

# Product Description

## PTV EV Truck Route Planner

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Shorttitle	Product Description PTV EV Truck Route Planner
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# 1. Product objective

PTV EV Truck Route Planner is a web-application to help as a strategic tool to simulate real-life trips with electric commercial vehicles.

Based on a constantly updated vehicle model database it enables the user to

- Search, filter and select vehicle variants
- Know about technical details such as battery, power, charging attributes
- Calculate multi-stop routes, taking into account as well vehicle restrictions and the traffic conditions
- Integrate different situations for each stop, such as payload, temperature and wind into the consumption calculation
- Visualize the viability, the battery state, the charging state as well as the local consumption on the map using colours.
- Take into account the charging capabilities of vehicles and stops to add charging opportunities in the route
- Optimize the use of charging based on the charging capability, the charging power and service times for charging propositions at selected stops
- Play scenarios with different battery levels at start and at the destination, different weather conditions as well as battery age and usage

Typical target groups are fleet owners who are supported in their purchase decisions by simulating the transportation situation and deciding on the feasibility of defined vehicles in their application.

## 2. Product description

### 2.1. PTV EV Truck Route Planner License Manager

#### 2.1.1 Registration and Activation

After registration on PTV Platform and logging in with your MyPTV ID and after product has been provisioned the user is granted access to EV RP License Manager.

The EV RP License Manager is only accessible through one user account owned by the registered who activated the subscription.

On the Product Main Page, beneath managing the user profile or switching to other activated PTV platform applications, the following functional apps are offered:

#### 2.1.2 My Subscription

For PTV EV Truck Route Planner, only individual plans are available.

Individual Plans

Select the plan, released after you order, enter your billing settings and look up invoices.

You can also terminate you subscription there

#### 2.1.3 License Keys & Usage

Create, manage or delete license keys, that are used to license embedded versions of EV Route Planner in websites.

### **2.1.4 Documentation: Embedding the PTV EV Truck Route Planner in your Website**

This area provides information about how to embed PTV EV Truck Route Planner in a website.

Information about version history and the technical requirements are provided in this section.

### **2.1.5 Contact Sales**

Contact Sales enables customers to get in contact with the sales team, to discuss open questions or additional licensing options on individual contractual base.

### **2.1.6 Support**

Based on a ticket system, questions are answered by our support team for

Incidents (technical problems)

Orders (questions about your subscription, billing, or payments)

Software (functional or contents related questions)

Support will be provided in English

## **2.2. PTV EV Truck Route Planner**

### **2.2.1 Licensing options**

Upfront to using the EV Truck Route Planner, it must be licensed for usage. The license key is used to embed the solution in a customer website

Special white label options, that can be activated, based on the contract

- EV RP can work with an individual set of vehicle models, that can be defined in a joint process with the customer
- EV RP can be integrated into an iFrame of the customer website, thus getting a part of the customers offer.
- In the EV RP Menu, there are branding possibilities to define the application name and use an own company icon
- There is the possibility to omit the filter possibility for vehicles if not needed.
- There is the possibility to add ePTO-configuration possibilities to the product
- There is the possibility of file uploads, automizing the input of a route by dropping specified file format into the application
- There is the possibility to add the Route Analyst module to the product, adding possibilities to bulk upload routes, bulk calculations and download, including configurable cost and emission calculations.
- If the customer can provide information on vehicle usage e.g. CAN-Bus track-data we can agree on using the data to train the model to improve accuracy.

### **2.2.2 Settings & Information**

From the main menu various settings can be made configuring the system.

- Language
- Units
- Data/time formats
- Map display options
- If the user permits location services, the map location is automatically set to the current browser location.

The info-section contain information on

- Disclaimer/permits
- Terms of Use
- Data Privacy Statement
- Offers a feedback-channel

### 2.2.3 Searching and selecting vehicles

Users can select from a database of predefined vehicles.

These consist of Reference Vehicles, that represent not a specific model but more a vehicle class, and concrete vehicles and vehicle variants.

Vehicles can be found setting filters or searching for a vehicle name.

On a vehicle information can be retrieved, describing important vehicle attributes.

### 2.2.4 Selecting Destinations

Destinations can be set via clicking in the map or entering a location name in the stop list.

On adding destinations, the user is able to see stop attributes like the current weather and configure stop attributes like payload or service time.

Stops can also be dragged to change the sequence, edited or deleted

### 2.2.5 Calculation and Routing results

After calculating the route, the use is information if the route is feasible, both in text (the energy % that is left or missing and graphically with a colored route trace.

Information on the route stats is provided like stops, distance, duration, height differences on the route, the payload of each stop, as well as medium and total energy consumption.

### 2.2.6 Playing Scenarios using routing settings

Usage scenarios can be explore using route settings.

Working with different battery levels at the start

- Different target levels a battery should have as a minimum at destinations
- If current traffic should be taken into account
- An energy saving route should be calculated
- The date/time of the route can be set, also determining the weather conditions
- Or manually set weather conditions can be used
- The milage and the lifetime of the battery can be set and influences the range

## 3. Technical system description

### 3.1. General

PTV EV Truck Route Planner is a web application running in common browsers. In the white labeling process it can be adjusted to individual desires.

### 3.2. Technical scope and requirements

Technical scope and requirements

PTV EV Truck Route Planner

- Browser: Use the latest version of Google Chrome™ or another Chromium-based browser for best results.
- Screen resolution: 1600 x 900 (high color quality) or higher

- can be embedded in web pages and maximized therein.
- Processor: Recommended Intel Core i5 or newer
- Operating system: Microsoft Windows 8 or newer
- Supported language is English (US) and German
- Supported Units Metric or Imperial, different date/time formats.