MIKRODEV®

Akıllı Kontrolde Teknoloji Devi

# MDC GATEWAY READER

# Configuration Software

**10 / 2025**

**MIKRODEV_SM_MDC_Gateway_Reader**

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# About Mikrodev

Since 2006, MIKRODEV has been developing and manufacturing industrial control and communication products. MIKRODEV serves the system integrators in the public and private sector, OEM and end users.

Our products are manufactured complying with the quality standards required by the industrial automation industry and the quality of our products are proved on the field for many years

MIKRODEV is one of the few companies in the world that has its own designed IEC 61131-3 compliant library for its programmable logic control devices. In addition, the open, flexible, programmable SCADA solution developed by MIKRODEV is also available to customers.

MIKRODEV products' performance and wide range of applications make them possible for customers to achieve faster, simplified and cost-effective results.

# WARNING!

- ✓ Use the programming editor only for Mikrodev Certifed devices
- ✓ When you change your physical hardware configuration, update your development to the appropriate version.
- ✓ The developed program should be tested separately before taking to field service and should be shipped to the field after the tests are successfully completed.
- ✓ Take all accident prevention measures and safety measures identified by local law

**Failure to comply with these rules may result in death, serious injury or property damage**

# 1 MDC Gateway Reader Software

MDC Gateway Reader is a software built on Automatic Meter Reading (AMR) technology. Developed for the automatic collection and management of electricity consumption data, this software reads multiple electricity meters installed in the field through any AMR modem and securely stores the obtained data in a database. This ensures the fast and efficient processing of consumption data.

## 1.1 Creating a New Project

A new project is created by clicking the **"New Project"** option from the **Project** tab.

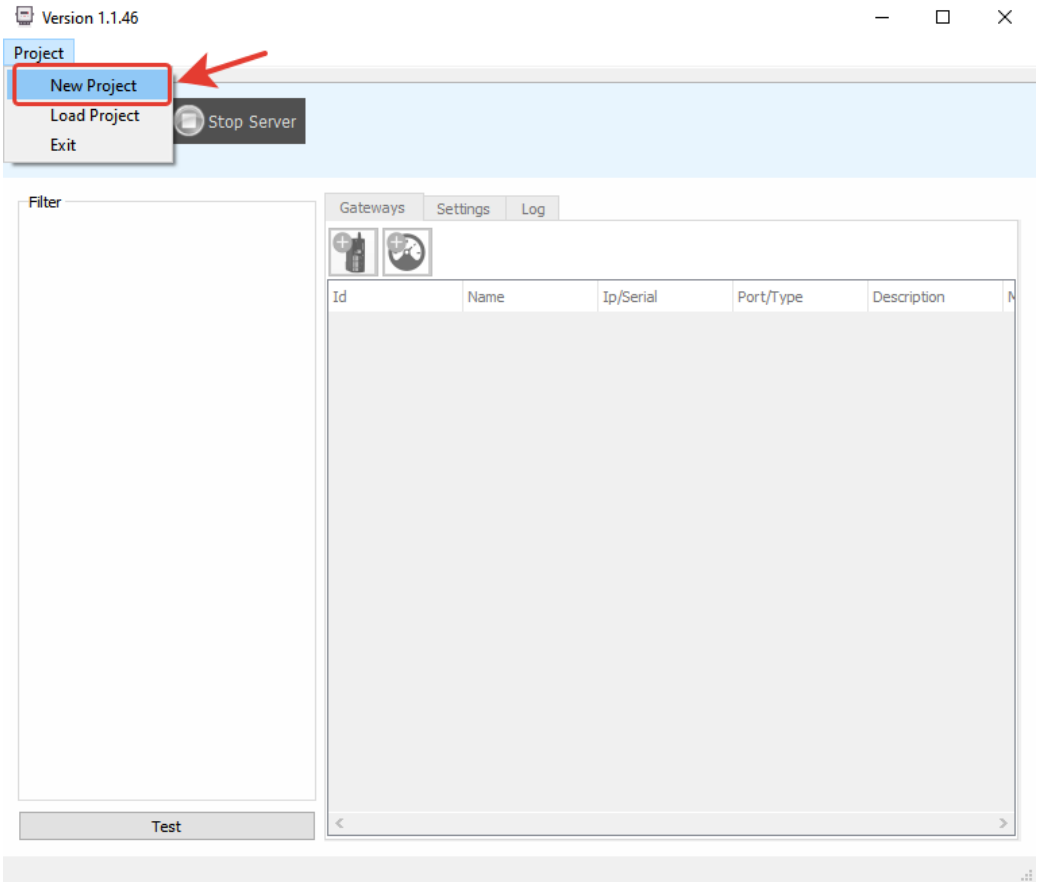


**Figure 1 New Project Option**

Enter a name for the project and save it.

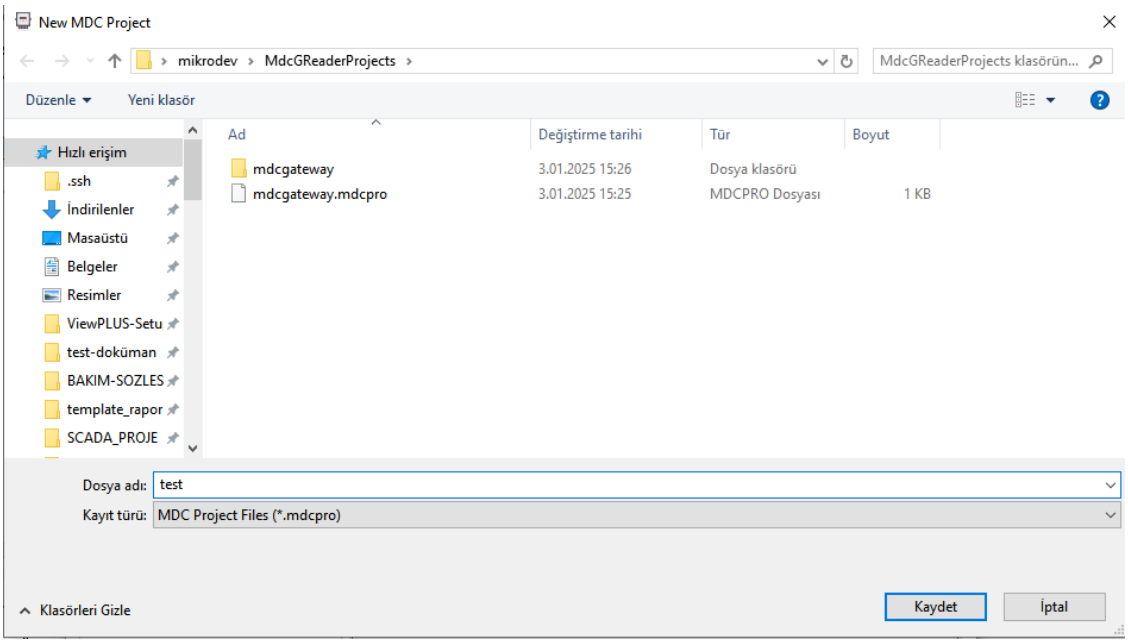


**Figure 2 New Project Screen**

n the database settings window that appears, leave the **server address**, **server port**, and **database user name** fields unchanged. Enter the database password in the **database user password** field, click **"Test Connection"**, and complete the project creation process.

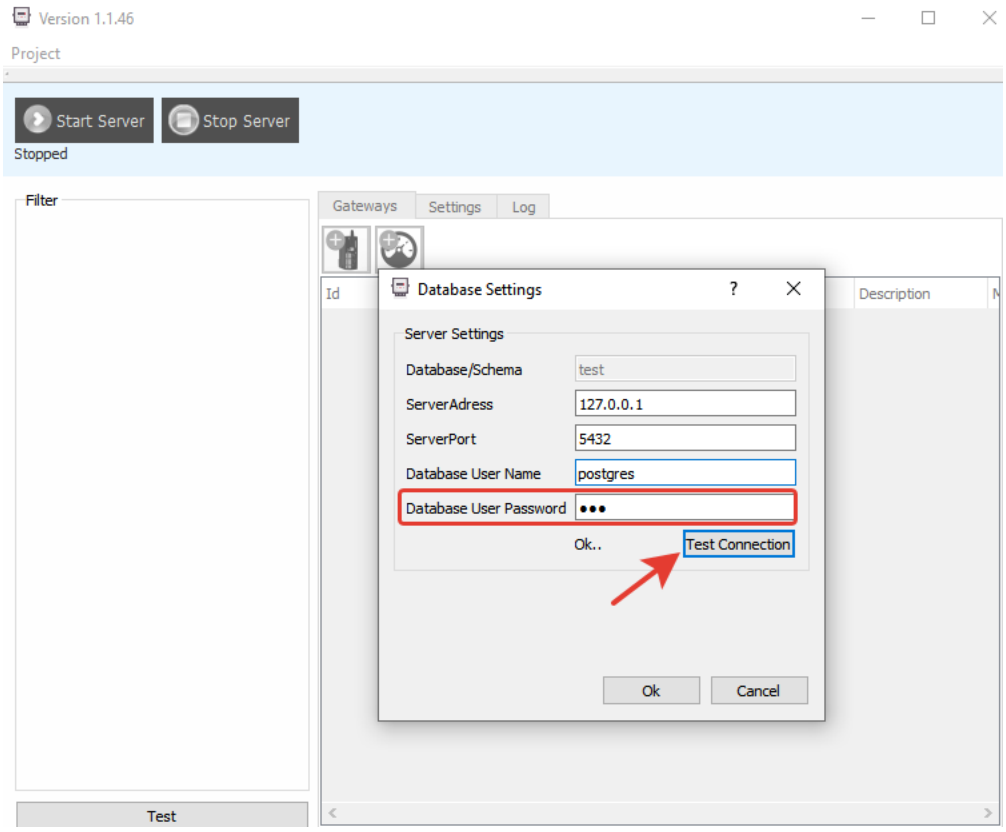


**Figure 3 Database Connection Screen**

## 1.2 Gateway Tab

This tab allows you to add devices and meters, and edit their properties.

### 1.2.1 Adding a Device

After creating a project, the **Gateways** panel becomes active. Click the **Add Device** button under the **Gateways** tab.

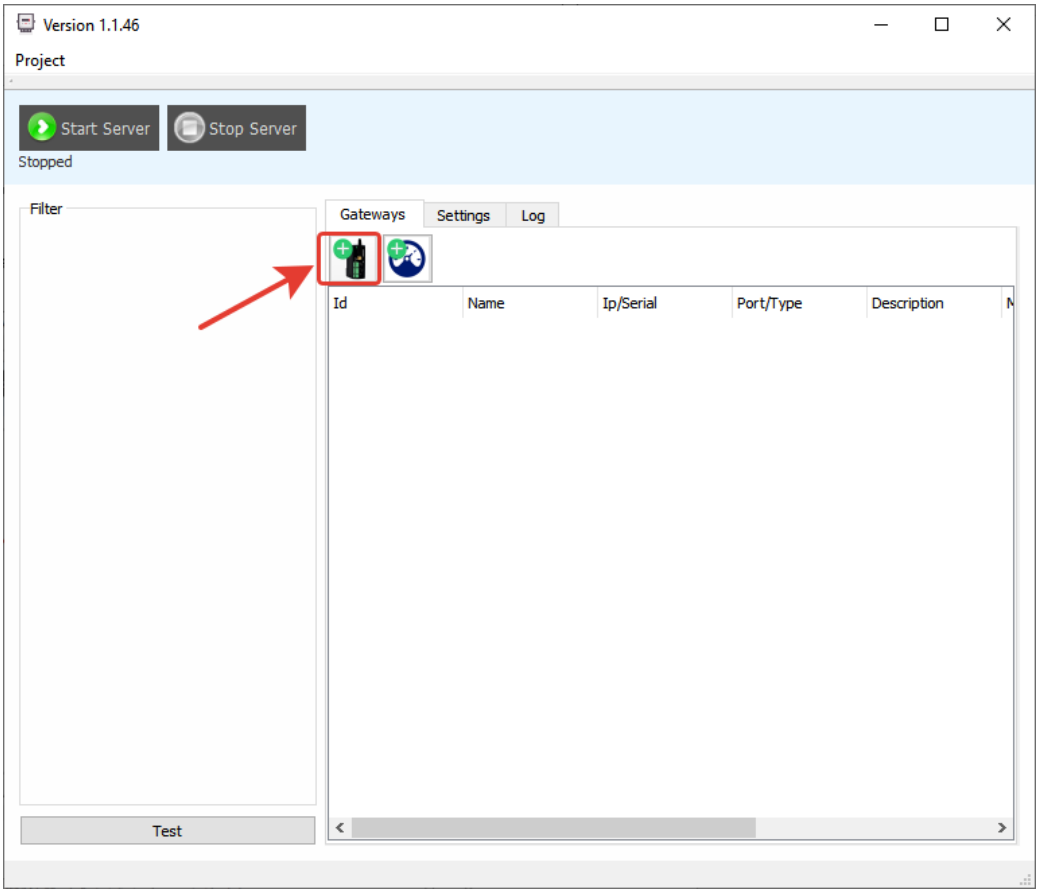


**Figure 4 Add Device Button**

In the opened window, enter the device name, IP address, and port number.

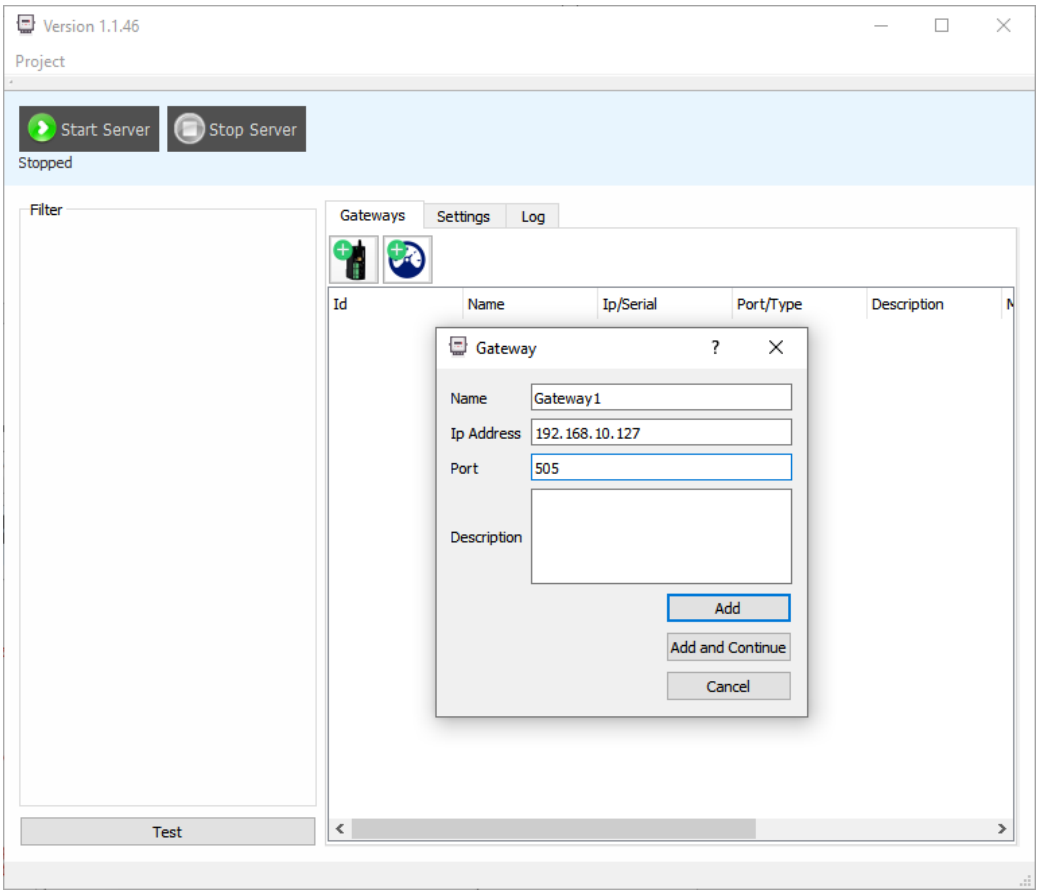


**Figure 5 Add Device Screen**

If only one device will be added, click **"Add"**. If multiple devices will be added, click **"Add and Continue"** to continue adding.

Added devices appear under the **Gateway** tab.

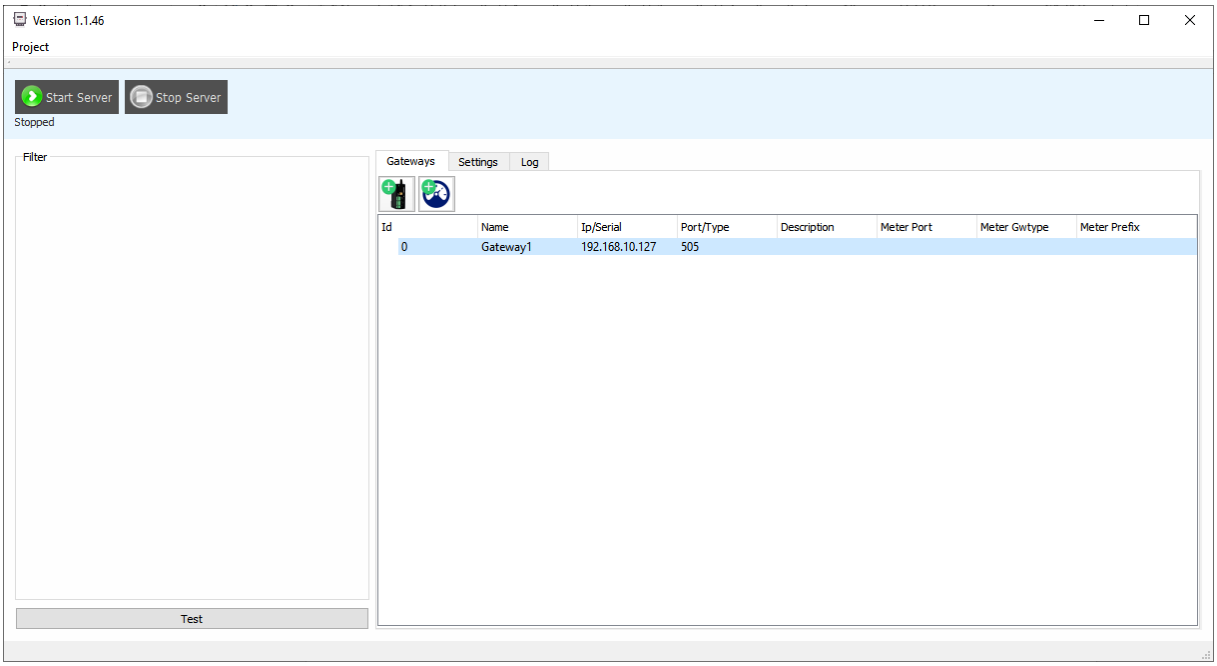


**Figure 6 Viewing Added Devices in the Project**

To update device information, add a new device, delete a device, or assign meters under it, right-click on the device and select the desired operation from the menu.

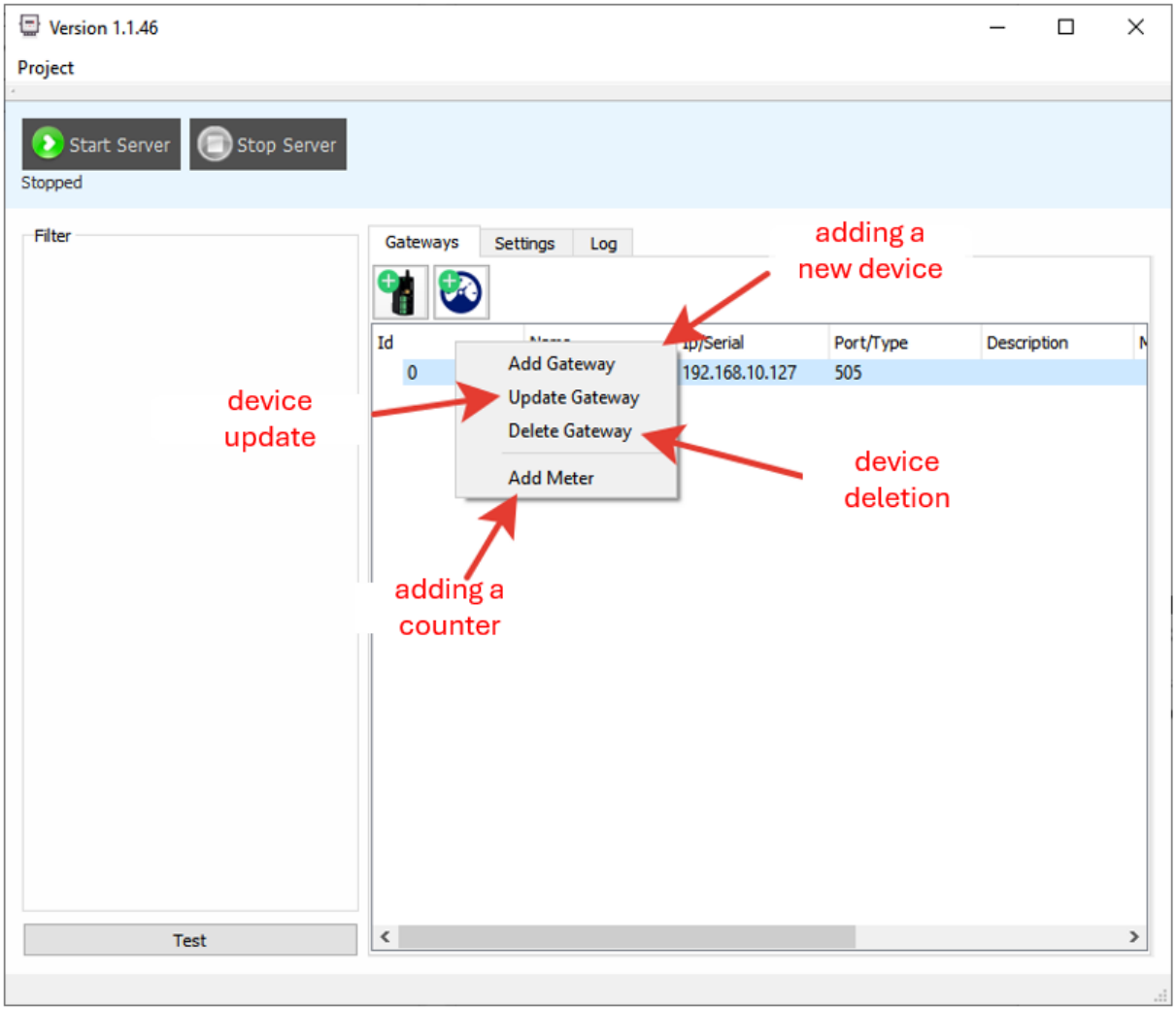


**Figure 7 Device Information Editing Screen**

### 1.2.2 Adding a Meter

Meters can be added by right-clicking on a device and selecting **"Add Meter"**, or by clicking the **Add Meter** button next to the **Add Device** button.

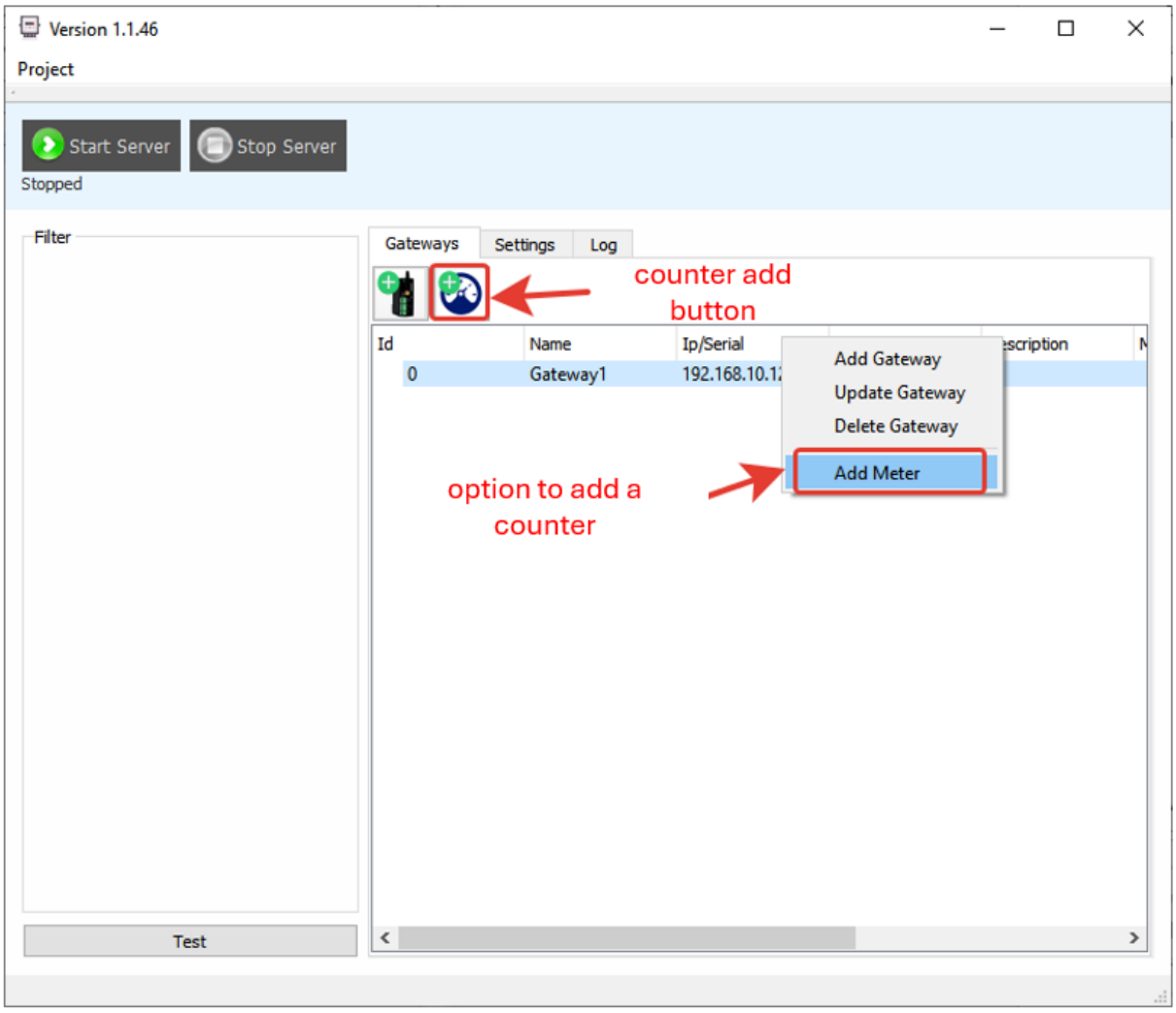


**Figure 8 Add Meter Button**

In the opened window:

- **Name:** Assign a name to the meter.
- **Serial:** Enter the meter's serial number.
- **Meter Type:** Select the meter's brand and model from the list.
- **Gway Type:** Select the gateway type from the list. The software only supports **SC** and **MDC** series devices.
- **Serial Port No:** This represents the physical port selection.
    - If **Port 1** is used physically on the device, select **Port 0** in the software.
    - If **Port 2** is used physically, select **Port 1** in the software.
- **Meter Prefix:** Varies by brand. The standard meter serial number must be 8 digits long.

- If the serial number has fewer digits, fill in the missing digits with zeros ("0") as a prefix.
- For example: EMH meters usually require "0" as a prefix, while Makel meters always require "MSY" as a prefix.

- **Initial Read Date:** Enter the start date for load profile reading.

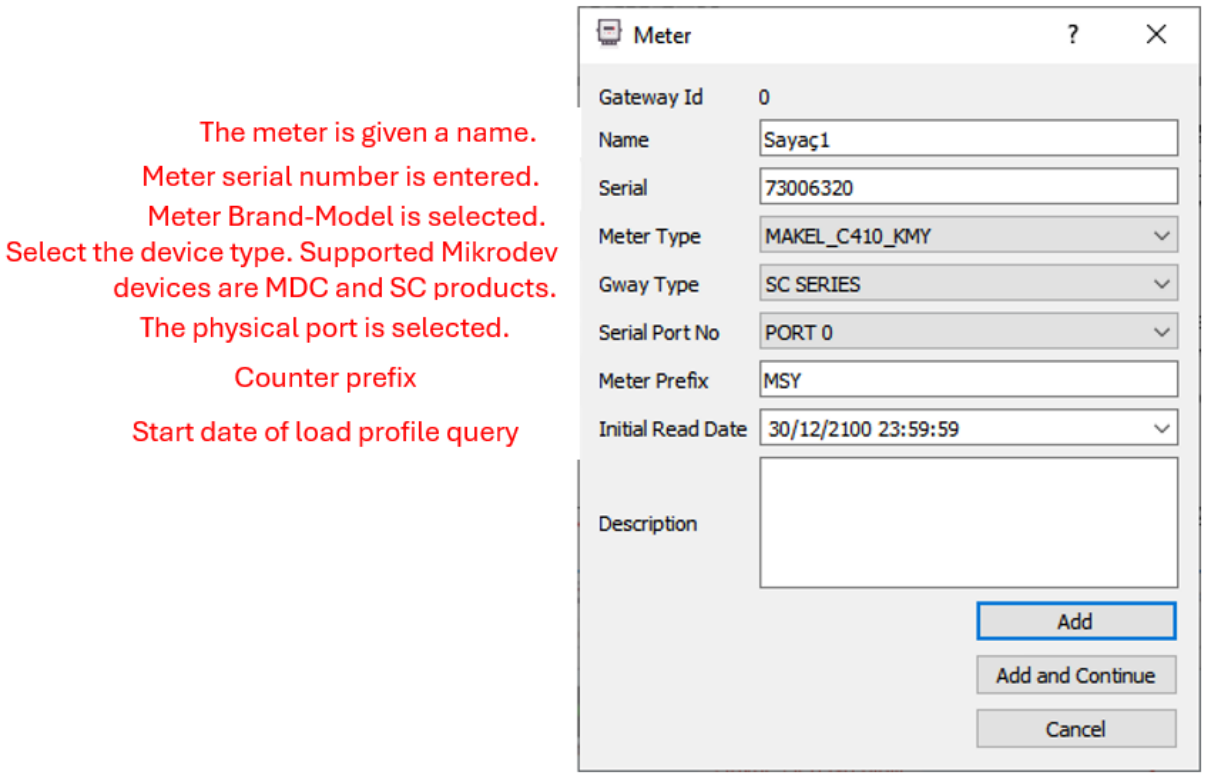


**Figure 9 Add Meter Screen**

After entering the information, click **"Add"** to add a single meter, or **"Add and Continue"** to add multiple meters.

Added meters are displayed under their respective devices.

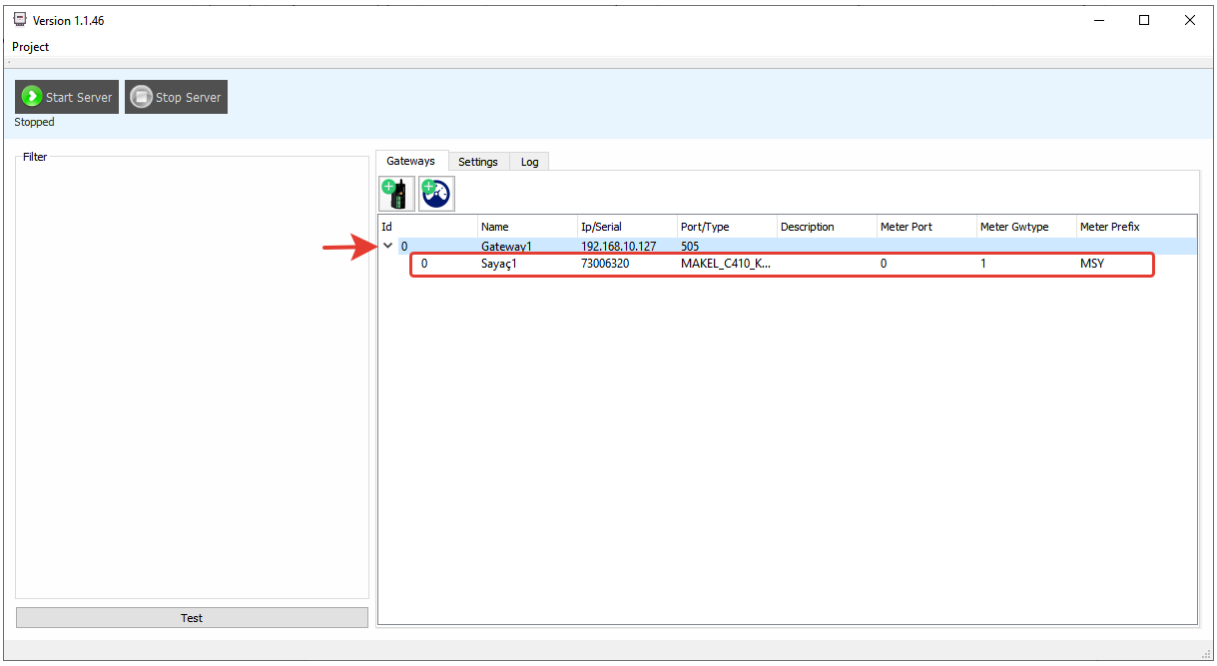


**Figure 10 Viewing Added Meters in the Project**

To add, update, or delete meters, right-click on a meter and select the desired operation from the menu.

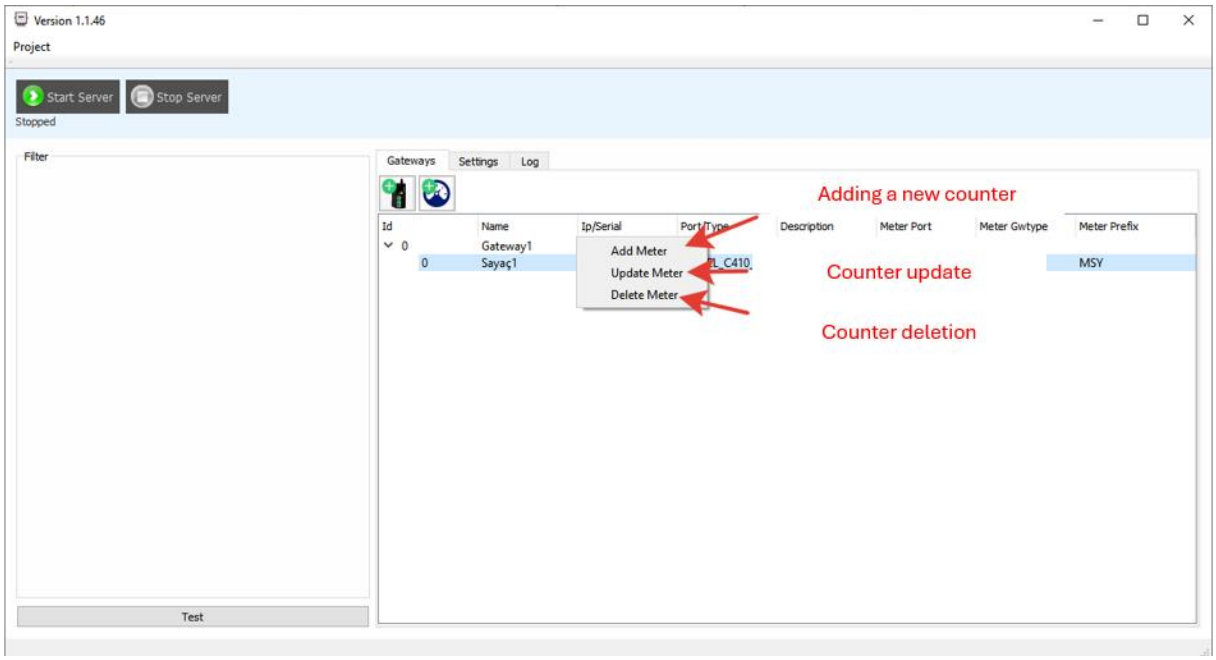


**Figure 11 Meter Information Editing Screen**

## 1.3 Settings Tab

The **Gateway reading frequency** is configured from this tab. Enter the desired interval for reading and click **"Apply."**

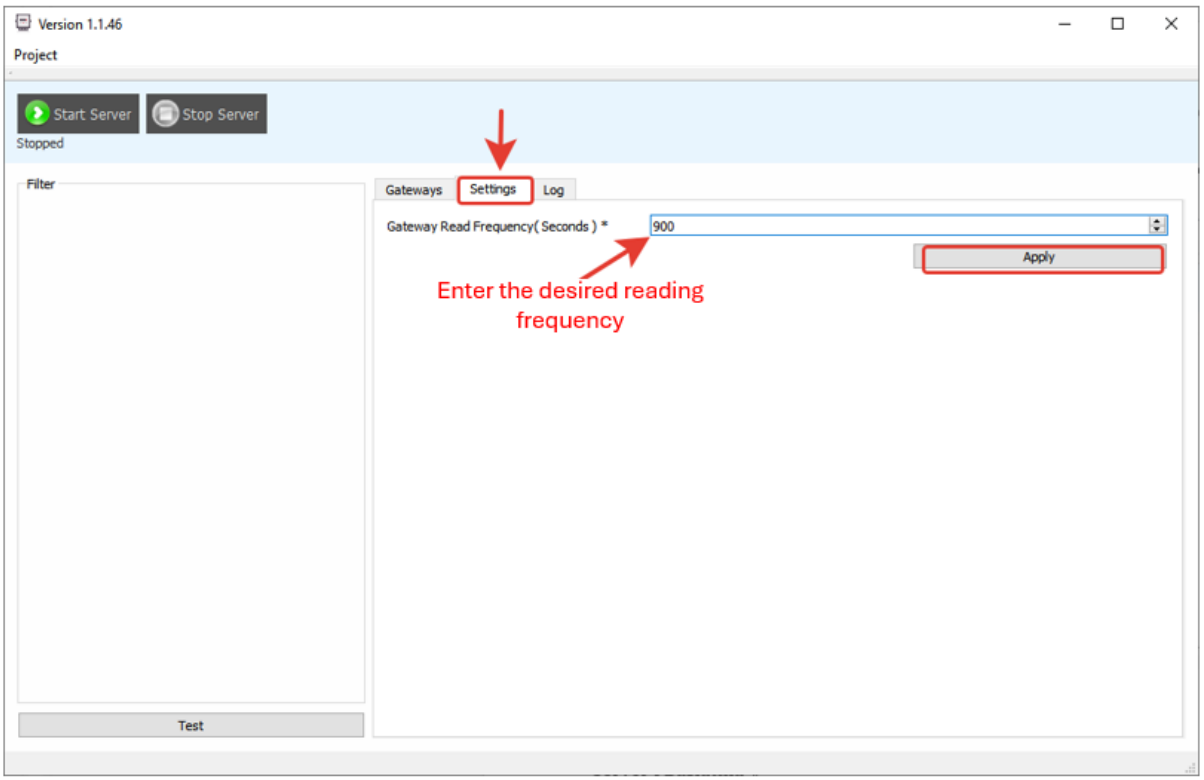


**Figure 12 Settings Tab**

## 1.4 Starting the Server

After adding all devices and meters, click the **"Start Server"** button to start the server.

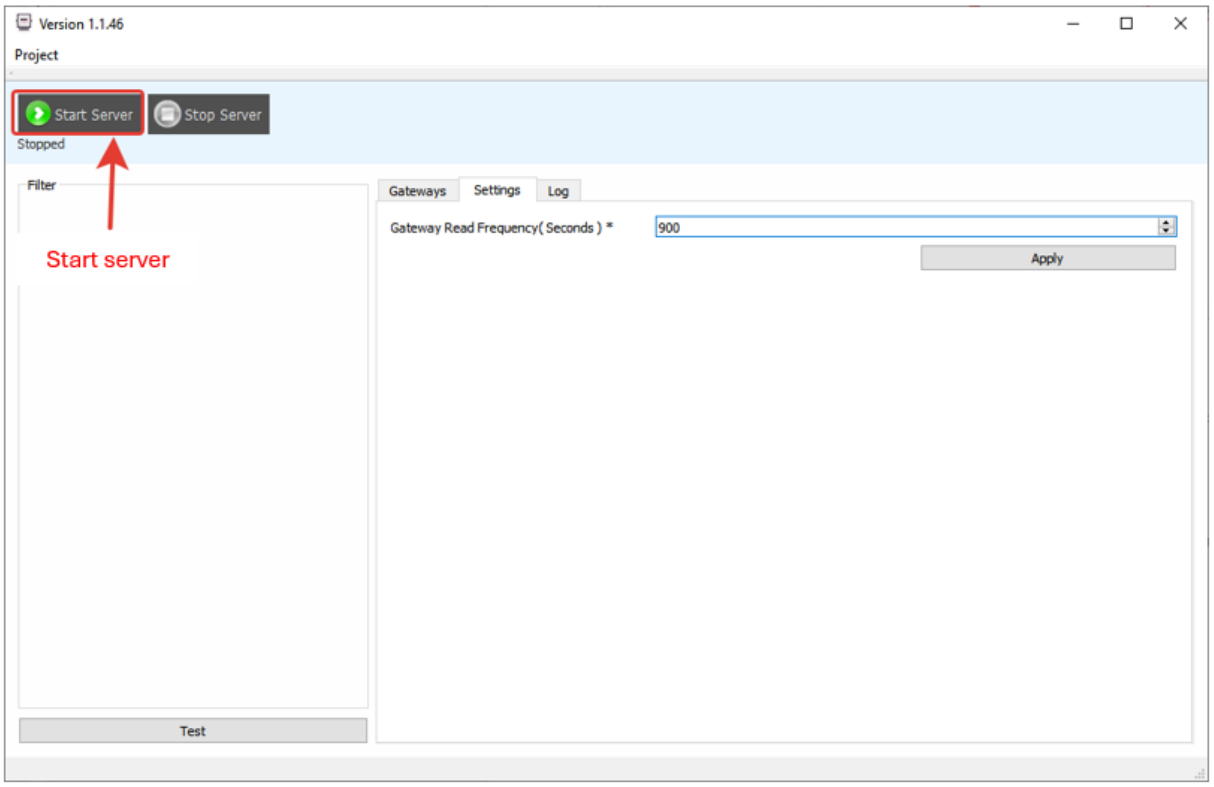


**Figure 13 Start Server Button**

When the server is running, the label **"running"** appears below the **Start Server** button.

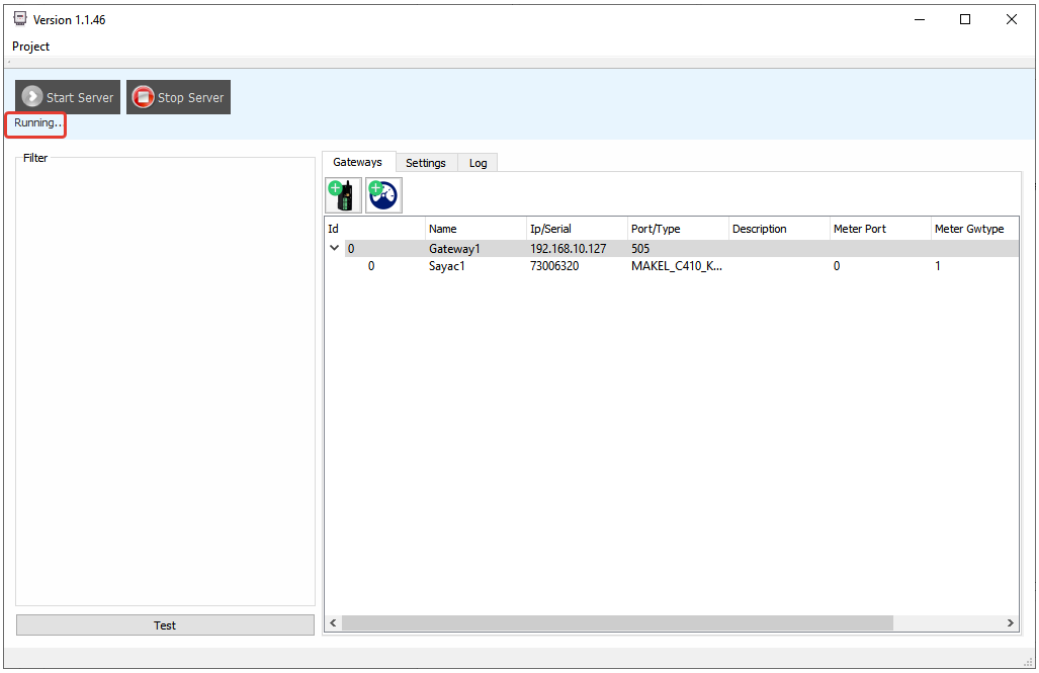


**Figure 14 Server Running Indicator**

## 1.5 Log Tab

Once the server is running, the **Log** tab can be used to check device connection statuses, and to review **readout** and **load profile** data received from meters.

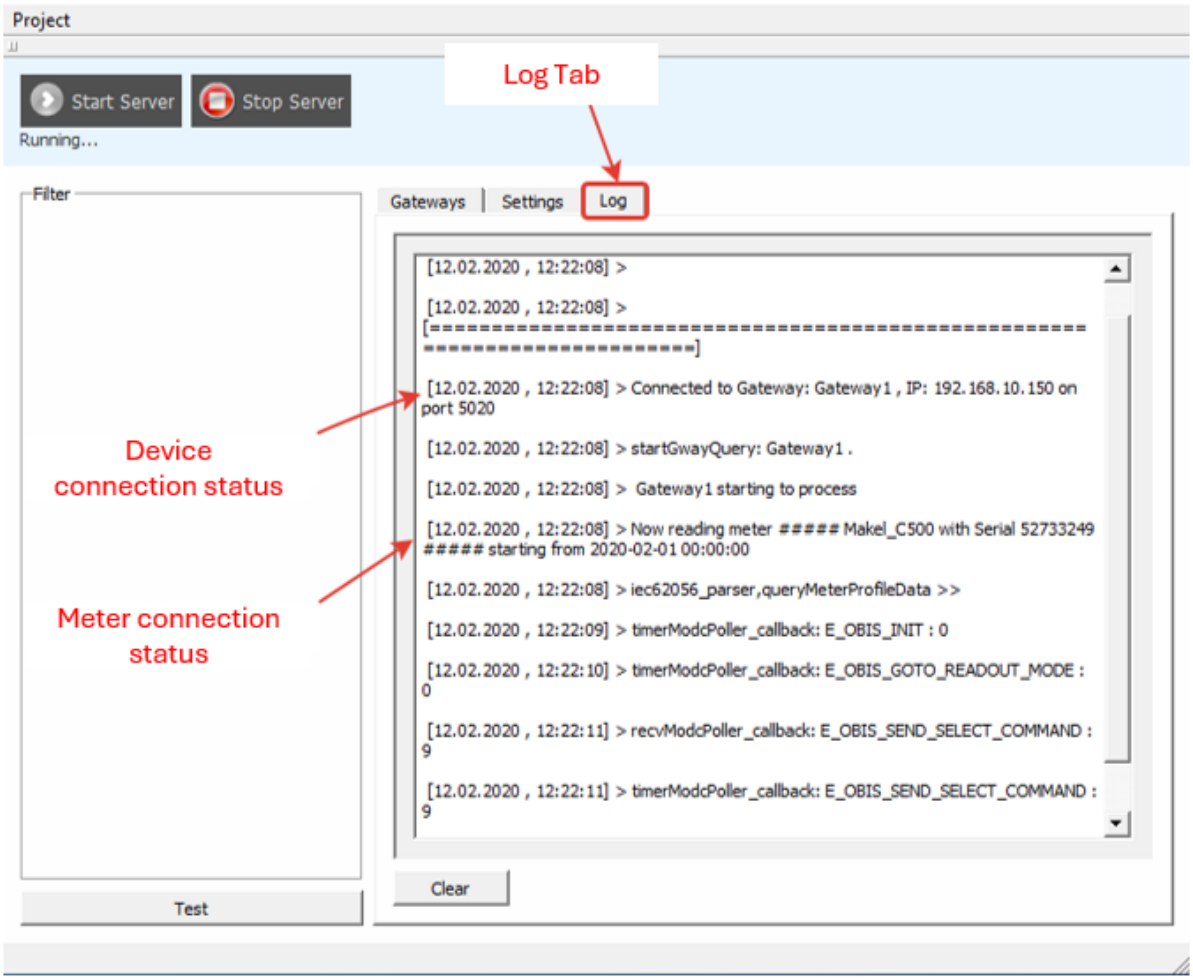


**Figure 15 Log Tab**

## 1.6 Stopping the Server

To stop the running server, click the **"Stop Server"** button.

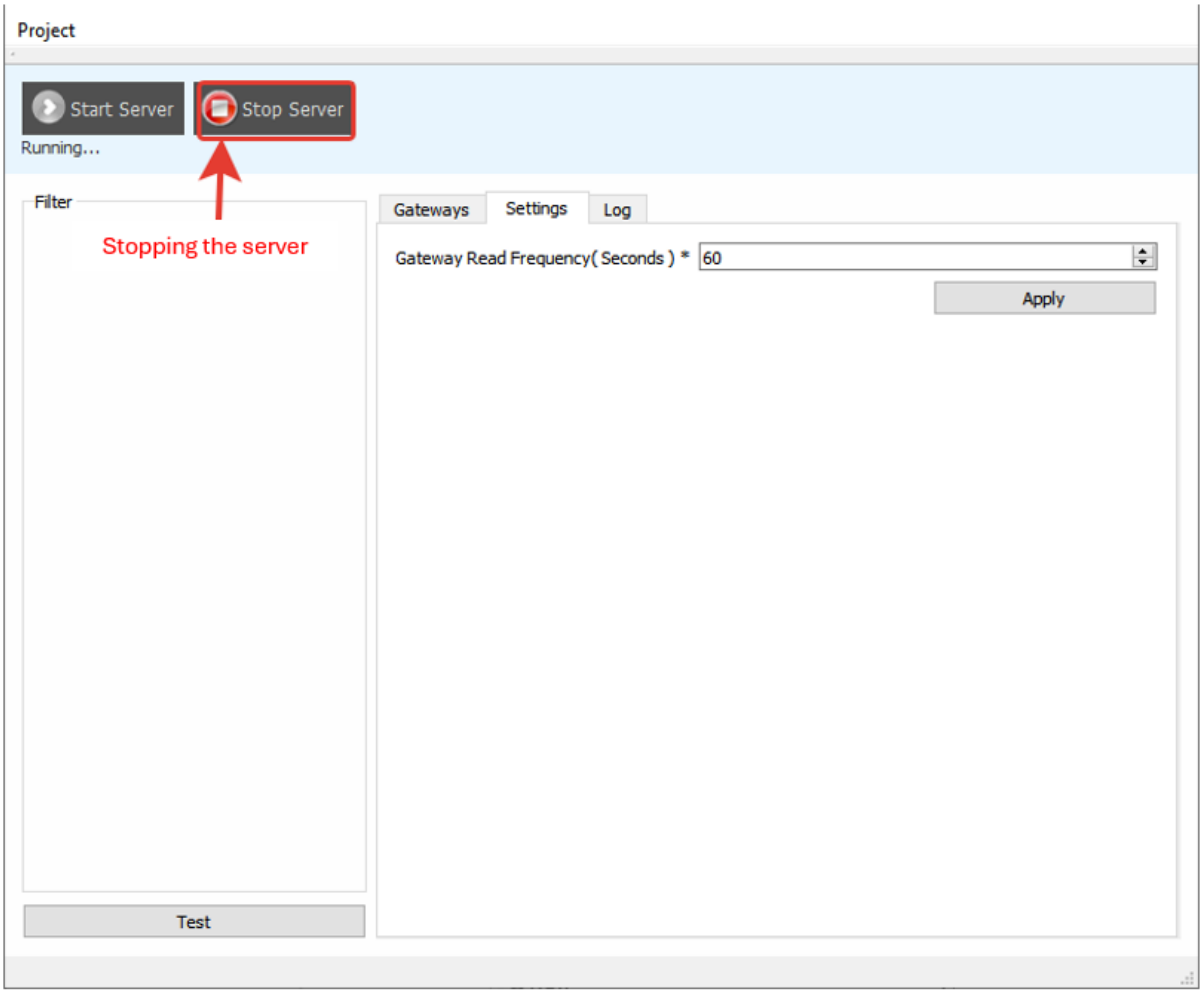


**Figure 16 Stop Server Button**

When the server is stopped, the label **"stopped"** appears below the **Start Server** button.

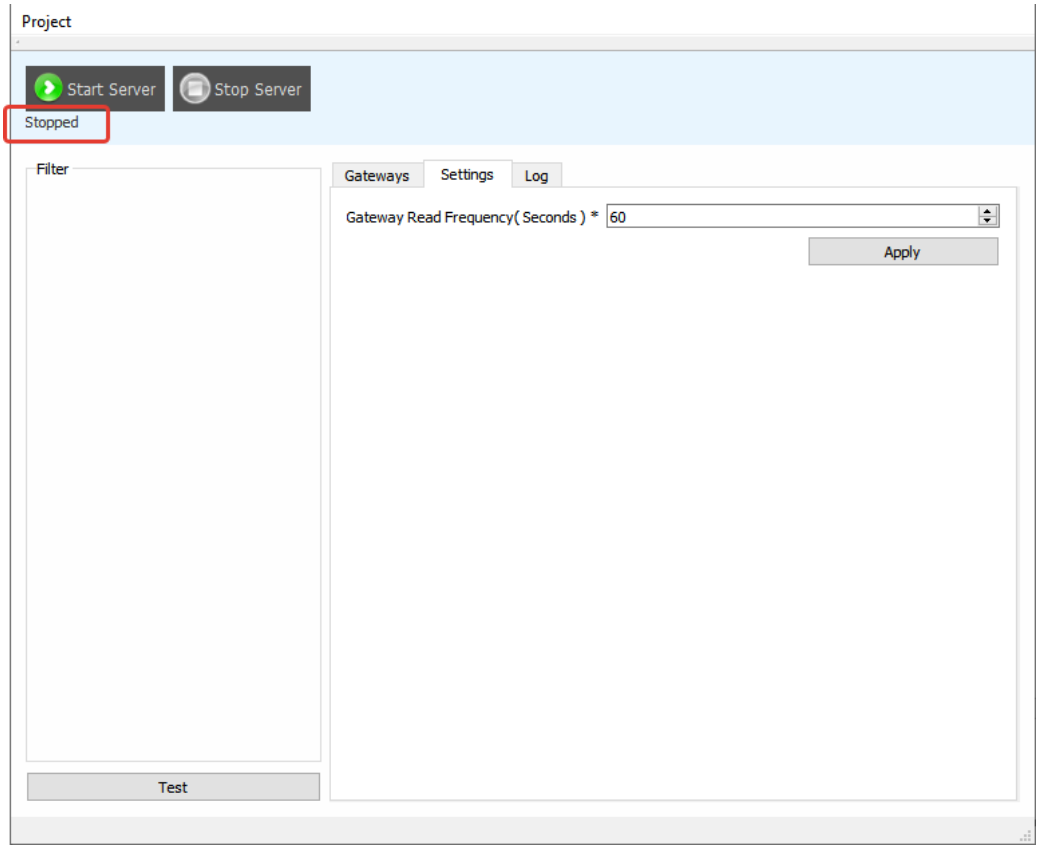


**Figure 17 Server Stopped Indicator**

## 1.7 Loading a Project

To open a previously created project file, click **"Load Project"** from the **Projects** tab.

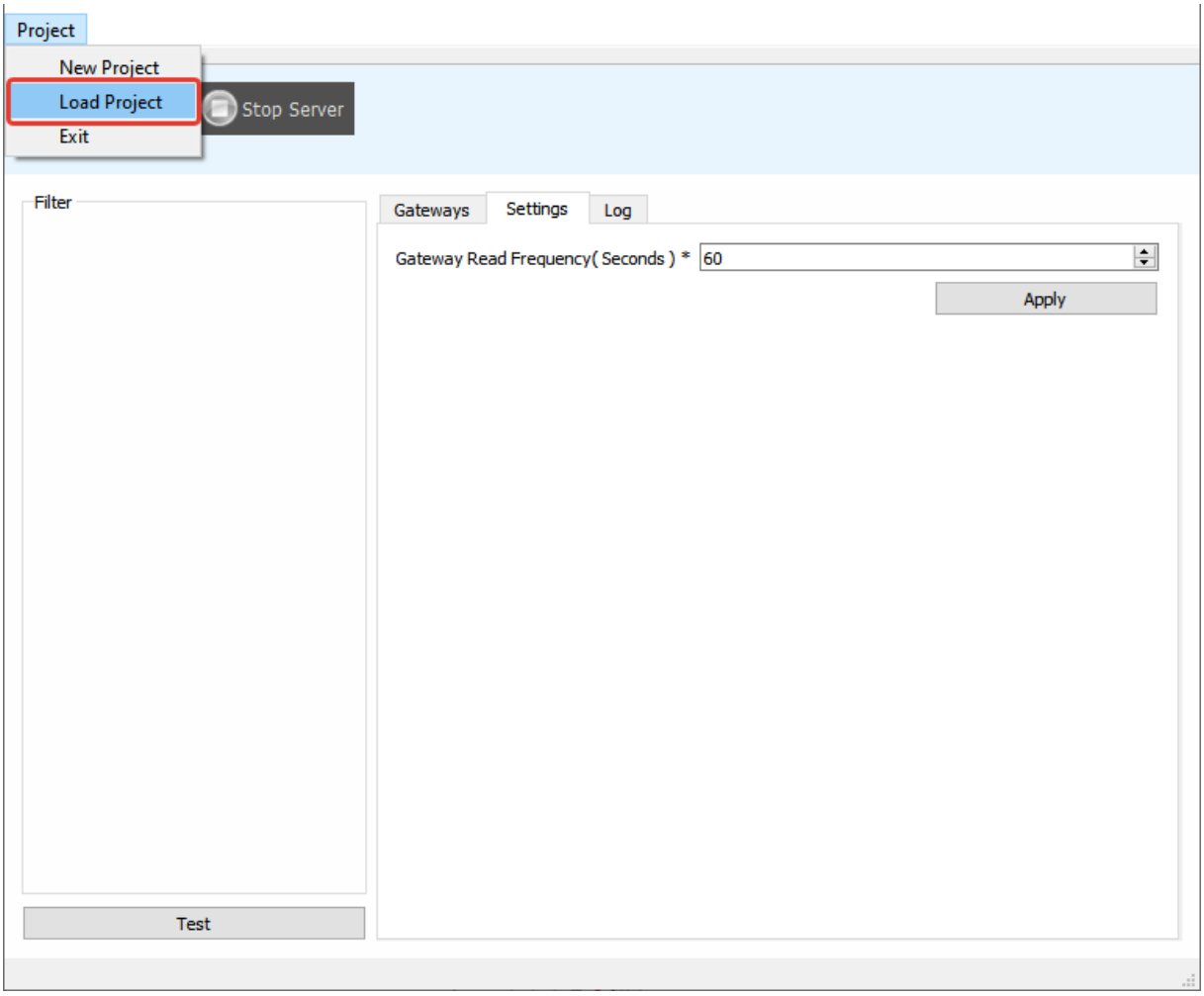


**Figure 18 Load Project Option**

## 1.8 Accessing Records

All project data — including device and meter information, as well as readout and load profile logs — are stored in a **PostgreSQL** database.

A new database with the same name as the project is automatically created in PostgreSQL. Under the **Schemas** section, two tables are available: **logs** and **public**.

The **public** schema contains two tables:

- **mdcgateway** — stores gateway information
- **mdcmeter** — stores meter information

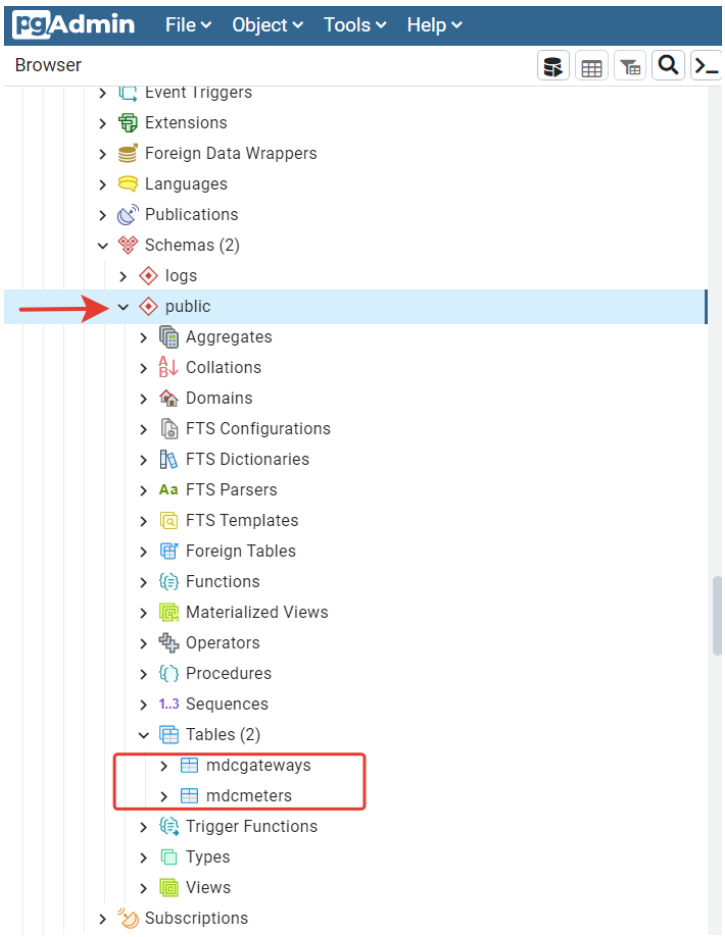


**Figure 19 Public Schema**

The **logs** schema contains parsed **readout data**, parsed **load profile records**, and the **latest successful load profile records**.

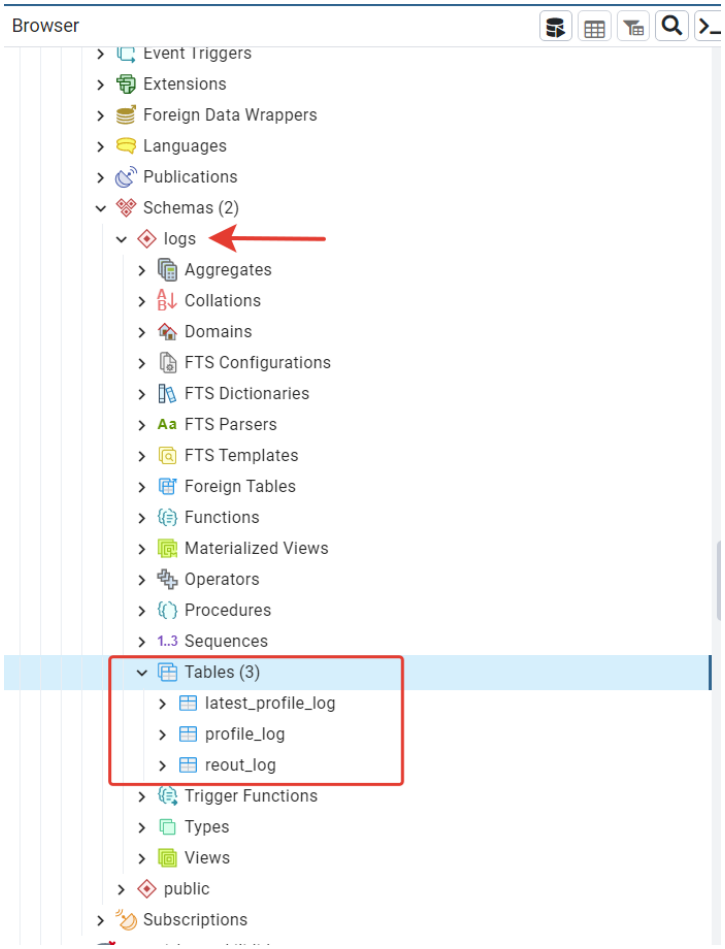


**Figure 20 Logs Schema**

For more detailed information, please refer to the **Load Profile Integration** document.