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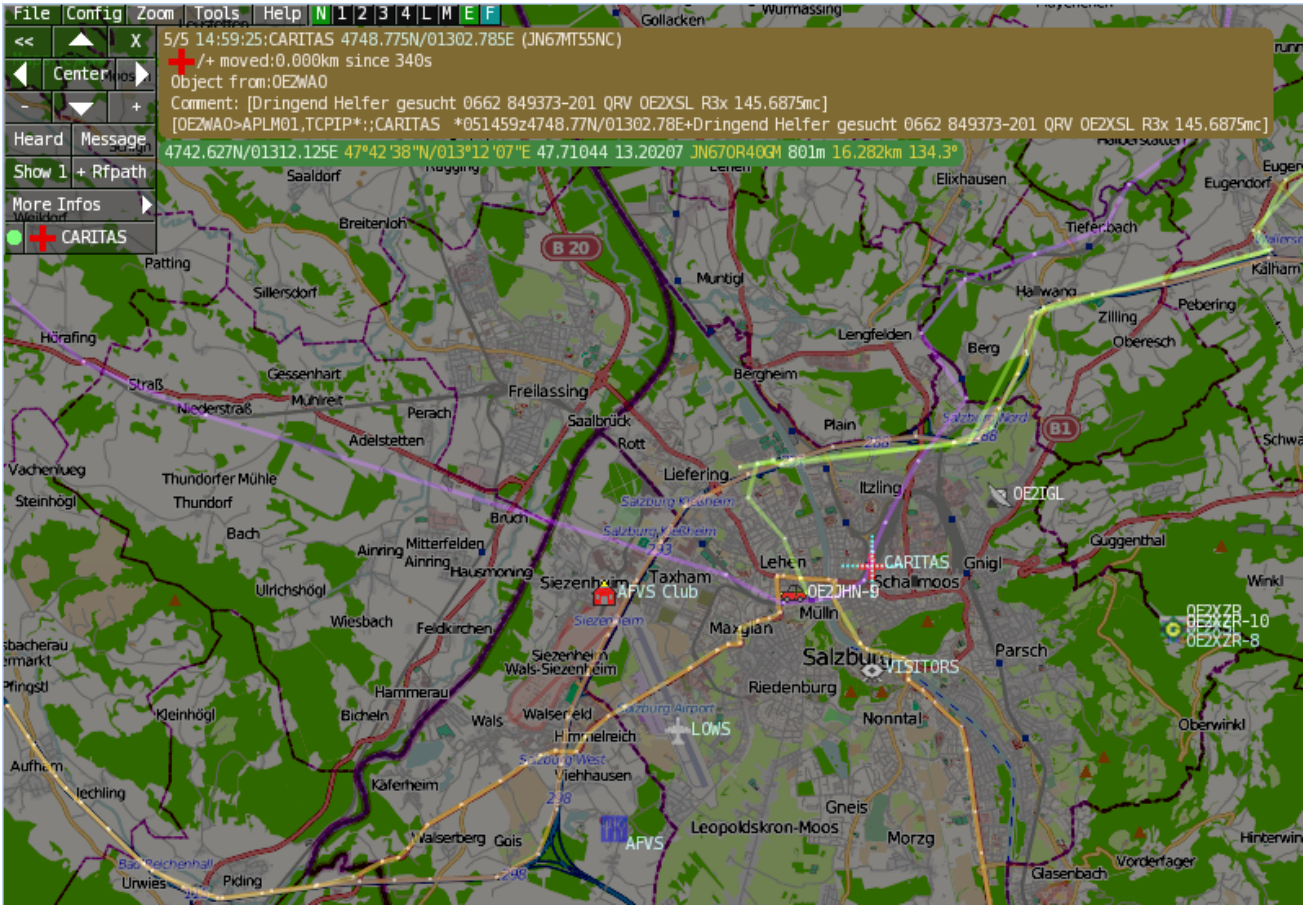
DXL - APRSmap englisch

Für die deutsche Version dieses Projekts >>hier klicken<<

APRSmap Download

APRSmap is a new APRS client software by OE5DXL, which is based on the OSM map source. It allows a lot of features in only one program by a good usability. NO installation is required, just put it on a disk an start it!



A lot of documentation work will have to be done soon !!

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Features

- OpenSource and already compiled for windows and linux
- 100% compliance with the current APRS protocol specifications
- No installation required, just copy and start
- No unnecessary menus, focus is on the representation
- IP-based, out-of-the-box network-ready in HAMNET and Internet
- Operations best controlled via shortcuts
- Local serial connection (TNC) possible - operating as an RF IGATE
- Several MapSources can be used. By default, this is OSM - OpenStreetMap
- Downloading map source on demand
- Track filter for delayed / late / repeated packets "f"
- Radio propagation calculation (since v0.36) "R"
- Animation of tracks with timeline "a"
- Animation of the temperature distribution "w"
- Messaging

Installation

After downloading the program you only have to extract the files into a subfolder of your program files folder, e.g. /APRSmap.
No installation routine is required, just extract and run the aprsmap.exe

Operation manual and help

>> Operating instructions - the help in handling the program

On the first start of the program it is necessary to do some configuration. The most important things you have to adjust are in the ONLINE menu. You best configure all steps from up till down.

- First of all you put in your callsign (MY CALLSIGN) with optional SSID
- Second step is to choose your desired APRS icon (MY SYMBOL)
- Next you will zoom to your QTH as far as you can, 100% identifing your home (zoom level >16). Then open ONLINE - MY POSITION and point to your home with the cursor. While push and hold the SHIFT key click on your home. The coordinates will be copied into the MY POSITION field. Just click OK to save them.
- Now you can set the SERVER URL by just inserting your favorite APRS IS. Click ADD to save this entry.

```
for example:
aprs.oe2xzr.ampr.at  (APRS IS connection via HAMNET)
austria.aprs2.net  (APRS IS connection via Internet)
```

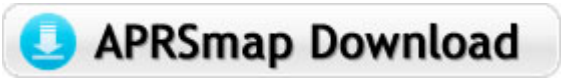
- You also need to enter a valid APRS PASSCODE to transmit packets to the APRS network (not needed in case of only RX). Just do a internet search on APRS PASSCODE to find a possibility on getting your code.
- Last but not least you have to activate CONNECT SERVER to get data from an to the APRS network.

Shortcuts

```
:   delete markers
@   reset <On Next Click> to menu mode
a   Animate (Click to Map to set Parameters)
b   or <Backspace> go back in position history
c   Center (to last clicked Pixel)
d   toggle (missing) map download
e   toggle Errors only/All for stepping along a track with <>
f   Junk Filter toggle on/off
h   Heard (click symbol or text of igate before)
i   Internal Status Listing
l   toggle Labels on/off
m   toggle dimm not moving since 10min
o   toggle Objects/Items on/off
p   toggle mouse-over Hints
q   Quit Program
r   toggle Radio tracks on/off
s   toggle show only stations with a selected symbol
u   toggle tx/rx-Monitor window on/off
w   toggle WX stations and Temperature
x   set Marker 1 to mouse position
y   set Marker 2 and Line to Marker 1
B   Open Beacon editor
C   Enter Category of POI to be drawn on map
D   Digi Config open/close
F   Find Call (with wildcards * ?), Locator, Latitude/Longitude
H   Altitude Colour Map (if srtm-Data avaliable)
M   Compose Message
R   toggle Radiorange Map on/off
T   toggle Timestamp
S   Screenshot bpm (win), png (linux)
W   Rain map (use topo or dark map)
< >   Step along Beacons/Waypoints of a selected User
( )   Map Brightness +- 5%
/   zoom to Marker 1-2 Square
\   shortcut list
~   change track colour
+   Zoom in  - Zoom out
.   zoom to track and show only this (clicked before)
=   same as . but with radio tracks
0   show all (and radio tracks off)
1,2,3,4   Zoom/Pan to stored Views
7,8,9   use map type as configured
ESC   close menus
```

```
Cursor up/down/left/right   move map, same as click near margin
SHIFT with up/down/left/right/[zoom+]/[zoom-]   in smaller steps
DEL   delete selected (Symbol, Waypoint)
TAB   switch between two Views
ctrl-L   Reset Image and Mouse parameters to default
ctrl-V   Paste
```

Download



APRSmap Download - For Windows, Linux and ARM (Raspberry Pi)

Further operation manual

more information is up to come

DXL - APRSmap

For english version on this project >>click here<<

Aktuelle Programmversion v0.79

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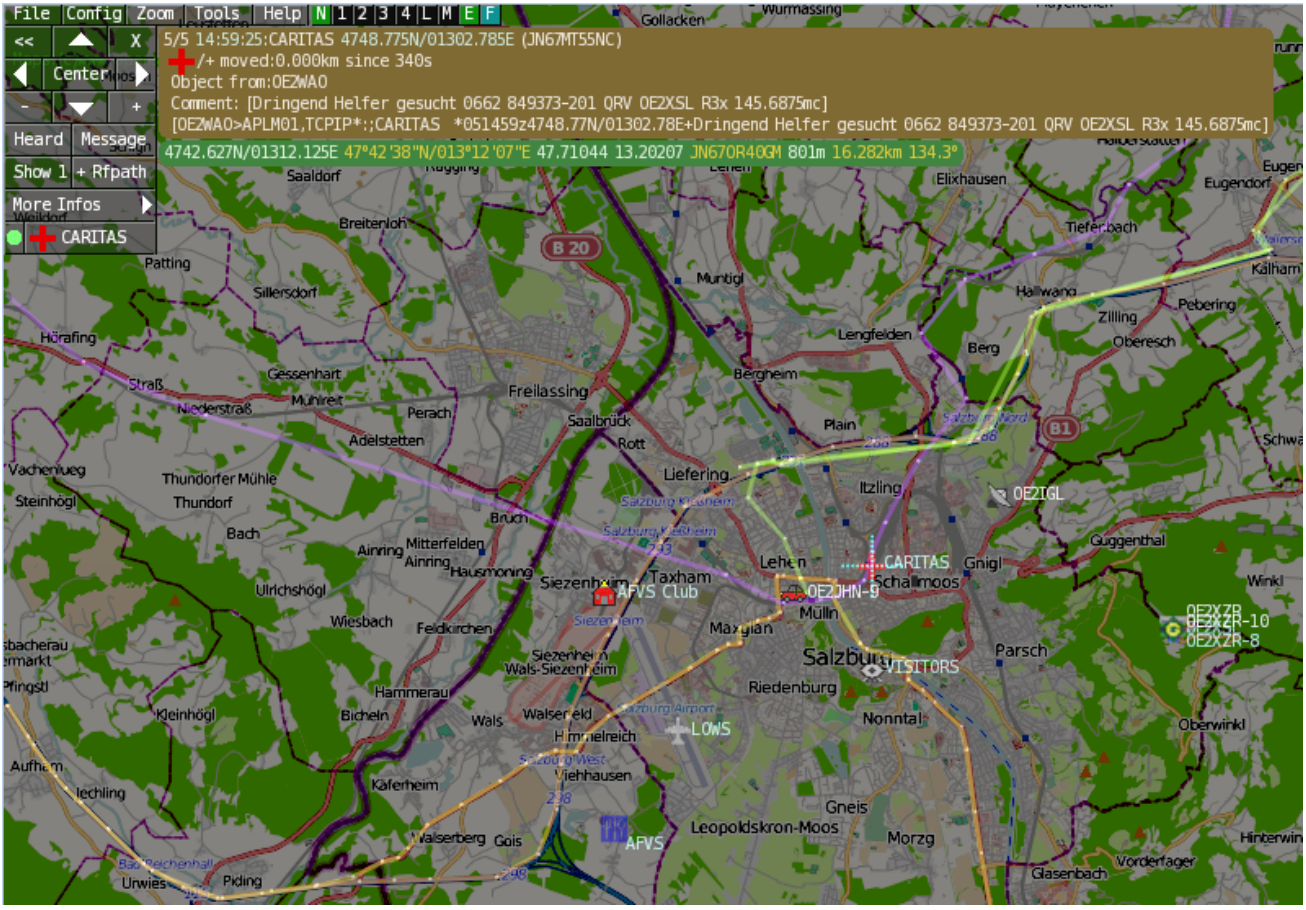
Einleitung

APRSmap ist ein von **OE5DXL Christian** entwickelter, kostenloser APRS Client mit grafischer Oberfläche, welcher als Basis das Kartenmaterial von OSM benutzt.



Features

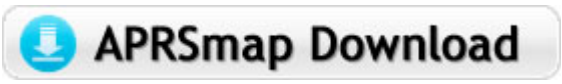
- OpenSource und bereits fertig für Windows und Linux compiliert
- 100%ige Einhaltung der aktuellen APRS Protokoll Vorgaben
- Keine Installation erforderlich, nur kopieren und starten
- Keine überflüssigen Menüs, Fokus auf der Darstellung
- IP-basiert, somit out-of-the-box netzwerkfähig im HAMNET sowie Internet
- Bedienung idealerweise über Shortcuts
- Lokale serielle Anbindung (TNC) möglich - Betrieb als HF IGATE
- Zur Darstellung können mehrere Mapsources verwendet werden. Standardmäßig ist dies OSM - OpenStreetMap
- Trackfilter für verzögert/verspätet/wiederholte Pakete "f"
- Geländeschnitt und Funkausbreitungsberechnung (ab v0.36) "R"
- Animation von Tracks mit Zeitleiste "a"
- Animation der Temperaturverteilung "w"
- Messaging

Bedienung und Hilfe

Bedienungsanleitung - Die Hilfe beim Umgang mit dem Programm

Download

APRSmap Download - Für Windows, Linux und ARM (Raspberry Pi)



Referenz

Das Programm APRSmap wurde für den ÖVSV Innovationspreis 2013 nominiert.

Weitere Projekte

Weiter passende Projekte von OE5DXL aus dieser Serie sind

- DXL - APRStracker - Hard- und Software für einen minimalistischen APRS Tracker
- TCE Tinycore Linux Projekt - Der mächtige und innovative Digipeater für APRS, Packet Radio, Echolink, u.v.m.

Weblinks

Kurzlink hier her: http://aprsmap.oevsv.at

DXL - APRSmap Download

D: Die Software gibt es je in einer Linux- und einer Windowsversion, sowie den Sourcecode zum selbst compilieren.
Dabei benötigt APRSmap keine Installationroutine. Die Dateien im Archiv müssen lediglich entpackt und lokal gespeichert werden (bspw. unter C:\APRSmap).

E: The software is available for OS like WINDOWS, LINUX and systems based on ARM structures like raspberry pi.
There is no installation routine. Just download the archive and save the files localy on your hard disc or removable drive (e.g. under C:\APRSmap).

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Windows

D: Die Dateien aus dem heruntergeladenen Archiv werden lokal in den Unterordner /APRSMAP (muss selbst angelegt werden) entpackt bzw. gespeichert.

E: The files from the downloaded archive are unpacked and saved locally in the subfolder /APRSMAP (must be created yourself).

- Download via Internet >> **APRSmap Download via Wiki** << (Detail Version Datei:Aprsmap-all.zip)

- Download via HAMNET APRSmap Download via HAMNET mit aktuellen Updates *(HAMNET-Verbindung erforderlich - HAMNET connection required)*

Win32 Dateiliste

Übersicht der APRSmap-Dateien unter Win32 Betriebssystemen.

Linux

HAMNET

- [1] - x86 (mit aktuellen Updates)

Internet

komplette dxlAPRS Toolchain fertig compiliert für folgende Systeme:

- [2] - Sourcecode
- [3] - x86
- [4] - ARMv7hf (Cortex-A8, AM335x, BeagleBone, ...)
- [5] - ARMv6 (Raspberry Pi)

ARM - Raspberry Pi

aprsDXL auf ARM resp. Raspberry Pi

POI Files

D: Österreichische POI (point of interest) Dateien für APRSmap.

E: Austrian POI (point of interest) files for use in APRSmap.

APRSmap POI Download

Source Code

Die Sourcen vom dxlAPRS-Projekt sind auf Github veröffentlicht. Aus diesen kann derzeit für folgende Plattformen gebaut werden:

- x86
- armv6 (Raspberry Pi)
- armv7 (bur am335x pp, Beaglebone, ...)

https://github.com/oe5hpm/dxlAPRS

Release Notes

APRSmap Release notes

SRTM Höhendaten zur Funkausbreitungs- und Wegstreckenberechnung

D: Um die Funktion "Radiolink" verwenden zu können, sind zur Berechnung der Geländegegebenheiten exakte Höhendaten erforderlich. Diese werden im entsprechenden \OSM Subordner des APRSmap Arbeitsverzeichnisses abgelegt. APRSmap selbst benutzt dabei jeweils die zur Verfügung stehenden Daten mit der höchsten Auflösung. Die Daten sind ausschließlich im HAMNET zu finden unter:

E: In order to be able to use the "Radiolink" function, exact elevation data is required to calculate the terrain conditions. These are stored in the corresponding \OSM subfolder of the APRSmap working directory. APRSmap itself uses the available data with the highest resolution. The data can only be found in HAMNET at:

http://web.oe2xzr.ampr.org/download/?dir=Digital_modes/APRS

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DXL - APRSmap operating

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Program start

After downloading and saving locally, the **aprsmap.exe** program can be started. A separate installation is not required.

Operation

First steps

On the first start of the program it is necessary to do some configuration. The most important things you have to adjust are in the ONLINE menu. You best configure all steps from up till down.

- First of all you put in your callsign (MY CALLSIGN) with optional SSID
- Second step is to choose your desired APRS icon (MY SYMBOL)
- Next you will zoom to your QTH as far as you can, 100% identifing your home (zoom level >16). Then open ONLINE - MY POSITION and point to your home with the cursor. While push and hold the SHIFT key click on your home. The coordinates will be copied into the MY POSITION field. Just click OK to save them.
- Now you can set the SERVER URL by just inserting your favorite APRS IS. Click ADD to save this entry.

```
for example:
aprs.oe2xzr.ampr.at  (APRS IS connection via HAMNET)
austria.aprs2.net  (APRS IS connection via Internet)
```

- You also need to enter a valid APRS PASSCODE to transmit packets to the APRS network (not needed in case of only RX). Just do a internet search on APRS PASSCODE to find a possibility on getting your code.
- Last but not least you have to activate CONNECT SERVER to get data from an to the APRS network.

Shortcuts

Note, shortcut keys are case sensitive!

```
:   delete markers
@   reset <On Next Click> to menu mode
a   Animate (Click to Map to set Parameters)
b   or <Backspace> go back in position history
c   Center (to last clicked Pixel)
d   toggle (missing) map download
e   toggle Errors only/All for stepping along a track with <>
f   Junk Filter toggle on/off
h   Heard (click symbol or text of igate before)
i   Internal Status Listing
l   toggle Labels on/off
m   toggle dimm not moving since 10min
o   toggle Objects/Items on/off
p   toggle mouse-over Hints
q   Quit Program
```

```
r   toggle Radio tracks on/off
s   toggle show only stations with a selected symbol
u   toggle tx/rx-Monitor window on/off
w   toggle WX stations and Temperature
x   set Marker 1 to mouse position
y   set Marker 2 and Line to Marker 1
B   Open Beacon editor
C   Enter Category of POI to be drawn on map
D   Digi Config open/close
F   Find Call (with wildcards * ?), Locator, Latitude/Longitude
H   Altitude Colour Map (if srtm-Data avaliable)
M   Compose Message
R   toggle Radiorange Map on/off
T   toggle Timestamp
S   Screenshot bpm (win), png (linux)
W   Rain map (use topo or dark map)
< >   Step along Beacons/Waypoints of a selected User
( )   Map Brightness +- 5%
/   zoom to Marker 1-2 Square
\   shortcut list
~   change track colour
+   Zoom in  - Zoom out
.   zoom to track and show only this (clicked before)
=   same as . but with radio tracks
0   show all (and radio tracks off)
1,2,3,4   Zoom/Pan to stored Views
7,8,9   use map type as configured
ESC   close menus
Cursor up/down/left/right   move map, same as click near margin
SHIFT with up/down/left/right/[zoom+]/[zoom-]   in smaller steps
DEL   delete selected (Symbol, Waypoint)
TAB   switch between two Views
ctrl-L   Reset Image and Mouse parameters to default
ctrl-V   Paste
```

Tips & tricks

- Animation: Click on the track of a moving object (e.g. car) and press the "a" key
- Temperature distribution: Two times "w" (w + w) shows a color distribution of the reported temperatures (sensible min. Zoom level 10 or less)
- The "0" (zero), ESC and ":" keys often help if you want to have everything displayed again after clicking on the filter or similar.
- "TAB" key toggles between two independent displays, similar to VFO "A" and "B".

Menus

In addition to the main menus explained in more detail below, the menu offers further short menus on the right.

```
N .... Display or switching of the network status, green means connected,
orange means not connected or connection problems. If the mouse pointer is
moved over the menu, the connection status appears in the popup
1-4....Display or switch the UDP port connections
L .... display the log file data
M .... View the saved messages
F .... display or switching of the track filter (incorrect or implausible
position packages)
O .... display or switch the display of pure objects
```

By the way, the mouse position display (green bar with coordinates) can be activated in the CONFIG> MAP PARAMETER> SHOW LOC OF MOUSE menu.

File

Import Log

Import a complete logfile.

Screenshot

Save a screenshot in your local user directory, e.g. map1.bmp (Win10 user directories are in the User\AppData folder e.g. C:\Users\User\AppData\Local\VirtualStore\Program Files (x86)\APRSmap)

Make Video

Save a video from e.g. a moving object in .y4m raw video format.

Write Log

Choose the logfile directory.

Keep Log Days

Define the ammount of days logs are kept.

Quit

Exit APRSmap, shortcut key is q.

Config

Brightness

Setting the respective brightness, times and colors.

```
Time Fade Out - time until the display of stations disappears after the time
for display (full brightness) has expired
Time full Bright - time to display received positions
Brightness Waypoint - Brightness of the waypoint points
Brightness Text - Brightness of the station texts
Brightness Symbol - the brightness of the symbols displayed
Gamma - Gamma value setting of the card
Brightness Track - the brightness of the route
Brightness Map - the brightness of the map
Brightness Object - the brightness of the objects displayed
```

Online

The ONLINE area is initially the most important and necessary menu item, which has to be configured individually. Basically, when the program is simply started and a data connection is established, other stations can be receive even without specifying your own callsign, position or APRS passcode (RX only mode). However, in order to act "actively" in the APRS network and to be seen and reached by other stations, this information must be entered accordingly. The *APRS PASScode* must be requested once. To do this, search for *"APRS PASSCODE Generator"* on the Internet.

My Call

Here you enter the callsign to be used, optionally with SSID.

```
(without SSID) Your primary station usually fixed and message capable
-1 generic additional station, digi, mobile, wx, etc
-2 generic additional station, digi, mobile, wx, etc
-3 generic additional station, digi, mobile, wx, etc
-4 generic additional station, digi, mobile, wx, etc
-5 Other networks (Dstar, Iphones, Androids, Blackberry's etc)
-6 Special activity, Satellite ops, camping or 6 meters, etc
-7 walkie talkies, HT's or other human portable
-8 boats, sailboats, RV's or second main mobile
-9 Primary Mobile (usually message capable)
-10 internet, Igates, echolink, winlink, AVRS, APRN, etc
-11 balloons, aircraft, spacecraft, etc
-12 APRStt, DTMF, RFID, devices, one-way trackers*, etc
-13 Weather stations
-14 Truckers or generally full time drivers
-15 generic additional station, digi, mobile, wx, etc
```

```
* One-way trackers should best use the -12 one-way SSID indicator because the
-9's usually mean a ham in full APRS communication both message and voice.
The -9's can be contacted by APRS message or by Voice on his frequency
included in his beacon, or on Voice Alert if he is in simplex range.
The -12's are just moving Icons on the map and since they have no 2 way
communication for ham radio they are not generally of routine interest to
other operators.
```

My Symbol

Self-explanatory

My Position

In order to enter your own position in MY POSITION quickly and without any major search effort, simply go first with the zoom into the MAP (preferably ZOOMLEVEL 17) so that you can clearly see your own position. Then open the CONFIG - ONLINE - MY POSITION item and click the SHIFT key to determine your own position. The coordinates are automatically adopted in the context menu and only need to be confirmed with OK.

Netbeacontext

The text set here is sent as beacon text via the network connection.

Passcode

An APRS PASSCODE is not absolutely necessary for RX, but this code is essential for sending your own data. You can apply for this code online with a waiting period, simply search for APRS IS PASSCODE using the search engine.

Server URL

Any APRS server that provides the data in the correct format can be entered as the server URL.

```
for example:
aprs.oe2xzr.ampr.at  (for connections via HAMNET)
austria.aprs2.net  (for connections via Internet)
```

Another list can be found at http://www.aprs2.net/serverstats.php .

The standard port is 14580 and does not have to be specified.

```
Alternative ports are given after the address:
aprs.server.com:12345
```

Serverfilter

Suggestion: " **m / 100 p / OE -t / t** "

The position filter is structured as follows [Position] / [Radius] eg " **m / 100** " for displaying data with a radius of 100km around your own position.

" **P / OE** " is used to display all OE stations (e.g. mobile) outside the defined radius filter .

And the mostly unnecessary telemetry traffic is filtered with " **-t / t** ".

TIP

settings relating to the server are only adopted when a new connection is made, for this the server connection can either be disconnected and re-established in the menu bar under "N", or the corresponding server entry can be deactivated and activated under "Config"> "Online"> "Connect Server" .

Connect Server

Activates or deactivates the online connection.

Allow TX to NET

Activates or deactivates the sending of (own) data to the online network.

Allow Gate RF>NET

Activates or deactivates the forwarding of APRS data heard locally via HF in the online network.

RF-Ports

Timers

Map Parameter

Show Loc of Mouse

Activates / deactivates the display of the coordinates, height and distance of the mouse pointer on the map.

Trackfilter

Activates / deactivates the intelligent filter function for incorrect or implausible position data (e.g. long lines across the APRS map; chopping or zik-zak in the track as if the route was driven several times - wheel cap lost - caused by a massive delay from Digis delivered packages)

Show Scaler

Show Windvane

Activates / deactivates the display of the wind vane at weather stations if this value was supplied.

Show Temp

Activates / deactivates the display of the temperature value at weather stations if this has been delivered.

Load Map Program

Deactivates / activates the card loader. Optionally, the loading program can be selected by clicking on the menu, optionally

```
getosm (standard, activates the external program getosm.exe from OE5KRN)  *
recommended
start sh map.sh (loading maps in the background)
sh gm.sh   (for map download from the Internet)
sh gm-hamnet.sh (for map download from HAMNET )
```

km/h Text

Freely selectable text of the unit for displaying the speed of moving stations. Default "km / h", can be shortened to "km", for example, to save space.

Show Altitude min m

Brightness Notmover

Reset to Default

Map Moving

Colours, Font

Callfilters

Watch Calls

Reload Config

Save Config

Zoom

Tools

Toolbar Off

Deactivates the permanently displayed toolbar. The toolbar can then be opened dynamically with a click on the map.

On next Click

List

Choose Maps

Reload

Download

tiles_quest

tiles_sat

tiles_cyclemap [9]

tiles_topo [8]

tiles [7]

Find

Radiolink

Select Data

Symbol

When the display is activated (marked by * next to SYMBOL) only the selected symbols are displayed. These can be switched on / off by clicking on the respective symbols (multiple selection possible). The entire function can be switched on / off by clicking on the wording SYMBOL.

Dimm Notmover

With the on / off switch, it clearly dims the stationary stations and objects in relation to, for example, mobile stations.

Rain Colourmap

Temp Colourmap

Shows a temperature distribution (similar to an isobar map). Shortcut 2x "w". Exit the Colourmap view with ESC or key w again

WX Stations

Show POI

Show All

Add Maptypes

Map directory

Send Message

Opens the message context menu

Animate

Help

Version

Shows the currently installed version of APRSmap. The letter in brackets indicates the operating system, followed by the version number of the software.

```
aprsmap(w) 0.79 by OE5DXL
```

Helptext

Opens the program-internal help context.

<< Back to DXL - APRSmap overview