

ptv vision

PTV Vision – Tutorial
VISUM Public Transport Network



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About this Tutorial

The present module is part of the series of tutorials on the PTV Vision product line made by PTV AG. It is designed to facilitate the handling of those products for you – the users – by explaining step by step common procedures incurred in project work.

The tutorial should be used together with your version-specific manual. In the tutorial you learn which decisions to make and which steps to take. The manual provides you with information how to take the steps with the program version available.

The text is accompanied by one example, which is referred to in the text at clearly identifiable points, for a detailed description of the procedures suggested. To enable you to follow the steps shown, that example and other data required, has been stored in its various processing stages on the CD enclosed with the module. At the end of the main text you will find a list of all data included with reference to the text.

You may work through the tutorial using the data on the CD. If you want to make modifications to the data and carry out the examples, we recommend to make a copy of the complete contents of the CD into a directory of your computer. If you work with VISUM, first set the project directories on the enclosed folders entitled VISUM_NETWORKS for version files, HAFAS_DATA for HAFAS project files and ADDITIONAL_DATA for all other file types. The version files can be opened with VISUM version 9.33 or higher.

The editorial staff of the PTV Vision tutorials hopes that you will enjoy an interesting and instructive read!

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3.2 Which Stops Are To Be Fully Modeled?

The multitude of elements jointly representing a stop allows the exact and flexible modeling of the important processes of boarding, alighting or transferring in public transport. But detailed modeling requires major efforts which may not be justified if the results will not be influenced much or anything at all. Therefore, during network modeling one has to evaluate which stops can be modeled as simply as possible and which ones in greater detail. Generally this will only be a small portion of all existing stops.



The most important criterion when modeling stations is the degree of detail required in terms of transfer times and transfer walkways. If modeling is simplified an exact consideration of transfer times cannot be necessarily expected. If distances to be covered within a stop do not play any significant role, then detailed stop modeling is not necessary.

The following factors suggest a detailed modeling though:

- ▶ Major constructional separation of the station complex and consequently varying transfer times between the different vehicle journeys;
- ▶ Availability of differentiated stop data at stop point level (stop bays at the bus station, tracks for trains, ...), e.g. in case of data transfer from PTV's INTERPLAN program, the timetable and duty generation system;
- ▶ High number of boarding, alighting and transferring passengers to be expected within the station complex (eminent role in public transport network);
- ▶ Long transfer walk times compared to journey times, therefore significant impact of transfer processes;
- ▶ Several very different connectors to the remaining network, for example, exits to both sides of an arterial road dividing the complexes;
- ▶ Stop served by several lines which do not traverse a joint node or link (especially in case of different transport systems);
- ▶ Desired use of a timetable-based or headway-based assignment in contrast to the transport system-based procedure.

Of course, decisive factors concerning the degree of detail required by the modeling in a real project are the purpose of the model and the instructions given by the client. For example, no station will be modeled in detail in a large-scale network for line network planning.

In the following the modeling of some stations taken from our example will be discussed.