

# OJP Middleware Documentation

## Modules

all modules are single npm packages some are dependent on each other

- api-ojp
- api-otp
- ep-manager
- tests

[learn more \(modules.md\)](#)

## Services

some of modules implement a Docker service running in individual container and associated with a specific port to an Api REST interface.

*docker-compose.yml* this sets up the infrastructure to make these services interact

- api-ojp
- api-otp
- ep-manager

[learn more \(services.md\)](#)

## Config

each module of project contains a single *config.yml* file it define contains service configurations

[learn more \(config.md\)](#)

## Structure

Common structure for modules and services is:

- config.yml
- index.js
- package.json

and for services is:

- Dockerfile
- env.example(renamed to .env in dev environment)

The basic structure of code:

```
.
├── modules
│   ├── api-ojp
│   │   ├── services/
│   │   ├── Dockerfile
│   │   ├── index.js
│   │   ├── config.yml
│   │   └── package.json
│   ├── api-otp
│   │   ├── config.yml
│   │   ├── Dockerfile
│   │   └── package.json
│   ├── ep-manager
│   │   ├── download/
│   │   ├── csvs/
│   │   ├── config.yml
│   │   ├── Dockerfile
│   │   ├── import.js
│   │   └── package.json
│   ├── tests
│   │   ├── xmls/
│   │   ├── config.yml
│   │   ├── index.js
│   │   └── package.json
│   └── db
│       ├── dumps/
│       ├── data/
│       └── export.sh
├── docker-compose.yml
└── package.json
```

## References

OJP general api docs:

<https://github.com/VDVde/OJP/tree/markdowns>

api requests/response docs:

<https://vdvde.github.io/OJP/generated/OJP.html>

## Modules

- api-ojp
- api-otp
- ep-manager
- tests

### [api-ojp \(api-ojp.md\)](#)

OJP entrypoint, implements OJP responses

## [api-otp \(api-otp.md\)](#)

maintain connection to OTP instance

## [ep-manager \(ep-manager.md\)](#)

OJP exchangepoint manager  
exchange point collect stops

## tests

simple web front-end to test OJP requests

## Services

base structure of any Docker service:

- a file [config.yml \(config.md\)](#) contains common service configurations(example PORT) or specific setting for service
- a .env contains specific environment variables, this file is based on env.example for debugging mode of single service

## Ports

default ports in production environment by services

service	production	development
api-ojp	9091	8081
api-otp	9092	8082
ep-manager	9093	8083
db	27017/9095 -	
tests	9096	8086

## Config

each module of project contains a single **config.yml** file  
it define service configurations(example PORT).

*dev* and *prod* implement two different environments, development and production,  
*prod* also refers to *docker-compose.yml* in the project root.

Outside of *dev* and *prod* are common configurations to the two environments.

Below of common structure of a config.yml file:

```

environments:
  default: prod
dev:
  server:
    port: 8083
  db:
    uri: mongodb://${MONGO_HOST}:${MONGO_PORT}/
    name: ojp
    collection: exchange_points
prod:
  server:
    port: 9093
  db:
    uri: mongodb://db/
    name: ojp
    collection: ${dev.db.collection}

import:
  version: 0.16
  csvFile: 5T.csv
...

```

these config files may contain environment variables that are valued at runtime.

In this example MONGO\_HOST, MONGO\_PORT

the same values defined within the yml file can be used to make substitutions at runtime

In this example \${dev.db.collection}

defaults project ports configurations listed here: [services.md#ports \(services.md#ports\)](#)

## API OJP

OJP entrypoint

implements this OJP entrypoints:

- OJPLocationInformation
- OJPTrip
- OJPStopEvent
- OJPTripInfo
- OJPExchangePoints
- OJPMultiPointTrip

## default environments variables

OTP\_MAX\_PARALLEL\_REQUESTS maximum number of parallel request to OpenTripPlanner

## default restrictions by config.yml

- *include\_intermediate\_stops*: value of ojp:IncludeIntermediateStops (default: false)

- *include\_accessibility*: value of ojp:IncludeAccessibility (default: false)
- *ojptag\_in\_response*: include namespace ':ojp' in all tags in results (default: true)
- *include\_precision*: include ojp:Precision tag in reponses (default: false)
- *location\_digits*: precision for all coordinates in reponses (default:5)
- *transfer\_limit*: value of ojp:TransferLimit in reponses (default: 2)
- *limit*: limits of results (default: 10000)
- *skip*: results starting from (default: 0)

## api-otp

maintain connection to OpenTripPlanner instance

### environment

OTP\_HOST hostname instance of OpenTripPlanner

OTP\_PATH basepath of OpenTripPlanner graphql api example: /otp/routers/default/index/graphql

OTP\_PORT port instance of OpenTripPlanner

QUERY\_DEBUG if set show graphql queries in output

### default query parameters by config.yml

- caching: false
- default\_limit: 10000
- default\_skip: 0

## exchangepoint manager

mongodb models to store ojp exchangepoints

TODO download.sh script to download remote exchangepoint

TODO maybe include NETEXT IFOPT

<https://github.com/NeTeX-CEN/NeTeX/blob/master/xsd/ifopt.xsd>

### import exchange points CSV data manually

locale data:

```
CSV_VERSION=10 node import.js
```

or from remote resource:

```
CSV_URL=https://remote-resource.com/exchange-points.csv node import.js
```

### environment

CSV\_VERSION is directory inside csvs default is version param inside config.yml

CSV\_AUTOIMPORT is True enable auto import of exchange points csv data into database at startup

CSV\_URL remote URI of exchange point in csv format

## usage in docker

```
docker-compose up ep-manager
```

browse: <http://localhost:8083/>

browse: <http://localhost:8083/geojson>

## development mode

```
docker-compose up db  
npm run dev
```