

Navit Configuration and Information

Keep in Mind:

Always exit Navit by double clicking on the exit button in the tool bar. If you click on the close-button in the window tray, Navit will freeze.

The configuration file of Navit (navit.xml) is located in the /home folder of the current user. During live mode this will be /home/live/.navit/navit.xml. Edit this file to meet your requirements.

Tipps and information:

[http://wiki.navit-](http://wiki.navit-project.org/)

[project.org/index.php/Configuring_Navit#A_deeper_look_at_the_XML_file](http://wiki.navit-project.org/index.php/Configuring_Navit#A_deeper_look_at_the_XML_file)

Maps:

```
<!-- Mapset for openstreetmaps -->
<mapset enabled="yes">
  <map type="binfile" enabled="yes"
data="/usr/share/navit/maps/osm_bbox_5.2,46.8,15.5,55.6.bin"/>
</mapset>
```

This is the path to the maps. If you want to use an different map you have to change the path and the name of the map accordingly or add the following in a second line:

```
<map type="binfile" enabled="yes" data="/usr/share/navit/maps/NAME_OF_MAP.bin"/>
```

Maps can be downloaded here:

<http://wiki.navit-project.org/index.php/OpenStreetMaps>

OSD display:

```
<!-- osd items allow to position display and control items directly on top of
the map: -->
<!-- OSD Configuration start -->
<!-- upper line -->
<!-- direction change and distance -->
<osd enabled="yes" type="text" label="          $"
{navigation.item[1].length[named]} " x="0" y="0" font_size="450" w="185" h="40"
align="4" background_color="#000000c8"/>
<!-- direction icon -->
<osd enabled="yes" type="navigation_next_turn" x="185" y="0" font_size="500"
w="60" h="40" background_color="#000000c8" icon_src="$NAVIT_SHAREDIR/xpm/
%s_wh_48_48.png" />
<!-- next street's name -->
<osd enabled="yes" type="text" label="          ${navigation.item[1].street_name}"
x="245" y="0" font_size="450" w="1400" h="40" align="4"
background_color="#000000c8"/>

<!-- compass and satellite signal -->
<osd enabled="yes" type="compass" x="0" y="40" font_size="250" w="60" h="80"
background_color="#000000c8"/>
<osd enabled="yes" type="gps_status" x="-50" y="40" w="60" h="50"
background_color="#000000c8"/>
<osd enabled="yes" type="text" label="${vehicle.position_sats_signal}/$
{vehicle.position_qual}" x="-50" y="90" font_size="250" w="50" h="20" align="0"
```

```

background_color="#000000c8" />

<!-- Zoom in / out -->
<osd enabled="yes" type="button" x="1" y="120" command="zoom_in()"
src="gui_zoom_in_96_96.png" />
<osd enabled="yes" type="button" x="-100" y="120" command="zoom_out()"
src="gui_zoom_out_96_96.png"/>
<osd enabled="no" type="button" x="-100" y="310" command="speech.active(0)"
src="gui_sound_off_96_96.png"/>
<osd enabled="no" type="button" x="-100" y="500" command="speech.active(1)"
src="gui_sound_96_96.png" />
<osd enabled="no" type="button" x="-0" y="300" command="gui.get_data()"
src="menu.xpm"/>
<osd enabled="no" type="button" x="0" y="500" command="gui.fullscreen()"
src="toggle_fullscreen.xpm"/>

<!-- End of upper line -->

<!-- Start of lower line -->
<osd enabled="yes" type="text" label="{vehicle.position_speed}" x="0" y="-80"
font_size="400" w="225" h="30" align="1" background_color="#000000c8"/>
<!-- show current street name -->
<osd enabled="yes" type="text" label="$
{navigation.item.street_name_systematic}" x="225" y="-80" font_size="350"
w="1600" h="30" align="4" background_color="#000000c8"/>

<!-- show Vmax -->
<osd enabled="yes" type="text" label="{tracking.item.route_speed}" x="0" y="-
50" font_size="300" w="200" h="30" align="1" background_color="#000000c8"/>
<!-- Arrival at -->
<osd enabled="yes" type="text" label="    -> $
{navigation.item.destination_time[arrival]}" x="200" y="-50" font_size="350"
w="200" h="30" align="4" background_color="#000000c8"/>
<!-- Distance -->
<osd enabled="yes" type="text" label="<—> $
{navigation.item.destination_length[named]}" x="400" y="-50" font_size="350"
w="200" h="30" align="4" background_color="#000000c8"/>
<!-- show time of travel -->
<osd enabled="yes" type="text" label="≈ $
{navigation.item.destination_time[remaining]}" x="600" y="-50" font_size="350"
w="1650" h="30" align="4" background_color="#000000c8"/>

<!-- current coordinate position -->
<osd enabled="yes" type="text" label="{vehicle.position_coord_geo}" x="0" y="-
20" w="550" align="1" background_color="#000000"/>
<!-- current altitude (in meters)-->
<osd enabled="yes" type="text" label="NN: {vehicle.position_height}m" x="550"
y="-20" w="1650" align="4" background_color="#000000"/>
<!-- current direction (integer from<!-- 0-360) -->
<osd enabled="no" type="text" label="°{vehicle.position_direction}" x="425"
y="-20" w="1650" align="4" background_color="#000000" />

<!-- End of lower line -->
<!-- OSD Configuration end -->

```

In this section the design of the OSD display can be configured.

Tips, information and examples can be found at:

http://wiki.navit-project.org/index.php/On_Screen_Display

http://wiki.navit-project.org/index.php/OSD_Layouts

Voice output:

```
<speech type="cmdline" data="espeak -v de '%s'" />
```

stands for german language output.

The voice output in Navit is being realized with a synthetic computer voice. This needs getting used to understand the voice but you will get the hang of it. The predefined setting in MUD-Navigation is German.

To change the language you have to change the value `espeak -v xx` appropriately, where 'xx' is the usual short for your language (ex. en = English).

If you want, you can also test other voices. There are different male voices:

+m1 +m2 +m3 +m4 +m5 +m6

And female ones:

+f1 +f2 +f3 +f4

Simply put the preferred value after the language. Just like this:

```
<speech type="cmdline" data="espeak -v de+f4 '%s'" />
```

More tips and information:

</usr/share/doc/espeak/docs/index.html>

Navit User Interface

Navit can be displayed in two different looks. MUD-Navigation defaults to gtk.

To change to a more modern looking GUI (Internal) you have to edit the file `/home/live/.navit/internal-de-navit.xml`. This GUI has a few small restrictions, though:

Here it is not possible to select a point on the map by context menu because this GUI does not have context menus.

You can not toggle Autozoom.

If you want to try this GUI:

- save `/home/live/.navit/navit.xml` by renaming it to `gtk-de-navit.xml`
- rename `/home/live/.navit/internal-de-navit.xml` to `/home/live/.navit/navit.xml`
- enjoy Navit with the Internal GUI

Autostart of Navit not functioning

Navit should start automatically after the boot process is finished. A few seconds later GPS should be online.

If Navit does not start the script may not recognize the interface of your GPS device. To find out which interface your GPS device is using unplug the device from the USB port and plug it in again. Now open Menue – Accessories - LXTerminal and type

```
dmesg
```

Followed with [Enter]. Among the messages you should find something similar to this:

```
usb 6-1: new full speed USB device using uhci_hcd and address 4
usb 6-1: New USB device found, idVendor=10c4, idProduct=ea60
usb 6-1: New USB device strings: Mfr=1, Product=2, SerialNumber=3
usb 6-1: Product: CP2102 USB to UART Bridge Controller
usb 6-1: Manufacturer: Silicon Labs
usb 6-1: SerialNumber: 0001
```

```
usb 6-1: configuration #1 chosen from 1 choice
cp210x 6-1:1.0: cp210x converter detected
usb 6-1: reset full speed USB device using uhci_hcd and address 4
usb 6-1: cp210x converter now attached to ttyUSB0
```

In this example the GPS device uses `ttyUSB0`.

Now start the texteditor leafpad by typing:

```
su -
leafpad
```

Open „File – Open“ and choose the file `/usr/bin/navit-gpsd-start`
It should look like this:

```
#!/bin/sh
killall gpsd
sleep 2

if [ -e /dev/ttyACM* ]; then
/usr/sbin/gpsd /dev/ttyACM*
navit

elif [ -e /dev/rfcomm* ]; then
/usr/sbin/gpsd /dev/rfcomm*
navit

elif [ -e /dev/ttyUSB* ]; then
/usr/sbin/gpsd /dev/ttyUSB*
navit

fi
```

All you need to do is changing one of the lines to match the interface you found out in the previous step. Example:

```
if [ -e /dev/ttyACM* ]; then
/usr/sbin/gpsd /dev/ttyACM*
navit
```

Replace `ACM*` with the name you found in `dmesg` (in this example: `ttyUSB0`). Save the file and exit leafpad. Just for good measure write

```
killall gpsd
```

and [Enter], then close the terminal. If you followed the directions you can start Navit by clicking on the yellow icon in the right panel.

Find tips and hints for Bluetooth GPS devices in the `Bluetooth-GPS-HowTo` file.

About Navit and OpenStreetMap maps

It is known that maps from OpenStreetMap do not show all building numbers, which should not be a real problem. Once you found the street you will surely find the house, sooner or later ;-)