

UBIDOCS API

Streamlining Waste Transport Management

UBIDOCS API



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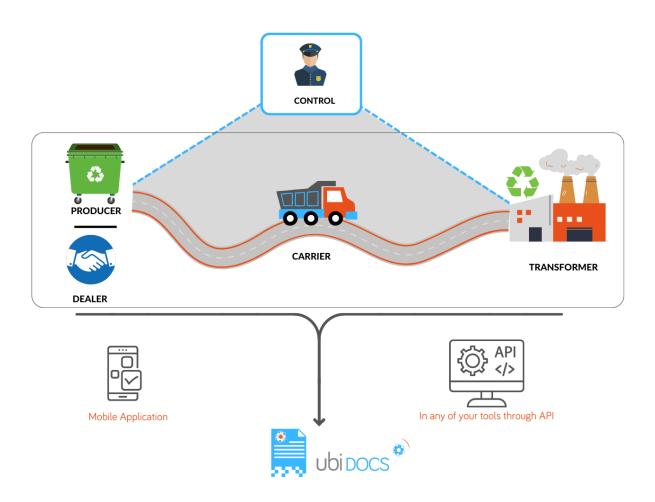


Introduction

The **ubiDOCS API** serves as a comprehensive solution for managing Transport Documents within the Waste Business in Belgium. It is designed in compliance with the Waste Workflow prescribed by OVAM (Openbare Vlaamse Afvalstoffenmaatschappij).

With this API, you can create, sign, and manage your Transport Documents efficiently while complying with <u>local regulations</u>.

open LOCAL REGULATIONS



Please read carefully the prerequisites to understand the basic functionalities:

open PREREQUISITES

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API Swagger Documentation:

For an initial understanding and exploration of the API's functionalities, access our API documentation at this URL:

open SWAGGER

API Test Environment:

When it comes to practical usage and testing, we have you covered. We will provide you with a distinct URL for your personal Test Environment Swagger. Paired with your unique, secret API key, this will allow you to securely navigate and utilize the full potential of the API in your dedicated testing environment.

API Access Procedure:

Access to the API is regulated through unique API keys assigned to each organization.

To receive your API key, kindly contact Ubidata support (support@ubidata.com) with your organization details such as

- VAT number,
- identification details,
- and physical address.

Our dedicated support team is committed to assisting you with account setup and ensuring a smooth integration process.

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Understanding the Waste Document

Content of the Document

Here is an example of a document object:

```
DocumentResponse ∨ {
   documentType
                                     DocumentTypeEnum string
                                     Enum:
                                      > Array [ 2 ]
   documentState
                                     DocumentStateEnum string
                                      > Array [ 10 ]
   {\tt consigneeWasteProcessingInformation} \ \textbf{WasteProcessingInformationProxyDto > } \{\ldots\}
   transportDate
                                     string($date-time)
   documentId
                                     string
                                     nullable: true
   legalReferences
                                      > [...]
   creationUser
                                     UserProxyDto > {...}
   pickup
                                     AppointmentResponse > {...}
   delivery
                                     AppointmentResponse > {...}
                                     string($date-time)
   creationTimestamp
   driver
                                     UserProxyDto > {...}
   goods
                                      > [...]
   signatures
                                      > [...]
   submitter
                                     OrganizationResponse > {...}
   dealer
                                     OrganizationResponse > {...}
   consignor
                                     OrganizationResponse > {...}
   consignee
                                     OrganizationResponse > {...}
   carrier
                                     OrganizationResponse > {...}
   comments
                                      > [...]
   references
                                      > [...]
   customFields
                                      > [...]
```

documentType

This field indicates the document type, which can be: ECMR or EWASTE. The document type selected determines the specific format and details of the document.

documentState

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This field shows the current status of the document.

Possible values include:

- DRAFT
- ISSUED
- READY
- IN TRANSIT
- DELIVERED
- COMPLETED
- CORRECTED
- CANCELLED
- DELETED
- INTERRUPTED

Each status has specific implications.

For a comprehensive understanding of each status and its effects, visit our documentation:

open DOCUMENT STATUSSES

Document GUID:

The Document GUId is a unique identifier given to each document within the system, enabling you to carry out various operations for that specific document.

Legal Id:

Once a document is issued, Ubidata generates a unique Legal Id, serving as OVAM's legal reference for the document. This identifier enables you to carry out operations related to the document.

References:

The References field allows customers to assign custom values serving as references to the transportation process.

These reference values can be used by different stakeholders and can be used to search for documents.



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Custom Fields:

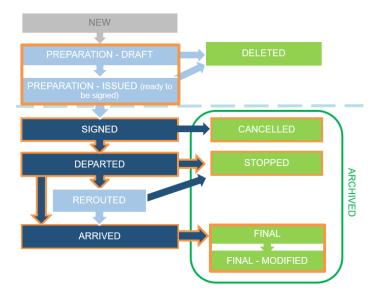
These are dynamic data elements that stakeholders can define and set. Each custom field comprises a "key" and a corresponding "value," facilitating the inclusion of specific information required by one or more stakeholders.

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Document Flow

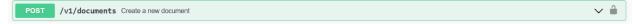
Below, we explain a normal flow for a document, with the document status transitioning through the statuses mentioned above:



Document Creation

Before creating a new document, make sure you have necessary prerequisites like organization details and driver user IDs.

To create a document, send a DocumentRequest object to the API endpoint.



Refer to Appendix 1 for a JSON document request example.

Upon successful creation, the API response will include a unique Document ID for future actions.

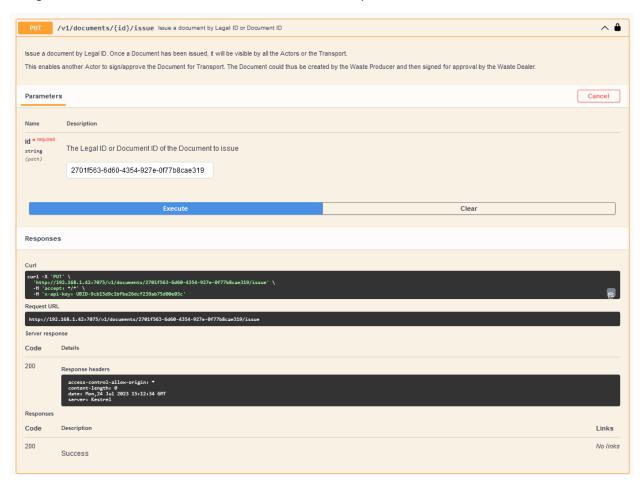


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Document Issue

To issue the document, make an API call with the relevant Document ID. The issue step generates a Legal Id associated with the Document ID for future operations.



On successful issuance, call the Get Documents API to validate the generated Legal Id.



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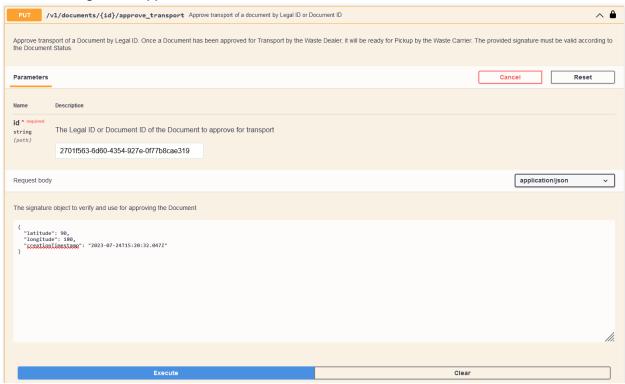
Look for the generated Legal ID: **UBI_NjM4MjU4MDgzMjg2MTY3NTE9** in the document content, which will be part of the JSON response.

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Transport Approval

Approving the transport electronically signs the document with the API key-associated person's name. This signature appears on the PDF document.



You can optionally provide approval coordinates and creation timestamp, particularly useful for offline approval scenarios. Successful approval adds a new signature to the document.

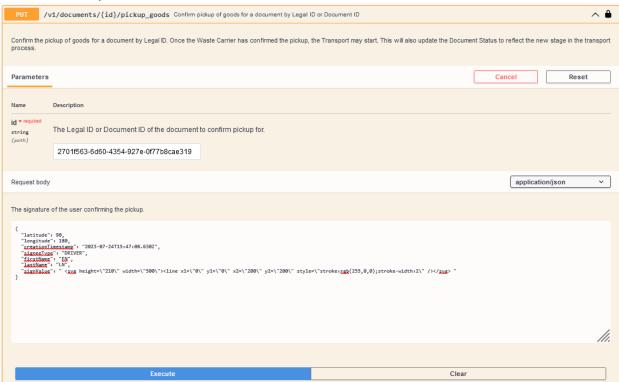
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```
},
...
]
```

Goods Pickup

This action marks the Waste Producer's pickup confirmation, represented by an official signature from the waste producer.



The signature object includes the first name, last name, and an SVG string of the signature. For more details on signature types and different cases, please refer to the signature section below:

```
{
   "latitude": 90,
   "longitude": 180,
   "creationTimestamp": "2023-07-24T15:47:08.630Z",
   "signeeType": "DRIVER",
   "firstName": "FN",
   "lastName": "LN",
   "signValue": " <svg height=\"210\" width=\"500\"><line x1=\"0\" y1=\"0\" x2=\"200\" y2=\"200\"
style=\"stroke:rgb(255,0,0);stroke-width:2\" /></svg> "
}
```

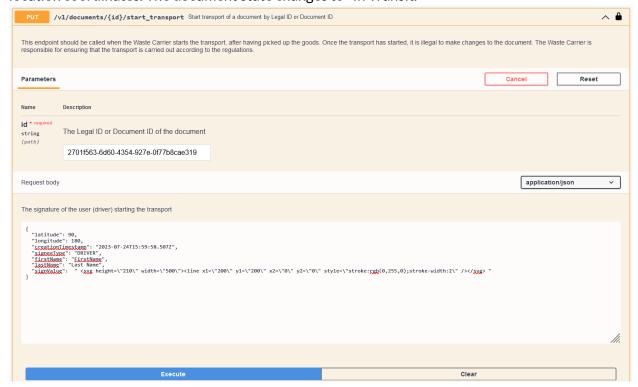
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The signature, along with previous ones, will appear in the document.

Start of Transport

This action signals the beginning of transport, with a signature from the driver with the start location coordinates. The document state changes to "In Transit."

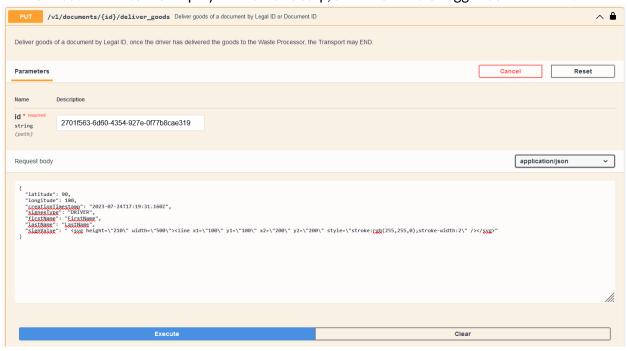


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Goods Delivery

This step marks the Waste Processor's delivery confirmation, represented by an official signature from a Waste Processor's employee. After this step, the document is flagged as "Delivered."

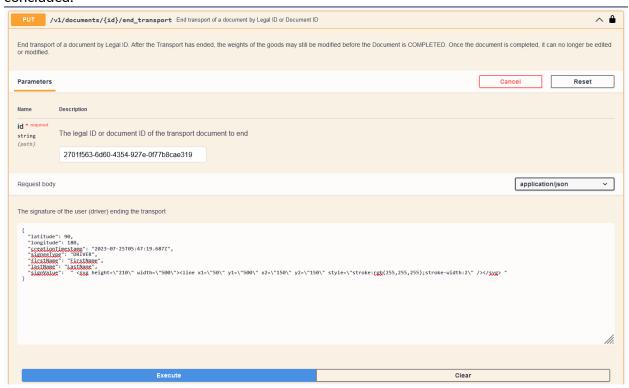


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End of Transport

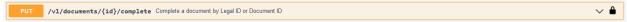
This step signifies the transport's end, including the location and timestamp where the transport concluded.



All these steps will be reflected under signatures in the document as depicted in Appendix 2.

Document Completion

Once a document is delivered, it can be completed automatically or manually.



If the document is not completed within 24 hours of delivery, the system will auto-complete the document, marking the transport process as officially completed.

Document Correction

After completion, if there is a need for amendments, the document can be modified. Such modifications will set the document to the "Corrected" state. Relevant stakeholders will be promptly notified about these changes.

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Modify a document after creation

You can update a document using a single global API that accepts the revised version of the document.



However, the following fields cannot be modified:

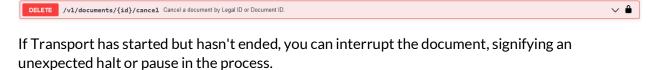
- Document GUID
- Legal Id
- Signatures
- Document State
- Document Type

Document Deletion

A document can be deleted outright before issuance.

Once a Document has been issued, it cannot be deleted anymore. Instead, depending on its status, a document can be cancelled or interrupted. Once issued, the document enters a non-deletable state, but its status can still be altered depending on the transport phase.

If Transport hasn't started, you can cancel the document.



DELETE /v1/documents/{id}/interrupt Interrupts the transport of a document by its Legal ID or Document ID.

When Transport has ended, the document can't be neither cancelled nor interrupted. It has to be completed.

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More about Signatures

The Signature object encapsulates vital information, providing an extensive overview of each signature event.

The key fields contained within this object include:

- **organization:** Carries crucial information about the organization requesting the signature.
- type: Denotes the specific action prompting the signature request. Possible types include:
 - SIGNATURE_FOR_READY_STATE
 - SIGNATURE_FOR_PICKED_UP_STATE
 - SIGNATURE_FOR_START_TRANSPORT
 - SIGNATURE_FOR_DELIVERED_STATE
 - SIGNATURE_FOR_END_TRANSPORT
- **signeeType:** This field identifies the individual who performed the signature, with possible values being:
 - DRIVER: This indicates that the signature request was initiated by the driver. Two scenarios exist:
 - The driver signs themselves, leaving the FirstName, LastName, and SignValue fields empty.
 - The driver requests a signature from an actor representative using the driver app, resulting in populated FirstName, LastName, and SignValue fields.
 - o **ACTOR**: This signifies that the signature was directly performed by an actor, such as during transport approval.
 - DRIVER_ON_BEHALF: This implies that the driver signed on behalf of an actor representative when the representative was unavailable, leaving the FirstName, LastName, and SignValue fields empty.

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- **firstName:** Contains the first name of the actor representative performing the signature.
- lastName: Contains the last name of the actor representative performing the signature.
- coordinates: These are represented by Latitude and Longitude double values. When
 provided, they indicate the location of the signature, a detail OVAM requires in certain
 cases.
- **signValue:** Represents the SVG string of the signature itself (when provided).
- **creationUser:** Contains the user information of the individual whose API key was used to initiate the signature.
- creationTimestamp: This field records the timestamp of the signature event. Set by the API caller, it allows offline support, thereby ensuring flexibility in signature generation by enabling offline creation and later submission to the API.

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Appendices:

Appendix 1 - Document

New document request JSON example:

```
"documentType": "EWASTE",
"references": [
    "type": "OTHER",
    "reference": " custom ref 1",
    "creationTimestamp": "2023-05-19T00:00:00+00:00"
  },
    "type": "OTHER",
    "reference": " custom ref 2 ",
    "creationTimestamp": "2023-05-19T00:00:00+00:00"
"documentState": "DRAFT",
"transportDate": "2022-07-01T00:00:00+02:00",
"comments": [
    "text": "source 1 A\r\n\tsource 1 B\r\n\tsource 2\r\n\tsource 3\r\n\t^{"},
    "category": "OTHER_USEFUL_PARTICULARS",
    "creationTimestamp": "2023-05-19T00:00:00+00:00"
  }
"pickup": {
  "location": {
    "name": "Pickup Place Name",
"street": "Pickup Street",
    "houseNumber": "87",
    "box": "12A",
"city": "8400",
"postalCode": "OOSTENDE",
    "country": "BE",
"latitude": 51.221633,
    "longitude": 29.49223,
    "contactName": "Patric H",
"contactTel": "0477/12.34.56",
    "contactFax": "016/12.34.56",
    "contactEmail": "patrich@test.com",
    "plannedArrival": "2022-07-01T08:00:00+00:00"
"delivery": {
  "location": {
    "name": "Delivery Loc",
"street": "Oudestraat",
    "houseNumber": "19",
    "box": "",
    "city": "1500",
```

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```
"postalCode": "HALLE",
     "country": "BE",
"latitude": 50.000633,
     "longitude": 28.49223,
     "contactName": "Patric H",
"contactTel": "0477/12.34.56",
     "contactFax": "016/12.34.56",
     "contactEmail": "patrich@test.com",
    },
   "plannedArrival": "2022-07-01T16:00:00+00:00"
"goods": [
  {
     "barcode": "978-012345678",
     "label": "label xxxx1234",
     "description": "paper",
     "quantityCount": 3,
     "quantityUnit": "PARCEL",
     "packingMethod": "1 pallet with some description",
     "customerId": "12345678-9123AEFD",
     "wasteInformation": {
       "euralCode": "02 01 10",
       "dangerousWasteInformation": {
         "unNumber": "1307",
         "physicalProperties": "Xylenes", "chemicalComposition": "Xylenes",
         "creationTimestamp": "2023-05-19T00:00:00+00:00"
       },
"creationTimestamp": "2023-05-19T00:00:00+00:00"
     "measureDtoIn": [
       { "type": "LENGTH", "value": 12, "unit": "KG" }, 
{ "type": "WEIGHT", "value": 12, "unit": "KG" }, 
{ "type": "VOLUME", "value": 3, "unit": "M3" }
    ]
  }
"submitter": {
    "Subr
  "name": "Submitter Transport",
  "identificationNumber": "BE-0123456789",
  "vat": "0123456789",
   "location": {
     "name": "Submitter Transport",
     "street": "Sub street",
     "houseNumber": "106",
    "box": "10",
"city": "3370",
"postalCode": "BOUTERSEM",
     "country": "BE",
     "latitude": 50.012581,
"longitude": 48.01237,
     "contactName": "Patric H",
"contactTel": "0477/12.34.56",
     "contactFax": "016/12.34.56",
     "contactEmail": "patrich@test.com",
     "openingTimeSlotDtos": [
       { "weekday": "MONDAY", "from": "08:30", "to": "12:00" },
```

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```
{ "weekday": "MONDAY", "from": "13:00", "to": "17:30" },
{ "weekday": "TUESDAY", "from": "08:30", "to": "12:00" },
{ "weekday": "TUESDAY", "from": "13:00", "to": "17:30" },
            { "weekday": "WEDNESDAY", "from": "08:30", "to": "12:00" },
{ "weekday": "WEDNESDAY", "from": "13:00", "to": "17:30" }
    }
  "dealer": {
     "name": "Dealer Transport",
     "identificationNumber": "BE-1234567890",
     "vat": "1234567890",
     "location": {
         "name": "Dealer Transport",
         "street": "Dealer street",
         "houseNumber": "42",
         "box": "23/B",
         "city": "6040",
"postalCode": "JUMET (CHARLEROI)",
         "country": "BE",
"latitude": 50.017159,
         "longitude": 44.1234,
         "contactName": "Patric H",
"contactTel": "0477/12.34.56",
         "contactFax": "016/12.34.56",
         "contactEmail": "patrich@test.com",
        ContactEmail: patrichmest.com ,
"openingTimeSlotDtos": [
    { "weekday": "MONDAY", "from": "08:30", "to": "12:00" },
    { "weekday": "MONDAY", "from": "13:00", "to": "17:30" },
    { "weekday": "TUESDAY", "from": "08:30", "to": "12:00" },
    { "weekday": "TUESDAY", "from": "13:00", "to": "17:30" },
    { "weekday": "WEDNESDAY", "from": "08:30", "to": "12:00" },
    { "weekday": "WEDNESDAY", "from": "13:00", "to": "17:30" }
       ]
    }
},
"consignor": {
   "name": "Consignor Org",
   "identificationNumber": "BE-2345678901",
   " " " "2345678901",
         "name": "Consignor Loc.",
"street": "Consignor Str",
         "houseNumber": "87",
        "box": "12A",
"city": "8400",
"postalCode": "OOSTENDE",
         "country": "BE",
         "latitude": 51.221633,
"longitude": 29.49223,
         "contactName": "Patric H",
"contactTel": "0477/12.34.56",
         "contactFax": "016/12.34.56",
         "contactEmail": "patrich@test.com",
        ]
    }
  "consignee": {
```

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```
"name": "Consignee Org",
"identificationNumber": "BE-3456789012",
        "vat": "3456789012",
        "location": {
           "name": "Consignee Loc",
           "street": "Consignee Str.",
           "houseNumber": "158-162",
           "box": "",
           "city": "1190",
"postalCode": "VORST",
           "country": "BE",
"latitude": 50.819098,
           "longitude": 43.20668,
           "contactName": "Patric H",
"contactTel": "0477/12.34.56",
           "contactFax": "016/87.54.32",
           "contactEmail": "patrich@test.com",
          "openingTimeSlotDtos": [

{ "weekday": "MONDAY", "from": "08:30", "to": "12:00" },

{ "weekday": "MONDAY", "from": "13:00", "to": "17:30" },

{ "weekday": "TUESDAY", "from": "08:30", "to": "12:00" },

{ "weekday": "TUESDAY", "from": "13:00", "to": "17:30" },

{ "weekday": "WEDNESDAY", "from": "08:30", "to": "12:00" },

{ "weekday": "WEDNESDAY", "from": "13:00", "to": "17:30" }
         ]
       }
     "carrier": {
   "name": "Carrier Org",
        "identificationNumber": "BE-4567890123",
        "vat": "4567890123",
        "location": {
           "name": "Carrier Loc",
           "street": "carrier str",
           "houseNumber": "14",
          "box": "",
"city": "8700",
"postalCode": "TIELT",
           "country": "BE",
           "latitude": 50.112785,
           "longitude": 36.00286,
           "contactName": " Patric H",
"contactTel": "0477/12.34.56",
           "contactFax": "016/67.89.00",
"contactEmail": "patrich@test.com",
          } }
```

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Appendix 2 - Signatures

```
"signatures": [
    "creationUser": {
    "organization": {
    "type": "SIGNATURE_FOR_READY_STATE",
    "signeeType": "ACTOR",
"firstName": "Ubidata",
"lastName": "Ubidata",
    "signValue": null,
    "latitude": 90,
    "longitude": 180,
    "creationTimestamp": "2023-07-24T15:20:32Z"
    "creationUser": {
    "organization": {
    "type": "SIGNATURE FOR PICKED UP STATE",
    "signeeType": "DRIVER",
"firstName": "FN",
    "lastName": "LN",
    "signValue": " <svg height=\"210\" width=\"500\"><line x1=\"0\" y1=\"0\" x2=\"200\" y2=\"200\"
style=\"stroke:rgb(255,0,0);stroke-width:2\" /></svg> ",
    "latitude": 90,
    "longitude": 180,
    "creationTimestamp": "2023-07-24T15:47:09Z"
  },
    "creationUser": {
    "organization": {
    "type": "SIGNATURE FOR START TRANSPORT",
    "signeeType": "DRIVER",
"firstName": "FirstName",
    "lastName": "Last Name",
    "signValue": " <svg height=\"210\" width=\"500\"><line x1=\"200\" y1=\"200\" x2=\"0\" y2=\"0\"
style=\"stroke:rgb(0,255,0);stroke-width:2\" /></svg> ",
    "latitude": 90,
    "longitude": 180,
    "creationTimestamp": "2023-07-24T15:59:59Z"
    "creationUser": {
    },
"organization": {
    },
"type": "SIGNATURE_FOR_DELIVERED_STATE",
    "signeeType": "DRIVER",
    "firstName": "FirstName",
    "lastName": "LastName",
"signValue": " <svg height=\"210\" width=\"500\"><line x1=\"100\" y1=\"100\" x2=\"200\" y2=\"200\"
style=\"stroke:rgb(255,255,0);stroke-width:2\" /></svg>",
    "latitude": 90,
    "longitude": 180,
    "creationTimestamp": "2023-07-24T17:19:31Z"
 },
```

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```
{
    "creationUser": {
    },
    "organization": {
    },
    "type": "SIGNATURE_FOR_END_TRANSPORT",
    "signeeType": "DRIVER",
    "firstName": "FirstName",
    "lastName": "LastName",
    "signValue": " <svg height=\"210\" width=\"500\"><line x1=\"50\" y1=\"500\" x2=\"150\" y2=\"150\"
style=\"stroke:rgb(255,255,255);stroke-width:2\" /></svg> ",
    "latitude": 90,
    "longitude": 180,
    "creationTimestamp": "2023-07-25T05:47:20Z"
}
```

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