

Objective = reverse a path

In this tutorial you will learn how to

reverse a path from a list of GPS points

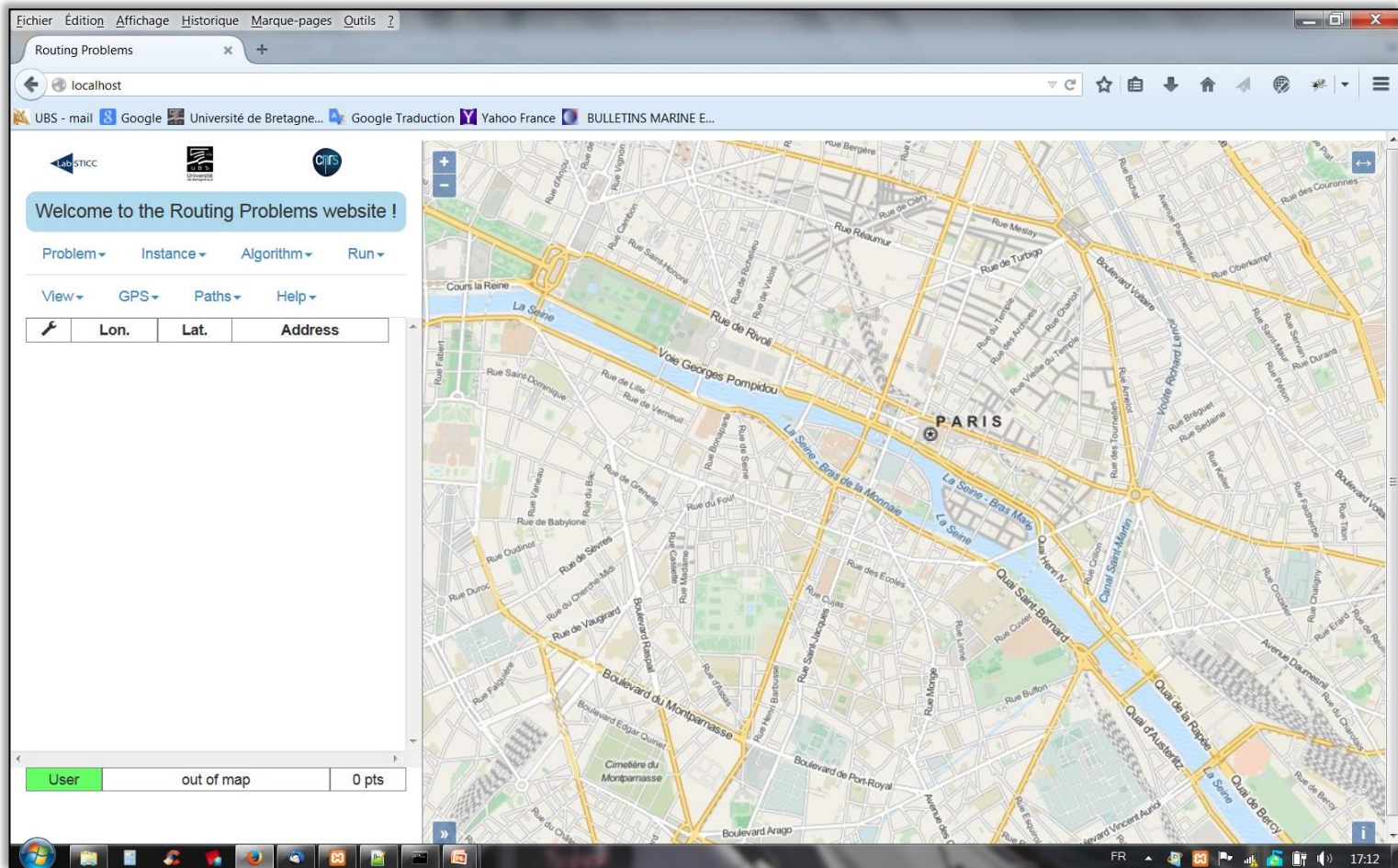


We suppose you are using Firefox, Chrome or IE.

We suppose you have a running, and well-configured, apache server on your PC.



Start a browser with the URL "localhost"



You should see exactly this.



Create a list of 3 points, from an empty map, and save them as the "paris" list.

The screenshot shows the Routing Problems website interface. The browser window displays the URL localhost and various navigation icons. The website header includes the LabSTIC logo and a welcome message. Below the header, there are dropdown menus for Problem, Instance, Algorithm, Run, View, GPS, Paths, and Help. A table lists three points with their coordinates and addresses. The map on the right shows the city of Paris with three green location pins placed at the specified addresses.

	Lon.	Lat.	Address
1	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de-France, FR
2	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Île-de-France, FR
3	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Île-de-France, FR

User 2.35476 E | 48.85196 N 3 pts
paris

Create a path.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

	Lon.	Lat.	
1 ▾	2.3580 E	48.8312 N	Path from the ordered list
2 ▾	2.3538 E	48.8658 N	Path from start/stop
			Delete path
			Compute distance/time matrix
3 ▾	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, île-de-France, FR

User out of map 3 pts
paris

To create a path from the ordered list of GPS points, click on the "Path from the ordered list" button.

Look at the path.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

	Lon.	Lat.	Address
1 ▾	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de- France, FR
2 ▾	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Île-de-France, FR
3 ▾	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Île-de-France, FR

The map from point 1, to point 3,
through point 2 is displayed in blue.

User out of map 3 pts
paris



Update instance to reverse the list.

The screenshot shows a web browser window with the title "Routing Problems". The address bar shows "localhost". The page content includes a form titled "Specify an instance" with the following fields:

- Problem name: rev
- Instance name: revi
- Comment: an instance to reverse a list of GPS points
- Values: A dropdown menu currently showing "paris" with a tooltip that says "list (list, name of the list)".

At the bottom of the form are three buttons: "Load parameters" (green), "Save instance" (green), and "Delete instance" (red). Below the form is a map showing a blue route. A red arrow points from a text box to the "paris" dropdown option.

Update the "revi" instance of problem "rev" to point on the "paris" list of GPS points.

Run the "reverse" web-service.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾ New

	Lon.	Lat.	Address	
1 ▾	2.3580 E	48.8312 N	199 Boulevard Vincen Paris, 75013, Paris, France, FR	run (line) Run run (rev) Run run (hello) Run
2 ▾	2.3538 E	48.8658 N	254 Rue Saint-Martin 75003, Paris, île-de-f FR	
3 ▾	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, île-de-France, FR	

User out of map 3 pts
paris

To reverse the list, run the "reverse" algorithm on the paris list, click on the "Run" button of the "rev" problem.

Look at the reversed list.

The screenshot shows a web browser window with the address bar set to localhost. The page title is "Routing Problems". The browser's address bar shows "localhost" and the page content includes a navigation menu with "Problem", "Instance", "Algorithm", and "Run" options. Below the menu is a table with three rows of data. A red arrow points from a text box to the second row of the table. The map on the right shows a blue route in Paris, with green markers at the start and end points. The text box contains the text "The list has been reversed."

	Lon.	Lat.	Address
1	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Île-de-France, FR
2	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Île-de-France, FR
3	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de- France, FR

Clear the path.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

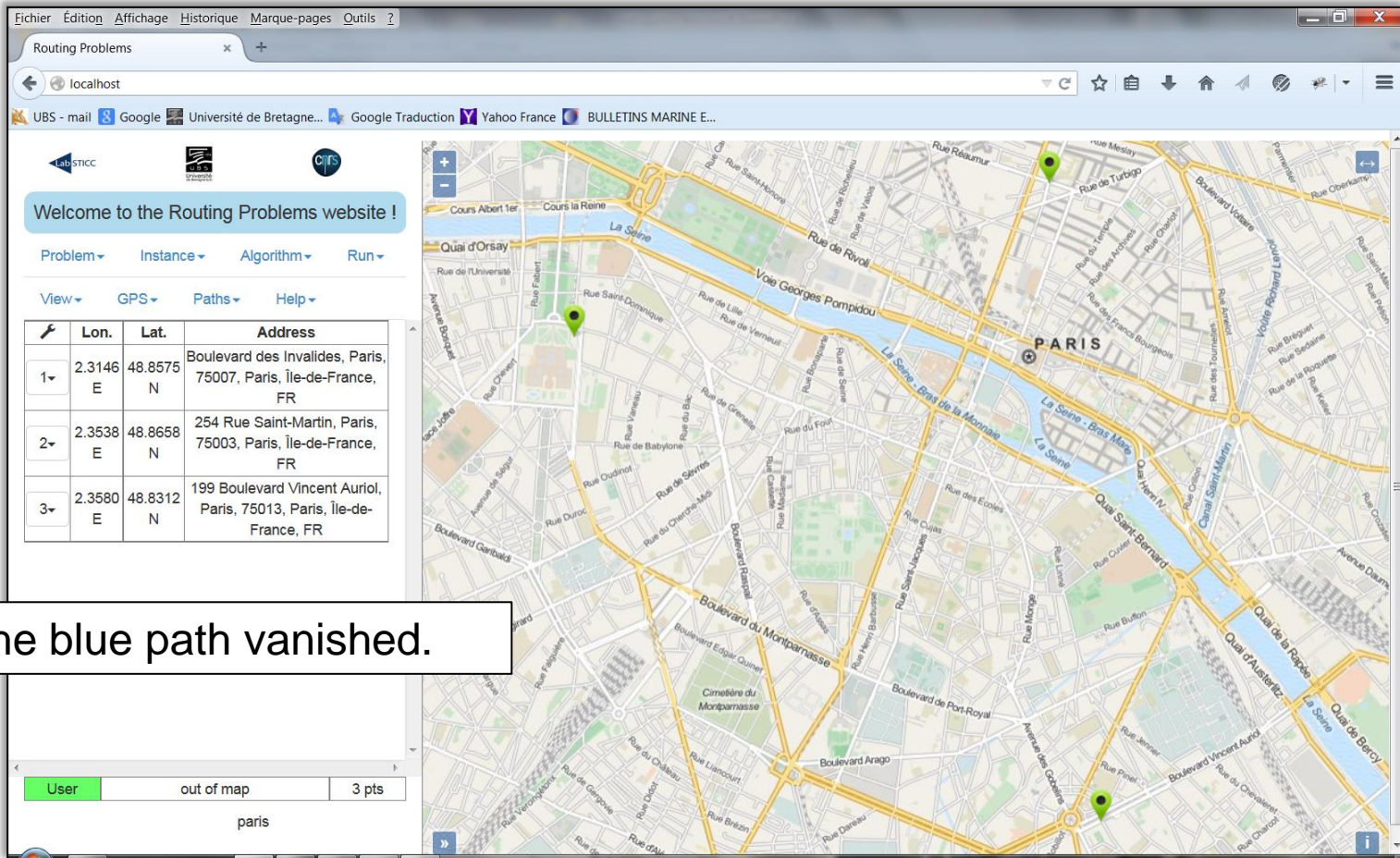
🔧	Lon.	Lat.	
1 ▾	2.3146 E	48.8575 N	Path from the ordered list Path from start/stop Delete path Compute distance/time matrix
2 ▾	2.3538 E	48.8655 N	
3 ▾	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de-France, FR

User out of map 3 pts

paris

Click on the "Delete path" button.

Look at the map without the path.



Routing Problems

localhost

UBS - mail Google Université de Bretagne... Google Traduction Yahoo France BULLETINS MARINE E...

LabSTICC Université de Bretagne Occidentale Cifs

Welcome to the Routing Problems website !

Problem Instance Algorithm Run

View GPS Paths Help

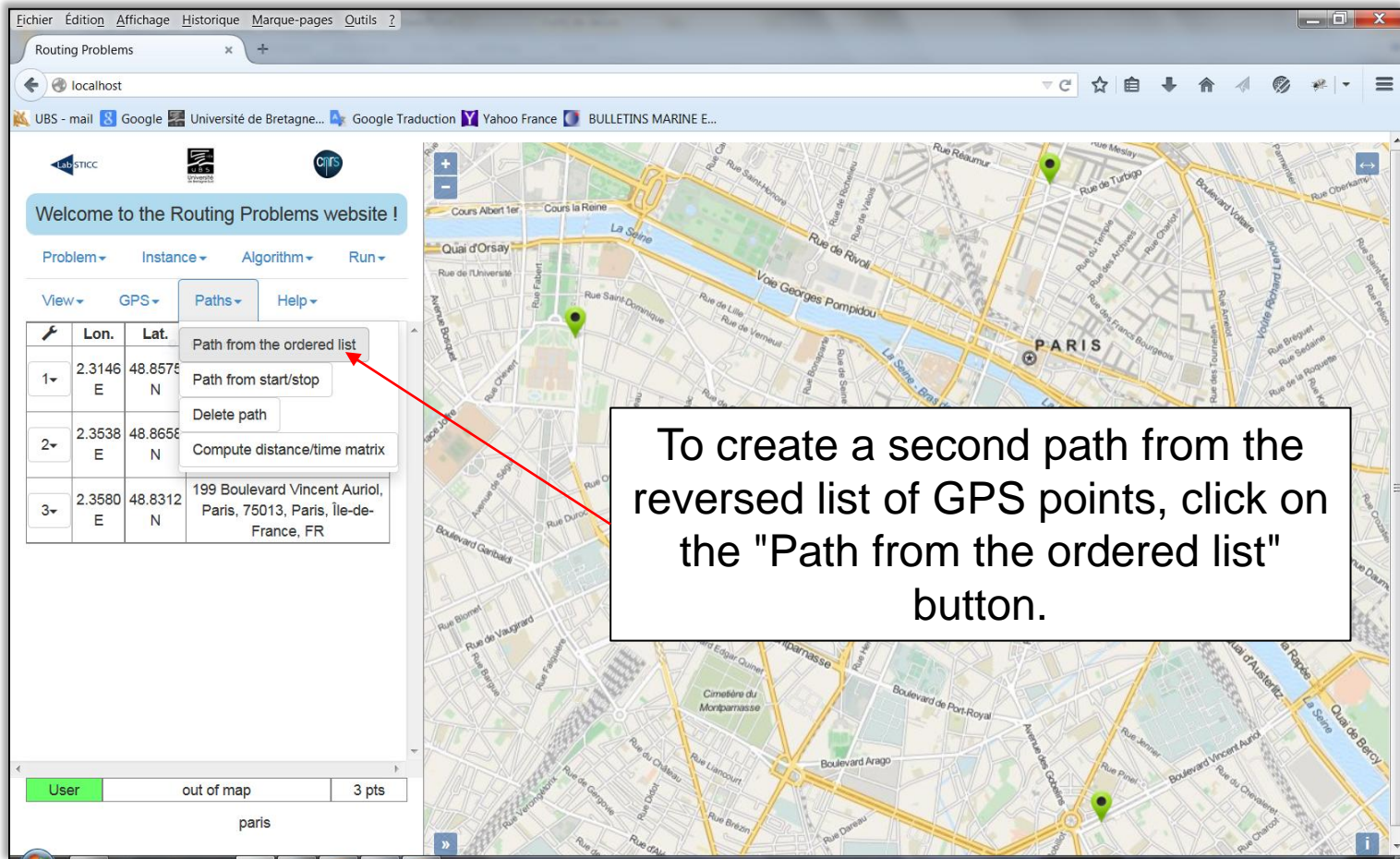
	Lon.	Lat.	Address
1	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Île-de-France, FR
2	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Île-de-France, FR
3	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de- France, FR

User out of map 3 pts

paris

The blue path vanished.

Create a second path.



The screenshot shows a web browser window titled "Routing Problems" at localhost. The page features a map of Paris with several green location pins. On the left, there is a control panel with a "Paths" dropdown menu that is open, showing options like "Path from the ordered list", "Path from start/stop", "Delete path", and "Compute distance/time matrix". A red arrow points from the "Path from the ordered list" option to a text box.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

	Lon.	Lat.	
1 ▾	2.3146 E	48.8575 N	
2 ▾	2.3538 E	48.8655 N	
3 ▾	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de-France, FR

Path from the ordered list
Path from start/stop
Delete path
Compute distance/time matrix

User out of map 3 pts
paris

To create a second path from the reversed list of GPS points, click on the "Path from the ordered list" button.



Look at the second path.

The screenshot shows a web browser window titled "Routing Problems" with a URL of "localhost". The browser's address bar and tabs are visible. Below the browser, there is a navigation menu with "Problem", "Instance", "Algorithm", and "Run" options. A table lists three paths with their respective coordinates and addresses. The map on the right shows a route in Paris, with the second path highlighted in blue. A red arrow points from the text box to this blue path.

	Lon.	Lat.	Address
1	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Île-de-France, FR
2	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Île-de-France, FR
3	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Île-de- France, FR

Second path is displayed in blue again. But it is different from the first path because of the numerous one-way roads in Paris.

Compare the two paths.

Welcome to the Routing Problems website!

Problem - Instance - Algorithm - Run -

View - GPS - Paths - Help -

#	Lon.	Lat.	Address
1-	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Ile-de-France, FR
2-	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Ile-de-France, FR
3-	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Ile-de-France, FR

User out of map 3 pts paris

Welcome to the Routing Problems website!

Problem - Instance - Algorithm - Run -

View - GPS - Paths - Help -

#	Lon.	Lat.	Address
1-	2.3146 E	48.8575 N	Boulevard des Invalides, Paris, 75007, Paris, Ile-de-France, FR
2-	2.3538 E	48.8658 N	254 Rue Saint-Martin, Paris, 75003, Paris, Ile-de-France, FR
3-	2.3580 E	48.8312 N	199 Boulevard Vincent Auriol, Paris, 75013, Paris, Ile-de-France, FR

User out of map 3 pts paris

Conclusion



Congratulations !

You are able to reverse paths with a web-service.

