ASSETWORKS API BASICS

Our Fleet & Asset Management APIs give you real-time visibility, control, and automation across your entire fleet and asset infrastructure—whether you're managing 50 vehicles or 5,000.

> **What is an API?**
> An Application Programming Interface (API) is a set of rules that define how software applications communicate with each other to share data. Types include REST, SOAP, and GraphQL. You can write APIs in a variety of programming languages.

What is a REST API?

A Representational State Transfer (REST) API utilizes HTTP requests to access data from API Endpoints. These requests are executed based on API Methods that consist of requests and responses in JSON.

What is JSON?

JavaScript Object Notation (JSON) is a lightweight data-interchange format. It is easy for people and computers to read and write. A JSON is a collection of Key/Value pairs of data.

What are API Methods?

API Methods are methods that determine the kind of action request being made to the API endpoint. When sending a request, a method is specified, and based on this method, the server can determine what action is needed and the corresponding response to be sent.

The GET method is used to retrieve data from the server. This method is one of the most commonly used API methods. It basically queries an endpoint for a particular resource (SELECT) .

Sometimes requiring you to send a request body (payload); other times, it doesn't require a payload.

The POST method is also one of the most commonly used API methods. It is used to send or push data to the API server (INSERT). It often requires a request body (payload).

The PUT method is basically used to update one or more properties in the API data or resource.

The DELETE method is as straightforward as the name implies. It is used to delete a resource (data) from the API server. Not currently implemented in the AssetWorks API.

What is a Base URL and an Endpoint?

A Base URL is a consistent URL to which endpoints are attached.
For example: https://fleetfocusurl.com/AssetWorks

An Endpoint is a resource location you can send requests to and get responses.
For example: https://fleetfocusurl.com/AssetWorks/api/v1/assets

What is a Status Code?

A status code indicates whether a specific HTTP request has been successfully completed.

Common HTTP Status Codes include:

- 200: Indicates the request was successful and no problems were encountered.
- 400: Indicates a problem with the request being sent to the API server. To resolve this issue, you must make sure that the expected request is sent to the API server.
- 401: Indicates that you are not authenticated and cannot access the requested resources. This issue is mostly due to errors in API headers for APIs which requires authentication.
- 403: Indicates a forbidden request, which means that you do not have access to the resource you're requesting for.
- 404: Indicates that you are requesting non-existent data or data from a non-existent resource.
- 500: Indicates a problem with the server. It could be that the server is down or is unable to handle the request at the moment.

How to Handle Errors?

Consider the following items when addressing errors:

- If "Unauthorized" response on /token endpoint, resubmit.
- Is your BaseURL correct?
- Is your username, and password correct?
- Is your user linked to an employee?
- Are you using the correct method?
- Do you have valid JSON body? Use https://www.jsonlint.com.

API Tools

AssetWorks API works with these tools:

- Postman
- Swagger Editor