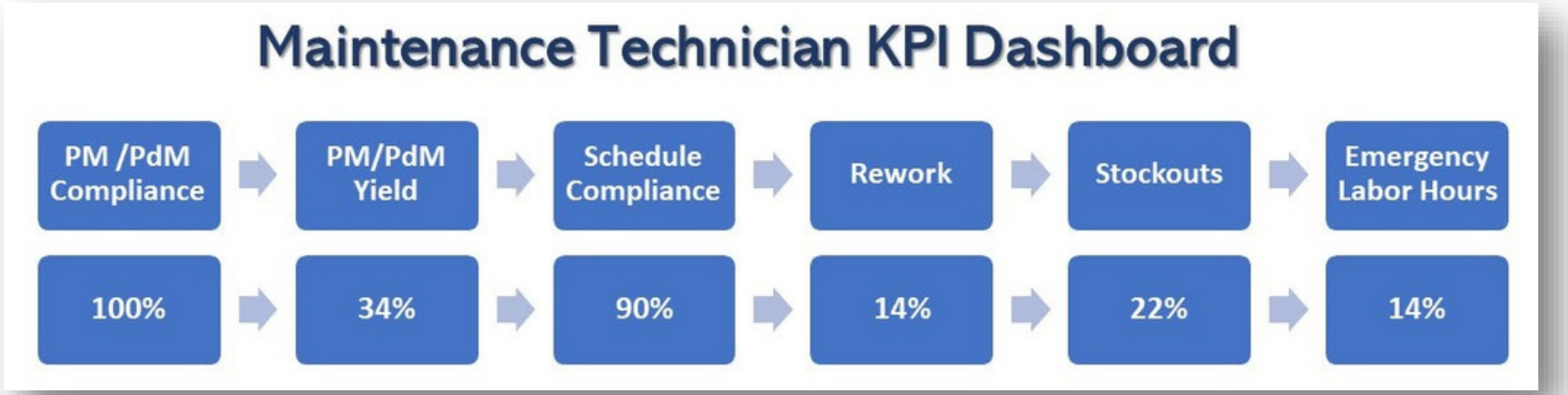
UpKeep

WORLD CLASS MAINTENANCE

TMCC
upkeep.org

Steps Required to Increase Motivation of Your Maintenance Technicians (cont.)

Step 7: Post a Scoreboard so everyone knows their score in the game.

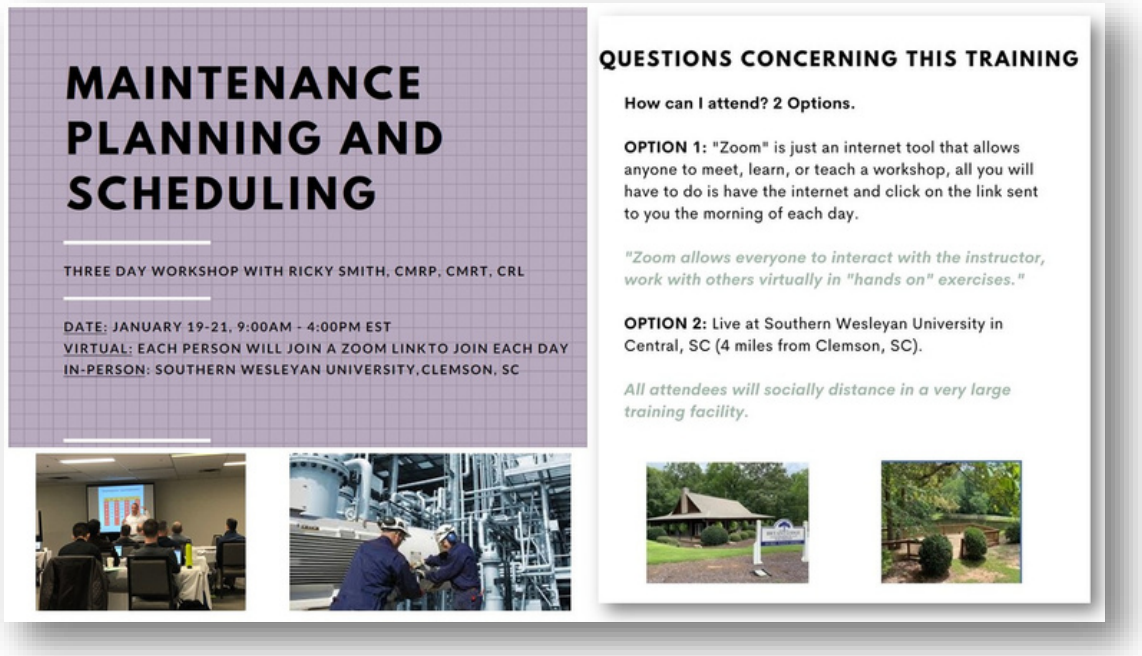


Step 8: Reward Success using simple things

Example: Maintenance Manager challenges the Maintenance Staff to reduce Breaks to the Maintenance Schedule is reduced by “x” percent, and ask if they agree this is achievable

Questions

My email rsmith@worldclassmaintenance.org
My website: www.worldclassmaintenance.org

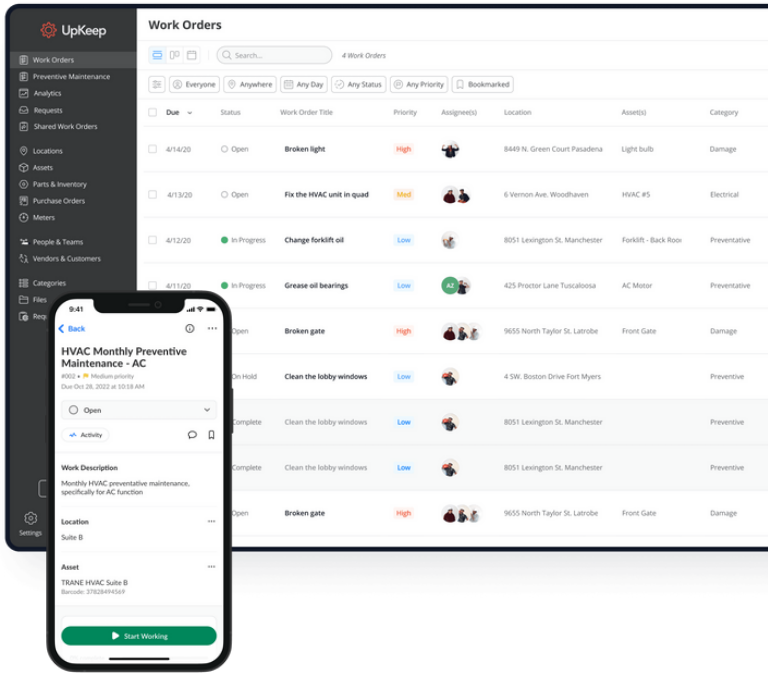


Join me for Maintenance Planning and Scheduling –January 19-21

#1 Software for Maintenance & Reliability Teams

UpKeep is a service-first company that builds software designed to make maintenance easier for technicians and managers everywhere. Reduce downtime up to 18% by switching over to a preventative maintenance solution!

www.upkeep.com



Our Products

UpKeep

Mobile-first maintenance management and collaboration across all location, assets, and teams

"With nearly 340 different machines in our work environment, it's an impossible task to manually assign and track PM's. With UpKeep we can schedule regular maintenance without overlapping tasks with other critical jobs."

★★★★★ **Paul D, Health and Safety Coordinator**

edge by UpKeep

An end-to-end solution for remote condition-based monitoring

Connected and secure IoT sensors for real-time remote condition asset monitoring

DATAHUB UpKeep

Integrated & Centralized Data Ecosystem for World Class Asset Operations

The only purpose built Asset Data Platform. Asset Focused ELT Solution for advanced analytics and integrated, real-time asset data.

TMCC THE MAINTENANCE COMMUNITY COALITION

The Maintenance Community Coalition was founded on the belief that working together will benefit everyone within our community

Committed to helping each other thrive in our individual professional journeys by sharing resources and expertise, granting scholarships, hosting events, and unlocking knowledge – always at no cost.