



Synchronion

by otimon

Clear plans for public transport

First steps

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Otimon GmbH

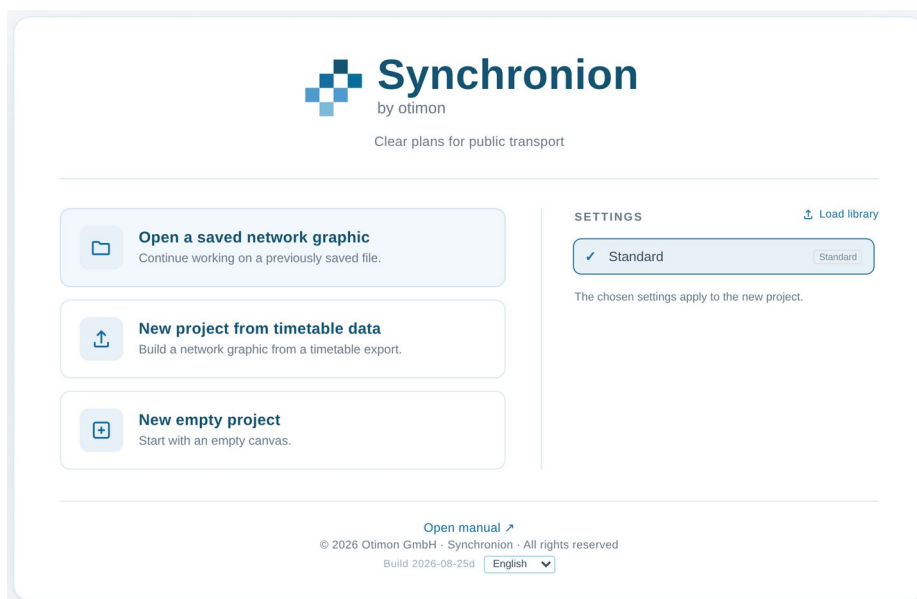
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Synchronion produces schematic network graphics for timetable studies in public transport. In a few minutes the path leads from timetable data to a finished, cleanly labelled graphic. This guide shows how to get started in five steps.

To a network graphic in five steps

1. Begin. The start screen offers three paths on the left: open a saved network graphic, build a new project from timetable data, or begin with an empty surface. On the right the settings set is chosen that is to apply to the new project. Load library adds a library file of your own where needed. At the bottom, next to the build indicator, the language of the interface is chosen; it applies immediately and again at the next start.

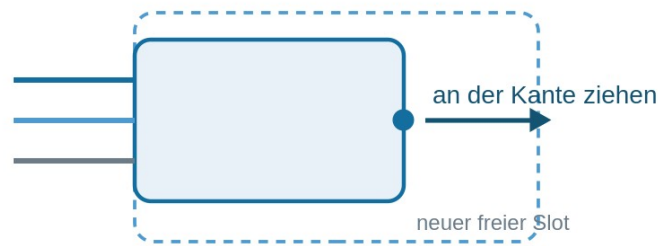


The start screen with the three paths, the settings column and the language selection.

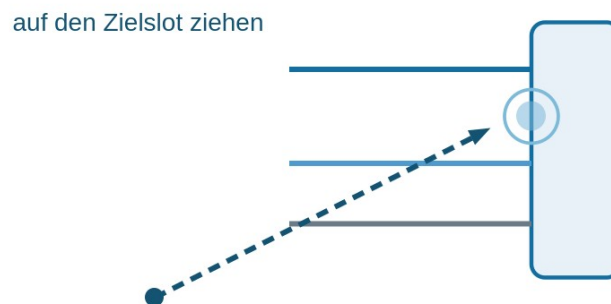
2. Take over the data. When building from timetable data, the recognised pairings of outbound and return direction are confirmed. Synchronion creates the lines from them and draws a first network graphic. If the application is opened without a server, the service points are loaded through the file selection.

3. Gain an overview. The mouse wheel zooms, dragging into empty space moves the view. Centre brings the whole graphic back into the picture. This is how you find your way quickly in larger networks.

4. Order the nodes and sort the lines. A node adapts its size on its own so that all lines and slots have room. It can be moved at any time in the Nodes tool by dragging its inner surface. Only if the automatically determined size does not satisfy do you change it by hand, by dragging an edge; Reset returns it to the calculated size. In the Line tool you grab a line end by its stub at the node and drag it to the desired slot as soon as the light blue target circle pulsates. The line lands exactly there, the others move up. When drawing with the New line tool, a preview line shows the next section before it is placed.

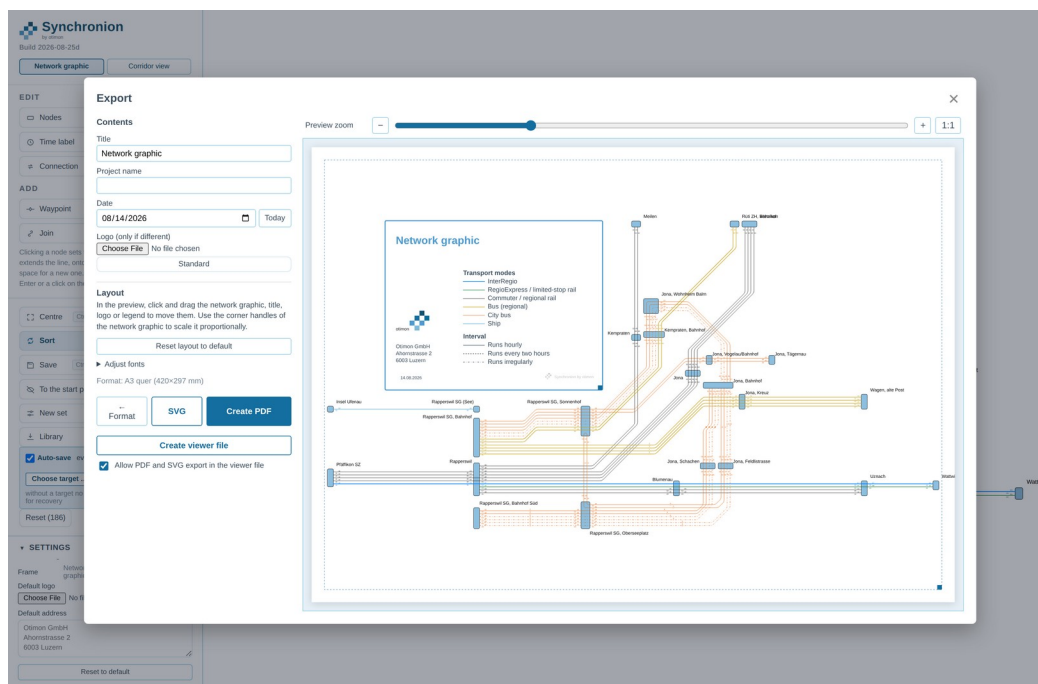


If the automatic size is not enough, the node can be enlarged by hand at its edge.

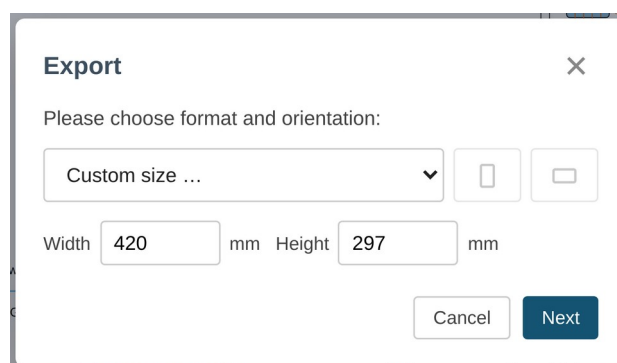


Drag a line end onto the pulsating target slot; the others move up.

5. Secure and export. Save stores a JSON project file; in Chrome and Edge a save dialogue appears for this, in which place and name are freely chosen. Export produces the graphic as SVG or PDF. In the first step the sheet format is chosen from a list which, besides the ISO formats A and B, also carries the North American formats, the Arch series and the Japanese series JIS B, and states the dimensions of every entry; two icon buttons next to it set portrait or landscape. At the very top there is a custom size in which width and height are entered freely between 50 and 5000 millimetres. Title, project name and date are entered in the dialogue; they appear in the legend, the title as a heading and the project name beneath it. The legend also carries your own logo, your own address and the explanation of transport modes and interval types. In the preview you take hold of network graphic, title, logo and legend with the mouse and move them, the legend therefore to any place you like; at the corner handles the network graphic becomes proportionally larger or smaller.

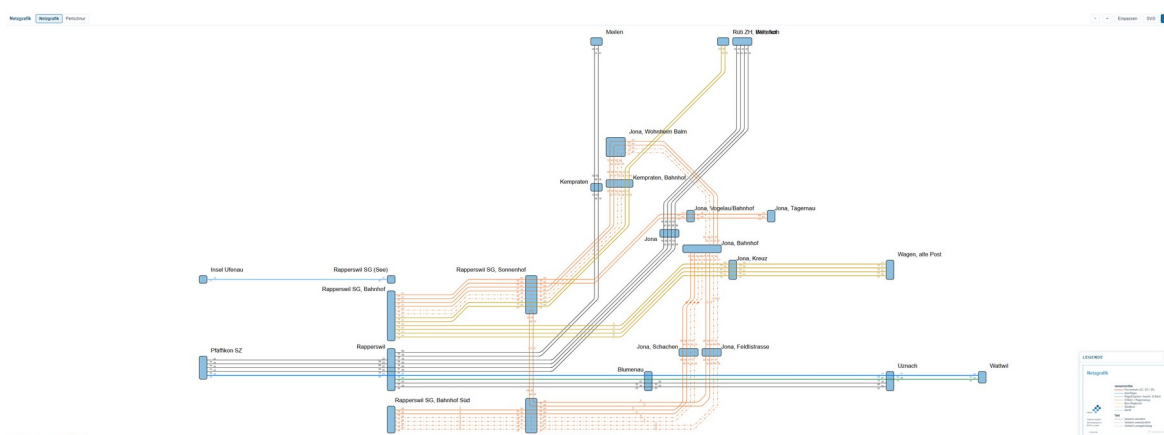


The export dialogue: title and project name appear in the legend, whose logo is the planner's own.



The custom size with fields for width and height; the orientation follows from the dimensions.

Sharing without Synchronion. Create viewer file stores a self-contained HTML file which holds both views and opens in any browser without access. It is meant for viewing: switching, zooming and fitting are possible, editing is not. The checkbox beneath it decides whether the file additionally permits an export as PDF and SVG.

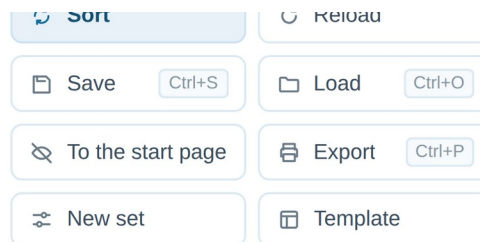


A viewer file in the browser: view switch on the left, zoom and export on the right, legend collapsed.

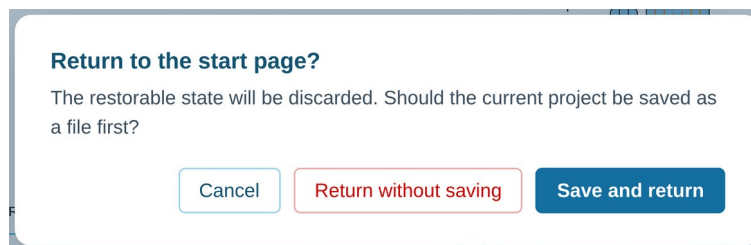
Working without loss

Synchronion keeps the state of the work in the browser a few seconds after every change. If the window is closed by accident or the browser crashes, exactly the screen last shown opens at the next start. To finish a project you choose To the start page in the sidebar. Because the kept state is discarded in doing so, Synchronion asks beforehand and offers three paths: save and return, return without saving, or cancel.

As long as a project has never been secured as a file in this session, the Save button appears in a warning colour. It changes back to the familiar blue as soon as it has been saved; a project opened from the start screen counts as secured from the outset.



Never saved: the Save button in a warning colour.



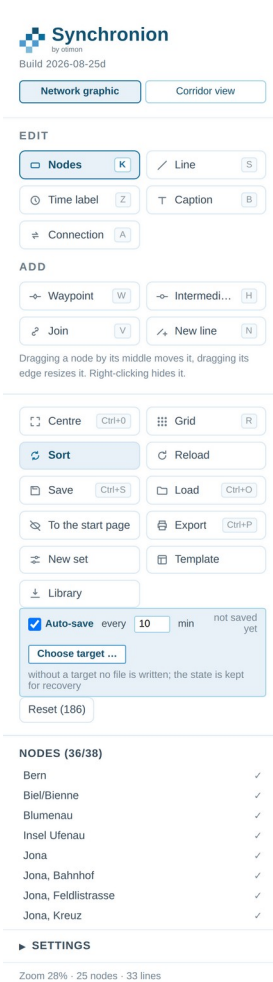
The prompt when leaving, with the three paths.

In addition, Auto-save secures a file at regular intervals. For this you choose a file once with Choose target ..., for instance in a synchronised folder; it is silently overwritten thereafter. The project proper remains the JSON file stored with Save.

The toolbar

All tools are in the sidebar. At the very top you switch between network graphic and corridor view; the editing and adding tools apply to the network graphic and are replaced in the corridor view by its own sidebar. Beneath follow the editing tools, that is nodes, line, time label, caption and connection, then the adding tools such as waypoint, intermediate stop, join and new line, and finally the commands such as centre, sort, save and export. Right at the bottom are Auto-save and Reset.

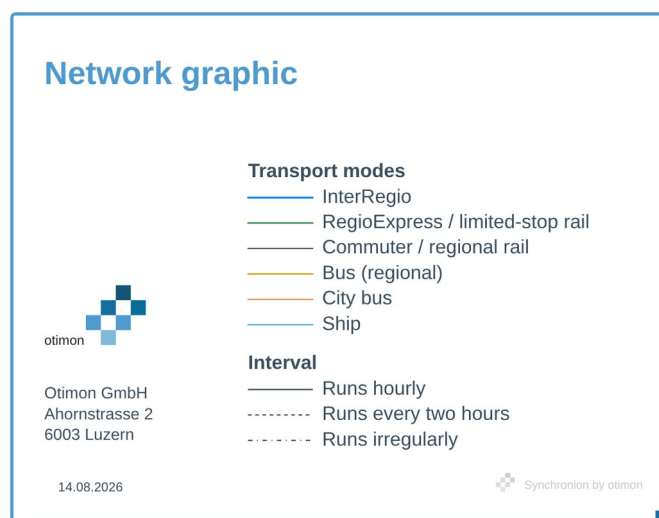
On the buttons the associated key is shown on the right: K for nodes, S for line and so forth, and on the commands Ctrl and S for saving or Ctrl and P for the export. Anyone who uses the keys manages without the trip to the sidebar.



The sidebar with the lock marker, tool groups and commands.

Reading transport mode and interval

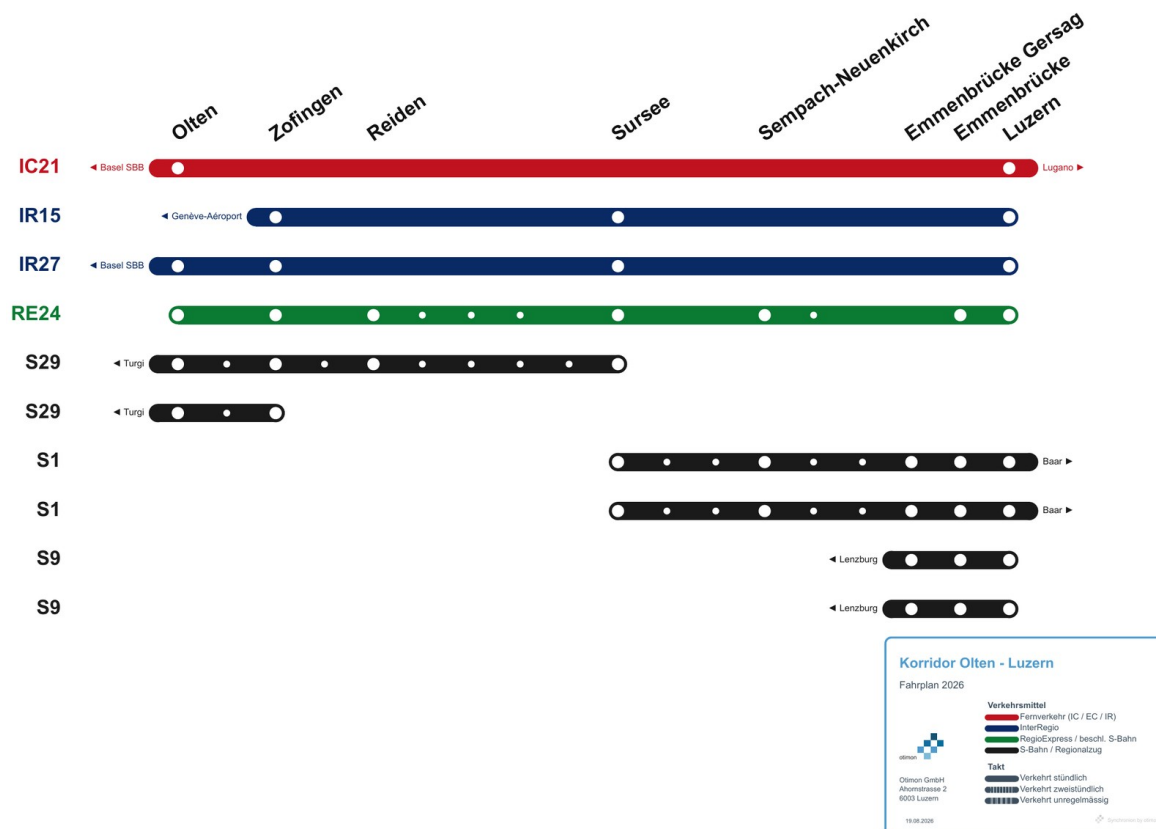
In the network graphic the lines differ by two independent features. Colour and stroke weight identify the transport mode, for instance InterCity, suburban railway or tram. The dash pattern, by contrast, is reserved for the interval density: a continuous line stands for an hourly or denser interval, a dashed one for the two-hourly interval, dash-dot for infrequent services. The legend explains both features for the project at hand.



The legend: transport modes by colour and stroke weight, interval by dash pattern, and with them the planner's logo and address.

The corridor view

For corridor studies you switch at the very top of the sidebar to the corridor view. Every direction of travel appears there as a row of its own: a thick band in the colour of the transport mode, with the dash pattern of the interval, large white dots at the nodes and small dots at stops and intermediate stops. On the left the line names stand right-aligned in a column, and where a line runs beyond the corridor, a band extension names the destination in the colour of the line.



A finished corridor view: the Olten – Lucerne corridor with ten directions of travel.

To a corridor view in four steps

1. Switch over. Change to corridor view at the very top of the sidebar. The tools of the network graphic disappear and the corridor view sidebar takes their place.
2. Choose the corridor. In the list Show lines switch on the lines of the corridor, then press Lines → columns: exactly those stations remain at which these lines stop. The corridor view stays clearest when only one corridor is shown per view.
3. Arrange. Arrange places the columns in route order and switches on the column grid, so that every intermediate stop receives a column of its own. ↔ Direction turns the axis if the corridor is to be read the other way round. Finer points are settled by dragging: column names horizontally, line names vertically, individual dots onto other columns.
4. Secure and export. The view as set up is saved under a name; several corridors thus exist side by side in the same project. The export produces SVG or PDF from it; the title then reads Corridor view by default.

A double click on a line name changes its text. The switch Split routes keeps the intermediate stops of different routes in columns of their own, as far as this can be derived from the number of stops and the travel time.

The most important gestures

Gesture	Effect
Node · drag edge	Adjust the size by hand where needed
Node · right click	Hide the node
Line · drag end	Re-sort the line
Line · shift and drag	Take the neighbouring node along
Line · right click on a section	Hide or show the section
Line · double click	Open Edit line
Time label · click on the frame	Show a hidden time label
All · Ctrl and Z	Undo the last step

Good to know

- Two lines are never laid on top of one another when dragging; each receives a slot of its own.
- If a node seems too large, a line section may be hidden there.
- A hidden time label leaves a dashed frame behind in the Time label tool. A click on it brings it back.
- With Reset you take back individual kinds of change in a targeted way; expanded, even individual changes instead of the whole group.
- In the Edit line window the tab key follows the course of the journey: enter a figure, tab, next figure, until the outbound and return journeys are complete.
- When naming a new node the arrow keys select an operating point from the suggestion list, and the enter key adopts it.
- A change of language affects the interface only. Designations that arose when the project was created, such as the transport modes or node names, remain unchanged as project data.
- The detailed manual explains every tool in detail.