

tachograph.online

DDD Lab API — Product Overview

Driver Card Data Analysis for Digital Tachographs

1. About the Service

Tachograph.online (DDD Lab API) is a cloud-based service for automated processing and analysis of driver card data from digital tachographs (DDD / C1B file format). It enables transport companies and fleet operators to efficiently verify compliance with EU driving time and rest regulations — with no local software installation required.

The API is primarily designed for fleet portal operators (vehicle and driver management platforms) who want to add DDD file analysis capabilities to their existing solution. A typical use case: a fleet portal already downloads DDD files remotely from tachographs or driver cards — using this API, each downloaded file can be automatically sent for analysis and the results displayed directly within the portal's own interface. Customers then have all tachograph evaluations in one place, even if they previously used a different tool for data analysis.

Key Features

- Support for driver cards Gen1 and the latest Gen2 V2 generation
- Infringement checks under EU Regulation No. 561/2006 and AETR
- Calculation of working time, rest periods, work shifts and breaks
- Output in PDF, JSON and HTML formats
- No installation required — access from anywhere via API or web portal
- Flexible payment system — credits or subscription
- Security via HMAC-SHA256 signature and Cloudflare Access

2. API Access

Base URL and Authentication

Base URL	https://api.tachograph.online
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Portal	https://tachograph.online
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Authentication	HMAC-SHA256 signature + JWT Bearer token
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Every request must include Cloudflare Access headers and a valid JWT Bearer token. The token is obtained by authenticating with an HMAC-SHA256 signature. The authentication request is subject to a time window check.

Login — Python Example

```
import hmac, hashlib, time, requests

ts = int(time.time())
sig = hmac.new(API_USER_SECRET.encode(),
               f"{API_USER_ID}:{ts}".encode(),
               hashlib.sha256).hexdigest()

resp = requests.get(
    f"{API_URL}/v1/login/{API_USER_ID}",
    params={"ts": ts, "sig": sig},
    headers={
        "CF-Access-Client-Id": CF_CLIENT_ID,
        "CF-Access-Client-Secret": CF_CLIENT_SECRET,
    }
)
token = resp.json()["data"]["token"]
```

Environment Configuration (.env)

Credentials and settings are passed via environment variables:

```
API_URL=https://api.tachograph.online
CF_ACCESS_CLIENT=<your Cloudflare Client ID>
CF_ACCESS_CLIENT_SECRET=<your Cloudflare Client Secret>
API_USER_ID=<your 16-character User ID>
API_USER_SECRET=<your API Secret>
TIMEZONE=Europe/London
```

i Your API User ID, API Secret and Cloudflare Access credentials **can be found in User Settings** after registering and logging in to the portal at tachograph.online. Code examples are also available there.

3. Workflow — From DDD File to Report

A typical integration follows three steps:

1	Upload DDD File	POST /v1/files — returns file_id, card_id and the activity period.
2	Configure Analysis	POST /v1/analysis/configure — verifies available data, returns analysis_id and credit cost.
3	Run Analysis	POST /v1/analysis/run — executes the full analysis; results available via GET /v1/analyses/{id}.

Complete Workflow Example (Python)

```
headers={
    "CF-Access-Client-Id": CF_ACCESS_CLIENT,
    "CF-Access-Client-Secret": CF_ACCESS_CLIENT_SECRET,
    "Authorization": f"Bearer {token}" }
```

```

# 1) Upload file
with open("driver.ddd", "rb") as f:
    r = requests.post(f"{API_URL}/v1/files",
                      headers=headers, files={"file": f})
    card_id      = r.json()["data"]["card"]["id"]
    begin_period = r.json()["data"]["card"]["activity_begin"]
    end_period   = r.json()["data"]["card"]["activity_end"]

# 2) Configure analysis
cfg = requests.post(f"{API_URL}/v1/analysis/configure",
                    headers=headers,
                    json={"card_id": card_id, "begin_period": begin_period,
                          "end_period": end_period, "timezone": "Europe/London"})
    .json()["data"]

# 3) Run analysis
result = requests.post(f"{API_URL}/v1/analysis/run",
                       headers=headers,
                       json={"analysis_id": cfg["analysis_id"],
                              "card_id": card_id, "begin_period": begin_period,
                              "end_period": end_period, "files": cfg["files_used"],
                              "timezone": "Europe/London",
                              "configuration": cfg["configuration"]})
    .json()["data"]
print(result["analysis_id"]) # UUID of the completed analysis

```

4. API Endpoint Reference

Endpoint	Method	Description
/v1/login/{api_user_id}	GET	Authentication — obtain JWT token
/v1/user	GET	Retrieve user / account information
/v1/files	POST	Upload a DDD file
/v1/files	GET	List uploaded files
/v1/files/{file_id}	DELETE	Delete a file
/v1/analysis/configure	POST	Configure analysis (cost estimate, period)
/v1/analysis/run	POST	Run the analysis
/v1/analyses	GET	List all analyses
/v1/analyses/{id}	GET	Get analysis detail / results
/v1/analyses/{id}	DELETE	Delete an analysis
/v1/analyses/card_ids	GET	List driver card IDs with analysis counts
/v1/pdf/{type}/{id}	GET	Download PDF report
/v1/generate/html	POST	Generate HTML visualisation of a DDD file

PDF Report Types

Once an analysis is complete, the following PDF reports can be downloaded:

- **GET /v1/pdf/activities/{analysis_id}** Driver activities
- **GET /v1/pdf/infringements/{analysis_id}** Infringements
- **GET /v1/pdf/rests/{analysis_id}** Rest periods

- **GET /v1/pdf/workshift/{analysis_id}** Work shifts
- **GET /v1/pdf/workshift-summary-daily/{analysis_id}** Daily shift summary
- **GET /v1/pdf/workshift-summary-weekly/{analysis_id}** Weekly shift summary
- **GET /v1/pdf/workshift-summary-monthly/{analysis_id}** Monthly shift summary
- **GET /v1/pdf/all/{analysis_id}** Combined report (all)

Analysis Result Expansion (expand parameter)

The GET /v1/analyses/{id} endpoint supports an expand parameter to retrieve detailed data in a single request:

- report-all — complete report
- report-activities — driver activities
- report-infringements — infringements
- report-rests — rest periods
- report-workshifts — work shifts
- report-summary-daily / weekly / monthly — aggregated statistics

5. Available Tools and Integrations

Python SDK	A set of scripts for authentication, file upload, and running analyses. Requires: requests, python-dotenv.
Postman Collection	Ready-to-use Postman v12 collection with all endpoints and sample parameters.
cURL Examples	Command-line API call examples for quick testing and shell scripting.
Web Portal	Intuitive interface at https://tachograph.online for manual file upload and report browsing.

6. Pricing and Credits

The system is credit-based. One credit corresponds to one day of driver activity found in a DDD file. If a driver has activity on only 20 days in a month, only 20 credits are charged (basic rate: CZK 20 / € 0.80). The price per credit decreases significantly with the number of vehicles analysed per month — the larger the fleet, the more favourable the terms. Prices are listed in CZK; indicative conversion: CZK 1 ≈ € 0.04 (rate: 25 CZK/€).

Plan	Price per Credit	Notes
Basic	CZK 1 / € 0.04 per credit	Online payment, low volume
Volume / Subscription	Significantly lower	Price decreases with monthly vehicle count
Contract customer	Individual	Invoiced via advance invoice

Contract customers can pay via advance invoice outside the online payment system. After registering, send your request to info@canlab.cz. You will receive an advance invoice within 2 business days; credits are activated upon payment.

Pricing for API Integrators (Fleet Portals)

For fleet portal operators and other API integrators, pricing is determined individually based on the volume of data processed. Contact us at info@canlab.cz with an estimate of your monthly analysis volume and we will prepare a tailored offer.

✓ Free Test Credits for API Integration

During the API integration phase into your fleet portal, you will receive a starter credit allocation for testing at no charge. Simply contact us at info@canlab.cz to request test access.

Documentation, examples and Postman collection are available after logging in to the portal at tachograph.online.

□ Localisation & Language Support

We are currently working on expanding language support for reports and the portal interface. If your target market requires a language not yet available, we are open to collaborating on localisation together. Please get in touch at info@canlab.cz to discuss options.

Contact and Support

CANLAB s.r.o. | info@canlab.cz | www.canlab.cz | <https://tachograph.online>
Registration and documentation available after logging in to the portal.