

Instruction for the MEES application

The Mees application allows you to plan routes. It has some features that are not found in other route planners. What would the route be if there were another road? What route should I follow if I want to take a rest every 1000 meter? And if I place a bench at a certain location, would that influence that route?

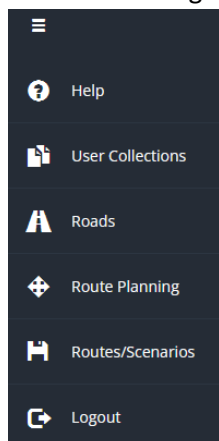
The application can be found on <https://mees-sandbox.mxapps.io/>. You must have an account to get access.

Route planning is currently limited to Greece, Hungary, Hessen (Germany) and Utrecht (Netherlands).

1. The User Interface, the Global Picture

After signing in, you see a page with a title, a top menu, a main menu on the left and an area with the content.

The main menu gives you access to the main features of this application:



- **Help**, which contains help information
- **User Collections**, where you can make your own collection of amenities to use in route planning
- **Roads**, to create extra roads for use in route planning
- **Route Planning**, where you do the actual route planning
- **Routes/Scenarios**, where you can view routes saved during route planning. You can also collect routes in scenarios.
- **Logout**, signs you out of the application

Note that the words to the right of the icons show only after you press the icon on top.

The top menu is dependent on the choice made in the main menu. Those top menus are described in the sections describing those pages.

On the help page, the content area contains text. On all other pages it contains a map.

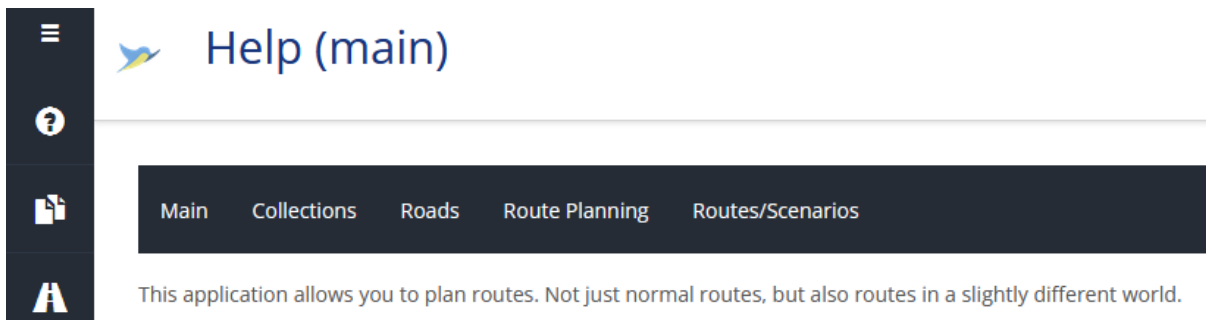
On this map you can right click to get a context menu. This will offer the possibility to add things in that location. What you can add, depends on the page. The *Set Focus* option in the context menu is common to many maps. This sets the focus marker to that spot. The focus marker is one of the markers that is used to center the map.

There can be more markers on the map. On some of them you can left click to perform an action.

The following sections describe the different pages in detail.

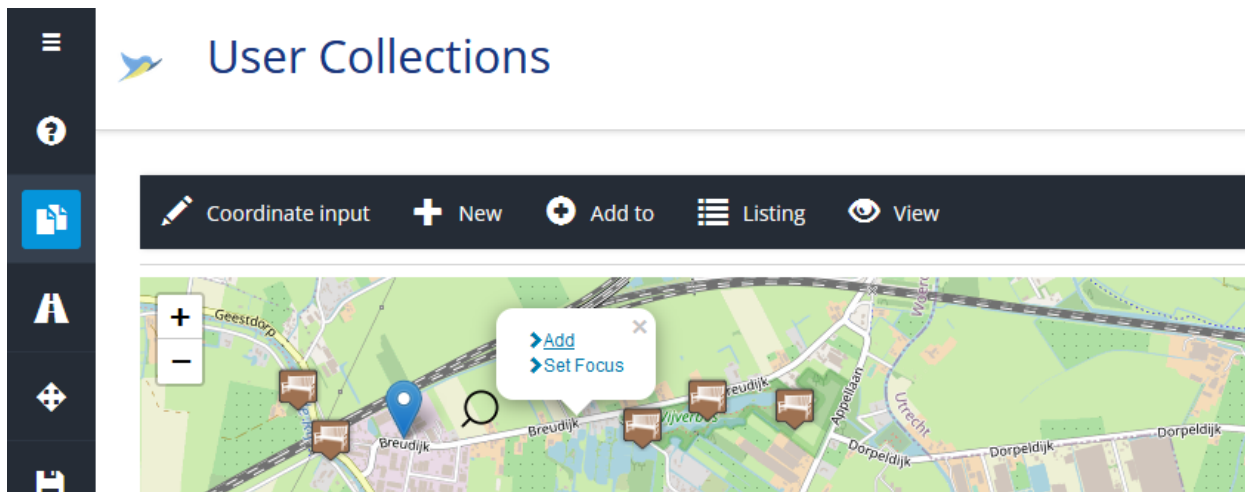
2. Help

On the top of this page you find a menu to get help for each of the tasks. The content in the help is similar to the content of this document.



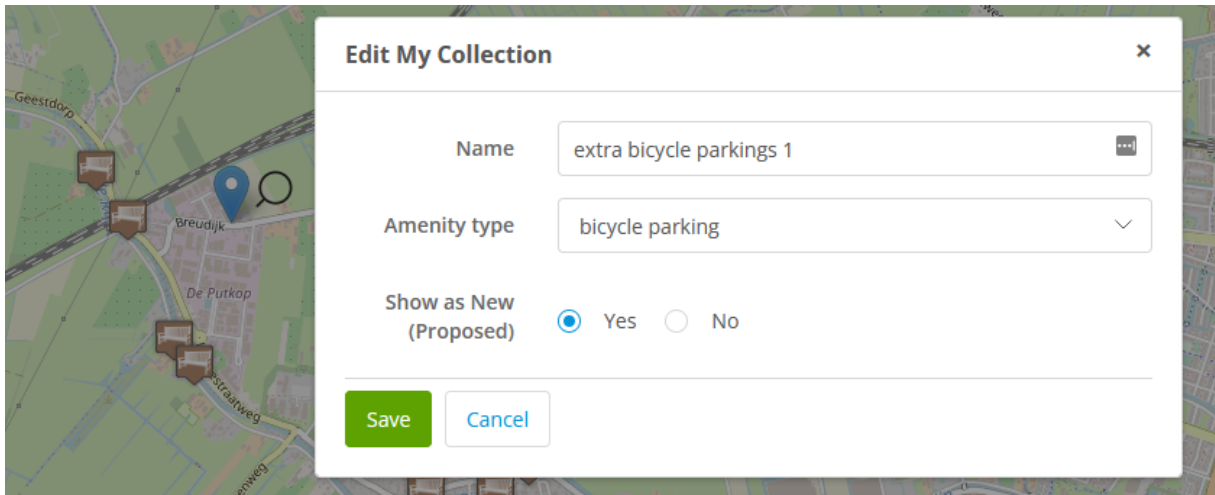
3. User Collections

The User Collections page lets you add your own collections of amenities. Collections can be used in route planning to find a route via those amenities. They can also be used to just visualize the presence of them. Each collection contains one type of amenity.



To add an element, you can right click on the map and select *Add*. This will add a blue marker. Alternatively, you can select **Coordinate input** from the top menu and input the latitude and longitude manually. This can be handy if you have those coordinates by other means.

Once you have created elements, you can choose **New** from the top menu. You will be asked to supply a name for the new collection and choose the kind of amenity of this collection. You have the option to mark the elements as new (or proposed). This will render them differently.



If you have defined some collections already, you can add elements to such a collection. Choose **Add to** instead of *New* from the top menu.

The menu item **Listing** shows a listing of all your collections. You can delete or edit collections.

Menu item **View** lets you select collections that are visible. You can show your own collections and global collections. This may be useful if you want to plan a route via an existing collection, with your own amenities added.

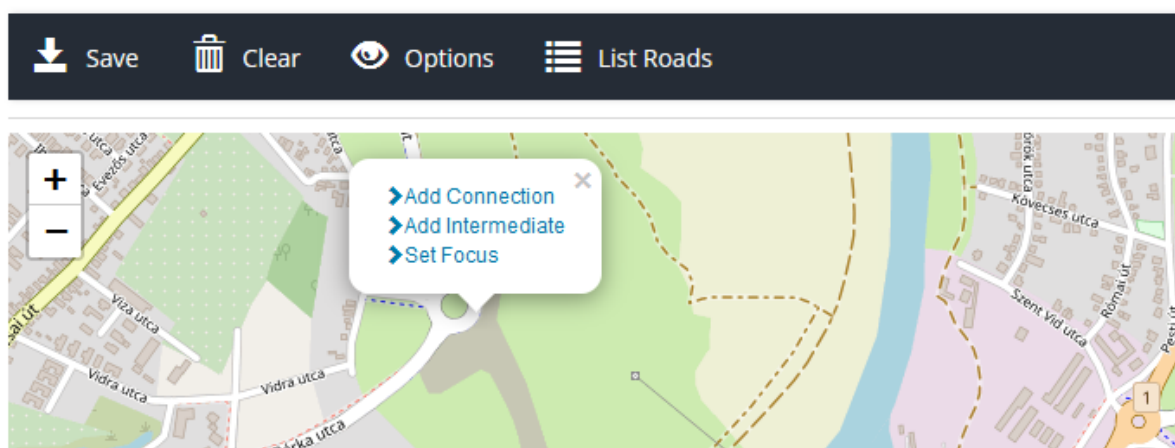
If you left click on an element of a user collection, you can remove it from the collection.

4. Roads

You can add extra roads for use in route planning. Roads are made from a list of road points. There are two types of road points:

- Connection points, which are connected to the existing roads. You should place these on or close to an existing road. The start and end of a road should be connection points.
- Intermediate points, which are not connected to existing roads. By adding intermediate points, you can influence the length of a road.

My Roads



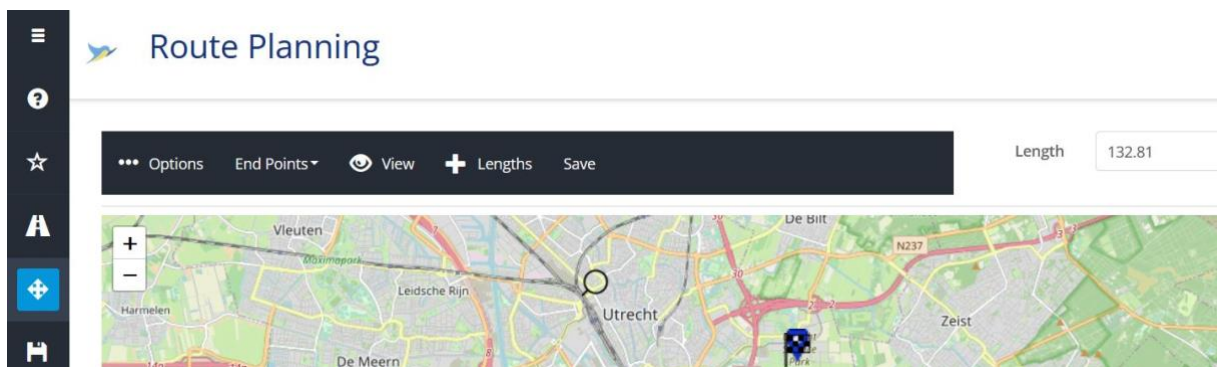
You can add a road point by right clicking on the map and then select the type of road point.

With the top menu you can do the following:

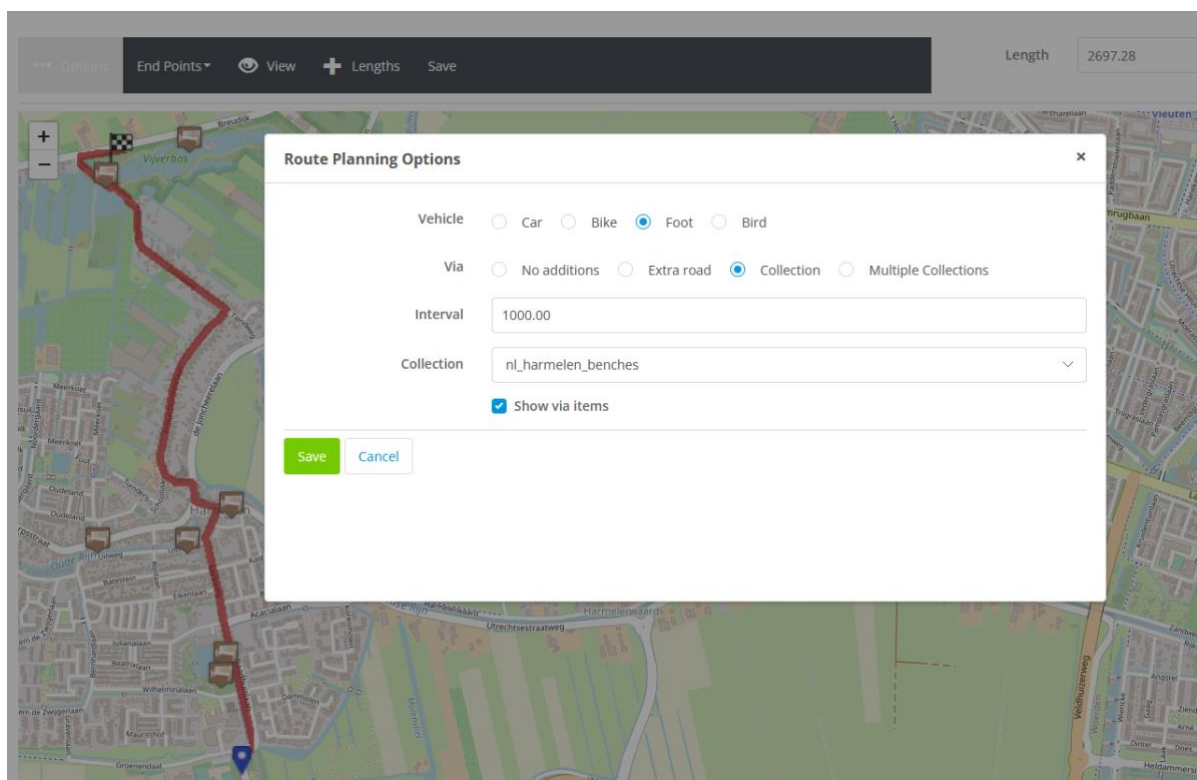
- **Save** a road once you have added all points. You will be asked to provide a name for the road.
- If you make a mistake, you can **clear** all points of the road you are defining.
- Select **Options** if you want to see the endpoints of the roads you saved earlier on the map. If they are visible, you can left click on the markers to see the name of the road.
- In **List Roads** you can rename roads or delete them.

5. Route Planning

On the Route Planning page you can plan routes and save them for later use. A route goes from a start to a finish. Right click on the map to place them.



In the **Options** menu you can choose the kind of route.



With **Vehicle** you can choose the means of transportation (foot, bike, car or bird). If you choose foot, the route will follow foot paths but not motorways. A bird flies in straight lines, not considering roads.

You can choose if you want

- a direct route, without additions,
- a route via an extra road provided by you,
- a route via one collection (global or user defined)
- a route via a two collections

Depending on the chosen via option, other fields appear.

- Road is the name of an extra road defined by you that can be taken (this is the only optional field in the example above)
- Interval is the preferred interval between two elements. This parameter is used if you plan a route via collections of amenities. The route should visit such an amenity approximately with such an interval.
- Collection is the name of a collection.

The **End Points** item has two subitems:

- Clear, which clears both start and finish (and the current route).
- Swap, which swaps the start with the finish and recomputes the route.

The **View** item allows you to show or hide some elements during route planning.

- *Show via items* shows the collection or road that was selected in the route planning options.
- *Extra visible collections* allows you to show some extra collections of your liking.

You can left click on the visible elements and use them as start or finish. That can be handy, e.g. to plan a route to a bus stop.

The **Length** field on the top right gives the total length (in meters) of the route.

With the **Lengths** button you can see the lengths of individual stretches.

The **Save** item allows you to save a route. You give it a name and then can use it later in Stored Routes. Apart from the route, the visible items selected with the View menu are also saved.

6. Routes and Scenarios

The Routes and Scenarios page lets you view routes that you computed and saved earlier. You can collect several routes into one scenario.

On the top menu are three items.

View allows you to select a route or scenario that is shown on the map. The option *Show collections* allows you to show or hide the extra collections that were visible when the route was saved.

Routes shows a list of all routes that you saved.

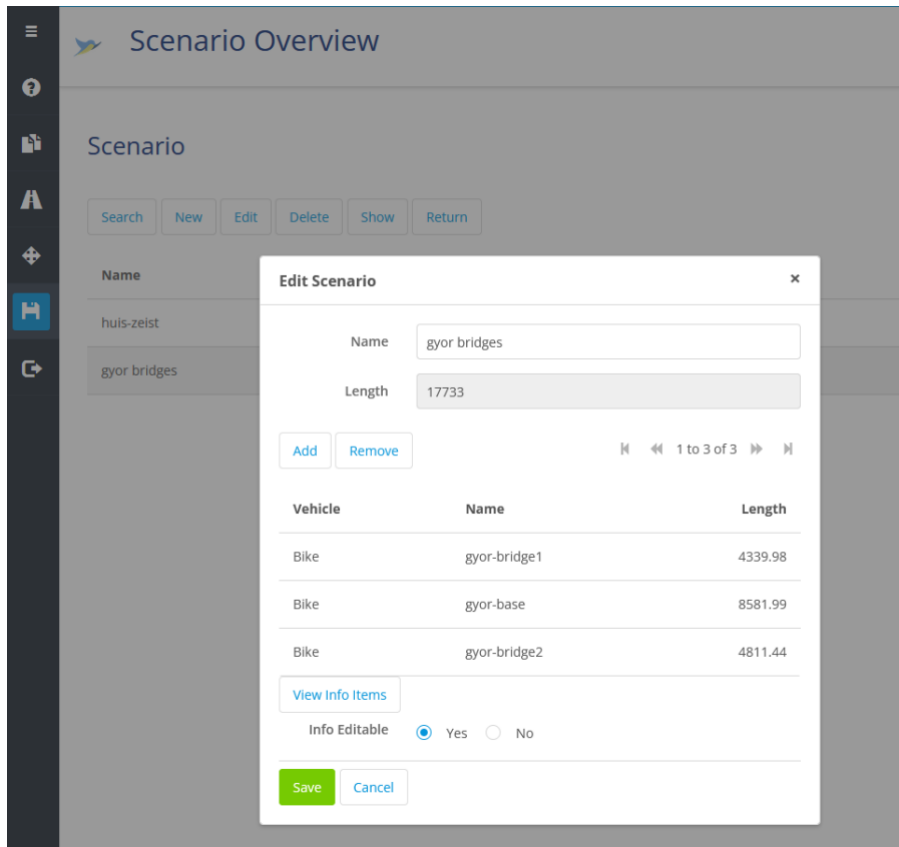
- **Search** lets you search routes on (part of the) name or on type of transport.
- **Stretches** shows the length of the stretches of the route (and also allows you to rename the route)

- **Delete** discards the selected route.
- **Show** depicts the selected route on the map. A double click on an item also does this.
- **Return** brings you to the map.

Scenarios shows a list of scenarios (a number of routes). This list is empty until you create scenarios.

The following buttons are available there:

- **Search** lets you search scenarios on (part of the) name.
- **New** creates a new scenario. Fill in a name and edit it further.
- **Edit** allows you to add routes to a scenario. Press the *Add* button and select one or more routes to add to this scenario. To select more than one, press the Control key while clicking. The *Remove* button removes the selected routes from the scenario. The button *View info items* shows a list of info markers that you added to the scenario (see below). The switch *Info Editable* shows or hides edit and delete buttons when you left click on an Info marker.
- **Delete** discards the currently selected scenarios.
- **Show** depicts the selected scenario on the map.
- **Return** brings you to the map.



When you are viewing a scenario, you can right click on the map to add an info marker. You can place a picture and some text to tell something about that location:


Routes and Scenarios

View Routes Scenarios

+

-

Info



soccer stadion

Close

The image shows a web application interface for "Routes and Scenarios". It features a map of Utrecht, Netherlands, with a red route highlighted. A blue location pin is placed on the map. An "Info" popup window is open, displaying a thumbnail image of a soccer stadium and the text "soccer stadion". The popup has a "Close" button. The interface includes a sidebar with navigation icons (home, back, search, etc.) and a top navigation bar with "View", "Routes", and "Scenarios" tabs.