

PREDICTIVE MAINTENANCE

USER GUIDE

VERSION 1.02



Document History

Date	Version	Summary of Changes
March 10, 2026	1.02	Reviewed and updated the entire document.
July 23, 2024	1.01	Updated the Maintenance Dashboard section. Updated the Jobs Panel section.
May 21, 2024	1.0	Initial Release.

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1 Product Overview

Smartrise's Predictive Maintenance web app optimizes elevator maintenance operations, reducing downtime, extending equipment life, and improving service reliability through predictive analytics.

The web app's functionality includes notifying users, through alerts, in the event of a faulty part on a job. Alerts are sent either via email or SMS, according to the user's preference. With Predictive Maintenance, users have the ability to create and view maintenance logs to monitor resolved alerts. The web app also showcases the list of faults and alarms along with their corresponding solutions.

Predictive Maintenance core features:

- ◆ **User Access Control** - Secure access for authorized personnel.
- ◆ **Profile Management** - Customizable alert preferences.
- ◆ **Maintenance Dashboard**- Overview of active jobs and alerts.
- ◆ **Jobs Panel** - Manage and track maintenance jobs.
- ◆ **Faults and Alarms Panels** - Detailed fault and alarm information.
- ◆ **Alert Rules and Notifications** - Define and customize alert rules and notifications.
- ◆ **Maintenance Logs** - Record maintenance activities for transparency and analysis.

2 Access

2.1 Registration

Users will be provided with a link to an Invitation Form. Once a password is set, users will gain access to Smartrise's Predictive Maintenance web app. (See Figure 1 and Figure 2).

Predictive Maintenance

[\(469\) 678-8000](tel:(469)678-8000)
IT@smartrise.us



Hello tarek,

You are invited to Smartrise's Predictive Maintenance Please verify that tarek@beytek.co is your e-mail address by clicking on the following link: [VERIFICATION LINK](#)

If you are not able to click the link above, please copy and paste the following URL to your internet browser:

<https://go.smartrise.us/auth/confirm?userid=5367babe-2fe0-4cdd-85bd-533901ea0864&token=CfDJ8AABFIsZ9rFLqLz79t7kJFQhvEBgbDVWGi8p2Lp8r8QWWnwtLGCqQTUIPRduUYJX2iPLY5sTEFz4QtFMF%2f6fLCExpTze65TQnOagxteP5sysCBgMOWb1nUq32YNhx51RfNrKH4%2b49CjnbAJnpNpsFr1SYPFt6jZPGnf%2bwiTr6e%2fZ%2b8t9t%2bNayAwABo4NeFoeniXF8PJr2irxmBud%2f84gNJD6M9CywMwrHZFn3kZjCDUf%2bVY2g0eV2%2bLeMPDzZPfwGg%3d%3d&email=tarek%40beytek.co&fname=tarek&lname=haydar>

Contact Us

(469) 678-8000
1235 N. Union Bower Rd.
Irving, TX 75061.



Figure 1: Verification Email

Figure 2: Invitation Form

The customer admin has the option to invite other users within their organization to access the Predictive Maintenance web app by providing the invitee’s details (see Figure 3).

Figure 3: User Details

2.2 Login

Only users who have completed the registration process are able to log in to the portal (see Section 2.1 Registration).



Figure 4: Login

3 Profile

Users can edit their Personal Information and configure their Alert Notification Preferences from the Profile page. They can also add an email address and select the reports they want to receive.

Personal Information

Users can update the following details:

- First Name
- Last Name
- Time Zone

Notifications by Email

Users can enable email notifications for the following reports:

- Triggered Alerts Report
- Snoozed Parts Report
- Monthly Summary Report
- Maintenance Log Report

Users must also specify the email address where these notifications will be sent.

Notifications by SMS

Users can enable SMS notifications for the following reports:

- Triggered Alerts Report
- Snoozed Parts Report

To receive SMS notifications, users must enter a valid phone number.

Personal Info

First Name

Last Name

Email

Time Zone

Notifications By Email

- Triggered Alerts Report
- Snoozed Parts Report
- Monthly Summary Report
- Maintenance Log Report

Email

Notifications By SMS

- Triggered Alerts Report
- Snoozed Parts Report

Phone Number

Figure 5: Profile

4 Customer Rules

The table below lists the actions that can be performed on the Predictive Maintenance web app and the type of customer authorized to perform them.

Table 1: Customer Rules

	Customer Admin	Customer User
View Faults	Y	Y
View Alarms	Y	Y
Manager Users	Y	N
View Notification Rules	Y	Y
Manage Notification Rules	Y	Y
View Alert Rules	Y	Y
View Alerts	Y	Y
View Maintenance Logs	Y	Y
Manage Maintenance Logs	Y	Y
View Jobs	Y	Y
Manage Job Group & Cars	Y	N
Manage Job Rule Alerts	Y	N
View Reports	Y	Y

5 Maintenance Dashboard

The Maintenance Dashboard displays the following:

- ◆ **Jobs:** Total number of jobs.
- ◆ **Jobs At Faults:** Total number of jobs with the status “At Fault”.
- ◆ **Jobs Requiring Attention:** Total number of jobs with the status "Requires Attention”.
- ◆ **Alerts:** Total number of alerts.
- ◆ **Critical Alerts:** Total number of alerts with a severity level of “Critical”.
- ◆ **High Alerts:** Total number of alerts with a severity level of “High”.
- ◆  : Newly added items in the last 24 hours.
- ◆ **Critical and Requiring Attention Jobs:** The last updated jobs with the status “At Fault” or “Requires Attention” along with the job’s information and corresponding parts.
- ◆ **Job Location:** A map displaying the geolocation of jobs in the US and Canada.

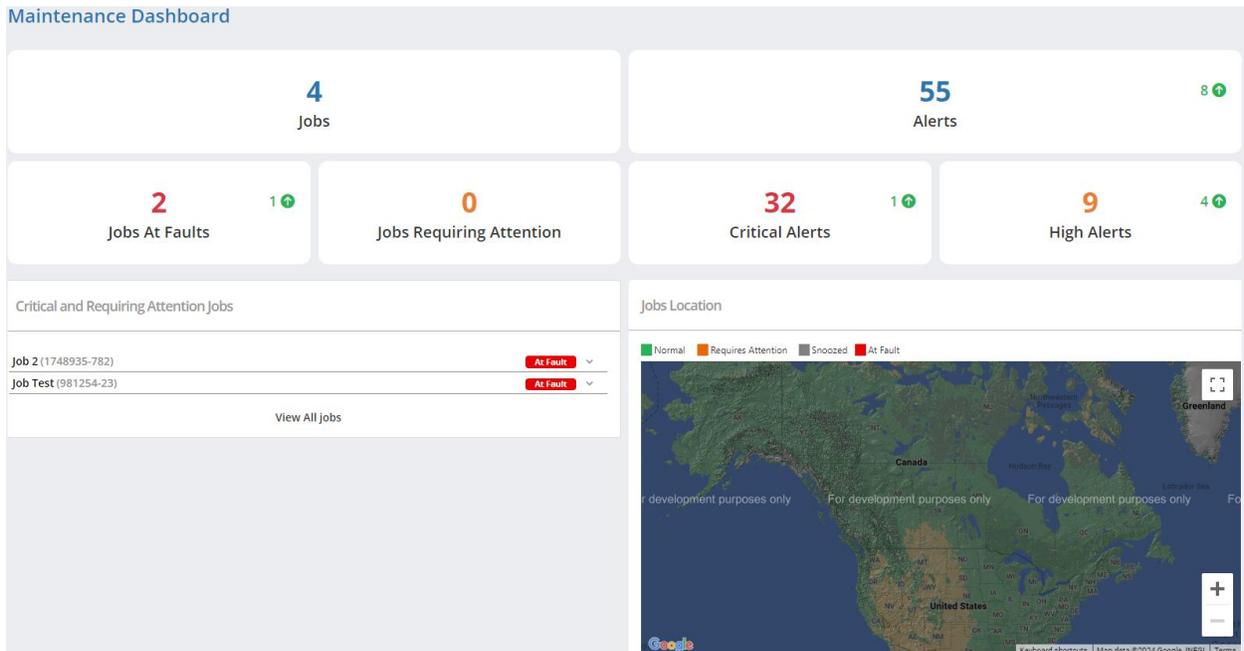


Figure 6: Maintenance Dashboard

6 Jobs Panel

The following details the items displayed on the Jobs Panel:

- ◆ **Jobs:** Total number of jobs.
- ◆ **Jobs At Faults:** Total number of jobs with the status “At Fault”.
- ◆ **Jobs Requiring Attention:** Total number of jobs with the status "Requires Attention".
- ◆ **Parts:** Total number of parts in all jobs.
- ◆ **Parts At Faults:** Total number of parts with the status “At Fault”.
- ◆ **Parts Requiring Attention:** Total number of parts with the status "Requires Attention".
- ◆  : Newly added items in the last 24 hours.

The following explains the different types of job statuses:

- ◆ **Normal:** No alerts linked to the part; the part is in good condition.
- ◆ **At Fault:** Unfixed critical alert(s) on the part.
- ◆ **Requires Attention:** Unfixed low, medium or high alert(s) on the part.
- ◆ **Snoozed:** Snoozed parts; mechanic will check on it later.

The job state indicates the data connectivity status between the groups and PM:

- ◆ **Online (green):** All groups are sending data to PM.
- ◆ **Partially Online (yellow):** Some groups are sending data to PM while others are not.
- ◆ **Offline (red):** No groups are sending data to PM.

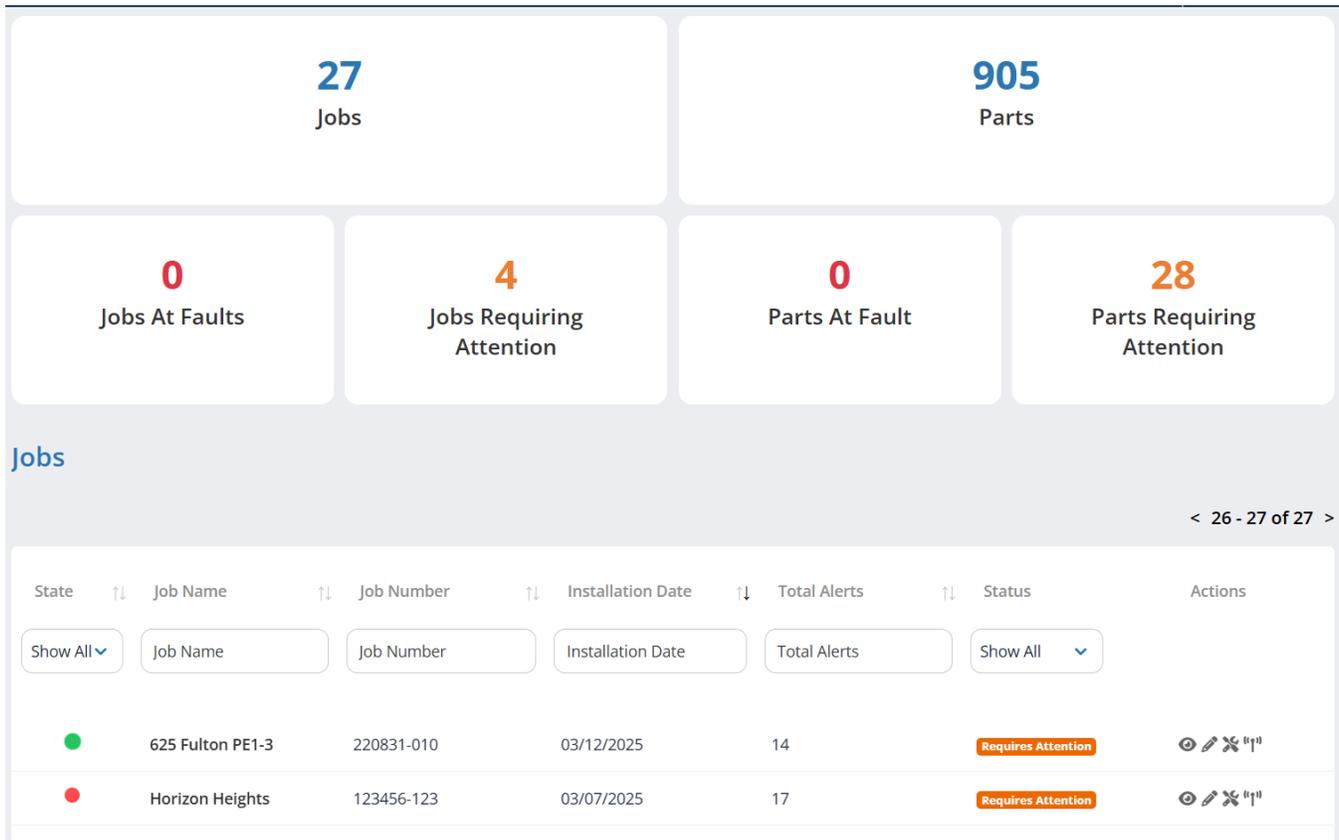


Figure 7: Jobs Panel

The table below outlines the descriptions of actions on the Jobs panel.

Table 2: Actions on the Jobs Panel

Button	Description
👁️	Allows the user to display the job's details (see Figure 8)
✎️	Allows the user to edit the job's data
✂️	Allows user to create a new maintenance log (see Figure 14)
📊	Allows user to display the Metrics Dashboard

The following details the items displayed on the Job Detail page:

- ◆ **Job Info Section:** Displays the job's basic information.
- ◆ **Groups Section:** Displays all the groups and cars that belong to the job.
- ◆ **Parts Tab:** Displays all the parts on all cars with their statuses:
 - **Normal:** The part still in a good condition or has been replaced.
 - **At Fault:** Unfixed critical alert linked to the part.
 - **Requires Attention:** Unfixed low, medium or high alert linked to the part.
 - **Snoozed:** Snoozed parts on the job
- ◆ **Alerts Rules Section:** Displays all alert rules that have been created and linked to the job.

- ◆ **Alerts:** Displays all alerts that have been triggered.

SMARTRISE TEST DATA. Tarek Haydar

Jobs / New Look and Feel

View Metrics Dashboard Create Maintenance Log Edit Report

Job Info Parts Alerts

Requires Attention

Job Name: New Look and Feel
 Job Number: 251218-001
 Job Location: United States, Alabama, city
 Installation Date: 12/18/2025

Job Config

Group 1 **Offline**

Group Name: Group 1
 Group Identifier: d8496431-b644-4967-ba35-0d582016047f

Car 1
 View
 Car Name: Car 1
 Number Of Floors: 10
 Rope Age (years): 0
 Controller Type: C4 Traction
 Parts To Be Monitored: 19R6S, 25R6S, ASSM.SUB,TAPE,T-PLATE, ASSY Battery Lowering, B Contactor, B2 Contactor, BPS, Brake, Breaker

Car 2
 View
 Car Name: Car 2
 Number Of Floors: 10
 Rope Age (years): 0
 Controller Type: C4 Traction
 Parts To Be Monitored: 19R6S, 25R6S, ASSM.SUB,TAPE,T-PLATE, ASSY Battery Lowering, B Contactor, B2 Contactor, BPS, Brake, Breaker

Facility Management: ABC Facility Management
 All users have access for this job

Consultant: ABC Consultant
 All users have access for this job

Contractor: ABC Contractor
 All users have access for this job

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Figure 8: Job Details

SMARTRISE
TH Tarek Haydar

Dashboard
Jobs
Maintenance Logs
Alerts
Administration
Customer Users
Reports

TEST DATA.

Jobs / New Look and Feel
View Metrics Dashboard
Create Maintenance Log
Edit
Report

Job Info
Parts
Alerts

< 1 - 25 of 141 >

Group	Car	Part	Part Type	Status
<input type="text" value="Group"/>	<input type="text" value="Car"/>	<input type="text" value="Part"/>	<input type="text" value="Part Type"/>	<input type="button" value="Show All"/>
Group 1	Car 1	19R65	Regen	Normal
Group 1	Car 1	25R65	Regen	Normal
Group 1	Car 1	ASSM,SUB,TAPE,T-PLATE	ASSM,SUB,TAPE,T-PLATE	Normal
Group 1	Car 1	ASSY Battery Lowering	ASSY Battery Lowering	Normal
Group 1	Car 1	B Contactor	Contactor	Requires Attention
Group 1	Car 1	B2 Contactor	Contactor	Normal
Group 1	Car 1	BPS	Brake	Normal
Group 1	Car 1	Brake	Brake	Normal
Group 1	Car 1	Breaker	Breaker	Normal
Group 1	Car 1	Cable	Cable	Normal
Group 1	Car 1	CDBR	CDBR	Normal
Group 1	Car 1	Choke	Choke	Normal
Group 1	Car 1	DBR	DBR	Normal
Group 1	Car 1	DC Quattro Enclosed	Drive	Normal
Group 1	Car 1	Disconnect	Disconnect	Normal
Group 1	Car 1	Door Locks	Door Locks	Normal
Group 1	Car 1	Door Operator	Door Operator	Normal
Group 1	Car 1	DSD 412	Drive	Normal
Group 1	Car 1	EBPS	Brake	Normal
Group 1	Car 1	Emi Filter	Emi Filter	Normal
Group 1	Car 1	Fuse	Fuse	Normal
Group 1	Car 1	Fuse Holder	Fuse Holder	Normal
Group 1	Car 1	Gate Switch	Switch	Normal
Group 1	Car 1	Harmonic Filter	Harmonic Filter	Normal
Group 1	Car 1	HPV 900 Axial Flux PM	Drive	Normal

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f in

Figure 9: Parts Tab

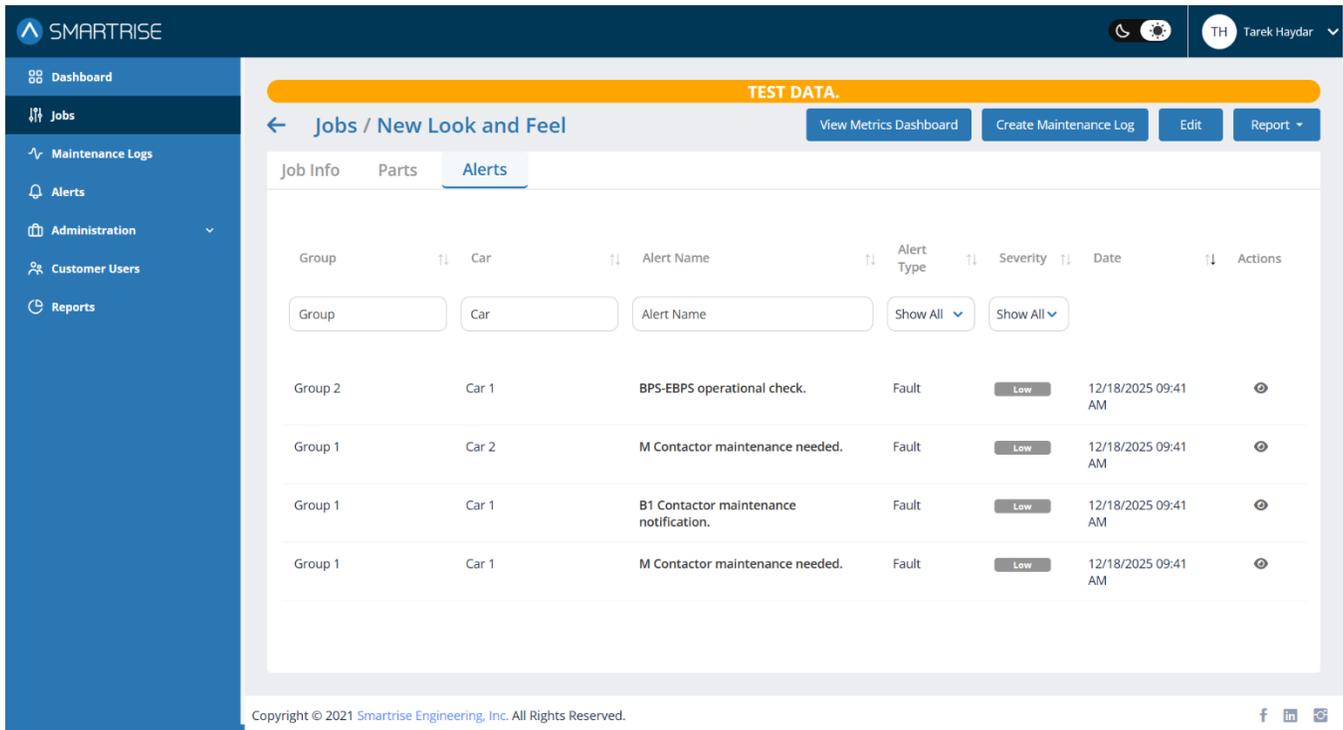


Figure 10: Alerts Tab

6.1 Metrics Dashboard

The **Metrics Dashboard** displays all data metrics received from the elevator system. Selecting a metric opens the history view with data for the **last 24 hours, 7 days, and 30 days**.

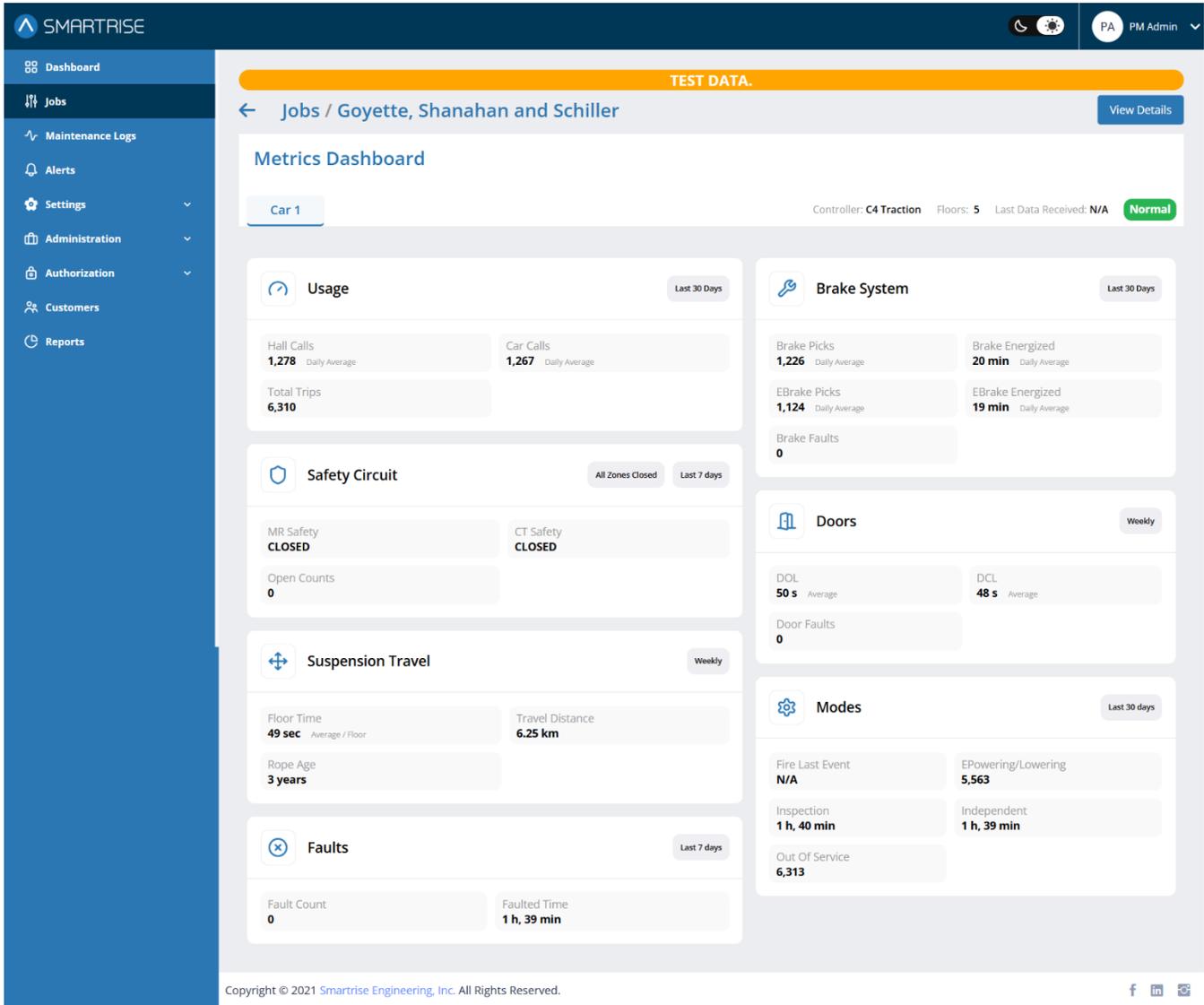


Figure 11: Metrics Dashboard



Figure 12: Hall Calls History Metrics

6.2 Create Maintenance Log

The Maintenance Log must be completed after a site visit and after performing the required actions on the faulty parts. Faulted parts are automatically loaded after selecting the visit date and time. Faulted parts can be replaced if damaged or snoozed if still in acceptable condition.

The system provides an option to send the maintenance log to the mechanic through SMS using the mechanic’s phone number. This feature allows the mechanic to complete the maintenance log without access to the portal.

To send the maintenance log to a mechanic:

1. Open the maintenance log.
2. Select Send to Mechanic.
3. Enter the mechanic’s phone number.

Figure 13: Create Maintenance Log

← Maintenance Logs / Edit

Maintenance Log Details - 260223-058 - Job Test 02023

Mechanic Name: Visit Date: 03/03/2026 03:32 PM Middle East Standard Time (MEST)

Faulted Parts

Group 1 / Car 1

M Contactor

M contactor AUX

Visit Summary

Figure 14: Edit Maintenance Log

7 Faults Panel

The Faults panel showcases all the pre-defined faults within the system.

Faults < 1 - 25 of 1099 >

Code	Name	Description	Solution	Actions
<input type="text" value="Code"/>	<input type="text" value="Name"/>	<input type="text" value="Description"/>	<input type="text" value="Solution"/>	
F0	No Fault	No faults active.	NA	
F1	Governor	Governor safety input is currently low.	Check wiring and safety contacts.	
F2	Governor (L)	Governor fault is latched.	Press the EBRK RST button to clear.	
F3	EB1 Drop	EB1 relay is currently dropped.	NA	

Figure 15: Faults Panel

The table below outlines the descriptions of actions on the Faults panel.

Table 3: Actions on the Faults Panel

Button	Description
	Allows the user to display the fault's details (see Figure 16)

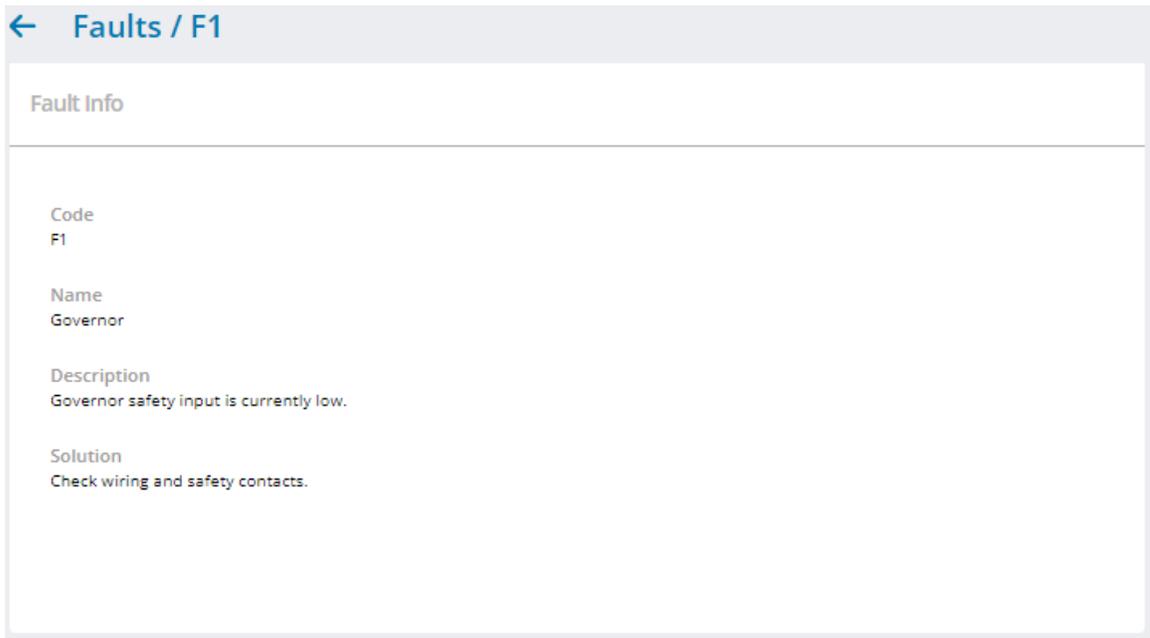


Figure 16: Fault Details

8 Alarms Panel

The Alarms panel showcases all the pre-defined alarms within the system.

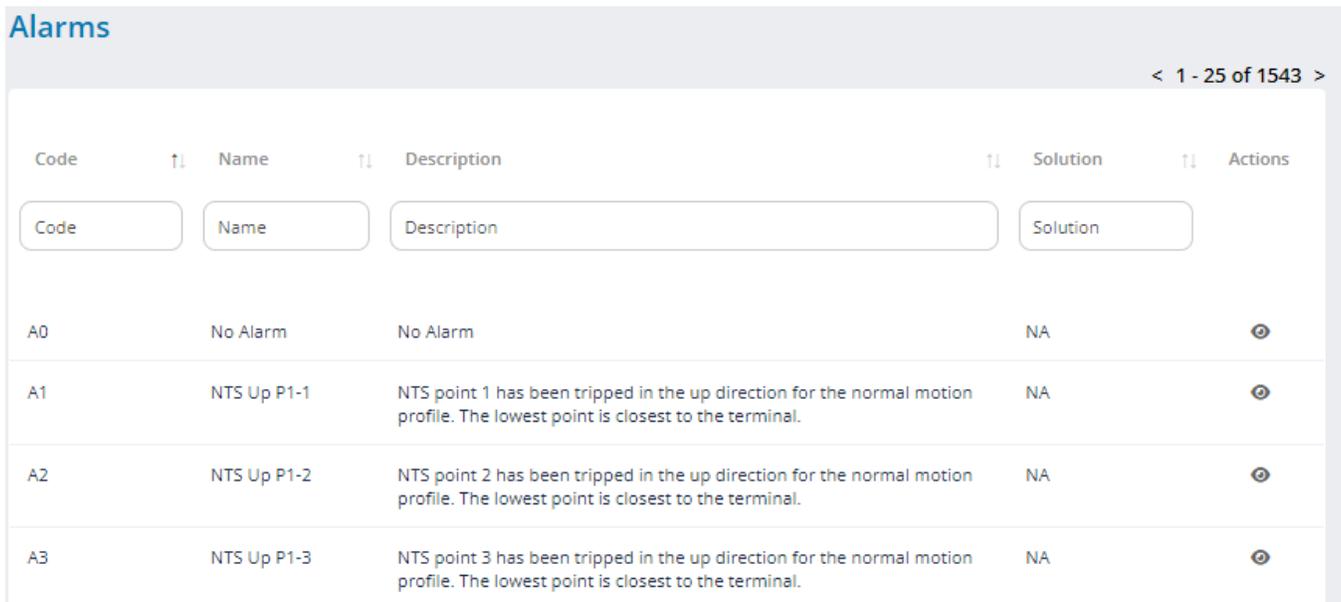


Figure 17: Alarms Panel

The table below outlines the descriptions of actions on the Alarms panel.

Table 4: Actions on the Alarms Panel

Button	Description
	Allows the user to display the alarm’s details (see Figure 18)

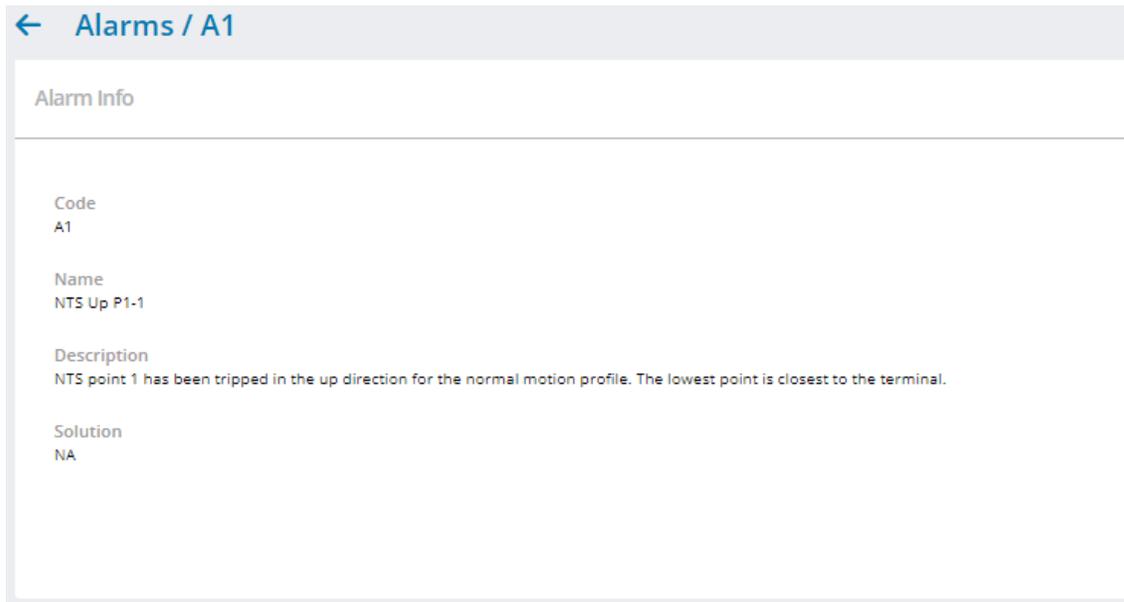


Figure 18: Alarm Details

9 Alert Rules

The Alert Rules panel displays all the alert rules defined within the system.

There are four types of Alert Rules:

- ◆ **Time-based:** The alert will signal the need to replace possible affected parts after a set period of time following installation or replacement.
- ◆ **Count-based:** The alert will signal the need to replace possible affected parts after a set number of car calls.
- ◆ **Fault-based:** The alert will signal the need to replace possible affected parts after a certain fault occurs.
- ◆ **Alarm-based:** The alert will signal the need to replace possible affected parts after a certain alarm occurs.

Alert Rules / BPS-EBPS

Alert Rule Details

Alert Name	BPS-EBPS	Severity	High
Description	Discrepancy between BPS input signal and software exp	Controller Type	C4 Traction, C4 Hydro
Action To Be Taken	Check input status changes when input changes.	Possible Affected Parts	Search Part Types...
Alert Type	Count, Fault, Time, Alarm		Door Locks X Door Operator X

Alarm

Value	Search Alarms...	Threshold	10
Duration (in days)	A1 X 7		

Fault

Value	Search Faults...	Threshold	10
Duration (in days)	F181 X F185 X F189 X F190 X F256 X F257 X 7		

Count Based Part

Counter	Car Calls	Threshold	30000
---------	-----------	-----------	-------

Time Based Part

Threshold (in years)	1
----------------------	---

Cancel Update

Figure 19: Alert Rules Details

10 Alerts

The Alert panel displays all alerts related to the jobs accessible to the customer user.

The alerts are created automatically by the system based on the fault or alarm occurring, and they are also created based on time and car call counts. (See Section 9 Alert Rules).

Name	Job Name	Job Number	Group	Car	Alert Type	Severity	Date	Actions
Romy R22	Roni1	230630-001	Group 3	Q8	Alarm	Critical	05/21/2024	
Romy R23	Roni1	230630-001	Group 3	Q5	Alarm	High	05/21/2024	
Romy R22	Roni1	230630-001	Group 3	Q5	Alarm	Critical	05/21/2024	
A24	MD-202405101221PM	MD-202405101221PM	Group 1	Car 1	Time Based Part	High	05/21/2024	

Figure 20: Alerts Panel

The table below outlines the descriptions of actions on the Alerts panel.

Table 5: Actions on the Alerts Panel

Button	Description
	Allows the user to display the alert’s details (see Figure 21)

Alert Info	
Alert Name Romy R22	Alert Date 05/21/2024
Alert Description N/A	Severity Critical
Job Name Roni1	Alert Type Alarm
Job Number 230630-001	Alarm Value A1539
Group Name Group 3	Threshold 1
Car Name Q8	Possible Affected Parts N/A

Figure 21: Alert Details

11 Notification Rules

The Notification Rules panel displays all notification rules related to all users associated to a specific customer. These users can edit each rule to their liking.

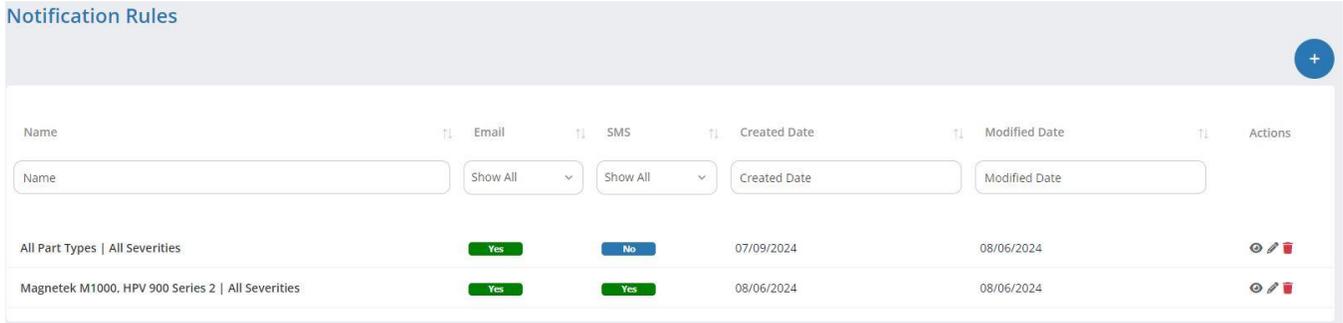


Figure 22: Notification Rules Panel

The table below outlines the descriptions of actions on the Notification Rules panel.

Table 6: Actions on the Notification Rules Panel

Button	Description
	Allows the user to create a new notification rule (see Figure 23)
	Allows the user to display the notification rule's details
	Allows the user to modify an existing notification rule (see Figure 24)
	Allows the user to delete a notification rule

When creating a new notification rule, the user has the option to select all parts or to specify several part types, to select all alert severity level or to specify multiple alert severity levels, and to choose one or both notification methods.

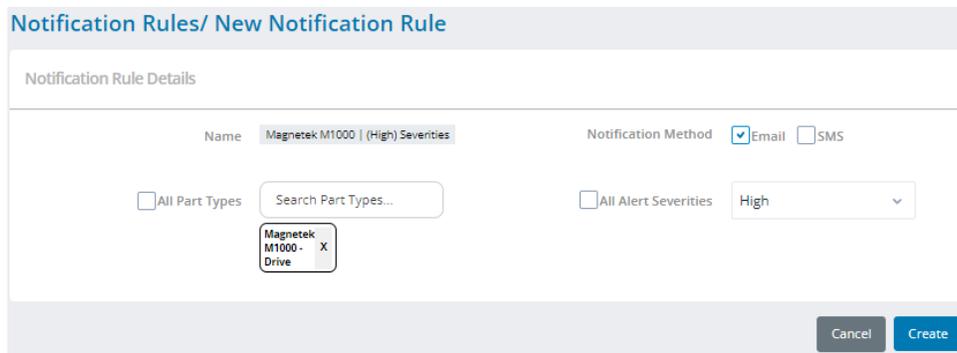


Figure 23: Creating Notification Rule

NOTE: the priority for users to receive their notifications will always be determined by what was selected under the Alert Notifications (see Section 4 Profile), not what was chosen under the Notification Rule. For instance, if user X selected to receive notifications exclusively via SMS under the Alert Notification, and user Y set a particular notification rule to be sent through both email and SMS, user X will receive the notification solely via SMS.

Notification Rules / Edit

Notification Rule Details

Name: Magnetek M1000, HPV 900 Series 2 | All Severities

Notification Method: Email SMS

All Part types Search Part Types...

All Alert Severities

Magnetek M1000-Drive X HPV 900 Series 2-Drive X

Cancel Update

Figure 24: Modify Existing Notification Rule

12 Maintenance Logs

The Maintenance Logs panel displays all maintenance logs related to the jobs. The purpose of this feature is to maintain a record of the alerts that have been addressed. In the Maintenance Log, the user input the faulted part, the date of the site visit, and the action taken.

Maintenance Logs

Job Name	Job Number	Technician Name	Visit Summary	Visit Date	Actions
<input type="text" value="Job Name"/>	<input type="text" value="Job Number"/>	<input type="text" value="Technician Name"/>	<input type="text" value="Visit Summary"/>	<input type="text" value="Visit Date"/>	
Job A	987562-415	Joseph	Test	05/11/2024	
Job A	987562-415	Josef	Check out	05/08/2024	
Job A	987562-415	Joseph	Test	04/23/2024	
Job A	987562-415	MLG	will visit later	04/17/2024	
Job A	987562-415	Joseph test	Replace Part test	04/17/2024	

Figure 25: Maintenance Logs Panel

The table below outlines the descriptions of actions on the Maintenance Logs panel.

Table 7: Actions on the Maintenance Logs Panel

Button	Description
	Allows the user to view the maintenance log details (see Figure 26)
	Allows the user to edit the maintenance log

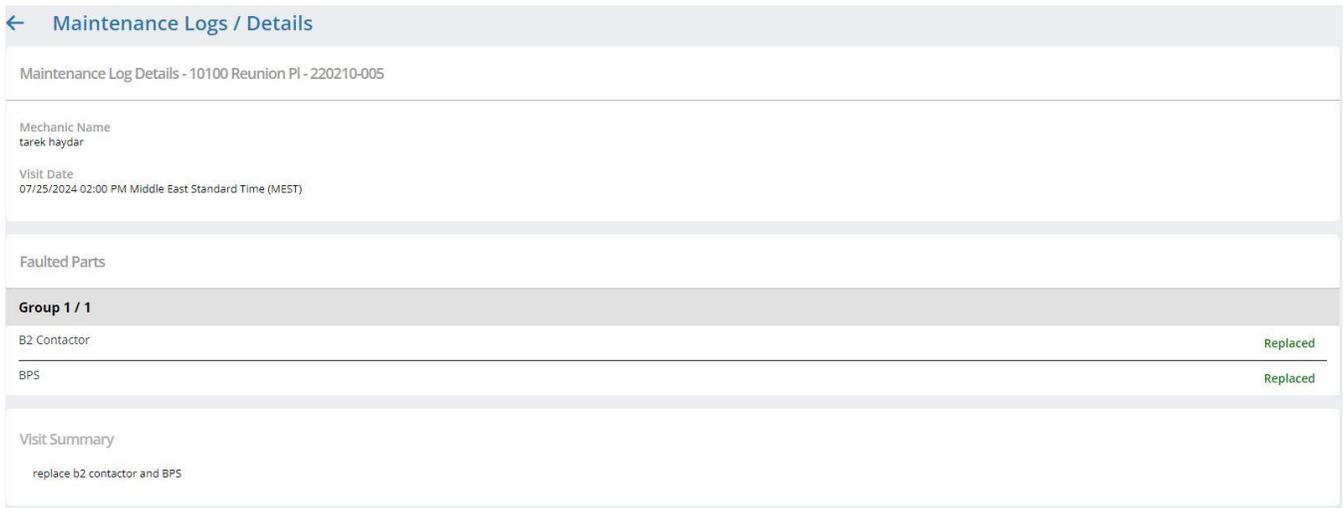


Figure 26: Maintenance Log Details

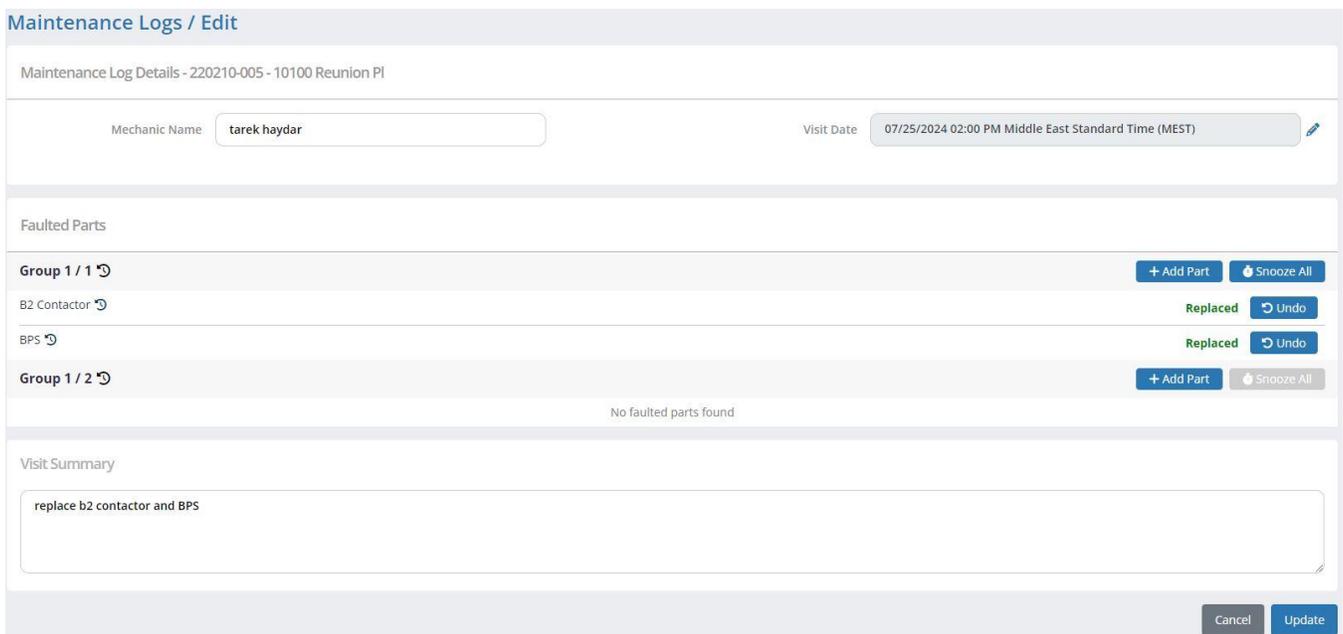


Figure 27: Edit Maintenance Log

13 Reports

The Reports page provides summarized data related to jobs and system alerts. The report presents key statistics and visualizations to help monitor job status and maintenance activity.

The Monthly Summary Report includes the following information:

- ◆ **Snapshot Date:** The date and time when the report data was generated.
- ◆ **Jobs Overview:** A visual chart showing the distribution of jobs by status.
 - Normal
 - At Fault

- Requires Attention
- Snoozed

◆ **Job Status Summary:** A numerical summary showing the total number of jobs in each status category.

◆ **Faults & Alerts Overview:** A summary of alerts generated within the reporting period.

Report data reflects activity during the 30-day period preceding the selected snapshot date.

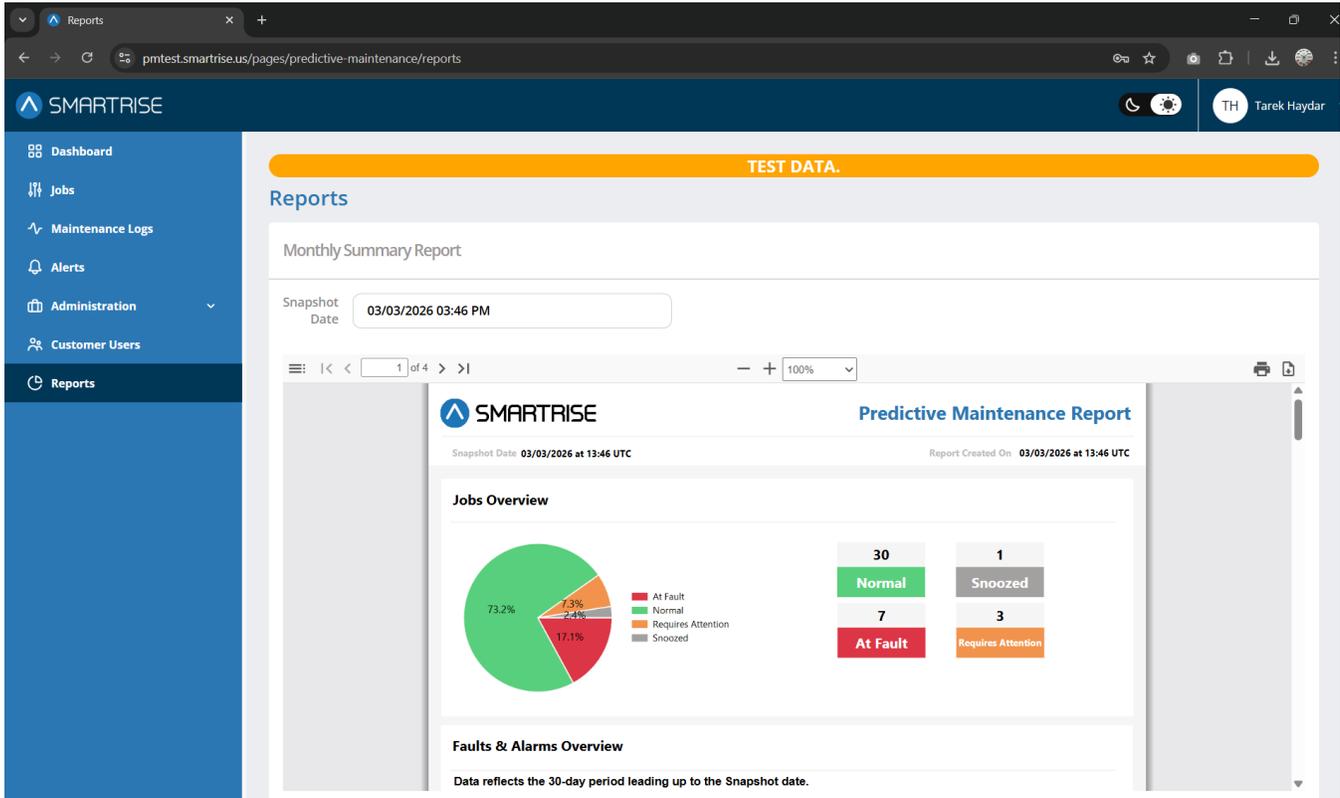


Figure 28: Reports