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## **"Ozi2Ozi"**

**A program for exchange of GPS-navigation data between  
PDA's  
(inclusive a map display of transferred position data)**

Version : 19. Oktober 2004

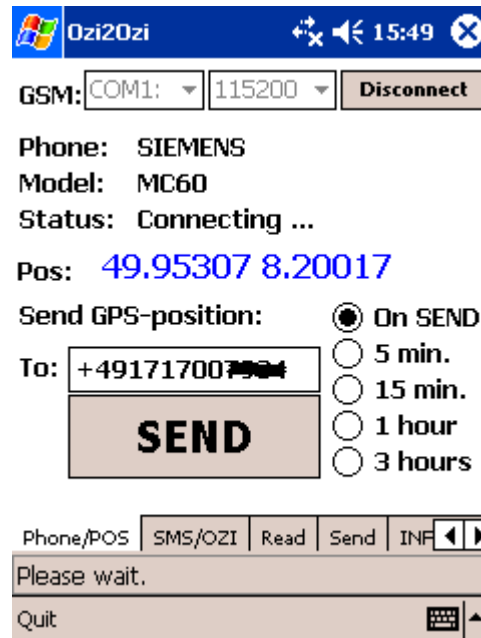
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"Ozi2Ozi" is a PDA-program that works together with the well-known GPS Mapping Software "OziexplorerCE". Both programs must be installed on the same PDA under Windows Mobile 2003. Together with a GPS (serial or bluetooth connection) the received local position data will be displayed on a map and you will also have the option to transfer your position via SMS directly to another user who has the same software installed on his PDA. Your position will then pop directly up in your friends map with a symbol (a smile). A complete system consists of a GPS receiver, cellular phone (w/ data interface) and a PDA running the two above mention programs.

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## Phone/POS-page

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**Fig.1**

After program start the page "Phone/POS" ( Fig.1) appears. Before connecting the phone to the PDA you have to select a serial port and a transfer rate. Then push the "CONNECT" button.

The cellular phone must be equipped with a GSM-modem and be able to handle AT-commands. Phones from SIEMENS have proved to works fine together with this software and almost all models from the last five years from this manufacturer works fine. Some models from Nokia and Ericssons have also been tested.

Connection have been tested with serial cable ( COM1 ) , infrared ( COM3 ) and Bluetooth. In you are using an IPAQ (most models) you should use select COM8 instead of COM7 for the Bluetooth connection. If using a Dell Axim X30 you should use COM7.

The selected baudrate for the connection varies dependent of the actual phone type and model.

With older models 19200 baud should be selected. Newer models can handle up 115200 baud.

If the connection is successful, the actual brand and model are displayed. Status is: "Connected".

The connection can be broken by clicking "Disconnect".

In order to be able to send the actual GPS position, the program "OziExplorerCE" must be active and have a GPS fix ( Fig.2 ). Ozi2Ozi will then automatically grab the position from "OziExplorerCE" and display it in the "Pos:" field in the Phone/POS-page.



Fig.2

The position will be sent as an SMS to the phone number ( "To: "-field ) that is located above the "SEND" button as soon as this button is clicked. Remember to use international prefix when entering new numbers (like using +47xxxxxx for Norway etc.).

You may also send the actual position at regular intervals (every 5 min, 15 min. etc). (Be aware of transmission costs).

Incoming SMS and incoming calls will be announced with sound signals from Ozi2Ozi.

All incoming SMS will be stored in the actual phone (storage "ME" ( phone ) or "SM" ( SIM-card)).

However, if a SIEMES phone is used, the incoming SMS will also be directly transferred to the PDA .

If now, the SMS contains a valid GPS-position, this will activate the mapping program "OziexplorerCE" and if a suitable map is present, a symbol (smiley) with the senders phone number will pop up in the map on the actual position (Fig.5).

On the other hand, if the incoming SMS does NOT contains a valid GPS-position, the message will then be stored and treated as an ordinary SMS within "Ozi2OZI".

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## READ-page

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**Fig.3**

With the use of the function buttons on page "READ" ( Fig.3 ) it is possible to read all the SMS that are stored inside the phone. By using the buttons "ME" ( phone ) or "SM" ( SIM-card ), the actual storage of the phone is selected. The status line (bottom line) is telling the progress of this selection.

The actual reading of the SMS can then be done by clicking the "READ SMS" button. Depending of how may SMS messages that is actually stored in the phone this can take up to 60 seconds. Once again: check the status line for the progress.

The header of each ordinary SMS are displayed in the lower list box. By clicking on one of these lines the whole message is shown in the upper text box window.

If an SMS contains GPS position data, the SMS is transferred to the lower list box window in the "SMS/Ozi"-page. From there they may be transferred to the map in "OziexplorerCE".

All messages can be saved to files ( "GPSPos.txt" and "InBox.txt" ) by clicking the "Save"-button.

All windows (including "SMS/OZI"-page windows) can be cleared via a "Clr"-button click.

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## SMS/OZI-page

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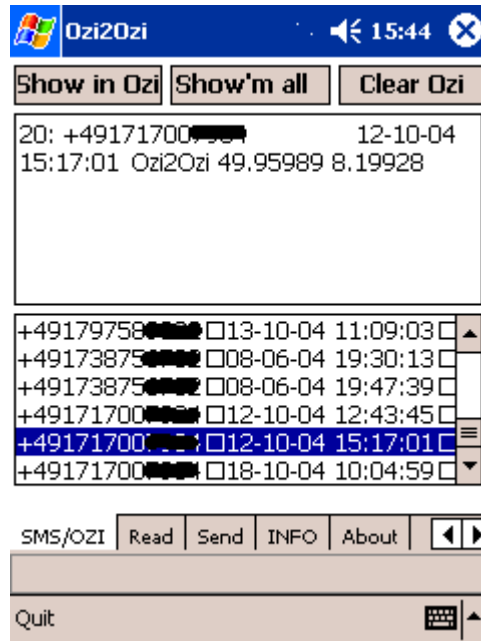


Fig.4

The page "SMS/OZI" ( Fig.4 ) is for processing the navigation (GPS) data that was received as SMS messages. In the lower list window are all the received SMS found. By clicking on one of these lines the complete SMS message is shown in the upper window. All messages coming from other "Ozi2Ozi" users or messages containing ordinary standard NMEA protocol of type "RMC" can now be displayed in "OziexplorerCE" by clicking "Show in Ozi".

If the button " Show'm all " is clicked, then all position data from all SMS found in the lower list box are displayed in the map with a little time delay between each other. "OziexplorerCE" should of course be running, and the GPS should be deactivated during this process, in order to get a nice "slideshow" showing the movement on the map of anyone that have been tracked.



**Fig.5**

With the button "Clear Ozi" all the symbols in "OziExplorerCE" will be cleared.

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## SEND-page

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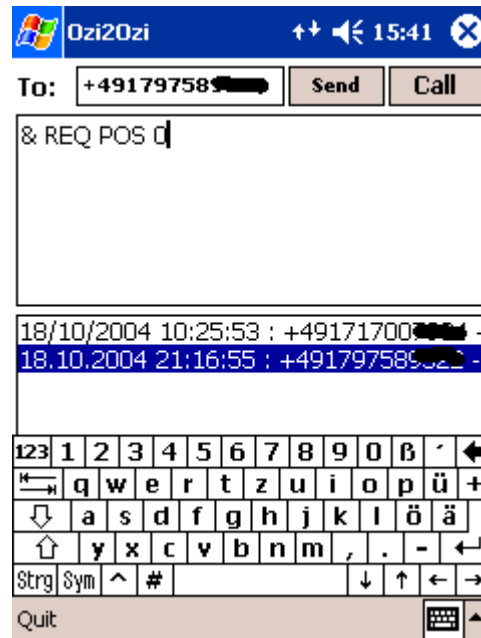


Fig.6

The page "Send" ( Fig.6 ) can be used for sending any text as an SMS message. The text can be entered/edited in the upper window. Also the phone number for the recipient has to be entered in the "To:" field (always remember to use international prefix). Then use the "Send" button.

Then watch the status line to see if the SMS was successful.

This function is also useful for sending a request message to different types of tracking devices. A device like this could be a "Falcon STEPP" that need to receive an SMS with the content "&REQ POS 0" in order to send back its position. Or a "Benefon" that needs a "xxx#POS" –request to do the same (where xxx is a password).

Other trackers (like the [TRACKBOX](#) ) reacts to an incoming call to be triggered to send an SMS with position data back to an predefined recipient number. Since the program yet don't recognize a rejected call the "H-up" ( hangup ) button has to be clicked after a few seconds.

"Ozi2Ozi" will be improved by supporting formats coming from newer micro tracking devices that is presently being offered to a growing marked (like G-19, TrimTrac etc.).

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## INFO-page

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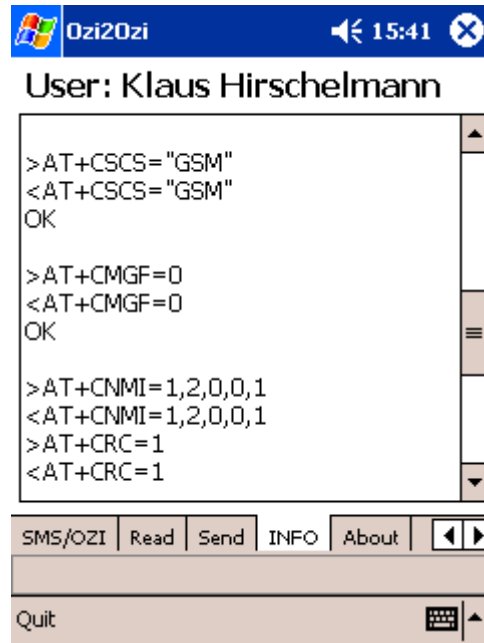


Abb.7

If there is any communication problem between the PDA and the phone modem then all the AT-commands and the response output are displayed in the "INFO-page". These data are also saved to a log-file called "AT-log". This file can be transferred to a PC and printer.

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## Availability

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A downloadable demo version of the PDA program "Ozi2Ozi" ( with limited navigation accuracy ) can be found at the web site:

<http://www.geocities.com/gps2sms>

There you will also find the e-mail address for the programmer Frank (Norway) for any request about the full version of the program.