



User Manual

**LinuxData.Adm
Version 1.1**

July 2024

Author: Luiz Pires



User Manual

Acknowledgments

We would like to express our sincere gratitude to everyone who contributed to the creation of this LinxData.Adm user manual. In particular, we thank:

- To the LinxData development team, for their hard work and dedication in creating an innovative and efficient system.
- To the testers and beta users, for your valuable feedback and suggestions for improvement.
- To the technical support team, for their support and assistance in resolving problems and queries.
- To Gemini, Google's artificial intelligence, for its collaboration in the preparation of this manual, helping to organize the content, review the text and suggest improvements.
- To you, the user, for choosing LinxData.Adm and trusting our solution for managing and monitoring your devices.
- To Armando Ketzer for mentoring the LinxData project.

We believe this manual will be a useful tool for you to make the most of LinxData.Adm's features and optimize your operations.



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Introduction

LinxDat is a comprehensive device management and monitoring platform designed to meet the needs of companies and organizations looking to optimize their operations and ensure the security of their assets. With advanced data collection and analysis capabilities, LinxDat allows you to track the performance of your devices in real time, identify problems and make strategic decisions to improve efficiency and reduce costs.

This user manual aims to guide you through the main functionalities of LinxDat, from accessing the system to creating and managing users, devices and events. It was designed to cater to different user profiles, such as administrators, operators, managers and technicians, providing clear and detailed information on how to use the system efficiently and safely.

Throughout this manual, you will find step-by-step instructions, illustrative images, and helpful tips to make the most of LinxDat and transform the way you manage your devices.



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1 Basic Operations







This section describes the basic operations that you can perform on various LinxDat.Adm pages, such as creating, editing, deleting and exporting records, as well as explaining the standard interface of these pages.

1.1 List View

When you access a page that lists records (such as the Countries page), you will see a table with the most relevant information for each record.

At the end of each row of the table, in the "Action" column, you will find buttons to Edit (Blue pencil) and Delete (Red Trash) the record.

The screenshot shows the 'Countries' page in the LinxDat administration interface. The page has a sidebar with navigation links: Home, Devices, Services, Administration, Localization (selected), States, Cities, Security, Utility, and About. The main content area displays a table of countries with columns: Country, Country Code, Flag Code, Active, and Actions. The table lists three countries: Brasil, Uruguay, and USA. Above the table are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', and a search bar. Annotations with orange arrows point to the '+ CREATE', 'REFRESH', 'EXPORT', and search bar buttons, and to the 'Actions' column of the table. The footer of the page shows 'Rows per page: 10' and 'page 1-3 of 3'.

Country	Country Code	Flag Code	Active	Actions
Brasil	1086	BR.png	Yes	 
Uruguay	8451	uy.png	Yes	 
USA	2496	us.png	Yes	 

Countries Page



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You can click the column headers to sort the records ascending or descending. By clicking once, the sorting will be ascending (AZ or 0-9). By clicking again, the sorting will be descending (ZA or 9-0). You can click multiple times to switch between the two sorting ways.



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1.2 Editing Records

To Edit a record, click the pencil icon (blue) in the "Action" column. A window will open displaying all registry information. You can change the desired fields and click "Save" to confirm the changes.

Countries

+ CREATE REFRESH EXPORT Search

Country	Country Code	Flag Code	Active
Brasil	1086	BR.png	Yes
Uruguay			
USA			

Update Country

Identification
5b7a8c08-7660-4748-9f78-093cf1ed9785

Country Name
Brasil

Country Code
1086

Flag Code
BR.png

☒ Active ☒ Updated

CANCEL UPDATE

Edit Records

1.3 Deletion of Records

To delete a record, click the Trash icon (red) in the "Action" column. A Confirmation window will appear, asking if you are sure you want to delete the item. Click "Confirm" to delete the record or "Cancel" to return to the list.

Countries

+ CREATE REFRESH EXPORT Search

Country	Country Code	Flag Code	Active
Brasil	1086	BR.png	Yes
Uruguay	8451	uy.png	Yes
USA	2496	us.png	Yes

Delete Confirmation

Are You Sure You Want To Delete This Item?

CANCEL CONFIRM



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Confirm Delete



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1.4 Creating New Records

To create a new record, click the "Create" button located above the table. A window similar to the editing window will open, but with blank fields. Fill in the fields with the new record information and click "Save" to create the record.

The screenshot shows a web application interface for managing countries. At the top, there's a header with the TREESYS logo and the title 'User Manual'. Below this, the section '1.4 Creating New Records' is introduced. The main content area displays a table titled 'Countries' with columns: Country, Country Code, Flag Code, and Active. The table lists three countries: Brasil (1086, BR.png, Yes), Uruguay, and USA. Above the table are three buttons: '+ CREATE' (highlighted), 'REFRESH', and 'EXPORT'. A search bar is also present. A modal window titled '+ Add Country' is open, showing input fields for Country Name, Country Code, and Flag Code. The Country Name and Country Code fields have red error messages below them: 'Country Name is Required' and 'Country Code is Required'. There are also checkboxes for 'Active' and 'Updated', and 'CANCEL' and 'SAVE' buttons at the bottom right of the modal.

Create Record

1.5 Other Options

In addition to the "Create", "Edit" and "Delete" buttons, the pages have buttons for:

- **Refresh:** Updates the list of records on the page.
- **Export:** Exports the list of records to an Excel file.

1.6 Standard Page Interface

LinxData.Adm pages follow an interface standard to facilitate navigation and use of the system. The most common elements are:

- **Side menu:** Allows you to navigate between different sections of the system.
- **Action Buttons:** Contains buttons to perform actions such as Create, Edit, Delete, Refresh and Export records.
- **Records table:** Displays records in table format, with columns for each relevant information.



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- **Pagination:** Allows you to navigate between pages in the record list if there are too many records to be displayed at once.
- **Filters and search:** Allows you to filter and search for specific records in the list.
- **Translation icon:** Allows you to change the system interface language (see section 1.7 for more details).

1.7 Translation (All Profiles)

LinxDData.Adm supports multiple languages, allowing users to customize the system interface according to their preferences. Currently, the system supports the following languages:

- English (United States)
- Portuguese - Brazil)
- Simplified Chinese (PRC)
- Japanese
- Spanish (Mexico)
- Russian
- Serbian (Cyrillic)
- French
- Korean

1.7.1 Changing the Language

To change the LinxDData.Adm language, follow the steps:

1. **Click on the translation icon:** In the top bar of the system, locate the translation icon (a globe) and click on it. [Image of translation icon]
2. **Choose language:** In the drop-down menu that appears, select the desired language.

[Image of language drop-down menu]

3. **Confirm the change:** The system will reload the page and display the interface in the selected language.

1.7.2 Translation Files

LinxDData.Adm uses text files in YAML format to store translations for each language. These files are simpler to use than XML files and facilitate the translation process and system maintenance.



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Example English translation file (en-US.yml):

About: About
AboutL1: Linx Data Admin
AboutL1Cli: Linx Data Client
AboutL2: Version
AboutL3: Copyright - 2023 - by Armando Ketzer & Luiz Pires
Abbreviation: Abbreviation
AbbreviationReq: Abbreviation is Required
Account: Account
... (other terms and translations)

Example of a Portuguese translation file (pt-BR.yml):

About: Sobre
AboutL1: Linx Data Admin
AboutL1Cli: Linx Data Cliente
AboutL2: Versão
AboutL3: Copyright - 2023 - por Armando Ketzer & Luiz Pires
Abbreviation: UF
AbbreviationReq: UF é Obrigatório
Account: Conta
... (other terms and translations)

Observation:

- The system translation is based on the AKSoftware library, which offers features to manage and apply translations in different parts of the system.
- Translation files can be edited to add new terms or correct existing translations.

With this translation functionality, LinxData.Adm becomes more accessible and easier to use for users from different countries and cultures.



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2 Login and System Access

To access LinxData.Adm, follow the steps below:

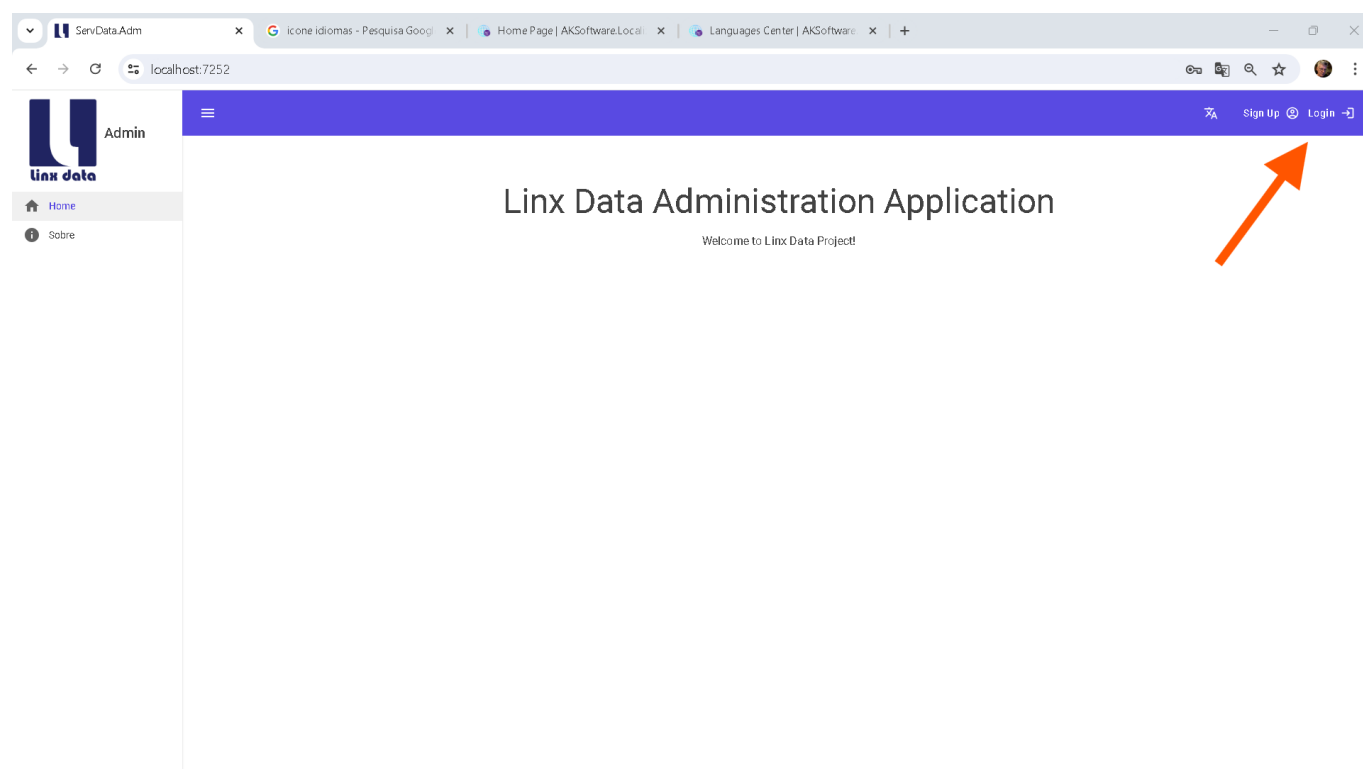
2.1 Access the address:

Open your internet browser and type the following address in the address bar:

<https://LinxDataadm.3sys.com.br>

2.2 Click "Sign in":

On the home page, find the "Sign In" button in the top right corner of the screen and click it.



Home Page without User



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2.3 Complete the login form:

On the login page, enter your email and password in the corresponding fields.

2.4 Click "Sign In":

After filling in the fields, click the "Enter" button to access the system.



Linx Data

Sign In

Don't have an account? [Sign Up](#)

Email

lzpires@gmail.com

Password

.....



Remember me

[Forgot Password?](#)

SIGN IN



Insert your Login and Password, then click Sign In.



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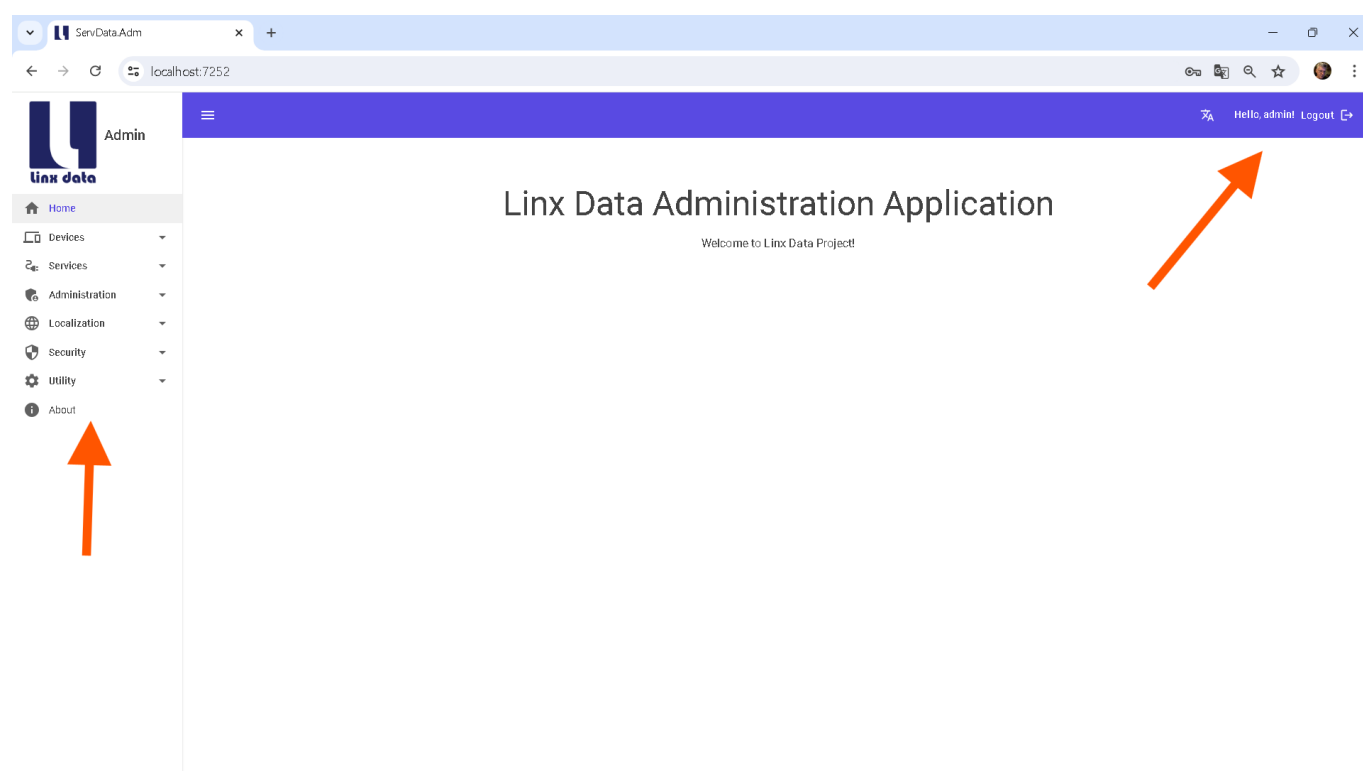
Login Form



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2.5 Home page:

If login is successful, you will be redirected to the LinxData.Adm home page. There, you will see the menu for accessing system functions, according to your profile, and your username in the top right corner.



Home with User Login

Comments:

- Make sure you enter the correct email and password. If you forget your password, click the "I forgot my password" link to recover it.
- The access menu displayed on the home page varies depending on your user profile. Each profile has different permissions to access system functionalities.
- If you have questions about using LinxData.Adm, see the rest of this manual or contact technical support.

Next steps

Now that you are logged into the system, you can start using the available features according to your profile. See the following sections of this manual for detailed information about each function.



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3 Security (Admin Profile)

The Security section in LinxData.Adm allows users with an **Admin profile** to manage security-related aspects of the system, such as users, access profiles and device tokens.

3.1 Users

The "Users" section in LinxData.Adm allows you to manage the system's users, including creating, editing, deleting and viewing information about each user. Each user is associated with an access profile, which determines their permissions and functionalities within the system.

3.1.1 User View

The Users page displays a list of all users registered in the system, with their respective information.

User Name	Name	Email	Email Confirmed	Active	Actions
00000001	Device 1 Servidata	00000001@servidata.net.br	Yes	Yes	
00000002	Device 2 Servidata	2@servidata.net.br	Yes	Yes	
00000003	Device 3 Servidata	3@servidata.net.br	Yes	Yes	
00000004	Device4 Servidata	4@servidata.net.br	Yes	Yes	
00000005	Device 5 Servidata	5@servidata.net.br	Yes	Yes	
00000006	Device 6 Servidata.net.br	6@servidata.net.br	Yes	Yes	
00000007	Device 7 Servidata	7@servidata.net.br	Yes	Yes	
00000008	Device 8 Servidata	8@servidata.net.br	Yes	Yes	
00000009	Device 9 Servidata	9@servidata.net.br	Yes	Yes	
00000010	Device 10	10@servidata.net.br	Yes	No	

Users Page



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The user list includes information such as:

- **Name:** User's full name.
- **Username:** Username used to log in to the system.
- **Email:** User's email address.
- **Profile:** Access profile associated with the user.
- **Active:** Indicates whether the user is active in the system (Yes/No).
- **Actions:** Buttons to edit or delete the user (only available for users with an Admin profile).

You can use the search field to filter the list of users by name, username or email.

3.1.2 Creating and Editing Users

To create a new user or edit an existing user, follow these steps:

1. **Click "New" or the edit icon (pencil):** On the Users page, click the "New" button to create a new user or the pencil icon in the row of the user you want to edit.

The screenshot displays the 'Users' management page. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', along with a search bar. Below these is a table with columns: 'User Name', 'Name', 'Email', 'Email Confirmed', and 'Active'. The table contains several rows of user data. A modal window titled '+ Add User' is open in the center, overlaying the table. The modal has a close button (X) in the top right corner. It contains the following fields and controls:

- User Name:** A text input field with a red error message 'User Name is Required' below it.
- Email:** A text input field with a red error message 'Email is Required' below it.
- Name:** A text input field with a red error message 'Name is Required' below it.
- SelectRole:** A dropdown menu.
- Form Controls:** Three checkboxes are visible: 'Email Confirmed' (checked), 'Active' (checked), and 'Create Person' (checked).
- Password:** A text input field with a toggle icon (eye) to the right.
- Confirm Password:** A text input field with a toggle icon (eye) to the right.
- Buttons:** 'CANCEL' and 'UPDATE' buttons at the bottom right of the modal.

User Creation/Edit Form



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- **Fill in the fields:**
 - **Name:** Enter the user's full name.
 - **Username:** Enter a unique username for the user.
 - **Email:** Enter the user's email address.
 - **Password:** Enter a strong and secure password for the user (see Notes below).
 - **Confirm Password:** Confirm the entered password (optional for editing).
 - **Profile:** Select the access profiles that will be assigned to the user.
 - **Active:** Select the "Active" checkbox so that the user can access the system.
- **Click "Save":** To finish creating or editing the user.

Select the access profile: Click on Select Profile and choose the appropriate access profiles for the user.

The screenshot displays the 'Users' management interface. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', along with a search bar. Below these is a table of users with columns for 'User Name', 'Email', 'Name', 'Select Role', 'Active', and 'Device'. A modal form titled '+ Add User' is open in the center, containing fields for 'User Name', 'Email', 'Name', 'Select Role', 'Email Confirmed', 'Active', 'Create Person', 'Password', and 'Confirm Password'. The 'Password' and 'Confirm Password' fields have red error messages below them: 'Password length must be at least 8', 'Password must contain at least one uppercase letter', 'Password must contain at least one number', 'Password must contain at least one (!? *.)', and 'Password and Confirm Password dont 'Match''. The 'UPDATE' button is disabled.

User Name	Email	Name	Select Role	Active	Device
00000001				Yes	
00000002				Yes	
00000003				Yes	
00000004				Yes	
00000005				Yes	
00000006				Yes	
00000007				Yes	
00000008				Yes	
00000009				Yes	

Select access profiles



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Comments:

- **Admin User:** The Admin user is automatically created when the system is first installed and cannot be deleted.
- **Devices Users:** Devices users are created to represent the physical devices that connect to the system. They have a standardized username and a specific access profile.
- **Individuals:** When creating an individual user, a corresponding record is created in the Persons table, with the user's basic information.

Be careful when deleting users, as this action is irreversible and may affect the functioning of the system.

- The user's email will be used to log in to the system.
- The username must be the email.
- The password must be strong:
 - The length of the Password must be at least 8
 - The password should contain at least 1 uppercase character
 - The password must contain at least one lowercase letter
 - The password must contain at least one (!? *.)
- The access profile will determine the functionalities and actions allowed to the user.

3.1.3 Deletion of Users

To delete an existing user, follow the steps described in the "Basic Operations" section of this manual.

The "Admin" profile can edit information, change access profiles and deactivate users on the Users page.



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3.2 Roles

The "Roles" section in LinxData.Adm allows you to manage the system's access roles, defining the permissions and functionalities of each role. Each role determines which areas of the system a user can access and what actions they can perform.

3.2.1 Viewing Roles

The Roles page displays a list of all profiles registered in the system, with their respective permissions.

The screenshot shows the 'Roles' page in the LinxData.Adm application. The page has a sidebar on the left with navigation links: Home, Devices, Services, Administration, Localization, Security, Users, Roles (selected), DeviceToken, Utility, and About. The main content area is titled 'Roles' and features a search bar and three buttons: '+ CREATE', 'REFRESH', and 'EXPORT'. Below these is a table with the following roles: Admin, Client, Commercial, Device, Employee, Engineer, Financial, Manager, Operator, and User. Each role has two action buttons: a pencil icon for editing and a trash icon for deleting. The table is paginated, showing 'page 1-10 of 10'.

Profiles Page

The profile list includes information such as:

- **Role Name:** The name of the role(e.g. "Admin", "Manager", "Operator").
- **Permissions:** A brief description of the permissions granted by the role.
- **Actions:** Buttons to edit or delete the role (only available for users with an Admin role).

You can use the search field to filter the list of roles by name.



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3.2.2 Creating and Editing Roles

To create a new role or edit an existing profile, follow these steps:

1. **Click "New" or the edit icon (pencil):** On the Roles page, click the "New" button to create a new profile or the pencil icon in the row of the profile you want to edit.

Role Creation/Editing Form

2. **Fill in the fields:**
 - **Name:** Enter a descriptive name for the role.
3. **Click "Save":** To finish creating or editing the role.

3.2.3 List of Roles in use in LinxData

Access profiles determine the permissions and functionalities of each user in LinxData.Adm. The available profiles are:

- **Admin:** Full access to all functions.
- **Client:** Access only to the LinxData.Cli application.
- **Commercial:** Access to the commercial area (under development).
- **Device:** Access to monitoring via ESP32 microchips.
- **Employee:** Access to basic functions.
- **Engineer:** Access only to the LinxData.Tec application.
- **Financial:** Access to financial functions (under development).
- **Manager:** Access to managerial functions.
- **Operator:** Basic operation functions.
- **User:** Minimum access, for registered users, but without a defined role.



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Comments:


- **Default Roles:** LinxData.Adm has some default roles (Admin, Manager, Operator, etc.) that cannot be deleted, but can be edited to adjust permissions.
- **Custom Roles:** You can create custom roles to meet your organization's specific needs.
- **Permissions Management:** When assigning a role to a user, you will be granting them the permissions defined for that role. It is important to manage permissions carefully to ensure the security and integrity of system data.



The "Device Token" section in LinxData.Adm allows users with an **Admin role** to obtain the access token necessary to authorize remote devices to send read data to the system.

3.3.1 Accessing the Device Token Form

To access the Device Token form, click on "Security" in the side menu and then on "Device Token".




Linux Data

Device

Device Code


00000001

Password

.....


DeviceToken

eyJhbGciOiJIUzUxMiIsInR5cCI6IkpXVCJ9.eyJJuYm
1laWQiOiJmMjRhZjNkYi02Y2UzLTQyMjQtODMzMz
C01MzMzMzMGZlZDNDINzAilLCJlbWFpbGl6IjhAc2Vyd
mlkYXQubmV0LmJyIiwidW5pcXVIIX25hbWUiOiJw
MDAwMDAwOCIsbnJvbGU0IjEZEZXZpY2UiLCJuYm
YiOiE3MjE0MDQxNDUsImV4cCI6IjAzNmYyODE0
NSwiaWF0IjojoxNzIxNDA0MTQ1fQ.YOU-
brPzw1ZULh_C9yMVQ_ClfDCyEsJTn-
LAAJByB5gCYICD_Zn5MKrUgU3XOm_



SIGN IN

BACK

 Insert your Device Code and Password, then click Sign In.

Login Device Token Form



User Manual

3.3.2 Device Token Form Fields

The Device Token form contains the following fields:

- **Device Code:** Field to enter the unique code of the remote device (Card).
- **Password:** Field to enter the device password.
- **Device Token:** Text field that displays the access token after successful login.
- **Clipboard Button:** Button located next to the "Device Token" field that copies the token to the clipboard.
- **Enter Button:** Button that logs in with the device data entered.
- **Back Button:** Button that returns to the home page.

3.3.3 Obtaining the Device Token

To obtain the Device Token for a device, follow these steps:

1. **Fill in the fields:** Enter the device code and password in the corresponding fields.
2. **Click "Enter":** The system will check the credentials and, if they are valid, will display the access token in the "Device Token" field.
3. **Copy the Token:** Click the "Clipboard" button to copy the token to the clipboard.

3.3.4 Important Notes

- **Device Authorization:** The Device Token is used to authorize remote devices to send reading data to the LinxData.Adm system.
- **Token Validity:** The token has a duration of 10 years and only allows access to the "Create" Events endpoint in the LinxData API.
- **Device Role:** This form allows only devices registered as users with the "Device" role to log in.
- **Security:** Keep the access token safe, as it allows data to be sent to the system.

With this detailed section, the LinxData.Adm user manual provides the necessary information to obtain and use the Device Token, ensuring secure communication between remote devices and the system.



User Manual

4. Devices (Admin and Manager Role)

LinxDData allows the monitoring of different types of devices, each with its specific characteristics and functionalities. A device, in the context of LinxDData, is any equipment or physical component that can be connected to the system for data collection and analysis. These devices can be sensors, cameras, alarms, controllers, among others, and are responsible for generating the events that will be monitored and managed by the system.

Each device has a set of components that define it and allow it to be integrated with LinxDData:

- **Device Type:** Defines the device category (sensor, camera, alarm, etc.) and its general characteristics.
- **Processor Type:** Indicates the type of processor used by the device, which may influence the way data is collected and processed.
- **Card:** Uniquely identifies the device within the system and stores important information, such as the device type, processor type and communication settings.
- **Events:** These are the occurrences recorded by the device, such as alarms, failures, state changes, etc.
- **Event Status:** Indicates the current state of an event (active, closed, in progress, etc.).
- **Occurrences:** Detailed records of events that require special attention, such as critical failures or malfunctions.

In this section, we will detail each of these components and explain how to register and manage them in LinxDData.Adm.



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4.1 Processor Types

In LinxData, the processor type defines the hardware used by the device to collect and process data. Each type of processor may have specific characteristics, such as processing capacity, power consumption and communication protocols.

In LinxData.Adm, you can register different types of processor so that the system can recognize and correctly interpret the data sent by the devices.

Processor Types

Name	Description	Active	Actions
DOIT ESP32 DEVKIT V1	Esp32 com Wi-Fi	Yes	Edit Delete
Esp32-WROOM	Esp32 - Espressif	Yes	Edit Delete

Processor Types Page

4.1.1 Types of Processor Used :

Currently, LinxData uses the following types of microcircuits as processors:

1. **ESP32-WROOM:** Low-cost, high-performance Wi-Fi microcontroller, ideal for IoT projects.
2. **DOIT ESP32 DEVKIT V1:** Development board based on ESP32, with additional features such as OLED display, buttons and LEDs, facilitating prototyping and project development.



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4.1.2 Registration of New Processor Types

LinxDATA.Adm allows users with an **Admin role** to register new types of processor, if it is necessary to add equipment with characteristics different from the existing types. To register a new type of processor, follow the steps:

1. Access the "Devices" menu and click on "Processor Types".
2. Click the "New Processor Type" button.
3. Fill in the fields with information about the new type of processor, such as name, description and technical characteristics.
4. Click "Save" to complete the registration.

The screenshot displays the 'Processor Types' management page. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', along with a search bar. Below these are columns for 'Name', 'Description', and 'Active'. A table lists two processor types: 'DOIT ESP32 DEVKIT V1' and 'Esp32-WROOM'. An 'Update Processor Type' modal form is open, showing fields for 'Identification' (628fbdff-acee-4e5a-8efe-0a0847c1ba72), 'Name' (DOIT ESP32 DEVKIT V1), and 'Description' (Esp32 com Wi-Fi). There are checkboxes for 'Active' (checked) and 'Updated' (unchecked). 'CANCEL' and 'UPDATE' buttons are at the bottom right of the modal.

Processor Types Create and Update

4.1.3 Editing and Deleting Processor Types

Users with an **Admin profile** can also edit or delete existing processor types on the "Processor Types" page.



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Note: It is important to be careful when editing or deleting processor types, as this may affect the functioning of devices already registered in the system. Make sure the changes will not cause compatibility issues or data loss.



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4.2 Device Types

In LinxData, device types define the categories and general characteristics of the equipment monitored by the system. Each type of device has specific attributes that differentiate it from others, such as the type of data it collects, the units of measurement used and the configuration parameters.

The screenshot shows the LinxData Admin interface. The sidebar on the left contains navigation links: Home, Devices, Cards, Events, Event Status, Occurrences, Device Types (highlighted), Processor Types, Services, Administration, Localization, Security, Utility, and About. The main content area is titled 'Device Types' and includes buttons for '+ CREATE', 'REFRESH', and 'EXPORT'. Below these is a table with columns: Type, Name, Description, Active, and Actions. The table contains four rows of device types.

Type	Name	Description	Active	Actions
2	Caixa de Água - Inferior	Monitoramento Caixa de Água Inferior	Yes	Edit Delete
2	Caixa de Água - Superior	Monitoramento Caixa de Água Superior	Yes	Edit Delete
1	Central de Inoêndio	Monitoramento Central Inoêndio	Yes	Edit Delete
3	Contador de Pulsos	Contador de Pulsos para Hidrômetros	Yes	Edit Delete

4.2.1 Types of Devices in LinxData

LinxData currently supports the following device types:

- **Fire Control Panel:** Monitors the status of fire alarm control panels, detecting events such as fire alarms, system failures and the need for maintenance.
- **Water Reservoir Monitor:** Monitors the water level in reservoirs, warning about low levels, leaks and other problems related to water supply.

4.2.2 Create Device Types

LinxData.Adm allows users with an **Admin profile** to register new types of device, if it is necessary to add equipment with different characteristics to the existing types. To register a new type of device, follow the steps:



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1. Access the "Devices" menu and click on "Device Types".
2. Click the "New Device Type" button.
3. Fill in the fields with information about the new device type, such as name, description, unit of measurement, configuration parameters, etc.
4. Click "Save" to complete the registration.

The screenshot displays the 'Device Types' management page. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT'. Below these is a table with columns: Type, Name, Description, Active, and Actions. A modal window titled '+ Add Device Type' is open in the center. It contains input fields for 'Type' (with a red error message 'Type is Required'), 'Name' (with a red error message 'Name is Required'), and 'Description'. There are checkboxes for 'Active' and 'Updated'. At the bottom of the modal are 'CANCEL' and 'SAVE' buttons.

Device Types Create and Update

4.2.3 Editing and Deleting Device Types

Users with an **Admin role** can also edit or delete existing device types on the "Device Types" page.

Note: It is important to be careful when editing or deleting device types, as this may affect the functioning of devices already registered in the system. Make sure the changes will not cause compatibility issues or data loss.



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4.3 Cards

Cards are the heart of the LinxData system, representing each device installed remotely and allowing them to be monitored and managed. Each card has a unique code that identifies the device and stores information crucial to the functioning of the system, such as the type of processor, the type of device, the associated legal entity and the status of the device.

4.3.1 Card Features

- **Unique device identification:** Each card has a unique code that identifies the remote device (microchip).
- **Association with processor type:** The card identifies the processor in use on the device, facilitating the identification of the program recorded on the microchip.
- **Association with device type:** The card identifies the type of device to which it is associated:
 - 1 - Fire Station
 - 2 - Water Box
 - 3 - Pulse Counter
- **Association with a legal entity:** The card is linked to the legal entity where the device will be installed remotely.
- **Device Status Monitoring:** The card stores a 10-character status consisting of "0" or "1" which represents the device status. Each status position indicates a specific event, depending on the device type.



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Code	Status	Processor Type	Device Type	Person	Active	Actions
00000001	0000000000	DOIT ESP32 DEVKIT V1	Caixa de Água - Superior	TreeSys Informatica Ltda	Yes	
00000002	1111000000	Esp32-WROOM	Central de Incêndio	Servidata Net	No	
00000003	1111000000	Esp32-WROOM	Central de Incêndio	Condominio Olapock	Yes	
00000004	1111000000	Esp32-WROOM	Central de Incêndio	Servidata Net	No	
00000005	1111000000	Esp32-WROOM	Central de Incêndio	TreeSys Informatica Ltda	No	
00000006	1111000000	Esp32-WROOM	Central de Incêndio	TreeSys Informatica Ltda	No	
00000007	1111000000	Esp32-WROOM	Central de Incêndio	TreeSys Informatica Ltda	No	
00000008	0000000000	Esp32-WROOM	Caixa de Água - Inferior	TreeSys Informatica Ltda	Yes	
00000009	1111000000	Esp32-WROOM	Central de Incêndio	TreeSys Informatica Ltda	No	
00000010	1111000000	Esp32-WROOM	Central de Incêndio	Servidata Net	Yes	

Cards Page

4.3.2 Creating a Card

To create a card in LinxData.Adm, follow the steps below:

1. **Access the Cards page:** In the side menu, click on "Devices" and then on "Cards".
2. **Click "New Card":** On the Cards page, click the "New Card" button.
3. **Fill in the Card information:**
 - **Code:** Enter the device's unique code (microchip).
 - **Processor Type:** Select the type of processor used in the device (ESP32-WROOM or DOIT ESP32 DEVKIT V1).
 - **Device Type:** Select the device type:
 - **Type 1 - Fire Station:**
 - **Status:** Enter the initial status as "1111000000" (no errors).
 - **Type 2 - Water Reservoir:**
 - **Status:** Enter the initial status as "0000000000".



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- **Sensor Height:** Enter the height between the sensor and the water when the tank is full (minimum 30cm).
- **Yellow Limit:** Enter the volume in cm^3 that represents the alert limit (between the full reservoir and the red limit).
- **Red Limit:** Enter the volume in cm^3 that represents the critical water limit.
- **Total Volume:** Enter the total volume of the reservoir in cm^3 .
- **Total Area:** Enter the total area of the reservoir in m^2 .
- **Reserve Volume:** Enter the reserve volume for use by firefighters in the event of a fire.
- **Use Reserve:** Indicate whether the reserve volume should be considered when calculating the limits (Yes or No).
- **Type 3 - Pulse Counter:**
 - **Status:** Enter the initial status as "0000000000".
 - **K Factor:** Enter the pulse constant for the water meter volume (normally in liters).



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4.3.3 Click "Save":

To complete the card registration.

Update Card

Identification: 2c4f8c0a-83a4-4974-b16f-3fad776ea4c8

Select Person: Condomínio Olapock

Select Processor Type: Esp32-WROOM

Select Device Type: 1 - Central de Incêndio

Code: 00000003

Status: 1111000000

Sensor Height: 0,00

Green Limit

Yellow Limit

Red Limit

Total Volume

Total Area

Volume Reserve

Volume Minimum

K Factor: 0,00

Use Reserve

Ipv4

Ipv6

Longitude

Latitude

☒ Active ☒ Updated

CANCEL UPDATE

Card Model - Type 1 - Fire Station

Update Card

Identification: 5c7d966c-a9ab-4f79-99f1-2f7cdd47dbd1

Select Person: TreeSys Informatica Ltda

Select Processor Type: DOIT ESP32 DEVKIT V1

Select Device Type: 2 - Caixa de Água - Superior

Code: 00000001

Status: 0000000000

Sensor Height: 40,00

Green Limit: 0,00

Yellow Limit: 25200,00

Red Limit: 10800,00

Total Volume: 36000000,00

Total Area: 90000,00

Volume Reserve: 10800,00

Volume Minimum: 0,00

K Factor: 0,00

Use Reserve

Ipv4

Ipv6

Longitude

Latitude

☒ Active ☒ Updated

CANCEL UPDATE



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Card Model - Type 2 - Water Reservoir

4.3.3 Important Notes

- **Alert Messages:** The LinxData.Adm system constantly monitors the status of devices. If a discrepancy is detected between the expected status and the status reported by the device, the system will send SMS and email messages to those responsible registered in the "Contact People" section.
- **Creating Event Status (EventStatus):** After creating a card, it is necessary to manually create an "EventStatus" record for the card, following the steps described in [section 4.5](#).



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4.4 Events

Events are occurrences recorded by devices monitored by LinxData, representing changes in the state or functioning of the equipment. These occurrences can be generated by several factors, such as:

- **Timing:** Events scheduled to occur at regular intervals, defined in the device firmware.
- **Interruption:** Events triggered by a change in the monitored environment, such as a fire alarm or a temperature variation.
- **Watchdog Timer:** Events generated when the device "freezes" or stops responding, indicating a possible malfunction.

Events are sent by devices to LinxData.Adm through the API and stored in the database for later analysis and processing. Each event contains important information, such as:

- **Card code (device):** Identifies the device that generated the event.
- **Event date and time:** Informs the exact moment the event occurred.
- **Event type:** Indicates the nature of the event (alarm, fault, state change, etc.).
- **Event data:** Contains additional information about the event, such as sensor values, error messages, etc.
- **Temperature:** Informs the temperature of the device circuit at the time of the event.
- **Hal:** Indicates the state of the device's hardware (if it is working correctly or if there is a problem).

Observation:

- For devices of the "Water Reservoir Monitor" type, the **H2O field** in the event data informs the distance sensor reading, expressed in centimeters.



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4.4.1 Event List View

The Events page in LinxData.Adm allows you to view and manage events registered by devices. To access this page, click on "Devices" in the side menu and then on "Events".

The screenshot displays the 'Events' page in the LinxData.Adm application. The page features a sidebar with navigation links, a top bar with user information, and a main content area. The main content area includes a header with 'Events' and buttons for '+ CREATE', 'REFRESH', and 'EXPORT'. Below the header, there are filters for 'Select Device' (00000003) and 'Start and End Date' (20/03/2024). The main table lists events with columns: Device Code, Status, Counter, Event Date, Hall, Temperature, H2O, Version, Active, and Actions. The table contains 10 rows of event data. The Actions column has buttons for 'Q' (view details) and a trash icon (delete). The page also includes a footer with pagination information: 'Rows per page 10', 'page 1-10 of 24', and navigation arrows.

Device Code	Status	Counter	Event Date	Hall	Temperature	H2O	Version	Active	Actions
00000003	1111000000	3562	20/03/2024 00:22:08	74	43,3333			Yes	Q
00000003	1111000000	3563	20/03/2024 01:22:15	74	43,8889			Yes	Q
00000003	1111000000	3564	20/03/2024 02:22:21	80	43,8889			Yes	Q
00000003	1111000000	3565	20/03/2024 03:22:29	69	43,8889			Yes	Q
00000003	1111000000	3566	20/03/2024 04:22:35	68	43,8889			Yes	Q
00000003	1111000000	3567	20/03/2024 05:22:39	76	43,8889			Yes	Q
00000003	1111000000	3568	20/03/2024 06:22:45	77	43,8889			Yes	Q
00000003	1111000000	3569	20/03/2024 07:22:51	76	43,8889			Yes	Q
00000003	1111000000	3570	20/03/2024 08:22:58	67	43,8889			Yes	Q

Events List View Page

The Events page displays a paginated list of events, with the following information:

- **Device Code:** Identification of the device that generated the event.
- **Status:** Event Status.
- **Date and time:** Time at which the event occurred.
- **Counter :** Event Counter
- **Type of event:** Nature of the event.
- **Event Data:** Additional information about the event, including temperature, Hal and, in the case of water tank monitors, the distance sensor reading (H2O).
- **Actions:** Button to delete the event (only available for users with an Admin profile) and button to view event details.

At the top of the page, there is a device selection button, which allows you to filter events by device, and a date selector to choose the time period for events to be displayed.



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Comments:

- When you select a device, the page automatically displays events for the current date (today).
- If only the date is selected, without specifying the device, the system will bring events from all devices in the selected period.
- You can search for a specific device by entering the device code in the search field.
- The "Create" button is disabled on this page as events are automatically generated by devices and cannot be created manually. The treatment and interpretation of events occurs in the "Event Status" section.

The screenshot shows the 'View Event' modal window. It contains the following fields and values:

Field	Value
Identification	15bdaead-476a-40be-9ff0-e7eb56ec46c6
Device Code	00000003
Date	20/03/2024 00:22:08
Counter	3562
Status	1111000000
Temperature	43,3333
Humidity	0,0000
Battery	0,0000
Smoke	0,0000
CO2	0,0000
Gas	0,0000
Hall	74
PulseCount	0,00

Additional controls include a checked 'Active' checkbox, an unchecked 'Updated' checkbox, a 'Version' input field, and a 'RETURN' button.

View Event Page

4.4.2 Filters and Event Search

On the Events page, you can use filters to refine the list of events displayed. The available filters are:

- **Device:** Allows you to select a specific device to view only the events generated by it.
- **Date:** Allows you to define a period to view events that occurred within that time interval.

In addition to filters, you can also use the search field to find specific events based on keywords present in the event data or device code.

4.4.3 Event Management

Users with an Admin profile can delete events from the Events page. Deleting events should be done with caution as it may affect historical data analysis.

Note: The basic operations for deleting events follow the same pattern as described in the "Basic Operations" section of this manual.



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4.4.4 Export Event List

Users with an Admin or Operator profile can export the list of events to an Excel file, which allows them to analyze event data in a more detailed and personalized way. To export the list, simply click the "Export" button at the top of the page.



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4.5 Event Status (EventStatus)

EventStatus table in LinxData.Adm stores the current state of each device monitored by the system. Each record in the table represents the last event processed for a specific device, containing relevant information about its operation and possible alerts.

4.5.1 Event Status View

The Event Status page in LinxData.Adm allows you to view the current status of all devices registered in the system. To access this page, click on "Devices" in the side menu and then on "Event Status".

Code	Counter	Date	Status	Hall	Temperature	H2O	Volume	Active	Status Ok	Actions
00000001	1324	20/06/2024 23:50:00	1000000000	98	55,5556	80,0000	28800,00	Yes	Yes	
00000002	231	18/06/2024 19:27:52	1111000000	-7	72,7778	0,0000	0,00	Yes	Yes	
00000003	4917	13/05/2024 23:24:53	1111000000	74	43,3333	0,0000	0,00	Yes	Yes	
00000004	24	26/02/2024 17:48:35	1111000001	93	43,8889	0,0000	0,00	No	No	
00000005	183	27/03/2024 15:58:26	1111000001	98	48,3333	0,0000	0,00	No	No	
00000006	54	01/11/2023 14:20:02	1111000000	101	51,1111	0,0000	0,00	No	Yes	
00000007	9	26/02/2024 18:00:46	1111000001	68	40,5556	0,0000	0,00	No	No	
00000008	309	12/07/2024 19:27:30	1100000000	95	55,5556	20,0000	22800,00	Yes	No	
00000009	490	18/05/2024 11:45:11	1111000001	76	44,4444	0,0000	0,00	Yes	No	
00000010	18	15/03/2024 12:10:25	1111000001	108	66,6667	0,0000	0,00	No	No	

Event Status Page

4.5.2 Event Status Fields

- **Code:** Card (device) identifier associated with the event status.
- **Status:** 10-character string representing the device state (see section 4.5.3 for details).
- **Counter:** Counter of events registered for the device.



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- **Date:** Date and time of the last event status update.
- **Hall:** Measure that indicates magnetic interference in the device's microprocessor.
- **Temperature:** Temperature of the device's microprocessor.
- **H2O:**
 - For **Water Reservoirs:** Reading the distance from the water surface in centimeters.
 - For **Pulse Counters:** Pulse sensor value.
- **Volume:** Volume of the water tank (in m³).
- **Active:** Indicates whether the device is Active (Yes/No).
- **OK Status:** Indicates whether the device is working correctly (Yes/No).

4.5.3 Status Interpretation

Interpretation of the **Status field value** depends on the device type. For each type of device, the status is composed of a sequence of 10 (ten) characters "0" or "1", where each position represents a specific aspect of the device's operation.

4.5.4 Device Types and Status Interpretation

- **Device Type 1 Fire Control Panel:**
 - **Position 1:** Fire alarm (0 = Activated, 1 = Not activated)
 - **Position 2:** Device crash (0 = Crash, 1 = No crash)
 - **Position 3:** Reserved (1 = Not used)
 - **Position 4:** Reserved (1 = Not used)
 - **Position 5 to 9:** Reserved for future features
 - **Position 10:** Device Reset (0 = Normal, 1 = Reset)
- **Device Type 2 Water Reservoir:**
 - **Position 1:** Green Level (1 = Yes, 0 = No)
 - **Position 2:** Yellow Level (1 = Yes, 0 = No)
 - **Position 3:** Red Level (1 = Yes, 0 = No)
 - **Position 4 to 9:** Reserved for future features
 - **Position 10:** Device Reset (0 = Normal, 1 = Reset)
- **Pulse Counter Device Type 3:**
 - **Position 1 to 9:** Reserved for future features
 - **Position 10:** Device Reset (0 = Normal, 1 = Reset)

Note: The initial status for all device types is "0000000000", except for fire stations, which have an initial status of "1111000000" (no errors).



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4.5.4 Creating and Updating Event Status

The EventStatus record needs to be created manually when a new card is registered. The system updates the EventStatus of a device whenever it receives a new valid event from the remote device.

Events Status

+ CREATE + REFRESH

Code	Counter
00000001	1324
00000002	231
00000003	4917
00000004	24
00000005	183
00000006	54
00000007	9
00000008	309
00000009	490

Update Device Event Status

Identification: 8851fa5d-1e20-4f21-8ce0-3fe48632b349

Select Device Card: 00000003

Date: 13-05-2024 23:24:53

Last Counter: 4917

Last Status: 1111000000

Last Event Id: 8851fa5d-1e20-4f21-8ce0-3fe48632b349

Temperature: 43,3333

Hall: 74

Humidity: 0,0000

Battery: 0,0000

Smoke: 0,0000

CO2: 0,0000

Gas: 0,0000

H2O: 0,0000

Volume: 0,00

Volume Liters: 0,00

☒ Status Ok

☒ Active ☒ Updated

Version

CANCEL UPDATE

Active	Status Ok	Actions
Yes	Yes	
Yes	Yes	
Yes	Yes	
No	No	
No	No	
No	Yes	
No	No	
Yes	No	
Yes	No	

Status Event Create Edit

4.5.5 Additional Observations

- It is important to regularly check the **EventStatus** of devices to ensure they are functioning correctly.
- You can configure alerts and notifications based on **EventStatus** to receive warnings in case of abnormalities.
- The user cannot manually edit or delete the event status as it is automatically updated by the system based on events received from devices.



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4.6 Occurrences

The "Occurrences" section in LinxData.Adm allows you to view the history of processed and recorded events for each device. This functionality is essential for monitoring device performance, identifying behavior patterns and solving problems more efficiently.

4.6.1 Occurrence View

The Occurrences page in LinxData.Adm displays a paginated list of occurrences, with the following information:

- **Card code:** Identification of the device that generated the event.
- **Date and time:** Time at which the event occurred.
- **Type of event:** Nature of the event.
- **Event Data:** Additional information about the event, including temperature, Hal and, in the case of water tank monitors, the distance sensor reading (H2O).
- **Message:** Description of the device state after the event.
- **Last updated:** Date and time the event status was last updated.
- **Actions:** Button to view the details of the occurrence (magnifying glass icon).

At the top of the page, there is a device selection button, which allows you to filter occurrences by device, and a date selector to choose the time period of occurrences to be displayed.

Code	Z_id	Identification	Last Counter	Last Date	Last Status	Active	Status Ok	Last Event Id	Actions
00000003	6727	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3562	20/03/2024 00:22:08	1111000000	Yes	Yes	15bdaead-476a-40be-9ff0-e7eb55ec45c5	
00000003	6728	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3563	20/03/2024 01:22:15	1111000000	Yes	Yes	25cb7114-b115-4293-874a-dc054aa44775	
00000003	6729	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3564	20/03/2024 02:22:21	1111000000	Yes	Yes	c288e55e-f59b-4e58-af33-ea3105deb467	
00000003	6730	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3565	20/03/2024 03:22:29	1111000000	Yes	Yes	30793c48-bd34-4975-9be5-2bf24d551d36	
00000003	6731	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3566	20/03/2024 04:22:35	1111000000	Yes	Yes	35d9b07b-16cd-49cd-913c-9e491e0014cf	
00000003	6732	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3567	20/03/2024 05:22:39	1111000000	Yes	Yes	cea07cdf-bb97-4caa-b533-5c69047d85ae	
00000003	6733	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3568	20/03/2024 06:22:45	1111000000	Yes	Yes	cb6f90ec-dfb5-4da8-907a-a006e8c2ea36	
00000003	6734	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3569	20/03/2024 07:22:51	1111000000	Yes	Yes	c08bf24a-1b34-402d-a5d8-79e7d1fd22dd	
00000003	6735	8851fa5d-1e20-4f21-8ce0-3fe48632b349	3570	20/03/2024 08:22:58	1111000000	Yes	Yes	a025544f-0d70-46de-a5d4-f7ebf47bd26a	



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Occurrences Page

4.6.2 Filters and Occurrence Search

On the Occurrences page, you can use filters to refine the list of occurrences displayed. The available filters are:

- **Device:** Allows you to select a specific device to view only events related to it.
- **Date:** Allows you to define a period to view occurrences that occurred within that time interval.

In addition to filters, you can also use the search field to find specific occurrences based on keywords present in the event data or device code.

4.6.3 Important Notes

- **Occurrence Creation:** The LinxData.Adm system automatically creates a new record in the **Z_EventsStatus** (Event History) table whenever the status of a device is updated in the EventStatus table, i.e. the Occurrence List is a copy of the EventsStatus table.
- **View Details:** By clicking the magnifying glass icon in the "Actions" column, you can view the details of an occurrence, including all information about the event that generated it.
- **Data Export:** It is possible to export the list of occurrences to an Excel file, which allows you to analyze the data in a more detailed and personalized way. To export the list, simply click the "Export" button at the top of the page.

Occurrences

[+ CREATE](#) [REFRESH](#)

Select Device: 00000003

Code	Z_Id
00000003	6727
00000003	6728
00000003	6729
00000003	6730
00000003	6731
00000003	6732
00000003	6733
00000003	6734

View Occurrences

Z_Id: 6729 Device Code: 00000003 Last Date: 20/03/2024 02:22:21 Last Counter: 3564 Last Status: 1111000000

Temperature: 43,8889 Hall: 80 Humidity: 0,0000 Battery: 0,0000 Smoke: 0,0000 CO2: 0,0000

Gas: 0,0000 H2O: Current Volume: 0,00 Volume Liters: 0,00

Identification: 8851fa5d-1e20-4f21-8ce0-3fe48632b349 Last Event Id: c288e55e-f59b-4e58-af33-ea3106deb467

Updated On: 20/03/2024 05:22:30 Created By: admin Updated By: 00000003 Created On: 16/09/2023 01:17:06

☒ Status Ok ☒ Active ☒ Updated Version

[RETURN](#)

Last Event Id	Actions
15bdae4d-476a-40be-9ff0-e7eb56ec46c6	View
25cb7114-b115-4293-874a-dc054a844775	View
c288e55e-f59b-4e58-af33-ea3106deb467	View
30793c48-bd34-4976-9be6-2b124d551d36	View
35d9b07b-16c0-49c0-913c-9a491e0014cf	View
cea07cdf-bb97-4caa-b533-5c59047d86ae	View
cb6f90ec-dfb5-4da8-907a-a005e8c2ea36	View
c08bf24a-1b34-402d-a5d8-79e7d1fd22d	View



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Occurrences View Page



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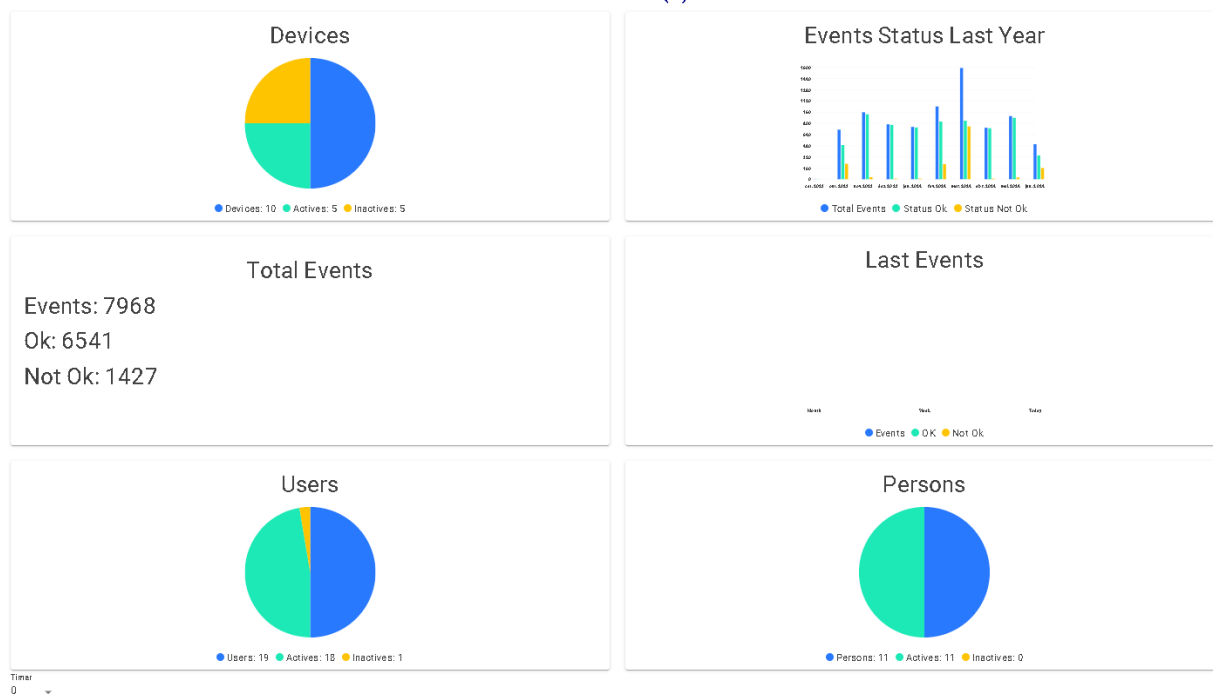
5. Administration (Admin and Operator Profile)

The Administration section of LinxData.Adm offers tools to manage the administrative aspects of the system, such as people, contacts, message settings and roles. The features in this section are accessible to users with **Admin** and **Operator** profiles , with some variations in permissions.

5.1 Dashboard

The control panel, or Dashboard, offers an overview of the system, presenting summarized information about devices, events and users through graphs and counters.

Dashboard (1)



Panel

- **5.1.1 Devices:**
 - Pie chart with total device count, active and inactive devices.
- **5.1.2 Status Events Last Year:**
 - Annual bar chart, month by month, showing total events, events with OK status, and events with non-OK status.



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- **5.1.3 Total Events:**
 - Counters for total events, OK events and non-OK events.
- **5.1.4 Latest Events:**
 - Bar graph showing month, week and day, with total events, OK events and non-OK events.
- **5.1.5 Users:**
 - Pie chart with total count of active and inactive users.
- **5.1.6 People:**
 - Pie chart with total people count, active and inactive people.



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5.2 Persons

The "Persons" section allows you to manage individuals and legal entities registered in the LinxData.Adm system. When accessing this section, you will see a paginated list of persons, with filters by country and state to facilitate the search.

5.2.1 Persons View

The Persons page displays a paginated list of registered persons, including information such as name, type (physical or legal), CPF/CNPJ, email and telephone number.

The screenshot shows the 'Persons' page in the LinxData.Adm system. The page has a sidebar on the left with navigation links: Home, Devices, Cards, Events, Event Status, Occurrences, Device Types, Processor Types, Services, Administration, Dashboard, Persons (selected), Person Contacts, Configurations, Messages, Functions, Localization, Security, Utility, and About. The main content area is titled 'Persons' and includes a search bar and filters for Country (Brasil) and State (São Paulo). Below the filters is a table with the following data:

Person Name	Person Type	Cell Phone 1	Phone	City Name	Is Active	Actions
Luiz Pires	Individual			São Paulo	Yes	Edit Delete
Condominio Olapock	Company	21992995191		São Paulo	Yes	Edit Delete
Servidata Net	Company			São Paulo	Yes	Edit Delete
Armando Ketzner	Individual	11986601900		São Paulo	Yes	Edit Delete

At the bottom of the page, there is a pagination bar showing 'Rows per page: 10', 'page 1-4 of 4', and navigation arrows.

Persons Page

At the top of the page you will find two selectors:

- **Country:** Allows you to filter the list by country. If a person does not have a country entered, they will appear in the list when the "People" menu is clicked, but you will need to select the correct country for them to appear in the filtered results.
- **State:** Allows you to filter the list by state, after selecting a country.

When you select a country and state, the list will only display people who belong to the selected combination.



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5.2.2 Creating and Editing People

To create a new person or edit an existing person, follow the steps described in the "Basic Operations" section of this manual. When you click on "New" or the edit icon (pencil), you will be directed to a form with four tabs:

- **Personal Data:** Basic information about the person, such as name, type (physical or legal), CPF/CNPJ, date of birth, gender, etc.
- **Address:** Information about the person's address, such as street, number, complement, neighborhood, city, state, zip code and country.
- **Finances:** The person's financial information, such as bank details and payment methods.
- **Other:** Additional personal information, such as notes and custom fields.

Fill in the relevant fields in each tab and click "Save" to finish registering or editing the person.

Note: The information entered in the "Finance" and "Other" tabs may vary depending on the system configuration and your company's needs. Consult your system administrator for more details about these fields.

The screenshot displays the 'Persons' management interface. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT'. Below these are filters for 'Country' (set to 'Brasil') and 'State' (set to 'São Paulo'). A search bar is also present. The main table lists several persons, including 'Luiz Pires', 'Condominio Olap', 'Servidata Net', and 'Armando Ketzner'. A modal window titled 'UpDate Person' is open, showing the 'PERSONAL DATA' tab. The form includes fields for 'Identification' (a long alphanumeric string), 'Person Type' (a dropdown menu set to 'Company'), 'Federal Company' (a checkbox), 'Person Name' (a text field with 'Servidata Net'), 'Email' (a text field with 'servidata@servidata.net.br'), 'Cell Phone 1', 'Cell Phone 2', 'Phone', and 'Business Phone'. There are also several checkboxes for roles and status: 'Is User' (checked), 'Is Customer Service' (unchecked), 'Is Distributor' (unchecked), 'Is Manufacturer' (unchecked), 'Is Client' (unchecked), 'Is Accountant' (unchecked), 'Is Manager' (unchecked), 'Active' (checked), and 'Updated' (checked). At the bottom of the modal are 'CANCEL' and 'UPDATE' buttons.

Person Create/Edit



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5.3 Person Contact

Contact Persons are individuals directly linked to legal entities and can be configured to receive notifications about the monitoring status. The maintenance technician and the Salesperson linked to the Legal Entity can be part of Contact Persons to receive information relevant to monitoring.

5.3.1 Viewing Person Contact

The Contact Persons page displays a paginated list of natural persons associated with a legal entity, including information such as name, role, email and cell phone number.

The screenshot displays the 'Person Contacts' page within the 'Admin' interface of the 'linx data' system. The page features a sidebar on the left with navigation links such as Home, Devices, Cards, Events, Event Status, Occurrences, Device Types, Processor Types, Services, Administration, Dashboard, Persons, Person Contacts (highlighted), Configurations, Messages, Functions, Localization, Security, Utility, and About. The main content area has a header with '+ CREATE', 'REFRESH', and 'EXPORT' buttons, and a search bar. Below this is a table with the following data:

Person Contact	Nick Name	Function	Email	Cell Phone	Active	Actions
Armando Ketzer	Aketzer	Admin	arm.andoketzer@yahoo.com.br	11986601900	Yes	
Luiz Pires	Pires	Admin	lpzpires@gmail.com	21992995191	Yes	

At the bottom right of the table, there is a pagination control showing 'Rows per page: 10' and 'page 1-2 of 2'.

Person Contact page

At the top of the page, you will find a Legal Entity selector to filter the list and display only natural persons associated with that company.



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5.3.2 Creating and Editing Person Contacts

To create a new Person Contact or edit an existing one, follow the steps described in the "Basic Operations" section of this manual. When you click on "New" or the edit icon (pencil), you will be directed to the "Add/Edit Person Contact" form.

The screenshot shows the 'Update Person Contact' form. The form is titled 'Update Person Contact' and has a close button (X) in the top right corner. It contains the following fields: Identification (0df3930b-92ba-478d-a2fb-ef528969ee11), Person (Condominio Olapock), Person Contact (Luiz Pires), Nick Name (Pires), Email (lpzires@gmail.com), Cell Phone ((21)99299-5191), and checkboxes for Receive Emails, Receive SMS, Active, and Updated. The form has 'CANCEL' and 'UPDATE' buttons at the bottom right.

Person Contact Create/Edit

This form has two selectors at the top:

- **Legal Entity:** Select the company to which the natural person is associated.
- **Individual:** Select the individual who will be added as a contact.

Then, fill in the other fields on the form, such as role, nickname, email, cell phone, and the options for receiving emails and SMS.

Add/Edit Contact Person Form Fields:

- **Legal Entity:** The legal entity to which the natural person belongs.
- **Person Contact:** The natural person connected to the legal entity.
- **Role:** The role of the contact person (Admin, Manager, Technician, Sales, etc.).
- **Nickname:** A short name to be used when sending emails.
- **E-mail:** Exclusive e-mail address for receiving messages.
- **Cell phone:** Cell phone number for receiving SMS.
- **Receive Emails:** Indicates whether the person receives monitoring emails (Yes/No).
- **Receive SMS:** Indicates whether the person receives monitoring SMS (Yes/No).
- **Active:** Indicates whether the person is active in the system (Yes/No).
- **Updated:** Indicates whether the record has already been updated after creation (Yes/No).



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Note: The information entered in the Person Contacts form is important to ensure that system alerts and notifications are sent to the correct people and through the appropriate means of communication.

5.4 Configurations

The "Configurations" section in LinxData.Adm allows you to configure the SMTP (Simple Mail Transfer Protocol) server responsible for sending system notification emails. These notifications are important to alert users about events and occurrences on monitored devices.

5.4.1 Accessing the Configurations Page

To access the Settings page, click on "Administration" in the side menu and then on "Configurations".

Configurations

Name	Smt	Port	Use Ssl	FromEmail	To Email	Is Token In Memory	Is Active	Actions
01 - Gmail	smtp.gmail.com	25	Yes	Support@Servidata.net.br	lzpines@gmail.com	No	Yes	

Configurations page

5.4.2 Configurations Table Fields



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The Configurations page displays a list of SMTP settings registered in the system. Each configuration has the following fields:

- **Name:** A descriptive name to identify the SMTP configuration (e.g. "Gmail SMTP Server", "Company SMTP Server").
- **SMTP:** The SMTP server address (e.g. "[invalid URL removed]")
- **Port:** The port used by the SMTP server (for example, 587 for Gmail).
- **Use SSL:** Indicates whether the connection to the SMTP server must be encrypted using SSL (Yes/No).
- **Email FROM:** The email address that will be used as the sender for notification messages.
- **Email To:** An email address to which test messages will be sent.
- **Token in Memory:** Field in disuse.
- **Active:** Indicates whether the SMTP configuration is active and being used by the system (Yes/No).
- **Updated:** Indicates whether the configuration was updated after creation (Yes/No).

The screenshot shows the 'Configurations' page with a table of SMTP settings. A modal form titled 'Edit Configuration' is open, displaying the following fields:

Name	Smtp	Port	Use Ssl	FromEmail	To Email	Is Token In Memory	Is Active	Actions
01 - Gmail	smtp.gmail.com	25	Yes	Support@Servidata.net.br	lzpires@gmail.com	No	Yes	[Edit] [Delete]

Edit Configuration Modal:

- Identification: a794b996-b049-4a3b-ac06-548955681824
- Name: 01 - Gmail
- Smtp: smtp.gmail.com
- Password: [Masked]
- Port: 25
- Smtp Email: devices@eportais.net
- FromEmail: Support@Servidata.net.br
- To Email: lzpires@gmail.com
- Use Ssl: ☒
- Is Token In Memory: ☐
- Active: ☒
- Updated: ☐
- Buttons: CANCEL, UPDATE

Configurations Create/Edit

5.4.3 Creating a New SMTP settings

To create a new SMTP settings, follow these steps:

1. **Click "New":** On the Configurations page, click the "New" button.
2. **Fill in the fields:** Enter the SMTP server information in the corresponding fields.
3. **Click "Save":** To finish registering the configuration.



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5.4.4 Editing and Deleting SMTP Settings

To edit or delete an existing SMTP configuration, follow the steps described in the "Basic Operations" section of this manual.

5.4.5 Important Notes

- **Credentials:** To use an SMTP server, you will need access credentials (usually an email and a password) provided by the service provider.
- **Testing:** Before activating an SMTP configuration, it is important to perform tests to verify that messages are being sent correctly. You can use the "Email To" field to send test messages to a specific email address.
- **Security:** When using an external SMTP server, make sure it offers security features, such as SSL/TLS encryption, to protect sensitive information in email messages.

With this detailed section, the LinxData.Adm user manual provides the necessary information to configure the SMTP server and ensure correct sending of email notifications.



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5.5 Messages

The "Messages" section in LinxData.Adm allows you to customize notifications sent by email and SMS to users in case of events on monitored devices. These messages can be configured for different types of events and include relevant information about what happened.

5.5.1 Accessing the Messages Page

To access the Messages page, click on "Administration" in the side menu and then on "Messages".

The screenshot displays the 'Messages' page in the LinxData.Adm application. The page has a purple header with the 'Admin' label and a search bar. Below the header, there are three buttons: '+ CREATE', 'REFRESH', and 'EXPORT'. The main content area contains a table with the following data:

Name Message	Message Type	Active	Actions
Devices Status	Status	Yes	Edit Delete
Device Counter	Counter	Yes	Edit Delete
Device Timer	Timer	Yes	Edit Delete
Nível de Água	H2O	Yes	Edit Delete

At the bottom of the page, there is a pagination bar showing 'Rows per page: 10', 'page 1-4 of 4', and navigation arrows.

Messages page

5.5.2 Messages Table Fields

The Messages page displays a list of messages configured in the system. Each message has the following fields:

- **SMTP Configuration:** Allows you to select the SMTP configuration that will be used to send the message by email.



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- **Message Name:** A descriptive name to identify the message (e.g., "Fire Alert", "Low Water Level").
- **Message Type:** The type of event that triggers the sending of the message:
 - **Status Change:** Message sent when a device's status changes.
 - **Counter:** Message sent when there is a failure in the sequential count of messages sent by the device.
 - **Timer:** Message sent when the device does not communicate with the system for a specified period of time (70 minutes by default).
 - **H2O:** Message sent when there is a change in the volume of water in a reservoir.
 - **Pulse:** Message sent with the volume reading of a water meter.
- **Subject:** The subject of the email message. You can use replacement tokens to enter dynamic information, such as the device ID and event timestamp.
- **HTML Template:** An HTML template for the email message body. You can use replacement tokens to insert dynamic information.
- **Header:** The header text of the email message.
- **Body:** The body text of the email message, which may contain replacement tokens.
- **Footer:** The footer text of the email message.
- **SMS Text:** The text of the SMS message, limited to 160 characters.
- **Is Test:** Indicates whether the message is a test (Yes/No). Test messages are only sent to the email address specified in "Email To" in the SMTP configuration.
- **Active:** Indicates whether the message is active and will be sent in case of events (Yes/No).
- **Updated:** Indicates whether the message was updated after creation (Yes/No).

5.5.3 Message Creation and Editing

To create a new message or edit an existing message, follow the steps described in the "Basic Operations" section of this manual. When you click on "New" or the edit icon (pencil), you will be directed to the message creation/editing form.



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Message Create/Edit Page

5.5.4 Replacement Tokens

Replacement tokens are used to insert dynamic information into messages, such as device code, event date and time, device status, and other relevant data. Tokens can be used in the "Subject", "Body", "Footer" and "SMS Text".

5.5.4.1 Token List

- **[DeviceCode]:** Unique device code.
- **[DeviceCodeAnt]:** Previous device code (used in change messages).
- **[DateAnt]:** Date and time of the last event in the format "dd-MM-yyyy HH:mm:ss".
- **[AntStatus]:** Previous status of the device.
- **[CounterAnt]:** Previous counter of the device.
- **[IdAnt]:** ID of the last event.
- **[H2OAnt]:** Previous reading of the distance sensor in water tanks (in cm).
- **[VolumeAnt]:** Previous volume of the water tank (in m³).
- **[DeviceCodeAtu]:** Current device code.
- **[DateAtu]:** Date and time of the current event in the format "dd-MM-yyyy HH:mm:ss".
- **[StatusAtu]:** Current status of the device.
- **[CounterAtu]:** Current device counter.
- **[DateTimeNow]:** Current date and time in the format "dd-MM-yyyy HH:mm:ss".
- **[PersonName]:** Name of the person associated with the device.
- **[PersonAddress]:** Address of the person associated with the device.
- **[PersonComplement]:** Complement of the person's address.



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- **[PersonNeighborhood]:** Neighborhood of the person associated with the device.
- **[PersonCity]:** City of the person associated with the device.
- **[PersonState]:** State of the person associated with the device (abbreviation).
- **[PersonZipCode]:** ZIP code of the person associated with the device.
- **[PersonCountry]:** Country of the person associated with the device.
- **[GoogleMapsLnk]:** Link to Google Maps with the address of the person associated with the device.
- **[H2OAtu]:** Current reading of the distance sensor in water tanks (in cm).
- **[VolumeAtu]:** Current volume of the water tank (in m³).
- **[DeviceName]:** Device name.
- **[font_color]:** Font color of the message.
- **[bck_color]:** Background color of the message.
- **[WarningType]:** Type of alert (ex: "Low Water Level").

Usage Examples:

- **Subject:** *Device Card - [DeviceCode] - STATUS CHANGE Alert in [DateTimeNow]*
- **Body:** `<p>[Head]</p><p>[Body]</p><p>[Bottom]</p>`
- **SMS text:** *Alert! The [DeviceCode] reservoir has a water level of [H2OAnt]cm .*



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Observation:

- This is the complete list of tokens used in the *ReplaceTags* and *ReplaceH2O* functions .
- For more information on how to use tokens, see the LinxData.Adm documentation.

Tip:

- When using tokens, make sure that the field names are correct and that the values are available when sending the message.



User Manual

5.6 Functions

The "Roles" section in LinxData.Adm allows you to manage the roles assigned to Contact Persons, defining the different roles they can play in the organization, such as "Admin", "Manager", "Technical" or "Sales".

5.6.1 Accessing the Functions Page

To access the Roles page, click on "Administration" in the side menu and then on "Roles".

The screenshot shows the 'Functions' page in the LinxData.Adm application. The page has a sidebar on the left with navigation links: Home, Devices, Cards, Events, Event Status, Occurrences, Device Types, Processor Types, Services, Administration (selected), Dashboard, Persons, Person Contacts, Configurations, Messages, Functions (highlighted), Localization, Security, Utility, and About. The main content area is titled 'Functions' and contains a table with the following data:

Name	Description	Active	Actions
Comercial	Operador Comercial ou Vendas	Yes	Edit Delete
Gerente	Gerente de departamento	Yes	Edit Delete
Admin	Esta função permite que o Administrador receba mensagens de E-mail e SMS enviados pela API	Yes	Edit Delete
Técnico	Colaborador Serviços Técnicos	Yes	Edit Delete

At the bottom of the table, there is a pagination control showing 'Rows per page: 10' and 'page 1-4 of 4'.

Functions Page

5.6.2 Functions Table Fields

The Functions page displays a list of functions registered in the system. Each function has the following fields:

- **Name:** The name of the role (e.g. "Manager", "Technician").
- **Description:** A brief description of the role, explaining its responsibilities and duties.
- **Active:** Indicates whether the function is active and can be assigned to a Contact Person (Yes/No).



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5.6.3 Creating a New Function

To create a new role, follow these steps:

1. **Click "New":** On the Roles page, click the "New" button.
2. **Fill in the fields:** Enter the role name and description.
3. **Check "Active":** Make sure the "Active" checkbox is selected so that the function can be used.
4. **Click "Save":** To finish registering the function.

The screenshot displays the 'Functions' management page. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT'. Below these is a table with columns: Name, Description, Active, and Actions. The table lists four functions: 'Comercial', 'Gerente', 'Admin', and 'Técnico'. An 'Update Function' modal is open in the foreground, showing fields for 'Identification' (39b6d0b-b-f280-47f6-bf54-4f0da99ffd94f), 'Name' (Comercial), and 'Description' (Operador Comercial ou Vendas). There are checkboxes for 'Active' (checked) and 'Updated' (unchecked). At the bottom of the modal are 'CANCEL' and 'UPDATE' buttons.

Create/Edit function

5.6.4 Editing and Deleting Roles

To edit or delete an existing role, follow the steps described in the "Basic Operations" section of this manual.

5.6.5 Important Notes

- **Roles and Access Profiles:** The roles defined in this section are different from the access profiles (Admin, Manager, Operator, etc.) that determine the permissions of each user in the system. Roles are used to categorize Contact Persons according to their roles in the organization.
- **Association with Contact Persons:** When registering a Contact Person, you must select a role for them, indicating their role in the company and the responsibilities they have in relation to the monitored devices.
- **Updating Roles:** It is important to keep the role list updated to reflect changes in the organization's structure and employee roles.



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6. Location (Admin Profile)

The Location section in LinxData.Adm allows you to manage geographic information, such as countries, states and cities. This information is important for organizing system data and sending notifications and alerts.

6.1 Countries

The Countries page displays a list of all countries registered in the system, with their respective codes and flag codes.

The screenshot displays the 'Countries' page in the LinxData.Adm application. The page features a table with the following data:

Country	Country Code	Flag Code	Active	Actions
Brasil	1086	BR.png	Yes	[Edit] [Delete]
Uruguay	8451	uy.png	Yes	[Edit] [Delete]
USA	2496	us.png	Yes	[Edit] [Delete]

Orange arrows highlight the '+ CREATE', 'REFRESH', and 'EXPORT' buttons at the top left, the search bar at the top right, the 'Actions' column, and the pagination controls at the bottom right.

Countries page

Countries Table Fields:

- **Country:** Name of the country.
- **Code:** Country code (ISO 3166-1 alpha-2).
- **Flag Code:** Country flag code (ISO 3166-1 alpha-2).
- **Active:** Indicates whether the country is active in the system (Yes/No).



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6.1.1 Create a New Country

To create a new country, follow these steps:

1. **Click "New":** On the Countries page, click the "New" button.
2. **Fill in the fields:** Enter the name of the country, the ISO 3166-1 alpha-2 code and the flag code.
3. **Check "Active":** Make sure the "Active" checkbox is selected.
4. **Click on "Save":** To finish registering the country.

The screenshot shows the 'Countries' management interface. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', along with a search bar. Below these is a table with columns: Country, Country Code, Flag Code, and Active. The table lists 'Brasil' (1086, BR.png, Yes), 'Uruguay', and 'USA'. A modal window titled '+ Add Country' is open in the foreground. It contains four input fields: 'Country Name' (with a red error message 'Country Name is Required'), 'Country Code' (with a red error message 'Country Code is Required'), 'Flag Code' (with 'None.png' selected), and two checkboxes for 'Active' and 'Updated'. At the bottom right of the modal are 'CANCEL' and 'SAVE' buttons.

Create and Edit Countries Page

6.1.2 Edit a Country

To edit an existing country, follow the steps described in the "Basic Operations" section of this manual.



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6.2 States

The States page displays a list of all states registered in the system, with their respective countries and acronyms.

The screenshot shows the 'States' page in the Linx Data Admin interface. The page has a sidebar with navigation options: Home, Devices, Services, Administration, Localization, Countries, States (selected), Cities, Security, Utility, and About. The main content area displays a table of states for Brazil. The table has columns for State, Abreviation, Active, and Actions. The data rows are:

State	Abreviation	Active	Actions
Minas Gerais	Mg	Yes	Edit Delete
Rio de Janeiro	RJ	Yes	Edit Delete
Rio Grande do Sul	RS	Yes	Edit Delete
Santa Catarina	SC	Yes	Edit Delete
São Paulo	SP	Yes	Edit Delete

At the top of the page, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT'. Below these buttons is a 'Select a Country' dropdown menu with 'Brasil' selected. A search bar is also present. At the bottom right, there is a pagination control showing 'Rows per page: 10', 'page 1-5 of 5', and navigation arrows.

States page

States Table Fields:

- **Country:** Name of the country to which the state belongs (foreign key of the Countries table).
- **State:** Name of the state.
- **UF:** Acronym of the Federation Unit (two characters).
- **Active:** Indicates whether the status is active in the system (Yes/No).

At the top of the page, you will find a Country selector to filter the list and display only the states belonging to the selected country.



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6.2.1 Create a New State

To create a new state, follow these steps:

1. **Click "New":** On the States page, click the "New" button.
2. **Select country:** Choose the country the state belongs to in the Country selector.
3. **Fill in the fields:** Enter the name of the state and the acronym of the UF.
4. **Check "Active":** Make sure the "Active" checkbox is selected.
5. **Click "Save":** To finalize the state registration.

The screenshot displays the 'States' management interface. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', along with a search bar. Below these, a dropdown menu shows 'Select a Country' with 'Brasil' selected. The main table lists states with columns for 'State', 'Abbreviation', 'Active', and 'Actions'. A modal form titled 'Update State' is open, containing the following fields: 'Identification' (dc1427da-d7b5-4acb-91f4-521a6b947324), 'Select a Country' (Brasil), 'State Name' (São Paulo), 'Abbreviation' (SP), and an 'Active' checkbox which is checked. At the bottom of the modal, there is an 'Updated' checkbox, a 'CANCEL' button, and an 'UPDATE' button.

State Creation/Editing Form

6.2.2 Edit a State

To edit an existing state, follow the steps described in the "Basic Operations" section of this manual.



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6.3 Cities

The Cities page displays a list of all cities registered in the system, with their respective countries, states and codes (optional).

The screenshot shows the 'Cities' page in the Linx Data Admin interface. The page has a sidebar with navigation links: Home, Devices, Services, Administration, Localization, Countries, States, Cities, Security, Utility, and About. The 'Cities' link is highlighted. The main content area shows a table of cities with the following columns: City, Code, Active, and Actions. The table is filtered by Country (Brasil) and State (São Paulo). The table contains three rows: Campinas, Santo Amaro, and São Paulo. The Actions column contains edit and delete icons for each row. The page also includes a top bar with user information and a search bar.

City	Code	Active	Actions
Campinas	12345	Yes	Edit Delete
Santo Amaro	011	Yes	Edit Delete
São Paulo	011	Yes	Edit Delete

Cities Page

Cities Table Fields:

- **Country:** Name of the country to which the city belongs (foreign key from the Countries table).
- **State:** Name of the state to which the city belongs (foreign key of the States table).
- **City:** Name of the city.
- **Code:** City code (optional).
- **Active:** Indicates whether the city is active in the system (Yes/No).

At the top of the page, you will find Country and State selectors to filter the list and display only cities belonging to the selected combination.



User Manual

6.3.1 Create a New City

To create a new city, follow these steps:

1. **Click "New":** On the Cities page, click the "New" button.
2. **Select country and state:** Choose the country and state the city belongs to in the corresponding selectors.
3. **Fill in the fields:** Enter the city name and code (optional).
4. **Check "Active":** Make sure the "Active" checkbox is selected.
5. **Click "Save":** To finalize the city's registration.

The screenshot displays the 'Cities' management page. At the top, there are buttons for '+ CREATE', 'REFRESH', and 'EXPORT', along with a search bar. Below these, there are dropdowns for 'Select a Country' (currently showing 'Brasil') and 'Select State' (currently showing 'São Paulo'). A table lists cities: 'Campinas', 'Santo Amaro', and 'São Paulo'. The 'São Paulo' row is selected. An 'Update City' modal form is open, showing fields for 'Identification' (a long alphanumeric string), 'Select a Country' (a dropdown), 'Select State' (a dropdown showing 'dc1427da-d7b5-4acb-91f4-521a6b947324'), 'City Name' (text input with 'São Paulo'), and 'City Code' (text input with '011'). There are checkboxes for 'Active' (checked) and 'Updated' (unchecked). At the bottom of the modal are 'CANCEL' and 'UPDATE' buttons.

City Creation/Editing Form

6.3.2 Edit a City

To edit an existing city, follow the steps described in the "Basic Operations" section of this manual.



User Manual

7. Service Orders (Admin and Operator Profile)

The "Work Order Management" section of LinxData.Adm allows users with an **Admin** and **Operator profile** to create, view, edit and track the progress of work orders related to monitored devices.

7.1 Work Order Section Overview

The Service Orders page displays a paginated list of all service orders registered in the system, including information such as order number, customer, responsible technician, associated device, status and start and end dates.

The screenshot displays the 'Service Orders' page in the LinxData.Adm application. The page features a sidebar on the left with navigation links: Home, Devices, Services, Service Order, Administration, Localization, Countries, States, Cities, Security, Utility, and About. The main content area shows a table titled 'Service Orders' with columns: Device, Date, Number, Customer, Technician, Sensor, Status, Active, and Actions. The table contains two rows of data. Above the table are buttons for '+ CREATE', '+ REFRESH', and '+ EXPORT'. A search bar is also present. The footer of the page indicates 'Rows per page: 10' and 'page 1-2 of 2'.

Device	Date	Number	Customer	Technician	Sensor	Status	Active	Actions
00000001	14/05/2024 10:53:26	5	Treesys Informatica Ltda	Técnico Luiz Pires	1	In Progress	Yes	Edit Delete
00000008	14/05/2024 12:11:54	7	Condominio Olapock	Técnico Luiz Pires	1	Completed	Yes	Edit Delete

Service Orders Page



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7.2 Creating a New Service Order

To create a new work order, follow these steps:

1. **Access the Service Orders page:** In the side menu, click on "Services" and then on "Service Orders".
2. **Click "New":** On the Work Orders page, click the "New" button.
3. **Fill in the fields:**
 - **Number:** Automatically generated by the system.
 - **Customer:** Select the customer for whom the work order will be created.
 - **Technician:** Select the technician responsible for the service order (optional).
 - **Device (Card):** Select the device associated with the work order.
 - **Sensor Number:** Enter the sensor number, if applicable.
 - **Previous Event Status:** Enter the status of the event prior to the reported problem.
 - **Event Status:** Enter the current status of the event.
 - **Description:** Describe the problem reported by the customer (minimum 10 and maximum 200 characters).
 - **Comment:** Add an internal comment about the service order (optional, minimum of 10 and maximum of 200 characters).
 - **Order Status:** Select the initial status of the work order (Open, In Progress, Completed, etc.).
 - **Order Date:** Automatically filled with the current date.
 - **End Date:** Populated when the work order is completed.
 - **Hours Worked:** Enter the time spent executing the service order (optional).
4. **Click "Save":** To finish creating the service order.

7.3 Viewing and Editing Work Orders

To view or edit an existing work order, follow the steps described in the "Basic Operations" section of this manual. When you click on the magnifying glass icon (view) or the pencil icon (edit), you will be directed to the work order details page, where you can view or change the registered information.

7.4 Status of Service Orders

The status of a work order indicates its progress:

- **Open:** The work order has been created but has not yet been started.
- **In Progress:** The technician is working on the work order.
- **Completed:** The work order has been completed.



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- **Canceled:** The work order has been canceled.

The status of the service order can be changed by the responsible technician or the system administrator.

Service Orders

+ CREATE

Device

00000001

00000003

Update Service Order

Identification: cc5fde39-e2f2-4b96-9964-a4f83ee40c1d

Service Order Number: 7

Select Customer: Condomínio Olapock

Select Device Card: 00000003 - Condomínio Olapock

Select Technician: Técnico Luiz Pires

Service Order Date: 14-05-2024 12:11:54

Service Order End Date: 21-05-2024 12:11:54

Event Status Previous: 0000000000

Event Status: 0000000000

Hours Worked: 100,0

Service Order Status: Completed

Sensor Number: 1

☒ Active

☒ Updated

Description: Teste com o formulário Ordem de serviços

Comment: Sem comentários, por enquanto.

CANCEL UPDATE

Service Order Create/Edit



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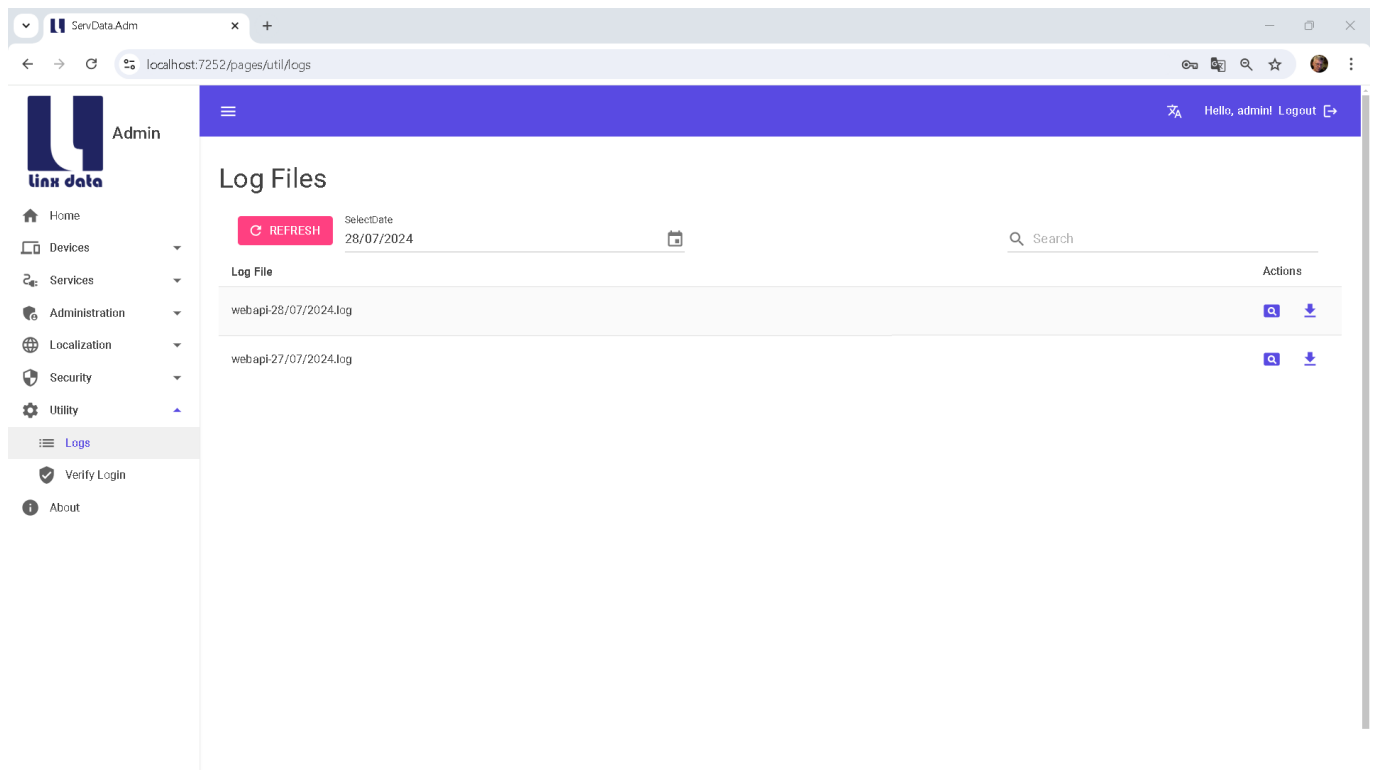
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8. System Logs (Admin Profile)

The "System Logs" section in LinxData.Adm allows users with an Admin profile to view and manage the logs generated by the system, helping to identify and resolve problems, in addition to providing important information about the application's operation.

8.1 Viewing Logs

The System Logs page displays a paginated list of available log files. To access this page, click on "Utilities" in the side menu and then on "System Logs".



System Logs Page

The System Logs page displays the following elements:

- **Title:** "Log Files"
- **Refresh Button:** Updates the list of log files.
- **Date Selector:** Allows you to select a date range to filter the displayed logs. The system will display the logs for the selected date and the previous 10 days.

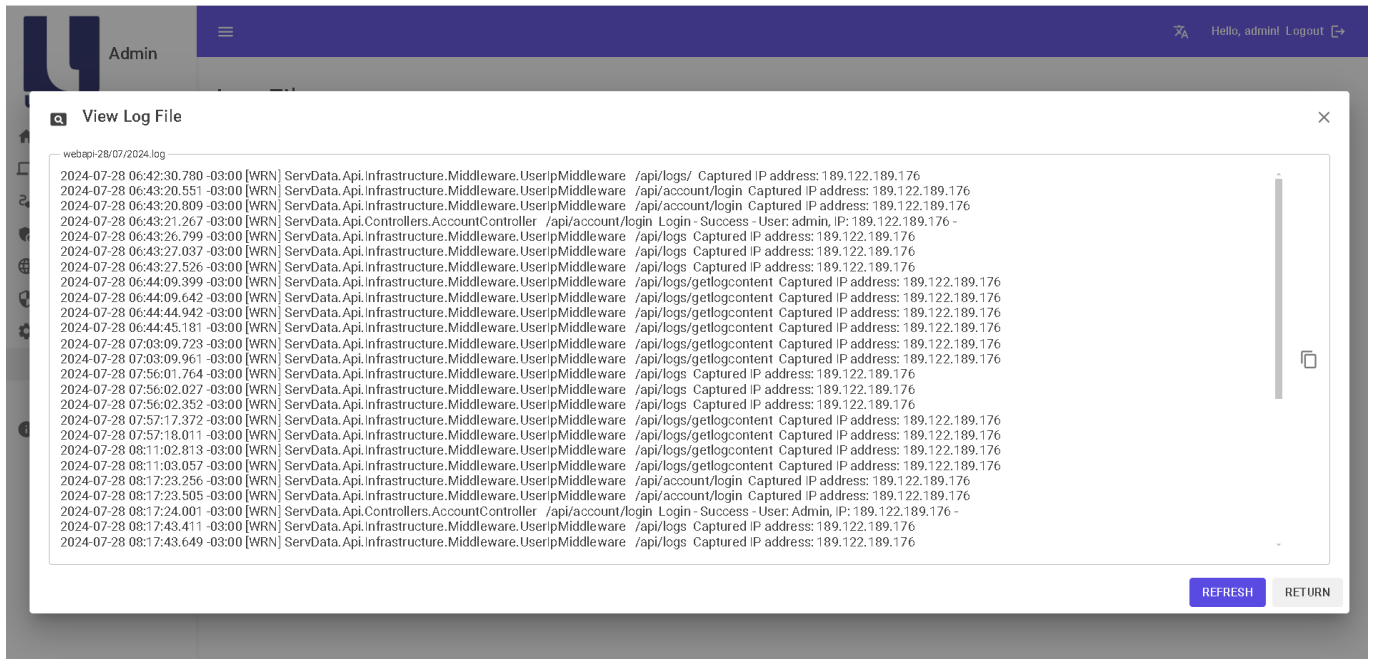


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- **Search Field ("Search"):** Allows you to search for specific log files.
- **Log Table:** Displays the log files in a table format, with the following columns:
- **Log File:** Name of the log file (in the format "webapi-dd/MM/yyyy.log").
- **Actions:** Buttons to view and download the log file.

8.2 Viewing the Contents of a Log

To view the contents of a log file, click the magnifying glass icon in the "Actions" column of the row corresponding to the desired file. A dialog window (modal) will open, displaying the contents of the log.



Log Viewer Window]

The dialog window has the following elements:

- **Title:** "View Log File"
- **File Name:** Displayed in the upper left corner of the window.
- **Multiline Text Field:** Displays the contents of the log file.
- **Clipboard Button:** Copies the contents of the log to the clipboard.
- **Refresh Button:** Updates the contents of the log displayed in the window.
- **Back Button:** Closes the dialog window and returns to the System Logs page.



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8.3 Downloading a Log File

To download a log file, click the download icon in the "Actions" column of the row corresponding to the desired file. The file will be downloaded to your computer.

8.4 Important Notes

- **File Format:** Log files are stored in the format "webapi-dd/MM/yyyy.log", where "dd/MM/yyyy" represents the date of the log.
- **Filter by Date:** The date selector allows you to filter the displayed logs by a period of 11 days (the selected date and the previous 10 days).
- **Search:** The search field allows you to find specific logs based on the file name.
- **Refresh List:** The "Refresh" button updates the list of logs displayed on the page.



User Manual

LinxDData Glossary

API (Application Programming Interface): Application Programming Interface. Set of rules and specifications that allows different software to communicate and exchange information with each other. In the context of LinxDData, the API is used for communication between monitoring devices and the central system.

Device: Electronic equipment or physical component that connects to LinxDData to be monitored and managed. Examples of devices include sensors, cameras, alarms, among others.

Endpoint: Access point to a web service or API. In LinxDData, endpoints are used to perform specific actions, such as sending monitoring data or requesting information about a device.

ESP32: Low-cost, high-performance microcontroller, with integrated Wi-Fi and Bluetooth connectivity, used in several Internet of Things (IoT) projects, including LinxDData monitoring devices.

Event: Occurrence registered by LinxDData that represents a change in the state or functioning of a device. Examples of events include alarms, faults, temperature changes, among others.

Hal: Device hardware status indicator. Tells you if the device is working properly or if there is a problem.

H2O: Field in the event data that informs the reading of the distance sensor in centimeters, used in devices of the "Water Reservoir Monitor" type.

Login: Authentication process in which the user enters their credentials (email and password) to access the LinxDData system.

Access Profile: Set of permissions that define the functionalities and actions that a user can perform in LinxDData. The access profiles are Admin, Manager, Operator, Employee, User, Client, Commercial, Device, Engineer and Financial.

Security Token: String generated by LinxDData to authenticate and authorize device access to the API.

Replacement Token: Variable used in LinxDData.Adm email and SMS messages to insert dynamic information, such as device code, date and time of the event, device status, etc. Tokens are represented by square brackets ([]) and are replaced by the corresponding values when sending the message.



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Web API: Web-based application programming interface that allows communication between different systems and applications over the internet. In LinxData, the Web API is used to receive monitoring data from devices and provide information about the system.