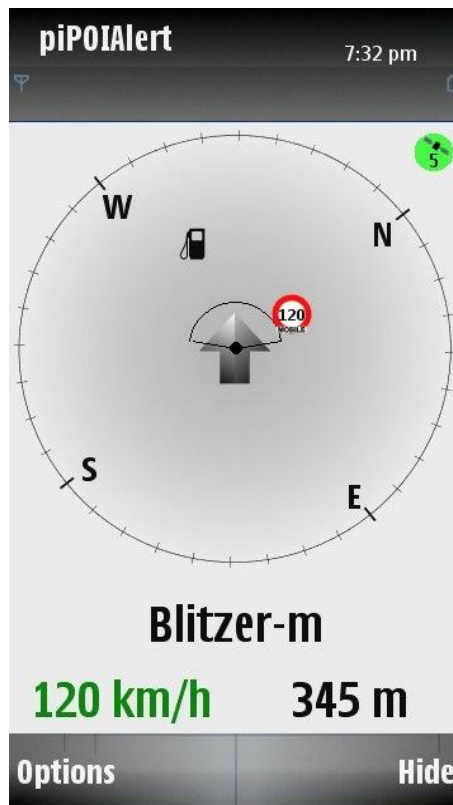


piPOIAlert Manual

Version 1.06-r1



symbian
OS

3rd Edition FP2, 5th Edition, 3

Available Languages



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1 Installation

1.1 POI-File

Due to legal regulations I am not allowed to offer piPOIAlert including any POI file. Therefore, before using piPOIAlert in real traffic you need to put a corresponding POI file on your mobile phone. I provide several converters at <http://pipoialert.pipip.de/converter.php> which are all free of charge.

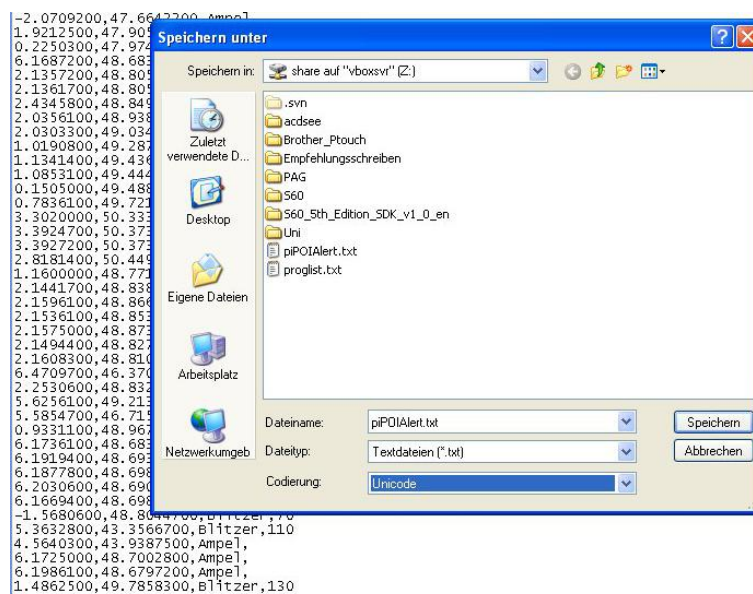
The POI file has to be placed at *InstallationDrive - Data - piPOIAlert*. All .txt-files located in this directory will be loaded! The maximum size of all POI-files is 4MB. The *InstallationDrive - Data - piPOIAlert* is either drive C (intern) or drive E (extern). The piPOIAlert directory including demo files will be created automatically during the installation. The drive on which you find the *piPOIAlert* folder is the *InstallationDrive*.

The POI-file has to be saved as a txt-file using **UTF16** encoding and has to meet the following structure:

```
longitude <max 20>,latitude <max 20>,description <max 36>,speedlimit <max 4>
```

A POI file should look like this: (title and / or speedlimit can be left empty but the commas are needed):

```
23.833001,61.478501,POI-PIP,120
23.148208,61.499240,POI,
23.372512,61.501310,POI,50
<empty line>
```





1.2 Alert

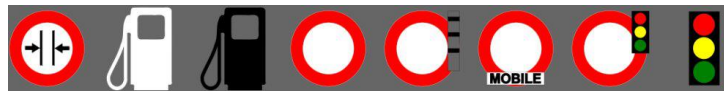
piPOIAAlert provides two different alert types: sound and / or popup. Both can be (de-)activated in the settings.

Popup-Alert

The popup-alert is a global alert which basically means that the alert will popup in the foreground always (even if piPOIAAlert runs in the background).

Each POI description is scanned for the following keywords defining the alert type on the popup-alert:

- fix camera: blitzer, camera, gatso, fix
- laser: laser
- variable: variabel, variable
- mobile: blitzer-m, mobil
- distance: afstand, distance
- traffic light: rot, ampel, red, light
- petrol station: petrol, tankstelle, lpg, cng, gas



The corresponding icon (incl. speedlimit) will be displayed on the popup-alert. In case more than one keywords are found, the POI category is assigned following a priority list:

1. traffic light, 2. distance, 3. variable, 4. laser, 5. fix

Sound-Alert

piPOIAAlert provides two independently operating sound alerts which both can be configured in the settings (section 2.3.2). If the *2nd Alert Due Time = Alert Due Time* the 2nd sound alert will be deactivated. The default settings only activate one alarm which will go off about 12 seconds before reaching the POI. The second alarm could be set to get an additional warning just before reaching the POI, e.g. 5 seconds.

piPOIAAlert offers the possibility to provide individual sound-alert files. Following the defined POI categories (cf. popup-alert above) piPOIAAlert automatically detects and assigns wav-sound files provided in the piPOIAAlert folder. To individualise the second alert as well just add a 2 to the filename and the file will be used for the second alert. For instance:

- fix camera: fix.wav / fix2.wav
- traffic light: ampel.wav / ampel2.wav
- petrol station: lpg.wav / lpg2.wav

All sound files have to be located at *InstallationDrive - Data - piPOIAAlert*. To deactivate the sound alert for a specific category just place an empty wav-file in the piPOIAAlert folder named after the corresponding category.



2 Menu

2.1 POI

2.1.1 Information

The POI information shows a summary of all loaded POI files. The first entry *POIs in Database* informs the user about the total amount of loaded POIs. All following entries meet the following format:

POI-File Filename

POIs in Database Amount of POIs detected in the previous named file



2.1.2 Add POI

The dialog to add a new POI can be opened either via the menu or with a click/tap in the compass (main view, section 2.2.1).

The *Add POI* function adds a new POI to the POI file piPOIAAlert.txt. The values for longitude and latitude are pre-defined with the current location if available.

- Longitude: float (max 20 characters)
- Latitude: float (max 20 characters)
- Description: text (max 36 characters)
- Speed / Velocity: integer (max 4 characters)

To save the POI select *save* from the options.



2.1.3 Reload POI Database

Reads all POI files located in the piPOIAAlert directory again. This function will be needed only if you manually edit a POI file while piPOIAAlert is running.



2.2 Modus

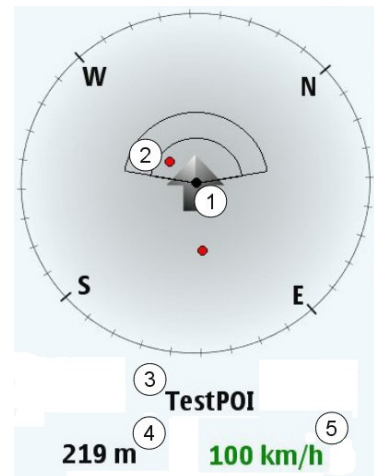
2.2.1 Standard

The main view contains a compass and information about an upcoming POI.

The compass is always aligned with the current driving direction (the centered arrow points into driving direction) and impersonates the alert area (radius is configurable in the settings, section 2.3.1).

The following information is displayed:

- ① black dot: current position (always centered)
- ② red dots (or POI icon): POIs in the area
- ③ Description of the upcoming POI
- ④ Distance to the upcoming POI
- ⑤ Speedlimit of the upcoming POI



2.2.2 Mini

The mini view is optimised to be used parallel to a navigation software such as Nokia Maps. The mini view contains the following information:

- ① Description of the upcoming POI
- ② Speedlimit of the upcoming POI
- ③ Distance to the upcoming POI
- ④ Current speed / velocity
- ⑤ Compass + current position + POIs in area



To (de-)activate the piPOIAAlert menu just tap on the mini view window. To (de-)activate the piPOIAAlert menu on mobile phones without any touchscreen, bring piPOIAAlert to foreground (hold menu-key for a few seconds and select piPOIAAlert from the upcoming list) and activate the menu with the *up*-key (6) or deactivate the menu with the *down*-key (7).



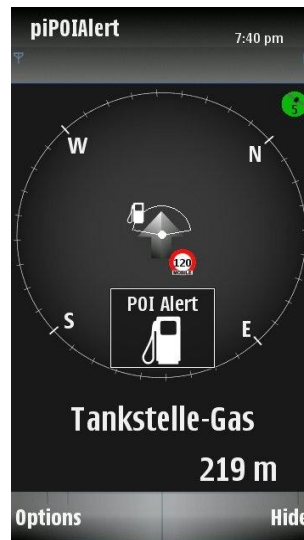
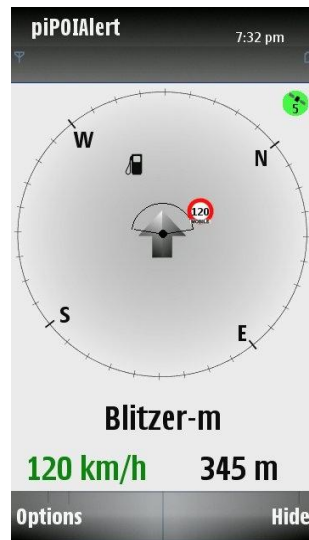
2.2.3 Background

piPOIAAlert completely runs in the background and doesn't have any permanent visual presence. piPOIAAlert will only warn the user with the methods defined in the settings.



2.2.4 Day / Night

Switch between day and night mode.



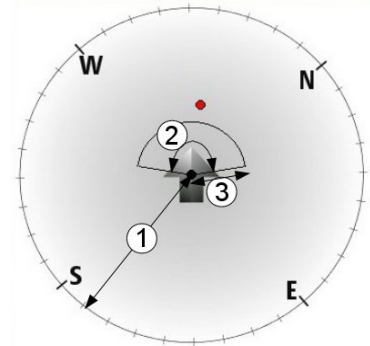


2.3 Settings

2.3.1 Main

Menu - Settings - Main

- ① **View Area Radius** Defines the radius of the view area which is the circle containing the POIs [depending on the configuration at ⑤ in meter or yards]
- ② **Alert Angle** Defines the angle of the alert area [in degree] (it opens in driving direction, half of the defined angle on each side)
- ③ **Alert Radius Minimum** The radius of the alert area is calculated taking the *Alert Due Time* (see section 2.3.2) and the current speed into account. If the current speed is equal to 0 (eg. red traffic light) the radius becomes 0 as well which is prevented by this setting.
- ④ **Sound Alert Volume** Sets the volume of the sound alert. 1 deactivates the sound alert.
- ⑤ **Unit (Speed)** Sets the speed unit to kilometer per hour (km/h) or miles per hour (mph) and the distance unit to meter (m) or yard (yd)
- ⑥ **GPS Sampling Rate** Timeout between GPS requests - defines how often the GPS signal is evaluated (also see timing, section 3.1)
- ⑦ **Thread Priority** Useful if running with other applications at the same time (eg. navigation software) and CPU is reaching its limit (also see priority, section 3.2)

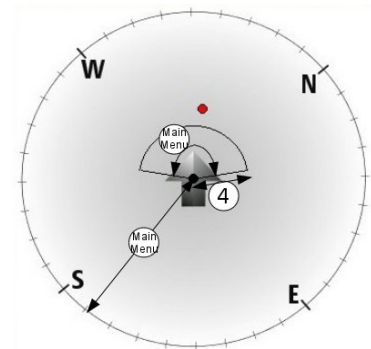
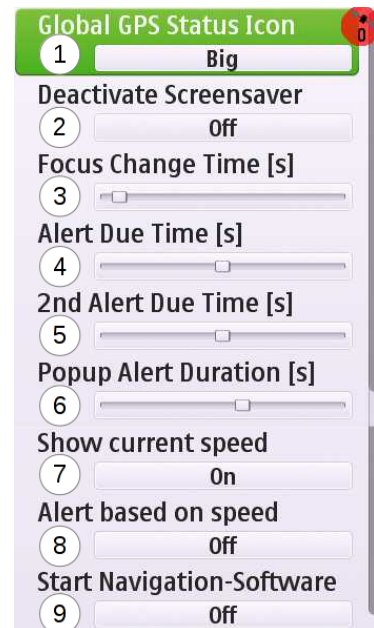




2.3.2 Features

Menu - Settings - Features

- ① **GPS Status Icon** Size of the GPS status icon which shows information about the GPS signal quality
green - more than 4 satellites
yellow - 3 or 4 satellites
red - 0, 1 or 2 satellites
 A click/tap on the icons brings piPOIAlert to foreground.
- ② **Deactivate Screensaver** Backlight will stay on while piPOIAlert is running
- ③ **Focus Change Time** If piPOIAlert runs in background, this value defines how long the application comes to foreground if a POI appears in the Notification Area [in seconds]. 0 disables this function
- ④ **Alert Due Time** Time countdown for the POI alert [in seconds] - the amount of seconds the POI alert goes off before reaching the POI. Radius of notification area is calculated taking *Alert Due Time* and current speed into account, therefore *Alert Due Time* is just a broad value (cf. timing, section 3.1)
- ⑤ **2nd Alert Due Time** Time countdown for the second POI alert [in seconds] - the amount of seconds the 2nd POI alert goes off before reaching the POI. If *2nd Alert Due Time* = *Alert Due Time* the 2nd sound alert is disabled.
- ⑥ **Popup Alert Duration** Time the popup alert is shown [in seconds]. 0 deactivates the popup alert.
- ⑦ **Current Speed** Displays the current speed in the main view (at the bottom of the compass)
- ⑧ **Alert based on speed** Alerts will only be released if current speed is over POI speed limit
- ⑨ **Start Navi-Software** Starts Nokia Maps automatically with piPOIAlert

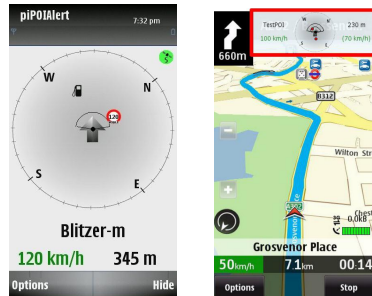




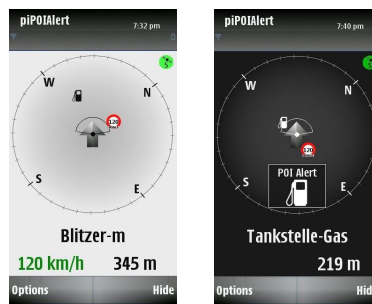
2.3.3 Style

Menu - Settings - Style

- 1 **Standard Mode** Standard / Mini view on startup



- 2 **Standard Mode** Day / Night mode on startup



- 3 **POI-icon size in overview** Shows POI icons (speed cameras, petrol stations, ...) instead of red dots in the main view



- 4 **Standard Fontsize** The standard fontsize for the description, velocity and distance of the POI for the Main-View. The fontsize of the POI-description is automatically scaled so it doesn't get cropped.

- 5 **PopUpAlert Configuration** Starts and stops the configuration dialog (size and position) for the popup alert.

1. Click / Tap *Start* → popup alert comes up



- 2. Move / position the popup alert via drag & drop
- 3. A tap / click changes the configuration mode (position → size)





4. Moving the finger to the right (enlarge) or left (downsize) changes the window size in x -direction, moving the finger to the top (downsize) or bottom (enlarge) changes the size in y -direction
5. If necessary: a tap / click on the popup alert switches the configuration mode again (size \rightarrow position)
6. These steps can be done as many times as you want
7. Once the configuration (size and position) is done just tap / click *Stop*

⑥ **MainView Transparency** Transparency of the main view (0=opaque ... 100=transparent) [in %] (also see section 3.3)

⑦ **MiniView Transparency** Transparency of the mini view (0=opaque ... 100=transparent) [in %] (also see section 3.3)

⑧ **MiniView Configuration** Starts and stops the configuration dialog (size and position) for the mini view (for configuration details have a look at ④ PopupAlarm Configuration)



⑨ **Keep MiniView in Foreground** Mini view always stays in foreground (above an other program)



3 Further Details

3.1 Timing

The timing (e.g. waiting times) is important in piPOIAAlert. You may notice that the settings are not 100% accurate (e.g. *Alert Due Time*, *GPS Sampling Rate*, ...). All those values are only reference values.

The *Alert Due Time* is calculated taking the actual speed into account and is therefore only a guesstimate. As soon as the current speed changes, the time reaching the POI also changes. In addition, the GPS requests / calculations take some time which may cause another little delay.

The *GPS Sampling Rate* is the timeout between two GPS requests. That basically means: when one request is finished the GPS Sampling Rate defines the time to wait before the next GPS request is released. So if the cell phone takes 2 seconds for the calculation (GPS fix, location calculation ...) there will be another e.g. 500ms timeout in addition to the calculation time, then the next request is going to be released.

3.2 Priority

If you run piPOIAAlert in combination with a navigation software (Nokia/Ovi Maps) on CPU weak devices, I recommend to deactivate some piPOIAAlert features. For example you could run piPOIAAlert in background mode and just activate the alerts (e.g. *Focus Change Time* = 0, *Alert Volume* = 6, *Popup Alert Duration* = 4). The settings depend on the device and of course on how many applications are running at the same time.

Sometimes it's even enough to give piPOIAAlert some more CPU times by increasing the thread priority in the settings. The following list gives some reference values to make the priority values more assessable.

- Program in foreground (Nokia/Ovi Maps, piPOIAAlert, ...): 350
- Program in background (Nokia/Ovi Maps, piPOIAAlert, ...): 250
- Nokia/Ovi Maps Threads
 - Audio: +10 (foreground: 360, background 260)
 - GPS + calculation: +10 (foreground: 360, background 260)
- piPOIAAlert thread (audio + GPS + calculation)
 - +10 (foreground: 360, background 260)
 - +20 (foreground: 370, background 270)
 - +30 (foreground: 380, background 280)

Beside the relative priority values (+10, +20, +30), piPOIAAlert provides absolute values (300, 400, 500) which make it possible to give piPOIAAlert running in background more CPU priority than other programs running in foreground.



3.3 Transparency

Unfortunately transparency is not supported by all Symbian versions!

In general most Symbian programs only print to screen if the program is in foreground resp. having the focus. That is the reason why you have to send the MiniView to background (tap on the navigation software or press hide button in piPOIAlert) in order to make the navi software printing to the screen... anyway piPOIAlert (MiniView) is still visible but it can not handle user input because it would gain focus (come to foreground) which automatically makes the navigation software losing the focus and therefore stopping the screen output. That will happen if you tap on the MiniView (piPOIAlert, eg menu comes to foreground and the navi software stops printing to the screen). As soon as the navi software gains focus again (comes to foreground) the screen output will go on (but piPOIAlert is still visible).