

Manual for Oudie 2 and Oudie IGC

version 6.0

Last modified 27.10.2014 © 2003 - 2014 ... Naviter d.o.o.

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Part

1 Introduction

Oudie v6.0

Company Naviter is dedicated to solving glider pilot's problems and Oudie is one of the answers in this challenge. Its intended use is helping glider, para-glider and hang glider pilots navigate during leisure, cross country and competition flights.

Oudie is a Personal Gliding Assistant which aims at providing everything a glider pilot needs in one simple package. For this reason Oudie is shipped with all cables which are required to connect to your flight data recorder or GPS, a basic suction cup holder as well as car and wall chargers. The proven Naviter software packages SeeYou Mobile and ConnectMe are preinstalled already. You can literally take it out of the box and use it in your glider.

Oudie works great in combination with other Naviter products such as SeeYou for the PC, ConnectMe, Soaring Spot and others. It was designed to answer the question which was most frequently posted to us as "Which device should I buy to run SeeYou Mobile?"

This Manual is intended to be used with products Oudie 2 Lite, Oudie 2 and Oudie IGC. Paragliding and Hang gliding versions of Oudie devices are also available but not covered in this manual.

Naviter is a Slovenian based software company. We focus on highly featured and easy to use software for glider pilots. The needs of glider pilots worldwide are what we are interested in.

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1.1 In the Box

The Oudie is delivered with SeeYou Mobile and vector maps (topographical data, ground elevation data, cities, rivers, lakes, roads, etc.) preinstalled. Airport and Airspace files for much of the world are also pre-installed. Your Oudie was delivered in a package with the following items:

- 1. Oudie
- 2. USB cable
- 3. Serial cable and 12V charger cable with RJ45 connector
- 4. Car charger
- 5. Universal wall charger with 4 different plugs
- 6. Suction cup mount
- 7. Cradle
- 8. Universal RJ45 to DB9 Female converter
- 9. Universal RJ45 to DB9 Male converter
- 10. RJ45 Female/Female Gender Changer
- 11. RJ12 Cable extension

- 12. CD ROM
- 13. Getting started manual
- 14. Gift Box



See also:

Cables and converters 16

1.2 Charging the battery

There are several ways to charge Oudie's internal battery.:

- Connect the **wall charger** cable to AC 110-240 V power source and insert the connector to the Oudie . Oudie 2 and Oudie IGC have different connectors due to different battery capacities.
- Connect the **car charger** to the DC 12-24 V source and insert the connector to the mini USB slot on the Oudie.
- Connect the Power and Serial data cable to DC 12V power source and insert the USB connector to the mini USB slot
- Connect the USB cable to an external Power Pack battery (not included)

The Power indicator light indicates charging status of the Oudie. Green light means that the device's internal battery is fully charged. Amber light indicates that the battery is charging. Please note that Oudie IGC presently doesn't have a power indicator light therefore you should check the charging status in the Battery Navbox on the Oudie IGC.

1.3 Mounting with the holder

The mounting kit consists of the cradle and the suction cup mount. First insert the cradle into the suction cup mount until you hear and feel a strong click.

Then insert Oudie into the cradle so that you hear a strong click again.

Use the screw on the holder to adjust the tightness of the cradle. Turn the cradle into ideal viewing position for your use.

Note: Do not place the Oudie in positions which obstruct pilot's movements, vision of nearby traffic or instruments.

Part III

2 Getting started

This topic wants to cover some of the basic things you need to know about how to use your SeeYou Mobile. If this is the first time you are using SeeYou Mobile please take a few moments to read about the basics about how to use SeeYou Mobile:

- . Getting to know Oudie 6
- . Turning Oudie on and off 7
- . Running SeeYou Mobile for the first time 10
- . Copying files to SeeYou Mobile 11
- . Learning to use SeeYou Mobile 12
- . Connecting to the GPS source 13
- . Cables and converters 16
- . <u>Using profiles with SeeYou Mobile</u> 19
- . Flying badge, record and racing tasks 37
- . Flying Assigned Area tasks 39
- . Using Thermal Assistant 26
- . Flying with the FAI Triangle Assistant 46
- . Flarm Radar 48

2.1 Getting to know Oudie

- 1. Power On/Off button
- 2. Power indicator
- 3. Earphone jack
- 4. microSD card slot
- 5. Mini USB port
- 6. Stylus
- 7. Speaker
- 8. Reset key



Note for Oudie IGC: The Oudie IGC looks the same as the sketch above with the only difference that the MiniUSB connector is at the other end of the device and that a quick charger connector is located next to the miniUSB connector.

2.2 Turning Oudie on and off

To turn the Oudie ON press the power button for 1 second .

To turn the Oudie OFF, press the power button for 1 second while the device is running then choose the desired action:

- Power Off: will stop the navigation and turn off the device.
- Sleep: will turn off the screen GPS and Bluetooth. The navigation will be put on hold but the battery will drain slightly.
- Cancel: will do nothing and return focus to navigation

To reboot press the reset button on the back of the device.

See also:

Getting to know Oudie 6

2.3 Upgrading firmware

Keep your Oudie updated at all times with OudieUpdater.

OudieUpdater is a very simple, amazingly effective software. It will help you keep your Oudie 3 updated with latest versions, airspaces files and maps at all times.

On windows it installs into the tray, sits there quietly until there is something you need to know. That's all! Press the buttons when there is something to update and keep your Oudie updated at all times. Just look out for this message:



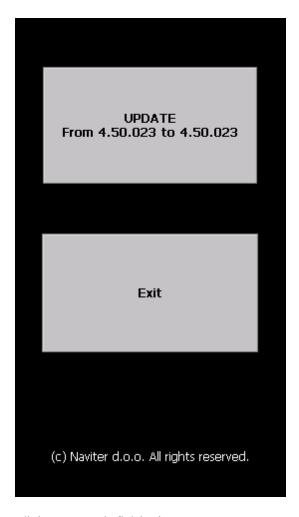
Click on message and OudieUpdater will show up:



How it works?

Please download and install OudieUpdater on your PC: http://download.naviter.com/OudieUpdater/ousetup.exe

- 1. To update Software, Airspace or Maps press buttons by side and wait until copying of all files is completed.
- 2. Disconnect Oudie from PC.
- 3. Reboot Oudie with restart button on the back side.
- 4. Wait until it boots into an Update dialog box.



5. Press "Update" and wait until the process is finished.



6. Reboot Oudie. That 's all. Now you are running latest software version.

If you need to check your Oudie software version go to: Menu > About > Oudie (Ver 5.01.001).

2.4 Running SeeYou Mobile for the first time

After successful installation, use the SeeYou Mobile icon on your Today screen to start the application.

Unless you are connected to the GPS source already, it will inform you that a GPS input is unavailable and ask you to select a new input. Click Yes and the <u>Settings > Input</u> 130 dialog will be opened. To run an already recorded demo flight, select File, then press OK in the command bar at the bottom of the screen.

What you get is the demo flight on a demo map with demo waypoints and demo airspace. The airplane will takeoff at a 20:1 accelerated replay and the Navboxes will start to show values which the pilot would have been looking at if he was flying with SeeYou Mobile on that particular flight.

The Map page [58] display is divided into Map with symbols > Command bar sections from top to bottom.

Map 58 with symbols

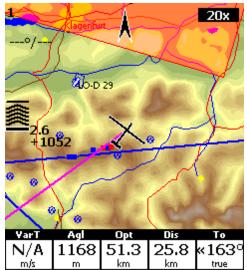
is where you will be looking for information all the time. You can tap the symbols to bring up additional dialogs for

- . Wind 82 by tapping on the Wind vector
- . Map orientation 77 by tapping on the North arrow
- . Flight properties 3 dialog by tapping on the arrival altitude/MC symbol
- . Move the glider if you tap on the glider. This is also a sort of Pan function for the map.

Tapping on a waypoint on the map gives you a list of Waypoints, sorted on distance from the tap. This is a quick way to select a waypoint from a group of waypoints.

Dragging a line on the screen gives you a list of Waypoints, primarily sorted on the direction of the drag and secondly on the distance from the glider. This is useful for searching for a waypoint that is not on the screen, but you know it is in the specified direction.

The <u>Navboxes [117]</u> are what you will use to display the information you need. Be it Final glide, Navigation, Optimization or another issue, use Menu > Navboxes to select which items you want displayed.



Command bar 69

holds 5 shortcuts to specific actions.

The default actions for software buttons from left to right (Command bar) are:

- . Zoom 81
- . Display options 77
- . Goto 86
- . Next page
- . Menu 75

Try the functions of all of these buttons.

See also:

Getting Started 6

2.5 Copying files to SeeYou Mobile

Mobile Wizard connects SeeYou with SeeYou Mobile to send files to the Pocket PC. Mobile Wizard never expires. That means you don't have to have a registered version of SeeYou to transfer all of the required data to the Pocket PC.

- 1. Connect Oudie to your PC by connecting the USB cable
- 2. Tap "Connect to PC" on your Oudie screen to start the communication if prompted (newer Oudies won't ask)
- 3. Remember which drive letter was assigned to your Oudie
- 4. Run SeeYou
- 5. Go to File > Mobile Wizard

First page of the Mobile wizard allows you to select the Items you wish to transfer to the device. You can choose from

- . Waypoints and Tasks
- . Airspace
- . Settings (Vector map color scheme, units, triangle properties, default observation zones)

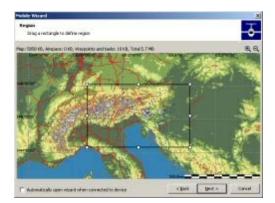
Second page gives you the possibility to select basename and destination folder for the data you have selected to upload on the first page.

- . Files that will be created will have the same name as Basename and respective extensions CUB for airspace, CIT for vector maps and CUP for waypoints and tasks.
- . Choose "Copy to my Computer" as the destination for files
- . Click "Browse" to select the location on your Oudie where you would like to save the files
- . Use the Browse buttons to select the destination folder easily.

Third page asks you to draw a rectangle for the area you want to transfer to the Pocket PC. Use Ctrl+Up, Ctrl+Down to zoom out and zoom in. Click on the the borders of the map to move horizontally and vertically. This is the same procedure as in the other Map views in SeeYou.

Fourth page shows progress in transferring or saving files.

Once the transfer has completed successfully, you may close Mobile wizard with the Finish button.



See also:

Getting Started 6

2.6 Learning to use SeeYou Mobile

There is two recommended options to learn SeeYou Mobile before you get airborne.

File replay

This is by far the most efficient way to learn SeeYou Mobile. What it does is it replays an already flown flight and enables you to see the data you would have been looking at if you had SeeYou Mobile with you

on the particular flight.

In order to set this up, copy some of your flights from the desktop PC to your device. Then go to Menu > Settings > Input 130, then change input to "File". Press the "..." button and choose a flight you wish to replay. Alternatively you can go to Menu > Logbook > choose the flight you wish to replay > Tools > Replay flight. Then use the buttons to change Waypoints, MacCready and pages. Tap on the screen to see what happens and setup Navboxes to what you want them to be. Note that you can setup Navboxes 1117 separately for each of the two Map pages.

A particularly useful way to replay a flight is if you managed to save a NMEA log of your flight. In the NMEA log all of the messages that were sent to the device may be reproduced on screen, including other Flarm data and its warnings. To replay a saved NMEA log you need to create a "TMP" folder in the root of your Pocket PC memory, save the NMEA log as "nmeain.log" and select "File" as your input in Menu > Settings > input.

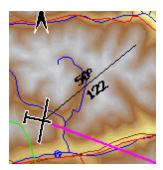
Simulator

In the Simulator input mode, you can move the glider freely even without a prerecorded flight which enables you to go places you haven't visited in the air yet. To move the glider, tap on it, then drag a line out of the glider in the direction you want it to move. The longer the line, the faster it will go in the specified direction.

Learning SeeYou Mobile on the ground will give you time to think about gliding, task and scenery in the air rather than software.

SeeYou Mobile Simulator for desktop PC

In addition we have created a 100% functional copy of our software which runs on the desktop PC. This program enables you to test all features of SeeYou Mobile at home without even having to buy a Pocket PC before you decide that you would like to use SeeYou Mobile in flight.



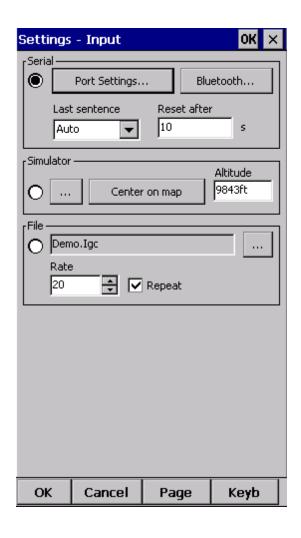
See also:
Getting Started 6 1

2.7 Connecting to the GPS source

There are three basic ways to connect Oudie to the GPS source:

- 1. Built-in GPS
- 2. Serial cable connection to external GPS source
- 3. Bluetooth

You can choose which option you would like to use through Menu > Settings > Input dialog in SeeYou Mobile:



1. Built-in GPS

The built-in GPS in Oudie is always on COM 1 > 4800bps. You can setup the Oudie to use internal GPS by selecting Menu > Settings > Input > Internal GPS

2. Serial cable connection to external GPS source

The supplied Serial data cable enables you to connect to external data source such as your Variometer, Flight data recorder, anti-collision device or similar. You should select Menu > Setting > Input > Serial cable in order to use this option. You will need the manual from the other device in order to determine the correct Port Settings such as Baud rate. You should always use COM 4 on Oudie for this type of connection.

The supplied Data/Power cable has a RJ45 connector by default with standard IGC pinout. Several converters are included in the box which enable you to connect to flight recorders with RJ12 or DB9 connectors. Special cables are also available as an accessory for a very simple direct connection to some specific flight recorders such as LX 7007, CAI 302, LX 1600 etc. Please refer to the chapter <u>Cables and Converters</u> of this manual to learn more about how to connect your Oudie with different GPS devices.

It is very important to understand that the supplied Serial cable must be connected to 12 V direct current source (such as your glider's battery) in order to work.

3. Bluetooth

Another way to receive external data source is to connect through Bluetooth. Go to Menu > Settings > Input > Bluetooth to pair Bluetooth device with Oudie:



- 1. press Lookup on Oudie (only devices which advertize SPP protocol are displayed)
- 2. Select the device you would like to connect to
- 3. Press "Pair..."
- 4. enter the PIN of the device you are connecting to
- 5. connection should be established on COM 5 (make sure the Baude rate is correct)

You should refer to the manual of the other device in order to find out about its settings such as Pairing key, baud rate, availability of the serial communication protocols etc. Once the devices are paired and serial communication is established the data flow starts immediately.

K6 Bluetooth is a special protocol which should be used when connecting to the K6 Bluetooth device because it enables even more features than the standard Bluetooth protocol.

2.7.1 Cables and converters

Oudie is delivered with a variety of cables and converters which enable you to connect Oudie to your almost any logger "out of the box":

1. Power and data cable

It provides power to Oudie and (optionally) to the device which is connected to the RJ45 connector.

It has three connectors:

- . mini USB connector must be connected to Oudie
- . black and red cable must be connected to 12V power supply (red is 12V, black is ground). Allowed input voltage is 10-30V.
- . RJ45 connector with standard IGC pinout where

pins 1 and 2 = +12V (anything between 10-30V is ok)

pin 5 = Receive to Oudie

pin 6 = Transmit from Oudie

pins 7 and 8 = Ground



Use directly with these devices: Swiss Flarm, Volkslogger, K6 Mux, VW1150

2. RJ 45 Female/Female Gender Changer

This connector can be used for extending the 8-wires cable using another RJ45 connector (for example ethernet cable). It can also be used to connect RJ12 connector with 6-wires cable which can be used for data communication with Colibri, LX 20/2000, MiniBox, RedBox and other devices using RJ12 connectors.

3. 20 cm cable extension with male RJ12 connectors

This is an extension cable which can be used for both power and data transmission between Oudie and connected device. It must be used together with RJ45 Gender Changer. RJ12 can be plugged into the RJ45 connector on the Gender Changer. The other end is connected with the device. Pins 1 and 8 are not connected when RJ12 cable is connected to the RJ45 Gender Changer.



Use RJ45 Gender Changer and RJ12 cable extension directly with these devices: Colibri, LX 20/2000, MiniBox. RedBox

4. RJ45->DB9 Male and Female converters

This is a "do-it-yourself" DB9 converter. The converter pinout is free. You can pin any wire from the RJ45 connector to any pin on the DB9 connector.

Typical use:

- . LX 5000, LX 7000: Use female DB9 connector: Black -> 2 (Transmit from Oudie), Red -> 3 (Receive to Oudie), Orange -> 5 (Ground)
- . GPS-NAV, SN10 Standard RS 232: Use male DB9 connector: Black -> 3 (Transmit from Oudie), Red -> 2 (Receive to Oudie), Orange -> 5 (Ground)
- . LX 160 (NOT the "si" version see the warning below): Use female DB9 connector: Black -> 4 (Transmit from Oudie), Red -> 3 (Receive to Oudie), Orange -> 1 (Ground)
- . Zander/SDI GP940 and GP941: Black->3 (Transmit from Oudie), Red->2 (Receive to Oudie), Orange->5 (Ground), Brown->4 (DTR)

WARNING: If you are attempting to connect to devices which provide 5V on any of the pins please make absolutely sure that the pin where the other device provides 5V is not connected to the White or Brown wires (pins 1 and 2 on RJ45). This will cause collision and possibly damage to both connected devices! Take particular care when connecting the following devices: Cambridge 302, LX 7007, LX 1600, LX160si, Nano and others with built-in 12->5V converter. Be especially careful not to plug the standard Oudie and standard Nano cable together because the plugs are compatible but the pinout is not!

RJ45 wire's colors:

- 1 = White (+12V)
- 2 = Brown (+12V)
- 3 = Yellow
- 4 = Green
- 5 = Red (Receive to Oudie)
- 6 = Black (Transmit from Oudie)
- 7 = Orange (Ground)
- 8 = Blue (Ground)



The following cables are available as optional accessories:

1. CAI 302 Cable

Connects all models of Cambridge 302 with Oudie. This is a direct cable from CAI to Oudie which provides both power and data communication between Oudie and CAI 302

2. LX Cable

Connects LX 7007, LX 1600, LX 160 si with Oudie. This is a direct cable from CAI to Oudie which provides both power and data communication between Oudie and LX instruments.

Part IIII

3 How to

The How to Chapter will cover the basics and some details about how to use your Oudie most effectively.

Using Profiles [19]
Setting the takeoff altitude [22]
Managing airspace warnings [24]
Using the Thermal Assistant [26]
Entering the task [28]
Flying badge, record and racing tasks [37]
Flying the Assigned Area tasks [39]
Flying with the FAI Triangle Assistant [46]
Using the Flarm Radar [48]
Use Vario in Oudie IGC [52]
Finish flight [53]
Connect to the internet [55]

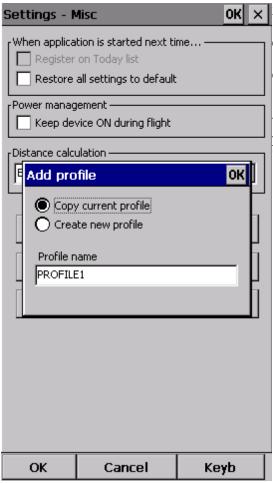
3.1 Using Profiles

If you feel no need to use more than one set of navboxes or fly more than one sailplane ignore this feature and go read the next chapter.



If however you fly several types of gliders or fly at different locations you are likely to be fed up with changing the polar, terrain, waypoint and airspace files each time before the flight. Profiles were added in SeeYou Mobile 5.0. You can have separate setups for each of your club's gliders plus one profile for the competition you are attending shortly. Here's how it works.

1. When you first ran SeeYou Mobile, a Default profile was created. Anything you have changed in the application was stored to this profile. Now comes a day when you fly the single seater of your club with a significantly different polar and GPS source than the one you have used previously. To avoid entering the polar, header and hardware data each time you go fly this glider, you may create a new profile by going to Menu > Settings > Misc 141 and click the "Manage Profiles..." button.



- OK × 2. You get to choose to either
 - . Copy current profile (which makes an exact copy of your current settings)
 - . Create a new profile (which creates a copy of the default settings)
 - Delete a profile

You may give the new profile a name according to what you are going to use it for. Be it "ASW 27", "LX 1600" or "World Gliding Championships".



3. Next time you start SeeYou Mobile you will have two (or more) profiles to choose from. You have 10 seconds to select a profile. If you do nothing, the profile you used last is loaded.

4. After you have loaded the profile for the first time you will want to set it up according to your preferences. Here is a handful of settings you will probably want to change before use:

Links to Terrain, Airspace and Waypoint files 1331

Pilot name and Glider type settings 13371

Hardware that is connected to SeeYou Mobile 1421

Navboxes for Map1 11171

Navboxes for Map2 117 (they are separate, remember?)

See also:
Getting Started 6

3.2 Set takeoff altitude

Setting the takeoff altitude correctly could be the difference between a successful and a frustrating end of the flight.

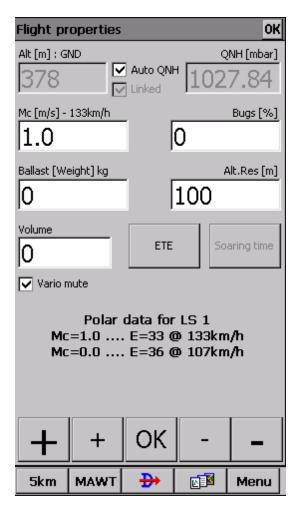
An Oudie 2 without being connected to an external source of pressure data will only use GPS altitude. There is little to nothing you can do with that and this is the reason why such flights are ok to record the joy and excitement about the flight but are insufficient to provide proof or staying outside official airspace regardless if this is in a competition or on a record flight.

Oudie IGC and Oudie 2 connected to an external source of pressure data will record extremely accurate altitudes. The altitude in the Oudie IGC and all other IGC approved flight recorders is recorded at the standard pressure of 1013.25 hPa. In order to know you current altitude above mean sea level and your current flight level altitude the altitudes need to be corrected to correspond with the real world.

There are several ways how Oudie / SeeYou Mobile can correct the takeoff altitude. It will typically assume that the pressure recorded by the pressure sensor is relative to the standard atmosphere pressure of 1013.25 hPa (but it is even possible to correct for that, see below). It is quite possible to

correct the altitudes to QNH automatically with the data which is available to Oudie. If you get the from an external source (such as the ATC tower or the competition task sheet) then it is possible to enter the values manually as well.

In order to correct the takeoff altitude you need to go to Menu > MC & Alt. dialog.



By default the Auto QNH checkbox is checked. Auto QNH will try to correct the takeoff altitude to your current altitude by searching for a nearby airport or by using the Ground elevation at your location or (if all else fails) using a very much averaged GPS altitude (but the latter is only a fallback and should not normally happen since there is a worldwide terrain database already installed on each Oudie). Auto QNH setting will give you a very good idea about the current pressure level and it works automatically without your input.

If you want to change the altitude manually you should disable the Auto QNH navbox and enter the takeoff altitude manually. If the Linked checkbox is checked (which it is by default) then the pressure level will increase accordingly.

Typically in a competition you could get a complete set of data from the competition organization. In this case remove the Auto QNH checkbox AND the Linked checkbox. Enter the takeoff altitude AND the QNH pressure given from the competition then press ok. This way you will see exactly the same altitudes during your flight as the ones that you will be scored by later in the evening. DO NOT set the "linked" checkbox back in this case because it will change the pressure level back to the "linked" value.

3.3 Manage airspace warnings

Avoiding forbidden airspace is often just as important as navigating in general. It can however be much trickier than finding the right valley to go down to since the airspace structure is very abstract and often complicated. SeeYou Mobile will be your best friend if you use the whole potential of what it's got to offer.

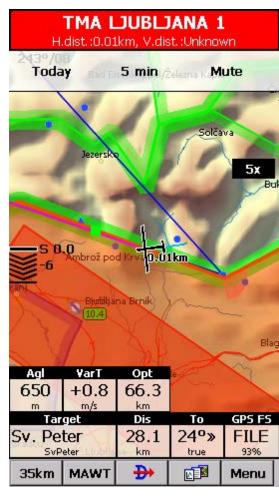


1. Airspace Warning

The first stage - let's name it the Airspace Warning - is often merely informative. The screen will display an orange banner at the top of the page and highlight the airspaces you are about to encounter. It will also display a line with distances from your position to the narest position of each airspace you are about to encounter. And it will beep briefly.

You get to choose to turn the airspace warning off for the airspace which is listed in the banner. You can turn it off for either

- . Today until next takeoff
- . 5 minutes note that this number is user selectable through Menu > Settings > Warnings)
- . Ignore for as long as you are flying towards it it won't beep again)



2. Airspace Alarm

Once you come too close for comfort an airspace alarm will sound. It gives you a red banner at the top where you can read all about the airspace in question and it will highlight the airspace in question. It will also draw the line to the closest point of the airspace and it will give you a sound alarm continuously.

You still get to choose to turn this alarm off for . Today - until next takeoff

. 5 minutes - user selectable in Menu > Settings > Warnings

. Mute - continue to display everything but stop the sound alarm

After you have pressed Mute you can still Ignore this airspace alarm.

3. Helpful Navboxes

There are three airspace related navboxes which will give you a good overview of the airspace situation if you are familiar with what they are displaying:

- 1. "Nearest airspace Horizontally" gives you the distance from your position to the nearest position of an airspace where you are not horizontally inside (i.e. you are not below this airspace yet)
- 2. "Horizontally nearest airsapce Altitude" gives you the altitude difference towards the horizontally nearest airspace. The altitude difference is negative if you are below horizontally nearest airsapce. It is positive if you are above and "Inside" if you are about to hit the lateral borders of the airspace in question.
- 3. "Nearest airspace Vertically" gives you the altitude difference towards the airspace above or below the glider. The value is negative if you are below the airspace. It is positive if you are above, "Inside" if you are already inside an airspace and "N/A" if there is no airspace at your location.

In addition to the airspaces there is also a very useful Action which can be assigned to any Navbox. It is the action "Highlight nearest airspace" and it is assigned to the "Nearest airspace - Horizontally" by default. If you touch a Navbox which has this action assigned to it, SeeYou Mobile will highlight the airspace in question. It will link the glider with the airspace and display the distance from the glider to the airspace.

4. Screen taps

In addition to all the above you may tap anywhere on the screen and then choose "Airspace" to quickly access the list of airspaces at the location of the tap. With this list you can quickly change the visibility of the airspaces or simply get an overview of what lies ahead. You can also change the properties of an airspace such as lower or upper limit.

With this information airspace navigation should be easy and understandable even in a rather complex airspace environment.

Read also:

- . Setting up the Warnings
- . Changing properties of an airspace
- . Loading (multiple) airspace files

3.4 Using Thermal Assistant

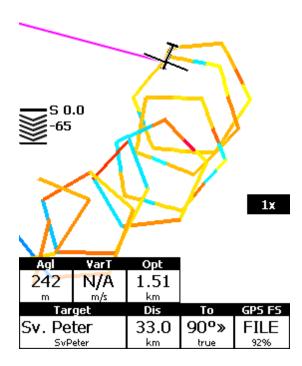
Thermal assistant is a feature of SeeYou Mobile which should help you get centered in a lift more quickly if you decide to follow its instructions.

Thermal assistant analyses the lift in your thermal. It calculates the average and follows how strongly the vario values change in each circle.

It uses three ways to catch your attention:

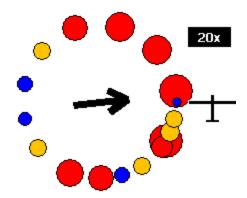
- 1. You may choose between Bubbles or a Zoomed map which shows the best part of the lift. Bubbles are disabled by default, zooming in is enabled.
- 2. Thermal Assistant audio warning goes off if variance is large enough (see <u>Settings Thermal [125]</u>). It whistles a selected amount of seconds or degrees (see <u>Settings Thermal [125]</u>) before the glider will reach the same part of the circle where maximum lift was reached in the previous circle.





3. Thermal assistant graphics is displayed if variance for displaying the thermal assistant is large enough (see Settings - Thermal [125]). The size of the bubbles represents the amount of lift. The color of the bubble is relative to the MacCready setting. Red is better thank MC, blue is more than 0.5m/s (1kts) less than MC, yellow is in between. The arrow is pointing towards the maximum of the lift in the previous circle while the length of the arrow is how "strong" the advice is to move your circle elsewhere. The arrow is longer if variance is larger.





Your job:

- . find a thermal
- . start circling
- . look outside
- . observe the thermal clues
- . observe traffic in your vicinity
- . make use of Assistant's suggestions

Assistant's job:

- . analyze the thermal
- . find the strongest lift in the circle
- . make audio and visual suggestions

We were not trying to develop a Thermal Wizard, just an Assistant for the times when you are tired or have better things to do than focus 100% on the thermal. It will only sound a bell if the thermal varies significantly in strength.



If you would like to display Thermal assistant regardless of the current vario variation, feel free to navigate to the Menu and press the Thermal Assistant button. To close the Thermal Assistant, just tap the screen anywhere.

We will be happy if you continue to enjoy soaring and if you never find the need to use the Thermal Assistant at all :-)

See also:

Getting Started 6 Settings - Thermal 125

3.5 Entering the task

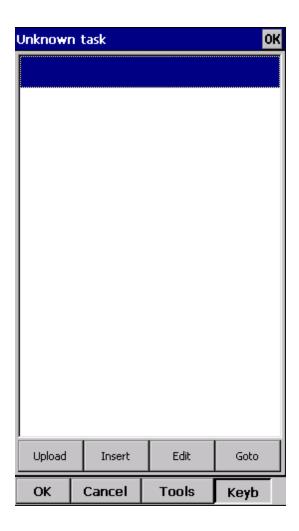
This is a tutorial about entering the task in SeeYou Mobile. We have had the privilege to look over the shoulder many impressively experienced pilots who have found a very difficult way to enter a task into SeeYou Mobile.

Please read this because entering the task is just that - enter the waypoint names and go. No setting up of observation zones is neccessary. Tutorial will focus on entering the demo task. The default one in the evaluation version of SeeYou Mobile. The task will become a 500km FAI triangle in the south-eastern part of the Alps. Both Racing, badge and record tasks as well as Assigned Area tasks are covered.

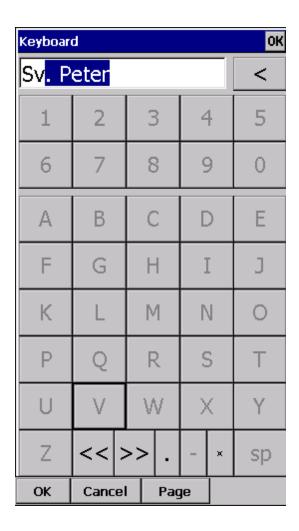
Always start from the scratch. Menu > Task > Tools > Clear task:

| Menu OK | | | |
|------------|--|-----------------|--|
| ESC | <prev< td=""><td>Next></td></prev<> | Next> | |
| Edit point | Delete point | Insert point | |
| Point up | Point down | Invert task | |
| Load task | Save task | Clear task | |
| Options | Мар | Start points | |
| ок | Cancel | Keyb | |

Make sure the first line in the empty list is selected (if you didn't touch the screen after clearing the task, then it is already selected). Then press the "Keyb" (as in Keyboard) button:

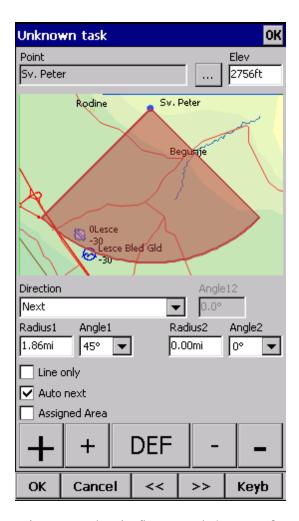


Start typing and you will notice that the waypoint name auto-completes while you are typing (note that the keyboard characters which do not make sense are disabled while you type):

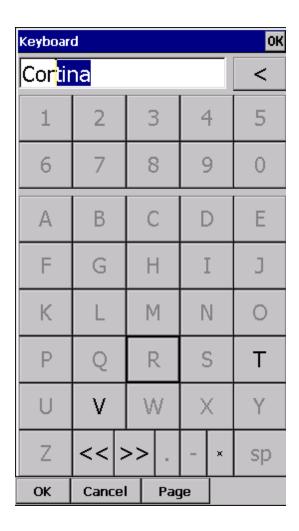


Note that S and V keys were pressed while ". Peter" was auto-completed. If you know your waypoint is in alphabetical vicinity of the currently auto-completed name of the waypoint, you may also use the "<<" and ">>" buttons on the full screen keyboard to advance the waypoint names alphabetically. Once you have found the waypoint you were looking for, press OK.

Edit point [95] dialog will open automatically after choosing each waypoint. Setup these values to fly competitions or FAI records.???

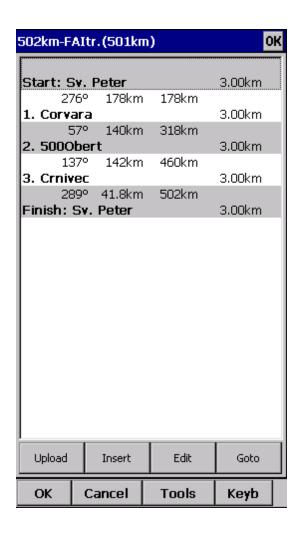


Press the "OK" button again and start entering the first turnpoint's name, Corvara in this example:



Note that after entering "C" and "O" the suggested waypoint name is "Cortina", not "Corvara". Press ">>" once and you are now at "Corvara". Press OK.

Repeat this procedure until all waypoints including the finish are entered:



If your default Observation Zone settings in Menu > Settings > Task > Observation Zone > Type > Start/ Point/Finish are what you wanted to use on this flight then you are finished. Go fly the task and enjoy!!

ASSIGNED AREA TASKS

Assigned Area tasks are only set in competitions. The organisation will always prepare a task sheet. This is an excerpt of a task sheet showing the description of the observation zones:

```
Observation zone description:
Start Neza: To Next Point, Line 1000m

[Style=To Next Point, A12=Auto, R1=0,5km, A1=180°, R2=0,0km, A2=0°, LineOnly]

1.Point Corvara: Cylinder R=500m

[Style=Symmetrical, A12=Auto, R1=0,5km, A1=180°, R2=0,0km, A2=0°, Assigned area]

2.Point 500 Obertauern: Cylinder R=20,0km

[Style=Symmetrical, A12=Auto, R1=20,0km, A1=180°, R2=0,0km, A2=0°, Assigned area]

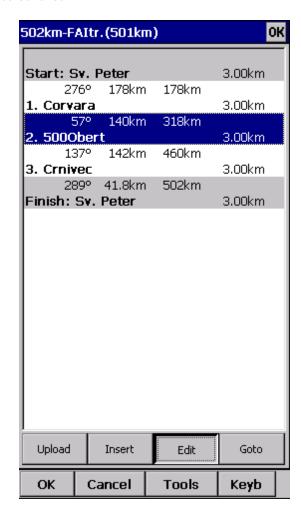
3.Point Crnivec. Cylinder R=500m

[Style=Symmetrical, A12=Auto, R1=0,5km, A1=180°, R2=0,0km, A2=0°, Assigned area]

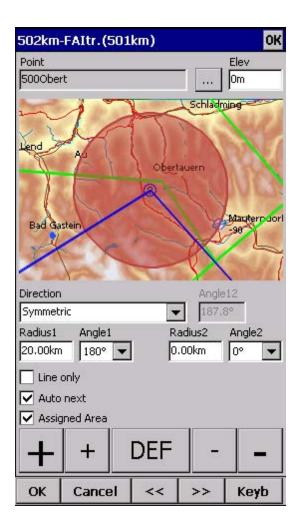
Finish Neza: To Previous Point, Line 1000m

[Style=To Previous Point, A12=Auto, R1=0,5km, A1=180°, R2=0,0km, A2=0°, LineOnly]
```

For the tutorial we will edit the observation zone of the point "500Obert" (which is code name for "500 Obertauern" in the task sheet). Tap on the waypoint "500Obert" to make it blue. Then press the Edit button as indicated in the screenshot:



In the Edit Waypoint dialog tap you need to enter the information from the task sheet. Generally speaking the data is listed in the same order as you would follow through the dialog:



- . Direction (Symmetric)
- . Angle12 (not enabled for Symmetric direction)
- . Radius 1 = 20 km (you are free to use non-default units)
- . Angle 1 = 180
- . Radius 2 = 0
- . Angle 2 = 0
- . tick the "Assigned Area" checkbox
- . do not tick "Line only" because it is not listed in the observation zone description

That's it. Close the dialog with OK. Edit all remaining Assigned Area sectors. Don't forget the enter task time under Tools > Options > Task Time.

SAVING TASK FOR LATER USE

It is always wise to make sure you have all the data securely stored in case of an unintended outage of the device. Start from the main screen and select Menu > Next > Save Settings > tick the "Save profile" and "Save waypoints and tasks" checkboxes (if they are both enabled), then tap "Yes".

"Save Settings" button is a new addition to SeeYou Mobile 3.1 and later. It may be positioned elsewhere (i.e. not on the second Menu page) depending on your settings for the Menu > Settings > Menu.

3.6 Flying badge, record and racing tasks

To complete this type of tasks, you need to do some preflight preparation.

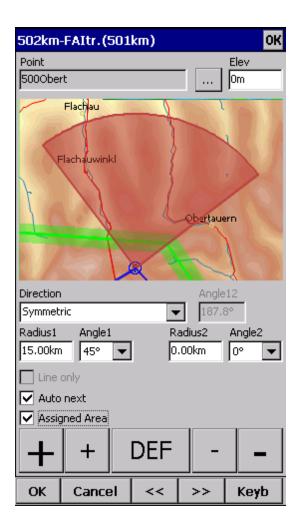
1. Enter the task you will be flying.

You will need to go to the $\frac{\text{Menu} > \text{Task}}{\text{Special}}$ dialog. Use the keypad to enter waypoint names in list view. Type first few characters, then use left and right keys to complete the selection.



After you have entered the task waypoints, check that waypoint sectors are setup correctly. At each of the waypoints, click on the Edit button to open Edit point sectors are setup correctly. At each of the waypoints, click on the Edit button to open Edit point sectors are setup correctly. At each of the waypoints, click on the Edit button to open Edit point sectors are setup correctly. At each of the waypoints, click on the Edit button to open Edit point sectors are setup correctly. At each of the waypoints, click on the Edit button to open Edit point sectors are setup correctly. At each of the waypoints, click on the Edit button to open Edit point sectors are setup correctly.

- . Start: Direction = Next, Radius1 = 0.5km, check Line only checkbox.
- . Waypoints 1-3: Direction = Symmetric, Radius1 = 3km, Angle1 = 45° (the rest is zero or not unselected)
- . Finish: Direction = Previous, Radius1 = 0.5km, check Line only checkbox.



2. Start the task in flight.

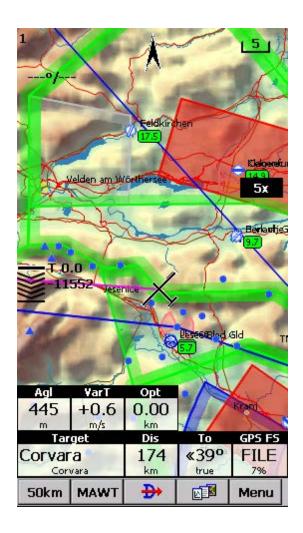
Look at the screen to see where the start line is in order not to miss it. You will get a sound warning telling you that you have successfully crossed the start line. After you have crossed the start line a box appears where the start time is displayed. To start navigating on the task, press the Start Time box. Navigation is moved to the first waypoint of the task and statistics runs.

To make a re-start. Change the target waypoint back to start point. The quickest way to do it is to open the Task dialog, select start point and press Goto. Statistics will be reset, when you cross the start line again.

3. Flying the task

To navigate <u>dur</u>ing the task use all of the featues that are made available to you through SeeYou Mobile:

- . Map pages 58 to see where you are
- . Navboxes 117 to see the flight parameters you are interested in
- . Statistics 73 to see what you have done
- . Airspace warning 68 to keep yourself out of trouble
- . Goto dialog 86 to find nearest airports etc.



4. Final glide

Here's a suggestion. Flying final glides is the most comfortable when you use the Required L/D and Current L/D <u>navboxes [117]</u>. What they do is they show the required L/D to the finish line and current L/D you are doing at the moment. You are on glide slope when Current L/D is higher than Required L/D. The calculation already includes reserve altitude. The nice part is that it is insensitive to the MC setting, glider polar, wind calculation, setting for bugs and ballast. All of them can be wrong when you try to math through the glider polar.

Current L/D however is pragmatic - it tells you what you are doing. Required L/D is pragmatic as well. It tells you what you should be doing. If Current L/D is higher than the Required one you are doing good. If it looks like you can keep going like that, you are doing great.

Have fun making those final glides!

See also:

Getting Started 6

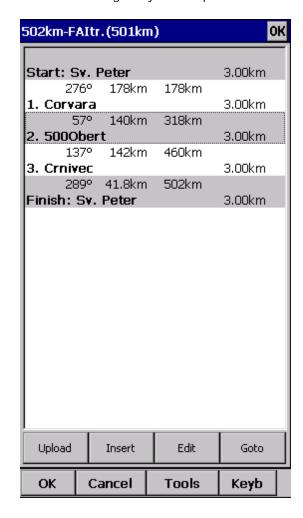
3.7 Flying Assigned Area tasks

In an Assigned Area task one has a choice of a large area where a turnpoint can be set. Speed is all that matters in an Assigned Area task. The pilot should have one fix in each are so, that he can maximize the

given meteorological conditions. Assigned Area tasks can hardly be considered without using a Pocket PC device and its intuitive use of the touch screen.

1. Enter the task you will be flying.

You will need to go to the Menu > Task [92] dialog. Use the keypad to enter waypoint names in list view. Type first few characters, then use left and right keys to complete the selection.



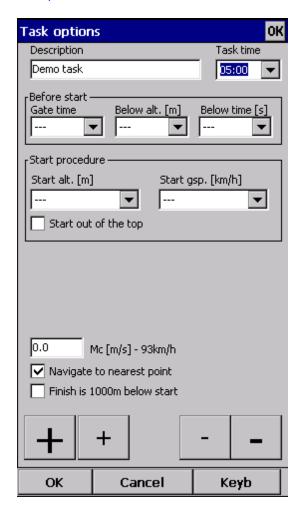
After you have entered the task waypoints, you must setup the properties for the Assigned Areas. Click on the Edit button of each waypoint to open Edit point 95 dialog. To make the sector an Assigned Area, you should:

- . check the Assigned Area checkbox
- . enter Direction, Angle12, Radius1, Angle1, Radius2 and Angle2 values as assigned at the briefing.

To setup a "disc" shape sector, you should enter Direction = Symmetric (not required) Radius1 = a value in kilometers or miles, given at the briefing Angle1 = 180° Assigned Area = Checked

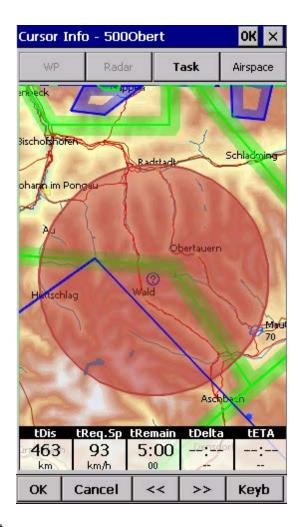


The next thing to do is to setup the task time, also specified at the briefing. It is setup in minutes through $\underline{\text{Menu}} > \underline{\text{Task}} > \underline{\text{Tools}} > \underline{\text{Options}} > \underline{\text{Task Time}} = \boxed{97}$



2. Before the flight

Turnpoints in each sector are setup to the center of each sector by default. But this is probably not where you are going to fly to given the latest meteo situation. If you have a rough idea about what you are going to do, go to Menu > Task > Tools > Map 94 or tap on the screen and select the Task tab 63 in Cursor Info dialog. Change the "navigate to" point in each sector to create a task of the desired length and speed which you think is achievable in Task Time for the given day.



3. Start the task in flight.

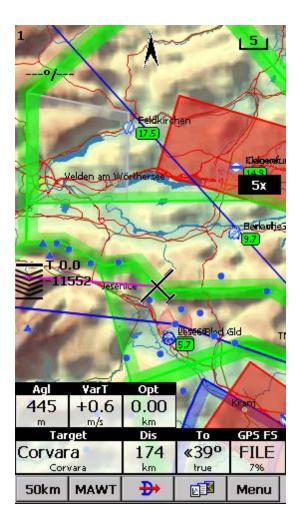
Look at the screen to see where the start line is in order not to miss it. You will get a sound warning telling you that you have successfully crossed the start line. After you have crossed the start line a box appears where the start time is displayed. To start navigating on the task, press the Start Time box. Navigation is moved to the first waypoint of the task and statistics runs.

To make a re-start. Change the target waypoint back to start point. The quickest way to do it is to open the Task dialog, select start point and press Goto. Statistics will be reset, when you cross the start line again.

4. Flying the task

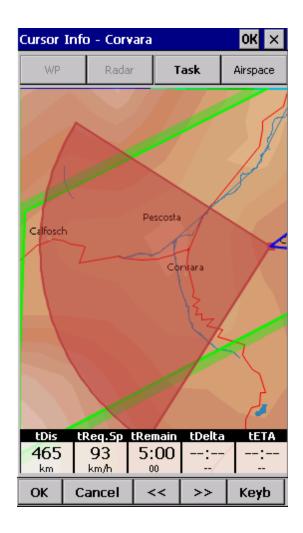
To navigate during the task use all of the featues that are made available to you through SeeYou Mobile:

- . Map pages 58 to see where you are
- . Navboxes 117 to see the flight parameters you are interested in
- . Statistics 73 to see what you have done
- . Airspace warning 68 to keep yourself out of trouble
- . Goto dialog 86 to find nearest airports etc.



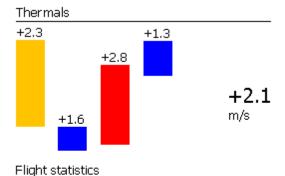
While on the task, you will get a much better idea about what the weather is doing for you. You will want to move the point in the next sector to optimize it for the speed you think is achievable for the rest of the flight.

Observe how the finish time indicators change as you move the point around. This will give you a very good idea about what you should be doing in the next couple of hours.



5. Statistics

While in flight, you will also be interested in the <u>Task Statistics</u> 73 of what you have achieved. Two pages will help you understand what is going on. Task statistics gives you distance and speed achieved since crossing the start line while 60 minue statistics tells you how you are doing in the last hour. Comparing the two gives you a good idea about what you need to do to finish the task.



Avg.vario: 2.1m/s

Avg.speed: 108.5km/h XC speed: 120.4km/h

Dis.flown: 234km

Circling: 20%

Duration: 2:09:37



6. Final glide

Here's a suggestion. Flying final glides is the most comfortable when you use the Required L/D and Current L/D <u>navboxes 117</u>. What they do is they show the required L/D to the finish line and current L/D you are doing at the moment. You are on glide slope when Current L/D is higher than Required L/D. The calculation already includes reserve altitude. The nice part is that it is insensitive to the MC setting, glider polar, wind calculation, setting for bugs and ballast. All of them can be wrong when you try to math through the glider polar.

Current L/D however is pragmatic - it tells you what you are doing. Required L/D is pragmatic as well. It tells you what you should be doing. If Current L/D is higher than the Required one you are doing good. If it looks like you can keep going like that, you are doing great.

Enjoy Assigned Areas!

See also:

Getting Started 6

3.8 Flying with the FAI Triangle Assistant

FAI Triangle Assistant helps you complete the largest possible FAI Triangle.

You don't have to do much to use the FAI Triangle Assistant. Just turn it on and fly is how we tried to design the assistant. Here's how it works.

Turning the FAT Assistant on or off follows the same phylosophy as toggling the Map, Waypoints, Airspace, Navboxes etc. It is controlled through the <u>Display Options</u> 77 dialog.



Flying the Free FAI Triangle task

Once the FAI Area is on, you don't have to do much. You are of course required to know at least roughly which direction you would like to fly to fly a triangle. The larger the triangle you are attempting, the more you will know where to go. FAI Triangle Assistant will simply follow what you are doing. As you fly the first leg it won't yet know which way you are going to fly. That is not a problem. The FAI Area will be drawn on one side of the first leg. If you would like it to be on the other side, simply tap inside the area and it will rotate (provided that "Rotate on click" is enabled in the settings, which - by default - it is).

Once you have turned your first waypoint, simply continue to fly towards your other waypoint (or rather a larger area where you would like to turn your second waypoint). As soon as the triangle you have flown

is deep enough the FAI Area changes. It is not drawn on the longest leg anymore. Instead it is drawn on the last leg you have flown. That means it is showing you the way towards the area where you will be able to turn your second waypoint and allow your whole flight to be an FAI triangle.

When you are near your second waypoint you will appreciate some help from the FAI Triangle optimization navbox, which is available through the list of Navboxes 117). Place it visibly on the screen to know exactly how large the triangle will be if you can finish it home. After you are happy with what you have done in your second area, head home. The FAI Triangle optimization should not change anymore, it's just about getting home.

The above example focused on an FAI Triangle which has been started from one of its corners. Flying a triangle with the start on the leg is no different. The only difference is that the second point you turn represents the first point from the above example and the third one is the final one from which you fly home.

Finishing the task

An FAI Triangle is not finished unless you fly back to your start point. One finish fix within 1 km radius from another fix that occured before turning the 1st waypoint of the optimized triangle is required to finish the task. It may be a single fix if you started your triangle in one of its corners. It is a whole series of fixes between soaring begin and the first waypoint if you started the triangle on one of its legs.

FAI Triangle Assistant also helps you identify the exact course to fly by always highlighting a 1km diameter circle around the closest available finish fix.

Rotating the area

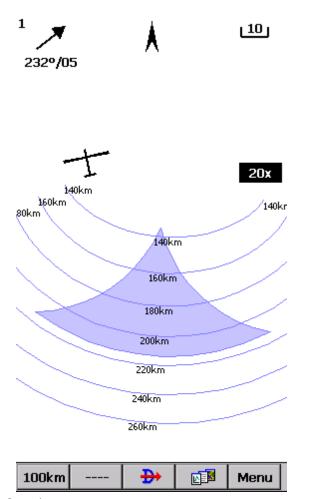
Sometimes the flight requires much more thinking than the above examples. You may wish to know if your current leg is long enough already to cover Town X with the FAI Area of your current flight. For this reason you will want to rotate the FAI area from its current position. It can hardly be easier to do - simply tap on the FAI Area on the moving map and it will rotate. If you are on your first leg (or not far enough on the second), it will rotate left/right around the first leg. Once you are far enough on the second leg to make it obvious which way you are going to fly the triangle, it will rotate around the legs. All this provided that "Rotate on click" is enabled in the settings, which - by default - it is.

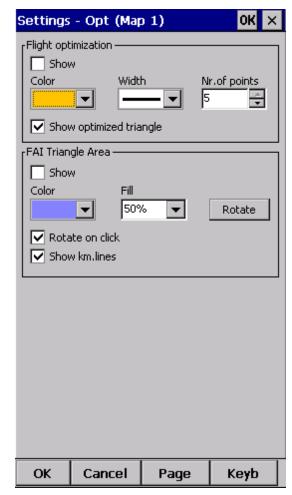
The FAI Area icons may also be placed on the Command bar if you wish to have quick and constant access to them in flight. There are options for toggling the FAI Area and Rotating the FAI Area under Menu > Settings > Commands 1331.

FAI Triangle Assistant preferences

If you would like to influence the look and feel of the FAI Triangle Assistant you may do so through Menu > Settings > OLC & FAI Area 115 dialog.

Example shows kilometer lines for Triangles between 160 - 280 km. If you fly into the violet area, the triangle will be an FAI triangle.



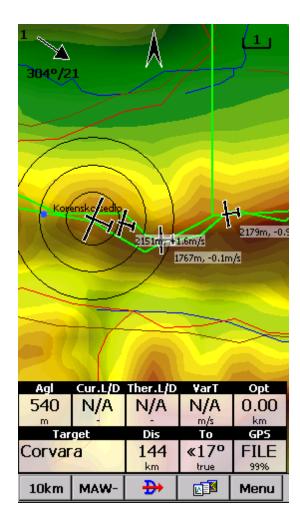


See also:
Getting Started

3.9 Flarm Radar

Flarm is a collision-warning system for general aviation and recreational flying. It is an alternative to the commercial airliners' expensive ACAS/TCAS system. It is however important to understand that Flarm-like devices were not designed to protect you from other flying objects. They are useful for situational awarness of other Flarm devices in vicinity. There is lots of other traffic and obstacles that are not covered by Flarm therefore be aware that the most important task in the cockpit is to keep a good overview of the traffic around your glider at all times.

SeeYou Mobile is able to read the output from Flarm devices and present a radar-like system which displays other Flarms with correct visibility/privacy settings in vicinity. Flarms that have privacy enabled are hidden. The screen may look like this:



Each circle represents 1 km distance from the other Flarm device. By default, those Flarms which are less than 100 meters above or below your current altitude are marked red, others are black. Each Flarm is presented by a glider symbol, its recent track and a group of numbers for altitude and average vario (20s average). If a friendly name was added for a particular Flarm, then this name appears in the label as well. Colors, visibility of the radar, track lenghts and some other settings are customizable through Settings > Flarm 140.

At zoom levels greater than 10km (by default) the radar circles around the glider disappear. New circles appear in the upper right corner of your screen. This is a Flarm Radar Symbol (see also <u>Settings > Symbols [123]</u>) which displays the three concentric circles in the upper right corner of your screen (by default, but you can move it around). They still represent 1km distance each regardless of the chosen Zoom level and units.

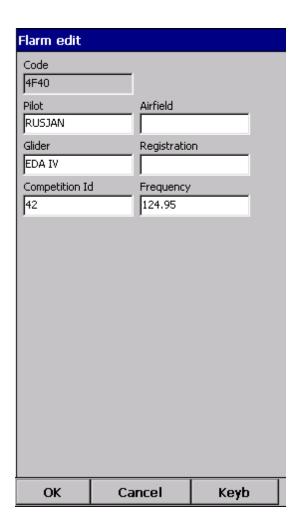
You may tap anywhere on the screen and select the "Flarm" tab to see a list of all Flarm devices that are being received at the moment:

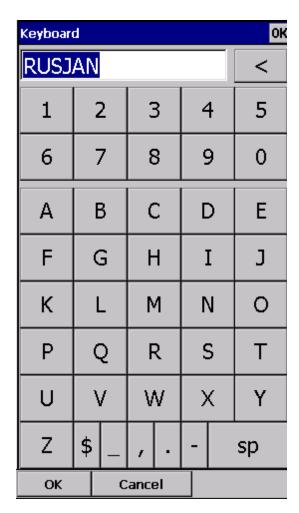


In the example screenshot three Flarm devices are visible. By default they are sorted on distance from the tap on the screen. If you tap on a specific aircraft that aircraft will be the first on the list. First item in the screenshot is "DD8D07". This code is the Flarm identification number and thus not very useful or intuitive. This is why you may select a device and click Edit to rename a specific Flarm to give it a readable name.

You may also select a device and then Goto. This way you start navigating towards the selected Flarm device for as long as it is within range. When it goes out of range, the aircraft symbol for that device will start blinking for a default period of 120 seconds. After that the target becomes blank and the device is removed from the maps and lists.

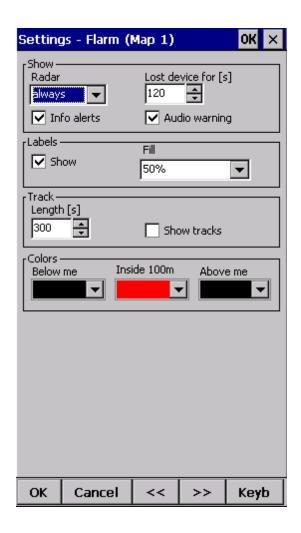
The keyboard for entering the Flarm friendly name and other information is large enough to be used in flight by fingers:





Close all dialogs with OK and you will see an additional line in the Flarm-Radar screen which will report Flarm's friendly name in addition to altitude and vario (see the first screenshot for Friend and Enemy flarms). Additionally when you exit SeeYou Mobile these friendly names will be stored on your PDA for the future. It is a simple text file, so feel free to share it with friends.

Further customization is possible through <u>Settings > Flarm dialog</u> 140:

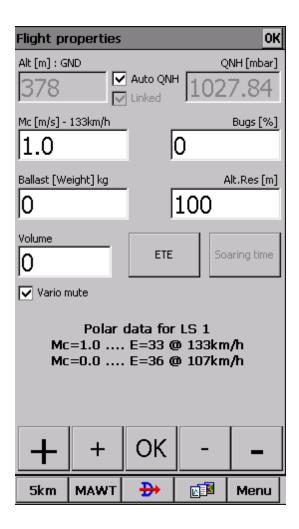


See also:
Getting Started 6
Settings > Flarm 140

3.10 Use Vario in Oudie IGC

As a side effect from having a really good altitude sensor for the IGC approval the Oudie IGC is also able to double up as your backup vario. It is not compensated but given the fact that the Oudie IGC has its own huge battery it is still quite useful when everything else fails.

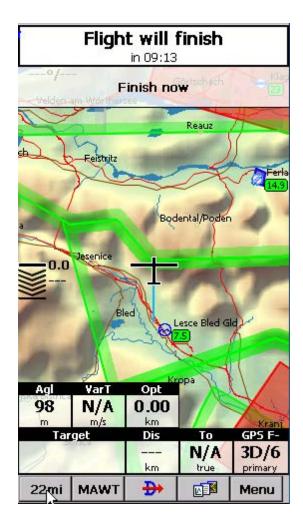
There is a small checkbox "Mute vario" underneath the Volume entry. Unmute the vario if you want to use it!



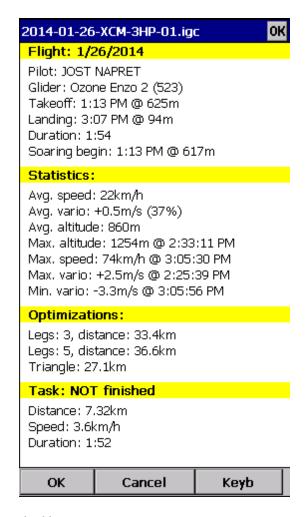
3.11 Finish flight

Oudie will finish the flight automatically without needing any input from the user. Once the flight is finished and signed it will copy the flight to the micro SD card if such card is present in the Oudie.

If you want to speed up this process you can however press the "Finish now" button on the screen as soon the message ?Flight will finish? is displayed.



Once the flight is finihsed a statistics report from the flight is displayed:



Press OK to navigate back to the Map page.

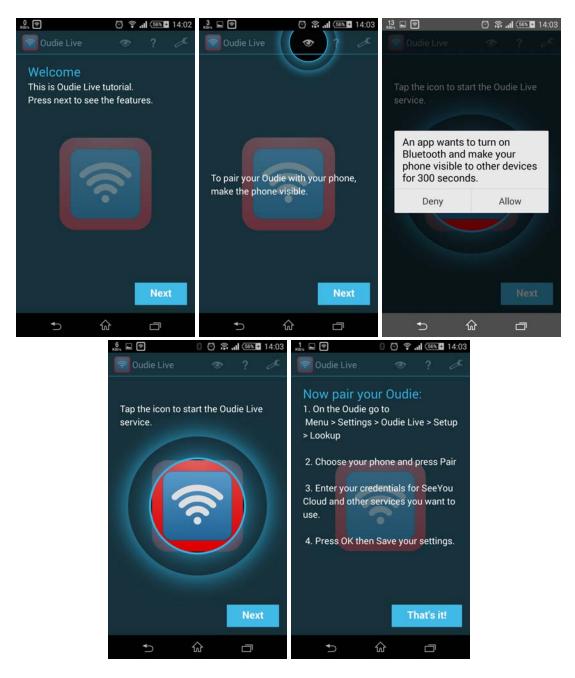
3.12 Connect to the internet

It is possible to connect any Oudie running SeeYou Mobile software to the internet. This is achieved by using an Android smart-phone as an internet proxy. The Oudie connects to the phone through Bluetooth while the phone then connects to the internet by the any means available to the phone - typically Wifi or Data plan.

In order to connect your Oudie to the Android smartphone you need to install a free app "Oudie Live" from the Google Play store.

Once you have installed the Oudie Live app please follow the instructions on the smartphone to pair the two devices. If you wish to replay the tutorial on the phone press the "?" button at the top of the screen.

Here it is:



As simple as that.

Part (I)

4 Map page

Map view is the main SeeYou Mobile window. It contains the following elements:

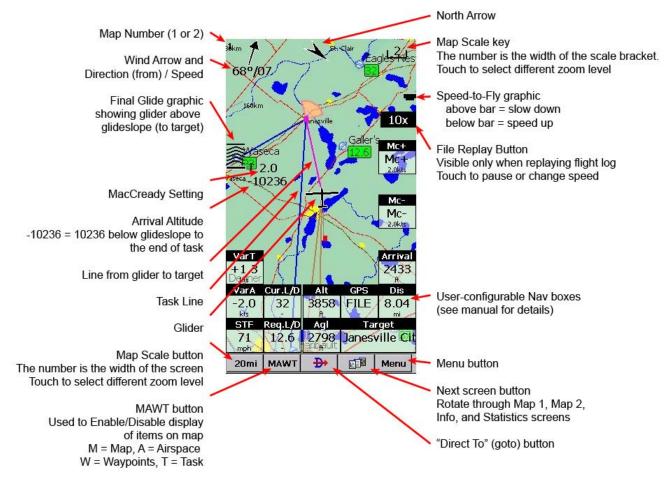
- . Glider position 64
- . Arrow towards the North 64
- . Wind vector 65
- . Glideslope indicator 65
- . Speed to Fly indicator 66
- . Vector map 66
- . Flight trace 66
- . Terrain collision 67
- . Airspace warning 68
- . Navboxes
- . Animation speed 68
- . Command bar 69

A function is assigned to each one of these elements. It is described in the chapters you will access by following the above links.

An important feature of the Map page is Cursor info 59.

There are two Map views (Map 1 and Map 2) which are setup independently from each other. Each map view can be orientated differently, have different Zoom levels, details of the map and its own Navboxes. This is useful because you can switch from an overview map.

Overview of the most important features of the Map view:



4.1 Cursor info

A tap on the map brings up a dialog with relevant information about

- . Waypoints 60
- . Flarm 61
- . Airspace 62
- . Task 63

If either of the items above is present within the <u>Drag limit litellar</u> distance from the tap, such information is presented in a dialog.



4.1.1 Waypoints

If a tap on the map occurred close to a Waypoint, cursor info dialog appears with Waypoints sorted on distance from the position where the tap occurred.

You can also get a list of Waypoints, sorted on direction. Tap the screen and hold it down, then move the finger in one direction. You will get a list of points sorted on distance (+-15 degrees from the direction of the drag)

Columns are sortable in the Goto dialog. Click on the column header to sort ascending or descending on these parameters:

- Name
- . Type (Ascending ordering lists landable fields first. Sorting on this column effectively lists Near Airports)
- . Crs = Course
- . Distance
- . Arrival altitude
- . Required L/D
- . Code (short name)

If you would like to change the order or size of the columns, you may drag the boundaries to change size or drag the header to change the order of the columns.

Tap on a Waypoint, then tap OK to start navigating to the selected point.



4.1.2 Flarm

This screen is only available when Flarm messages are received in the NMEA input stream. If you tap anywhere on the screen and select the "Flarm" tab to see a list of all Flarm devices that are being received at the moment:



In the example screenshot three Flarm devices are visible. By default they are sorted on distance from the tap on the screen. If you tap on a specific aircraft that aircraft will be the first on the list. First item in the screenshot is "DD8D07". This code is the Flarm identification number and thus not very useful or intuitive. This is why you may select a device and click Edit to rename a specific Flarm to give it a readable name. In the example screenshot above, two flarm devices were renamed to "Friend" and "Enemy" respectively.

You may also select a device and then Goto. This way you start navigating towards the selected Flarm device for as long as it is within range. When it goes out of range, the aircraft symbol for that device will start blinking for a default period of 120 seconds. After that the target becomes blank and the device is removed from the maps and lists.

See also:

Getting Started > Flarm Radar 48 | Settings > Flarm 140 |

4.1.3 Airspace

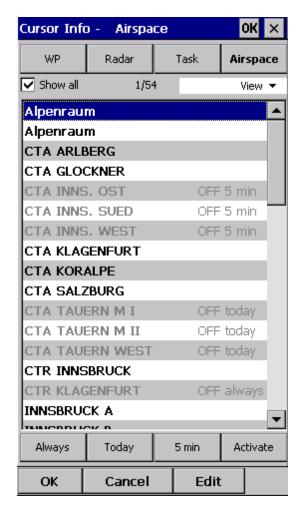
A tap on an airspace brings up a dialog where you can read the information on the airspace.

By default this page shows all airspace within a certain margin around the area of your tap. You can quickly change the status of any of these airspaces by using the buttons for disabling an airspace for

Always, Today, 5 minutes or turning them back on with the Activate button.

By turning on the Show all checkbox all airspace from the airspace file is listed. This helps you turn remote airspaces on or off. It also helps you to turn several airspaces off quickly. Note that Multiselect feature works in this dialog meaning that you can select as many airspaces as you wish.

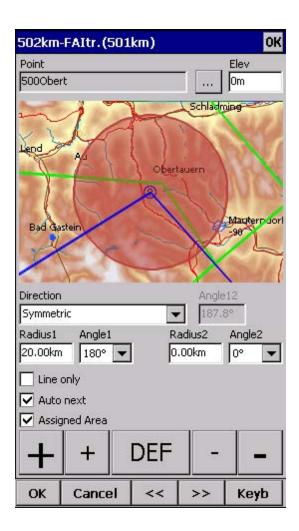




4.1.4 Task

A tap on the Assigned Area sector brings up a dialog where you can graphically move the navigation point to any place inside the area. Relevant information on the task is displayed below the sector.

To navigate to any place outside the Assigned Area which is not in the Waypoint database, use the Menu > Task > Map dialog.



4.2 Glider position

The symbol always represents the current position of the glider. The nose of the symbolic aircraft is pointed in the direction of the movement of the glider.

Tap and hold aircraft symbol to move its current position. You will want to do that if you wish to have a different view of the map.

If the glider symbol is flashing, GPS reception is BAD. Have a look at what's wrong (connectors, cables, battery...)

You can choose from several airplane symbols through Menu > Settings > Symbols 123



4.3 Arrow towards the North

Map orientation 777 in SeeYou Mobile is not always "North up" It can be anything, therefore the North arrow is always pointed in the direction of true North. By tapping the North arrow a menu will open up where you can select any of the other possible Map orientations.

North, East, South and West Up, will rotate the map so, that the selected orientation is towards the top of the screen.

Goal Up will put the direction of the Selected Goto Waypoint to the top of the screen. Track Up will put the direction of the current track towards the top of the screen.

When panning the map freely, the arrow gets a caption "Pan mode". Tapping once on this symbol returns the view back to the glider and original map orientation.



See also:
Map orientation 77

4.4 Wind vector

The wind vector gives you a graphical and textual orientation about the wind at current height. It is measured in different ways depending on what data is available to SeeYou Mobile.

A tap on the Wind symbol will open the Wind dialog. You can also access it through Menu > Wind 82



4.5 Glideslope indicator

The glide slope indicator displays whether or not the glider has sufficient height to reach the goal the glider is navigating to.

Tap on this control brings up the <u>Flight parameters</u> 83 dialog where Altitude, QNH, MacCready, Bugs, Ballast and Altitude reserve can be set up.



- 1. Arrows indicate whether or not you are below or above glideslope. Each arrow represents 1 degree above or below glideslope.
- 2. Red number (not always visible) indicates how much altitude you are missing to fly over the terrain straight ahead of you.
- 3. Number in the middle is MacCready setting.
- 4. Number below MacCready tells you how much altitude is required to reach the selected waypoint. Negative values mean that you have to climb, positive values mean you have enough altitude.

In addition to that, two more squares are displayed on the Target line which help you understand how you are doing in the final glide:

- 1. Yellow square marks the position from which you can reach the selected Waypoint (or task finish) from your current altitude at MacCready ring set to zero.
- 2. Green square marks the position from which you can reach the selected Waypoint (or task finish) from your current altitude at your current MacCready setting.

These two squares represent final glide to task finish point if selected waypoint is part of the task.

4.6 Speed to Fly indicator

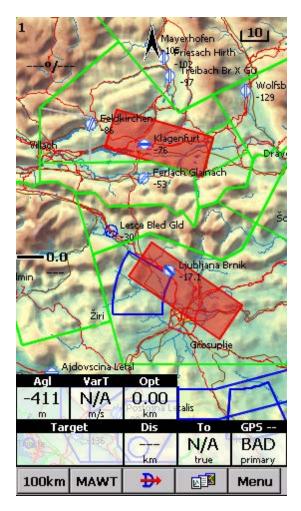
Speed to Fly indicator gives you a graphical display for Speed to Fly. Black line pointing down means you should fly faster while a black line pointing up means you should slow down.

Fly faster: Fly slower:

Please note that the Speed to Fly indicator and navbox present theoretical data and does not iclude the current sink rate of the airmass.

4.7 Vector map

SeeYou Mobile uses the CIT maps to display terrain and topographic features. These are the same maps also used in the desktop version of SeeYou. Map preferences can be setup through the <u>Setup Map 109</u> dialog

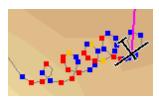


4.8 Flight trace

The recently flown glider trace is optionally displayed behind the glider. Preferences can be set up through the <u>Settings > Flight dialog</u> 114. The trace can be colored in vario readings if "Show vario" option is checked in <u>Settings > Flight [114]</u> dialog.

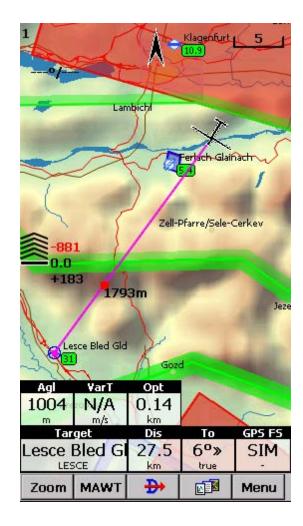
When trace is colored to "Show vario", colored boxes represent:

- . Red = climb better than the current MC setting
- . Yellow = climb less than MC, but between MC and MC 0.5m/s
- . Blue = Climb less than MC 0.5m/s



4.9 Terrain collision

SeeYou Mobile tells you whether or not you can fly over the terrain straight ahead of you. If you can't, the red square represents the point of collision with the rocks and the height at which you will reach the terrain. Red number above the MacCready value tells you what altitude you are missing to clear the obstacle if you fly straight to the goal.



4.10 Airspace warning

SeeYou Mobile tries to estimate your position in the future and give you comprehensive warnings before you enter airspace.

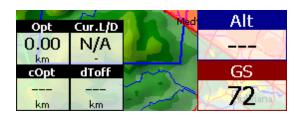
Please read <u>How Airspace warning works</u> 241 from the Getting Started chapter.

4.11 Navboxes

SeeYou Mobile supports several Navigation boxes. You have full control over which Navboxes you wish to display, how large they should be and where they should be located.

Navboxes are setup separately for Map 1 and Map 2 views. That is because normally you will want to use the two map views for two different reasons. One could be general navigation while the other one is approaching the waypoint where details are important. You will require two different settings for which Navboxes should be displayed in these conditions.

See Also Settings > Navboxes 117



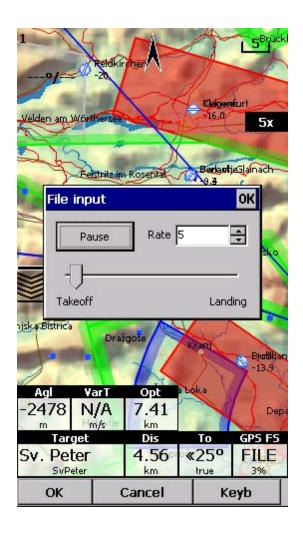
4.12 Animation speed

When in <u>File reader mode [130]</u>, you can control the speed and position of the airplane symbol by jumping around the replayed IGC file. Tap on the animation rate box in the upper right corner of the Map page to open this dialog.

Pause button will pause the animation

Rate box controls the speed of the animation. The higher the number, the faster animation, the slower refresh rate for the Map page. Pocket PC reaches its limits here.

Slider allows you to quickly jump to a point within the flight.



4.13 Command bar

The bottom line of SeeYou Mobile window is the Menu. It is optional (it can be disabled through $\underline{\underline{Settings}}$ $\underline{\underline{}}$ 141).

What it does is it adds 5 more shortcut buttons available in addition to all the hardware buttons on the PDA device. You can setup what each of the buttons in the Menu does through the <u>Settings > Commands</u> dialog. Change the actions for Toolbtn1 through Toolbtn5.



Part

5 Information page

This page gives you some very general information about your position. Use it to report your landing position or check if everything is setup OK.

The Status panel gives information about GPS and additional pressure data if they are available. Something like GTWAV may be listed after the GPS status message where

G =

T =

W =

A =

V =

Position panel shows present position, local date and time and Team code if setup.

Altitude panel shows Altitude QNH, Flight Level altitude and Height over ground

Sunrise and Sunset panel shows local sunrise and sunset (UTC Offset must be set correctly).

Status (Battery: Chrq)

GPS: Last fix, GT

Position

N43°19'10" - E020°37'57" 34T 0470212E 4796351N 8/29/2014 2:02:52 PM

Altitude

Altitude: 447m 1466ft Fl.Level: 447m 1466ft Height: 18m 58ft

Sunrise & Sunset

5:58:48 AM - 7:16:51 PM

Info

Battery: 3.89V, Power: -341mA;-1326mW Board info: 1.22, AUG 6 2014 10:09:38

Up time: 297s

Backup battery: 4.66V PK Status: GOAOBO Event counter: 0 ENL filter: 0

| Back | Menu |
|------|------|
|------|------|

Part

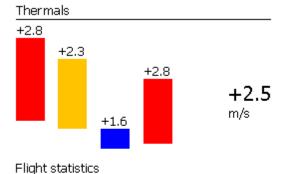
6 Statistics page

The statistics page gives you detailed information on Thermals and the flight. To change the content of the statistics pane, tap on it to switch between

- . Flight statistics
- . Task statistics
- . last 60 minutes statistics

Thermals panel graphically displays the last four thermals where the left most is newest. At the top of each bar you can see the Thermal average. The height of each bar represents the entrance and departure from each thermal relative to the other four. The number on the right is average for the last four thermals. Use it for your MacCready setting if you wish.

Flight statistics gives averages for the Lift, Average speed, Distance flown, circling percentage and duration of flight. Distance is the same as Optimized distance in the "Opt" navbox. Task statistics gives averages achieved since the start of the <u>Declared task</u> 37. Last 60 minutes statistics gives averages achieved on the <u>Declared task</u> 37. or the Optimized task in the last hour.



Avg.vario: 2.1m/s

Avg.speed: 106.8km/h XC speed: 121.9km/h

Dis.flown: 241km

Circling: 22%

Duration: 2:15:25



Part VIII

7 Menu

The menu offers shortcuts to many features a pilot will want to access quickly. Buttons are large and easily read. There are two pages of the menu located one next to the other:

Page 1:

- . Esc 76
- . < Prev and Next > 76
- . Settings 109
- . Display Options 77
- . Map orientation 77
- . Add Waypoint 78
- . <u>Zoom</u> 81
- . Wind 82
- . MacCready & Altitude 83
- . <u>Goto</u> 86
- . Task 92
- . Next Map 99
- . Info page 71
- . Statistics 73

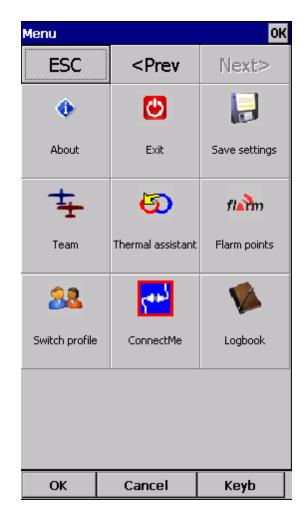
Page 2:

- . About 99
- . Exit 100
- . Save Settings 102
- . <u>Team</u> 101
- . Thermal Assistant 125
- . Flarm points 103
- . Switch Profile 104
- . ConnectMe 105
- . Logbook 105

Note that this is the default order of the Menu. It can be changed through the Settings > Menu 1341 dialog.

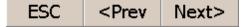
76





7.1 < Prev and Next >

These buttons show the next and previous page in the Menu 75.



7.2 Esc

The ESC button in the menu returns the view back to Map view.



7.3 **Settings**

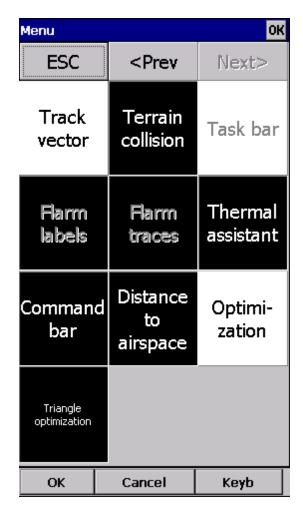
The Settings button in the Menu opens the Settings dialog where all of the preferences of SeeYou Mobile can be setup.

Note that some settings like Map and Navboxes are separate for Map 1 and Map 2 views while others like Units, Commands etc. are unique through the whole application.

7.4 Display options

You can control what is visible on the Map page [58]. By default, a shortcut to this dialog is placed on the Command bar which shows the first letters of some items (MAWT). All items which can be made visible or invisible in SeeYou Mobile are listed in this dialog:





7.5 Map orientation

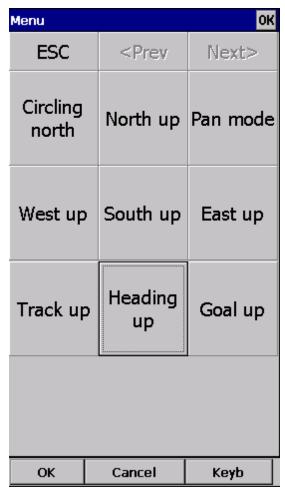
Opens a dialog which lets you choose from these different map display options:

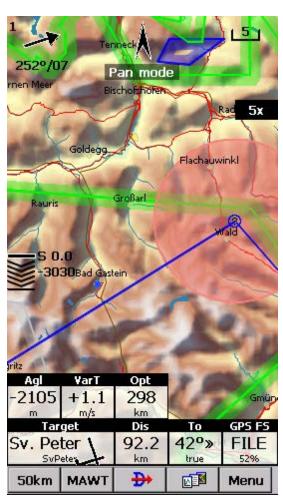
- . Circling North map is turned track up in straight flight and north up when circling
- . North Up where top of the display is always true North
- . East Up where true East is at the top of the screen
- . South Up where true South is at the top of the screen
- . West Up where true West is at the top of the screen
- . Goal Up sets up the display so, that the point you are navigating to is always at the top of the screen
- . Track Up puts your current track towards the top of the screen
- . Heading Up puts your current heading towards the top of the screen. Heading is calculated by subtracting Wind vector from the Track vector
- . Pan mode is a special mode where you can freely move around the map, zoom in, zoom out and rotate the map to explore some details along the course.

To move around the map in Pan mode you simply drag your finger over the screen and the map will follow your finger. To rotate the map drag your finger in the bottom 10% of the screen left/right. The map will again follow your finger, but this time it will rotate around the center point of the screen.

To return back to the location of the glider you need to tap on the North Arrow 64 which now includes the caption "Pan mode". That will move the view back to the glider and will change the Map orientation back to what it was before you started to pan.

There is a shortcut for this dialog if you tap with your finger on the North Arrow indicator.





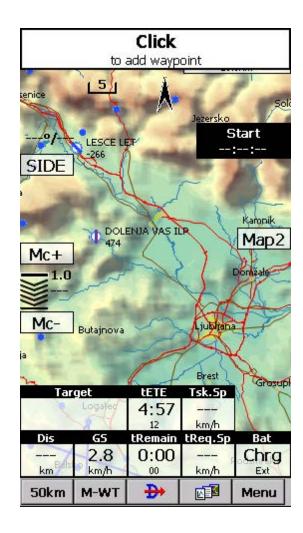
See also:

North arrow symbol 64

7.6 Add Waypoint

You can use the Add Waypoint dialog to add a waypoint on the fly.

You are first taken to a Map window with a white notification at the top. Click anyhwere to add a waypoint at that location. Or click on the notification to add a waypoint at your current location.

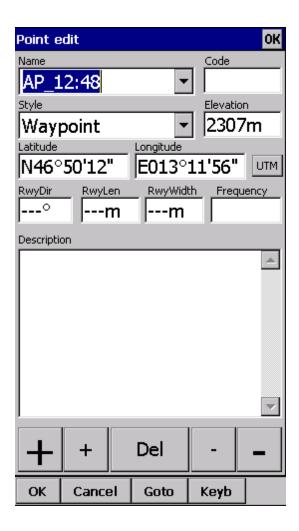


Then you are taken to a window where you can set the Waypoint name and other properties. Use the + +, +, - and -- buttons to change values quickly and without the use of the keyboard. Click GOTO if you would immediately like to navigate to the newly created waypoint.

See also:

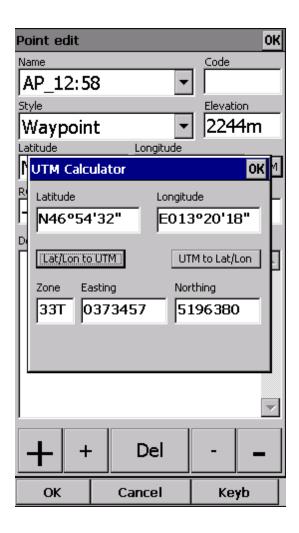
Details overview 88

80



UTM Calculator

This tool converts usual coordinate format to UTM format or vice versa.



7.7 Zoom

The Zoom dialog lets you choose from several predefined values (depending on the units). The value represents the width of the SeeYou Mobile window.

2km, 5km ... 35km, 50km ... are fixed zoom settings. Setting represents the width of the Map window. Depending on the units, it can be in either kilometers, statute or nautical miles.

Target is a special kind of Zoom where the application determines what width of the Map window to use to keep the target and the sailplane on the screen all the time.



7.8 Wind

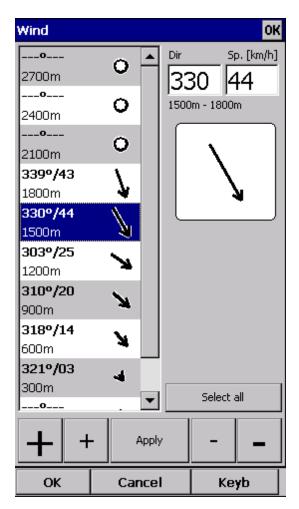
This dialog lets you see the wind in the third dimension as well as quickly adjust the wind for either one or several layers.

To change the wind,

- 1. select a layer or several layers by dragging over the left side of the dialog
- 2. draw a wind vector in the square in the lower right corner
- 3. longer line means stronger wind. Direction of the movement determines direction of the wind
- 4. If needed, adjust Direction and Speed with the buttons in the lower part of the display
- 5. tap Apply, then OK.

Wind is calculated using three methods in SeeYou Mobile

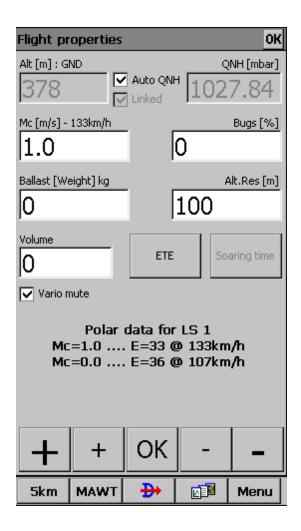
- . Position drift when Lat/Lon are the only available data
- . Groundspeed difference when groundspeed and track are received from the GPS
- . Combination of Groundspeed and straight flight when true air speed is received from the instrument. In this case, the wind is updated in straight flight as well.



7.9 McCready & Altitude

This menu item opens the Flight Properties dialog box which lets you enter

- . Take-off altitude
- . QNH
- . MacCready setting
- . Bugs
- . Ballast
- . Altitude reserve
- . Volume
- . ETE
- . Soaring time



Take-off altitude

By changing this setting you can change your take-off altitude. Setting up this value correctly is essential for correct final glide indications. When there is a waypoint or the terrain map with elevations in vicinity, there is a suggestion at what to set up in the top line of this dialog. By default Oudie will try to use its automatics to select the correct takeoff altitude.

QNH

By changing the QNH value you can change the pressure at start or change the QNH in flight to correct the change in pressure. By default Oudie will try to use its automatics to select the correct QNH.

Linked

When the values are linked then changing one value will also change the other one. Unlink only if you are instructed by someone to do so.

MacCready

You can setup the MC setting here. The optimum value for the MC setting can be derived from the statistics page and other Navboxes.

Bugs

By changing the Bugs value you can degrade the performance of the polar by a certain percentage.

Ballast

Depending on the Unit settings you can enter the ballast either as the amount of water carried on board or as Wing loading.

Altitude reserve

All final glide calculations are subject to correction of the altitude reserve. If this value is greater than 0, then your arrival altitude to the waypoint will be this much above the altitude of the waypoint elevation from the waypoint database (this may not be its actual altitude, so use at own risk, needless to say).

Volume

This property is only used when connected to a variometer which is capable of receiving commands for changing the Vario volume. Such instruments are LX 1600 and Cambridge 302.

Vario mute

This functionality is only available on Oudie IGC. If you untick this box the Oudie will give you an uncompensated vario sound. Great for when all other instruments have failed.

ETE

Pressing the button you may choose from four different ways to calculate estimated time of arrival to the airport. Calculation is always divided into straight flight and climb time calculations.

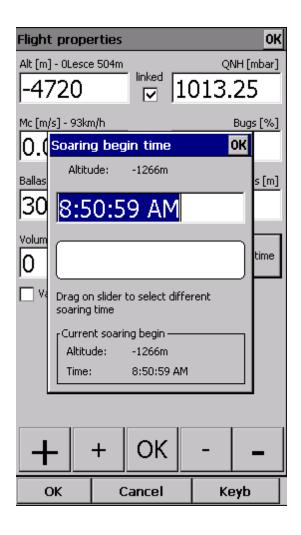
- 1. MC uses the Polar data and MacCready setting to calculate speed to fly and climb rate.
- 2. Vario uses the last four thermals average to compute climb rate and uses this value to calculate speed to fly.
- 3. Avg Speed & Vario uses the average groundspeed over the last 5 minutes for distance and Vario statistics for climb rate.
- 4. Avg Speed & MC uses the average groundspeed over the last 5 minutes for distance and MacCready setting for climb rate.

You may disable "use altitude difference" if you know you will not climb anymore.

Soaring time

Lets you enter your soaring begin time manually. This is useful for motorgliders, since none of the instruments send ENL data over NMEA.

Buttons at the bottom will help you enter the correct values by simply using your fingers.



7.10 Goto

The goto dialog allows you to select the "Navigate to" point quickly. There are several ways to access this dialog:

Tap on the map

Brings up the Goto dialog. Waypoints are sorted on distance from the point where the tap happened on the Map screen. This way it is easy to select the waypoint you were trying to "tap" even though you couldn't tell them apart in the Map view due to the Zoom level.

Through the menu

If the Goto dialog is accessed through Menu > Goto, waypoints are sorted first on type, then distance. This is the Near Airport function of SeeYou Mobile.

Through the Command bar

By default, the Goto icon is displayed in the Command bar.



Landable waypoints which can be reached with the current MacCready setting are colored green. Landable points which can be reached with MacCready setting zero are colored yellow while the others are not colored. The glideslope calculation considers the altitude reserve if entered in the Flight Properties 83 dialog.

There are more columns available than they are seen by default. Arrival height and L/D to the point are not visible. Make the existing columns thinner to see the others. You may then reorder them by dragging the column header to a new location.

Pressing the Details button will open a new window where you can read waypoint details and edit waypoint properties. It will close automatically after 10 seconds or when you press the OK/Goto button.

Since the waypoint list may be huge there is a quicker way to accessing a particular point alphabetically by <u>Filtering 89</u> the points. When the waypoints are filtered, the Filter caption is highlighted in the command bar (see screenshot below).

At the bottom of the screen, immediately above the menu, three recently used waypoints are displayed. Landable points are colored green or yellow if they are reachable. At the top of the screen you can choose between clearing the target all together, navigating back to takeoff location or back to Soaring begin (useful for closing a triangle for example).



See also:

Details overview 881
Edit Waypoint 881
Edit Description 881
Waypoint filter 891

7.10.1 Details overview

This window opens when you click on the Details menu option in the <u>Goto</u> or <u>Cursor Info-Waypoints</u> of dialog. It displays the general information about a waypoint.

It also allows you to edit and delete waypoint properties on pages <u>Edit Waypoint</u> and <u>Edit Description</u> 88. You can access these pages with the ">>" and "<<" buttons in the command bar.



See also:

Goto dialog 86

Details overview 88

Edit Waypoint 88

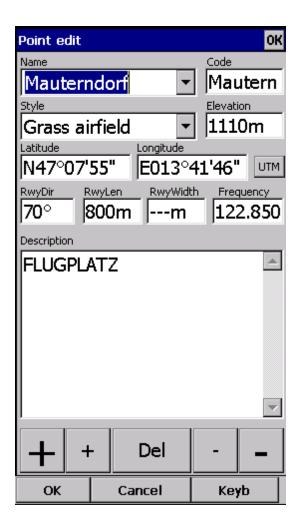
Waypoint filter 89

7.10.2 Edit Waypoint

You may edit and delete waypoints on this screen.

This window opens when you click on the Details menu option in the Goto 861 dialog or Cursor Info-Waypoints 601 dialog and press the ">>" button once.

Use the ++, +, - and -- buttons to change values quickly and without the use of the keyboard.



See also:

Goto dialog 86 Details overview 88 Edit Waypoint 88 Waypoint 88

7.10.3 Waypoint filter

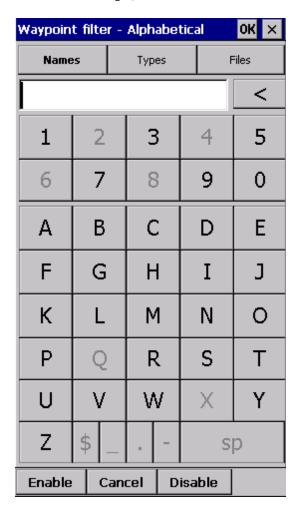
Since SeeYou Mobile may use multiple files as the input for waypoints there is need for a simple way to filter the waypoints so that only those waypoints which are of the most interest to the user are presented.

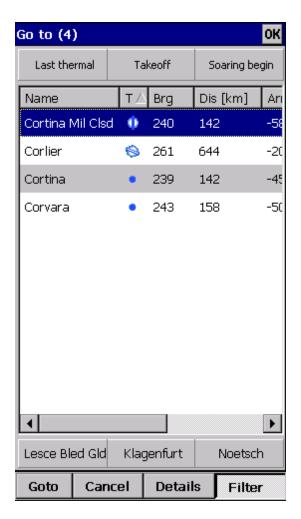
Three filters are available in order for you to organize your waypoints in a more readable way:

- . Alphabetical filter
- . Filter by waypoint type
- . Filter by file

Alphabetical filter allows you to simply enter the waypoint's name. As soon as the list of waypoints is less than the length of the screen, the keyboard closes and then you may choose the waypoint that you were looking for from the list that matches the filter you have entered. The screenshot below left displays such filter with the letters "MAL" already entered. The result is a list of all waypoints that begin with MAL (see

screenshot on the right):



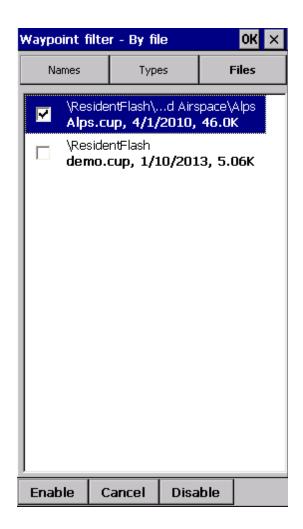


Filter by waypoint type allows you to select which types of waypoints will be displayed in the Goto dialog. In the example below, the button "Landable" was pressed and only landable types of waypoints remain selected and will be displayed in the Goto dialog [86]:



Filter by file allows you to show or hide waypoints that are stored in separate files. In the example below only one out of two waypoint files that were selected through $\frac{\text{Settings}}{\text{Settings}} > \frac{\text{Files}}{\text{Files}}$ will be displayed in the $\frac{\text{Goto dialog}}{\text{Settings}}$

92

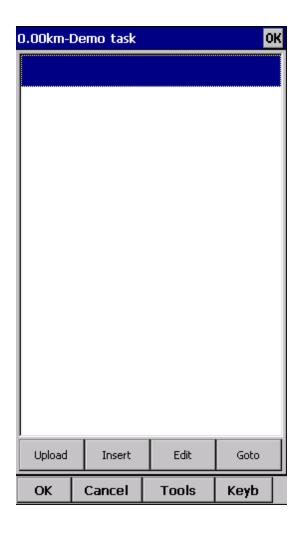


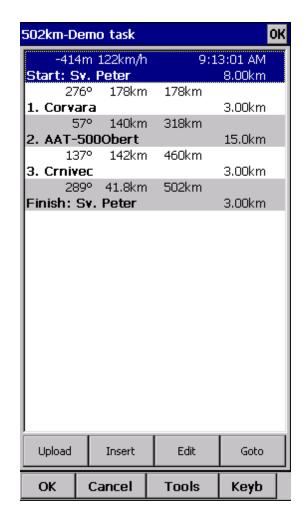
See also:

Goto dialog 86 Details overview 88 Edit Waypoint 88 Waypoint filter 89

7.11 Task

The task dialog allows you to edit and enter the task in list view. There is a shortcut to this dialog in the Command bar.





You can edit the task either in

- . List view 93
- . Map view 94

7.11.1 List edit

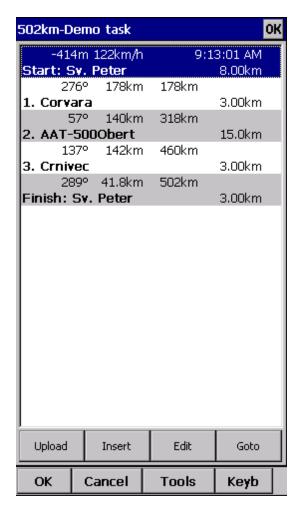
Entering the task is best done in list view. You may enter waypoint names using the Oudie keyboard. Open the keyboard (or letter recognizer) to start entering waypoint name. SeeYou Mobile will automatically suggest the first waypoint in alphabetical order. Use the right/left button to change waypoint name in alphabetical vicinity of what you had entered. Up and down keys change between turnpoints.

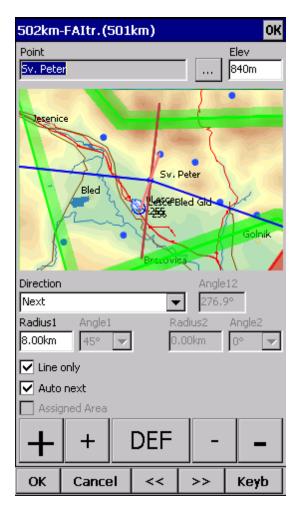
By pressing the enter key or tapping on the Edit button Edit point ballog opens where you can setup preferences of the observation zone. Use Insert and Delete buttons to change the Task.

From the command bar you can choose:

- . OK to accept any changes
- . Cancel to discard any changes
- . Tools to <u>Edit point</u> [95], Delete point, Insert point, Move point up and down, Invert task, <u>Load task</u> [96], Save task, Delete task or setup <u>Task Options</u> [97].
- . Map 94 to change to graphical view.

A warning dialog will be issued if finish altitude is set to zero. This is to protect you from making final glides to the wrong altitude.



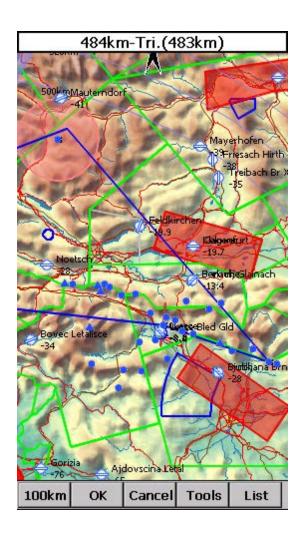


7.11.2 Map edit

The same simple philosophy from graphical task editing in SeeYou has been implemented in the software.

- Tap & Move anywhere except on a waypoint to move the map.
- Tap & Move on a Waypoint to move it. FAI Area is drawn to easily fly an FAI Triangle
- Tap & Hold on a Waypoint to delete it from the task.
- Tap & Hold on a Leg to insert a point to this leg.
- Tap & Hold anywhere on the map except on a leg and on a waypoint to append a waypoint to the end of the task.
- . Use Zoom (100km) to change zoom, then Tap&Move the map to pinpoint the position of the free waypoint.
- . OK to accept any changes
- . Cancel to discard any changes
- . Edit to <u>Edit point [95]</u>, Delete point, Insert point, Invert task, <u>Copy task [96]</u>, Delete task or setup <u>Task Options [97]</u>.

. <u>List 93</u> to change to graphical view.



7.11.3 Edit Point

Point

Choose the waypoint name. Note that the easiest way to do this is by typing its name in <u>List view</u> 93).

Elev = Elevation

This is the reference altitude for the point in question. This is the altitude that is taken into account when calculating the final glide.

Direction

This option changes the direction of the observation zone. It can either be towards the Next or Previous point, a Fixed value (Angle12) or Symmetric to the courses in and out of the waypoint.

Angle12

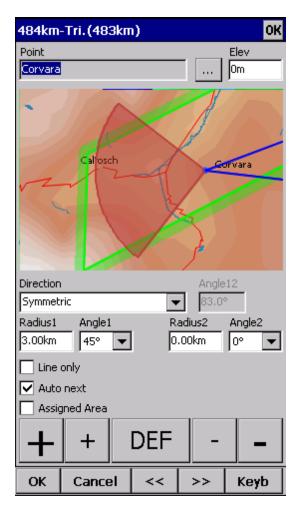
If Fixed value is selected from the Direction combo box, a direction of the sector will be symmetrical to this value.

Radius1, Angle1, Radius2 and Angle2 will setup the sector in the same way as already used to in the desktop version of SeeYou.

Assigned Area check box tells SeeYou Mobile the type of task

Line only can be selected for start and finish points only.

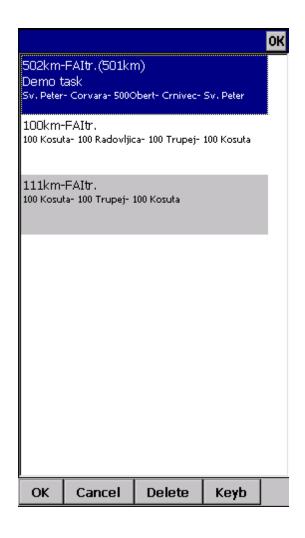
Buttons at the bottom will help you enter the correct values quickly with your fingers. The DEF button will change values to the default ones.



7.11.4 Load task

Load task dialog is accessed through Menu > Task > Tools > Load task... You can access it through both List $\boxed{93}$ and \boxed{Map} $\boxed{94}$ view of the Task.

Select a task from your database and press OK to make it your active task. Press Cancel to discard any changes. You pressed Help to get here.



7.11.5 Task options

Task options dialog is accessed through Menu > Task > Tools > Options...

You can name a task. This is particularly useful at a competition briefing where you can name it Task A and Task B.

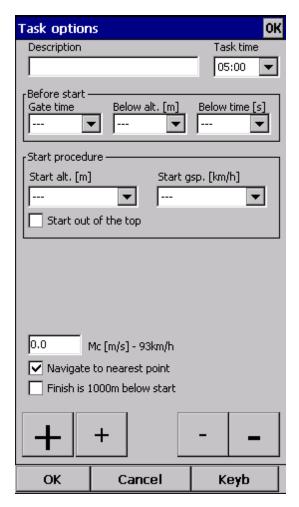
Task time is essential for flying the Assigned Area tasks. It is used to calculate required speed to finish as well as time difference on task.

The MC (MacCready) panel allows you to set your average lift in the edit box and see what your theoretical speed will be if you fly according to the MacCready theory.

The Auto advance check box will automatically move the navigation point to the next point from the Task if checked. In case of an Assigned Area sector, the "Navigate to" point will remain the same, but statistics and distance to finish will be moved to the next point.

When Finish is 1000m below start is checked, the altitude of the finish point is automatically moved to Start altitude less 1000m. This is useful when flying FAI badge and record flights.

Use the + and - buttons to quickly change values.



7.11.6 Upload Task declaration

You can declare the task directly into the supported devices. This allows you to change the task literally seconds before takeoff without even changing the cables. Do this:

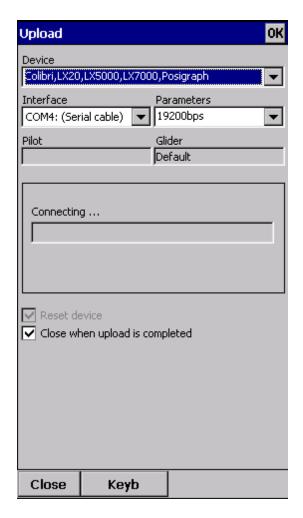
- . go to Menu > Task
- . Options > Load task > select a new task which you would like to fly
- . Press the "Upload" button

Some flight recorders require input from the pilot to get connected (such as pressing a key, restarting the logger or such). After the communication is established, the following data is transferred automatically to the flight recorder:

- . Declared task in SeeYou Mobile which you have entered in Menu > Task
- . Glider information which is entered in Menu > Settings > Polar (glider type) and Menu > Settings > Log (glider registration)
- . Pilot name as entered in Menu > Settings > Log

Reset device is available only for selected devices which do support this action. Volkslogger as an example will cycle the power and return to the navigation mode after this action has completed.

When the action Close when upload is completed is checked, the Upload dialog will close upon competion of the upload.



7.11.7 Multiple start points

If you wish to use the multiple start points option please enter all available start points for selected day in Menu > Task > Tools > Start Points. Valid start will be detected from any of these start points.

7.12 Next map

If you are currently viewing Map 1 it changes the view to Map 2 and vice versa.

7.13 Info page

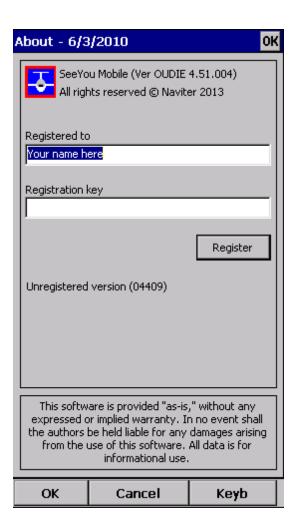
See <u>Information page</u> 71

7.14 Statistics

See Statistics page 73

7.15 About

Through the About dialog you can enter the registration key. It will then display your serial number and the date until you can upgrade SeeYou Mobile free. Upgrades are available through http://www.naviter.com



7.16 Exit

Pressing this button quits the application.

Before you exit, the program will ask you whether or not you wish to:

- . save the current profile changes
- . save changes to the waypoints and tasks
- . save changed or added Flarm aliases
- . Finish the flight by signing the IGC file with SeeYou G-record



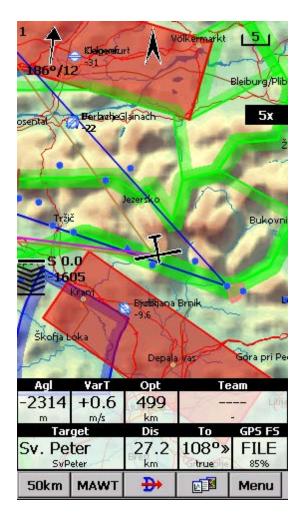
7.17 **Team**

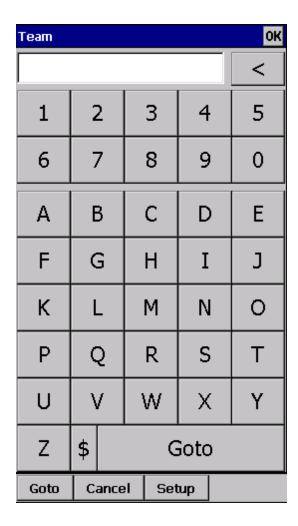
The Team feature in SeeYou Mobile will help you find or hide your teammate. It lets you share your position with other pilots and even encrypt this information so that your competitors won't be able to decode it.

To use it:

- . Enable the "Team Position Code (Team)" Navbox in Menu > Next > Navboxes 117). Or use Menu > Next > Team from the main menu.
- . Go to the map view and tap on the Team navbox.
- . Team dialog opens. You need to press Setup before first use.
- . Press Select to select a source waypoint for the calculation. It is imperative that your teammate does the same.
- . If you would like to hide the information from others, enter the Encryption key. Again, both or all pilots have to share the same key.

Go fly. When asked about your position, answer "One-Kilo-Bravo-Yankee". Your teammate will tap the Team navbox, enter the code and say "Thanks" while others won't have a clue unless they have the key:)





7.18 Save Settings

Once you have setup SeeYou Mobile for your flight you may want to save the settings without exiting SeeYou Mobile.



7.19 Flarm points

Shows a list of currently visible Flarm targets. You can choose one to navigate to by pressing Goto or edit the properties of that point by choosing Edit.



7.20 Switch Profile

The switch profile icon shuts down SeeYou Mobile and runs it again so you can choose another profile.



See also
Using Profiles 19

7.21 ConnectMe

Shuts down SeeYou Mobile and runs ConnectMe to download flights from your logger or vario. After exiting ConnectMe it runs SeeYou Mobile again.

7.22 Logbook

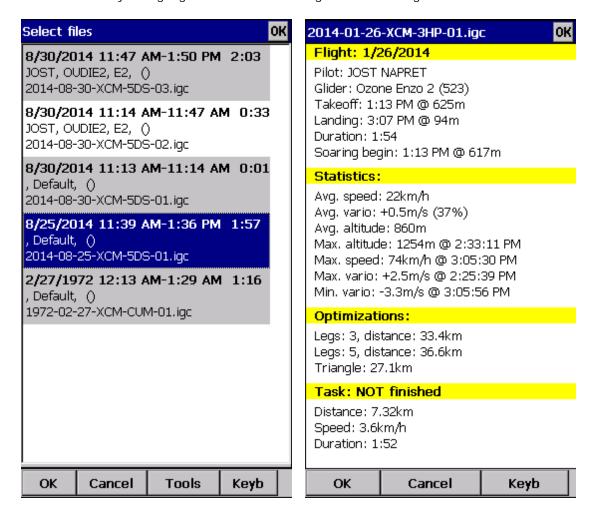
The logbook displays a list of flights written by your Oudie. It also displays information about the glider and the pilot if it is stored in the IGC file.



7.22.1 Flight statistic and replay

At end of each flight some statistics is written to IGC file for later use.

To see statistic from your flight go to Menu > Next > Logbook > select flight > Tools > Statistic.



If you wish you can replay your flight as well directly from Logbook: Menu > Next > Logbook > select flight > Tools > $\frac{\text{Replay flight}}{12}$.



Part Collins

8 Settings

The Settings dialog has an array of Pages where all of the SeeYou Mobile preferences can be setup. Note that some settings like Map and Navboxes are separate for Map 1 and Map 2 views while others like Units, Commands etc. are unique through the whole application.

Available pages are

- . Map 109 where display of the vector map is setup
- . Airspace 111 where display of airspace and airspace warning is setup
- . Waypoints 112 page controls the way waypoints are displayed
- . Flight 114 page sets up the trace, vario colors of the displayed trace
- . Opt 115) page (short for Optimization) lets you setup how the optimizations are calculated
- . Task 116 page sets up the observation zones and other task options
- . Navboxes 1117 page lets you choose which navboxes to display and control their appearance
- . Symbols 123 page allows you to choose from symbols for the map display
- . Warnings 124 page sets up airspace and altitude warnings
- . Thermal 125 page sets up the Thermal assistant
- . Polar 127 page has all the controls to choose the polar for your glider
- . Units 128 by your preference
- . Fonts 129 page changes the appearance of the text on the screen
- . <u>Input 130</u> page lets you select between GPS, Simulator and File replay mode
- . Commands 133 page reassigns tasks to all buttons of your PDA and SeeYou Mobile
- . Menu 134 page lets you control the content of the main Menu
- . Files 1351 page has shortcuts to the terrain, waypoint and airspace files
- . Log 137 page sets up the header for the IGC file
- . <u>User interface 1381</u> is short for User Interface
- . Flarm 61 page is where you can control how Flarm data is presented on the screen
- . Miscellaneous 141 page has all the rest
- . <u>Hardware 142</u> page controls communication to GPS with proprietary sentences
- . LX 1600 144 pages control preferences of the LX 1600

Once you are in the Settings dialog you can use the big Left/Right button on the PDA to change between pages. If you press and hold it, it will scroll through the pages. If you need to quickly find the last page, just press and hold it until it's there.

8.1 Map

This dialog allows you to setup the appearance of the map in Map view [58]. SeeYou Mobile uses CIT maps for rendering the terrain. It is the same map as in the desktop version of SeeYou.

Show map check box will enable the display of the Vector map if checked.

Terrain

You can choose from several levels of detail of the terrain which is being rendered. When terrain is Off, you will still see Water bodies, Roads, Railroads, Towns and labels on the screen. With the setting at Low contour lines will appear approximately 300m apart. With the setting at Medium, contour lines appear about 100m apart. With the setting at High, you get exactly what you are used to in the desktop SeeYou version.

Scheme

Several color schemes are preloaded in a new installation. It is easier to see how each one looks if you

look at it in the desktop SeeYou. We recommend "High contrast" for mountaneous terrain, ICAO for just general navigation and Open Street Maps color scheme for the Flatlands.

If Custom color scheme is chosen you get to define your own colors and other properties for the map objects.

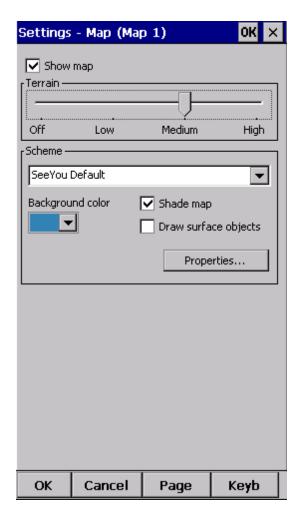
Background color

For each cheme you can select background color.

Shade map

This function will shade map.

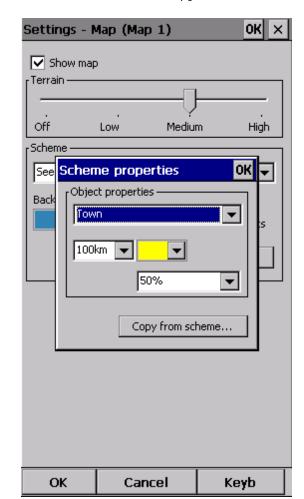
Draw surface objects will enable drawing woods and grass, glaciers, fields if newer Open Street Maps are used.



8.1.1 Scheme properties

Scheme Properties dialog lets you change the color scheme for the topographic features of the map.

Object properties allows you to change the zoom level, transparency and color for each of the topographic features in the combo box.



You can also copy settings from another scheme with Copy from scheme function.

8.2 Airspace

In this dialog, you can setup airspace display and Warnings.

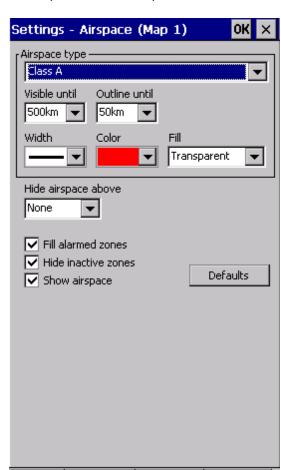
In the Type panel you can setup how airspace is displayed. You should setup each type of airspace separately. Choose an airspace type from the drop down list. Choose until which zoom level it is visible from the Zoom drop down list. By checking the Warn me check box you will be warned before entering this type of zone. Choose whether or not a zone should be filled from the Fill drop down list. Chose a Color for the airspace type from the drop down list. Fill transparencies could be set from 0 to 100% in 10% step.

Each airspace may be presented with its label (name). Choose until which zoom this label is visible from the Labels zoom drop down list.

If Fill alarmed zones is checked, airspaces for which an alarm was triggered will be colored transparently.

If Hide inactive zones option is checked, then an airspace zone will be hidden from the Map page when dismissed.

If Show airspace check box is checked, then airspace will be displayed in the Map view [58]. Combo box Hide airspace above enables you to exclude airspace with lower limit higher than the



height you select to show on the map screen. This helps declutter the screen in complex airspace.

8.3 Waypoints (Wpts)

The Waypoints dialog allows you to control how waypoints are displayed. Each waypoint consists of

Page

Keyb

Cancel

- . Waypoint symbol
- . Label one
- . Label two

Type panel allows you to select the type of waypoint. Several types are available. Each type has its own waypoint symbol.

Zoom sets up until which zoom a waypoint label is visible.

OK

Label one chooses what parameter is displayed in the Label one caption. Label two chooses what parameter is displayed in the Label two caption.

Length chooses how many characters of each waypoint name are displayed in Label one or two.

Colorize label one/two will color the selected label with green or orange depending on whether or not this waypoint is within glide slope. Green if it is within glideslope of the preset MC value. Orange if it is

within glide range of MC set to zero.

Single line label will display the label one and two in a single line.

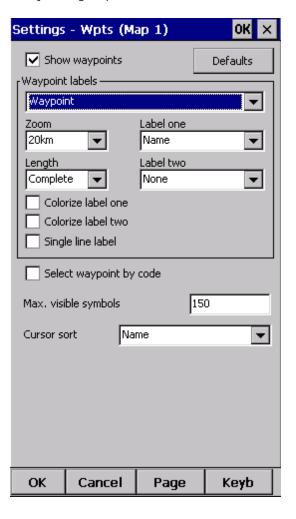
Select waypoint by code

Max number of visible symbols lets you setup how many waypoint symbols you wish to have displayed with their icons before they become points.

Cursor sort allows you to select how the waypoints are sorted when you use the Up/Down key (by default) to change the Target waypoint. The default setting is that waypoints are sorted on Name, but you can select to sort them either on Name, Code, Style, Course, Distance, Arrival Alt, Required L/D or in the same order as currently selected in the Goto dialog.

Show waypoints checkboxs lets you turn waypoints on/off.

Defaults button will return factory settings if pressed.



8.4 Track & Target

Setup the appearance of the flight on Map page.

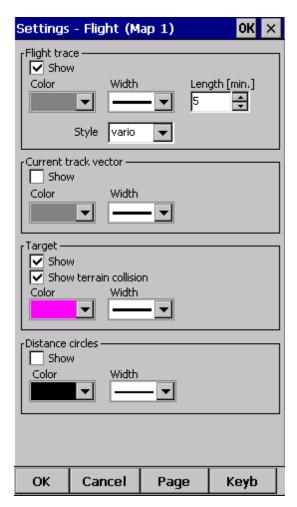
Track panel

lets you choose the Color and Width of the trace of the flight through the combo boxes. Choose the tail Length in minutes. If Show vario check box is checked, then the flight track is colored with vario readings. If Show track checkbox is not checked, then the trace will not be drawn.

Show current track vector lets you draw a line ahead of the glider to show your projected flight path if you continue to fly the current track. You may change the Color, Width and Length of the line through the combo boxes. You may choose to disable the display of the current track vector by disabling the option Show current track vector.

Target is a straight line that connects the glider's current position with the selected navigation goal. In the Target panel you can select the Color and Width of this line through the combo boxes. You can also choose to show or hide the Terrain collision point and the target line itself. The Terrain collision marker is a red square which is only displayed when there is not enough altitude to reach the target with the current glider settings.

Distance circles helps you to value how far you are from anything on the map.



8.5 OLC & FAI area

Optimization panel lets you select the Color and Width of the optimized track. Nr. of points (5 is for Online Contest, 3 for Net Coupe) and whether or not the Optimized track is shown.

FAI Area panel largely influences the behaviour of the FAI Triangle Assistant.

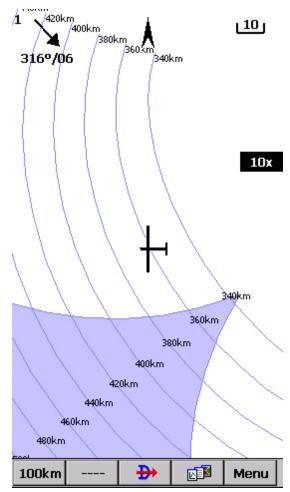
You may choose the Color and Fill for the FAI Area. Show area checkbox determines whether or not the FAI area will be displayed in the first place. Note that you can control this option much more conveniently through the <u>Display Options</u> 77 dialog.

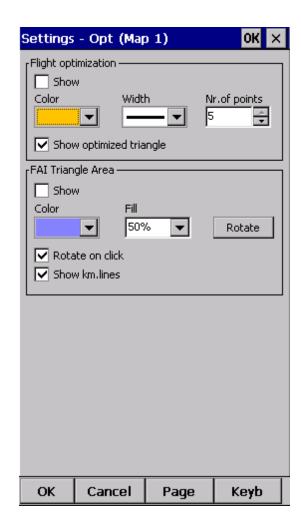
The Rotate button will change where the FAI Area is drawn. If the currently flown triangle is not deep enough it will switch sides over the longest currently flown leg, giving you the option to fly the triangle in the left or right direction. Once the Triangle is deep enough, it will rotate between the legs so you can accurately determine where to fly.

Rotate on click refers to the FAI Area when it is drawn on the moving map. A tap on the area will rotate the area as described above.

Show km. lines will draw the curves connecting locations where the triangle has the same distance.

Example shows kilometer lines for Triangles between 340 - 380 km. If you fly into the violet area, the triangle will be an FAI triangle.





See also:

. FAI Triangle Assistant 46

8.6 Task

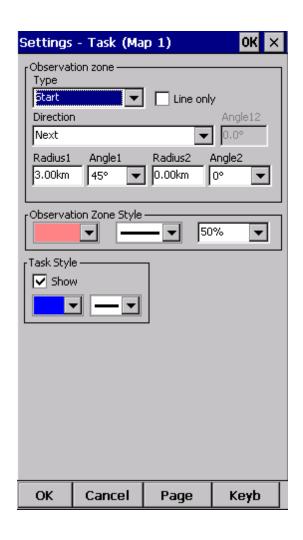
Observation zone properties are setup with the same philosophy as in SeeYou. You can setup Fill and Color properties for the display of the observation zone on the Map page.

You can separately design the Line only, Direction, Angle12, Radius1, Angle1, Radius2, Angle2 properties for the Start, Waypoint and Finish points.

Observation zone style lets you choose the color and width for the waypoint sector. Observation zone fill determines whether or not the sector should be displayed filled or outlined.

Task style lets you choose the color and width for the line connecting the task waypoints.

Show task will show or hide the task from the Map page.



8.7 Navboxes

Navigational boxes are one of the most important parts of SeeYou Mobile. They show all parameters of flight. You have full control over which Navboxes you wish to display, how large and how transparent they should be and where they should be located.

Navboxes are setup separately for Map 1 and Map 2 views. That is because normally you will want to use the two map views for two different reasons. One could be general navigation while the other one is approaching the waypoint where details are important. You will require two different settings for which Navboxes should be displayed in these conditions.

Through this dialog you can select which of the available Navboxes you wish to display on the active map.

The Combo box allows you to choose from a sub-group of navboxes so you can more easily select or change the ones you want. One sub-group is also "Currently visible navboxes" for example.

Navigation navboxes:

- . Target name (Target) = Name of the selected waypoint
- . Distance to target (Dis) = Distance to the selected waypoint
- . Steering course (To) = Difference in degrees between Bearing to target and Track over ground
- . Bearing to target (Brg) = Direction towards the selected waypoint

- . Magnetic bearing to target (MagBrg) = Magnetic course to fly to get to the target
- . Track over ground (Trk) = Direction of the flight (true)
- . Magnetic Track over ground (MagTrk) = Current magnetic course of flight
- . Radial (Radial) = Magnetic direction from the waypoint to the current position
- . Speed over ground (GS) = Groundspeed. This value is negative if the difference between heading and track is more than 90 degrees
- . Local time (Time) = UTC time from GPS corrected by time zone set in the Pocket PC
- . Arrival time (ETA) = Estimated time of arrival to the selected waypoint
- . Estimated time enroute (ETE) = Estimated time to go to selected waypoint
- . Nearest outlanding (Near Outl) = Name of the nearest outlanding. Tapping on this navbox opens waypoint properties dialog.
- . Nearest airport (Near Apt) = Name of the nearest airport. Tapping on this navbox opens airport properties dialog
- . Inverted Distance to target (DisInv) = Distance to selected target in inverted units as currently selected units. If your units are kilometers, this distance will be in nautical miles
- . Team position code (Team) = Code you need to tell to your <u>teammate</u> 101 so he can locate you easily
- . GPS Status (GPS) = It displays the status of the GPS signal. It can be either NODATA, BAD, OK, 2D, 3D/x
- . Battery info (Bat) = Displays battery status. It can be either Full, Chrg (Charging), Ext (External) or a percentage value of the battery status

Altitude navboxes:

- . Altitude QNH (Alt) = Altitude above sea level
- . Flight level (FL) = Altitude above standard atmosphere pressure
- . Height AGL (Agl) = Altitude above the ground elevation vertically below the glider position
- . Altitude m QNH (Alt m) = Altitude in meters QNH regardless of the units you are currently using
- . Altitude ft QNH (Alt ft) = Altitude in feet QNH regardless of the units you are currently using
- . Ground elevation (Gnd) = Terrain elevation vertically below the glider position
- . Arrival altitude (Arrival) = Expected Arrival altitude at the selected waypoint calculated by taking the distance, MC, wind, glider polar, bugs and ballast into account. It is corrected for reserve altitude.
- "Arrival altitude" will be positive when the glider is above the calculated glide slope, and negative when it is below the calculated glide slope.
- . Required Altitude (ReqAlt) = Estimated altitude loss from current position to target taking into accout current MC, bugs, ballast and wind settings
- . Task arrival altitude (tArr) = Arrival altitude to goal from your position with taking into account current MC, bugs, ballast and wind settings.
- . Task required altitude (tReqAlt) = Altitude required to complete the task

Final glide navboxes:

- . Flown L/D (Cur.L/D) = Current glide ratio estimated over the last two minutes of flight
- . Required L/D (Req. L/D) = Required glide ratio to reach the selected waypoint
- . Thermal L/D (Ther. L/D) = Glide ration since last circling phase finished
- . Arrival altitude (Arrival) = Expected Arrival altitude at the selected waypoint calculated by taking the distance, MC, wind, glider polar, bugs and ballast into account. It is
- . Required Altitude (ReqAlt) = Estimated altitude loss from current position to target taking into accout current MC, bugs, ballast and wind settings
- . Required Mc (Req.Mc) = MacCready ring setting which will allow you to final glide exactly to the Target. It shows Arrival Altitude when Arrival altitude for MC=0 is less than zero
- . Task required L/D (tL/D) = Required glide ratio to complete the task

Speed navboxes:

. Speed over ground (GS) = Groundspeed. This value is negative if the difference between heading and track is more than 90 degrees

- . True airspeed (TAS) = Groundspeed corrected with indicated wind, if no pressure data is available
- . Speed to Fly (STF) = Speed to fly according to MC theory which takes MC setting and sink into account.
- . Task speed (Tsk.Sp.) = Speed on task until the present position
- . Task required speed (tReq.Sp) = Average speed you need to achieve to complete the task inside the Task time
- . Speed Last hour (60'.Sp) = Average speed achieved in the last 60 minutes

Vario navboxes:

- . Thermal vario (VarT) = average vario since beginning of circling
- . Average vertical speed (VarA) = average vario for the last 20s
- . Vertical speed (Vario) = current vario reading
- . Netto vertical speed (Netto) = Variometer reading corrected for the sink of the glider according to the selected polar

Wind navboxes:

- . Current wind (Wind) = Current wind measurment
- . Current wind component (cWind) = Wind component in current direction of the flight. Positive values are tailwind, negative values are headwind. Two numbers are displayed. First number is difference between groundspeed and true airspeed. The second one is wind component derived from the calculated wind at current altitude. When the two are significantly different you will know not to rely on the calculated wind strength

Airspace navboxes:

- . Nearest airspace Horizontally (Near AS.H) = Distance to horizontally nearest airspace where you are not "inside". The caption of this navbox will show airspace name. Tapping on this navbox will temporarily arm this airspace so you can turn it off if you wish.
- . Nearest airspace Altitude (Near AS.V) = Relative altitude to the horizontally nearest airspace. It can be either negative if you are below the lower limit of the airspace, positive if you are above the upper limit of the airspace or "Inside" if your altitude is in between the lower and the upper limit of the airspace in question.
- . Nearest airspace Vertically (Near AS.V) = Relative altitude to the airspace at the location of the glider. It can be either negative if you are below an airspace , positive if you are above an airspace or "Inside" if your altitude is in between the lower and the upper limit of the airspace in question.

Task navboxes:

- . Task remaining distance (tDis) = Distance remaining on the task
- . Task arrival altitude (tArr) = Altitude required to complete the task
- . Task required L/D (tL/D) = Required glide ration to complete the task
- . Task arrival time (tETA) = Estimated time of arrival to the finish
- . Task estimated time (tETE) = Estimated time to go on task
- . Task remaining time (tRemain) = Remaining time until task time elapses
- . Task Delta time (tDelta) = Task established time Task remaining time
- . Task speed (Tsk.Sp.) = Speed on task until the present position
- . Task required speed (tReq.Sp) = Average speed you need to achieve to complete the task inside the Task time

Statistics navboxes:

- . Thermal vario (VarT) = average vario since beginning of circling
- . Optimized distance (Opt) = Optimization over a preselected number of waypoints (default is OLC optimization)
- . Closed optimized distance (cOpt) = Optimization of flight if you return back to the point of takeoff
- . FAI Triangle distance (FAI) = Triangle optimization. It displays "FAI Tri" when proportions are correct

. Speed Last hour (60'.Sp) = Average speed achieved in the last 60 minutes

Action buttons:

There are a few "dummy" navboxes which are used on devices with few hardware buttons. Due to the lack of hardware buttons you may place "software" buttons in the shape of a Navbox on your screen. The following "buttons" are supported:

- . MC increase will increase the MacCready value by 0.1 m/s or 0.2 kts
- . MC decrease will decrease the MacCready value by 0.1 m/s or 0.2 kts
- . Volume increase will increase the Volume of the device
- . Volume decrease will decrease the Volume of the device
- . Map 1 page will switch view to Map 1 58
- . Map 2 page will switch view to Map 2 58
- . Statistics page will switch view to Statistics page 73
- . Info page will switch view to Info page 71
- . Engine running will reset optimization when "engine" is stopped. Tap on the navbox changes the state of the "engine"
- . Sideview

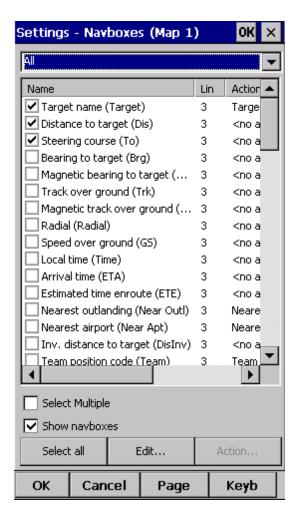
When Select multiple is checked you can tap on a single navbox to select it and keep selected the ones that were already selected. To select a number of navboxes at once, tap, hold and move the stylus. Select All quickly selects all navboxes, so you can use the Edit button.

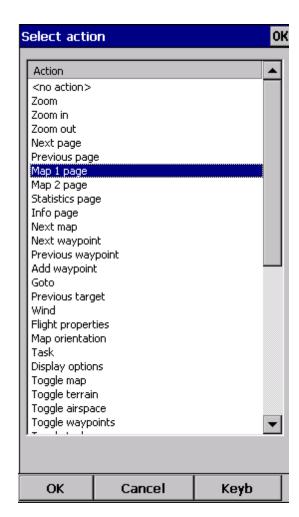
Edit... button allows you to change common values of the navboxes. Select single or several navboxes by dragging the stylus over the navbox names. Then press Edit to select the Number of lines you wish them to have and whether or not you want the selected navboxes to be Transparent.

You can assign an Action to each of the Navboxes. Action is performed when you tap on a specific navbox. By default, only Team navbox has an action assigned to it. Tapping on the Team navbox will open the Team loft dialog where you can enter your teammate's position code.

Auto Arrange check box will rearrange new navboxes so, that they stack at the bottom of the screen.

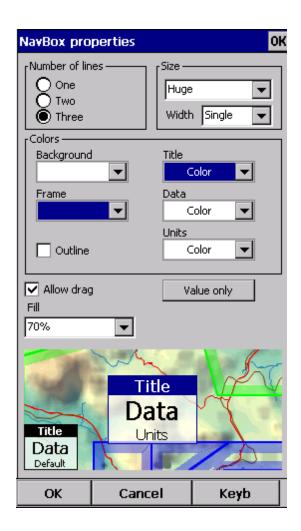
Show navboxes check box will hide navboxes if not checked.





8.7.1 Edit

While you editing selected or group of selected NavBoxes properties dialog will show you sample support.



Number of lines determines how many lines a navbox will have on the screen. A navbox consists of three lines:

- . Title line (Line 1) which is black by default and has white font
- . Data line (Line 2) with white or transparent background and black text by default
- . Units line (Line 3) with units or other sub data to the main data line.

When Number of lines is one, only the Data line (Line 2) will be displayed. When you select two Title and Data lines will be displayed (Line 1 and Line 2). When you select three all three lines will be displayed.

Size

There are three different sizes available: Normal, Large, Huge. For some Navboxes is usefull to set also Width; for example Target name.

Colors panel accounts controls the looks of the Navboxes. You can change the colors for

- . Background
- . Frame
- . Title line
- . Data line
- . Units line

Note that you can change the Navbox colors separately for each Navbox. Select a group of navboxes in Menu > Next > Navboxes, then press Edit to edit the Color and Number of lines settings for several navboxes at once. By same system you can set size of Navboxes.

If the checkbox for Transparent is selected, the Data and Units line will be transparent. With the Fill combo box you can control how transparent the navboxes are from 0 to 100 % in 10 % step. Text Outline property could be used for Navbox text or by default with tap on Value only button.

Allow drag check box if checked will allow you to place any Navbox anywhere on the screen. To move it, Tap on the Navbox in question, then move it to a new spot. Note that you can move the North Arrow, Glider symbol, Wind indicator and Glideslope indicator in the same way.

With the Fill combo box you can control how transparent the navboxes are. 0% transparent navboxes' background color is solid, you can not see through it.

8.8 Symbols

You can choose the preferences for these symbols:

- . Aircraft,
- . Wind.
- . Orientation,
- . Final glide,
- . Scale.
- . Task button,
- . Speed to Fly,
- . Vario.

Visible property shows or hides a specific symbol.

Transparent property makes the symbol outlined if checked.

Allow drag option lets you choose whether or not the symbol can be moved around the screen.

Reset position button will bring the selected button back to its default position on the screen.

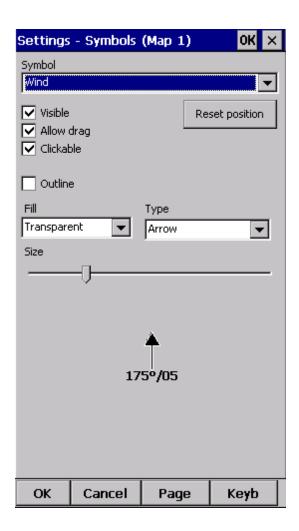
The Size slider selects the size of each symbol.

Type combo box lets you choose from several options for a particular symbol.

Legend option is available only for Vario symbol.

Vario symbol will display an analogue Vario on an Oudie IGC

All Symbols could be outlined with white color.



8.9 Warnings

There is three types of warnings in SeeYou Mobile

- 1. Airspace warnings
- 2. Altitude warnings
- 3. Flarm warnings

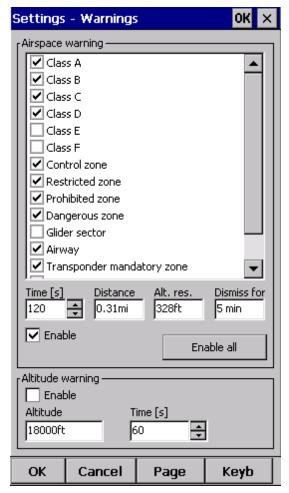
Airspace Warning is activated by two triggers. First warning is when the projected point of the flight is inside a sector. Sector is outlined bold red, so you can clearly identify it on the screen. The position of the glider is projected for the value in secons ahead of the current position. This value is setup in Time [s] setting.

Second Airspace warning appears when you fly closer than the preselected Distance from the Airspace or when your altitude is less than Alt.res different from the airspace boundaries. A continous sound warning and whole-screen warning appears.

Altitude warning is a general warning, useful for example when there is a maximum altitude set for a competition day or 18.000ft for the USA. When you come close to the airspace, you get a beep and the red banner much like the airspace warning.

Flarm warning is special in that it reads the information from the Flarm device and then uses voice

imitation in order to pass this information to the pilot.



8.10 Thermal

Thermal assistant continuously analyzes the thermal when you are circling. You can decide when you would like to be warned about potential better lift in one part of the circle.

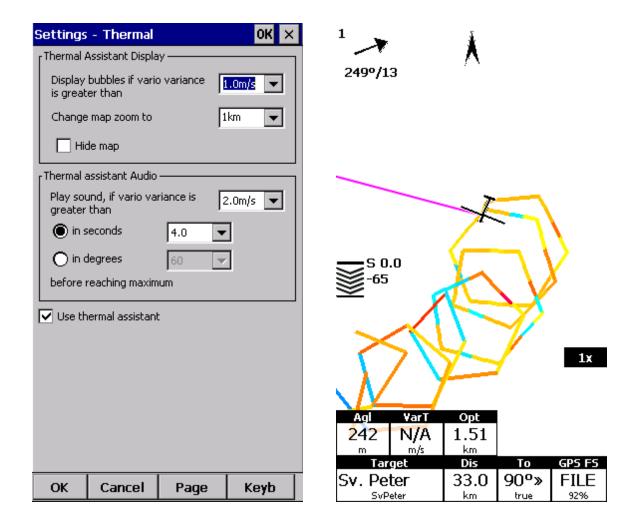
Vario variance is the difference between squares of deviations and the mean vario value. The bigger the difference, the more possible it is that if you move your circle in the direction of the strongest lift that the average climb will increase.

In the Menu > Settings > Thermal you can determine at which vario variance you would like the visual Thermal Assistant and Audio thermal assistant will appear. For the audio you can also select how much before the maximum the thermal assistance will whistle.

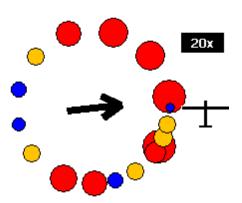
You may choose between Bubbles and Ring representation of the graph which shows the best part of the lift. Ring is default setting. If Hide map option is choosen you will not see map while Thermal Assistant is turned ON.

Thermal Assistant is automatically activated after 120 degrees turn. When you are flying out from thermal for more than 500 m Thermal Assistant is deactivated.

Thermal Assistant could be completely disabled with Use thermal assistant checkbox.









See also:

Getting started - Thermal Assistant 26

Menu 75 (with a shortcut to show the Thermal Assistant regardless of the variables)

8.11 Polar

The Polar dialog lets you enter your glider polar data into SeeYou Mobile. These data is essential for performing the final glide calculations.

You can access a list of pre-generated polars by clicking on the "List..." button.

Glider field lets you enter a name for the polar.

Min. load sets up the minimum wing loading of the glider while Stall speed tells SeeYou Mobile about the assumed stall speed of the glider.

a, b and c are parameters of the quadratic equation which is a mathematical approximation of the glider's actual performance.

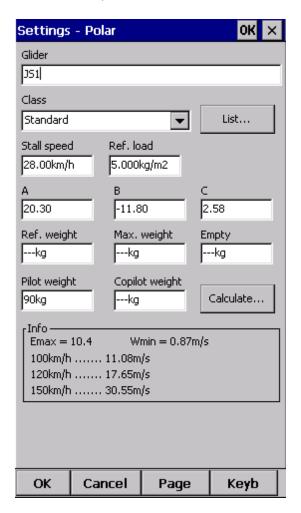
By checking the User polars only checkbox, only polars entered by the user will be displayed in the

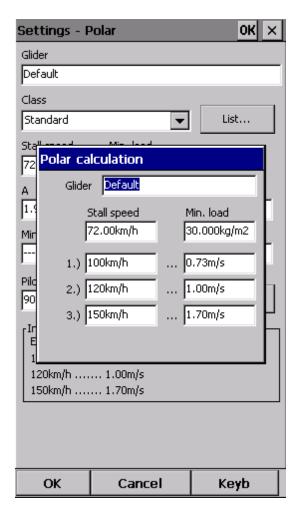
Saved Polars combo box.

If you enter Reference weight, Max weight, Empty weight and Pilot weights for the glider you will be able to enter water in kilograms (or liters).

Info panel gives you a basic information about what has been setup.

If you tap on Calculate button new dialog will show up. Here you make complete polar curve calculations for A,B and C coefficients.





8.12 Units

Setup the units you are used to in the Units dialog. You can choose the units for:

Distance - km, nm, ml

Altitude - m, ft

Speed - m/s, km/h, kts, mph

Vertical speed - m/s, kts, fpm

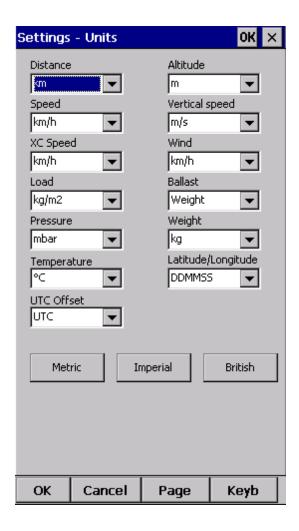
XC Speed (cross country speed or average speed) - m/s, km/h, kts, mph

Pressure - mbar, hPa, mmHG, inHg

Load (wing loading) - kg/m2, lb/ft2

Latitude/Longitude - DDMMSS, DD.MMmmm, DD.dd

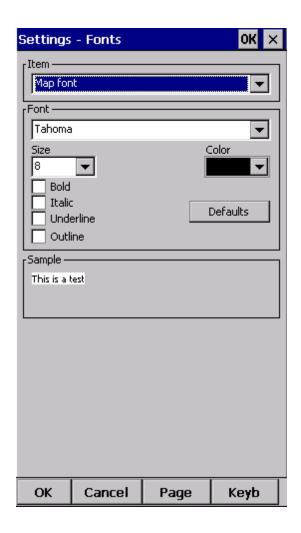
Set to metric sets up km, m, km/h, m/s, km/h, mbar, kg/m2 and DDMMSS Set to imperial sets up ml, ft, mph, kts, mph, inHg, lb/ft2, DDMMSS Set to British sets up km, kts, km/h, lb/ft2, inHg, °F, ft, lbs, DDMMSS



8.13 Fonts

The fonts dialog allows you to change preferences of the fonts in Oudie 3.

Choose one Item, then change Font, Size, Color, Bold, Underline, Outline and Italic preferences. See an example in the Sample panel at the bottom of the dialog.



8.14 Input

The input dialog lets you choose from three different input methods for displaying a flight in SeeYou Mobile.

Serial

You will need the Serial input to be checked to fly. On the Oudie 2 you are expected to choose the COM 1 to use internal GPS or COM 4 or Bluetooth if you are connecting to an external source.

Note: On Oudie IGC COM 4 is always selected as your input. It is also possible to select an external source of data from Bluetooth or though the wired serial port cable (supplied in the box) but Oudie IGC will always use its internal approved GPS and altitude sensor. It will mux this together with the external data for navigation.

The Port Settings... button will let you choose preferences for the GPS 1321.

Bluetooth button allows you to connect to a Bluetooth serial device

NODATA reset after will close and reopen the COM port if NODATA is received for the selected amount of seconds.

Ignore Checksum will not control the checksum at the end of NMEA sentences. Do not turn this option

on unless you have a good reason to do so.

Simulator

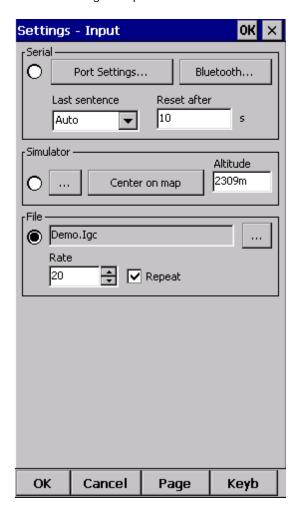
In this mode a glider is controlled by dragging a line out of the glider thus telling it in which direction to move and how fast. You can specify a start Latitude and Longitude through the edit boxes if you wish.

File

This mode takes an IGC file and animates an old flight. This is the most perfect way to test the application. You will be able to rely on own feelings from the actual flight and observe what SeeYou Mobile would have been telling you if you had it with you in the air at that time. Use the "..." button to select a flight you wish to animate and the Rate spinner to select how fast the animation should run.

A particularly useful way to replay a flight is if you managed to save a NMEA log of your flight. In the NMEA log all of the messages that were sent to the device may be reproduced on screen, including other Flarm data and its warnings. To replay a saved NMEA log you

need to create a "TMP" folder in the root of your Oudie memory, save the NMEA log as "nmeain.log" and select "File" as your input in Menu > Settings > input.



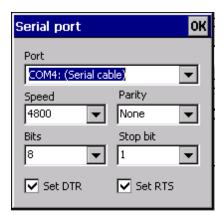
8.14.1 Port Settings

This dialog sets up preferences for the GPS input like COM port (or GPD software port), COM speed, Parity, Bits and stop bit.

DTR = Data Terminal Ready. Some GPS devices require this option to be checked to deliver NMEA data RTS = Request To Send. This option should normally be unchecked

<u>Oudie 2</u>: Use COM 1 for internal GPS, COM 4 for external GPS and pressure data. Use the Bluetooth button on the previous page to setup a Bluetooth input.

<u>Oudie IGC</u>: COM 4 will be used regardless of the settings here. Use the Speed combo box to select the communication speed of the external serial port.

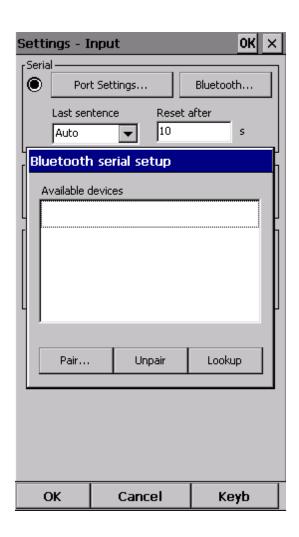


8.14.2 Bluetooth

- 1. go to Menu > Settings > Input > Bluetooth
- 2. press Lookup on Oudie (only devices with SPP protocol are displayed)
- 3. Select the device you would like to connect to
- 4. Press "Pair..."
- 5. enter the PIN of the device you are connecting to
- 6. connection should be established on COM 5 (make sure the Baude rate is correct)

Some of the details such as PIN code, baude rate etc. must be obtained from the manuals of the device where you are connecting to.

If you are connecting with the K6 Bluetooth device, please select KBT5 as your port. This will enable additional functions which are available in the protocol for K6BT device.



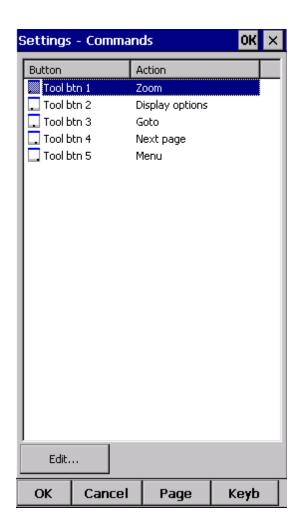
8.15 Commands

You can fully customize which button takes over which action through the Commands dialog.

There are three groups of buttons available through SeeYou Mobile. Note that each PDA may have different buttons, located at different places and some will not have all of the buttons at all. This is all no problem for SeeYou Mobile. It will detect which buttons your PDA has and will operate accordingly.

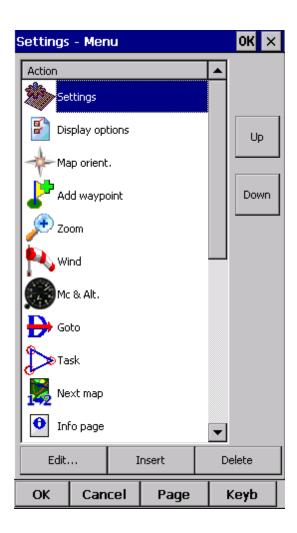
- . 5-way navigation button (arrows and enter)
- . Buttons on the casing of the PDA
- . 5 software buttons in the Command bar of the SeeYou Mobile window.
- . Keyboard letters

This way you are sure to be able to setup your PDA to match your preferences. Select a button, then choose an action for this button through the Edit button. You may also assign <no action> or <system default> action to the button.



8.16 Setup Menu

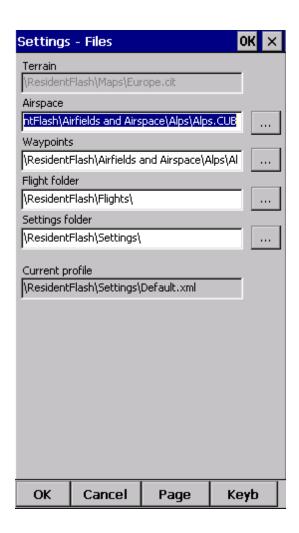
You can fully control the content and order of the buttons in the menu. Use the Up/Down and Edit/Insert/Delete buttons to change the main menu.



8.17 Files

Setup the default file locations for SeeYou Mobile through this dialog. To read about how to transfer your terrain, waypoint and airspace files to SeeYou Mobile, please read the chapter Copying files to SeeYou Mobile 11.

Note that any of the files can be stored either in Oudie internal memory or Storage Card. While internal memory is slightly faster, Storage card is safer when the battery drains out. We recommend storing all files on the removable micro SD card. It is possible to change files during runtime.



Selecting multiple waypoint and airspace files.

It is possible to select more than one waypoint and more than one airspace file in SeeYou Mobile.

Waypoint files only: If you decide to use more than one waypoint file, then one file must be selected as Active. Tasks will be read and written to this file and no other files. Note that many waypoint file types are supported, but the Active file must be in SeeYou Waypoint file format CUP. Example of a waypoint file selection dialog where four out of six matching files are selected and the files are in three different file formats:



Automatic search for files. When you open the "Select files dialog" such as in the screenshot above, the whole file system of your device is searched for corresponding files. If you are looking for terrain files, all CIT files from your PDA will be listed etc.

8.18 Log

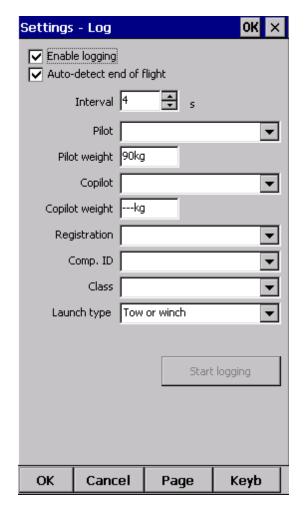
SeeYou Mobile does also log a flight and produces an IGC file. Note that this IGC file is not secure by GFAC (IGC) standards and therefore can't be used for claiming badges and records. It can however be analyzed in SeeYou or similar software after the flight.

This dialog lets you enter the Header information for the flights recorded with SeeYou Mobile. Information on Pilot, Copilot, Registration, Competition ID and Class is collected here.

Interval spin box lets you select the interval between consecutive fixes that are recorded while Enable logging check box turns logging on and off. The location of the stored IGC file is determined through the Settings > Files 135 dialog.

Logger permanently on enables you to manually start or finish the recording of the flight regardless of the current flight parameters which try to determine takeoff and landing automatically.

Launch Type determines how soaring begin is calculated. At the setting "Tow or winch" Soaring begin is equal to takeoff. At other settings it is not.



8.19 User Interface (UI)

Screen orientation may not be supported on all devices. If certain or all directions are greyed out then your devices does not support rotating the screen in that particular direction. The directions given are relative to the default orientation:

0 = default orientation (Portrait on PDA, landscape on PNA)

90 = 90 degrees clock-wise from the default orientation

180 = upside down from the portrait orientation

270 = 90 degrees anti-clockwise from the default orientation

Changing the screen orientation requires a reboot of the Oudie in order for all changes to take effect.

Dialog timeout sets up how long a dialog will wait for you to press something before it quits and returns back to navigation. Dialogs subjected to this are Zoom, Flight Properties, Wind, Map orientation and similar. Note that the Settings dialog is not subject to disappearing as we consider you know what you are doing when you are going through the Settings.

Drag limit is an area of pixels within which the control will not move even if you move the stylus or your finger. This is required for using the display with fingers because it is difficult to keep still in a shaky

environment of the glider.

Snap pix lets you choose the margin for how far away a point from the database is selected automatically in Task > Map mode.

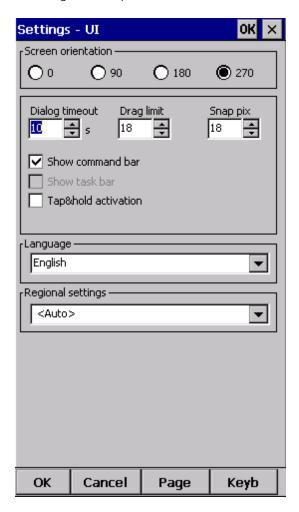
Show command bar will show the command bar with Tool buttons at the bottom of the Map view 581.

Show task bar will show the task bar at the top of the Map view 581.

Tap & Hold activation will force you to tap and hold a symbol on the Map page to bring up a dialog like the Wind 821, Map direction 771, Flight properties 831.

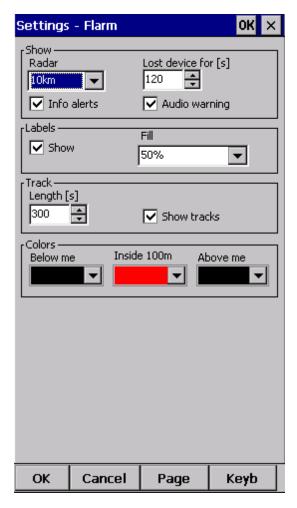
SeeYou Mobile speaks several Languages. You may select your language through the Language combo box.

Regional Settings drop down list allows you to select how you would like the date and time field to be formatted. For example if you wish to use SeeYou Mobile in English but still want your local date and time format choose your locale through this drop down list.



8.20 Flarm

Customizing the Flarm Radar 48 can be done through Menu > Settings > Flarm. This page only appears when Flarm messages are received in the incoming NMEA stream.



Show Radar: Through this setting you may setup a Zoom level below which the Flarm radar is visible. Default value is 10km which is also a suggested value. The reach of the Flarm Radar is about 3km and it depends largely on the placing of the Flarm antenna in both transmitting and receiving aircrafts. The 3km radar circle at Zooms above 10km becomes small and the screen cluttered, therefore we suggest 10km as a default for this setting.

Show lost device for [s]: When sygnal from a particular Flarm device is lost, the aircraft remains blinking on screen for this duration (default 120 seconds). After that the aircraft symbol is removed from screen. If you were previously navigating towards the aircraft in question, the Target remains blank after this period.

Show Labels: defines whether or not the labels with Friendly name (if entered), altitude and average vario are visible.

Transparent Labels: defines whether or not the labels are transparent. When the labels are not transparent (which is the default setting) then there is a white background behind the labels for each Flarm unit. The labels may overlap. In that case the label for the device that you are navigating towards

(the one that is selected as Goto) is drawn on top of all labels. If you are not navigating towards a particular Flarm device, then the closest label is drawn on top of the other ones.

Track length [s]: This is the duration for which you may see each Flarm's track in the Map view.

Show tracks: defines whether or not the tracks of the Flarm devices are visible in Map view.

Colors are designed to present three values. The color for aircraft more than 100 meters below your current altitude is defined by the first Below me selection box. The color for aircraft that are less than 100 meters below or above your current altitude is defined by the Inside 100m (i.e. roughly 300ft) selection box. The color for aircraft more than 100 meters above your current altitude is defined by the first Above me selection box. Default colors are black for "Below me" and "Above me" and red for "Inside 100m".

8.21 Miscellaneous (Misc)

The Miscellaneous dialog takes care of all the rest of the options, not covered in other parts of the application.

If all goes wrong, you can Restore all settings to default by checking this check box and restarting the application.

If the Power management checkbox is enabled then the device's power saving options are overridden. For example. If your device is setup to turn off if not used for 2 minutes, then this option can override this option while SeeYou Mobile detects flying mode. Please note that if not used carefully turning this feature on can deflate your battery.

Add profile... button allows you to add new profiles to SeeYou Mobile. One application for several profiles is when you fly different club gliders and need different setups for them (different loggers, aircraft make and model etc.) Second reason to have more profiles is when several people use the same Pocket PC in one glider. When there is more than one profile available, you get to choose it when starting the application.

Reset "do not show again". There is several dialogs with "do not show again" labels at the bottom. If you would like to see them all again, press this button.

Copy map settings... will replace settings of one map with settings from the other map. Please read the message in the dialog carefully, so you don't accidentally replace the wrong map settings.



8.22 Hardware

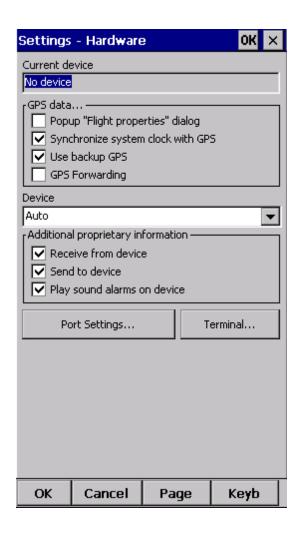
You can tell the Oudie which GPS is at the other end of the Serial cable for some devices in order to be able to communicate with it. You can do that with the Device drop down list. Note that some devices are recognized automatically. A dialog will pop up in that case to let you know that a device was recognized.

MacCready, Ballast, Bugs settings may be sent or received to some devices. Uncheck Receive from device if you don't want the device to change these settings in SeeYou Mobile. Uncheck Send to device if you don't want to change settings on the device through SeeYou Mobile. Play sound alarms on device lets you enable playing sound alarms on the device which is connected to SeeYou Mobile.

Current label tells you which device was recognized. A caption Generic GPS means that the device was not recognized as one of the special devices.

Port settings... opens up the COM Options 132 dialog.

Terminal... 143 button opens up a dialog where NMEA input can be monitored.



8.22.1 Terminal

This dialog allows you to see what data SeeYou Mobile is receiving through the COM port. It may be very useful for debugging any problems related to GPS input.

The upper edit box allows you to enter commands and sending them with the Send... button.

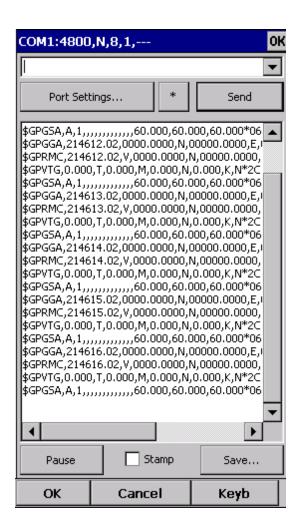
Port settings... opens up the <u>COM Options</u> 132 dialog.

The largest section of the screen shows NMEA input when GPS is connected.

Pause button pauses receiving of NMEA data.

Stamp will add a timestamp to each NMEA sentence which makes it easier to debug.

Save... button will save the log which you would perhaps like to send to support@naviter.com if there is a problem you are debugging.



8.23 LX1600

WARNING: The content of this page also depends on the manufacturer of the mentioned variometer which is no longer in production. It was originally designed for LX 1600 but many other models followed which can also use these settings. Unfortunately firmware of the variometers is slightly different therefore we can not guarantee that this page works with all firmware versions and hardware revisions of the varios this page was intended for. For more information please contact LX Navigation.

This dialog only appears when SeeYou Mobile is connected to the LX 1600 variometer. For more information on LX 1600, visit www.lxnavigation.si

LX 1600 is a modern vario-speed command system. It is especially designed to operate with PDA devices. SeeYou mobile supports all features of LX 1600. You can use SeeYou Mobile to change the volume and MacCready settings through the Flight Properties dialog. You may also use the Commands dialog to set MacCready increase/decrease and Volume increase/decrease actions to the available buttons.

There are four panels available on two LX 1600 settings dialogs. Panels are for setting up the Variometer, Speed to fly, Audio and LCD Indicator settings.

Vario panel allows you to control the properties of the variometer needle.

. Filter affects sensitivity of the vario. The higher the number, the slower vario needle and audio sygnal

respond.

- . Range selects max and min values for the vario needle. They can be 5 or 10m/s, 10 or 20kts, 1000 or 2000fpm.
- . Avg selects the averaging interval for the integrator.
- . TE Filter selects the filter for Total Energy compensation. The higher the number, the longer it takes for the vario to show the change in Total energy altitude of the glider.
- . TE Level allows you to compensate for inaccuracies in static pressure/TE tubes. See the LX 1600 manual (chapter 3.2 Pneumatic Connection) about how to connect the tubes in order to have electronic compensation (it is different than the tubing when connected to TE pressure compensation).
- . Smart filter is a dynamic filter and controls the rate at which the vario indication moves. Higher number is slower, more filtered. (see LX1600 documentation for more on this)
- . Autozero is used when you notice that the needle is not exactly zero on the ground when nothing is moving and the wind is calm. Press autozero in a calm environment to re-calibrate vario parameters to zero.

Speed to fly panel

- . Mode selects when the vario sound changes from vario to speed to fly. When set to External it will use the information from an external switch which you must have installed somewhere in the cockpit. In the On circling mode it will change to vario when the glider is circling while it will be in Speed to fly mode while cruising. Auto speed mode will switch to speed to fly mode when the airspeed becomes greater than the Spd. value on this same panel.
- . Switch style allows you to "invert" the switch operation through the software. Taster option will change the modes each time the taster is pressed.
- . TAB allows you to select how deep the silent are is (this is an area around zero where speed to fly indication will not beep).

Write settings to eeprom will save your current settings from both pages (LX 1600 and LX1600-2) to LX 1600, so they are used even if the PDA is not connected to LX 1600, which can happen in case of power failure of the PDA.

Audio panel is at the second settings page - LX1600(2).

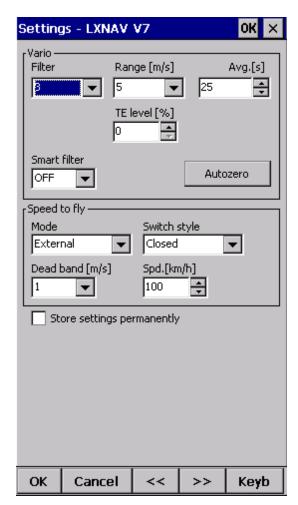
- . Syle lets you choose between the following types of variometer sounds:
- .. Lin/neg = The sound changes in linear correlation to the vario reading. It is intermittent at negative vario values.
- .. Lin/pos = The sound changes in linear correlation to the vario reading. It is intermittent at positive vario values. This is the default setting.
- .. Linear = The sound changes in linear correlation to the vario reading. It is not intermittent.
- .. Dig/neg = The sound changes in discrete steps. It is intermittent at negative vario values.
- .. Dig/pos = The sound changes in discrete steps. It is intermittent at positive vario values.
- .. Digital = The sound changes in discrete steps. It is not intermittent at any vario values.
- . SC Style lets you select between SC pos, SC neg and SC. SC pos beeps at positive values, SC neg beeps at negative values wile SC gives a continous sound at positive values, so you won't mistaken its beeps with vario sounds.
- . Min.freq. is the sound you will hear when the vario is pegged at -10m/s.
- . Zero freq. is the sound you will hear when vario equals zero.
- . Max.freq. is the sound you will hear when the vario is pegged at +10m/s
- . SC Vol allows you to select between noisy (Vol H) and more silent sound (Vol L) in Speed command
- . Test button allows you to see and hear what you have setup. You must be positively connected to LX 1600 in order to test its audio settings.

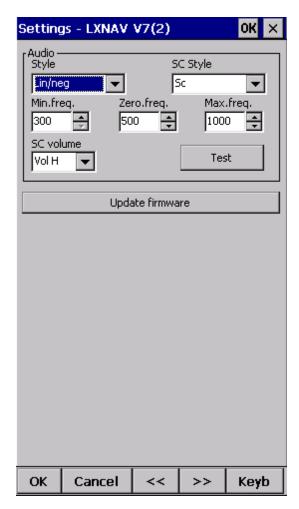
LCD indicator is found on the second settings page - LX1600(2). It allows you to setup the upper and lower numbers in the LCD separately for vario and speed command modes.

. Needle lets you setup what the needle on the indicator shows (Vario, Speed Command, Netto vario or

Relative vario)

- . Num#1 lets you setup what the bottom number on the display shows (Altitude QNH, Distance to target, Glide slope difference, Indicated airspeed or Leg speed)
- . Num#2 lets you setup what the upper number on the display shows (Average vario, Current time, Flight time or leg time)



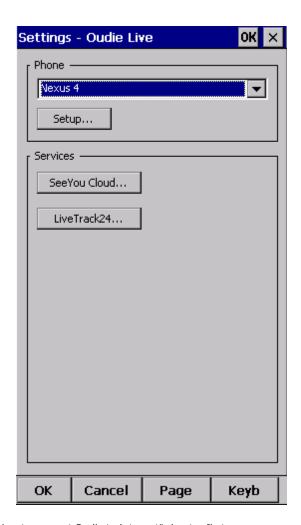


8.24 **Vario**

Read here 52

8.25 Oudie Live

This is where you can setup for the Oudie to connect to the internet through the free Oudie Live Android app.



Please make sure to read the "How to connect Oudie to Internet" chapter first.

Once you have paired your Oudie with your smartphone you can setup the available services such as SeeYou Cloud, LiveTrack24 and more to come.

Part

9 Oudie firmware

By default SeeYou Mobile will run automatically when you turn on the Oudie. If you exit SeeYou Mobile (through Menu > Next > Exit) then you will end up in an environment where you can setup some basic things on the Oudie.

9.1 Main screen

Main screen is where you can easily start SeeYou Mobile or ConnectMe software. SeeYou Mobile is the navigation software while ConnectMe can download flight traces, upload declarations and more from your flight recorder. A separate help file is available for running ConnectMe.

By tapping on the ">>" button you can proceed to the Oudie's Settings screen 1491.



9.2 Settings screen

The settings screen has links to subpages where you can setup:

- . Volume 150
- . Backlight 151
- . Language 152
- . Autorun 153

- . <u>Screen calibration</u> 154 . <u>USB port</u> 155

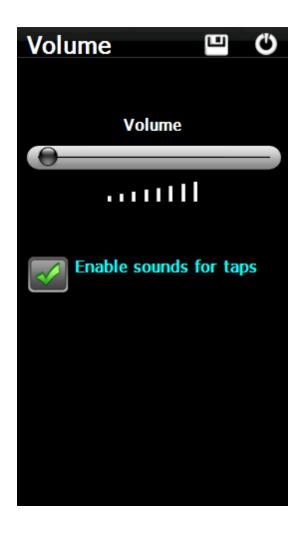
By tapping on the ">>" button you can proceed to the Oudie's Main screen 149।



9.2.1 Volume

The slider allows you to select the volume setting on the device.

The checkbox allows you to select whether or not you would like the Oudie to make a sound each time you tap the screen.



9.2.2 Backlight

The slider for Backlight allows you to setup the screen brightness. To be honest - you will want to leave it on full brightness most of the time.

Auto OFF allows you to save battery life by selecting after which time the screen Backlight is automatically switched off. Default setting is "Always ON".

Auto backlight checkbox allows Oudie to adapt its Backlight according to the light conditions as seen by the sensor on the back of the device.



9.2.3 Language

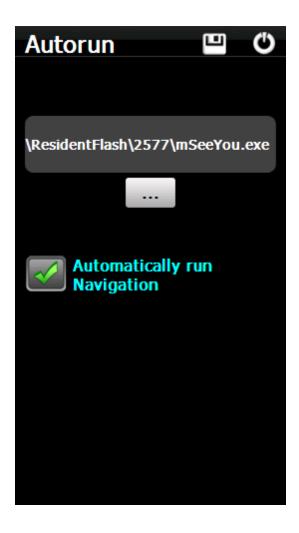
By pressing the left and right icons you can choose the language of the device. This will also change the language in SeeYou Mobile.



9.2.4 Autorun

The checkbox allows you to select whether or not the software will run automatically after the Oudie has been switched on or reset.

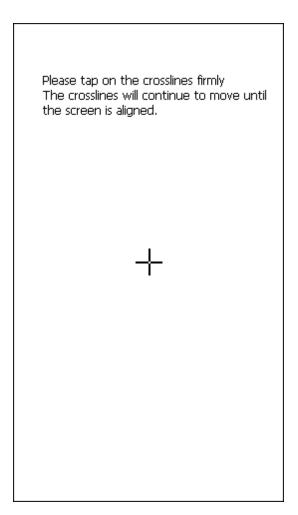
You can use the "..." button to determine which software will be run when pressing the SeeYou Mobile icon on the main menu (or started if automatic start is enabled).



9.2.5 Calibration

Allows you to re-calibrate the screen if the touch screen has become inaccurate.



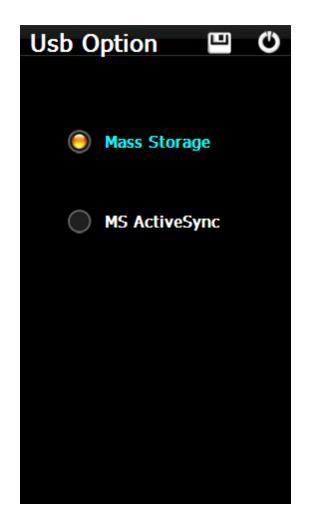


9.2.6 USB

This option allows you to select how Oudie behaves when connected to PC with that USB cable.

In Mass Storage mode Oudie will become a logical drive when connected to PC. After you plug in the USB cable you will be asked whether or not you wish to "Connect to PC" or "Charge Battery". If you choose to "Connect to PC" then all running programs on Oudie will be shut down including SeeYou Mobile and ConnectMe.

In Active Sync mode Oudie will be recognized as an external device. Transfer speeds are much lower than in Mass Storage mode, but SeeYou Mobile and PC connection can work simultaneously.



Part

10 Windows Mobile tips and tricks

There are some tricks in using the Windows Mobile and PDAs. Here's some which you will want to use with SeeYou Mobile.

Using PDA with your fingers

Usually in office conditions, you will be using your PDA with the included stylus. However inside the glider this is a pain. Stylus is small, PDA is shaking, so taping the screen is pretty inaccurate. The stylus could get lost really quickly. SeeYou Mobile is therefore designed to be used with fingers rather than the stylus.

Tap

This is similar to mouse left-click in desktop Windows. Press your finger or nail anywhere on the screen to create a "Tap". This way you can navigate through the menus or tap on the map to get the Goto and Airspace menu for example.

Tap and Hold

Tap and hold is something similar to the mouse right-click in desktop Windows. There are few uses for a pop-up menu in SeeYou Mobile, so Tap and Hold is normally used to perform special tasks on the map. An example is moving the Nav-boxes or accessing the Flight parameters by tapping and holding the Glideslope indicator. Similar use is assigned to tapping and holding the Wind and North indicators.

Part

11 Technical specification

| Davisa | |
|---------------------------|------------------|
| Device | ADA44 500 A44 |
| Processor | ARM 11, 500 MHz |
| RAM | 128MB |
| Built-in Flash | 4GB |
| Loudspeaker | Yes |
| Buttons | On/Off, Reset |
| Battery | 1500mAh |
| Battery indicator | Yes |
| Battery autonomy | 2.6h |
| Wall charger | Yes |
| 12V charger | Yes |
| Size | 135 x 86 x 14 mm |
| Screen | |
| Display | 5" TFT LCD |
| Resolution | 480x272 |
| Aspect ratio | 16:9 |
| Portrait | Yes |
| Landscape | Yes |
| Touchscreen | Yes |
| Connectivity | |
| Built-in GPS | Yes |
| USB | USB 2.0 |
| Mass Storage | Yes |
| Active Sync | Yes |
| External Flash | microSDHC |
| Headphone | 3.5mm jack |
| Wired Serial | Yes |
| Bluetooth | Yes |
| Pressure sensors | No |
| Software | |
| Languages | 17 |
| Moving map | Yes |
| Preinstalled maps | world-wide |
| 3D Airspace warning | Yes |
| Final glide calculator | Yes |
| Thermal assistant | Yes |
| OLC optimization | Yes |
| FAI Triangle optimization | Yes |
| Profiles | Unlimited |
| Team function | Yes |
| Speed to fly indicator | Yes |
| Outlanding database | Optional |
| Settings | Complete |
| Navboxes | 72 |
| | |

Glider polars 124 Flarm Radar Yes Flight statistics Yes Task statistics Yes 60' statistics Yes Navigation around Task Yes Assigned Area Tasks Yes Task declaration Yes** **IGC** approved No

Wind calculator Circling/Straight***
Units Metric/Imperial

File Replay Yes Flight recorder Yes

^{*}Thermal assistant degraded due to lack of pressure sensor inputs

^{* *} If connected to external flight recorder

^{* * *} If connected to external pressure sensor data

Part

12 Troubleshooting

Symptom: Device doesn't turn on after pressing the power button or shuts down during boot. Solution: Charge the device's internal battery

Symptom: Navigation software does not find my position

Solution: Get out where the view to the sky is unobstructed and wait for up to 20 minutes. If you still cannot acquire satellites check Menu > Settings > Input options.

Symptom: Navigation software displays NODATA in the GPS Fix navbox.

Solution: Check the Menu > Settings > Input options. Internal GPS is on COM 1, external Serial port is COM 4. Other parameters depend on the connected device.

For other problems contact support@naviter.com

Part

13 Notice of non-liability

Oudie is a personal navigation assistance device only. It is not a replacement for any legally required device, method or service. User must maintain all safety measures as if this device was not on board of the aircraft.

Before it is put to use it is the responsibility of any user who will use this device to become familiar with operation and safety aspects of this device. Using the system improperly could cause failure and lead to possible property damage and/or personal injury.

Naviter assumes no responsibility for property damage, accidents, injury or death that may result from the misuse of this device/equipment. This includes any use of this device/equipment outside the scope of common sense, the User Manual, inserts and other related documentation.

Part

14 Limited Warranty

Naviter company warrants your Oudie against defects in materials and workmanship for one (1) year from date of purchase invoice. The warranty is non-transferable. Should any part of the Oudie become defective within the warranty period return the Oudie with a description of what/why it is not functioning and we will repair or replace it, at our discretion, free of charge (you pay only shipping to Naviter).

Return the unit to: Naviter d.o.o. Planina 3 4000 Kranj Slovenia

The warranty is non-transferable and only valid if Naviter determines that the system and its components have not been damaged due to improper use, been submerged in fluids, dismantled or abused. Naviter reserves the right to determine if repairs are to be done under warranty or at a nominal charge. As a proof of activated warranty you must send a copy of the purchase invoice.

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