Press Information

<u>Timetable Software now including connection table to provide an easy-to-look overview even for complex connected journeys.</u>

Buxtehude. The new version of PTraffic, a software to maintain timetables is now available in an enhanced version. The improved journey planner got a graphical representation and a table view for your journeys.

Does one require a view of multiple connections for a given search?

In fact it should be sufficient to get only one possible journey – the best one – as a resutl fo a search for a journey. But in case of delays or cancellations hte connections shown may be obsolete and we miss the information on how to continue. Most websites use to show 3 possible journeys for your request. Additional connections may be shown on request. But do we need more than 3 possible journeys to reach our target destination? Isn't there a very small chance for delays on multiple vehicles of a journey?

A journey often consists of multiple connection-parts and you need to use tranfser stations to change to different lines or vehicles to reach your target destination. Delay or cancellation of one part of the journey may cause the 3 journeys shown to fail (especially if a single ride of the same vehicle or line is used in all connections). In such cases a table showing more connections for each transfer station to overcome the problem of a failing part.

An additional goodie results if the transfer time is handled more dynamical by the software. For example it may be helpful to show a connection with a transfer time of 1 minute, even if 3 minutes transfer is specified, especially if this leads to much

Figure 1: Journey planner from PTraffic and PTraffic Pro

shorter travel times. If one misses the short transfer time, the next connection to be used is still available. The same applies to later connections to be used in case of delayed arrival at a transfer station.
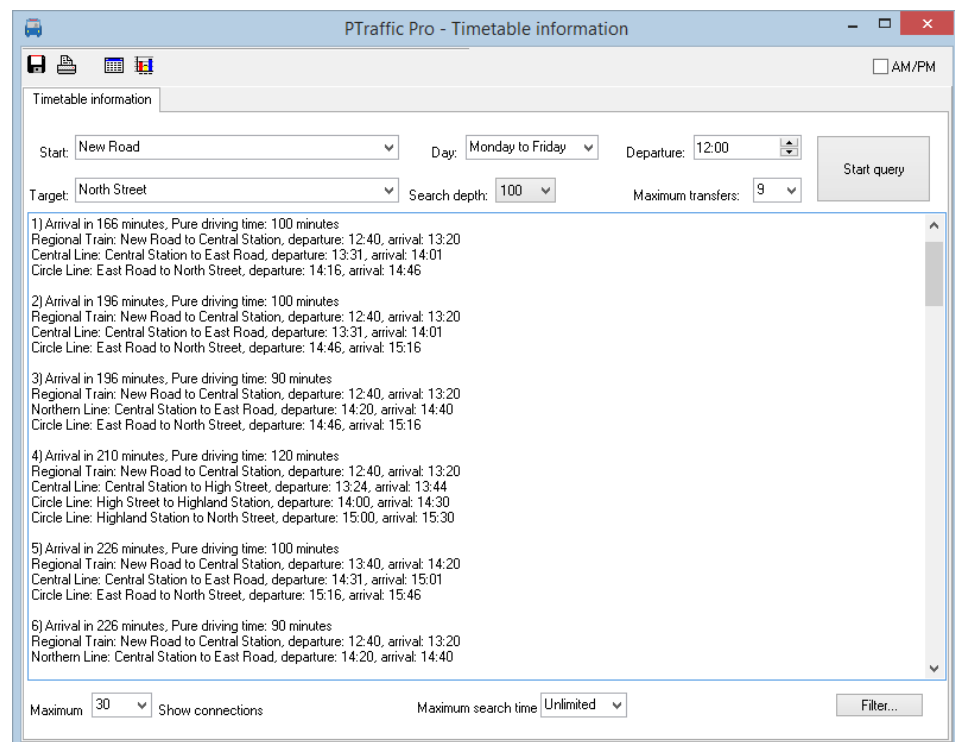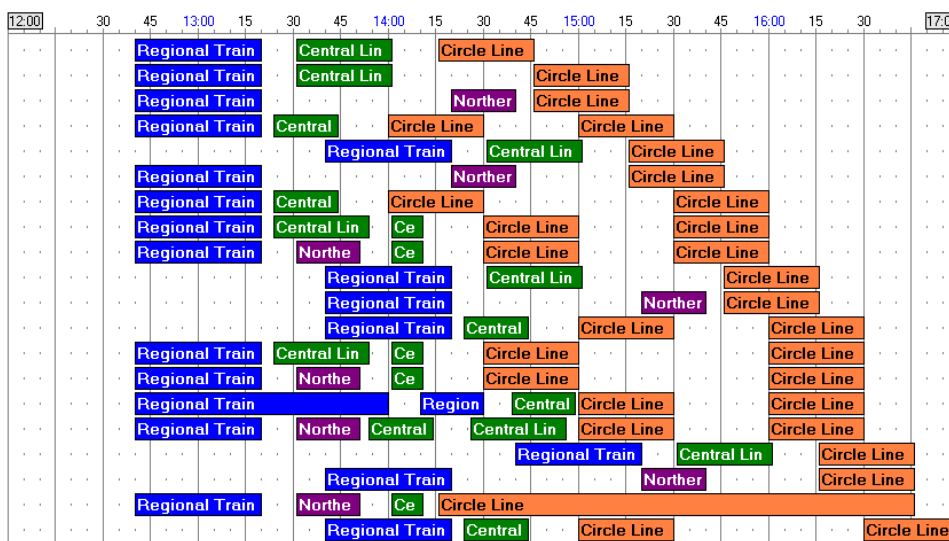
Conclusion: In many cases it is not sufficient to show only 3 possible journeys in search results. Only if all journeys use the same partial connections or only a direct one exists we can make use of 3 possible journeys. In such cases we usually don't need a journey planner.

Graphical connection view

A graphical view of possible connections is already offered by some companies. For the traveler this is much better to handle than the usual listings in text format given as a result of a search for connections.

Unfortunately the bar diagrams aren't sufficient because they lack the station names.

Figure 2: Resulting connections in form of a bar chart diagram in PTraffic and PTraffic Pro

Connection table

PTraffic now has a view of connections showing all possible journeys and their connections in a single table. Much more connections are shown on a single page and can easily be compared against each other. Print cost is also reduced using the table format.

Additional information can be integrated easily to make a look similar to standard schedules. In PTraffic the colors defined for the lines can be used, as additional information the platform could be shown. On Smartphones with limited space this table view also provides a compact view.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
New Road	12:40	12:40	12:40	12:40	13:40	12:40	12:40	12:40	12:40	13:40	13:40	13:40	12:40	12:40	12:40	12:40	14:40	13:40	12:40	13:40
Grange Road															14:00					
Grange Road															14:10					
Central Station	13:20	13:20	13:20	13:20	14:20	13:20	13:20	13:20	13:20	14:20	14:20	14:20	13:20	13:20	14:30	13:20	15:20	14:20	13:20	14:20
Central Station	13:31	13:31	14:20	13:24	14:31	14:20	13:24	13:24	13:31	14:31	15:20	14:24	13:24	13:31	14:39	13:31	15:31	15:20	13:31	14:24
East Road	14:01	14:01	14:40		15:01	14:40				15:01	15:40						16:01	15:40		
East Road	14:16	14:46	14:46		15:16	15:16				15:46	15:46						16:16	16:16		
West Street								13:54	13:51				13:54	13:51		13:51			13:51	
West Street								14:01	14:01				14:01	14:01		13:54			14:01	
Sports Hall																14:14				
Sports Hall																14:26				
High Street				13:44			13:44	14:11	14:11			14:44	14:11	14:11	14:59	14:56			14:11	14:44
High Street				14:00			14:00	14:30	14:30			15:00	14:30	14:30	15:00	15:00			14:16	15:00
Highland Station				14:30			14:30	15:00	15:00			15:30	15:00	15:00	15:30	15:30				15:30
Highland Station				15:00			15:30	15:30	15:30			16:00	16:00	16:00	16:00	16:00				16:30
North Street	14:46	15:16	15:16	15:30	15:46	15:46	16:00	16:00	16:00	16:16	16:16	16:30	16:30	16:30	16:30	16:30	16:46	16:46	16:46	17:00

Figure 3: Connections table in PTraffic and PTraffic Pro

Compact connection table

A step further is given by the compact connection view of PTraffic. The compacted version (see figure 4) shows the same journeys and connections as the simple one (see figure 3) above.

How come? We don't use a full column for each single journey, but all partial connections for all journeys shown only once. Thus the same parts valid for multiple journeys will be shown only once to save columns and space.

The compact connection table uses chronological sort of departure times. All departures for a given arrival time are shown downward or to the right. One gets easily used to the unusual view. A penalty in this view is the fact, that the favorable journey isn't shown any more. Marking these favorable connections might overload the compact view. Another disadvantage is that the arrival time at the target station isn't in chronological order – this has technical reasons and cannot be avoided.

The compacted view is most convenient for regular journeys within a given time slot – like to and from your place of work. Journeys in this case are more dynamic and at different times because of flexible work times.

This view is highly convenient for shopping and other journeys in city centers, where we usually don't have defined departure times. And in case of delays and cancellations one can just look at the next possible connection.

Information to the pictures used

The journeys and connections shown are the result of search for „from New Road to North Street at 12 o'Clock based on the project „SampleTown" which can be downloaded from the PTraffic website http://www.ptraffic.net as .ZIP file. The pictures used are contained in the directory „PR-Images" and may be used free of charge for reports about PTraffic.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
New Road	12:40				12:40	13:40					14:40			
Grange Road					14:00									
Grange Road					14:10									
Central Station	13:20				14:30	14:20					15:20			
Central Station	13:24	13:24	13:31	13:31		14:20		14:24	14:31	14:39	15:20		15:31	
East Road				14:01		14:40			15:01		15:40		16:01	
East Road				14:16		14:46			15:16		15:46		16:16	
West Street		13:54	13:51											
West Street			13:54		14:01									
Sports Hall			14:14											
Sports Hall			14:26											
High Street	13:44		14:56		14:11			14:44		14:59				
High Street	14:00				14:16		14:30			15:00				
Highland Station	14:30							15:00		15:30				
Highland Station								15:00		15:30		16:00		16:30
North Street				14:46	16:46	15:16	15:30		15:46	16:00	16:16	16:30	16:46	17:00

Figure 4: Compact connections table in PTraffic Pro

The Timetable Software PTraffic

PTaffic is an easy to use program to create and maintain views and schedules for complex transport networks. The software is available in 3 different versions. The standard version already

contains important features to maintain timetables including a journey planner and various browser applications. PTraffic Pro offers all features of the basic version and in addition a line network editor to produce schematic network maps as well as a traffic simulation. To display the timetable data the free delivered program „PTraffic Show" can be used.

An important new feature is the support of circle lines and stations that are multiply used on the same line. Improvements to the journey planner allow the filtering of connections to reduce the number of displayed connections to a reliable amount.

Connections found using the journey planner may now be shown in graphical representation (bar graph) or in a connections table. Save as image or printing of the views is supported.

By using graphical representations contained in all versions of PTraffic it is possible to create graphical schedules for any length of journey and for any time of day. Using various options it is possible to show complex journeys in a clearly arranged format.

Additional documentation containing a detailed description of the data model used in PTraffic and PTraffic Pro. Data are stored in the open „Portable Data Format (PTF)" and can be processed using Open-Source-Software PublicSQL to create individual, platform independent Web-Applications.

PTraffic Pro is available from http://www.en.ptraffic.net at a price of EUR 99.-, the standard version is available at EUR 29-. The website also contains more information, downloads, sample projects as well as a free demo version.

Contact: Jörg Siebrands, software development, Lüneburger Schanze 1, 21614 Buxtehude, Germany
Tel: +49 4161 597079 , info@sybrands.de, www.en.ptraffic.net

Since many years Jörg Siebrands works as independent programmer for information portals and software development. Current projects are

- PublicSQL (www.publicsql.org), a SQL interface for JavaScript.
- PTraffic (www.ptraffic.net), a platform-independent timetable application.
- a Web-editor with planned availability of summer 2015.