

Objective = create and use lists of GPS points.

In this tutorial you will learn how to
create and use several lists of GPS points

We suppose you are using Firefox, Chrome or IE.

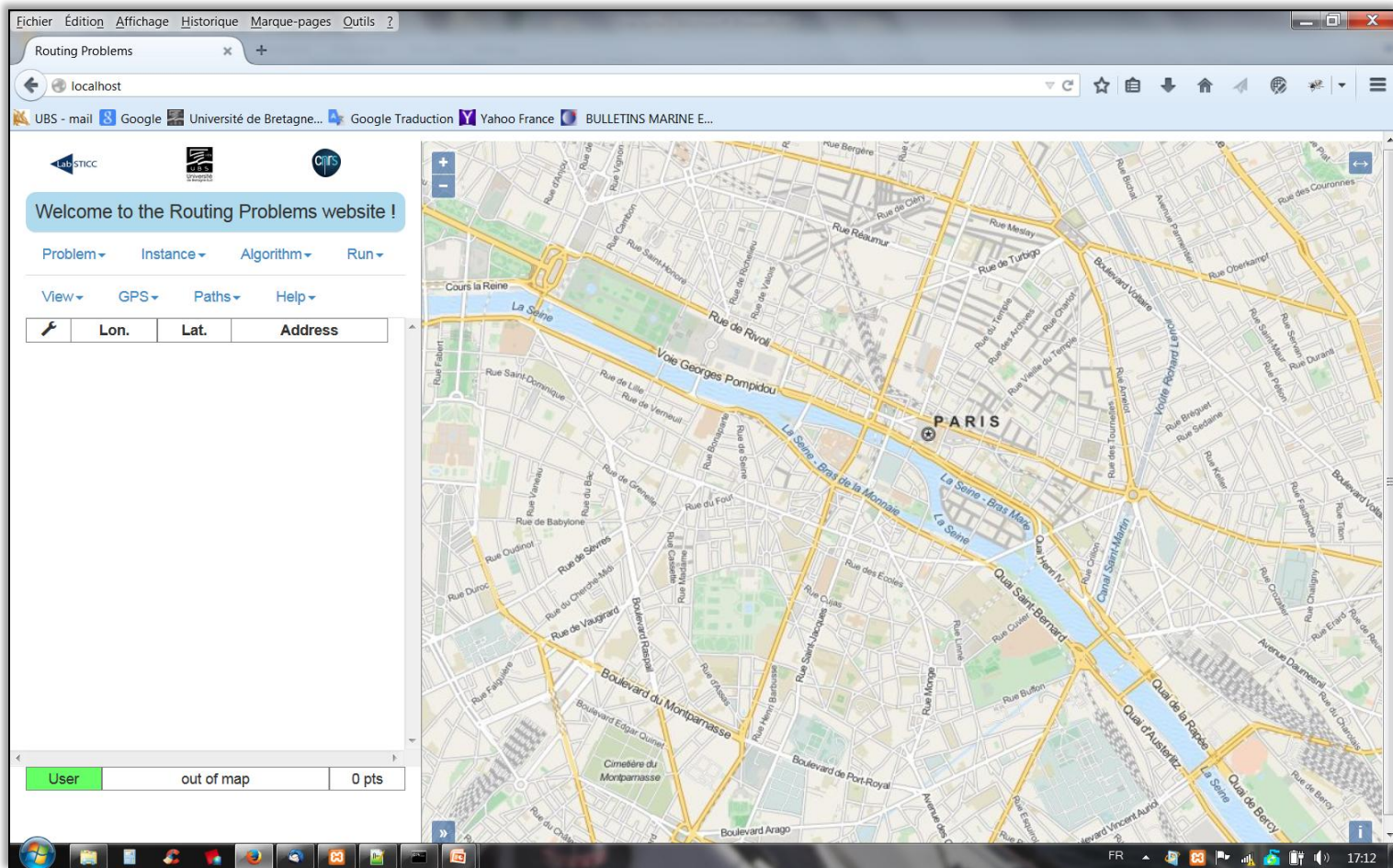
We suppose you have a running, and well-configured,
apache server on your PC.

In a previous tutorial you have learnt how
to create a list of GPS points.

So, we won't go into as much details
to shorten this presentation.



Start a browser with the URL "localhost" .



You should see exactly this.



Create a list of 3 GPS points, from an empty map.

The screenshot shows the Routing Problems website interface. The browser address bar shows 'localhost'. The website has a navigation menu with 'Problem', 'Instance', 'Algorithm', and 'Run' dropdowns, and a secondary menu with 'View', 'GPS', 'Paths', and 'Help' dropdowns. A table on the left lists three GPS points with their coordinates and addresses. The map on the right shows a street view of Paris with three green pins placed at the locations specified in the table.

	Lon.	Lat.	Address
1	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, île-de- France, FR
3	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, île-de-France, FR

User out of map 3 pts

What is the state of that initial list ?

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

🔧	Lon.	Lat.	Address
1 ▾	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2 ▾	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3 ▾	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR

User out of map 3 pts

Look here. There is nothing written.
It means this list has not been
stored on the disk.
It is not yet a persistent list.

Save that list.

The screenshot shows the Routing Problems website interface. The browser window title is "Routing Problems" and the address bar shows "localhost". The page has a navigation bar with "Problem", "Instance", "Algorithm", and "Run" dropdown menus. Below this is a "View" section with "GPS", "Paths", and "Help" dropdown menus. A sidebar on the left contains a table of GPS points and a menu with options: "Delete all GPS points", "Add a GPS point", "Geolocate an address", "Open list", "Save list", "Save as list", and "Delete list". A red arrow points to the "Save as list" button. The main area is a map of Paris with a green GPS point marker. A text box with a black border and white background is overlaid on the map, containing the text: "To create a persistent list of GPS point on the disk, click on the 'Save as list' button."

Location	Address
1	rd Saint-Germain, 17, Paris, Île-de-France, FR
2	ple de Médecine, 16, Paris, Île-de-France, FR
3	ge, Paris, 75005, Île-de-France, FR

User out of map 3 pts

Give it a unique name.

The screenshot shows the Routing Problems website interface. A dialog box titled "Save as a new list" is open, with a text input field containing "paris1" and a green "Save" button. A red arrow points from the text box below to the input field. The background shows a map of Paris and a table of addresses.

	Lon.	Lat.	Address
1	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Ile-de-France, FR

Give a unique name to that list,
and click on the "Save" button.

What is the new state of that list ?

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

🔧	Lon.	Lat.	Address
1 ▾	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2 ▾	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3 ▾	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR

User out of map 3 pts

paris1

Look here. This is the name of the list, written. It means this list has been stored on the disk.

It is now a persistent list that you will find when you will open your navigator again.

Modify the displayed list: add a point anywhere.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

🔧	Lon.	Lat.	Address
1 ▾	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2 ▾	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3 ▾	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR
4 ▾	2.3558 E	48.8653 N	100 Rue Beaubourg, Paris, 75003, Paris, Île-de-France, FR

User out of map 4 pts

paris1

Add a point.

Look here. The name of the list became red and italicized.

It means that the list has been modified and needs to be saved.

Save it again.

The screenshot shows the Routing Problems website interface. On the left, there is a navigation menu with options like 'Problem', 'Instance', 'Algorithm', and 'Run'. Below this is a table with columns for 'Location', 'Address', and 'Distance'. The table contains four entries, each with a location number and a corresponding address in Paris. A context menu is open over the third entry, showing options: 'Delete all GPS points', 'Add a GPS point', 'Geolocate an address', 'Open list', 'Save list', 'Save as list', and 'Delete list'. A red arrow points to the 'Save list' option. A text box on the right contains the instruction: 'To save the list, click on the "Save list" button. It will store the list on the disk.'

Location	Address	Distance
1	rd Saint-Germain, 17, Paris, Île-de-France, FR	2.32
2	ble de Médecine, 16, Paris, Île-de-France, FR	2.34
3	ge, Paris, 75005, Île-de-France, FR	2.35
4	aubourg, Paris, Île-de-France, FR	2.35

User: out of map, 4 pts
paris1



What is its new state ?

The screenshot shows a web browser window titled "Routing Problems" at the URL "localhost". The browser's address bar and tabs are visible. The page content includes a navigation menu with options like "Problem", "Instance", "Algorithm", "Run", "View", "GPS", "Paths", and "Help". A table displays a list of four addresses with their corresponding longitude and latitude coordinates. A red arrow points from the text box to the "User" field in the bottom left corner, which contains the text "out of map" and "paris1".

	Lon.	Lat.	Address
1	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR
4	2.3558 E	48.8653 N	100 Rue Beaubourg, Paris, 75003, Paris, Île-de-France, FR

User out of map 4 pts
paris1

The name of the list became black.
It means the disk state is now coherent with the displayed list on the map.

Clear the map.

The screenshot shows the Routing Problems website interface. The browser address bar shows 'localhost'. The page title is 'Routing Problems'. The main content area features a map of Paris with several GPS points marked. A dropdown menu is open, showing the following options:

- Delete all GPS points
- Add a GPS point
- Geolocate an address
- Open list
- Save list
- Save as list
- Delete list

The 'Delete all GPS points' option is highlighted with a red arrow. A text box on the right explains the action:

To remove all GPS points, click on the "Delete all GPS points" button.

The list won't be deleted, only the displayed points are affected.

At the bottom of the interface, there is a status bar showing 'User', 'out of map', and '4 pts'.



Clear the map.

Fichier Édition Affichage Historique Marque-pages Outils ?

Routing Problems x +

localhost

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

LabSTICC

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

Lon.	Lat.	Address
------	------	---------

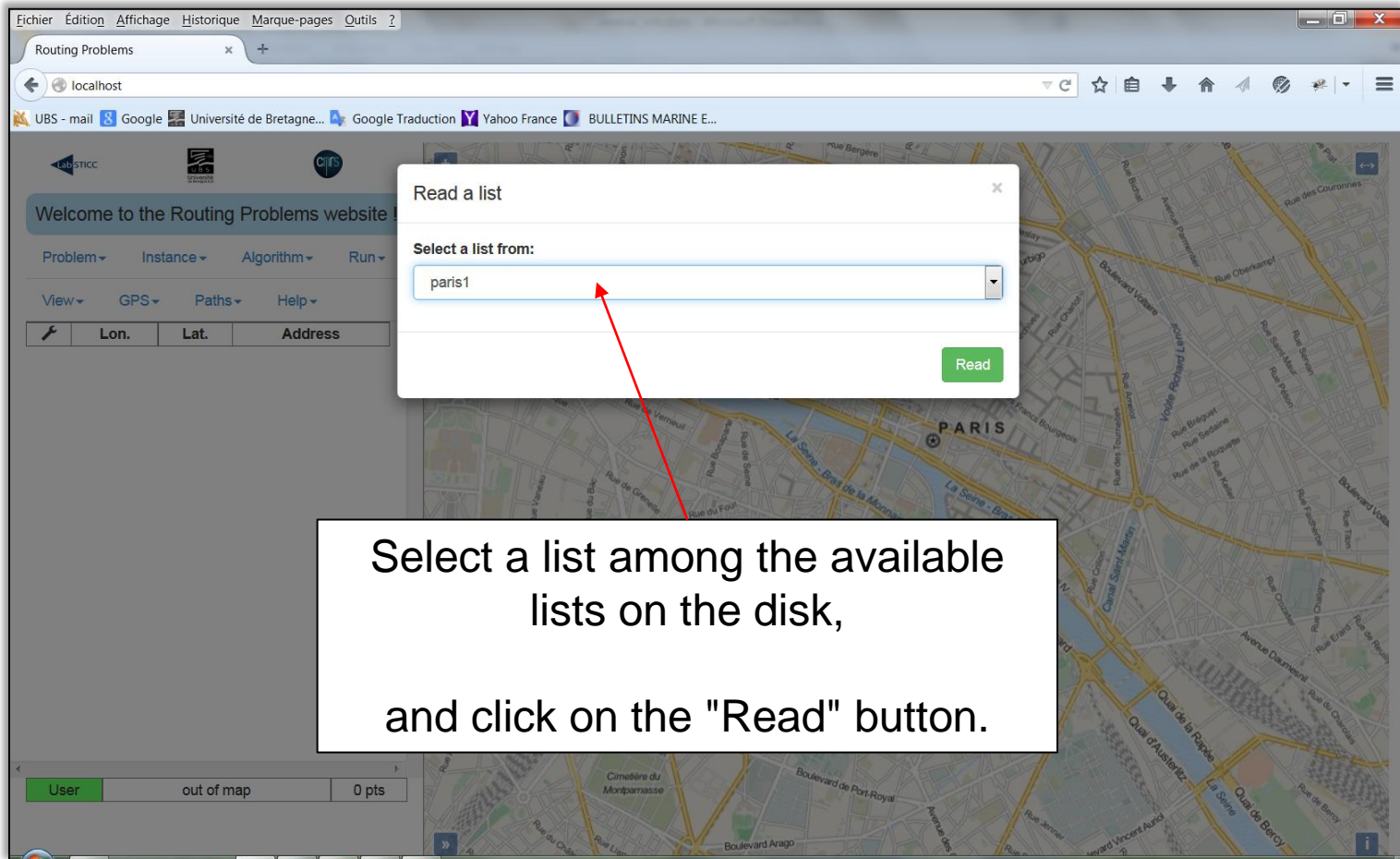
User out of map 0 pts

Look, all the GPS points have vanished !

Load a list.

The screenshot shows a web browser window with the URL localhost. The page title is "Routing Problems". The browser's address bar shows "localhost". The page content includes a navigation menu with "Problem", "Instance", "Algorithm", and "Run" dropdowns. Below this is a "View" menu with "GPS", "Paths", and "Help" options. A "GPS" dropdown menu is open, showing options: "Delete all GPS points", "Add a GPS point", "Geolocate an address", "Open list", "Save list", "Save as list", and "Delete list". A red arrow points from a callout box to the "Open list" button. The callout box contains the text: "To load a list, click on the 'Open list' button." The main content area is a map of Paris, France, showing streets and the Seine river. The map is centered on the area around the Gare d'Orléans and the Canal Saint-Martin. The bottom of the page shows a status bar with "User", "out of map", and "0 pts".

Load a list.



The screenshot shows a web browser window with the URL 'localhost' and the page title 'Routing Problems'. The browser's address bar and menu bar are visible. The website interface includes a navigation menu with options like 'Problem', 'Instance', 'Algorithm', and 'Run', and a toolbar with 'View', 'GPS', 'Paths', and 'Help'. A map of Paris is displayed in the background. A modal dialog box titled 'Read a list' is open, featuring a dropdown menu labeled 'Select a list from:' with 'paris1' selected. A green 'Read' button is located at the bottom right of the dialog. A red arrow points from the text box below to the dropdown menu.

Select a list among the available lists on the disk,
and click on the "Read" button.

Load a list.

The screenshot shows a web browser window titled "Routing Problems" at the URL "localhost". The browser's address bar and tabs are visible. Below the browser, there is a navigation menu with options like "Problem", "Instance", "Algorithm", "Run", "View", "GPS", "Paths", and "Help".

On the left side, there is a table with the following data:

	Lon.	Lat.	Address
1	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR
4	2.3558 E	48.8653 N	100 Rue Beaubourg, Paris, 75003, Paris, Île-de-France, FR

On the right side, a map of Paris is displayed with four green GPS points corresponding to the addresses in the table. A white text box at the bottom of the map area contains the text: "The GPS points are back on the map !".

Delete a list.

The screenshot shows the Routing Problems website interface. The browser window title is "Routing Problems" and the address bar shows "localhost". The page has a navigation bar with "Problem", "Instance", "Algorithm", and "Run" dropdown menus. Below this is a "View" menu with "GPS", "Paths", and "Help" options. A table lists four lists with their respective addresses. A dropdown menu is open over the table, with "Delete list" highlighted. A red arrow points from the text box to the "Delete list" option. The map shows Paris with several green location pins.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

	Location	Address
1	2.32 E	rd Saint-Germain, 17, Paris, Île-de-France, FR
2	2.34 E	ble de Médecine, 16, Paris, Île-de-France, FR
3	2.35 E	ge, Paris, 75005, Île-de-France, FR
4	2.35 E	aubourg, Paris, Île-de-France, FR

1 Delete all GPS points

2 Add a GPS point

3 Geolocate an address

4 Open list

5 Save list

6 Save as list

7 Delete list

User out of map 4 pts

paris1

To delete a list, click on the "Delete list" button.

Delete a list.

Welcome to the Routing Problems website

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

	Lon.	Lat.	Address
1 ▾	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2 ▾	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3 ▾	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR
4 ▾	2.3558 E	48.8653 N	100 Rue Beaubou 75003, Paris, Île-d FR

User out of map 4 pts

paris1

Delete a list

Select a list from:

paris1

Delete

Select a list among the available lists on the disk, and click on the "Delete" button.

Delete a list.

Welcome to the Routing Problems website !

Problem ▾ Instance ▾ Algorithm ▾ Run ▾

View ▾ GPS ▾ Paths ▾ Help ▾

🔧	Lon.	Lat.	Address
1 ▾	2.3252 E	48.8563 N	207 Boulevard Saint-Germain, Paris, 75007, Paris, Île-de- France, FR
2 ▾	2.3411 E	48.8514 N	Rue de l'École de Médecine, Paris, 75006, Paris, Île-de- France, FR
3 ▾	2.3523 E	48.8444 N	58 Rue Monge, Paris, 75005, Paris, Île-de-France, FR
4 ▾	2.3558 E	48.8653 N	100 Rue Beaubourg, Paris, 75003, Paris, Île-de-France, FR

User out of map 4 pts

The name of the list vanished.
*It means the list does not exist any more on the disk.
Please note that the displayed list on the map has been preserved.*

Conclusion

Congratulations !

You are able to create
and use several lists of GPS points.

Now you should learn how to create
paths with these lists.

