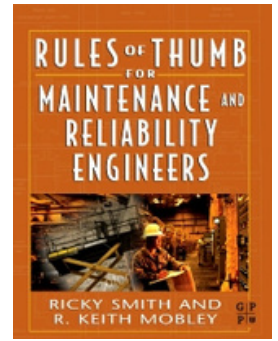


MAINTENANCE UTILIZATION SURVEY CHECKLIST

BY: **RICKY SMITH,
CMRP, CMRT, CRL**





Maintenance Utilization Survey Checklist

by Ricky Smith CMRP, CMRT

How organizations utilize the time of their maintenance personnel.

This survey is conducted by Maintenance Personnel as they go about their day. Do not use with other personnel such as consultants or management. Remember, the problem with low personnel utilization in maintenance is a poor planning function and a poor scheduling function.

Give this sheet to 25% of your maintenance staff to complete each day for a week. Shift to another 25% the following week, and so on, until all maintenance personnel have identified the items that cause delays in their day.

After you have compiled your data, divide the number of hours worked into the number of hours "with a wrench in a maintenance person's hand".

5-7 days required for each maintenance person

Maintenance Person # _____ (no name or clock number)

Date: _____

Number of minutes identified in each of the following areas per day: (check a block for the amount of minutes for each time a specific delay occurs)

1. Late Start

(Indirect Time)

[Definition of delay]

5 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

10 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

15 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

20 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

30 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Total:

2. Receiving Instructions

() Indirect Time

[Definition of delay]

5 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

10 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

15 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

20 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

30 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Total:

3. Waiting for Permit

(Indirect Time)

[Definition of delay]

5 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

10 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

15 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

20 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

30 Minutes

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Total:

**4. Waiting for Others
(Indirect Time)**

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

**5. Breaks and Lunch
(Indirect Time)**

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

6. Waiting on Operations or Production
(Indirect Time)

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

7. Obtaining Parts and Tools
(Indirect Time)

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

**8. Waiting on Instructions
(Indirect Time)**

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

**9. Idle Time at Job Site
(Indirect Time)**

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

**10. Coordination Delays
(Indirect Time)**

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

**11. Active Repair Time
(Direct Time)**

[Definition of delay]

5 Minutes
10 Minutes
15 Minutes
20 Minutes
30 Minutes
30 Plus

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total:

Maintenance Utilization Survey Checklist

Total Indirect Time = _____

Total Direct Time = _____

Total % Indirect Time

$$\frac{\text{_____}}{\text{(Total Indirect Time)}} \div \frac{\text{_____}}{\text{(Total Hours)}} = \text{_____}$$

Total % Direct Time

$$\frac{\text{_____}}{\text{(Total Direct Time)}} \div \frac{\text{_____}}{\text{(Total Hours)}} = \text{_____}$$


Date: _____

Supervisor Signature: _____

Supervisor Printed Name: _____

Think about this, "If your wrench-time does not meeting expectations then Maintenance Planning and Scheduling is not effective, if your current wrench-time is at 10-20% and you apply "FORMAL PLANNING AND SCHEDULING" your wrench-time could increase 20-50%.


What is Wrench-Time and how it Impacts Planning and Scheduling



- Wrench-Time (hands on tool time)
 - Typical Wrench-Time: 5 to 15%
 - World Class Wrench-Time: 55-65%
- Maintenance Cost as a % of Replacement of Asset Value is optimized
 - Worst in Class: 6 - 9%
 - World Class: 1.7 - 3.4%

Founder of "Maintenance Planning and Scheduling" was John Day PE, Engineering/Maintenance Manager at Alumax Mt Holly
(purchased by Alcoa Mt. Holly in 2014 and spread this process world wide)

	Mt. Holly	Typical
Planned/scheduled	91.5%	30-50%
Breakdowns	1.8%	15-20%
Overtime	0.9%	10-25%
Inventory level	½ normal	Normal
Call-in	1/month	Routine
Off-shift work	5 people	Full crew
Backlog	5.5 weeks	Unknown
Budget performance	Varies, 1-3%	Highly variable
Capital replacement	Low	High
Stock outs	Minor	Routine



John Day created Maintenance Planning and Scheduling to: "Minimize Human Induced Failure", "Increase Hands on Tool Time (Wrench-Time)", and to "ensure the right work was performed at the right time to specifications"
"World Class Wrench-Time is 55-65%, Typical Wrench-Time is 15-30%"

If you are interested in Planning and Scheduling Training go to: <https://worldclassmaintenance.org/>

#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

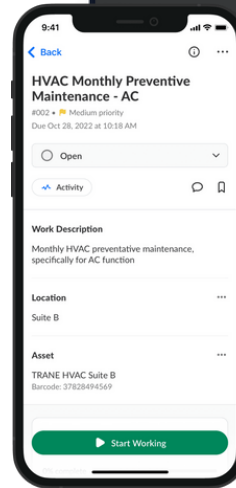
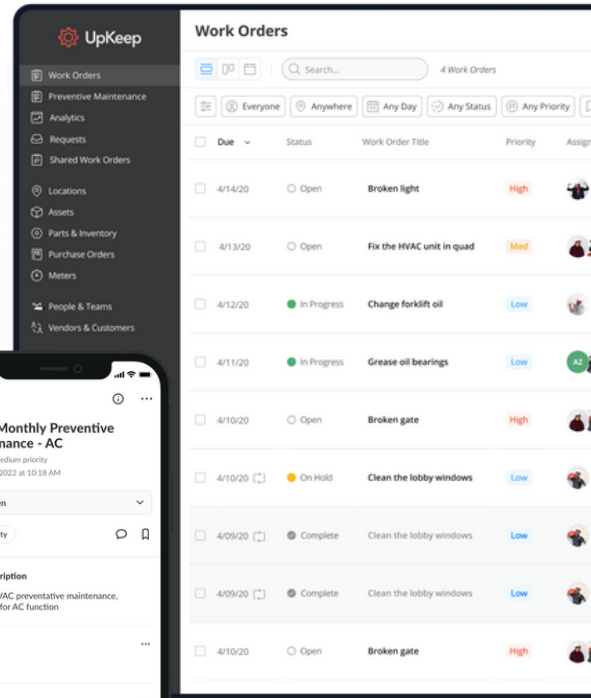
Our Products



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



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

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



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.

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.

