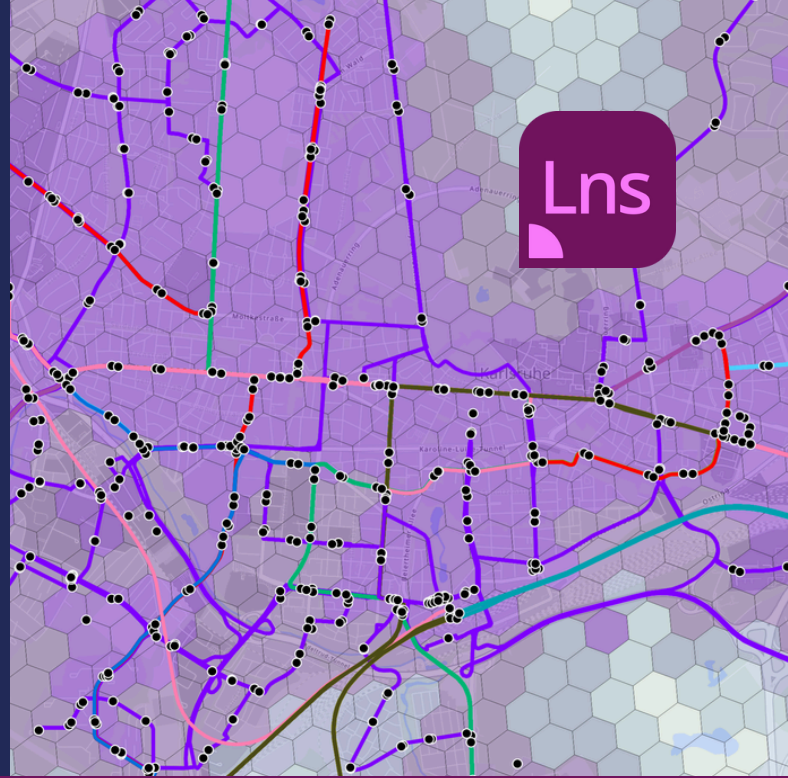# Data Integration Guide

What is this guide for?

This guide aims to help you reach PTV Lines' full potential.

As a service planner, you receive inquiries regarding issues with the current network and timetable design. These may include overcrowding, unstable transfer connections, or construction sites that need to be addressed in a timely manner, such as within days, weeks, or before the next season's timetable is released.
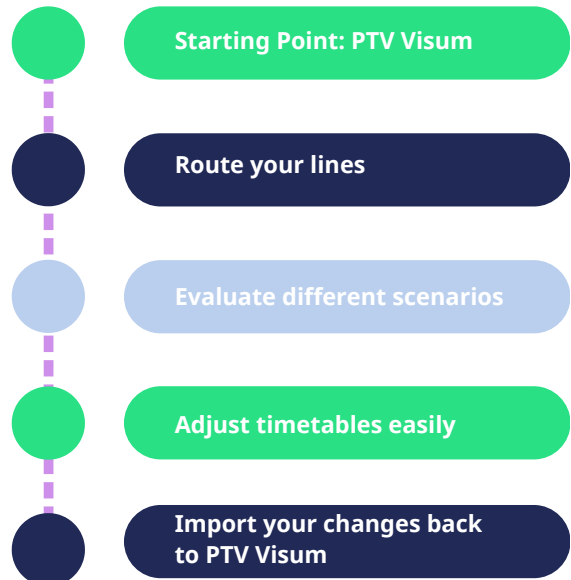
You already have PTV Visum…

Your benefit
You can import supply, OD data, and background data from PTV Visum in PTV Lines. That means, you do not have to start from scratch setting up your network in PTV Lines. Instead you can rely on lines, stops, stop areas and timetables that you use in PTV Visum.

Export the PTV Visum file as .ver (PTV Visum standard format) and import it in PTV Lines to work with the data.

What PTV Lines allows you to do:
PTV Lines comes with travel time data included as the included map relies on trustworthy data from HERE Technologies. You are able to route your lines on a HERE map to forecast the ETA of your services using real-time traffic data between two stops.
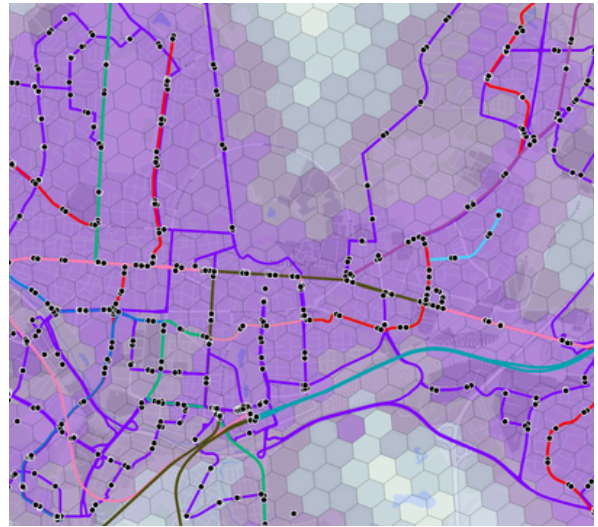
- Starting Point: PTV Visum
- Route your lines
- Evaluate different scenarios
- Adjust timetables easily
- Import your changes back to PTV Visum

Add data to your model:

Demand data
You also may already have available demand data in PTV Visum. Upload the matrices in PTV Lines to evaluate your service. Should it be extended? Does the supply meet the demand? Find out which measures to increase demand in public transport could prove successful (demand data should be on hand as CSV file).

Background data
Upload **background data** for specific use cases such as **catchment area analysis.** This data needs to be in **Geojson format**. There are free online converter, if you do not hold the data in the correct format. You may already use spatial data in PTV Visum. Export it as shape file, convert it to Geojson and import it in PTV Lines.

OD Data
OD data can help to refine the analysis. A lot of companies or neighbouring departments already have such data available (check-in/check-out data e.g.). In case you already are using OD data in PTV Visum, export it as shape file and import it in PTV Lines as CSV file.

What analysis you can use PTV Lines for:

Take a high-level view on different scenarios and be able to analyse for example
- How many vehicles you would need, if you run line A instead of line B.
- Which one would be operationally profitable?
- What are the operational key figures (KPI's) if you double the line?
- What impact would it have on your KPI's, if you adjust the timetable?

The beauty lies in the interoperability of the two software tools: ones you are done with your analysis in PTV Lines you can import back your results and all your changes in PTV Visum again. This allows service planners to carry out tests and pass the results back to the neighbouring department where they can investigate a particular scenario in more detail.