

Mobile Metro Guide

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1 Introduction

Mobile Metro Guide is a subway trips planner with a guide of touristic attractions for different cities. The application was designed to run on a large categories of terminals, the only technical requirement is to have Java platform. There are over 500 millions of such terminals worldwide giving the application a large base of potential clients.

Mobile Metro Guide is slim, fast and easy to use. It contains a minimap of the city with two levels of zoom, an exhaustive list of metro stations grouped on lines and a list of the most important 15-20 touristic attractions. All attractions are marked the on map and a short description is provided including visiting hours and fees where exist.

The application includes a route planner for metro trips. Stations filters by the lines and a search feature are provided for an easy selection of start and end points for the trip. The route can be listed as a trip description or showed as an animation on the map.

The user interface is friendly and intuitive allowing the use of the application with almost no learning curve. The soft keys mapping is done consistent with the terminal the application runs on. This gives the user a comfortable feeling and reduces the use of the help menu.

Because all the data is stored in the terminal there is no need for a GPRS or GSM connection in order to use Mobile Metro Guide. It can be used anywhere anytime disregarding the signal strength or roaming availability.

2 Description

After a splash screen the application enter the main menu. It contains **Plan trip, Map, Attractions, Useful info, Help, About** and **Disclaimer**. The **Exit** command will close the application.

Plan trip takes the user to trip planner menu. Select **From:** or **To:** to get an alphabetical list of all stations in the city and decide upon the start and end points. After that **Show trip** can be used to get a trip description or **Trip map** to see an animated trip on the map. During Trip map the **Zoom** option is working so the trip can be followed in details or on the whole city map.

On the stations list menu the following options are also available:

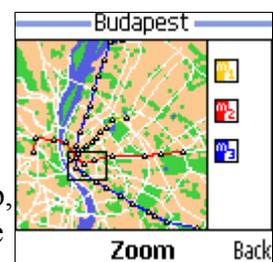
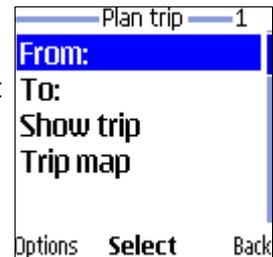
- **Select** selects the station as the start or end trip point and goes back to the planner menu, but now the name of the station will be displayed following **From:** or **To:**.
- **On Map** show the map centered on the current station, the **Zoom** option is available.
- **All stations** and local metro lines filter the stations by lines or display them all together.
- **Search** is used to locate a station typing the first letters of its name.

The start and end stations are remembered until the application exits.

Map displays the whole city map. It contains only the main avenues, parks and lakes/ivers of the city and the metro lines with the stations marked as small dots. A small legend containing the colors of different subway lines is provided. A rectangle marks the zone that can be magnified using **Zoom**. The rectangle can be moved using navigation keys or numeric keys 2(up), 4(left), 6(right), 8(down). **Zoom** brings the detail map, featuring stations names, attractions marked as numbers and the names of the main avenues. Using **Zoom** again will take the user to the whole city map.

The map can be accessed from different menus, like **Plan trip > From:** or **To:** > **On Map** when a station is highlighted, from main menu using **Map** or from **Attractions** using **On Map**. For this reason **Back** in this context means the user will return to the previous menu, not necessary main menu.

Attractions displays the local attractions list. Each attraction has a number which can be used to locate the attraction on the detailed map. **On Map** from the **Attractions** list will pinpoint the current attraction on the city plan (**Zoom** available). **Details** gives the name of the attraction both in local language and English and a short description and visiting hours and fees where available.



Useful info contains information about the history of the metro system, taxation and schedule.

Help provides a very short version of the above presentation.

About and **Disclaimer** provide about and disclaimer info.



3 Technical Overview

Mobile Metro Guide design is on top of CLDC 1.0 and MIDP 1.0. However special builds are available for MIDP 2 enabled devices for aesthetic purposes. Because different terminals have different displays resolutions minimaps are available in 3 sizes (96x96, 156x156 and 176x176). JAR size is keep under 64k so the application is slim enough to run on all Java terminals on the market today. Commands are mapped to softkeys on runtime taking advantage of terminal's keys layout (like the back key from Sony-Ericsson or the 3 softkeys interface from Nokia).

4 Conclusion

Mobile Metro Guide is a subway trips planner with a guide of touristic attractions featuring:

- A versatile minimap containing the metro lines, stations, touristic attractions, main roads, parks and lakes/ivers of the city featuring two levels of zoom.
- An easy to use metro trip planner.
- A list of 15-20 most important touristic attractions with description and map pinpoint.
- Useful info about taxation, schedule and history of the local metro system.
- Application does not need any kind of connectivity so it can be used anywhere anytime disregarding the signal strength or roaming availability. It is also small and can run on any terminal aware of J2ME. In order to benefit at maximum from new displays different versions for different screen sizes are provided.
- Mobile Metro Guide has an easy to use interface melting in the terminal's original look and fell so it can be used without effort by anyone having a Java enabled mobile.

