VP.Start

NiteLite System Software

www.vpstart.com

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NiteLite System Software

Introduction to NiteLite

What is NiteLite ?

The use of conventional public street light systems poses a significant risk of energy loss and inefficient management. Consequently, ongoing research and development efforts are being undertaken to devise solutions for public smart street light systems that can be remotely controlled and monitored. VP.Start has developed a public smart street light control device to complement traditional systems, helping save electricity and transform cities into modern, efficient ones.

NiteLite System Software is a cutting-edge application designed for remote controlling the public street light controller, also known as the Smart City Device (SCD). It's designed to simplify the management of street lights, ensuring efficient and secure remote control. This advanced software offers a wide range of features, including Grid View, Consumption Analysis, Alarms, Map View, Notifications, Event Logs, and Reporting, all aimed at enhancing functionality and optimizing performance. With NiteLite Software, the task of overseeing street lights becomes effortless, ensuring a reliable lighting system for urban areas.

NiteLite System Software enhances the customer experience by introducing an Operator Control Room. As a key element in the smart city modernization initiative, this control and remote room empowers operators to monitor and manage public street lights seamlessly, including remote on/off scheduling and usage monitoring.

Furthermore, NiteLite System Software offers customers a range of benefits. VP.Start has specifically selected for GSM/GPRS as the preferred method for transmission communication. This choice not only significantly reduces infrastructure setup costs when compared to fiber, but also minimizes installation time. Moreover, our customers can effectively and efficiently manage public street lights by quickly identifying and promptly addressing any issues that may arise.

Through the Alarm function, customers can effortlessly monitor the remote control of public street lights for any abnormalities, such as open doors or overloads.

In summary, NiteLite System Software streamlines public street light management, contributing to city modernization, cost savings and user-friendly operation.

1. Introduction to NiteLite

To access the NiteLite application, first launch it by clicking on the icon

to launch the application.

Figure 1: The NiteLite Application Icon is Installed

Enter user account and password, then click on "Login" to login NiteLite application.

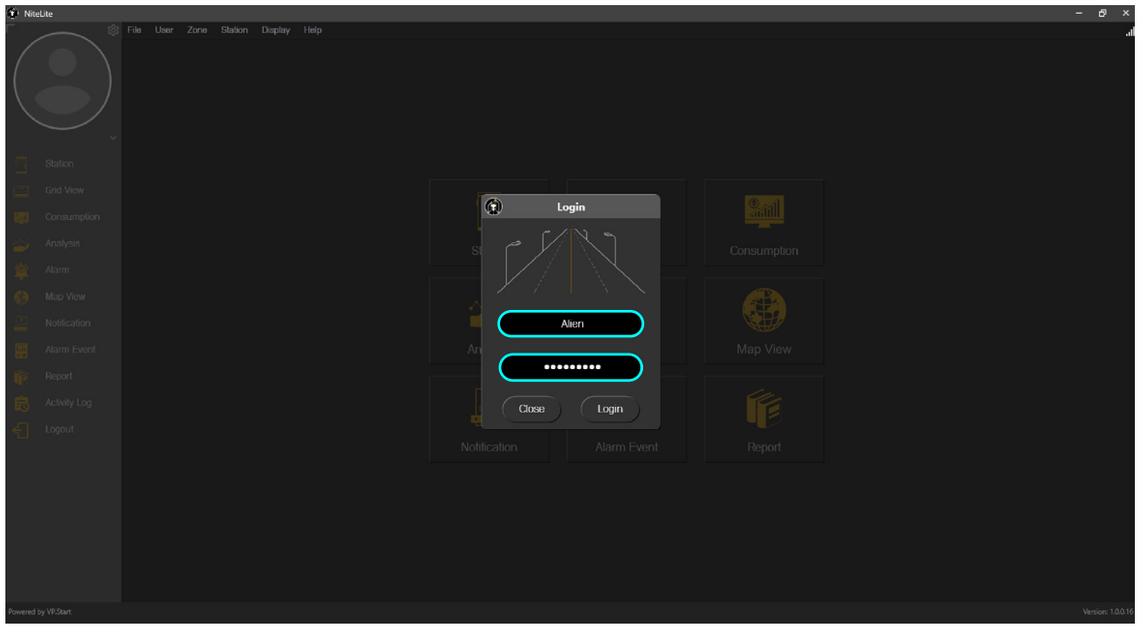


Figure 2: Enter the User Account Name and Password

2. NiteLite System Functions

NiteLite System Software provides six functions and nine icons placed in the center and left sidebar. Each icon represents a feature for using and controlling the public street light system.

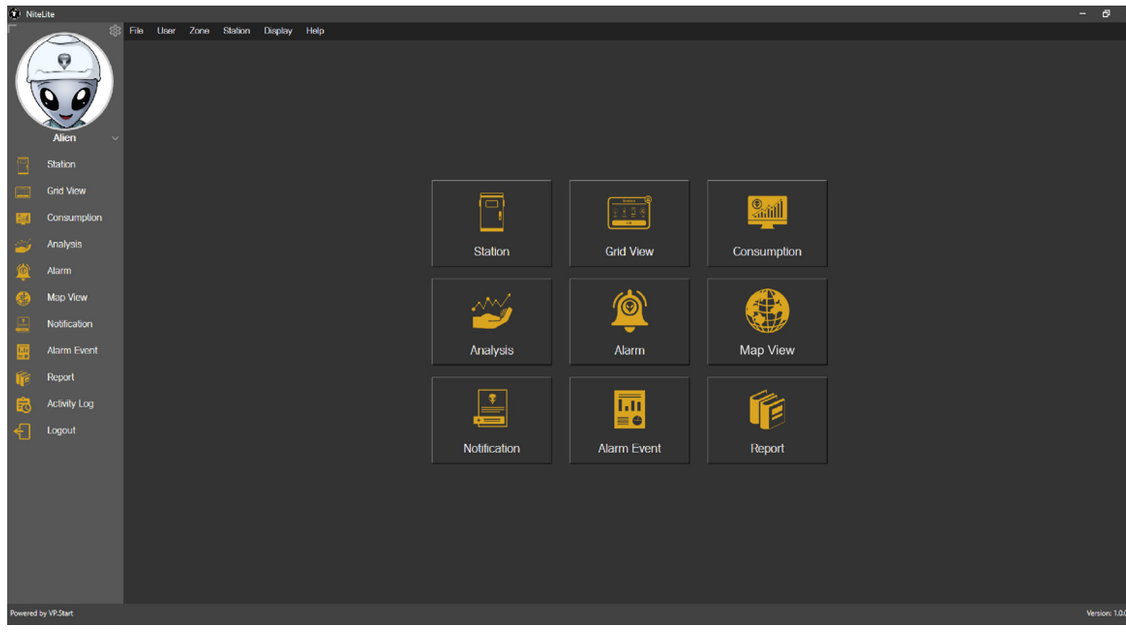


Figure 3: NiteLite Key Features

2.1. Key Features of NiteLite Software

- **File:** provides two functions: "Logout" to exit the NiteLite System Software and "Close" to terminate NiteLite System Software.
- **User:** Provides four functions: "Manage User" for creating, deleting, and editing user accounts, "User Detail" to view user information and access right, "Change Password" for updating the user's password, and "Group Permission" to assign user permissions.
- **Zone:** Serves one function: "Manage Zone" for creating an area for SCD management.
- **Station:** has four functions: "Modify Station" to edit the SCD's name and data, "Setting Station" to configure SCD parameters, "Manage Station" for managing the SCD's area, and "Station Event" to display information on notification events and alarm events.
- **Display:** has 10 main functions: "Station", "Grid View", "Consumption", "Analysis", "Alarm", "Map View", "Notification", "Alarm Event", "Report" and "Activity Log".
- **Help:** Provides three functions: "About Us" for visiting the VP.Start website, "GSM Controller" for check balance and top up and "Check Update" for delete updating NiteLite System Software.

2.2. NiteLite Icons

Station: This section displays SCD information and data.

Grid View: It symbolically represents the user status of the SCD.

Consumption: This section provides a graphical representation of data in the form of a curve that helps in the management of public street light systems.

Analysis: It analyzes the usage and data management.

Alarm: This section provides a notification alert when any issues occur, such as power interruption, MCB trip, or doors Opened.

Map View: It displays SCD locations on Google Maps.

Notification: This section displays information on over/under SCD usage based on settings.

Alarm Event: Every alarm occurrence is stored in the historical alarm log.

Report: Allow viewing of reports of alarms and notifications.

3. Station

SCD Station displays SCD information and data. Click on "Station".

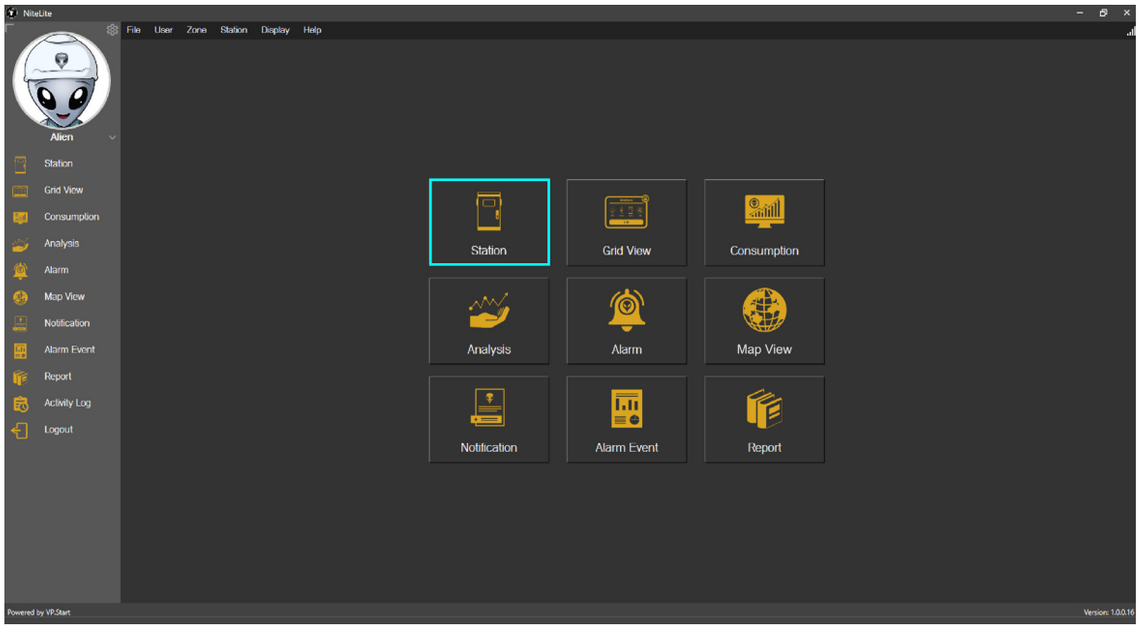


Figure 4: Station

Station displays SCD Name, Date, Zone, Mode (Remote), Power Source (Present/Absent), MCB status (Close/Trip), Light status (ON/OFF), Door status (Open/Close) and Power usage.

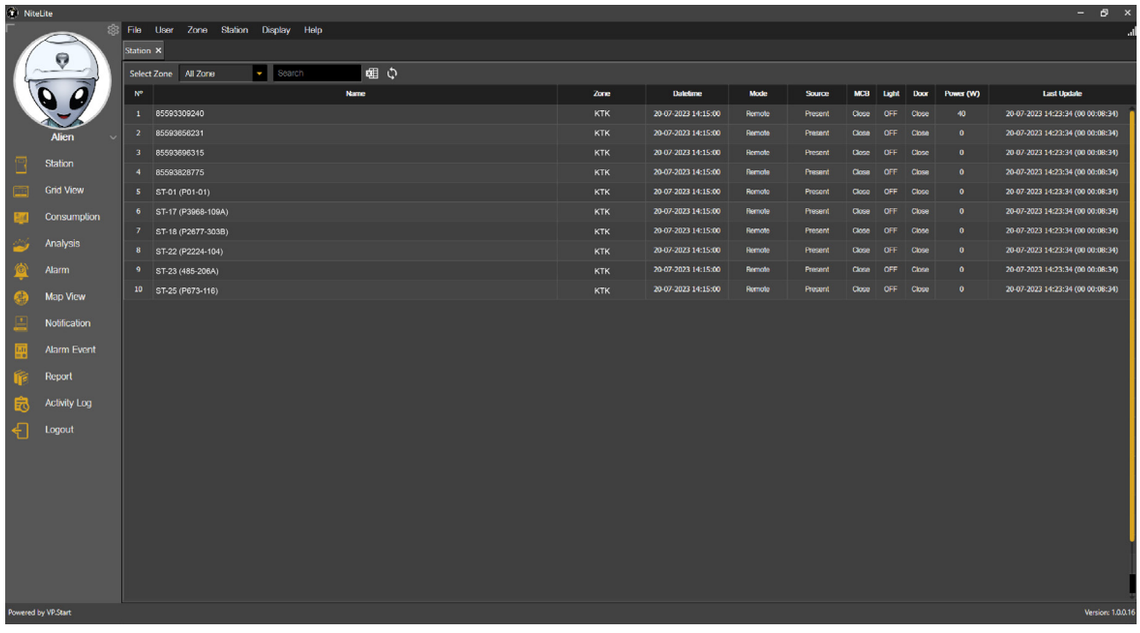


Figure 5: Station and SCD Data

All Zones allows operators to display the SCD in a specific zone. Operators can search for SCD names using the search box Search. As well as download an Excel report by clicking on .

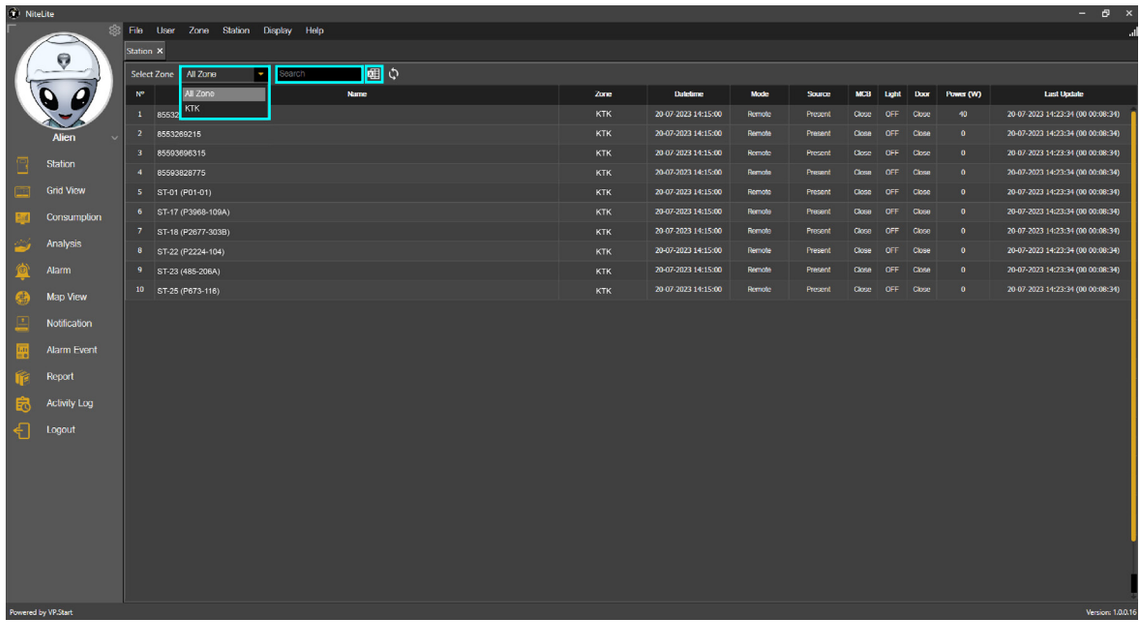
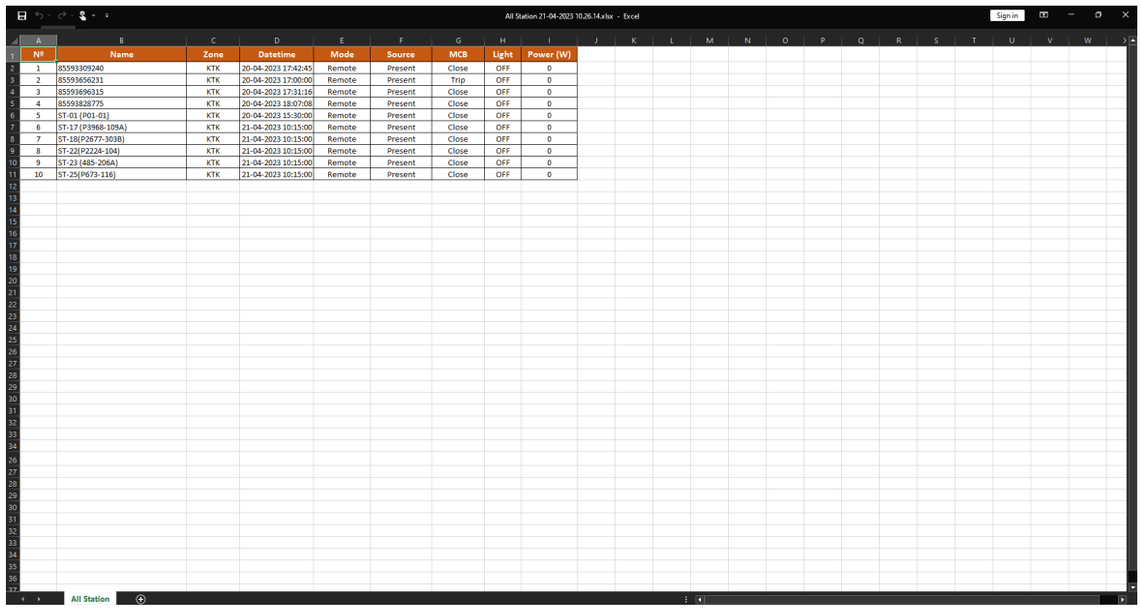


Figure 6: Zone, Search and Excel

The extracted report in Excel format.



Nº	Name	Zone	Datetime	Mode	Source	MCB	Light	Power (W)
1	85593309240	KTK	20-04-2023 17:42:45	Remote	Present	Close	OFF	0
2	85593656231	KTK	20-04-2023 17:00:00	Remote	Present	Trip	OFF	0
3	85593696315	KTK	20-04-2023 17:31:16	Remote	Present	Close	OFF	0
4	85593828775	KTK	20-04-2023 18:07:08	Remote	Present	Close	OFF	0
5	ST-01 (P01-01)	KTK	20-04-2023 15:30:00	Remote	Present	Close	OFF	0
6	ST-17 (P3968-109A)	KTK	21-04-2023 10:15:00	Remote	Present	Close	OFF	0
7	ST-18(P2677-303B)	KTK	21-04-2023 10:15:00	Remote	Present	Close	OFF	0
8	ST-22(P2224-104)	KTK	21-04-2023 10:15:00	Remote	Present	Close	OFF	0
9	ST-23 (485-206A)	KTK	21-04-2023 10:15:00	Remote	Present	Close	OFF	0
10	ST-25(P673-116)	KTK	21-04-2023 10:15:00	Remote	Present	Close	OFF	0

Figure 7: The Report in Excel Format

4. Grid View

To check the status of SCD, click on Grid View. This view displays icons with information about the Door (Open/Close), Power Source (Present/Absent), MCB (On/Trip), and Light (On/Off).

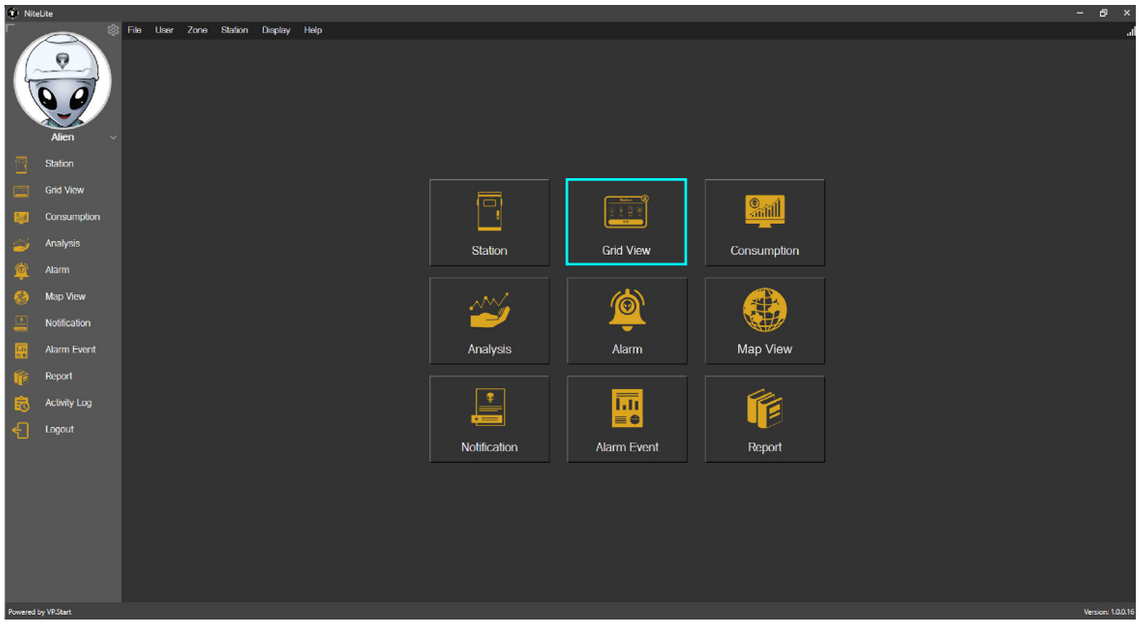


Figure 8: Grid View

The Grid View is displayed as an icon panel, offering convenient control over each SCD (Smart City Device).

- Doors can be opened or closed (Open/Close).

- Power Source status is indicated as (Present/Absent).

- MCB Close/Trip.

- Light ON/OFF.

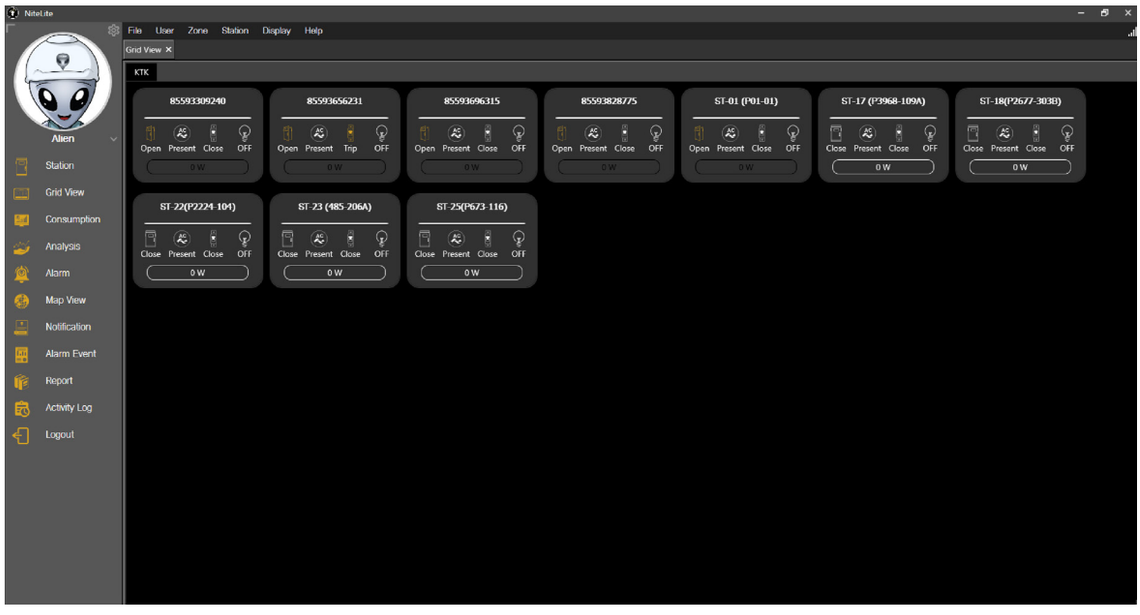


Figure 9: Grid View and SCD

5. Consumption

Click on "Consumption" to display information on SCDs and their power consumption through graphical data.

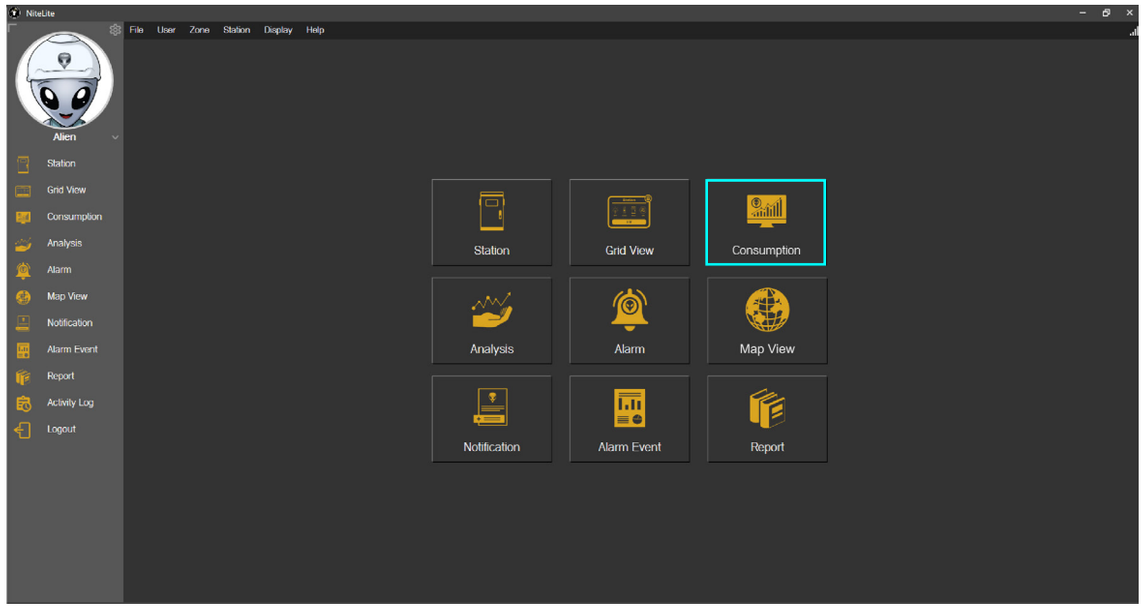


Figure 10: Consumption

Click on ☰ to display the name of the SCD.

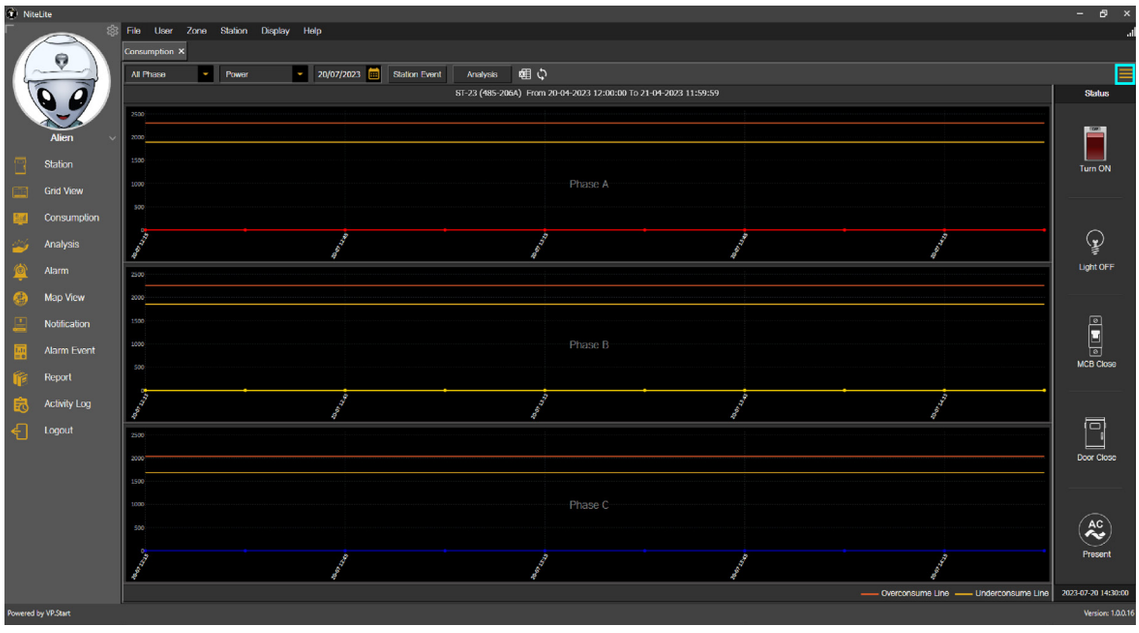


Figure 11: The Consumption Graph Displays the Data

Select the SCD name to display the data as a graph.

Download an Excel report by clicking on .

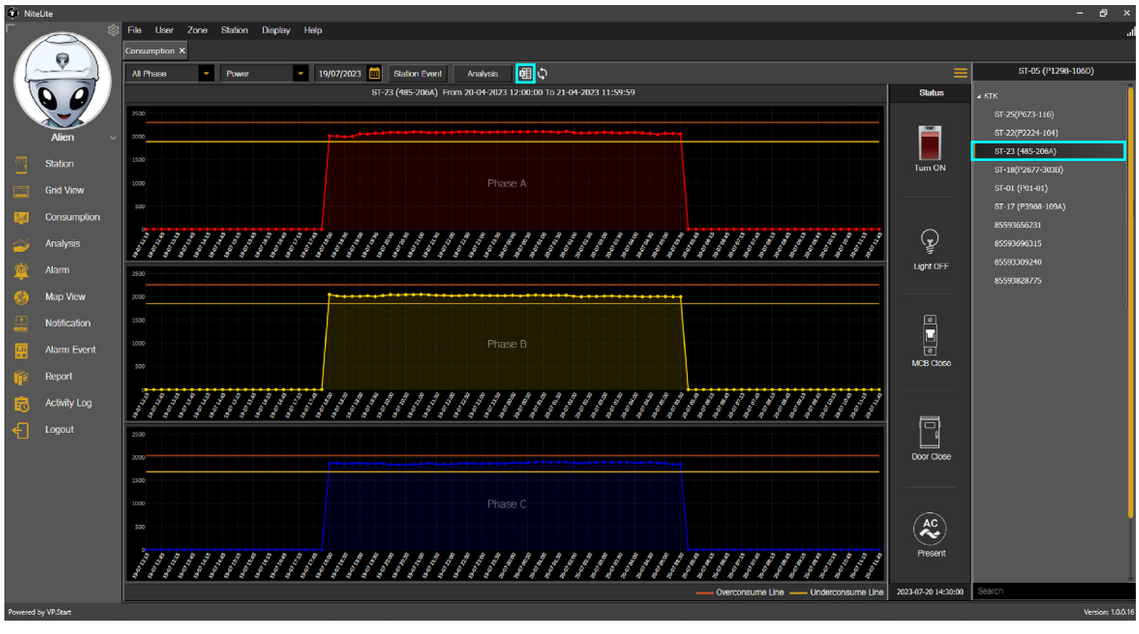


Figure 12: Select the SCD Name

Click on "All Phase" to choose the display of data for all phases: Phase A, Phase B, or Phase C.

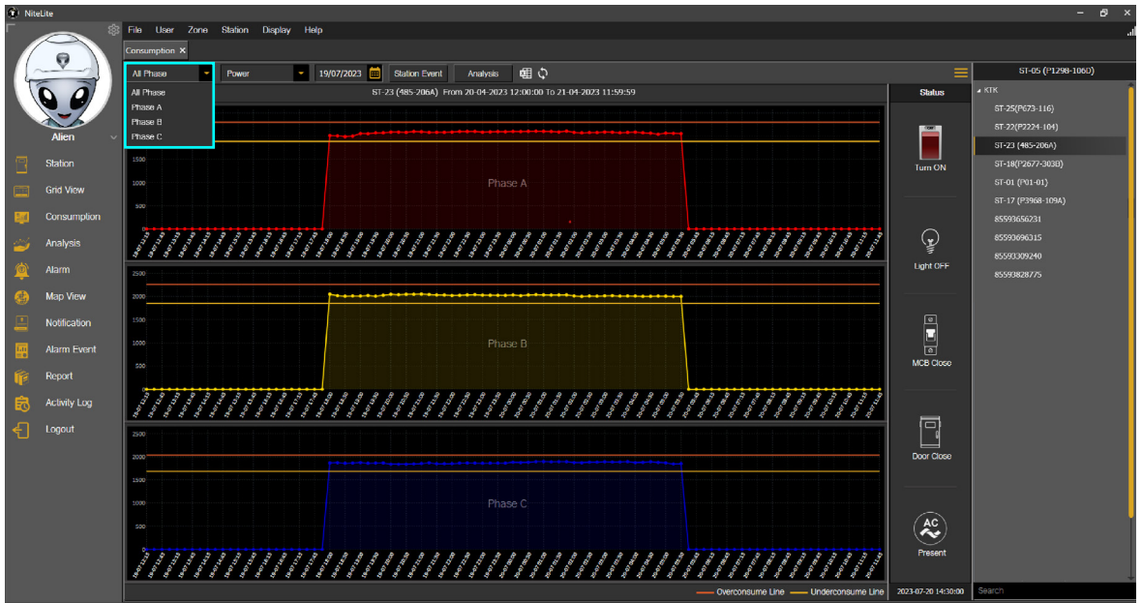


Figure 13: Select the Display All Phase or in Each Phase

Click on "Power" to choose the display of Power, Voltage, or Current.

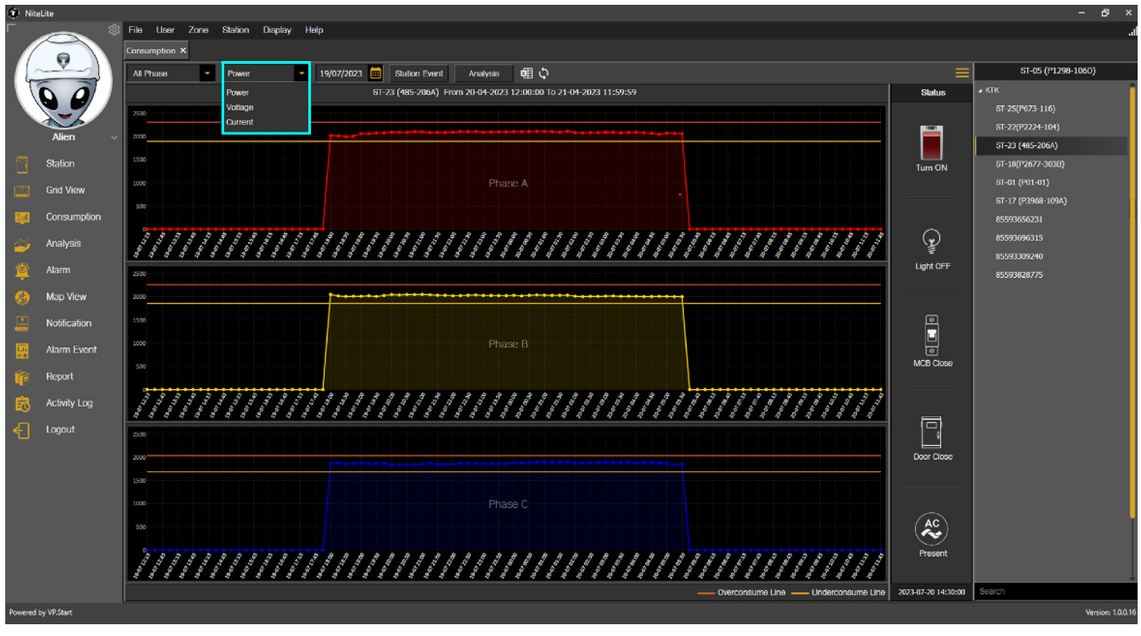


Figure 14: Select the Display of Power, Voltage, or Current Data

Click on to view the previous data.

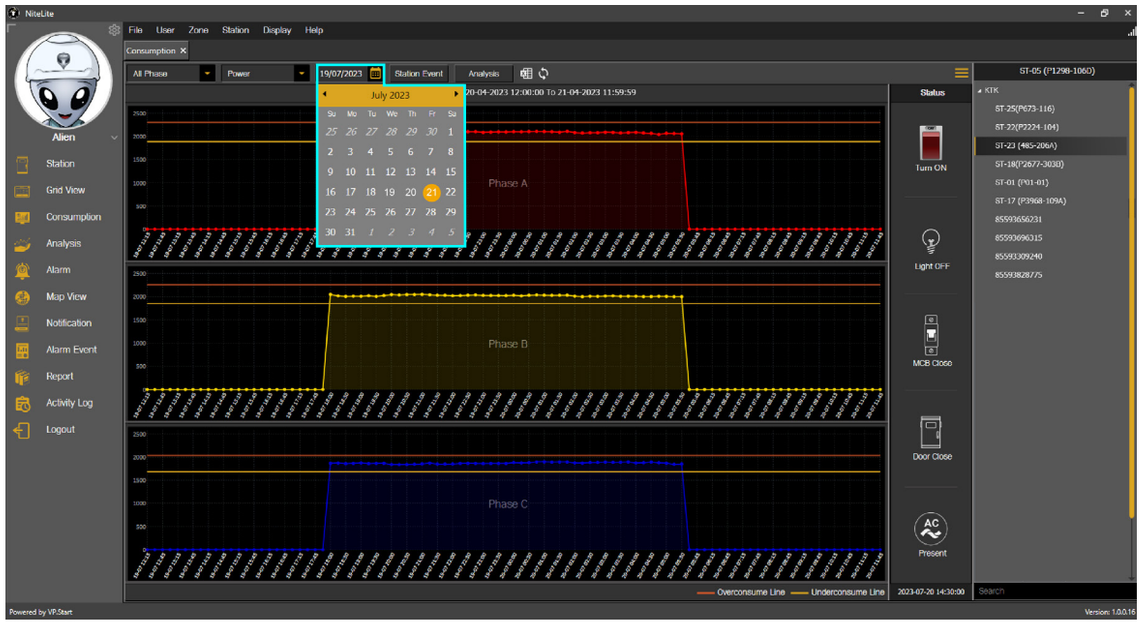


Figure 15: Check the Data by Date

Click on "Station Event" to view Notification Events and Alarm Events.

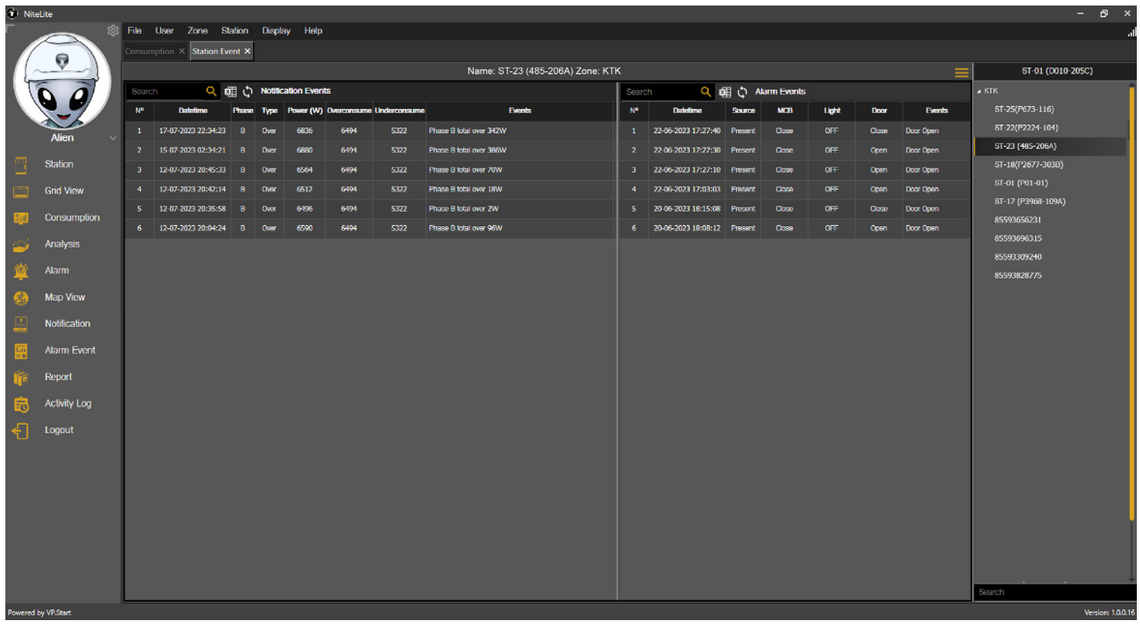


Figure 16: The Station Event

Click Analysis and then Graph: This tool is utilized for analyzing power consumption, including metrics such as Maximum Consume, Minimum Consume, Overconsume, and Underconsume, presented in graphical format.

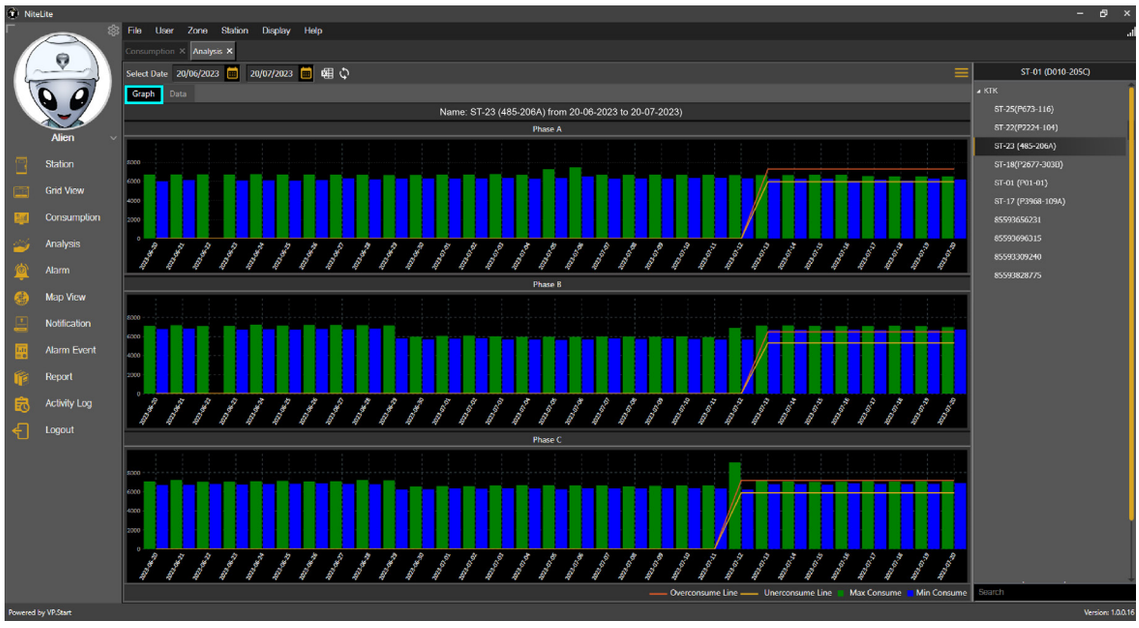
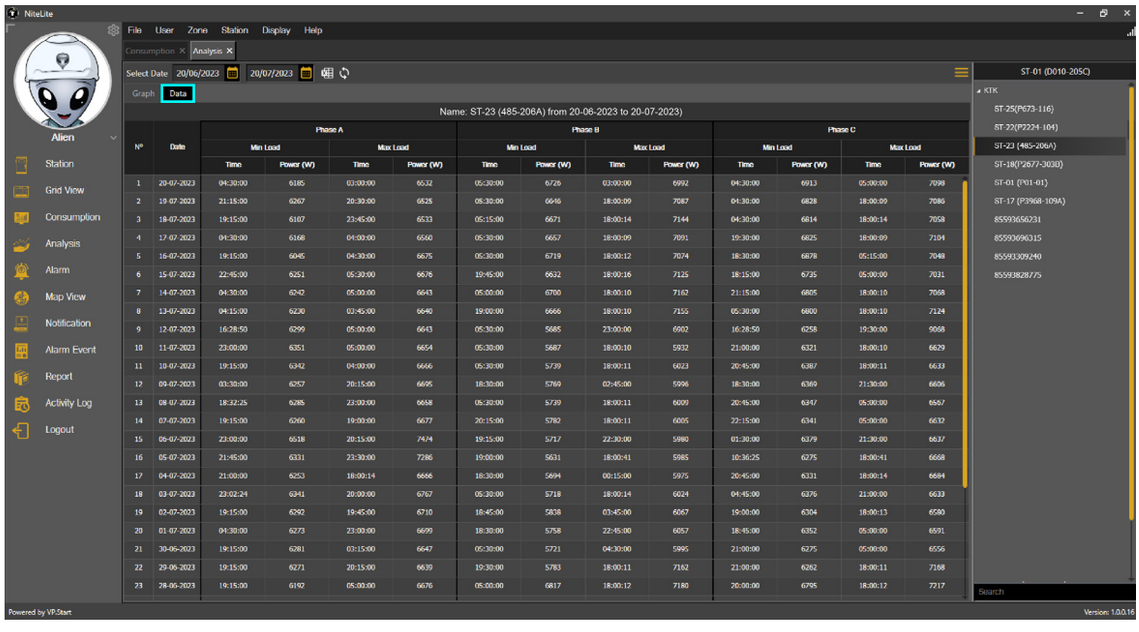


Figure 17: Graph Analysis

Click Analysis and Graph: This tool is utilized for analyzing power consumption, including metrics such as Maximum Consume, Minimum Consume, Overconsume, and Underconsume, presented in table format.



N°	Date	Phase A				Phase B				Phase C			
		Min Load		Max Load		Min Load		Max Load		Min Load		Max Load	
		Time	Power (W)	Time	Power (W)	Time	Power (W)	Time	Power (W)	Time	Power (W)	Time	Power (W)
1	20-07-2023	04:30:00	6185	03:00:00	6532	05:30:00	6726	03:00:00	6992	04:30:00	6913	05:00:00	7098
2	19-07-2023	21:15:00	6267	20:30:00	6525	06:30:00	6646	18:00:09	7087	04:30:00	6828	18:00:09	7086
3	18-07-2023	19:15:00	6107	23:45:00	6533	05:15:00	6671	18:00:14	7144	04:30:00	6814	18:00:14	7058
4	17-07-2023	04:30:00	6168	04:00:00	6560	05:30:00	6657	18:00:09	7091	19:30:00	6825	18:00:09	7104
5	16-07-2023	19:15:00	6045	04:30:00	6675	05:30:00	6719	18:00:12	7074	18:30:00	6878	05:15:00	7048
6	15-07-2023	22:45:00	6251	05:30:00	6678	19:45:00	6632	18:00:16	7125	18:15:00	6735	05:00:00	7031
7	14-07-2023	04:30:00	6242	05:00:00	6643	05:00:00	6700	18:00:10	7162	21:15:00	6805	18:00:10	7068
8	13-07-2023	04:15:00	6230	03:45:00	6640	19:00:00	6666	18:00:10	7155	05:30:00	6800	18:00:10	7124
9	12-07-2023	16:28:50	6299	05:00:00	6643	05:30:00	5685	23:00:00	6902	16:28:50	6258	19:30:00	9068
10	11-07-2023	23:00:00	6351	05:00:00	6654	05:30:00	5687	18:00:10	5932	21:00:00	6321	18:00:10	6629
11	10-07-2023	19:15:00	6342	04:00:00	6666	05:30:00	5739	18:00:11	6023	20:45:00	6387	18:00:11	6633
12	09-07-2023	03:30:00	6257	20:15:00	6695	18:30:00	5769	02:45:00	5996	18:30:00	6369	21:30:00	6606
13	08-07-2023	18:32:25	6285	23:00:00	6658	05:30:00	5739	18:00:11	6009	20:45:00	6347	05:00:00	6667
14	07-07-2023	19:15:00	6260	19:00:00	6677	20:15:00	5782	18:00:11	6005	22:15:00	6341	05:00:00	6632
15	06-07-2023	23:00:00	6518	20:15:00	7474	19:15:00	5717	22:30:00	5980	01:30:00	6379	21:30:00	6637
16	05-07-2023	21:45:00	6331	23:30:00	7286	19:00:00	5631	18:00:41	5985	10:36:25	6275	18:00:41	6668
17	04-07-2023	21:00:00	6253	18:00:14	6666	18:30:00	5694	00:15:00	5975	20:45:00	6331	18:00:14	6684
18	03-07-2023	23:02:24	6341	20:00:00	6767	05:30:00	5718	18:00:14	6024	04:45:00	6376	21:00:00	6633
19	02-07-2023	19:15:00	6292	19:45:00	6710	18:45:00	5808	03:45:00	6067	19:00:00	6304	18:00:13	6580
20	01-07-2023	04:30:00	6273	23:00:00	6699	18:30:00	5758	22:45:00	6057	18:45:00	6352	05:00:00	6591
21	30-06-2023	19:15:00	6281	03:15:00	6647	05:30:00	5721	04:30:00	5995	21:00:00	6275	05:00:00	6556
22	29-06-2023	19:15:00	6271	20:15:00	6639	19:30:00	5783	18:00:11	7162	21:00:00	6262	18:00:11	7168
23	28-06-2023	19:15:00	6192	05:00:00	6676	05:00:00	6817	18:00:12	7180	20:00:00	6795	18:00:12	7217

Figure 18: The Data Table Analysis

To turn on the public street light, click on the "Turn ON" button and then confirm by clicking the "Yes" button.

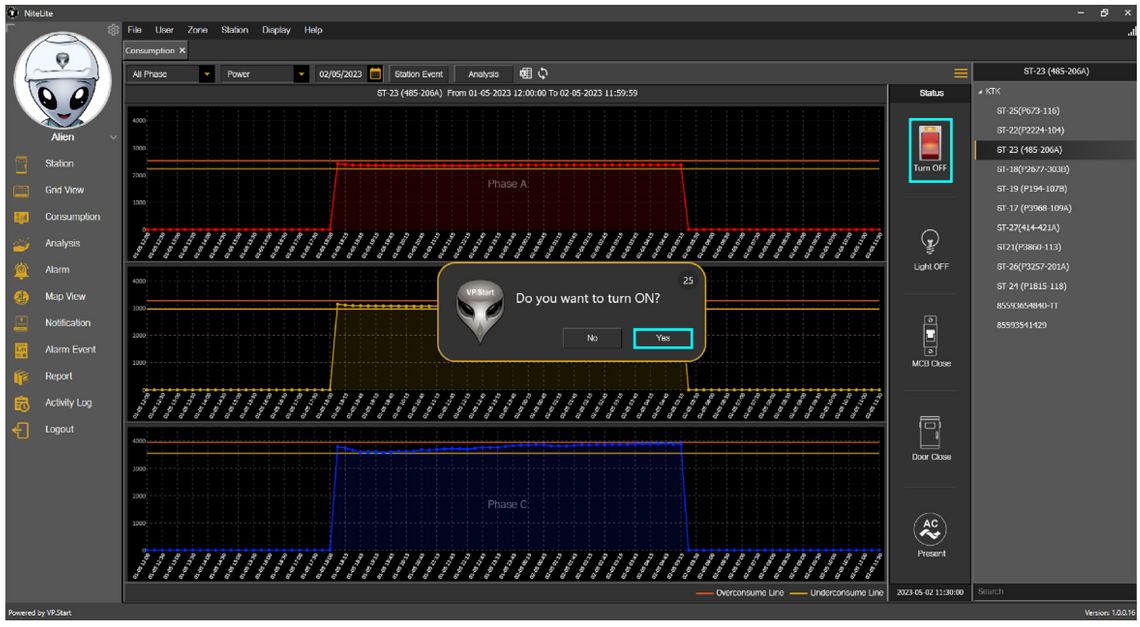


Figure 19: Turn ON Public Street Light

Turn on the public street light has been completed.

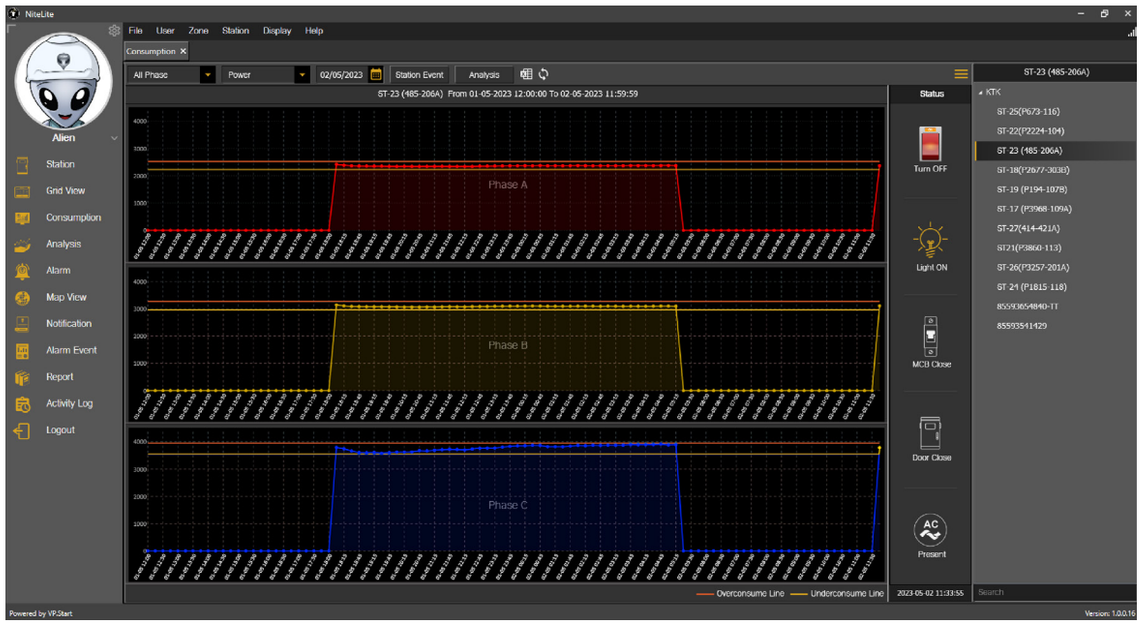


Figure 20: Successfully Turn ON Public Street Light

To turn off the public street light, click on the "Turn OFF" button and then confirm by clicking the "Yes" button.

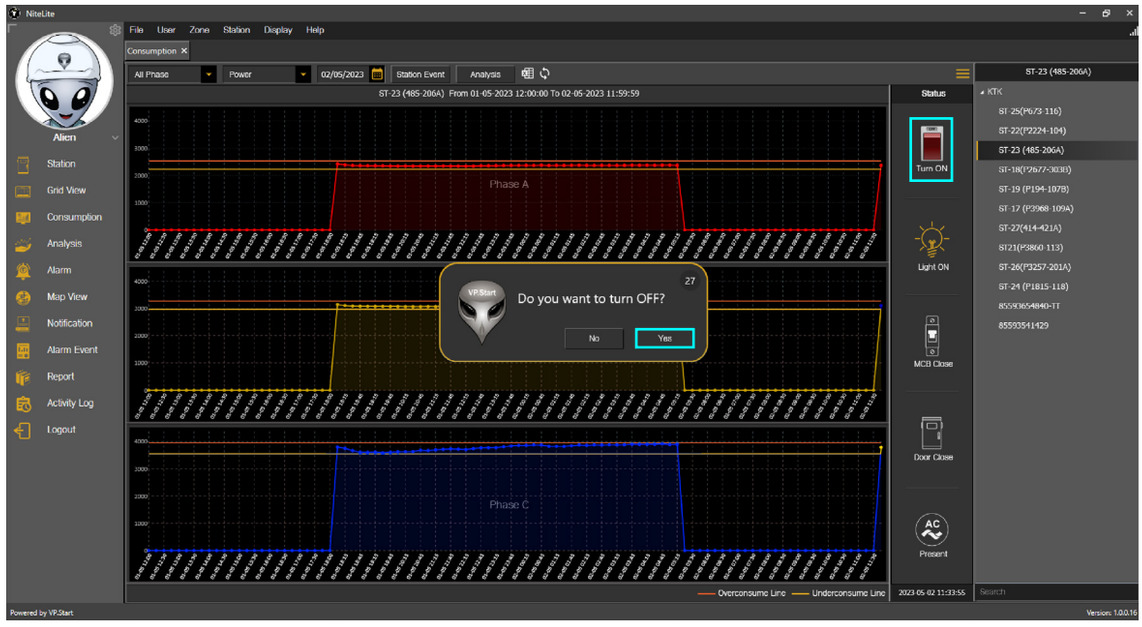


Figure 21: Turn OFF Public Street Light

Turn off the public street light has been completed.

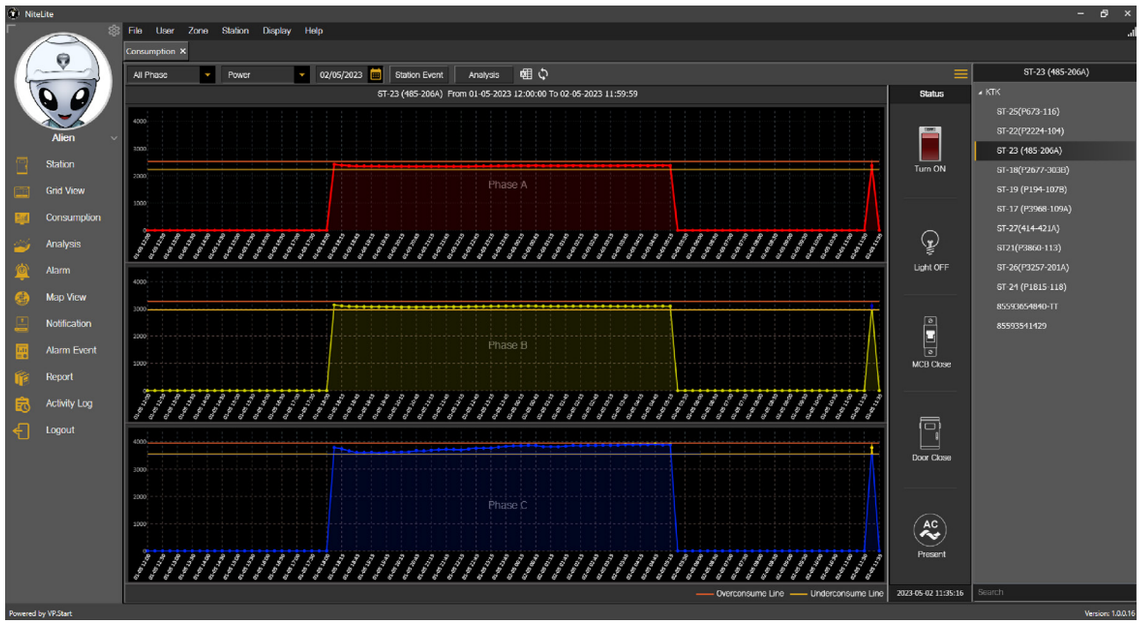


Figure 22: Successfully Turn OFF Public Street Light

6. Analysis

Analysis is utilized for analyzing power consumption, including metrics such as Maximum Consume, Minimum Consume, Overconsume, and Underconsume, presented in graphical and table format.

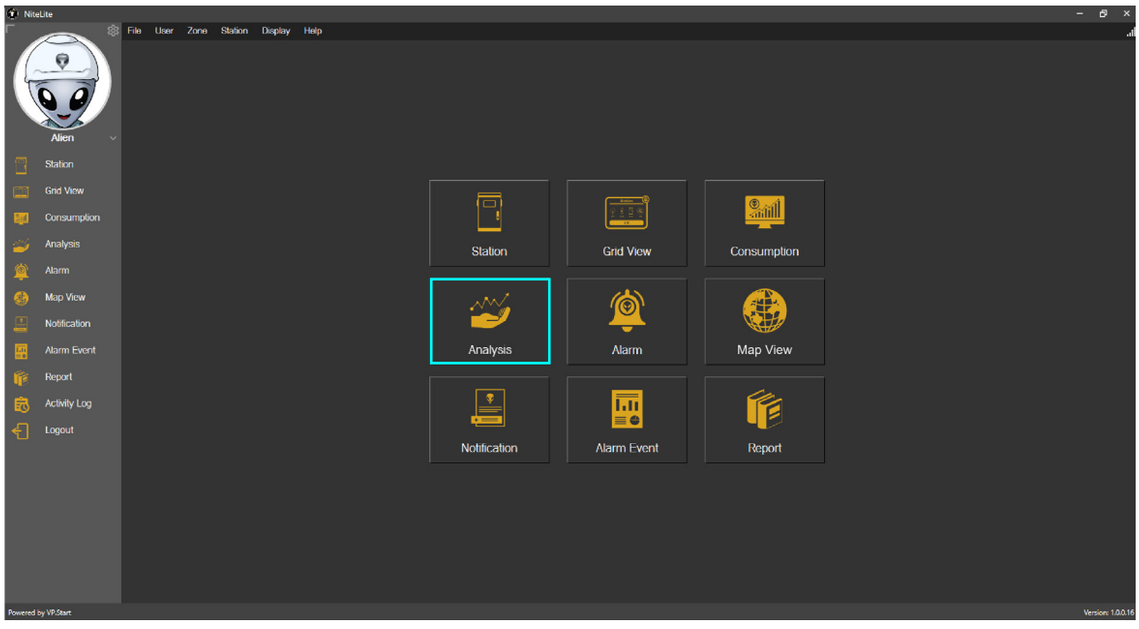


Figure 23: Analysis

Select the SCD name and click on "Graph" to analyze the Max Consume and Min Consume data as a graph.

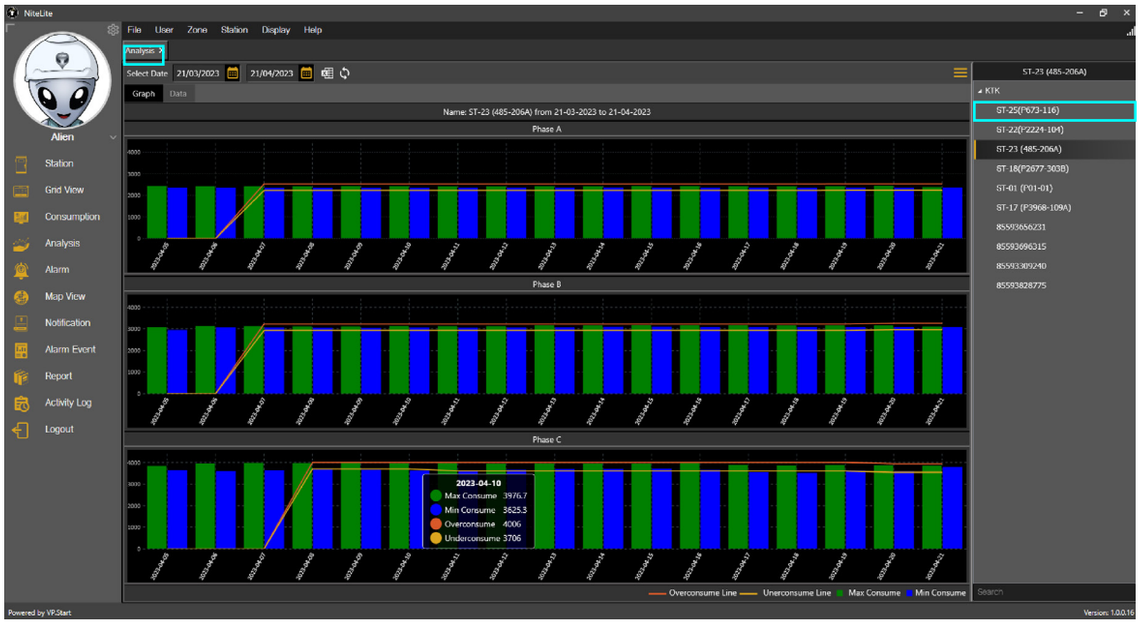


Figure 24 : Analysis Form Graph

Select the SCD name and click "Data" to analyze the Max Consume and Min Consume table formats.

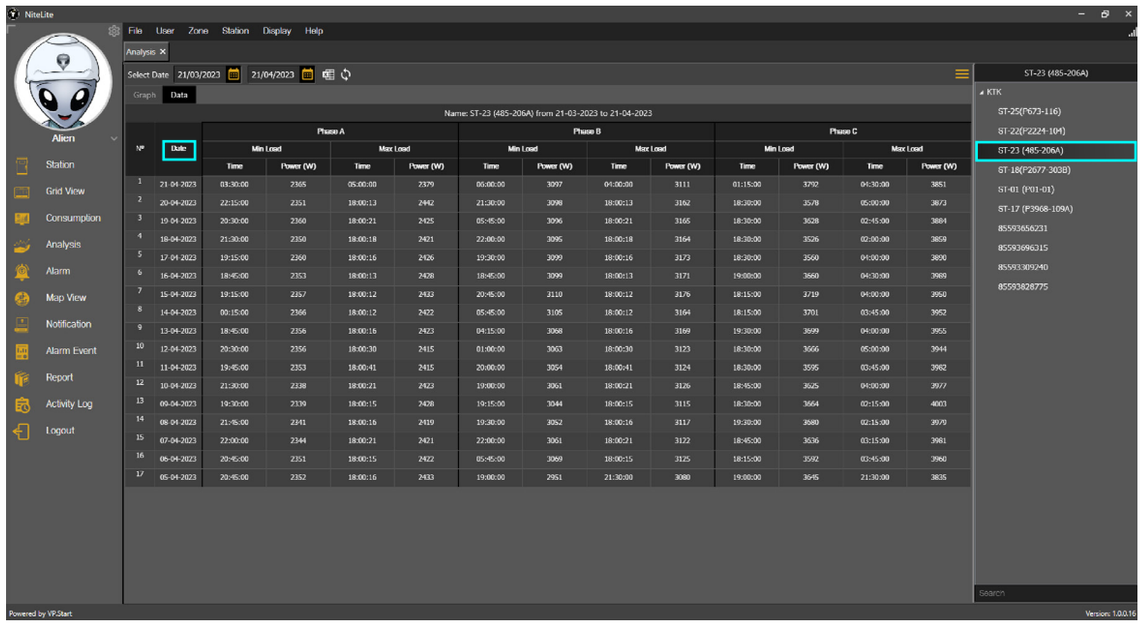


Figure 25: Analysis Form as Data

Click on to view data within a specific date.

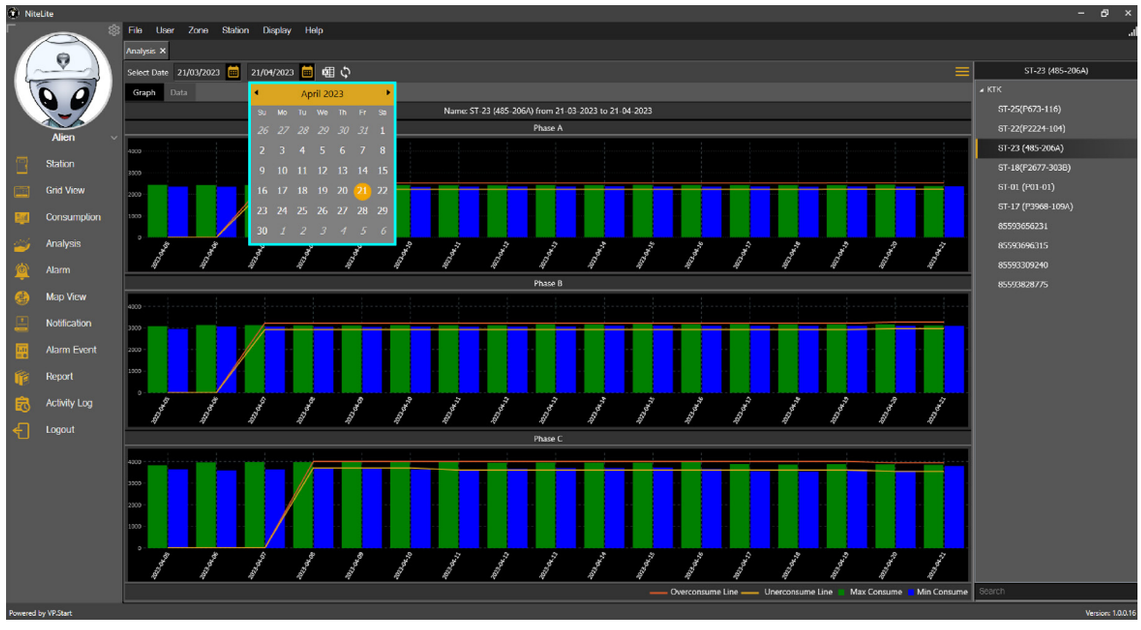


Figure 26: View Analysis Data in the Past Date Range

7.Alarm

In the event of the SDC's door opening or the MCB tripping, an immediate alarm will be transmitted to the NiteLite System Software. Click on "Alarm".

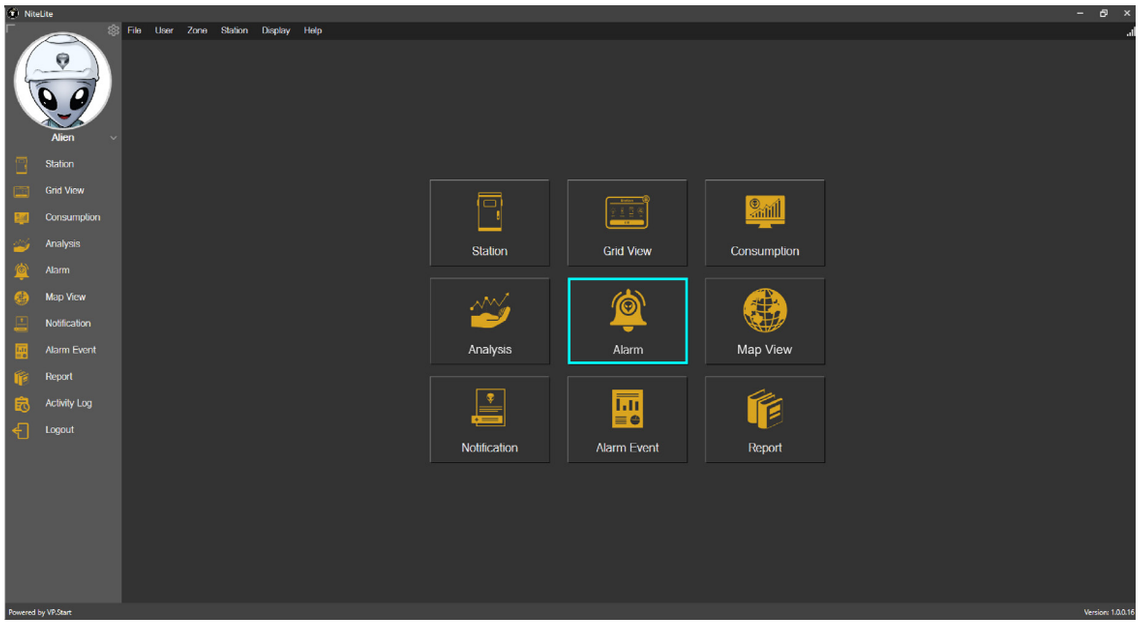


Figure 27: Alarm Feature

The alarm feature displays SCD information, including the SCD name, VP.Start ID, Zone, Date and details alarm causes.

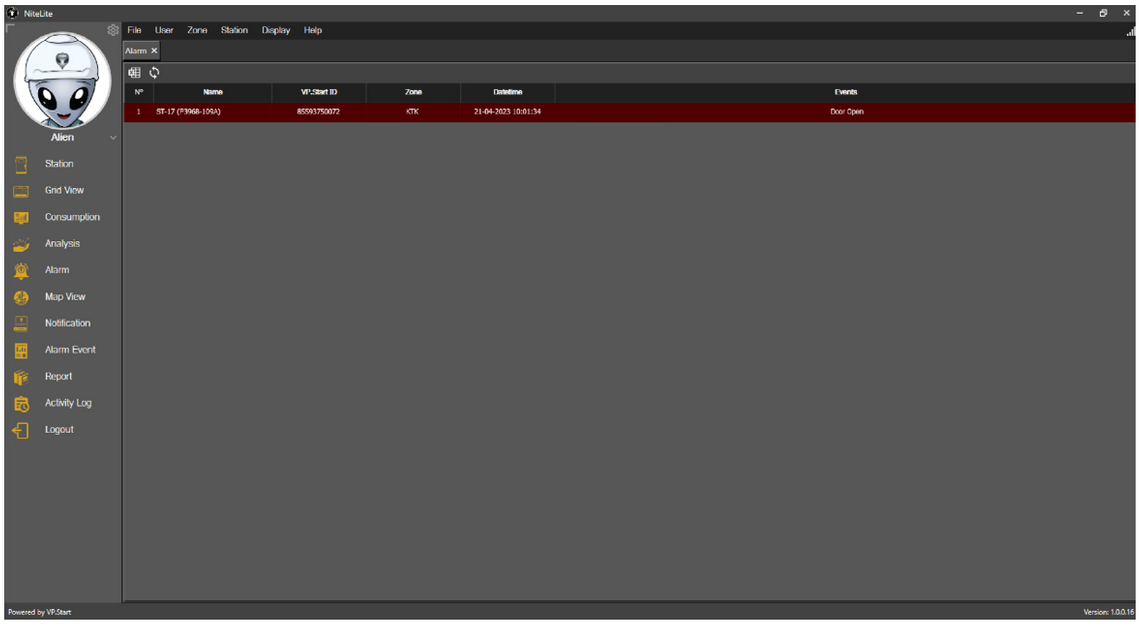


Figure 28: Alarm Interface

8. Map View

The map can monitor SCD locations on Google Maps to help the technical team easily find SCD locations.

Click on "Map View".

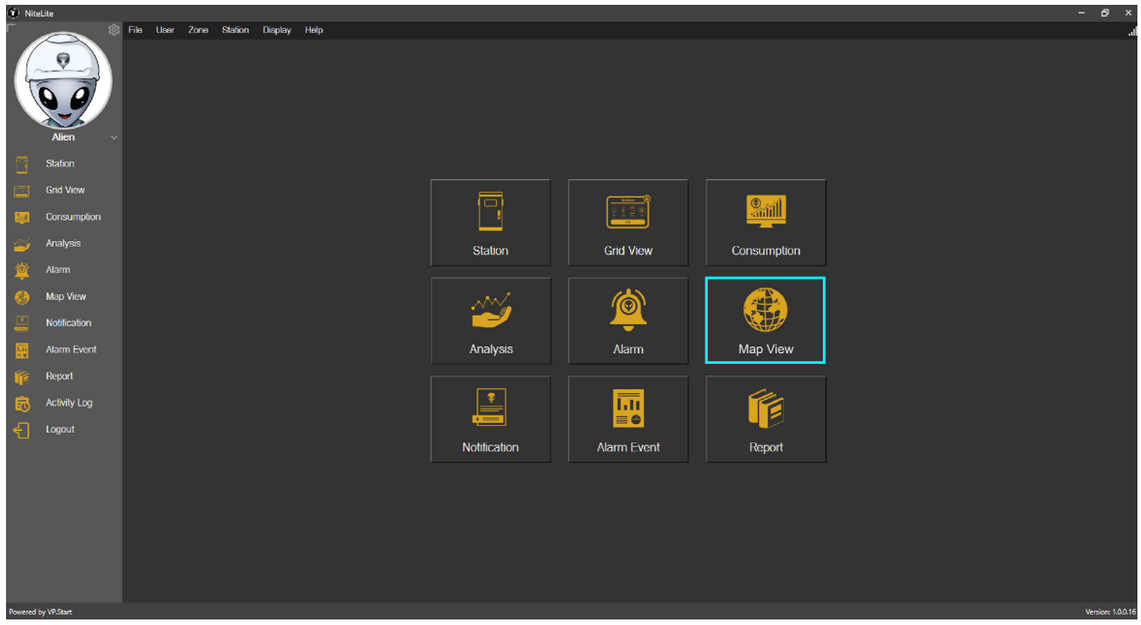


Figure 29: Map View

Zoom in/out to find the SCD locations on the map.

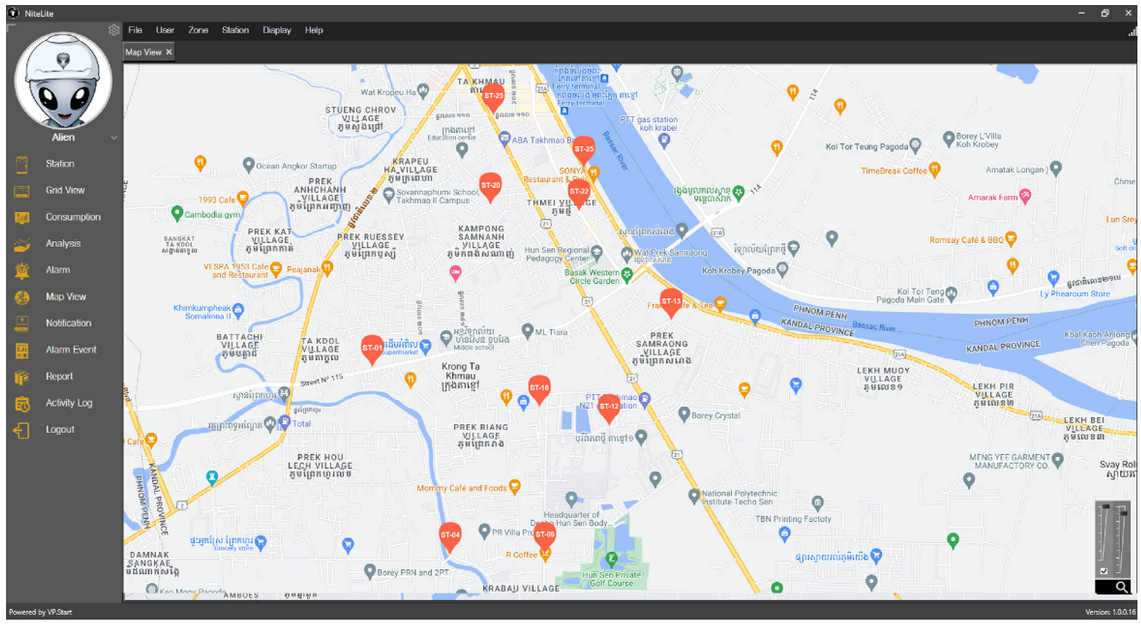


Figure 30: SCD on the Map

9. Notification

When the power consumption of SDC exceeds or falls below the specified limit, it will promptly notify NiteLite System Software. Click on "Notification".

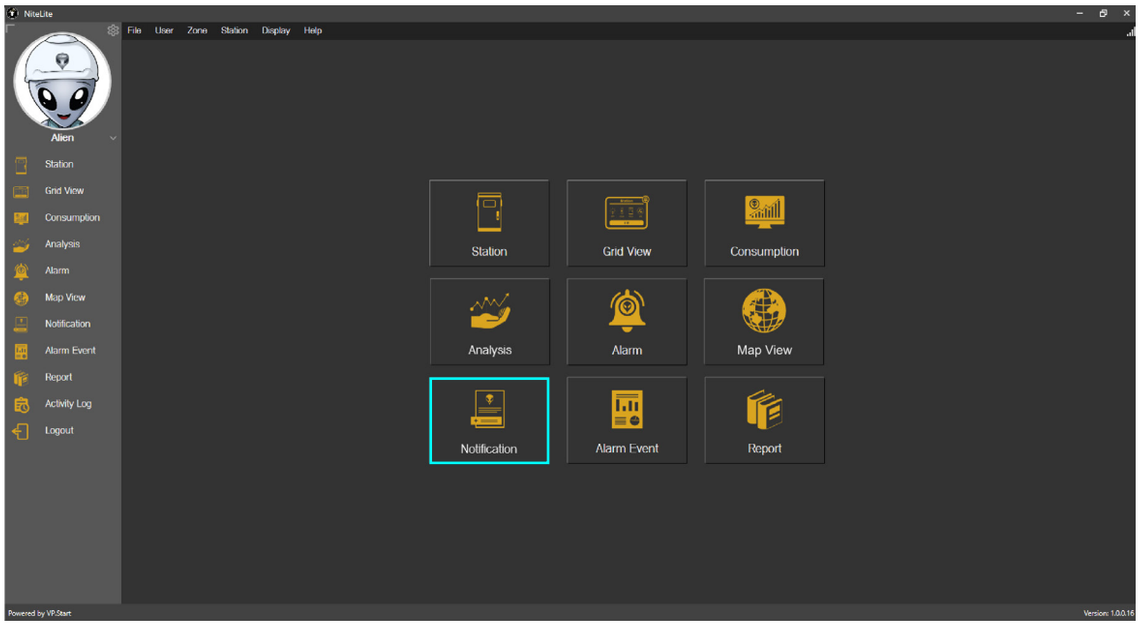


Figure 31: Notification

Notification displays information related to SCD, including the SCD name, VP.Start ID, Zone, Date, Phase, and problem causes. This information is crucial for understanding and addressing the issues at hand.

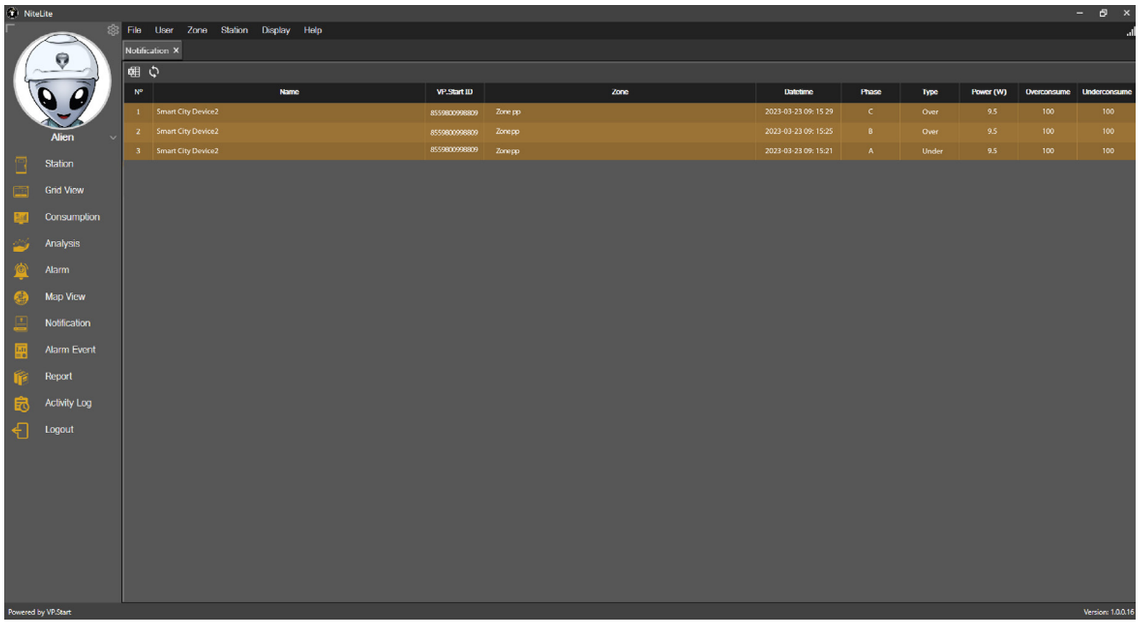


Figure 32: Alarm Interface

10. Alarm Event

Alarm Event stores all historical information of SCDs occurrences, such as MCB trips or Door Open events. This feature ensures that every alarm event is recorded for future reference and analysis. Click on “Alarm Event”.

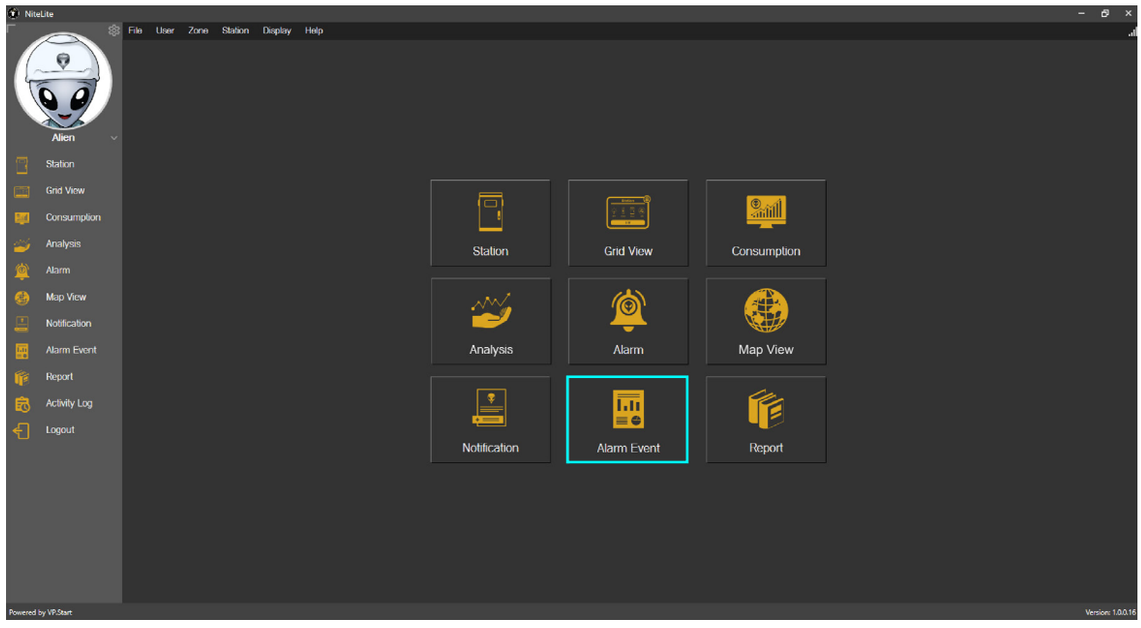


Figure 33: Alarm Event

Alarm Event displays information related to SCD, such as the SCD name, VP.Start ID, Zone, Date, and problem causes.

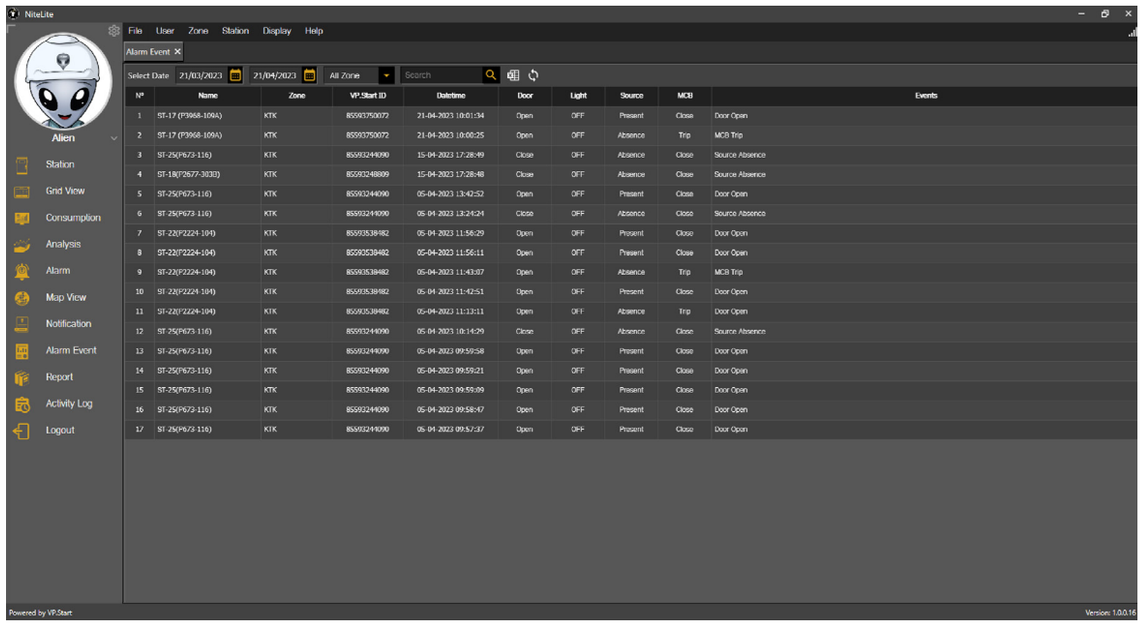


Figure 34: Alarm Event Data

Click on to view data by specific date.

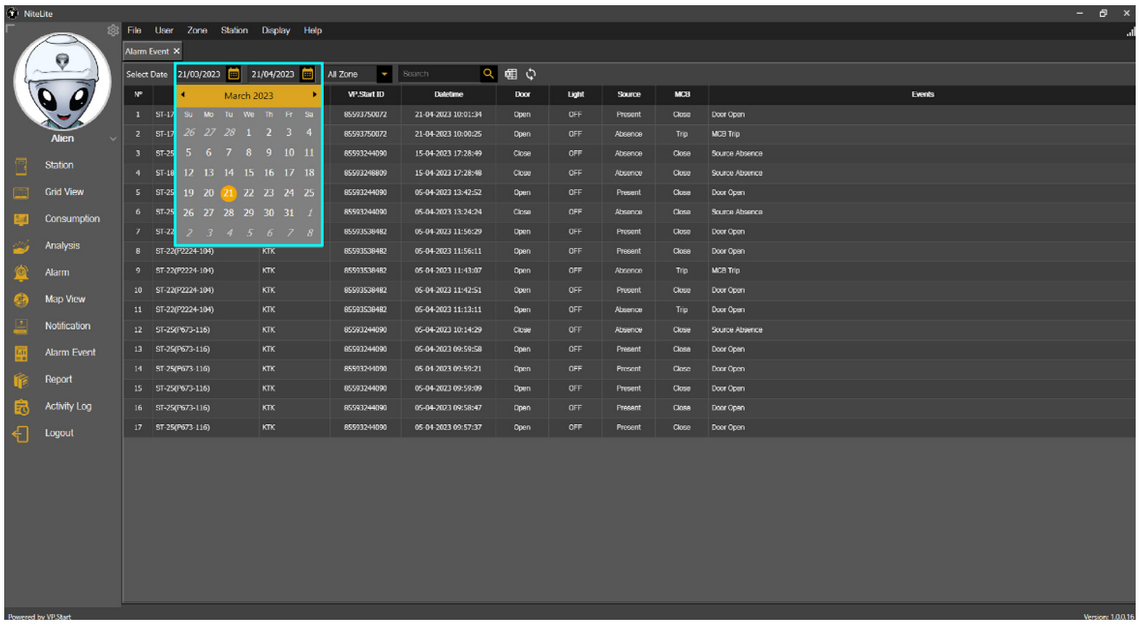


Figure 35: Checking Data by Date

All Zones allows operators to display the SCD in a specific zone. Operators can search for SCD names using the search box . As well as download an Excel report by clicking on .

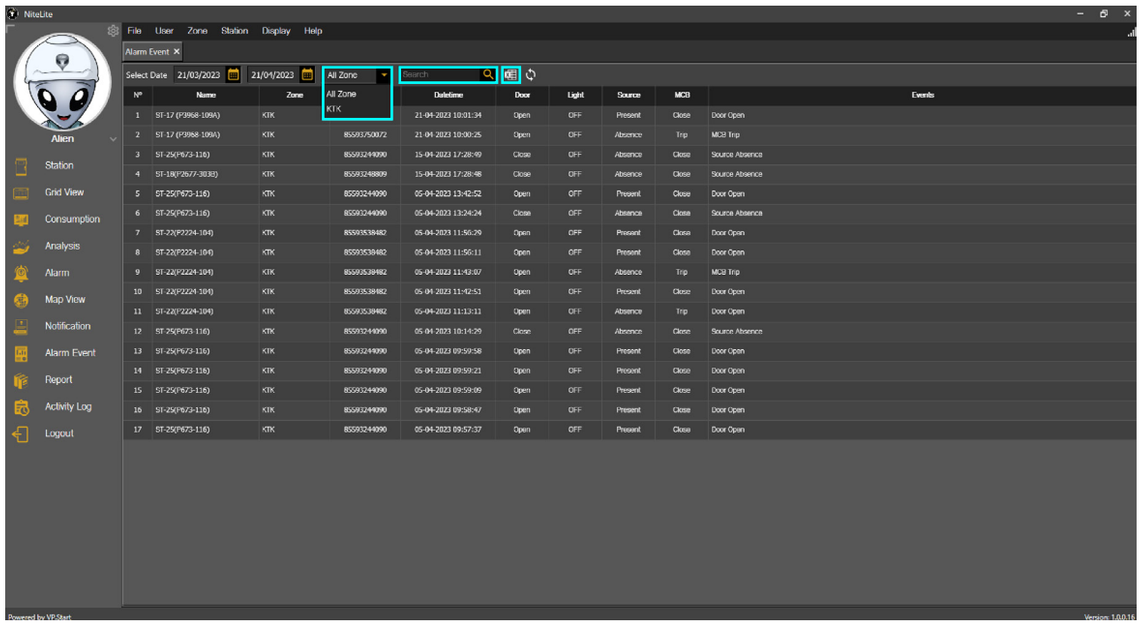


Figure 36: Zone, Search and Export Excel

11. Report

The operator has the ability to access Report tools that provide an overview of historical SDC information, including past alarms and notifications. Click on "Report" to access this information.

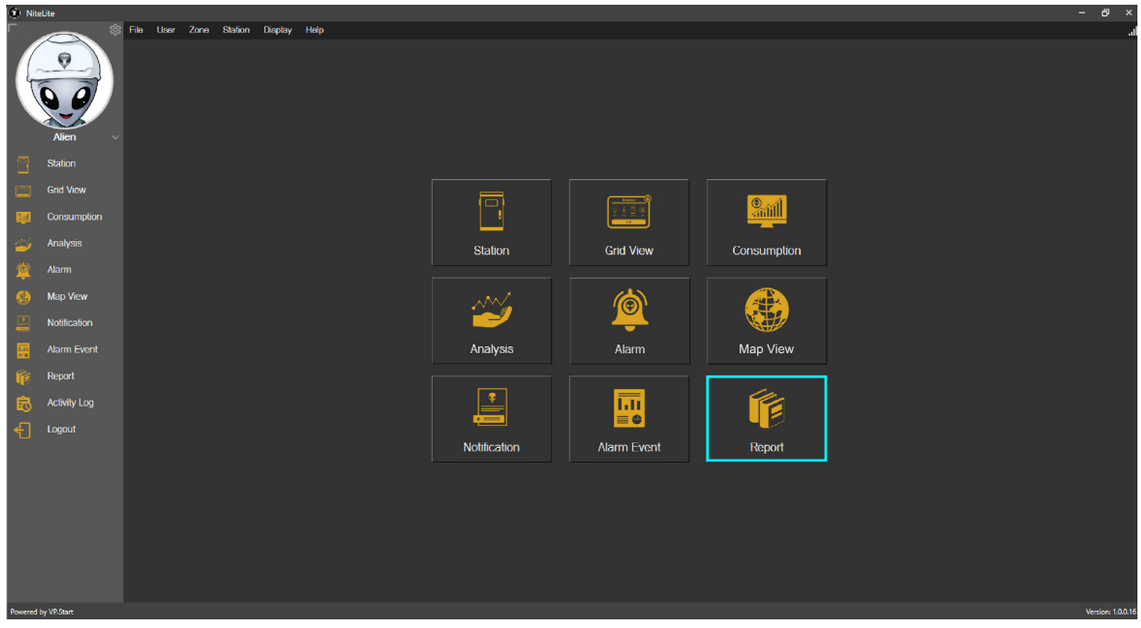


Figure 37: Report

Report tool stores and displays information related to SCDs, including SCD, VP.Start ID, Zone, Door Open, Energy consumption, power source interruption, overconsumption, and underconsumption, along with the total number of alarms.

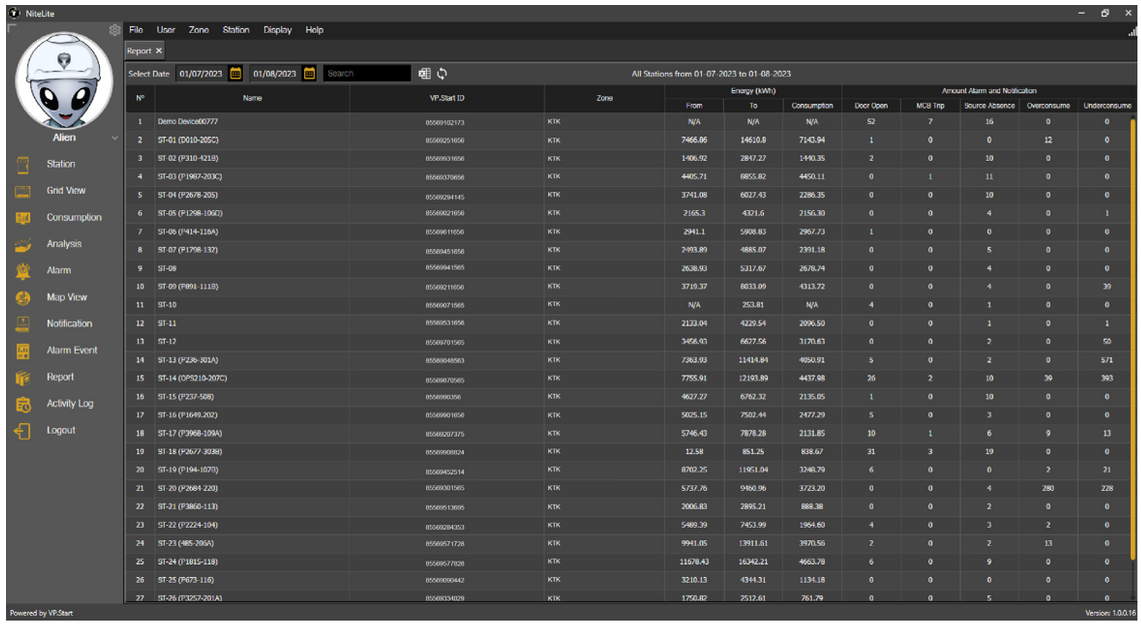


Figure 38: Report Data

12. Activity Log

The Activity Log records every operational activity within the NiteLite System Software. Click on "Activity Log".

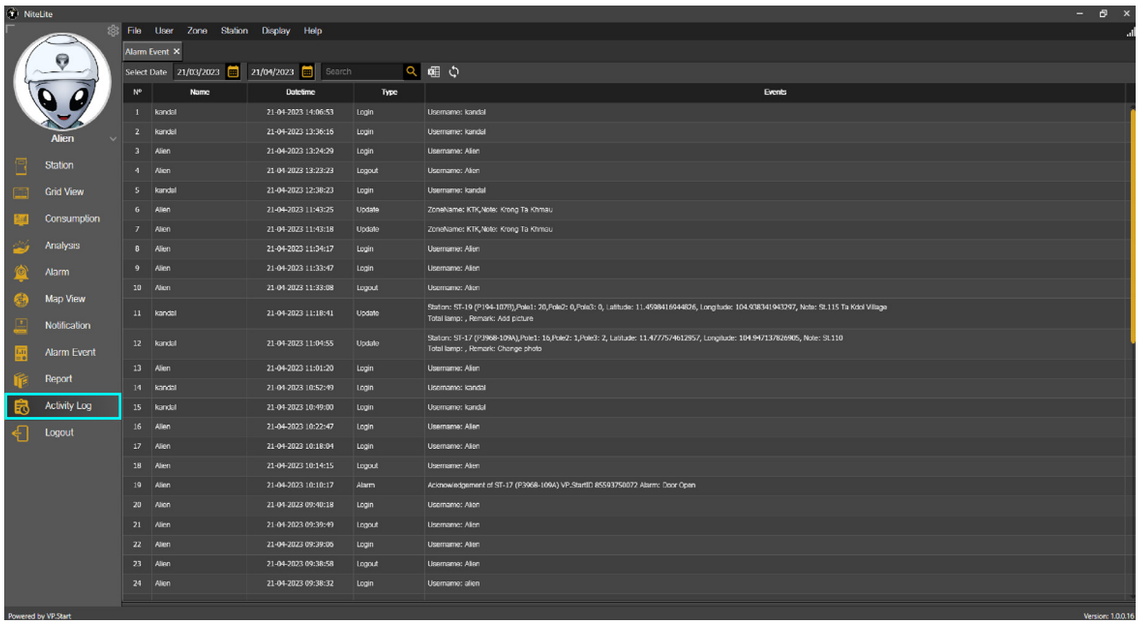


Figure 39: Activity Log

Click on to view previous data. Operators can search for SCD names using the search box .
As well as download an Excel report by clicking on .

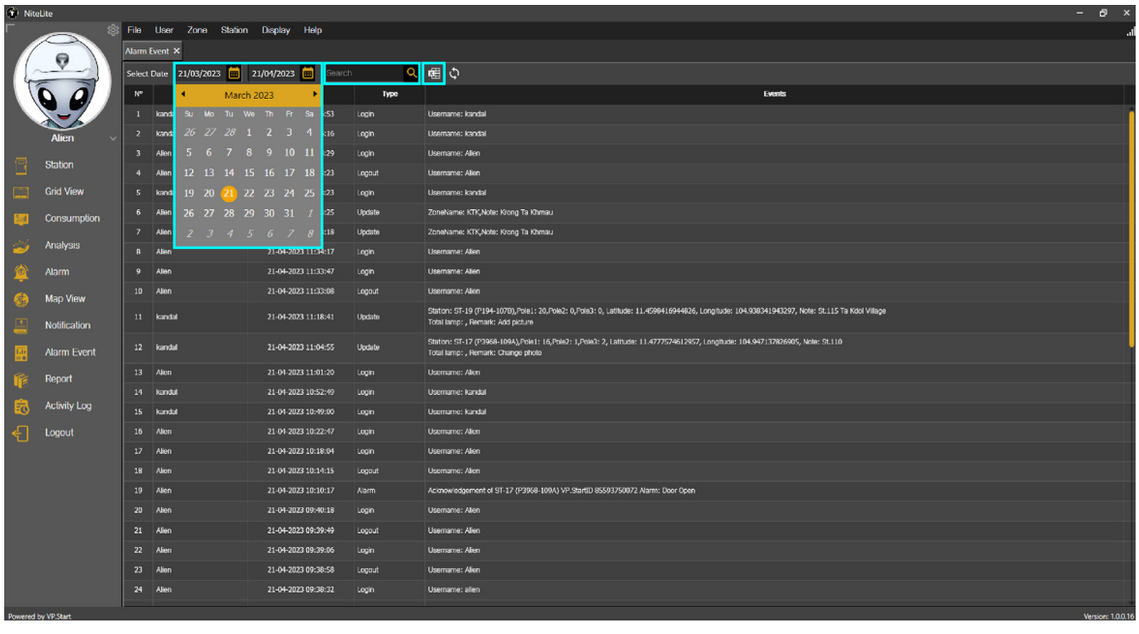


Figure 40: Activity Log Data

13. File

13.1. Logout

To Logout of the NiteLite System Software, click on "File" and then select "Logout".

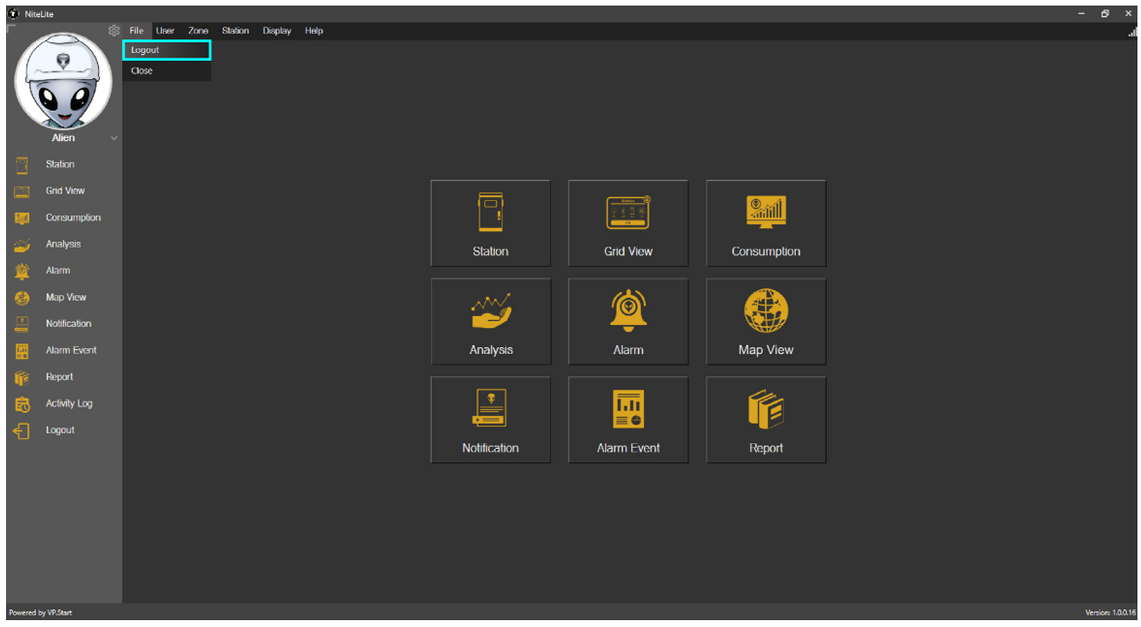


Figure 41: Logout NiteLite Software

13.2. Close

To close the NiteLite System Software, click on "File" and then select "Close".

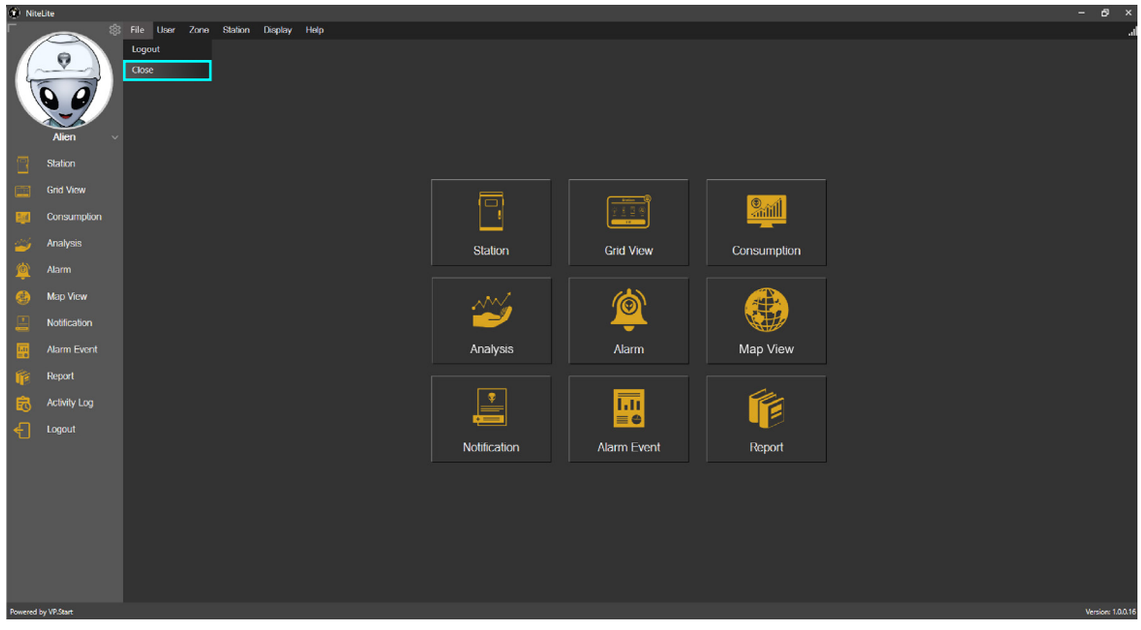


Figure 42: Close NiteLite Software

14. User

The "User" section allows admin user to manage, edit and create new user.

14.1. Manage User

To manage a user, click on "User" and then select "Manage User".

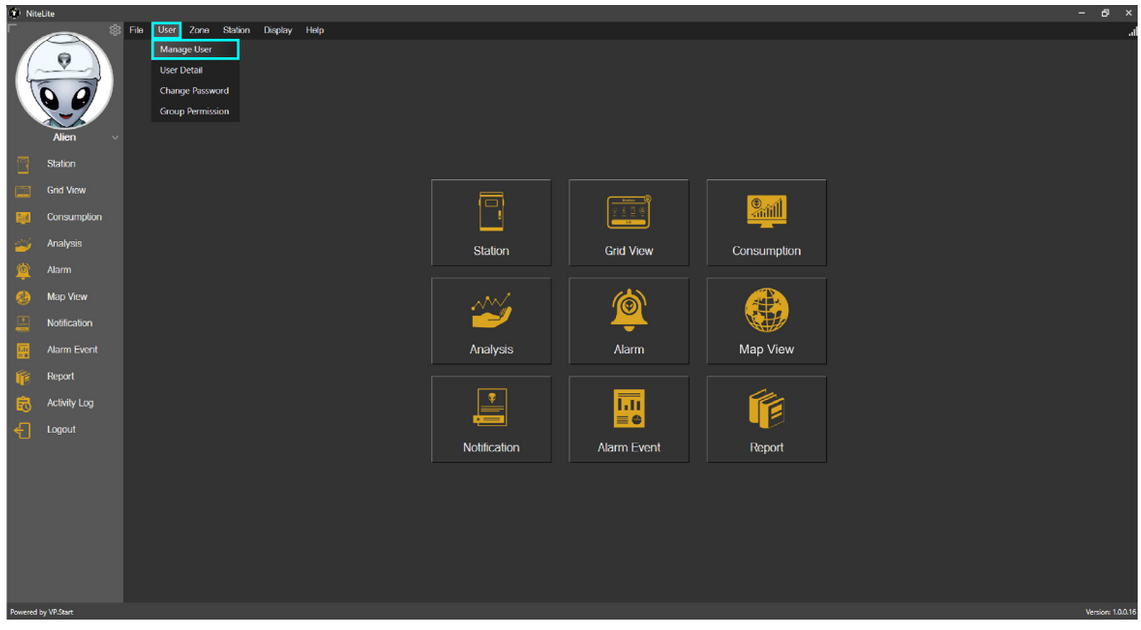


Figure 43: Management User

14.1.1. Modify User

Select the operator name for user modification:

- **Full Name**: Name of the user.
- **Username:** The user to log in to the NiteLite System Software.
- **Employee ID**: ID or user ID of the user.
- **Position**: The position or role of the user.
- **Phone**: The user's phone number.
- **Email**: The email address of the user.
- **Locaion**: The location of the user.
- **Address**: The address of the user.
- **Created By**: The user who created this entry.

After editing, click the "Update" button, click the "Yes" button.

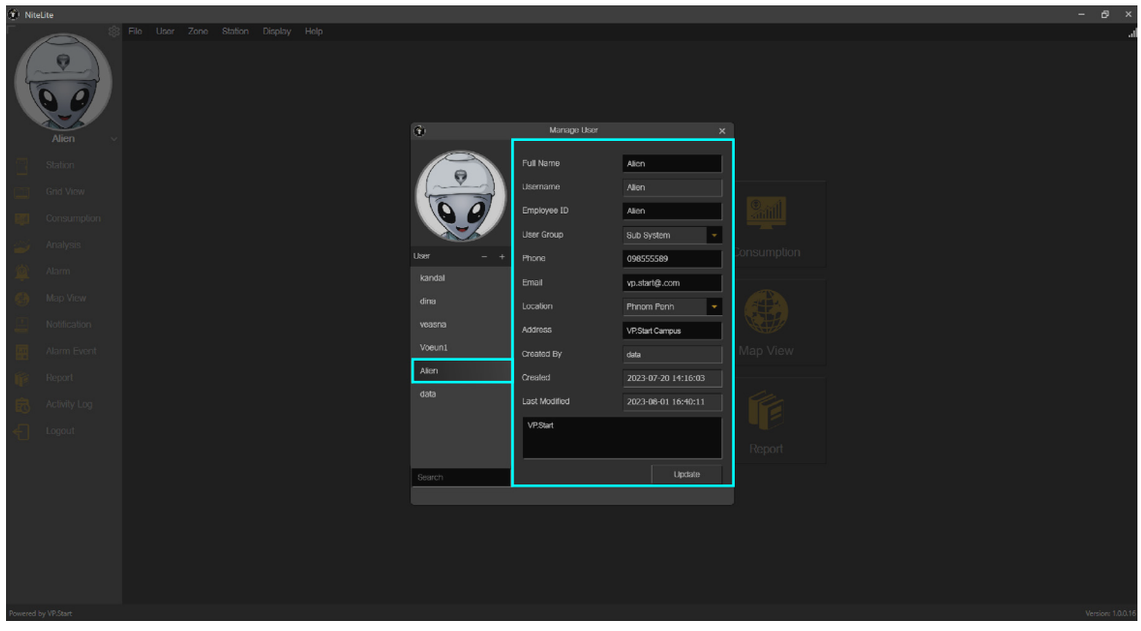


Figure 44: Modify User

14.1.2. Create User

To create a new user, click on "Manage User" and then click on the "+" sign (Add New)

- Full Name: Name of the user.

- Username: The user to log in to the NiteLite System Software.

- Password: Create a password to access the NiteLite System Software.

- Verify Password: Confirm the password by entering again.

- Employee ID: ID or user ID of the user.

- Phone: The user's phone number.

- Email: The email address of the user.

- User Group: Define the user group by specifying the desired user group.

- Location: The location of the user.

- Address: The address of the user.

After filling in the new user data, click on "Create" and then confirm by clicking the "Yes" button.

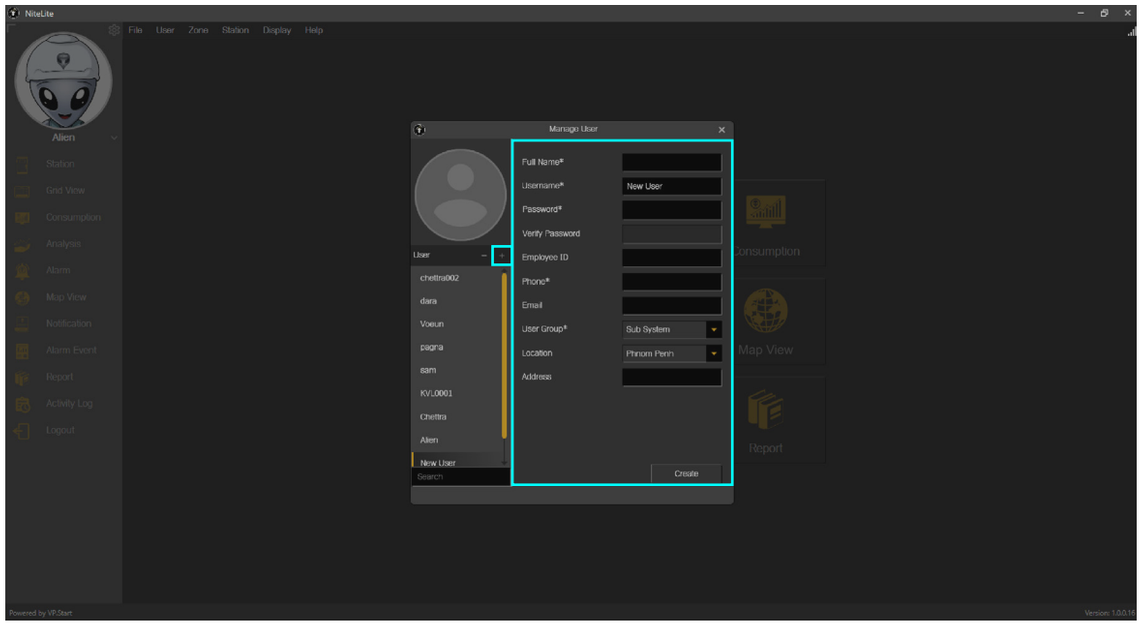


Figure 45: Create User

14.1.3. Delete User

To delete a user, click on "Manage User", select the name of the user to be deleted, and then click on the "-" (Delete) sign. Finally, click on the "Yes" button to confirm the deletion.

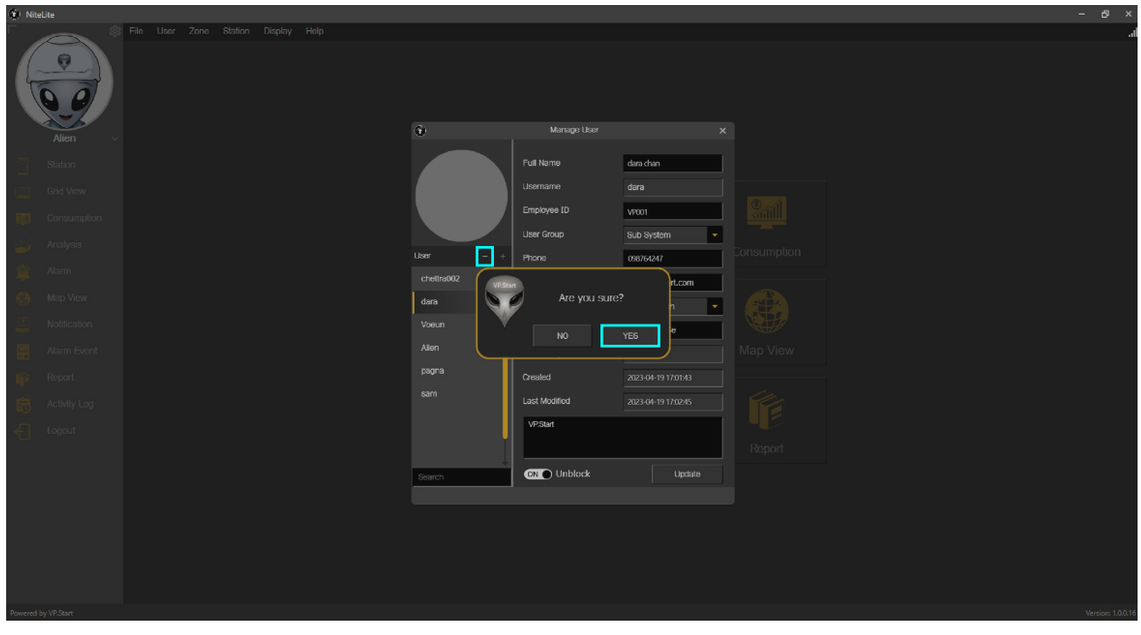


Figure 46: Delete User

14.2. User Detail

To check user data and manage it in NiteLite System Software, please click on "User Detail".

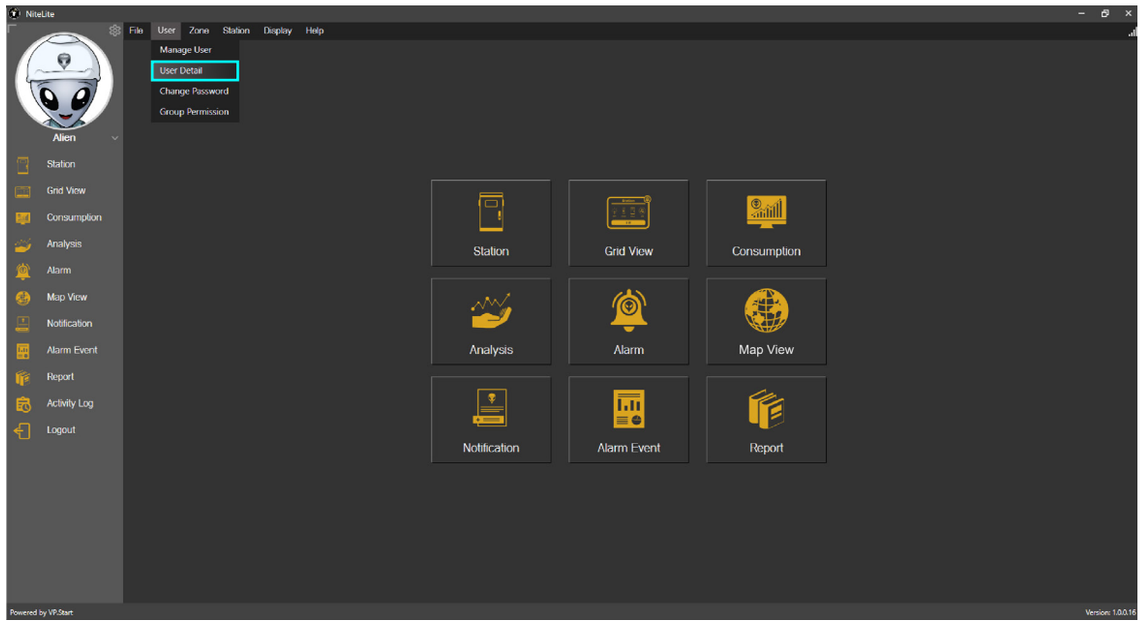


Figure 47: User Detail

Select the user name to view the user data and management rights.

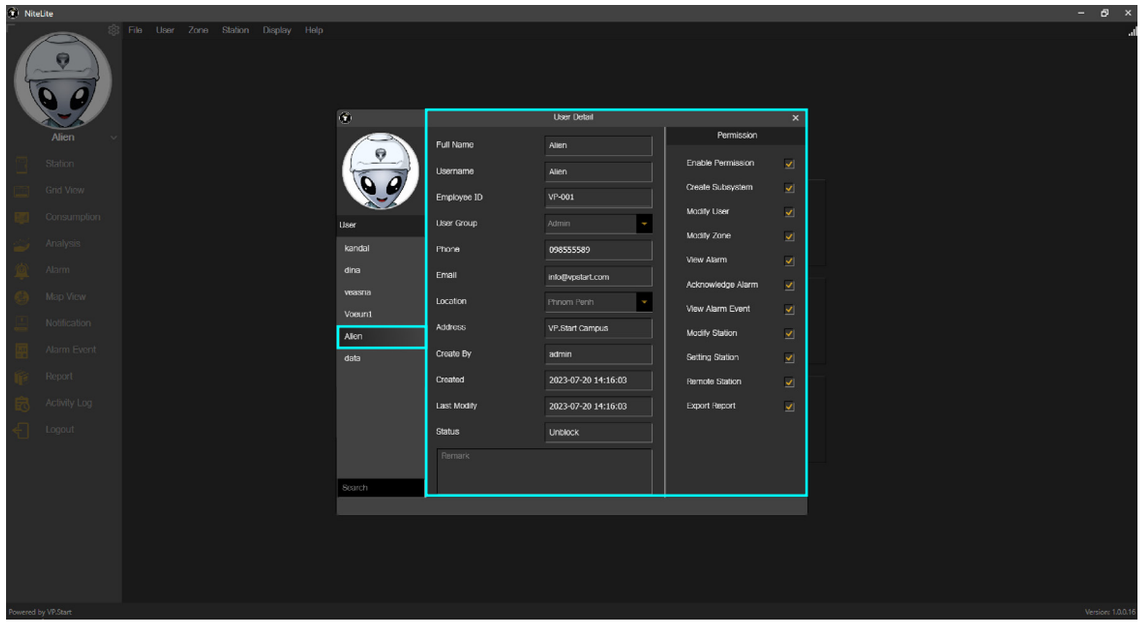


Figure 48: The User Data and Management Rights

14.3. Change Password

To change the password in the user account for any user, click on "Change Password".

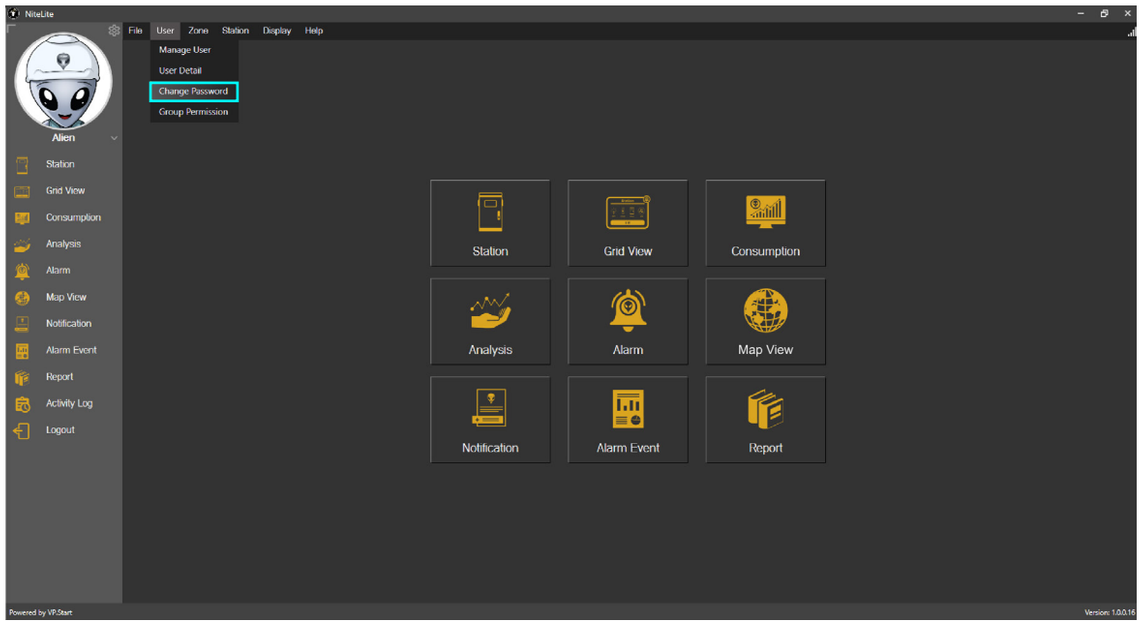


Figure 49: Change Password

- Current Password: Enter the current password of the user.

- New Password: Enter a new password in the "New Password" field.

- Verify Password: Confirm the password by entering it again.

To change the password, click on the "Change" button and then confirm by clicking the "Yes" button.

To close the function tab, click on the "Close" button.

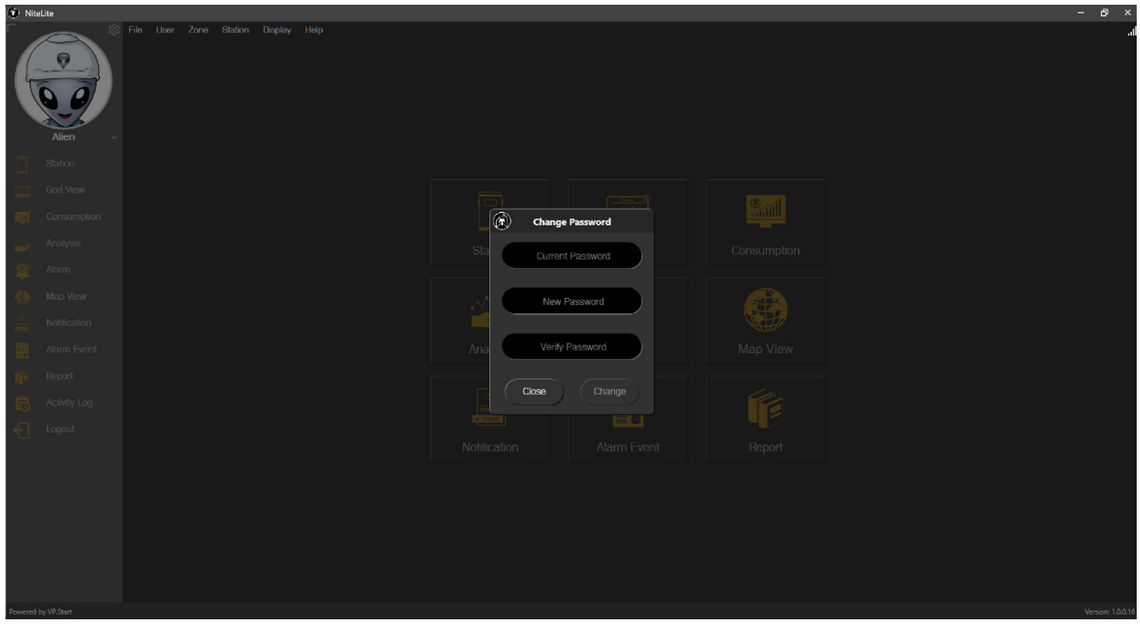


Figure 50: Chang User Password

14.4. Group Permission

The administrator user possesses the capability to assign any users to the Group Permission, thereby granting them access rights at various levels. click on "Group Permission".

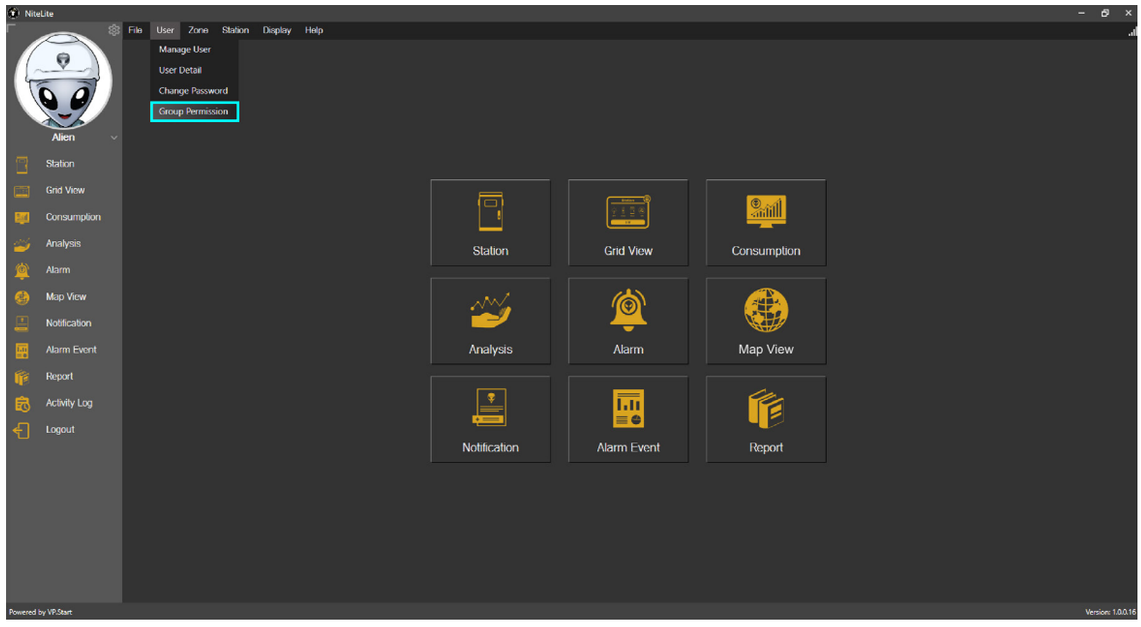


Figure 51: Group Permission

Select a group of administrative rights, and assign rights by tick " ✓ " the corresponding permissions, such as:

- Enable the Permission: Option to grant the user the ability to set software management rights.

- Modify User: Modify a User.

- Modify Zone: Modify a Zone.

- View Alarm: View alarms.

- Acknowledge Alarm: An alarm and analyze.

- View Alarm Event: To view alarm events and check for alarm information.

- Modify Station: To modify a station.

- Setting Station: To configure a station and set the SCD master.

- Remote Station: To remotely access a station and manage the SCD.

- Export Report: To export a report and download as an Excel file.

Click on "Apply", and then click on the "Yes" button to confirm.

To add a group management right, click on the "+" sign. To delete a group management, click on the "-" sign.

To close a function tab, click on the "Close" button.

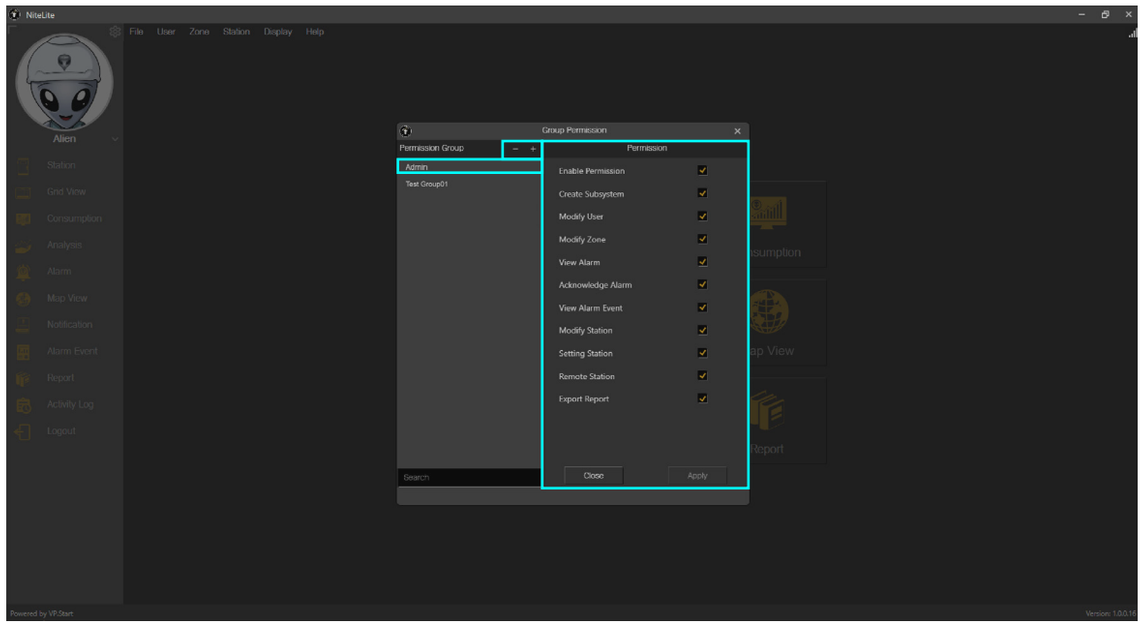


Figure 52: Modify Zone

15. Manage Zone

To ensure seamless management of SDCs, it is imperative to possess the capability to create, delete, and edit zotnes. click on "Zone" and then click on "Manage Zone".

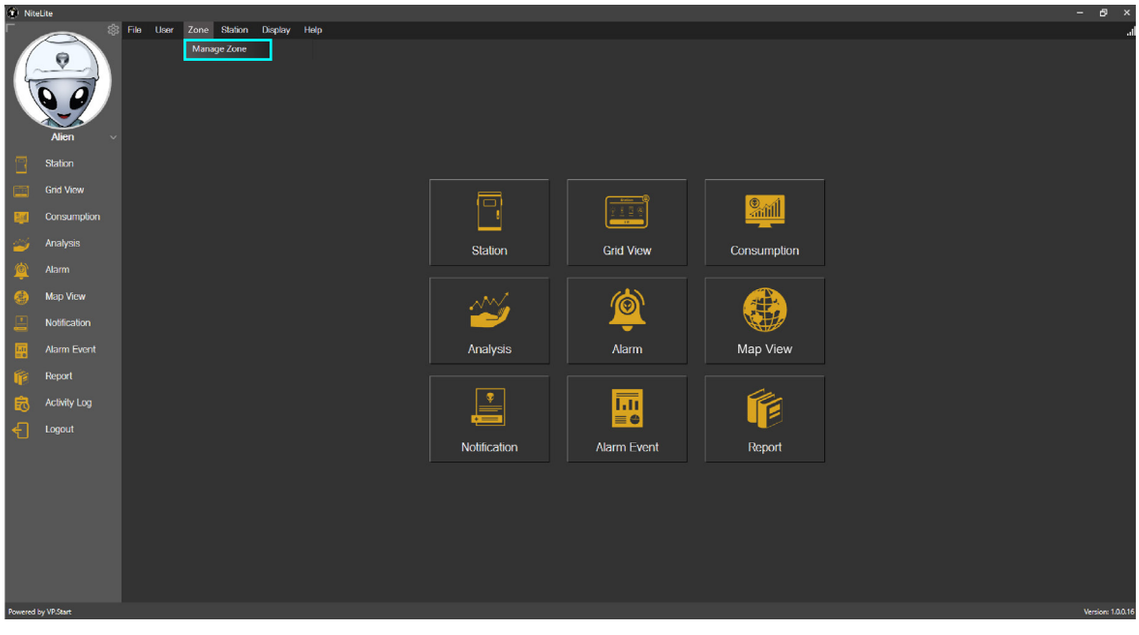


Figure 53: Manage Zone

To modify the selected zone name, click on "Zone Modify" and then click on the "Update" button.

After that, click on the "Yes" button.

Show Zone click on "+" sign to add zone or click on "-" sign to delete zone.

Click on the button "Close" to close a function tab.

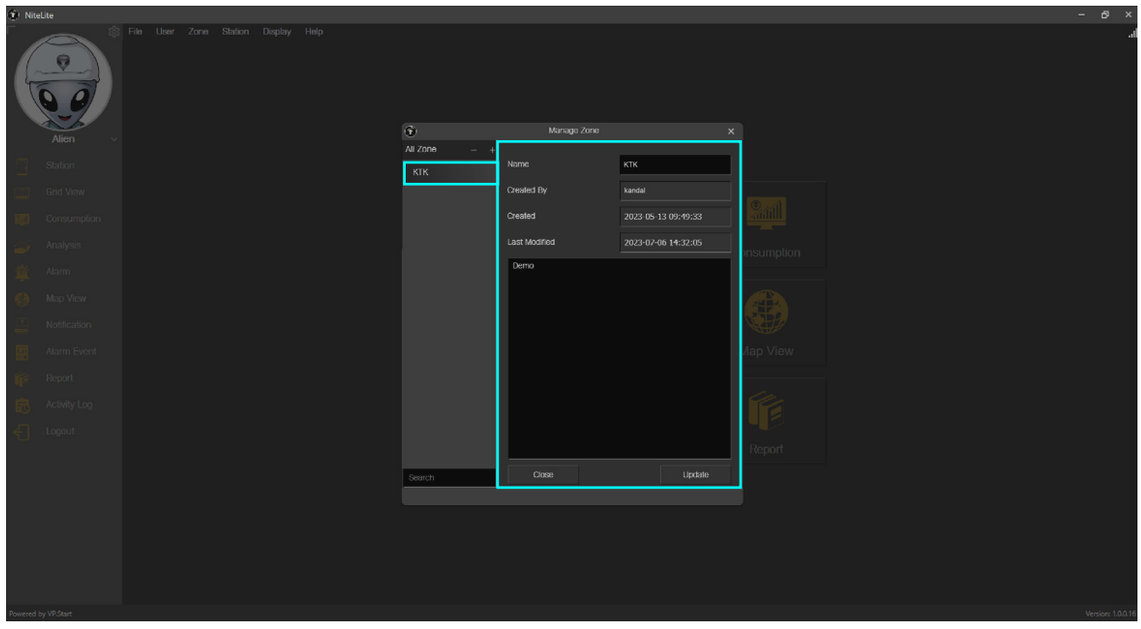


Figure 54: Modify Station

16. Station

Control SCD such as Modify Station, Setting Station, Manage Station, Notification Alarm and Alarm Events Station Event click on "Station".

16.1. Modify Station

Modify SCD and click on "Modify Station".

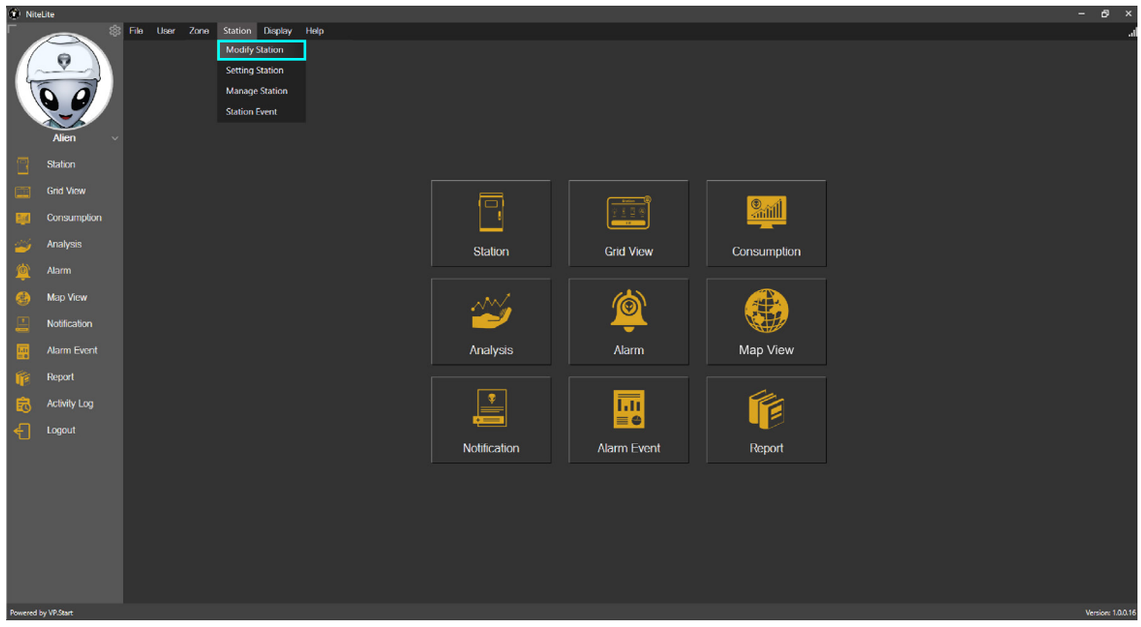


Figure 55: Modify Station

To modify SCD's information such as the SCD Name, SCD VP.Start ID, SCD Serial, SCD Serial Cabinet, Amount of Poles for Phase A, Phase B, Phase C, Location, Latitude, Longitude, Created By, Created Date, Last Modified Date, Remark and Note. Click on "Update" button and Click on "Yes" button.

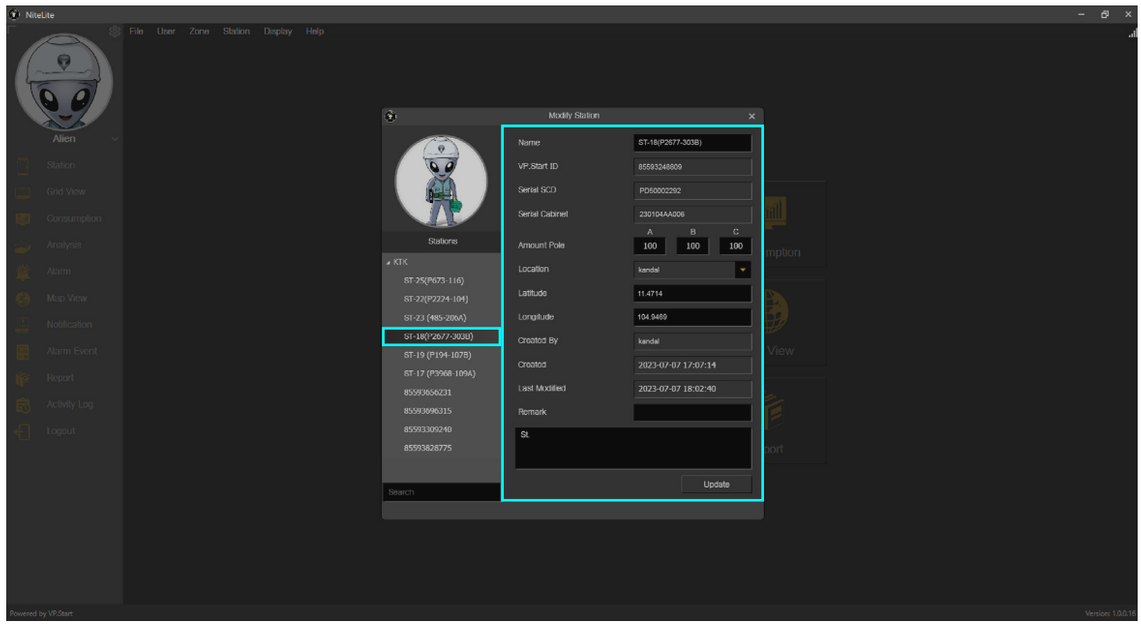


Figure 56: Modify Station Interface

16.2. Setting Station

Setting Station SCD such as Consumption, Alarm Setting and Light Setting click on "Setting Station".

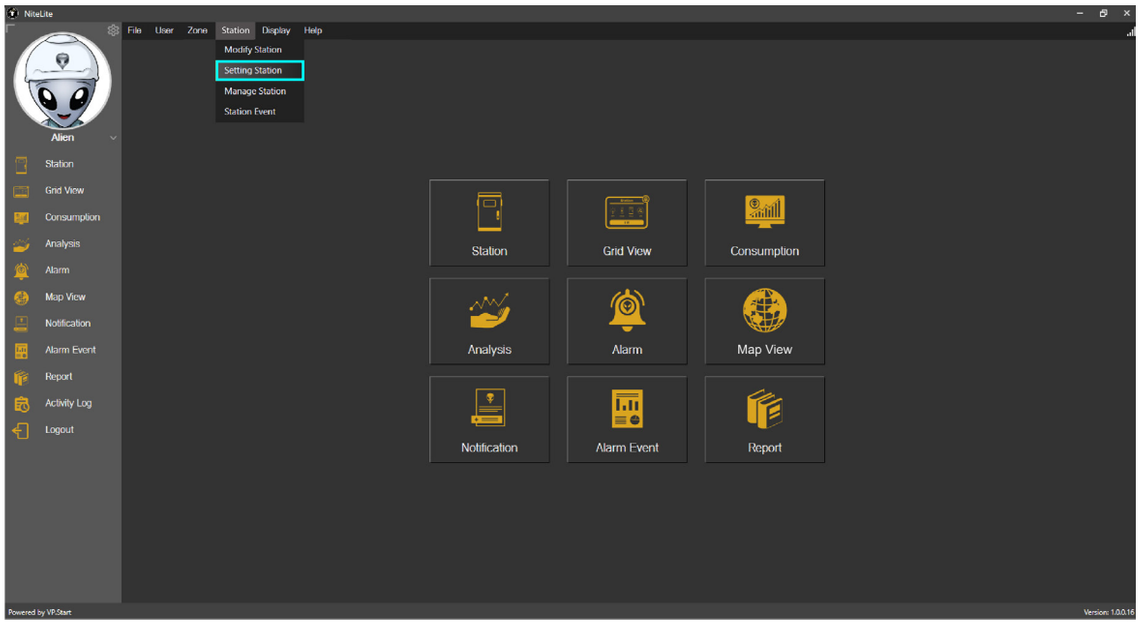


Figure 57: Setting Station

Select name SCD ⁑

Consumption such as Average Consumption, Overload, Under Load and Enable Notification by sign "✓".

The settings must be configured for the files used in Phase A, Phase B, and Phase C.

Alarm Settings such as MCB Trip Enable, Door Open Alarm Enable, Source Alarm Enable.

Light Setting such as Schedule On, Sunset/Sunrise, Light On and OFF Time and Modem.

Setting Station click on button "Apply Change" and then confirm by clicking on the "Yes" button.

To close a function tab, click on the "Close" button.

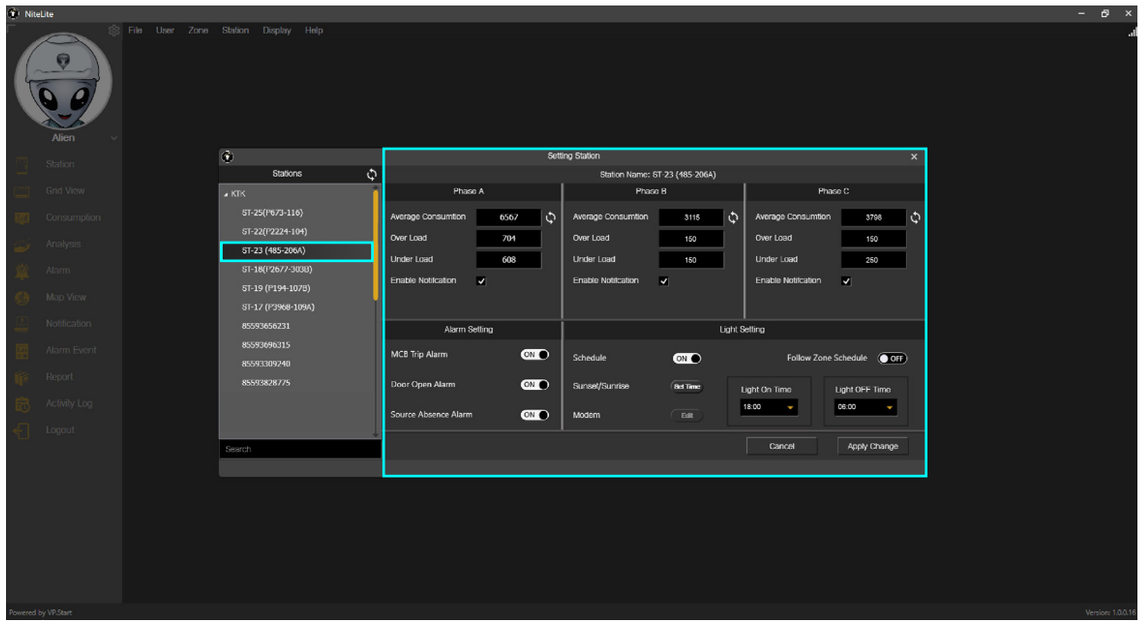


Figure 58: Setting Station Interface

16.3. Manage Station

To set up the SCD and manage stations in each area, click on the "Manage Station".

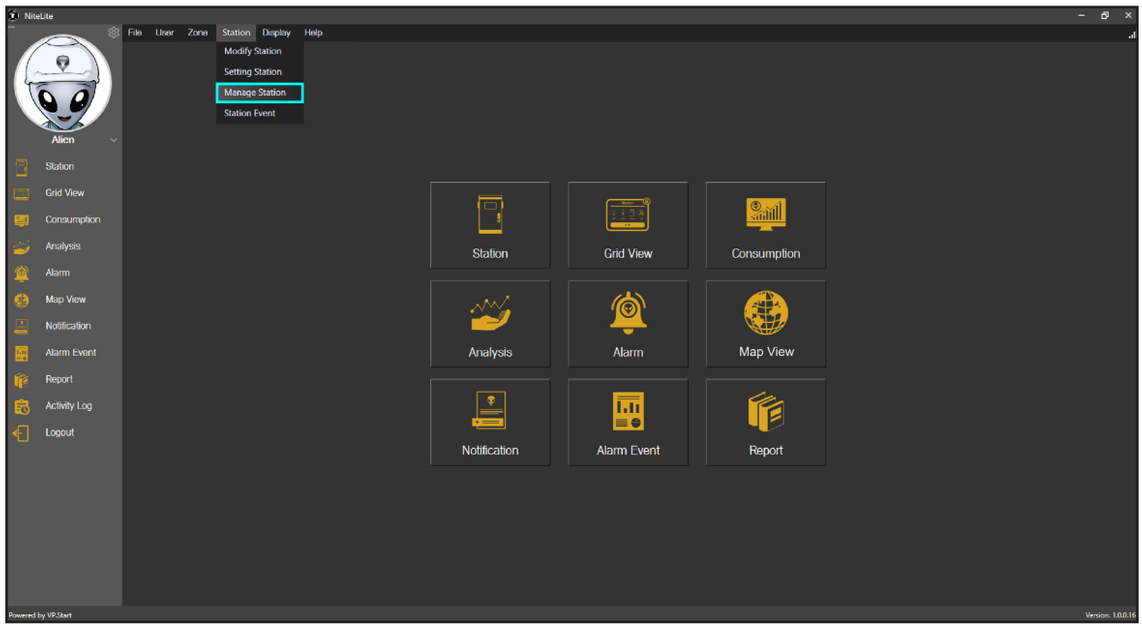


Figure 59: Manage Station

Select the zone name from the list of All Zone and drag the SCD name in the Station into the zone name.

Click on button "Apply Change" and then confirm by clicking on the "Yes" button.

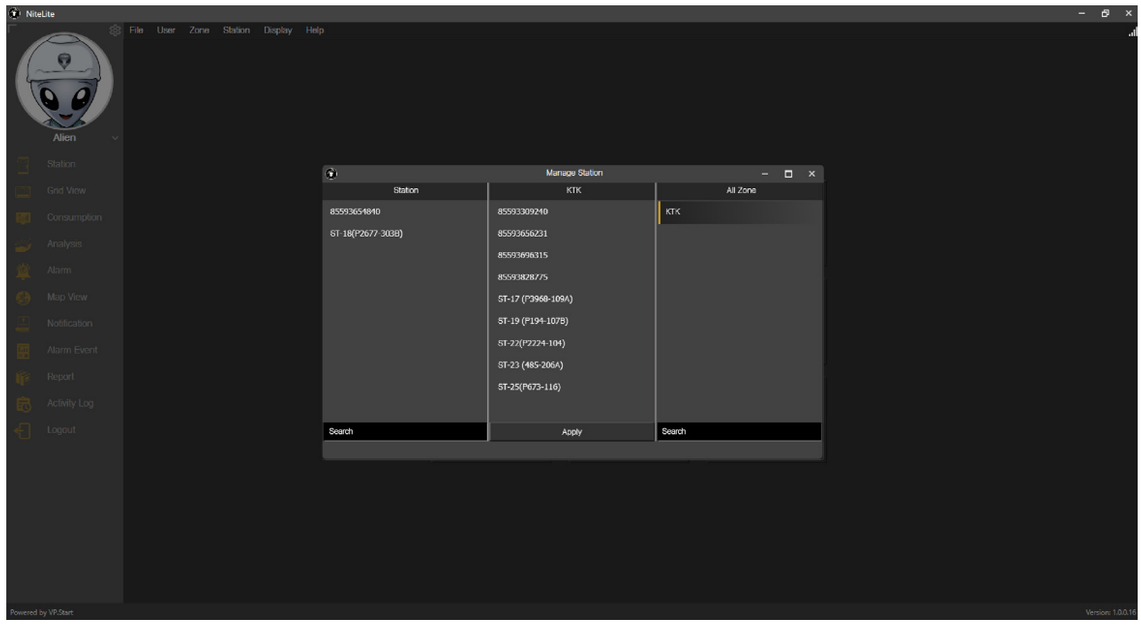


Figure 60: Set Up Station into Zone

16.4. Station Event

To view the report data for Notification Events and Alarm Events related to a station, click on "Station Event".

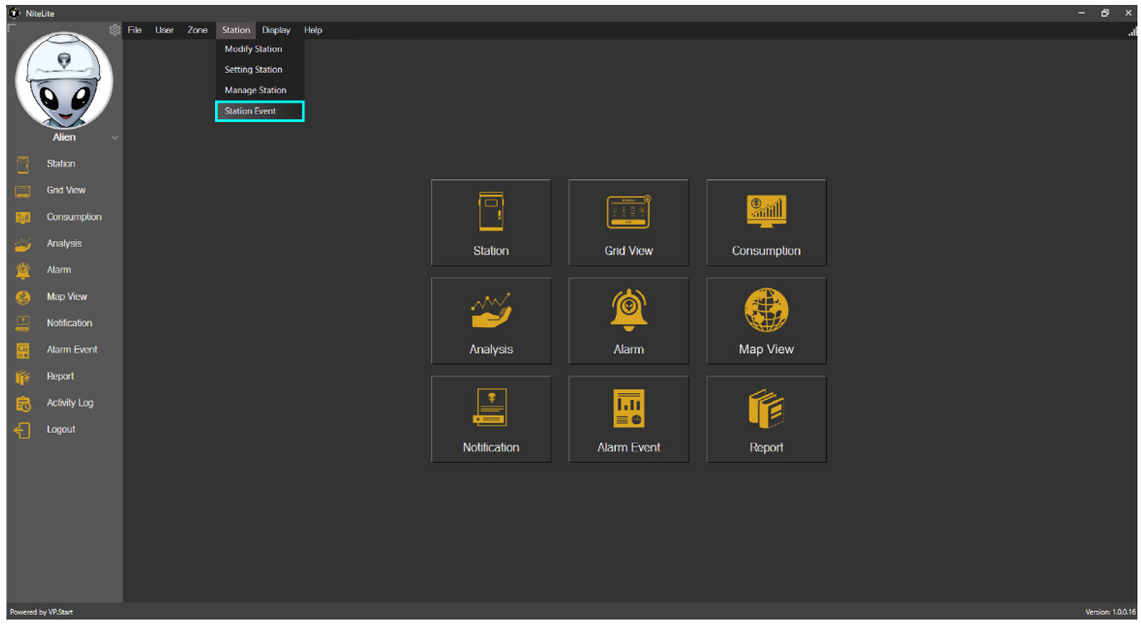


Figure 61: Station Events

Select SCD name, check Notification Events and Alarm Events. Operators can search for SCD names using the search box Search . As well as download an Excel report by clicking on .

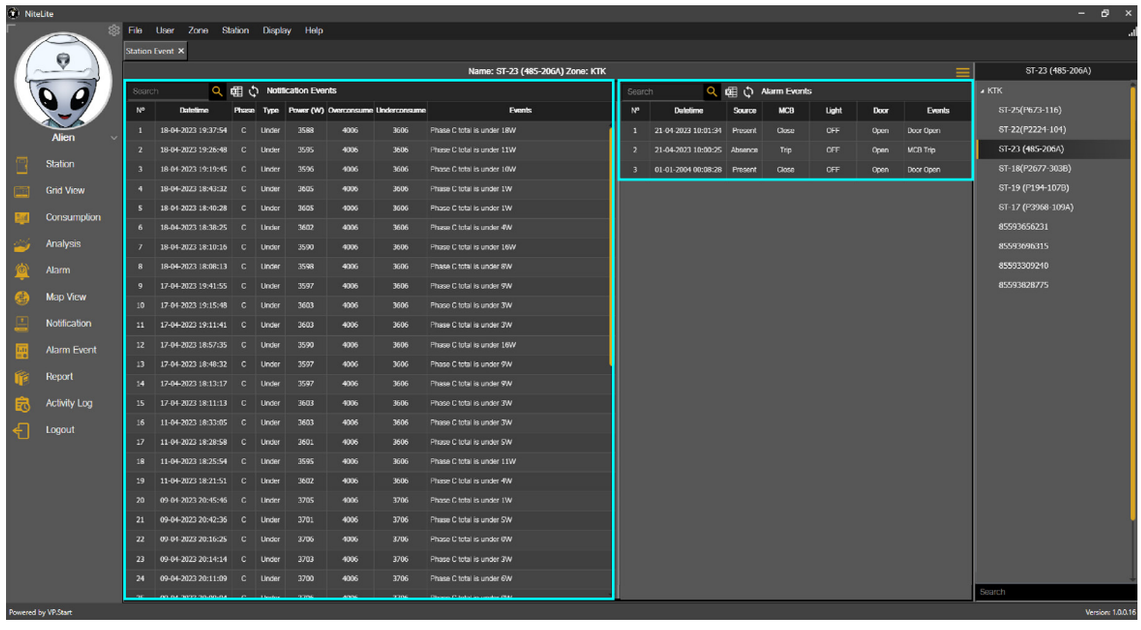


Figure 62: Notification Events and Alarm Events

17. Display

The functions "Display" such as Station, Grid View, Consumption, Analysis, Alarm, Map View, Notification, Alarm Event, and Report should be detailed from page 4 to page 21.

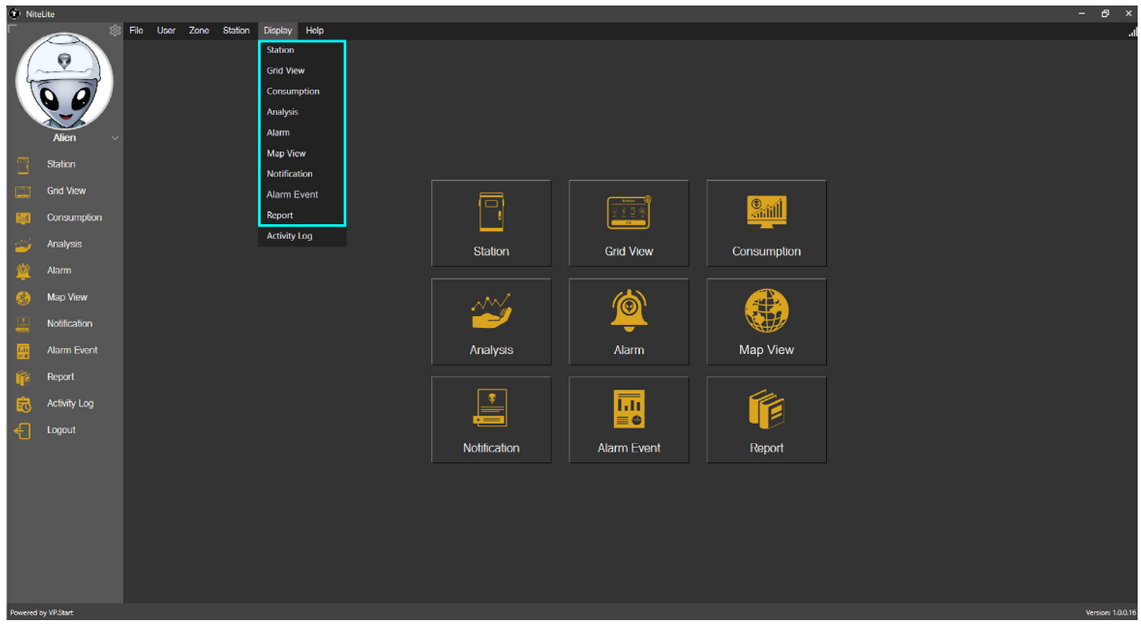


Figure 63: Display (1)

The function “Activity Log” has to be mentioned above too on page 22.

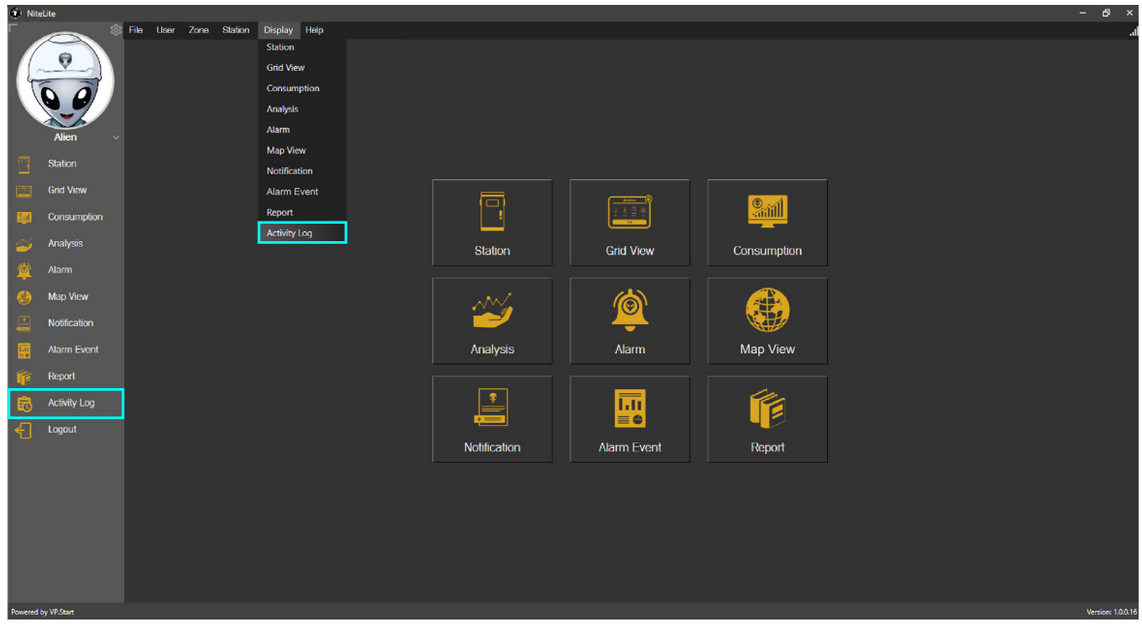


Figure 64: Display (2)

18. Help

In the "Help" feature, there are three features available: "About Us VP.Start", "GSM Controller" and "Check Update NiteLite System Software". Click on "Help" to access these features.

18.1. About Us

About Us Show information about VP.Start by accessing the website of VP.Start. Click on "About Us".

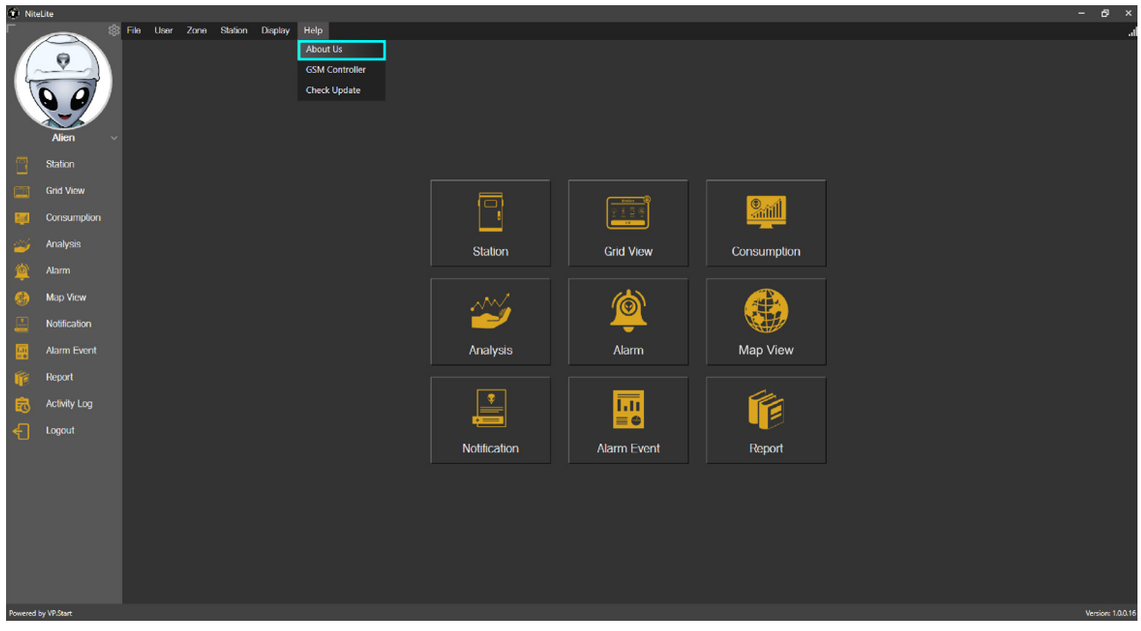


Figure 65: About Us

The VP.Start website offers extensive information about VP.Start. Customers can also reach out to the VP.Start team directly at any time by clicking on the "CONTACT US" button.

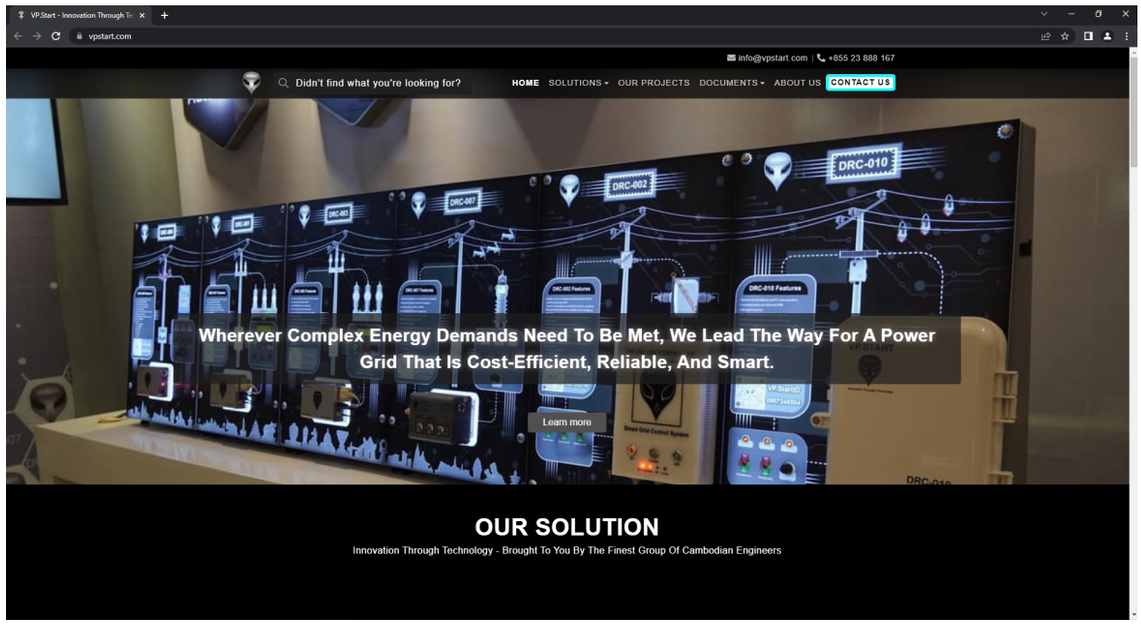


Figure 66: Contact Us

18.2. GSM Controller

To check balance ,top up and GSM signal strength, click on "GSM Controller".

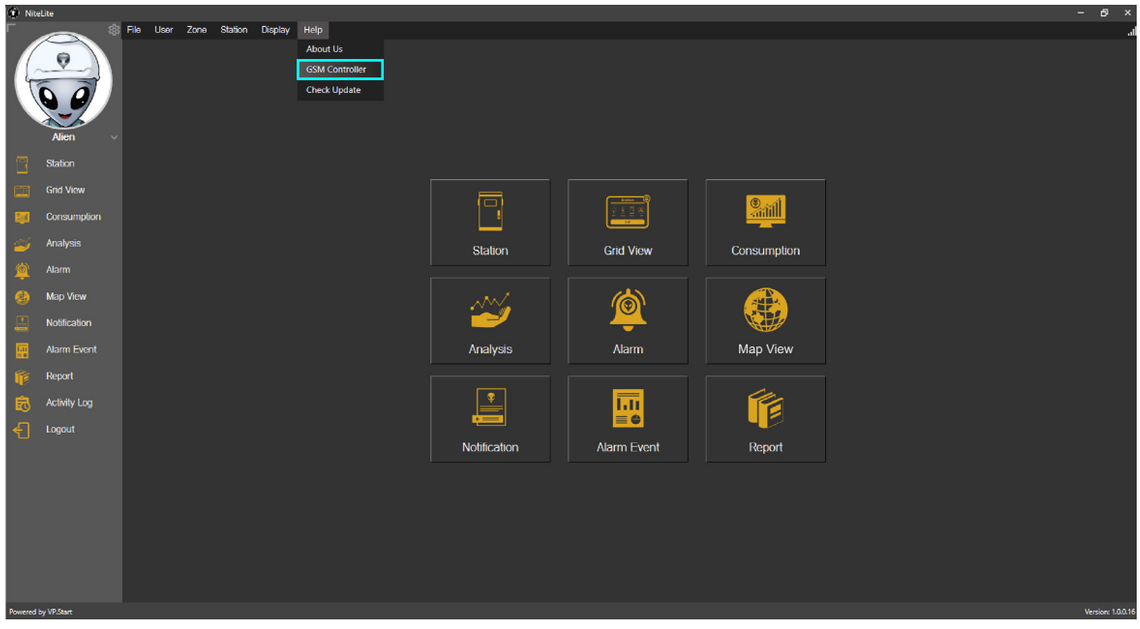


Figure 67: GSM Controller

- Signal Strength: Level of service GSM Controller, Click on the button "Restart" Confirm the restart by clicking on the "Yes" button to restart the NiteLite GSM Controller.

- Check and top up: Check or topup balance. Enter the check or topup balance code, then click the "Submit" button Click on “Yes” button.

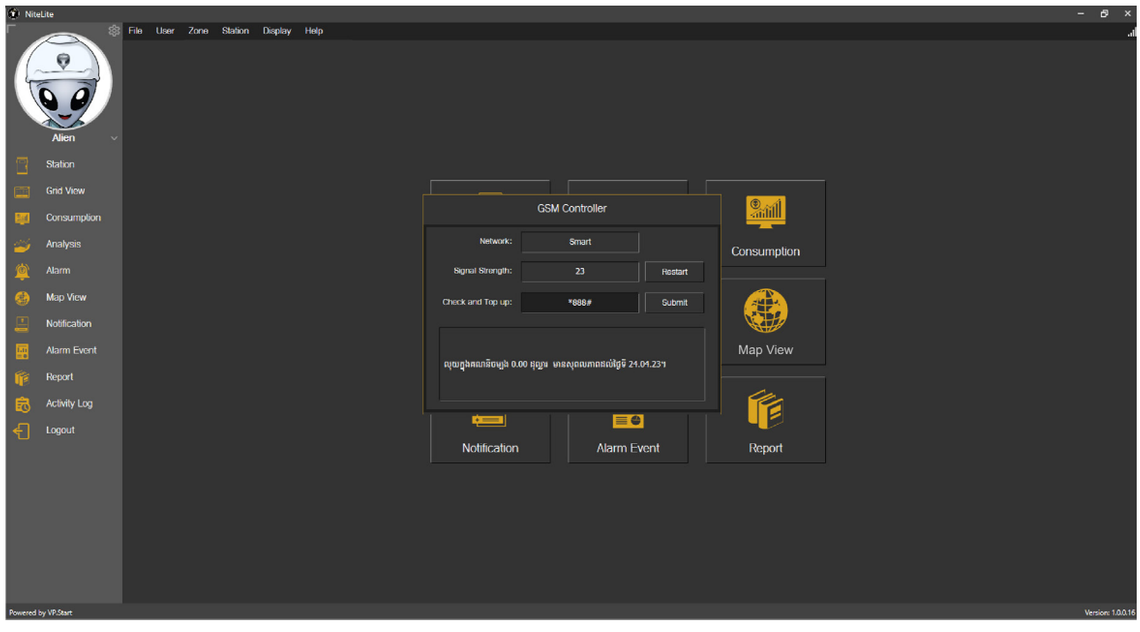


Figure 68: Check or Topup Balance

18.3. Check Update

To check and update the NiteLite System Software, click on "Check Update".

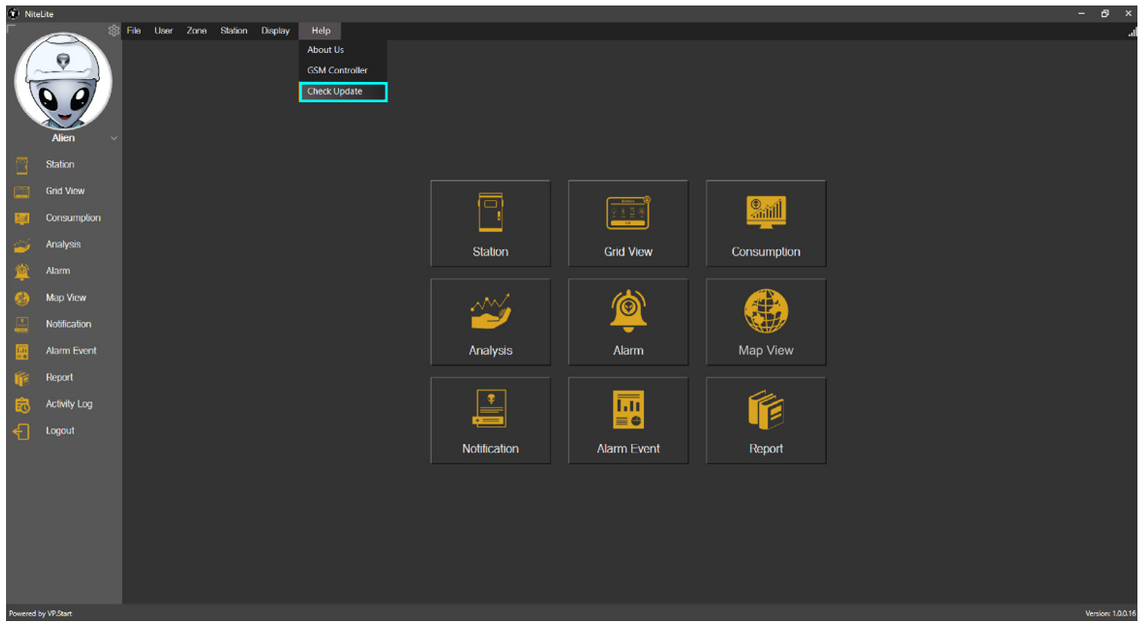


Figure 69: Check Update

The notification panel can appear in two different forms:

- You're up to date: The NiteLite System Software has already been updated to the latest version.
- Do you want to allow this app to make changes to your device? The NiteLite System Software does not have the latest version updated.

Click on the button "Yes" to update.

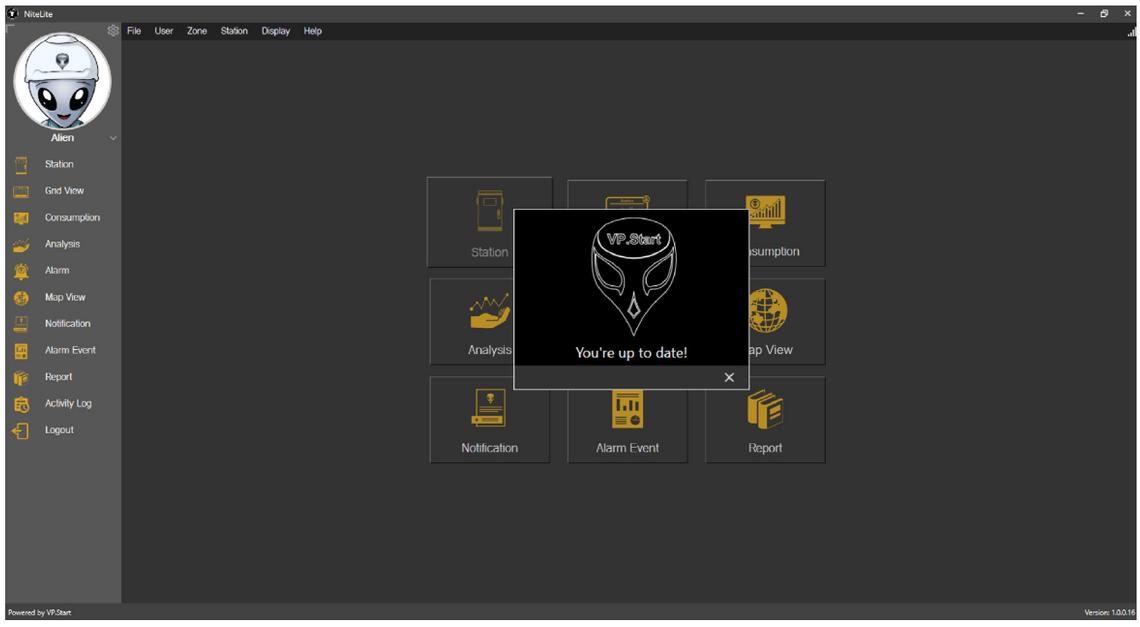


Figure 70: Update NiteLite System Software

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