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PU	Public	
PP	Restricted to other programme participants (including Interreg IVB NSRP)	
RE	Restricted to a group specified by the consortium (including Interreg IVB NSRP)	X
CO	Confidential, only for members of the consortium (including Interreg IVB NSRP)	

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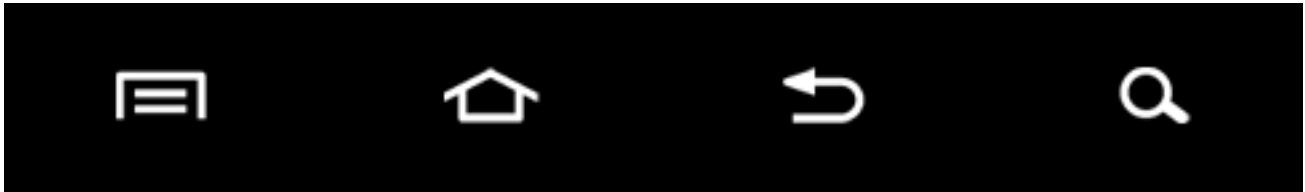
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1 SMARTPHONE USAGE

1.1 HARDWARE

On the front of the application you have a large touch-screen that you can use to press buttons, enter text, move maps, etc. A long touch will sometimes enables you to access more functionality. You can drag and drop some elements of the interface (menu, map, etc). You can also use several fingers (pinch) to zoom in or zoom out the map for example.

There are also four hardware buttons on the front:



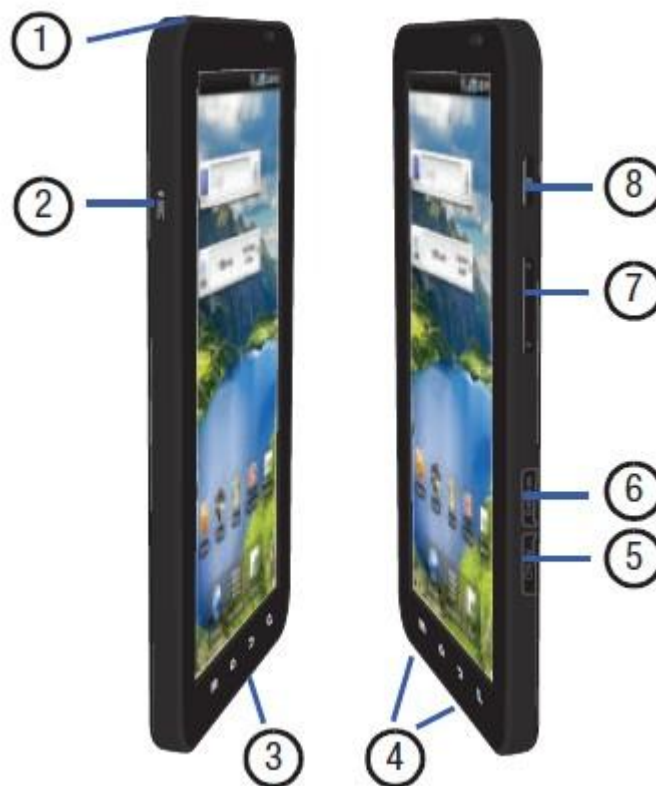
The first button (page) is used to enter the menu of the current application.

The second button (home) enables to come back to the main interface of the Android system. If you maintain this button pressed, you can access the latest used applications.

The third button (arrow) comes back one step before in the current application.

The fourth button (magnifying glass) enables to search for information.

Here are the parts side views of Samsung Galaxy Tablet:



1. 3.5mm Headset jack: allows you to plug in headphones.
2. Microphone: used for speech applications.

3. Power/Accessory Interface connector: allows you to connect a Travel Charger or other optional accessories such as a USB/data cable or a hands-free headset for media content.
4. Speakers: allows you to hear tones, alarms, audio, and video.
5. SIM Card port: allows you to access the network and features such as internet, messaging, and email.
6. Memory Card port: your tablet has an external memory port for a microSD (SD) or microSDHC (SD) card.
7. Volume keys: allow you to adjust the tablet volume while in standby mode.
8. Power on/off and Lock key: () lets you turn the tablet power on or off. This key is also used to lock or unlock the touch screen.

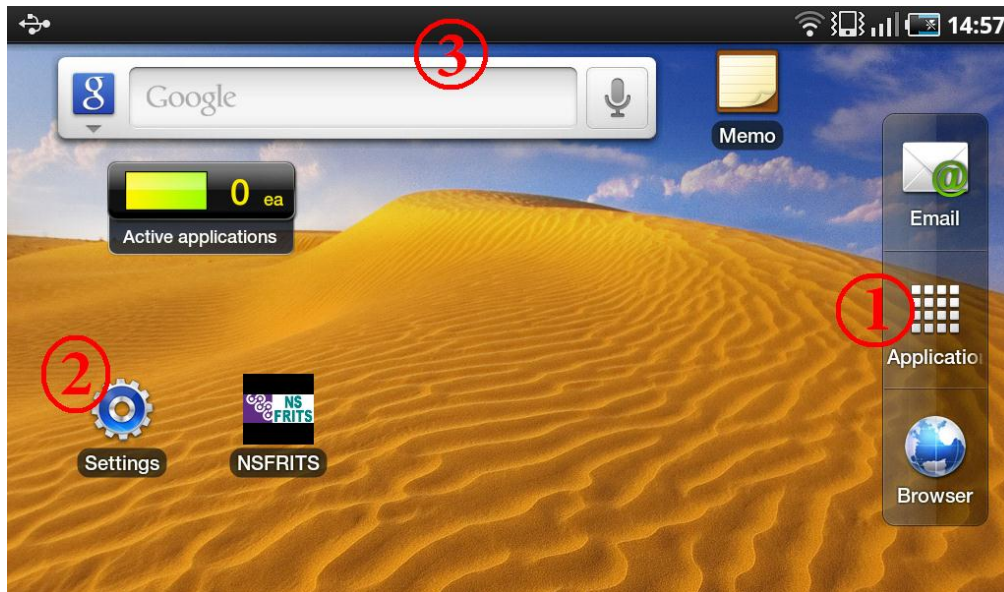
1.2 SOFTWARE

Press the Power on/off key and wait until the system has finished booting up.

At the beginning, the screen is locked in order to avoid an unwanted usage. You will have to unlock it by dragging the green lock icon towards the other side of the screen:



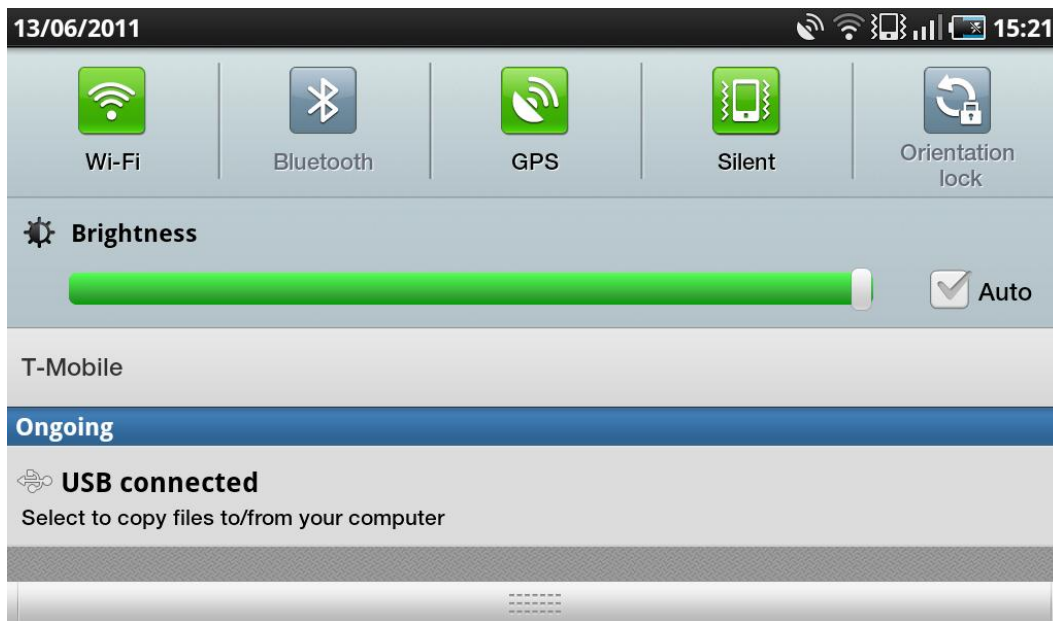
Then the main interface of the Android system is presented:



On the right of the window, you can access the different applications (1) installed on your system. If you want to put the icon of an application on the main window, you have to hold it pressed and then move it.

Among the applications, you can find “Settings” (2). It is the place where you can configure your system. There you can enable or disable your network connections (WI-FI/GPRS), manage your applications, change the used language, modify the date and the time, know the characteristics of your device, and so on...

Another easiest way to access some of those functionalities is to scroll down the notification bar at the top of the screen (3):



2 INSTALLATION INSTRUCTIONS

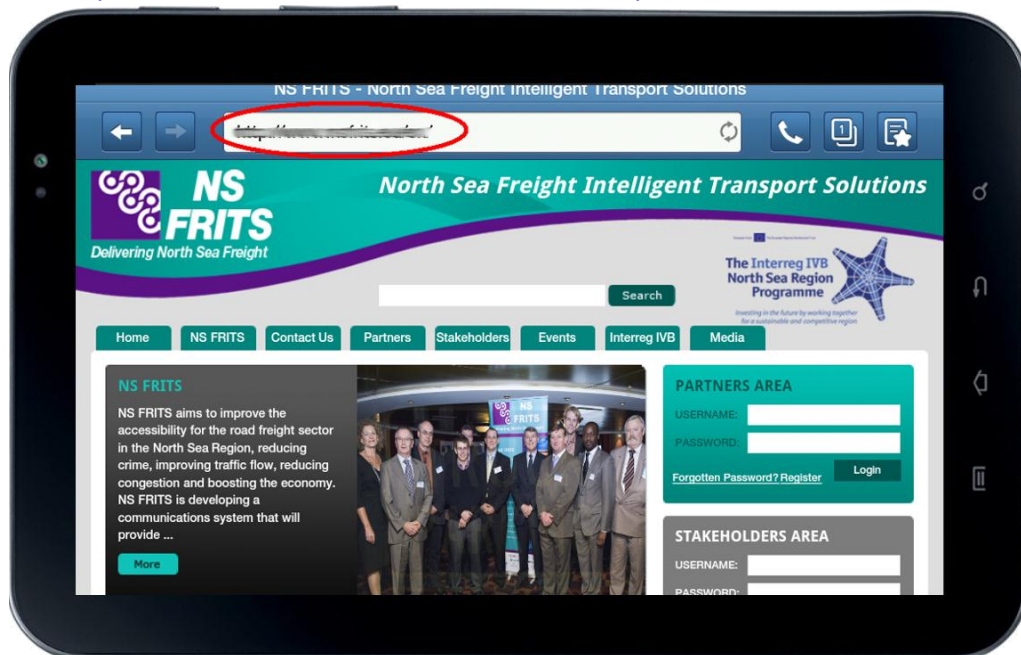
The following are the three steps to follow to download and install the NS FRITS smartphone application on a Galaxy tablet device:

2.1 DOWNLOAD

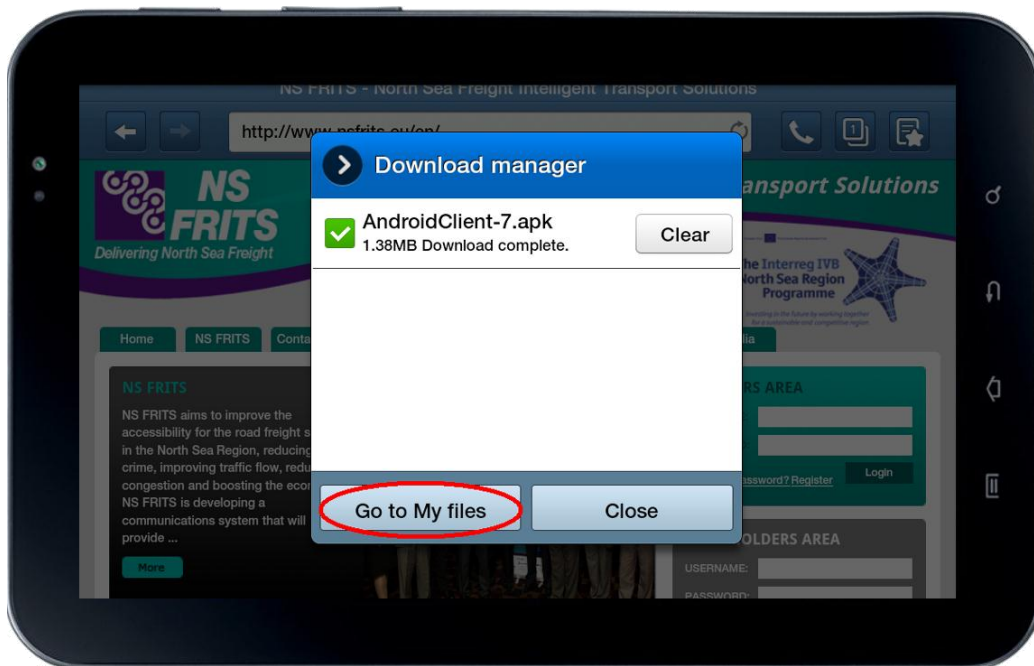
- I. Open the internet browser on your tablet device.



- II. Put the following link in the address bar:
 - o <http://server.nsfrits.eu/download/AndroidClient.apk>

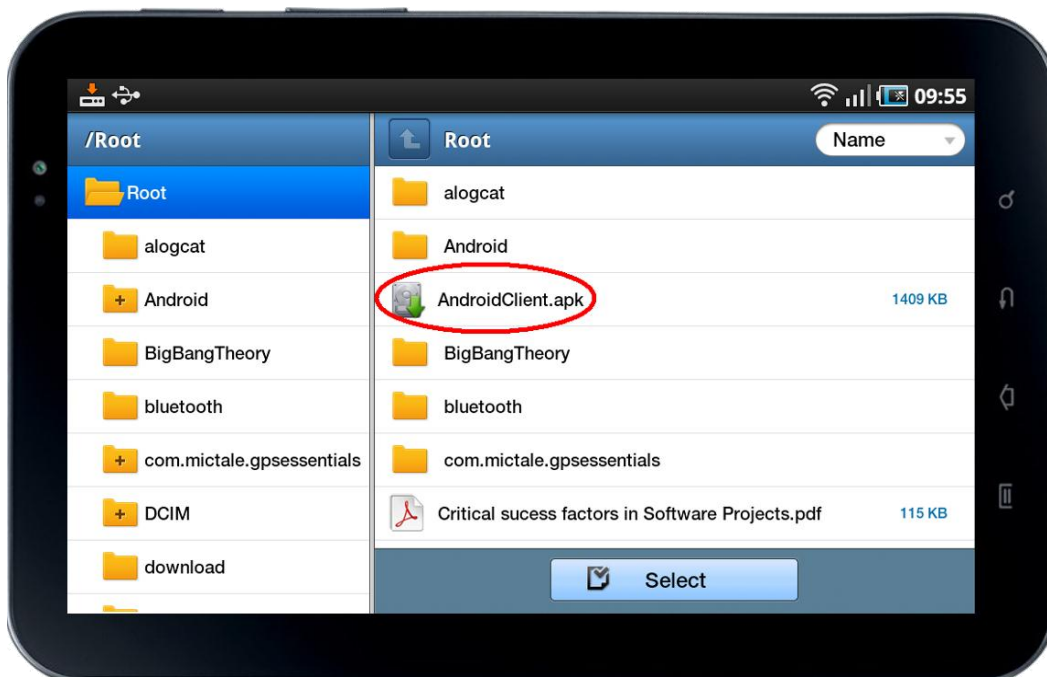


- III. The DownloadManager will download the installation file. Choose "Go to My files"



2.2 INSTALL THE APPLICATION

- I. Find the **AndroidClient.apk** file (Home->Applications->Myfiles->download).



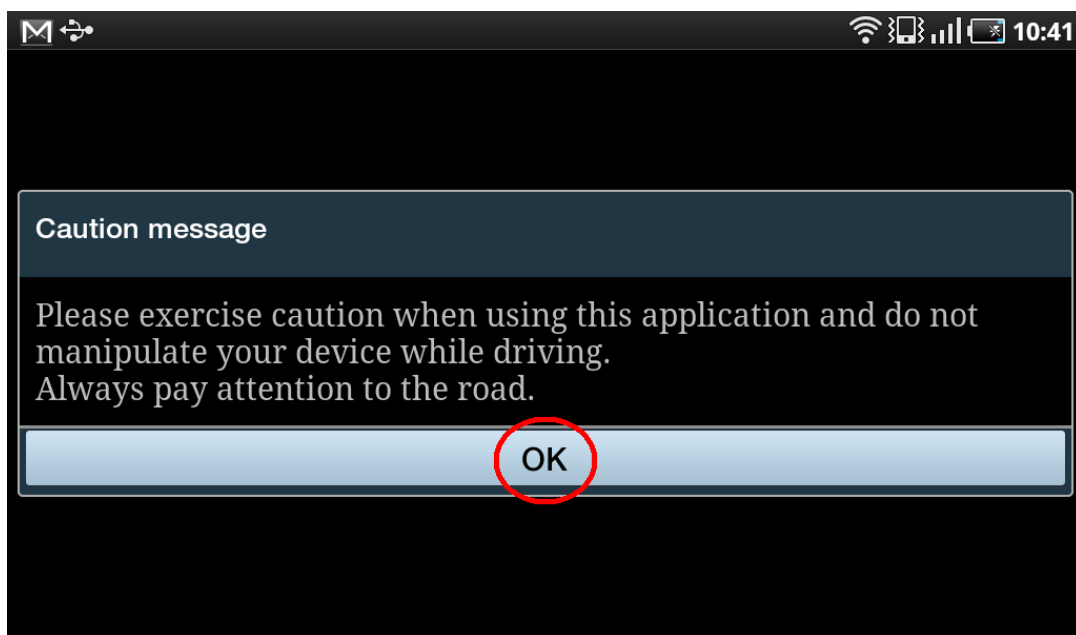
- II. Click on it. During the installation process, always agree to install.

2.3 LAUNCH THE APPLICATION

- I. After the installation, the application should automatically be launched. If not, you can find the start up icon in Home->Applications->NSFRITS Services.

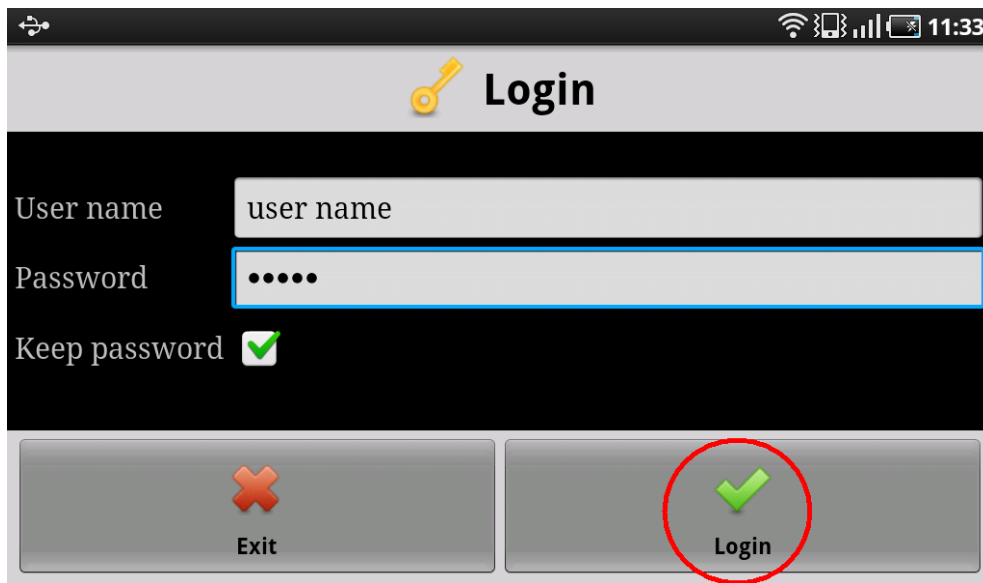


- II. Once the application is launched, the caution message should appear. Click OK.



- III. To Login, please input your assigned login credentials (we will provide this in due course if we have not done so yet):
- User name : ...
 - Password : ...

and then click on login



The image shows a mobile application login screen. At the top, there is a status bar with a back arrow, signal strength, and the time 11:33. Below this is a header bar with a yellow key icon and the word "Login". The main area has a black background. It contains three input fields: "User name" with the text "user name", "Password" with five dots, and "Keep password" with a checked checkbox. At the bottom, there are two buttons: "Exit" with a red X icon and "Login" with a green checkmark icon. The "Login" button is circled in red.

The first time you login, you will have to choose the categories and the languages (See Configuration)
You can now start using the application...

3 MOST OFTEN USED APPLICATION FUNCTIONALITIES

The NS FRITS smartphone application provides facilities to help the user to decide which route to take:

2.1 ROUTE PLANNER

3.1.1 Example: plan route from Bremen to Wilhelmshaven

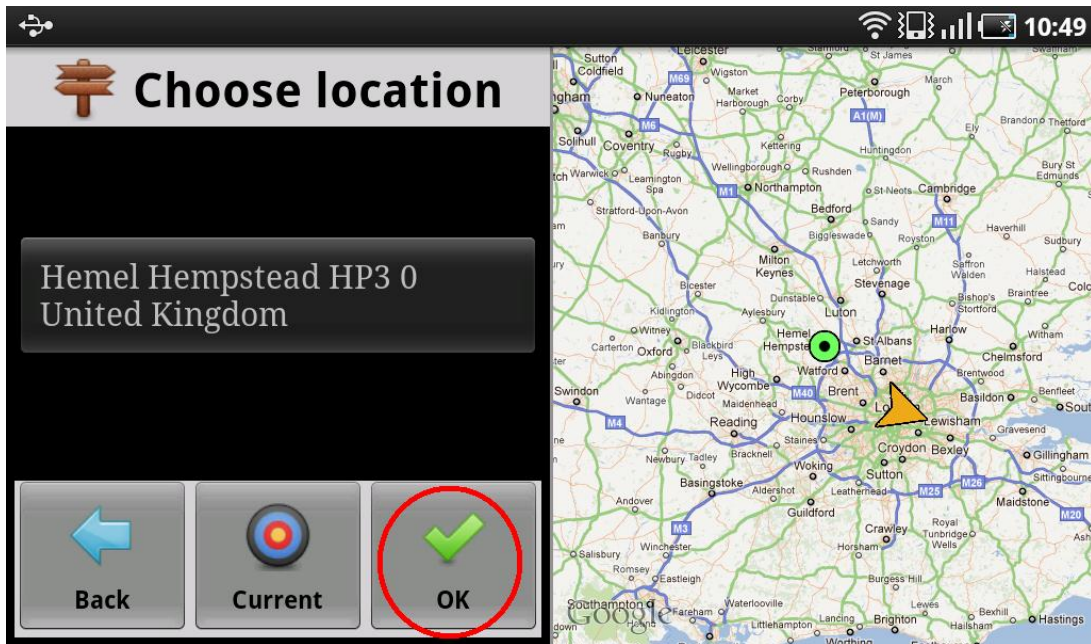
- I. Open the menu and select the route option :



- II. In the route planner, you can click on one of the bar to choose a new location (you can also add or delete a destination, you can save a route and retrieve it) :



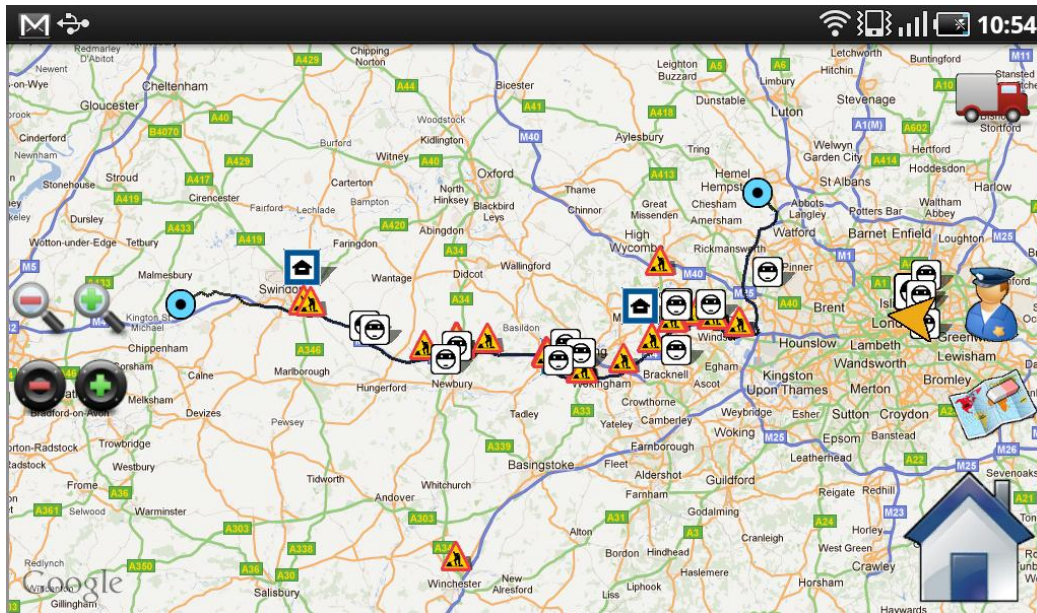
- III. You have different way to choose a location. You can click on the map, you can type the name or you can choose the current location:



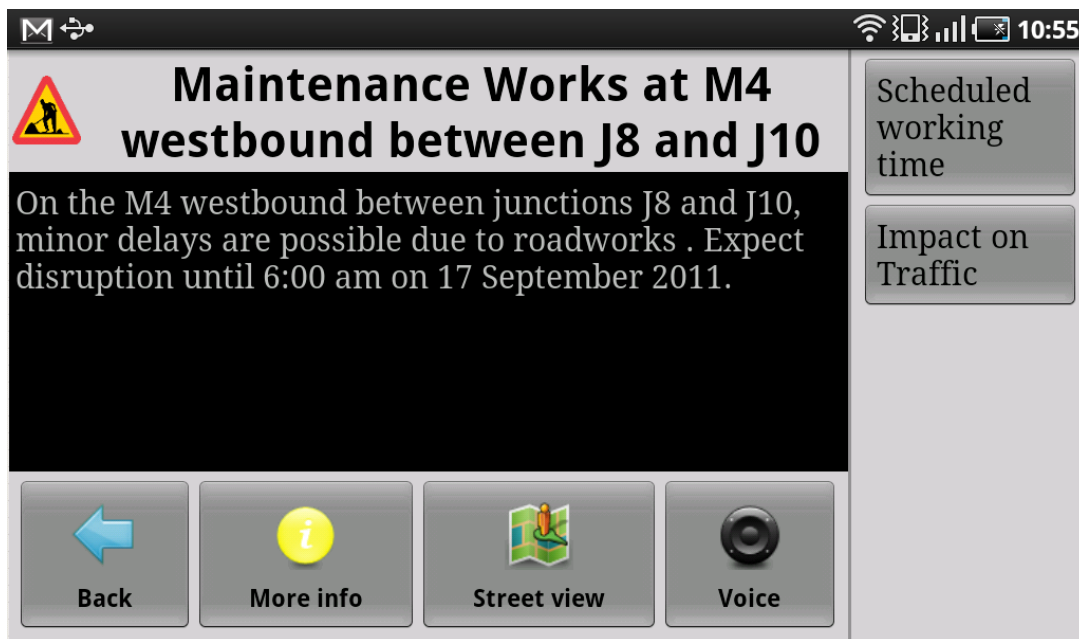
- IV. Then you have to press the plan route button to retrieve the route and the points of interest (POI) along this route :



- V. The route is displayed on the map and all the POI with it. To see more information about a POI, you can just click on it :



- VI. You can see a description of the POI. More information is available. A street view is accessible and you can hear the description via a voice engine.



3.1.2 Exercise

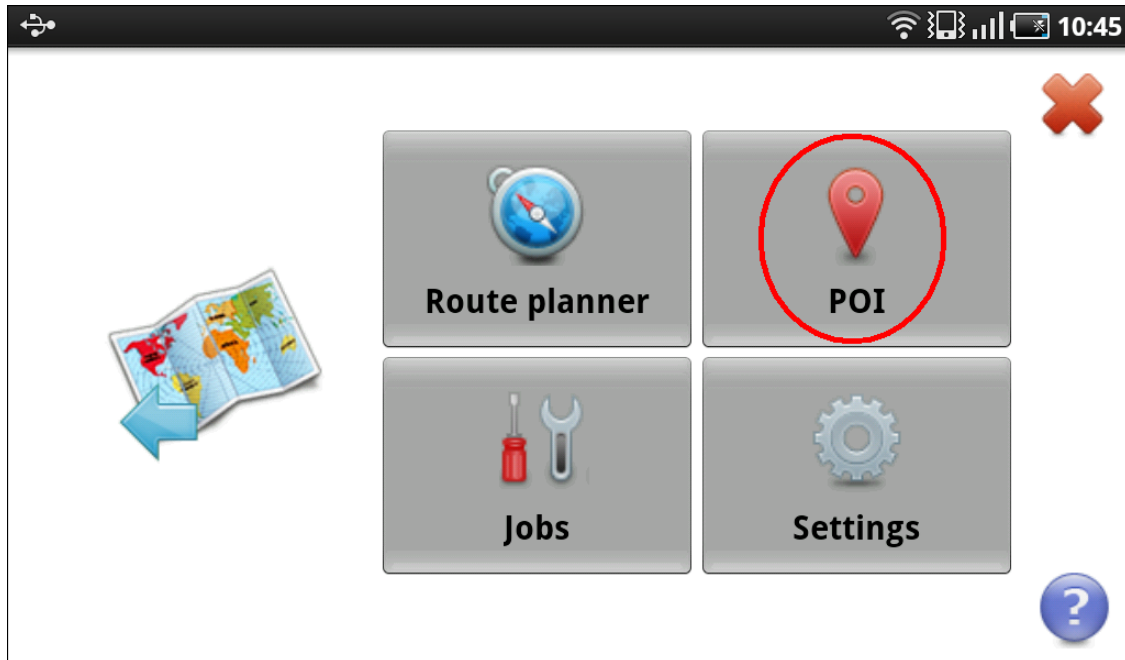
You have to plan a new route which starts from London, goes through Oxford and finishes at Coventry. For each destination, you need to use a different way to choose the location.

Once you can see the route and the POI on the map, you have to save this route with the name “London-Coventry” and then retrieve it in your saved routes list.

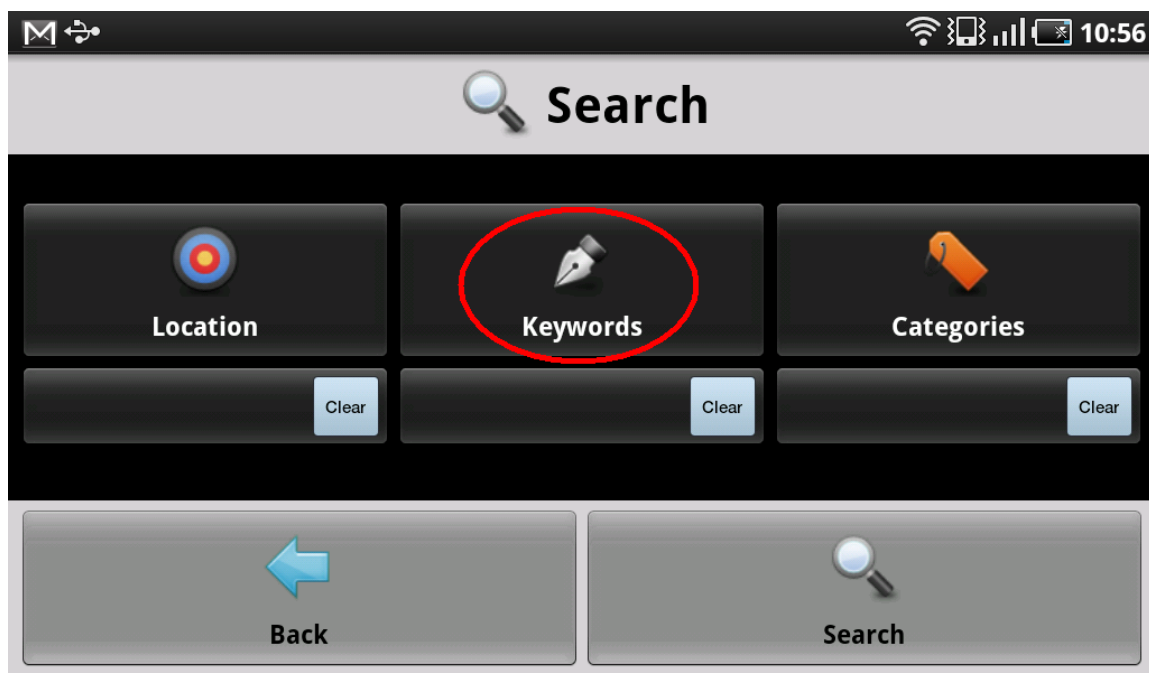
3.2 SEARCH

3.2.1 Example: search crime hotspots around London

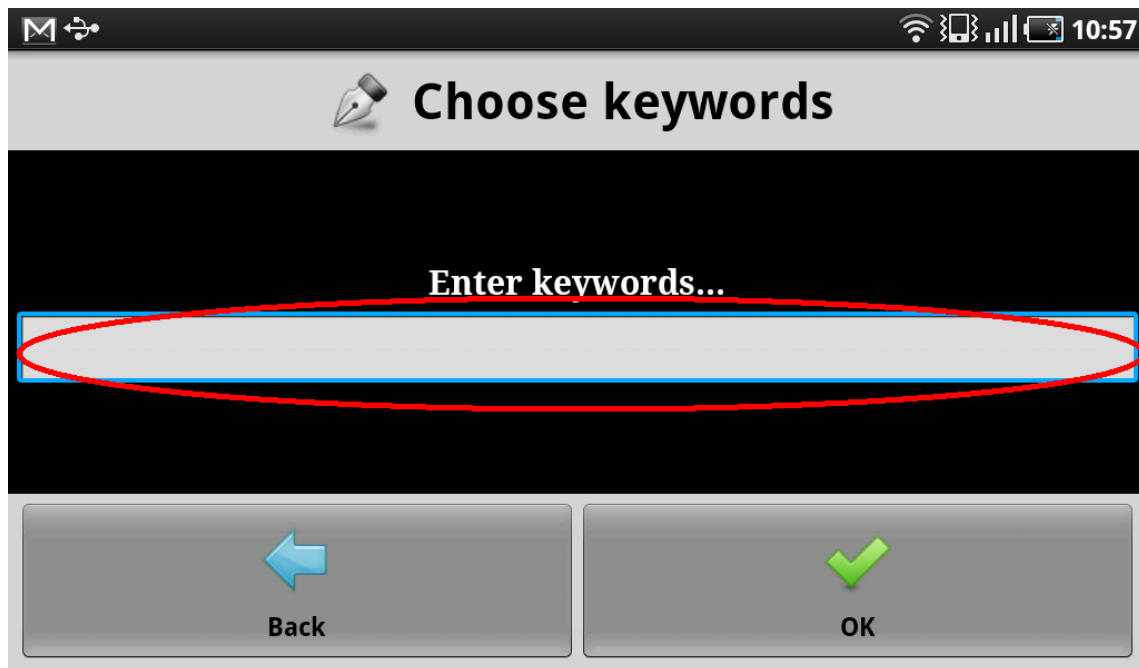
- I. Open the menu and choose the POI option :



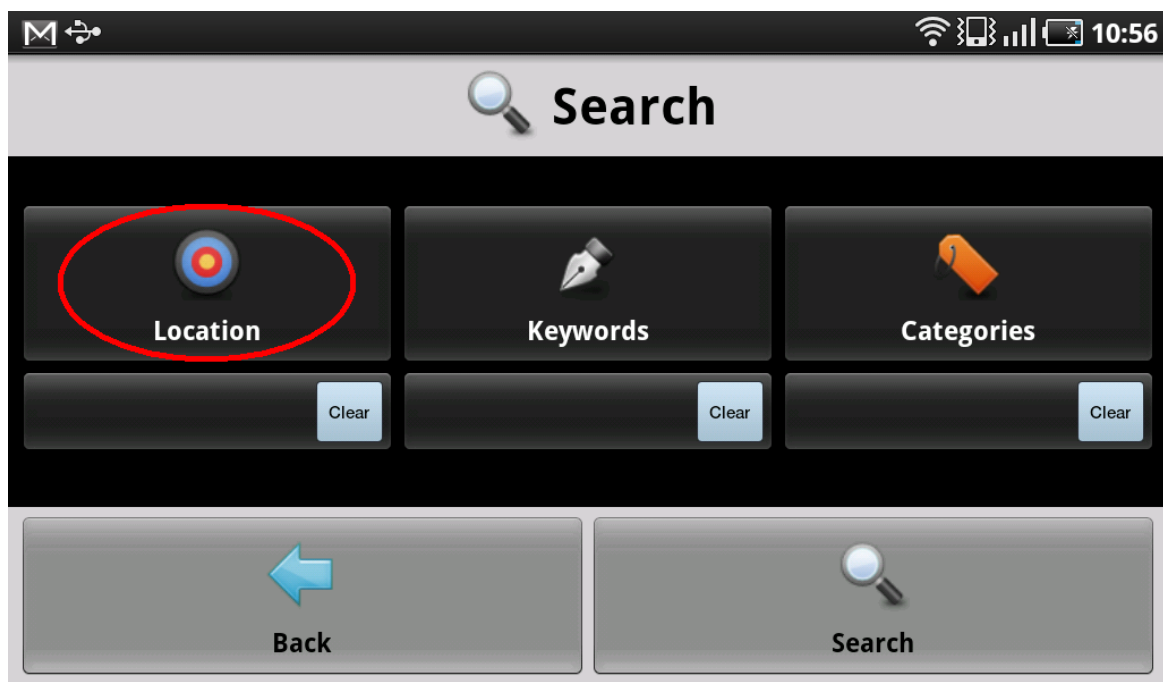
- II. You have three criteria to search information. The first one is by keywords:



III. You just have to enter the keywords you want the POI to contain.



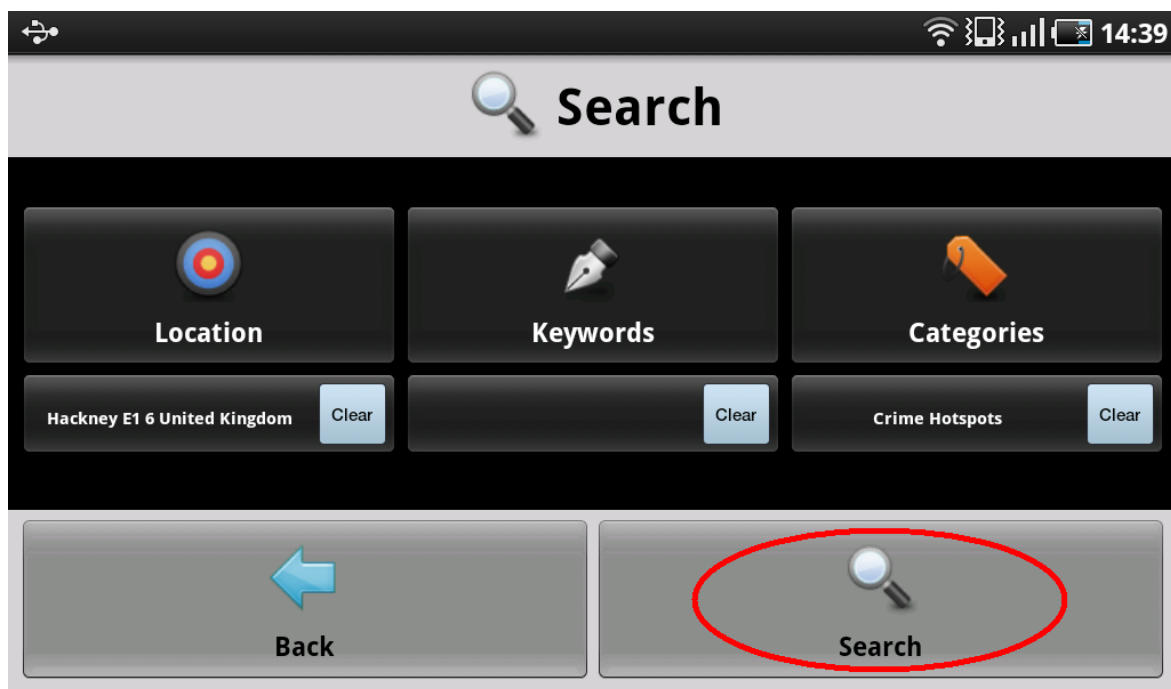
IV. You can choose a location as you have done with the route planner functionality:



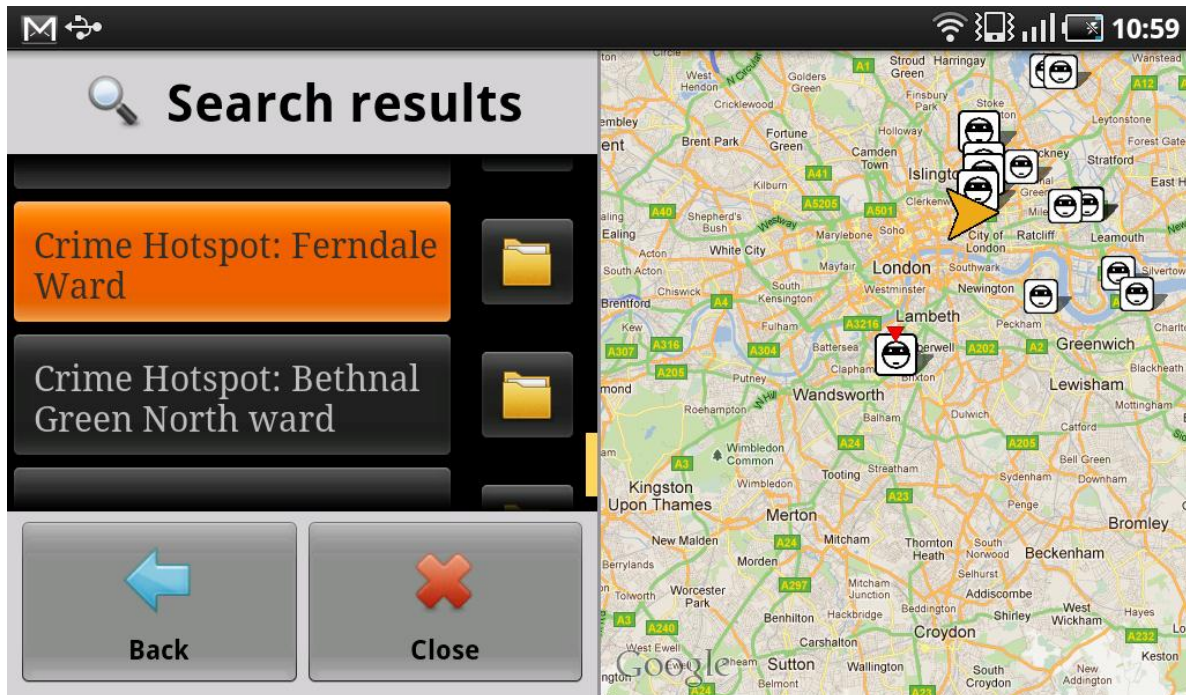
V. You then choose a category :



VI. Then click the search button to retrieve the information matching the criteria:



VII. Your results are displayed on a list as well as on the map. Click on one of them for more information:



3.2.2 Exercises

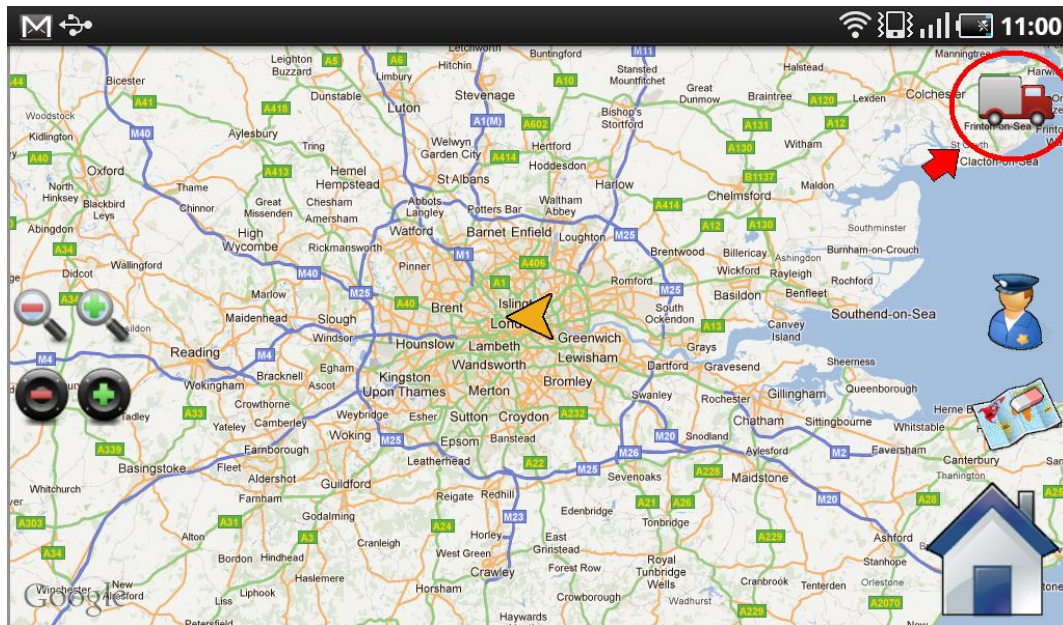
You have to search for truck stops around Coventry.

Then you have to find points of interest about Stena Line port terminal.

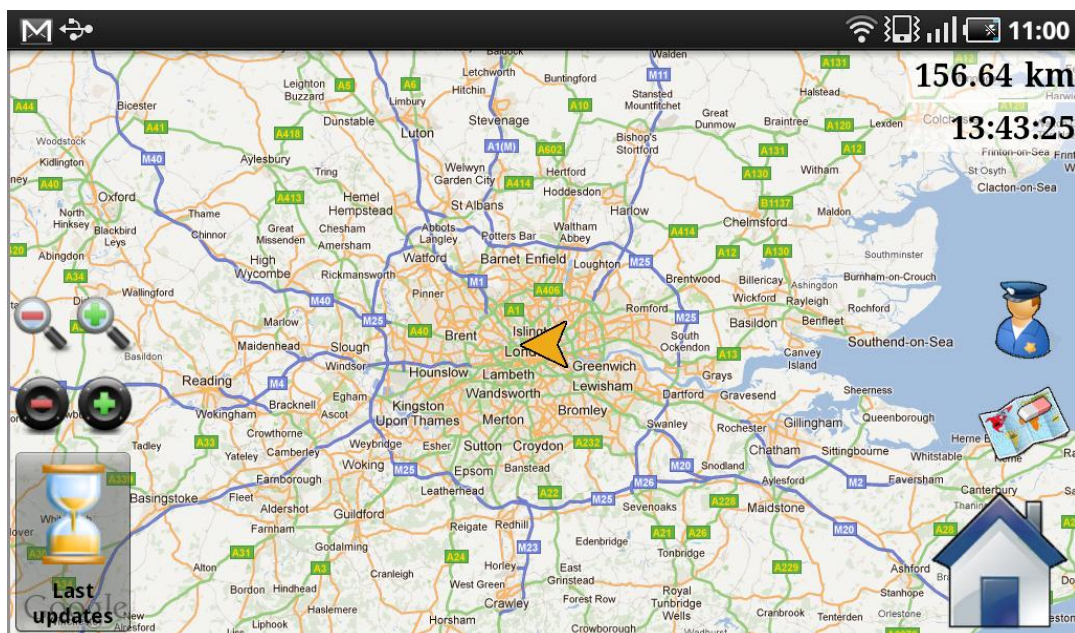
3.3 DRIVING MODE

3.3.1 Explanations

- I. The driving mode is automatically triggered when the trucker starts driving. It can also be triggered by clicking the truck on the top right corner.

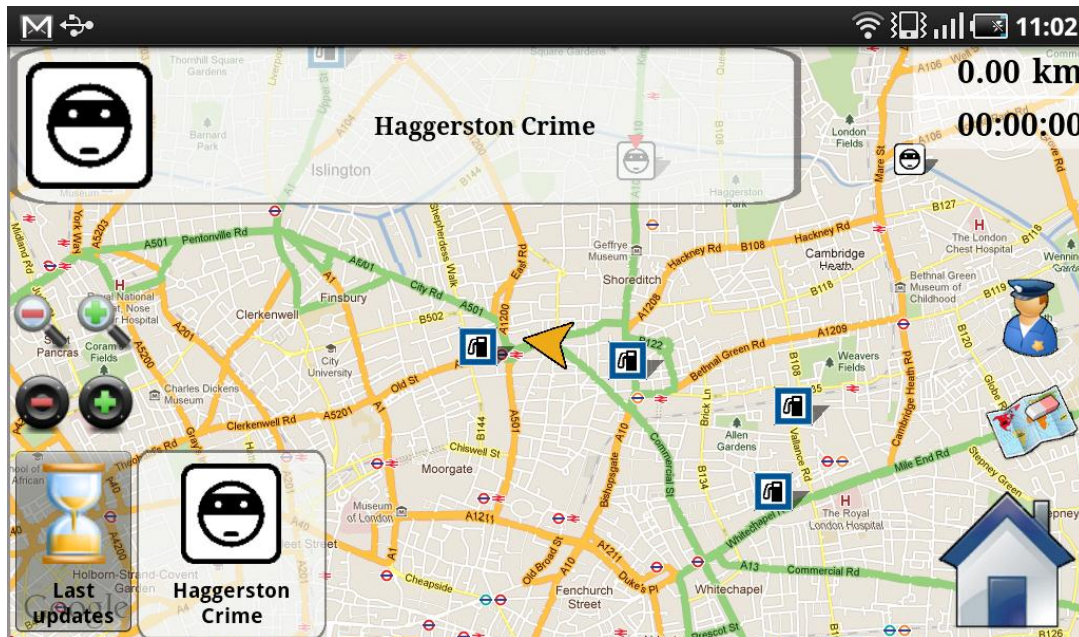


- II. Once you are in driving mode, the interface automatically focuses on your position and follows you as you are driving. To leave the driving mode, you have to move the map a little bit.



On the top right corner, you have information about the estimated time of arrival and the distance left.

- III. In driving mode, the POI will be displayed around you. The important POI will be told by a text-to-speech engine. When you arrive next to a POI, it will be added in the stack of POI to be told at the bottom of the application. Each POI of this list is told one by one.



A description of the POI is displayed at the top of the application during the time it is said. If you want to stop the reading of the POI, click on this description. If you want to hear the POI again you can click on it on the stack. A POI stay in this stack for one minute but you can always have a look at the ones that were in this stack by clicking the “Last Updates” button.

When a POI is told, the application automatically zoom to be able to see the POI and the current location to appreciate the distance.

3.3.2 Exercise

Trigger the driving mode, zoom in and zoom out, have a look at the last updates, send an alert and leave driving mode.

4 COMMUNICATION WITH THE FLEET MANAGER

4.1 SEND JOB

- I. As a fleet manager, you first need to launch the web-based application in your favourite browser (Google Chrome, Internet Explorer, Firefox, ...) at this address :

<http://server.nsfrits.eu/dispatcher/>


and then login with your credentials:

- II. Once login, you can see all your fleet and the truck drivers who are currently connected to the system (green circles):

- III. Another tab (1) allows sending orders. To do so, click on “Add Order” button (2). In the pop-up window, give a title and a description to the new order. Then make sure your order is selected (3) and enter the destinations (4):

The screenshot shows the NS FRITS Dispatcher / Fleet Manager interface. At the top, there's a header with the NS FRITS logo and the text "North Sea Freight Intelligent Transport Solutions". Below the header, there's a map of Europe. In the bottom left corner, there's a sidebar with three tabs: "Fleet Status", "Orders", and "Settings". The "Orders" tab is selected, indicated by a red circle with the number 1. In the main panel, there's a list of orders. The "Add Order" button is highlighted with a red circle and the number 2. The "Not assigned" status is highlighted with a red circle and the number 3. The "End position" input field is highlighted with a red circle and the number 4.

- IV. The route you have created is displayed on the map with all the points of interest along it (1) :

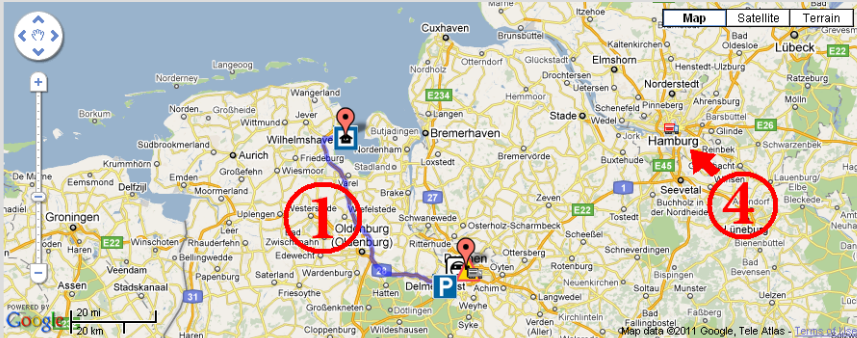


NS FRITS
Delivering North Sea Freight

North Sea Freight Intelligent Transport Solutions

Dispatcher / Fleet Manager

Logged in as: dispatcher [Logout](#)



Fleet Status | **Orders** | **Settings**

Orders

- test
- Completed
- test order **(3)**
- Not assigned
- test2
- On route
- zedr
- On route

[Add Order](#)

Last update : 2011 Jun 13 10:05:34

Order Name: test order

Status: Not assigned

Start position: Bremen, Germany [Set Start](#)

End position: Wilhelmshaven, Germany [Set End](#)

Assigned to: none

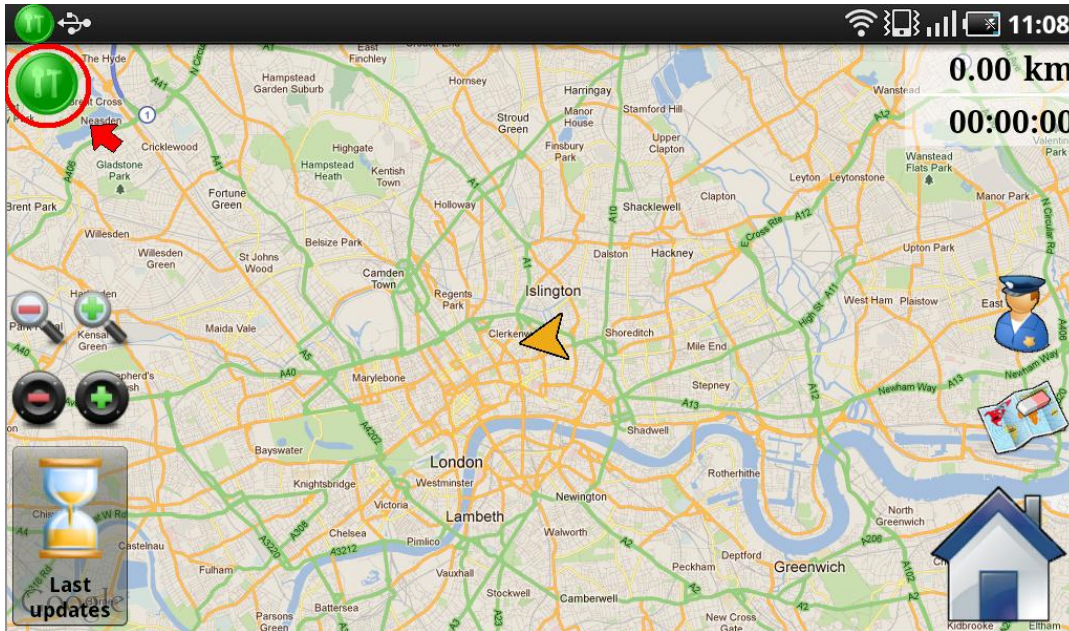
[View Description](#) [Remove Order](#) [Assign Order](#) **(2)**

You now have to assign the order to one of the truck driver. To do so, click on the assign order button (2) and all the truckers of your fleet will appear in a pop-up window. Select the one you want to assign the job to.

Once an order is created, you will be able to see the updates of the status (3) from the truck driver (not assigned, assigned, en route, and completed). You can also follow the truck on the map (4).

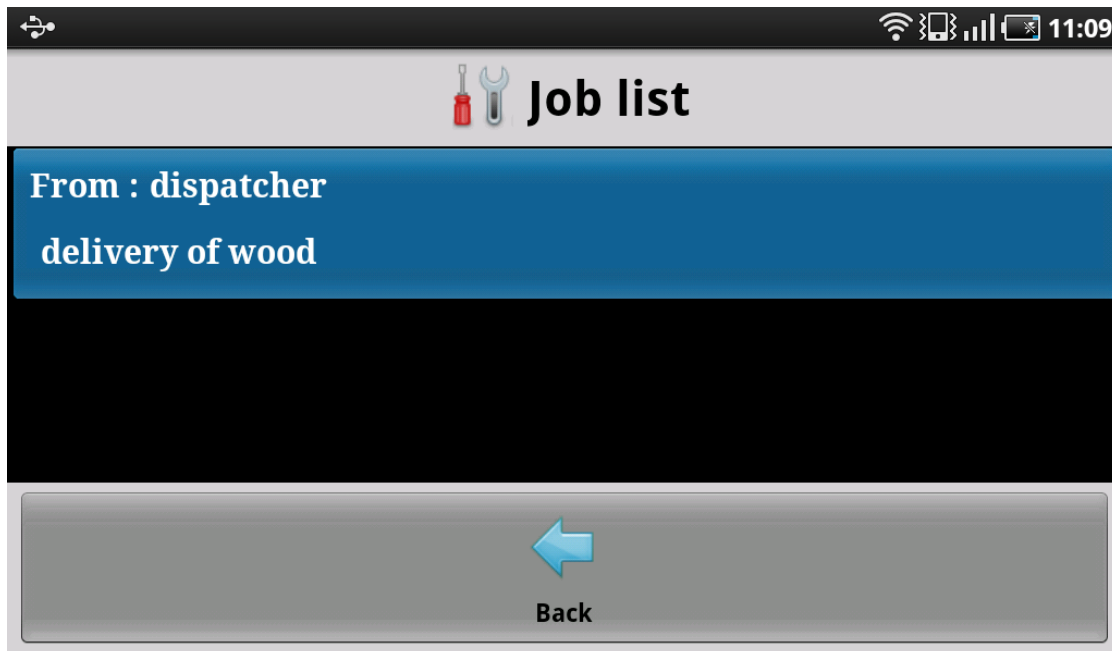
4.2 RECEIVE JOB

- I. Once the job has been sent from the dispatcher, the truck driver will receive a notification on his device. To inform the trucker he has received a notification, a sound is broadcasted from the device.



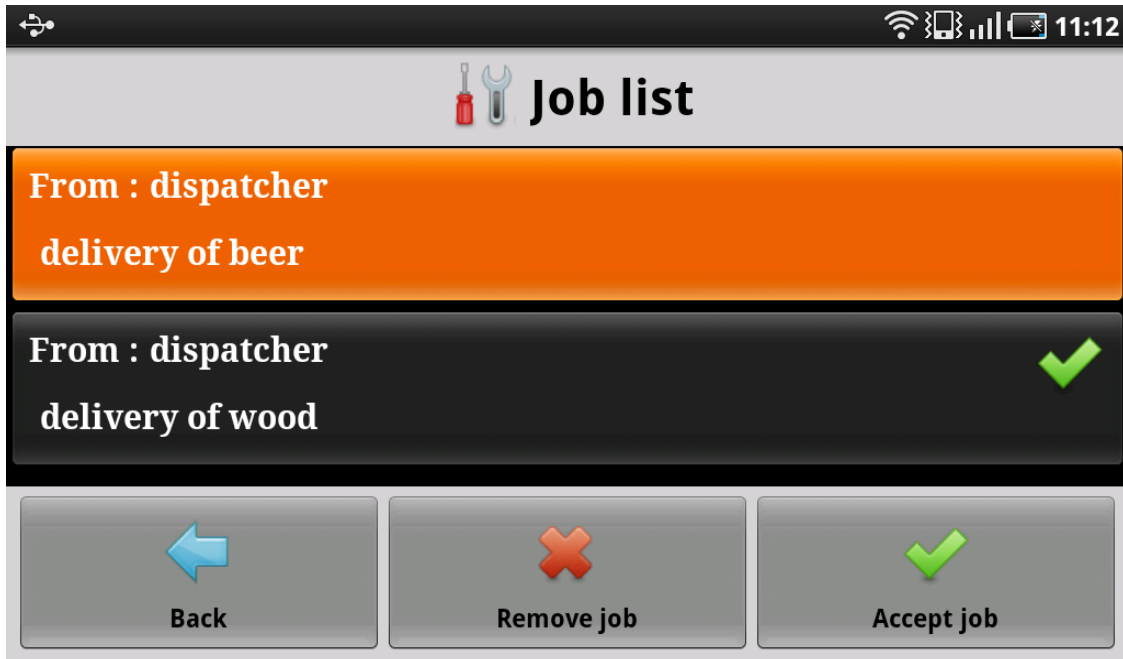
The truck driver can access the job from the notification bar on the top or directly on the top left corner of the interface under the alert button. Clicking one of those two will take you to the job list.

- II. The job list displays the list of the jobs you have received. Click on it and a window will pop up to ask you if you want to accept or reject the job.



4.3 MANAGE JOBS

- I. The job list displays the list of the jobs you have received. Click one of the jobs to select it. You can then accept it, open it, remove it or deactivate it (if it is the active job) :



The job with a green tick is the active job.

The blue ones are the one you have not accepted yet. If you click on a not yet accepted job, a window will pop up to accept it or reject it.

If you click on an accepted job, the route planner will open to have a preview of the route and you can then decide to activate the job:

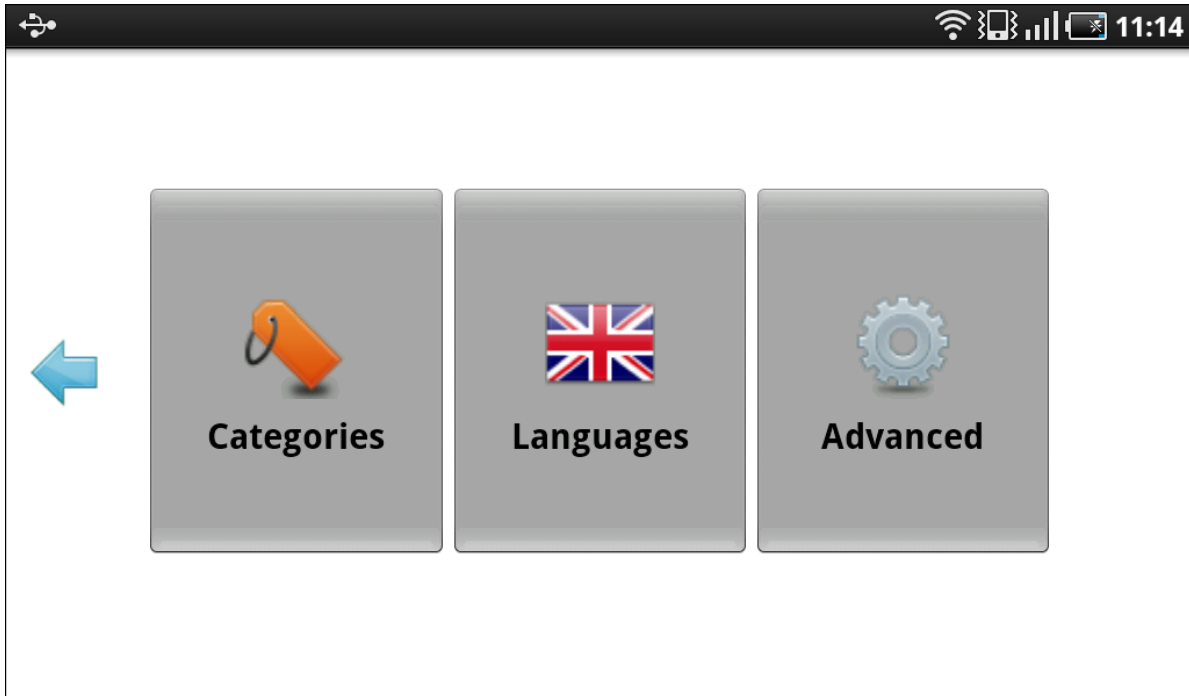


4.4 EXERCISE

Send two jobs from the dispatcher. Make one of the jobs active and reject another one.

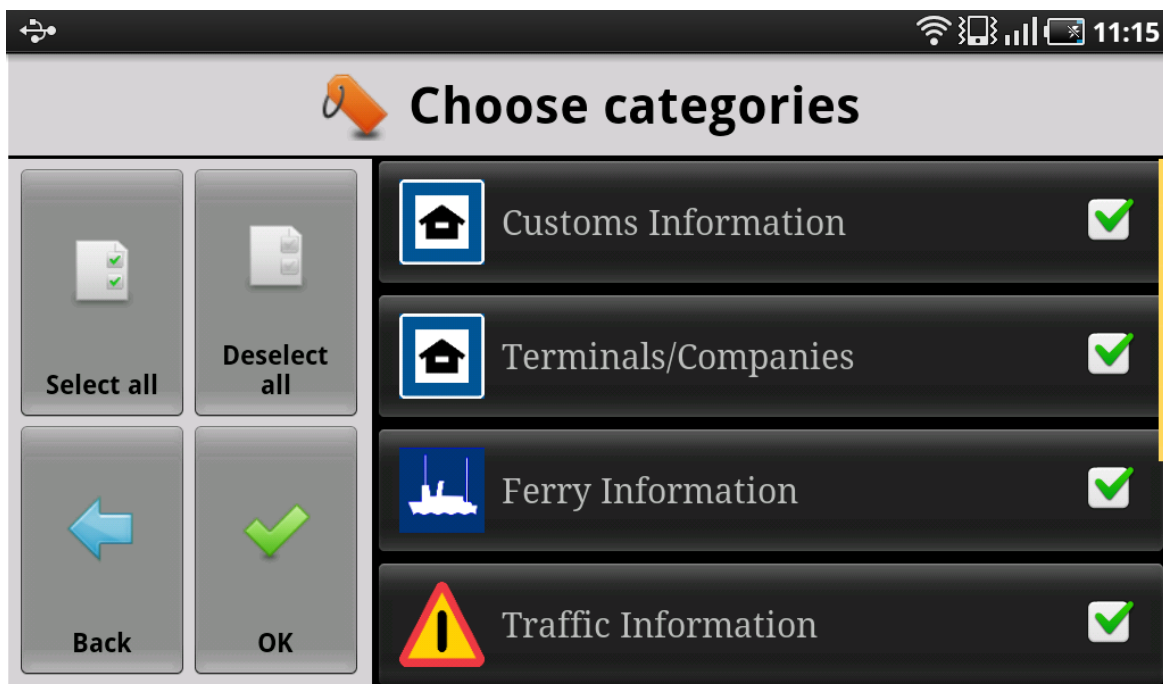
5 SETTINGS

The NS FRITS smartphone application allows the user to configure the settings to fit his preferences. The different configurations are available in the “Settings” menu. You will find three options: you can configure the categories, the languages or configure more advanced settings.



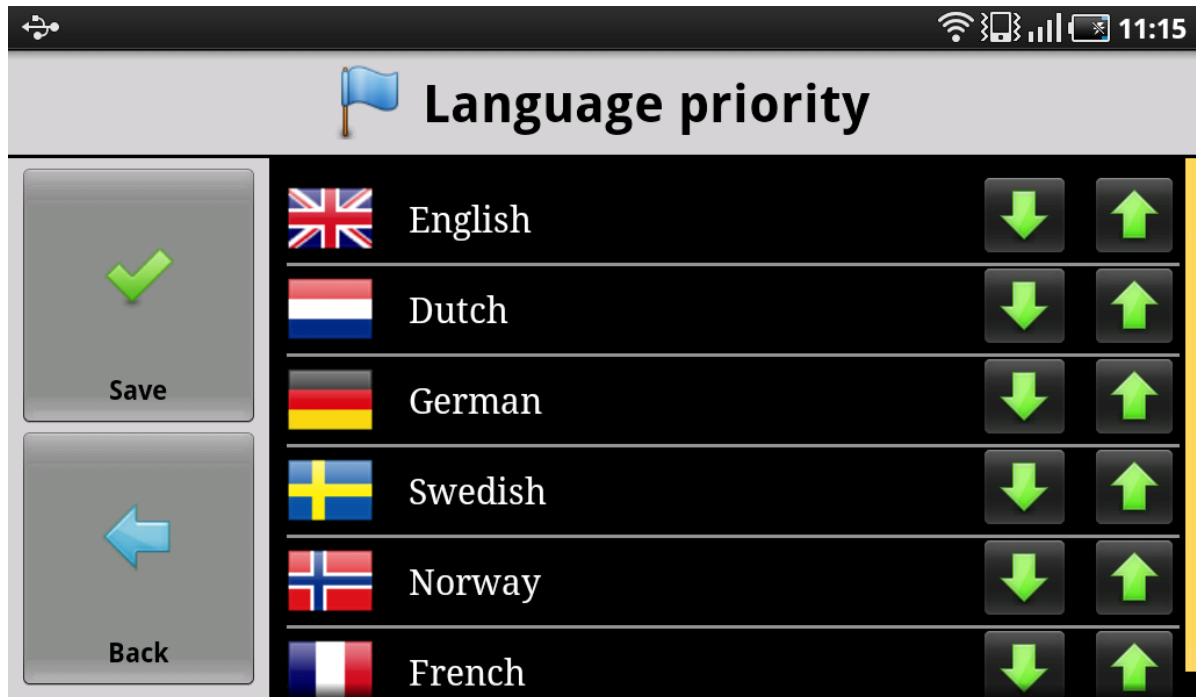
5.1 CATEGORIES

The choose categories menu option displays the list of available categories. The one you select will be the ones retrieved from the server. You have the possibility to select or deselect them all in once. Click OK when you have finished.



5.2 LANGUAGES

The language priority will define two things: the language used by the interface of the application (e.g. titles, buttons, dialogs ...) and the language of the information retrieved from the server:



The language at the top of the list is the language the most important. This is the one which will define the text of the application.

When the information is retrieved from the server, it is possible that your language is not available. The language priority window enables you to select your preferences order of languages. If you are German and that you also speak English, you can put English in second position in the list in order to receive the information in this language if German is not available. To do so, use the up and down buttons at the right of each language to increase or decrease its priority.

5.3 ADVANCED

You can also have access to a more advanced configuration by selecting the “advanced” menu option. The advanced settings are classified in 4 categories: General, Connection, Map and Driving.

For example you can choose in the “General” category to use the Google route planner rather than the HGV optimised one (The Google routes will appear red on the map and the HGV optimised ones will appear black).

5.3.1 TTS (Text-to-speech)

The Android system provides the device with a Text-to-speech facility to make it able to read text. The default engine (called Pico TTS) enables to hear the text in 5 different languages:

- English (UK or US accent)
- French
- German
- Italian
- Spanish

To extend the TTS possibilities, new engines have to be downloaded by the user. Two main engines are available on the market, each one giving TTS capabilities for most languages:

- eSpeak TTS is a free engine but the voice sounds robotic.
- SVOX TTS has a really good quality (better than the default engine) but each language you want to make available has to be bought separately (£2 each).

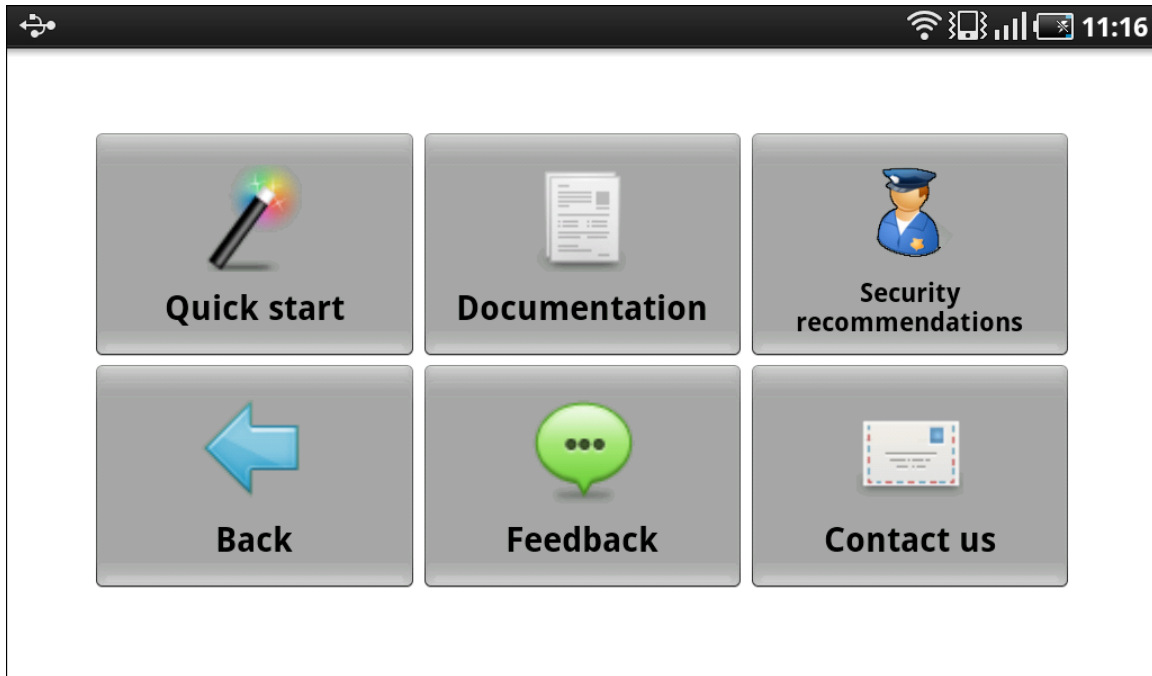
To install the engines, you can download them via the Android Market or you can use the NS FRITS application. Go to Setting=>Advanced=>General=>TTS. There you have three buttons. Two of them let you download one of the engines mentioned above.

Once you have downloaded a new engine, you have to select the “TTS settings” button to choose the engine you want to use. To do so, make sure the engine is checked in the “Engines” list and then select it as the “Default engine”.

To be able to use the new TTS engine capabilities, you need to restart the NS FRITS application.

6 HELP AND FEEDBACK

The NS FRITS smartphone application owns a complete help and feedback section. It is all gathered on a menu you can access clicking the help button on the main menu.



6.1 QUICK START GUIDE

The user guide menu option enables the user to understand the main functionalities of the application with easy instructions on a one page document.

6.2 SECURITY RECOMMENDATIONS

The security recommendations option provides the truck driver with lists of recommendations from specialised institutions, an online file browser to see official police pictures and a way to fill a crime incident report online.

6.3 FEEDBACK

The feedback menu option enables the trucker to send any kind of message to the partners of NS FRITS:

- met issues using the application
- suggestions of how to improve the system
- feedback about the application usage

6.4 CONTACT US

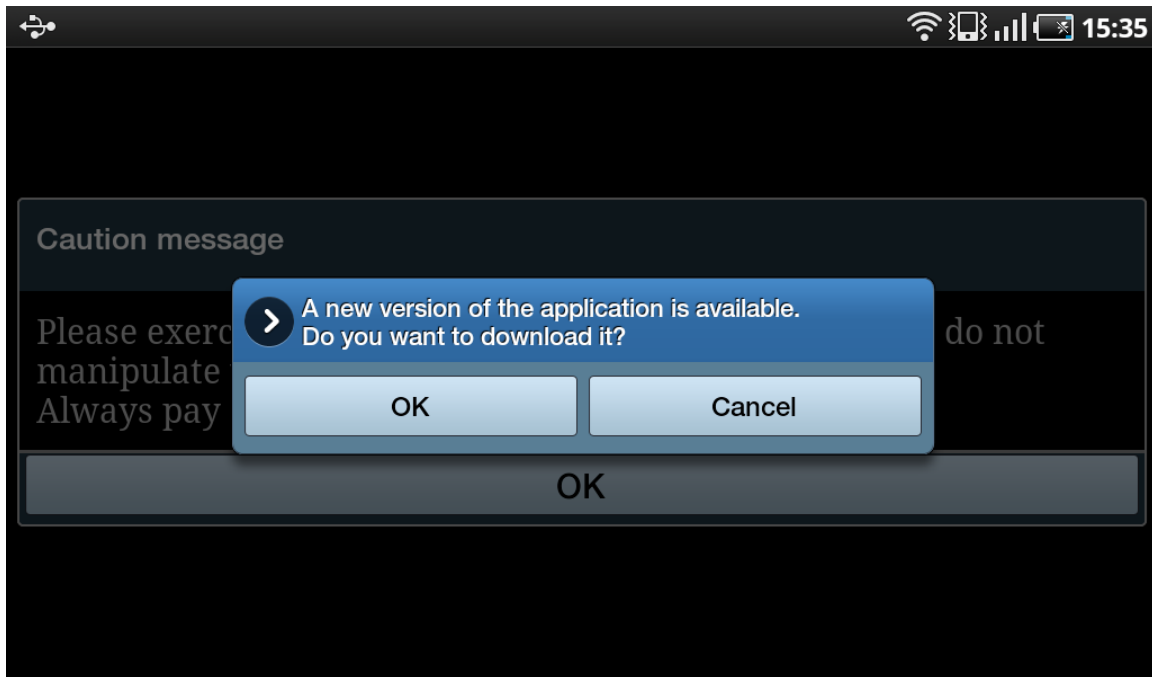
The contact us menu option enables the trucker to call the help desk or to visit NS FRITS partners websites.

7 MISCELLANEOUS

7.1 APPLICATION UPDATES

The application might need to be updated sometimes. The reason can be that some bugs have to be corrected or that the application has been provided with new features.

It is deeply advised to accept those updates as it improves the application and the rejection of the updates could prevent the application from working.



When the application starts, it detects if there is an available update on the server and asks you if you want to download it (if you reject it, it will be asked every time you start the application). Click OK and you will enter the installation wizard of Android. Accept the different steps and your application will be updated.

If you do not manage to install the application, you might have to uninstall it (Settings => Applications => Manage Applications => NS FRITS mobile application => Uninstall) and then reinstall it manually as described in the session "INSTALLATION INSTRUCTIONS". This procedure will erase the information you have saved like your login details or your saved routes.

7.2 DATA USAGE

For the data usage, you need to contact your network provider to know the amount of consumed data.

You can also use NetSentry which gives you an accurate figure about the consumed data:

<http://netsentry.googlecode.com/files/netsentry.apk>