# FIRMSuite BATTERY MANAGEMENT

Led by the desire to offer you solutions always more efficient and adapted to your needs, we are pleased to announce the new generation of FIRMSuite Battery Management.

Below are the most significant improvements and newest features that may interest you.

## **BATTERY PREVENTIVE MAINTENANCE DASHBOARD**

STATE	JS MAINTENANCES								
Total:	58	LATE					IMMD	DIATE ACTION REI	QUIRED
	an	81 NEAR 22						WARNING 40	
	ни	ON TIME						INVENTORY UPDAT	re
								STANDBY	
								0	
• MAI	ITENANCES BY MONTH							0	
MAIN		Warning Inventory I	Jpdate Standby					U	Expo
		Warning Investory I	Jpdate Standby Powerplant Name	Owner	State	Status	Months Since Last Maintenance	0 Period Status	Expo Next Maintenance
	Immediate action required	,		Owner Search	State	Status			

#### **INTEGRATED DASHBOARD**

With FIRM Suite 5.3's new dashboard, get a real-time visualization of the number of overdue battery PMs (preventive maintenances), which sites are close to the end of a period, and which ones are completed for the entire network.

#### **HISTORICAL DATA DASHBOARD**

In just one click, access to the full historical readings of your batteries to monitor their performance levels and efficiency. Correlate other parameters to get the better overview of all of your batteries' lifespans.

#### **EXPORT DASHBOARD**

Quickly export the network preventive maintenance status or the historical readings in a lite .csv file.

## **BATTERY PREVENTIVE MAINTENANCE SCHEDULE**

## **DYNAMIC PERIOD**

Use the new dynamic period to never exceed the maximum battery PM interval schedule. The dynamic period starts on each individual site's battery PM date.

#### REMINDER

Set a reminder for each schedule period to ensure compliance with the required battery PM schedule.

## ASSIGN BATTERY PREVENTIVE MAINTENANCE PERIOD BY BATTERY MODEL

Set battery PM intervals by battery model to complete different PM procedures based on the battery type.

## **CHANGE PERIOD ASSIGNMENT**

It is possible to remove site of an active period.

	ADMINISTRATION				Q Search site	1 🗟	Signed in as Administrator Multitel
PERIOD INFOR	MATION						Save Cancel
Name *			Descriptio	n			
Period Type One-Time F Start Date * dd/mm/yyyy	had Dytamic		Duration *	Months	Reminder Months before pr	viol desire	
PERIOD ASSIG     Assign to *     Size	NMENT						Submit
Select All Der	Site Name	au	Category	Туре	Address	City	Province/State
м	Search	Search	Search	Search	Search	Search	Search
	Atlantic-ATUNNE01	ATLNNE01	Switching	HUT	800 N Columbia Ave	Seward	Nebraska (NE)
	Bultic-BLTONFGH	BLTCNFGH	Mobility	HUT	232 Elizabeth Ave	St. John's	Newfoundland and Labrador
	Bilby HE Tino Fernandee	BILBNS01	Switching	00	Biby Street	Halifax	Nova Scotia
	Boardwalk-BOWKBC01RM	BDWKBC01	Switching	00	2053 Main Mall.	Vancouver	British Columbia
	Carolina-NRCLMCOIRM	NRCLNCOI	Switching	00	1533 S Main St	Winstor-Salers	North Carolina (NC)
	Concerting, CANCERS	CANCETAS	Mobility	HUT	241 Glashmark Rd	Sheers	Connecticut (CT)

## **BATTERY PREVENTIVE MAINTENANCE FORM**

PP01 - I	LORAIN-100-100-8												
	Voltage (X)	DC Plant Load U	0	Temper	rature (F)								
92.5		315	75										
<b>B</b> 01 -	DDM85-21												
	Float Current (A)	Float Volkage (F	0 Ball	tery Terminal I	Connection (Ohms)	Rettery Continu	Pγ						
0.3		123.5	17			Yes No							
Tested Modify F	Ordine Official References Tes No	Grips Pao	ks Posts	interc	el Connector						Conduc	tance	Inc
		Grips Pio	ks Posts	interc	ell Connector			:0			_	tance	Imp
		Massfacturing Date	AS Posts	Interc	el Connector	Upinada Beadinge		0: 2	Vultage 85	Temp (f)	_		Imp
Modify F	References Yes No.					Upinade Readings	Posts by Call		Wittage (15 2.259	Temp (7) 75.8		wax by Gall	Imp
Modify F	References Yes No.	Manufacturing Date	Conductorer (Mixed	Ref.	s	Uplands Readings Intercell Resistance (obers)	Posts by Gall	s				wax by Gall	
Modify F	References Yes No.	Manufacturing Date 14/08/2015	Conductance (Mhee) 2221	Bel. 3800	5	Uyhanda Readinge Belatance (shear) 17.0	Posts by Orli Rot.	5 105	2.259	75.8		tura by Call C	
Modify F	References Yes No.	Manufacturing Bate 14/05/2015 14/05/2015	Conductance (Mileo) 2221 3404	Bat. 3800 2800	5 875 875	Uylands Readings Benefitance (chera) 17.8 18.2	Posts by Call Rot. 13	S BNS HTN	2.259	75.8		tura by Call C	Impe

## INDIVIDUALLY MANAGE DC POWER SYSTEM MAINTENANCE PROCEDURES

Track PM for each DC power system individually to accommodate large site with different field technician responsible for power plant PM.

#### UNPLANNED BATTERY PREVENTIVE MAINTENANCE

Unplanned maintenance button allows you to submit corrective or emergency PM requests without impacting the current battery PM schedule.

#### **NEW BATTERY MEASURE POINTS**

Get a better overview of your battery by registering battery float current, float voltage and battery terminal connection.

## **NEW CELL MEASURE POINTS**

Get a better prediction of your cell's lifespan by registering intercell resistance and cell temperature.

## **INVENTORY UPDATE**

## **TEMPORARY INVENTORY ADJUSTEMENTS**

To facilitate the data collection process and reduce truck rolls, allow your field technicians to do temporary inventory adjustments, which will become official assets upon managers approval. Field technicians can upload battery PM data even if the new inventory is not part of site's asset in the database.

	ASSET MANAGEMENT	Site Inventory : HOLLYWOOD CENTRAL OF	FICE ()GMT-07.00) Mountain Standard Time)	Q Search site	Administrator Multitel
8	Search in inventory	This battery was added by	Technician (2020-02-17)		Approve Reject
■ 公 Q	<ul> <li>▲ Lame PP01</li> <li>COD R01</li> <li>COD R02</li> <li>R03</li> <li>R03</li> <li>S01</li> </ul>	Model: TELECOM-SEE			PICTURE(0)
	<ul> <li># 802</li> <li># 803</li> <li># 585 190F PowerSafe 1</li> </ul>	Name *	Lifetime (yr)	Barcode	ATTACHMENT (0)
٩,	SBS 190F PowerSafe 2     SBS 190F PowerSafe 3     SBS 190F PowerSafe 4	Date in Service		Expected Replacement Date	NOTE (0)
111 123		Installation Da	te * Manufacturing Date	Projected date 2000-02-17	
		Project Numbe	r Serial Number	Status Select an Option	
		Warranty Leng	th (mo) Warranty End Date	Category VELA	
		State Replace at 10 yea	s 2020-02-17		

## **FLOOR PLAN VIEW**



## ADD BATTERIES ON YOUR FLOOR PLANS

Add your batteries on your floor plans to quickly identify which ones need to be replaced, based on your business rules and battery SOH, using a visual and color-coded 2D representations.

## **MESSAGE CENTER**

e California n Required Itilinois ance London nance Pacific	Site Name CLU 00395 00948 00925	Interpretation     Suttery - 1 squipment(sdde/strenous)     Ruttery failed one to be registed     PT02 - Gameric-4010C System	Interaction         Time           11922/000 B 1922 0 A MA         No         No	Actians  Notifications  Actians  Actians  Actions  Action	3oda 0
tion Type California a California o Required Elisiols London nance Pacific	003915 005648 009935	Battery - 1 equipment(added/temoved) Battery failed need to be replaced	10/02/2020 III:20:32 AM 13/02/2020 III:20:32 AM	kroentory Update Galfornia Battery - 1 equipment(added/removed	
a California n Required Elinois ance London nance Pacific	003915 005648 009935	Battery - 1 equipment(added/temoved) Battery failed need to be replaced	10/02/2020 III:20:32 AM 13/02/2020 III:20:32 AM	California Battery - 1 equipment(added/removed	
n Regulated Ellinois arroe London nance Pacific	005545 009935	Battery failed need to be replaced	13/02/2020 8.15.52 AM	ammediate Action Required	
ance London nance Pacific	009935				
nance Pacific		PP02 - Generic-40VDC System			
			11/02/2020 8:44:00 AM	Eattery falled need to be replaced	
		Misentered value	11/02/2020 8:16:27 AM		days a
e Oriental	09059R	Battery - 1 equipment(added/vemoved)	TI/02/2020 9:12:43 AM	London FP02 - Generic-48VDC System	
	First	Blending 1 to 5 of 23 minims Providues 1 2 3 4 6 Mont	Last	Warning Maintenance 5 Pacific PP01 -Alpha-7200-8	daya a
TRY 🕲				Warning Maintenanne 5 Oriental 1990 - Jegus-Pathlinder Albefe	daya a
				WestPark Place	daya a D
				Marvin	daya a Q
	iry ()	ier @	αν <b>Θ</b>	av @	Contradi um Lingue antidation tabas matter y spita matter / regionerations for the matter / regionerations for the matter / regionerations for the matter / regionerations for the

Message Center gives Network Operations and Network Engineering an opportunity to avoid major mistakes by creating clear teamwork communications.

## **BATTERY FAILED NOTIFICATIONS**

Get an instant notification when a battery fails.

#### **STATUS MAINTENANCE NOTIFICATIONS**

Get notified when battery PMs are not completed and close to exceeding your battery PM schedule.

## IMMEDIATE ACTION REQUIRED NOTIFICATIONS

Get notified when battery PMs require immediate attention.

## **APPROVAL NOTIFICATIONS**

Get notified on the battery PM performed and inventory updates require approval.

## **SPECIFICATION SHEET**

## LEGACY BATTERY MANAGEMENT VS 5.3

	FIRMSuite	FIRMSuite
	Legacy Battery Management	Battery Management 5.3
ASHBOARD		
aintenance progress chart	Х	Х
onductance/Impedance bar chart	X	
chievement maintenance by months		Х
aintenance overview list	Х	Х
ERIOD		
ne time period	Х	Х
xed period		Х
ynamic period		Х
eminder Notification		Х
RIORITIZATION		
onfiguration prioritization	Х	
location routines as per timespan selected	Х	
chedule algorithm run on approved maintenance	Х	
chedule algorithm run on last period	х	
location routines as per timespan selected	X X	

## LEGACY BATTERY MANAGEMENT VS 5.3

	FIRMSuite Legacy Battery Management	FIRMSuite
PREVENTIVE MAINTENANCE		Battery Management 5.3
Standby status	Х	Х
Note (immediate action required, publish note)	X	X
Reserve/Unreserve a maintenance	X	X
Share a maintenance	X	X
Export maintenance to PDF	X	^
Attachment accepted	.C60 and .CSV files .JPG, .GIF image filesTXT, .DOC or .XLS files.	CSV files .JPG, .GIF image files .TXT, .DOC or .XLS, .XLSM
Import file accepted	Advantage type .CSV file, Alber type .CSV file, Ultra type .CSV file, PowerSure type .CSV files, C60 files	Advantage type .CSV file, Alber type .CSV file and Ultra type .CSV file
Power Plant measure points	Dc Plant Voltage, Dc Plant Current, Temperature	Dc Plant Voltage, Dc Plant Current, Temperature
Battery measure points		Float Current, Float Voltage, Battery Terminal Connection, Battery conitnuity
Cell measure points	Conductance, Impedance, Voltage	Conductance, Impedance, Intercell Resistance, Voltage, Temperature
Discharge Test	Х	
Battery replacement form	Х	
Automatic maintenance approbation	Х	Х
HISTORY		
Maintenance actions history	Х	Х
View historical maintenance	Х	Х
Historical reading	X (only last maintenance values)	X (historical trend)
INVENTORY UPDATE		
Database inventory update	Х	
Temporary inventory update		Х
REPORTS		
Battery Manufacturer Data	X (Excel)	X (Excel)
Battery Inventory	X (Excel)	X (Excel)
Battery Replacement	X (Excel)	X (Excel)
Battery Maintenance Status	X (Excel)	X (Interface)
NOTIFICATIONS		
Email notification	Battery replacement request, Immediate action required, Waiting for approval, Waiting for inventory update	Battery fail, Immediate action required, Inventory rejected, Inventory update, Maintenance rejected, Maintenance reminder, Warning maintenance
Message center		Battery fail, Immediate action required, Inventory rejected, Inventory update, Maintenance rejected, Maintenance reminder, Maintenance note, Warning maintenance



#### ASSET MANAGEMENT

• Fixed incorrect search result when an attachment or a note is searched in the tree structure.

## **RACK MANAGEMENT**

• Fixed copy/paste function and duplication rack equipment in the tree structure. Equipments duplicate are now manage individually.

## **DATA GATERING**

• Fixed incorrect historical audit hyperlink in the report.

## **FIRMSuite Legacy**

• Multiple bugs interface has been fixed to optimize FIRM Legacy on the Chrome browser.

3710 Wilfrid Hamel Blvd. Quebec, QC, G1P 2J2 Tel: 418.847.2255 Toll Free: 1.888.685.8483 info@multitel.com Avoid costly fines by losing your sites' service during power outage.

Contact us today: **multitel.com**