

123map Publisher - Practical Application Guide

Quick and easy to your individual cartography

Are you looking for a way to create custom maps yourself for a fair price that you can tailor to your specific needs and use without fear of license violations? Then *123map Publisher* is probably just what you need! Display only the elements on the map that make sense for your use case and pay only for the size you really need.

This hands-on manual is designed to help you understand the concept behind 123map Publisher and make targeted use of the many features of our solution. A concrete case study helps you to understand the overall process in a practical way.

1. The concept behind 123map Publisher

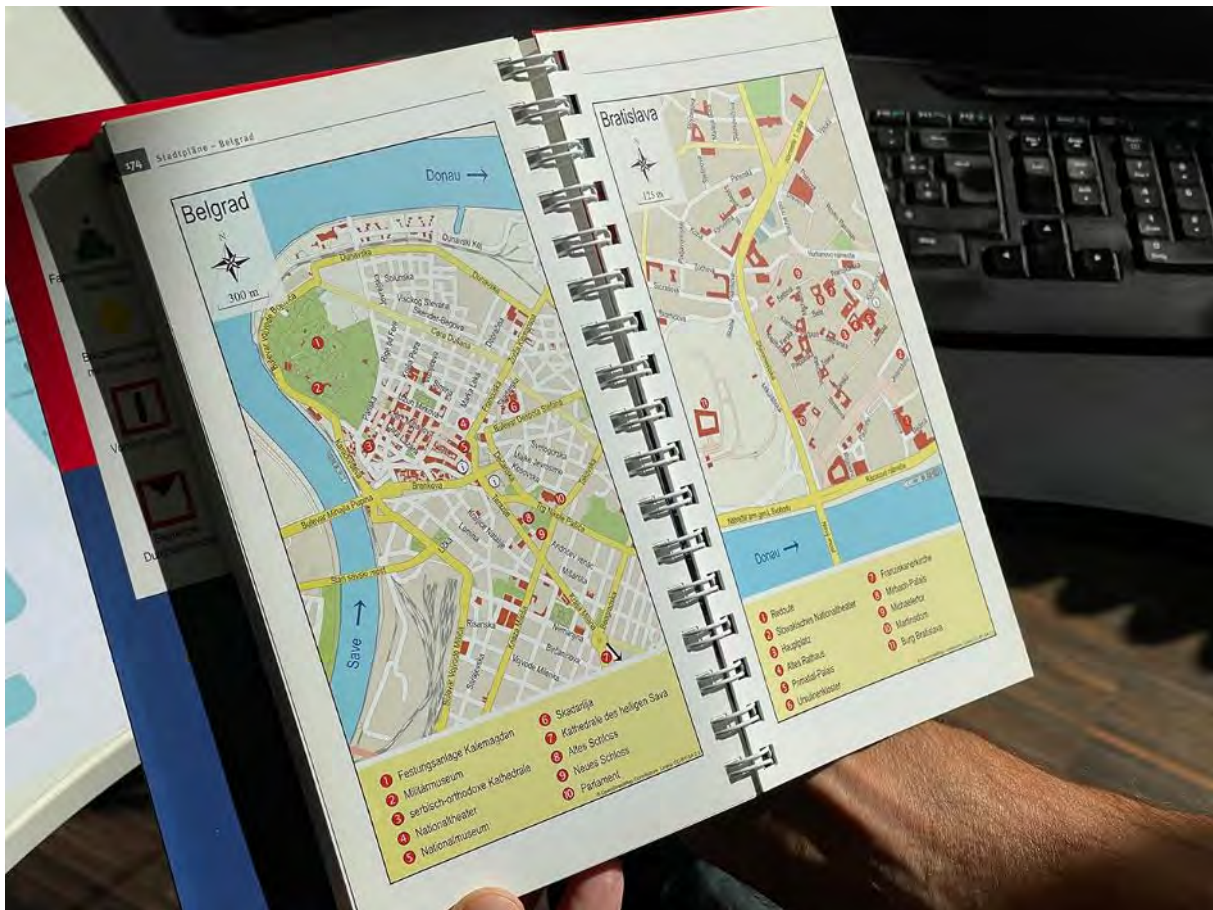
Nowadays, cartography is present in many areas of everyday life. Be it a map showing how to get to a company location, a company's real estate portfolio or a travel guide with tour suggestions. In the age of OpenStreetMap (OSM), data from this huge database can be used freely and map sections can be downloaded, but creating individual maps with a specific design based on OSM data requires deeper technical knowledge.

And this is where *123map Publisher* comes into play. Our map editor, which has been tried and tested for many years, allows you to create and export individual **maps** in a graphical user interface. You can freely choose the displayed elements, fonts, font sizes, colors and line widths and save this design as an individual **template** for all your maps.

In addition to choosing from numerous "Points of Interest" (**POIs**), you can also upload your own **waypoints** or **paths** (tracks) to be displayed on the map. Even existing cycling and hiking trails can be integrated simply by drag and drop.

These are also the most important terms you should know when working with 123map Publisher:

- 1) **Templates** - Here you determine your individual map design as well as all map elements to be displayed. Based on your template(s), you can quickly and easily create concrete maps. Our standard templates will help you get to your own template faster.
- 2) **Waypoints and paths** - Optionally add your own geo-information for concrete map creation, which will be displayed on your later maps.
- 3) **Maps** - Based on a template, you finally choose a concrete map section and define a print size for it. This map can optionally contain the waypoints and paths you have added.



You can save the intermediate status of your map in your customer account at any time free of charge. The finished maps are then finally exported as editable vector graphics with layers, which you can open and adapt in various vector graphics programs. Payment is made by the square centimeter, and you can specify the print size of your map or alternatively its scale yourself. This results in a price that meets your needs and is extremely competitive compared to other solutions.

2. Who is 123map Publisher suitable for?

Therefore, if you want to create individual maps for your company or your customers independently of a professional cartographer and ideally have some previous experience in editing vector graphics, our map editor is just what you need. You don't need any programming skills or graphic design training to create professional maps for unlimited use in your print or online media.

Typical customers of ours are publishers of books, magazines or journals, real estate management companies, public transport companies and generally large companies with various locations. But also small companies and self-employed people like authors use 123map Publisher to create individual maps for self-published books or eBooks.

3. Step by step to your own cartography

Now we would like to show you how to create your individual map step-by-step using a concrete practical example. As a rule, the basic procedure always corresponds to the following four steps - regardless of whether you want to create a single card or several cards of the same type.

1. Define your individual card design based on an existing template and save it as your **own template** under your user profile. On this basis, you can later quickly and easily create any number of maps in a uniform design.
2. Optionally add **paths (tracks) or waypoints (POIs)** that you want to display on your own map. These can be either your own or external data.
3. Create your **own map** based on your template and added paths and waypoints by specifying a map section and print size. Save this map to your user profile for later recall or further editing.
4. Purchase your **final map** in your required print size. You can then download the map as a vector graphic and conveniently post-process it as needed. können Sie später schnell und einfach beliebig viele Karten in einem einheitlichen Design erzeugen.

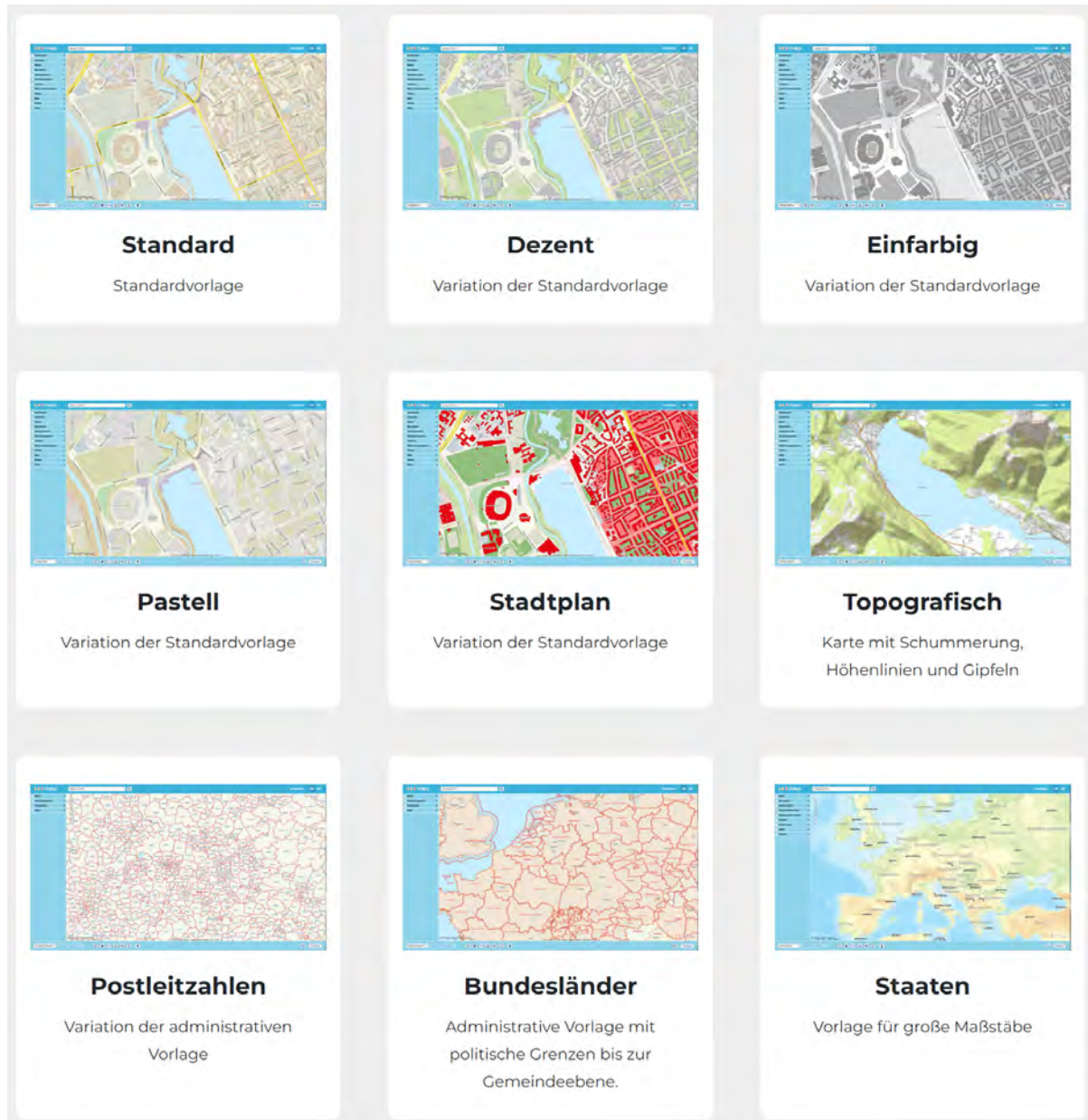
Example project

The following example shows the approach of map creation for a canoe guide, which describes different paddling tours in detail and shows all tours on an overview map. Since the book also contains suggestions for cycling tours between the entry and exit points in addition to the river routes, appropriate maps are to be created for these as well.

- Characteristic for this project are therefore the following things:
- Creation of a Germany-wide overview map with own waypoints
- Creation of many river maps with own tracks based on a uniform design
- Clear representation with focus on the represented river routes
- Reuse of the river maps for the representation of additional bike routes
- Correct representation of all geographic elements
- Comparatively small print size of about DIN A6 page size

3.1 Creation of own templates

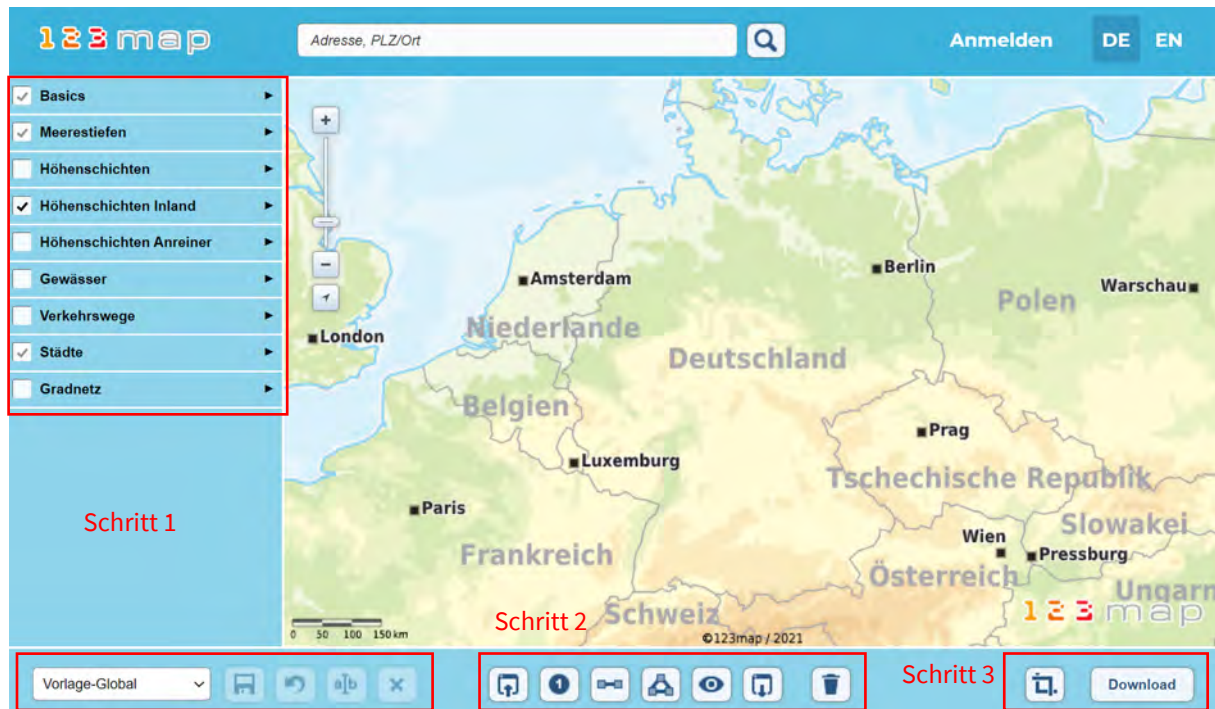
To create your own card design in the first step, you can use existing templates. You can find an overview of all existing themes at <https://www.map-machine.de/en/#themes>, from where you can also start directly with your individual card design.



The individual templates not only have a predefined color and design suggestion, but also a limited selection of elements that you can show or hide for your map. For example, the last three templates "Postal codes", "Federal states" and "States" contain fewer elements than the other themes, which makes the selection easier and clearer.

Overview map

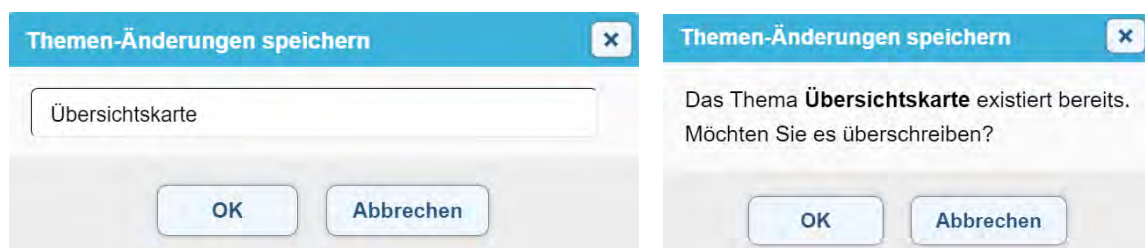
For example, the "States" template is suitable for creating a country-wide overview map. Clicking on it takes you to the graphical user interface of the map editor. The structure of the interface is clearly laid out:



At the bottom left you will find the **template** you have just selected - in this case "Template-Global". You can switch to another template at any time using the selection list. Just keep in mind that you may lose some of your selections if these elements are not available in the other template.

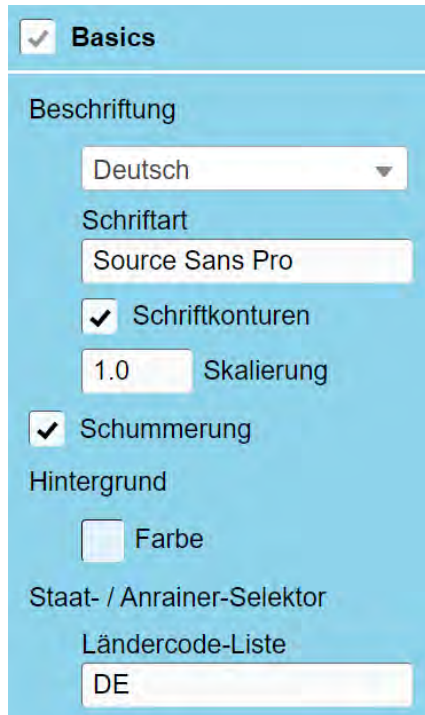
Now you start to make changes to the map display. This is done using the selection elements on the left side of the screen. More on this in a moment. As soon as you have made any changes, the two buttons next to the template selection become active. The Undo button allows you to revert to the default template at any time, as long as you are working on this basis.

However, if you want to save your changes as your own template, you must first create a free user account. This is done via the "Login" menu in the upper right corner. Once you are logged in, you can save your template at any time using the corresponding button by assigning your own template name:



Of course, you cannot overwrite our standard templates, but you can overwrite your own template (here with the name "overview map") simply by entering the same name again. This way you can save intermediate versions without having unpteen versions of the same theme at the end.

To create your individual map design now, take a closer look at the selection elements on the left side. By default, you will see the different layers for different elements in a collapsed state. With a click, the respective menu will open and you will see a number of choices. In the "Template-Global" you have under the "Basics" directly very important and interesting setting options. Open the further submenus "Label", "Background" and "State / Riparian Selector" by clicking on the respective word:

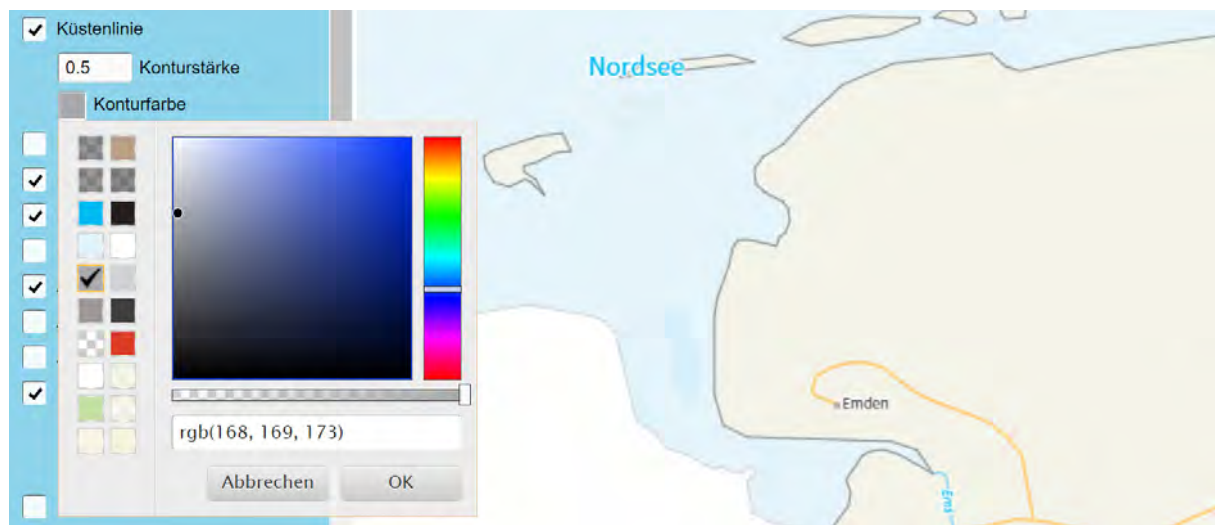


You can now select the label language of your map, define a global font for the entire map template, decide for or against contouring the fonts (outline for better visibility) and a different scaling of the font size. As font you can use any font installed on your computer - just enter the name of the font. For security reasons, the map editor cannot access your computer's fonts to display them in a selection list.

You will learn more about the "Shading" and "Background" options later in this section. However, the "State / Riparian Selector" item is interesting. Clicking on it will pop up the "Country Code List" text box, which allows you to define the countries to be displayed. If you want to display only one country or selected countries in your country-wide overview map, you can do this here. Simply enter the 2-digit country codes of the desired countries separated by commas in the text field. A list of all country codes can be found for example at <https://de.wikipedia.org/wiki/ISO-3166-1-Kodierliste> (column ALPHA-2). In the example, only Germany is to be displayed, so "DE" in the text field is sufficient. Of course, you can see all changes immediately in the map display on the right.

Of course, you can see all changes immediately in the map display on the right.

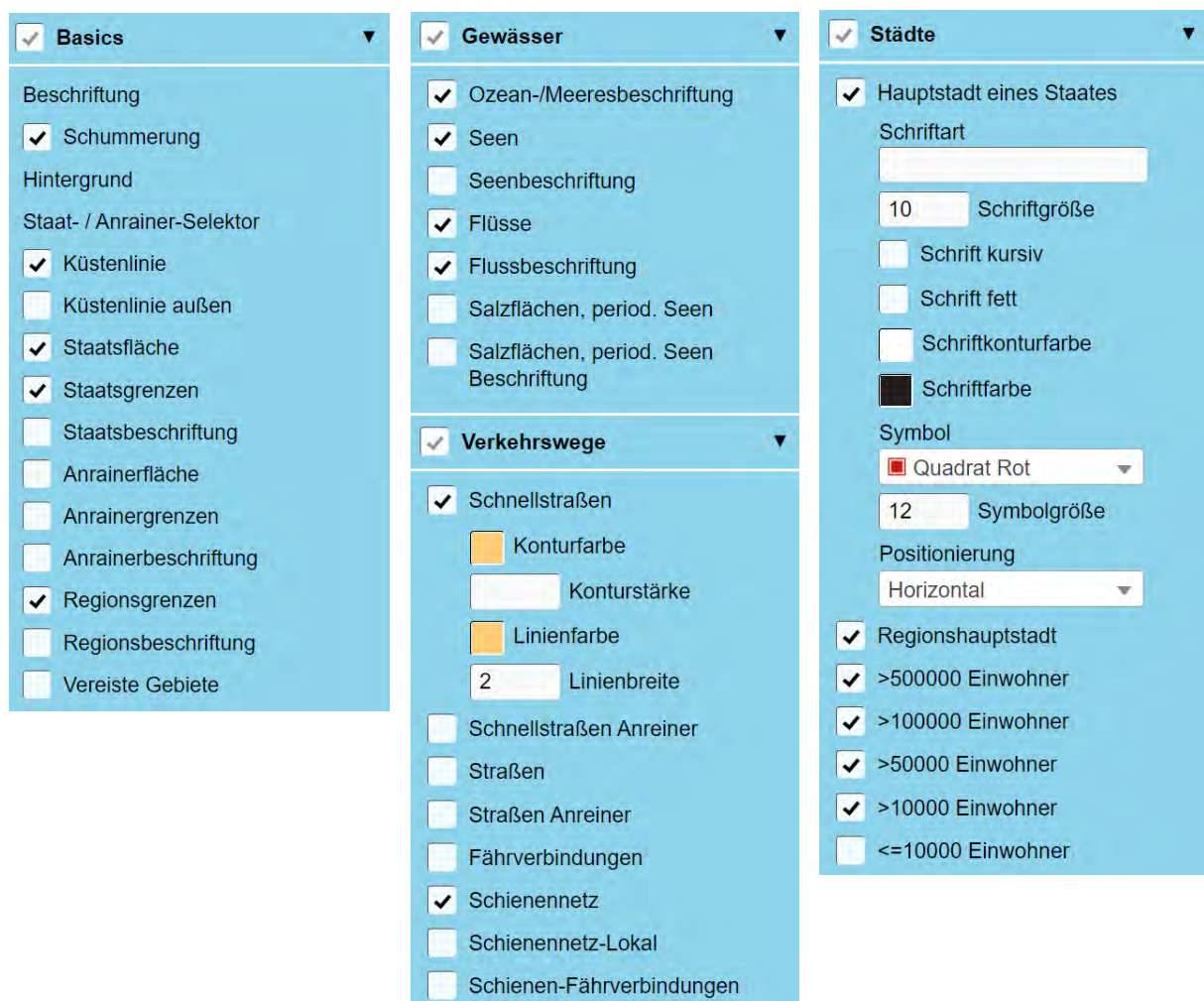
In addition to these basic settings, you can now make individual settings for all other displayed sub-elements by clicking on the respective term. For example, to make the coastline less dominant, open the corresponding element and change the color and thickness of the line. If you would like to realize values with decimal places, these are to be separated by a point:



For the outline color, you can enter RGB color codes (e.g. from a specified company corporate design), access the last selected colors, or freely select any color. In addition, the transparency of the color can be determined, which can be particularly interesting for areas.

To display individual region borders within the country - or in the case of Germany, the borders of the federal states - activate "Region borders". This is especially helpful on overview maps with waypoints drawn in, to better assign them. In this example, however, labels of countries and federal states were not displayed for reasons of clarity.

Equally helpful for orientation are of course highways ("Schnellstraßen"), railroads ("Schienennetz"), large rivers as well as cities. If, as in the example, your focus is on displaying an overview of various points (in this case, canoe tours), it makes sense to keep the line width and font size of these elements small so that they do not appear too dominant on the map.



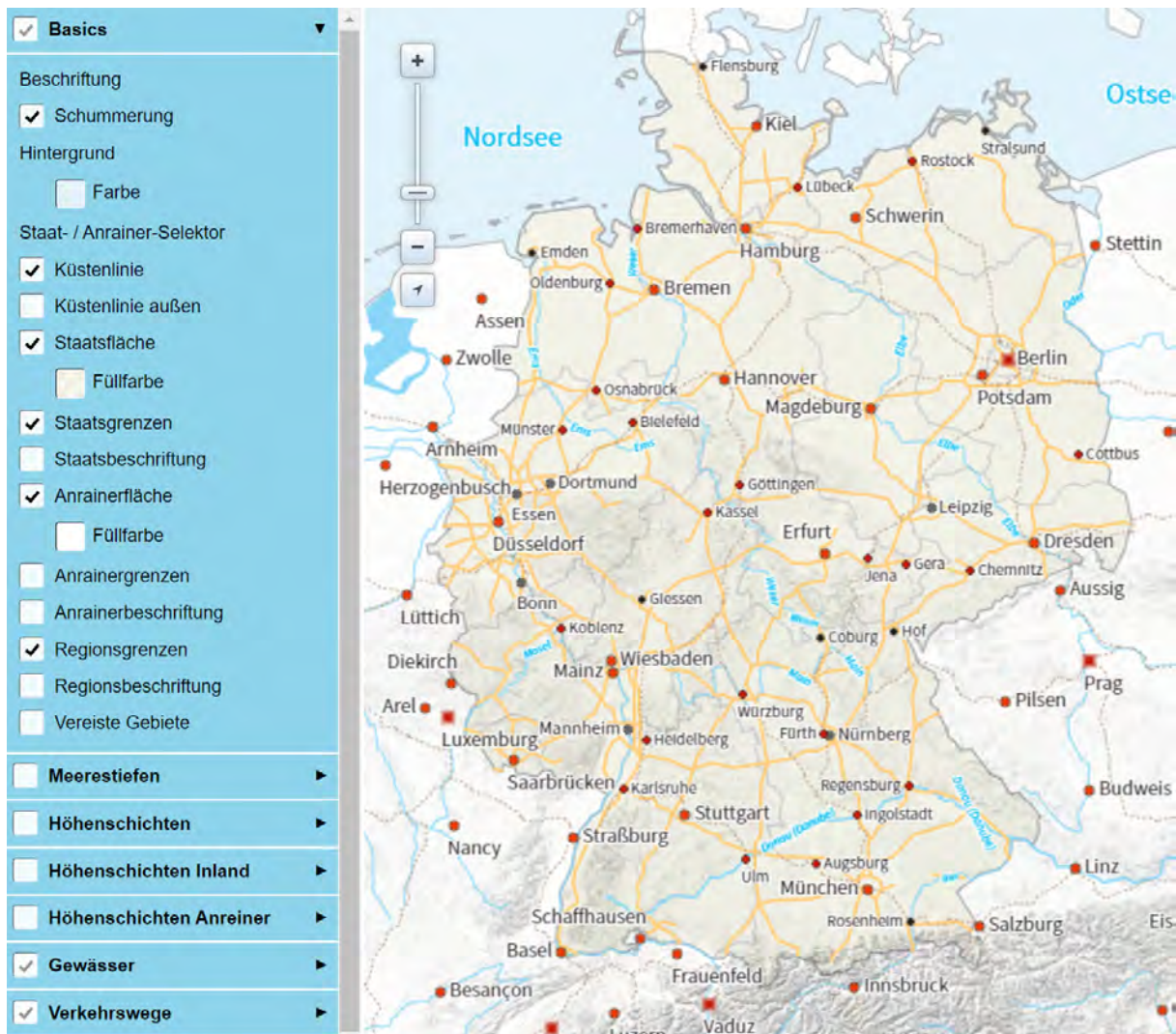
Finally, you should take a look at the background design of the map display. There are various options available for this, all of which you should deselect at first in order to be able to better assess the effect of the individual elements. In general, the following applies to all of the following elements (except "Shading"): Click on the term or individual sub-elements at the sea depths and height layers to change the respective color:

- **Shading (Basics menu)** - This fades in a surface tint on the map that creates a more spatial impression of the terrain. Mountain ranges are displayed in a plastic way. If you want to

soften this effect somewhat, this can be done later using the layer opacity in the vector graphics program.

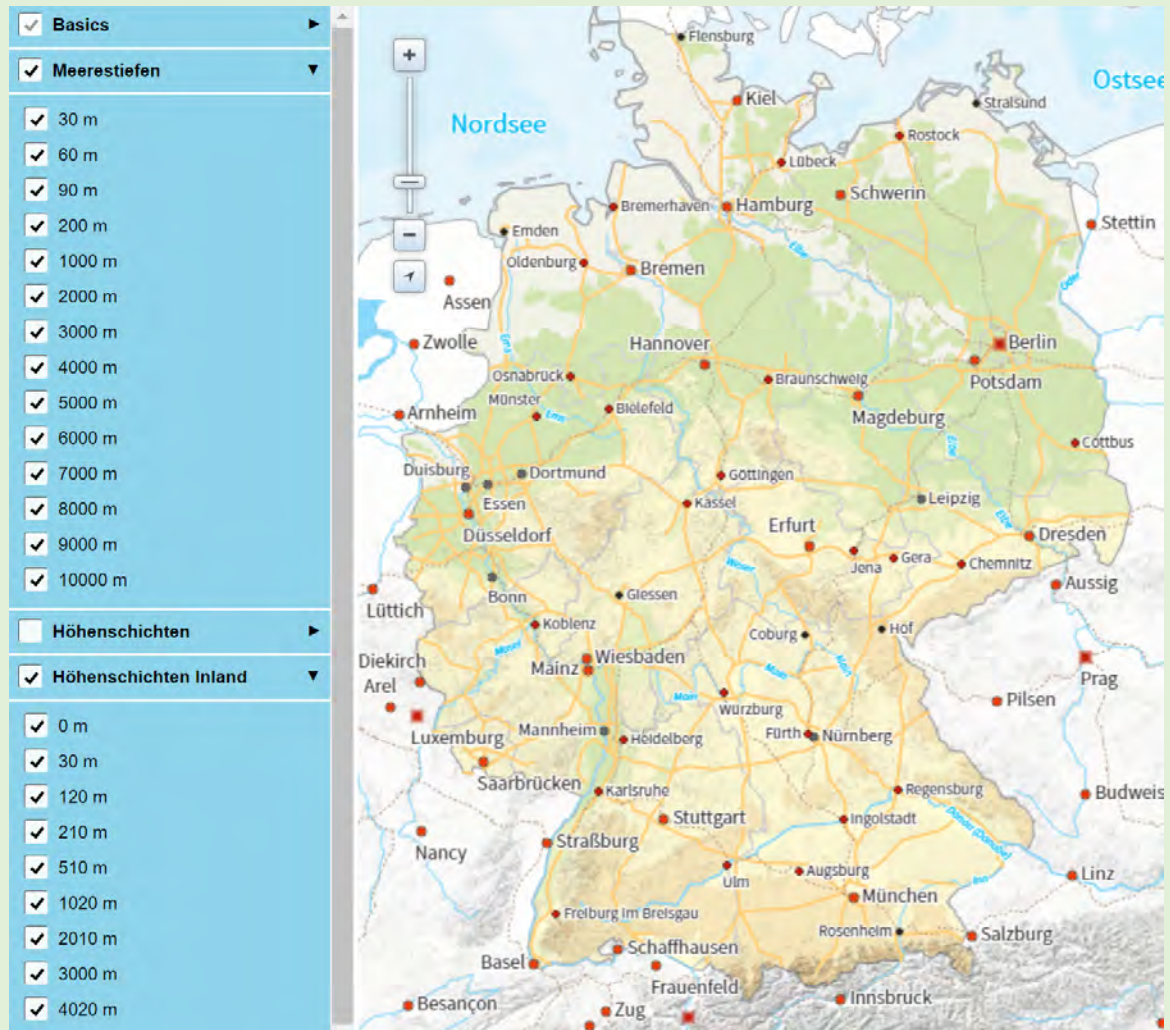
- **Background (menu "Basics")** - Here you can define the general background color of the map, which concerns both the mainland and the sea areas. So, if you want to make marine areas stand out from the mainland in terms of color, you should leave it at the light blue background color.
- **State Area ("Basics" menu)** - This color is used to colorize the countries listed in the "Country Code List". A discreet beige is suitable here, for example.
- **Neighboring area (menu "Basics")** - This area represents all other countries. These could be displayed in white, for example.
- **Sea depths** - If the sea should not be displayed flat, but with different tonings for the depths, this option can be activated.
- **Elevation layers** - The same applies to the elevation layers on the mainland. This option makes the map much more colorful, and therefore more unstable, as it affects all lands. By default, shades from green to orange are displayed here.
- **Elevation Layers Inland** - On the other hand, if you want to color elevation layers only for the countries listed in the "Country Code List", this option is the right choice instead.
- **Elevation layers neighboring countries** - And if you want to display additionally or exclusively the elevation layers of the other countries (by default in gray tones), this option should be selected.

For a clear map display, it is usually advisable not to show the height layers and sea depths, and instead activate shading to show mountain ranges.



In the map window on the right, you can see how your selection affects the design of the map. You can use the mouse wheel or the slider in the upper left corner to zoom in or out on the map. Please note that the appearance of your final map depends on the selected print size and will therefore most likely not correspond 1:1 to the display on the monitor. You will learn more about this in a moment.

TIP: If you are unsure whether you need an element in your map or not, you better hide it in the map editor. In the vector graphics program, all elements are displayed in individual layers, so you can easily hide superfluous elements, change their color, or apply transparency. However, if you hide elements already in the map editor before purchasing the map, you will have to purchase the map again if you want to add that element later. In our example, we activated the "Inland elevation layers" and the "Sea depths" after all, so that we could decide later whether to show or hide them.



So, in order to buy each map only once, you should complete the purchase only when you are sure about the final map design and all POIs. Until then, you can save any intermediate state of your templates and maps for free under your user profile at any time.

If you are finally satisfied with your map design, do not forget to save it as a template. The template for the overview map of all paddling tours is thus completed for the time being and can be supplemented with your own waypoints (in this case the starting points of the tours) in the next step.

Detailed maps

Before that, however, the map design of the detail maps is to be created, which basically corresponds to the same procedure as for the overview map. However, since a different standard template makes more sense for this and offers other elements to choose from, we will also go into this at this point.

For the design of detailed maps it makes sense to use one of the first five templates, which are all based on the standard template. In the example, the template "Discreet" was chosen and adapted in some points. First of all, compared to the overview map and its "Template-Global", the changed selection menu on the left side is noticeable:



You can make the basic settings in this template in the menu of the same name. In addition to the map-wide font, the font contour option and scaling of the labels, a language selection can also be made here. This determines the names displayed in the map, for example of places. If there are names in the local language here (as can sometimes be found on place name signs), these are displayed next to the German names. The Spreewald with its Sorbian place names is an example of this.

The geo-reference is not relevant in most cases. It is used for subsequent georeferencing of the map in the print

output, for which purpose another layer is inserted into the vector graphic.

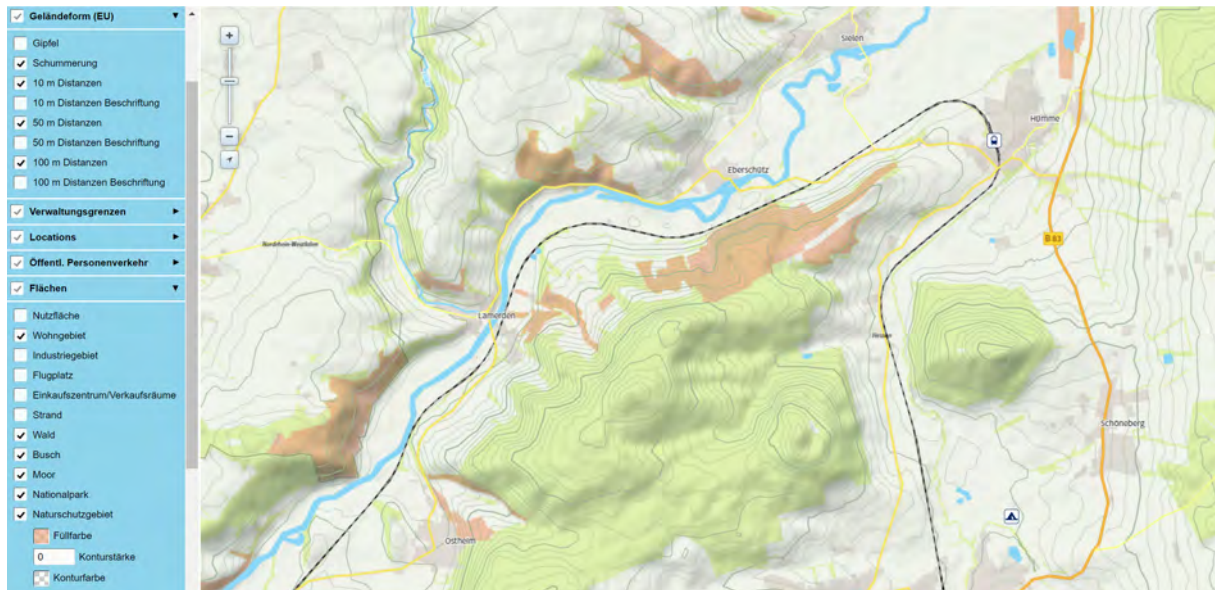
The other settings are largely self-explanatory. Again: Under each supercategory there are further subcategories, which in turn can be configured separately if required. Here are a few examples of concrete configurations:



Since canoe tours are to be shown on the detailed maps in the example, it makes sense to highlight the rivers in the map display. This can be realized via the contour strength of the "Water" element. For many elements, a distinction is made between the contour color and the fill color. In order to display objects or areas such as forests or rivers in a comparatively simple and clear way, it makes sense to set both colors to the same value. A contour, on the other hand, is useful for larger roads, for example. Contouring also improves the legibility of labels in detailed maps. The only exception in our sample maps are the state names. These were not outlined and were also displayed in italics in order to stand out clearly from other map labels such as place names.

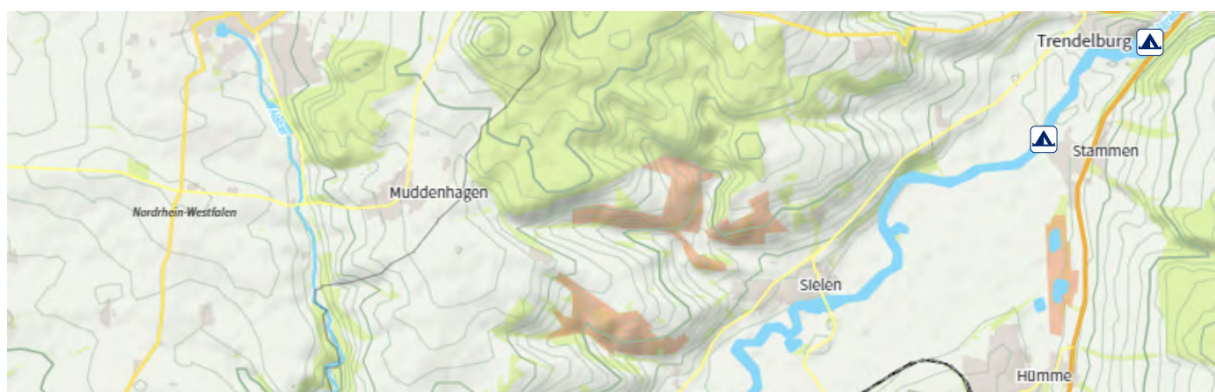
All POIs available in 123map Publisher ("Locations" menu) have their own icons, which by default have a blue and white design. For each of these elements, however, both the icon size and the two colors can be customized, for example to reflect your own corporate design. Note that the symbols look slightly different in the 123map Publisher than in the later vector graphic. The figure above shows the latter representation.

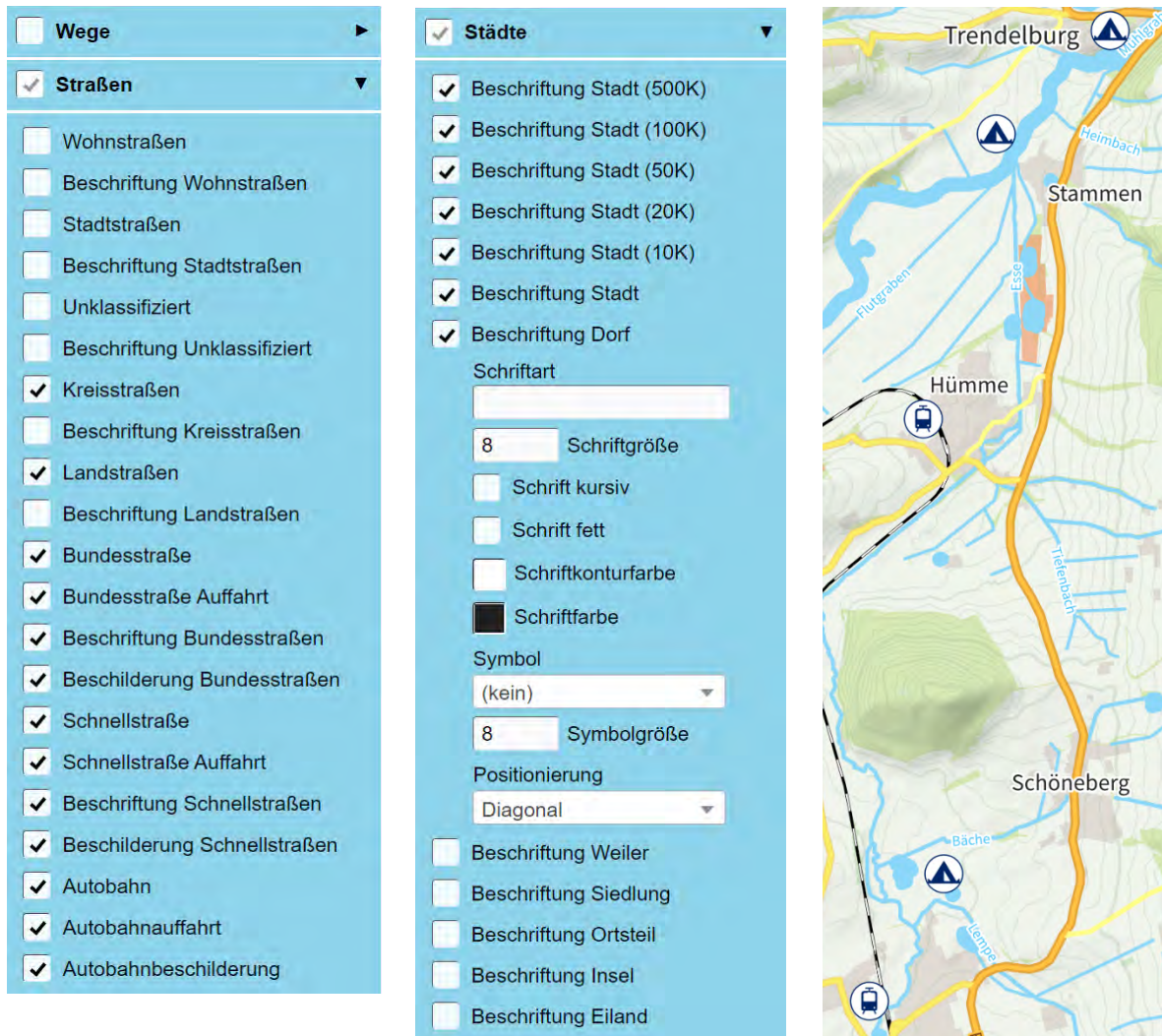
Another special feature of canoe maps are nature reserves, as there are usually special requirements to be observed here. In order to display these areas on the maps, they were activated in the "Areas" and given a transparent red tint as a fill color. In the map, these areas are displayed above any other elements such as forests, etc:



Also contour lines and a shading were activated for the template of the detail maps. Although these appear quite dominant in the standard, their opacity can be easily reduced later in the vector graphics program.

Finally, it remains to decide which streets and places should be displayed on the map. On the one hand, of course, no important elements should be missing, but on the other hand, the clarity should not suffer. Therefore, all "roads" down to the category "county roads" were selected, as well as all "towns" down to the category "village". The village areas themselves have been grayed out by activating the "Residential Area" option in the "Areas" menu. The labels of towns and cities have been slightly reduced in size from the default setting, starting at font size 8 ("Village") to size 12.5 ("City (500K)"). However, you will only see the realistic size representation when exporting the map. In the preview in 123map Publisher, the display is quite small depending on the zoom level:





The illustration on the right shows the concrete representation in the vector graphic. The predefined font sizes in 123map Publisher are usually already well chosen to be easily readable in the later defined print size of the maps.

Note: In the vector graphics program Affinity Publisher (more on this later), the POI symbols are unfortunately converted to round symbols when interpreting the exported SVG file. Normally, they should be displayed as square symbols with rounded corners as in the preview in 123map Publisher.

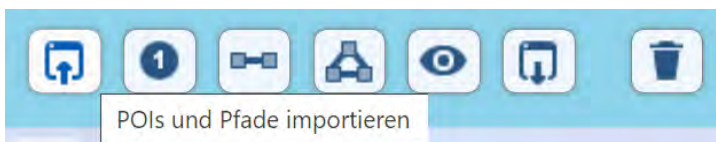
TIP: If you plan to create a series of maps based on your template - such as the detailed maps of the individual paddling tours - then try, if possible, to define your final map design before the actual map creation. If you have already created numerous maps and then want to change something like a color or font in all of them, you can make this change centrally in your template and save it, but you will have to reassign this template to all of your maps. To do this, open the saved cards one by one, and assign the changed template to them. This will apply the central changes to the concrete cards. However, you will need to save each map again. You will learn the steps for creating and saving your cards, as well as buying and exporting them, in the next chapters.

3.2 Adding paths and waypoints

Based on the created templates, concrete maps can now be created. These can either consist only of the elements and POIs from 123map Publisher or be supplemented with your own paths or waypoints. To ensure a uniform design for similar maps, elements and POIs from 123map Publisher should already be defined in the template. If no additional elements are to be displayed, the following step can be skipped. Otherwise, you will now learn how to add your own geographic information for the different map types.

Detailed maps

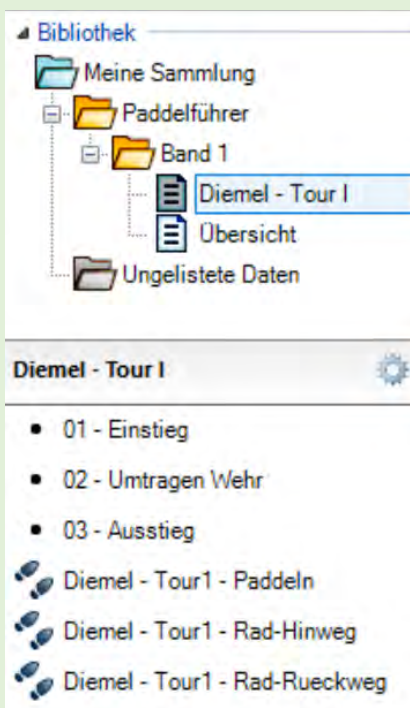
Let's start with the detailed maps this time, since they should contain both paths and waypoints. For this purpose, the function of the 123map Publisher, "Import POIs and paths", which can be called up via the left button in the center below the map, is suitable.



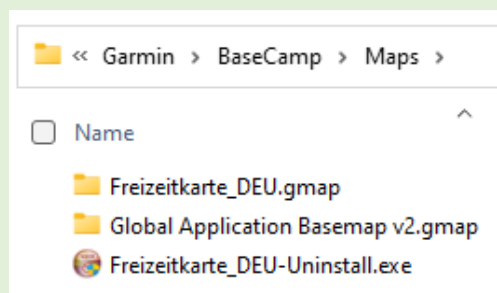
You will be prompted to open a GPX file that contains such waypoints (POIs) and/or tracks (paths). These can be, for example, bike tours, hikes or, as in our example, canoe tours with prominent points on this route.

Alternatively, you can drag and drop the GPX file directly onto the map.

EXCURSES: For the management and export of waypoints and tracks is suitable, especially with a lot of this information, for example, the free software "Garmin BaseCamp".



You can download it free of charge for Windows or MacOS at <https://www.garmin.com/de-DE/software/basecamp/>. In order to be able to work in it on the basis of the free OpenStreetMap, you have to install it additionally. A very good option for this is the leisure maps, which you can also download free of charge at <https://www.freizeitkarte-osm.de/garmin/de/installation.html>. During the installation, you only have to make sure that you install the map in the map folder of the Garmin BaseCamp installation:



If you do not have the routes / tracks yet, but want to create them yourself, there are more suitable tools than Garmin BaseCamp. With BRouter-Web (<https://brouter.de/brouter-web>), for example, you can quickly and easily create and export routes for various activities. Registration is not required for this.

| Entfernung | Reisezeit | Gesamtenergie Energie pro 100 km | Anstieg Höhenunterschied | Kosten durchschnittlicher Kostenfaktor |
|----------------|---------------|------------------------------------|----------------------------|--|
| 11,4 km | 0:15 h | 0,13 kWh 1,17 kWh | 10 m -18 m | 11.396 1 |

Route exportieren

Name: Liebenau -> Trendelburg (11,4 km)

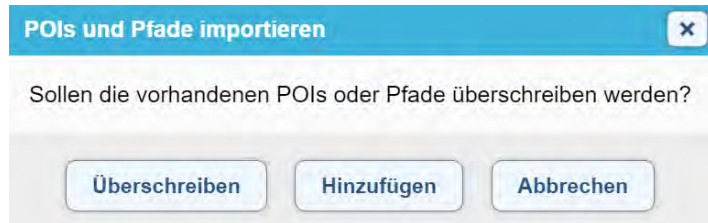
- Format
- GPX
 - KML
 - GeoJSON
 - CSV

Einbeziehen Wegpunkte

Schließen   Route exportieren

For example, if you want to create and export a hiking, biking or river route with prominent intermediate points, you first select the appropriate activity in the upper left corner, set points at the relevant locations on the map with the pencil button activated, and BRouter-Web automatically calculates the route in between. When exporting, you only have to select the GPX format and include the waypoints in the export.

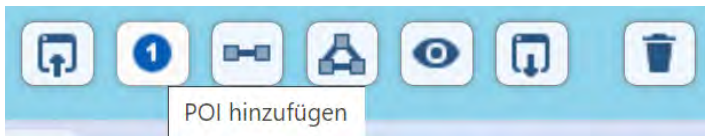
The GPX file of our example contains various tracks and waypoints describing the paddle trip as well as the bike routes to the entry and from the exit. If you want a map to contain all these elements, the easiest way is to import them in such a collective GPX file (which you can export from Garmin BaseCamp, for example). Alternatively, you can add all elements one by one in 123map Publisher using individual GPX files. If your own tracks or waypoints have already been imported in the process, you can either add more, or have existing ones overwritten by new ones.



Waypoints are symbolized by numbered red circles in the map editor in the order they are defined in the GPX file. Here is the example of the GPX track of the paddle route and three prominent points on this tour:



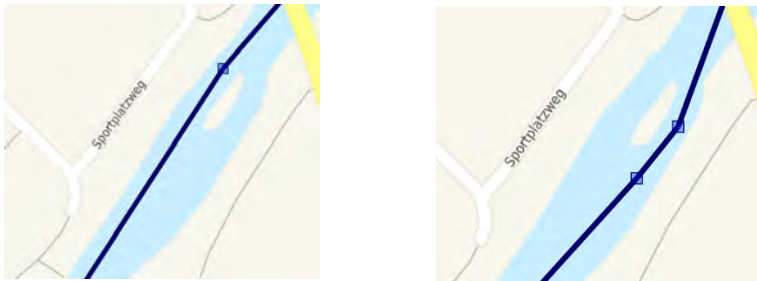
If you want to add more such points manually, you can do so by clicking the corresponding button next to the GPX import:



Then simply more circle symbols with consecutive numbering are added, which you can place freely on the map with the mouse. If you want to remove such a point again, you can do this simply by right-clicking on the point.

You can also create paths in 123map Publisher using the two buttons next to them, but this task can be done much more comfortably in a program like BRouter-Web (see Digression), which offers a dedicated routing function for various activities.

What can be interesting in some cases, however, is the option to adjust imported paths if, for example, you do not follow a path correctly. To do this, zoom far into the map and click on the path. This will now be marked by a continuous line as well as individual points. To change the path, you can either move the points by holding down the mouse button, or add new points by clicking on the line. You can delete a point by simply right-clicking on it.



However, you also have such customization options within the track and waypoint management in Garmin BaseCamp.

If you have only created your compilation of paths and waypoints in 123map Publisher, or if you have changed imported paths in the map editor, you can also export this status for possible later use via the penultimate button in the center below the map.



This downloads a "features.geojson" file that you can later simply import back into the map like a GPX file.

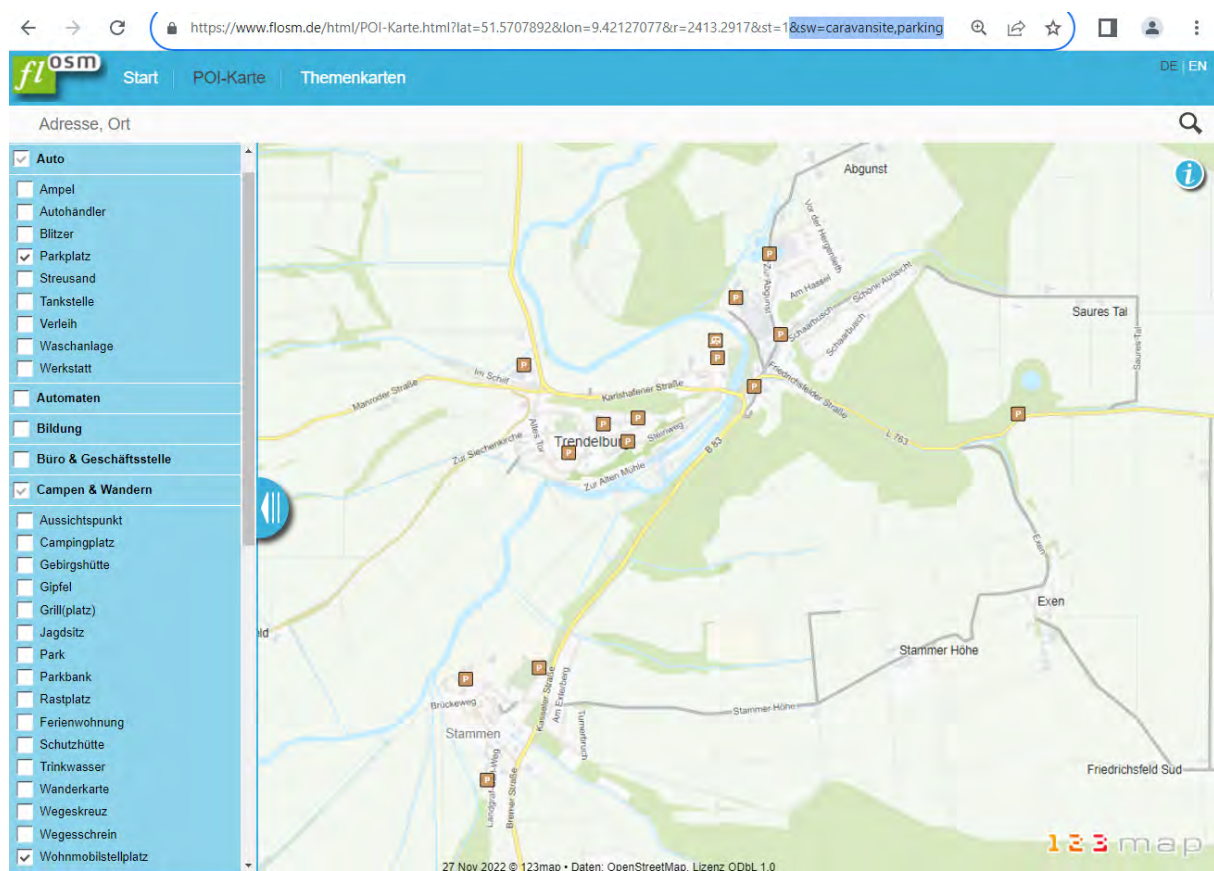
The colors of the paths and numbered waypoints are always the same in 123map Publisher, but can be easily changed later in the vector graphics program.

TIP: If you want to use a single map for different representations as in the example, you should import all paths and waypoints before purchasing the map. Later in the vector graphics program, you can then easily show and hide the individual paths and points via layers and save the map in different variants. Thus, in the example, both the bike routes and the paddle tour with the prominent points were integrated into the final map. Later, the river map (with the paddle route and waypoints) on the one hand and the bicycle map (with the bicycle routes) on the other hand could be generated from this. On a common map the display would have been too confusing. In this way, however, the map only had to be purchased once.

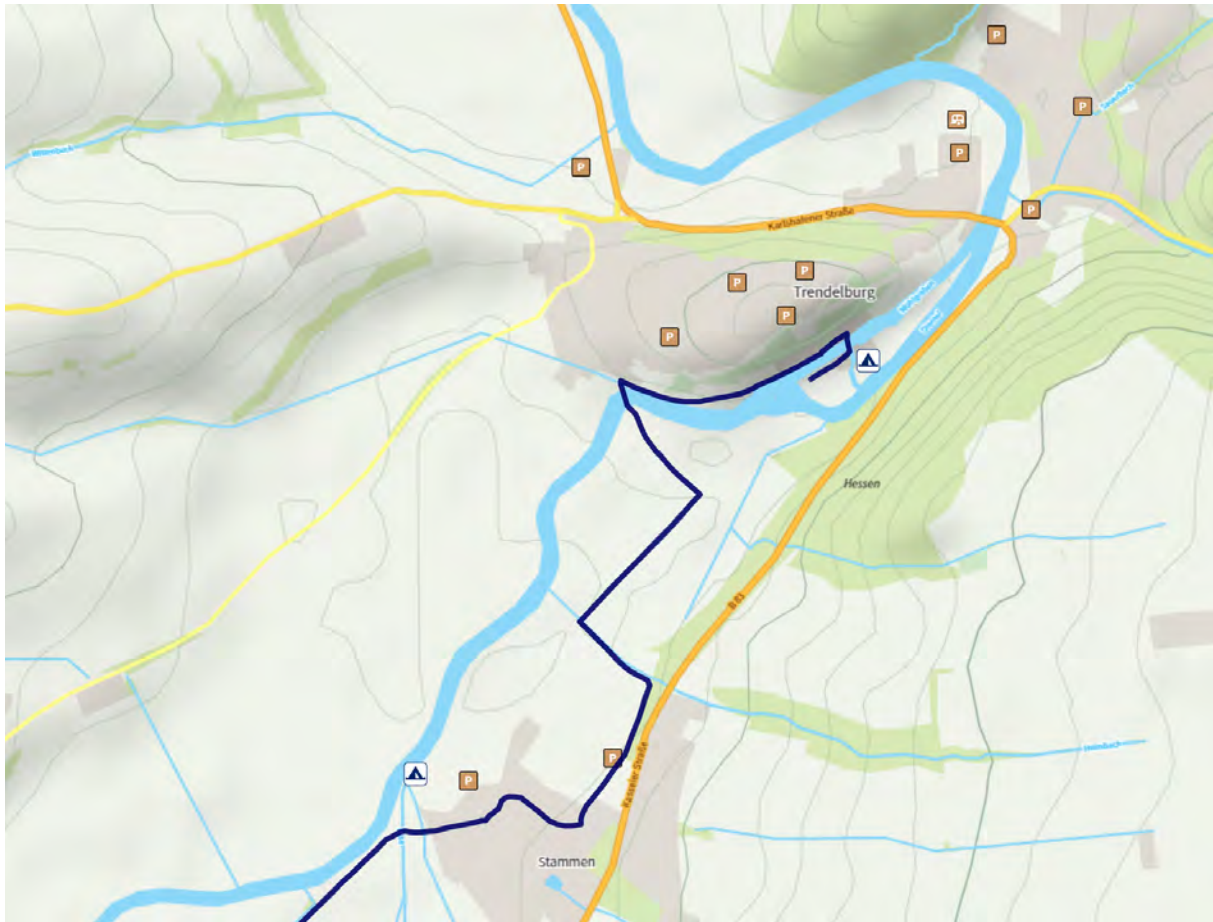
If you do not want to import your own paths and POIs and the POIs offered in 123map Publisher are not sufficient for you, there are other ways to quickly and easily add external data to your own maps:

www.flosm.de

On the one hand, we offer you the free page <https://www.flosm.de/html/POI-Karte.html> for this purpose, which we update regularly with the OSM data. On this page you will find a large amount of additional POIs, which you can see listed in categories on the left side of the screen. Select from them all the POIs that you want to display additionally on your map. In our example, these are RV parks and parking lots. These will now be displayed first in the POI map.



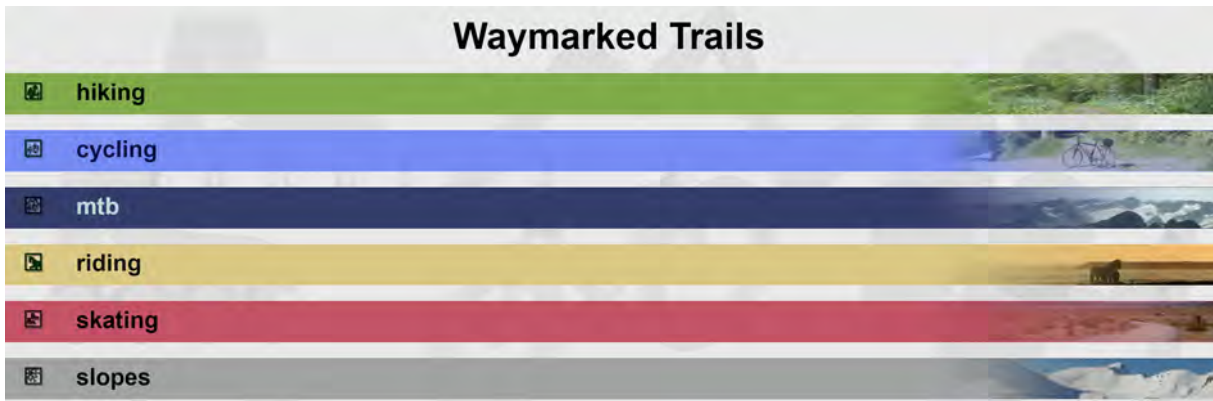
To import these POIs into your own map now, you only have to copy a part of the URL. To do this, mark the last part of the displayed address in the browser, starting with "&sw". Behind it you will find all the internal names of your selected POIs separated by commas. So, for example, if you copy the string "&sw=caravansite,parking" and simply paste it at the end of the URL in your current map selection in 123map Publisher, in this case all parking spaces and RV parks will also be added to your own map.



TIP: Note that the POIs imported from flosm.de are only temporarily available in the map. Unlike your own POIs or the elements selected in 123map Publisher, they are not saved in the maps or taken into account when exporting POIs and paths. Therefore, if you do not purchase and download your map immediately, save it normally first. Before purchasing, simply open the map again in the Publisher and paste the string with the POI designations from flosm.de again to export the corresponding POIs with in your map.

www.waymarkedtrails.org

These external thematic maps (www.waymarkedtrails.org) offer ready-made tracks for various sports, which you can download free of charge and integrate into your own maps. For example, ski slopes, hiking trails or bike paths are available here.



You can display these on the respective map as well as download them as a GPX track. In addition, you can see further information such as the associated elevation profile.

Waymarked Trails: Radwege

letzte Aktualisierung: 27.11.22 22:51 Kartendaten © OpenStreetMap unter ODbL. Basiskarte: OpenStreetMap

Relation 2073116
Willingen (Upland) >> Bad Karlshafen
Diemelradweg **Dieme**

Von der Diemel-Quelle bei Usseln bis zur Mündung in die Weser bei Bad Karlshafen
Erfasste Länge: 110 km
Offizielle Länge: 110 km
Betreiber: Arbeitskreis Diemelradweg

[Website](#) [Wikipedia](#)

Höhenprofil

Gesamter Auf-/Abstieg: > 35m < 565m

OpenStreetMap-Tags

| Schlüssel | Wert |
|-------------|---|
| description | Von der Diemel-Quelle bei Usseln bis zur Weser bei Bad Karlshafen |
| distance | 110 |
| from | Willingen (Upland) |
| name | Diemelradweg |
| network | rcn |
| noexit | yes |
| operator | Arbeitskreis Diemelradweg |
| name:sumhl | blue white blue blue white blue |

[Auf Karte anzeigen](#) [GPX](#) [KML](#)

Suche ⚙️ 📍 ? Routen

This way you can also integrate such ready-made tracks into your maps easily and quickly. The tracks are treated analogously to your own data, i.e. they can be exported, saved in your map and of course also exported as a separate layer in your vector graphics.

Overview map

This map should show the location of all canoe tours on a map of Germany to give the reader a quick overview. The tours should be numbered in the map and listed in the table of contents next to the map accordingly with these numbers.

The procedure corresponds to that of the detailed maps, whereby in this case a GPX file was imported consisting purely of waypoints. These points correspond to the starting point of the paddling tours. To manage these waypoints it is recommended to use a software like Garmin BaseCamp (see excursus). On the one hand, lists can be created in it to organize related points (and tracks), and on the other hand, the detailed OpenStreetMap makes it possible to set the points exactly. On the overview map based on the "Template-Global" in 123map Publisher, this accuracy would not be achievable.

After importing the GPX file consisting of different waypoints, they appear again as numbered red symbols on the overview map, as the following figure shows as an example:



The size of the displayed place names and waypoints serves as orientation for now. An automatic resizing will be done later when exporting the map according to the selected print size, which you will see in the next step.

3.3 Creation of own maps

Once you have defined your template(s) and optionally added your own paths and waypoints, all you need to do to create your own map(s) is to specify a suitable map section and the required print size. This state - as well as any intermediate states - you can then save under your user profile and open again at any time before you purchase the map in a final step. We would now like to show you both steps using the overview map.

To select your map section, click on the download button at the bottom right. A "Map download" window will open and a section frame will be displayed in the map view.

If you have not fixed the print size in the window with the lock behind it, you can drag the frame with the mouse at one of the eight handles to make it wider or narrower to fit the desired map section. If you then click and drag inside the marked area, the frame will move over the map. Clicking and dragging outside the selected area, on the other hand, only moves the visible map section in your view.

Once you have placed the frame around your map section as you wish, you can now make size adjustments in the map download window. First, it's best to choose a descriptive name for your map to make it easier to recognize later. Next you will see the informative indication of the kilometers your map covers. Since this results from the selected section, you cannot change these values.

What you can change, however, is either the print size or the scale. In most cases, you will probably specify the print size, from which the scale is derived. The larger the print size, the larger the scale. In our example, the book has a page size of only 115 x 160 mm, which minus the page margins gives a maximum card size of 98 x 140 mm. In landscape format, it would be a maximum of 210 mm x 140 mm, assuming a double-sided display of the map beyond the center of the book. The overview map was therefore defined as 98 x 140 mm for a single-page format-filling display in portrait format for a real extent of just about 660 x 880 km, resulting in a scale of 1: 6,909,715. Such a small scale would of course be completely unsuitable for a detailed map, but is sufficient for an overview map as a rough orientation.



The screenshot shows a window titled "Kartendownload" with a close button (X) in the top right corner. On the left, there is a magnifying glass icon over a map. On the right, there is a text box with the following text: "Über den Download-Button können Sie Ihren Kartenausschnitt herunterladen. Achten Sie bitte auf die richtigen Abmessungen Ihrer Karte, damit Sie ein optimales Ergebnis erhalten." Below this, there are several input fields and buttons:

- Bezeichnung:** A text input field containing "Übersichtskarte| 29.11.2022".
- Größe:** A text input field containing "677.2 x 967.4 km".
- Druckgröße:** Two input fields for "98" and "140", followed by a unit dropdown menu set to "mm" and a lock icon.
- Maßstab:** A text input field containing "1: 6909715", a lock icon, and a checkbox labeled "WYSIWYG" which is currently unchecked.
- Dateiformat:** A dropdown menu set to "Affinity".

At the bottom of the window, there are three buttons: "Karte bestellen", "Karte speichern", and "Abbrechen". Below the window, there is a separate bar with a print size input field showing "98 x 140 mm", a lock icon, a magnifying glass icon, and a "Download" button.

If you would like to specify a fixed print size, as in the example, first close the map download window again. Then click on the cutout button at the bottom right to open a corresponding input option. Clicking the download button again will transfer this input to the print size fields.

If this target size is to remain, but the map section does not yet fit, you can fix the print size by clicking on the lock symbol behind it. You can now drag the frame around the map selection larger or smaller, whereby the displayed real size as well as the scale will change accordingly. Conversely, you can fix the scale and the print size will adapt to your selected map section. This can be interesting, for example, if you want to create several maps with the same scale.

You will not usually need the "WYSIWYG" checkbox. It has the effect that you will not see more elements (e.g. city names etc.) on your created map than on the preview on the screen. However, the file format at the end of the mask is still important. Here you define for which vector graphics program the SVG file should be prepared.

TIP: "Affinity" from our example stands for the further processing of the exported map in "Affinity Designer", a vector graphics program from the company Serif as a favorable alternative to Adobe Illustrator. Together with the other two programs in the suite (Affinity Photo for photo editing similar to Adobe Photoshop and Affinity Publisher as a typesetting program similar to Adobe InDesign), book projects can be implemented in a comparatively inexpensive way because, unlike the Adobe suite, there are no monthly costs.

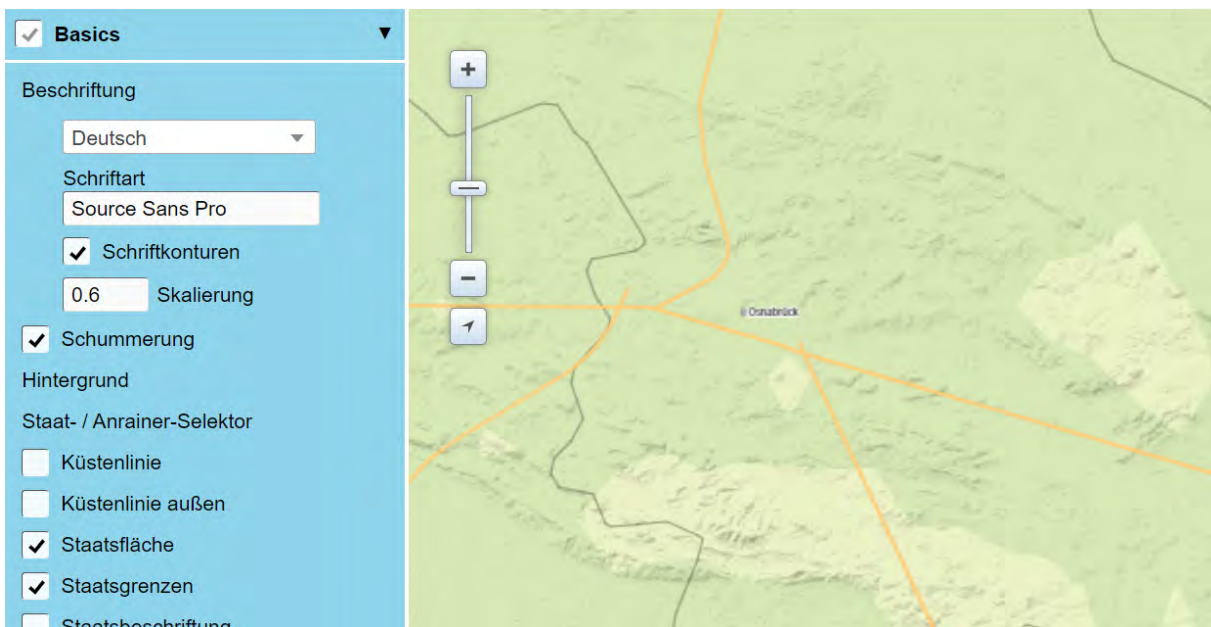
In the final step, you first save your card via the middle button of the card download window under your user profile. You will then be taken to the overview of all your maps, where you can see which purchase price the defined map size corresponds to.

By clicking on the preview image of the map, it will be downloaded to your computer, giving you a first impression of the actual size and scale. Please note that the downloaded image has only a low resolution and of course does not correspond to the actual size after purchase.

Now you will notice that the elements like city names in the 98 x 140 mm overview map (on the left in the following image) are displayed quite large compared to the preview in 123map Publisher (on the right).



The background is the automatically calculated, optimized display of font sizes etc. for a specific print size and resolution. To change this, the scaling of the labeling in the entire map is a good option. This can be found in the map editor under "Basics". Note that you must separate decimal places with a dot:



This leads to very small fonts in the map editor, but looks more consistent in the map to be exported in the comparatively small print format of just under DIN A6. In addition, it is noticeable in the exported preview that the symbols of the cities appear too large and dominate in color. You can adjust their size and color below the individual city categories.

Städte ▼

Hauptstadt eines Staates

Schriftart

Schriftgröße

Schrift kursiv

Schrift fett

Schriftkonturfarbe

Schriftfarbe

Symbol
 ▼

Symbolgröße

Positionierung
 ▼

Regionshauptstadt

>500000 Einwohner

>100000 Einwohner





>50000 Einwohner

>10000 Einwohner

<=10000 Einwohner



TIP: Don't be surprised if you specify the print size in pixels (in the following figure on the left), that with actually the same map size and the same map price, the display and scaling of the elements differs greatly from that of the map in metric dimensions (on the right). The reason for this is that when the map dimension is given in centimeters or millimeters, a print resolution of 300 dpi (dots per inch) is assumed. A pixel specification, on the other hand, assumes a standard monitor resolution of only 96 dpi or ppi (pixels per inch). Therefore, the map scale and the scaling of the elements also change accordingly.

| Übersichtskarte (px) - 29.11.2022  | Übersichtskarte (mm) - 29.11.2022  |
|--|--|
| 29.11.2022, 17:52:51 1.158 px x 1.654 px Affinity | 29.11.2022, 17:48:53 98 mm x 140 mm Affinity |
|  |  |
| Preis: 13,05 € netto | Preis: 13,05 € netto |
| Kaufen | Kaufen |
| Im Publisher öffnen | Im Publisher öffnen |
| Löschen | Löschen |

However, since most modern reading devices such as tablets or laptops today already have a high resolution of 220 to 265 ppi, it can therefore also make sense for electronic media such as eBooks to specify the card size in metric dimensions.

A practical comparison: In our example, a print size of 230 x 160 mm (opened book) would roughly correspond to the visible screen area of an 11" tablet such as an iPad Pro. Since the latter has a resolution of 265 ppi, almost the print resolution of 300 dpi, the same scaling and font size is suitable for both media. The eBook can thus be read optimally in a two-page view in landscape format, just like the paper book. Often this aspect is not taken into account enough when publishing electronic counterparts as a supplement to the (usually larger) paper book, so that the reading pleasure suffers significantly.

3.4 Purchase and post-processing of the cards

Once you have defined your final design in the map editor, imported all necessary POIs and paths, and selected the appropriate map section including print size or scale, you can take the last step and finally purchase the map. This can also be done from the "My Maps" overview under the relevant saved map. The easiest way to do this is if you have redeemed a value voucher - then the respective amount for the card is simply deducted from this credit. Of course, you can also purchase and pay for each card individually, but there is a minimum order value of 9.95 euros per card, which corresponds to a 10 x 10 cm card.

After the purchase, you will see the purchased card marked as "purchased" in your overview. You can also download the map in the form of a vector graphic (.svg), a compressed vector graphic (.svgz) and an image file (.jpg). Likewise, the calculation for this map can be retrieved.

Since most maps still need to be post-processed in certain places, it is recommended to download the vector graphic, which can be opened in an appropriate graphics program. In our example, the file was prepared for Affinity Designer, where all map elements are opened in separate layers or layer groups. At this point, we would like to show you basic editing options in the vector graphics program as an example for the overview map in Affinity Designer:

Vielen Dank für Ihre Bestellung!

Übersichtskarte (mm) - 29.11.2022

98 mm x 140 mm

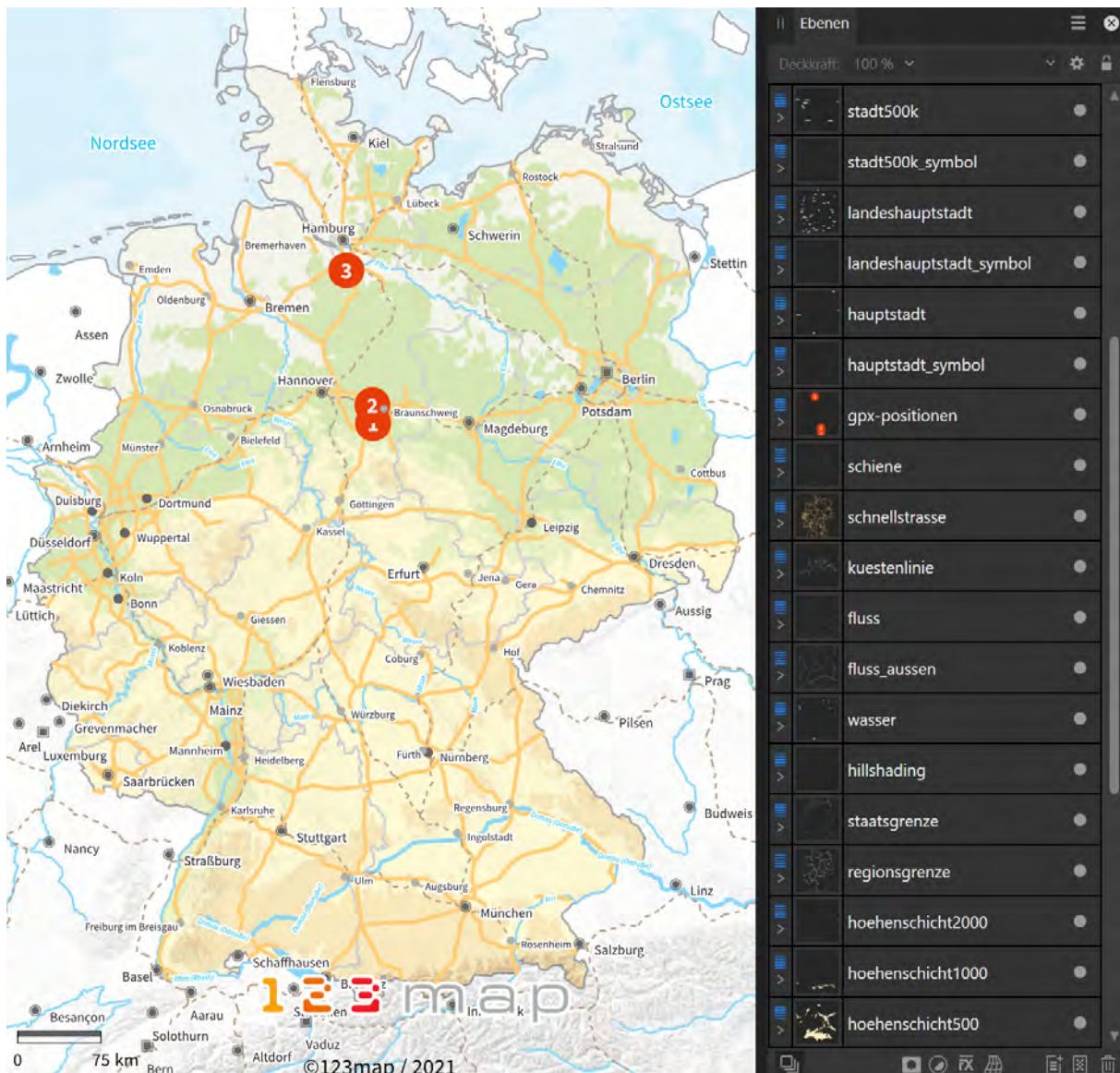
Affinity



Gekauft für 13,05 € netto

[Herunterladen](#) SVG

[Rechnung herunterladen](#)



The practical layer division of the individual elements makes it possible to quickly and easily:

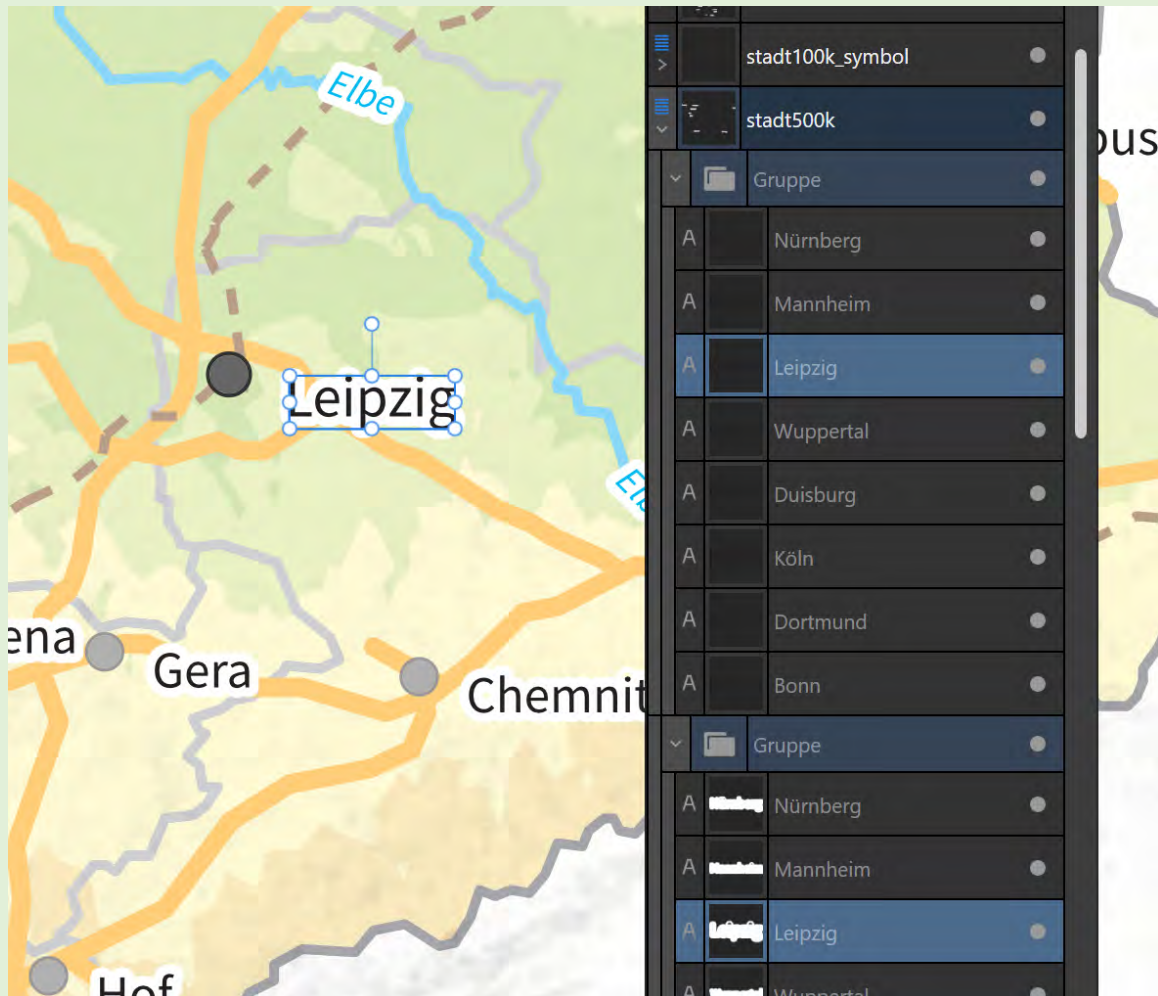
- adjust them in their color
- adjust their line width
- reduce their opacity
- or hide them completely.

In the application shown, for example, the railroad lines were a bit too thick, the state borders were too inconspicuous, and the font of the scale and copyright as well as the POI icons were too large. All this could be corrected in Affinity Designer without much effort, so that a professional map was created in a few minutes.



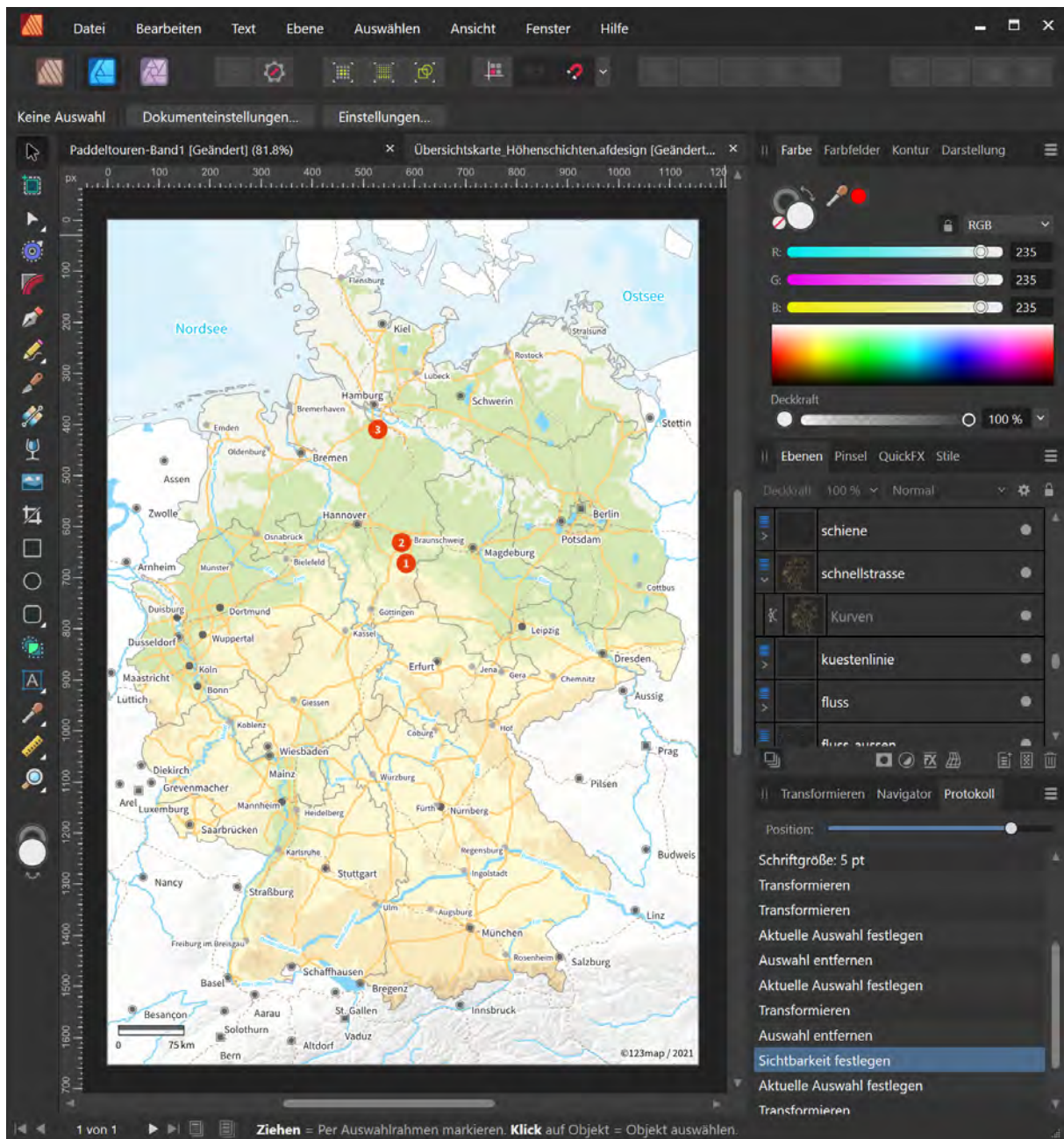
A practical feature is that labels are retained as such and can therefore be easily edited using the text tool.

TIP: If you want to move, rotate or scale labels and have activated "Font outlines" in the Basics settings of the map editor, make sure to select both the font itself and the white outline:



Thus you can move, rotate or resize both elements together. Also a text change is possible, because the contours also correspond to normal font.

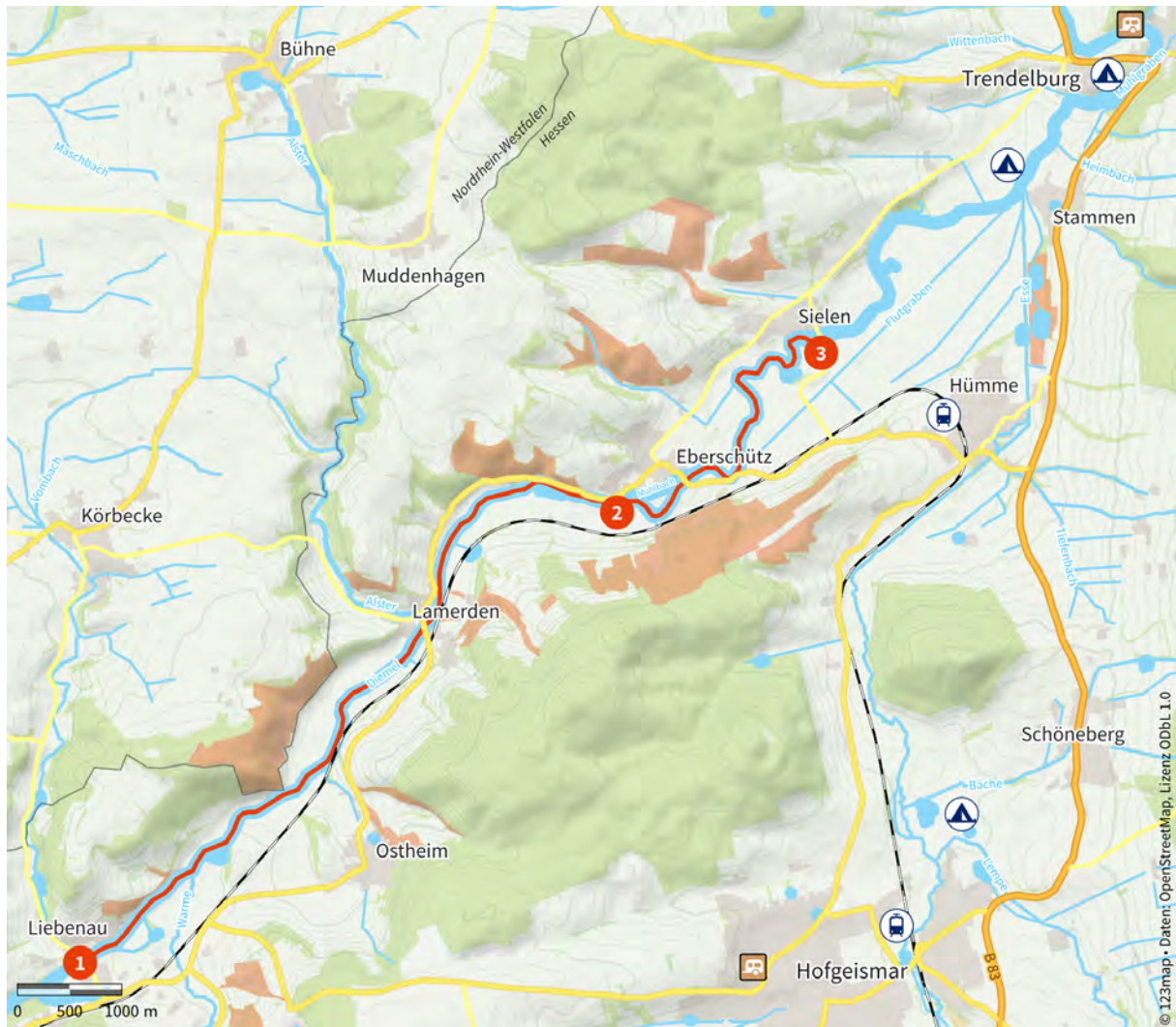
Once you have made all the changes, you can save the map as a vector graphic - in the case of Affinity Designer, this is the "AFDESIGN" format. In this format you can finally also include the map in your typesetting program - in this case the Affinity Publisher. In the case of an electronic output format such as an eBook, this has the advantage that the vector graphic is also preserved in the PDF format and can thus be scaled as desired. Another advantage comes from the concept of so-called "personas" in Affinity Suite. This allows you to work on the vector graphic and all its layers directly from the typesetting program, without having to leave the program or re-export and embed the changes. You can even access the Affinity Designer interface by clicking on the respective program icon in the upper left corner. Simply save the changes so that they are immediately visible in the layout program.



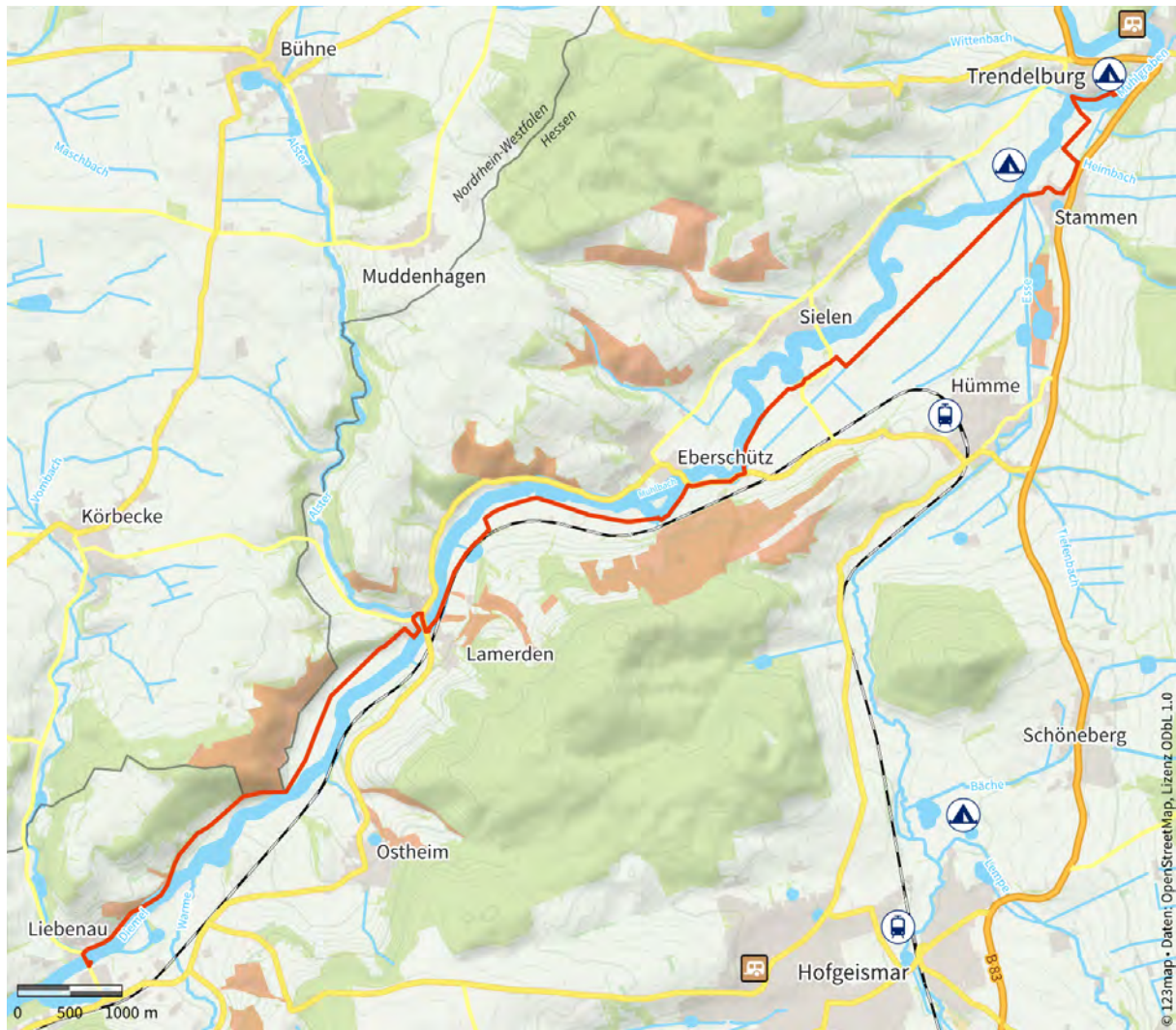
TIP: In each vector graphic you will find the layers "sources_copyrights" and "marks" at the top of the layer stack. The latter contains our 123map logo and can be hidden by you if you wish. However, the copyright text should include the reference to the map creation software (in this case, "123map") and, imperatively, the "Open Database Licence (ODbL) 1.0" under which the OpenStreetMap database has been distributed since September 12, 2012. This way you are on the safe side when publishing the maps and using them commercially. It is a good idea to reduce the font size slightly (to a minimum of 6 pt) and to place the lettering vertically on the edge of the map, as in the example of the detailed maps.

And finally, here are the final maps that were created as part of this practical application guide:





While this detailed map depicts the canoe tour with the salient points, the same map was reused to illustrate the bicycle tour between the recommended overnight stop and the entry point:



Now we wish you a lot of fun with your own card creation. For questions, suggestions and wishes, we are always happy to help!

Your 123map Team