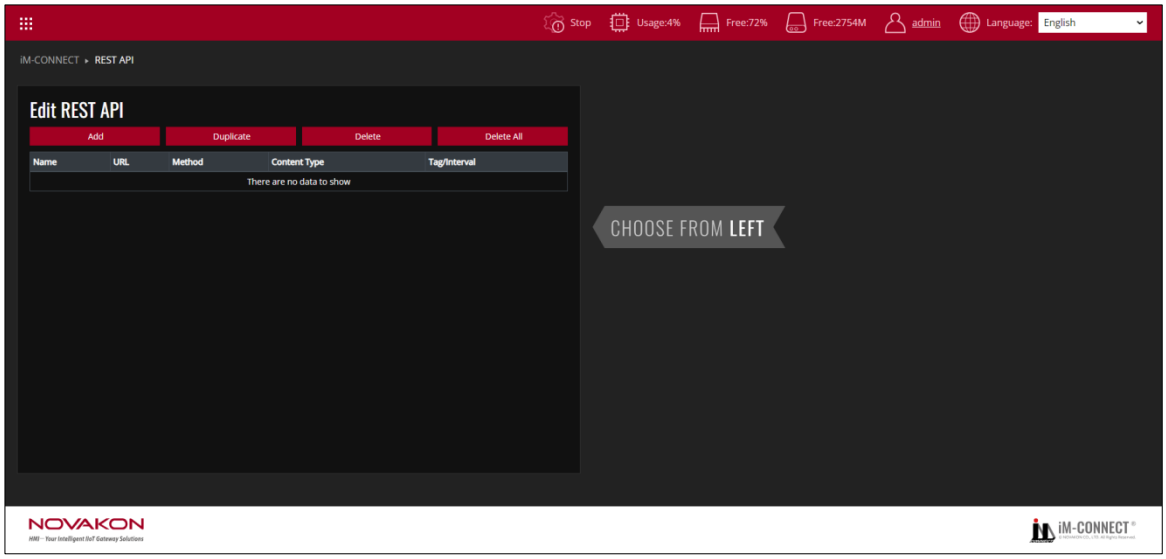
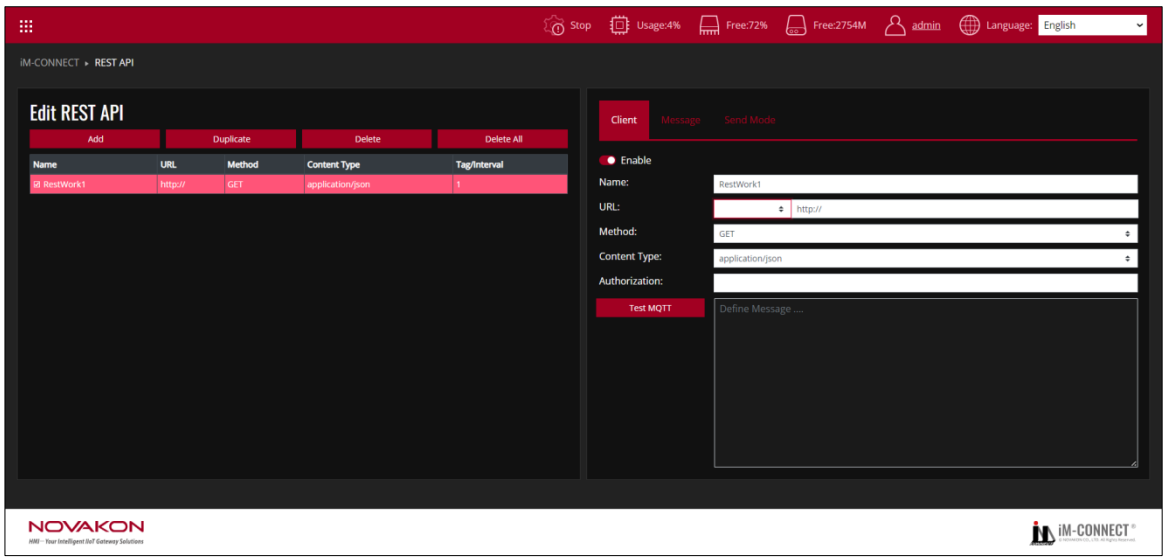
1. REST API

Rest API refers to the state transfer of information in a certain format (usually JSON format) on the network. The human-machine sends requests in JSON format through the Rest API and receives responses from the cloud to meet the needs of IoT applications.



Add	Add a new set of Rest API.
Duplicate	Copy the Rest API settings of the selected group.
Delete	Delete the selected Rest API settings.
Delete All	Delete all Rest API events.



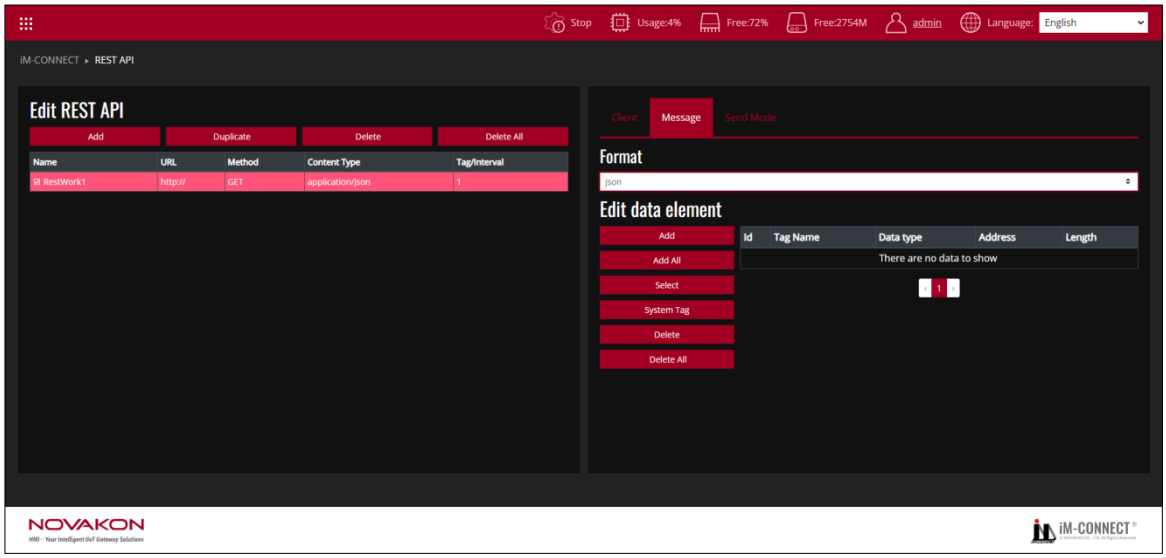
Client

Define a Rest API event.

Enable	Check to start this Rest API project.
Name	Set the name of Rest API.
URL	Set the URL of Rest API.
Method	Set the GET/POST/PUT/DELETE commands of Rest API.
GET	The client uses the GET method to access resources at the specified URL on the server. They can quickly make GET requests and pass parameters in RESTful API requests to instruct the server to filter data before sending it.
POST	The client uses POST to send data to the server. It contains a representation of the data in the request. A common result of sending the same POST request multiple times is to create the same resource multiple times.

PUT	The client uses PUT to update existing resources on the server. Unlike POST, transmitting the same PUT request multiple times in a RESTful web service will produce the same result.
DELETE	The client uses DELETE to request deletion of the resource. DELETE requests a change to the server state. However, if the user does not have proper authentication, the request will fail.
Content Type	Set the type of Rest API. Can be divided into [text/plain], [application/json], [application/x-www-form-urlencoded].
text/plain	Used to indicate that the body of the request or response is plain text data.
application/json	Used to indicate that the body of the request or response is data in JSON format.
application/x-www-form-urlencoded	Usually used for HTML form submission default Content-Type, encoding form data into key-value pairs.
Authorization	Set the authorization of Rest API. Ensure that only authenticated and authorized consumers can access resources using the REST API. When using Line's REST api function, you need to add [Bearer] before authorization.

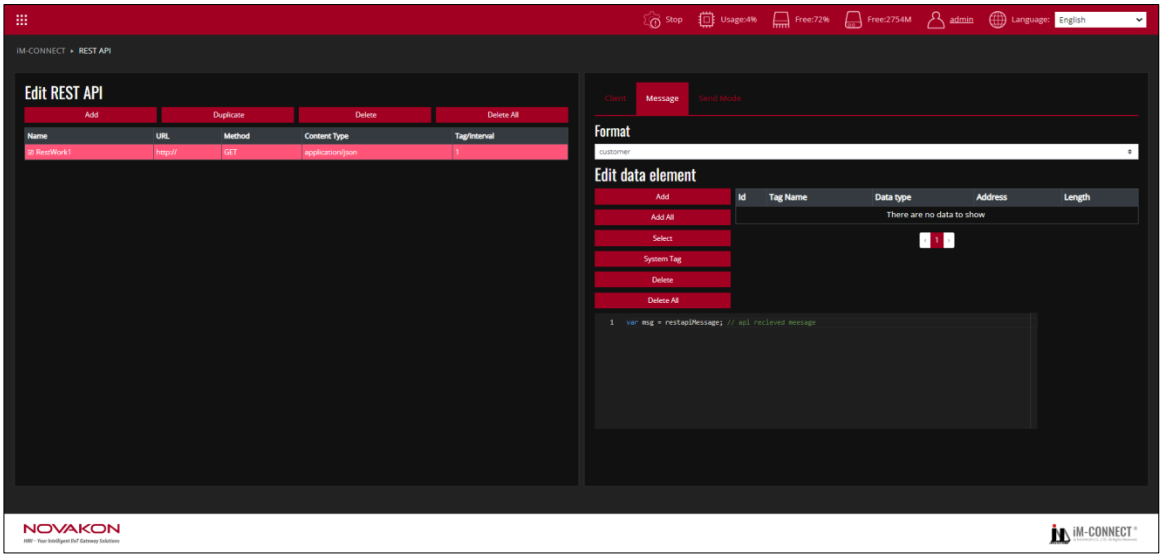
	POST https://notify-api.line.me/api/notify Sends notifications to users or groups that are related to an access token. If this API receives a status code 401 when called, the access token will be deactivated on LINE Notify (disabled by the user in most cases). Connected services will also delete the connection information. Requests use POST method with application/x-www-form-urlencoded (Identical to the default HTML form transfer type). **Expected use cases** When a connected service has an event that needs to send a notification to LINE **Request method** Request methods/headers: Value Method: POST Content-Type: application/x-www-form-urlencoded OR multipart/form-data Authorization: Bearer <access_token>
Test API	Displays the content of the response message after the Rest API is sent.



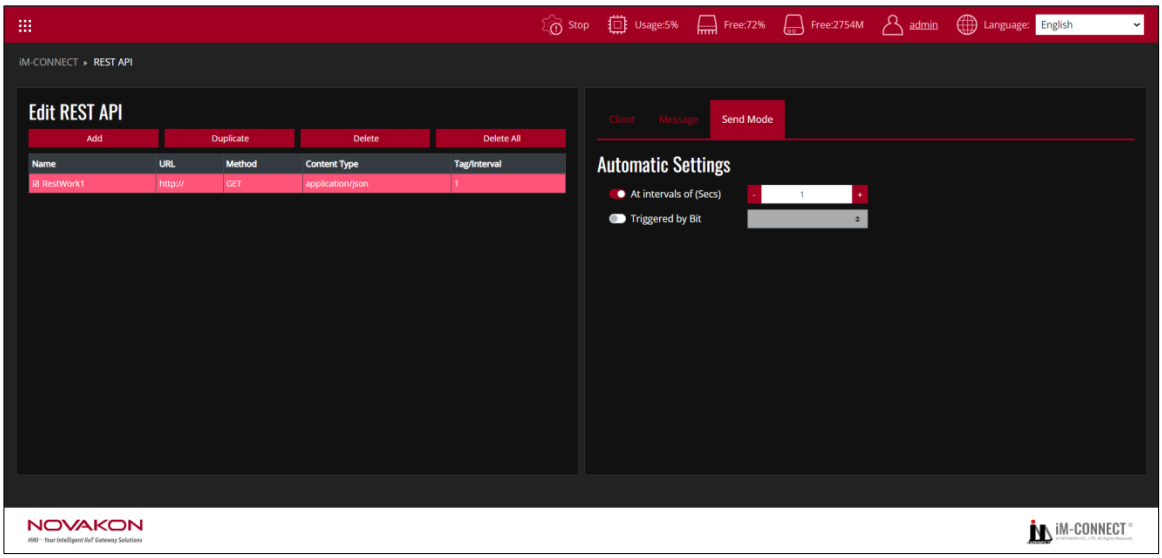
Message

Format	You can set the [JSON]/[Customer] format. The default is [JSON].
JSON	JSON is a lightweight data exchange format that is easy for humans to read and write, and easy for machines to parse and generate. In REST APIs, JSON is the most common data format used to represent request and response bodies.
Add	Add tags used by Rest API.
Add All	Add all tags to Rest API.

Select	Select the tag used by Rest API.
System Tag	Obtain the system time and other information of the gateway through the system label.
Delete	Delete the selected tag.
Delete All	Delete all tags.



If the data format is selected as [Customer] format, the user must write the specified data into the specified tag in accordance with the RESTAPI Server definition.



Send Mode

At intervals of (Secs)	Set to send Rest API messages at fixed intervals of seconds. The default is 1 second.
Triggered by Bit	Set to send a Rest API message when the status of the trigger bit changes from OFF to ON.

Test Procedure: (Reference files:RESTAPI.dat)

1. In the Menu, choose REST API.
2. Press "Add": Create a new REST API event by clicking "Add".
3. Enable the RESTAPI: Go to the Client Tab and click "Enable" to activate the RESTAPI Client.
4. Enter RESTAPI Name: Enter RESTAPI name: Provide a name for the RESTAPI in the Name field.
5. Set REST API URL: Input the URL for the REST API.
6. Configure REST API Method: Set the appropriate GET / POST / PUT / DELETE method based on your API requirements.
7. Set REST API Content Type: Define the content type, such as application/json, text/plain, or application/x-www-form-urlencoded.
8. Optional: Enter REST API Authorization: If needed, input the authorization details (e.g., Bearer token).
9. Switch to Message Tab: Select the format for the REST API and add the required Tag or System Tag.

10. Switch to Send Mode Tab: Choose the appropriate Send Mode, with the default being to send the REST API message at a fixed interval (every 1 second).
11. Save and Compile: Go to the Menu, select PROJECT SETTING, and execute "Save and Compile" to compile the project.
12. Start the Project: Click "Start Project" to run the project.
13. Monitor the execution: Go back to the Menu, select ONLINE MONITOR, and choose the Tags you are using to monitor the Macro’s execution results.