www.magnalox.net
Live Tracking
How - To

1. Basics:

We assume that you have a free magnalox account and a Windows Mobile based PDA or Smartphone, with a loxtrax version 1.11.9 or later running. The free version is OK.

Make sure that standard GPS navigation is running properly and the PDA has internet access (over GPRS, WLAN, cradle or whatsoever) before starting with Live Tracking.

Magnalox supports currently two kinds of Live Tracking:

1. "Online Tracking": loxtrax or another suitable mobile application transmits the data to the the magnalox server over a mobile internet connection.

2. "Email based Live Tracking": the author sends

ordinary emails containing position information to the magnalox server. In this case, it doesn't matter how the coordinates were created and what email software was used. This type of Live Tracking is available only to paid accounts.

This document describes "Online Tracking". "Email based Live Tracking" requires the same steps on the server side, but nothing else except an email-enabled application on the client - side. Both methods can be used for the same track.

The steps described are required only once to configure the system. Once set up, Live Tracking can be controlled from the mobile application.

2. Prepare your account on magnalox.net:

1. Log-in, and complete your address- and location-information using the menu function "my magnalox" → "my account". When updating the address by clicking the "save" button, magnalox shows whether it enabled the account for Live Tracking or not.

   The address is only required to prevent abuse of Live Tracking (like stalking) and to make sure that magnalox is able to provide free Live Tracking in the future.

   The address is nowhere visible on magnalox and will not be handed out. The track display is completely anonymous.

2. Create a new track ("magnalog") in which the position data is saved:

   Click menu "my magnalox" → "my magnalogs":

   a) Enter a descriptive name (like "Frank on the ocean") and the click "add"-button.

   b) Enter a short description (optional). Name and short description are shown in the track

display later. Click the "save" button.

   c) Click tab "Tracking" and enter Live Tracking specifc parameters:

   "update password": enter five digits of your choice. This password must be entered in the mobile application (or mentioned in the emails) and ensures that only data from the right source is accepted.
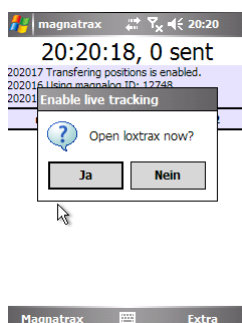
   "timezone offset": This value specifies how the UTC-based GPS timestamps are translated into your local time. The default value is taken from the location information entered under "my account"

   All other fields can be left untouched for the moment. You can change all parameters at any time later.

Keep this page open to see the log ID (five digits in the caption, automatically assigned by magnalox) and the update password because you will need both to configure the mobile application in the next step.
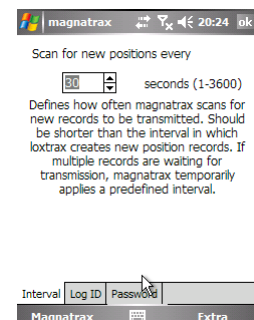
3. Prepare the PDA or Smartphone:

1. Start "magnatrax" found under "Programs". Magnatrax is an independant application auto-matically co-installed with loxtrax. It transmits the position data created by loxtrax to the magnalox - server, if configured so.

2. Click "No" on the dialog following:

This dialog pops up after starting magnatrax only when

magnatrax' uploading function is enabled in the "Extra" → "Enable Transfer" menu.
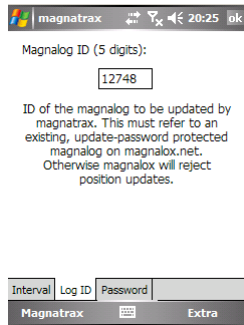
1. Open the settings page with "Magnatrax" → "Settings":
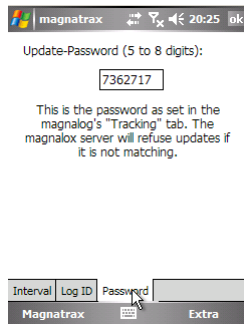
   a. leave the default scan interval untouched:

This is **not** the interval in which new positions are transfered. This interval is configured in loxtrax.

Loxtrax is triggering magnatrax immediately after it created a new position ready for transmission, so this value has not much importance.

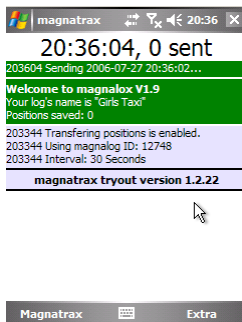**b.** Enter the log ID of the magnalog you created on magnalox.net:

c. Enter the password required for position uploads. This is the password you entered in tab "tracking", field "update password":

Close now this dialog by tabbing "OK" in the upper right corner.

2. Test the connection to the server using "Extra" → "Test Connection".

When successful, the screen should look like this:

It shows in the first line the local time and the number of positions already uploaded, followed by a colour-coded status-log. If successful, a green text showing the magnalog's name and the number of positions already stored on the server.

If a red message appears, the displayed text indicates the reason for the failure.

- Try then opening www.magnalox.net with Pocket Internet Explorer by using "Extra" → "Tools" → "Open Browser" to make sure, the internet access is available.
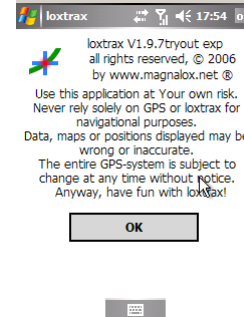
- Check whether the settings made in magnatrax (password, Log ID) match their counterparts entered in www.magnalox.net.

In cases where the connection is very slow or has to be established first, it can be necessary to manually retry this function.

It may take longer to establish the very first internet connection than magnatrax waits for an answer. Once the connection is set up (eg. using GPRS).
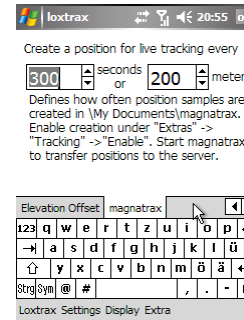
It makes sense to continue with loxtrax' configuration only if you passed this test. Online Tracking is only possible with a mobile internet connection.

3. Now we configure loxtrax after starting it using the menu function "Extra" → "Open Loxtrax":

Confirm this dialog with the "OK" button. If loxtrax wasn't registered, you may have to confirm a second dialog.

4. Now adjust loxtrax' live tracking intervals to your needs by using the "Settings" → "Intervals" menu, tab "magnatrax":
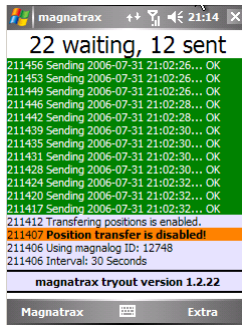

You can adjust this setting at any time later.

The distance refers to the track length, not to the distance to the last transfered position. The difference becomes obvious when we assume the track as a circle.

5. Now that loxtrax is configured, we can enable the creation of new positions with the menu "Extra" → "Tracking" → "Enable" (set the checkmark).

6. Now go back to magnatrax ("Extra" → "Tracking" → "Open Magnatrax") and see how positions are uploaded.

This is a display when position uploads were successful:

22 waiting, 12 sent

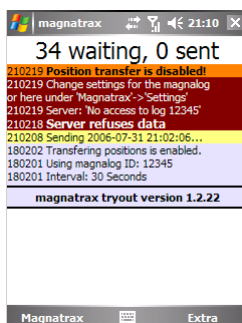The orange message indicates that the transfer function was disabled initially.

The light blue line on top of the orange line indicates that the transfer function was manually enabled at 21:14:07.

The green lines appear together with the typical confirmation sound when a transfer was accepted by the magnalox server.

The caption indicates that 22 positions are waiting for transfer, whereas 12 have already been successfully transfered to the server.

Magnatrax doesn't delete positions when no connection is available. It continues uploading with the latest positions first as soon as a connection is established. So a temporary loss of the internet connection is no problem because the data is buffered.

This is an example display when the password or log ID parameters were wrong:

34 waiting, 0 sent

In this case, magnatrax disables the transfer by itself to avoid superfluous mobile internet transmission costs.

This situation usually requires user interaction either on the magnalox.net side (new password etc) or in magnatrax' settings (log ID, password).

The yellow line indicates an attempt to transfer a position, which wasn't successful. Magnatrax will retry to transmit this position when a connection to the server is available again.

7. After positions were successfully uploaded, clicki the buttons "Google Earth" or "Google Maps" found on tab 8 in this magnalog's webpage.

When clicking on the marker defining the latest position, the time, speed and direction are also shown.

General Remarks:

- Please keep in mind that most steps are only

required for installation and configuration. Once installed and configured, only very few steps (3 screen tabs on the PDA) are necessary to start with live tracking:

Start magnatrax, tab "OK" to start loxtrax and tab "OK" to close loxtrax' splash screen.

- You can remotely delete positions saved on the server by using magnatrax' "Extra" → "Delete" → "Positions On Magnalox" function.

- You can also use a WLAN as an internet connection, if the PDA supports it. This may reduce transmission costs for the first experiments. A later switch to a connection over GPRS is completely transparent for the applications.

- You can treat the magnalog after live tracking has ended just like an ordinary magnalog: add texts, photos, audio, video, background maps etc.

- You can even refine the track after returning home by uploading a log file recorded by loxtrax while online tracking took place.

- To delete all positions of an existing magnalog in magnalox.net, use the button "delete all position records" in tab "Edit position samples and appearance".

- When started, loxtrax creates a new directory in "/My Documents/magnatrax" on the PDA. It contains files with positions waiting for upload to magnalox.net.

  - After upload, these files are moved into the "done" subdirectory. You can manually delete or move files here if required.

  - You can easily find out the state of the system (number of position waiting etc) by opening these directories with CE's File Explorer.

- To disable tracking, just disable tracking in loxtrax under "Extra" → "Tracking" → "Disable".

- The whole system can be also used on Linux or Apple computers since it doesn't need no windows-only applications.

- Make sure there is enough memory capacity left on the PDA. Live tracking plus track logging into a file consumes memory, especially on longer trips. The Operating System can terminate applications when other applications request more memory.

- You can configure loxtrax to save the logfile on removable media like SD cards etc.

- Magnatrax' audible feedback enables you to carry the PDA out of sight but still recieving status information as acoustic signals.

- **Last but not least:**

  Ask people and owners of tracked items before tracking them for allowance. This is **required** to satisfy laws and regulations in most countries and should be absolutely out of question. Abuse is a reason for magnalox to revoke the service.

July 2007, loxtrax and magnatrax are freely downloadable here.
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