29/04/2025

Fost Plus – MyFost Partner API

Getting started tutorial

The better we sort, the more we recycle

Fostplus

Swagger Documentation

API Migration from basic auth to client authentication

We will soon deprecate our initial API (https://myfostapi.fostacc.be/Swagger) and therefore urge you to migrate your applications to our new API (https://myfostpartnerapi.fostacc.be/swagger/index.html?urls.primaryName=V3.0)

With this change, we've upgraded our authentication method for enhanced security and scalability. The main difference, beside the URL change, is the way we authenticate at the API.

MyFostApi uses **Basic Authentication (username – password)**
MyFostPartnerApi is secured with **Client Authentication using OpenID Connect (Client ID – Client Secret)**

This requires some actions in your integration. For continued access you will need to update your integration so it will use the new authentication flow and endpoint.

In the chapter 'How to connect to the API?' we explain the necessary steps to connect to the new API

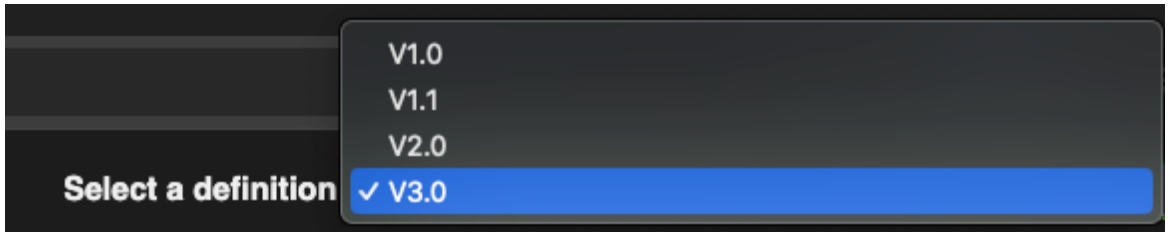
API Environments Overview

Our API services are available in two distinct environments: **Test and Learning (fostacc.be)** and **Production (fostplus.be)**. These environments are designed to provide you with flexibility during development and when deploying live applications. Below is an overview of each environment and how they differ.

- **Test and Learning Environment**
  - **URL**: https://myfostpartnerapi.**fostacc**.be/swagger/index.html?urls.primaryName=V2.0
  - This environment is intended for development, testing, and training purposes.
  - It allows you to experiment with API functionality without affecting live data or services.
  - ***Important**: This environment uses a separate identity provider, so you will need to request and manage different accounts specifically for this environment.*
- **Production Environment**
  - **URL**: https://myfostpartnerapi.**fostplus**.be/swagger/index.html?urls.primaryName=V2.0
  - This environment is used for live, real-time operations where your application interacts with actual data and services.
  - Changes made in this environment directly affect end-users, so it's important to ensure your integration is thoroughly tested in the Test and Learning environment before deploying here.
  - ***Important**: The Production environment also has a separate identity provider. You must create and manage a different set of accounts for this environment as well.*

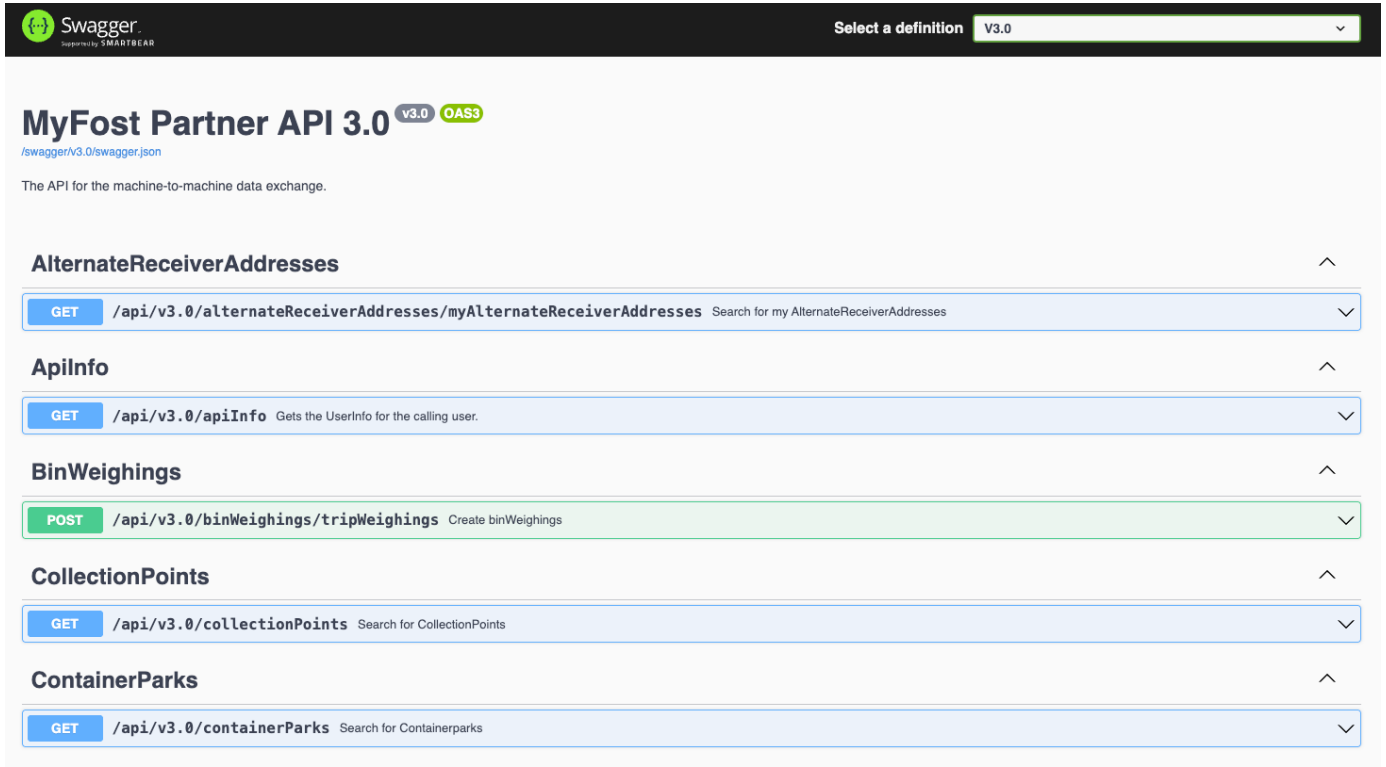
API Versioning

We offer multiple versions of our API to support ongoing improvements and new features. **New users are strongly encouraged to use the latest version of the API** to take advantage of the most up-to-date functionality, security enhancements, and performance improvements. While older versions are maintained for backward compatibility, they may not include the latest features or optimizations.



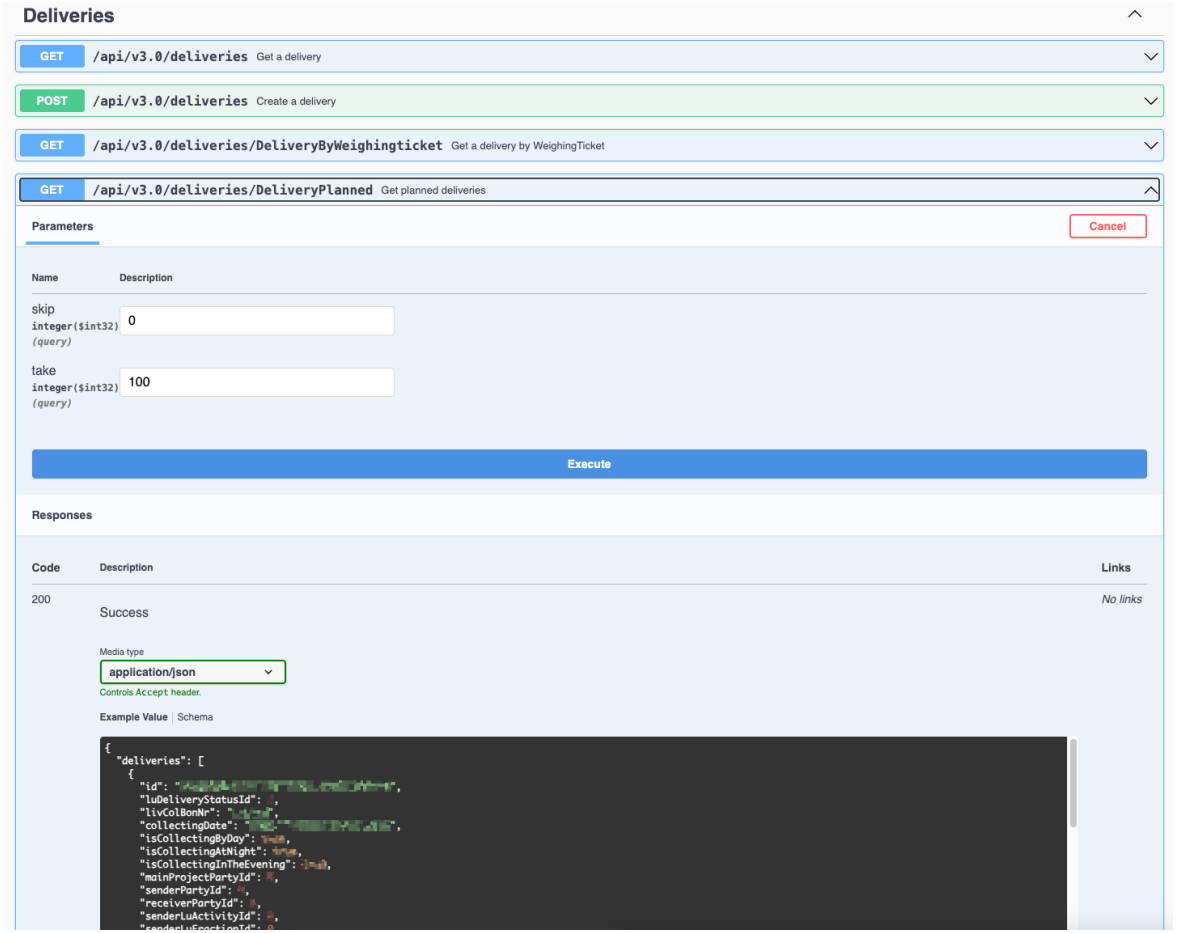
Swagger documentation

- The Swagger documentation offers a detailed reference for the MyFost API, covering all available objects, attributes, methods, and parameters.
  https://myfostpartnerapi.fostplus.be/swagger/index.html?urls.primaryName=V3.0



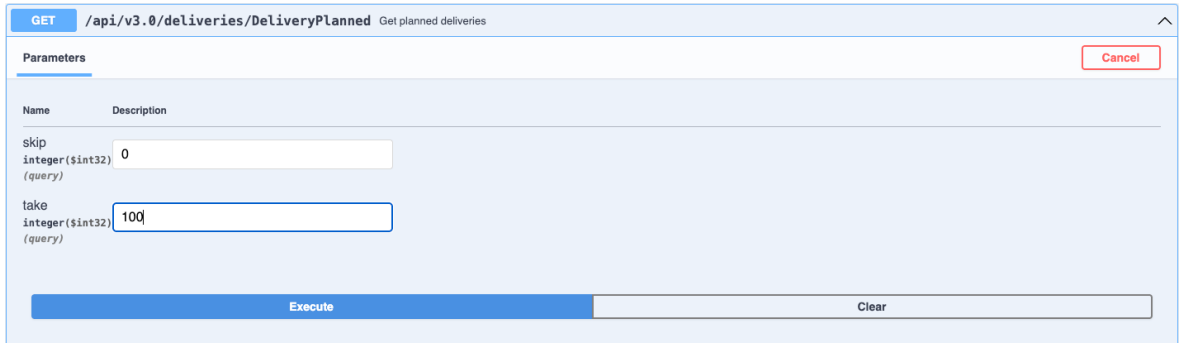
Swagger documentation

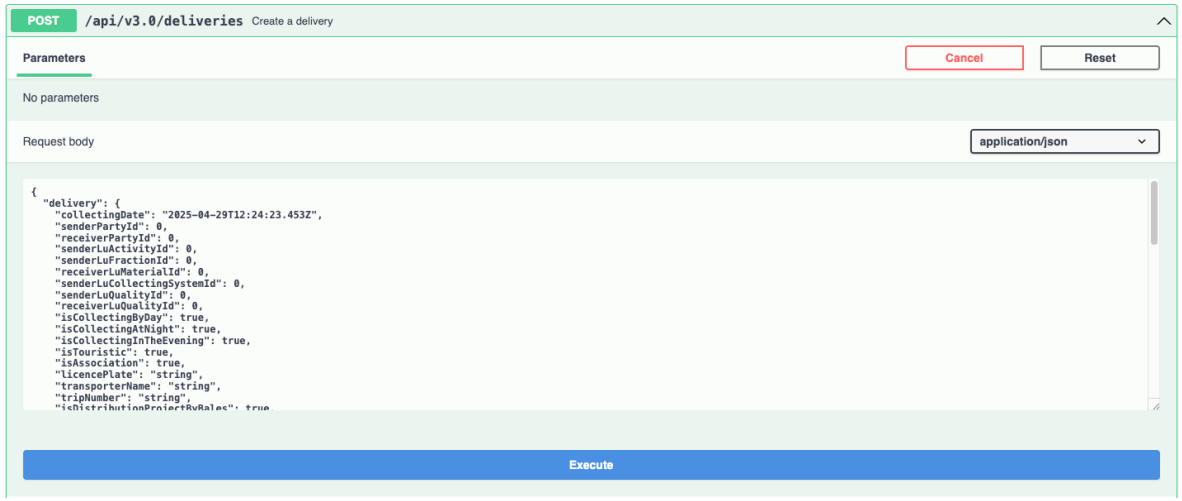
- The MyFost Partner API Swagger provides
  - A complete overview of all available API endpoints and objects
  - Detailed documentation for each object, including its available methods
  - For each method
    - Request parameters listed for input
    - Example responses for clarity
    - Interactive "Try it out" feature



Swagger documentation

- You can test the API by using
  - the Swagger user interface to fill in parameters and clicking the “Execute” button.
  - postman or a similar tool to send requests
  - code to execute requests





How to connect to the API?

Client Authentication

How to connect to the API?

- We use **Client Authentication** to securely connect to our API via our identity provider
  - **Confidential applications** (clients) authenticate using their **Client ID** and **Client Secret** at the **token endpoint**
  - Upon successful authentication, they receive an **access token**
  - This token must be included in **every request** made to our API
  - Our API then **validates the token** to ensure the request comes from a trusted client

- This process ensures secure, authenticated communication between your application and our API

How to connect to the API?

- Step-by-Step overview

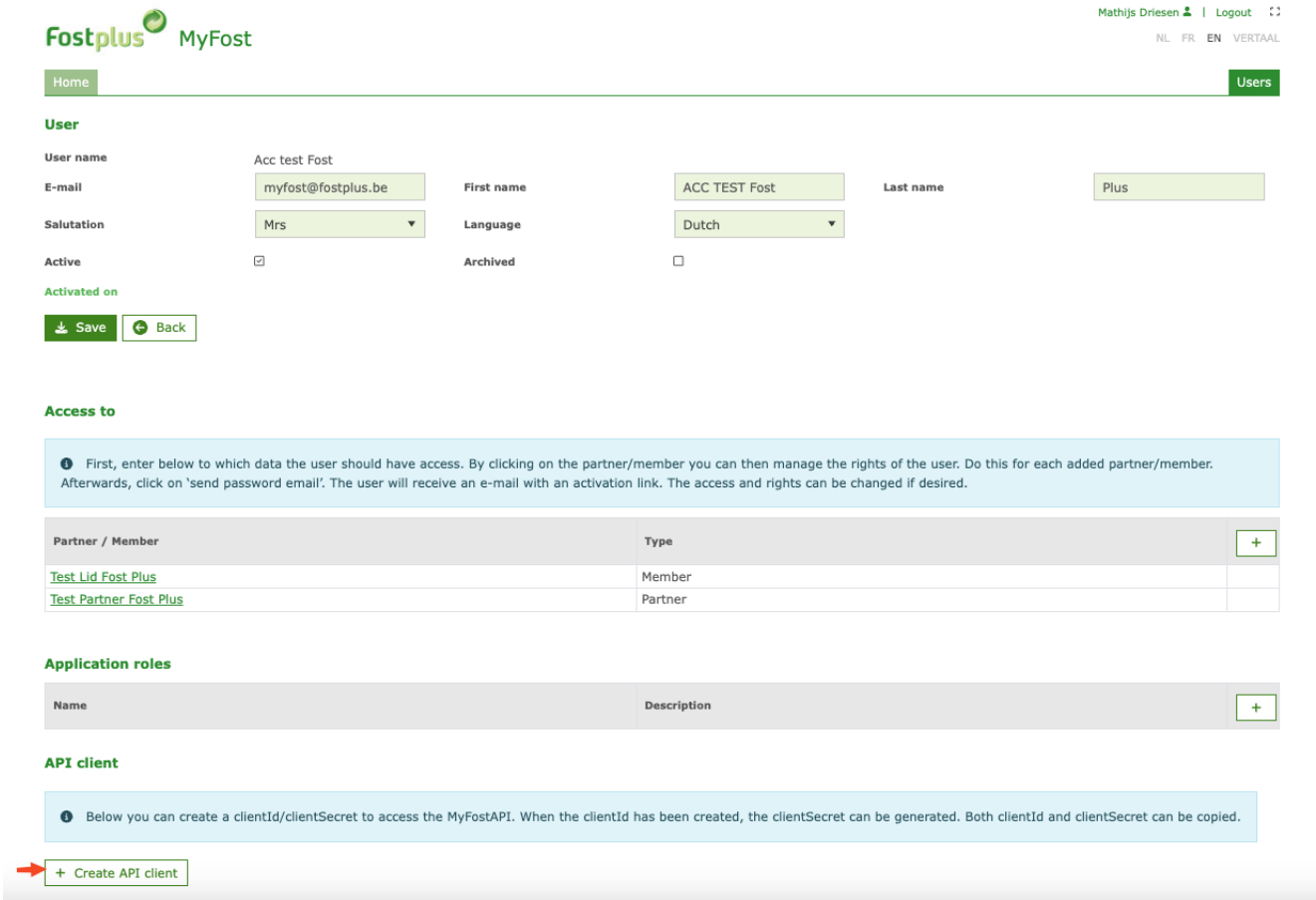
1. **Create your API credentials**
   in MyFost, generate a **Client ID** and **Client Secret** for your API user

2. **Request an access token**
   use the **Client ID** and **Client Secret** to request an access token from the token endpoint

3. **Authenticate API requests**
   Include the **access token** in the **HTTP Authentication header** of each API request

Step 1: Create your API credentials

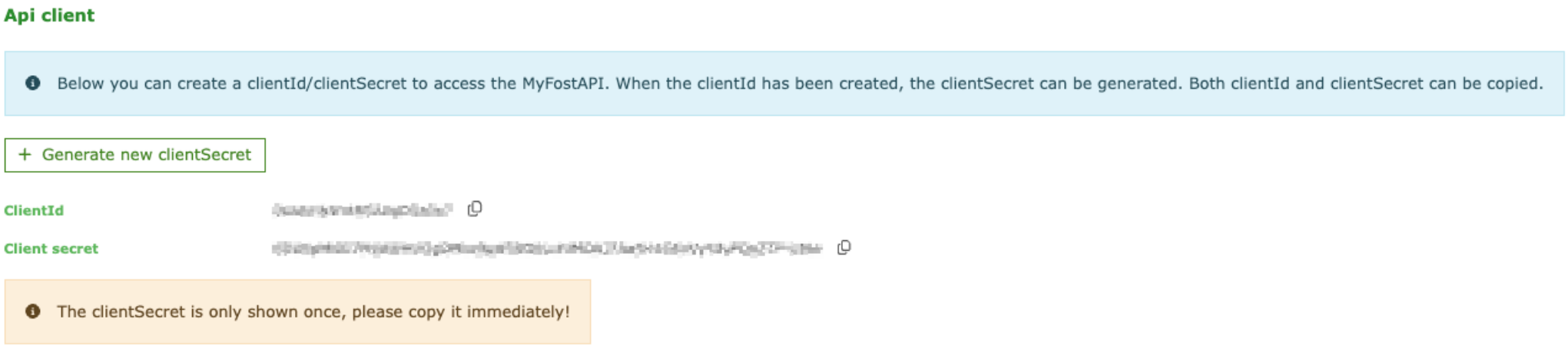
- Create ClientId and ClientSecret in the User Detail page of MyFost by clicking “Create API client”



Step 1: Create your API credentials

- Your Client ID and Client Secret will be generated and displayed
- Be sure to **copy the Client Secret immediately** – it will only be shown once!
- You can generate a new Client Secret at any time if needed.

Note: Only clients created for auth.fostplus.be will appear here.
Clients previously created for account.fostplus.be are no longer shown.



Step 2: Request an access token

- When requesting an access token, make sure to use the following parameters
  - Client ID (see Step1)
  - Client Secret (see Step 1)
  - Token Endpoint URL
    - https://auth.fostacc.be/oauth2/default/v1/token (Testing and learning)
    - https://auth.fostplus.be/oauth2/default/v1/token (Production)
  - Scope: myfostapi olympus-olympusapi
  - Well-known Endpoint URL
    - https://auth.fostacc.be/oauth2/default/.well-known/openid-configuration (Testing and learning)
    - https://auth.fostplus.be/oauth2/default/.well-known/openid-configuration (Production)

Step 3: Authenticate API requests

- Once you have an access token, include it in the **Authorization header** of each API request using the **Bearer** scheme. It tells the API who you are and allows access based on your token's scopes and permissions.

OPEN API Specification

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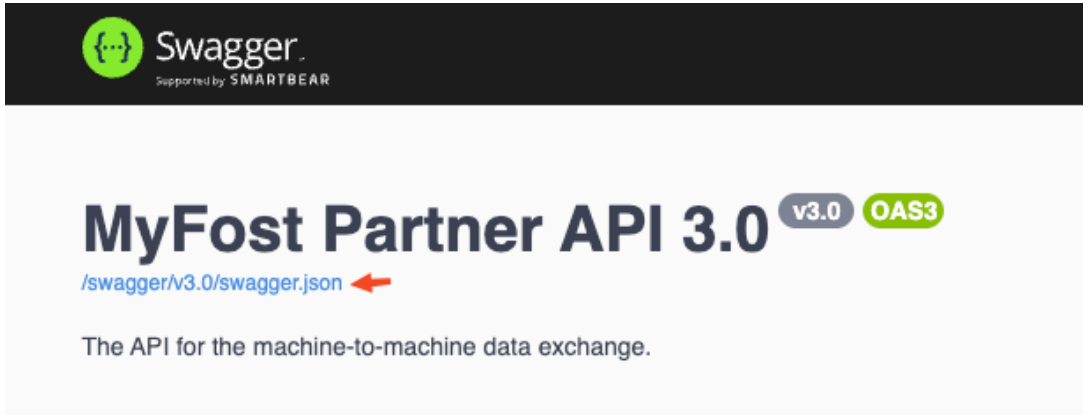
OPEN API Specification

- The **MyFost API** is a web-based **REST API**, described using the Open API Specification (OAS). OAS provides a standardized, language-independent way to describe RESTful APIs, making integration easier across different platforms.
- You can download the **OpenAPI Document** directly from the **MyFost Partner API Explorer** – just look for the download link in the **top-left corner** of the page.



Testing and learning

https://myfostpartnerapi.fostacc.be/swagger/v2.0/swagger.json

https://myfostpartnerapi.fostacc.be/swagger/v3.0/swagger.json

Production

https://myfostpartnerapi.fostplus.be/swagger/v2.0/swagger.json

https://myfostpartnerapi.fostplus.be/swagger/v3.0/swagger.json

Concepts

MyFost Objects

Concepts – ID’s

- “**Object Id**”: Every MyFost Object that can be created, updated or listed through the API has an id field that is used to refer to the object in other API calls.

```
{
    "weighingTicket": {
        "id": "string",
        "senderPartyId": 0,
        "receiverPartyId": 0,
        "isWeighingAtReceiverIn": true,
        "luFractionId": 0,
        "luMaterialId": 0,
        "transporterName": "string",
        "city": "string",
        "weighingTicketNumber": "string",
        …
    }
}
```

Concepts – Foreign Keys

- “**Foreign Key Id**”: when a MyFost Object references another MyFost Object, the attribute name ends with “Id”. This is a reference to another MyFost Object.

```
{
    "weighingTicket": {
        "id": "string",
        “luWeighingTicketStatusId": 0,
        "senderPartyId": 0,
        "receiverPartyId": 0,
        "isWeighingAtReceiverIn": true,
        "luFractionId": 0,
        "luMaterialId": 0,
        "transporterName": "string",
        …
    }
}
```

```
{
"partners": [
    {
        "id": 2222,
        "partyNumber": "P00028",
        "name": "PartnerName",
        "shortName": ”PartnName"
    }]
}
```

Concepts – Lookup Objects

- “**Lookup Objects**”: Some MyFost Objects refer to other MyFost Objects. For example, a “**weighingTicket**” refers to a type of **Fraction** (PMD, glass, paper-cardboard).

  These reference lists are called Lookup Objects and are always prefixed with the letters lu (referring to **l**look**u**p). The MyFost objects for a Fraction is **luFractionId.** The attribute from weighingTicket referring to a Material is luMaterialId

```
"weighingTicket": {
    "id": "string",
    “luWeighingTicketStatusId": 0,
    "senderPartyId": 0,
    "receiverPartyId": 0,
    "isWeighingAtReceiverIn": true,
    "luFractionId": 1,
    "luMaterialId": 0,
    "transporterName": "string",
    …
}
```

```
"luFractions": [
    {
        "id": 1,
        "code": “GLASS",
        "name": “Glass",
        "notValidBeforeDate": "1900-01-01T00:00:00",
        "notValidOnOrAfterDate": “9999-01-01T00:00:00"
    },
    …
]
```

Concepts – Finding ID’s in MyFost

- When you want to create a delivery or weighing ticket, you need to supply some ID’s associated with a specific material flow.
- For this reason, we supplied an overview of the material flows and their associated ID’s in MyFost to use in the API requests.
- The overview can be found by clicking on “Parameters Material flows” in the API section of the dashboard of MyFost.
- See the next slides for an example on how to find and use the ID’s in API requests.

Concepts – Finding ID’s in MyFost

Fostplus MyFost

Homepage

Planning + Delivery

Board deliveries and weighings
Planned deliveries

Weighing tickets

Open corrections weighing tickets
Corrections to treat: 0
Corrections sent: 0
Overview weighing tickets

Deliveries

Weighing tickets to couple: **960**
Via board
Deliveries to validate: 0
Open corrections delivery
Corrections to treat: **1**
Corrections sent: 0
Overview deliveries

Overview material flows

Enrichment

To enrich: **3268**
Individual weighings collectionpoints

API

API settings material flows
MyFost Partner API v1.1 (v1.0)

Fostplus Partner

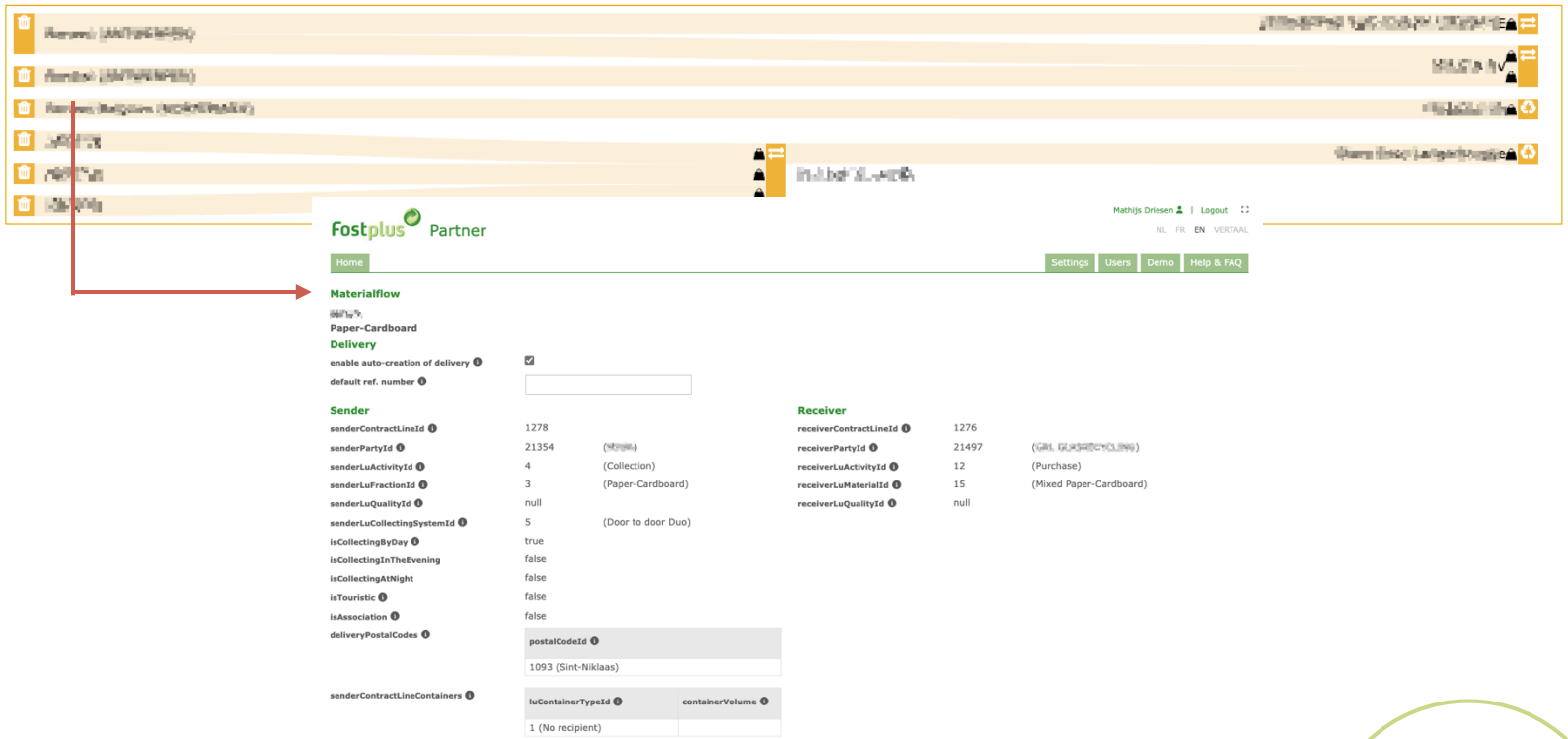
Mathijs Driesen | Afmelden
NL FR EN VERTAAL

Home | Instellingen | Gebruikers | Help & FAQ

Overzicht materiaalstromen

Datum 30.04.2025 Project Fractie

Papier-Karton



Concepts – Finding ID’s in MyFost


```
{
    "weighingTicket": {
        "id": "string",
        “luWeighingTicketStatusId": 0,
        "receiverPartyId": 0,
        "senderPartyId": 0,
        "isWeighingAtReceiverIn": true,
        "luFractionId": 0,
        "luMaterialId": 0,
        "transporterName": "string",
        …
    }
}
```

Concepts - Lists

- **Lists:** every API call that returns a list provides 2 parameters, "skip" and "take", to be able to page the result and returns an object containing an “array” and an attribute “totalCount” which contains the number of items returned in the array.

https://myfostpartnerapi.fostacc.be/api/v3.0/countries?skip=0&take=100


```
{
    "countries": [
        {
            "id": 314,
            "code": "AT",
            "name": "OOSTENRIJK"
        },
        {
            "id": 324,
            "code": "AU",
            "name": "AUSTRALIA"
        },
        {
            "id": 309,
            "code": "BE",
            "name": "BELGIE"
        },
        ...
        {
            "id": 335,
            "code": "ZA",
            "name": "ZUID AFRIKA"
        }
    ],
    "totalCount": 43
}
```

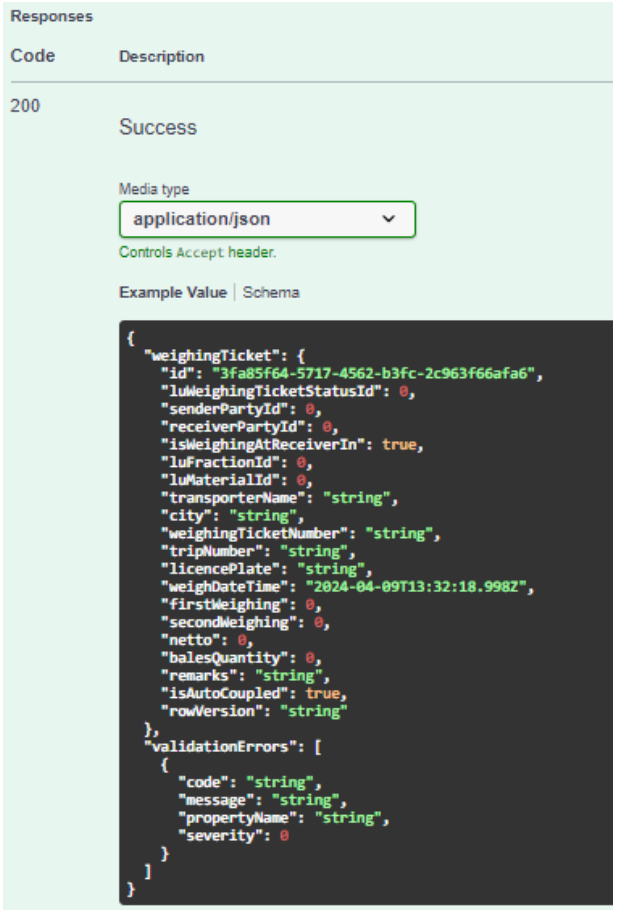
Concepts - Other API calls and facts

- The call /api/v3.0/luFractionLuMaterials lists all possible combinations between fractions and materials.

- When posting an update (POST) request for an object, you must include the "rowVersion" attribute. This ensures data consistency and prevents conflicting updates. To obtain the correct rowVersion, you use the GET endpoint of the object to retrieve the latest version. The value must be included in the update request.

Concepts – POST return values

- After posting a new object, the API returns the object with Id.
- If there is a problem with the posted object you'll receive a response (HTTP 400) and a message with one or more validation errors.



API: detailed instructions for specific calls

Create or update a weighingTicket

- One of the key POST methods in the MyFost Partner API is used to submit weighingTickets

- In the following slides, we'll walk you through the details of the required data.

WeighingTicket Request

Attribute	Type	Description
weighingTicket	Object	The weighingTicket (see next slide)
validateWeighingTicket	Boolean	validate the weighing ticket ? This makes the weighing ticket available for the other partner (senderPartyId/receiverPartyId depending on the weighingTicket attribute isWeighingAtReceiverIn) Yes = true, No = false Every night all weighingTickets are auto validated.

The weighingTicket object

Attribute	Type	Description
senderPartyId	Number	The partner/party id of the sender you can find these in the list /api/v3.0/parties/myPartners
receiverPartyId	Number	The partner/party id of the receiver you can find these in the list /api/v3.0/parties/myPartners
isWeighingAtReceiverIn	Boolean	Is the freight weighed in or out ? In = true, Out = false
luFractionId	Number	The fraction Id from the lookup list /api/v3.0/luFractions
luMaterialId	Number	The material Id from the lookup list /api/v3.0/luMaterials
luQualityId	Number	The quality Id from the lookup list /api/v3.0/luQualities
transporterName	String	Optional name of the transporter, empty string if not available
city	String	Optional name of the city or cities where the freight was collected, empty string if not available
weighingTicketNumber	String	A unique reference to the weighbridge weighing
tripNumber	String	Optional unique reference for a delivery, usually used by the sender to connect the weighingTicket to a planned delivery, empty string if not available
licencePlate	String	Licence plate number of the weighed truck
weighDateTime	DateTime	Date and time of the weighing (first weighing) formatted as *2017-10-29T09:55:34*
firstWeighing	Number	Weight of the first weighing in kilograms
secondWeighing	Number	Weight of the second weighing in kilograms
balesQuantity	Number	Optional amount of bales
remarks	String	Optional remarks, empty string if not available
rowVersion	String	Required for updates

Create a delivery

- Another key POST methods in the MyFost Partner API is used to submit deliveries
- In the following slides, we'll walk you through the details of the required data.

Delivery Request

Attribute	Type	Description
delivery	Object	The delivery (see next slide)

The delivery object

Attribute	Type	Description
collectingDate	DateTime	Provide the collecting Date formatted as *2017-10-29* or *2017-10-29T09:55:34*
senderPartyId	Number	The partner/party id of the sender. You can find these in the list /api/v3.0/parties/myPartners
receiverPartyId	Number	The partner/party id of the receiver. You can find these in the list /api/v3.0/parties/myPartners
senderLuActivityId	Number	The activity Id of the sender (lookup list /api/v3.0/luActivities)
senderLuFractionId	Number	The fraction Id of the sender (lookup list /api/v3.0/luFractions)
receiverLuMaterialId	Number	The material Id of the receiver (lookup list /api/v3.0/luMaterials)
senderLuCollectingSystemId	Number	The collectingsystem Id of the sender (lookup list /api/v3.0/luCollectingSystems)
senderLuQualityId	Number	The quality Id of the sender (lookup list /api/v3.0/luQualities)
receiverLuQualityId	Number	The quality Id of the receiver (lookup list /api/v3.0/luQualities)
IsCollectingByDay, IsCollectingAtNight and IsCollectingIntheEvening	Boolean	Time indication of collection (only 1 true)
isTouristic	Boolean	Is the collection touristic?
isAssociation	Boolean	Is the freight collected by an association?
licencePlate	String	Licence plate number of the weighed truck
transporterName	String	Optional name of the transporter, empty string if not available
tripNumber	String	Optional unique reference for a weighingTicket , empty string if not available
isDistributionProjectByBales	Boolean	Is the distribution done in bales?
deliveryPostalCodes	Array of objects	The postal codes of the delivery (see next slides)
senderContractLineContainers	Array of objects	The containers of the sender (see next slides)
deliveryDistributions	Array of objects	Provide the distributions on postal codes or collectionpoints (see next slides)
deliveryDistributionBinWeighings	Array of objects	Provide the glassbinweighings and create distributions for it. Cannot be used in combination with deliveryDistributions. (see next slides)
deliveryProjects	Array of objects	The projects of the delivery (see next slides)
weighingTicket	Object	Optional weighingTicket if you want to create and connect them together (see previous slides)
senderTag	String	The senderTag of the delivery

The deliveryProject object

Attribute	Type	Description
projectId	Number	Id of the project you can find these in the list /api/v3.0/project/myProjects
nettoPercentage	Number	Percentage of the netto weight of the freight
balesQuantity	Number	Amount of bales

The deliveryPostalCode object

Attribute	Type	Description
postalCodeId	Number	Id of the postalCode you can find these in the list /api/v3.0/postalCodes

The deliveryDistribution object

Attribute	Type	Description
postalCodeId	Number	Id of the postalCode you can find these in the list /api/v3.0/postalCodes
collectionPointId	Number	Id of the collectionPoint
nettoPercentage	Number	Percentage of the netto weight of the freight

The contractLineContainer object

Attribute	Type	Description
luContainerTypeId	Number	The cotainertype Id of the container (lookup list /api/v3.0/luContainerTypes)
containerVolume	Number	Volume of the container

The deliveryDistributionBinWeighing object

Attribute	Type	Description
binId	Number	ID of the glass bin (Get from /api/v3.0/glassBins/myGlassBins)
nettoWeight	Number	The netto weight of the glass bin weighing
collectionPointId	Number	The id of the collection point

Create a bin weighing

- Another key POST methods in the MyFost Partner API is used to submit a Bin Weighing

- In the following slides, we'll walk you through the details of the required data.

Bin weighing request

Attribute	Type	Description
tripWeighings	Object	The bin weighings for a certain trip (see next slide)

The tripWeighings object

Attribute	Type	Description
partyId	Number	The ID of the partner (get from /api/v3.0/parties/myPartners)
luFractionId	Number	The fraction Id (lookup list /api/v3.0/luFractions)
tripNumber	String	The trip number
collectionDate	DateTime	Provide the collecting Date formatted as 2017-10-29 or 2017-10-29T09:55:34
binWeighings	Array of objects	The individual bin weighings (see next slide)

The binWeighing object

Attribute	Type	Description
collectionPointId	Number	The ID of the collection point
binId	Number	The ID of the bin (get from /api/v3.0/glassBins/myGlassBins)
luMaterialId	Number	The ID of the material (lookup list /api/v3.0/luMaterials)
nettoWeight	Number	The netto weight of the weighing