

NOKIA Nseries

# **Positioning**

Nokia N76-1

© 2007 Nokia, All rights reserved.

Nokia, Nokia Connecting People, Nseries, and N76 are trademarks or registered trademarks of Nokia Corporation. Other product and company names mentioned herein may be trademarks or tradenames of their respective owners.

Nokia operates a policy of ongoing development. Nokia reserves the right to make changes and improvements to any of the products described in this document without prior notice.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, UNDER NO CIRCUMSTANCES SHALL NOKIA OR ANY OF ITS LICENSORS BE RESPONSIBLE FOR ANY LOSS OF DATA OR INCOME OR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT DAMAGES HOWSOEVER CAUSED.

THE CONTENTS OF THIS DOCUMENT ARE PROVIDED "AS IS". EXCEPT AS REQUIRED BY APPLICABLE LAW, NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE MADE IN RELATION TO THE ACCURACY, RELIABILITY OR CONTENTS OF THIS DOCUMENT. NOKIA RESERVES THE RIGHT TO REVISE THIS DOCUMENT OR WITHDRAW IT AT ANY TIME WITHOUT PRIOR NOTICE.

The availability of particular products and applications and services for these products may vary by region. Please check with your Nokia dealer for details, and availability of language options.

Some operations and features are SIM card and/or network dependent, MMS dependent, or dependent on the compatibility of devices and the content formats supported. Some services are subject to a separate charge.

Refer to the user guide for other important information about your device.

# **Positioning**

Press  $G_3$ , and select Tools > Connectivity > GPS data or Landmarks.

**Landmarks** and **GPS** data may be network based (network service) or they may require that you use a compatible GPS receiver. To enable a positioning method, scroll to the method, and select **Options** > **Enable**.

To start using a compatible GPS receiver with Bluetooth connectivity for positioning, press \( \mathbb{G} \), and select **Tools** > **Bluetooth**. Use the Bluetooth connectivity to connect to the GPS receiver. For more information on using Bluetooth connectivity, see Nokia N76 user guide.

The Global Positioning System (GPS) is operated by the government of the United States, which is solely responsible for its accuracy and maintenance. The accuracy of location data can be affected by adjustments to GPS satellites made by the United States government and is subject to change with the United States Department of Defense civil GPS policy and the Federal Radionavigation Plan. Accuracy can also be affected by poor satellite geometry. Availability and quality of GPS signals may be affected by your location, buildings, natural obstacles, and weather conditions. The GPS receiver should only be used outdoors to allow reception of GPS signals.

A GPS terminal receives low-power radio signals from the satellites, and measures the travel time of the signals. From the travel time, the GPS receiver can calculate its location to the accuracy of meters.

The coordinates in the GPS are expressed in degrees and decimal degrees format using the international WGS-84 coordinate system.

GPS should only be used as a navigation aid. It should not be used for precise location measurement and you should never rely solely on location data from the GPS receiver for positioning or navigation.

## About satellite signals

If your GPS receiver cannot find the satellite signal, consider the following:

- If you are indoors, go outdoors to receive a better signal.
- If you are outdoors, move to a more open space.
- If the weather conditions are bad, in such a case the signal strength may also be affected.
- Establishing a GPS connection may take from a couple of seconds to several minutes.

## **Position requests**

You may receive a request from a network service to receive your position information. Service providers may offer information about local topics, such as weather or traffic conditions, based upon the location of your device.

When you receive a position request, a message is displayed showing the service that is making the request. Select Accept to allow your position information to be sent or **Reject** to deny the request.

# Landmarks 🌉



Press , and select Tools > Connectivity > Landmarks. With Landmarks, you can save the position information of specific locations in your device. You can sort the saved locations into different categories, such as business, and add other information, such as addresses, to them. You can use your saved landmarks in compatible applications, such as GPS data.

The coordinates in the GPS are expressed in degrees and decimal degrees format using the international WGS-84 coordinate system.

To create a new landmark, select **Options** > **New** landmark. If your device is connected to a compatible GPS receiver, you can make a positioning request for the coordinates of your current location. Select Current

position to retrieve the position information. To enter the position information manually, select Enter manually.

To edit or add information to a saved landmark (for example, a street address), scroll to a landmark, and press Scroll to the desired field and enter the information.

You can sort your landmarks into the preset categories, and create new categories. To edit and create new landmark categories, press in Landmarks, and select Options > Edit categories.

To add a landmark to a category, scroll to the landmark in Landmarks, and select Options > Add to category. Scroll to each category to which you want to add the landmark. and select it.

To send one or several landmarks to a compatible device, select **Options** > **Send**. Your received landmarks are placed in the Inbox folder in Messaging.

## GPS data



Press . and select Tools > Connectivity > GPS data. GPS data is designed to provide route guidance information to a selected destination, position information about your current location, and traveling information, such as the approximate distance to the destination and approximate duration of travel.

The coordinates in the GPS are expressed in degrees and decimal degrees format using the international WGS-84 coordinate system.

To use **GPS data**, your device must be connected to a compatible GPS receiver. The GPS receiver must receive position information from at least three satellites to calculate the coordinates of your location.

#### Route guidance

To use route guidance, select **Navigation**. Start the route guidance outdoors. If started indoors, your compatible GPS receiver may not receive the necessary information from the satellites.

Route guidance uses a rotating compass on the device display. A red ball shows the direction to the destination, and the approximate distance to it is shown inside the compass ring.

Route guidance is designed to show the straightest route and the shortest distance to the destination, measured in a straight line. Any obstacles on the route, such as buildings and natural obstacles, are ignored. Differences in altitude are not taken into account when calculating the distance. Route guidance is active only when you move.

To set your trip destination, select **Options** > **Set destination** and a landmark as the destination, or enter

the latitude and longitude coordinates. Select **Stop navigation** to clear the destination set for your trip.

#### Retrieve position information

To view the position information of your current location, connect your device to a compatible GPS receiver and select **Position**. An estimate of the accuracy of the location is shown on the display.

To save your current location as a landmark, select **Options** > **Save position**. Landmarks are saved locations with more information, and they can be used in other compatible applications and transferred between compatible devices.

### Trip meter

Select **Trip distance** > **Options** > **Start** to activate trip distance calculation and **Stop** to deactivate it. The calculated values remain on the display. Use this feature outdoors to receive a better GPS signal.

Select **Reset** to set the trip distance and time and average and maximum speeds to zero and to start a new calculation. Select **Restart** to also set the odometer and total time to zero.

The trip meter has limited accuracy, and rounding errors may occur. Accuracy can also be affected by availability and quality of GPS signals.