

How to create meter readings in Fractal HUB?

help.fractal.com/hc/en-us/articles/37555428587917-How-to-create-meter-readings-in-Fractal-HUB

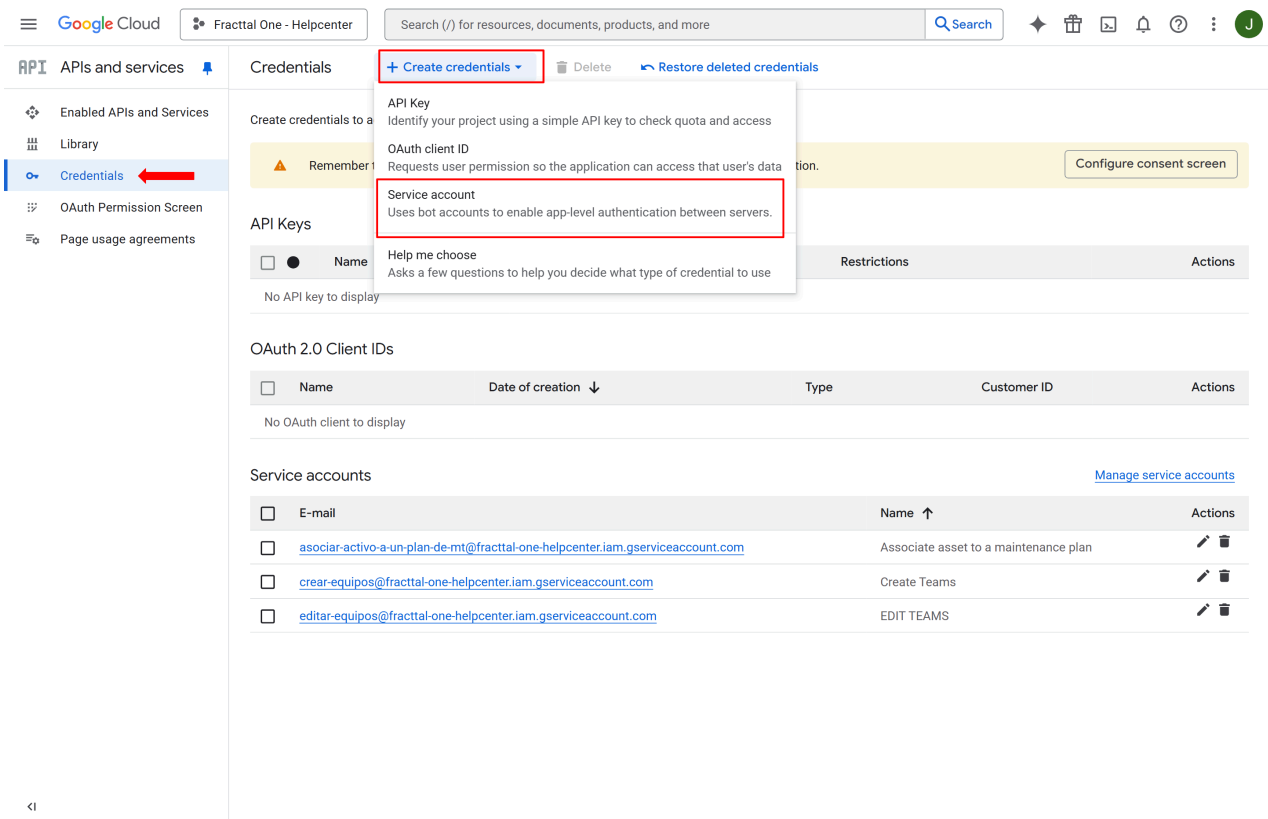
With the automation option in **Fractal Hub**, it is possible to efficiently manage the creation and updating of meters without manual intervention, especially in high data volume contexts. This functionality allows users to streamline operational processes and minimize human errors in handling meter readings.

Below, you will find a step-by-step guide on how to set up this functionality within the Fractal Hub platform.

Step 1: Access the Google Cloud Console

Log in to Google Cloud Console.

- Go to the **API and Services > Credentials** section.
- Click on **Create Credentials > Service Account**.



- Name the service account as "create_meters" and follow the process until completion.

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IAM and administrator / Service accounts / Create service account

← Create service account

1 Create service account

Service account name
Display name for this service account

Service Account ID * X ↺

Email address: <id>@fractal-one-helpcenter.iam.gserviceaccount.com

Service Account Description
Describe how the service account will be used

Create and continue

2 Permissions(optional)

3 Main with access(optional)

Conclude Cancel

Step 2: Generate the JSON key

1. Once the service account is created, select it from the list.

Google Cloud Fractal One - Helpcenter

API APIs e serviços

Credentials + Create credentials Delete

OAuth 2.0 Client IDs

☐	Name	Date of creation ↓	Type	Customer ID	Actions
No OAuth client to display					

Service accounts [Manage service accounts](#)

☐	E-mail	Name ↑	Actions
☐	asociar-activo-a-un-plan-de-mt@fractal-one-helpcenter.iam.gserviceaccount.com	Associate asset to a maintenance plan	
☐	crear-equipos@fractal-one-helpcenter.iam.gserviceaccount.com	Create Teams	
☐	crear-medidores@fractal-one-helpcenter.iam.gserviceaccount.com	create meters	
☐	editar-equipos@fractal-one-helpcenter.iam.gserviceaccount.com	EDIT TEAMS	

2. Go to the **Keys** section. Click on **Add Key > Create New Key**.

The screenshot shows the Google Cloud IAM and administrator console. The left sidebar contains a navigation menu with options like IAM, PAM, and Contas de serviço. The main content area is titled 'EDIT TEAMS' and has tabs for Details, Permissions, Keys, Metric, Records, and Main with access. The 'Keys' tab is active, showing a warning about service account keys and a table of existing keys. A red box highlights the 'Add key' button, and another red box highlights the 'Create new key' option in the dropdown menu. A red arrow points to the 'Create new key' option.

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IAM and administrator / Service accounts / Service account: 116354228228094995252 / Chaves

← EDIT TEAMS

Details Permissions **Keys** Metric Records Main with access

Keys

Service account keys can pose a security risk if compromised. We recommend avoiding downloading service account keys. Instead, use Workload Identity Federation. [Learn more about the best way to authenticate service accounts in Google Cloud](#).

Google automatically disables service account keys detected in public repositories. This behavior can be customized using the "iam.serviceAccountKeyExposureResponse" organization policy. [Learn more](#)

Add a new key pair or upload a public key certificate for the existing pair.

Block service account key creation using [organization policies](#) [Learn more about configuring organization policies for service accounts](#).

Add key ▼

Create new key (highlighted with red box and red arrow)

Upload a current key

Key	Date of creation	Expiration date
3d1df3871dae13bf097b03088b2d8b72a97c0d24	10 de jul. de 2025	31 de dez. de 9999

3. Select the **JSON** format.

The screenshot shows the Google Cloud IAM and administrator console with the 'EDIT TEAMS' page. A dialog box titled 'Create private key for "EDIT EQUIPMENT"' is open. The dialog contains a warning about the private key and a section for 'Key type' with two options: 'JSON' (selected with a red arrow) and 'P12'. The 'To create' button is highlighted with a red box.

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IAM and administrator / Service accounts / Service account: 116354228228094995252 / Chaves

← EDIT TEAMS

Details Permissions **Keys** Metric Records Main with access

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Upload a current key

Key	Date of creation	Expiration date
3d1df3871dae13bf097b03088b2d8b72a97c0d24	10 de jul. de 2025	31 de dez. de 9999

Create private key for "EDIT EQUIPMENT"

A file containing the private key is downloaded. Store the file securely, as this key cannot be recovered if lost.

Key type

☒ **JSON** (highlighted with red arrow)
Recommended

☐ **P12**
For backward compatibility using code with P12 format

Cancel **To create** (highlighted with red box)

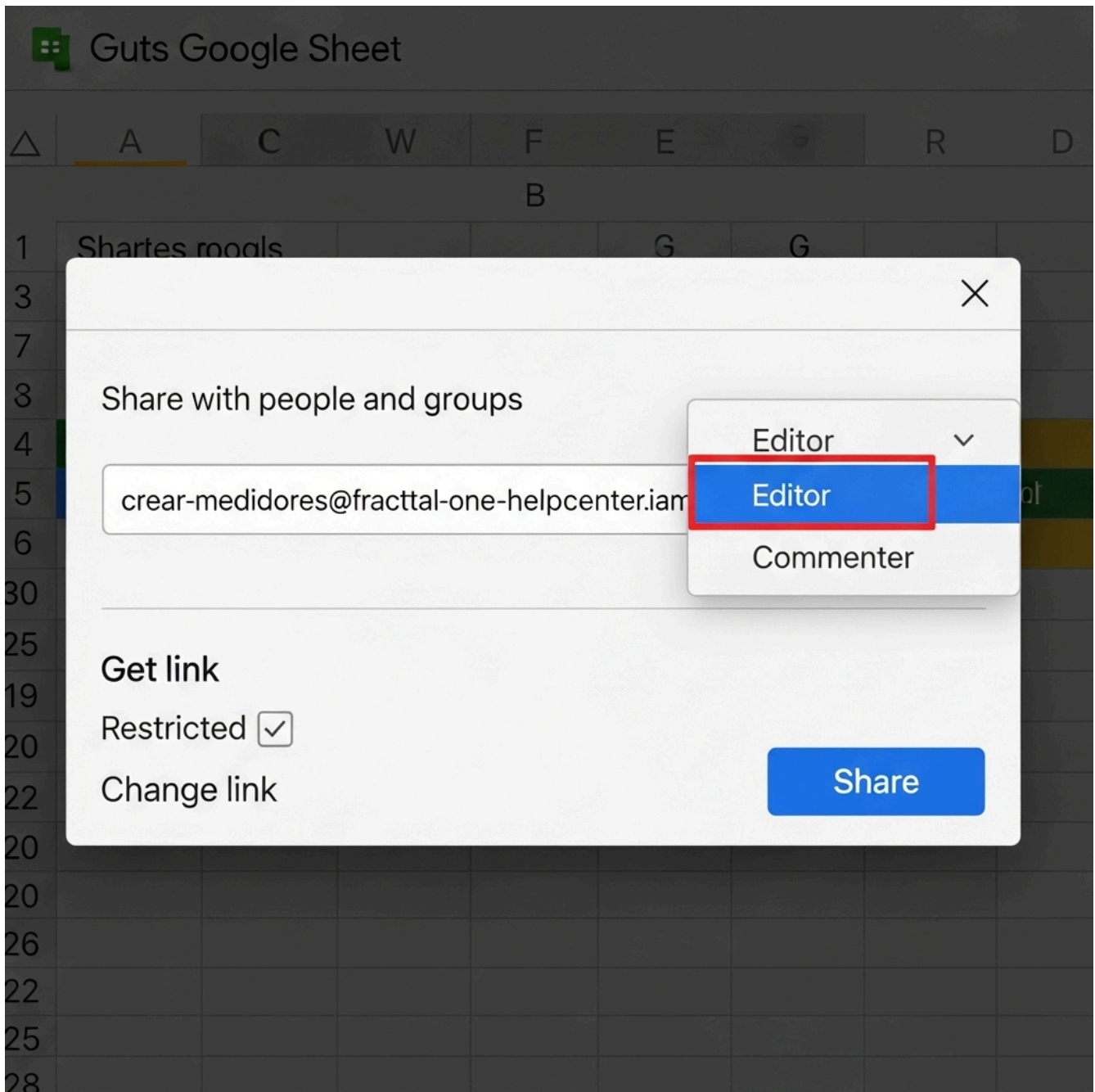
4. Save the generated file in a secure location; this file will be necessary to configure the integration in Fractal Hub.

Step 3: Prepare the spreadsheet (Google Sheets)

Now, we will prepare the spreadsheet that will serve as the data source for the creation of meters.

description	item_code	unit_code	is_counter
Electric Transformer	ABC123-HC-FC	KM	TRUE

1. Create a new spreadsheet in Google Sheets.
2. Give it a descriptive name, such as CREATE METER.
3. In the first row, define the column headers. These must match the parameters required by the Fractal API. For this example, we will use the following mandatory fields and one optional:
 - **Column A:** description (Description of the meter, e.g.: "KM Meter").
 - **Column B:** item_code (Code of the asset to which the meter will be associated, e.g.: "HUB-004").
 - **Column C:** unit_code (Code of the meter's unit, e.g.: "KM". This code must exist previously in Settings > Auxiliary Catalogs > Unit).
 - **Column D:** is_counter (Optional, but recommended. Indicates if the meter is a counter. Write TRUE if it is, or FALSE if not).
4. Fill the rows with the information of the meters you wish to create.
5. **Share the spreadsheet:** This is a crucial step.
 - Copy the email of the service account you created in Step 1 (you will find it inside the .json file in the client_email field).
 - Click the **Share** button on your spreadsheet.
 - Paste the email of the service account and assign it **Editor** permissions.

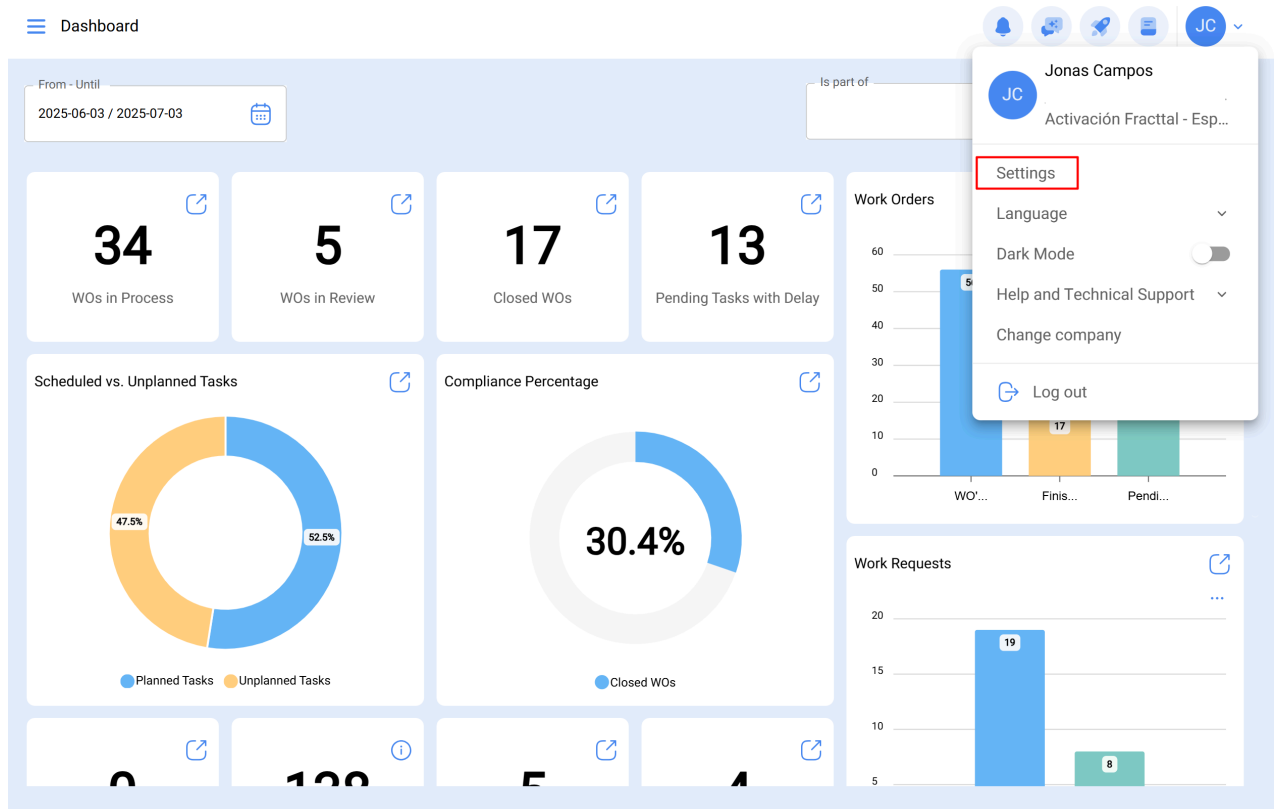


Click on **Send**.

Step 4: Create the connection in Fractal One

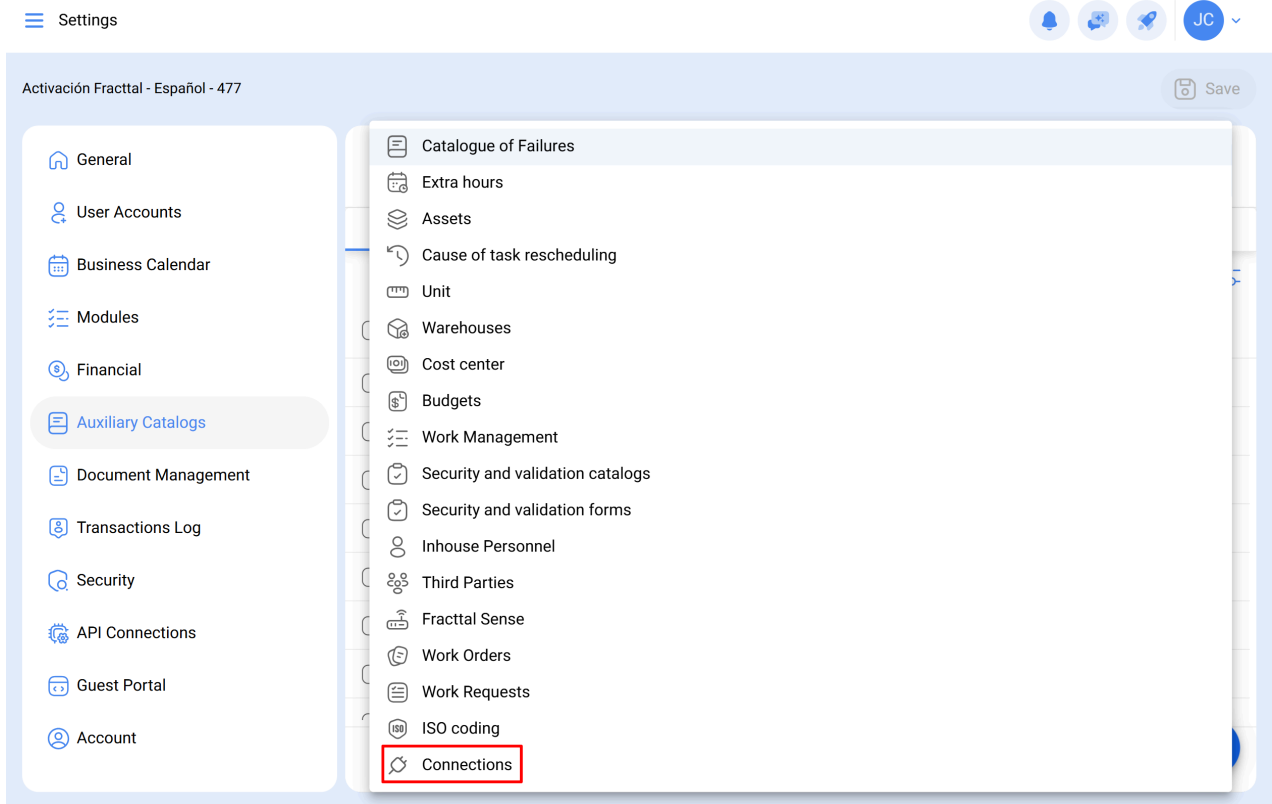
Now we will configure the connection within Fractal so that it can use the service account credentials.

1. In Fractal, navigate to **Settings > Auxiliary Catalogs > Connections**.

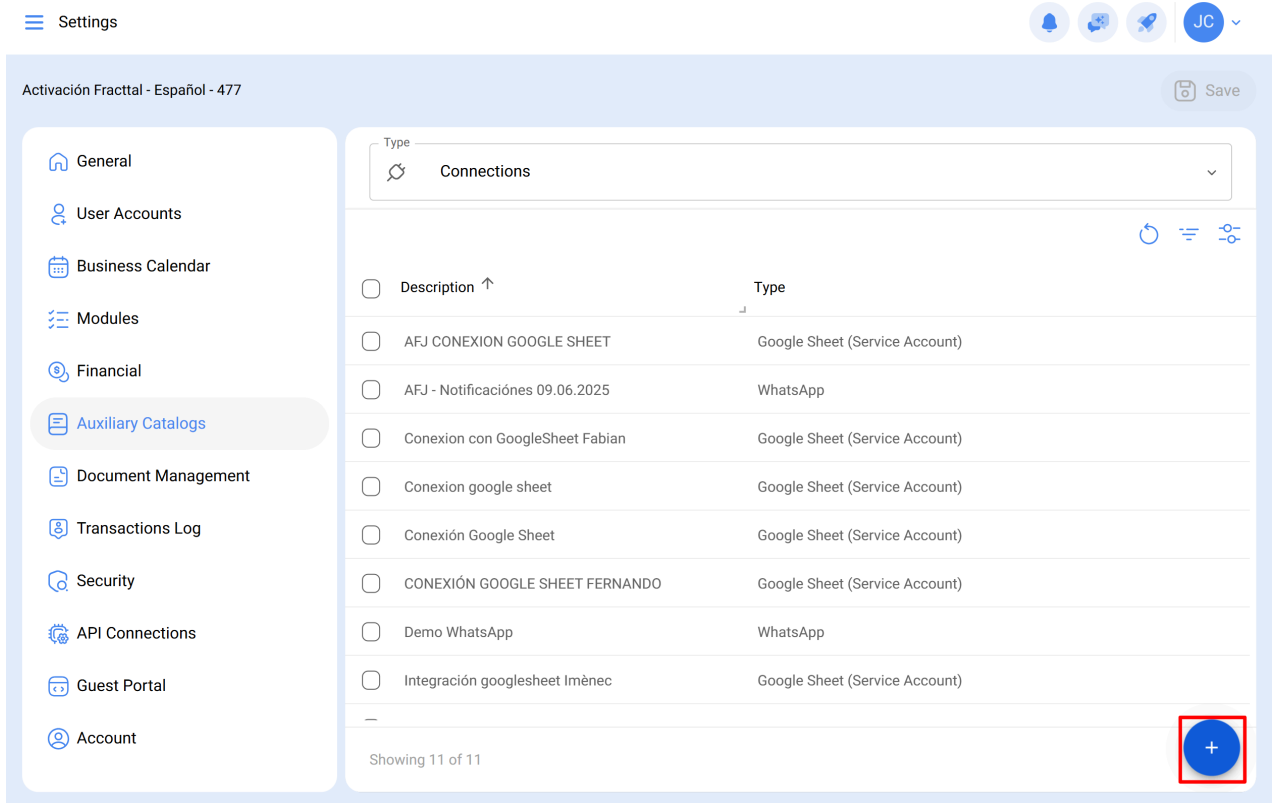


The settings page is titled "Activación Fractal - Español - 477". The left sidebar lists various settings categories, with "Auxiliary Catalogs" highlighted. The main content area shows the configuration for this catalog:

- General:**
 - Code: RFC10829120
 - Name: Activación Fractal - Español - 477
 - Email: contacto@fractal.com
 - Currency: Chilean Peso
 - Thousands separator: (.) The character used is a p
- Address:**
 - Address: Calle de San José Artesano, 12
 - City: Bogota
 - State: Cundinamarca
 - Country: Colombia
 - Zip code: 28108
- Map:** A Google Map showing the location of Inacap Apoquindo.



2. Click on the + icon to add a new connection.



3. Fill in the following fields:

The screenshot shows the 'Settings' page for 'Activación Fractal - Español - 477'. The left sidebar contains a list of settings categories: General, User Accounts, Business Calendar, Modules, Financial, Auxiliary Catalogs (selected), Document Management, Transactions Log, Security, API Connections, Guest Portal, and Account. The main content area displays the 'Connections' section, which includes a table with columns for 'Type' and 'Description'. The table lists 11 connections, including 'AFJ CONEXION GOOGLE SHEET', 'AFJ - Notificaciones 09.06.2025', 'Conexion con GoogleSheet Fabian', 'Conexion google sheet', 'Conexión Google Sheet', 'CONEXIÓN GOOGLE SHEET FERNANDO', 'Demo WhatsApp', and 'Integración googlesheet Imenec'. To the right of the table, there are two input fields: 'Type' and 'Description', both with red borders and error messages 'Type can't be blank' and 'Description can't be blank' respectively. A blue checkmark icon is visible in the top right corner of the settings page.

- **Type:** Select **Google Sheet (Service Account)**.
- **Description:** Assign a name to the connection:

4. Open the downloaded .json file and copy/paste the content of the following fields into their respective places in the Fractal form:

- private_key
- client_email
- client_id
- client_x509_cert_url

5. Click the ✓ icon to save and then click **Save**.

Settings

Activación Fracttal - Español - 477

General

User Accounts

Business Calendar

Modules

Financial

Auxiliary Catalogs

Document Management

Transactions Log

Security

API Connections

Guest Portal

Account

Type

Connections

Description ↑	Type
Conexión Google Sheet	Google Sheet (Service Account)
CONEXIÓN GOOGLE SHEET FERNANDO	Google Sheet (Service Account)
Crear medidor	Google Sheet (Service Account)
CREAR MEDIDOR - 0725	Google Sheet (Service Account)
Demo WhatsApp	WhatsApp
EDITAR EQUIPO	Google Sheet (Service Account)
Integración googlesheet Imè nec	Google Sheet (Service Account)
Projeto LCS	Google Sheet (Service Account)
proyector	Google Sheet (Service Account)
webnar 2024 v.1	Google Sheet (Service Account)
whatsapp jonas	WhatsApp

Showing 15 of 15

←

↗

✓

Type

Google Sheet (Service Account)

Description

CREAR MEDIDOR - 0725

Type

service_account

project_id *

@fracttal.com

private_key_id *

private_key *

client_email *

crear-medidores@fracttal-one-helpcenter.iam.gserviceaccour

client_id *

10948539799581941586

client_x509_cert_url *

https://www.googleapis.com/robot/v1/metadata/x509/crear

auth_uri

https://accounts.google.com/o/oauth2/auth

token_uri

Step 5: Configure the flow in Fracttal Hub

With the connection ready, the last step is to create the automation flow.

1. Navigate to the **Fractal Hub** module.

The screenshot shows the Fractal One dashboard. On the left is a navigation sidebar with the following items: Start, Fractal AI, Catalogs, Warehouses, Work Management, Monitoring, Dispatcher (highlighted with a red arrow), Events, Fractal Hub (highlighted with a red box), Business Intelligence, Cloud Disk, and Requests. The main dashboard area displays several widgets: 'Closed WOs' with a value of 73, 'Pending Tasks with Delay' with a value of 24, a 'Compliance Percentage' donut chart at 57.0%, 'Work Orders' with a bar chart showing 128, 73, and 55, and 'Work Requests' with a bar chart showing 39. The top right of the dashboard includes a user profile icon and a search bar.

2. Click the + icon to create a new flow.

The screenshot shows the 'Fractal Hub' page with a table of flows. The table has columns for 'Enabled', 'Description', 'Last Date', and 'Trigger'. There are 14 flows listed. At the bottom right of the table, there is a blue circular button with a white '+' icon, which is highlighted with a red box. The page also includes a search bar and a user profile icon at the top right.

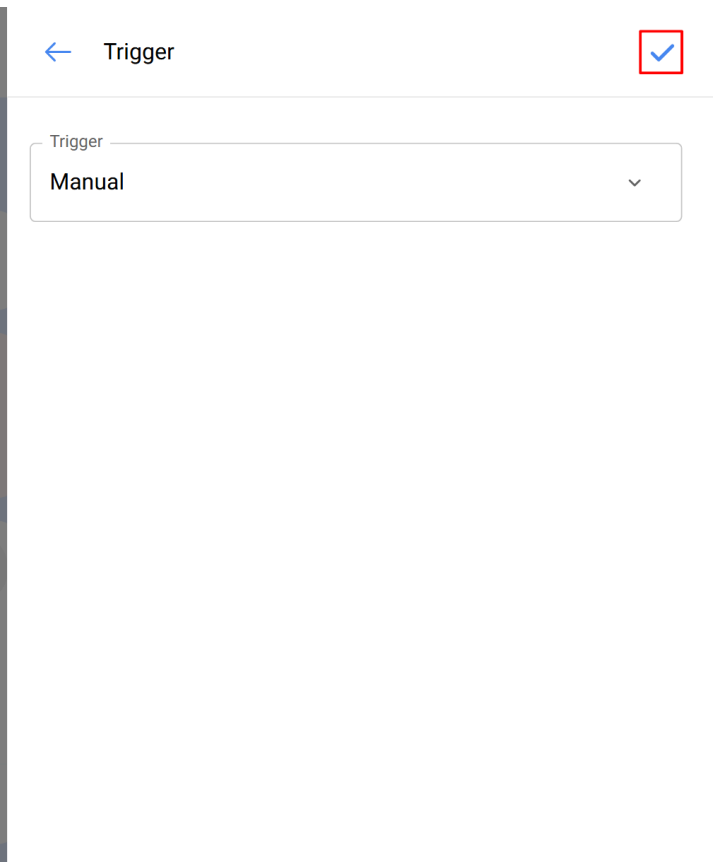
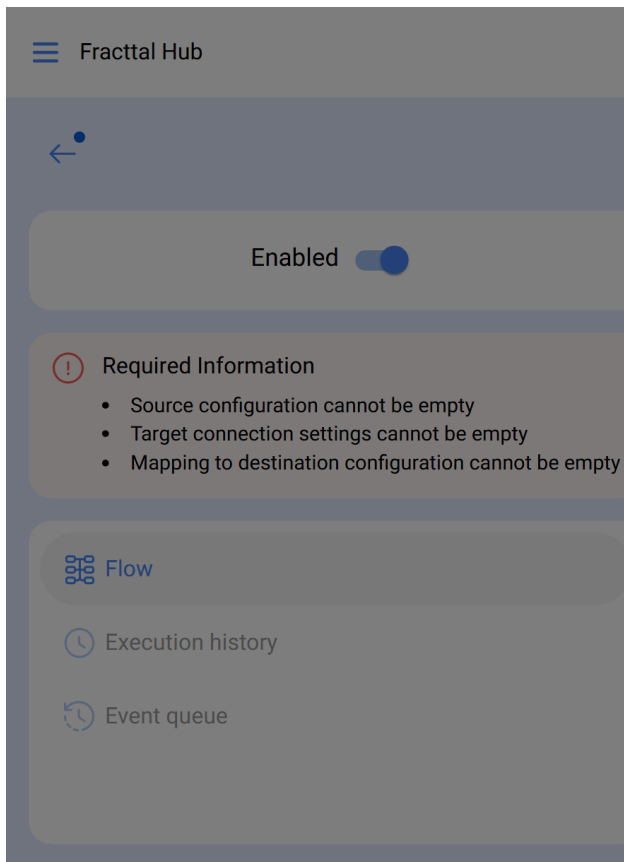
Enabled	Description	Last Date	Trigger
☐	Notificación de nuevas órdenes de servicio de Whatsapp (P...	2025-07-02 12:54	Event
☐	actualización de horometro	2024-11-22 18:15	Schedule
☐	AFJ. 09.06.2025. Conex. Wpp	2025-06-09 09:57	Event
☐	Lecturas fuera de Rango (Rangel)	2023-03-22 17:51	Event
☐	Consulta subtaeas Fractal Fabian	2024-12-18 20:26	Manual
☐	Projeto LCS 1212	2024-12-12 18:12	Manual
☐	Lecturas fuera de rango	2023-03-22 17:51	Event
☐	webnar 2024	2024-12-17 23:06	Manual
☐	Notificación de nuevas órdenes de servicio de Whatsapp (E...	2025-05-23 22:20	Event
☐	Comunicación Fractal One	2024-09-05 21:53	Event
☐	BODEGAS FAC - MEDIDORES	2025-01-20 16:56	Manual

3. Add a **Description** for the flow:

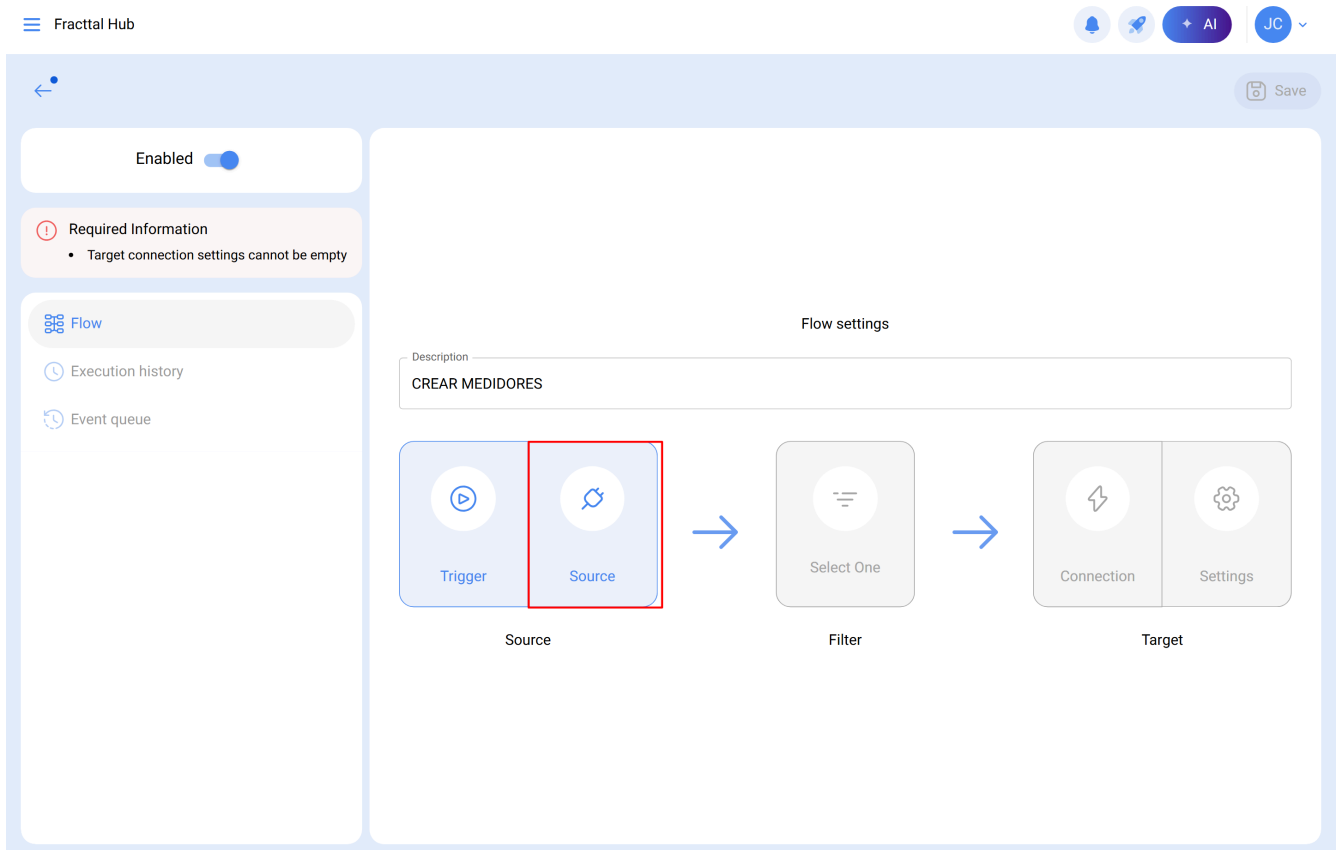
The screenshot shows the Fractal Hub interface for configuring a flow. At the top, there is a navigation bar with 'Fractal Hub', a bell icon, a rocket icon, an 'AI' button, and a user profile 'JC'. The main area is divided into two columns. The left column contains a toggle switch labeled 'Enabled' which is turned on, a 'Required Information' section with three bullet points: 'Source configuration cannot be empty', 'Target connection settings cannot be empty', and 'Mapping to destination configuration cannot be empty', and a sidebar with 'Flow' (selected), 'Execution history', and 'Event queue'. The right column is titled 'Flow settings' and contains a 'Description' text box with the text 'CREAR MEDIDORES' highlighted by a red rectangle. Below this is a diagram showing a 'Trigger' box (with a play icon) and a 'Source' box (with a plug icon) connected by a blue arrow pointing from the Trigger to the Source. The arrow is labeled 'Source'.

Trigger Configuration:

Click on **Trigger** and select the type **Manual**. This allows the flow to be executed whenever desired.



Source Configuration:



- Click on **Source**.
- **Module**: Select GoogleSheet.
- **Connection**: Select the connection created in the previous step.
- **Action**: Select Read.
- **spreadsheet_id**: Copy the ID of your spreadsheet (you can find it in the URL, between /d/ and /edit/).
- **sheet**: Write 0 to read the first tab.
- **Fields**: Add the names of the columns:

Fractal Hub

← Source

Enabled ☒

Required Information

- Source configuration cannot be empty
- Target connection settings cannot be empty
- Mapping to destination configuration cannot be empty

Flow

Execution history

Event queue

Module

GoogleSheet

Connection

CREAR MEDIDOR - 0725

Action

Read

spreadsheet_id

338689D5-4FC6-4641-9FB3-715768F4DCAC

sheet

0

Fields

Name	Type
id	Text

+

Destination Configuration:

Fractal Hub

Enabled ☒

Required Information

- Target connection settings cannot be empty

Flow

Execution history

Event queue

Flow settings

Description

CREAR MEDIDORES

Source

Trigger

Source

Filter

Select One

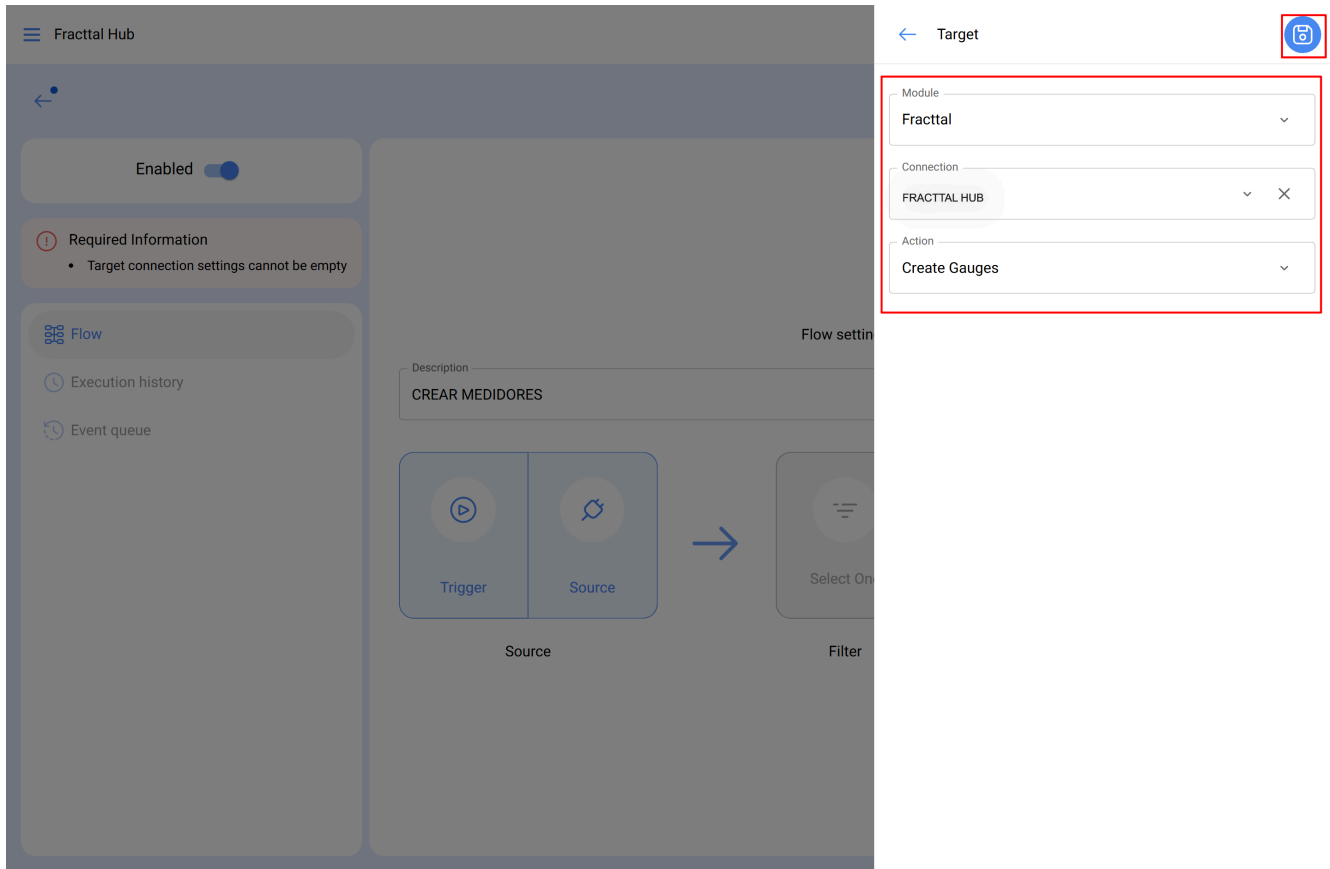
Target

Connection

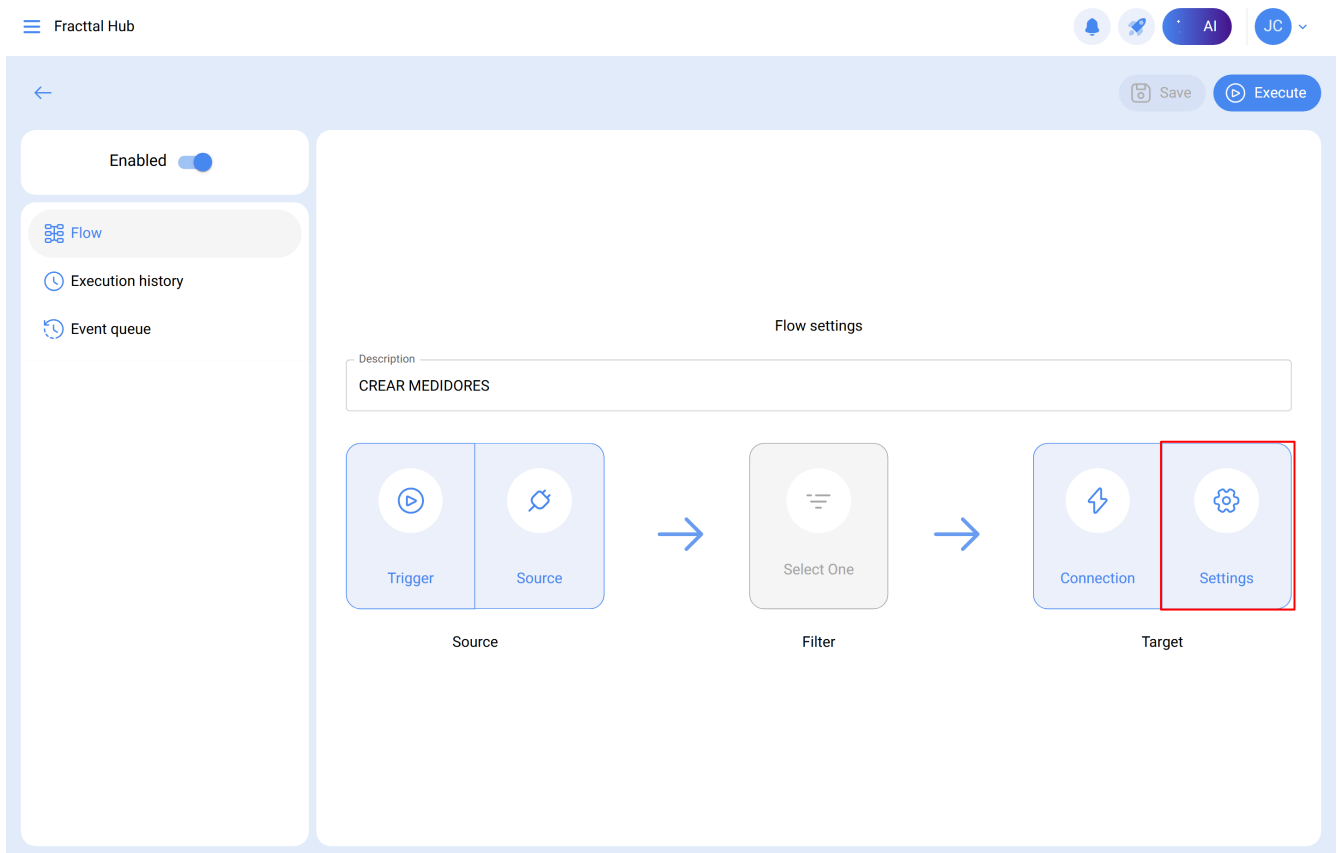
Settings

Save

- Click on **Connection** in the destination section.
- **Module:** Select Fractal.
- **Connection:** Choose FRACTTAL HUB.
- **Action:** Select Create Meters.



Field Settings (mapping):



- Click on Settings in the destination section.
- Map the fields from the sheet (Source) with those of the system (Destination), ensuring they match:

description ← **description**

item_code ← **item_code**

unit code ← **unit_code**

is_counter ← **is_counter**

The screenshot shows the Fractal Hub interface. On the left, there's a sidebar with 'Enabled' toggle, 'Flow', 'Execution history', and 'Event queue'. The main area shows a flow configuration with a 'Description' box containing 'CREAR MEDIDORES' and a 'Source' block with 'Trigger' and 'Source' sub-blocks. On the right, the 'Fields Configuration' panel is open, showing a mapping between 'Source (Fields)' and 'Target (Fields)'.

Source (Fields)	Target (Fields)
description	description
item_code	item_code
unit_code	unit_code
All -> Object	serial
is_counter	is_counter
All -> Object	serial_parent_meter
All -> Object	last_reading

Click on **Save** to save the flow configuration.

Step 7: Run and verify the flow

1. Turn on the **Enabled** switch.

2. Click again on **Save**.

The screenshot shows the Fractal Hub interface. In the top right corner, there is a 'Save' button with a floppy disk icon, which is highlighted with a red rectangle. On the left sidebar, there is a toggle switch labeled 'Enabled' that is currently turned off, also highlighted with a red rectangle. Below the toggle, there is an 'Information' section with the text 'You have pending changes to save!'. The main area displays 'Flow settings' with a description field containing 'Asociar activo a plan de MTTO'. Below the description, there is a flow diagram with three stages: 'Source' (containing 'Trigger' and 'Source' components), 'Filter' (containing 'Select One' component), and 'Target' (containing 'Connection' and 'Settings' components). Arrows indicate the flow from Source to Filter to Target.

3. Click the **Execute** button to start the process.

The screenshot shows the Fractal Hub interface. In the top right corner, there is an 'Execute' button with a play icon, which is highlighted with a red rectangle. The 'Enabled' toggle switch on the left sidebar is now turned on. The main area displays 'Flow settings' with a description field containing 'CREAR MEDIDORES'. Below the description, there is a flow diagram with three stages: 'Source' (containing 'Trigger' and 'Source' components), 'Filter' (containing 'Select One' component), and 'Target' (containing 'Connection' and 'Settings' components). Arrows indicate the flow from Source to Filter to Target.

You can monitor the progress in the **Event Queue** and **Execution History** tabs. A successful process will show "Process Completed" and mark the Extraction, Transformation, and Loading stages as complete.

Fractal Hub

JC

←

Save

Execute

Enabled

Flow

Execution history

Event queue

Flow settings

Description

Asociar activo a plan de MTTO

Trigger

Source

→

Select One

→

Connection

Settings

Source

Filter

Target