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**Documentation English**



**GPS-Software Version 6**

Manual Rev. 01.11.2012

# Preface

## Welcome to QuoVadis

Thank you for your interest in „QuoVadis“ (QV). QV stands for „Quo Vadis“, i.e. the latin expression for „Where do you go?“

We have done our best to provide you with a software which makes orientation, GPS navigation and route planning a lot easier! You will soon discover the extraordinary features and the high degree of functionality this software can provide, and we are pretty confident that QV will soon become an irreplaceable tool for your GPS, travel and outdoor adventures. Still, the fundamental question „where do you go?“ is left to be answered by you but we provide the perfect tool to solve your navigational challenges.

## Important Remarks

Please note that you should be familiar with basic principles of cartography and navigation when using GPS technologies and corresponding PC software. Without such knowledge, the use of GPS and navigation software might be dangerous. QuoVadis Software GmbH cannot be made responsible for consequences which may result from a wrong application of this software.

GPS devices and PC software are certainly a great help in navigation. They can save time and effort when planning a trip and make navigation much more comfortable. However, you should never forget that technology can fail. So we strongly recommend to acquire basic knowledge in finding your way using a conventional map and a magnetic compass. Your GPS unit or PC may fail and even QuoVadis may produce errors despite the fact that we have taken the greatest care when programming this software.

Please interpret the results you get from QuoVadis and your GPS unit with a healthy dose of skepticism. Please also bear in mind that the coordinates that QV gives you, always refer to a specific coordinate system, map projection and map datum and can never be more accurate than the map you are using. Also note that even sophisticated GPS receivers can produce inaccurate or wrong positions under poor reception conditions.

## What is QuoVadis ?

Basically, QuoVadis is a software for navigation and trip-planning with a GPS using digital maps.

QV will run on any MS Windows® XP (with SP3)/Vista/ WIN7 PC or laptop with a Direct X - compatible graphic adapter with min. 256 MB video RAM. Due to the 3D capabilities of QuoVadis 6, we strongly

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recommend an up-to-date PC with a powerfull 3D graphic adapter.

In Version 6, a couple of highly sophisticated features have been implemented. Here is a feature list for the QV Standard version:

- Huge variety of calibrated own and third party digital maps available for all continents, which are ready-to-use in QV (see [www.quovadis-gps.com](http://www.quovadis-gps.com) > Shop).
- Choose from various map types such as street or highly accurate topo maps, satellite images or elevation data.
- Optional NAVTEQ® map upgrades for routing and dynamic autorouting functionality available for Europe, Northern America and Southern Africa.
- „NAVTEQ® Navi“ maps will allow for voice guided navigation according to various priorities: shortest and quickest route, route with smallest fuel consumption and individual route.
- Use your own scanned maps.
- Integration of public map sources like Open Street Maps® (OSM), Google maps®, satellite images like Google Satellite® and ECWP and WMS map servers.
- Drag and drop any installed map simply on the globe and rotate and pan it to your desired orientation and position.
- Full 3D functionality: View any map in real 3D! Just adjust the perspective and work in a continuous 2D-3D environment!
- Real light and shading simulations with regard to day and time of the year. Alternatively, you can specify the azimuth and elevation of the sun manually.
- Raster and vector overlay: Use as many maps in your map window as you like!
- Choose from various sky animation options.
- Real starfield simulation: See the stars which are visible from any point of the earth at a given date/time at their real places and in the true perspective!
- Create or edit your waypoints, geocaches, tracks and routes by simple mouse clicks in 2D or 3D.
- Store your geodata (e.g. waypoints, geocaches, trainings, tracks, routes) and maps along with the selected map layout in project tables.
- Store and organise all your geodata (waypoints, geocaches, trainings, tracks, routes), maps and projects in the „QV X-Plorer“. This is a highly capable integrated database which allows for managing even very huge amounts of geodata with a perfect overview.
- Fully compatible with the queries of [www.geocaching.com](http://www.geocaching.com)®: Import your geocache queries to QV and filter directly in the QV database (all parameters selectable)!
- Compatible with some sporting GPS units featuring training parameters (e.g. heart rate or cadence)
- Upload all your geodata to compatible GPS receivers of leading brands with few mouse-clicks and start your trip.
- Upload the maps to compatible GPS receivers of Garmin® (IMG vector or custom raster maps), compeTwoNav®, PathAway® and ape@map platforms and Giove/MyNav® GPS units (not available for all map products due to copyright restrictions).
- GPS online mode with connected, compatible GPS receivers: view your location and watch your track in 2D or 3D on any map of your choice! Of course your track will be logged automatically in the database including position, speed, course and altitude.
- Virtually unlimited storage capacity for tracklogs or other geodata. You will always know when and where you have been!
- Sophisticated track analyses and track editor functions including physiological parameters for ambitious sportsmen like heart rate or cadence frequency (with compatible GPS devices only).
- X/Y-diagrams for clear and attractive viewing of the data (speed-, heart rate or elevation plots over distance or time).
- Colorcoding of such parameters in the track plot for a georeferenced visualisation of these

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parameters in the map in 2D or 3D.

- Geocoding of digital photos along a tracklog through time stamp or geocoding information in the bitmap file header, including reverse geocoding.
- Integrated worldwide geographic database: This is a powerful tool in order to locate places within a radius of 10 km even if they are not marked in your map!
- Print any section of a map including your geodata and overlays in the scale of your choice and optionally with a grid overlay of your choice.
- QV supports all relevant coordinate systems, projections and almost any map datum.
- At any point on earth, QV will calculate the magnetic declination from geographic North.

Additionally the poweruser version support the following features:

- Support of popular GIS formats (reading and writing of DXF- and SHAPE files) and sophisticated 3D analyzing tools.
- Professional remote- and multitracking features with various GSM- and satellite based GPS-trackers (various mobile phone systems, Inmarsat, Iridium and Spot satellite systems).
- Implementation of APRS® and AIS®.
- Tracklog analysis of remotely tracked objects and automatic reporting in a spreadsheet format.
- Integrated roadbook editor.

# New features in QuoVadis 6

- The name was changed from Touratech-QV to QuoVadis
- new webpage [www.quovadis-gps.com](http://www.quovadis-gps.com) and a new shop
- new program struktur: freeware - standard - poweruser
  
- New routing engine for navi und offline-routing with improved map display
- Actual Navteq-Maps nearly worldwide
- Integration of google routing for freeware, standard and poweruser
- New Topo-Maps, Germany 25/50 und Austria 50
  
- Improved memory management for raster maps, and therefore better performance of exporting raster maps
- Scale-dependent visibility of maps and markings, controllable by style
- Hypermap-export of Compe-TwoNav
- Raster export also in b/w, 16 and 256 colours
  
- Switch directly between 2D ↔ 3D
- Direction arrows for routes and tracks
- Multitracking per TcpListener
- Measuring of distances and areas
- Unity MGRS

and much more...

# Product line

With QuoVadis 6 the struktur of the modules and funktions were adapted.

In principle QuoVadis is starting now as freeware with a limited functionality. This freeware can be downloaded from our website and used without activation.

Other extension modules may be purchased:

- Extension standard - this corresponds to the previous version TTQV-Standard
- Extension poweruser - this corresponds to the previous version TTQV-Poweruser

The versions Basic, Light und Professional are not offered any more.

All versions of QuoVadis can be installed with the same setup, which can be downloaded [here](#). If you are installing QuoVadis for the first time, you can test the range of functions of the PowerUser-version without entering a serial number for 25 days. After the demo-period you can continue using the freeware without a serial number but with limited range of functions.

Here you will find a detailed list of the functions:

function / feature	freeware	standard	poweruser
<b>maps</b>			
QV-vector maps Navteq 2012	+	+	+
QV-vektor maps Navteq 2009	+	+	+
QV-raster maps Typ QBR, PNY	+	+	+
QV-raster maps Typ QV5DB	-	+	+
online maps Google, Yahoo, Bing, OSM (Internet-connection necessary)	+	+	+
Garmin-IMG/TDB (not NT)	-	+	+
raster maps type compass, Magic-Maps, Dav	-	+	+
raster maps type Ecw, Tif, Jpg, Bmp, Png	-	+	+
marine maps type Bsb, NV	-	+	+
marine maps Typ S57	-	-	+
online maps type Ecwp, Wms (Internet-connection necessary)	-	-	+
GIS-Karten Shp, Dwg, Dxf	-	-	+
several map screens	-	+	+
further maps loading as overlay	-	+	+
calibration	-	+	+
map sections printing true to scale	+	+	+
export as bitmap file	-	+	+
export on mobile instrument	-	+	+
<b>height models</b>			
real terrain display with 3D	-	+	+

height profiles	-	+	+
<b>database</b>			
number of databases for own datas	3	unlimited	unlimited
worldwide location database	-	+	+
projects, projectmanager	-	+	+
easy search of names and addresses	+	+	+
complex search, search in regions	-	+	+
individual additional columns	-	+	+
management of photos and documents	-	+	+
geotagging of photos	-	+	+
adapting datas and grids	-	+	+
<b>routing, Navi</b>			
creation of road maps from adresses and existing points	+	+	+
comfortable drawing and editing from road routes in the map	-	+	+
navigation with voice announcement	-	+	+
route optimization	-	-	+
<b>GPS-datas, wps, routes, tracks, trainings, geocaches</b>			
comfortable creation and editing in the map	-	+	+
sending to GPS	+	+	+
downloading from GPS	+	+	+
importing from various data versions	-	+	+
exporting in various data versions	only to GPX	+	+
calculating of statistics	-	+	+
XY-diagrammes	-	+	+
track- und route- processor	-	+	+
advanced editing in QV-Xplorer	-	+	+
<b>further functions</b>			
simulation	-	+	+
astronomie	-	+	+
creating and editing of drawings	-	+	+
multi-tracking	-	-	+
roadbook editor	-	-	+
automatic note, when new updates are available (internet connection necessary)	can not be switched off	can be switched off	can be switched off

Please note, that changes of the range of functions are possible anytime and without notice, also from technical or licensing reasons.

# Manual Conventions

In this manual used conventions:

**Bold** written passages refers to menu items or elements in dialogues. example: **options - settings**

Keyboard-shortcuts or buttons in the dialogues are illustrated as follows: **Completing, Strg+F**

**Bold** or *Italics* is used to highlight important aspects within a textblock.

*Italics* is also used for file- or pathname and for comments, which can be shown as a mouse-over-effekt.

Important instructions and notices were shown in a textbox to highlight the importance. These textboxes are also coloured for intensive highlighting. There are some more textpassages formatted with boxes accordingly:

This textbox contains important information.]

This textbox contains very important information.  
If you ignore this, important dates can be lost!

With this textbox valuable tips are characterised,  
which can maybe facilitate the work.

Some parts of the text are supplemented with  
comments. These can be recognized by this  
formatting.

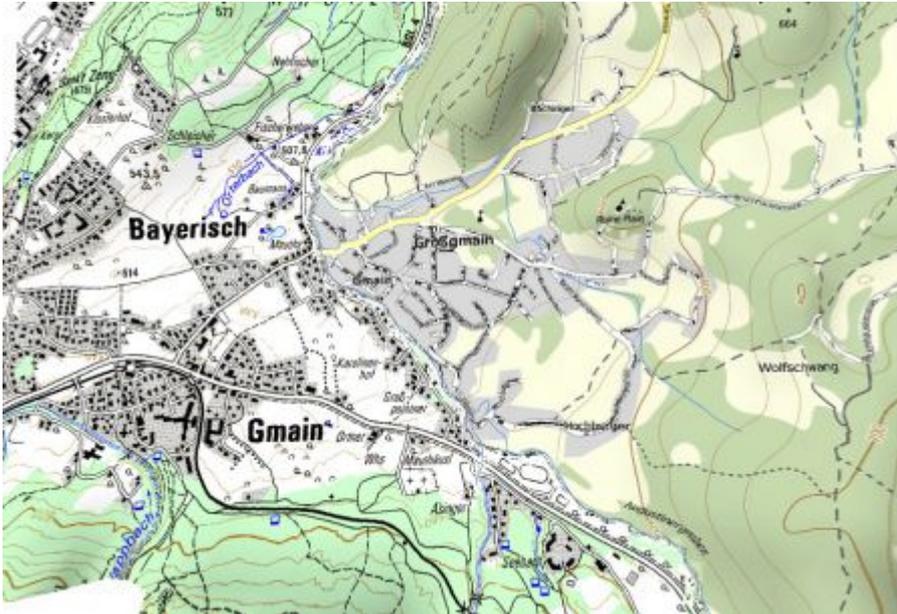
Helps are shown at this boxes.

When a theme contains a short video, you find the  
link in this boxes.

Within text blocks relevant information is emphasized with underline. Underlines can combined with italics.

A button of a symbol bar is illustrated with the belonging icon. Example: 

Screenshots mostly are illustrated by reduced size; click on the graphic to see it in full size:



In individual cases screenshots have been created with older QV-versions. In this cases the undelying function has generally not changed.

In this handbook the funktions of the actual QuoVadis-version is described. Please notice, that a previous version eventually does not support all described functions!

If necessary, you can purchase an upgrade for the next QV-version any time. You pay only the price-difference of the corresponding full versions.

You can find an overview of by QV-versions supported functions in the chapter [New productline](#).

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# Updates and Support

## Updates

Updates within the the QV main release version (in this case 5.X through 6.X) are free of charge. These will include bug fixes and also some minor functional improvements.

These updates can be downloaded from our support forum at <http://forum.quovadis-gps.com>.

In QV Version 6, an automatic check for updates is integrated. This will check our webserver for available uppgades through an internet connection, and in case of available upgrades, an info pop-up box will open from which you can directly download the file. If you have disabled the automatic upgrade function, you can trigger this upgrade check using the function ? - **Check QV.DE for a new Update** from the main menu. After finishing the download, close QV and run the downloaded file to install the new version. All data and QV settings will remain!

QuoVadis 6 is steadily beeing developed. Please check from time to time in our support forum if new updates are available or use the automatic update check function in order to work with the latest version. Also, the PDF manual is subject of a continous updating proress. The actual version of the manual can be found in Wikipedia at <http://wiki.quovadis-gps.com>

## Support

Support concerning product spectrum, updates, related prices, delivery and distribution of QV will be provided by your QV dealer.

All technical questions concerning installation and operation of QV should be addressed through our support forum at <http://forum.quovadis-gps.com>. There you can contact the specialists concerning technical support, programming, distribution and marketing. The forum is opened 7 days a week day and night.

Through this forum, QV users also interact and exchange their experience. So the forum is a very valuable source of knowledge concerning all aspects of QV. Place a new question or start search query for contributions to your subject of interest. Usually you will get a competent answer very soon.

You will find a list of frequently asked questions here:

<http://forum.quovadis-gps.com/viewforum.php?f=20>

In case you encounter problems, unexpected behaviour or even crashes of

QuoVadis 6, please check first if you are using the latest update.

## Homepage

The address of our website is <http://www.quovadis-gps.com>. There you will find details on our products and maps, and you can also download a demo-version, additional content and various manuals. A color scan service for paper maps (up to the size DIN A0) is also available there.

QV can only further evolve if we know your requirements and suggestions. We are always grateful for any hint concerning errors or for ideas for new functions. QV has emerged to such an acknowledged navigation software only through the input of our customers and we would like to thank you for your contributions!

You can reach the QV author and head of support through e-mail at [service@quovadis-gps.com](mailto:service@quovadis-gps.com).

Please always specify the software release number of your QV version when posting an inquiry. You find this under „**? - About...**“ and also in the titlebar of the QV main-window.

# Licence agreements

Preliminary remark:

The information in this documentation is published regardless of any patent protection. Trade names are used with no guarantee that they can be used freely.

The following contractual conditions describe a legal contract (hereinafter referred to as the „Contract“) between the end user (a natural or legal entity) and QuoVadis Software GmbH. The provisions refer to our navigation software range with the products „QuoVadis“.

In the same way these provisions also apply to sales or contractual partners who sell or resell our software or software versions with special functions derived from it to third parties. Regulations arising in this context from special functionalities or the passing on of use rights to third parties are dealt with separately under clause 11.

These contractual conditions not only refer to all the software products listed above but also include the following:

(i) all software updates or upgrades that you may buy for it or that you receive from time to time as part of a subscription service or another support agreement.

(ii) all additional QV software applications that you may order and install from time to time.

If you do not possess a QV version licence this software may not be loaded onto a computer or copied. Here the type of software version defines the type of licence and the range of functions that can be used. Excluded from this is our free downloadable demo version that is installed for a period of 25 days and can be tested with the full range of functions.

It is advisable to read the contractual conditions carefully before you install and use the software. By installing this software you confirm that you accept these contractual conditions. If you do not accept these conditions please return the whole software package with licence data and documentation immediately. If the software package is returned with unbroken software label, QuoVadis Software GmbH can offer a refund of the purchase price. The same applies if the software is returned with a plausible reason and a statutory declaration confirming that you have destroyed your licence data, did not make any copies and have uninstalled the software from your PC(s). In no way you can claim any right to refund.

This is a licence contract and not a sales contract.

## 1. Granting the licence

QuoVadis Software GmbH grants you a single, non-transferable licence for using the software and the printed and/ or electronic user documentation (the „Documentation“) supplied with this in accordance with this contract. If you have paid the licence fee for a single user licence in accordance with this contract you may install a copy of the software on a desk top and a laptop computer provided that the software is only used on one computer at a time. An exception to this is planning a route on both a fixed and laptop PC to prepare journeys and to download tracklog data with a laptop from vehicles or other monitored objects. If you have paid the licence fees for multiple software licences then you may use as many copies of the software as you have licences for at any time. The software is „used“ on a computer when it is loaded into the temporary memory (RAM) or installed in the permanent memory (e.g. onto a hard disc, a CD ROM or another storage medium) on this computer. If the possible number of users of the software exceeds the number of licences you have bought, then you must

ensure appropriately that the number of computers on which the software is installed at the same time is not greater than the number of licences you have bought. This ruling includes special modules that have been developed to the customer's specifications for specific tasks.

The number and locations of all copies of the software in a company must be recorded, regularly updated and monitored. On request QuoVadis Software GmbH has the right to see copies of these documents.

In the case of a server application the number of clients to be used must be the same as the number of corresponding program licences required.

QuoVadis Software GmbH reserves the right to integrate a software security mechanism into the software in order to monitor the use of the software and check that the licence conditions are being observed. This applies both to local installations and to client server applications. In this context QuoVadis Software GmbH reserves the right to use a hardware blocking device, software for licence management and/or a licence authorisation key to control access to the software. You may not take any action to get round the purpose of these mechanisms or to put them out of action.

## 2. Reservation of proprietary rights

QuoVadis Software GmbH remains the owner of all copyright, trademark, business secrets and other proprietary rights for the software and documentation. The software and the documentation are protected by copyright just like all QuoVadis Software GmbH products. You will only have such rights as are particularly specified in this contract. You may copy the software in machine readable form and in accordance with the restrictions in Clause 1 for backup purposes. You may, however, not remove any instructions or disclaimers regarding copyright or any other proprietary rights for the software or documentation and you must reproduce these instructions or disclaimers of liability on all copies of the software that have been made in accordance with this contract. Unauthorised copying and use of the software on other computers and passing the software or the licence code on to a third party is illegal and will be pursued under criminal law.

## 3. Other restrictions of use

This contract includes your licence certificate that allows you to take advantage of the rights granted in this document. This certificate must be kept safely.

The licence conditions relate to the software as a whole. Parts of the software may not be used separately and also it may only be used for your normal business purposes. You may also not grant access to the software or its use to third parties. The software or the licence granted by this contract may not be leased or lent (this also applies to any application service provider (ASP) or timeshare agreement). Clause 1 deals with special regulations for transferring use rights.

You are not authorised to modify the software. Analysing, decoding, decompiling or back developing the software source codes is forbidden under all circumstances.

## 4. Support and services

QuoVadis Software GmbH offers all licensees a free, usable web presence with Internet download and support forum. With this you have the right to download the latest software updates at any time of the day or night. Also all software updates within a main release range are free. Software that is supplied as an upgrade or an update to an earlier licensed version replaces the previous version. No additional licence is granted. The number of installed updates may not exceed the number of original licences.

Support queries are dealt with by the support forum. QuoVadis Software GmbH will make every effort to answer such queries quickly and competently. There is no right for the service to be provided within a specific period.

Further services can be obtained from QuoVadis Software GmbH on payment of a fee. These must be negotiated individually and must be in writing.

## 5. Term

QuoVadis Software GmbH may cancel this licence agreement for one of the following reasons:

- (i) Without notice should the conditions set out in Clauses 1 – 4, 6, 11 and 12 be infringed.
- (ii) Should one of the other provisions of this contract not be observed if the infringement is not remedied within 14 days of notification.

If the licence is cancelled all copies of the software including the licence code and associated documentation must be returned or destroyed immediately. In this case you are obliged to uninstall the software. The provisions of Clauses 2, 3, 6, 7, 9, 11 and 12 of this contract remain in force even after this contract is cancelled.

Cancellation must be in writing. The licence granted under this contract remains in force for as long as the conditions in this Clause are met and are not cancelled.

## 6. Responsibility when using the software

You are responsible for monitoring, administering and using the software in your company and are also obliged to control this in your sphere of influence. In particular it is your responsibility to ensure that

- (1) The software is suitable for the intended use.
- (2) The software is used in accordance with these licence conditions.
- (3) The necessary accuracy for your application in connection with the hardware components used can also be achieved.
- (4) Suitable measures will be taken to prevent data losses in system crashes.
- (5) The software is not used for ethically reprehensible purposes. This includes in particular military use if this cannot clearly be classified as peacekeeping measures or humanitarian purposes and all forms of human trade or transportation.

The software is a tool that is designed exclusively for use by trained personnel. It should not be used under any circumstances as a replacement for a professional assessment by appropriately trained personnel. In navigation applications we cannot guarantee for the accuracy of maps, GPS positions or coordinate and route calculations. You navigate only under your own responsibility!

You bear sole responsibility for any results obtained from using the software.

## 7. Limited warranty, exceptions and liability disclaimers

### 7 a Limited warranty

QuoVadis Software GmbH guarantees that the software is free from material errors and will work essentially as stated in the documentation. QuoVadis Software GmbH also guarantees that all services that the company provides from time to time will be carried out professionally and according to the rules of reasonable business practice. QuoVadis Software GmbH does not guarantee that the software corresponds with your requirements or that the use of the software is free from interruptions or errors in all areas of use. With services that are performed on customer's order our warranty is limited to that range of functions that has been agreed previously in writing.

QuoVadis Software GmbH's sole obligation and your only claim under the provisions of this guarantee are to repair or replace the defective medium or the defective software if it has been used properly or to put the service right accordingly. Should these efforts not be successful QuoVadis Software GmbH is obliged

- (i) to refund the price that you paid for the software or the service or
- (ii) if prescribed in law, to offer another solution.

### 7 b Exceptions

QuoVadis Software GmbH's limited warranty is null and void if a warranty claim arises from one of the following points:

- (i) Accidents, damage, misuse or negligent handling of the software.
- (ii) Actions or omissions that cannot be attributed to QuoVadis Software GmbH.

(iii) Combining the software with products, materials or software not offered by QuoVadis Software GmbH or which are not intended for use with the software.

(iv) A failure on your part to incorporate and use all the updates to the software that QuoVadis Software GmbH provides.

#### 7 c Warrant limitations

The explicit warranty described in this Clause 7 is the only warranty that QuoVadis Software GmbH gives relating to the software and documentation hereby transferred and any services provided. QuoVadis Software GmbH disclaims any further warranty, explicit or implicit or derived from commercial usage. In connection with the warranty described in this Clause 7 all claims arising from the warranty must be registered within 2 years of their occurrence.

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You acknowledge that the price that is paid for the licence rights may be out of all proportion to the value of the products or services that may be provided in connection with the software. In recognition of this fact you therefore declare yourself in agreement with the fact that liability on QuoVadis Software GmbH's part shall be restricted to the amount paid for the use licence. The same applies to software modifications carried out for the customer. Under no circumstances will QuoVadis Software GmbH assume liability for indirect, accidental, punitive or consequential damage (including damage arising from unusability, data loss, loss of income, loss of goodwill or loss of orders) that may arise from or in connection with the use or the inability to use the software or documentation supplied. This also applies if QuoVadis Software GmbH has previously been informed of the possibility of such damage. The same applies to software modifications carried out for the customer or services provided.

#### 8. European software directive

We would like to point out that the provisions of the European Parliament Directive of 14th May 1991 on the legal protection of computer programs (the Software Directive) may apply to your use of the software. All users are responsible for observing these provisions. The same applies to reselling our software.

#### 9. General conditions

We would like to point out that exporting the software including documentation may be subject to corresponding export control laws. If our software products are not exported by QuoVadis Software GmbH you declare that you agree that you are solely responsible for observing the corresponding legal regulations.

Should a part of this licence agreement be legally unworkable for whatever reason, all other provisions of this contract remain in force without any limitations or as far as this is possible. Additional provisions must be in writing and are only valid insofar as they do not contradict this licence agreement or if a different ruling has been made explicitly.

#### 10. Serialnumber

You obtain your serialnumber automatically with your software licence and are bound to keep this carefully. Replacement licence papers can only be obtained on payment of a fee.

#### 11. Transferring use rights to a third party

It is basically only possible to transfer use rights to a third party if software licences can be sold by the corresponding sales or contractual partners to their end customers. If there is no separate written regulation for this the sales prices should be based on our licence fees. The licence conditions of this licence agreement are also binding for use rights transferred. Software licences that are sold by particular sales or contractual partners must be managed by QuoVadis Software GmbH. Here QuoVadis Software GmbH is bound to keep the data secret (the relevant data protection provisions

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apply). At the explicit wish of a sales or contractual partner public relations with the end customer may be organised exclusively under their own responsibility.

## 12. Map material

Map material is subject exclusively to the licence conditions of the respective map publisher. Even if the map material is part of the delivery schedule of the relevant QV version the map publisher's corresponding licence conditions are binding and must be observed.

The corresponding map publisher's licence conditions apply to all maps that have been obtained from QV as an optional extra. Under licensing law these must be regarded as separate from the use conditions of this licence agreement.

## 13. Functionality

Changes of the functionality are possible due to technical or licensing reasons at any time and without notice.

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## System requirements

It is a great difference, if QV is “running” under special system requirements or if “fluent working” is possible. Therefore the system requirements are divided into „minimum standards“ and „recommended configuration“. More differences exist naturally because of size and file format of the maps and datas you are using.

Please notice, that we are not able to guarantee or support a faultlessly function of QV under virtual system requirements (Parallels, VMWare, VirtualPC, VirtualBox).

### Minimum software requirements

QuoVadis 6 is running under Windows® XP, Vista und WIN 7 (32 or 64bit). The following Windows installations are at least necessary:

- Windows XP + Servicepack 3 (SP3)
- .NET Framework 3.5
- Internet Explorer 6
- DirectX 9

### Minimum hardware requirements

- Prozessor minimum 1.6 GHz, 1 GB RAM
- 256 MB Video-RAM
- DirectX-compatibel
- screen resolution 1024×600 pixels

The installation of the software (including location database) requires approximately 1 GB hard disk space.

### Recommended pc-configuration

- Dual-Core Prozessor mit 2 x 1.6 GHz
- 2 GB RAM
- 512 MB dedicated video-RAM
- screen resolution 1024×768 pixels or higher

# Installation

## Requirements

QuoVadis 6 needs at least Windows XP Servicepack 3, DirectX 9 and the .Net 3.5 runtime libraries, which are normally part of the operating system. If for what ever reason .net 3.5 is missing on your computer installation, in this case, QV won't start at all, you can download it from the Microsoft website:

Download of .NET 3.5 SP1 Installation:

- [the Web Installer .net3.5 SP1](#)
- [the complete setup .net3.5 SP1](#)

Download DirectX 9 installer:

- [DirectX 9 web installer, will retrieve all required components from www](#)

Graphics-Card, proper drivers:

For the graphics-card of your PC it is required to have the proper drivers installed. On OS Installation, Windows may have installed some kind of generic drivers, which will definitely not fit the needs of QuoVadis 6. In this case, trying to load a map will usually end up with a black screen. In this case, install the proper driver for your chipset!

## Upgrade from TTQV4

If you have QV4 already installed on your PC, please make a backup of your data before continuing. For such a backup it is sufficient to make a copy of the QU4 folder, i.e. just copy the all files from *C:\Program files\QV4\QU4* to a directory of your choice, e.g. to *C:\Program files\QV4\QU4\_backup*. It is also recommended to compress your QV4 databases before you continue. QuoVadis 6 will optionally migrate all your existing data to QuoVadis 6. QV4 stays untouched and can be used parallel to QuoVadis 6. The map files will not be duplicated, they stay in their original directories.

## Upgrade von TTQV5

In case you have already installed TTQV5, you should (for safety reasons) make a backup of all your QV data prior to installing QV6. To do so, simply copy the entire contents of your folder *...\TTQV5\_Data\* and all other data folders you may have manually connected to in QV-Xplorer, to a safe place.

Installing QV6 will preserve all your data, maps, online activations, connected folders and settings. This is the reason, why TTQV5 is replaced by QuoVadis6 on installation. This will be done automatically on QuoVadis 6 installation.

In no way you should uninstall TTQV5 prior to installing QuoVadis 6! In this case we can not take over your previous settings and data for QuoVadis 6!

[Upgrade von TTQV5 auf QuoVadis 6](#) (ca. 3 Min., Flash Movie in neuem Fenster)

## Installation:

**To install QuoVadis 6 you need to be logged in as Administrator (with administrator rights).**

Start QV6\_SETUP.EXE, either from your DVD or from your harddrive, if you have downloaded it from our website! Please follow the instructions of the setup.

## Online Activation:

After first installation QuoVadis 6 will run for 25 days in Demo Mode. You are then running QuoVadis 6 in „Poweruser“ mode. This means, that you can test all features as if you were using „QuoVadis 6 Poweruser“ licence.

After the end of demo-time, QuoVadis 6 will reduce to the features of the „QuoVadis 6 Freeware“ Licence.

In case you purchased an extended licence, then you received a serial number(SN). Please enter this SN at the online Activation window at **? - Aktivierung** and follow the onscreen instructions of the activation wizard for online activation.

You will find detailed instructions at the chapter [Activation](#).

## Commandline parameters starting QuoVadis 6

QV can be started with additional commandline parameters. Simply add the parameter behind the ...exe in the link for the software:

online	will start GPS-Online mode at once with the recent settings
lang=XY	will start QV with the respective language where „XY“ can be „de“ or „en“.
ini=datei.ini	load alternative configuration file instead of qv6.ini

# Activation

With QuoVadis 6 we are using a system of serial numbers and product activation for QV versions and also for our maps and elevation data. So every QV-map and every copy of the QuoVadis 6 software comes with a 35-digit serial number like this:

*Seriennummer für Karte Top1123-X:  
Sabse-Ddef5-c123x-1ghji8-R456M-5XyZ8*

You may find it on a separate card inside the product box or you will find it printed at the bottom of your invoice, whether you receive it by e-mail or in paper form.

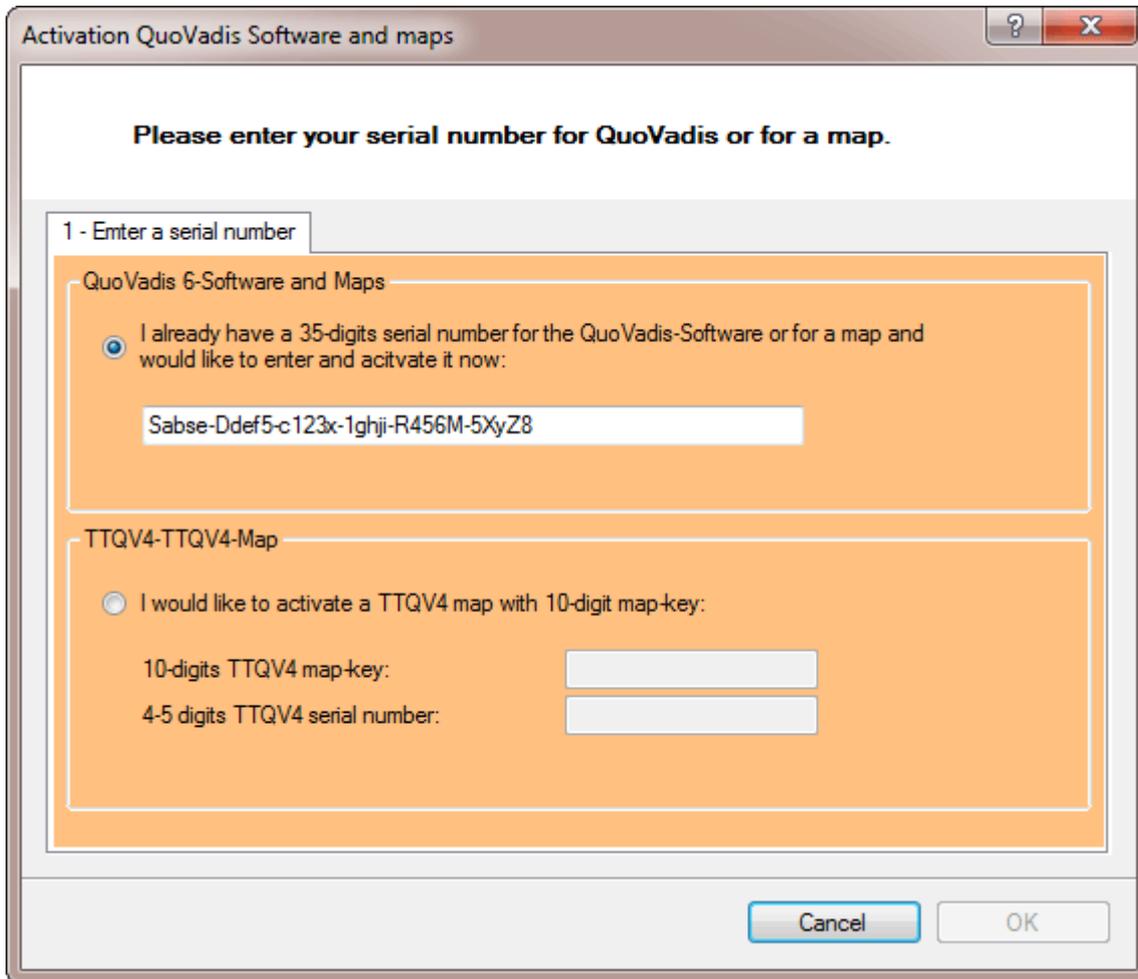
Please keep this serial number printed and at a safe place. It is your proof of purchase and you will need it for reinstallation and possible upgrades!

Two steps are necessary to activate QuoVadis 6 and corresponding maps:

- entering the serial number
- activation through our webserver

## QV Software

When you start QuoVadis 6 for the first time, a window will automatically pop up asking you to enter your serial number. Please enter your 35-digit serial number and click **Ok** to start the activation assistant.



If you want to try the demo-version of QV, just click **Cancel** and test QuoVadis 6 for 25 days with unlimited functionality.

## Maps

The maps of our QV-MAP series are subject of a map unlock procedure. When opening such a map for the first time, the same window will pop up to enter your serial number. After clicking on **Ok**, the activation assistant will start.

If you have bought such maps for your QV4 version, you have received a 10-digit map-key, and of course you can use these maps also in QuoVadis 6. In this case please select **I would like to activate a QV4 map** and enter the 10-digit map-key and also the 4 to 5-digit serial number of your QV4 licence into the corresponding fields. You will find these map keys on your invoice(s) which you received when buying the maps, and your QV4 serial no on your licence document or in the QV4 main menu under **? > About../Enter licence...**

Die QV4-Seriennummer besteht immer aus einer 4-5-stelligen Zahl und kann je nach Version ein angehängtes -L, -ST, -QB, -PU oder -PROF haben. Beispiele wären 0001-PU oder 12345.

Click **Ok** when done to start the activation assistant.

Activation QuoVadis Software and maps

**Please enter your serial number for QuoVadis or for a map.**

1 - Enter a serial number

QuoVadis 6-Software and Maps

I already have a 35-digits serial number for the QuoVadis-Software or for a map and would like to enter and activate it now:

TTQV4-TTQV4-Map

I would like to activate a TTQV4 map with 10-digit map-key:

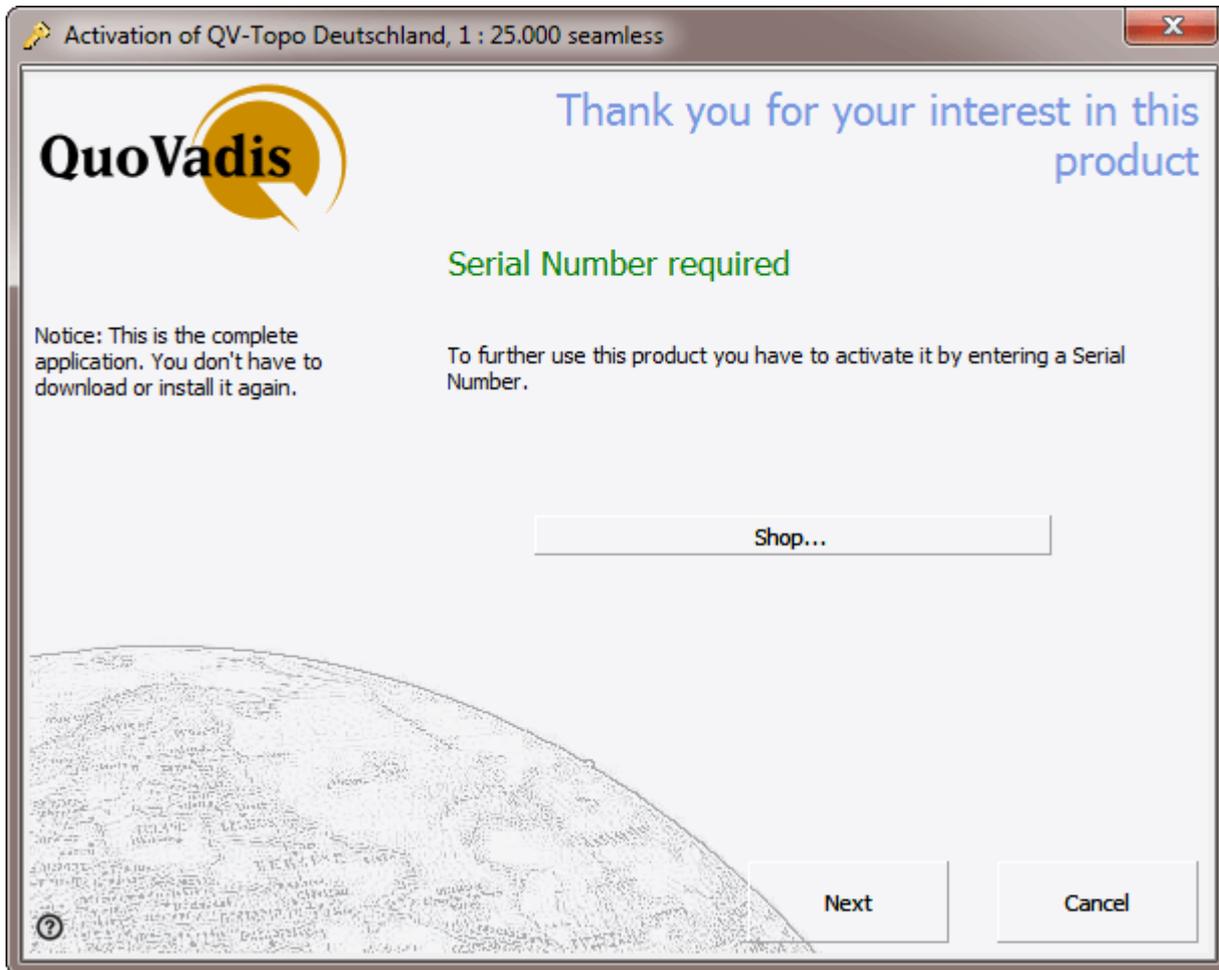
10-digits TTQV4 map-key:

4-5 digits TTQV4 serial number:

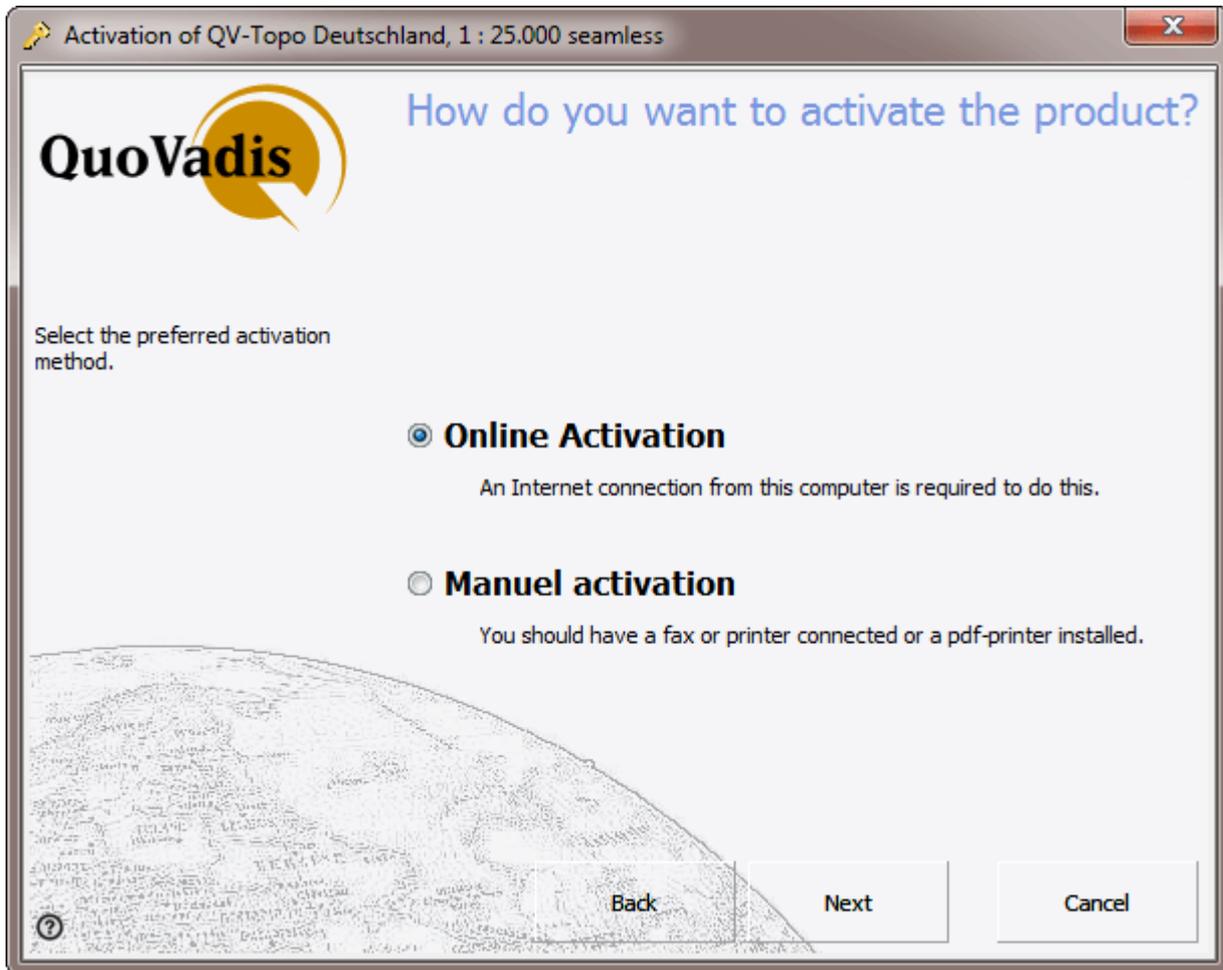
Cancel OK

## Activation assistant

Please proceed as follows:



- In the first window you have to select if you want to unlock the map or if you only want to test it for 4 days.
- Proceed with **Continue**.



- In the second window choose the activation mode - You have two options:
- Online-Aktivierung - geht innerhalb von Sekunden, benötigt aber eine Internetverbindung.
- Manuelle Aktivierung - in diesem Fall wird ein Dokument gedruckt, welches man faxen oder mailen kann.

Following we describe the online activation mode. Click **Continue** to skip to the next window of the assistant:

Activation of QV-Topo Deutschland, 1 : 25.000 seamless

**QuoVadis**

Please enter the activation data

Please enter all required information for the activation process.

Serial Number   
[Where do you find your Serial Number?](#)

Salutation

Last Name

First Name

Address

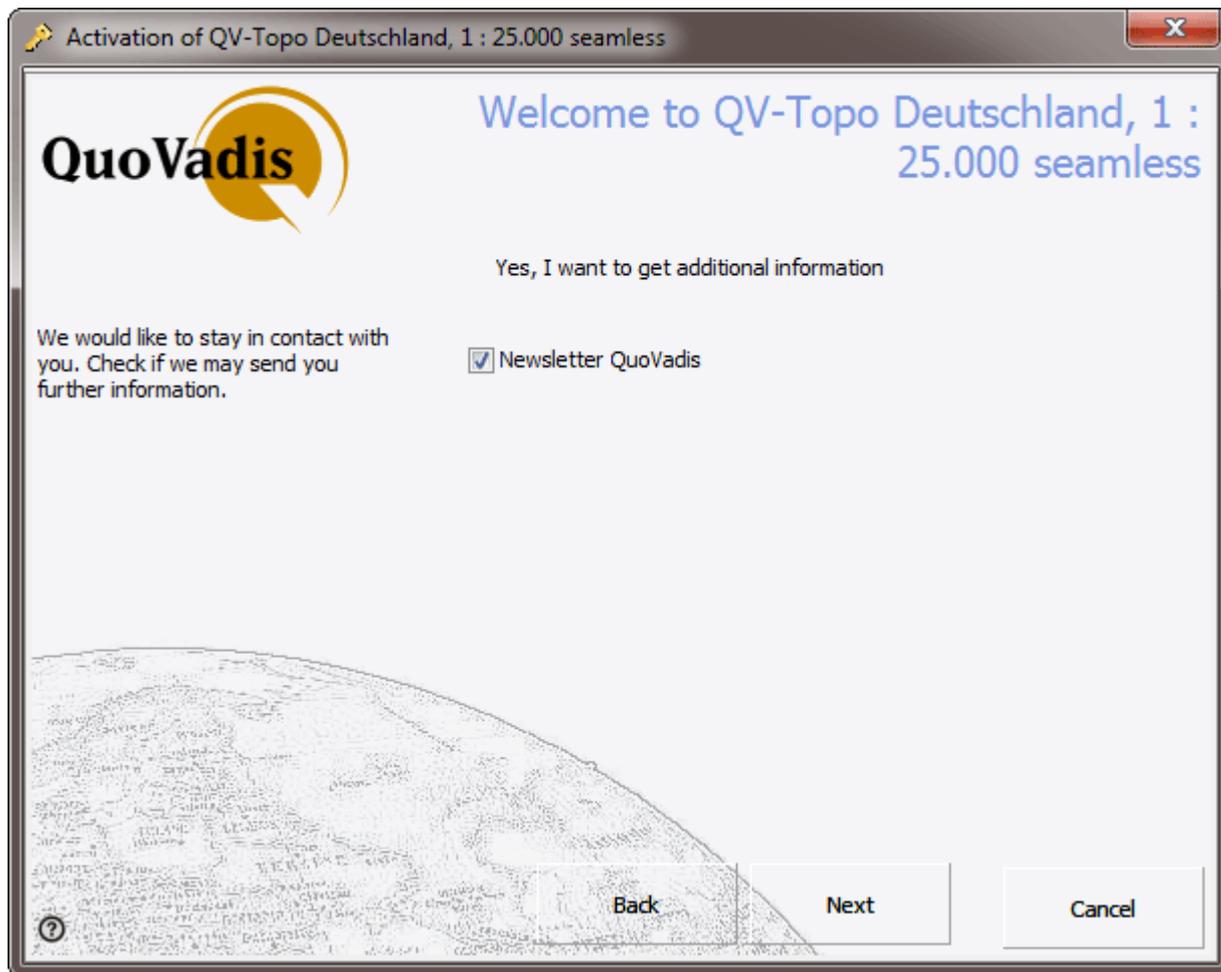
City

Country

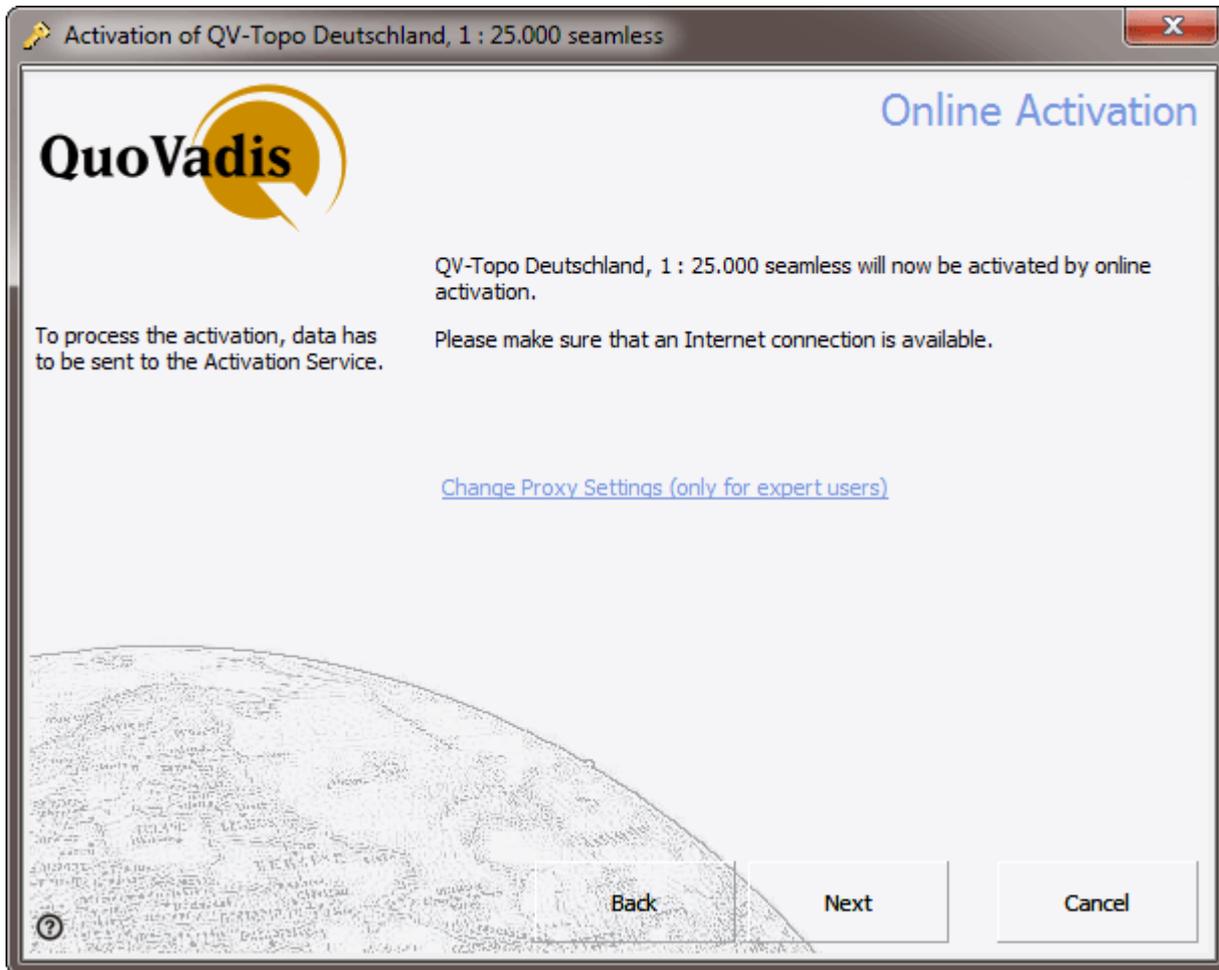
E-Mail Address



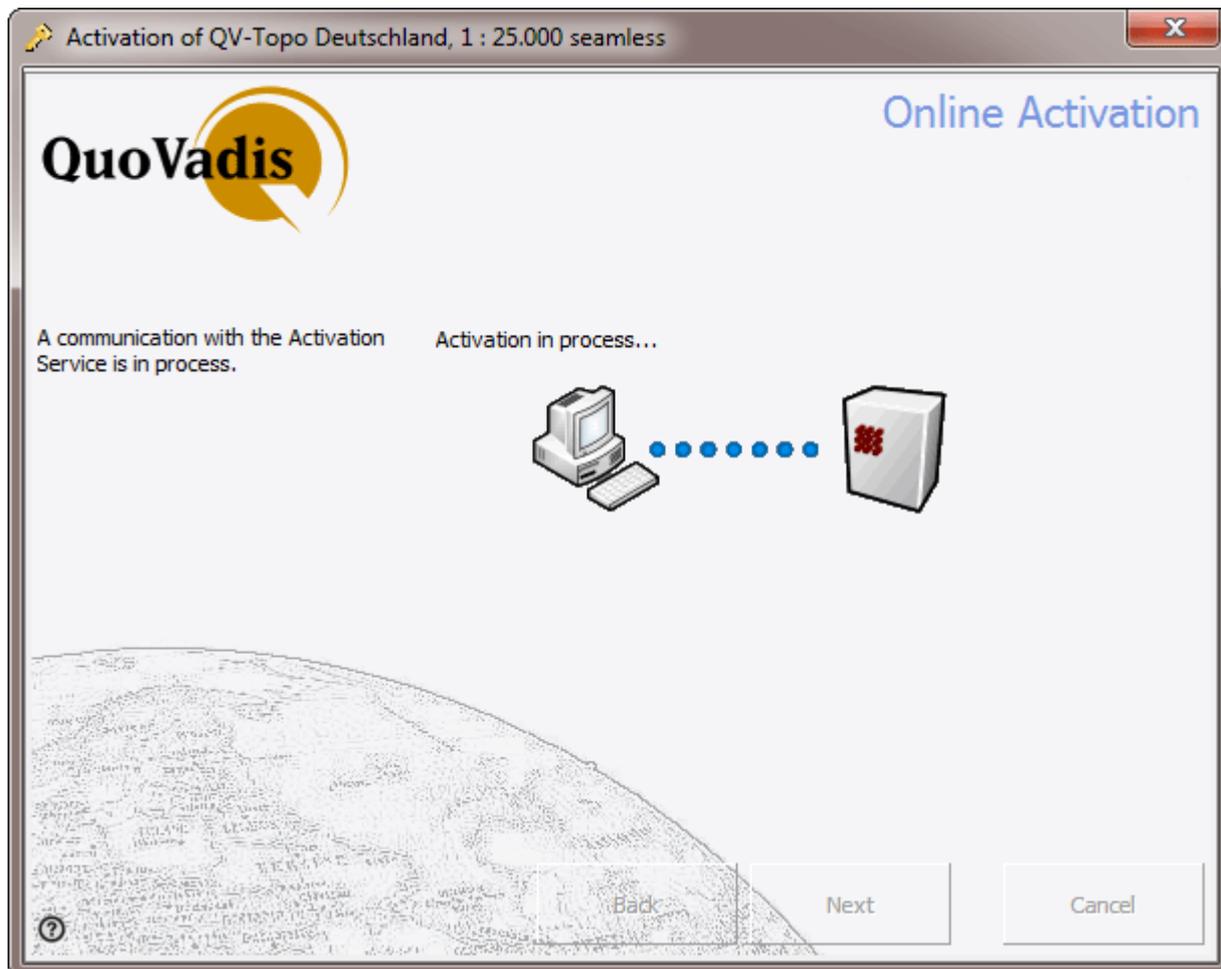
- You have to specify at least your name and your e-mail address. We guarantee to keep these information safe and confidential and will only use them internally in a support case if required.
- Please complete the fields and proceed with **Continue**. In the next window you can register to our newsletter to be informed about any product news on a regular basis. Skip to the next window by clicking **Continue**:



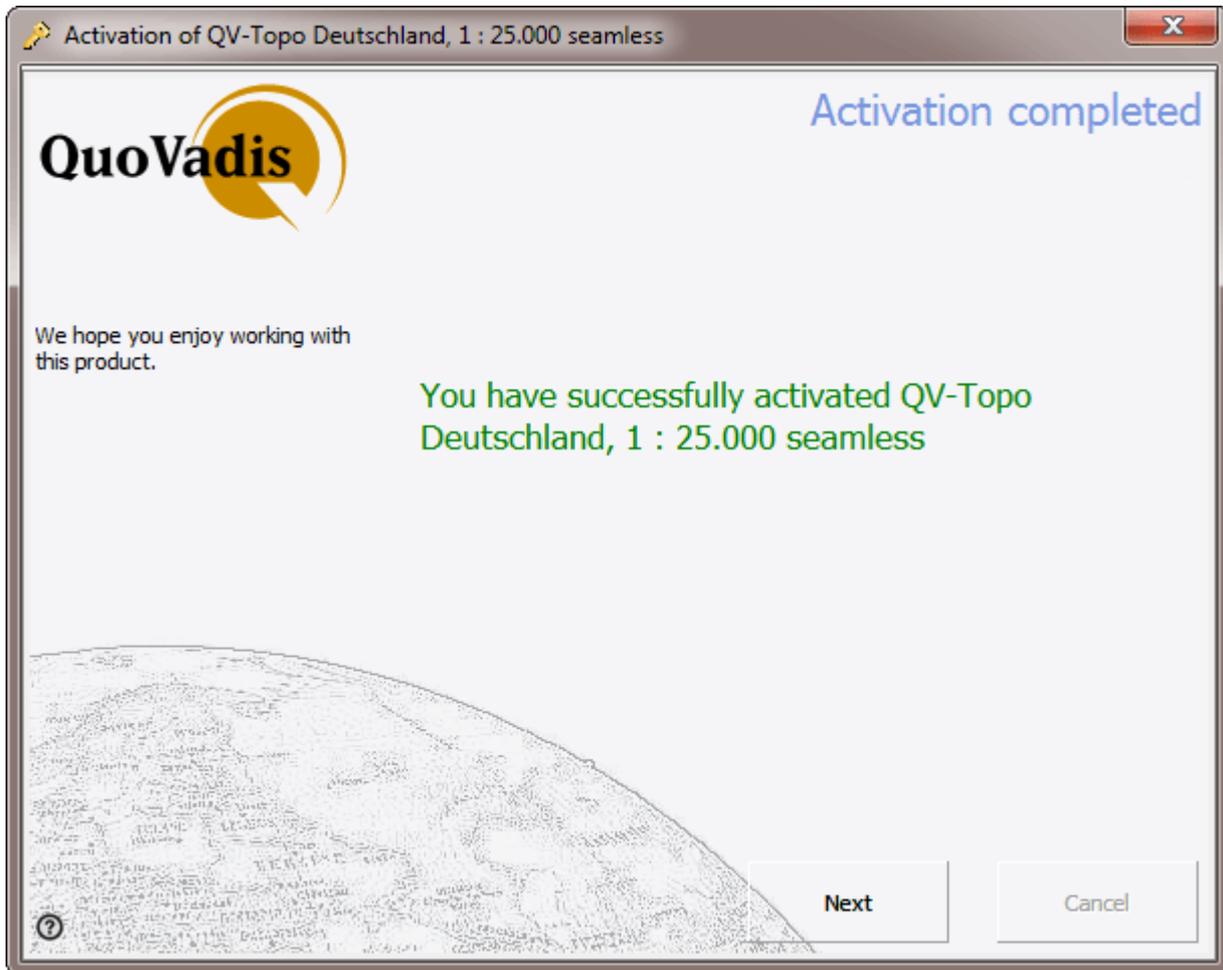
- A message box will inform you that an internet connection is required for the online registration and the online activation mode is going to start after clicking **Continue**:



- You will finally receive a confirmation message to inform you that the map has been activated successfully:



- Thereafter, you can use the map as any other installed map.



In case you have requested an activation code via e-mail or through fax you will have to enter it in the QV main menu under **? > Activating QV and maps.**

Activation of Aventura Top100-D



### The activation is in process

We hope you enjoy working with this product.

Send this fax to the number listed on the page or email it as a pdf. It can take up to 3 working-days to process.



Next Cancel

Activation of Aventura Top100-D



### Apply Unlock Key

Enter all received keys to unlock the product.

If you have received information to unlock Aventura Top100-D, please enter the Unlock Key(s). If there is more than one key, enter one key after another in the correct order. Make sure to enter keys in a case-sensitive manner.

Apply Key

You requested an Unlock Key on 12.01.2012 00:32 for the Serial Number  Activation Method: Activation by Fax.

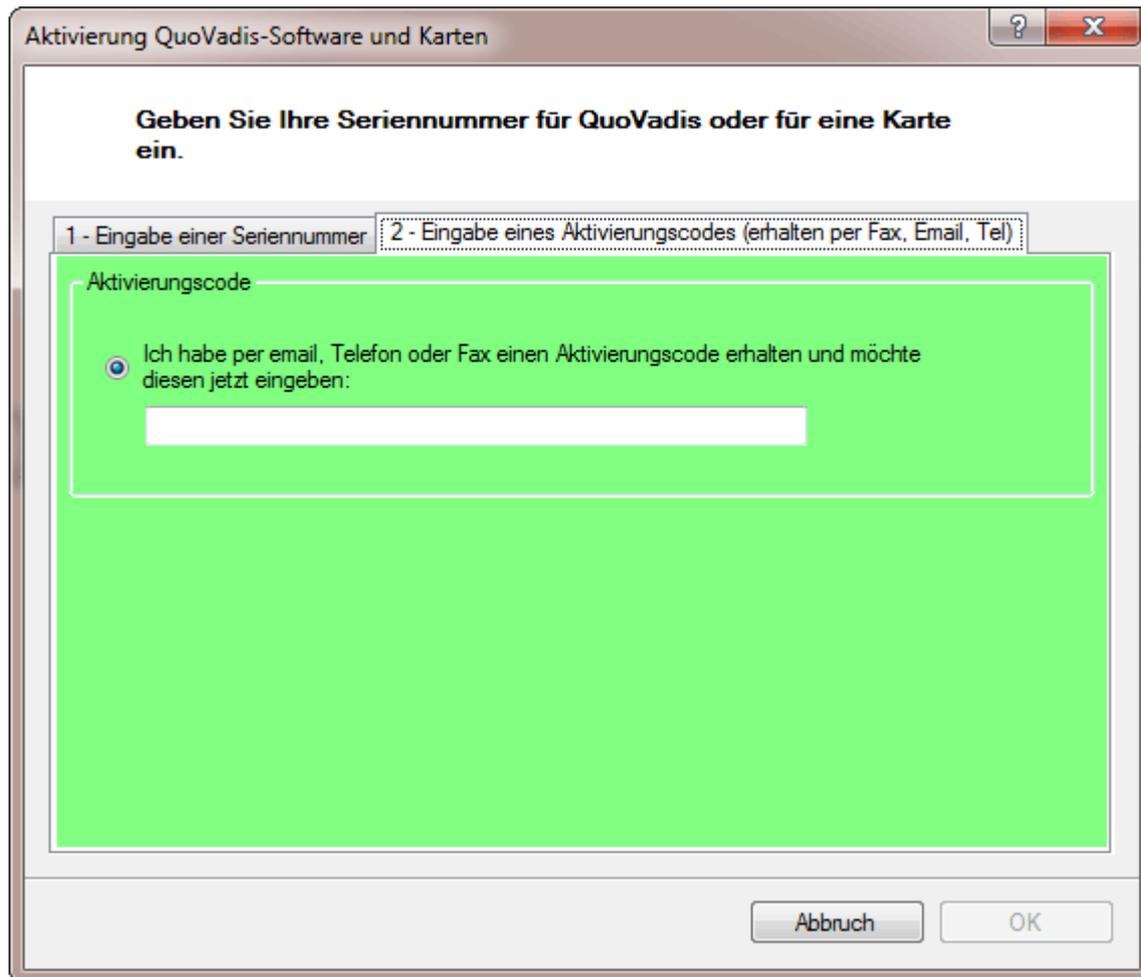
Activate again Next Cancel

Just enter your 35-digits activation code and click **Ok**.

## Manual Activation

If you executed the manual activation using e-mail or fax mode, then you have to enter the activation key you received by e-mail through QuoVadis 6 main menu, exactly go:

? > **Activation, QuoVadis Software and maps.....**



- enter the 35-digit activation code you received by e-mail and click **Proceed/ok**.
- once the activation was successful you receive a confirmation message and you quit the activation assistant clicking **Proceed/ok**

## Installed modules

If you want to know which modules are activated in your QV installation, just choose ? > **About...** from the QuoVadis 6 main menu. You will find your entered user data and also a list of all activated modules including the corresponding serial numbers.

---

## Backup of licence data

All module activations are documented in a file named ***Ip\_QuoVadis 6b.lic*** which is located in the folder ***QuoVadis 6\_Data\Lic***.

Sie sollten nach jeder Aktivierung eine Sicherheitskopie dieser Datei anfertigen und an einem sicheren Ort aufbewahren (externes Laufwerk, USB-Stick, gebrannt auf CD) !

If it should be required to reinstall QV due to whatever reason, you can copy this ***Ip\_QuoVadis 6b.lic*** file back to your PC and overwrite the empty lic file which is generated during program installation. Thus you have reactivated all module at a glance. *It is also a good idea to carry a copy of this file with you when travelling, especially in countries where internet access might be difficult.*

Die Lic-Datei ist nicht übertragbar auf einen anderen PC. Wenn Sie QV auf Ihrem Zweit-Rechner installieren, müssen Sie QV dort erneut mit Ihrer Seriennummer freischalten.

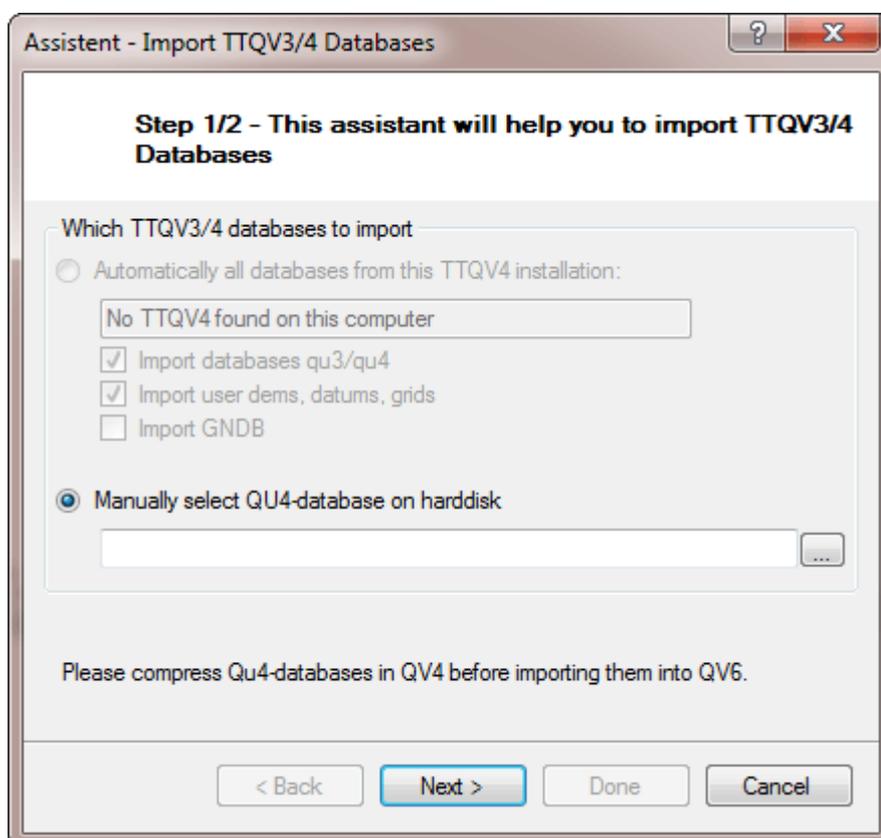
## Migration of TTQV 2/3/4 data

QuoVadis 6 can automatically import all your data and maps from an older TTQV3 or TTQV4 installation.

**Important note:** You should compress your databases in QV4 before importing them into QuoVadis 6 to fix possible problems with database integrity. You find an instruction on how to do this at the end of this chapter.

After the installation of QuoVadis 6, a data migration assistant will automatically start if older versions of QV3 or QV4 are detected on your PC.

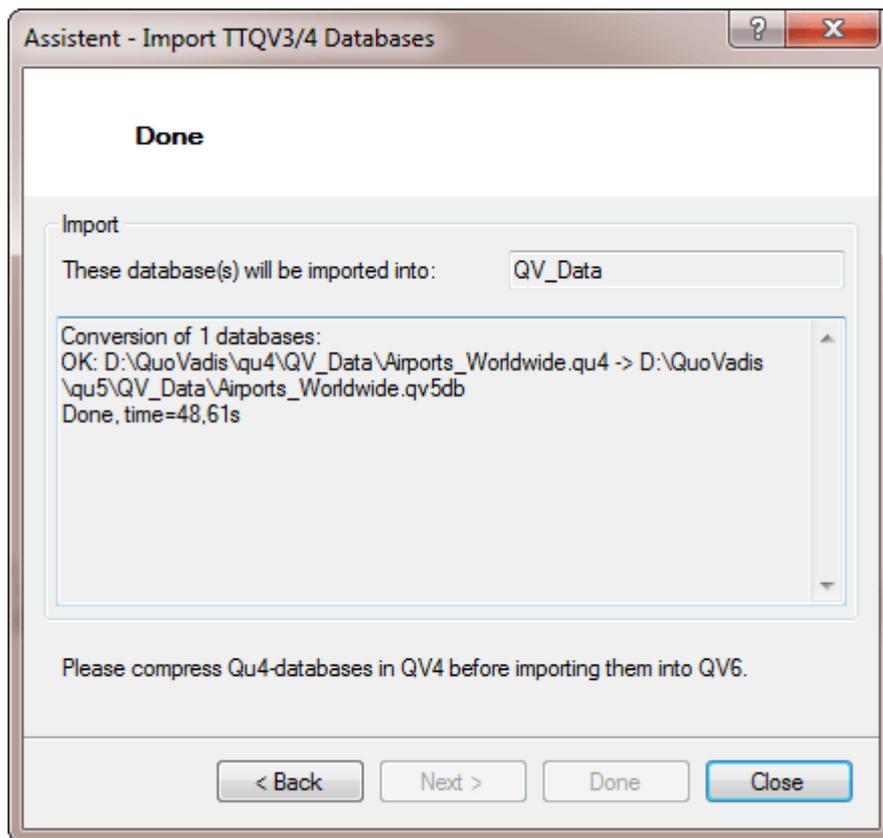
However, you can also start the assistant from the database menu of the X-Plorer through the function **Import QV3/4 Databases**.



The assistant will detect older QV installations automatically and will provide the option to import all databases. Additionally, you can import existing databases through the software switch **Import GNDB**. The worldwide Geographic Database will not be imported to QuoVadis 6 because this has been recompiled for Version 6 and is delivered with your QuoVadis 6 version. So, this function is limited to your own geographic databases and to geographic databases of some topomaps which may be compatible with QV. You can also import digital elevation models (DEMs) which may be part of your QV4 installation and user-defined grids or map datums. If you would like to do so, activate the **user.qdb** software switch.

If you would like to selectively import a single database, choose **Manually select QU4-database on harddisk** and select the file(s) of your choice after clicking ...

Proceed by clicking **Continue**.



To the upper right, QV will indicate to which database element the selected data will be imported. If you start the assistant manually from the database menu, the actual database which is marked in the X-Plorer will be used as default destination.

Thereafter, please click **Done** to start the import. According to the amount of data, the import process can last quite a while. However, you can abort the data import at any time and continue lateron. Data which have already been imported will be detected and will not be imported once again.

At the end of the import process you will find a summary which might also include error messages which occurred.

**Remark:** If maps are imported from older QV versions, map files will not be duplicated but stay in their original directories. So there is no need to worry about waste of hard disk space.

**Important note:** You should compress your databases in QV4 before importing them into QuoVadis 6 to fix possible problems with database integrity.

This short clip (with German user interface) shows, how to compress databases:

<http://www.youtube.com/watch?v=CSjCsoG6zLQ>

# Storage location of data

All user-specific data, QV configuration settings, licence data, databases etc. are stored in a central folder of your harddisk. By default, during program installation, the following destination will be appointed:

## **Common Documents\QV6\_Data**

In this *QuoVadis 6\_Data* folder you will find at least the following subdirectories:

_lic	This is the location of the licence file which you should backup from time to time and which you will need in case you have to reinstall QV. By simply restoring this *.lic file at its original place you can reactivate your QV software including all your maps without the need to activate every module once again!
Qu5	Here you will find all databases from the folder <i>QV_Data</i> in the X-Plorer under the identical file name and the extension *.qv5dbdes.
System	Here you will find all databases from the folder <i>System</i> in the X-Plorer under the identical file name and the extension *.qv5dbdes.
Import, Export	These are the default folders for data import and export.
Odb	This is the default folder for the geographic databases.
Screenshots	This is the default folder for the QV screenshot function.

Of course, you can create additional subdirectories in this folder.

It is highly recommended to make backup copies of this *QV6\_Data* folder on a regular basis!

If you like to shift this folder to another drive, manual editing of the Windows registry is required. *Therefore we generally do not recommend to do so!*

Experienced users can proceed as follows (example for Windos-XP):

- Terminate QuoVadis 6 and make a backup copy of the folder *Documents\QV6\_Data*
- Create the folder in which you would like to have your QV data stored, e.g. *D:\QV6Data*
- Copy all files from *Common Documents\QV6\_Data* to this folder, e.g. to *D:\QV6Data*.
- Start the program **regedit**
- Search the **HKEY\_LOCAL\_MACHINE\SOFTWARE\QuoVadis\6** section and the **dir\_mydata** key and specify the path; - in this case *D:\QV6Data\*. This folder will be valid for all users on this PC.
- In case you want different paths for various users, login with the corresponding user name and enter the new path in the section *HKEY\_CURRENT\_USER\Software\QuoVadis\6* within the key **dir\_mydata**

During start-up, QV will first refer to *HKEY\_CURRENT\_USER\Software\QuoVadis\6\dir\_mydata*. If existing and valid, this folder will be used. If not, the path *HKEY\_LOCAL\_MACHINE\SOFTWARE\QuoVadis\6\dir\_mydata* will be checked. If this one is also not valid, QV won't start.

Attention, with other versions of MS-Windows the registry key to be edited may be a different one, example with Win7-64:

**[HKEY\_LOCAL\_MACHINE\SOFTWARE\Wow6432Node\QuoVadis\6]**



# First steps in QV

Basically, QuoVadis 6 has the same structure as version 4, so the basic philosophy of spreading the program in a database for centralized and efficient data organisation and one or multiple map windows for data visualisation is untouched. Thus QV4 upgraders will feel familiar and will not face problems with the new user interface. For them, the most noticeable change will be the plotting of maps in the new 2D-3D map window.

The professional database approach has with now doubt many advantages over a simple file-based data organisation but cross-graders or new QuoVadis 6 users might initially face some problems with this approach.

However you will experience that getting into this philosophy won't take much time, you will soon get habituated to this database approach and then quickly discover the advantages of such an approach.

By all means, the new tutor based user interface will help you a lot: Beginners will be guided step-by-step through a given task while advanced users can specify the obligatory settings and finalize directly using the „Finish“ button. We hope that this user interface is an approach which will fit a wide spectrum of user expectations.

In this chapter the most important functions of QV are introduced and quick start instructions are given.

You will find step-by-step instructions to the most important tasks such as importing and plotting of maps or creating waypoints, tracks or routes. Cross reference is given to chapters where you find detailed information.

Please also have a look at the video clips which will give an on-screen-demonstration of the basic functions. Choose ? > video from the main menu and select the topic of interest in order to watch the corresponding video clip.

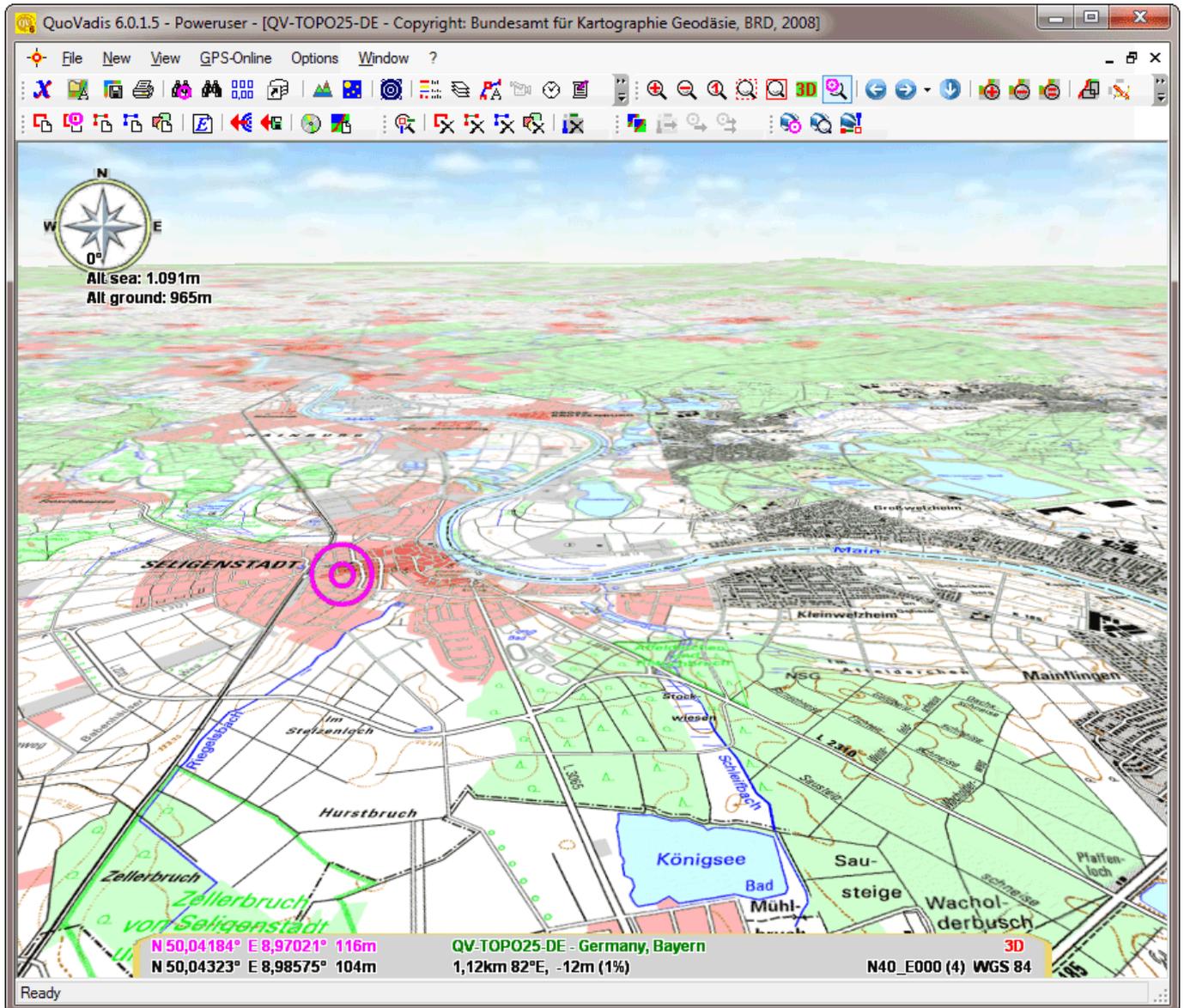
After program installation, start QV by clicking the  - icon from the start menu or by a double-click on the icon on your desktop.

## Main program window

After starting the program, the QV main window will appear and the globe will be zoomed from the universe.

A world map will be plotted over the surface of the earth and all stars will be visualized at their exact location above the earth. If you enable the function „open last map view on start“, QV will start later on in a different way and plot the last layout instead of the initial globe.

Using our Topomap Germany, 1 : 25.000 scale, the QV main window may look like this:



The main window features all important elements required for operating QV:

- The main menu bar with the pull-down menus File, New, View, GPS, Options, Window and ? (= help).



\* The Standard symbol bar with the most important functions like Open X-Plorer (or toggle between Xplorer and Map window), AutoMap mode, Search for coordinates, Search for names (geographic database), Units, 3D-Options, Open geographic database, GPS Online mode (driving mode), Project manager, Street Routing, Roadbook editor and Settings.



\* The View symbol bar with icons for controlling the look of the map window. This symbol bar starts with icons for the scale such as Zoom In, Zoom Out, Zoom 100%, Zoom on selection,

 Zoom on entire map,  Center zoom on cursor. Further to the right icons follow addressing the chronology of commands like  Undo,  Redo with command history and  Set Reference Point (bookmark). Further to the right, various icons follow for selecting maps with other scales like  Open map with larger scale,  Open map with smaller scale,  Open another map with the same scale. Finally some icons with various functions such as  Map overview,  Map legend,  Display map scale and  Grid overlay.



\* The New symbol bar with icons for creating  New Waypoint,  Save cursor as waypoint,  New Route,  New Track,  New Drawing,  Edit,  Download from GPS,  Import,  Automatic map import from CD/DVD,  Import new map.

- Please note that some icons may not be available if no suitable map is available or no suitable object has been selected. In case of the Roadbook Editor, the icon  will only be available if you have purchased the corresponding plug-in or the Poweruser edition. The Street Routing icon  will only be available if you have purchased a NAVTRQ Routing or NAVTEQ Navi option.
- At the bottom of the window the status bar which summarizes important information on the actual mouse and cursor position like the coordinates, the distance and bearing between mouse and cursor position, the magnetic offset or the name of the country. You will also find a Show in Map button there (center) and a button to switch between several crosshair designs.
- The actual window area is filled either with the map window, the overview window or the X-Plorer, depending on what you have opened. You will find a detailed description of all options in the chapter „Main Window“.
- You can open (or close) additional Toolbars in the View menu under Toolbars. Those toolbars are specialized for specific tasks and are described in the corresponding chapters below.

At the bottom of the map window, you will find the map status field which summarizes important information:

<b>N 50,04184° O 8,97021° 116m</b>	<b>TTQV-TOPO25-DE - Deutschland, Bayern</b>	<b>2D 87% I=1</b>
<b>N 50,02866° O 8,98706° 119m</b>	<b>1,90km 141°SO, 3m (0%)</b>	<b>N40_E000 (4) WGS 84</b>

Left column

1. The position of the map cursor including altitude
2. The actual position of the mouse pointer including altitude

Central column

1. Name of the used map
2. Distance, course, altitude difference and corresponding slope in % between map cursor and mouse pointer

Right column:

Name of the used DEM (digital elevation model) and the actual map datum

---

Remark: Please note that all coordinates are specified in the units according to the unit settings.

## Map import, map activation and Online maps

First of all: Before you can open and visualize a map, this map must have been installed to QV before!

You will find a wide spectrum of QVMAPS in our webshop which come ready-to-use for QV and only require to run the corresponding setup utility on the disk. These maps are especially recommended for unexperienced users as they require minimum preparation before you can use them in QV. This applies to all maps which come in our QBR or QV5DB formats.

In QuoVadis 6 we have also implemented a couple of Online maps which can be used right-away and do not require an import. These include: Open Street Maps® (OSM), Google Maps®, Yahoo Maps® and Bing-Maps®. Most of these maps are available as street maps, satellite images and relief/terrain maps, some of them also as „hybrids“. However, a fast internet connection is obligatory in order to use such maps!

There are also many other maps which are published by third-party suppliers which can also be used in QV. Those require different setup procedures and are usually imported to QV after they have been installed with the setup utility of the third-party supplier. Importing such maps to QV may require different import mechanisms to QV which are described in the maps chapter.

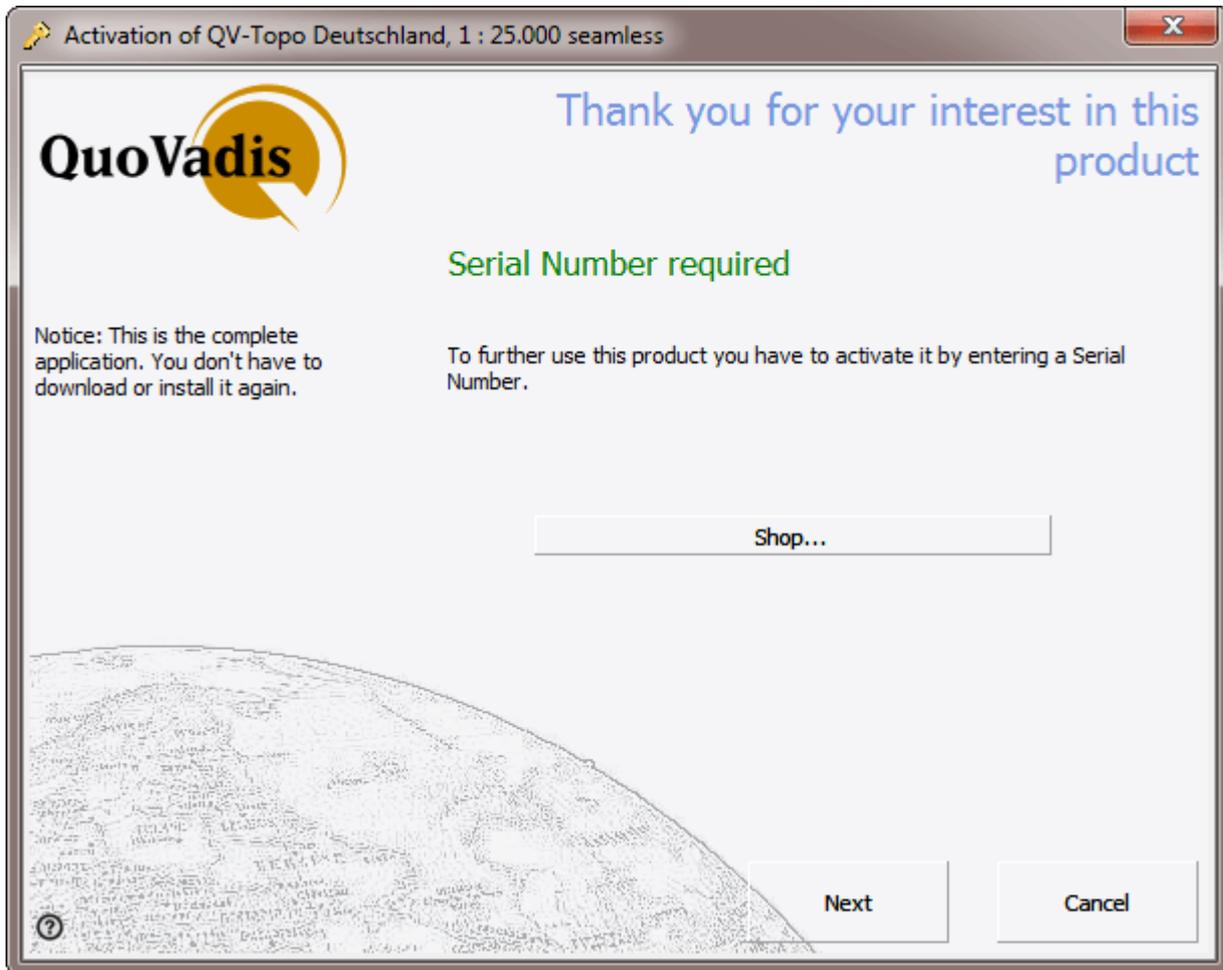
You can also use existing maps from older QV versions (see Import of existing data).

A last option is to scan and calibrate your own maps (see Calibrating your own maps). However, this option is only recommended for experienced users with this basic knowledge in cartography.

To summarize: For getting started we suggest that you use one of the maps which require minimum effort to implement them in QV.

Please also note that you require a map activation in order to be authorized to open maps which are subject of copyright protection!

When opening a map which requires a map activation, the following window will appear:



Please refer to the chapter Unlocking maps for a description on how to activate the map.

## Show maps

After a map has been imported to QV and is listed in one of the X-Plorer databases, you have several options to open a map:

- Mark the map in the QV X-Plorer and double-click. The open map assistant will open.
- Mark the map in the QV X-Plorer and click the  Show in map icon. The open map assistant will open. If you push the Ctrl button before clicking the  icon, the map will be opened in a new map window.
- Just drag and drop the map from the X-Plorer to the map window. It will automatically be plotted in 2D or 3D depending on how you have configured your map window.

The open map assistant looks as follows:



In this window you can specify how the map should be visualized. You have the following options:

#### World mode:

- Flat, 2D - Use this option if you want the map to be plotted in a conventional 2D view.
- Globe 3D - Use this option if you want the map to be plotted in real 3D. It will be projected on the digital elevation model (DEM) of the globe. It is obligatory to have DEMs installed in your QV installation! Please note that the accuracy of this 3D modelling will strongly be affected by the resolution of the used DEM. The DEM resolution which comes with QuoVadis 6 is 30" which corresponds to approx 900 m at the equator. digital elevation models with a higher resolution are available at our webshop. All QV Topomaps come with a 3" DEM (approx. 90 m resolution). Extra high resolution DEMs are available for some areas with a 25 m resolution and excellent accuracy of elevation values (data source INTERMAP®).
- Last mode - If you choose this option QV will open the map in the same style which you have been using with the last map.

#### Initial view:

- Map center - QV will initially zoom to the center of the map
- Whole map - QV will zoom to the whole map extent
- Last view - If you choose this option QV will open the map in the same way which you have been using with the last map.

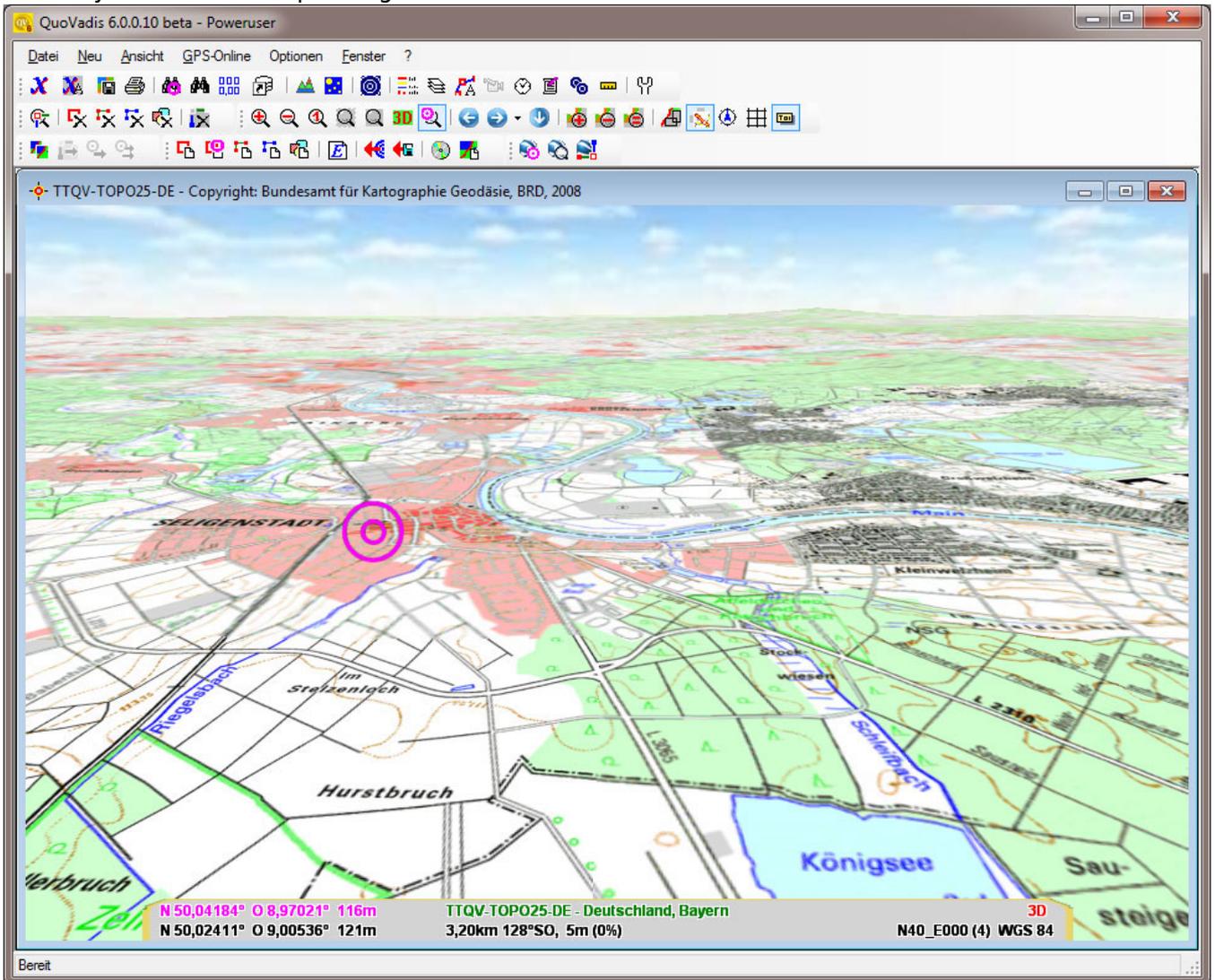
If you have more than one map window opened, you will also have the choice of one of the following options:

#### Open in which window:

- In new map window - This is the only option if no map window has been opened before.
- In current map window - This option will add the map in the currently active map window.
- Add as overlay to the current map window - In this case the map will be opened as an overlay to a map which has already been plotted in the active map window.

Important Remark:

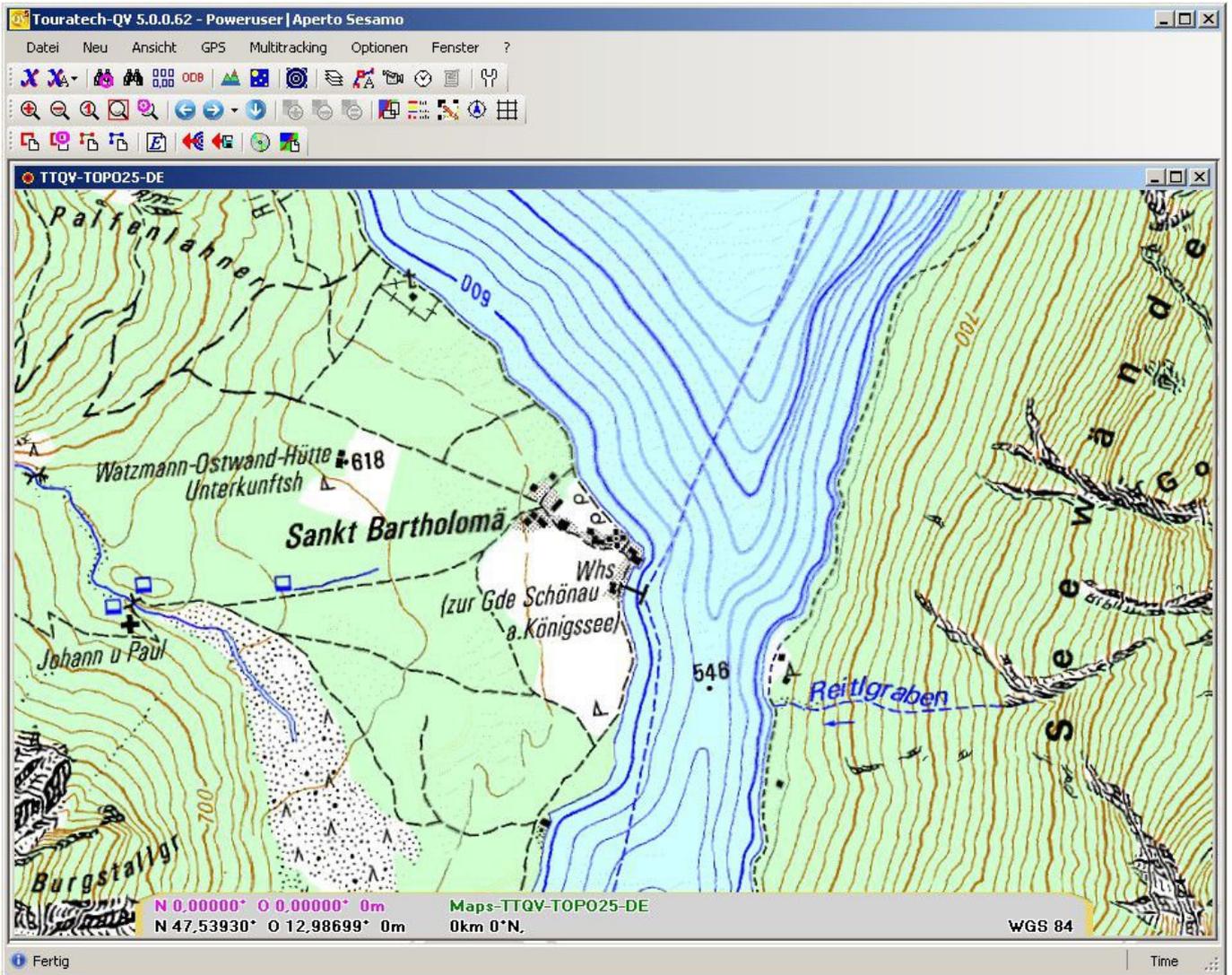
- The setting of the AutoMap mode will influence the maps which are offered when pressing the  Show in map icon. If the AutoMap function is disabled and the icon has this appearance , you will only be able to open a map which you explicitly marked. In this case just enable the AutoMap mode by click the corresponding icon until it looks like this:



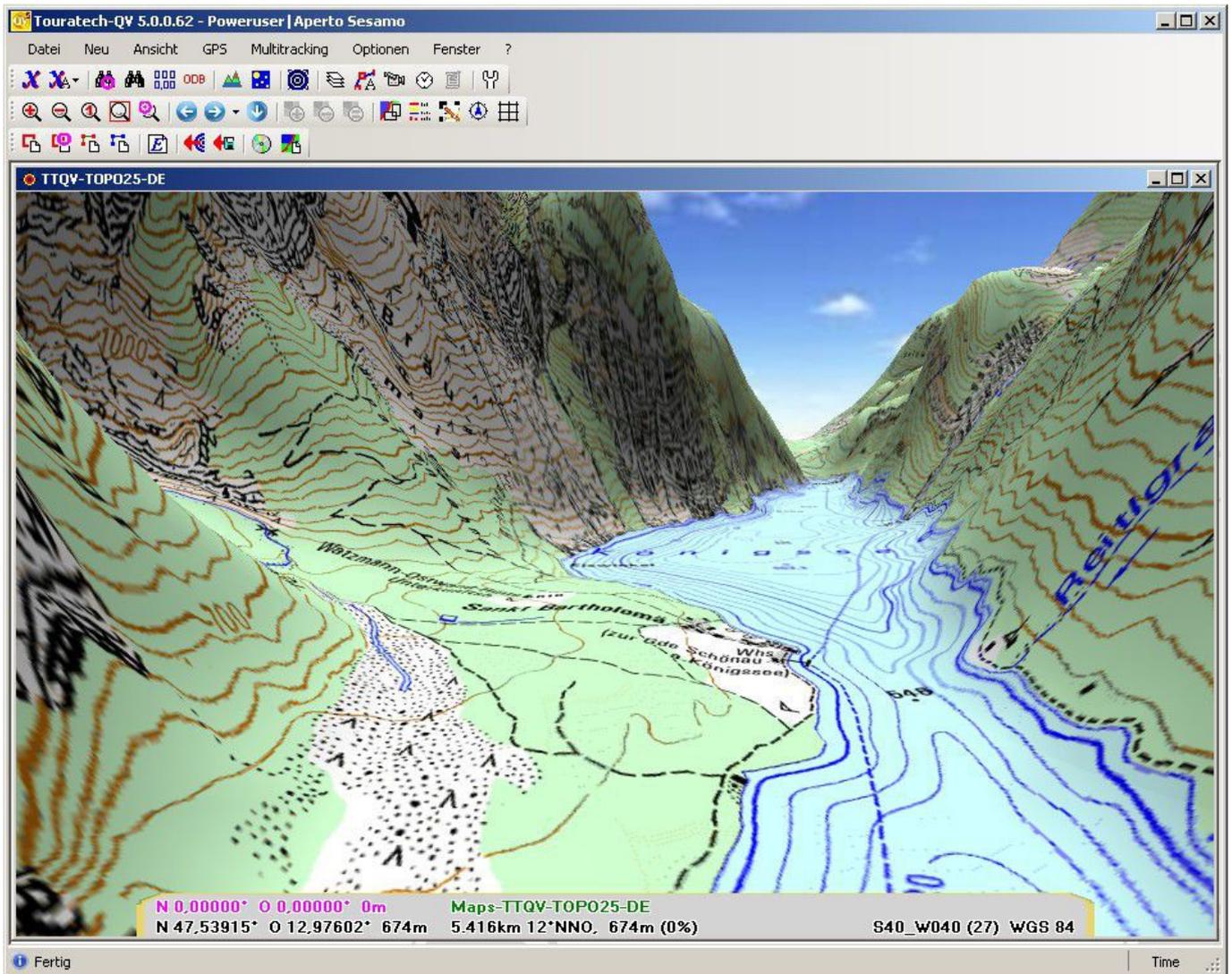
Then maps which are stored in in other databases will also be offered in the selection of maps to be opened.

Here two examples on how the Top25 Germany topomap will look in a 2D and 3D mode (2D upper, 3D lower):

Top25 Germany - 2D view



Top25 Germany - 3D view (please note that due to the limited resolution of the DEM with a 90 raster the slopes along the eastern shoreline are not perfectly modelled):



## Controlling the map perspective

In order to adjust the 3D characteristics of the 3D map window, you can use one of the following keys / key combinations and/or the mouse. Additionally the corresponding functions for the 2D window are listed:

Key / Mouse	Function in 2D window	Function in 3D window
	Pan the map to the left	Pan the map to the left (constant altitude)
	Pan the map to the right	Pan the map to the right (constant altitude)
	Pan the map downwards	Pan the map downwards (constant altitude)
	Pan the map upwards	Pan the map upwards (constant altitude)
Shift +	Turn the map contra-clockwise	Turn the camera contra-clockwise
Shift +	Turn the map clockwise	Turn the camera clockwise
Shift +	(not used)	Turn camera downwards
Shift +	(not used)	Turn camera upwards
Ctrl +	(not used)	Turn the map contra-clockwise (Cursor centered)
Ctrl +	(not used)	Turn the map clockwise (Cursor centered)

Ctrl + 	(not used)	Increase camera distance from cursor (Zoom Out)
Ctrl + 	(not used)	Decrease camera distance from cursor (Zoom In)
Page 	Zoom In	Decrease camera elevation (Zoom In)
Page 	Zoom Out	Increase camera elevation (Zoom Out)
Mouse wheel	Without additional keys: Zoom In / Zoom Out (with focus on the mouse position) Shift + wheel: Accelerate / decelerate movement Ctrl + Wheel: Move towards cursor / move towards map center	
Mouse movement	Drag with left mouse button pushed: Move map (any direction) Horizontal move with right button pushed: rotate map (relative to map center) Vertical move with right button pushed: camera tilt (NOT in 2D)	

- Using the N key you can always orient the map towards North!

Some additional remarks:

Click at any spot of the map with the left mouse button in order to place the map cursor (purple circle) at this position. The coordinates of this point will be specified in the white field of the status bar below the map window. The grey field at the left shows the coordinates of the mouse indicator which are permanently updated as you move your mouse over the screen.

In the field right of the Show in Map button the distance and direction from the map cursor to the mouse position is continually updated.

Use the horizontal and vertical windows scroll bars in order to move the map within the window. You can also drag the map within the map window by click, hold and move with the left mouse button.

Click on the  Center zoom on cursor to skip back to the cursor point from any map position.

Using one of the lens icons  /  /  /  /  (description see above), you can zoom the map to any scale or map extent. You can also select from a pop-up menu with zoom factors at the status bar below the map window or enter a specific zoom factor.

If you click on the crosshair symbol  in the status bar you can choose one from six mouse pointers in the map window: crosshair (standard size), crosshair (big rectangular shape), GPS North, magnetic North, grid and magnifying glass.

You find a detailed description of all map window options in the Map Window chapter.

## Creating and downloading of geodata like waypoints, routes and tracks

There are a couple of different categories of geodata and it is important to note their specifics and differences. So, first of all, some short definitions.

**Waypoints:** A waypoint is a unique location on the globe which is defined by its coordinates (latitude and longitude or easting and northing) and its elevation. In case an elevation value is missing, it is supposed that the point is located on the surface of the earth, so the elevation value is taken from the DEM or it is left empty. Waypoints are plotted in a map using a specific, user-derived symbol.

**Routes:** A route is a list of consecutive waypoints which are linked by a line. So each position along a line is represented by a route waypoint with its specific symbol. Usually a route is used in order to plan a trip which is later on uploaded to a GPS unit. Generally route waypoints are placed at locations where navigation decisions have to be taken (crossings) or at other important locations (restaurants, fuel stations, lodges, etc.). Intersections between route waypoints are plotted line-of-sight, so the line intersections do not show the exact course of the path but only the direction and distance to the next waypoint. A Route will only represent the real way to go if they have been calculated with „routable maps“ such as the NAVTEQ street maps with a „Routing“ or „Navi“ option.

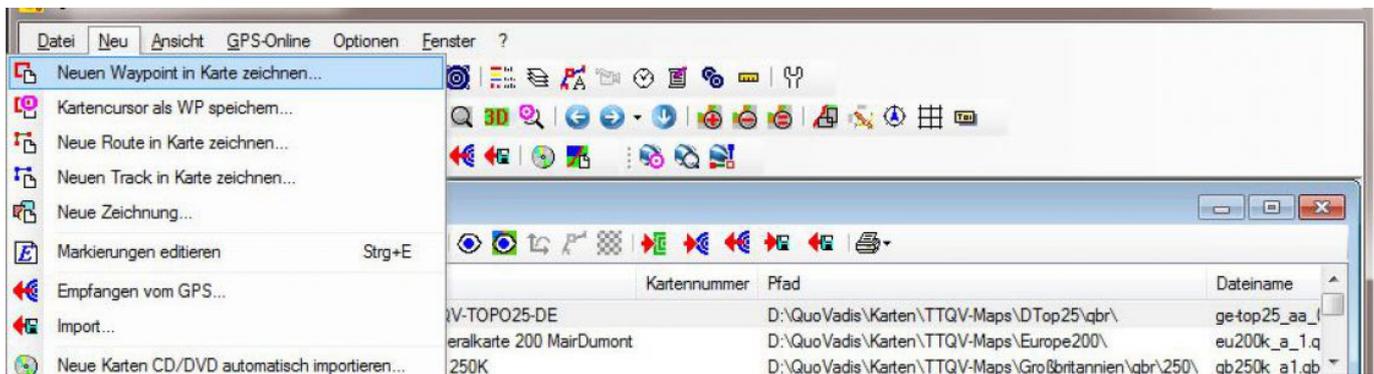
**Tracks:** Tracks are nothing more than positions (also defined by coordinates) in a ranked and numbered order. Physically they are identical with waypoints but their labels and symbols are fixed. Usually tracks represent the exact course of a path or street. They can be downloaded as „tracklog“ from a GPS unit where they have been recorded when driving/walking/hiking. However, they can also be created on the PC by simple mouseclicks and later on be uploaded to a suitable GPS. This can be a helpful option with older GPS models where tracks can contain more points than routes.

**Geocaches:** Geocaches are pretty much the same as simple waypoints but they include a couple of attributes which describe important characteristics of the „geocaches“ such as size, difficulty, suitability for families, etc.

**Trainings:** A „training“ is very similar to a tracklog recording from a GPS unit but additionally to the positions, physiological parameters like heart rate or cadence are recorded along with the track. This implies that trainings cannot be generated in the PC software, they always come from a downloaded recording of a suitable GPS unit.

## **Creating geodata**

QV4 users will find a new menu in the QuoVadis 6 main menu named „New“. This menu makes the creation of new geodata a lot easier! It also facilitates the access to functions which are required on a regular basis like downloading of geodata from a GPS or importing of a new map.



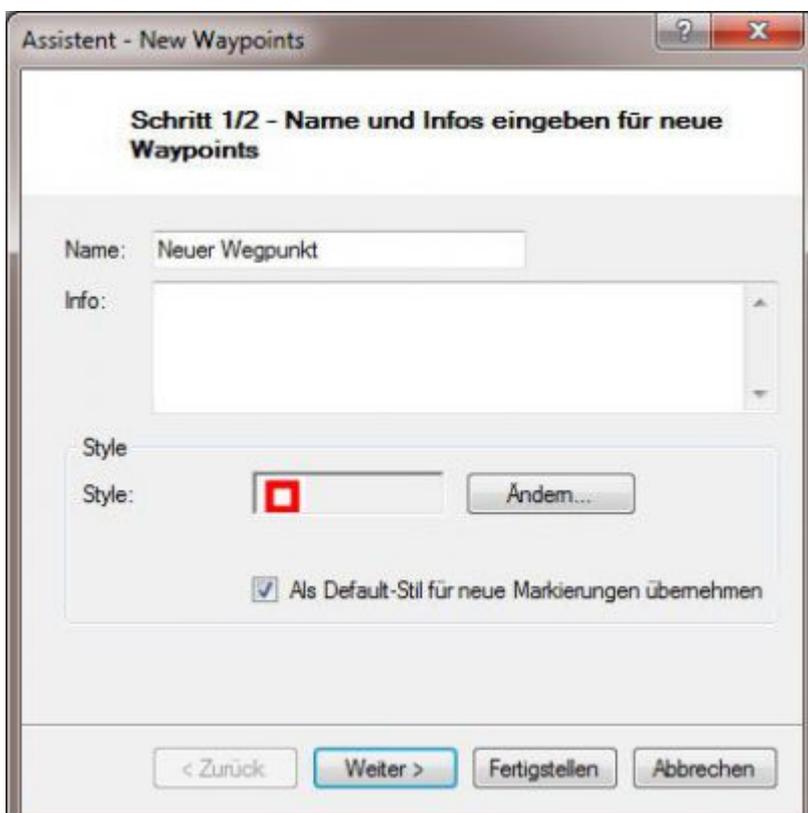
Important remark:

Generally we recommend to use a 2D map window to create geodata because the positions can be defined more accurately. For controlling the positions in a threedimensional context, you can switch to the 3D map window after the geodata have been created.

## Creating a waypoint

The easisest option is to save the actual cursor position as waypoint. This function is directly available in the Drop-down list of the New menu. You will also find the New waypoint option in this menu.

An assistent will open to guide you through the steps of this function:





So this is how you proceed:

1. Open a map of your choice which is best suited for creating the waypoint.
2. Choose New > New waypoint; the New waypoint assistant will open (see fig. above left). In this window you can define a name for the waypoint („new waypoint“ is the default). You can also change the waypoint symbol by clicking the Change button in the lower part of the window. Then continue with Next.
3. The second window of the assistant will open (see fig. above right). As default „Save in QV-Data\My Data\My Waypoints“ is activated. Use this option in case you agree with the destination where QV will create the waypoint. If you want to choose another destination click „Select table from list“ and specify in which database and waypoint table you want the waypoint to be created. Confirm your setting with Finish. Finally switch to the map window and create the new waypoint by a simple left click with your mouse at the position where the waypoint should be created. The coordinates will automatically be defined through the calibrated map. In case you have not had a map opened before, QV will ask you to open a map from a suggested list. The maps which are listed are defined by your Automap settings.

## Creating a route

Some theory and practical aspects first:

As described above, a route is a list of waypoints, connected in a specific order and is usually used in order to plan a tour. When a route has been created in the PC and has been uploaded to a GPS-receiver, the GPS unit will compare its own position with the next waypoint of the planned route and will guide you to this destination. It is important to distinguish in this context whether we are talking about line-of-sight navigation or a navigation along routable maps. In case of tour planning off the public street network, most GPS units will use conventional line-of-sight navigation showing the direction and distance along the beeline usually with a compass as navigation aid. If you reach the

first waypoint, the GPS-receiver will automatically skip to the next one of the route and so on.

However, some sophisticated GPS units will allow for autorouting capabilities in case topomaps with autorouting functionality are installed. The same holds true for navigation along the public street network. For most GPS units autoroutable street maps are available or already installed on the GPS units.

Whether you are using GPS units with routable maps or not, this will not have a big influence on route planning with QV. Just open a map which is best suited to provide you with the kind of details you need for planning your tour in the way you like. Then define the route waypoints (e.g. starting point, crossings, places for breaks, fuel stations, points for spending the night, etc.) and finally upload the route to your GPS unit.

However please note, that in case of autoroutable maps installed in your GPS unit, your GPS will guide you according its own intelligence from point to point (for example along the shortest or quickest path). So it is of high importance how you define your route waypoints (i.e. your „stop-over-points“).

If you want to „force“ your GPS unit to calculate the route along the path you originally intended, we highly recommend to insert some extra stop-over-points on the intersections between your route waypoints. If you place route waypoints only at junction points, your GPS unit has the option to calculate the route through different paths. As soon as you define an additional stop-over point in the middle of the intersection you really want to use, your GPS unit won't find an alternative to the way you really wanted to go!

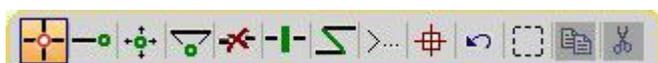
No matter if you will follow your route conventionally or with dynamic autorouting: By an intelligent planning of a route on your PC at home, you can later on find the best way out in the real world by foot, using a vehicle, a boat or plane. Your GPS unit will exactly lead you to the waypoints which you defined on your map with the PC.

This is how you proceed:

1. Open a map of your choice which is best suited for planning your tour.
2. Choose New > New route; the New route assistant will open (see fig. below left). In this window you can define a name for the route („new route“ is the default). You can also change the route style by clicking the Change button in the lower part of the window. Then continue with Next.
3. The second window of the assistant will open (see fig. below right). As default „Save in QV-Data\My Data\My Routes“ is activated. Use this option in case you agree with the destination where QV will create the route. If you want to choose another destination click „Select table from list“ and specify in which database and route table you want the route to be created. Confirm your setting with Finish. Finally switch to the map window and create the new route point by point by simple left clicks with your mouse at the positions where the route waypoint („stop-over points“) should be created. The route waypoints will be numbered from RWP1 to RWPn. The coordinates will automatically be defined through the calibrated map. In case you have not had a map opened before, QV will ask you to open a map from a suggested list. The maps which are listed are defined by your Automap settings.



QV will automatically switch to the Edit mode when creating geodata. This is indicated by the Edit Toolbox which will be docked to the top of the map status field:



For further advice please refer to the chapter Creating and Editing Geodata.

When your new route is finished your, the map window will look similar to this:

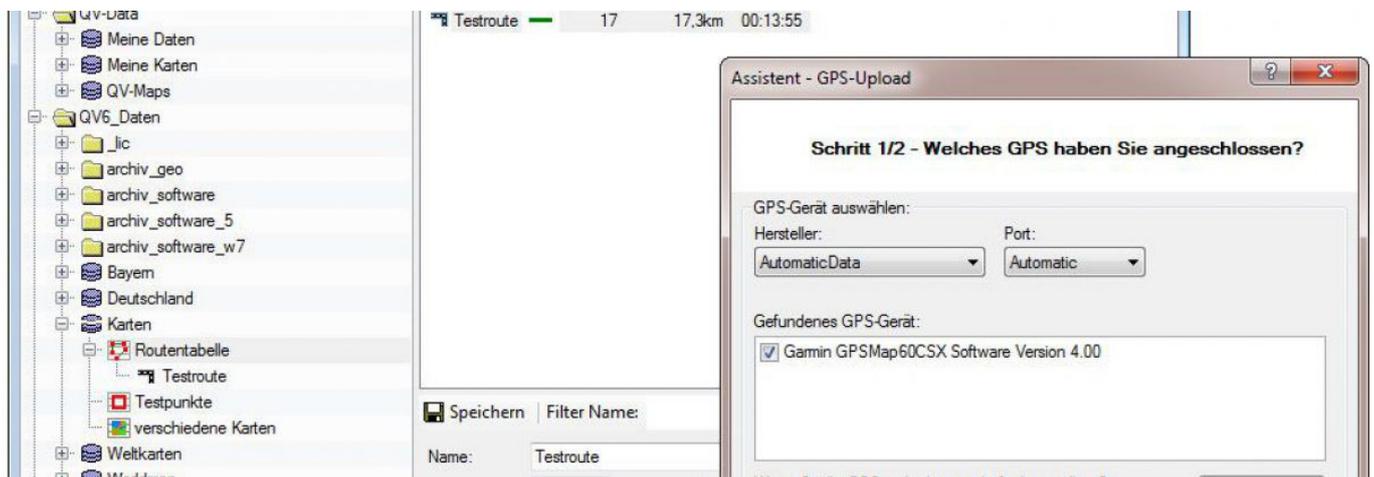


### 3.5 Uploading a route into your GPS unit

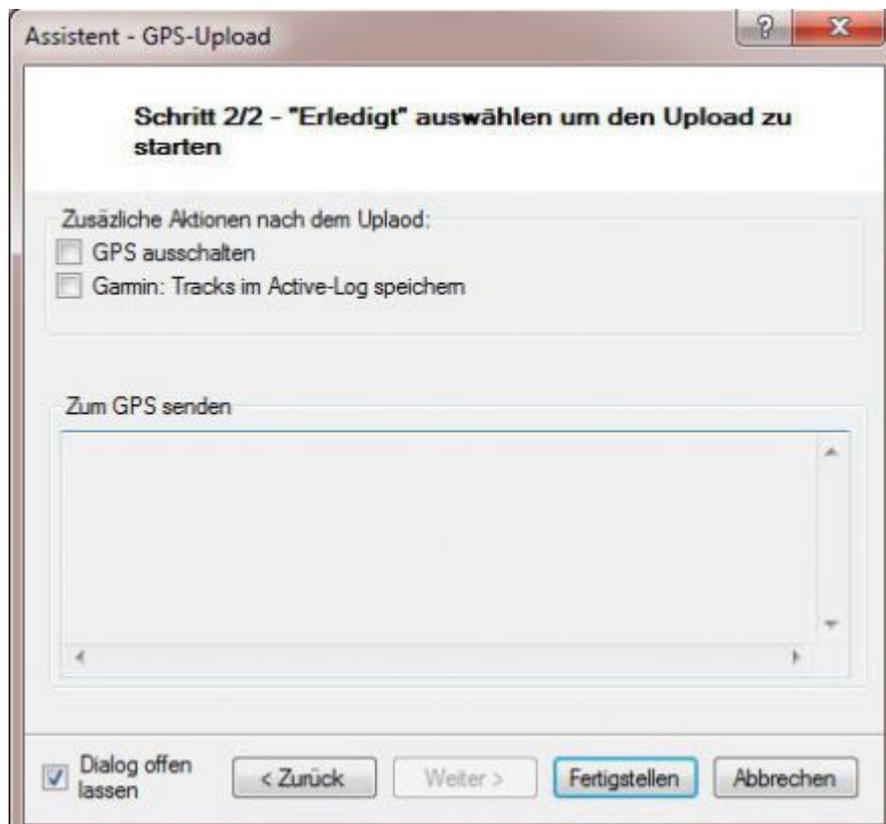
Connect your GPS with the serial or USB cable with your PC and switch it on. You have to configure the interface to your GPS unit once in order to enable data communication. Most GPS units will be identified automatically when clicking the Send to GPS  or Receive from GPS  icons. For further advice please refer to the chapter Connecting your GPS to a PC.

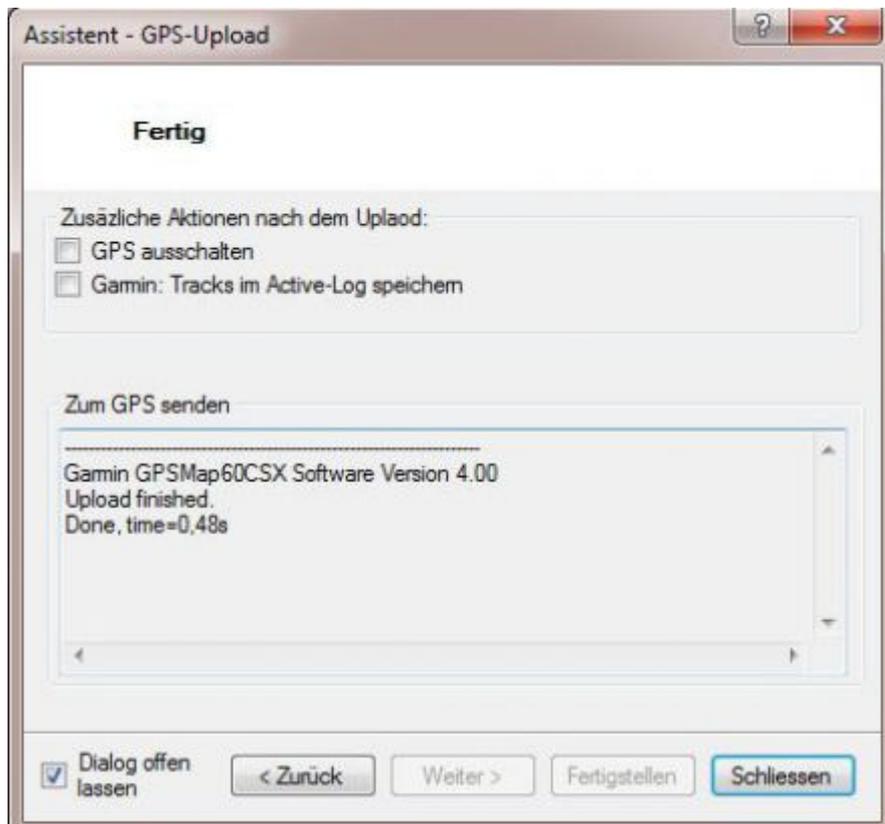
This is how you proceed:

1. Open the QV X-Plorer by clicking on the .
2. Mark the route(s) which you want to upload (see below).
3. Click on the Send to GPS  icon. The GPS Upload assistant will open.
4. In the first window (below right) QV will list the detected GPS unit(s) and the corresponding Ports. If more than one GPS unit is connected, you can choose from various brands or ports, or trigger an automatic scan through the Find GPS button. Simply tickmark one of the listed models.
5. Continue with Next or directly start the export by clicking Finish.



- If you continue with Next windows 2 and 3 of the assistent will open. Currently window 2 (below left) only allows to activate an additional option. In window 3 you can specify if the GPS unit should be switched off after the upload has been finished.





- The Upload process will be visualized by a progress bar (see description below under track download). When the data upload is finished, window 4 of the assistant will be updated and show a summarizing message about the uploaded data.

## Download of a track from your GPS unit

As described above, a track is also a set of points in a specific order. However, in contrast to a route, the trackpoints are not named but only consist of geographic coordinates. Most GPS-units feature an automatic logging of trackpoints. Please note that some GPS units will store additional information on time/date or altitude. If available, these data will also be downloaded to QV and can be analyzed. These tracklogs can later on be downloaded and stored in QV. Thus, you can document on any suitable map where you have been and also when.

You can also express it in another way: The route is the theory of where you wanted to go and the track is the reality about where you have really been.

Please note that some GPS units will store additional information on time/date or altitude. If available, these data will also be downloaded to QV and can be analyzed.

This is how you proceed:

You have two options to download data from your GPS unit:

- a) You click on the Receive from GPS icon  in the X-Plorer.
- b) You select New > Receive from GPS

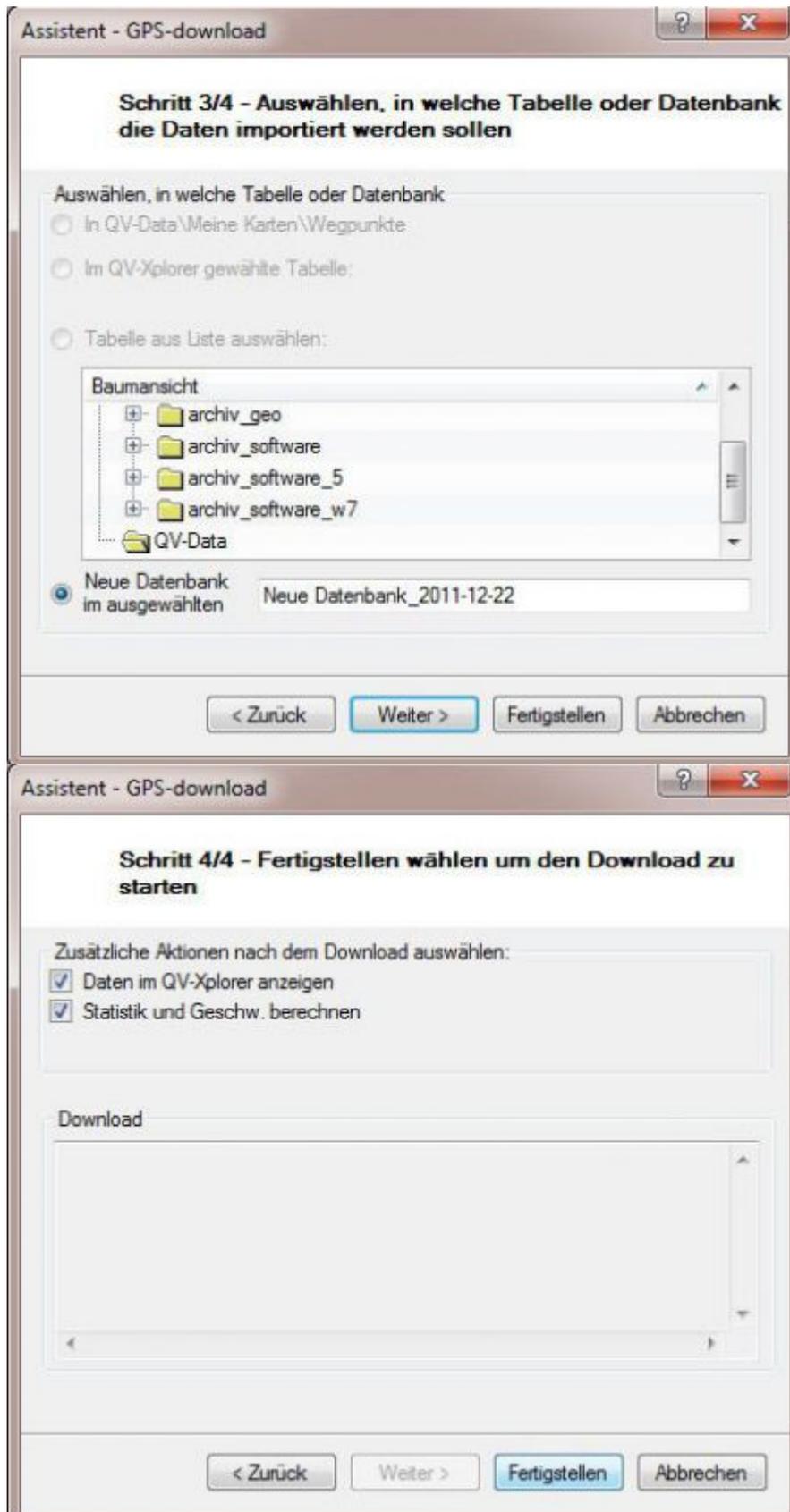
In both cases, the GPS Download assistant will open (see below) and guide you through the required

steps and settings:



In the first window (above left) QV will list the detected GPS units and the corresponding Ports. If more than one GPS unit is connected, you can choose from various brands or ports, or trigger an automatic scan through the Find GPS button. You can also simply tickmark one of the listed models and click Next.

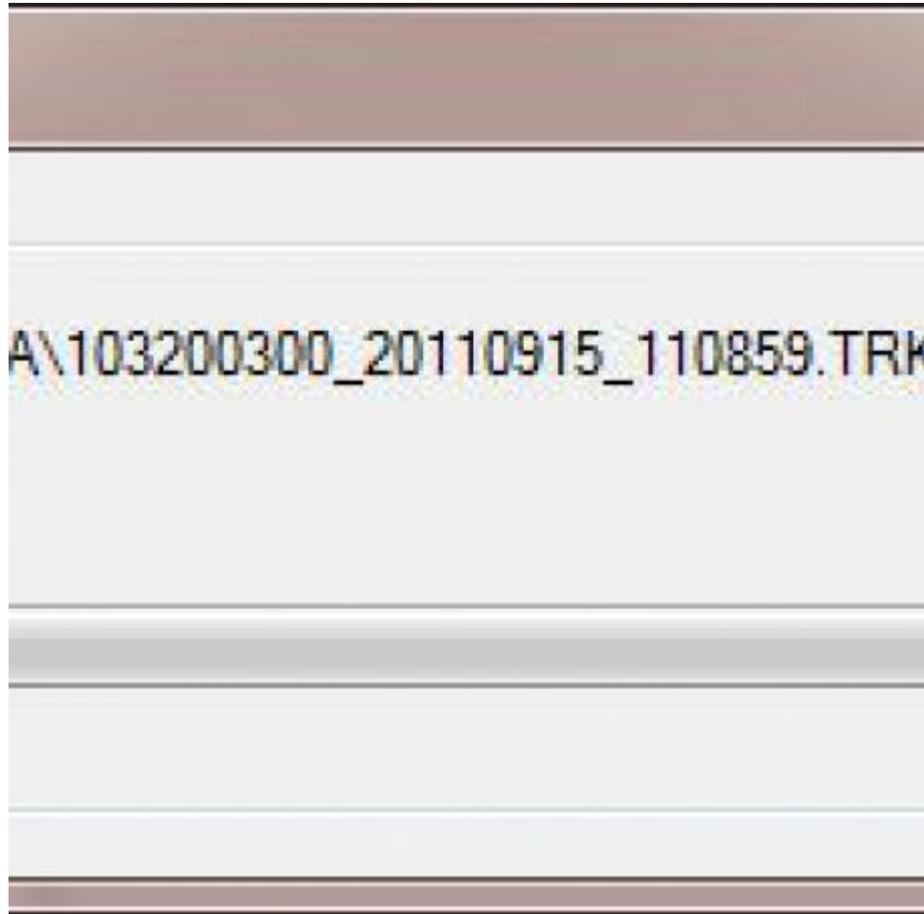
The second window of the assistant (above right) you can select which kind of data you are interested in. Choose at least one category, however you can also tickmark all categories which are active.



In the third assistant window (above left) you can choose the destination where the data will be stored. In cases where several data categories are imported, QV will usually suggest to import all data to a new database. The default name will be derived from the date, e.g. New Database\_YYYY-MM-DD where YYYY represents the year, MM the month and DD the day of the month. Continue with Next.

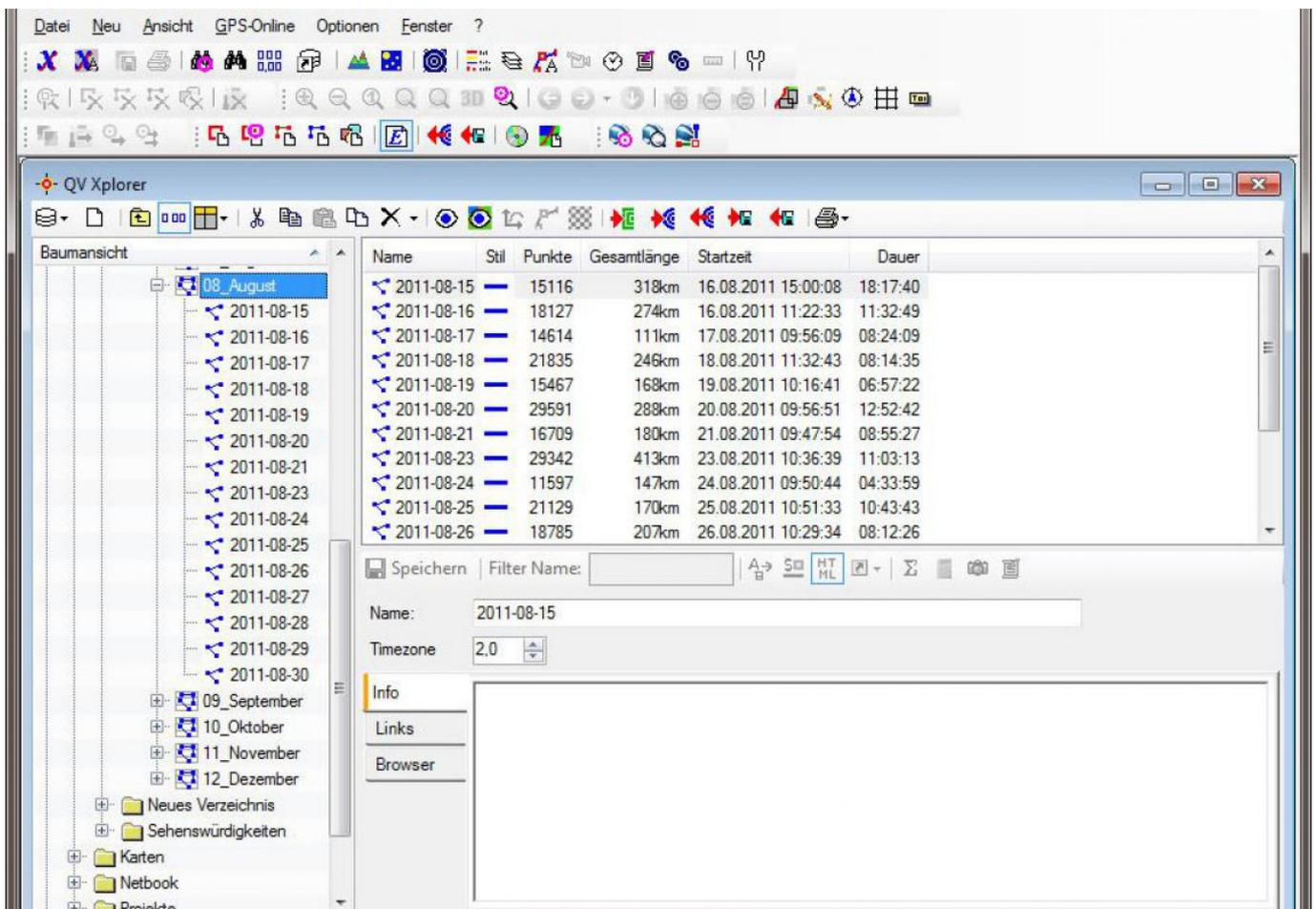
Finally you can choose in the fourth assistant window (above right) what you want to see after the data import has finished. The options are Show data in map and/or Show data in X-Plorer. Then click Finish.

All selected data will then be imported and you will see a progress bar (see below left). Please also note that, according to the amount of data stored in the GPS unit, this might take quite a while. When the data import is finished, you will also get a summarizing message (see below right):





After the download is completed, the corresponding tracktable will look similar to this example:



You can also double-click a tracklog of your choice to see all individual trackpoints listed:

Position	FP	Breitengrad	Längengrad	Datum, Zeit
1	<input checked="" type="checkbox"/>	N 49,10951°	O 8,46766°	16.08.2011 15:00:08
2	<input type="checkbox"/>	N 49,10951°	O 8,46766°	15.08.2011 15:00:08
3	<input type="checkbox"/>	N 49,10950°	O 8,46766°	15.08.2011 15:00:10
4	<input type="checkbox"/>	N 49,10950°	O 8,46766°	15.08.2011 15:00:11
5	<input type="checkbox"/>	N 49,10950°	O 8,46766°	15.08.2011 15:00:12
6	<input type="checkbox"/>	N 49,10951°	O 8,46766°	15.08.2011 15:00:13
7	<input type="checkbox"/>	N 49,10953°	O 8,46767°	15.08.2011 15:00:14
8	<input type="checkbox"/>	N 49,10954°	O 8,46767°	15.08.2011 15:00:15

## Visualize a Track

To visualize a track just mark the track(s) of interest with a left mouse click in the track table listing (to mark multiple tracks use Ctrl + mouse-click) and then click the Show in map icon .

The Show in map assistant will open (see below):

**Assistent - Show in map**

**Step 1/2 -**

AutoMAP:  All Map Tables

Kartenausschnitt auf Markierung verschieben:  No  Erster Punkt  Alles

these maps were found showing your selected data: 37 maps found

Relevance	Scale	Name	Source
100%	-	GoogleMap	
100%	-	GoogleSatellite	
100%	-	GoogleLabels	
100%	-	GoogleTerrain	
100%	-	GoogleHybrid	
100%	-	OpenStreetMap	
100%	-	OpenStreetDsm	
100%	-	YahooMap	
100%	-	YahooSatellite	

Keep dialog open

< Zurück Weiter > Fertigstellen Abbrechen



In the first window of this assistant (above left) a selection of suitable maps is listed. Please note that the selection of maps is influenced by your Automap setting (see below).

Just choose the map of your choice, define if you want the map to be centered and zoomed on the track (with the options to center on the first point or the entire track) and then click Next.

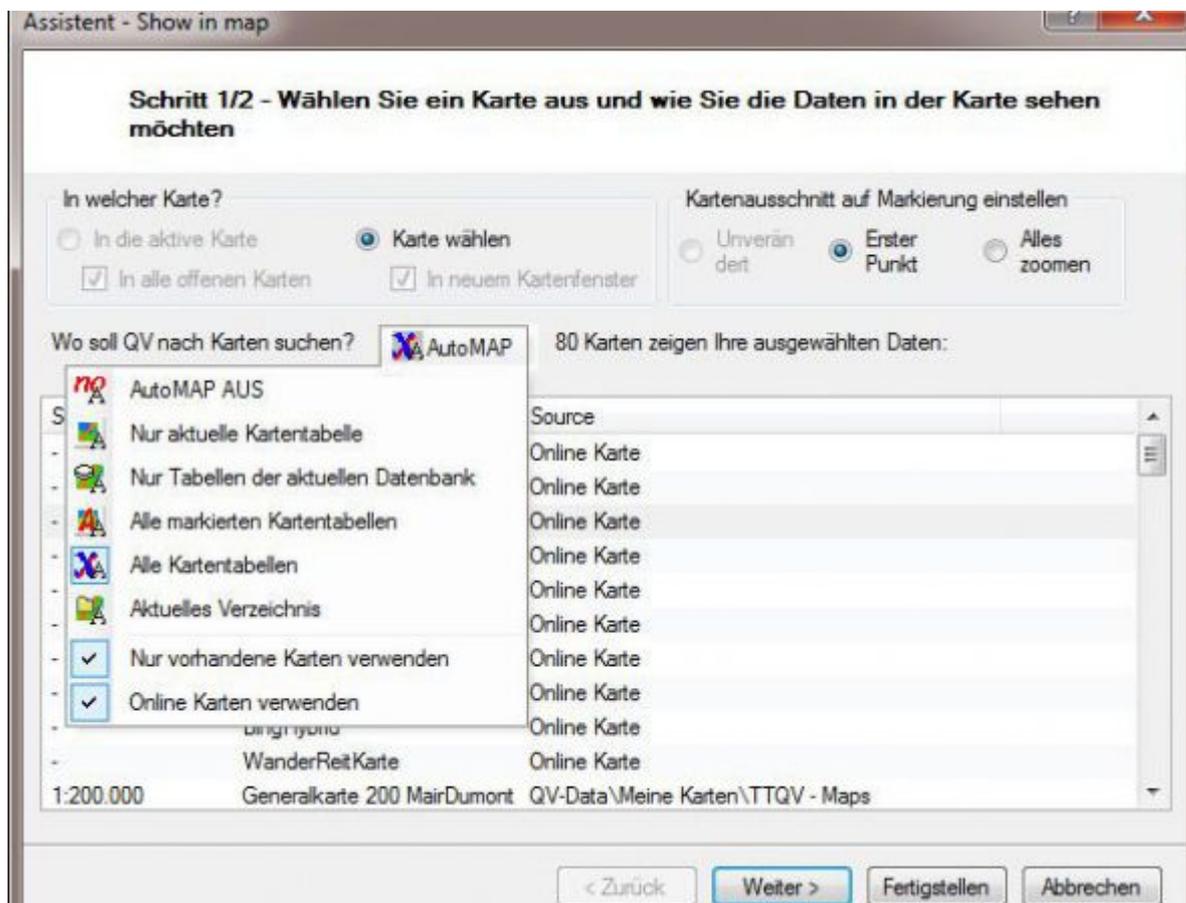
In the second window of the assistant (above right) you can define in which style the map should be plotted. The options are Flat, 2D or Globe, 3D. You can also choose Last mode. The function Activate map window is enabled by default and will automatically switch to the map window. Confirm with Finish in order to see the track(s) plotted on the selected map.

If a suitable map is already open, you can also just drag-and-drop the track(s) into the map window. If you double-click on a tracklog of your choice, all individual trackpoints are listed. Thus you can also show single trackpoints.

The visualisation of other geodata works in the same way. For further details please refer to the chapter Displaying geodata.

## AutoMap-settings

The Automap function is a highly efficient tool to keep the perfect overview in cases where many different maps of various sources are installed in QV. You will find it in the first window of the Show in map assistant or by clicking the corresponding icon in the Standard toolbar :

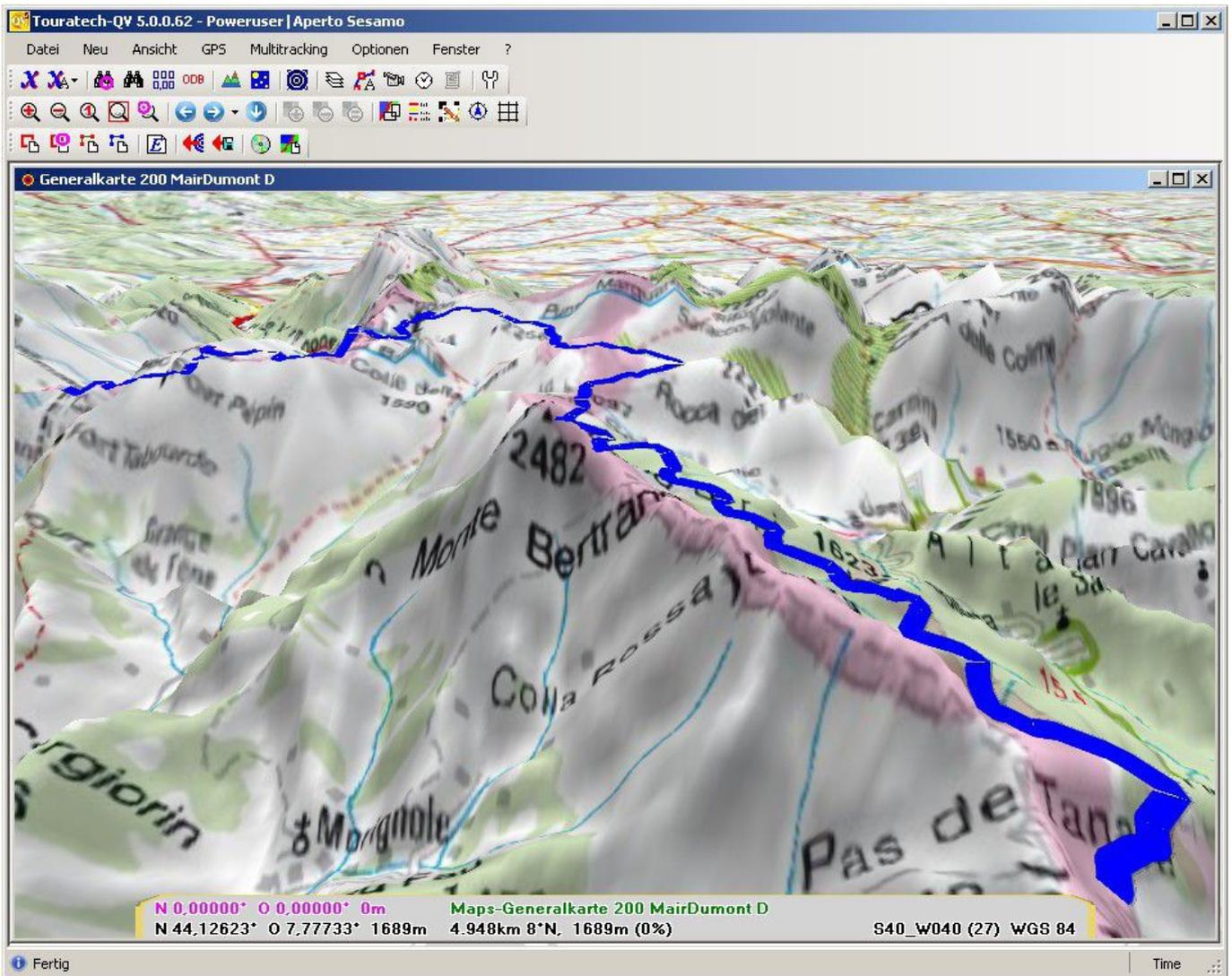


Using the AutoMap setting you can define which maps will be listed for visualizing geodata. The following settings are available:

- AutoMap off: Use only the map which is open.
- Just current Map Table: Only the maps of the currently marked map table are listed.
- Just Tables of the current Database: Only the maps of map tables in the currently marked database are listed.
- All marked Map Tables: Only the maps of currently marked map tables are listed.
- All Map Tables: All available maps are listed without regard if they are presently marked or available.
- Only existing maps: In this case only maps are listed which are currently available (for example maps which are stored in currently unavailable external drives or an unavailable LAN will not be listed)

## Controlling the style of a trackplot

As described above all you have to do to visualize a track is to mark it and click the Show in map icon  or to drag-and-drop it from the X-Plorer into an open map window. Following you find an example showing a part of the Ligurian borderline street in a MairDuMont general map (1 : 200.000 scale):



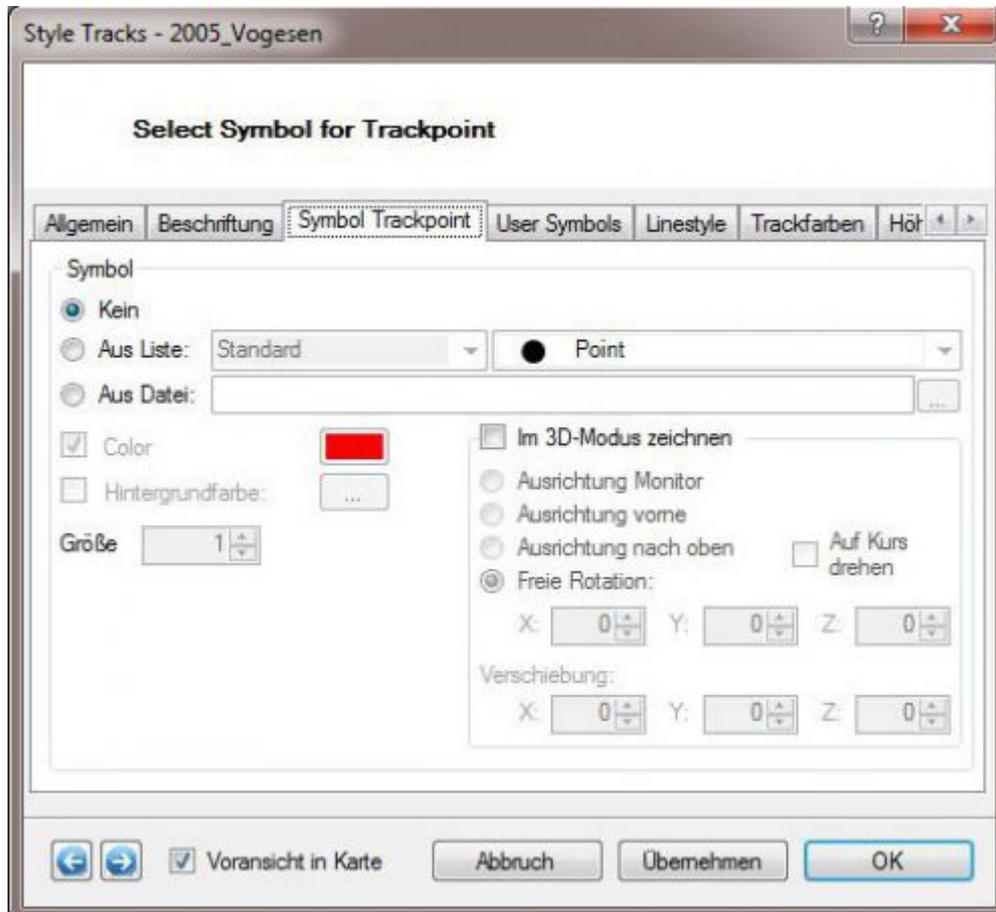
There are several options to modify the visualisation style of a track. Right-click on the track and choose Style or mark the track in the X-Plorer and click the  icon.

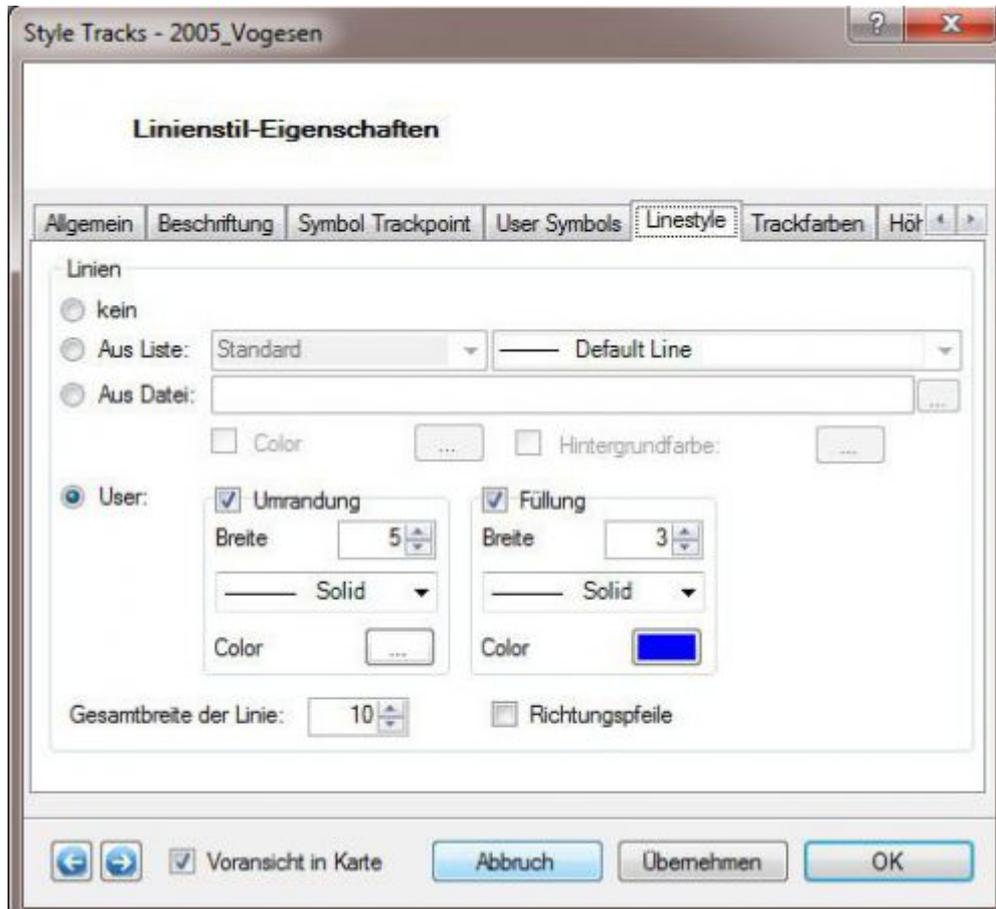
A Track Style Window will open with separate tabs for modifying various characteristics:



Through the General tab (above left) you can specify if a track should only be visualized in a certain scale range. Clicking the Current Scale button, you can copy the scale corresponding to the actual zoom setting into the input field. You can also enable or disable a Preview in map option on this tab. Finally you can reactivate factory default settings through the Defaults button.

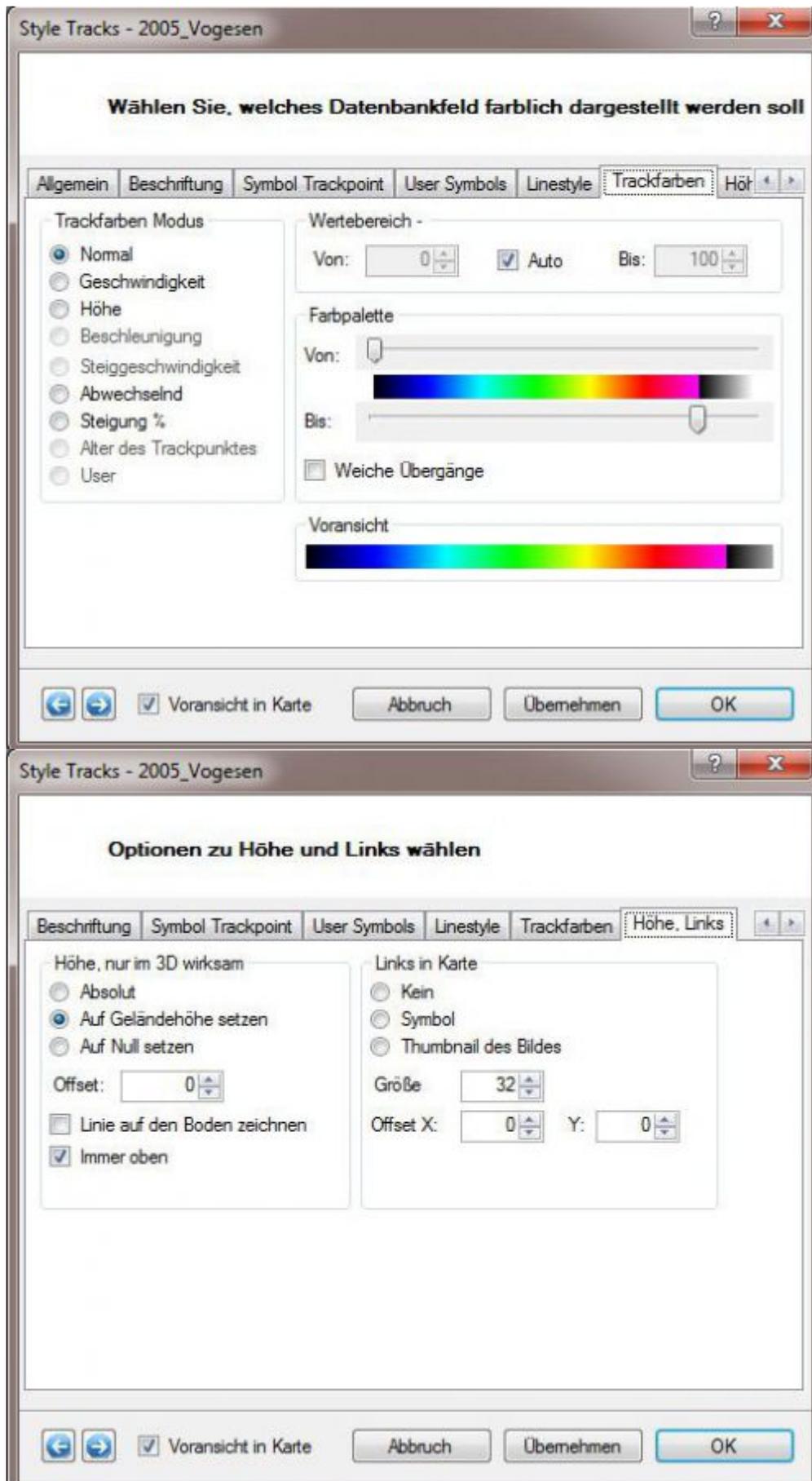
Through the Label tab (above right) you can specify several parameters which influence the style of the track labelling like font, size and color, text background color and placing and alignment of the text. You can also select which kind of information should be plotted as track label. These are the options: Name, Coordinates, Date, Description, Altitude, Distance/Course.





On the Symbol Trackpoint tab (above left) you can specify if trackpoints should be plotted and, if so, in which which symbol, colors and size. You can also specify how a symbol should be projected in the 3D mode and if you want to apply a rotation or translation to the symbols.

On the Linestyle tab (above right) you specify the line type, color and line with (separate for outline and filling). You can also disable that tracklines are being plotted.



Select normal on the Trackcolors tab if you want the trackline to be plotted in the color which you specified in the Linestyle tab.

If you want the trackline to be colorcoded according to Speed, Altitude, Acceleration, Vertical Speed,

Slope or Age of the trackpoint, tickmark the corresponding option.

You can also choose an alternating or user-specified colour coding. The color spectrum which you want to use is defined by the two sliders below the color range bar. In the fields above the color bar, please enter the Minimum and Maximum values you want to use. If you enable the Auto function, QV will automatically define adequate settings for the Min. and Max. values. If you want smooth color gradients, just enable the corresponding function.

The last tab of the Track Style Window summarizes options related to Altitude in the 3D mode and to Links which can be attributed to the track.

Concerning altitude, you can assign the track to sealevel (Down to zero), stick it to the ground surface (Clamp to ground) or plot the track according to the measured altitude value of the GPS unit (Absolute).

Under Links in map, you can link symbols or photos to trackpoints and define a size and an offset for their placement relative to the corresponding trackpoint.

## Track-Replay

QV features an animated track-replay function which allows for a replay of the track directly on the map in real time or fast motion.

- Click with the right mouse button on the track name and choose Replay from the pop-up menu:



- The track-replay window will open which consists of a tachometer, a watch, an altimeter and a couple of buttons to control the replay: start, fast-forward, pause and stop and record.
- Click start and watch the arrow follow the track on the map.
- With the speed indicator bar you can control the speed of the replay function, ranging from real time (left) to 1000 x fast motion (right).
- To stop the replay just close the track-replay window.

## Archiving geodata in the database

With the X-Plorer, QV comes with a very powerful tool for organizing your geodata efficiently, simple and safe.

Although you already learned in this chapter how to import, store, plot, print and replay a track at any time, we would like to focus here on how to organize your valuable geodata optimally.

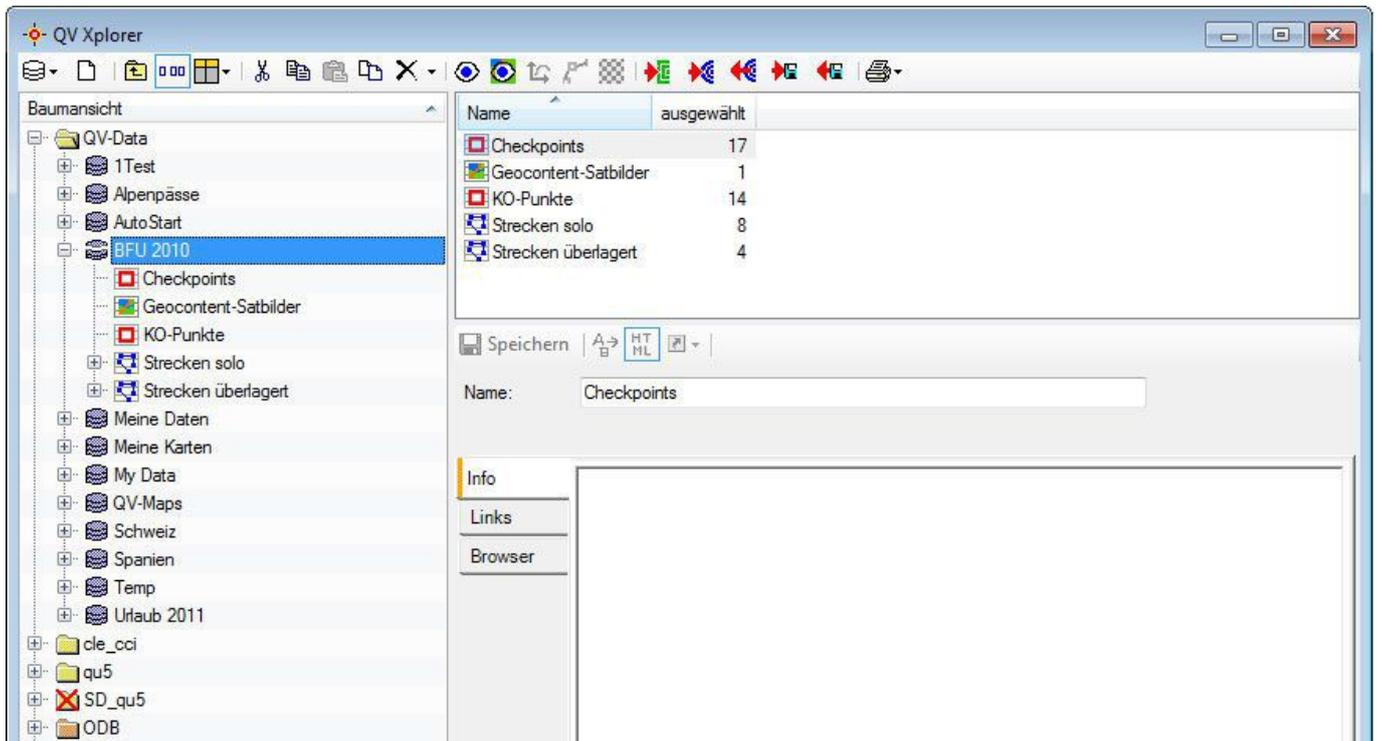
If you take a little care on this, you will soon discover that using your geodata will be much more comfortable and time for searching is significantly minimized.

The X-Plorer provides all options for organizing your data in an optimal way:

- You can create as many databases as you like. These databases contain of several tables in which elements of a given geodata type are stored (i.e. Waypoints, tracks, routes, etc.). Thus, databases are hierarchically structured and represent the data category which is also physically stored on your harddisk in a certain directory.
- Sie können beliebig viele Datenbanken anlegen. Jede Datenbank enthält verschiedene Tabellen, die wiederum Geodaten einer bestimmten Kategorie enthalten. Eine Datenbank ist also hierarchisch strukturiert und stellt diejenige Ebene dar, die auch physicalisch als Datei auf der Festplatte Ihres PCs zu finden ist.
- In any database you can create as many map, waypoint, track, route, geocaching, training and drawing tables as you like.
- Additionally you can create project tables which include all corresponding maps and geodata of a given project including the layout, and search tables for storing search requests in order to repeat a given set of search criteria at any time.

The question on how to organize your data in an optimal way is mainly the question on how to organize your geodata according to a systematic order. Such a systematics can be based on geographic categories, certain events or chronology. It can also make sense to organize your maps according to geographic criteria, e.g. Africa, America, Asia, Europe or Scandinavia, Central Europe, Iberian Peninsula, Eastern Europe, Balkans, etc. but organize your geodata according to events, e.g. Bavarian Alps 2006, Slovenia/Croatia 2007, Lybia 2008, Great Britain 2009, Transsyberia 2008, Black Forest Ultra 2010, etc.

You find an example of such a database below:



In order to reorganize your data, open the X-Plorer by a clicking on the

**N 50,04184° O 8,97021° 116m**

**TTQV-TOPO25-DE - Deutschland, Bayern**

**2D 87% I=1**

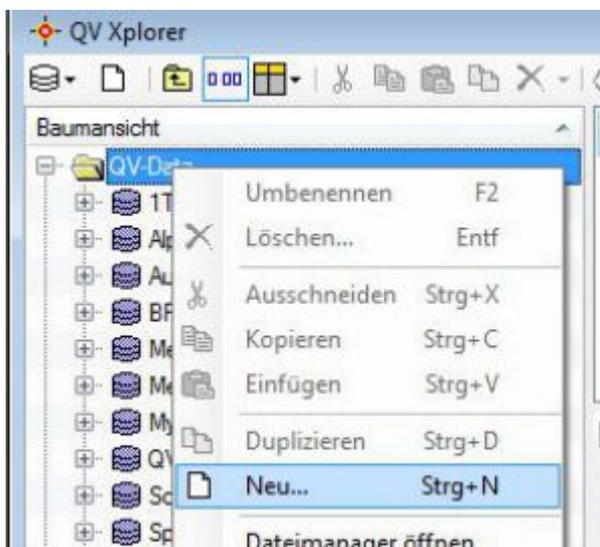
**N 50,02866° O 8,98706° 119m**

**1,90km 141°SO, 3m (0%)**

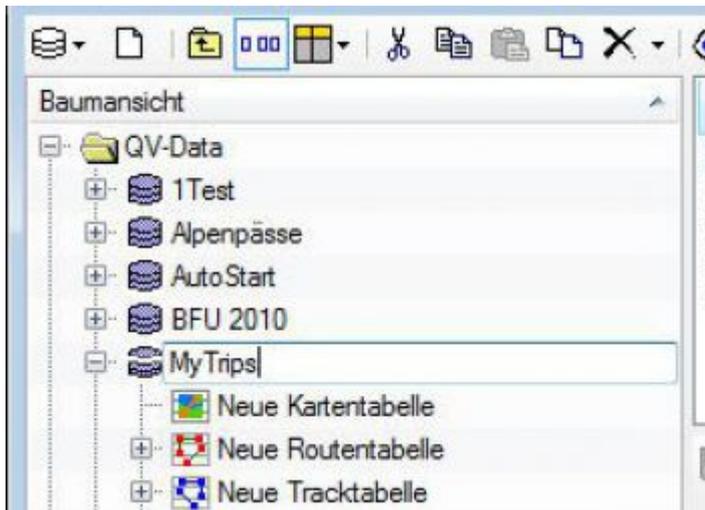
**N40\_E000 (4) WGS 84**

icon in your symbol bar of the main window.

Then right-click mouse button on the QV Data directory and choose New Database from the pop-up menu:

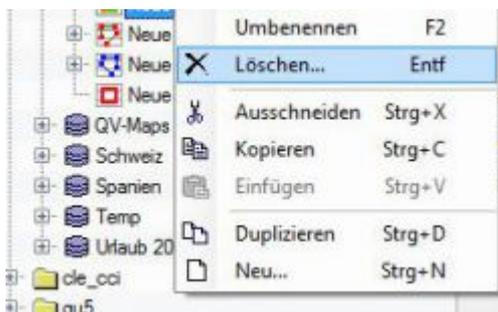


QV will create a new database with the default name New Database which will be listed in the X-Plorer tree window at the adequate place. You can also directly rename the new database. Push the Enter button of the keyboard in order to confirm the name:



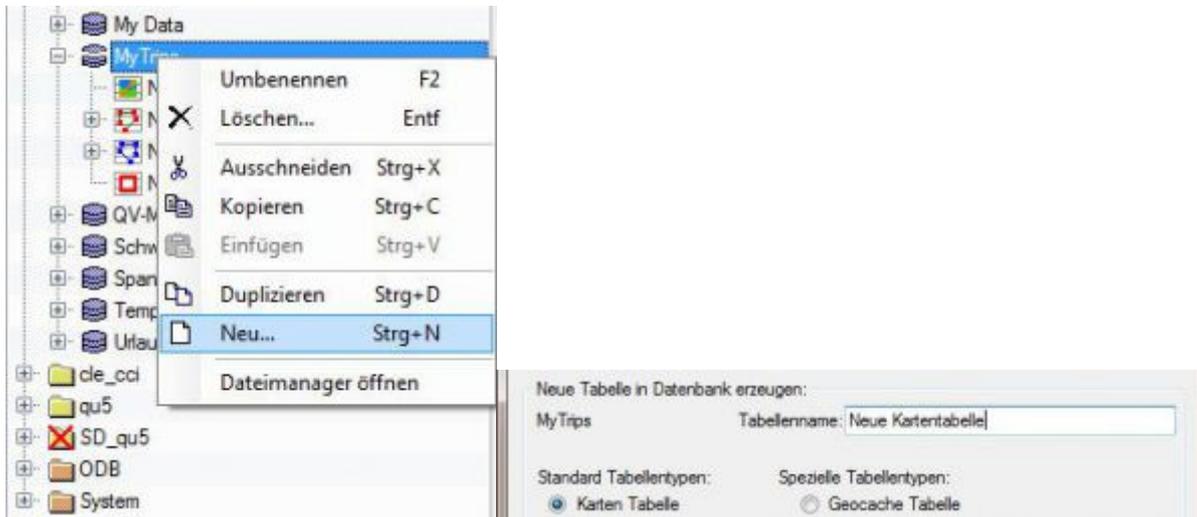
If you click on the small [+] icon besides the name of the database, the content will be listed. You will recognize that empty tables for all geodata categories have been inserted automatically, e.g. a map table, a waypoint table, a track table, a route table, a Geocaching table, a Training table, a Drawing table, a Project table and a Search table.

If a database is intended to store only geodata of certain categories, just delete the tables which you do not need. For this purpose simply right-click on the corresponding table(s) and choose Delete from the pop-up menu. Confirm the following security check with Yes.



If you would like to rename any of the created tables, right-click on the table and choose Rename from the pop-up menu. Specify the new name and confirm with O.K.

If you need more than one table of a given category in the same database, right-click on the database and choose New Track Table in case you want to create an additional table for tracks.

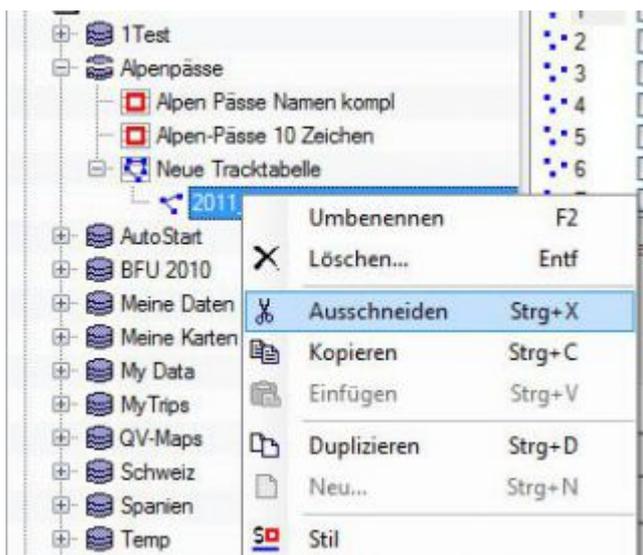


Important Remark:

Please note that you **MUST** always use tables of the adequate categories in order to import, create or save your geodata, i.e. waypoints only in a waypoint table, tracks only in a track table, routes only in a route table, etc.!

When reorganizing your data you will wish to move tracks or even whole tables from one database to another. You can achieve this very simply by a drag-and-drop operation where you just drag for example a given track from one track table to another. Or you do the same thing with a complete track table which you can drag from one database and just drop it at another database of your choice.

You can also right-click on the element that should be moved and select Cut from the pop-up menu. Then move to the target database and table where the element should be inserted, right-click on it and choose Insert from the pop-up menu. An example is given below:



The screenshot shows the X-Plorer software interface. On the left, a tree view displays a database named 'QV-Data' with several sub-databases: '1Test', 'Alpenpässe', 'AutoStart', 'BFU 2010', 'Meine Daten', 'Meine Karten', 'My Data', and 'MyTrips'. On the right, a table displays a list of waypoints. Each row includes a number (1-9), a checkbox, a latitude coordinate (N 49,10951° to N 49,10954°), a longitude coordinate (O 8,46766° to O 8,46768°), and a timestamp (15.08.2011 15:00:08 to 15.08.2011 15:00:16).

1	<input type="checkbox"/>	N 49,10951°	O 8,46766°	15.08.2011 15:00:08
2	<input type="checkbox"/>	N 49,10951°	O 8,46766°	15.08.2011 15:00:09
3	<input type="checkbox"/>	N 49,10950°	O 8,46766°	15.08.2011 15:00:10
4	<input type="checkbox"/>	N 49,10950°	O 8,46766°	15.08.2011 15:00:11
5	<input type="checkbox"/>	N 49,10950°	O 8,46766°	15.08.2011 15:00:12
6	<input type="checkbox"/>	N 49,10951°	O 8,46766°	15.08.2011 15:00:13
7	<input type="checkbox"/>	N 49,10953°	O 8,46767°	15.08.2011 15:00:14
8	<input type="checkbox"/>	N 49,10954°	O 8,46767°	15.08.2011 15:00:15
9	<input type="checkbox"/>	N 49,10954°	O 8,46768°	15.08.2011 15:00:16

Generally we recommend that you directly import / download your data to an adequately named database and table.

But with the functionality the X-Plorer database provides you can also optimize your data later on.

## Printing of geodata on a map

Any map window can be plotted together with all waypoints, routes and tracks, etc.

Just follow these steps:

- Plot all desired waypoints, routes and tracks, etc. in a map of your choice by marking them and clicking on the Show in map  icon.
- Choose if you want the map to be visualized in a 2D or 3D mode.
- Adjust the map to the desired scale and extent. In case of a 3D map representation also adjust the camera perspective (see above).
- Choose Print... from the pull-down menu of the main window.
- The Print Map window will open.
- Choose the Page Preview function and another window will open which will show how the print-out will look like with the current printer settings. You have several options to modify the printing result which are all automatically updated in the preview window in order to allow for a direct control of the selected changes.
- After everything has been adjusted just click Print and the map will be printed.

You find a detailed description of all printing options i

## How to continue?

The Getting Started chapter has introduced the most important functions of QV.

You have imported, opened, visualized and printed maps. You also learned how to create a route and upload it to your GPS unit and how to download tracks from your GPS. You learned how to organize your data in databases with the X-Plorer.

In the following chapters all functions are described in detail. However, in order to limit the volume of this manual, we have to focus the content to the main issues.

---

You will see that many functions follow the same general principles, so the basics are repeated for several times. For instance, it doesn't make a difference if you download waypoints or tracks from your GPS unit. You just choose a waypoint or track table as the adequate QV destination. The basic function Download from GPS  keeps the same.

The same holds true for the functions New Routes, New Waypoints, New Tracks etc. to create new objects on a map. This is always done through the New menu. However, what you are going to create and where you are going to store it, is simply defined by the destination you define in the corresponding assistant or by the table you choose in the QV X-Plorer.

In general you will find out that there are often several ways to execute a specific task.

Be advised to check the right mouse button frequently: many functions can be accessed from a pop-up menu after clicking the right mouse button.

# QV6 for Newcomers

After the [Installation](#) of QuoVadis 6 (QV6) you can start the program with  - icon in the Windows start menu or double-click the program icon on your desktop. You can stop the dialogue, which obtains the serial number, with a click on **Abbruch**, to work in a demo mode for 25 days(see chapter [Aktivierung](#)).

## Concepts

### Global Positioning System (GPS)

Firstly the system was developed for military purposes, by which satellites transported your position and time via radio signals and the GPS unit in the function of a receiver analyses these signals to locate your position and speed. Now the system becomes an integral part in the civil use for navigation.

### Geographic coordinates

A geographic coordinates describes a point and involves two values, which can be mentioned in a geographical grid for example in degree° minutes' seconds". For clear coordinates you have to indicate the reference frame. Geodetic coordinates indicates the zone and a numerical value (y coordinate and z coordinate). The UTM is a metric specification.

### Map datum coordinate system

The map datum coordinate system is a model for the earth. This is no ball, but is illustrated easily as a ellipsoid (three-dimensional ellipse). But the form of the earth is not regularly. Such an ellipsoid "fits" only for special areas of the earth and therefore we have different ellipsoids with various reference points. Another valid and uniform map datum coordinate system is the WGS84 (World Geodetic System 1984).

### Vectormap

A vectormap saves the data not as individual pixels, but as numeric values. So the map is calculated und illustrated by the data at the moment when the program is starting. The range of data is reduced compared to a raster map, because not every individual pixel has to be saved.

### Raster map

In comparison to a vector map a raster map is only a picture or a photo, which contains information for every individual pixel. Parameters as the resolution and color depth determines the file size. At the same time, however, it should be noted that under certain circumstances depending on the method of compression informationen will get lost(lossy coded format - but smaller file).

### Map scale

The map scale describes the relation between map distance and the distance in nature and is described for example as 1:50 000 (the value 50 000 indicates the scale number). This example illustrates that 1cm at the map are 50 000cm (or 0,5km) in the nature. Large and small scale of map are often confused, because it depends not on the "size" of the scale number, but on the number of details, which are depicted on the map. A large scale of map (1:25 000) illustrates more details than for example a world map with a small scale of 1:1 000 000.

### Map grids

We have two map grids, which are important for the use of GPS - geographical grid of longitude and latitude(180 longitude, 360 latitude) and geodetic grids. The distance between the longitudes are not always the same on geographical grids, so that a base grid becomes a trapezoidal form closer to the poles. A geodetic grid always shows the square form. An example of a geodetic grid is UTM (Universal-Transverse-Mercator-Grid).

### **Calibration**

If you find no suited map in QV, then for example you can scan and calibrate a paper-map. For the calibration you will need points, whose coordinates are known from enough other points, a grid and a reference system. After the calibration is finished, the map can be used, because a click on the map can now illustrate these point on the right coordinate. This process is not trivial - but you will find help in the forum. Also scanning is not optimal with a small DIN A4 scanner(therefore it is easier under certain circumstances to order a scanservice).

### **Routing**

Routing is the automatical defining of a route. For the definition the start location and destination (possibly stopovers) are selected. Based on this information the way will calculated automatically, although different criteria exist, which influences the calculation (for example shortest way, special type of vehicel, ...).

### **Route**

A route is a chain of waypoints. With that a route - for instance a hike - can created manually with only a few points on a digital map in QV. When you transfer these points in the gps unit, the route can be recovered from point to point.

### **Track**

A track is a continuous trace of points(similar der Brotkrumenspur aus einem bekannten Märchen), which shows the previous way. The track can be displayed on a digital map(and can be edited) or used for navigation.

### **Waypoint**

A waypoint illustrates a coordinate of a point in reality. Therefore a reference point is defined e.g. for a special location. You can represent sights, campsites, parking lot or anything else by a waypoint, um dann mit dem GPS an diese Stelle zu navigieren oder diesen Punkt auf einer Karte zu finden.

## **What are the functions of QuoVadis 6**

What can you implement with QuoVadis 6?((Depending on the version - freeware or commercial license - differs the range of functions) Surely you will „discover“ many other functions in the course of time, which are not mentioned here in the short list. To give a short overview, we have listed some points here to show, what you can expect:

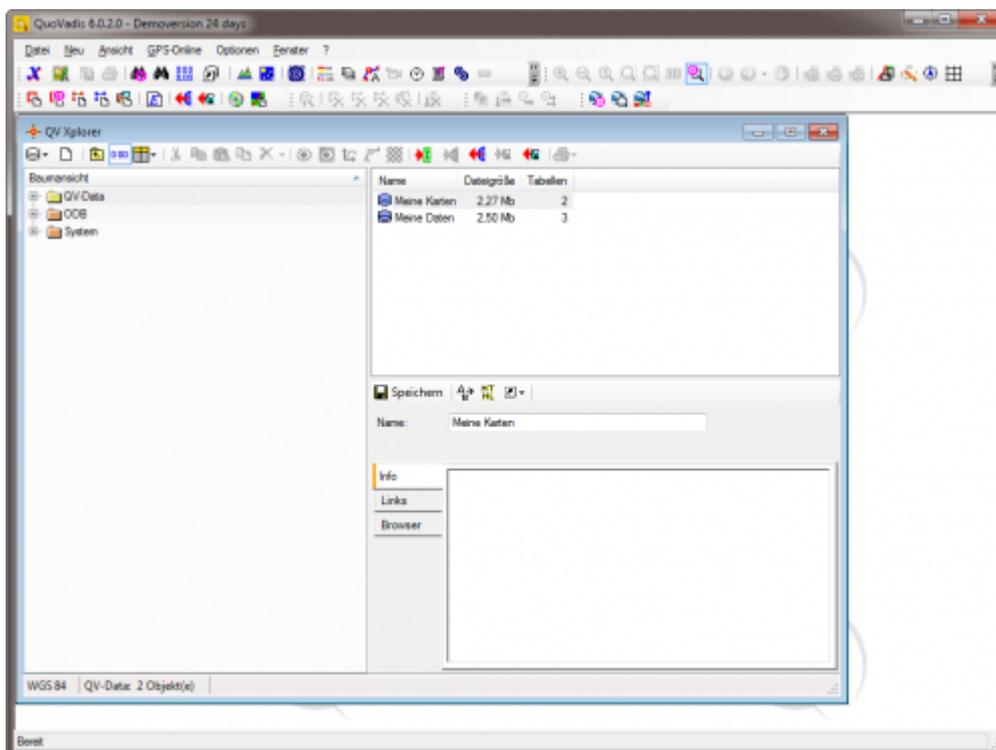
- Display of digital maps
- Organisation of your maps and GPS-data
- Geocaching and organisation of your training data
- Import and export of GPS data
- Data exchange with your GPS-unit
- Preparation and postprocessing of your trips(tour planning)
- Routing functions
- Connection to google earth

To get initial results quickly, please read this chapter.

## Program surface

### Main window and toolbar

While the program is starting the start-up screen opens with the QuoVadis 6-Logo and a progress bar, which shows the individual steps of the starting procedure. After completing the starting process the main window opens - your workspace in QuoVadis with opened [QV-XPlorer](#). If you have not activated QuoVadis 6 already, you will see a dialog, which queries the serial number. This can be stopped by a click on **Interruption**, to work in the demo mode for 25 days (look at chapter [activation](#)).



The symbol bars are named in QuoVadis as toolbars, because they contains the „tools“ for various tasks of your work with the program.

### QV-Xplorer

The central management of data is the [QV-Xplorer](#). The data are organised in databases and tables (if you are not familiar with the notions - both are container, in which the data are saved, similar to a data system with directories and data). A database can contains various tables. In a table the data are grouped, that means a routing table contains routes and a waypoint table contains various waypoints. More explanations you will find at the examples [Beispielen](#) further below.

The window of QV-Xplorer is separated in a [tree view](#), a [listview](#), a [toolbar](#) and a [status bar](#).

The organisation of your data is very flexible. You can e.g. create a data base of a holiday trip and

then manually create tables of your routes, tracks, waypoints and maps or you choose the automatic way of implementing the QV standart tables directly at the moment when you create the data base. If you e.g. records training runs or test drives with your GPS, you can create e.g. databases for the relevant year or for the relevant training activity and save and organise the recorded routes in this data bases.

The QV-Xplorer is not only useful for the creation of new data. You can also reorganise your data, e.g. copying, cutting, pasting and deleting. If you are creating another new database, you could e.g. the above created table move or copy into the new database. For more information on this topic, refer to the following chapter [data management](#) QV-Xplorer offers an univeral interface to the outside:

- You can exchange data - waypoints, routes, tracks, maps (if supported by the unit and QV) - with your [GPS unit](#)
- You can import [importieren](#) and export [exportieren](#) data, which contains e.g. tracks and waypoints in one by QV supported formats [Formate](#).
- You can import [maps](#) or [height data](#) (we are also supporting many formats in this case )

## Maps

### Online-maps

When your pc is online, you can start directly with [Online-Karten](#), that means you don't have to import or unlock the map. If one of the provider changes the license conditions, which are relating to the use of the maps, changes in QV are reserved.

Therefore please move [QV-Xplorer](#) and navigate through the tree view in the list to QV-Data, then over database online maps to table online maps. In the list view you can choose one of the entries and display the maps (if the provider needs a map registration, you have to register before).

### Local maps and height models

You can purchase more maps in [QVSHOP ] and install locally (look at chapter [Maps](#)). For usage of 3D-presentation of maps are [Height models](#) necessary.

### Multimap, Overlays and Automap

In QuoVadis you can, in contrast to other programs, which have only one map window, display more map windows parallel to each other. This function is described as [Multimap](#). Thereby you can have opened parallel e.g. different maps or maps for the same area in a different scale, which enables flexible working, without changing permanently and time consuming between the individual maps by opening and closing them.

If you have two maps (e.g. a vector map and a topographical map) of one area and you like to use

both for one task at the same time, then you can open this e.g. by the multimap function. But you have also a more elegant opportunity. Open the topographical map as usually in a map window and add the vector map as [Overlay](#). That means that both maps are displayed in the same window and the vector map overlays as a semi-transparent layer above the topographical map, so you can use both maps at the same time in one map window.

An important feature, which can facilitate your work with several maps, is the [AutoMAP](#) function. At the configuration of automap you can determine, which map tables should be closed during your search - ie. as some kind of filter.

## Practical work with QuoVadis 6 - some examples

### Searching location and displaying in a map

One Ortsdatenbank for QuoVadis 6 you can download from [Downloadpage of the shop](#).

To look for a name of a location, please click on , the window „searching“ is opening. Choose **Settings** *No* in the tab and check ODB (Screenshot), enter a location in the tab **All data** and click **Searching**.



The points found are showed in the result window. Choose one and click on . Then the Assistent opens. Depending on the installed maps and the actual [AutoMAP](#)- setting you are offered suitable maps. Choose one and click on **Completing**.

The [Mapwindow](#) opens and the map cursor  is positioned at the searched location on the map.

### Import of tracks and waypoints from the internet

Details of this chapter are not yet available. These will be supplemented soon. We kindly ask you for some patience.

### Editing of routes, tracks and waypoints

Details of this chapter are not yet available. These will be supplemented soon. We kindly ask you for some patience.

### Data transfer with the GPS-unit

Details of this chapter are not yet available. These will be supplemented soon. We kindly ask you for some patience.

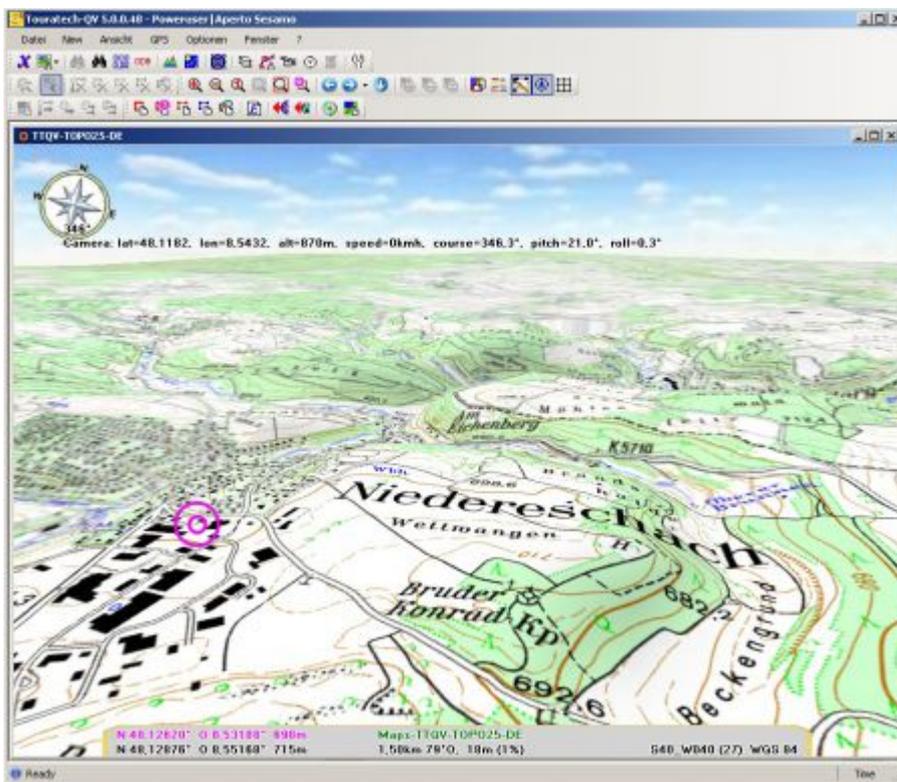


# Main program window

After starting the program, the QV main window will appear and the globe will be zoomed from the universe.

A world map will be plotted over the surface of the earth and all stars will be visualized at their exact location above the earth. If you enable the function „open last map view on start“, QV will start later on in a different way and plot the last layout instead of the initial globe.

With the Topomap Germany, 1 : 25.000 scale, the QV main window may look like this:



The main window features all important elements required for operating QV:

- The main menu bar with the pull-down menus File, New, View, GPS, Options, Window and ? (= help).



- This is the Standard symbol bar with the most important functions like  Open X-Plorer (or toggle between Xplorer and Map window),  AutoMap mode,  Search for coordinates,  Search for names (geographic database),  Units,  3D-Options,  Open geographic database,  GPS Online mode (driving mode),  Project manager,  Street Routing,  Roadbook editor and  Settings.



- This is the View symbol bar with icons for controlling the look of the map window. This symbol bar starts with icons for the scale such as Zoom In, Zoom Out, Zoom 100%, Zoom on selection, Zoom on entire map, Center zoom on cursor. Further to the right icons follow addressing the chronology of commands like Undo, Redo with command history and Set Reference Point (bookmark). Further to the left icons for selecting maps with other scales like Open map with larger scale, Open map with smaller scale, Open another map with the same scale. Finally some icons with various functions such as Map overview, Map legend, Display map scale and Grid overlay.



- This is the New symbol bar with icons for creating New Waypoint, Save cursor as waypoint, New Route, New Track, New Drawing, Edit, Download from GPS, Import, Automatic map import from CD/DVD, Import new map.
- Please note that some icons may not be available if no suitable map is available or no suitable object has been selected. In case of the Roadbook Editor, the icon will only be available if you have purchased the corresponding plug-in or the Poweruser edition. The Street Routing icon will only be available if you have purchased a NAVTRQ Routing or NAVTEQ Navi option.
- At the bottom of the window the status bar which summarizes important information on the actual mouse and cursor position like the coordinates, the distance and bearing between mouse and cursor position, the magnetic offset or the name of the country. You will also find a Show in Map button there (center) and a button to switch between several crosshair designs.
- The actual window area is filled either with the map window, the overview window or the X-Plorer, depending on what you have opened. You will find a detailed description of all options in the chapter „Main Window“.
- You can open (or close) additional Toolbars in the View menu under Toolbars. Those toolbars are specialized for specific tasks and are described in the corresponding chapters below.

At the bottom of the map window, you will find the map status field which summarizes important information:

N 48.12620° O 8.53188° 698m	Maps-TTQV-TOP025-DE	S40_W040 (27) WGS 84
N 48.12876° O 8.55168° 715m	1.50km 79°O, 18m (1%)	

Left column

1. The position of the map cursor including altitude
2. The actual position of the mouse pointer including altitude

Central column

1. Name of the used map
2. Distance, course, altitude difference and corresponding slope in % between map cursor and mouse

---

pointer

Right column:

Name of the used DEM (digital elevation model) and the actual map datum

Remark: Please note that all coordinates are specified in the units according to the unit settings.

If you have enabled the display of the North arrow in the View menu, you will find a compass rose plotted in the upper left corner of the map window. In this case you will also find all details on the camera characteristics like position, altitude, speed, course, pitch and roll.

Coordinate and distance units can be changed at any time using the  icon, e.g. to miles and UTM, etc. Refer to chapter Settings for more details.

# Menus in main window

The following tables refer to all available functions and options of the pull-down menus.

If “...” follows the menu notation, this indicates that another dialog box will follow (which may be cancelled with the ESC button without further consequences).

Many commands can also be accessed through a hotkey or an icon in the symbol bar. These are listed in the 2nd and 3rd column of the table.

## File Menu

Command	Hotkey	Icon	Description
Toggle X-Plorer - Mapwindow	F3		Switches between the X-Plorer and mapwindow. Thus, a quick switching between the active map window and the X-Plorer is possible.
Toggle between Mapwindows	F2		Switches between various mapwindows. Thus, a quick switching between various map types, scales or 2D / 3D is possible.
Calibrate Map...			Opens a map calibration window where the calibration of a given map can be altered or optimized. This routine will also be started automatically when opening a non-calibrated map. See chapter Calibrating Maps.
Print...			Opens the Print map window featuring several options for printing a map including all markings. See chapter Printing maps.
Map Export...			Opens the Map Export assistant featuring various options to export a map to compatible GPS devices or to a bitmap file. See chapter Exporting Maps.
1. .... 2. ..... n. .....			Following these menu commands, the maps and map layouts which you have been using most recently, are listed. Thus, you can reopen one of these maps without the need of searching them in the X-Plorer window.
Exit			Will terminate QV, save all settings in the QuoVadis 6a.ini file and exit the program.

## New menu

Command	Hotkey	Icon	Description
New waypoint...			Will open an assistant for creating new waypoints.
Save map cursor as waypoint			Will save the actual map cursor position as waypoint.

New route...		Will open an assistant for creating a new route.
New track...		Will open an assistant for creating a new track.
New drawing...		Will open an assistant for creating a new drawing.
Edit marks ON/OFF		Opens the editor for markings. Using this editor you can edit very comfortably all kinds of geodata like waypoints, routes, tracks, drawings or geocaches. This icon has a switch function. For disabling the editor just click the icon once again.
Receive from GPS...		Starts the GPS data download assistant. See chapter Download of geodata from your GPS.
Import...		Starts the data import assistant. See chapter Import of data.
Import new map CDROM automatically...		Scans a CD/DVD or a directory for compatible maps and imports them automatically. For further details see chapter Importing maps to QV.
Import new map		Imports a single map file or a whole data directory. For further details see chapter Importing maps to QV.

## View Menu

Command	Hotkey	Icon	Description
Zoom 100%	1		Zooms the map to 100%, i.e. scales it to its original size, exactly as saved.
Zoom In	+		Zooms into the map, i.e. enlarges details.
Zoom Out	-		Zooms out from the map, i.e. will increase overview.
Zoom whole Map	4		Reduces the map size so that it is completely visible in the map window. Very large maps are only reduced to 5% of its original size.
Zoom centers cursor			Switches the focus of the zoom function on the map cursor.
Open Map with larger scale	Ctrl +		Opens another map with a larger scale, i.e. a map with an increased level of detail. The map with the next larger scale relative to the current map will be opened.
Open Map with smaller scale	Ctrl -		Opens another map with a smaller scale, i.e. a map which offers more overview. The map with the next smaller scale relative to the current map will be opened.
Open other Map with same scale	F10		Opens another map with identical scale as the current map in case that another map type with the same scale is available.
Delete Marks Waypoint Marks Route Marks Track Marks Drawing Marks All Marks			Removes all waypoints / routes / tracks / drawings from the map. To make them visible again, they must be replotted in the X-Plorer one by one by clicking on the  icon. The elements will not be deleted from the database but only removed from the map. The icon at the bottom will remove all types of geodata with a single click.
Map overview ON/OFF			Will activate an overlay frames of the extensions of all available maps. The map frames which are shown is depending on the selected AutoMAP settings. See chapters Map Overview and AutoMAP. This icon has a switch function, so a second click will remove the frame overlays once again.

North Arrow ON/OFF	F8		A north arrow is displayed in the upper left corner of the map. The arrow shows the direction to true north, i.e. to the geographical North Pole at the map position of the cursor (purple circle). This icon has a switch function, so a second click will remove the north arrow once again.
Display scale ON/OFF	F9		Displays a scale bar on the upper and left margins of the map window with light and dark gray bars indicating the units. The scale changes will automatically adapt to the map scale and the current zoom setting. A second click will turn the scale bar off again.
Grid overlay ON/OFF			A grid overlay will be projected on the map with the current units and map datum. The distance between the grid lines is set automatically. See Units further down.
Map Legend ON/OFF	Ctrl L		Shows the legend key to the current map in an own window, if available. See chapter Map Legend.
Fullscreen	F7		Maximizes the size of the QV main window by masking the symbol and status bar, so that as much space as possible is available for the map window. Clicking once again restores the original window layout.
Kyrillic Alphabet...	F11		Shows the translation assistant for Russian maps. See Russian ordnance maps.
Night Screen	Ctrl D		Dims the screen and the map display, mainly intended for the use with the GPS online mode during night. See chapter Display types in the GPS online mode.
Toolbars			In this submenu you can enable and disable all available toolbars.

## GPS menu

Command	Hotkey	Icon	Description
GPS Online ON/OFF (Driving mode)	F4		Starts the GPS online mode. During a trip, the current position will permanently be indicated on the map. By default the track will be recorded. Also see chapter GPS online mode.
Tracklog...	F5		Determines whether or not the track should be saved during the GPS online mode. Also see chapter GPS online mode.
Save position as WP	F6		Saves the current position during GPS online mode and during track replay. A new waypoint will be created in the Positions table of the GPS online logs database. Also see chapter GPS online mode and Track Replay.
Touchscreen mode			Activates the Touchscreen mode in order to remove all irrelevant commands and elements from the screen and to maximize the map window. If you use a Notebook/Tablet-PC with a touchscreen display, you can control QV user interface completely through the touchscreen. See chapter Touchscreen GPS online mode.

## Multitracking menu

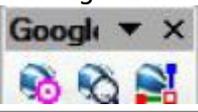
As a function of the Poweruser version this menu will be completed lateron in 2010.

Command	Hotkey	Icon	Description
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to be completed			

## Options menu

Command	Hotkey	Icon	Description
Search Point by Coordinates			Opens the Search a point dialog box in which you can search all the maps for a geographical coordinate. Also see chapter Search functions.
Search by Name	Ctrl F		Opens the X-Plorer Search window in which you can search all databases by name. See chapter Search functions.
Units...			Opens the dialog box where you can specify all unit settings like coordinate system, units for distances, areas, depths and course reference (geographic or magnetic).
Geographic database			Opens a database with more than 5 million entries worldwide.
3D elevation options...			Opens a window with all 3D elevation options. In this window you can activate a color coding of maps according to elevation and slope, generate an elevation isoline overlay, adjust position, brightness and color of the sun, modify the resolution of the 3D modelling, and choose style options for the map background/horizon. See chapter Map window for details.
Astronomy...			Opens the astronomy modul of QV where you can define if stars should be plotted on the horizon, their style, labels etc., choose a solar system and access a list with all actual positions of the sun, moon and all planets.
Project manager...			Switches the projekt manager ON or OFF. Through the project manager you have a comfortable control on the map layout and can select which maps and markings should be plotted in the map window(s) and also save or load predefined layouts. See chapter Project Manager.
Street Routing			Opens the Street Routing window to calculate a route automatically. A NAVTEQ-Routing or NAVTEQ-Navi map is required for this functionality. See chapter Street Routing for details.

Roadbook Editor			Starts the Roadbook editor. The Roadbook editor must be separately licenced. See separate Roadbook Editor documentation.
GoogleEarth			Control bar for the Google Earth interface. A special tool bar is available for this purpose:  See chapter Google Earth.

AutoMAP	Ctrl M		Switches between the four possible settings of the AutoMAP function. The icon in the symbol bar will change according to the corresponding setting. Disabled. QV will not search for maps. Actual map table only. AutoMAP will only search in the map table where the actual map is located. Actual database only. AutoMAP will search in all map tables of the data base where the actual map is located. Enabled. QV will search in all map tables which are labeled accordingly. Enabled. QV will search in all map tables. See chapter AutoMAP.
Settings			Opens a dialog box with general parameter settings for QV. See chapter Settings.

## Window Menu

Command	Hotkey	Icon	Description
Reorganize Windows	Ctrl W		Arranges all loaded windows in an overlapping arrangement.
Side by side			Arranges all windows side by side.
One below the other			Arranges all windows one below the other.
Side by side (Map Window)			Arranges all map windows side by side.
One below the other (Map Window)			Arranges all map windows one below the other.
Tiles (Map Window)			Arrange all map windows in a row or grid order.
Size of map window...			Here you can enter a desired window size in pixel. Very useful for creating export files in a standardized size.
Size main window...			Here you can enter a desired size in pixels for the main window. Very useful for creating screenshots in a standardized size.
Rename window...			Allows to change the name of a map window.
1. .... 2. ..... n. .....			Here all the currently loaded windows are listed with window titles. Selecting a window from the pull-down menu will bring it immediately to the front.

## ? Menu

Command	Hotkey	Icon	Description
Topic...	F1		Opens the Online help and jumps to the topic of the active window. Whenever you press F1 you will get context-specific help in QV.
Keyboard shortcuts	Shift F2		Displays all available keyboard shortcut commands in a table. Appendix Keyboard Commands
Check QV.DE for updates			Will activate an automatic check if new QV updates are available. This option requires an internet connection.
QV webpage			Will access the QuoVadis website. This option requires an internet connection.
QV support forum			Will access the QuoVadis user and support forum. This option requires an internet connection.
What's new?			Displays a list of new features and bug-fixes.
Video clips			Here you'll find all available tutorials.

Memory info...	Ctrl I	Will display a list with relevant information on flash memory, cache and graphic memory.
Activation QV software and maps...		Will open a window to enter activation codes for QV or maps. See chapters Installation of QV and Unlocking maps.
About...		Shows a summary on the QV release version used and all installed moduls including the corresponding serial no.'s. Please provide this information with any support inquiry. Thanks!

# Toolbars

Various toolbars for specific tasks are available which can be docked to main windows or be placed wherever you like. All Toolbars can be switched on or off by a right-clicking on any toolbar and tick-marking or clearing a specific toolbar in the pop-up menu. The menu can also be accessed in the main menu under View - Toolbars.

The advantage of docking toolbars to a map window is that the map is not masked by the toolbar and the map window can even be zoomed to maximum size. The same is true for many other dialog boxes, bars and diagrams like the street routing window or the XY diagram. Users who work with a 2 screen PC-configuration can even shift these windows to the other screen and can zoom their map window(s) always to maximum size. Just drag (click and hold) the window with the blue title bar to the other screen and drop it there.

The following toolbars are available:

Standard	
View	
New	
Marks	
MultiMAP	
Drawings	<ul style="list-style-type: none"> <li> Area</li> <li> Polyline</li> <li> Yellow Mark</li> <li><hr/></li> <li> Text</li> <li> Symbol</li> <li> Rectangle</li> <li> Circle</li> <li> Ellipse</li> <li> Points</li> <li><hr/></li> <li> Style</li> <li><hr/></li> <li> Help <sup>1)</sup></li> </ul>
Editieren	
GPS-Online	
Google-Earth	

All toolboxes can be activated or disabled through the view menu by selecting toolbars:

Opened toolbars are indicated by a tickmark. By a left-click with your mouse you can enable or disable the toolbar (switch function).

Below you find a description of the most important toolboxes. They are activated by default after the installation of QV:

## The Standard Toolbar



In the Standard toolbar the most important functions are summarized. These include:

	Open X-Plorer (or toggle between Xplorer and Map window)
	AutoMAP mode. For further details see AutoMAP chapter.
	Search for coordinates.
	Search for names. In case you have a NAVTEQ map with database installed (Routing or Navi versions), you can also access the Search for address option using this icon.
	Opens a window which summarizes all unit settings. For further details see chapter Settings.
	Opens a window which summarizes all 3D-Options. Refer to the map window chapter for further details.
	Opens the worldwide geographic database where you can search for specific locations according to their names.
	Opens the GPS Online mode. For further details refer to the chapter GPS online mode.
	Opens the Project manager. For further details see the chapter Project manager.
	Opens the Street Routing window. For further details refer to the Street Routing chapter.
	Opens the Roadbook editor. For further information see the <a href="#">chapter Roadbook Editor</a> .
	Opens a window which summarizes all user-defiable Settings of QV.

## The View Toolbar



In the View toolbar all functions are summarized which relate to the viewing of maps. These include:

	Zoom in
	Zoom out
	Zoom 100%
	Zoom on selection. To select an area click at the upper left corner first, move the mouse to the lower right corner and click again.
	Zoom on the entire map.
	Center zoom on map cursor.
	Undo last operation.
	Redo last operation.
	Set reference point (bookmark).

	Opens a map with a larger scale (more details).
	Opens a map with a smaller scale (less details).
	Opens another map with the same scale.
	Will indicate all map extents of available maps in the map window by a frame. This icon has a switch function: a second click will disable the display of map frames.
	Will display a map legend if available. This icon has a switch function: a second click will close the map legend again.
	Will display a map scale. This icon has a switch function: a second click will disable the plotting of a map scale.
	Will enable a grid overlay. The grid characteristics can be specified under Settings. This icon has a switch function: a second click will disable the grid overlay.

## The MultiMap toolbar

In this toolbar all important commands are summarized for a convenient work with multiple map windows:



	Opens another map in a new map window and shows the currently selected point in the new map.
	Copies all marks from the current map window into the other map window.
	The actual map cursor position will be copied to the other map window and the map will be scrolled in order to place this coordinate within the window.
	The actual map cursor position will be copied to all other map windows and the maps will be scrolled in order to place this coordinate within the window.
	The map scale will be applied to all other map windows and the map extent will be adjusted accordingly (if possible).

## Toolbox marks

In order to facilitate the handling of marks in the map window, the Marks Toolbar has been created. This toolbar can be activated through View > Toolbars in the main program menu:



The following functions are available:

	Zooms the map extent in order to show all marks within the map window in the maximum possible size. If you use this function in a 3D window, the map perspective will change to Perpendicular View from above.
	Removes all waypoints from the map plot. The corresponding waypoints will not be deleted from the database.
	Removes all routes from the map plot. The corresponding routes and route waypoints will not be deleted from the database.
	Removes all tracks from the map plot. The corresponding tracks will not be deleted from the database.

	Removes all drawings from the map plot. The corresponding drawing objects will not be deleted from the database.
	Removes all kinds of marks from the map plot. The corresponding geodata will not be deleted from the database.

Using these functions you can easily zoom to the required extent to view all plotted geodata or remove certain geodata categories from the map plot.

To remove a single mark from the map, right-click on the corresponding object and select Remove from map. from the pop-up menu.

## The New Toolbar



In the New toolbar all functions are summarized which are required for creating new geodata like waypoints, routes, tracks, drawings or to import a new map. These include:

	Create a new waypoint.
	Save cursor position as waypoint.
	Create a new route.
	Create a new track.
	Create a new drawing.
	Edit the selected type of geodata (e.g. waypoint, route, track, drawing, etc.)
	Download geodata from GPS.
	Import data from various sources.
	Automatic map import from CD, DVD or data directory.
	Import a new map file.

\* Please note that some icons may not be available if no suitable map is available or no suitable object has been selected. In case of the Roadbook Editor, the icon  will only be available if you have purchased the corresponding plug-in or the Poweruser edition. The Street Routing icon  will only be available if you have purchased a NAVTRQ Routing or NAVTEQ Navi option.

All other toolbars are described in the chapters addressing the corresponding functions:

Marks Toolbar: Chapter Marks Toolbar.

Drawings Toolbar: Chapter Drawings.

MultiMAP Toolbar: Chapter MultiMAP - Using multiple maps.

GPS-Online Toolbar: Chapter GPS Online mode.

Google Earth® Toolbar: Chapter Google Earth interface

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<sup>1)</sup> Der Zeichnungs-Werkzeugkasten war in früheren Version von QV eine Symbolleiste. Ab QuoVadis 6 erreichen Sie diesen Werkzeugkasten über das Icon in der Edit-Leiste in der Kartenansicht.

# Drag and drop

In QuoVadis 6 many operations can be executed by a simple drag & drop:

- Opening maps: Simply drag & drop a map to be opened from the X-Plorer to the free area of the main window.
- Show marking: Simply drag & drop a marking from the X-Plorer to the map window or the free area of the main window.
- Map overlay: Simply drag & drop a vector map to a map window with an opened raster map.
- Map import: Simply drag & drop a map file from the Windows Explorer to a map table of the QV X-Plorer and it will automatically be imported to QV. While uncalibrated maps have to be imported separately, calibrated maps can be imported in one batch.
- Links to an ECWP map server can also be dragged & dropped from the browser to a map table of the QV X-Plorer.
- Copy and move operations in the X-Plorer can also be executed by a simple drag & drop procedure.

# Clipboard

copy paste

# Data management

This chapter is all about managing data with QV. In this chapter, the design and the corresponding functions of the QV X-Plorer will be described.

**This chapter may appear boring; - however it is in fact one of the most important as it will teach you some basics in data handling and will help you to make the most of QV!**

The QV X-Plorer is the central management tool for all data and is very similar to the Windows Explorer in design and function.

In the QV X-Plorer, all data are selected to be displayed, edited, copied, moved and deleted. Waypoints, routes, tracks, geocaches, traings and drawings can be created or exchanged with GPS units, can be imported from other data sources and, of course, can also be exported in various formats.

## Database structur

In order to handle data organisation as comfortable and effective as possible, the QV databases have a hierarchical structure:

- Directory level
- Database level
- Table level
- Various Geodata (Waypoints, routes, tracks, geocaches, traings and drawings)

It is important to note that on the level of tables you must organize your data in classes of homogenous data types. This means that:

- Map tables may only contain maps
- Waypoint tables may only contain waypoints
- Route tables may only contain routes
- Track tables may only contain tracks
- Geocaching tables may only contain geocaches
- Training tables may only contain trainings
- Drawing tables may only contain drawings

This might feel inconvenient at the beginning but you will soon find out that this type of data organisation has many advantages.

If required, you can always summarize all maps and geodata which belong together as a project using the Project manager which you can access through the  icon in the Standard symbol bar.

However, always bear in mind that you may not mix data of various types in the same table of the QV

## X-Plorer!

Besides this basic principle of separating different types of geodata in different tables, the structure of data organisation is as flexible as possible (The Basic version is limited in terms of the possible no. of directories and databases):

- You can create as many objects as you like in a given table
- You can create as many tables of various types as you like in a given database
- You can create as many databases as you like in a directory
- You can add as many directories as you like in the QV X-Plorer branch

After you have habituated to this basic approach, you will quickly find out that the X-Plorer is the ideal tool for managing even huge amounts of maps and geodata perfectly.

Remark: The physical unit in which data are stored in QV is a database. So you will not find tables including their objects physically on your harddisk drive. There, you will only find the databases including all tables and objects. If not assigned to another folder on the directory level, these database are stored under *C:\Documents and settings\All Users\Documents\QuoVadis 6\_Data\qu5\\*.\**. This can be very useful when you want to copy all databases to a QV installation on another PC (e.g. your notebook) as you can just copy all files to the same folder on the other PC. However you must take care to install all maps in the identical directories on the other PC! (QV only stores the path which specifies where the map data are located).

In the QV X-Plorer, the different directories, databases, tables and data records are labeled with symbols and can be named however you like:

Symbol	Meaning
	Directory on the hard disk that contains databases. When this is crossed out, QV cannot access this directory at the moment, probably because the path has not been found. Frozen connections which can be reactivated in the database menu.
	Database that contains tables. Each *.QU4 file in a directory corresponds to a database listed in the X-Plorer. The orange symbol indicates a write protected database. You can work normally with this database; however you cannot change, save or delete data.
	Map table containing maps. If the red A is visible, the table will be identified by the AutoMAP function when searching for maps, otherwise it won't. For further details please refer to the AutoMAP chapter.
	Individual map.
	Waypoint table containing waypoints.
	Individual waypoint.
	Route table containing routes.
	Individual route, corresponding to the table of route waypoints which are contained in the route.
	Individual route waypoint.
	Track table containing tracks.
	Individual track corresponding to the table of trackpoints which are contained in the track.

	Individual trackpoint.
	Geocaching table containing geocaches.
	Training Table containing trainings.
	Drawing table containing drawings.
	An individual drawing will be indicated by a symbol corresponding to the type of drawing, e.g. line, square, rectangle, circle or ellipse.
	Project table containing projects. A project is created using the Project Manager where you can store a given set of maps and geodata including the layout. See Project Manager.
	Search table containing search queries.
	Geographic names database table containing site coordinates; basically write protected except for the Topo CD import function.

## Organizing your data

This is perhaps the most important chapter, because this one deals with your data, where and how it is saved and how you can sort and arrange them.

So it makes sense to read the following recommendations carefully.

### Basic structure

After the installation of QV, an empty database called New database is automatically created under the QV DATA folder with an empty Map, Waypoint, Route, Track and Drawing table. The QV DATA folder is the default folder for databases and is located in the QU5 folder of the installation path, usually c:\Documents and settings\All Users\Documents\QuoVadis 6\_Data. The database New database is stored on the hard disk under the name New database.qv5db.

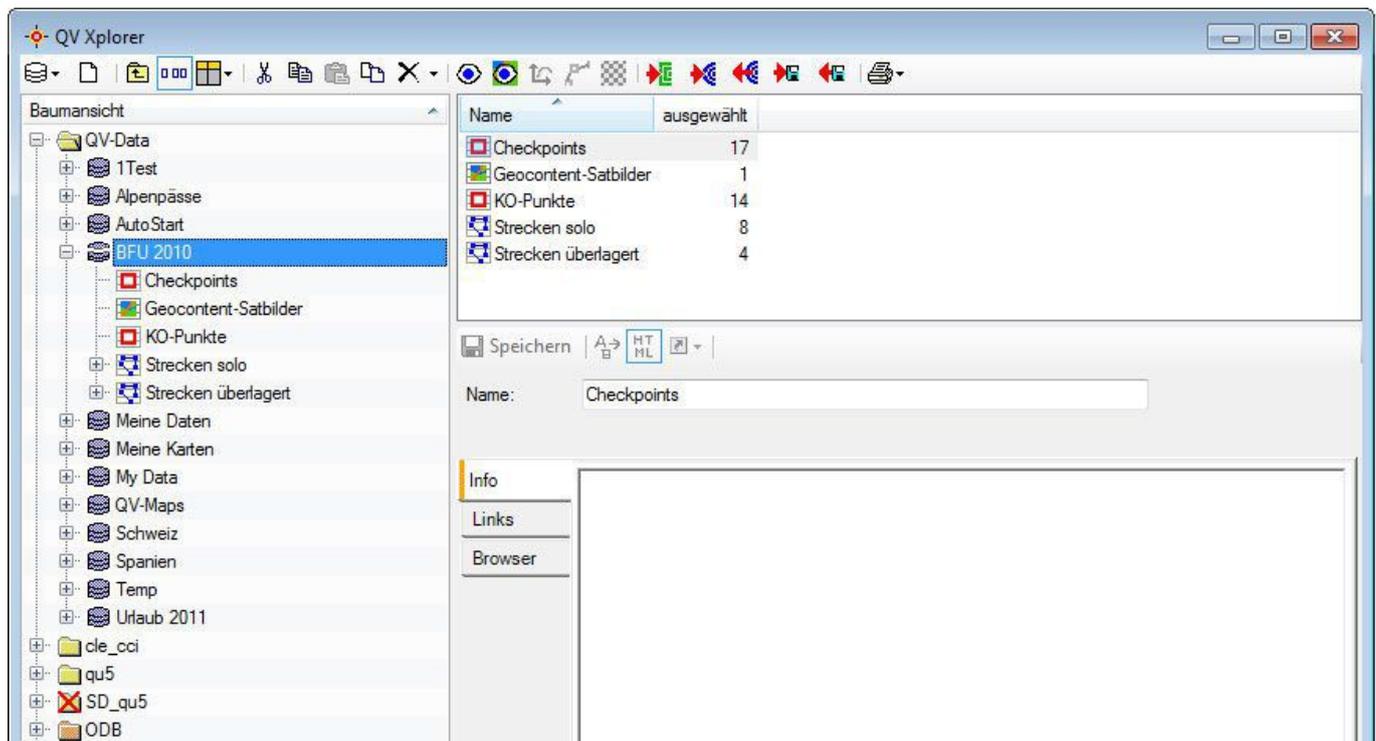
In this database, you can immediately import new maps, create waypoints, routes, download tracks from a GPS, etc. However, it might be wise to create different databases or tables for different types of trips or events, instead of putting everything in the same table.

### Adapting the structure to your needs

By an intelligent organisation of directories, databases and tables you can structure your X-Plorer data tree clearly in order to access and retrieve your data quickly.

There is no „general rule“ on how to organize your data in an optimal way, but in many occasions an approach proved to work well which stores your maps in databases named according to the continent or according to countries and using separate databases for your geodata which you name according to the trip or event they refer to and a data such as Slovenia 2008, Lybia 2009 or Black Forest Ultra 2010, etc.

You find an example of such a database structure below:



Following a description of all hierarchy levels:

## Directory



A directory is the highest X-Plorer level and usually represents a directory on the hard disk in which databases are stored.

## Datenbank



This refers to a file that contains various map or geodata tables. It has a user-defined name and always has the extension \*.qv5db. You can create as many databases within a directory as you like.

By clicking the New  icon on the QV Data level or by selecting New from the pop-up menu after right-clicking QV Data an assistant will open where you can create a new database or a new folder.

Assistent - New Database object

Step 1/1 - Select options for new db-object

Create in folder: C:\Dokumente und Einstellungen\All Users\Dokumente\TTQV5\_Data\qu5

Database Name: New Database  
 Create standard tables

Folder Name: New Folder

Keep dialog open

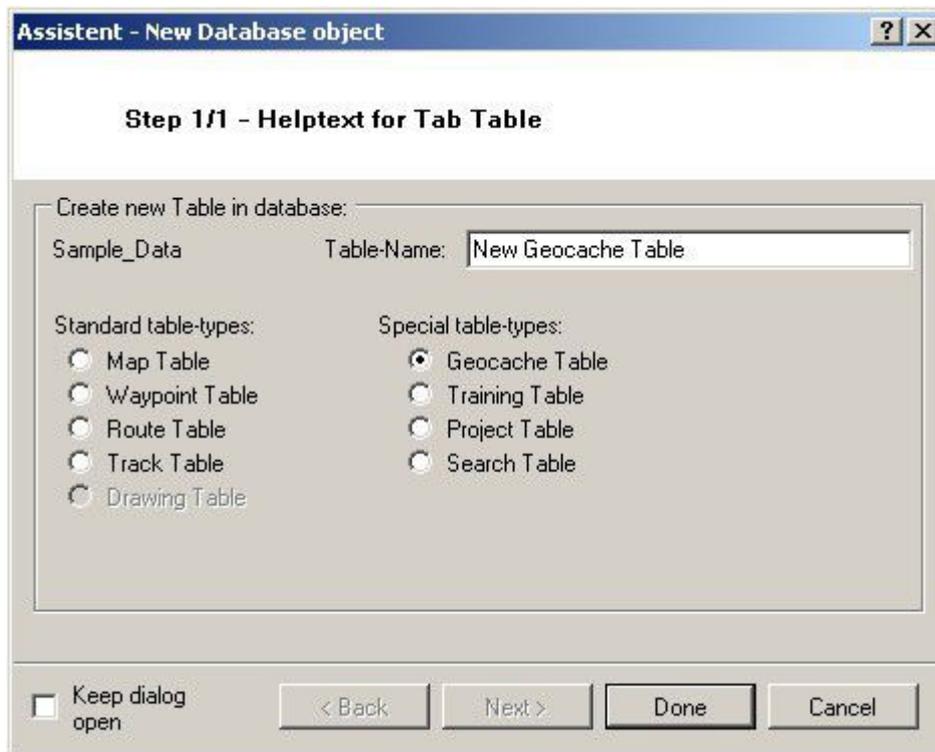
< Back Next > Done Cancel

Choose what you want to create (database or folder) and click Done.

## Table

A table is a container which contains all maps or geodata of a certain type, i.e. waypoints, tracks, routes, geocaches, trainings or drawings. You can create as many tables within a database as you like.

By clicking the New  icon on the database level or by selecting New from the pop-up menu after right-clicking on a database, an assistant will open where you can create a new table.



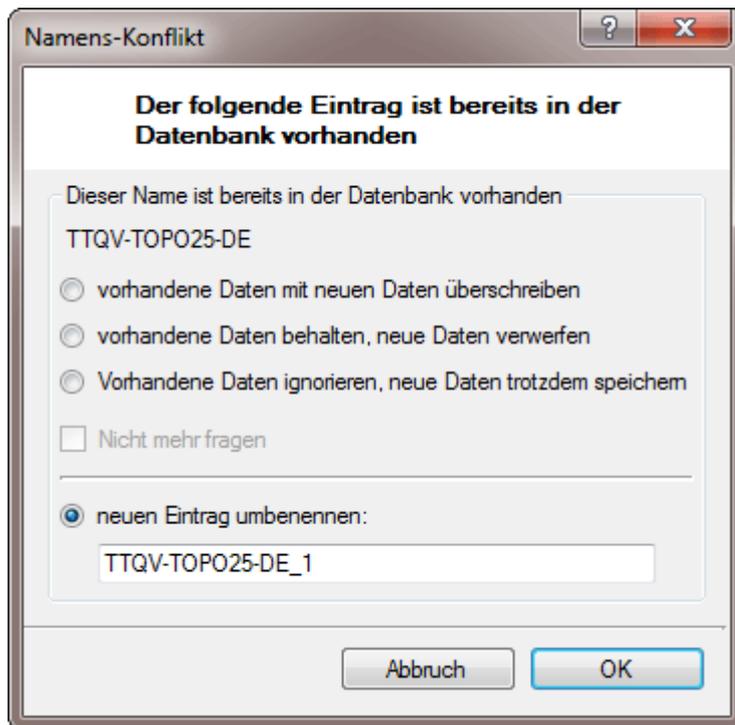
Choose the type of table which you want to create and click Done. On the lefthand side of the window you find the „classical“ table types, on the righthand side of the window you find some special table-types like Geocaching tables, Training Tables, Project Tables and Search Tables.

## Saving new data

When you want to create new waypoints, routes or tracks, download data from the GPS, import or calibrate a new map, you will have to decide where you want this data to be stored. You do this simply by clicking on the desired table in the QV X-Plorer. When you import geodata from a file or download them from a GPS unit you will be asked by the corresponding assistant where the data should be stored. Th same holds true for importing maps.

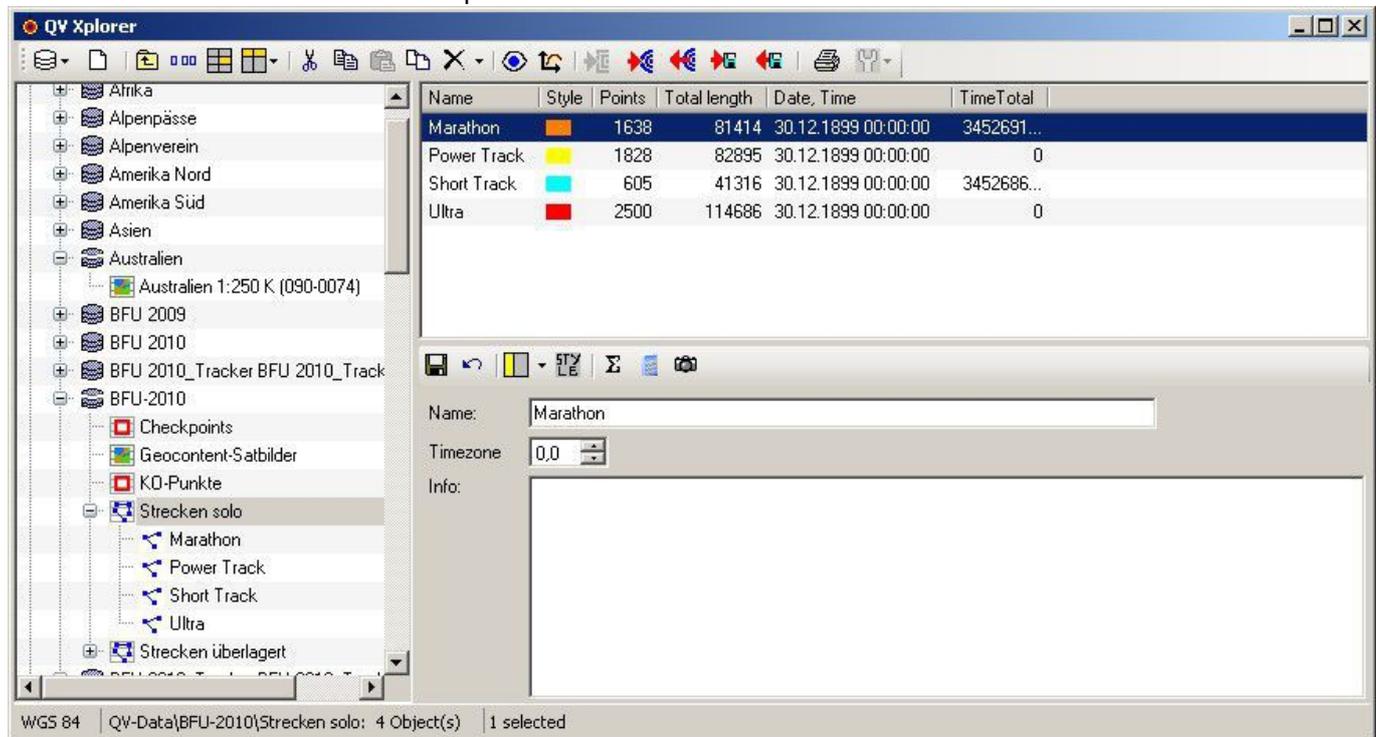
Remark: Please note that the place where the new data is to be stored must be suitable for the type of new data. As an example, You cannot save waypoints in a map table but only in a waypoint table! Therefore, the cooresponding assistants will only offer suitable tables to store new data. Furthermore, only those commands and icons will be available that are suitable for the current selection.

## Data with same name



# X-Plorer

The X-Plorer window consists of 5 parts:



Underneath the title line you will find the symbols to call up all functions you will need:

## Tree window

The window to the left contains all directories with their databases and tables in a hierarchical tree structure. So your data are clearly structured and quickly accessible and also the type of data is indicated.

By clicking on the [+] or [-] icon next to a symbol, you can open or close the corresponding branch of the tree. When no [+] or [-] icon is visible, you have reached the end of a branch.

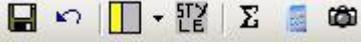
## List window

The upper right window lists the content of the selected object in the tree window in a table form. The content of the list window will change according to the type of data.

## Details window

If you click on a line in the list window, further details on the selected object will be displayed in the details window below.

In the details window you can also edit the data record or modify attributes.

This window has its own symbol bar: . Details see below.

### Status line

Indicates which directory and database object has been selected in the tree window, how many elements it contains and how many objects have been selected in the list window.

### Functions of the main X-Plorer symbol bar

	Funktion
--	----------

Database functions - A pop-up menu with the following options appears:

Refresh

Updates all data; useful especially in network applications when several users are accessing the same data.

Set database writable Using this option, you can disable a write protected database so that you can delete or modify objects.

Set database read only Using this option, you can protect any database from being deleted or modified accidentally.

You can recognize a write protected database by the orange  icon, a database with read and write access is indicated by a blue  icon.

Set Automap of map tables Using this option you can include or exclude certain map tables from being listed in the AUTOMAP function. Consequently the two options available in the corresponding submenu are Include and Exclude. For further information please refer to the chapter AutoMAP.

Connect folder... Opens another branch in the tree window and lists all databases that are located in this directory. You can immediately work with the data and create, delete or modify databases.

Remove this connection...

Using this option, you can delete a connected folder (see above) including all databases. The path to the corresponding directory will be closed or the network connection be terminated. The files will not be deleted, only the direct access to QV is cut.

Connection frozen

This function is only available when you have marked a directory in the tree window that is labeled with the  icon. QV will freeze the connection and the corresponding data will not be listed anymore. However the configured connection will remain and can be reactivated at any time! A frozen connection is indicated with an  icon.

Import QV 3.x / 4.x databases Using this option you can import data from previous QV versions. You can select a single QU3/QU4-file which has been created with an older version of QV. Alternatively, you can also import the complete QU3 or QU4 folder. New database will be created in the tree window which are named in the same way as your older databases and which will contain all maps, waypoints, routes and tracks. This is the simplest way of getting your stock of data into the new version.

Compress This function will scan for databases and objects which have been marked as deleted and will remove them finally. A backup of the original database files will be stored under the same name but with a \*.BAK extension.

New QV X-Plorer Window Opens another X-Plorer window.

External ON/OFF Makes the X-Plorer to a separate program which can be placed outside the main QuoVadis 6 program window. Thus, you can place the X-Plorer to a second screen and maximize the space available in the main program window for map windows. This is a switch function: by removing the tickmark in front of External you can link the X-Plorer back again to the QV main window.



	<p>New function Creates new databases, tables, waypoints, routes, tracks or maps. This function is depending from the currently selected element in the X-Plorer tree window. If a directory is currently selected, you can create a new database. If a route table is selected, you can create a new route, etc. You can also access this function through the pop-up menu after a right mouse click on any element of the X-Plorer window. Again, depending on which hierarchical level you have been clicking, the new elements which you can create, will vary:</p> <p>If you are on a folder level, you can create new folders or new databases. If you are on a database level, you can create new tables of various types. If you are on a table level, you can create new elements according to the table type, so waypoints in a waypoint table, tracks in a track table, routes in a route table, drawings in a drawing table, etc.</p> <p>In any case a corresponding assistant will open and lead you through the process.</p>
	<p>One level up Selects the next directory or database element upwards. Necessary if the tree window is masked in order to reach the next directory level upwards.</p>
	<p>Convert coordinates in list to current units ON/OFF Activates the conversion tool for coordinates from elements in the list window to the currently defined unit. When disabled, all coordinates are displayed as degree decimals in WGS 84, when enabled, they are converted to the format and date currently set. Please note that this function will slow down the scrolling in the list window. The current date is displayed in the X-Plorer window title line. This icon has a switch function.</p>
	<p>Cell Edit mode Using this function you can edit each cell in any table or selected element.</p>
	<p>Edit column properties Using this function you can edit columns of a selected table. Two options are available in the corresponding submenu: Optimal column width - This will automatically adjust column width to the optimal size. Select data columns... - This option will allow to enable or disable any column from the listing in the X-Plorer list window.</p>
  	<p>Cut Cuts and copies the selected elements to the clipboard. The data will not be deleted from the original place before they are inserted somewhere else. Copy Copies the selected elements to the clipboard without deleting them from the original place. Paste Pastes the elements from the clipboard at the current cursor position. Please note that this will only work if the data format is suitable. For example, you can copy location data and paste them to a waypoint or route, but you can't paste a track into a drawing table. You can also rearrange data by simple drag and drop operations.</p>
	<p>Duplicate Duplicates a marked object and inserts it in the same table.</p>
	<p>Delete Deletes all selected elements. Depending on the Database settings, the elements are either deleted from the list or marked as deleted and can be restored later on.</p>
	<p>Show in map When a map is selected in the list window, an assistant will open where you can choose the maps style (2d or 3D) and also the map extent. Otherwise, the selected elements are displayed on the opened map. If no map is opened or if the geodata are outside the map coverage, a list with suitable maps will be offered. The maps which are listed will depend on the AutoMAP setting.</p>
	<p>Open in XY-diagram Opens the selected data as a X/Y-diagram. See chapter X/Y Diagrams for further details.</p>

	Send to Garmin as a Map Sends all selected elements to the map memory area of your Garmin GPS unit. See chapter Garmin IMG maps.
	Send to GPS Sends the selected waypoints, routes or tracks to the GPS. See chapter Upload geodata from your GPS.
	Receive from GPS Downloads saved waypoint , tracks or routes from your GPS. See chapter Download geodata from your GPS.
	Export Exports the selected data in the defined format. For further details please refer to the Export of Data.
	Import Opens an assistant to import data to QV. For further details please refer to Import of data.
	Print list Will print the selected items as a list.
	Special functions For additional commands, please see description below.

Symbol bar between the list and details window:

	Function
	Save changes.
	Undo changes.
	Show links panel with the following options: - Show image Thumbnails - Remove all links... For further details see chapter Linking external Documents.
	Change the style of selected items.
	Recalculates summary statistic of tracks and trainings. See Track Statistics.
	Opens the Track Processor. See chapter Track Processor for further details.
	Opens an assitant to add photos to trackpoints. See chapter Assigning Photos to Tracks.

## Displaying and sorting

### Tree window

The tree window has a fixed order of display. Directories and databases are displayed in the order they were created, with the geographic database directory and the QV system directory always at the end of the list.

Tables, routes and tracks within the databases are listed in an alphabetic order. Please note that the sorting after editing will not be updated before refreshing the tree window.

### List window

In the list window the contents of map, waypoint, route, track and drawing tables are listed. The list can be sorted in ascending or descending order of each column. For this purpose, just left-click with the mouse into the column header and the list will be sorted according to this column in ascending or descending order. A small triangle will indicate the sorting order.

The list window for routes, i.e. the list of route waypoints, is sorted in a fixed order and cannot be rearranged. Otherwise, this would completely change the route!

### Column width

The column width is calculated automatically by QV. If you rename data, the columns may become

too narrow. To recalculate the optimum column width, double-click on the column title or select  Optimal column width. You can also left-click on the margin between two column headings and drag the column width to the desired size.

## X-Plorer Units

Koordinaten, Entfernungen, und Geschwindigkeiten können in vielen verschiedenen Einheiten angezeigt werden.

Das  Icon öffnet das Fenster Einstellungen - Einheiten. Wählen Sie die Maßeinheiten, in welchen Sie die Daten angezeigt bekommen möchten. Diese Einstellungen betreffen nur die Anzeige im X-Plorer, das Drucken von Listen und die Anzeige in der Statuszeile. Das Speichern neuer Daten wird davon nicht beeinflusst.

Auf langsamen Rechnern kann das Umrechnen von Koordinaten das Tempo beim Blättern im Listenfenster verlangsamen. In solchen Fällen können Sie die Koordinatenumrechnung mit dem Schalter  abschalten. Koordinaten werden dann in Dezimalgraden nach WGS 84 angezeigt und das Blättern im X-Plorer erfolgt dann deutlich schneller.

Weitere Information dazu finden Sie im Kapitel Einheiten.

## Markieren und Auswählen

Coordinates, distances and speeds can be displayed in many different units.

Through the unit  icon in the main menu bar you can open a window where you can specify the units in which you want the data to be displayed. The settings will only define the display of data in the X-Plorer, the printing of lists and the status line. They will not affect the entry of new data. Please note that when using a PCs with a comparably low performance the conversion of data may slow down your PC when scrolling in tables remarkably. In such cases you can disable the automatic data conversion with the software switch . If disabled, coordinates will be displayed in decimal degrees and with WGS 84 map datum. This will speed-up scrolling significantly.

Further information is given in the chapter Units.

## Marking and selecting

Selecting is performed by a left-click on the corresponding name in the tree or list window. The selected elements will then be shown in reverse color which indicates the marking status.

If you now click on another element thereafter, the reverse color marking of the previously selected element disappears and the new element is now marked and displayed in reverse color.

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All commands refer to the selected elements displayed in reverse color in the active window.

## Multiple selection

In the tree window, only one element can be marked at a time. However, several elements can be selected in the list window which are then displayed in reverse color. This is done using the standard Windows functions for marking, i.e. either with the mouse + Ctrl or Shift or with the keyboard arrow keys + Ctrl or Shift and the Space bar to reverse the selection. Ctrl + A marks all elements in the list.

## Active window

Bitte beachten Sie, daß entweder das Baum- oder das Listenfenster aktiv ist, aber nie beide gleichzeitig.

Sie erkennen das aktive Fenster an der blauen Hinterlegung des markierten Objekts.

Klicken Sie z.B. im Baumfenster auf eine Wegpunkt-Tabelle wird diese blau hinterlegt dargestellt und das Listenfenster zeigt jetzt alle Wegpunkte an, die in dieser Tabelle enthalten sind. Jetzt ist das Baumfenster aktiv und wenn Sie jetzt Löschen  auswählen, wird die gesamte Wegpunkt-Tabelle gelöscht.

Klicken Sie dagegen auf den einen Wegpunkt im Listenfenster, wird dieser blau hinterlegt dargestellt und im Baumfenster wird nun die zugehörige Tabelle nur noch eingerahmt dargestellt. Die Wegpunkt-Tabelle ist zwar noch ausgewählt, aber das aktive Fenster und damit der Fokus liegt auf dem gewählten Objekt im Listenfenster. Entsprechend wird die Auswahl der Löschen-Funktion  jetzt nur den markierten Wegpunkt löschen.

## Renaming

Right-click on the name that is to be changed, either in the tree or in the list window, and select Rename from the pop-up menu. Change the name and click the Save  icon or press Enter to confirm. You can also use the Esc key if you want to cancel the editing.

Please note that a function for an automatic renaming of selected items is also available through the  icon.

## Editing Data

If the parent database is not write protected (orange database symbol), all data can be edited.

In the tree or list windows, only the names can be changed. To change other data, e.g. the description or the symbol of a waypoint, you have to use the detail window below, which contains an input field or button for any field that can be changed. However you may require to click the Cell edit mode  icon

before you can do so.

Mark the required line / field and make your changes in in the detail window. Confirm your changes by clicking the Save  icon or by pressing Enter.

If you want to undo achange you have made, just click the Undo Changes  icon.

## Changing the style of geodata

For changing the style of geodata just mark the data set(s) to be changed and click the  icon. An assistant will open which offers various tabs. Fur further info please refer to Style in in the Marks and Geodata chapter.

## Copying and moving

It is quite easy to organize data in the QV X-Plorer. You just need to create the desired databases and tables with the appropriate names and then reorganise your data by moving maps, routes, tracks and waypoints wherever you like. For this purpose QV will use the standard Window functions such as Cut, Copy, Paste or Drag and Drop.

Basically, almost anything can be copied or moved anywhere. However, you must follow these rules:

- The data that is to be copied or moved (the source data) must be highlighted first.
- Thereafter, use the Cut  or Copy  icons either from the symbol bar or select the same functions from the pop-up menu after right click on the element to be cut or copied. You can also press Ctrl+X or Ctrl+C on the keyboard. (Please note that when selecting Cut, the source data will not be deleted until it is pasted).
- Then, mark the database object where you want the data to be inserted and click the Paste  icon or select the same function form the the pop-up menu. You can also press Ctrl+V on the keyboard.
- The place for pasting the source data must be one level up, so if you have highlighted and copied some waypoints, you must click on a waypoint table before pasting. If you have copied a table, the target must be a database.
- Source and target must not be the same. You cannot paste a waypoint into its own waypoint table. This would duplicate the waypoint. Route waypoints are an exception from this rule because the same waypoint may occur several times throughout a route.
- You cannot paste data to write protected databases or to the geographic names database, but you can copy data from these sources and paste them to other databases which are not write-protected.
- It does not matter whether you copy or paste in the list window, the tree window or in another QV X-Plorer window. All is possible.
- The paste function is automatically blocked if the source data cannot be pasted into the selected place, for example due to the fact that they are not suitable for the selected target.

## Drag and Drop

It is even easier to move or copy data by a drag and drop operation with the mouse:

- Highlight the source data through a simple click with the left mouse button. You can also mark several objects.
- Then, left-click on the selected objects (which are highlighted in blue), hold the mouse button down and drag the objects to the desired place. Depending on what kind of data you have selected, you must use a table, database or directory as target. Then simply release the left mouse button and the objects will be inserted.
- If you want to copy the source data instead of moving them, just press the Ctrl button on the keyboard before dragging.

The mouse pointer will change its appearance while moving the data:

	Moving several objects
	Copying several objects (Ctrl button pressed)
	Moving one object
	Copying one object (Ctrl button pressed)
	It is not possible to drop the selected objects here.

## Displaying data on maps

One of the most important functions in QV is displaying the data on maps. As all data is saved with geographical coordinates and all maps are geo-referenced, QV can display all data on any maps. Data and coordinate or grid conversions are done automatically. Thus, You can visualize a track on several different maps and decide which map is the best suited. A waypoint, track, route or drawing element on the map is referred to as a mark.

To display a mark on a map, just select the desired data in the QV X-Plorer so that they are highlighted and then click the Show on Map  icon in the symbol bar. Alternatively, you can double-click the selected objects or simply press Enter on the keyboard. However, please note, that double clicking on a track, route or trainings element will open this element and list all points of the selected object.

Thereafter, the Show-in-map assistant will open. For further information please refer to the chapter Displaying marks and geodata.

## The AutoStart database

A special function is linked to the AutoStart database.

When you start QV, all parameters stored in this database will be loaded and displayed accordingly.

Physically, this is a standard QV database which was renamed to AutoStart. Just as with any other databases, this database can handle any number of waypoint, route, track and drawing tables.

You can also copy a map table to this database which will also be automatically loaded during the starting process; however this map table should contain one map only. The map specified here will be dominant to the software switch titled QV start: automatically open last map under Options - Settings - Map.

To use this function follow these steps:

- Create a new database
- Rename this database to AutoStart
- Delete the tables that you do not need
- Paste the tables from other databases containing all objects which you want to be plotted after starting QV
- If you want to have a certain map displayed each time you start the program, create a map table and copy the desired map.

Note: If the AutoStart database contains several maps, QV will always display the first map. All other maps will be ignored. The „first“ map is defined by the map which you copied to this map table first.

## Printing of data in a list

You can print all marked and highlighted data from the X-Plorer by clicking the Print list  icon. The data will be printed in the units currently set and in the current sorting order.

What will be printed will depend on what you mark. The following lists can be printed:

- Routes with route waypoints (if you mark all waypoints within a route)
- Route lists without waypoints (if you select a route table)
- Individual route waypoints
- Waypoints
- Tracks with all trackpoints (if you mark all points within a track)
- Track lists without trackpoints (if you select a track table)
- Map lists

Just highlight the required data in the list window and click the Print list  icon.

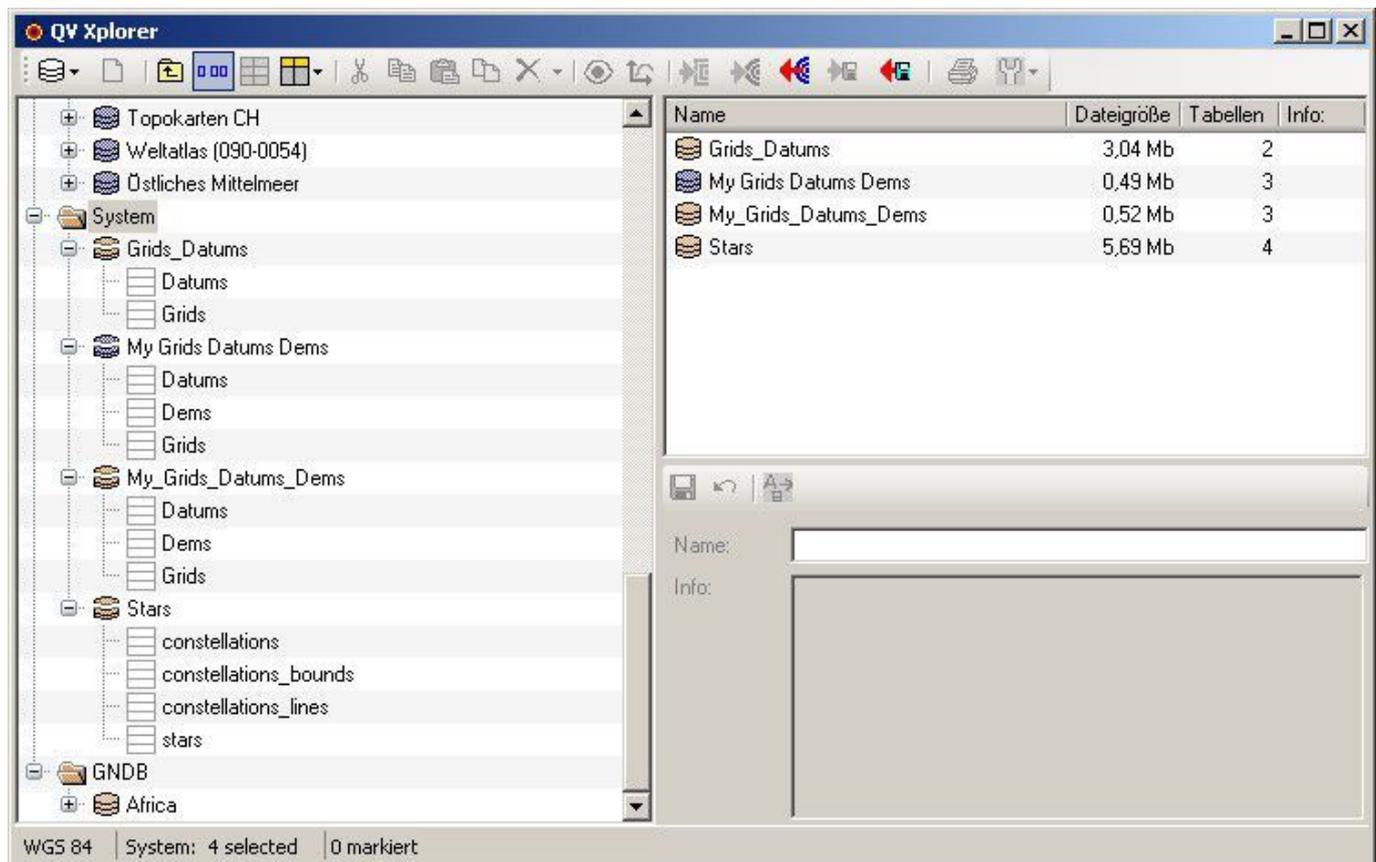
The lists will be printed with the current printer settings. These can be changed at any time under File - Print... in the pull down menu of the main menu bar.

# Search queries

This chapter is currently unavailable. It will be added soon. We ask you for some patience.

# System databases

The lowest branch in the QV X-Plorer tree window you will find the System folder. Here you have access to different databases in which system parameters are managed:



These include the database Grids\_Datums which is write-protected and which includes all predefined map datums and grids. Here you find all parameters which define a given map datum or a given map grid.

Following, you find two databases for map datums and grids which you might wish to define yourself. One is named My Grids Datums DEMs and has read and write access, the other one is named My\_Grids\_Datums\_DEMs and is write-protected.

You can add, modify or delete a map datum or a grid. Furthermore, digital elevation models (DEMs) can be imported, deleted and activated (see below).

Finally you find another write-protected database where all names and ephemeris parameters of starts and planets are stored.

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## Creating a map datum

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Right-click on the table Datums in the My Grids Datums DEMs database. You can then choose New for creating a new map datum or Duplicate for copying and modifying an existing one.

In the same pull-down menu you will also find the options rename, delete, cut or copy.

For creating a new map datum proceed as follows:

- Click on an existing datum. All relevant parameters will be listed in the detail window.
- Change the parameters according to the new map datum definition.
- Confirm your settings by clicking SAVE as NEW

## Creating a map grid

Right-click on the table Grids in the My Grids Datums DEMs database. You can then choose New for creating a new map datum or Duplicate for copying and modifying an existing one.

In the same pull-down menu you will also find the options rename, delete, cut or copy.

For creating a new map grid proceed as follows:

- Click on an existing grid. All relevant parameters will be listed in the detail window.
- Change the parameters according to the new grid definition.
- Confirm your settings by clicking SAVE as NEW

## Transferring maps with user-defined datums and grids

User-defined grids and map datums are saved in the file user.qdb. Furthermore, the parameters for every map that uses a specific datum/grid are saved along with the calibration information.

That means that you can transfer the map with the calibration file to another PC with QV. When opening the map on another computer for the first time, the new datum/grid will automatically be added to the user.qdb file.

Even if you delete your own datum/grid by accident and later on open a map with a calibration file based on this definition, QV will automatically add the datum/grid to the user.qdb file and the map will be opened correctly.

## Digital Elevation models

A digital elevation model (DEM) is a file in which the terrain elevation for a specific area is stored as a 3D matrix. Similar to a digital map, a DEM has a specific resolution and must be calibrated, i.e. there are specific rules on how to extract the corresponding altitude for a given geographic coordinate.

QV can read DEMs and thus specify altitude values for any coordinate. Thus you can calculate an altitude profile for a planned tour, add altitude information to existing GPS data and create a three-dimensional picture of the landscape. So, for a 3D-view of a map (and the other functions mentioned), a DEM is an obligate requirement. Technically, the 3D-modelling is done through a triangular irregular network (TIN), so the earth surface is represented by a network of triangles. When displaying a map in 3D, the resolution of this TIN can be adjusted using the 3D elevation options  (see chapter Map window).

There are various Digital Elevation Models available on the market which differ in resolution and absolute accuracy of the altitude values.

Here is a list of what we offer ready-to-use for QuoVadis 6:

- **SRTM 30:** The SRTM 30 DEM comes from the CGIAR-CSI which is a consortium of 15 international research laboratories. The SRTM30 DEM has a resolution of 30 angular seconds which corresponds (in our latitudes) to approx. 900 meters and is available in an almost worldwide coverage. This DEM comes with QuoVadis 6 except Basic version.
- **SRTM 3:** The SRTM 3 DEM also comes from the CGIAR-CSI and has a resolution of 3 angular seconds which corresponds (in our latitudes) to approx. 90 meters. The coverage extends to 60° N and 60° S. In our webshop we offer these DEMs ready to use for QV. The DEMs are available for the following „hyper-continents“: America, Eurasia/Africa and Asia/Australia. So you can cover the entire populated earth with only 3 products in a resolution which is adequate for most applications.
- **SRTM 1:** Again this DEM is based on the CGIAR-CSI DEMs but the resolution has been increased to 1 angular seconds which corresponds (in our latitudes) to approx. 30 meters. This DEM is available with a coverage of the European Alps only. In our webshop you can get this DEM ready-to-use for QV. So, if you want more accurate 3D-modelling, this DEM will deliver better results than the SRTM3 DEM described above.
- **INTERMAP®-DEMs:** These are highly accurate DEMs which are licenced by INTERMAP in a linear resolution of 25 meters and have an absolute accuracy of 1 meter! They are available in our webshop as an option to some of our high quality topomaps and also with the coverage of the Complete European Alps (except Slovenia). Whenever you need a very high accuracy of altitude readings or whenever the precision of the 3D-modelling is critical, we strongly recommend to use these DEMs which have an extraordinary quality.

**Important Remark:** Please note that DEMs which come with third party suppliers of topographic maps usually cannot be imported into QV due to copyright restrictions!

Beware that there are several reference systems available for elevation values. Various standards have been established so the average sealevel is only one reference but not the unique standard! Other systems refer to various earth spheroids like WGS 84. If you require an absolute accuracy within a few meters, it is essential to consider the elevation reference system!



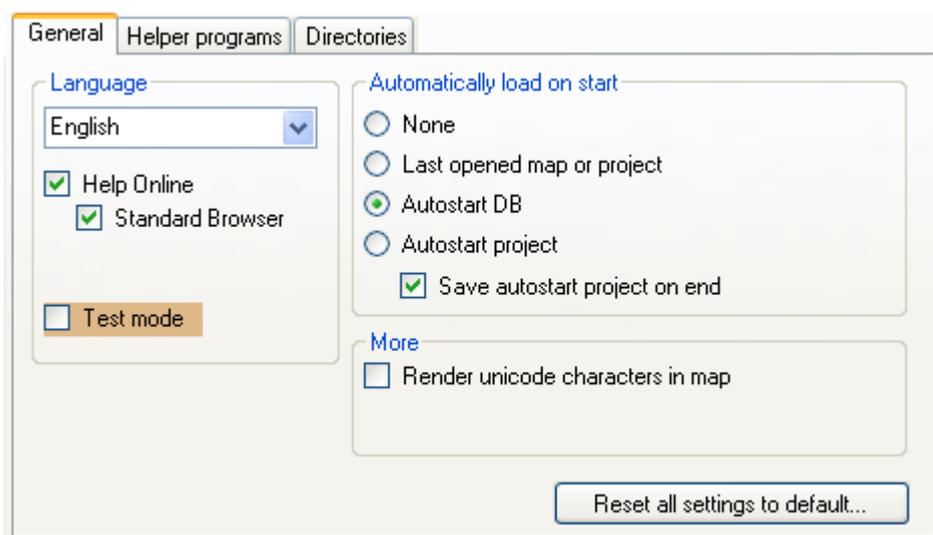
## Geographic names database

In QV, a database including some 5 million geographic names is included. By clicking the binoculars icon, you can open a window and query for names.

Details to this chapter are currently unavailable. They will be added soon. We ask you for some patience.

# AutoStart

QuoVadis is able to load several maps and marks automatically when the program is starting. Under **settings program** you will find different options:



## None

This is the standard setting. No maps are opened or marks loaded at the start.

## Last opened maps or projekt

The map or the project, which was loaded at the shut down of QV, is opening again, when the program is starting the next time.

## Autostart Database

The *AutoStart* database has a special function: At every start of QV, all data which are stored in this database are automatically displayed.

Basically, this is a normal database which is renamed in *AutoStart*. As every other database, the *AutoStart* database can contain as many waypoint, route, track, geocaching, training and drawing tables as you like.

Additionally, you can copy a map table to this database which, can also contain several maps.

- Create a new map database.
- Rename this database into *AutoStart*.
- Delete all tables which you do not need.
- Copy those tables from other databases to the *AutoStart* database which contain all elements which you would like to see after start-up of QV.
- If a map of your choice should be opened along with the geodata, create a map table in the *AutoStart* database and copy the desired map(s) to this map table.

## Autostart Projekt

You can rename every projekt into **Autostart**. This will be loaded when the program is starting again.

When the button **Autostart projekt save when shut down** is activated, QV creates a project with this name automatically, when you quit the program. This is the correct setting, when you like to have all maps and marks, which were opened at your last session, be loaded automatically during the program start.

# Data backup

All user data, databases, settings and licence data are stored in the *QV Data* folder which is usually located at **Workingspace\Common Documents\QuoVadis 6\_Data**.

*Please backup at least this folder on a regular bases!*

You will find detailles information in the chapter [Storage location of data](#).

Remark: *In case you have connected additional directories to your QV X-Plorer, you should backup the corresponding folders as well!*

The Compress function in the database menu automatically creates back-up copies of the compressed databases with the same file names, but the suffix \*.BAK.

An easy way to do a quick backup of all your databases is the function **Quick backup - End** from the Files Menu. This ends QV, but before it creates a Zip-file containing all your databases, even from connected, active folders. You can choose the location of this zip, default is the desktop. The name of this zip contains the current date e.g. Backup\_qv5data\_2011Apr10.zip.

# The mapwindow

The map window shows the current map in 2D or 3D. The map window has three main functions:

- i) Creating of all kinds of geodata like waypoints, routes, tracks, geochaches and drawings.
- ii) Plotting of existing GPS data in user-defined colors, line styles and fonts.
- iii) Orientation / navigation in the GPS-Online mode to show your actual position together with your tracklog, and - in case of the routable NAVTEQ navi maps - also navigation commands.

The basic principle is simple:

After a map has been calibrated, QV can calculate the geographic coordinates for any location of the mouse pointer. Each movement of the mouse is immediately converted into coordinates which are indicated in the map status field at the bottom of the map window.

And vice versa, each point whose geographic coordinates are known can be plotted in the correct place on the map. Simply click on the Search point by coordinates  icon, enter the coordinates, specify the adequate coordinate system and map datum and click the search in map / show button. The map will immediately be scrolled to this position (as long as the map covers this position). In case the map does not cover the geographic area, QV will scan all maps and will list all maps which i) cover this position and ii) fulfill the selected AutoMAP criteria.

Left clicking on the map puts the so-called map cursor in the place of the mouse pointer which is indicated by a purple circle . The coordinates of the map cursor are also shown in own field in the status field.

Another field shows the corresponding distance and direction from the map cursor to the mouse pointer which will be continuously updated with every mouse movement.

This may not sound very exciting but it is the basis for all subsequent actions in the map window.

As waypoints, routes, tracks or drawings will be saved with their coordinates, they can be plotted on any suitable map. And vice versa, by simple mouse clicks new waypoints or tracks can be created.

The same is true for maps: As they are stored with their corresponding coordinates, QV can automatically search suitable maps for any point, track or route or other types of geodata.

Following an example of a map window showing a 3D map representation:



At the bottom of the map window, you will find the map status field which summarizes important information:

<b>N 50,04184° O 8,97021° 116m</b>	<b>TTQV-TOPO25-DE - Deutschland, Bayern</b>	<b>2D 87% I=1</b>
<b>N 50,02866° O 8,98706° 119m</b>	<b>1,90km 141°SO, 3m (0%)</b>	<b>N40_E000 (4) WGS 84</b>

Left column

1. The position of the map cursor including altitude
2. The actual position of the mouse pointer including altitude

Central column

1. Name of the used map
2. Distance, course, altitude difference and corresponding slope in % between map cursor and mouse pointer

Right column:

Name of the used DEM (digital elevation model) and the actual map datum

Remark: Please note that all coordinates are specified in the units according to the unit settings.

If you have enabled the display of the North arrow in the View menu, you will find a compass rose plotted in the upper left corner of the map window. In this case you will also find all details on the camera characteristics like position, altitude, speed, course, pitch and roll.

## Infos zu Objekten

Wenn Sie die Tooltip-Infos  einschalten erhalten Sie Kurz-Infos in Form einer kleinen, gelben

Tooltip-Box, wenn Sie die Maus über ein Objekt bewegen. Wenn Sie jetzt das Objekt anklicken, öffnet sich eine gelbe Info-Box mit weiteren Infos:



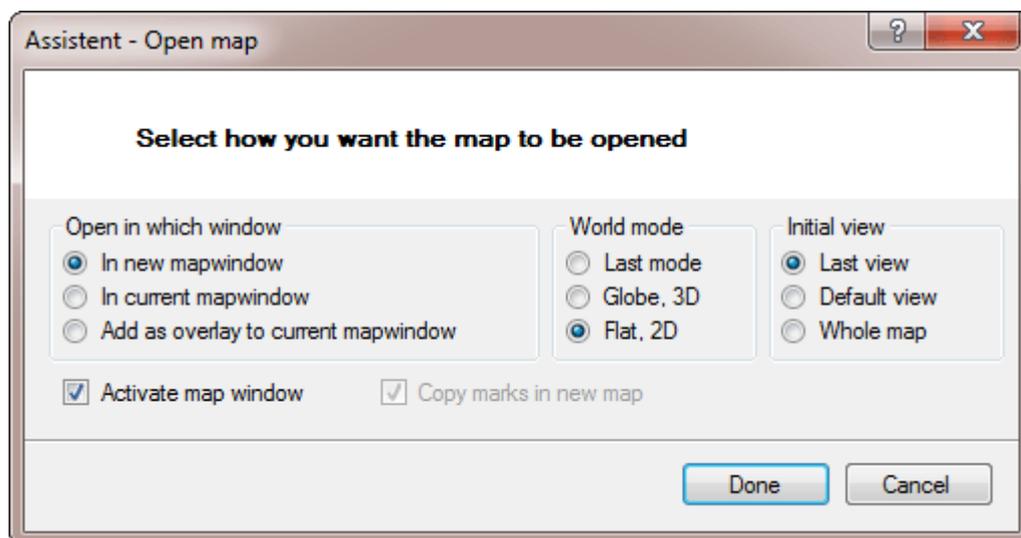
Im Editieren-Modus können Sie dort auch Änderungen vornehmen, welche automatisch gespeichert werden, sobald Sie die Box wieder verlassen. Mit dem Button „X“ können Sie in den Xplorer wechseln und haben dort Zugriff auf alle Eigenschaften des Objektes. Die Info-Box schließt sich automatisch, sobald sie den Focus verliert.

## Opening maps

After a map has been imported to QV and is listed in one of the X-Plorer databases, you have several options to open a map:

- Mark the map in the QV X-Plorer and double-click. The open map assistant will open.
- Mark the map in the QV X-Plorer and click the  Show in map icon. The open map assistant will open. If you push the Ctrl button before clicking the  icon, the map will be opened in a new map window.
- Just drag and drop the map from the X-Plorer to the map window. It will automatically be plotted in 2D or 3D depending on how you have configured your map window.

The open map assistant looks as follows:



In this window you can specify how the map should be visualized. You have the following options:

#### World mode:

- Flat, 2D - Use this option if you want the map to be plotted in a conventional 2D view.
- Globe 3D - Use this option if you want the map to be plotted in real 3D. It will be projected on the digital elevation model (DEM) of the globe. It is obligatory to have DEMs installed in your QV installation! Please note that the accuracy of this 3D modelling will strongly be affected by the resolution of the used DEM. The DEM resolution which comes with QuoVadis 6 is 30" which corresponds to approx 900 m at the equator. Digital elevation models with a higher resolution are available at our webshop. All QV Topomaps come with a 3" DEM (approx. 90 m resolution). Extra high resolution DEMs are available for some areas with a 25 m resolution and excellent accuracy of elevation values (data source INTERMAP®).
- Last mode - If you choose this option QV will open the map in the same style which you have been using with the last map.

#### Initial view:

- Map center - QV will initially zoom to the center of the map
- Whole map - QV will zoom to the whole map extent
- Last view - If you choose this option QV will open the map in the same way which you have been using with the last map.

If you have more than one map window opened, you will also have the choice of one of the following options:

#### Open in which window:

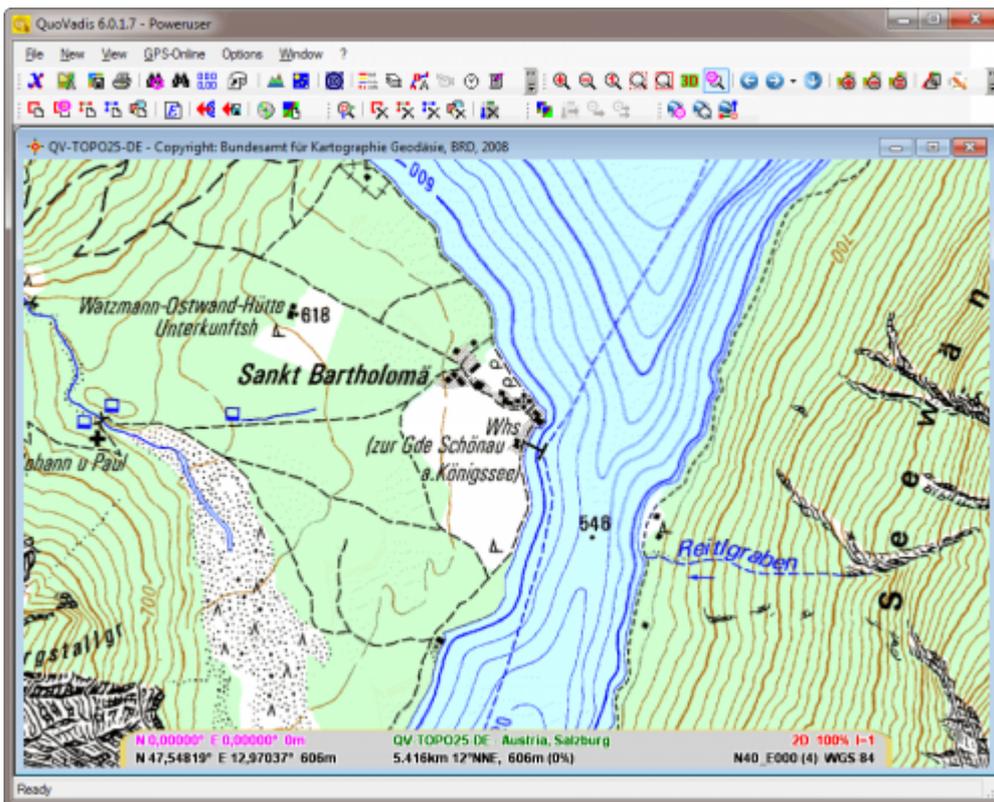
- In new map window - This is the only option if no map window has been opened before.
- In current map window - This option will add the map in the currently active map window.
- Add as overlay to the current map window - In this case the map will be opened as an overlay to a map which has already been plotted in the active map window.

#### Important Remark:

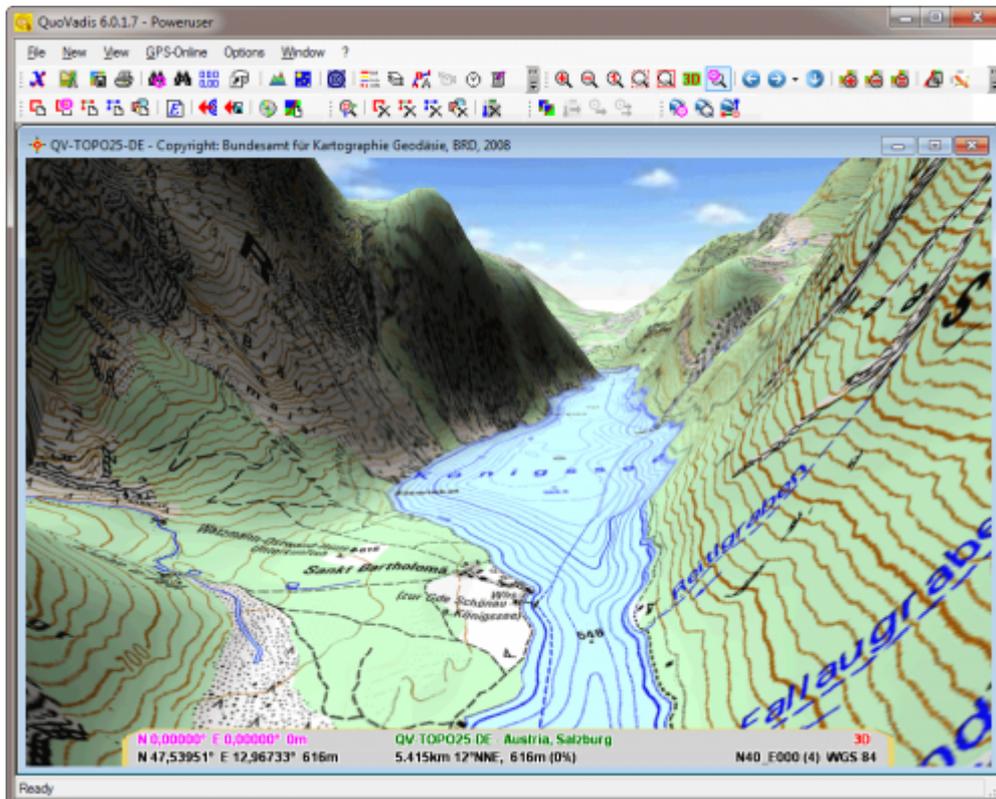
- The setting of the AutoMap mode will influence the maps which are offered when pressing the  Show in map icon. If the AutoMap function is disabled and the icon has this appearance , you will only be able to open a map which you explicitly marked. In this case just enable the AutoMap mode by click the corresponding icon until it looks like this: . Then maps which are stored in other databases will also be offered in the selection of maps to be opened.

Here two examples on how the Top25 Germany topomap will look in a 2D and 3D mode (2D upper, 3D lower):

#### Top25 Germany - 2D view



Top25 Germany - 3D view (please note that due to the limited resolution of the DEM with a 90 raster the slopes along the eastern shoreline are not perfectly modelled):



## Controlling the map perspective

In order to adjust the 3D characteristics of the 3D map window, you can use one of the following keys / key combinations and/or the mouse. Additionally the corresponding functions for the 2D window are listed:

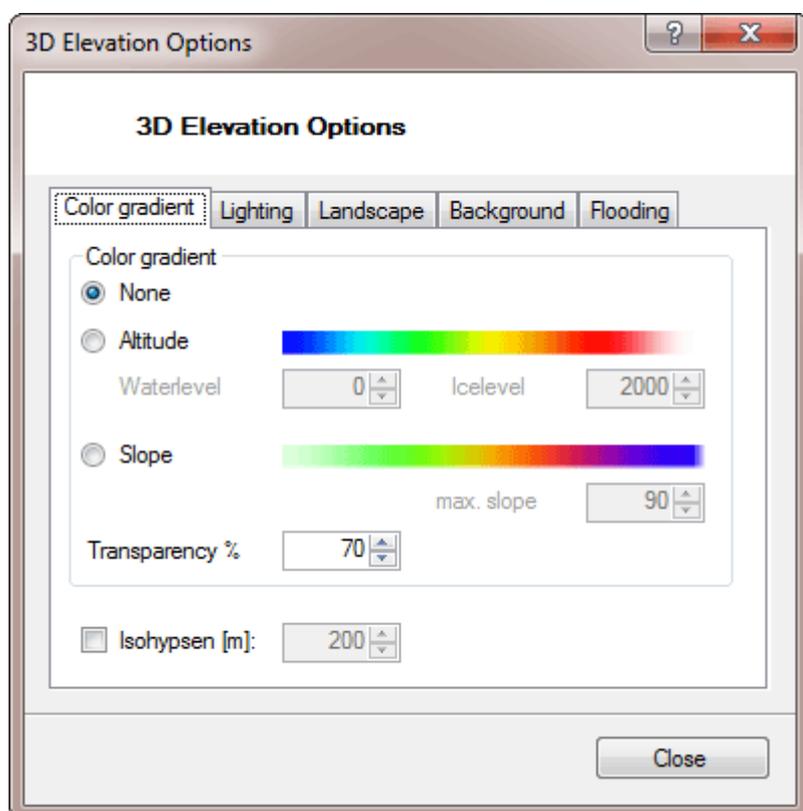
Key / Mouse	Function in 2D window	Function in 3D window
	Pan the map to the left	Pan the map to the left (constant altitude)
	Pan the map to the right	Pan the map to the right (constant altitude)
	Pan the map downwards	Pan the map downwards (constant altitude)
	Pan the map upwards	Pan the map upwards (constant altitude)
Shift +	Turn the map contra-clockwise	Turn the camera contra-clockwise
Shift +	Turn the map clockwise	Turn the camera clockwise
Shift +	(not used)	Turn camera downwards
Shift +	(not used)	Turn camera upwards
Ctrl +	(not used)	Turn the map contra-clockwise (Cursor centered)
Ctrl +	(not used)	Turn the map clockwise (Cursor centered)
Ctrl +	(not used)	Increase camera distance from cursor (Zoom Out)
Ctrl +	(not used)	Decrease camera distance from cursor (Zoom In)
Page	Zoom In	Decrease camera elevation (Zoom In)

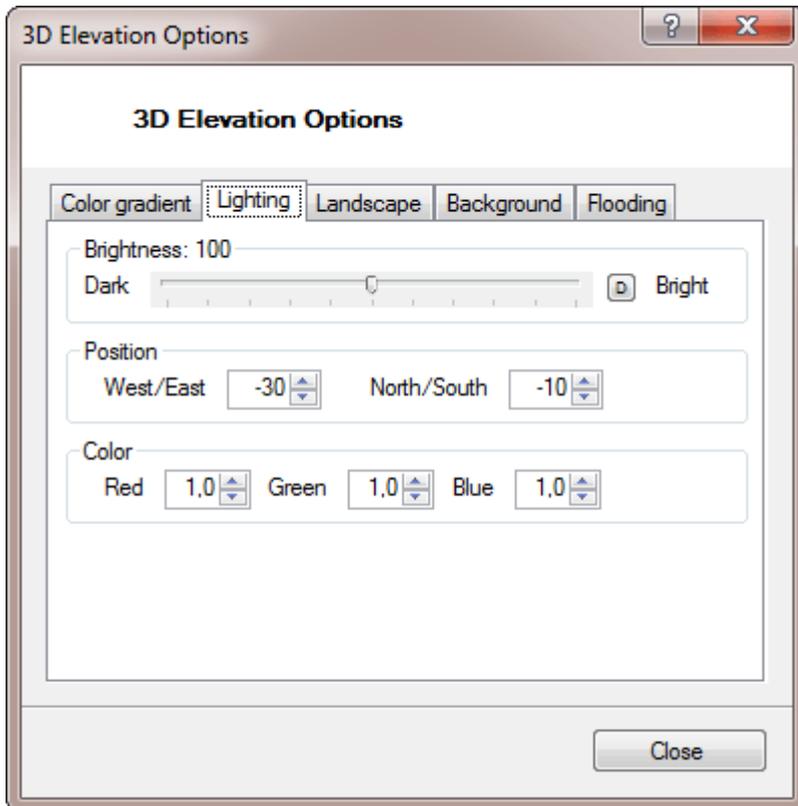
Page 	Zoom Out	Increase camera elevation (Zoom Out)
Ctrl + Shift + 	(not used)	Tilt the horizon contra-clockwise
Ctrl + Shift + 	(not used)	Tilt the horizon clockwise
Mouse wheel	Without additional keys: Zoom In / Zoom Out (with focus on the mouse position) Shift + wheel: Accelerate / decelerate movement Ctrl + Wheel: Move towards cursor / move towards map center	
Mouse movement	Drag with left mouse button pushed: Move map (any direction) Horizontal move with right button pushed: rotate map (relative to map center) Vertical move with right button pushed: camera tilt (NOT in 2D)	

- Using the N key you can always orient the map towards North!
- Using the 1 key you can switch back to a view from perpendicular above
- Using the R key you can reproject your map toward north and view from perpendicular above. If you have the zoom on cursor option enabled, the map will be centered on the cursor position. Otherwise it will be centered on the centre of the map.

## 3D options

When plotting a map in the 3D mode, you have a couple of additional options which can be accessed by clicking the 3D elevation options  icon. Thereafter the 3D elevation options window with 5 tabs will open:



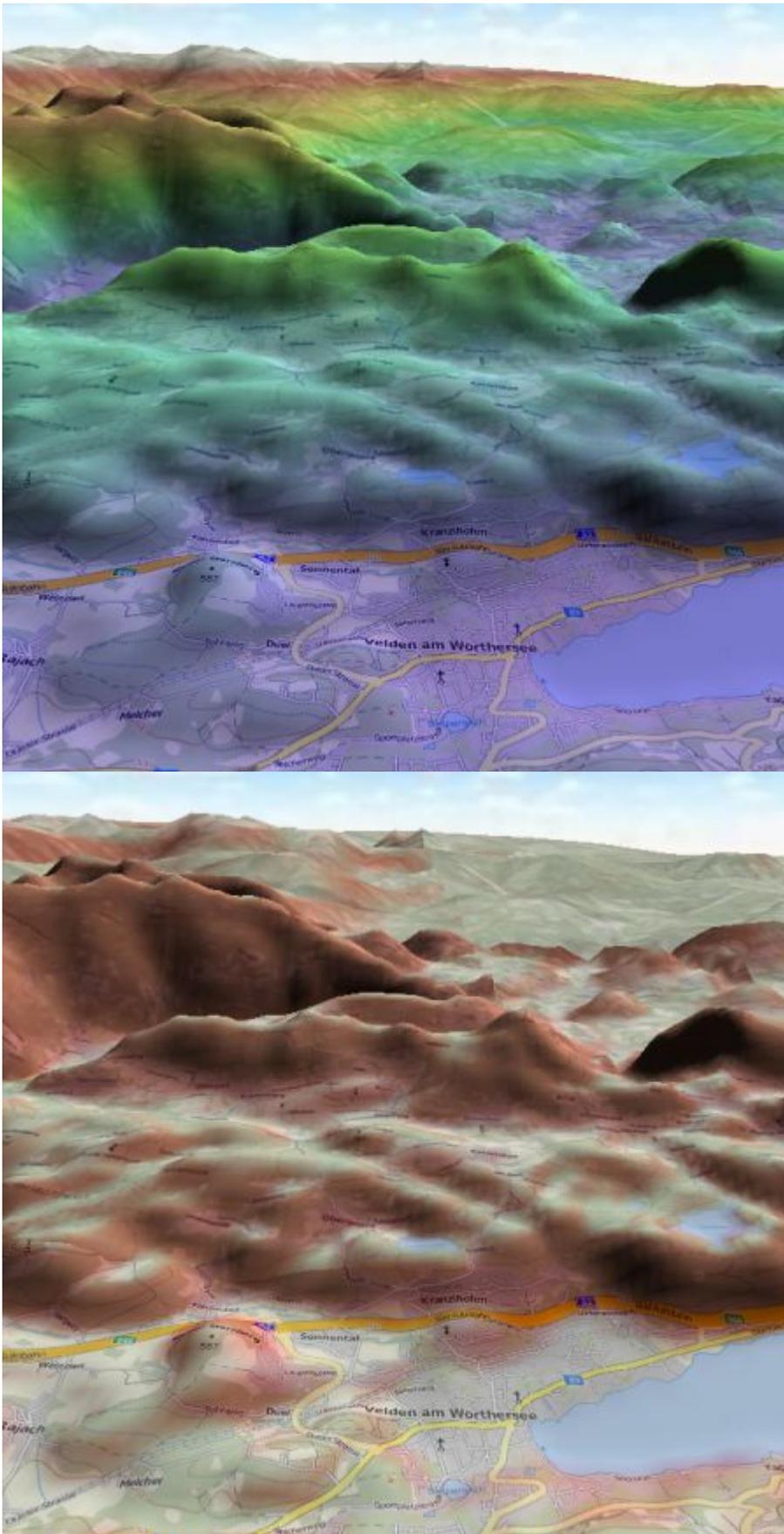


On the Color gradient tab, none is the default option which will show the map in its original style. Optionally you can color-code the map according to ground surface elevation (Altitude option). In this case you can specify different threshold values for the water and ice levels. In this context the water level represents the lower elevation limit which is color-coded in blue and the ice level the upper elevation threshold which is color-coded in red.

With the slope option you can color-code the map according to the slope of the terrain. In this case you have to define a threshold level for the steepest slope class.

For both colorcoding options you have to define the Transparency for the color-coded bands in % in order to adapt the visibility of the original map to your personal preferences.

Below you find an example for colorcoding according to altitude (left/upper) and slope (right/lower):



Alternatively, you can activate the Isohypsens switch in order to activate a shading according to elevation bands as an overlay to the map plot.

Below an example without (left/upper) and with enabled altitude isolines (right/lower; 50 m intervals):



On the Lightning tab you adjust the brightness of the map plot and specify the position of the sun (Light position) which will define how the shading affects the map style.

Additionally you can modify the Light Color of the light source for special effects.

An example how the position of the sun affects the shading is shown below for a sun azimuth  $45^\circ$  east

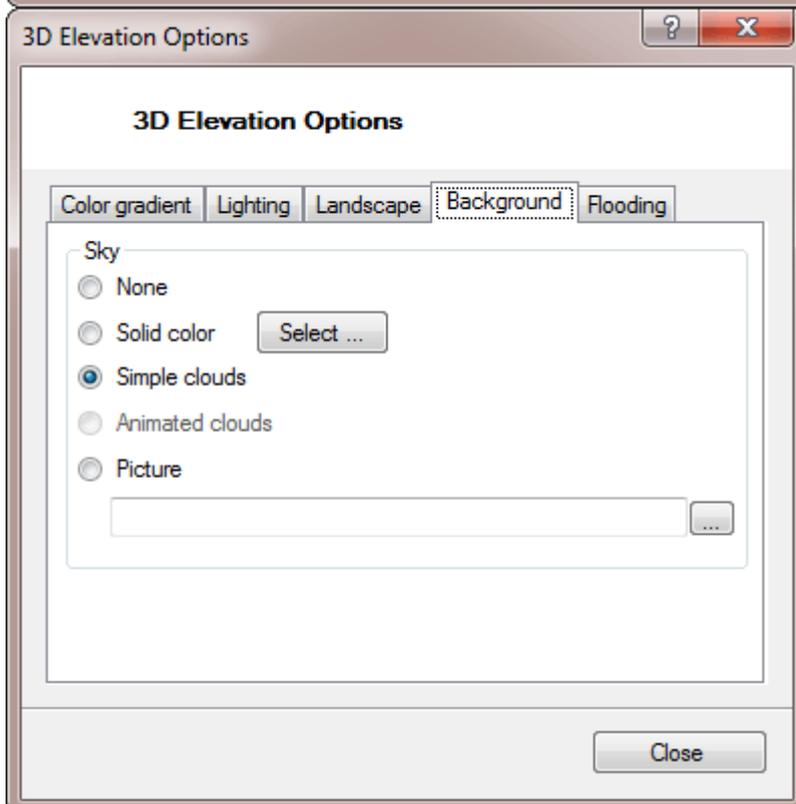
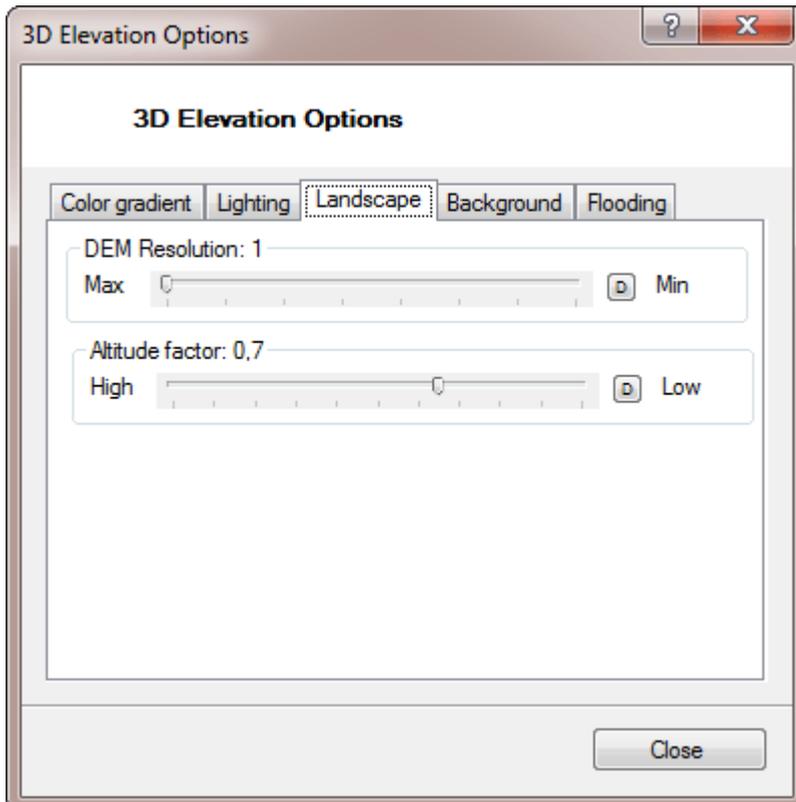
(left/upper) and 45° west (right/lower; in both cases sun elevation North/South was set at -5°):



Important Remark:

- Concerning sun azimuth, negative values translate to east, concerning altitude negative values

represent north.



On the Surface relief tab you can adapt the 3D modelling to your requirements. Using the Mesh Resolution slider, you can adjust the resolution of the irregular triangular network which builds the terrain surface. By increasing the Mesh Resolution factor, the ground surface will be modelled with a higher resolution but this will result in a slower modelling by imposing additional load on your CPU. So, if you are using a PC with limited performance, it is wise to decrease the Mesh Resolution factor to some extent.

Below two examples for a high (left/upper) and a low mesh resolution (right/lower):



Using the Vertical scaling slider, you adjust the scale of the vertical axis to your personal preferences. Please note that this is a dimensionless slider where a value of „1“ does not necessarily reflect a „natural“ view as the 3D characteristics are strongly influenced by the camera perspective. Following

two examples with a pronounced relief energy (left/upper) and a more flat map representation (right/lower):

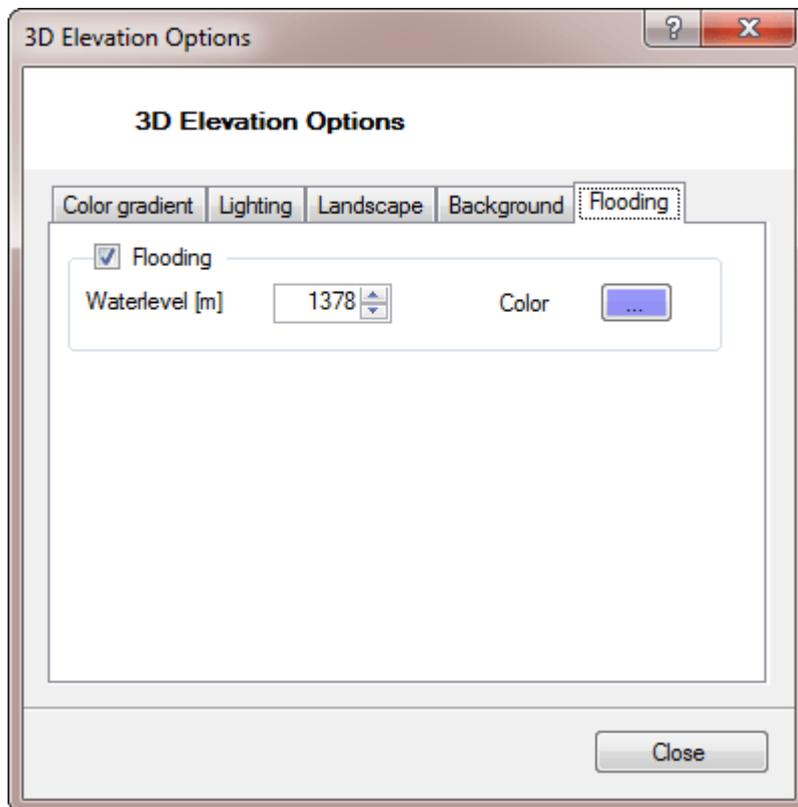


Finally, on the Background tab you can specify the style of the map background, respectively the sky above/behind the map representation. You can choose between None, Solid color, Simple clouds,

animated Clouds and a user defined bitmap (Picture). Following an example with solid orange sky (left/upper) and „simple“ clouds (right/lower):



Auf der Seite Überflutung können Sie Überflutungsgebiete im Gelände veranschaulichen. Hierzu wird auf einer frei einstellbaren Höhe eine Fläche in die Karte eingeblendet, die anzeigt, welche Teile des Geländes bei diesem Wasserstand überflutet sein werden. Farbe und Transparenz dieser Wasser-Fläche sind unter Farbe einstellbar. Benutzen Sie die kleinen Pfeilchen in der Eingabebox Wasserlevel, um den Wasserstand in Meter-Schritten zu verändern. Die Kartenansicht wird hierbei in Echtzeit aktualisiert.





## Map extent and section

The map plot can be shifted within the map window in various ways:

- Using the arrow keys on the keyboard. With this method a neighbouring map will automatically be searched and opened when the map extend of the current map is reached.
- By dragging the map during a click-and-hold operation with left mouse button.
- By zooming out until the area of interest is covered, then placing the mouse pointer at the place of interest and zooming in again.

The map display can also be zoomed in various ways:

- By selecting one of the zoom symbols in the symbol bar of the main window.
- By selecting one of the zoom commands from the View menu in the main menu bar.
- By pressing + or - on the keyboard to zoom in or out, or key 1 for 100% zoom.
- By selecting a zoom stage from the pop-up menu in the status line.
- With the scroll wheel of your mouse.

Click on the  Center zoom on cursor to skip back to the cursor point from any map position.

Using one of the lens icons  /  /  /  /  (description see above), you can zoom the map to any scale or map extent. You can also select from a pop-up menu with zoom factors at the status bar below the map window or enter a specific zoom factor.

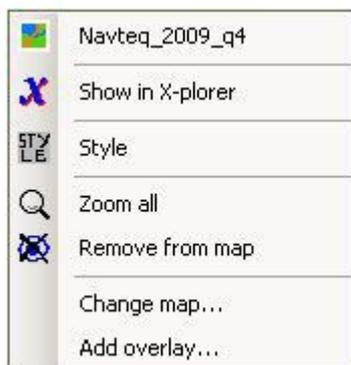
Important Remark:

When zooming, QV will always center according to the position of the mouse pointer! This is different when compared with older QV versions where the map was centered by default according to the map cursor position.



## Popup menu

The following functions are available in the Map pop-up menu which can be accessed by a right mouse-click on any point within the map window:



Description of the options:

Object name	This is an object selection tool: this option will allow you to choose the object of interest in case various objects lie under the mouse pointer and cannot be selected through a simple mouse click. This can be the used map and/or any sort of geodata like waypoints, tracks, routes, geocaches or drawings.
Show in X-Plorer	Opens the QV X-Plorer and shows all details for the opened map or the selected object.
Style	Opens a window with various style options (see below).
Zoom all	Will zoom to the whole map extent.
Remove from map	This option allows to remove any kind of geodata (waypoints, tracks, routes, geocaches or drawings) from the map. In case of various overlaying objects, choose the object of your choice through the object selection tool (see above). In case no geodata are available at the location of the mouse pointer, QV will ask you if you want to close the map.
Change map...	Will list all available maps in order to choose one from the list. The maps are ranked according to scale. You find the most detailed maps at the top of the list.
Add overlay...	Will list all available maps for applying a map overlay function (see below).

Style options:

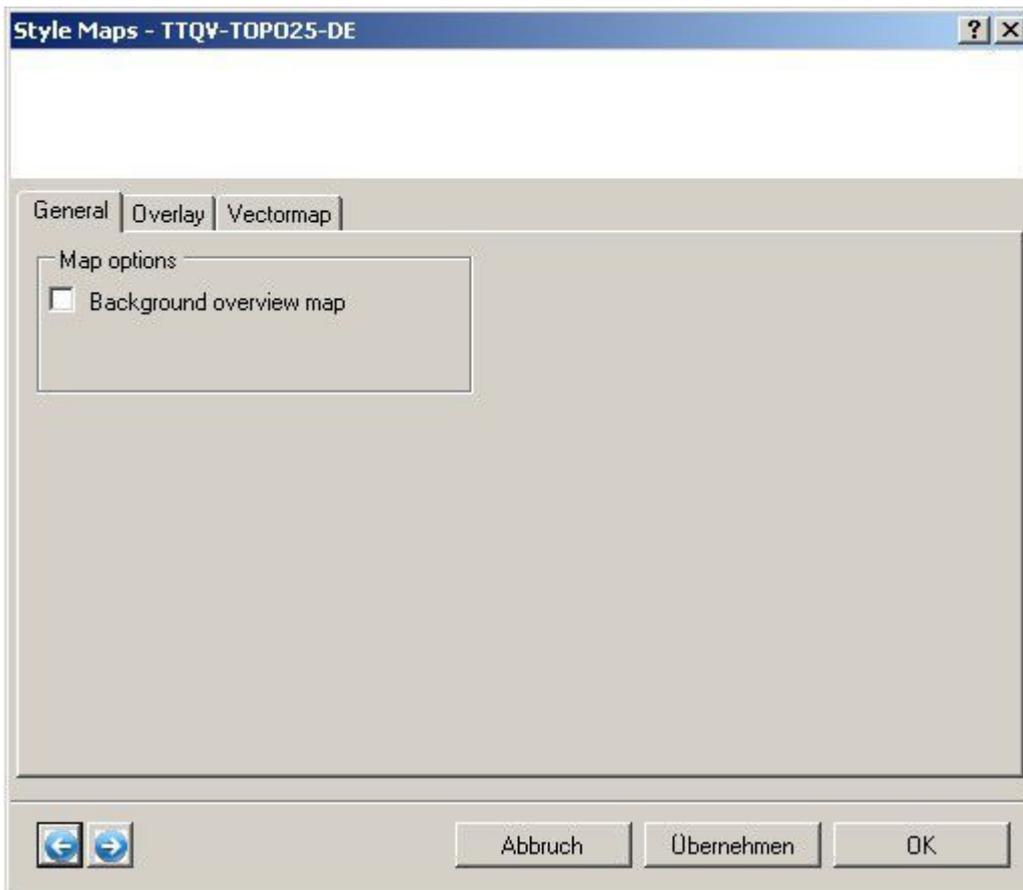
The Style window which opens after a right-click with your mouse will always refer to the object which is lying below the mouse pointer position.

If necessary, use the object selection tool (see above) to select the object of interest before choosing the style option.

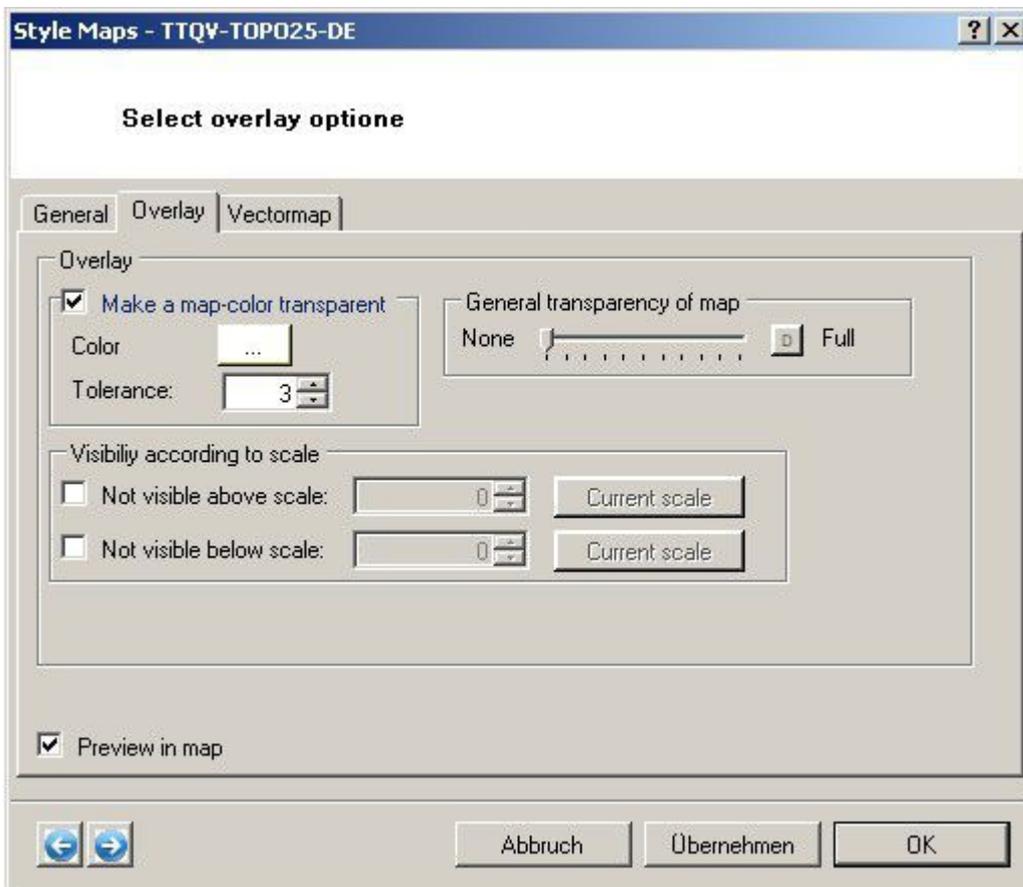
As this chapter refers to the map window, we will only cover the map style options here.

The map style windows includes 3 tabs: A General tab, an Overlay tab and a Vectormap tab.

The General tab only offers the option to define a given map as a background overview map:



The Overlay tab includes the following options:



By tick-marking Make a map-color transparent, you can enable a choosable color of a map to be plotted transparently. A

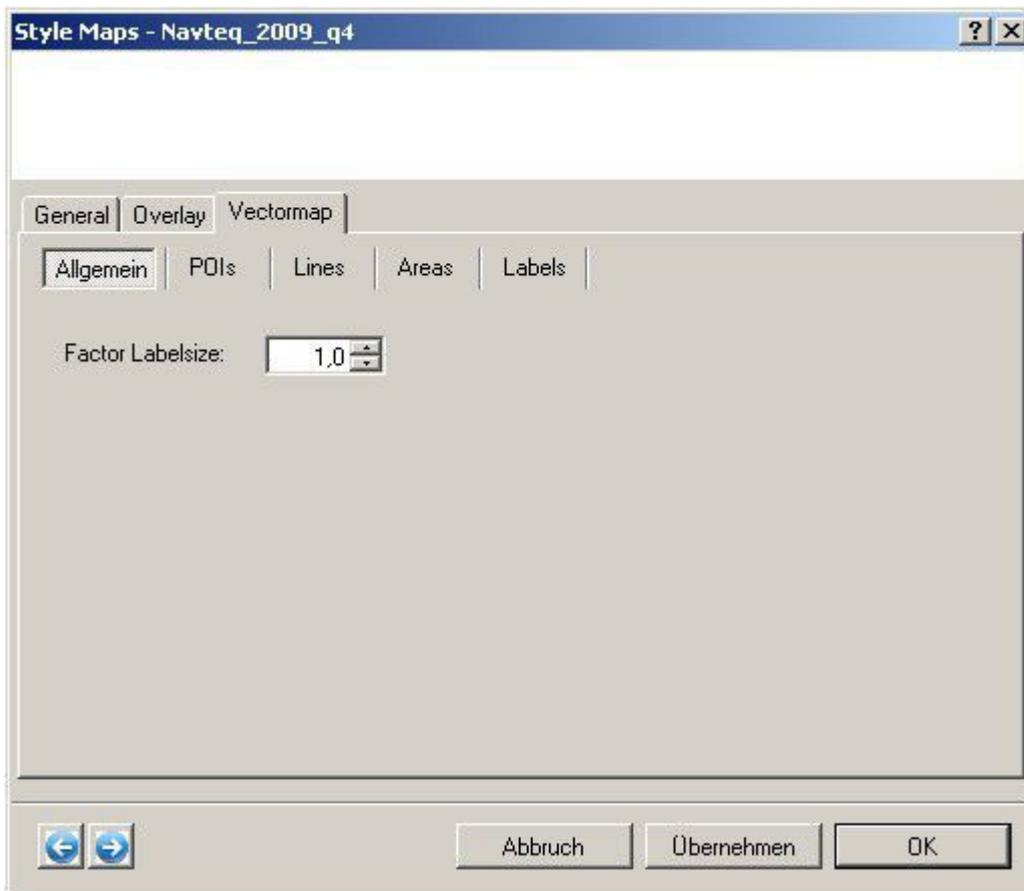
separate field allows for specify a tolerance value which will define how accurately the defined color must be met.

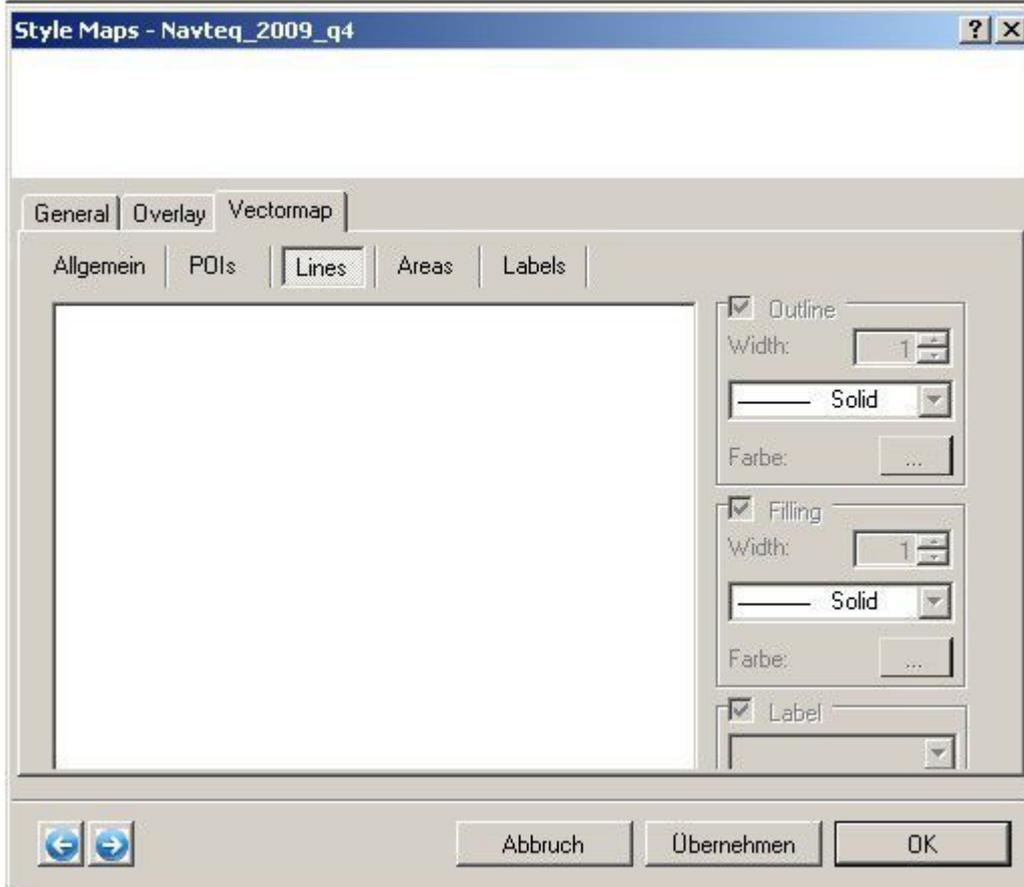
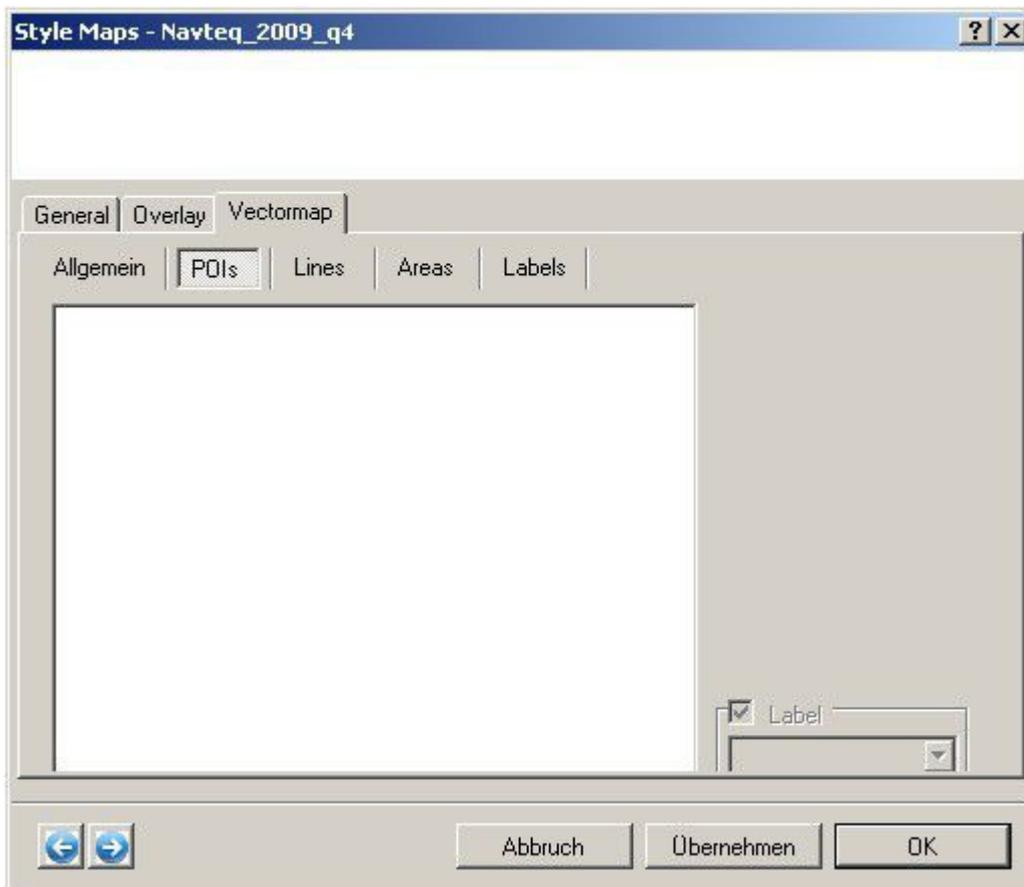
Using the General transparency of map slider you can define to which extent the map should be plotted transparently. Thus, you can adjust the plotting style to your personal preferences.

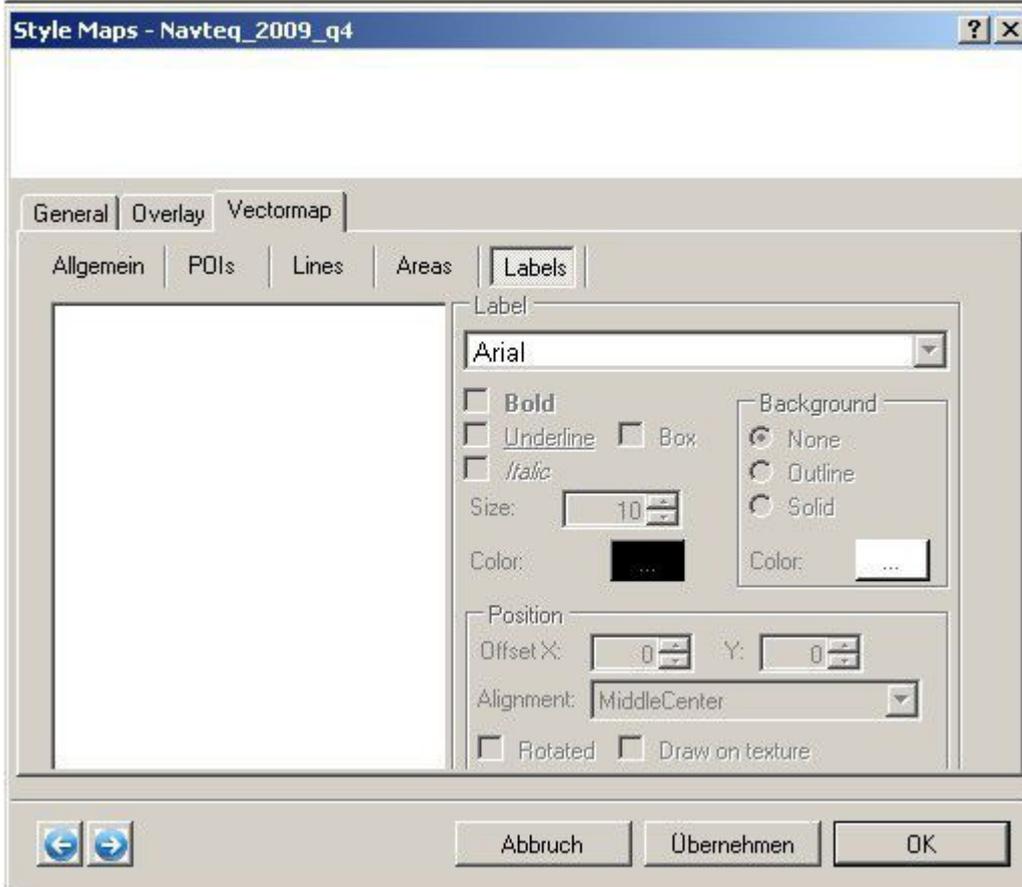
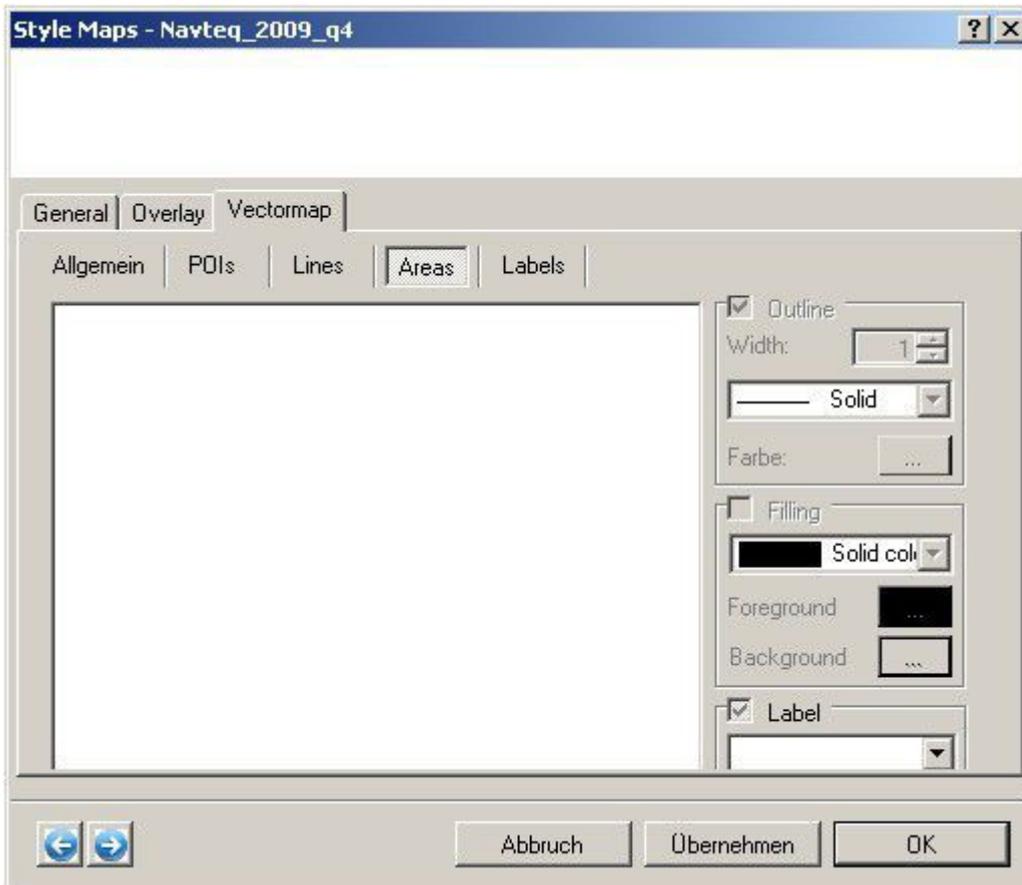
Using the Visibility according to scale input fields, you can restrict the plotting of a map to a certain range of map scales. To do this just enter the scales under Not visible above scale and Not visible below scale, respectively. By pressing the Current scale button, you can copy the actual map style into the input field.

You can also activate a Preview in map option.

The Vectormap tab includes several sub-tabs: General, POIs, Lines, Areas and Labels. Thus you can modify the appearance of all vector map objects according to your specific requirements:







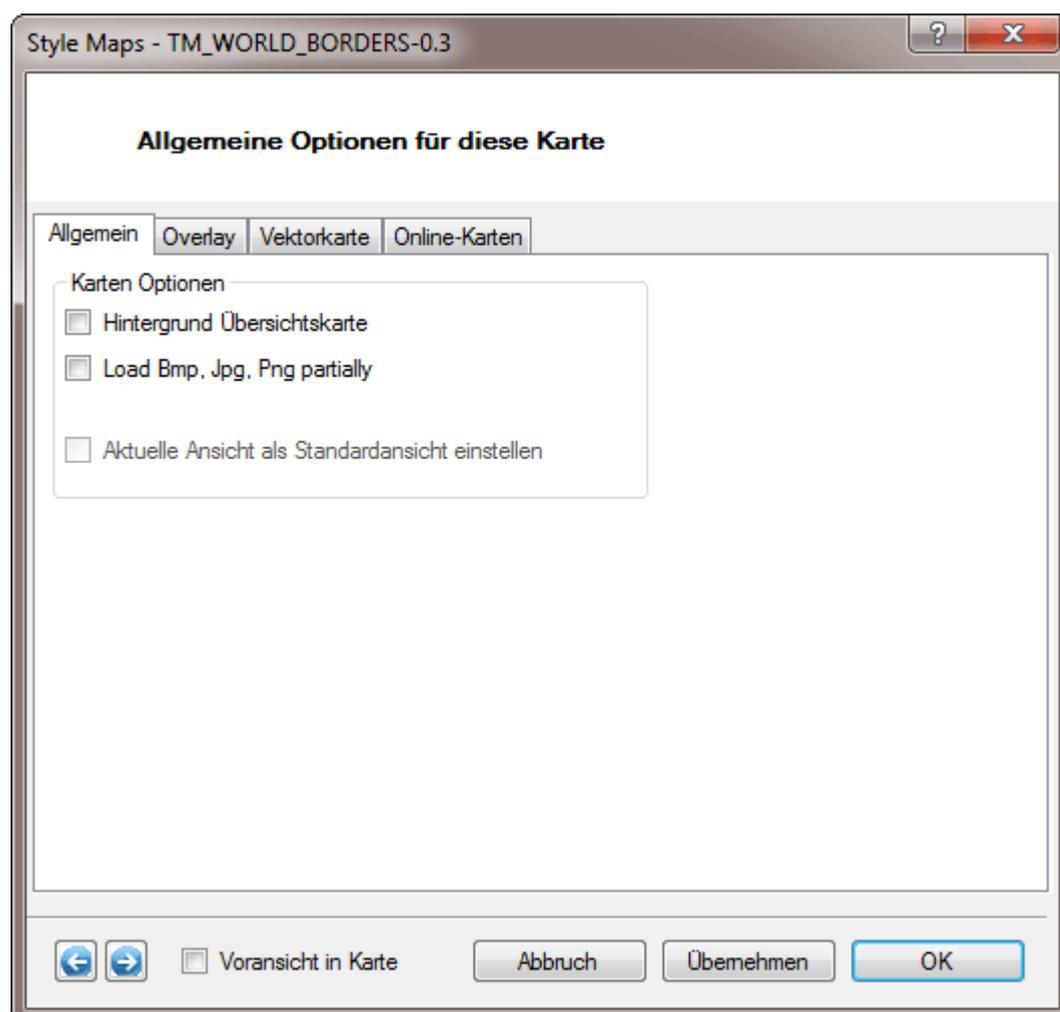
# Style

For any map and map type, you can define the map style using the style assistant. There are several ways to start this assistant:

- In the X-Plorer by selecting the map of interest and clicking the style  icon.
- You can also select multiple maps, the settings will then be applied to all selected maps.
- If a map is already opened and displayed through the **Style** option in the project manager.
- By a right click on the map and choosing the option **Style** in the pop-up menu.

The style option window includes three tabs, *General*, *Overlay* and *Vector map*.

## General

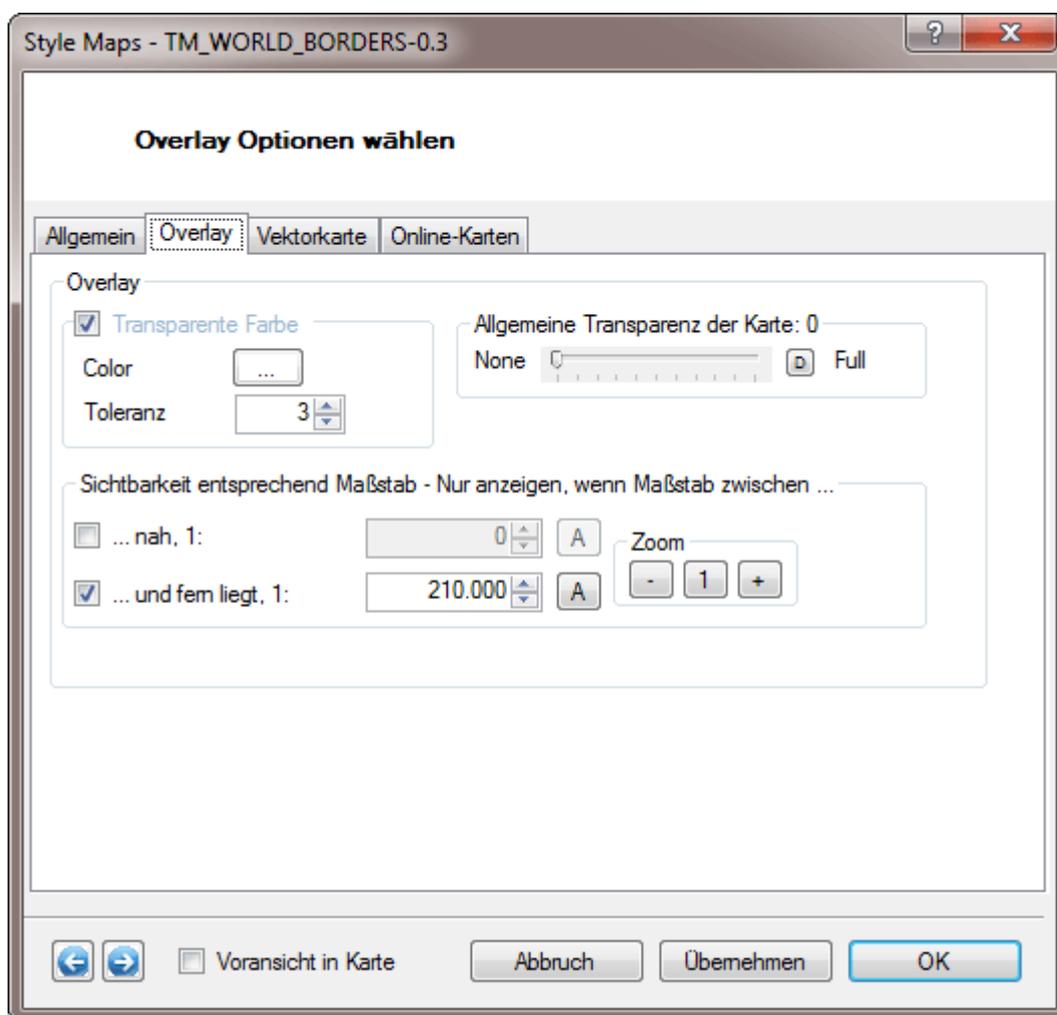


### Background overview map

This will load a copy of the map in reduced resolution as a backenvironment. Especially in the 3D display, this will avoid white patches when reprocessing the map. On the other hand this will require more memory and updating the map will be slower.

<b>Store actual display as standard map style</b>	Enabling this option will define the actual map style and display as the default when opening this specific maps. This option is only available if a map is currently displayed.
	Using these buttons you can load the previous or next map from the X-Plorer list and edit its style. This is especially useful to modify the style of consecutive maps in the list. This option is only available when <b>Style</b> has been chosen beforehand.
<b>Map preview</b>	If enabled, each style modification will be displayed immediately in the map display. This is especially useful when setting the map transparency for map overlays or for controlling the style modifications of vector map layouts.
<b>Escape</b>	This will close the assistant without storing the settings.
<b>Apply</b>	This will save the settings without closing the assistant.
<b>OK</b>	This will save the settings and close the assistant.

## Overlay



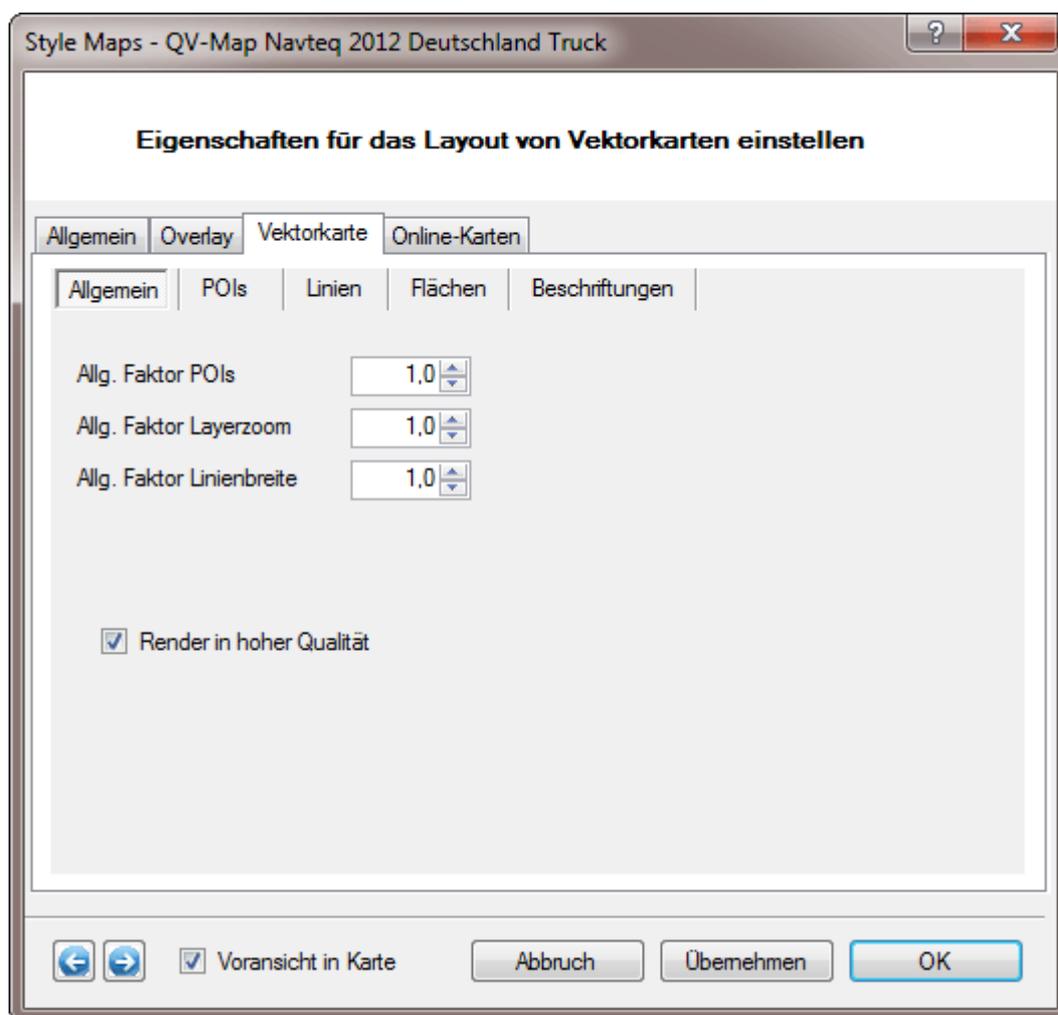
Under this tab you specify how the map will be displayed if used as an overlay on other maps. This refers mainly to transparency characteristics.

<b>Transparent Color</b>	Choose a color which should be transparent by clicking <i>Color</i> and entering the RGB values. By entering a <i>Tolerance</i> value, you specify how accurately a specific color must be met. Example: If the RGB values (250,250,250) are specified as color which should be transparent and a tolerance value of „5“ is specified, QV will make all RGB values between (255,255,255) and (245,245,245) look transparent. This function is especially useful for truecolor bitmaps.
<b>General map transparency</b>	Using this slider you can make the whole color spectrum of the map transparent. Any degree of transparency can be adjusted.

Remark: In order to adjust this quickly and comfortably, make sure that you have the map displayed as overlay and that the **Map preview** function is enabled!

## Vector map

Under this tab you can define the map style for vector maps like NAVTEQ and Garmin IMG maps. For raster maps, this tab is without function.

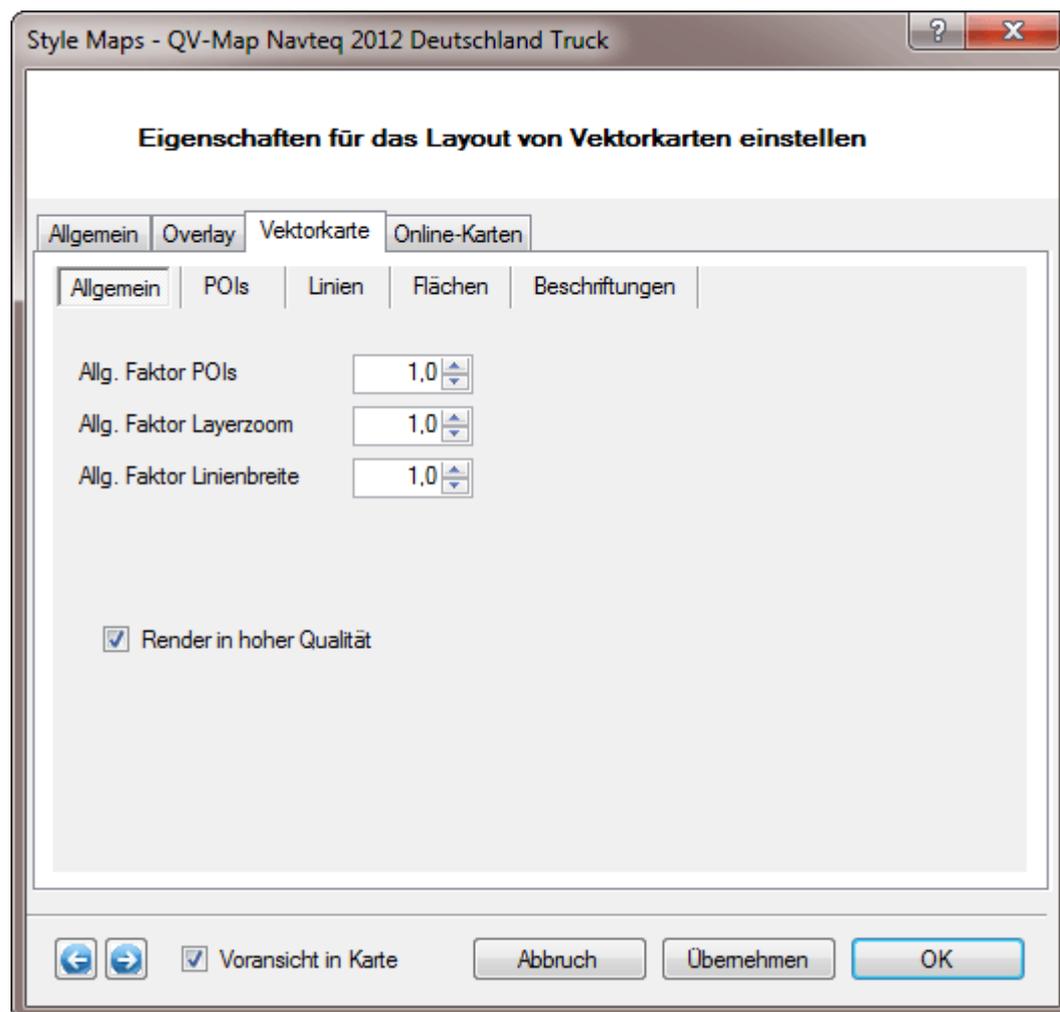


<b>Multiplier POIs</b>	Specifies the size of POI symbols for map display. All POIs will be treated the same.
------------------------	---

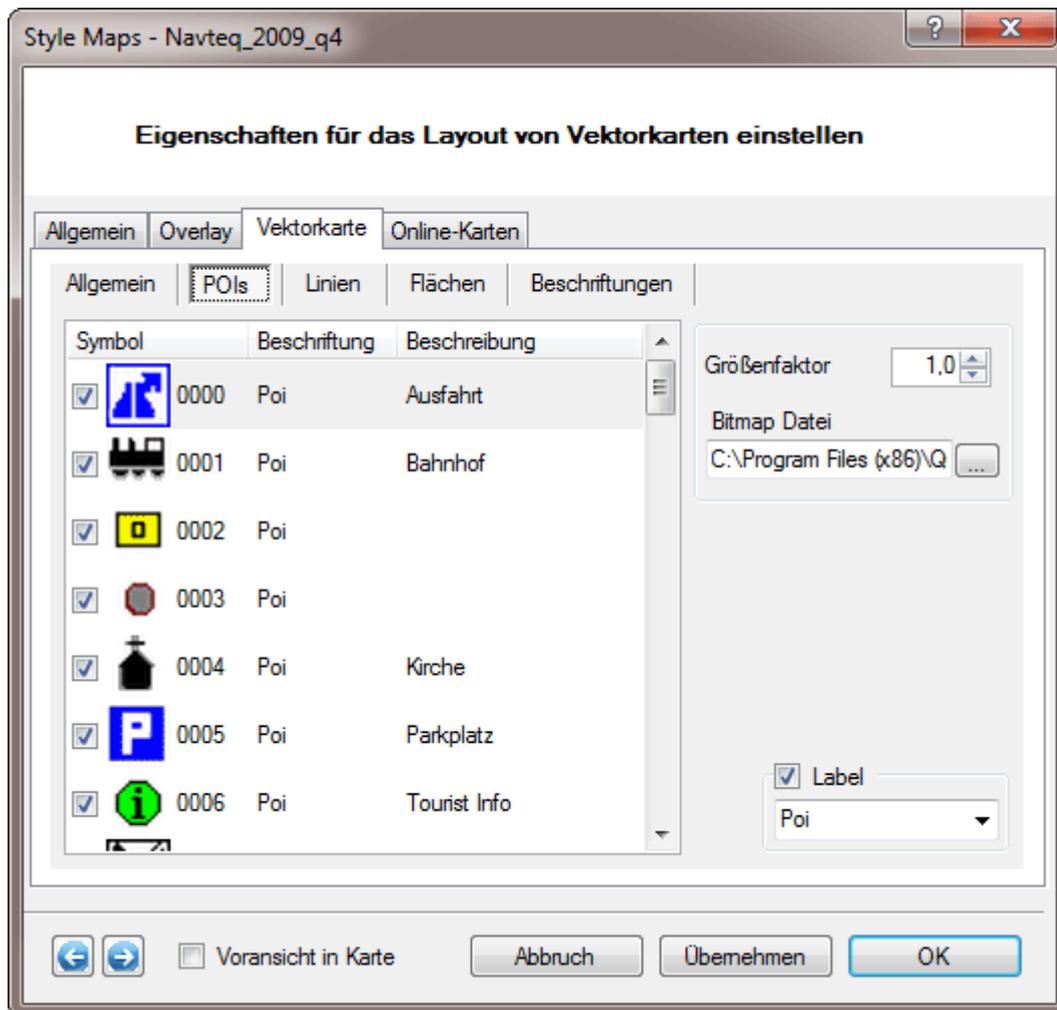
<b>Render in high quality</b>	Will plot streets and polygons using an antialias algorithm and will thus increase the map display quality. However, this function may result in a loss of performance with slower PCs and should be disabled in such cases.
-------------------------------	--

Under this tab you will find subcategories for *General*, *POIs*, *Lines*, *Plygons* and *Labels*. You will find various options to define how the different vector map elements should be plotted.

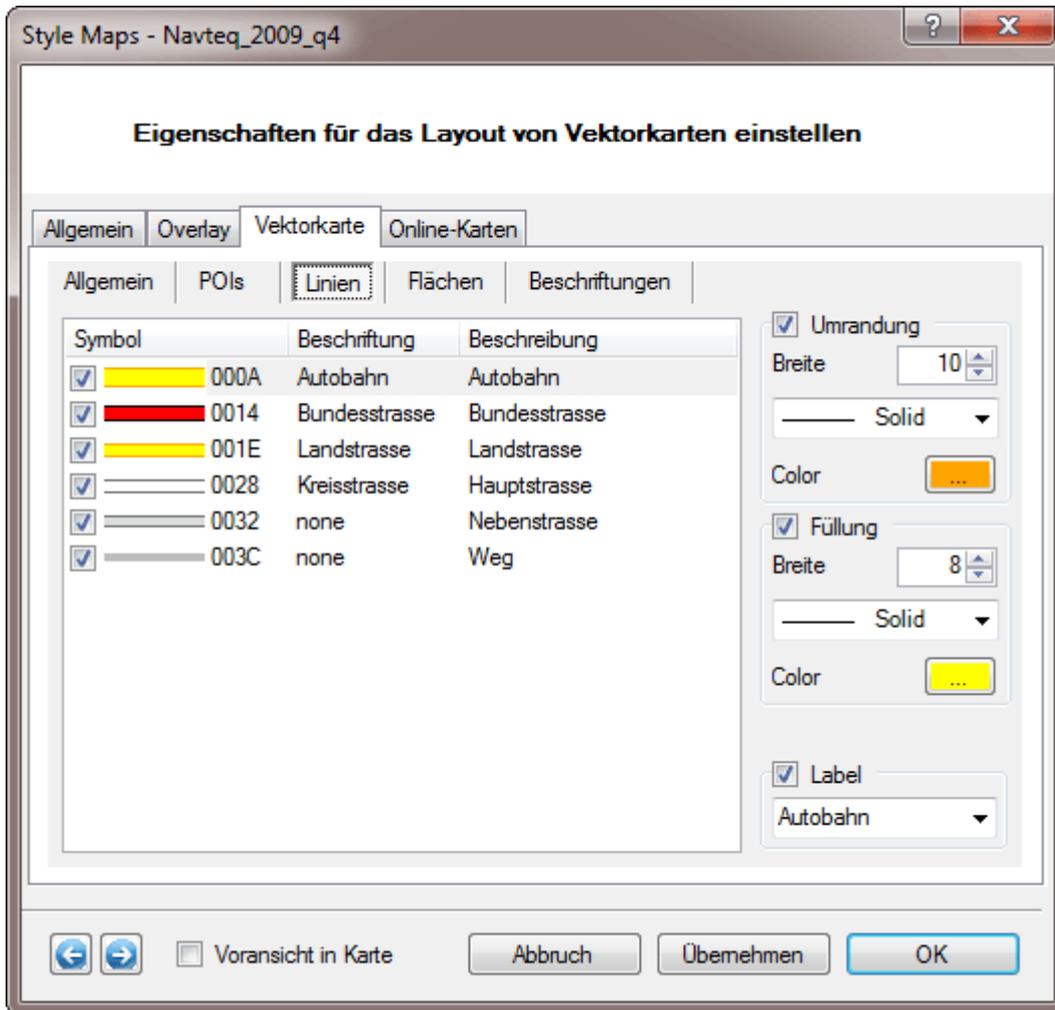
## General



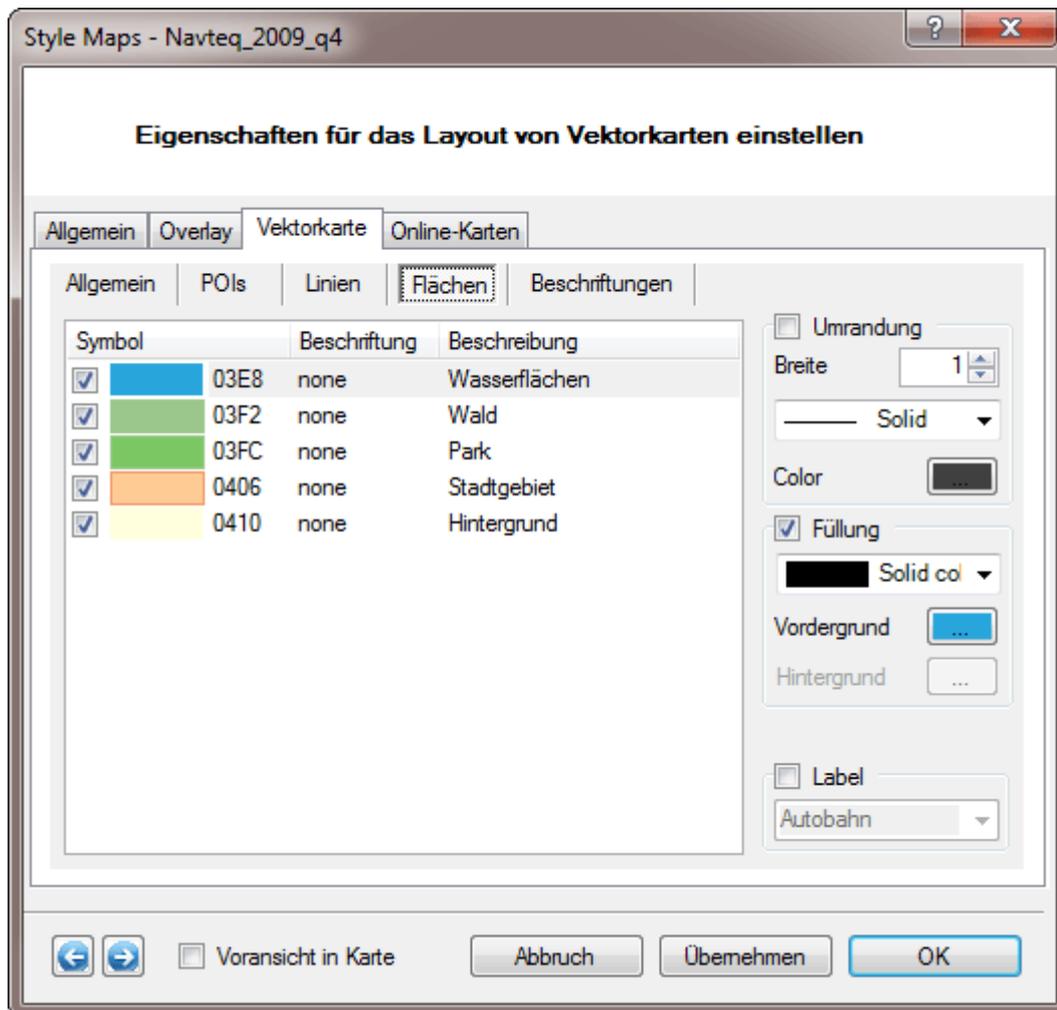
## POIs



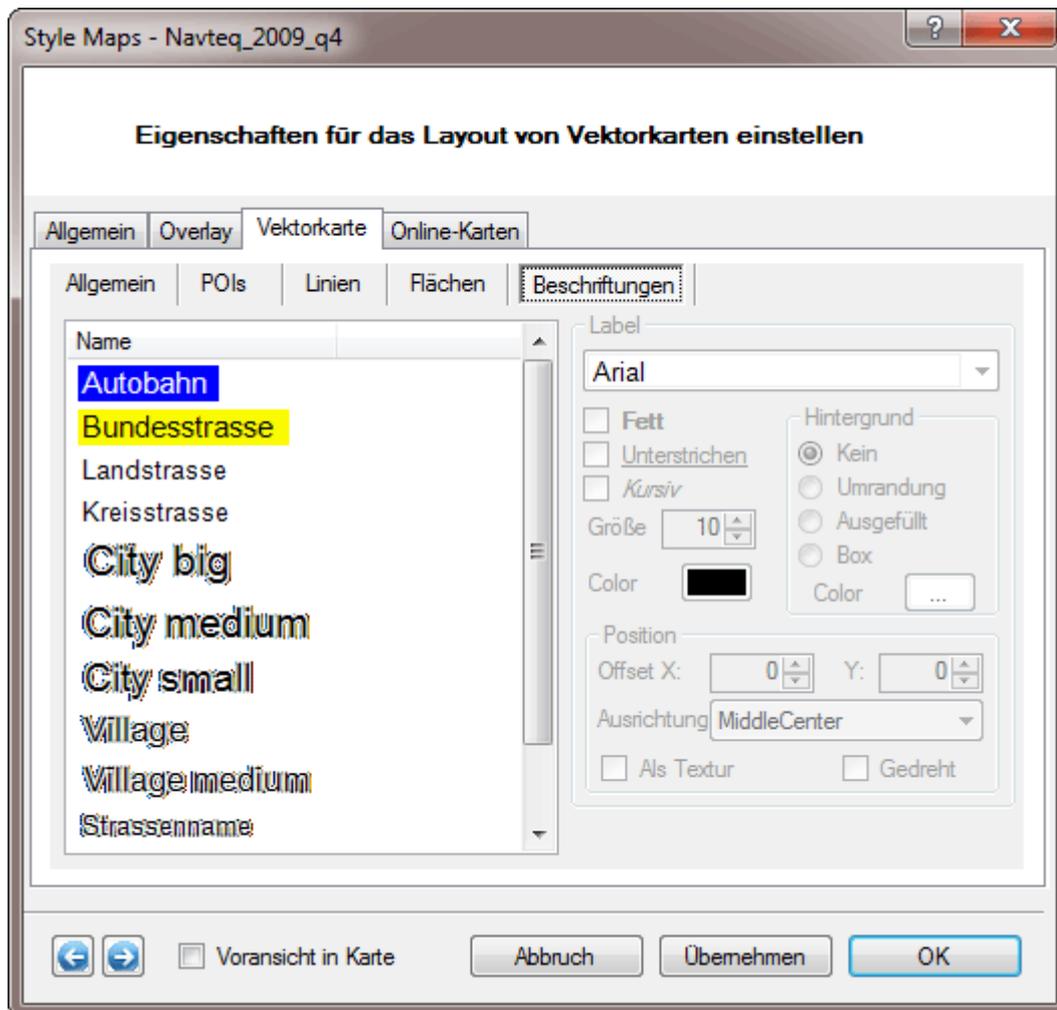
## Lines



## Polygons

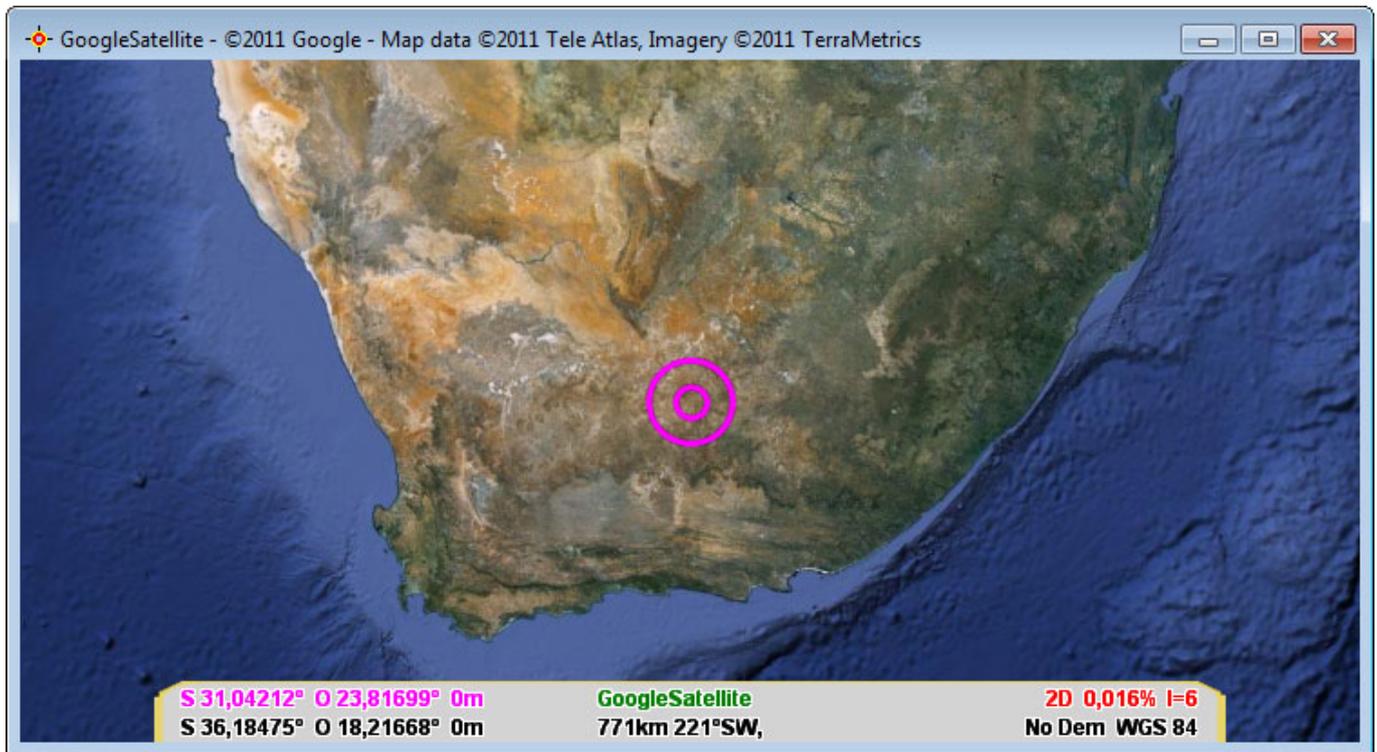


## Labels

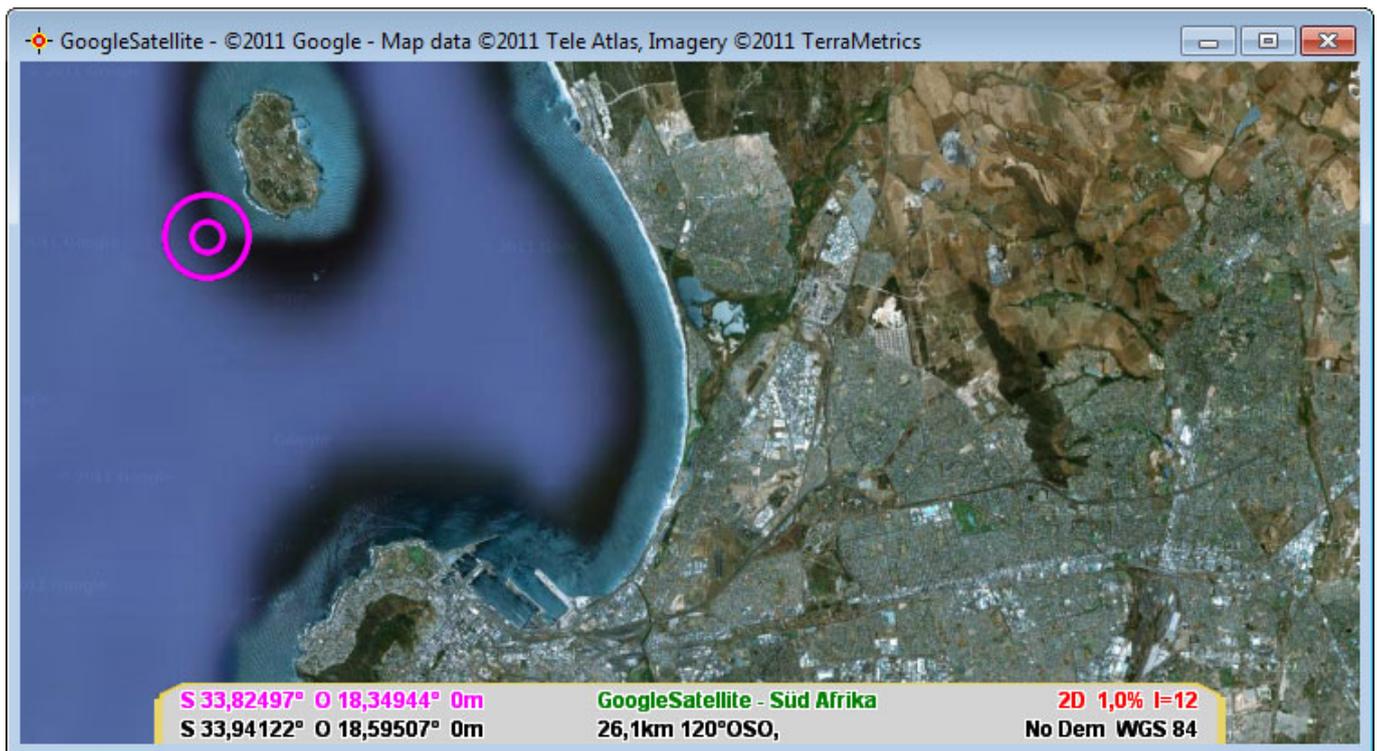


## Online-Maps

Online maps are based on many bitmap tiles, which are equal in size, normally 256×256 pixels, and are loaded automatically from the server of the online maps accordingly to the actual display and the zoom. The zoom-level is determined from QV automatically and is displayed in the status bar during actualization phase:



Example Zoom-Level 6

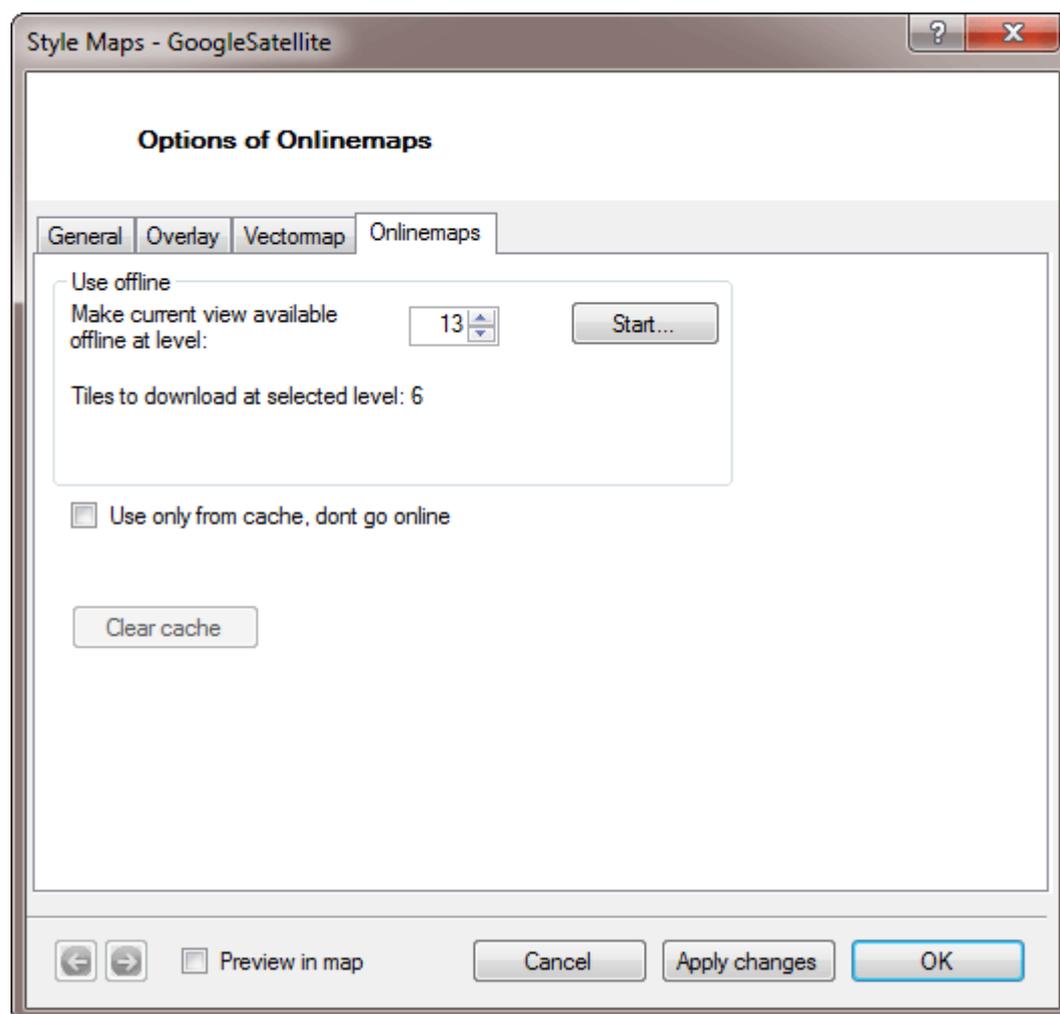


Example Zoom-level 12

QV is saving the bitmap tiles in a cache in the hard drive, so that you do not have to load them each time. At the image regeneration QV is searching in this cache firstly, if the needed tile was eventually already loaded and then picked up, which is naturally faster, as if you have to load them from the internet.

Per zoom-level the number of the tiles are quadrupled. If the example zoom-level 6 exists also of four tiles, the same map section in zoom-level 12 would exist already of 16384 tiles. The data quantity is

raising very quickly. On this tab **Online-maps** you can execute several functions with the cache:



For e.g. travel preparation, you can download these tiles in different zoom levels, which you need for a special region. After that you can work in this map section also without internet. Please open the online map, choose the preferred area and then zoom option you need. QV shows you, how many tiles it would be. Choose then start for the download.

A progress bar shows you the process of the action. You can interrupt everytime and continue later. All of what was loaded, is in the cache and has not to be loaded again.

Note: To fill the cache, the map has to be open. To delete the cache, the map has to be closed.

Note: Most of the online-server do not allow mass downloads and will stop the opportunity sooner or later. Because of that this function is limited to 2000 tiles per action and you can choose only one zoom-level per action. You should know that for large downloads your IP-address will be closed by the service-provider and opened only after a certain time.

## Location of the cache

Every online-map has its own cache, totally independent from other online-maps. The cache is not based on one special file, but consists of a register, which has the same name as the assoziated map. Alle Cache-Ordner liegen im Verzeichnis QuoVadis 6\_Data\Onlinemaps.

With the button **Empty the cache...** the cache file of the map can be deleted. A new one will be created automatically at the next opening. This is useful, when you for example like to have always

the latest tiles of the OSM-maps, which are dynamically grow.

In the QV-Xplorer you can also choose another path for the cache of the map. Simply register at the button **Path** the requested path.

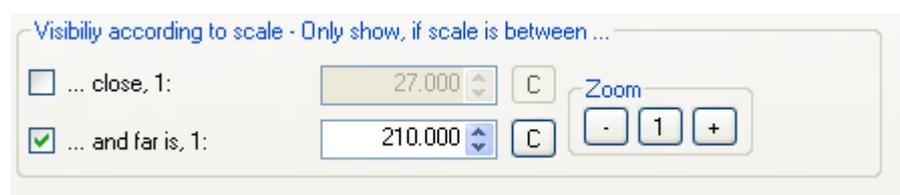
This file and its whole content can also copied to another pc, for example to do your travel preparations at your home pc and then transfer the cache at your notebook for the trip.

# Visability of objects

Per default all objects in the map, also map overlays, routes, WPs, tracks etc. are displayed always in all in all zoom levels. But you can define a special scale range for every objekt, in which it should be visible. When you zoom out of this scale range, the object will be hided.

So the map window is displayed more clearly and increases the performance.

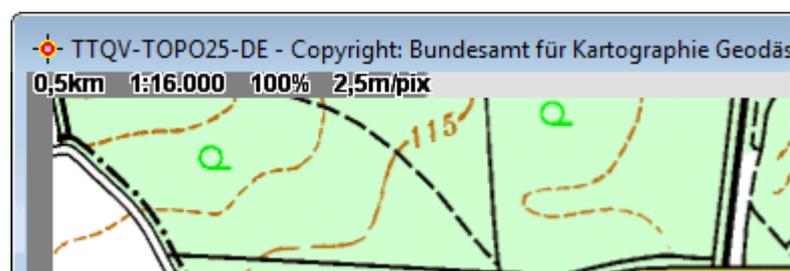
Please visit **Style** of the object and change to the tab **Overlays** for the maps and for all other objekt-types in the tab **General**:



The visability is controlled by the both buttons **Near** und **Far**.

<b>Near</b> deactivated and <b>Far</b> deactivated	The objekt is always visible in every zoom
<b>Near</b> deactivated and <b>Far</b> activated	The objekt is from „very near“ visible to the scale range, which you have entered in the field beside Far. When you zoom more out, the object will disappear. This setting is good for example for POIs, which shall appear only from a certain size, because they would disturb the overview.
<b>Near</b> activated and <b>Far</b> deactivated	When you zoom very near, the object is invisible. Only when you zoom out to the scale range, which you have entered in the field beside near, the object becomes visible and stays visible, also when you zoom very far out. This setting is good for overview objects.
<b>Near</b> activated and <b>Far</b> activated	The object is only visible between the both zoom-levels.

The range of scale, which is relevant for the settings, can be readed out in the upper left corner in the map window everytime (if **Scale range** is activated in the menu **View**) :



To make the configuration easier einfacher, we have some support tools:

<b>A</b>	Click on the button, to transfer the actual range of scale of the map into the field to the left besides it.
<b>- 1 +</b>	Hereby you can zoom the map to control, if the object shall disappear, as entered, and appear again.

For WPs, routes and tracks you can determine also the **arrangement relatively to other marks**. Per Default all new objects have 0 here. If you want that a special track, is for example drawn always over other tracks, then you need to enter a larger number here as the others.

## Multiple maps

In QV you can open several maps simultaneously. While it was necessary in QV 4 to open each map in a separate map window, QuoVadis 6 allows for opening several maps in the same map window.

This is very helpful in cases where maps end at national borders such as Topomaps in the Alps. The no of maps to be plotted in the same map window ist virtually unlimited.

To open various maps in the same map window you have several options:

- Open the first map using the  Show in map icon (see chapter map window). Therafter just drag and drop additional maps from the QV-Xplorer into the map window.
- Open the first map using the  Show in map icon (see chapter map window). Therafter mark another map in the QV X-Plorer and click the  Show in map icon again. The open map assistant will open:

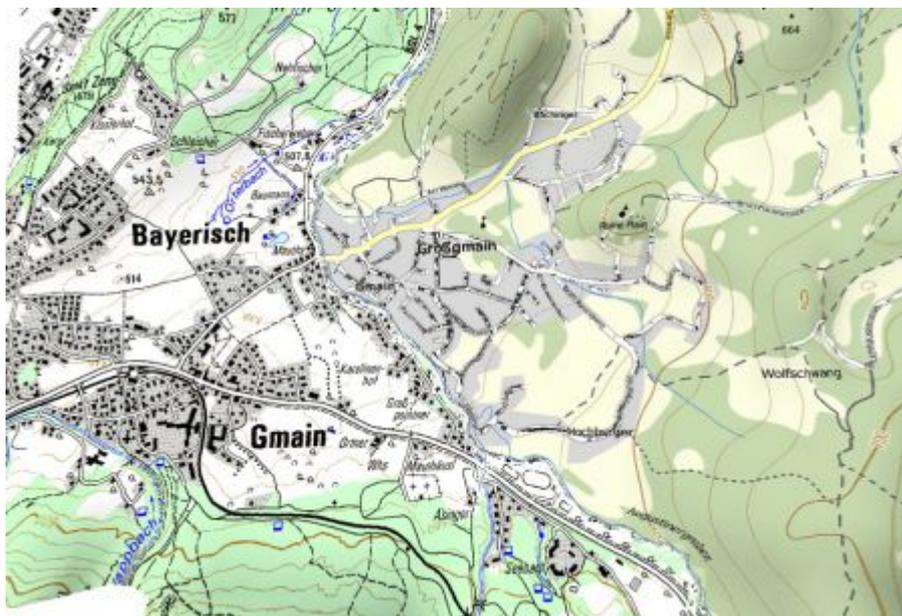


Choose the same World mode as when opening the first map and In current map window, then click Finish. In this case the second map will be plotted on top of the first one, so the covered areas are merged but in areas which are covered by both maps, the second one will cover the first map.

If you choose Add as overlay to current map, the areas which are covered by both maps can be faded in a userdefinable transparency. Vector maps will be plotted on raster maps.

For further details please refer to Style Options in the chapter map pop-up menu.

Below you find an example of our Top25 Germany combined with our Top40 Austria:



Working with several map windows

In case you want several maps in separate map windows you can still do so. All map windows will be completely independent from another. Each window can show different maps or the same map can be viewed in different styles (2D versus 3D), scales and details. When creating or editing waypoints, routes, tracks or drawings, it is helpful to work with several map windows, e.g. one for an overview map and one with a large scale showing all the details. Changes made in one map window automatically be synchronized and displayed in the other. However, please bear in mind that multiple maps windows require a lot of hardware resources of your PC. So this might slow down the plotting and 3D modelling quite substantially, especially if you do not have a very powerful PC.

In the GPS online mode you can also follow your position simultaneously in the different map windows respectively in different map types (e.g. city map or overview map), different zoom stages, different styles, etc.

If you plot all marks by clicking the  icon, they will be displayed in all opened map windows.

If you are editing marks, e.g. delete or insert points, then all changes will automatically be updated in all map windows.

In contrast, all commands (e.g. a map export) always refer to the active map window only. The active map window is indicated with a blue title line.

If you want to change the focus to another map, just click on the other window, or change the map window through the Windows menu or using the Map Layer Manager.

If you want a certain point to be plotted in another map window, right-click on the map at the desired location and select Show point in another map window... from the opening pop-up menu. Choose from the following list a window which is already open or select New map window if you want the point to be plotted in a new map.

 (Produktfamilie hat sich geändert, Horst)

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Remark: QV Standard supports a maximum of 3 map windows which can be opened simultaneously.  
QV Basic is limited to 1 map window while QV Poweruser and QV Professional support 5,  
respectively 10 map windows at a time.

# Map overlay

Besides the possibility to use multiple maps in one map window side by side, you have also the option for map overlays.

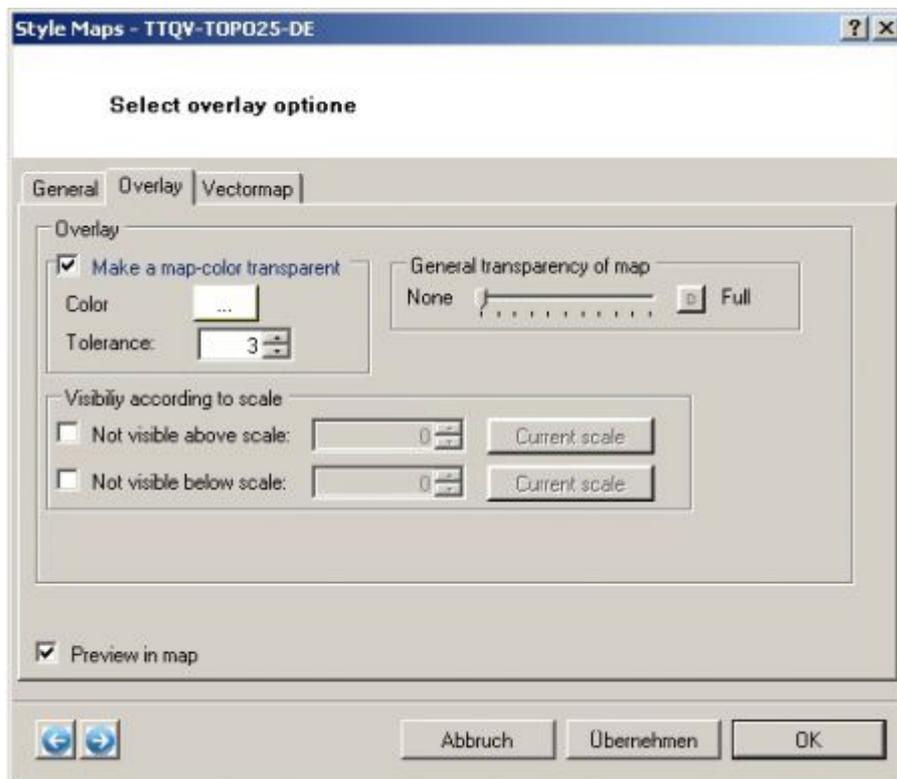
When opening various maps in the same map window with overlap, this is in fact a map overlay. So there is no clear borderline between opening multiple maps in one map window and map overlays.

From a classical point of view, maps overlays usually refer to a raster-vector map overlay. This is the case if you plot a NAVTEQ® map over an official topomaps or over satellite images. Another example is an overlay of a Garmin® IMG vector map over a raster map. When doing so with our QV-NAVTEQ® maps you can selectively enable or disable various layers such as different road categories, railways, border or services (Open the Project Manager to make these selections). In contrast to that you can only enable or disable the entire map when using a Garmin® IMG overlay.

In order to apply a vector map overlay on a raster map just right-click on the opened raster map and choose **Load map...** from the pop-up menu. You can also just drag-and-drop the vectormap from the QV-X-Plorer into the open map window. Please also refer to [Map Overview](#) for another, easy way to manage Overlays.

<http://www.youtube.com/watch?v=xCJ0pbRVkfQ>

If you want to make an overlay between raster maps, you right-click on the raster maps which you opened first and choose Open map as overlay from the pop-up menu. Select the map which you want to use as an overlay and it will automatically open. (In fact you can also just drag-and-drop the map from the QV X-Plorer into the map window). The map which was opened last will be on the top and mask other raster maps below. So an overlay between raster maps is only possible by making the map on the top transparent. To realize this, mark the map in the QV X-Plorer and click the Style  icon. Alternatively, you can also open the Project Manager by clicking the  icon, mark the map and click the Style  icon. A window will open, please switch to the Overlay tab:



To make a map transparent just drag the General transparency slider to the position where the map display meets your preferences.

By enabling the function Make a map-color transparent, you can also limit the transparency to a certain color. Just select the color by clicking in the color sample field and specify a color tolerance value in order to define how accurately the color must be met.

You find an example for a raster map overlay below, showing Bing® Satellite Online maps and Russian army maps for south-western Libya:



Russian Army Map with 33% transparency (left/upper) and 66% transparency (right/lower).

Hint: after you setup your map with several overlays you can save this as a project just with **Save** from the [Project-Manager](#). Then you can reopen the whole set at once just by opening the saved project.

# Maps overview

In many occasions it is helpful to know which areas are covered by other available maps. In QV 4 a separate map overview window was available for this task.

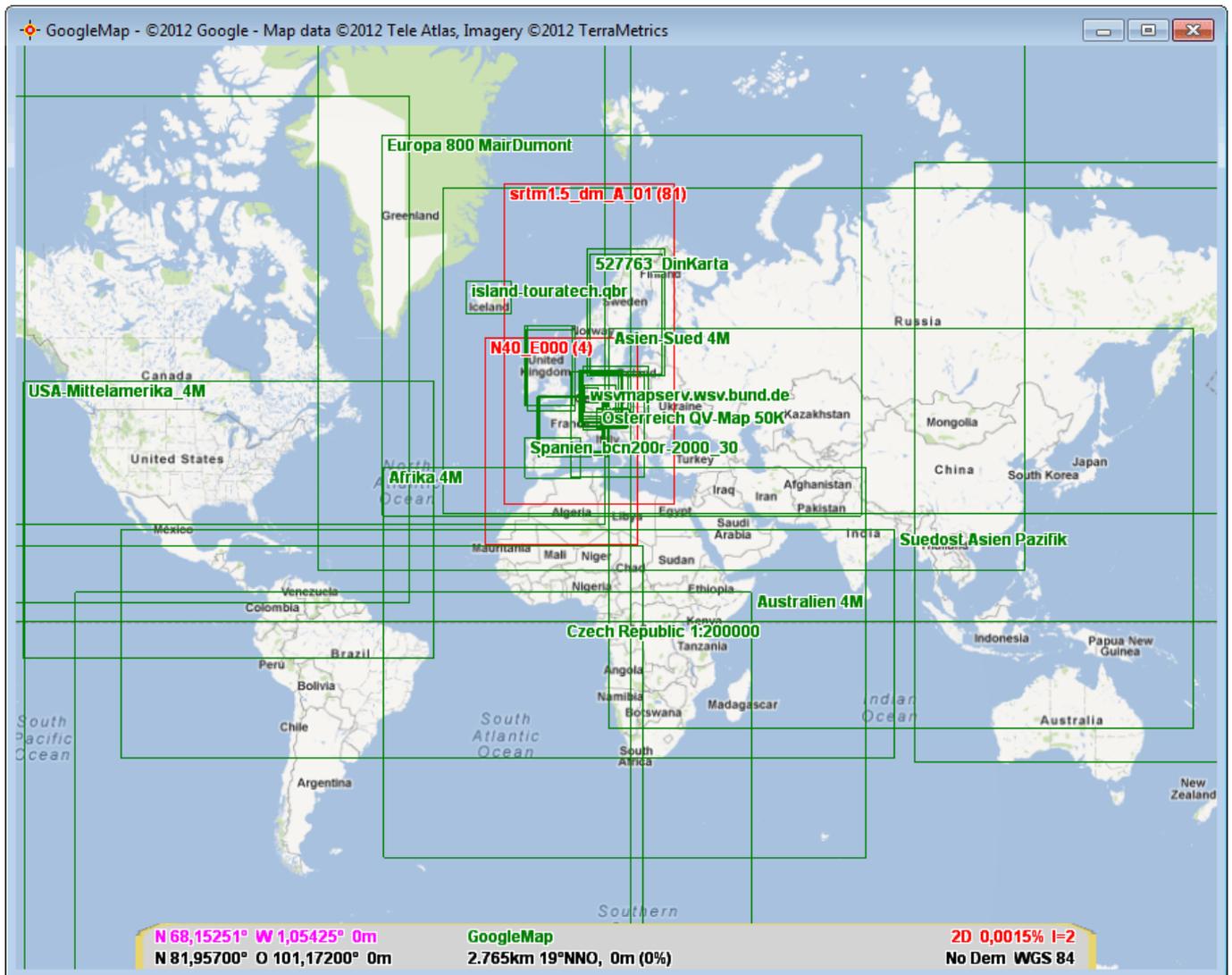
This has become obsolete in QuoVadis 6 as you can activate frames to show the map extent of all available maps in every map window. This is realized by a software switch which can be accessed in two ways:

- Clicking the Map overview  in the View toolbox.
- Choosing the Map overview option from the View menu in the main menu bar.

In both cases this is a software switch: you activate the overview with the first click and you disable it again with the second switch.

All maps are displayed as green rectangle and polygon like an active map area of the map including the map names, which are available because of the actual setting of the AutoMAP-function. Please look for details at the chapter [AutoMAP](#).

Active DEMs are characterised in red.



By a right click with the mouse on the name of a special map frame you can open a popup-menu with some functions of the corresponding map.



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## Active mapregion

todo

# Project manager

In order to keep the overview and facilitate orientation when working with several maps and different marks/geodata, the Project Manager has been created:



The Project Manager can be enabled and disabled with the  icon (switch function). You can place the window freely on your screen or dock it to the QV main window. Similar to the X-Plorer tree window, all maps, layers and marks/geodata will be listed. By clicking on the + or - symbol you can include or exclude directory listings and tickmark the objects to be plotted in the map window (or prevent them from being plotted). In the toolbox at the top of the layer manager window, three buttons are available: X-Plorer, Show in map and Delete mark. Using these buttons you can either refer to the X-Plorer listing of the marked element, view it in the map or delete the marking from the map. If you have a vector map opened, you can easily include or exclude certain layers (map topics like road category, river, forest, etc.) from the map view. Furthermore, by right-clicking on a layer entry, a pop-up menu will open where you can enter a threshold for visibility ranking from -5 to +5. This threshold will define the minimum scale setting for plotting this layer in the map when zooming in and out. |

Alternatively, you can use the Marks Toolbar to include or exclude certain layers and marks from map plotting:



Using the following icons you can:

 disable all waypoints from being plotted in the map.

 disable all routes from being plotted in the map.

 disable all tracks from being plotted in the map.

 disable all drawings from being plotted in the map.

# Maps - Introduction

QuoVadis 6 works with a wide range of various map types:

- Our own maps of The QV-MAP series which covers a lot of licenced high quality maps like Topomaps of various countries (usually from the national geographic surveys), the general map series of MairDuMont®, similar maps from Freytag&Berndt®, the Reise-Know-How World Mapping Project®, Russian army maps and NAVTEQ® street maps (see below).
- Online maps from Open Street Maps®, Google Maps®, Yahoo Maps® and Bing Maps®. Some of these maps are available as conventional maps and/or satellite images and/or hybrid maps and/or terrain maps. Those maps require a fast internet connection with a flat rate. However, map sections of these maps can be stored using the Fill map cache option. In this case such map sections are later on available as usual, locally stored maps.
- Raster maps on CD/DVD which are published by various companies, such as Kompass Digital, MagicMaps, Swiss-Topo, DAV/OEAV Alps digital, Memory-Map (only unencrypted versions), marine maps (NV and BMP), etc.
- Satellite images and other orthophotos
- Maps in the ECW format
- Scanned raster maps (which must be georeferenced manually)
- Vector maps from NAVTEQ with various functionalities including dynamic autorouting (specially compiled for QuoVadis)
- Vector maps in the Garmin IMG format
- GIS maps in the SHP or DXF format

With scanned raster maps and other bitmaps, e.g. internet downloads, it is essential that they can be georeferenced. For map calibration the following requirements must be fulfilled:

- A clearly defined grid of longitudes and latitudes or a metric grid in a known standard must be indicated on the map.
- Alternatively, a metric grid is defined in UTM or in various national grid systems such as Gauss Krüger, Austrian Grid, Swiss Grid, New Zealand Grid, British Grid, Irish Grid and Swedish Grid.
- If the related parameters are known, other national grid systems and map datums can easily be added.
- Alternatively, if known, the exact projection can be specified.
- Additionally, a calibration tool is available. In this case at least four points with known coordinates must be clearly defined on the map. At maximum 9 points may be used for calibration.

You will find an overview on the maps in our webshop at <http://shop.quovadis-gps.com>

## Type of maps

In cartography, there are two basic map types which have fundamental technical differences: Raster and Vector maps.

These differences do not only apply to the techniques applied but also to the map design and the

appearance in the map window.

While raster maps can be interpreted as a type of digital photo, a vector map is more a mathematical term.

In other words: A raster map consists of single pixels, each representing a given place on earth (coordinates) and having a clearly defined color and brightness. However, the software cannot know what kind of structure a given pixel represents. Thus, the software cannot define if a red pixel is part of a symbol, a label, a line or even a road of a certain class. Therefore it is not possible to implement any kind of routing functionality with a raster map. Another disadvantage of a raster map is that the image quality is strongly influenced by the zoom factor. When viewing a raster map at 100% zoom level, the image quality is optimal. Zooming in above this point will not improve the degree of details, the map image will only become „rasterized“. On the other hand, when zooming out, all details will be scaled down in a linear way. So when zooming out, you won't be able to read any kind of labels pretty soon. Thus, it is usually difficult to orientate in a raster map at small zoom scales, e.g. in cases where you need a good overview.

There are also substantial benefits of raster maps:

- 1) You get high quality raster maps for almost any part of the earth in various scales. You can even scan and georeference your own raster map and thus produce your „own“ digital map.
- 2) High quality raster maps usually have a very realistic map design which gives a good impression on landscape characteristics and relief energy. Therefore, raster maps are suited much better for trip planning than vector maps, except if you are interested in the fastest or quickest route.

Below you find a typical example of a raster map at three different zoom levels:





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## Standard raster maps

These include general bitmap formats like PNG, JPG, BMP, etc. Such formats are generated when scanning paper maps. Such bitmap files have to be calibrated in QV manually in order to use them as a map.

Remark: Standard raster maps must always be loaded into the PC's RAM as a whole. Thus, depending on your hardware specification, the maximum map size will be limited. So, the more RAM you have installed to your PC the better. In this context, raster maps in the TIF format make an exception: QV can also load them in parts.

## Geo-raster maps

Some special raster formats have been developed which include the calibration information in the file: BSB (KAP), GeoGrid, GeoTIFF, etc. During import, these maps are automatically georeferenced in QV.

## Optimized Geo-raster maps

Raster maps always encounter the problem that the image quality will vary with the zoom scale. Some optimized raster formats are available which compensate for this loss in quality by implementing different zoom scales in a preprocessed inscription to the file format. The performance and quality during zooming is remarkably increased.

These optimised geo-raster formats include: SID, ECW, BAYO and the proprietary QV format QBR.

Raster maps in one of these formats offer optimum performance and are usually calibrated and ready for use.

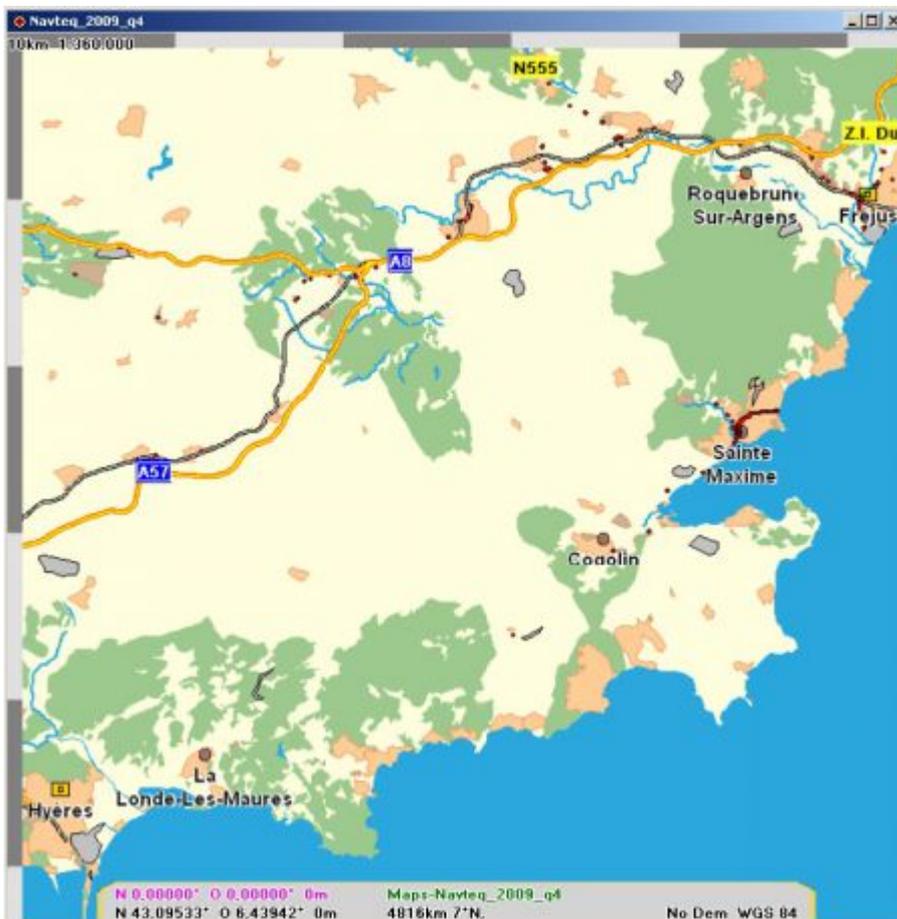
## Vector Maps

In contrast to that, Vector Maps consist of pure point coordinates and a specification on what element the point coordinate belongs to and how it should be plotted. Such a point might be just the center of a settlement, a mountain peak or a part of a river, railway or road. In terms of roads, the huge benefit is that the road can be classified according to road category (highway, interstate, country road, track, etc.) and the topology of the whole road network is stored. So vector maps are an essential requirement for routing functionalities: Usually they provide a database which allow for address queries. Another advantage of vector maps is that, according to their internal structure, the degree of detail can be adapted to the zoom level. For example you can eliminate roads of lower categories when zooming out. Thus you always have a good overview when zooming in vector maps. The design of a vector map in the map window is defined by a rendering process. For this purpose, various point, line and label styles are attributed to the corresponding structures and polygons like forests will be filled with a defined pattern. However the internal structure of such a polygon is always homogenous, so no internal differentiation can be recognized.

Of course there are also some drawbacks of vector maps:

- 1) It is a very huge effort to produce them, so they are only available for areas with a high commercial value.
- 2) They are always concentrated on specific topics like roads. Concerning other topics, their usability is typically very limited. Example: if you are off the road network in a street map, you are in the middle of nowhere and won't find valuable information for orientation.
- 3) Usually, the map design is relatively poor and does not deliver anything like landscape characteristics. Although this has greatly improved with some latest-generation topomaps, even such high-quality vector maps cannot compete with high quality raster maps in terms of degree of detail and plasticity.
- 4) Vector maps are always compiled for a specific software product. So they can only be used on the platform for which they have been optimized.

Below you find a typical example of a vector map at two different scales:





In our webshop you find a huge range of various Raster and NAVTEQ vector maps.

## On the subject of accuracy

A careful calibration assumed, QV will give you more accurate coordinates than you would be able to extract from a map by other means. However note, that the following factors will influence accuracy:

- The map resolution which is specified in dpi (dots per inch, i.e. the no. of pixels on the screen per inch). The map resolution is determined during scanning.
- The scale of the original map: If, for example, a map has been scanned with 150 dpi, a map pixel in QV will correspond to approx. 0,2 map millimeters in 1:1 zoom display. With a map scale of 1:500.000 this will translate to 100 m in the real world, in a map with 1:50.000 scale this corresponds to only 10 m.
- Many older maps which have been produced by conventional means and were primarily not intended for GPS navigation may suffer from inaccuracies which are related to map design reasons. Please note that inaccurate maps will not become more accurate when being used with QV!
- When calibrating a map try to locate the points P1, P3, P7 and P9 as close to the map corners as possible. The mathematical term which approximates the coordinates will loose accuracy outside this square.

## Map reference system and map datum

The earth is not a perfect sphere but an ellipsoid, and even this is not symmetric.

In contrast to this, latitudes and longitudes refer to symmetric mathematically defined circles which are evenly distributed over the sphere. However, the earth's radius is not a constant but varies for different places on earth.

To cope with this problem, a radius will be defined when creating a map which fits best to a specific geographic area. And, as the surface of the earth is a spheroid, 2 different radii (semi-major and semi-minor axes) have to be considered.

The map reference system or map datum defines a specific set of earth radii and thus to a specific ellipsoid.

On the basis of this ellipsoid, a map will be created. Also a GPS receiver has to refer to a specific ellipsoid in order to calculate a position. Several map reference systems with their specific advantages and disadvantages are in use, not only for different geographic areas but also within the same country.

As a direct consequence, the coordinates of two maps which cover the same region and which are compiled with different map reference systems, the same point will have different coordinates.

Or, if you switch your GPS unit to another map datum, the coordinates will change although your location is exactly the same.

Therefore, if you want to specify your position with a GPS receiver in a map, you have to know the map reference system and configure your GPS unit accordingly.

Meanwhile, the map reference system WGS 84 has been widely accepted as a global, international

standard but there are many maps which refer to another map datum. In general, local maps will not refer to WGS 84.

QV will facilitate all the troubles encountered with different map reference systems a lot.

As all GPS units and QV will work internally based on WGS 84, you do not need to convert your GPS unit but retain the basic WGS 84 settings, regardless of the map datum being used in a QV map. The required coordinate conversion will be handled by QV together with your GPS unit.

When calibrating your scanned map, you should enter the map datum whenever available (unfortunately it is not often the case).

Then, when you save coordinates in QV and transfer them to the GPS unit, QV will automatically convert them to WGS 84.

And if you extract coordinates from your map, they will also be automatically converted to the map reference system which you have currently set.

If the datum is not specified on your map, it is often worth asking the map manufacturer. The accuracy of QV may remarkably increase by setting the adequate map datum! Most map publishers will give you this information.

German maps are usually based on the Potsdam map datum, French IGN maps on New French triangulation.

If you save waypoints in the QV map display, the necessary conversions are performed automatically. When manually entering waypoint coordinates, you can select the map datum to which the coordinates refer in the dialog input box.

# Online maps

QuoVadis 6 can use various online-maps. They are integrated completely in the normal map window, so the way of the presentations of this maps is not different to local installed maps. The datas have to be loaded „Live“ by the internet, so a fast internet connection (DSL) is required for using this maps.

QV manages one local cache per online map. One visited areas are loaded from the cache at the next time. Also without internet connection, for example during a trip, you can work with a map, if the cache contains the required tiles.

Some functions to fill up the cache and manage it you find in [Stil-Assistenten](#) of the map.

At the moment the following online-maps are integrated in QuoVadis 6:

- Open Street Maps®
- Google Maps® and Google Satellite®
- Yahoo Maps® and Yahoo Satellite®
- Bing Maps® and Bing Satellite®

Some of this products are also available as *Hybrid card* (Satellite image with overlaid roadmap) or as *Relief map*. Furthermore overlay functions with other card material are also available as for local installed maps.

Following, three samples to illustrate what QuoVadis 6 can do with online maps:

<http://www.youtube.com/watch?v=tyLEUxHYA0>

<http://www.youtube.com/watch?v=YG3-2NZvSdA>

<http://www.youtube.com/watch?v=k-G6nH6ArH0>

# Legend

QV can handle one map legend for each directory. You can view this legend by clicking on the Legend  icon in the symbol bar.

For this purpose you have to create a bitmap with the scanned legend of the corresponding map in your Bitmap Editor program, i.e. Paint Shop® or Photo Paint®. Save this bitmap as a GIF, BMP, TIF or PNG file with the name LEGEND.BM in the map directory of this map and QV will show this legend in an own window after clicking on the Legend  icon.

You can save another bitmap named HINTS.BM in the same directory which will be shown if you click the Legend  icon with the right mouse button.

Additionally you can create legend and hint files in different languages. In this case name the files according to the following scheme, i.e. LEGEND\_D.BM, LEGEND\_E.BM and LEGEND\_F.BM or HINTS\_D.BM, HINTS\_E.BM and HINTS\_F.BM. QV will then show the file according to the language setting.

## Search order

First of all, QV will search for files in the map directory of your hard disk with the names LEGEND.BM and HINTS.BM, respectively. If these files cannot be found, QV will search for LEGEND\_x.BM and HINTS\_x.BM in the same directory.

# Import new map

Usually you have to import maps once to QV before those can be used. According to the source of the map, there are different ways to do this.

Online Maps which come with QV Free, Standard or Poweruser do not require an installation as those maps are installed through the standard installation routine of QV. You will then find them in the database „Online Maps“.

We also offer a wide range of QV-MAPs in our own, proprietary data format. These include licenced high quality maps like Topomaps of various countries (usually from the national geographic surveys), the general map series of MairDuMont®, similar maps from Freytag&Berndt®, the Reise-Know-How World Mapping Project®, Russian army maps and NAVTEQ® street maps (Routing and Navi versions).

Usually, these maps are installed very easily using a setup utility which you find on the CD/DVD. Please note that these maps require a map-code, so you will be guided through a map-unlocking procedure as part of the installation process. Please refer to Unlocking maps for further advice. We also recommend to read the Readme textfile which you find on the root of the CD/DVD and which may contain valuable information. You can display this textfile using any text editor program or by opening the file with MS Word®. Usually those maps will be installed to the My Maps database, so you will find them in adequately-named map tables of this database from where they can be directly opened.

As an example you will find your NAVTEQ street maps in the NAVTEQ map table within the My maps database.

Furthermore, you can import many maps of various third-party suppliers to QV. If you make a product like QV compatible with so many different map products, it is inevitable that the import procedures will vary to some extent. However, if you follow the instructions below, you will usually not encounter problems during map import.

Generally you have to decide if you want to import a single map file or if you want to perform an automatic map import of a whole CD/DVD or map directory.

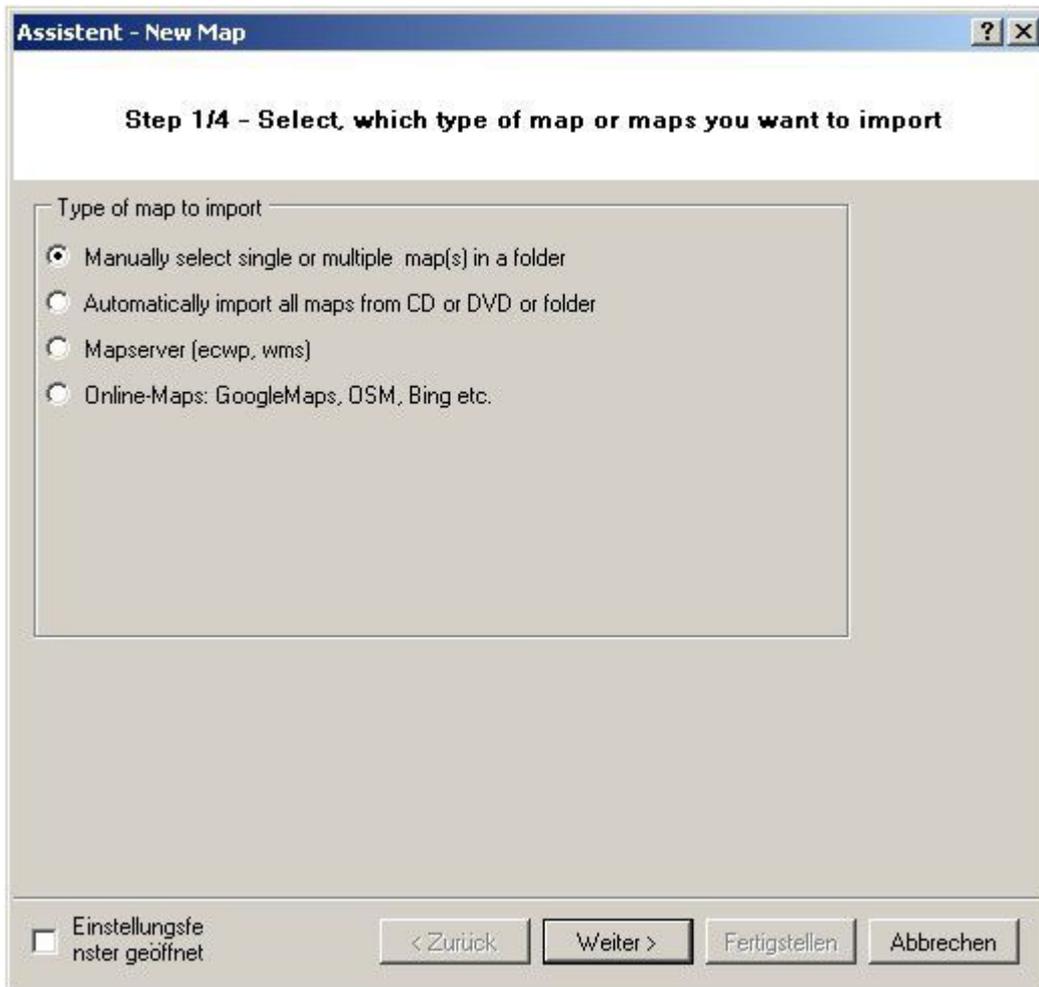
The first alternative is the right option to import raster maps from MagicMaps or Garmin IMG vector maps. It is also the right option if you want to import a non-georeferenced bitmap file (e.g. scan of a paper map). You can also use it if you know the exact file name of a map which you want to import.

In all other cases it is recommended to use the automatic map import utility.

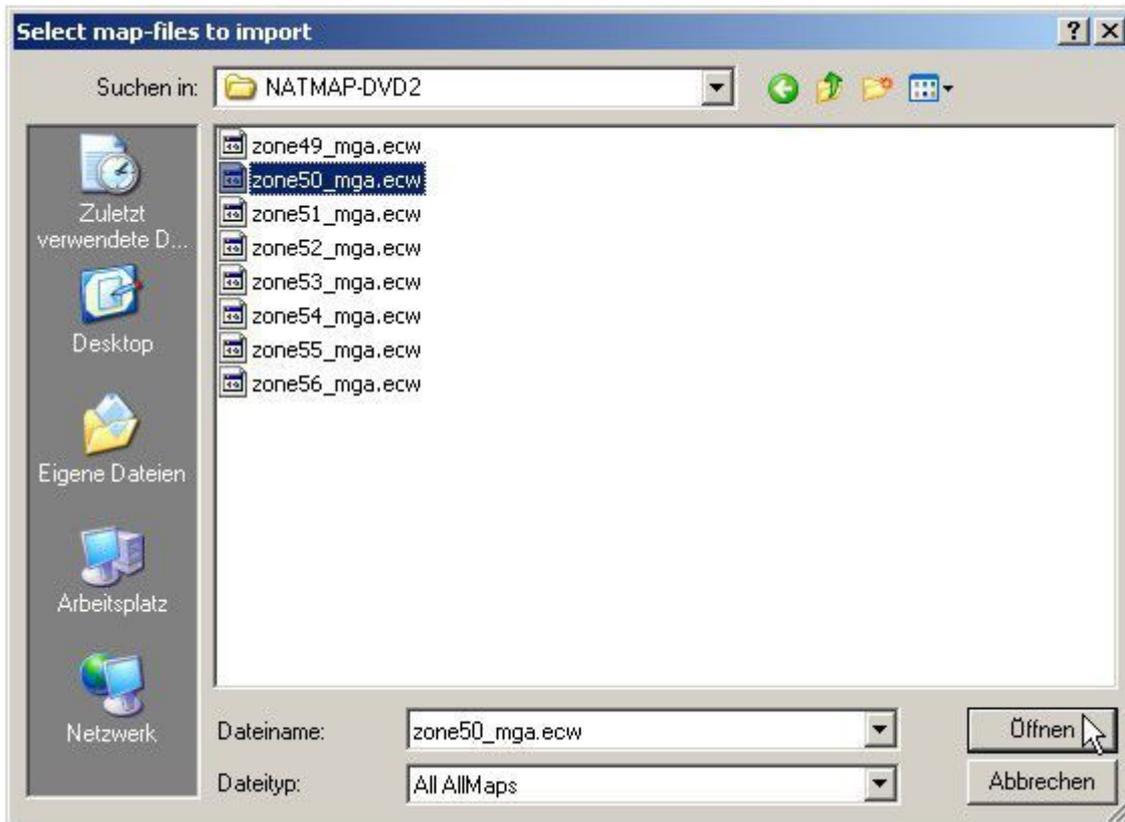
## Import of single maps

The simplest way to achieve this is a simple Drag & Drop operation: Just drag the map file (i.e. the bitmap file on your hard disk or CD/DVD drive) from the Windows Explorer to a map table of your choice in the QV X-Plorer window.

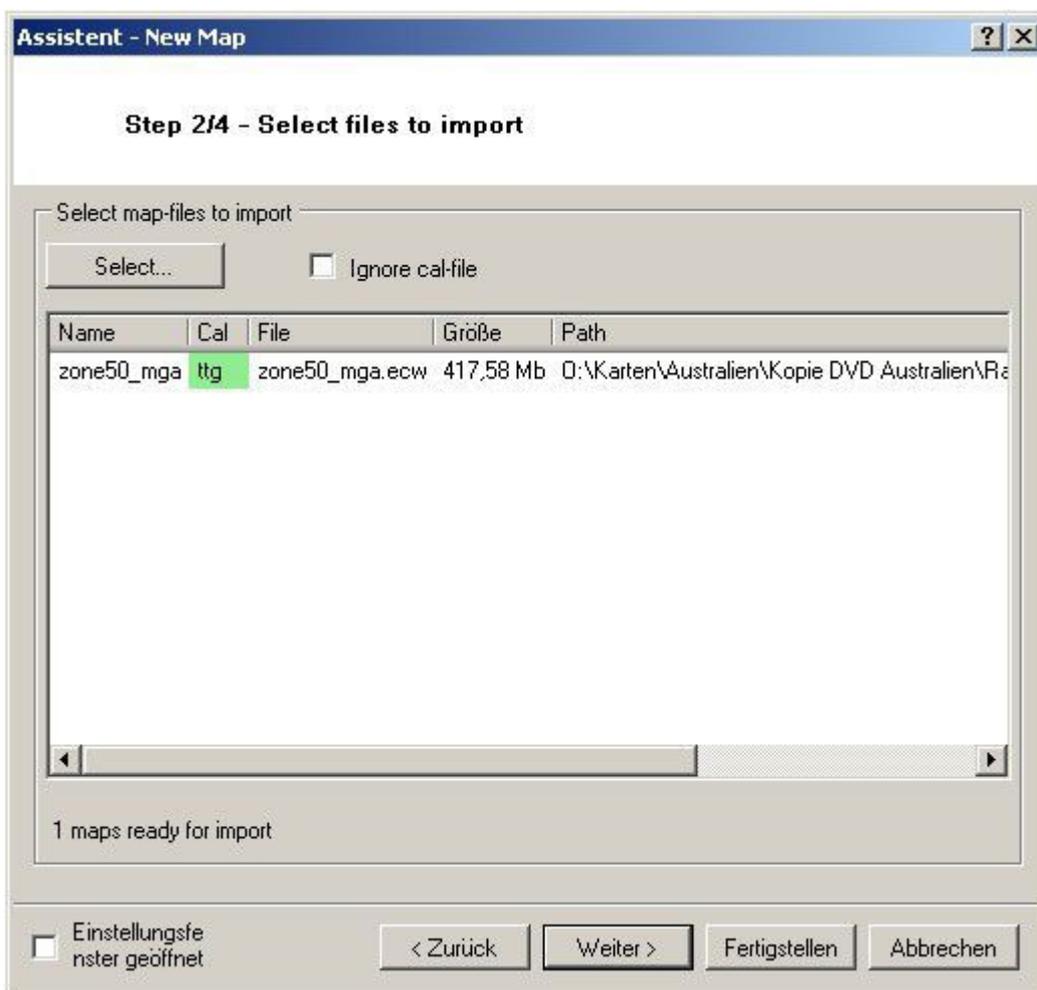
Alternatively you can click the Import New map  icon or select Import new map from the New menu of the main menu bar. The following assistant will open:



- Choose one of the four options from the list. The default setting is Manually select single or multiple map(s) in a folder which fits most requirements and which is also the option you need to import a MagicMaps product or Garmin IMG maps.
- Alternatively, you can activate an Automatic import of all maps from CD or DVD or folder (see below), an import of Mapserver - based maps (only available in the Poweruser and Professional versions) or the an import of Online-Maps.
- Make your choice and click Continue. A window will open where you can select one (or more) files:



- Thereafter, the file will be listed in the New Map Assistant:



- Click Continue to skip to the next window of the assistant where you can define the destination for the map import:



- Accept the default to import the map to the My Maps database and the map table Maps or select another option.
- A last assistant window will open where you can specify if the imported map should only be listed in the QV X-Plorer or whether you want the map to be directly opened.

If the map is already calibrated, it will directly be added to the X-Plorer list window.

If the map has not been georeferenced before, the calibration window will open.

For a description on the georeferencing procedure please refer to the chapter Calibrating of Maps.

### Import of multiple maps from CD/DVD or importing a whole map directory

If you choose this option, every CD/DVD or map directory will be added as a new map table to the My maps database or to the database and map table of your choice.

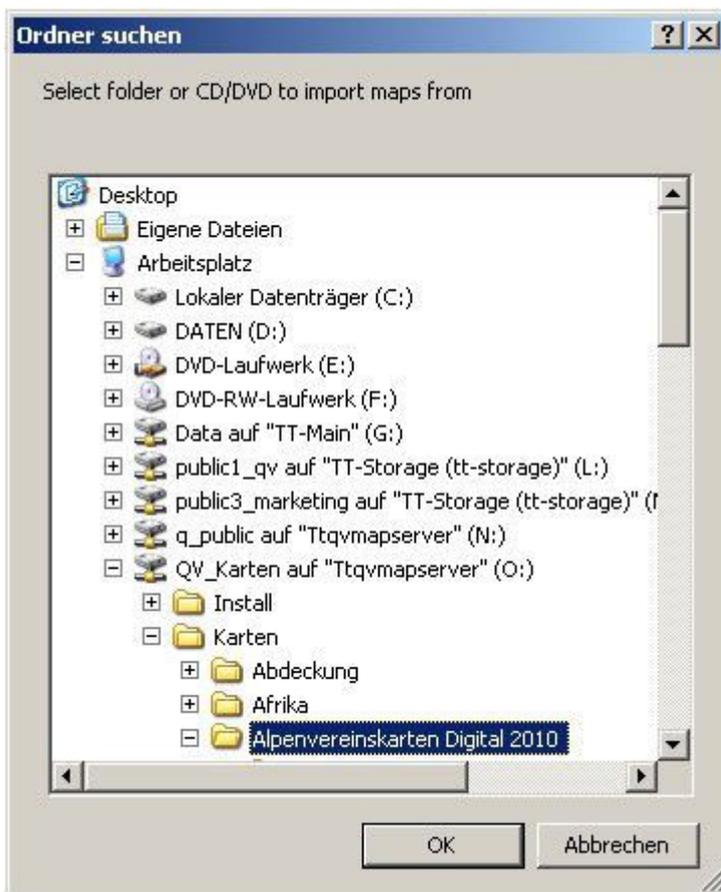
As some third-party-maps can only be imported after the installation procedure of the original map viewer software has been installed, we generally recommend that you first run the install utilities which come with the originally map products. This is also essential in cases where the originally

product requires a registration.

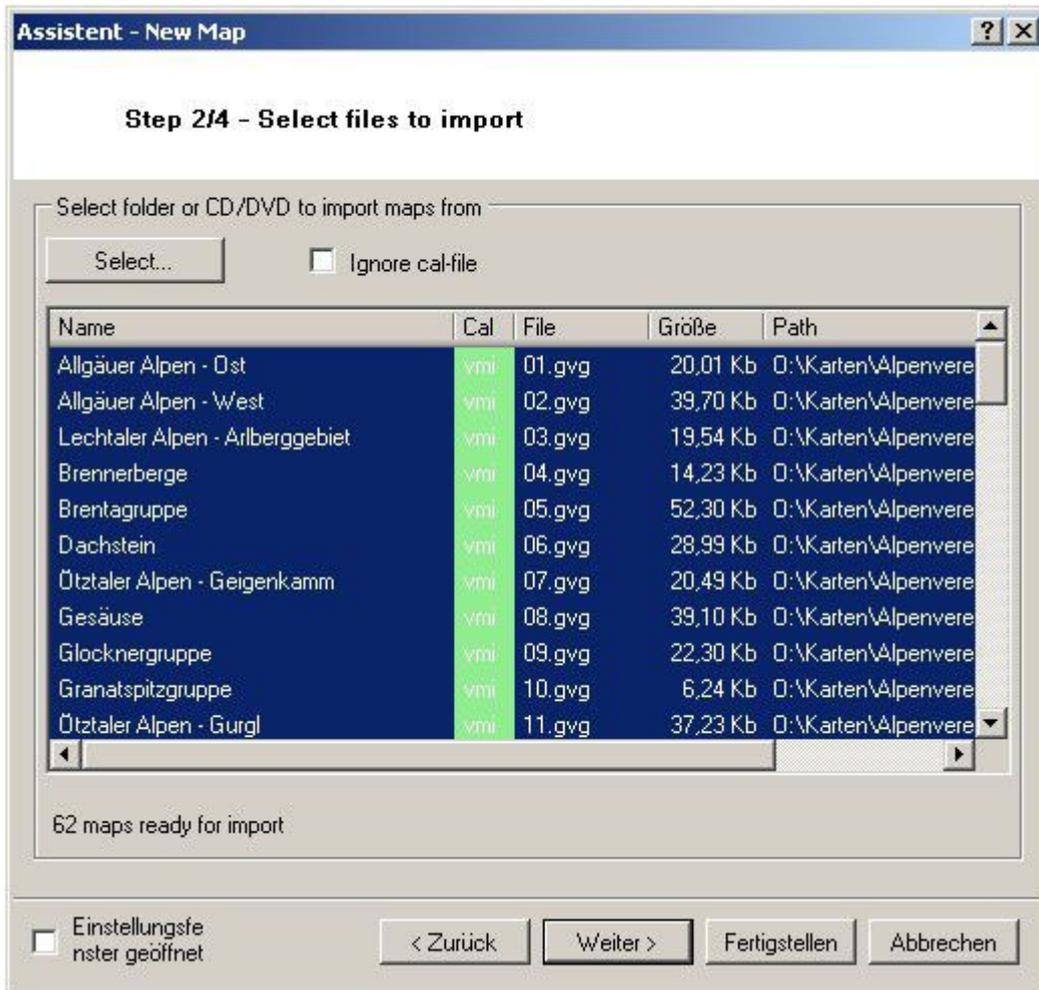
Remark: Please note the installation directory. You will need it later on. Otherwise you can check the installation directory later on by a right-click on the icon on your desktop.

Thereafter, please proceed as follows:

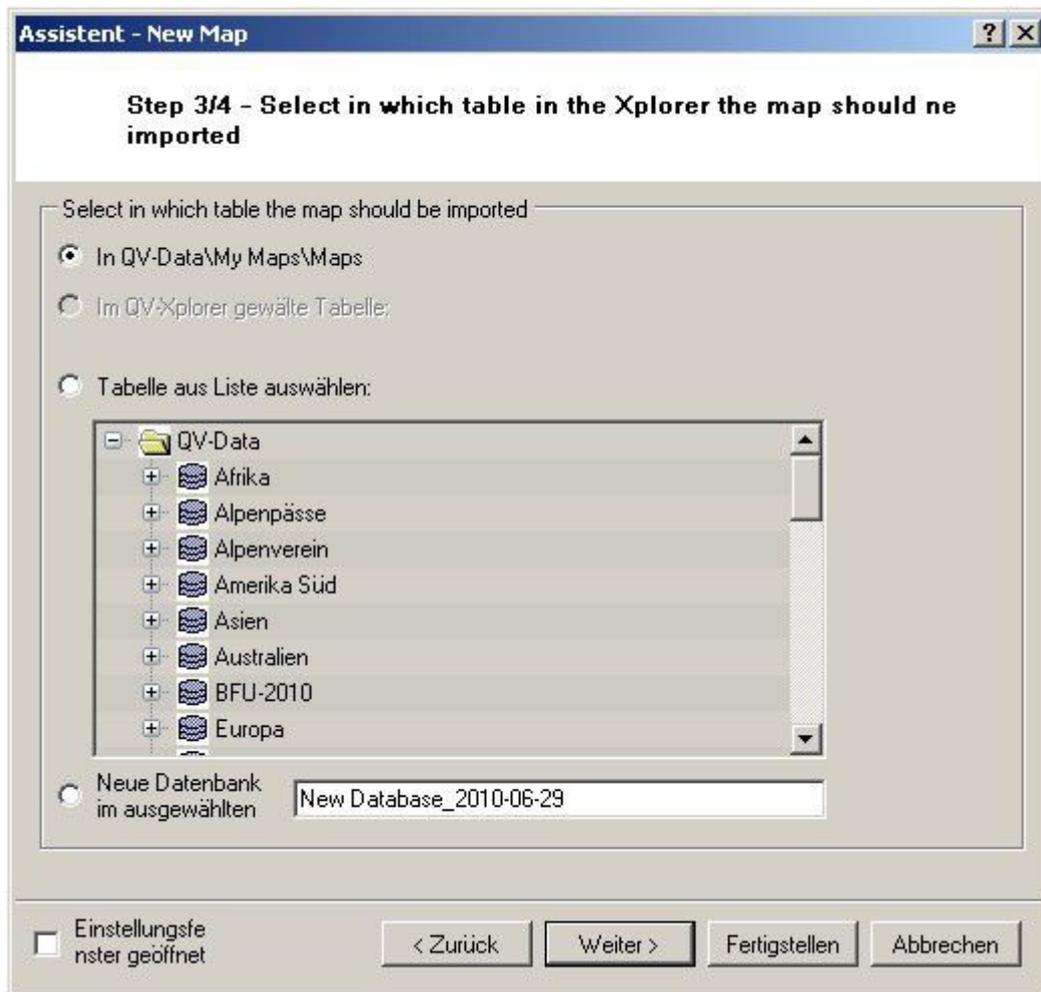
- Click the Import Map CD-ROM or Directory  icon in the New toolbar. You will also find this as a menu entry in the New menu of the main menu bar. The QV New Map Assistant will open and show a window where you can choose a map directory which you want to import:



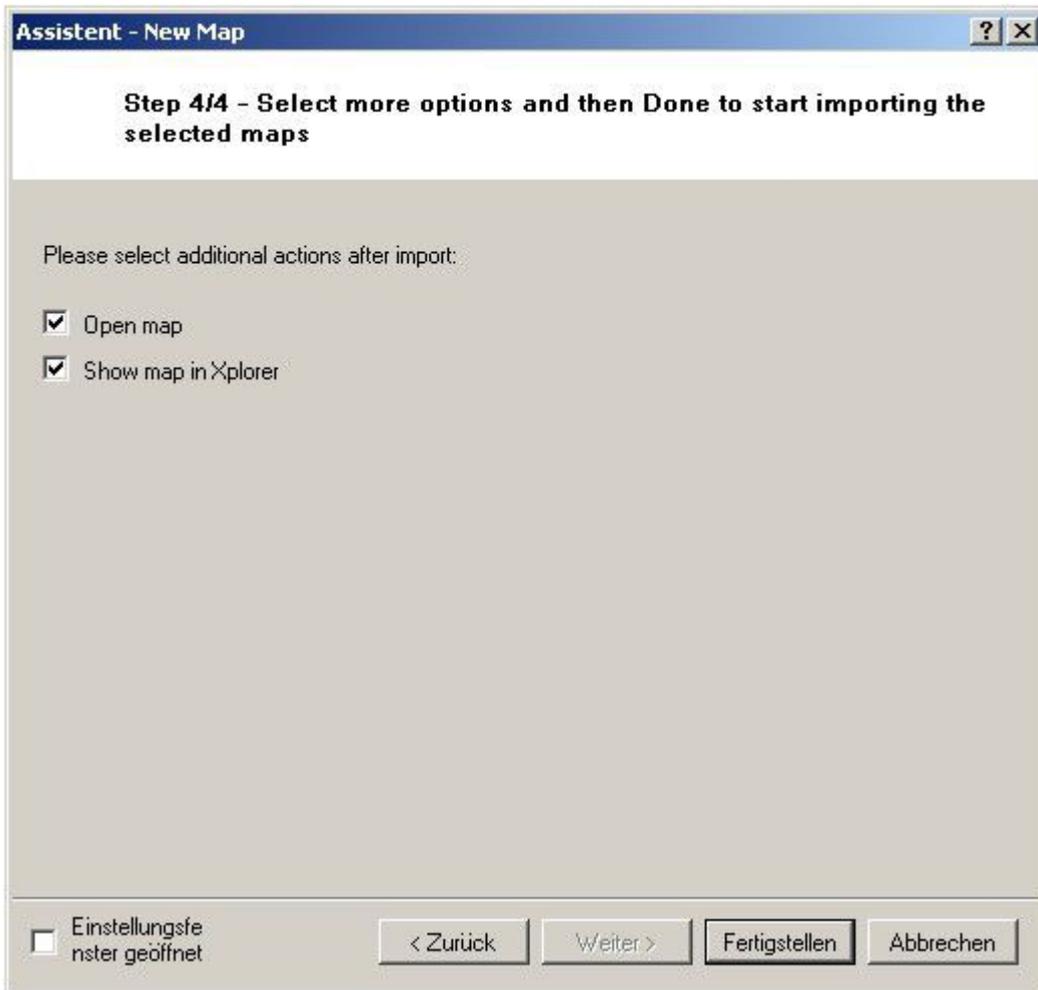
- Mark the directory and confirm by clicking OK. QV will then scan the directory and list compatible maps:



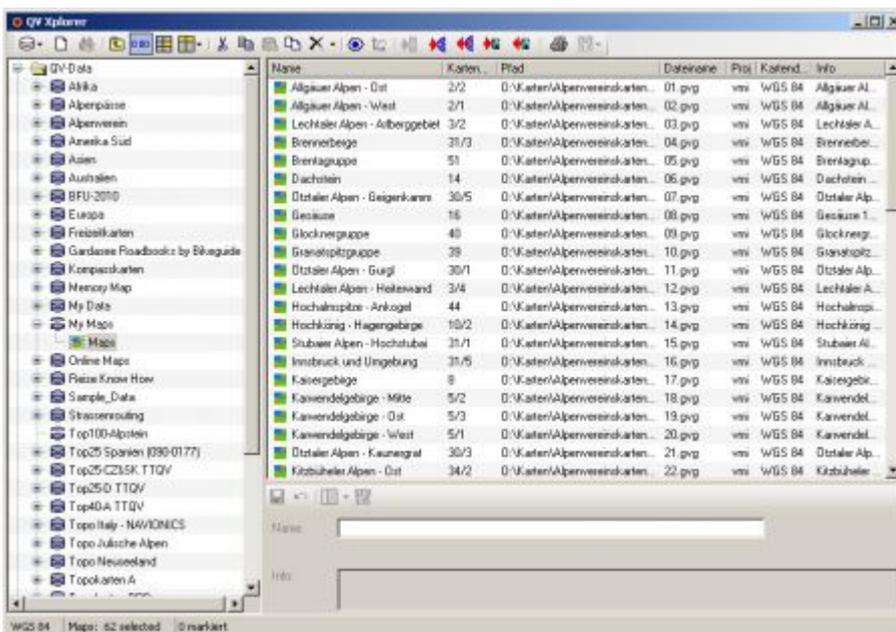
- Mark all maps which you want to import using the Windows standard (simple left mouse click for marking a single map, Ctrl + left mouseclick for marking several maps, shift + left mouseclick for marking a consecutive no. of maps).
- Click Continue. In the next window of the New Map Assistant you will be asked where you want the maps to be stored in the QV X-Plorer. Accept the default setting In QV-Data\My Maps\Maps (database My Maps and map table named Maps) or choose Select table from list and select a database and map table from the tree-based X-Plorer file structure. You can also choose the third option New Database which will be named according to the name convention New Database\_YYYY-MM-DD where YYYY stand for the year, MM for the month and DD for the day.



- You will then be asked if you want the maps to be listed in the X-Plorer or wether you want the map(s) also to be directly opened:



- Make your selections and click Finish.
- The maps will be imported according to your selections and will be listed in the QV X-Plorer:



- You can now open any of the imported maps and work with them (see Map window).



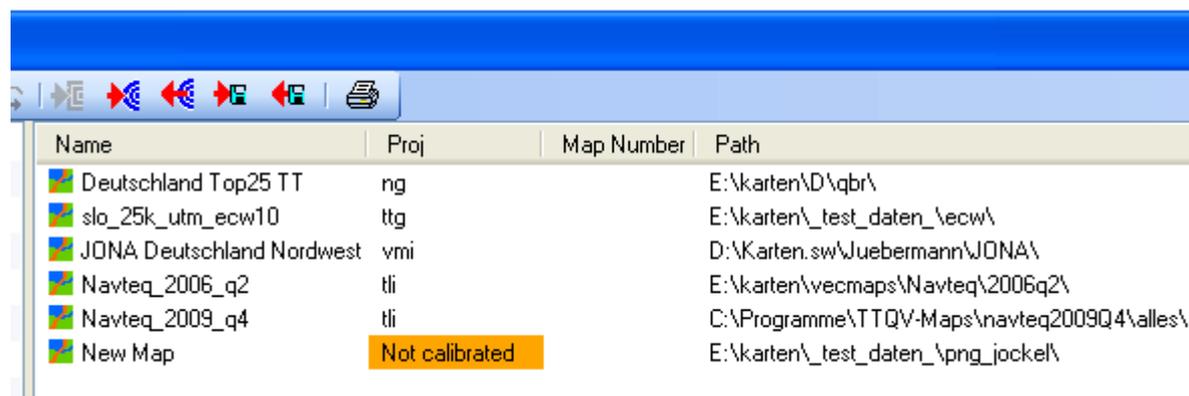
# Calibrate a map

Before a map can be used in QV, it must be georeferenced or „calibrated“. This requires the identification of the map type and its reference system and the assignment of specific points to known coordinates. This is essential in order to georeference the map, i.e. to enable QV to transfer map coordinates to screen coordinates and vice versa.

So, in order to use a map in QV which is located as a bitmap on your PC harddisk (for example a scanned map), three steps are required.

## 1. Import the map

So, first of all, import the map as described in the chapter [Import new map](#). Thereafter, you will find the map in the X-Plorer with the remark **Not calibrated**:

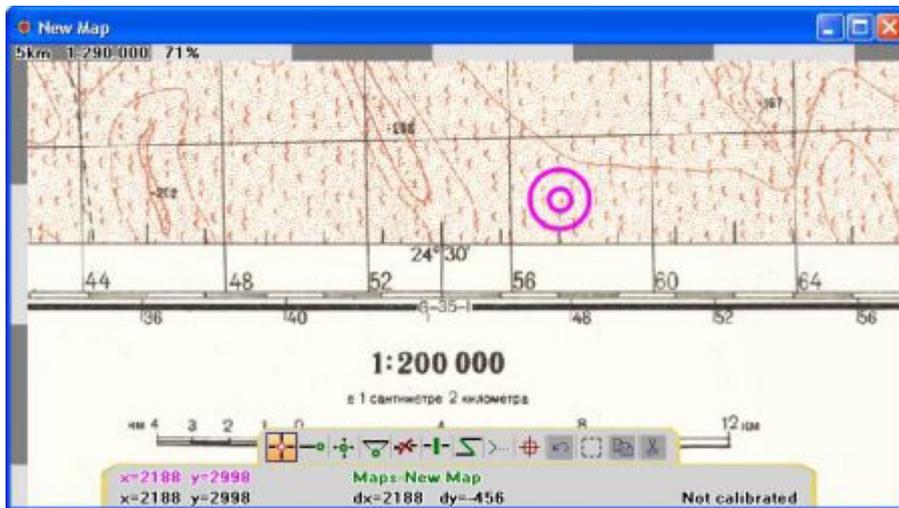


Name	Proj	Map Number	Path
Deutschland Top25 TT	ng		E:\karten\D\qbr\
slo_25k_utm_ecw10	tig		E:\karten\_test_daten\_ecw\
JONA Deutschland Nordwest	vmi		D:\Karten.sw\Juebermann\JONA\
Navteq_2006_q2	tli		E:\karten\vecmaps\Navteq\2006q2\
Navteq_2009_q4	tli		C:\Programme\TTQV-Maps\navteq2009Q4\alles\
New Map	Not calibrated		E:\karten\_test_daten\_png_jockel\

## 2. Open the map

In the next step, open the map in the 2D mode by clicking the icon **Show in map** .

As the map is still not calibrated, QV will indicate in the bottom line the positions as pixel coordinates. The coordinates of the mouse pointer are indicated in *black*, those of the map cursor in *magenta*.



### 3. Calibrate the map

Open the calibrating assistant by selecting **File > Calibrate map...** from the main menu.

In the first page you can enter some general information like **Name**, **Scale**, **Map number** and additional **Info**.

Then, click **Continue** to enter the map projection.

## Specifying the projection

Map-projection and -datum

Datum: WGS 84

Latitude, Longitude  
 UTM  
 National Meter Grids  
 Projection  
 Fixed, projection provided by map supplier

Locked

No specific parameters for Latitude, Longitude

According to the selection made, specific options may appear at the bottom of this window.

### Latitudes - Longitudes

This is the simplest mode which you should choose, if

- The exact projection of the map is unknown
- The grid of the map is only slightly curved or not curved
- The grid is labeled with longitudes and latitudes

### UTM

This is the right selection for maps with a UTM grid. You will have to specify the UTM zone and the hemisphere.

Map-projection and -datum

Datum: WGS 84

Latitude, Longitude  
 UTM  
 National Meter Grids  
 Projection  
 Fixed, projection provided by map supplier

Locked

UTM parameters

Zone: 33

Southern hemis

## National Meter Grids

For this option you have to choose the adequate grid system from the list.

Map-projection and -datum

Datum: WGS 84

Latitude, Longitude  
UTM  
National Meter Grids  
Projection  
Fixed, projection provided by map supplier

Locked

National Meter Grids

Warschauer Pakt Zone 4 (21°E)

## Projection

For this option you must know the exact projection of the map, including all relevant parameters.

Map-projection and -datum

Datum: WGS 84

Latitude, Longitude  
UTM  
National Meter Grids  
Projection  
Fixed, projection provided by map supplier

Locked

Projection

Projection: Transverse Mercator

Parameter:

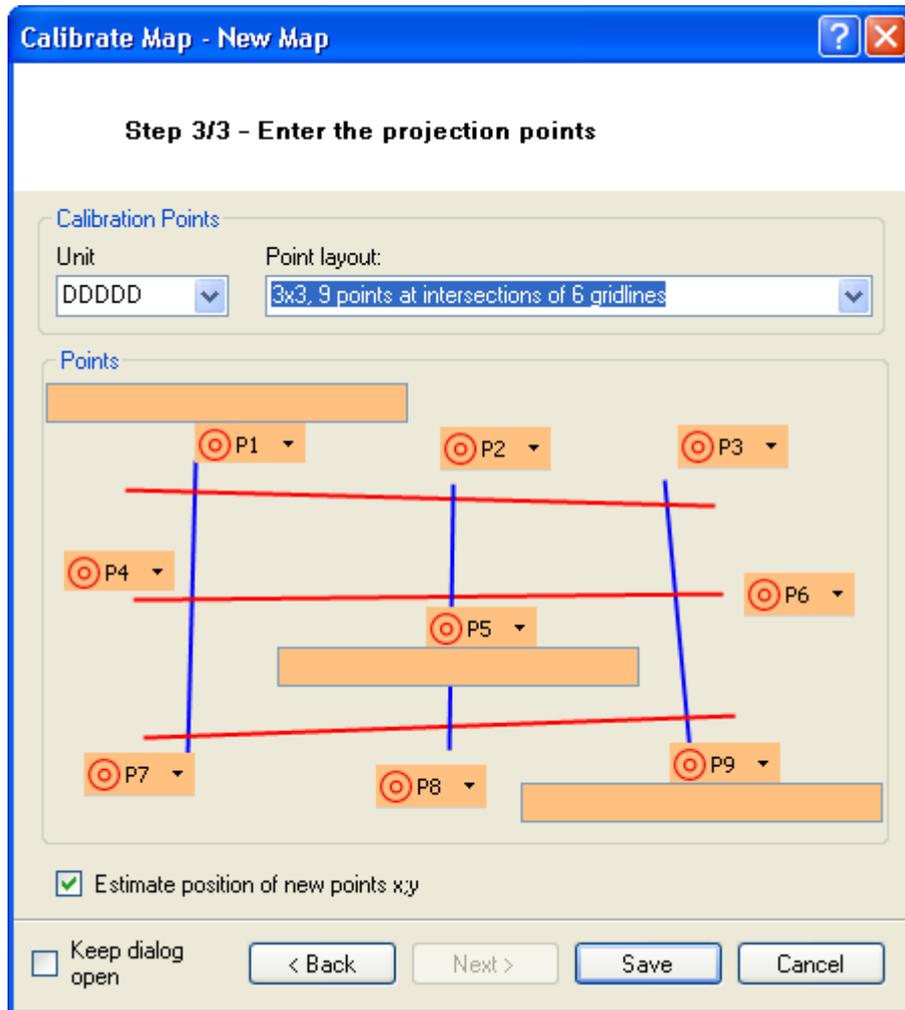
lon_0	
lat_0	
x_0	
y_0	
k	

Test...

So, choose the projection from the list and enter the required parameters into the corresponding fields.

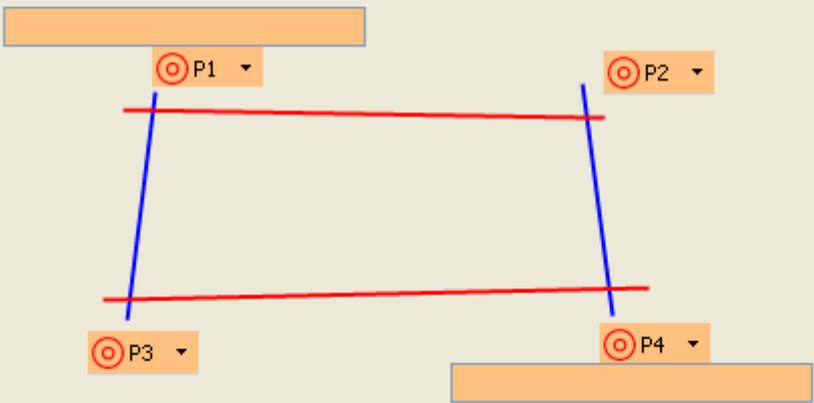
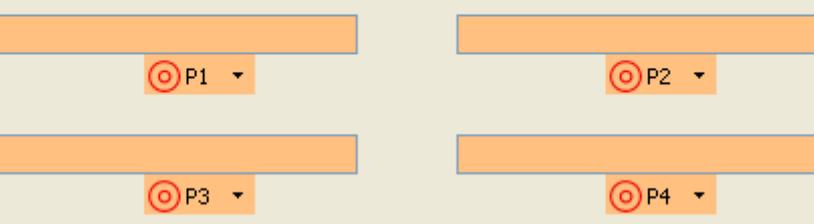
## Entering the reference points

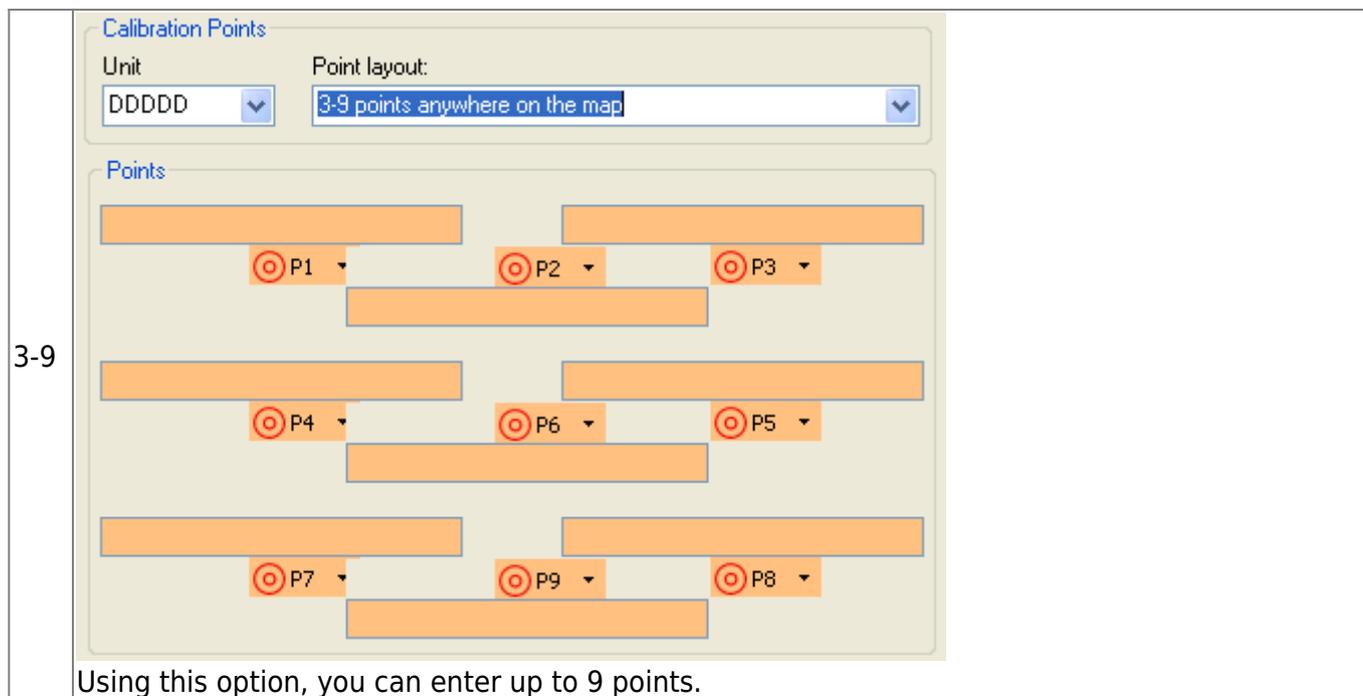
On the third page of the assistant, you will have to specify the reference point for the calibration.



In order to make this as efficient as possible (enter as many points as necessary but not more than essential), various patterns are available.

3x3	<p>See graphic above</p> <p>This pattern is sufficient in case the map grid is only slightly curved, and 9 intersections of 3 latitudes and 3 longitudes are available.</p> <p>So you have to define a total of 9 points in the map but only have to enter 3 coordinate values.</p>
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2x2	<div style="border: 1px solid #ccc; padding: 5px;"> <p><b>Calibration Points</b></p> <p>Unit: <input type="text" value="DDDDD"/> Point layout: <input type="text" value="2x2, 4 points at intersection of 4 gridlines"/></p> <p><b>Points</b></p>  </div>
<p>This pattern is adequate if the map grid is not curved and four intersections of 2 latitudes and 2 longitudes are available. So you have to define a total of 4 points in the map but only have to enter 2 coordinate values. For the projections <i>UTM</i> and <i>National Meter Grid</i>, only this layout is available.</p>	
3-4	<div style="border: 1px solid #ccc; padding: 5px;"> <p><b>Calibration Points</b></p> <p>Unit: <input type="text" value="DDDDD"/> Point layout: <input type="text" value="3-4 points anywhere on the map"/></p> <p><b>Points</b></p>  </div>
<p>This layout has primarily been implemented for the mode <i>projektion</i>, where 3 points are usually enough.</p>	

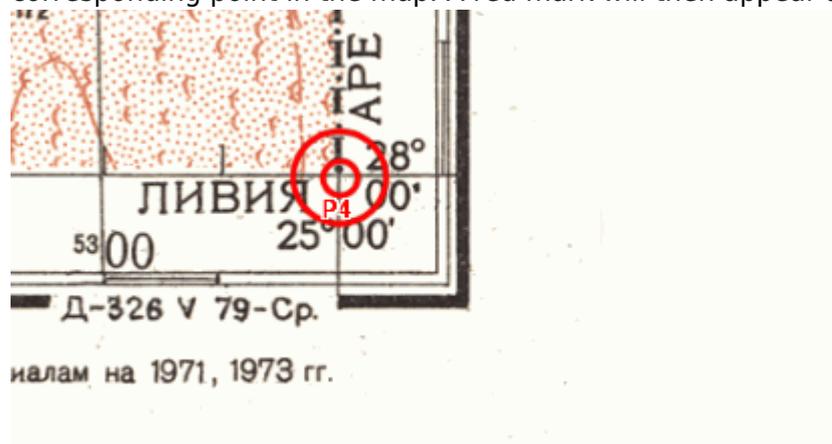


## Functions of a reference point

The status of a reference point is indicated by colors:

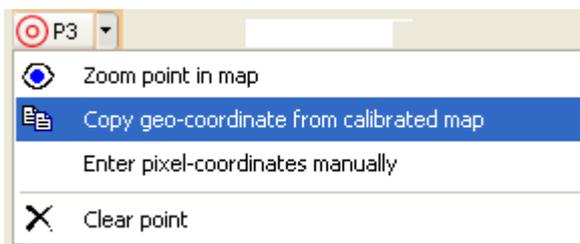
	Still no coordinate entered, still no point in the map defined.
	Still no coordinate entered but point in the map already defined.
	Valid coordinate entered but still no point in the map defined.
	coordinate entered and point in the map defined.

To enter a point in the map, first click the corresponding button, e.g. and the click on the corresponding point in the map. A red mark will then appear at this point of the map:



As confirmation, the corresponding button in the assistant will switch to *green*.

Thereafter, please enter the geographic coordinate. You must enter the value in the units which are selected under **Units**. Thereafter, the entry field will also switch to *green*.



Additionally, the **Px** icons have a drop-down menu:

Show point in map	Moves the map in order to display this point.
Copy geo-coordinate from a calibrated map	Using this function, you can copy the coordinate which you have to enter from a map which has already been calibrated.
Enter pixel coordinate manually	Through this option, you can enter the X and Y coordinates in pixel units in the corresponding box.
Delete point	This will delete the point definition, so that the status switches back to orange.

## Save calibration

After all points are defined, i.e. all fields indicate the status in *green*, click the **Save** button. Thereafter, the calibration will be saved, the calibration status updated in the map list and the map will be displayed. So you can control immediately, if the calibration is correct. If the software switch „Keep dialog open“ is set, the assistant will not be closed, so you can make further corrections if required. Otherwise the assistant will automatically close.

Of course you can restart the assistant at any time in order to check or to modify the map calibration.

**It is important to check the calibration! Follow the latitudes and longitudes with the mouse pointer and watch the coordinates which are specified in the status line. If they are not plausible, repeat the calibration.**

**Another test: Double click on a map point which is not close to a calibration point and save this point as a waypoint. Plot this waypoint in the map and check whether the mark is in the same place. If you have GPS tracklogs from this area, plot them in the map and check for their correct placement.**

# Map export, printing

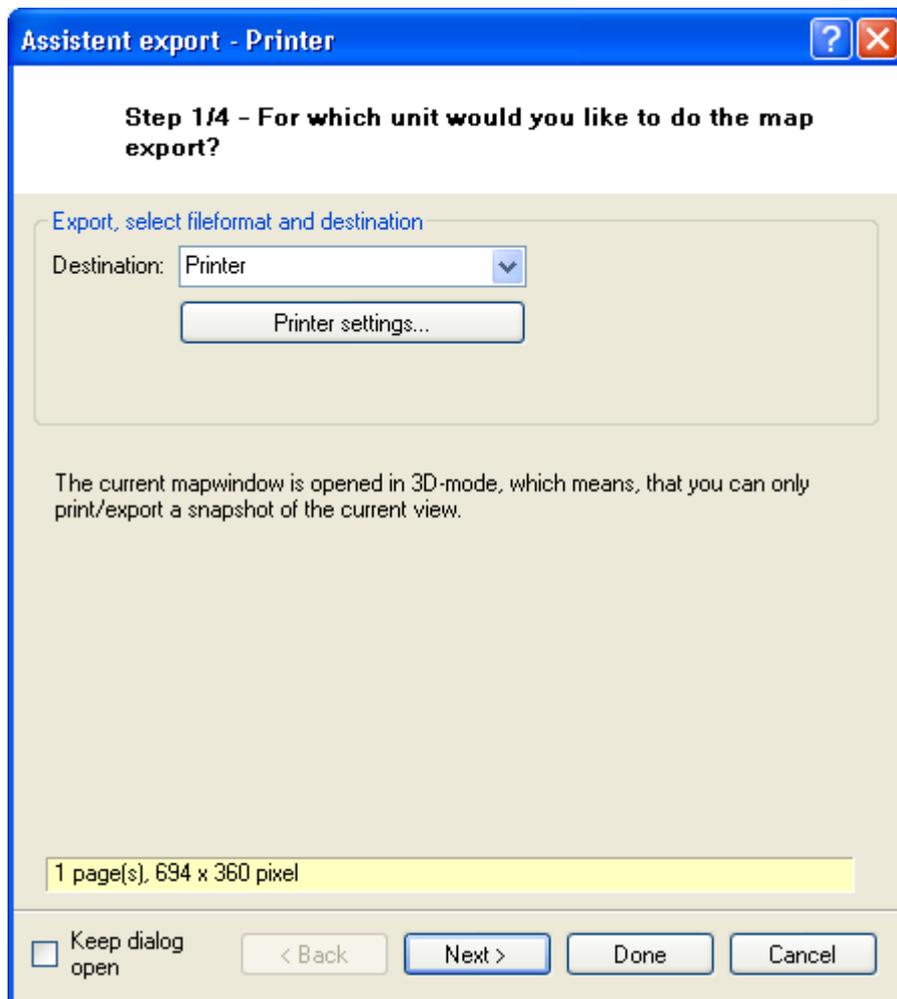
QuoVadis 6 has the option to export maps in various ways. In this context it is important to distinguish between raster and vector maps. Generally, that the map export is limited to raster maps; in this case, every compatible raster map can be exported. In case of vector maps the only option is the upload free Garmin IMG vector maps to compatible Garmin GPS units which is adressed at the end of this chapter. This chapter covers:

1. Export of raster to compatible GPS plattformen and / or Software programs
2. Export of raster maps as a bitmap file
3. Upload of Garmin IMG vector maps to comaptible Garmin map plotters

**Remark: The various export formats provide different levels of protection against unauthorized use. Therefore, copy right holders have imposed different levels of restrictions in terms of tolerated map extents for different export formats. Wich limit is effective is indicated at the bottom of the map export assistant above the yellow status line. The limit is always indicated in megapixels, and represents the maximum area which is possible to export in terms of pixels.**

## 2D or 3D

A map which is displayed in the 3D mode can only be printed or be exported as a screenshot. A corresponding remark in the export assistant will inform you about this fact:



In order to use all the options described here, please open the map in the 2D mode.

The export always is done in four steps. The export assistant will guide you through the procedure step by step. At first you have to open the map which should be exported or printed. Plot all the marks which you want to include in the export.

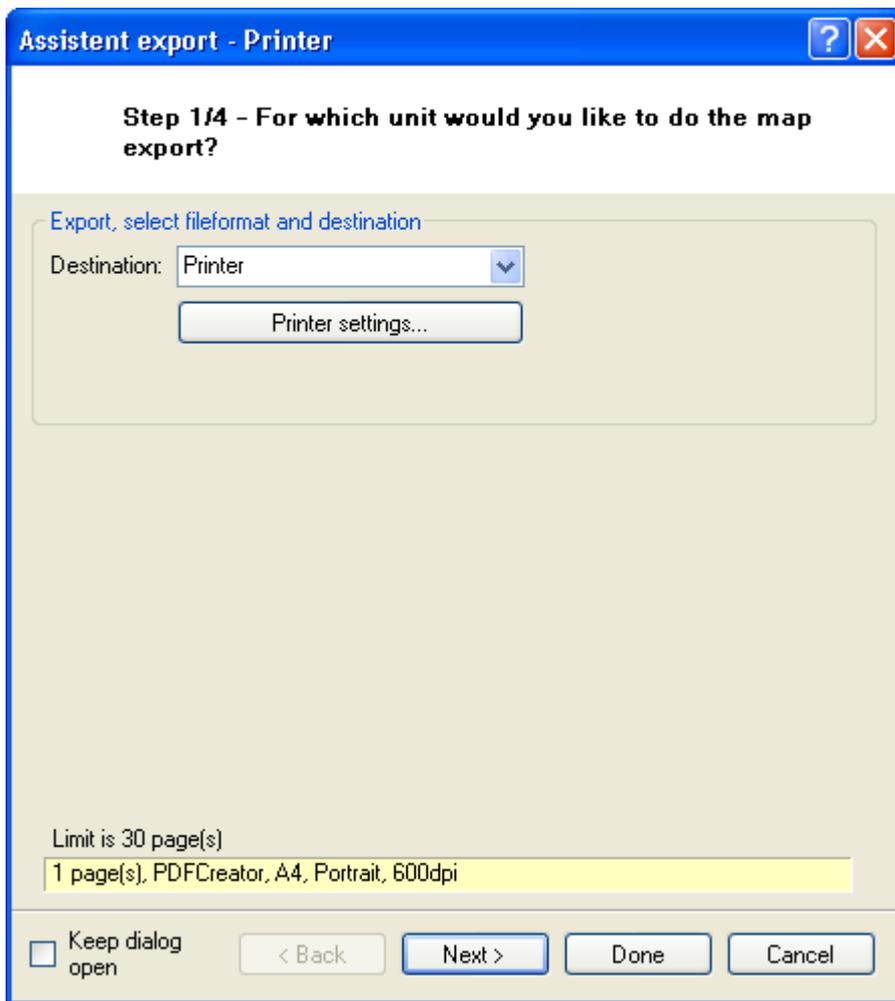
Then start the assistant by selecting **File > Print** or **File > Map export** from the main menu.

## 1. Specifying the output device

First of all, you have to select to which kind of device you would like to export. Each device has its specific parameter set which is listed below.

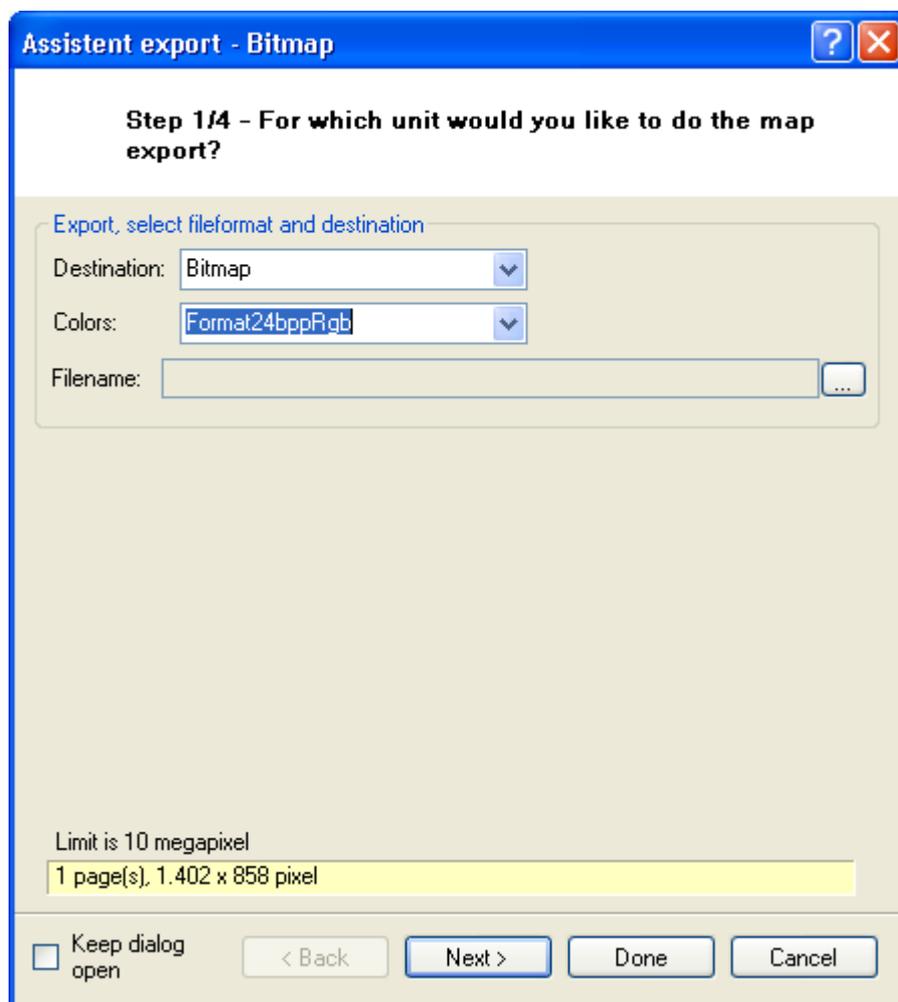
The following devices are available:

### Printer



Under Printer Settings you can select a printer and define corresponding printing parameters. On the last page of the assistant you can activate a page preview function. With protected maps, the maximum number of pages is usually limited. In this case the limit is indicated in the status line of the assistant.

## Bitmap



For some applications you need a bitmap export of a map including all geodate like planned trips in order to include the map into a graphic presentation: For this purpose we implemented a bitmap rather export into QV. In this context it is essential to take care of the copyright regulations when using a given map for such purpose. In any case it will vary from copyright holder to copyright holder which map extents are allowed and what restrictions might be imposed. Generally if you are using a map for personal use, you will not encounter problems. However, usually you are not allowed to use a licenced map for public or commercial use. If you intend to use such a map in a public or commercial context, it is a good idea to contact the copyright holder and ask for a quote. In most cases a standard pricing sheet is available when you pay according to the type of use (internet or print product) and the no. of copies.

Bitmaps can be exported as JPG, PNG or BMP file and in truecolor, 256 or 16 colors. Please specify under file name the path, name and type of the export file.

Bitmaps are open formats, therefore the restrictions of copyright-protected maps are rather strict. Usually, only screenshot resolutions will be admitted.

## Compe RMAP

**Assistent export - CompeRMAP**

**Step 1/4 - For which unit would you like to do the map export?**

Export, select fileformat and destination

Destination: CompeRMAP

Colors: Format24bppRgb

Filename:  ...

Options for CompeRMAP

This map is restricted by special copyright and has to be locked on your device.

Please enter the device-ID from your mobile device:

F-9wMJ4DXH68Z4CCHH\*69

Remember device-ID with this name:

CompeGPSLand auf meinem Dell

Encrypt map

1 page(s), 2.700 x 1.652 pixel

Keep dialog open

< Back Next > Done Cancel

The TwoNav platforms offer the highest performance concerning raster map exports. They allow for the largest map tiles and also offer the best protection of exported maps against unauthorized use. Therefore, the imposed restrictions of map copyright holders are minimal.

Besides the two TwoNav GPS units, the TwoNav software is available for many operating systems such as Windows Mobile, Symbian, iPhone/iPad and MS Windows.

Any raster map can be exported to the TwoNav platforms. Concerning the possible tile sizes, the only practical restriction is the 4 GB limit of the supported file size in a FAT-formated storage medium. This allows for extremely large map tiles. However, as the raster maps are extremely large (up to 10.000 megapixels !), the map export may take very long. The TwoNav software can handle as many maps as you like (as long as you have enough storage capacity) and can even show up to 3 maps at a time including a mixed set of vector and raster maps!. This is currently a unique feature on PDAs and smartphones!

However, please note that the TwoNav platforms can only process TeleAtlas vector maps compiled by compeGPS. So the map export from QV ist limited to raster maps.

The exported map file is locked against the Device ID (TwoNav GPS unit) or the Software ID (TwoNav software), respectively. This means that if you are working with several platforms, a given map must be exported for every platform once.

**Copyright-Protected maps will be locked against the device or software ID during the export, so you will be asked to enter this ID. Therefore, this format usually allows for a map export in unlimited size. However please note, that the file system of SD cards**

**imposes a limit of 4 GB file size, even if you have 32 GB memory available.**

If you enable the software switch *Register device ID under this name*, you can enter a name in the textbox below and QV will store the ID for your next export.

## Magellan eXplorist/Triton

**Assistent export - MagellanRmp**

**Step 1/4 - For which unit would you like to do the map export?**

Export, select fileformat and destination

Destination: MagellanRmp

Colors: Format24bppRgb

Filename: E:\tmp\1\d50.rmp

Options for MagellanRmp

This map is restricted by special copyright and has to be locked on your device.

Please enter the Unit-ID from your mobile device:

G143500726295

Remember Unit-ID with this name:

toms explorist

1 page(s), 16.000 x 20.000 pixel

Keep dialog open

< Back   Next >   Done   Cancel

From QV 5.0.7.5 it is possible to export map-details to Magellan-devices, series eXplorist (not GC, not older eXplorist) and Triton.

The maximum size of the created map-file should not exceed 2gb. The maps will be locked with the serial-number of the device, which means, that they only run on the device, for which it was created.

So please enter the device-Id of your Magellan, which is normally a 13-digit number and usually be found in the info-menu of the device.

When the export is done, copy the generated RMP-file in to the device in the folder MAP in the internal memory or on the SD-card. Please use the harddisk of your computer for exporting. For performance-reason it is not recommended to export directly into the device.

## Pathaway

Historically, PathAway was the first platform which allowed for a high-quality navigation with raster maps on PDAs and smartphones. Meanwhile this software is available for hardware platforms with Windows Mobile, PALM and Symbian operating system. In terms of functionality, PathAway is still one of the most powerful programs. However, the maximum size of map tiles is limited and now routing/autorouting functionality with vector maps is available. On the other hand, PathAway can handle as many map tiles as you like (as long as the memory card of your PDA has enough capacity). A unique feature is the Remote-Tracking option with PathAway Professional. On some markets, PathAway is also available under the brand Tour Navigator which has usually a limited functionality but uses the same map and data export files.

Ab QuoVadis 6.0.5.5 werden Exporte geschützter Karten verschlüsselt ausgegeben. Dadurch ist die Beschränkung der Ausgabegröße entfallen und es können sehr große Kartenausschnitte auch mit mehreren Seiten exportiert werden.

Geben Sie dazu die User-ID Ihres Gerätes ein:

- Windows Mobile: the UID (Unique Device ID) of the device. The UID is displayed ONLY on the PathAway Register screen. Note: The UID is NOT the Serial number printed on the Handheld. UID is always 10 uppercase characters with no spaces.
- Symbian: The user's IMEI is required. To determine the IMEI, the user must dial `*#06#` on their Smartphone. The IMEI contains 15 numeric digits. NO SPACES. It is also displayed on the PathAway About - Register screen. The IMEI is unique to each phone, and it is NOT the Serial number printed on the phone.
- Palm OS: Encrypted maps will NOT run on PalmOS.
- iPhone (I will be adding this to the Settings→About PathAway screen. it will be the first 10 characters of their UDID converted to uppercase)
- WM and Symbian: This works on any Version 6.20 or higher - iPhone, will work on 5.52 (not released yet) or higher.

## Garmin Custom Maps

Since the first Garmin approach to add raster map compatibility to advanced GPS mapp plotters, it took years until this feature was made accessible to the European market. However, since december 2009, the Garmin Custom Map function was finally introduced. Currently this feature is available to the following GPS models: Colorado, Orgeon, Dakota, GPSMAP 62 and GPSMAP 78 (Please note that with some older models a free firmware update might be necessary which can be downloaded from the Garmin website).

Technically, Garmin has restricted the Custom Map function to a maximum of 100 map tiles with a resolution of 1024 x 1024 pixels each. The corresponding area which can be covered, varies with the map scale: While a high resolution topomap with a 1:25.000 scale allows for approx. 30 x 20 km, the custom map will cover the 4-fold with a 1:50.000 topomap. A topomap with a 1:100.000 will allow for a covered area of approx. 120 x 80 km.

Unfortunately, the custom maps must be uploaded to the internal memory of your Garmin unit (in the folder Garmin\CustomMaps). You can upload more than one file but in any case only the first 100 tiles will be processed.

If the selected map or map extent is too big, QV will automatically generate more than one custom map at a time but as the maximum no. of 100 tiles are automatically realized, you can only upload one of the generated custom maps at a time. This means that you need a PC in order to change custom maps as it is also not possible to prepare several custom maps on memory cards.

From a technical point of view, a single tile represents a JPG file and all JPG files are packed in a KMZ file. So the Garmin custom maps can also be used for Google Earth, and they can also be processed with some Giove MyNav GPS units.

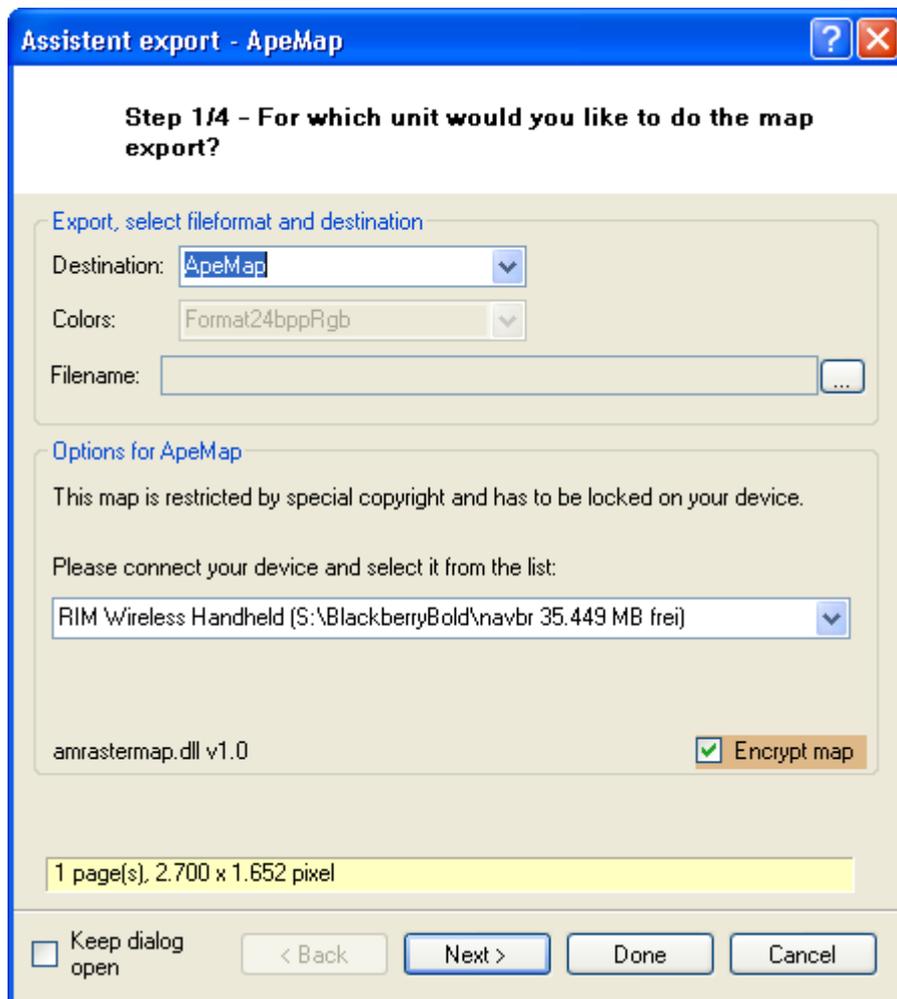
***This format does not imply an encryption during map export, so the possible size of copyright-protected maps is limited.***

## Google Earth

For this export mode, JPG tiles are generated which are finally packed in a KMZ file, so it's the same technique as for Garmin Custom maps. Such files can be opened and displayed in Google Earth®.

***This format does not imply an encryption during map export, so the possible size of copyright-protected maps is limited.***

## Ape@Map

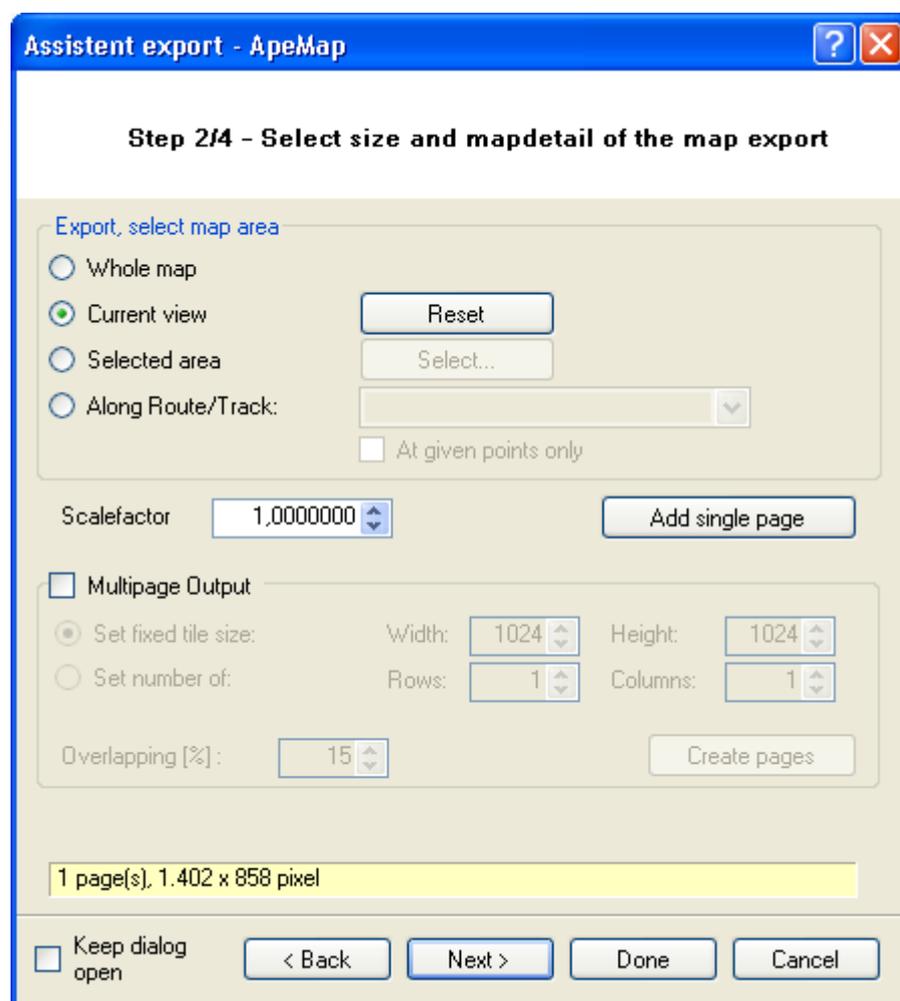


This software is specialized on raster map navigation with Symbian-based smartphones.

***Copyright-protected maps are being encrypted during the export. You will have to select the device from a list. Thus, you have to connect your device to the PC first before you can use this function. Due to the logging on specific hardware devices and the encrypted format, usually no restrictions in terms of size of the exported maps are applied. However the available memory of the smartphone might impose limits.***

## 2. Defining the scaling of a map export

After having defined the device for the export, please click **Continue** to skip to the page where you define the map section to be exported.

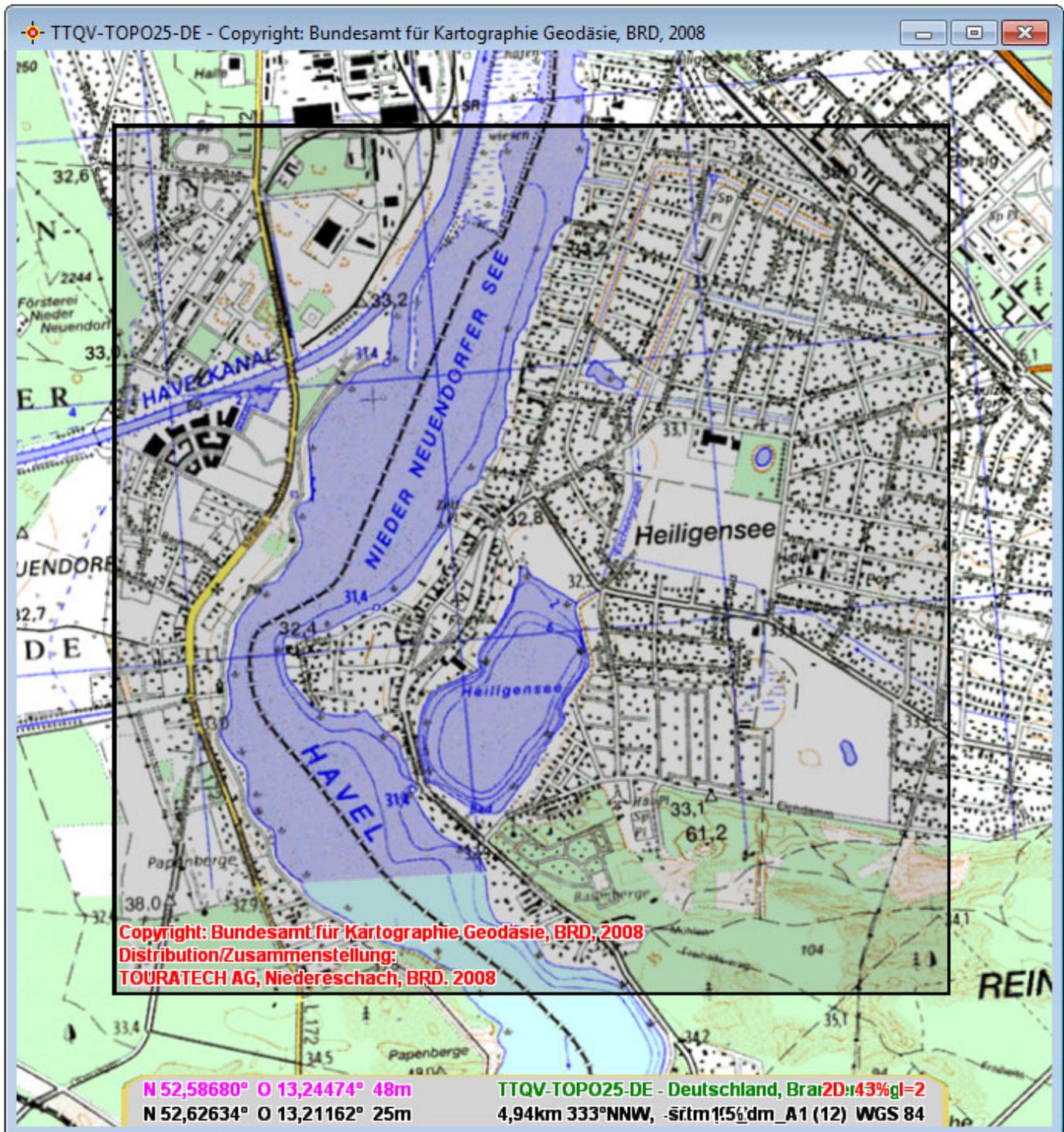


## Map section and size

The following options are available:

Whole map	In this case, the whole map is being exported.
This view	The actual map view will be exported. Click on <b>Rest</b> in order to re-select in order to reactivate this option, e.g. after having modified the displayed map section.
Selected area	Click on <b>Select</b> in order to define a rectangle which will be used to clip the map area which should be exported.
Along a route/track	The exported map section will be defined in order that the route or track which you selected from the list will entirely be covered. <b>Only at existing points</b> is an option referring to the multipage output. If enabled, map sections will only be created at points which can minimize the number of map tiles!

The selected map section will be indicated in the map window by a semi-transparent rectangle and can be shifted with the mouse in case re-positioning is required. You can still zoom or the map according to your needs. You can also add new pages through the function **Add single pages** which you can then drag-and-drop with your mouse to whatever position you like.



## Scaling of the map export

The scaling factor is the ratio between the size of the original map and the size of the exported bitmap. A value of „1“ indicates equal size. A value smaller than „1“ means that the map will be downsized. This can be useful in order to reduce file size or to stay under a given map size limit. For example, a value of 0,75 means that the map will be exported at a zoom scale of 75%. With high quality maps, this may still result in an acceptable display quality of the exported map.

In the example given below, a scaling factor of „1“ results in a bitmap which is too large to be processed:

Scalefactor

Multipage Output

Set fixed tile size: Width:  Height:

Set number of: Rows:  Columns:

Overlapping [%]:

Limit is 10 megapixel  
 1 page(s), 32.481 x 32.018 pixel, area is too big.

Below, the scaling factor has been reduced, so the export is now possible:

Scalefactor

Multipage Output

Set fixed tile size: Width:  Height:

Set number of: Rows:  Columns:

Overlapping [%]:

Limit is 10 megapixel  
 1 page(s), 3.157 x 3.112 pixel

By clicking the **Max** button, QV can calculate the scaling factor in order to adjust the limit to the maximum value possible.

## Multipage printout

QV can export several files at a time. Each output page will be indicated as a separate rectangle in the map display and can be freely positioned. You can also delete single single pages if required. All maps will be exported in separate files.

Button <b>Add          single          page</b>	Will create a new page which can be positioned with the mouse in the map window.
--	--

Scalefactor

Multipage Output

Set fixed tile size: Width:  Height:

Set number of: Rows:  Columns:

Overlapping [%]:

Limit is 10 megapixel  
4 page(s), 1.331 x 1.331 pixel

Will automatically create multiple pages in a raster array, either with fixed width and height from which the number of pages will be calculated, or a fixed number and QV will calculate the corresponding tile size.  
The Overlapping parameter will define if and to what percentage neighboring tiles will overlap. With the **Print Pages** button, the pages will finally be exported.

Multipage export

**Seite 1/4**  
Copyright: Bundesamt für Kartographie Geodäsie, BRD, 2008  
Distribution/Zusammenstellung:  
TOURATECH AG, Niedereschach, BRD, 2008

**Seite 2/4**  
Copyright: Bundesamt für Kartographie Geodäsie, BRD, 2008  
Distribution/Zusammenstellung:  
TOURATECH AG, Niedereschach, BRD, 2008

Einzelne Seiten können bei Bedarf mit dem Befehl „Aus Karte entfernen“ aus dem Popup-Menü einer Druckseite entfernt werden. Sie können auch mit der Maus einzelne Seiten verschieben, um so den zu druckenden Bereich anzupassen.

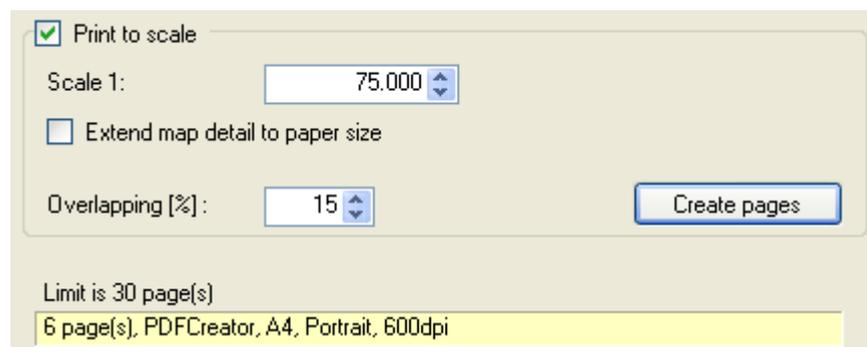
## Scale for printout

Through the button *scale* the scale of the printout is controlled.

If disabled, the map scale will be calculated so that the map extent will fit the paper size. In this case, the resulting scale will be printed in the field *scale*.

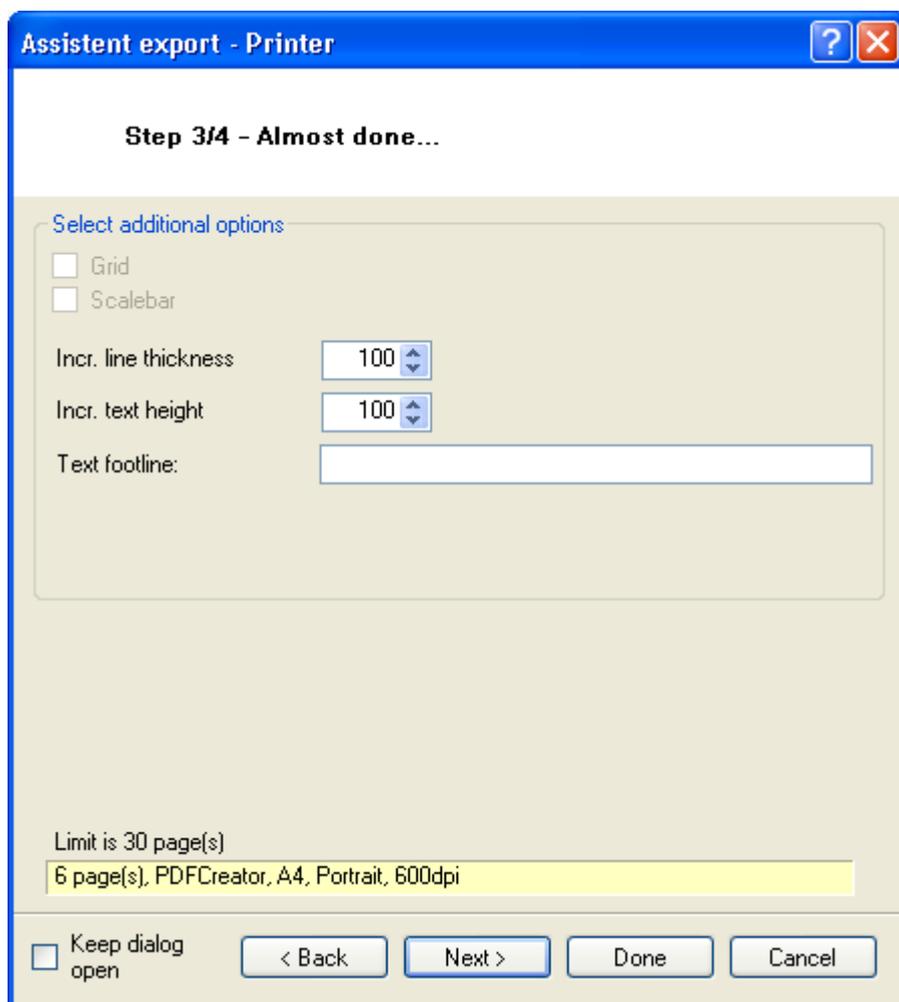
If enabled, you can define a scale in the corresponding input field. In this case, the map will exactly be printed in the defined scale.

Thereafter, you click **Print pages** in order to printout the marked pages. According to the defined scale, multiple pages may result. If you have enabled the function **Expand map extent to fit paper size**, the map extent will be increased in order to fill the printing format but the defined scale will still be considered.



The screenshot shows a configuration dialog box for printout settings. It features a checked checkbox labeled "Print to scale". Below this, there is a "Scale 1:" label followed by a spin box containing the value "75.000". To the right of the spin box is a small blue button with a double-headed arrow. Below the scale field is an unchecked checkbox labeled "Extend map detail to paper size". Further down, there is an "Overlapping [%]:" label followed by a spin box containing the value "15". To the right of the spin box is another small blue button with a double-headed arrow. A "Create pages" button is located to the right of the "Overlapping [%]:" field. At the bottom of the dialog, there is a text label "Limit is 30 page(s)" and a yellow highlighted text box containing the text "6 page(s), PDFCreator, A4, Portrait, 600dpi".

## 3. Additional parameters



Grid	A grid overlay will be applied to the map export.
Scale	A scale bar will be added to the map export.
Increase text size	Through this function, an increased text size can be applied. This is specified as a percentage increase and will be applied to labels of waypoints, routen and tracks, etc.
Increas line width	Through this function, an increased line width of tracks and routes can be applied. The value is defined as a percentage increase.
Text footline	Hre you can enter a user-defined text which will be added to the exported file along with the copyright remarks.

## 4. Finish

On the last page of the assistant you finally start the printout or file export by clicking **Done**. Depending on the number and size of the pages, this can take quite a while. A progress bar will be displayed and a button to abort the export or printout is also available.

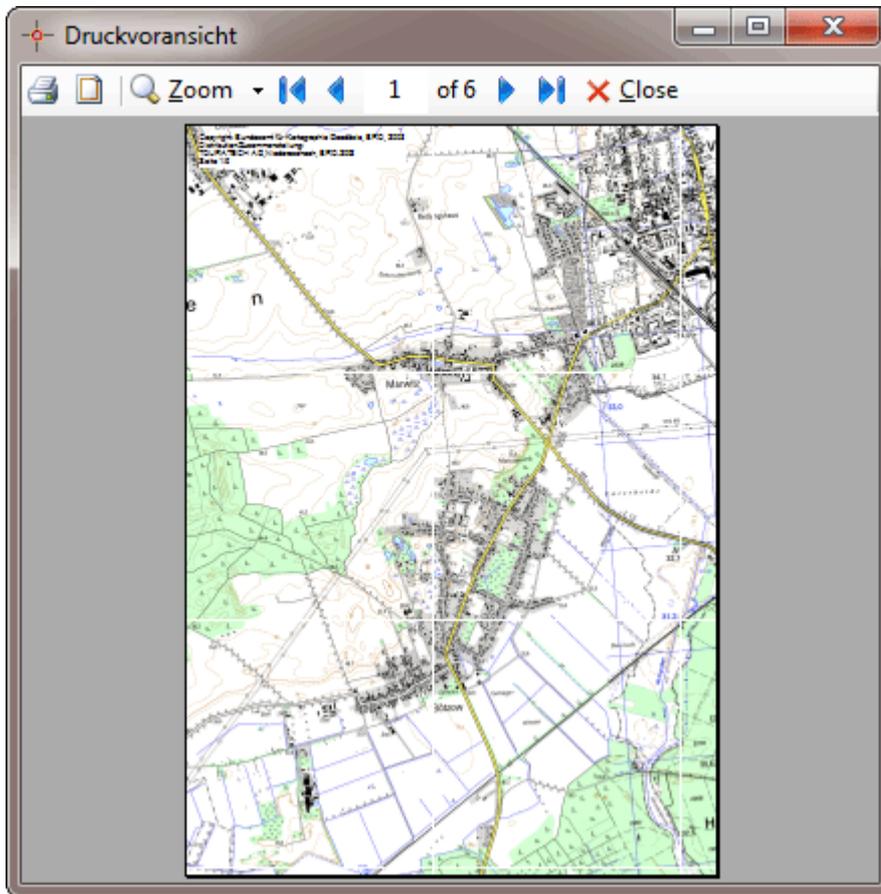
Additionally, the following options are available:

Open file manager	After the export is finished the Windows file manager will open and display the expored file(s).
Start external application	Enter the path and name of an executable file which should be opened along with the exported file(s).

Keep dialog open

If enabled, the assistant won't be closed, so you can go back to choose other options and run additional exports.

For printouts, a **page preview before printing** function is available. If enabled, first the printing preview will be opened where you can check the result and finally start the printout by clicking **Finish**:



With the **Close** button, the printing preview window is closed.

## Garmin IMG and TDB vector maps

In the meantime we have a number of Garmin IMG vector maps in the internet. Many of the maps are free of charge. You can display these maps in QV as vector maps and also transfer them to every Garmin- chartplotter. For the import of those maps to QV look at the description in chapter import of maps to QV.

There are different types of Garmin-maps, which are supported by QV in different ways:

Type	Map display in QV	Load from QV to Garmin
Maps of type TDB or IMG, which have not to be unlocked by Garmin For example free Garmin-maps, OSM, etc	Yes	Yes
Older maps of type TDB or IMG, which have to be unlocked by Garmin For example Topo Germany	Yes	No
Recent Garmin-maps of type NT or GMAP	No	No

A Garmin-map contains mostly a TDB-file, several IMGs and eventually other files. The TDB is the „Main-file“, which is imported into the Xplorer and displayed as map. And this file is transferred also in the unit. IMGs are individual map tiles, which can be imported separately in QV and also be sended in the unit. Normally only the TDB is imported and sended.

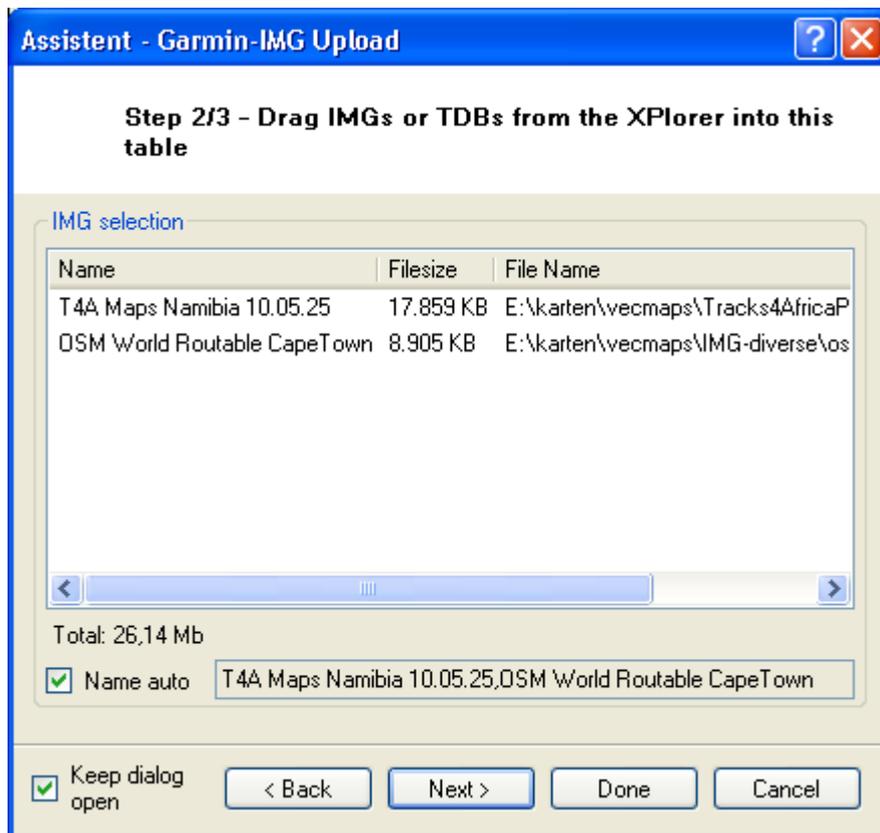
### Import as map

look [Map-import](#)

### Send in Garmin

Please mark the requested maps in the Xplorer and choose  **Send in Garmin as map** from the toolbar of the Xplorers. The IMG-Upload assistent opens, in which you have to choose the connected Garmin firstly.

On the second page you collect the requested maps:



The table shows the selected files. Now you can add additional maps per drag and drop from other tables of the Xplorers. You can also delete entries from the list by the Delete key. The whole necessary storage is shown below. Currently it is not possible to choose map tiles in the map window.

In the unit the maps are displayed in a special name, which is generated automatically. If you untick the boxes at **Name Auto**, you can also enter an own name.

Click on finish to start the transfer. Please note, that every map transfer deletes all in the unit saved maps, beside the basemap.

# Map Cache

This chapter is currently not available and will be added lateron.

# GIS-Files

With the poweruser-version QV can now read many GIS-file formats and display it as maps. The settings like colour and filling of the map-objects can be adjusted comfortable. Normally you have complete notices concerning projection and coordinate system, so these maps don't need to be calibrated in QV.

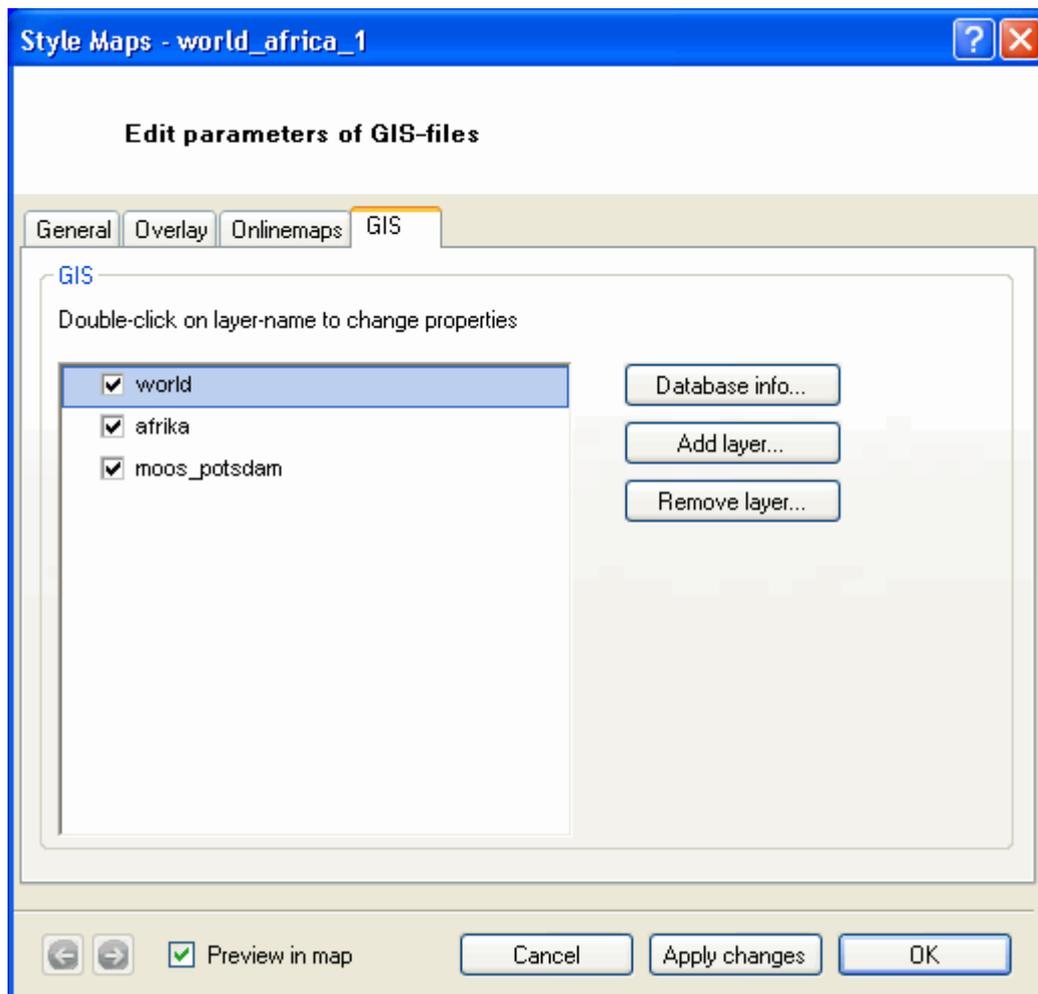
GIS-files are imported by the map-import-assistent, when you choose the option **Gis-Files**. Please look at chapter [New maps import](#).

In QV the maps are as all other maps available in 2D or 3D modus and with various functions.

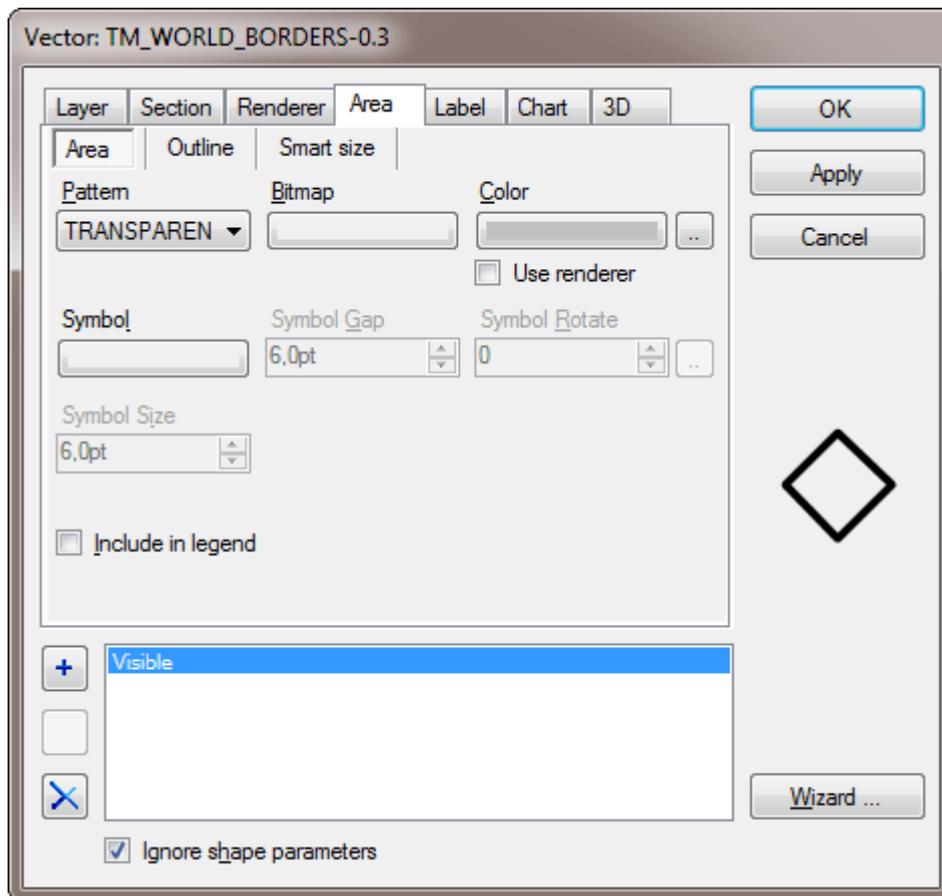
But there are also some added functions, which are not possible with normal maps.

## Style

In an opened map you will see in the style-dialogue of a GIS-map another tab **GIS**:



By a double click on a lyyer another dialogue with many different setting options opens.



All options of this dialogue, for example the presentation of colours and other presentation parameters, also depend from data base values, are explained in detail [PDF-Dokument](#). You will find it also in QuoVadis 6-program list as [Gis\\_Properties.pdf](#).

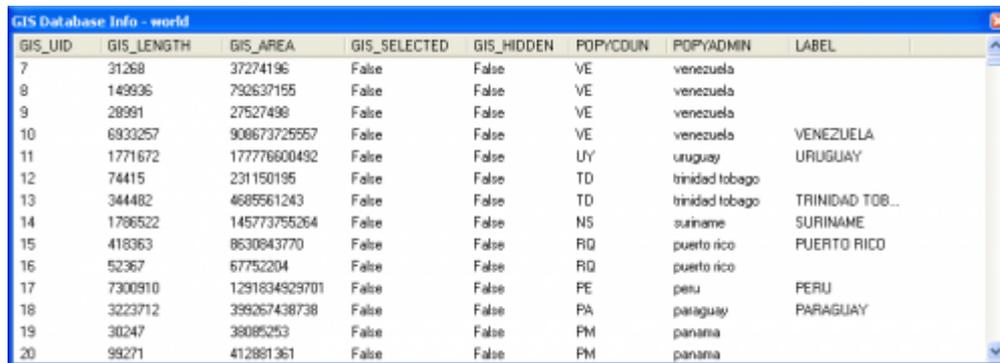
## Layer

After you have imported a GIS-file as a map, it exist first a layer. You can add more files by clicking on **Layer add**, which appear then each as additional layers. For example, when you have different SHP-files, which you want to present all together in one map in QV, then start by importing the first SHP as a new map. Then please open this map and add other SHP-files there. This approach replaces the in Q4 well-known QVP or QVC-projects.

By **Layer delete** you will delete a layer of the map. The file on the disk will be preserved.

## Data Base -Infos

Many GIS-files contain database-information of several geometry-elements, for example for SHP-files they are available as dBase-file (dbf). Please click on the button database infos to open a window, which contains all database-infos of this map.



GIS_UID	GIS_LENGTH	GIS_AREA	GIS_SELECTED	GIS_HIDDEN	POPYCOUN	POPYADMIN	LABEL
7	31268	37274196	False	False	VE	venezuela	
8	149936	792637155	False	False	VE	venezuela	
9	28991	27527498	False	False	VE	venezuela	
10	6933257	908673725557	False	False	VE	venezuela	VENEZUELA
11	1771672	177776600492	False	False	UY	uruguay	URUGUAY
12	74415	231150195	False	False	TD	trinidad tobago	
13	344482	4685561243	False	False	TD	trinidad tobago	TRINIDAD TOB...
14	1786522	145773755264	False	False	NS	suriname	SURINAME
15	418363	8630943770	False	False	RD	puerto rico	PUERTO RICO
16	52367	67752204	False	False	RD	puerto rico	
17	7300910	1291834929701	False	False	PE	peru	PERU
18	3223712	399267438738	False	False	PA	paraguay	PARAGUAY
19	30247	38085253	False	False	PM	panama	
20	99271	412881361	False	False	PM	panama	

You can let this window open, also when you close the style-dialogue. You can sort the list and jump to the particular object by double click onto a line in the map.

When the display of tooltips is activated, you will be displayed in the tooltip the database-info to this object where the mouse is. Additionally this object is displayed in the database-table, when you click on in the map.

## Export in Drawing

A GIS-map can not be edited in QV. When you like to change it, you can transfer it in Drawing. Therefore please copy the map in a drawing table in the Xplorer. The geometry and the actual defined colours are transferred, but not the extended database-information.

## Supported Formates

The following vector-file formats can be readed:

DLG (Digital Line Graphs) DGN DXF-ASCII (AutoCad Export format) DXF-BINARY (AutoCad Export format) DWG 2000 E00-ASCII (ArcInfo Export Format) E00-BINARY (ArcInfo Export Format) FME (equires FME installtion) GDAL / OGR GDF 3.0 GML 3.1.1 (Geographic Markup Language) GPX (GPS Exchange Format) GSHHS (Global Self-consistent Hierarchical High-resolution Shorelines) JSON (JavaScript Object Notation) KML (Google Earth Keyhole Markup Language) LandXML MIF (MapInfo Import Format) OSM (OpenStreetMap) SDTS-TCP (TVP-Topological Vector Profile) SHP (ArcView Shape Format) S-57 (Marine charting format) TAB (Map Info Vector format) TIGER/Line VPF 3.0 (Vector Product Format) WFS (OpenGIS Web Feature Service layer)

Raster-Formate:

ADF (ArcInfo Integer Grid) BIL BMP BT (Binary Terrain Grid) CADRG DEM (USGS Digital Elevation Models) DT0 (Digital Terrain Elevation Data level 0) DT1 (Digital Terrain Elevation Data level 1) DT2 (Digital Terrain Elevation Data level 2) ECW (file based) ECWP (server based) FLT (Arcinfo Float Binary Grid) GIF GRD (Arcinfo ASCII Grid) GRD (Surfer ASCII Grid) IMG (ERDAS IMAGINE) JPEG JPEG2000 MrSID PNG SDTS-RPE (Raster Profile and Extensions) WMS - OpenGIS Web Mapping Service Layer TIFF (uncompressed, LZW, packbits, group4)

# Types of geodata

In QV, all waypoints, routes, tracks, geocaches, trainings and drawing are summarized as Marks. Thus, Marks represent the symbols, lines and drawing elements which are plotted in a map.

In other words: Marks refer to certain objects in the QV database. Following, an example for a map where various types of geodata have been plotted on a topographic map in a 3D map window:



In order to display geodata as marks in a map window, simply mark them in the QV X-Plorer and click the Show in map  icon. For detailed instructions please refer to the chapter Displaying geodata.

## Modifying the Style of plotted geodata

Of course you can also adapt the style of plotted geodata to your needs. To do this, you have two options: Either you click the Style  icon in the QV X-Plorers (after marking the data of interest) or right-click on the object in the map window and choose Style from the pop-up menu. You find further information in the Style chapter.

## Labelling of marks

Each mark can be labelled with a user-defined annotation. Thus, you can name all waypoint, routes, tracks, etc. in a clear and unique way. Through the option Style in the pop-up menu or by clicking the Style  icon in the X-Plorer, you can define the color, the text style and text size according to your preferences.

There you can also select if only the name should be used as label or if additional remarks should be added as the coordinates of a waypoint.

In order to avoid that important map details are masked, you can also move such a label by a simple drag-and-drop operation with the mouse to another place (after switching to the Edit mode).

Of course all style options for all geodata will be saved in the database.

For further details please refer to the Style chapter.

## Types of Geodata

There are a couple of different categories of geodata and it is important to note their specifics and differences. So, first of all, some short definitions.

### Waypoints

A waypoint is a unique location on the globe which is defined by its coordinates (latitude and longitude or easting and northing) and its elevation. In case an elevation value is missing, it is supposed that the point is located on the surface of the earth, so the elevation value is taken from the DEM or it is left empty. Waypoints are plotted in a map using a specific, user-derived symbol.

### Routes

A route is a list of consecutive waypoints which are linked by a line. So each position along a line is represented by a route waypoint with its specific symbol. Usually a route is used in order to plan a trip which is later on uploaded to a GPS unit. Generally route waypoints are placed at locations where navigation decisions have to be taken (crossings) or at other important locations (restaurants, fuel stations, lodges, etc.). Intersections between route waypoints are plotted line-of-sight, so the line intersections do not show the exact course of the path but only the direction and distance to the next waypoint. A Route will only represent the real way to go if they have been calculated with „routable maps“ such as the NAVTEQ street maps with a „Routing“ or „Navi“ option.

### Tracks

Tracks are nothing more than positions (also defined by coordinates) in a ranked and numbered order. Physically they are identical with waypoints but their labels and symbols are fixed. Usually tracks represent the exact course of a path or street. They can be downloaded as „tracklog“ from a GPS unit where they have been recorded when driving/walking/hiking. However, they can also be created on the PC by simple mouseclicks and later on be uploaded to a suitable GPS. This can be a helpful option with older GPS models where tracks can contain more points than routes.

## Geocaches

Geocaches are pretty much the same as simple waypoints but they include a couple of attributes which describe important characteristics of the „geocaches“ such as size, difficulty, suitability for families, etc.

## Trainings

A „training“ is very similar to a tracklog recording from a GPS unit but additionally to the positions, physiological parameters like heart rate or cadence are recorded along with the track. This implies that trainings cannot be generated in the PC software, they always come from a downloaded recording of a suitable GPS unit.

## Differences between Routes and Tracks

### Routes

As described above, a route is a list of waypoints, connected in a specific order and is usually used in order to plan a tour. When a route has been created in the PC and has been uploaded to a GPS-receiver, the GPS unit will compare its own position with the next waypoint of the planned route and will guide you to this destination. It is important to distinguish in this context whether we are talking about line-of-sight navigation or a navigation along routable maps. In case of tour planning off the public street network, most GPS units will use conventional line-of-sight navigation showing the direction and distance along the beeline usually with a compass as navigation aid. If you reach the first waypoint, the GPS-receiver will automatically skip to the next one of the route and so on.

However, some sophisticated GPS units will allow for autorouting capabilities in case topomaps with autorouting functionality are installed. The same holds true for navigation along the public street network. For most GPS units autoroutable street maps are available or already installed on the GPS units.

Whether you are using GPS units with routable maps or not, this will not have a big influence on route planning with QV. Just open a map which is best suited to provide you with the kind of details you need for planning your tour in the way you like. Then define the route waypoints (e.g. starting point, crossings, places for breaks, fuel stations, points for spending the night, etc.) and finally upload the route to your GPS unit.

However please note, that in case of autoroutable maps installed in your GPS unit, your GPS will guide you according its own intelligence from point to point (for example along the shortest or quickest path). So it is of high importance how you define your route waypoints (i.e. your „stop-over-points“).

If you want to „force“ your GPS unit to calculate the route along the path you originally intended, we highly recommend to insert some extra stop-over-points on the intersections between your route

waypoints. If you place route waypoints only at junction points, your GPS unit has the option to calculate the route through different paths. As soon as you define an additional stop-over point in the middle of the intersection you really want to use, your GPS unit won't find an alternative to the way you really wanted to go!

No matter if you will follow your route conventionally or with dynamic autorouting: By an intelligent planning of a route on your PC at home, you can later on find the best way out in the real world by foot, using a vehicle, a boat or plane. Your GPS unit will exactly lead you to the waypoints which you defined on your map with the PC.

## **Tracks**

As also described above, a track is also a set of points in a specific order. However, in contrast to a route, the trackpoints are not named but only consist of geographic coordinates. Most GPS-units feature an automatic logging of trackpoints. Please note that some GPS units will store additional information on time/date or altitude. If available, these data will also be downloaded to QV and can be analyzed. These tracklogs can later on be downloaded and stored in QV. Thus, you can document on any suitable map where you have been and also when.

You can also express it in another way: The route is the theory of where you wanted to go and the track is the reality about where you have really been.

Please note that some GPS units will store additional information on time/date or altitude. If available, these data will also be downloaded to QV and can be analyzed.

## Creating and editing

To create new data, an own menu has been created. You can access this menu by selecting New in the QV main menu bar.

The following options refer to the manual generation of new geodata:

Command	Hotkey	Icon	Description
New waypoint...			Will open an assistant for creating new waypoints.
Save map cursor as waypoint			Will save the actual map cursor position as waypoint.
New route...			Will open an assistant for creating a new route.
New track...			Will open an assistant for creating a new track.
New drawing...			Will open an assistant for creating a new training.
Edit marks ON/OFF	Ctrl + E		Opens the editor for markings. Using this editor you can edit very comfortably all kinds of geodata like waypoints, routes, tracks, drawings or geocaches. This icon has a switch function. For disabling the editor just click the icon once again.
Receive from GPS...			Starts the GPS data download assistant. See chapter Download of geodata from your GPS.
Import...			Starts the data import assistant. See chapter Import of data.

QV will automatically switch to the Edit Mode when creating geodata. This is indicated by the Edit-Toolbox which will be docked to the top of the map status field. You can also open this toolbox by clicking the Edit  icon in the Standard toolbox:



This toolbox provides several functions for editing geodata:

Icon	Hotkey	Description
	ESC	Normal cursor mode
	A	Add new point
	W	New drawing-object, see also <a href="#">Drawings</a>
	M	Move point, hold Shift to move the whole object
	I	Insert a new point between existing points
	D	Delete a point
	T	Cut into pieces
	J	Join two parts
	<	Enter new point numerically, e.g. distance and course
	S	Magnet, Snap existing points
	Ctrl-Z	Undo last action
	F2	Rename

	O	Select points with a rectangle or a lasso
	Ctrl-C	Copy selection to X-Plorer
	Ctrl-X	Move selection to X-Plorer

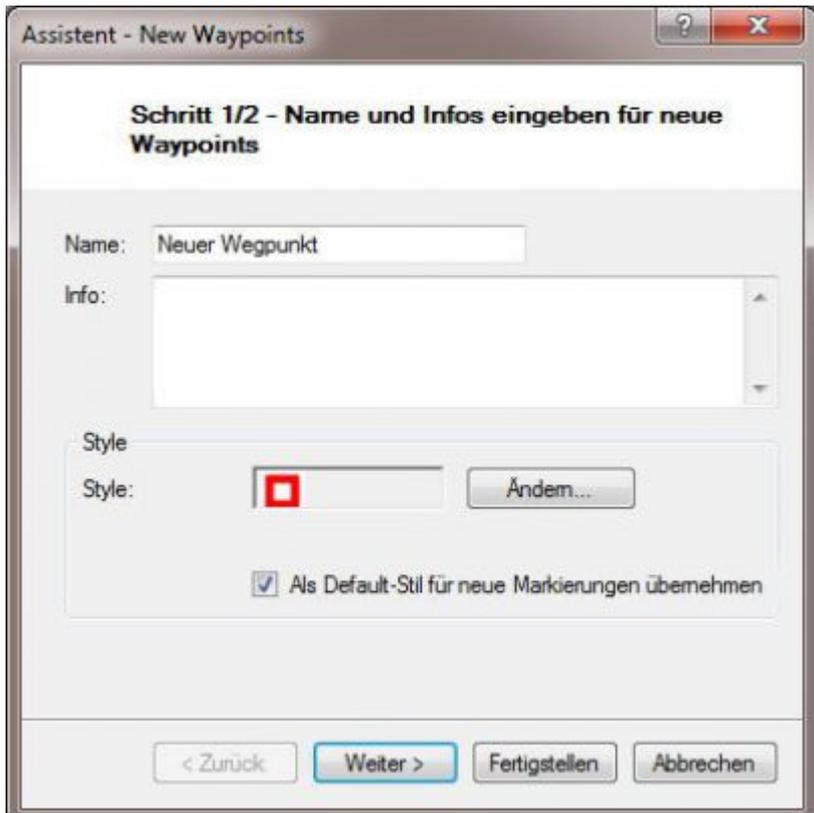
Hinweis: Bitte beachten Sie auch immer die Statuszeile am unteren Rand des Hauptfensters, in welcher zusätzliche Hinweise der aktiven Funktion gegeben werden.

Following, the process is described for the creation of a waypoint and a route. However, the process is the same for other types of geodata.

## Creating a waypoint

The easiest option is to save the actual cursor position as waypoint. This function is directly available in the Drop-down list of the New menu. You will also find the New waypoint option in this menu.

An assistant will open to guide you through the steps of this function:





So this is how you proceed:

1. Open a map of your choice which is best suited for creating the waypoint.
2. Choose New > New waypoint; the New waypoint assistant will open (see fig. above left). In this window you can define a name for the waypoint („new waypoint“ is the default). You can also change the waypoint symbol by clicking the Change button in the lower part of the window. Then continue with Next.
3. The second window of the assistant will open (see fig. above right). As default „Save in QV-Data\My Data\My Waypoints“ is activated. Use this option in case you agree with the destination where QV will create the waypoint. If you want to choose another destination click „Select table from list“ and specify in which database and waypoint table you want the waypoint to be created. Confirm your setting with Finish. Finally switch to the map window and create the new waypoint by a simple left click with your mouse at the position where the waypoint should be created. The coordinates will automatically be defined through the calibrated map. In case you have not had a map opened before, QV will ask you to open a map from a suggested list. The maps which are listed are defined by your Automap settings. For further details see AutoMAP.

## Creating a route

The creation of a route is done in a very similar way: Please proceed as follows:

1. Open a map of your choice which is best suited for planning your tour.
2. Choose New > New route; the New route assistant will open (see fig. below left). In this window you can define a name for the route („new route“ is the default). You can also change the route style by clicking the Change button in the lower part of the window. Then continue with Next.
3. The second window of the assistant will open (see fig. below right). As default „Save in QV-Data\My Data\My Routes“ is activated. Use this option in case you agree with the destination where QV will create the route. If you want to choose another destination click „Select table from list“ and specify

in which database and route table you want the route to be created. Confirm your setting with Finish. Finally switch to the map window and create the new route point by point by simple left clicks with your mouse at the positions where the route waypoint („stop-over points“) should be created. The route waypoints will be numbered from RWP1 to RWPn. The coordinates will automatically be defined through the calibrated map. In case you have not had a map opened before, QV will ask you to open a map from a suggested list. The maps which are listed are defined by your Automap settings.

When your new route is finished your, the map window will look similar to this:



## Edit

Sie können jede Route, Track und jeden Wegpunkt jederzeit in der Karte ändern, indem Sie einfach den Werkzeugkasten **Edit**  öffnen und die gewünschte Funktion auf die zu ändernden Markierungen in der Karte anwenden.

<http://www.youtube.com/watch?v=bwr1iXs5KH0>

# Drawings

Drawings are in QV a capable tool, to draw notices, additions, own contents and changes in the maps.

In contrast to tracks, routes and waypoints, which are determined as GPS-data for an exchange with mobile navigation units, drawings serve as an enlargement of map contents. A drawing contains - as a route or a track - a data base object, which is saved in a table with a freely selectable name. You can add text into the information field and link it with images, weblinks and data. The same also applies to all other objects. Similar as a route contains route-WPs and a track track points, a drawing contains many drawing-objects.

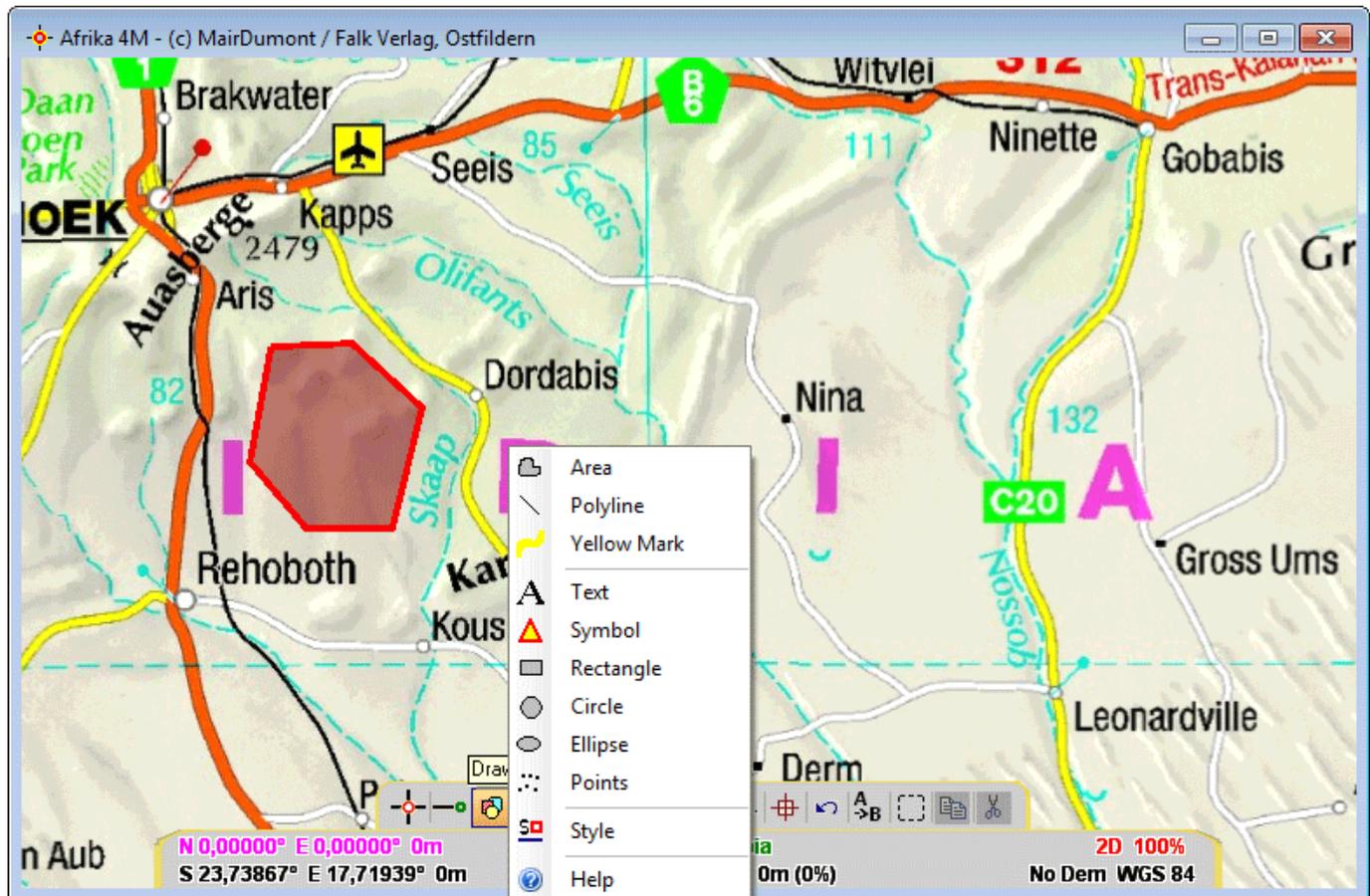
These can be:

- Poly lines
- Areas (Polygon)
- Points
- Highlighter - Lines
- Circles
- Rectangles
- Symbols, Bitmap
- Texts

All these drawings-objects have an own, freely selectable name, an information field and the opportunity to link it with photos, weblinks and data.

## Creating new drawings

Creating of new drawings is analog to creating of tracks and routes with „New Drawing“ in „New“-Menue or the new-toolbar. Enter then the name of the drawing and the table, in which they could be saved. With the editing-toolbar at the lower end of the map window you can start drawing immediately. Choose from the drawing menu (or button „W“) a tool and start drawing. A chosen function for example a rectangle or poly line, stays active, until you stop it by Esc or choosing another order from the toolbar.



To set colour, filling and line power, choose „Style“ in the drawing menu (Button „W“). The dialogue for the style selection opens as a toolbox, that means, you can let it open and drawing at the same time. Every selection in the style applies immediately to the actual drawing object and for new objects.

The setting of own symbols in the map is very easy. Choose the tool „Symbol“ and open the style-dialogue. Go to the tab „User Symbol“ and choose the file of the hard disc, where your symbols are saved, which are displayed for the selection immediately. Click on your desired symbol and place it in the map on the desired position.

## Changing existing drawings

The toolbar „Editing“ is also available for processing of drawings. You can not only delete or move points, but also pace new points. For a detailed description of all options in the editing-toolbar look at [Edit marks](#).

Notice: If you like to create new drawing-objects by choosing one of the tools from the drawing-menu, you have to click first on an available drawings element in the map, to determine this drawing, to which the new object should belong to.

## Importing

To import extern vector files as a drawing, for example SHP or DXF, you have to import these first as a map. Then this map can be copied in a drawing. Therefore copy the drawing in the explorer and paste

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it into a drawing table or move it per Drag & Drop.

Notice: Import of a vector file into a drawing is only necessary, if you intend to change it. To display a vector file only, it is enough to import it as a map and load it as an overlay. Displaying as a map offers you a very much higher performance, as displaying as a drawing.

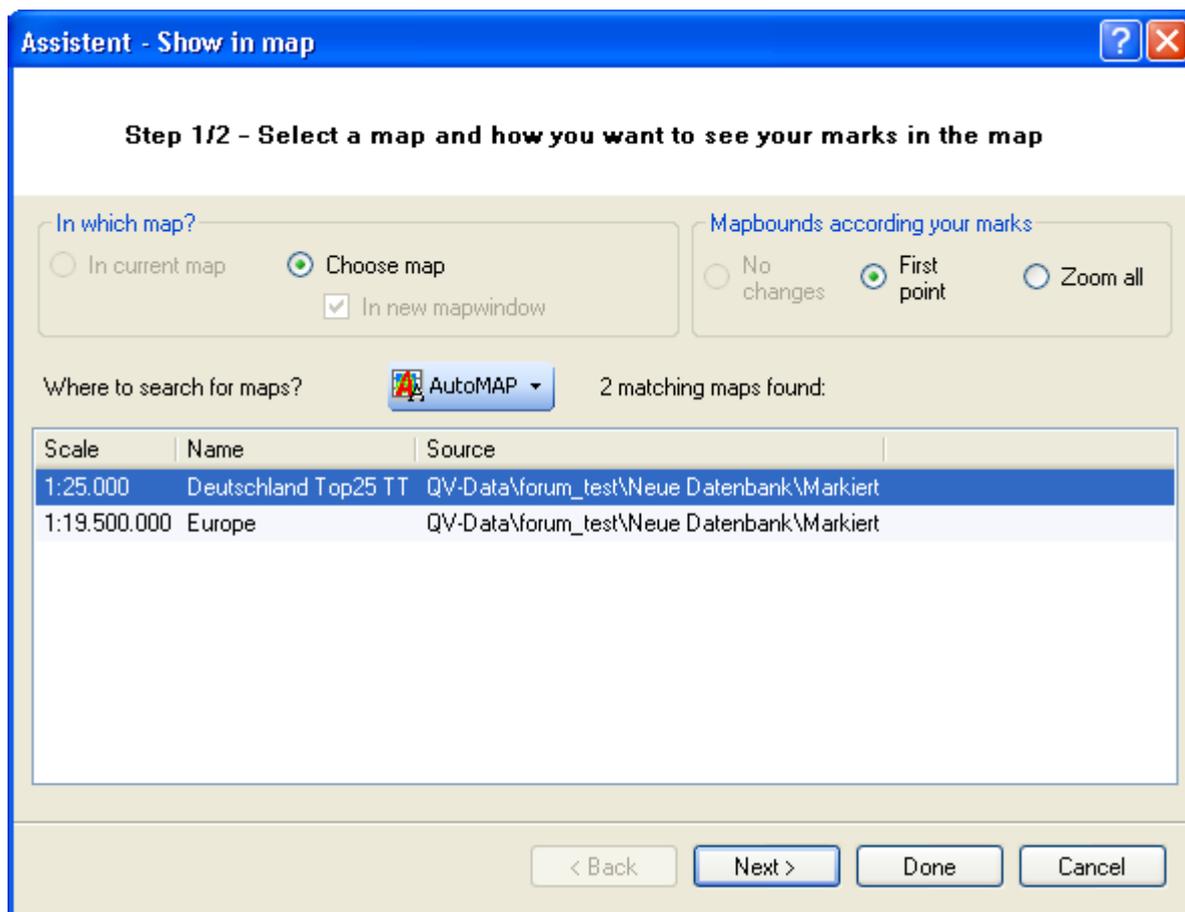
## **Exporting**

A drawing can be exported as SHP.

# Show in map

To visualize geodata just mark them with a left mouse click in the corresponding table listing (to mark multiple geodata use Ctrl + mouse-click) and then click the Show in map icon .

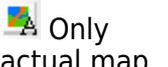
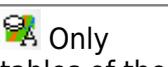
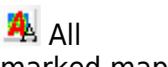
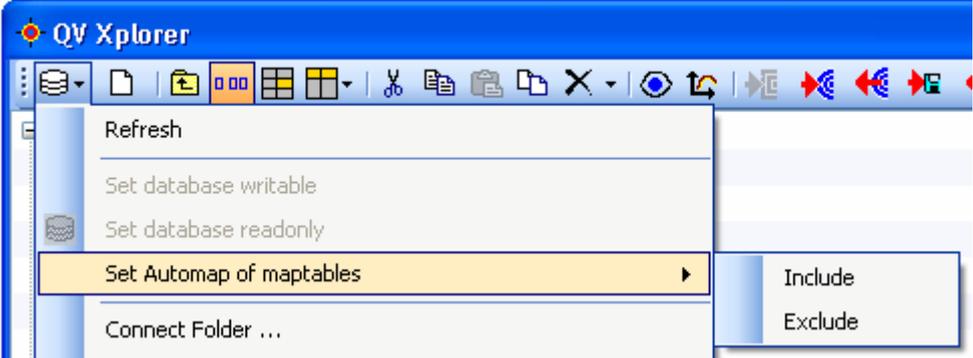
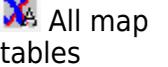
The show in map assistant will open (see below):



The following options helps you to find the right one from all of your cards:

<b>In which map?</b>	
In the active map	this option is available, if one or more map windows are open, which are then in the list.
choosing the map	With this option QV search in your data base considering the automap-setting and lists all matches
In a new map window	When this option is chosen, the selected map is opened in a new window, otherwise the map replaces the map in the actual window
<b>Adjust map selection to loaded marks</b>	
Unchanged	The map selection is not changed.
First point	The map selection is zoomed to the first point of your selection
Zooming all of the grafic	The map selection is zoomed to show the whole selection.

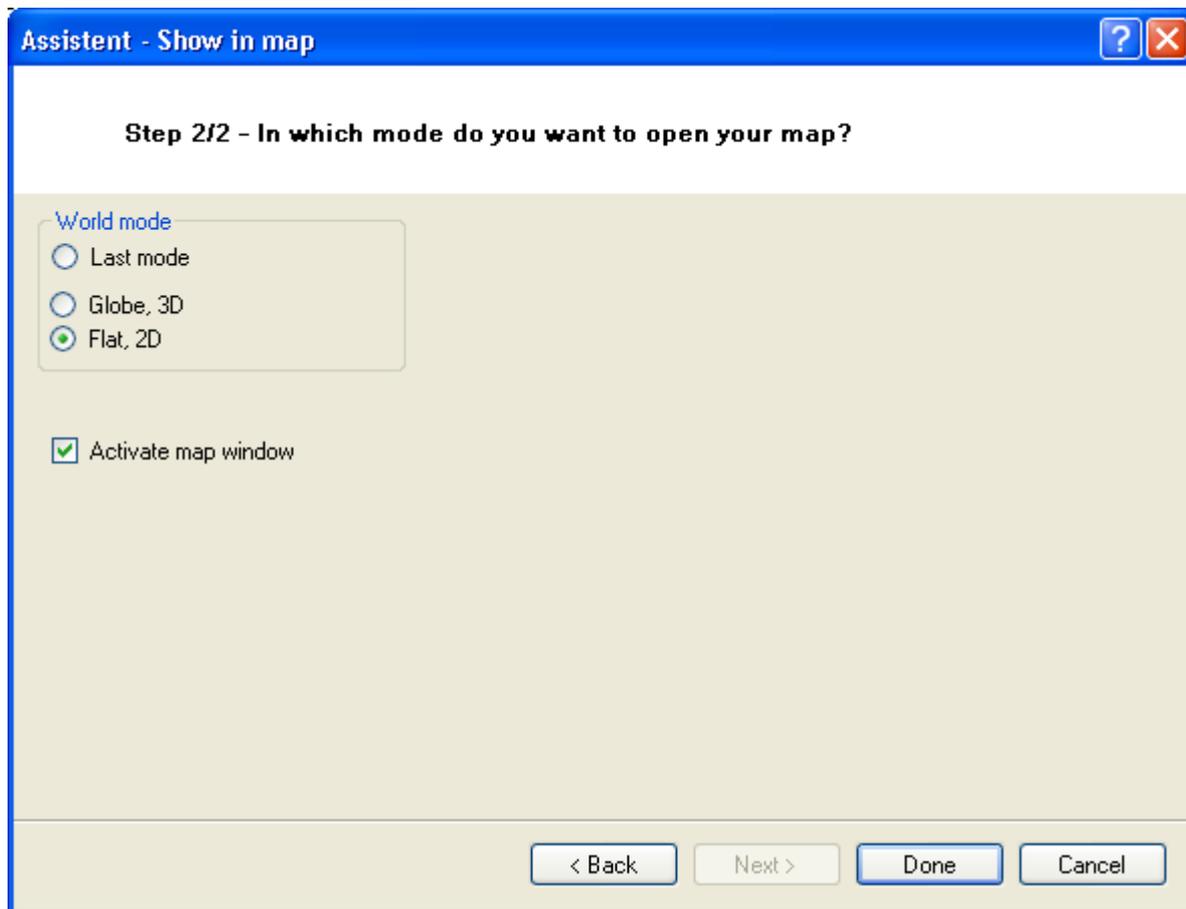
The AutoMAP-setting determines, in which map-tables it should be searched for suitable tables. Depending on how your database is organised, you can control, which maps you like to be offered.

<b>AutoMap</b>	
 AutoMap off	No search in the database.
 Only actual map table	Only these maps are offered, which are in the same map table, like the actual opened map.
 Only tables of the actual database	Only these maps are offered, which are saved in the same database as the actual map or as the data, which you like to be displayed.
 All marked map tables	<p>In the database menu you can mark map tables for this option</p>  <p>In all databases are searched for those tables, which are marked there as Including</p> 
 All map tables	It is searched in all map tables of all databases, that means in the whole database.
 Actual list	Only those maps are offered, which are saved in the same directory or in an subdirectory as the actual map or the data, which you let be displayed.
Only available maps	In this case all maps, which are available actually, are used. Maps, which were imported in QV, but are not available actually, are not be used (for example maps, which are in external drives or in the network, if these networks or the LAN is actually not available).
Using online maps	When online maps, that means maps, which are loaded by the internet, for example google maps or OpenStreetMaps are included the search. If these online maps have a world wide coverage, they will be listed at every search.

The founded maps are listed in the table with its scale, name and file location. You can also sort the list by a click on the column header.

Therefore select a map and click on **Completing** or double click on a map to open it.

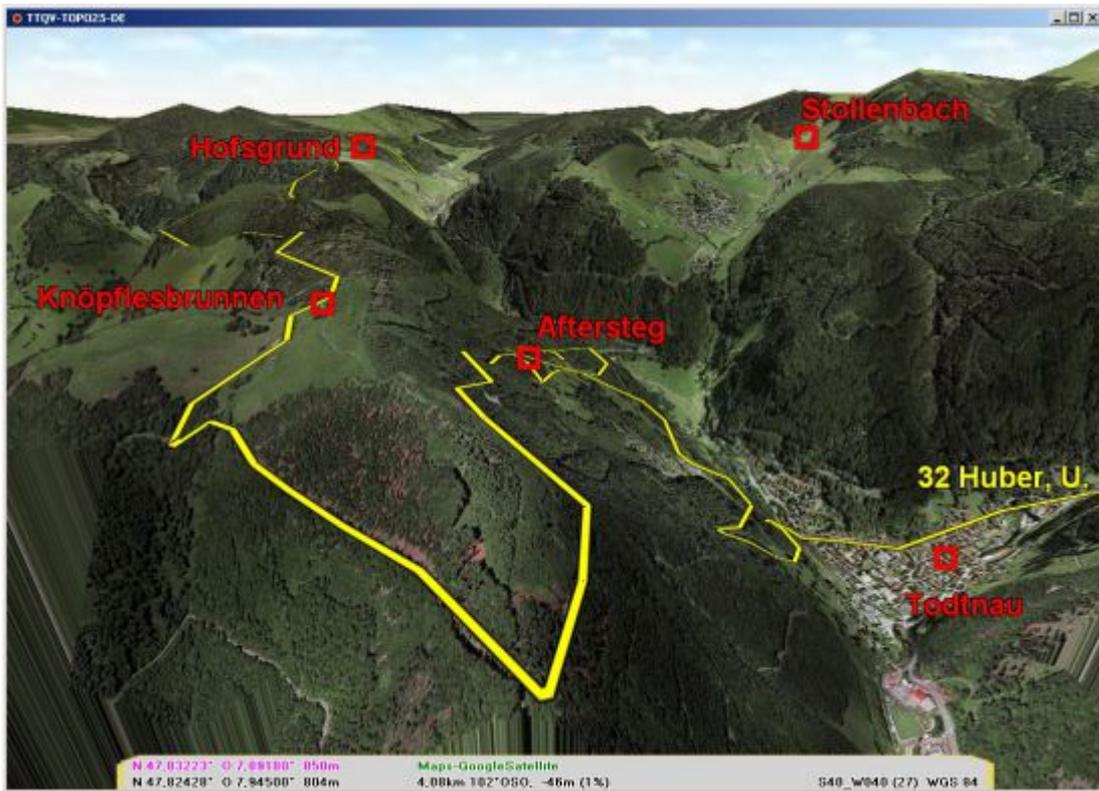
On the second page of the assistant you will have a selection of more options:



If you open the map in a new map window, you can determine the mode, 2D or 3D and you can choose, if the map window should be activated now or if it should stay in the background, because you would for example like to load more data from the Xplorer.

**Tip:** To improve the performance of large databases, you can save your databases thematically suitable in different directories and then work with AutoMap-Setting actual directory. Why? QV opens databases only after they are needed. This is the case, when you search a map, which shows a special point. With the AutoMap-Setting actual directory only the databases *actual directory* are opened, with every other setting *all* databases are opened and scanned.

An example of Google® Satellite Online-map with different drawn geo data you will find below:



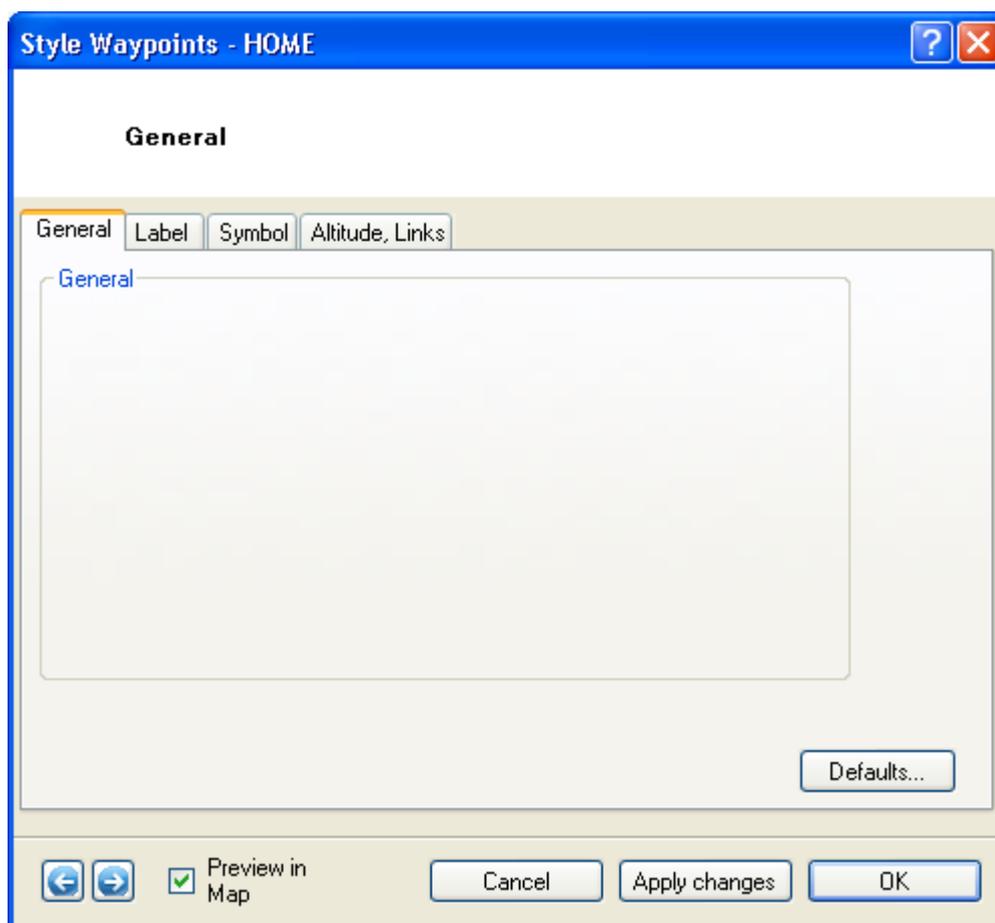
# Style

With the style assistant you can adjust various options for every waypoint, route and track. Therefore start the assistant:

- for example with the Xplorer, by which you select the desired object and the style  with a click
- you can also select several objects in the Xplorer, then the changes in the assistant will be adapted for all selected objects
- for a loaded map with style in the project manager
- or with style from the map-Popup menu

After that the style - window opens with several registers for the adaption of different style characteristics.

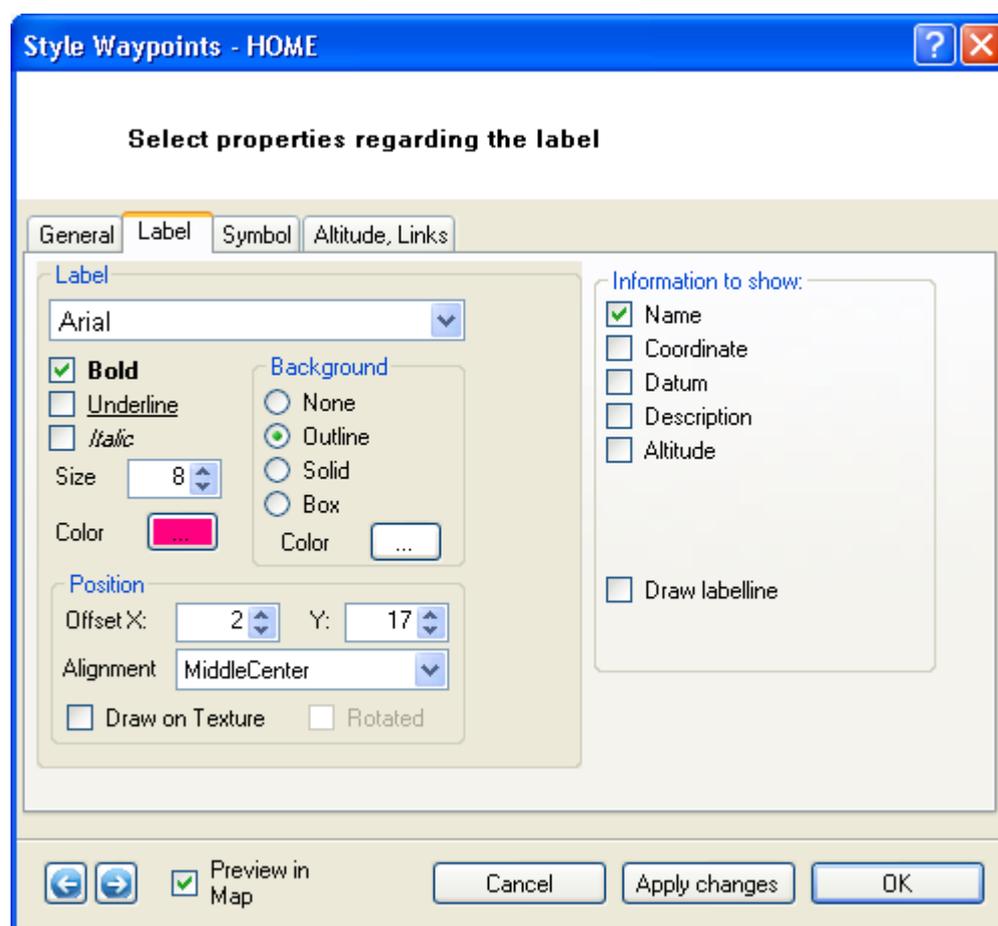
## Generally



<b>Defaults</b>	Loads standard-values for style and overwrites all previous adaptations at style.
	Only available, if the style would view from the Xplorer. With both buttons you can load and edit the next or previous object from the Xplorer. It is useful to change the style of many objects.

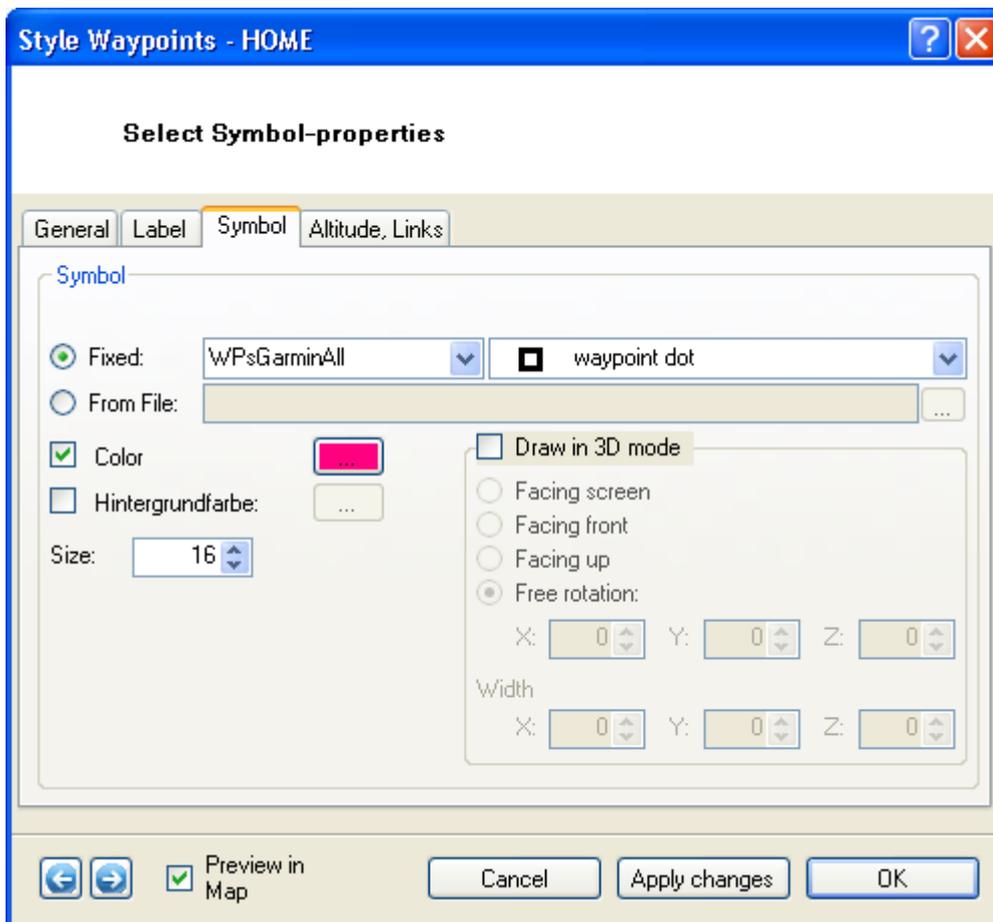
<b>Preview display</b>	If selected, every change is displayed immediately on the object in the map, naturally only, if the object is also visible in the map
<b>Cancel</b>	Closes the assistant without saving
<b>Accept</b>	Saves the changes without closing the assistant
<b>OK</b>	Saves the changes and closes the assistant

## Labelling



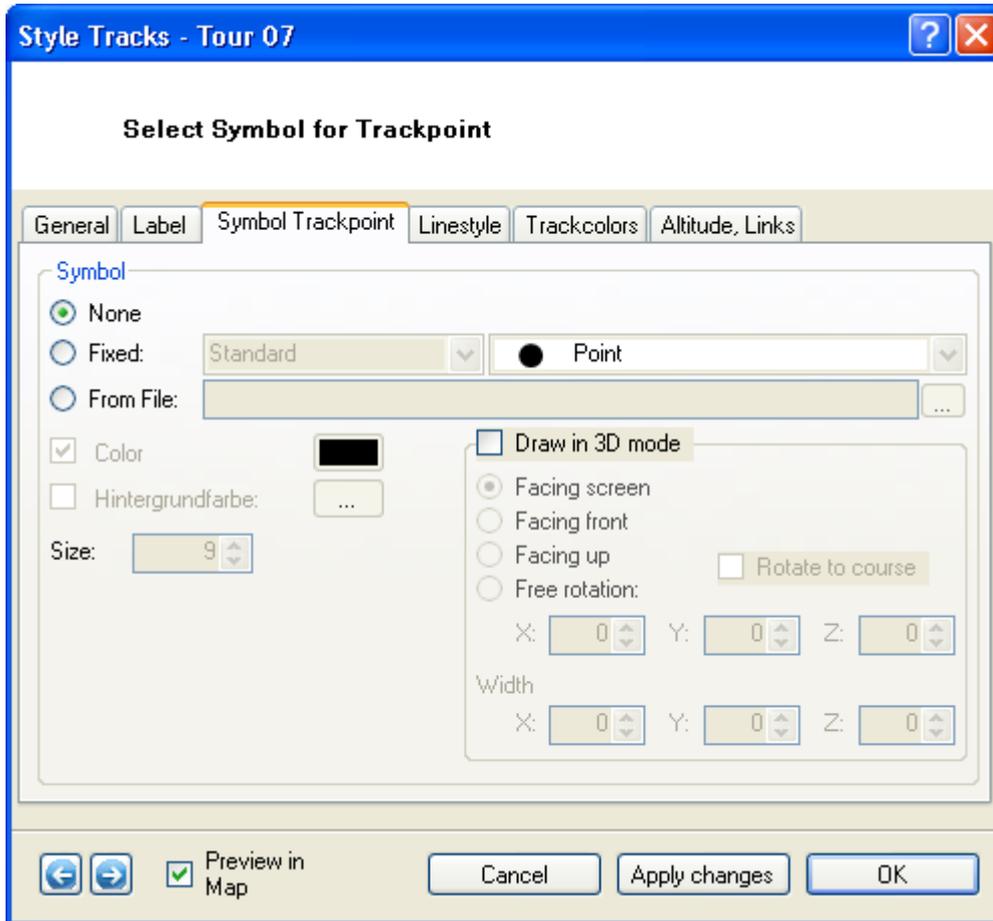
Through the Label tab (above right) you can specify several parameters which influence the style of the waypoint labelling like font, size and color, text background color and placing and alignment of the text. You can also select which kind of information should be plotted as waypoint label. These are the options: Name, Coordinates, Date, Description and Altitude.

## Symbol



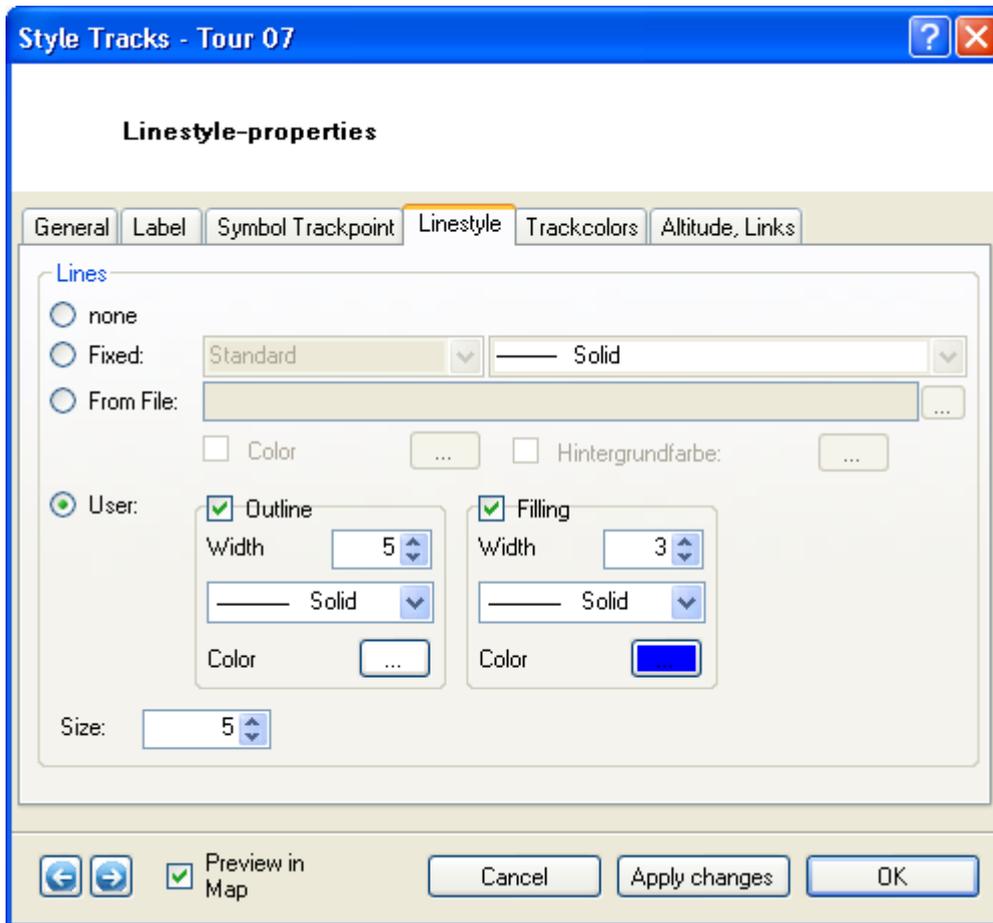
On the Symbol tab (above left) you can specify which symbols should be used and in which color and size they should be plotted. You can also specify how a symbol should be projected in the 3D mode and if you want to apply a rotation or translation to the symbols.

## Symbol Trackpoint



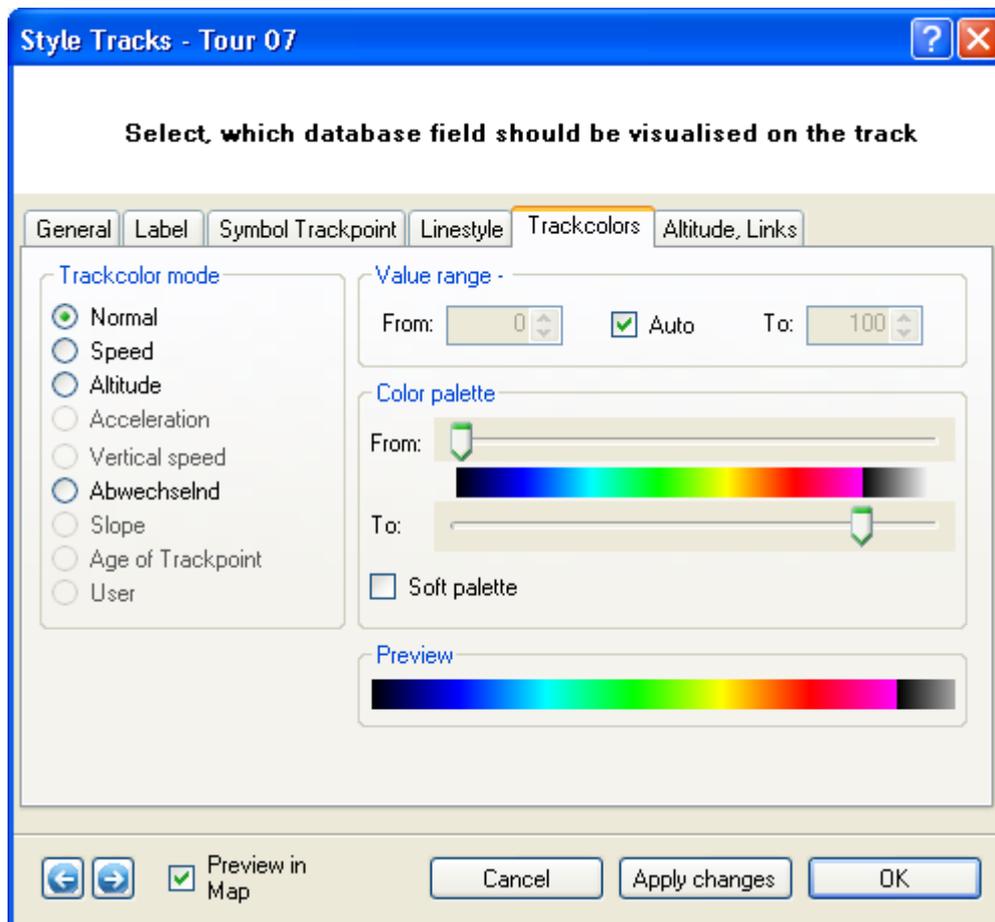
On the Symbol Trackpoint tab (above left) you can specify if trackpoints should be plotted and, if so, in which which symbol, colors and size. You can also specify how a symbol should be projected in the 3D mode and if you want to apply a rotation or translation to the symbols.

## Line



On the Linstyle tab (above right) you specify the line type, color and line width (separate for outline and filling). You can also disable that tracklines are being plotted.

## Track colours

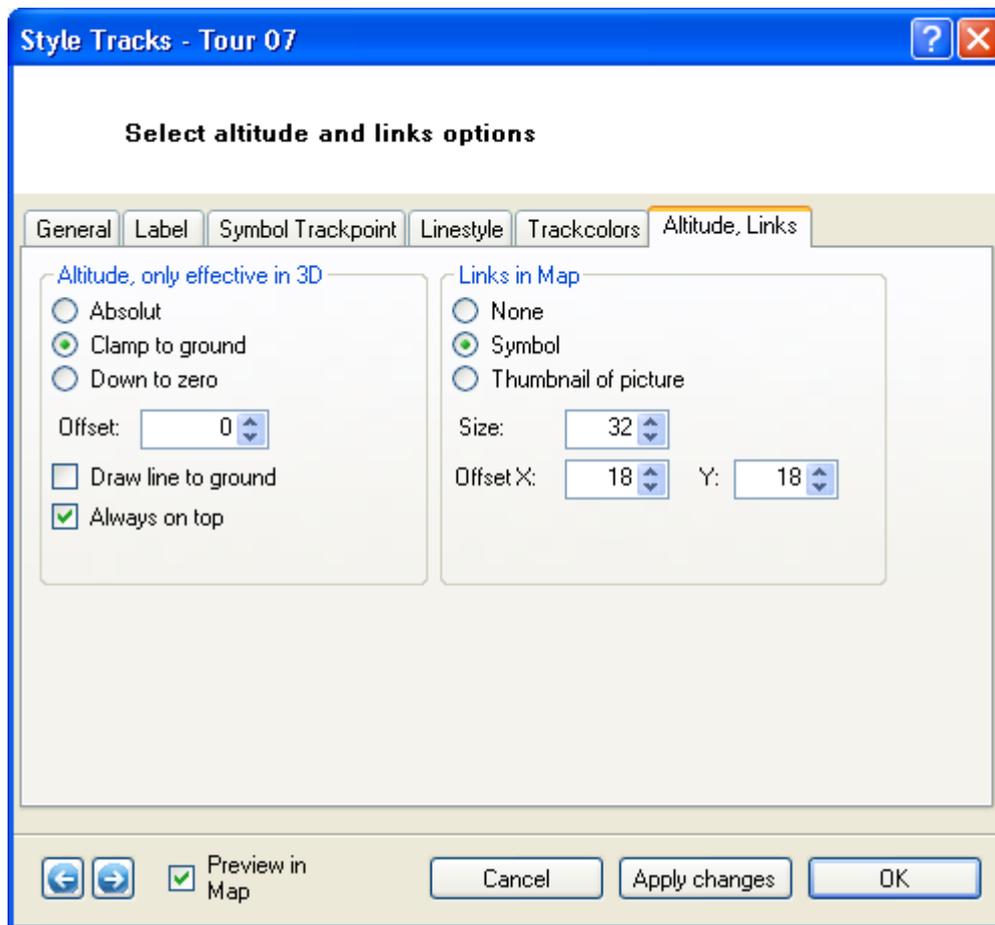


Select normal on the Trackcolors tab if you want the trackline to be plotted in the color which you specified in the Linestyle tab.

If you want the trackline to be color-coded according to Speed, Altitude, Acceleration, Vertical Speed, Slope or Age of the trackpoint, tickmark the corresponding option.

For further detail please refer to the chapter Color-Coded Tracks.

## Height, Links



The last tab of the Track Style Window summarizes options related to altitude in the 3D mode and to links which can be attributed to the track.

Concerning altitude, you can assign the track to sealevel (down to zero), stick it to the ground surface (clamp to ground) or plot the track according to the measured altitude value of the GPS unit (Absolute). You can also define an offset which corresponds to the altitude above surface relief.

Under Links in map, you can link symbols or photos to trackpoints and define a size and an offset for their placement relative to the corresponding trackpoint.



# Introduction

Street-Routing functionality requires vector data with a classified topology of the road network. In QuoVadis, this requires our NAVTEQ® map compilations.

Currently, we can offer these maps for a total of 54 countries which are sampled in the following product coverages:

- Germany, Austria, Switzerland.
- Western Europe including Andorra, Austria, Belgium, Denmark, Eire (Republic of Ireland), Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Greenland, Guernsey, Iceland, Italy/Vatican City, Jersey, Liechtenstein, Luxembourg, Monaco, Norway, Portugal, San Marino, Spain, Sweden, Switzerland, The Netherlands, United Kingdom.
- The whole of Europe including Albania, Andorra, Austria, Belarus, Belgium, Bosnia & Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Eire (Republic of Ireland), Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Greenland, Guernsey, Hungary, Iceland, Italy/Vatican City, Jersey, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Moldova, Monaco, Norway, Poland, Portugal, Romania, Russia, San Marino, Serbia & Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, Turkey, Ukraine, United Kingdom.
- Northern America including USA, Canada, Mexico.
- Southern Afrika including Southafrica, Namibia, Bostwana, Mosambique, Lesotho, Swaziland.

Please note that the NAVTEQ® map are mainly limited to the public road network. So you should not expect forest roads or tracks to be included in this vector topology!

We offer these maps in two versions with different functionality:

## NAVTEQ® Routing

This version allows for a route planer functionality. So, using a NAVTEQ® Routing map, you can calculate routes from address A to address B according to various preferences (see Street-Routing Preferences). You can also account for stop-over points which can be searched from the address database or be specified directly in the map. The calculated route is listed as a summary statistics and as a list of navigation instructions. It can also be stored as a track or a route and thus can be uploaded to compatible GPS devices.

However, it is important to consider several points when uploading such data to a GPS device:

- For a turn-by-turn navigation you need a GPS device with autorouting capabilities.
- Most GPS devices will only be able to use an uploaded route for turn-by-turn navigation. A track can only be displayed as a „guideline where to drive“ without turn-by-turn navigation. An exception of this are the Garmin® Zumos which can convert a track to a route.

- Beware that most GPS devices cannot handle too many stop-over-points. Any point along the route where a navigational choice has to be made, will be considered as a „stop-over-point“ by the GPS device. So may routes are simply too long for such a purpose.
- The GPS device will always use its own logic to find the best route between stop-over-points. This will be calculated according to the priority set in the routable GPS device.
- Therefore, it is of high importance to specify stop-over points in a way that you need a) as few points as possible to define a route, and b) in a way that your GPS unit has little chance to recalculate something which is not in agreement with your original intension. Therefore we recommend to define stop-over-points not by enetering a point in the cities and settlements which you want to visit but on the roads in between. We also recommend to upload such a route before you calculated the complete tour in QV. Thus you can „fix“ a tour with comparably few points and you GPS device won't get overloaded with stop-over-points. Therafter make the route calculation to see how long it is going to take, how much fuel you are going to need, and so on. Just make some test with the route consisting of the stop-over-points and the result of the calculated route and you will quickly understand what its all about...

## NAVTEQ® Navi

This version includes the complete route planer functionality decribed above. Additionally, it offers dynamic autorouting capabilities, so real turn-by-turn navigation with optional voice-guidance and an automatic route reclaculation in case you lost your original track. So, generally a NAVTEQ® Navi map only makes sense if you use your notebook or tablet-PC in your vehicle for online navigation.

Concerning route planning and upload of routes and tracks to your GPS device everything stated above also holds true when using this version of the NAVTEQ® map.

Please note that the licence agreement for the NAVTEQ® Routing and Navi map versions are only valid for non-comercial use.

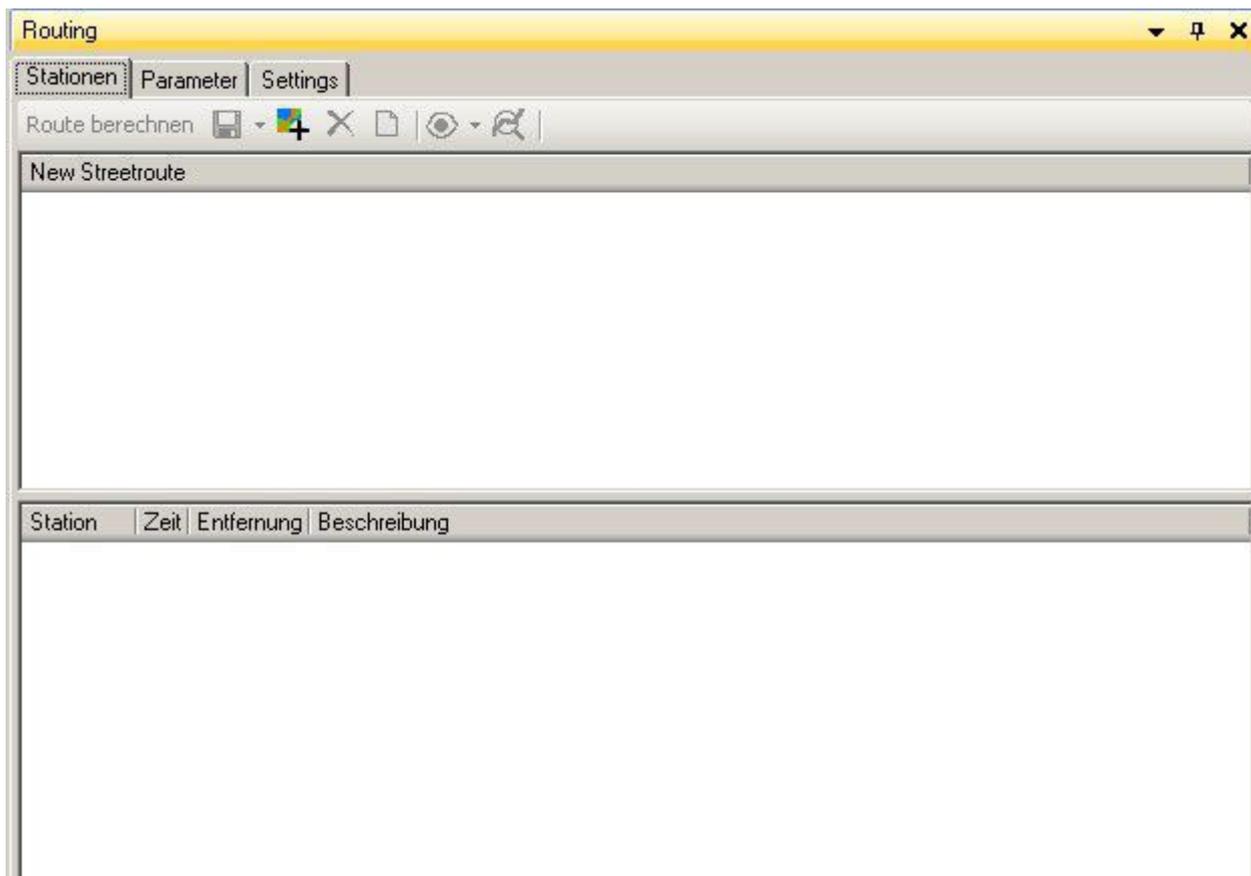
For remote tracking applications like fleet tracking or monitoring of other objects on a headquarter PC application, other NAVTEQ® licence models are required. In this case please contact us under [support@qvgps.com](mailto:support@qvgps.com).

Please note that we cannot guarantee for the correctness of a calculated route! You are always responsible for driving inaccordance with valid traffic regulations even if a calculated route will suggest something different. The routing functionality of QuoVadis is a helpful aid to make strret-navigation more comfortable. However we cannot be made responsible for incorrect or misleading navigation instructions. The reponsibility for safetey during public traffic lies always in the responsibility of the driver!

# Calculating street routes

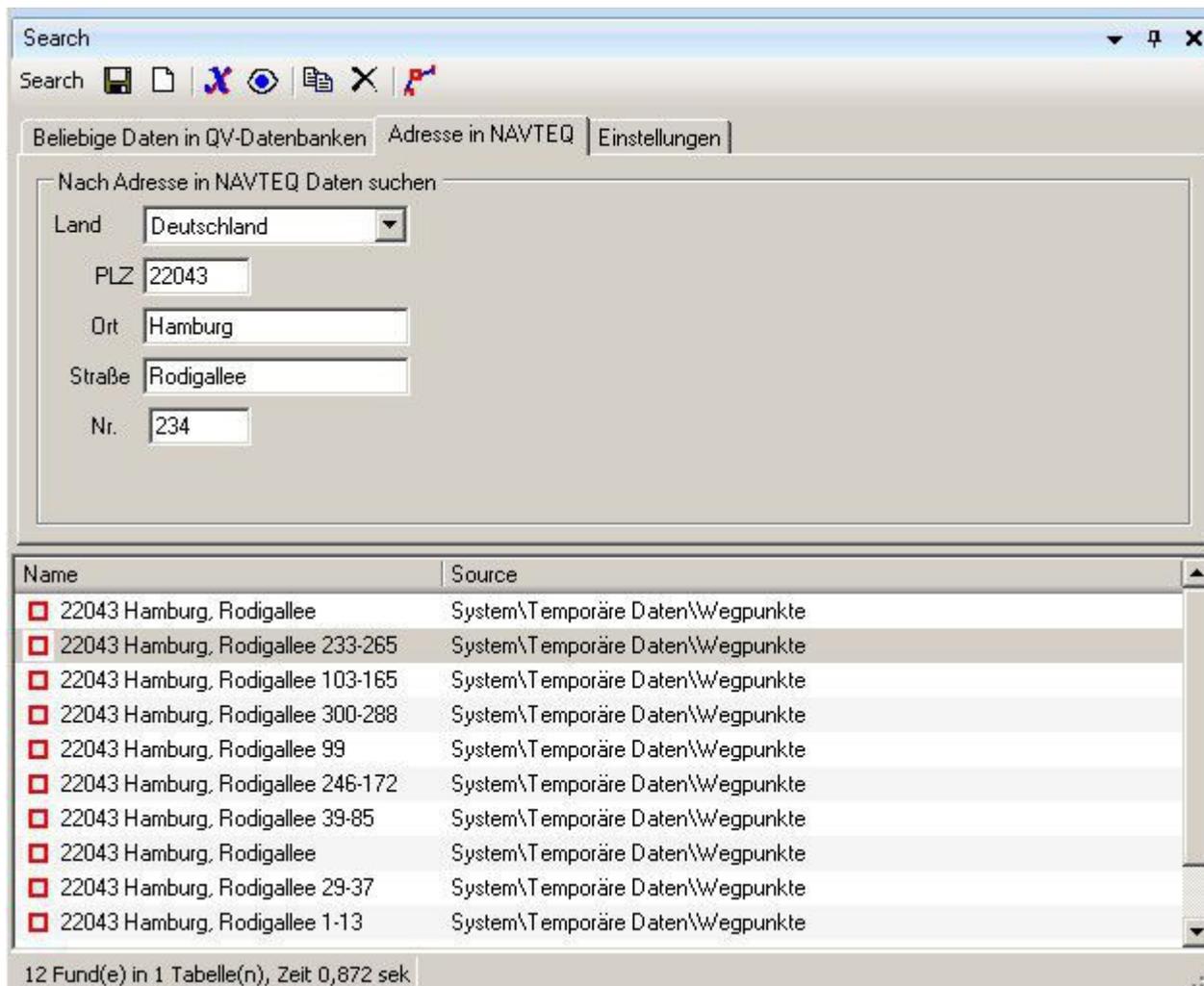
Activating the Street-Routing function:

In order to open the street-routing module in QuoVadis click this  icon. The street-routing window will open which is initially empty:



## Searching for address

By clicking the Search for name  icon, a window will open allowing for various search functions related to names and addresses. To search for addresses, choose the NAVTEQ address tab:



You will have to define the country first from the pull-down menu.

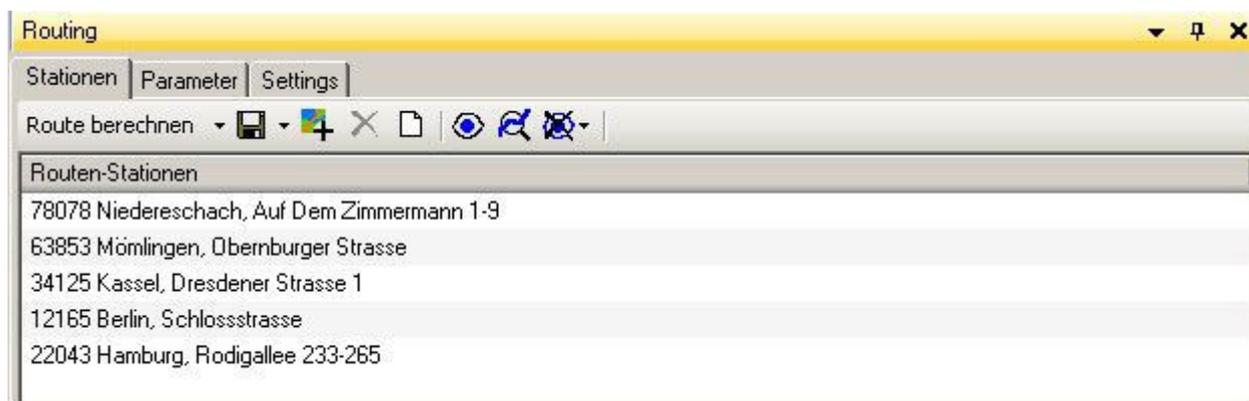
The fields ZIP-code, City, Street and No. are AND / OR input fields. So it is not obligatory to complete all fields but the more fields you are using the less results will be listed and suggested. After making your inputs just press Enter to see the listed results.

Choose the data set which fits your needs and click the  icon to copy the entry to the station list of the street-routing window.

## Enter Point from map

You can also enter a starting, stop-over or destination point directly in any map using a left-click of your mouse. To do this simply click the Enter position in map  icon, switch to the map window and click to the desired position.

After the starting, stop-over-points-and destination points have been entered, the station list may look similar to this:



If you have the need to alter this list, the following options are available:

## Deleting points from the station list

To delete a point from the station list, simply mark the point(s) and click the delete  icon.

## Start with a new route navigation

If you want to start a completely new route calculation, simply click the New  icon. The complete street-routing window will be cleared.

## Copying points to the clipboard

If you want to copy any station point for another use, e.g. to add it as a waypoint, you can copy it to the clipboard by clicking the copy  icon.

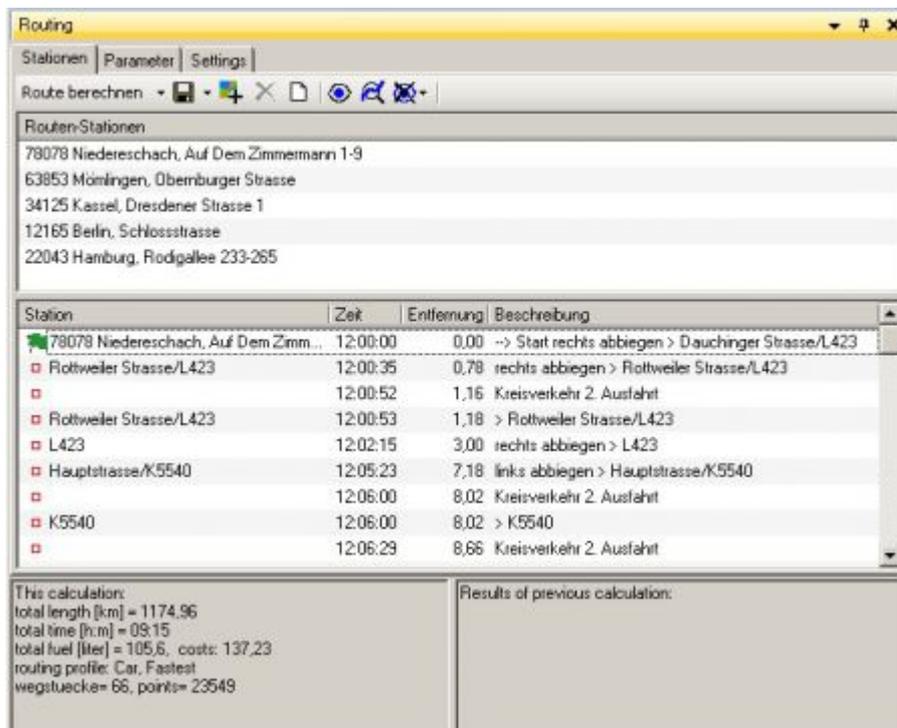
## Saving search queries

If you want to save a given search query you can do so by clicking the Save  icon. An assistant will open (see chapter Search Functions) for further information.

Before calculating the route you should continue with specifying your routing preferences. Please refer to Street-Routing Preferences.

# Show route

After you have defined your starting and destination point, added all stop-over-points, defined your routing priorities and pressed the Calculate button, the result of the route calculation will be listed:



In the upper part of the window you will see the starting, stop-over and destination points. In the example shown above, these all refer to addresses which have been searched from the address database.

In the center part of the window you will find a list with all stations along the route, followed by a column with the times traveled until this station and the cumulative distance to this point. Further to the right you find a description on the required navigation steps.

At the bottom of this window you find the summary statistics of your route like total length, total travelling time, total fuel consumed and related costs.

Additionally the chosen profile and routing priority is specified and also the no. of route segments and points.

If you are running several route calculations, you will find the results of your last calculation in the field to the right in order to facilitate your choice.

Clicking the Show in map  icon will switch to the map window and show the calculated route. When clicking the zoom to entire route  icon, the zoom level will be adjusted in order to show the whole route.

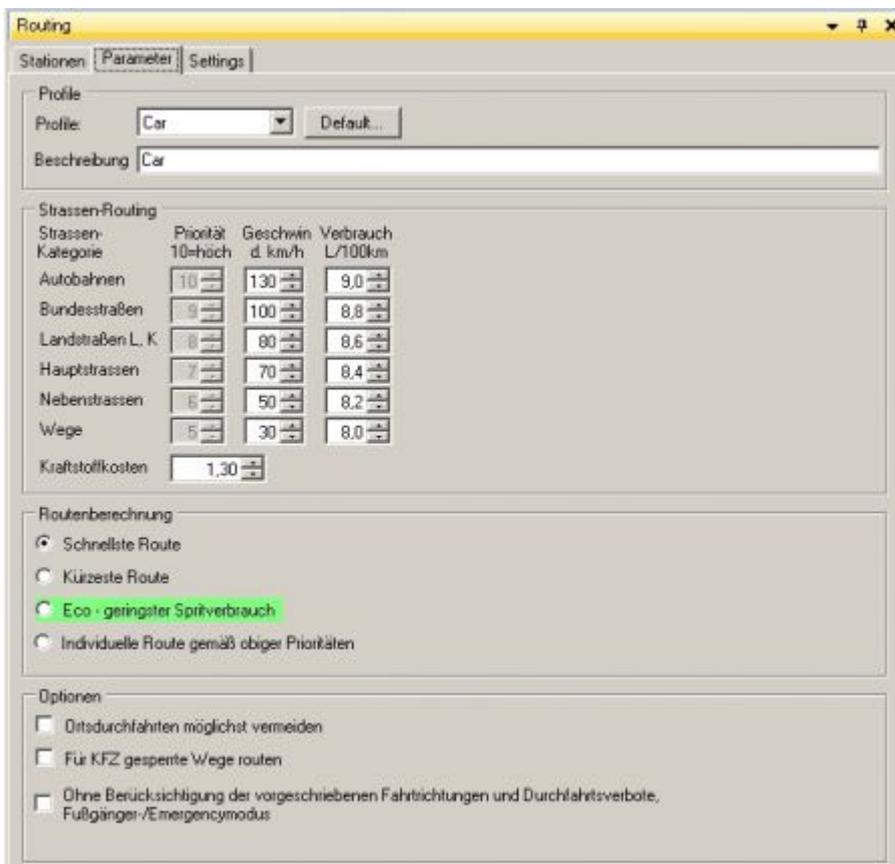


# Parameter

QuoVadis features a rather flexible routing engine. So you have a couple of interesting options when calculating your route from address A to address B.

One attractive feature in this context is that QV can account for a virtually unlimited no. of stop-over-points.

Furthermore, the available options to define your routing priorities are rather diverse:



- You can specify one from several profile such as car, motorbike, camper, truck, bicycle, walking and some user-defined ones.
- Shortest route
- Fastest Route
- Ecoroute - This is the route which will require minimum fuel
- Individual route - In this case you can specify priorities for various road categories ranging from 0 (blocked) to 10 (maximum priority). In the same table you can specify estimated average travelling speeds for your vehicle and every road class. You can also assign values for average fuel consumption for all road categories. Finally, you can set a price per litre of fuel. All these values will be accounted for when calculating the time travelling, the amount of fuel consumed and related costs.
- Finally there are a couple of options which can be enabled or disabled and which should be used with

care! - These include Avoid city crossings, Use roads which are not opened to public traffic and an Emergency / Pedestrian mode to allow for driving against the prescribed direction of traffic.

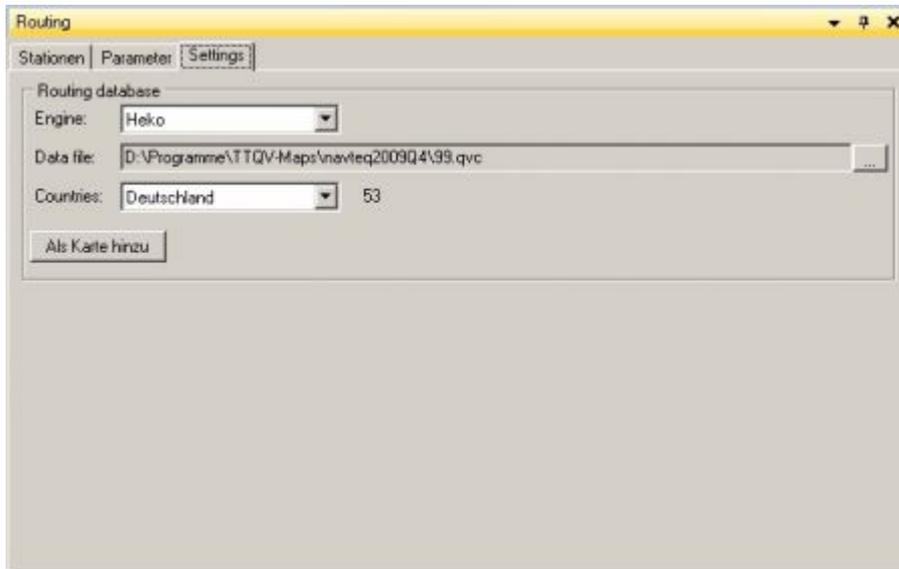
Always use the Emergency and non-public road settings with greatest care! You will take the risk to generate dangerous situations! We are not responsible for consequences which can be the result of such settings!

After you have defined all routing priorities, calculate the route by clicking the Calculate Route button at the upper left of the street routing window.

Please refer to Street-Routing - Results and Map Display to learn how the results are listed and the route can be displayed.

# Settings

Under the Settings tab of the street routing window, there are a few parameters to specify:



Usually you should not alter these settings.

Under Engine the type of routing engine is specified. Currently the only available option is Heko.

The content of the Data file refers to the path where QuoVadis will find your NAVTEQ® database. Never changes this path!

Under Countries you can set the default country which should be selected.

# GPS devices

The range of GPS units has become excessive. Some GPS models can only handle GPS coordinates, others support map display (so called map plotters) and street-focussed Navi-systems support dynamic autorouting.

Unfortunately many „navi-systems“ no longer support the basics of GPS navigation, i.e. the classical navigation with waypoints, tracks and routes which is still the only option when travelling off-road or in remote areas. In some cases it is even not possible to enter coordinates or to display coordinates of your actual position.

In this context it is obvious that the support QV can provide concerning data exchange with various GPS models varies greatly. Following you find a listing which reflects this situation.

Concerning the question of map upload from QV to GPS models please refer to the chapter Exporting maps. In this chapter we mainly focus on the exchange of geodata!

Generally speaking, waypoints, tracks and routes can be exported to most models of the brands GARMIN (including iQue series), MAGELLAN, MLR, LOWRANCE and EAGLE (Up- und Download). However, because of the excessive no. of different models, we cannot guarantee that each model will be compatible (concerning the Magellan Triton series please read the remarks further down in this chapter).

## Ccompatible GPS models

Using the following Garmin GPS models you can exchange waypoints, tracks and routes using the QV functions Send to GPS / Receive from GPS:

Garmin Map plotters:

- Garmin GPS 40, 45, III, V
- Garmin GPSMap 60 series
- Garmin GPSMap 176/276/278/378C
- Garmin eTrex Vista HCx, Legend HCx
- Garmin GPSMap 76 Cx/CSx
- Garmin Streetpilot 2610, 2720, 2820 (BMW Navigator III)
- Garmin Zumo 220/400/500/550/660 (BMW Navigator IV)
- Garmin Colorado 300
- Garmin Oregon 200/300/400/450/450T/550/550T
- Garmin Edge 605/705

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Using these map plotters you can also upload free Garmin IMG vextor maps from QV.

However, original Garmin map products in this format with selective map activation cannot be uploaded. Please also note that all original Garmin maps in the NT format (all new map products) are not compatible with QV.

Raster maps like the official topomaps of the national geographic surveys can only be uploaded using the Garmin Custom Maps function which is available only for Outddoor models of the new generation. You find further information in the chapter Exporting maps.

Garmin GPS models without map support:

- Garmin GPS 38
- Garmin Etrex
- Garmin GPS 60 series
- Garmin GPS 72

These models support a direct data excahng of waypoints, tracks and routes using the QV functions Send to GPS / Receive from GPS.

Magellan-GPS models:

- Magellan SporTrak series
- Magellan Meridian series
- Magellan Mobile Mapper
- Magellan Crossover

These models support a direct data excahng of waypoints, tracks and routes using the QV functions Send to GPS / Receive from GPS.

Two Nav (CompeGPS) GPS models:

- TwoNav Aventura
- TwoNav Sportiva

These models support a direct data excahng of waypoints, tracks and routes using the QV functions Send to GPS / Receive from GPS.

Furthermore, thanks to an encrypted and locked map format an upload of raster map upload of all QV compatible maps in very huge map tiles is supported. You find further information in the chapter Exporting maps.

Non compatible GPS models and GPS models with limited compatibility

Following you find a listing of GPS models which do not allow for a data exchange with QV or which do only support limited navigation functionalities.

These include:

- All typical street navigation GPS units of various brands if those do not support a data exchange through the GPX format
- Garmin Nüvi series
- Giove MyNav GPS models - However a data exchange is possible using the GPX format and the export / import functions of QV.
- Magellan Triton series - However a data exchange in both direction is possible through the Magellan-Vantage Point - Software using GPX files.
- TomTom - However a data exchange in both direction is possible through the export / import functions of QV.
- Tripy / Tripy II - However a data exchange is possible using the GPX format and the export / import functions of QV.
- Suunto X9i - However a track download is possible through the Suunto software utility after GPX data conversion.

## GPS-Online mode

You can use all NMEA compatible GPS models for the GPS Online mode with QV.

Also some Garmin Outdoor units support this mode. These include Garmin GPS 40, 45, III, V, Garmin GPSMap 60 and 76 series, Garmin eTrex Vista HCx, Legend HCx and the Garmin GPSMap models 176/276/278/378er series. In some case, when a GPS unit is identified as mass storage device under Windows after USB connection, it may be required to modify the system settings. For example you have to activate the Garmin spanning mode under Settings - Interface. After PC-connection the device will ask if you want to change to the mass storage mode. Select No and the unit will work in the GPS Online mode instead.

Also the Magellan SporTrak, Meridian-, Explorist and Triton series and the Mobile Mapper can be used for the GPS Online mode. The same holds true for the TwoNav Aventura.

## PDA's and Smartphones

Concerning the compatibility of PDA's and Smartphones the possibilities of exchanging waypoints, tracks and routes are strictly depending on the software used.

Compatibility is proved using the following products:

- PathAway (Standard and Professional) for the operating systems Windows Mobile, PALM and Symbian.
- TwoNav for Windows Mobile, Symbian and iPhone.
- Ape@Map for Symbian

**Remark:**

We do our best to keep the information provided in this chapter updated. However, we cannot guarantee this list to be complete or free of error!

## Connecting your device

You can connect your GPS unit with a PC using various interfaces. While a serial connection was the standard some years ago (COM or RS232 port with Sub-D9 connector), nowadays almost every GPS unit is connected through a USB cable. In this context it is important to note that the NMEA standard is technically determined as a serial data flow, so all NMEA-compatible GPS units with USB connector have a USB-serial-converter implemented.

Please note that in some cases and/or with some Windows versions, the drivers for those USB-serial-converters might cause problems. If so, please contact our technical support. The same holds true if you have to connect a GPS unit with a USB interface to a PC with a COM port. In this case you also need an external USB-serial converter.

Generally, you have to configure the interface to your GPS unit once in order to enable data communication. However, QV features a routine for an automatic detection of GPS units. So, most compatible GPS units will be identified automatically and all required interface parameters will be set.

This routine is automatically triggered when you click the Send to GPS  or Receive from GPS  icons (as long as you do not disable the AutoScan function). An assistant will open where you can select the Brand and model of your GPS unit and also the Port (interface) used. As Default both input fields are set to Automatic, so QV will try to identify the unit and the interface used. QV will list all identified and currently connected GPS models. Just tickmark the unit you want to communicate with and proceed with data Up- or download by clicking Continue.

If your GPS unit should not be identified automatically, you can click on the Find GPS - Button or choose the brand and port from a pull-down menu. If your model is not listed you can try to find a setting which works.

Assistent - GPS-Upload

### Schritt 1/2 - Welches GPS haben Sie angeschlossen?

GPS-Gerät auswählen:

Hersteller:  Port:

Gefundenes GPS-Gerät:

Garmin GPSMap60CSX Software Version 4.00

Wenn Sie Ihr GPS in der Liste nicht finden, stellen Sie sicher, dass es angeschlossen und eingeschaltet ist. Dann wählen Sie "GPS finden" erneut.

AutoScan

Dialog offen lassen

## Download from GPS

Usually you will save a protocol of your trip when you are out with your GPS and also store some „hot spots“ as waypoints. The protocol of your path is called Tracklog and it represents a normal track with all points where you have been. The trackpoints are not named but only numbered in a consecutive order. In most cases they will include information about actual altitude, speed and course and they will contain a time stamp. However, please note that this is not always the case: Some GPS units distinguish between Active Logs and Saved Logs and when copying an active log to a saved log in the GPS unit some information might be lost like time stamp, speed or course in order to save storage capacity. GPS-units for sport activities may also record data on heart rate or cadence.

In any case, these tracklogs can later on be downloaded and stored in QV for visualisation or analysis.

To download a tracklog from your GPS please proceed as follows:

- Connect your GPS with the serial or USB cable with your PC and switch it on. You have to configure the interface to your GPS unit once in order to enable data communication. Most GPS units will be identified automatically when clicking the Send to GPS  or Receive from GPS  icons. For further advice please refer to the chapter Connecting your GPS to a PC.
- You have two options to download data from your GPS unit:
  - a) You click on the Receive from GPS icon  in the X-Plorer.
  - b) You select New > Receive from GPS

In both cases, the GPS Download assistant will open and guide you through the required steps and settings:

- In the first window (above left) QV will list the detected GPS units and the corresponding Ports. If more than one GPS unit is connected, you can choose from various brands or ports, or trigger an automatic scan through the Find GPS button. You can also simply tickmark one of the listed models and click Next. The second window of the assistant (above right) you can select which kind of data you are interested in. Choose at least one category, however you can also tickmark all categories which are active.



- In the third assistant window (above left) you can choose the destination where the data will be stored. In cases where several data categories are imported, QV will usually suggest to import all data to a new database. The default name will be derived from the date, e.g. New Database\_YYYY-MM-DD where YYYY represents the year, MM the month and DD the day of the month. Continue with Next. Finally you can choose in the fourth assistant window (above right) what you want to see after the data import has finished. The options are Show data in map and/or Show data in X-Plorer. Then click Finish.

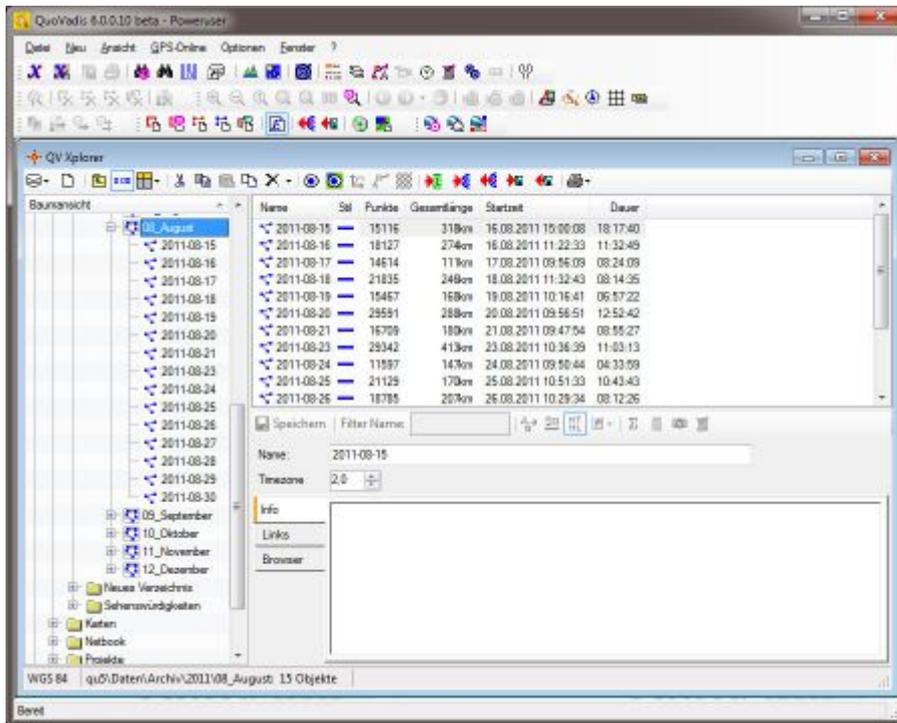


- All selected data will then be imported and you will see a progress bar (see below left). Please also note that, according to the amount of data stored in the GPS unit, this might take quite a while. When the data import is finished, you will also get a summarizing message (see below right):

A\103200300\_20110915\_110859.TRK



After the download is completed, the corresponding tracktable will look similar to this example:



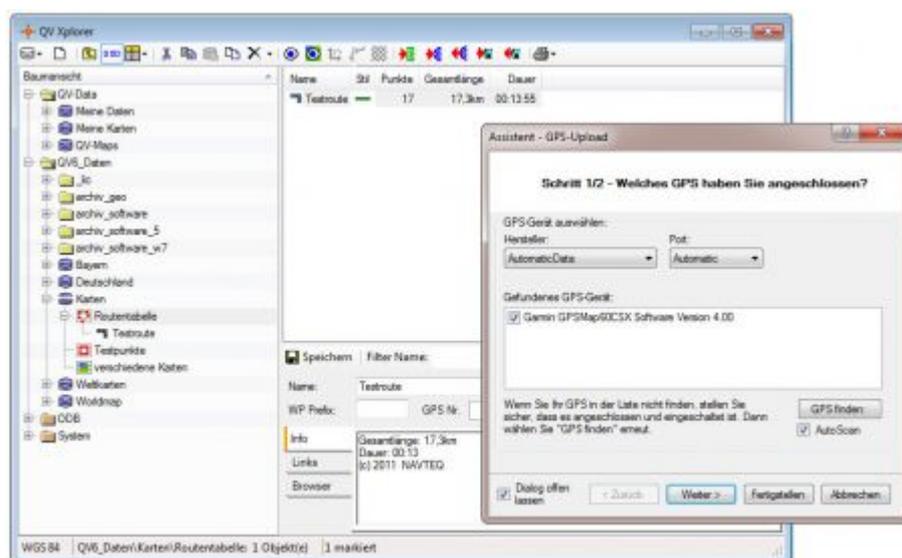
Thereafter you can visualize the track on any installed map, analyze it (see chapter Track analysis), export it to a file or upload it to another GPS unit.

# Upload to GPS

Today, many sources for GPS data are available. Besides tour planning in QV, you can also download various types of geodata (waypoints, tracks, routes, geocaches, etc.) from many internet GPS platforms.

Following, we describe the upload of a route to a GPS unit as an example. Please proceed as follows:

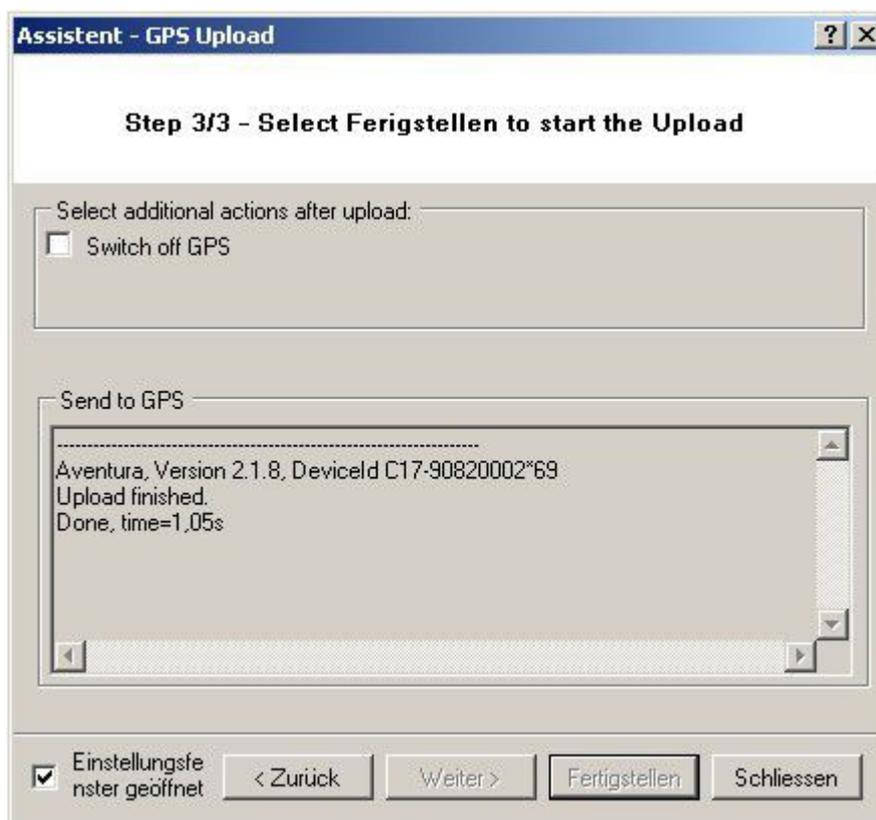
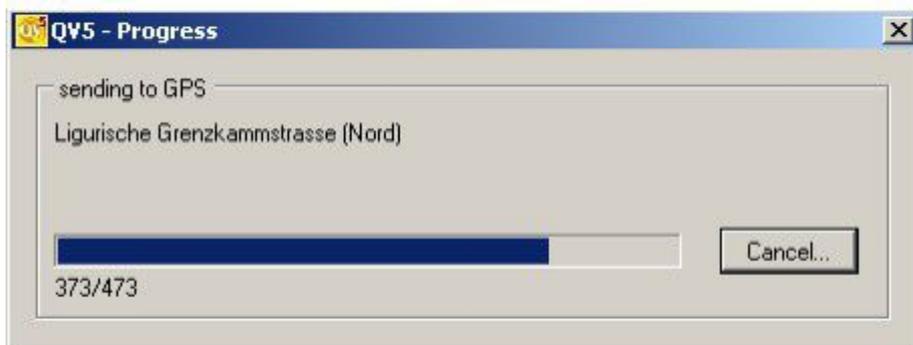
- Connect your GPS with the serial or USB cable with your PC and switch it on. You have to configure the interface to your GPS unit once in order to enable data communication. Most GPS units will be identified automatically when clicking the Send to GPS  or Receive from GPS  icons. For further advice please refer to the chapter Connecting your GPS to a PC.
- Open the QV X-Plorer by clicking on the .
- Mark the route(s) which you want to upload (see below).
- Click on the Send to GPS  icon. The GPS Upload assistant will open.
- In the first window (below right) QV will list the detected GPS unit(s) and the corresponding Ports. If more than one GPS unit is connected, you can choose from various brands or ports, or trigger an automatic scan through the Find GPS button. Simply tickmark one of the listed models.
- Continue with Next or directly start the export by clicking Finish.



\* If you continue with Next windows 2 and 3 of the assistant will open. Currently window 2 (below left) only allows to activate an additional option. In window 3 you can specify if the GPS unit should be switched off after the upload has been finished.



\* The Upload process will be visualized by a progress bar. When the data upload is finished, window 4 of the assistant will be updated and show a summarizing message about the uploaded data:



Thereafter you can disconnect your GPS from the PC and you will find the uploaded geodata in the corresponding menus of your GPS unit.

# GPS-Online

The GPS-online-modus is determined as a navigation-modus for driving conditions. With a connected GPS-receiver QV shows the own position on the map in 2D and also in 3D-modus and offers much more functions of the navigation. For Car-PCs with touchscreen-display a special „Touchscreen-Modus“ is available, which reduces the display to the minimum, shows the map in maximum size and the required functions you need in this modus are on large buttons, easy to find per finger.

To service a pc during driving reduces your concentration on the traffic, the route and the site. Please stop driving, if possible, to work in QV or let your co-pilot do the pc work, it´s for your safety!

## Assistent GPS-Online

Firstly you have to make some general settings, as selection of the GPS-unit, style, save intervall of the tracklog etc. Select  **Settings** from the **GPS-Online** menu to open the GPS-Online assistant.

## GPS-Settings



On the first page of the assistant select the GPS-unit. If the button **AutoScan** is activated, QV tries to find a connected unit automatically. Accordingly to the selection all units are searched and displayed in the list, what was found. The base setting is **Manufacturers = Automatic** and **Port = Automatic**, so it is guaranteed, that all supported units were found.

### Configure GPS-receiver manually

The auto-scan of all ports takes a little time. The scan of all ports is necessary, if different GPS-units or other (USB)ports are used. If it is a build-in GPS receiver or a GPS-mouse, which is always connected with the same USB-port, the port can be configured manually. Hereby the GPS search is starting with this port directly and the GPS-Online-Modus can be started in shortest time. The assistant displays the COM-port and baud rate after a successful scan. To configure the COM-Port manually, click on the small blue button in the window „Port:“ and select „Serial“.

Please adapt the given information as the following example shows:

Select your GPS:

Brand: NMEA Port: Serial  AutoScan

Com: COM9 Baud: 4800

Connected GPS found:

NMEA device on COM9/4800

When the general setting is done, select the check box „AutoScan“, „Auto start if connection GPS activated“, then you will receive your actual position in the map displayed after a short time and pressing the f4-button or the button of the menu  (If your GPS-receiver has reception).

The button **Start automatically if connection to GPS** controls, if the GPS-online-modus should start immediately, when the GPS was found, or if the assistant should be opened for some more settings:

On	When the GPS was found, the assistant will be closed and the GPS-online-modus will be started within the actual settings immediately. This is the recommended setting for car-pcs.
Off	The assistant stays open and you can control and change all settings. The GPS-online-modus is not started, until the assistant is closed with the button <b>complete</b> .

## Style, Tracklog

GPS-Online - Settings

Step 2/5 - Some more options like Style etc.?

Tracklog-Save every

Timeinterval for Tracksave [sec] 10

Balancing for New Position [m] 5

Distance [m]: 2000

Course change: 2

Style

Tracklog:  Change...

Position symbol:  Name Change...

Save as default

Speed circle [minutes]: 4

< Back Next > Done Cancel

During the drive QV saves the own position in the tracklog, if tracklog is activated in the GPS-online-menue .

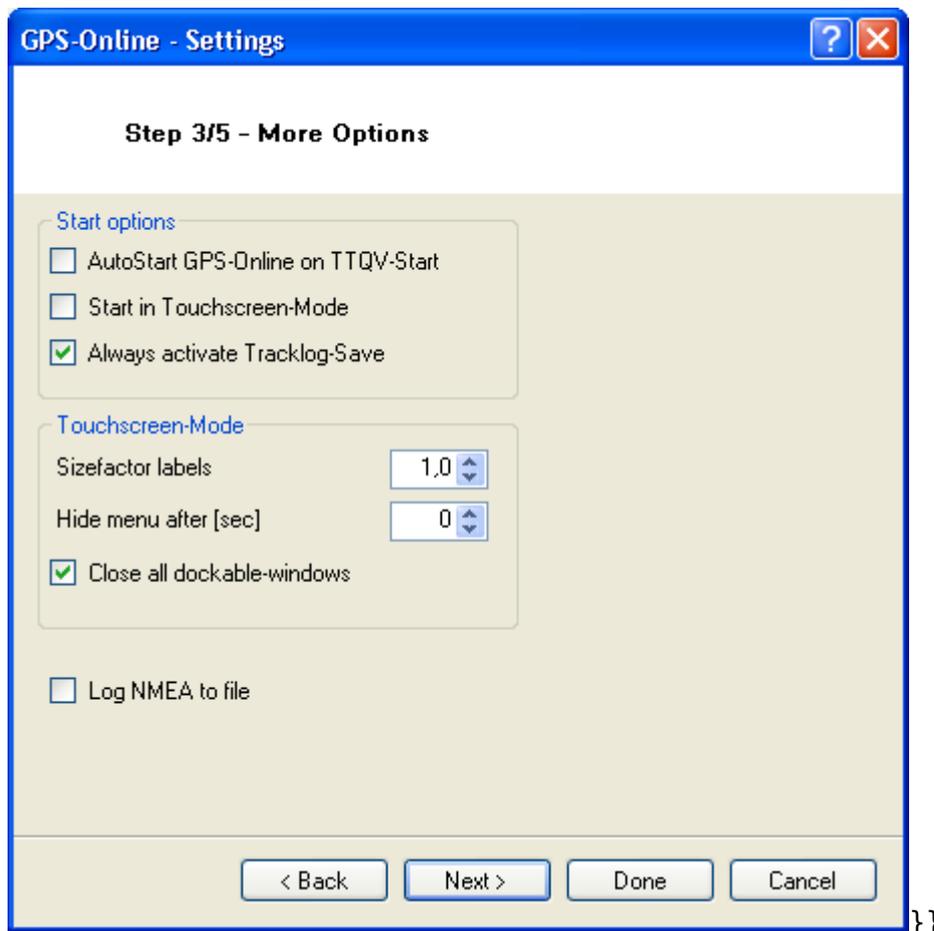
With the settings in **Tracklog all savings** you control, how detailed the tracklog is saved. Several criteria are available:

Time intervall in seconds	Hereby a regularly save all X seconds can be configured.
Attenuation for new position in meters	Because of the fast movement of the GPS-satellites, the receiving conditions are changing currently, so that also the standby of the vehicle has some variations of the own position. With this parameter you can reduce the variation rate, every change in position, which is lower than the configured value will be ignored.
Distance in meters	On long routes without changes in direction, for example on the highway or on the sea or during flight, you can adjust, that all x meter a track point should be saved.
Direction changes in degrees	As the course changes more than the adjusted degrees a track point will be saved. A low value here in combination with a high value for the distance, for example 2° / 2000m ensures, that very effizient tracklogs are saved, that means only several points but detailed reflection of the covered route.

The adjustments can be used singularly or combined, please activate the parameters easily with the checkbox. If you have activated several criteria, a trackpoint will be saved in this moment, when it meets minimum one of the criteria.

At **Style** you can select the colour of the tracklog and the symbol of the own position. The **Speed circle** is an optional circle, which is drawn around the actual position. It has the radius, which is based on the distance, that can be reached by the actual tempo in the selected time-intervall in minutes. Additionally a course line with a doubled lengths will be displayed in the map.

## Other options



On the third page of the assistant you will find following settings:

AutoStart at QV-Start	If On, the GPS-Online-Mode will start together with the start of QV, This option is suitable for Car-PCs, which QV starts per Windows-Autostart automatically when you switch the motor on and like to start off directly.
Tracklog-Savings always activated	If On, the tracklogs in the database are activated basically, no matter what the button tracklog in the menu shows.
Start in the touchscreen-modus	If On, the GPS-Online-Mode will start in the touchscreen-mode, if Off, you can activate the touchscreen-mode naturally any time afterwards with  in the GPS-Online-Menue.
Factor Display %	With this you can adapt the size of the text and the symbols in the touchscreen-mode.
Hide the menu to	The menue in the touchscreen-mode will close automatically after the expiry of the time period.
Close all docking-windows	In the touchscreen-mode the map window is maximized and all other windows are closed. When you switch it OFF, eventually opened andocked windows, as for example the project manager or the search-window, are not closed and can be used also in the touchscreen-mode.

## Navigation

GPS-Online - Settings

### Step 4/5 - Options Navigation

**Routing options**

Ask each time

Line-of-sight - Offroad

Shortest way

Fastest way

Eco - less fuel consumption

Custom route

**Offroad-Navigation**

Arrival at RWP [<m]

Must reach all RWPs

Draw line to destination

**Street-Navigation**

Off-Route [>m]

Recalc route automatically

AutoZoom

Profile

< Back   Next >   Done   Cancel

GPS-Online - Settings

### Step 4/5 - Options Navigation

**Routing options**

Ask each time

Line-of-sight - Offroad

Shortest way

Fastest way

Eco - less fuel consumption

Custom route

**Offroad-Navigation**

Arrival at RWP [<m]

Must reach all RWPs

Draw line to destination

**Street-Navigation**

Off-Route [>m]

Recalc route automatically

AutoZoom

Profile

< Back   Next >   Done   Cancel

You determine, in which way QV should bring you to the goal:

Air line - Offroad	Only the direction and air line - distance to the next goal is displayed. This option functions always, no special maps are necessary, it exists no speech output. With the button „Draw line to the goal“ a direct line from the actual position is drawn to the next goal in the map.
Route-Navigation: Shortest road-route, time, eco and individual	For this a navteq-map with the licence „Navi“ is necessary. QV calculates a road route accordingly to the routing option and leads you with exactly turn-by-turn-navigation and optionally speech-output to the goal.

The button **Asking each time** controls, if you like to see this dialogue everytime, when you determine a new goal or if the established setting should be adopt automatically.

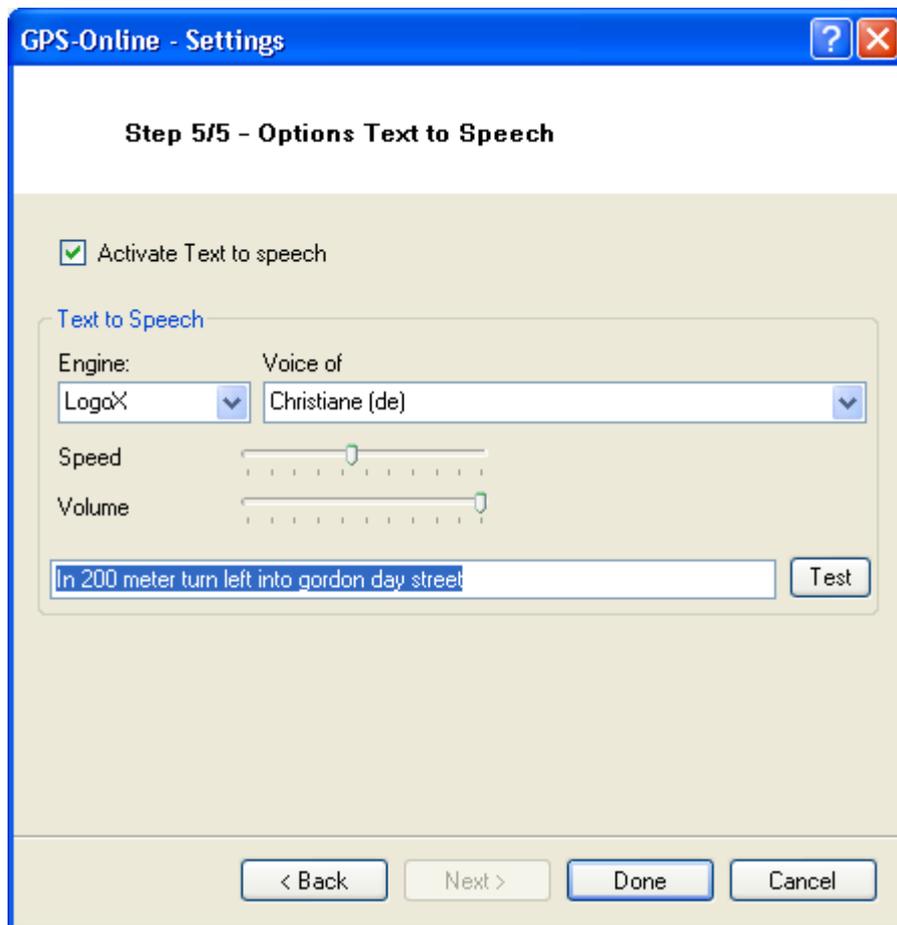
### Offroad-Navigation

Arriving at RWP [<m]	With this parameter you control, how near you would like to meet or must meet the route-waypoints. Depending on the area/event/purpose it can be necessary, to meet the points exactly, then you should put in a little value, or it is enough, if you pass the waypoint in the near, then the value can be higher. QV changes only then to the next point, if the previous entered point with a distance in meters is lower than it has been passed.
RWPs has to be reached	If this button is OFF, you can miss a RWP and focus directly to the next RWP. Once your distance to the next RWP is lower than the distance to the actual RWP, QV jumps automatically to this. If the button is ON, QV does not jump to the other RWP, but stays on this point until you reach it or switch to the next point manually.
Draw line to the goal	If it is ON a small line is drawn from the actual position to the next RWP.

### Road-Navigation

Off-Route Meter	When you remove from the calculated route for more than the here entered meters, either with intention or because you have failed the route, QV jumps into the off-route-mode and does not give you further instructions.
New calculation of the route automatically	If ON, QV calculates immediately a new route, if OFF you will get only a notice, that the route has been left and a new calculation is necessary.

### Speech-Output



When the speech-output is activated, QV tells you the driving instructions. On this page you can select your favorite voice and some other parameters.

Principally you have to install the voices on your pc. QV supports two speech-engines

Microsoft Text To Speech-Engine	This is already installed on the most Windows-PCs with a default-voice, which is only able to read english text. But in the internet you will find some companies, which sell more voices, also in other languages. As an example look at this company <a href="#">Cepstral</a> .
LogoX-Engine	This speech-engine is known from QV4. It has to be installed separately. Please start qv4setup_speech.exe in the file \Speech of your Navteq-DVD.

Select at **Engine** the favorite speech-engine and at **Voices of** the favorite voice. Additionally you can control volume and tempo. With the button **Test** you can hear an text-example.

**Notice: You will get the speech-output from the standard audio-unit of your pc.**

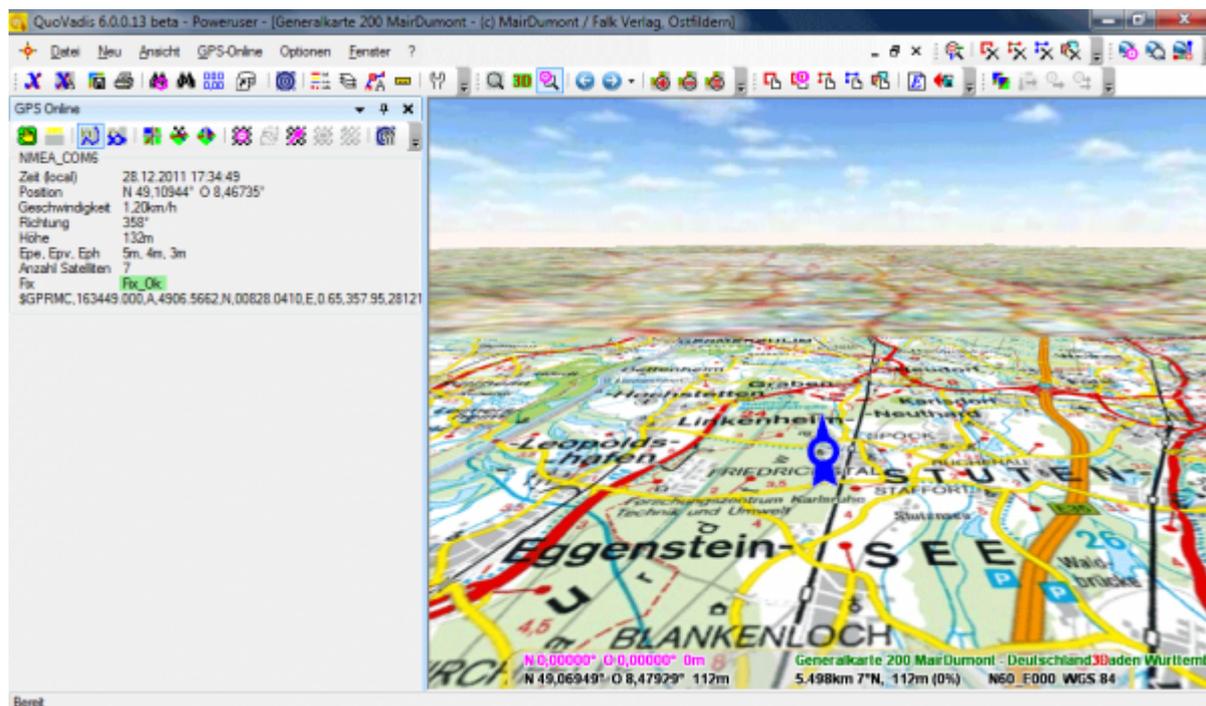
## GPS-Online-Modus

Before you start driving, please check, that your GPS-Unit is ON and start the GPS-Online-Mode with F4 or the button from the menu .

- the assistant GPS-Online opens and QV searches the adapted GPS
- if found and **Start automatically when connection to GPS** is ON, QV starts
- if found and **Start automatically when connection to GPS** is OFF, please start by click on

## Complete.

The window GPS-Online with the toolbar and the summary of the most important status information opens now and dock on on the right. Furthermore the actual position is displayed in the map:



## Functions of the GPS-Online-Menue

	Turns in the Touchscreen-Mode
	Shows the position and Nav in the map
	MOB- (man-over-board), saves the actual position as waypoint, also with F6, saves immediately an new waypoint of the actual position in the table GPS-Online\positions and displays it also in the map.
	Switches, when ON, the tracklogs in the database are saved accordingly to the actual settings. You can turn the tracklogging on or off everytime during the current operation and you can change the setting on your own priorities.
	Switches, when ON, the map will be moved so, that the actual position is visable in the middle. When OFF, you can move the map, to check for example the further route.
	Switches, when ON, the map will be turned so, that the actual navigation-goal is above.
	Switches, when ON, the map will be turned so, that the actual navigation-goal is above.
	If both switches are not On, you can turn the map in every direction you like, for example with the button „N“ to the North.
	Takes the actual cursor-position as the next goal to your navigation
	New-calculation of the actual route, for example when the calculated route was left
	Calculates a new goal for the navigation from the actual position, for example in a special distance and direction
	in preparation
	Deletes the actual goal and stops the navigation
	Opens the assistant GPS-Online, to change some settings, for example the Tracklog-Intervall.

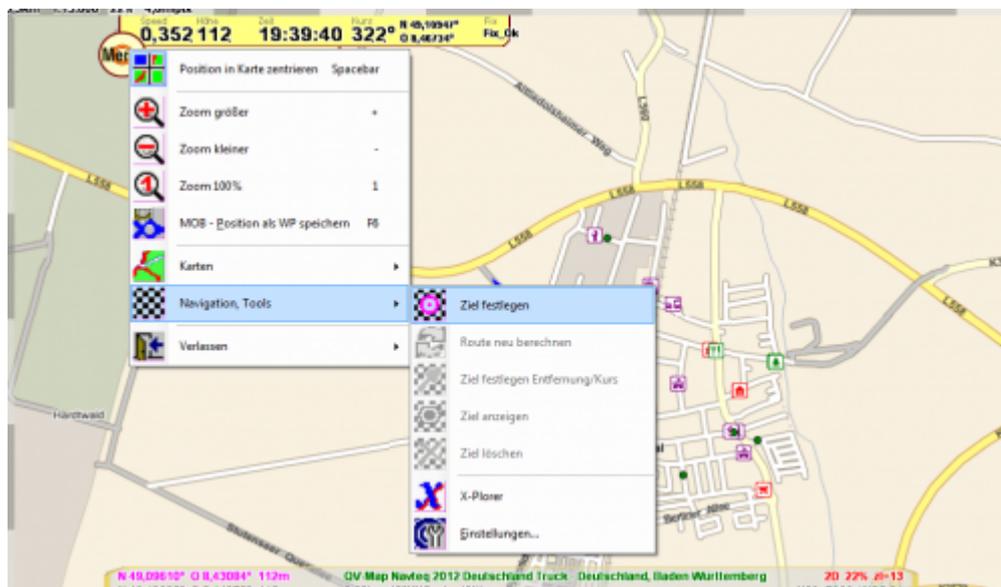
## Touchscreen-Mode

In the touchscreen-mode the display is reduced to the main parts:

- Map is maximized with the own position
- yellow status bar on the top of the field with speed, course, height, time, position and GPS-Fix
- Menu-Button on the left top, to open more functions



### Functions in the touchscreen-menu



The touchscreen-menu should offer you a fast access to the most important functions during the drive. You have extra big buttons, so you can operate it surely with your finger.

Click on the yellow, round button **Menue**, or somewhere on the yellow display bar, to open the touchscreen-menu.

- when you don't select a function, the menu will close after 10 seconds automatically.

- some functions, for example **zoom**, **map centering**, can be clicked on several times, the menu stays open.

## Navigation

When you have activated a navigation-goal, QV shows you a list with the stations in the table on the left corner of the window:

Nr.	Zeit	Entfe...	Rich...	Station
1	-	-	-	--> Start rechts abbiegen > Sudetenstrasse
2	10s	30m		rechts abbiegen > Rheinstrasse
3	43s	150m		links abbiegen > Am Waldfestplatz
4	2:36s	600m		links abbiegen > L558
5	9m	5,99km		Kreisverkehr 2. Ausfahrt
6	9m	6,03km		Kreisverkehr Ausfahrt > Grenzstrasse
7	9m	6,12km		links abbiegen > Rudolf-Diesel-Strasse
8	9m	6,13km		--> Ziel Rudolf-Diesel-Strasse

The table contains the columns:

Nr.	Number of the station
Time	The time left to the station in seconds, shortly before you are reaching the station, further in minutes or hours.
Distance	The distance left to the next station in meters, shortly before you are reaching the station, further in kilometers.
Orientation	On Navteq-routes a symbol, which shows, how you have to drive there, on airline-routes the course to that point.
Station	A detailed driving instruction.

The yellow line shows the next station in the list, the grey lines are those which are behind us, white lines are the followings. By double click on a line you can view the station in the map.

When you have selected a route for the navigation, you can focus on a special point directly and with that you can skip the automatical switch to the next point. Therefore please click with the right mouse taste on the station, which should be adressed directly and select **Next goal** of the Popup-Menue. QV navigiert nun direkt dorthin und diese Station wird orange hinterlegt in der Tabelle dargestellt. Das automatische Weiterschalten zum nächsten WP ist jetzt ausgeschaltet, bis Sie diesen Punkt erreicht haben, d.h. näher dran sind als in Einstellungen „Off-Route Meter“ (4. Seite im GPS-Online Einstellungen) gewählt wurde.

Die Tabelle enthält ein Popup-Menü, welches durch Klick mit der rechten Maustaste auf eine Station öffnet:

Navigation - Rudolf-Diesel-Strasse				
Nr.	Zeit	Entfe...	Rich...	Station
1	-	-	-	--> Start rechts abbiegen > Sudetenstrasse
2	10s	30m		rechts abbiegen > Rheinstrasse
3	43s	150m		links abbiegen > Am Waldfestplatz
4	2:36s	600m		links abbiegen > L 558
				In Karte anzeigen Als nächstes Ziel setzen
5	9m	5,99km		
6	9m	6,03km		Kreisverkehr Ausfahrt > Grenzstrasse
7	9m	6,12km		links abbiegen > Rudolf-Diesel-Strasse
8	9m	6,13km		--> Ziel Rudolf-Diesel-Strasse

In Karte anzeigen	Springt in der Karte zu diesem Punkt und setzt den Karten-Cursor dort hin.
Als nächstes Ziel setzen	Setzt diesen Punkt als das nächste Ziel, welches angesteuert werden soll. Wenn es erreicht wird, springt QV automatisch auf den darauf folgenden Punkt um und fährt normal mit der Automatik fort.

Im Touchscreen-Modus ist die Anzeige deutlich sparsamer und auf das wesentliche reduziert:



In der oberen, rechten Hälfte des Screens sehen Sie groß und deutlich jeweils immer nur die Informationen zur nächste Station. Dies entspricht also der gelben Zeile in der Tabelle.

## Kartendarstellung

Im GPS-Online-Modus können sämtliche Karten sowohl im 2D als auch im 3D-Modus benutzt werden, auch sämtliche Overlay-Funktionen stehen zur Verfügung. Die Karten können mit den üblichen Funktionen gezoomt, verschoben, gedreht und im 3D auch gekippt werden.

Bei aktiviertem Schalter „Position in Karte Zentrieren“ wird dabei der Kartenausschnitt immer so eingestellt, daß die eigene Position im 2D ungefähr in der Mitte und im 3D im unteren, vorderen Drittel liegt.

Aus Gründen der Fahrsicherheit wird beim Kartenwechsel kein Assistent eingeblendet, die neue Karte wird also immer im aktuellen Modus geöffnet. Ein Modus-Wechsel von 2D nach 3D ist also währenddessen nicht möglich. Hierzu beenden Sie bitte den GPS-Online-Modus, öffnen Sie die gewünschte Karte im gewünschten Modus und starten Sie den GPS-Online-Modus wieder.

# Multitracking

With QV-Poweruser and the module multitracking you can display and save the positions of various vehicles, which are sended via funk, GSM, GPRS, satellite or in another way.

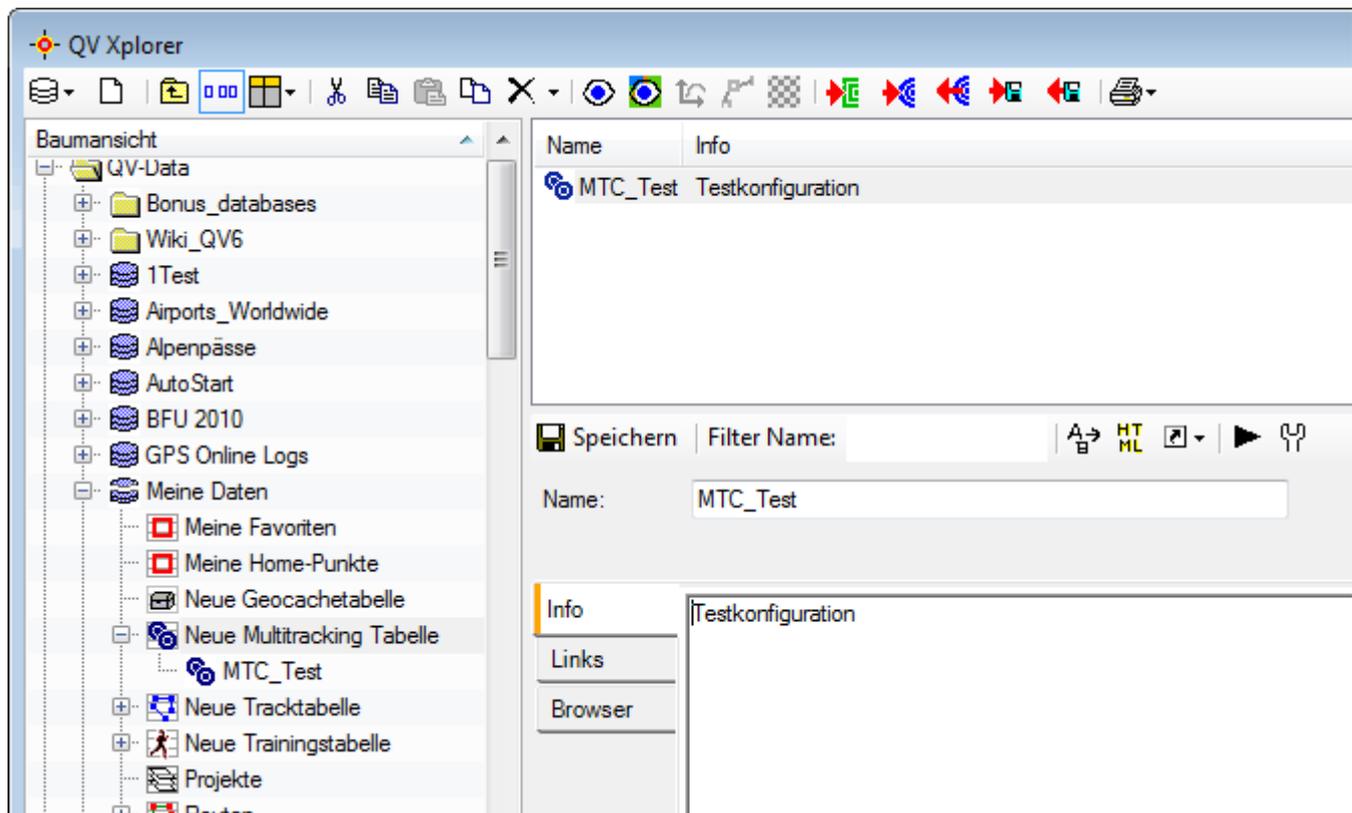
Multitracking consists of various functions:

- **Multitracking-configuration:** with this tool you determine, from which source QV should take the position, where QV should save the tracklogs gespeichert and if and how the map display of the „sender“ should look. In contrast to QV4, where the configuration has been saved as a file on the hard disk, in QV6 it is a database-object.
- the from QV4 known vehicle table with the list of the receiving vehicles has been integrated in the configuration.
- **Multitracking-window:** while the multitracking is running, the position data of every received object will be displayed in the window, which is docked per default at the bottom of the main window. In the toolbar you will also find the most important commands for the controlling.
- In the **projectmanager** you can manage the just received vehicles easily.

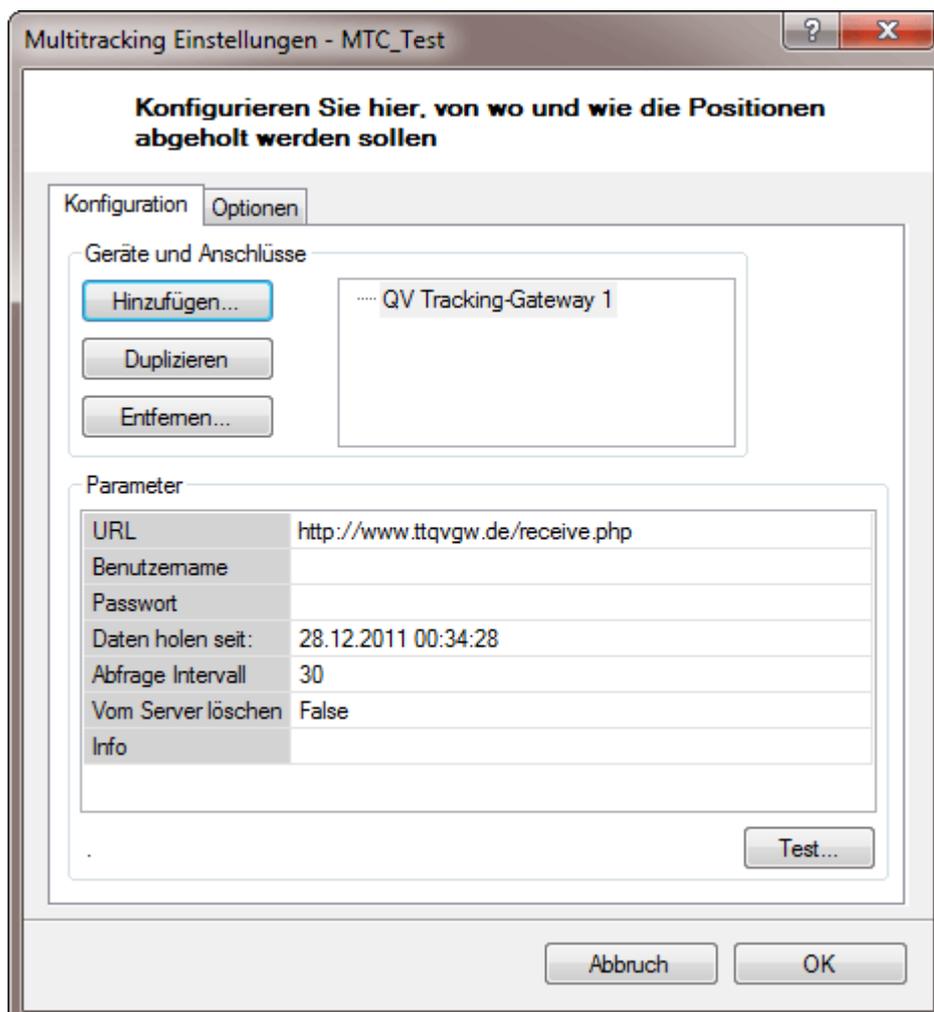
## Multitracking-configuration

A multitracking-configuration is also a database-object, similar as a route or a track. Therefore it is saved in a multitracking-table, which you can create in every database with **New**.

Within a multitracking-table you create with New a new multitracking-configuration, which is managed in the Xplorer as known from other objects:



To find the way to the configuration, choose the entry and click on **configuration** :



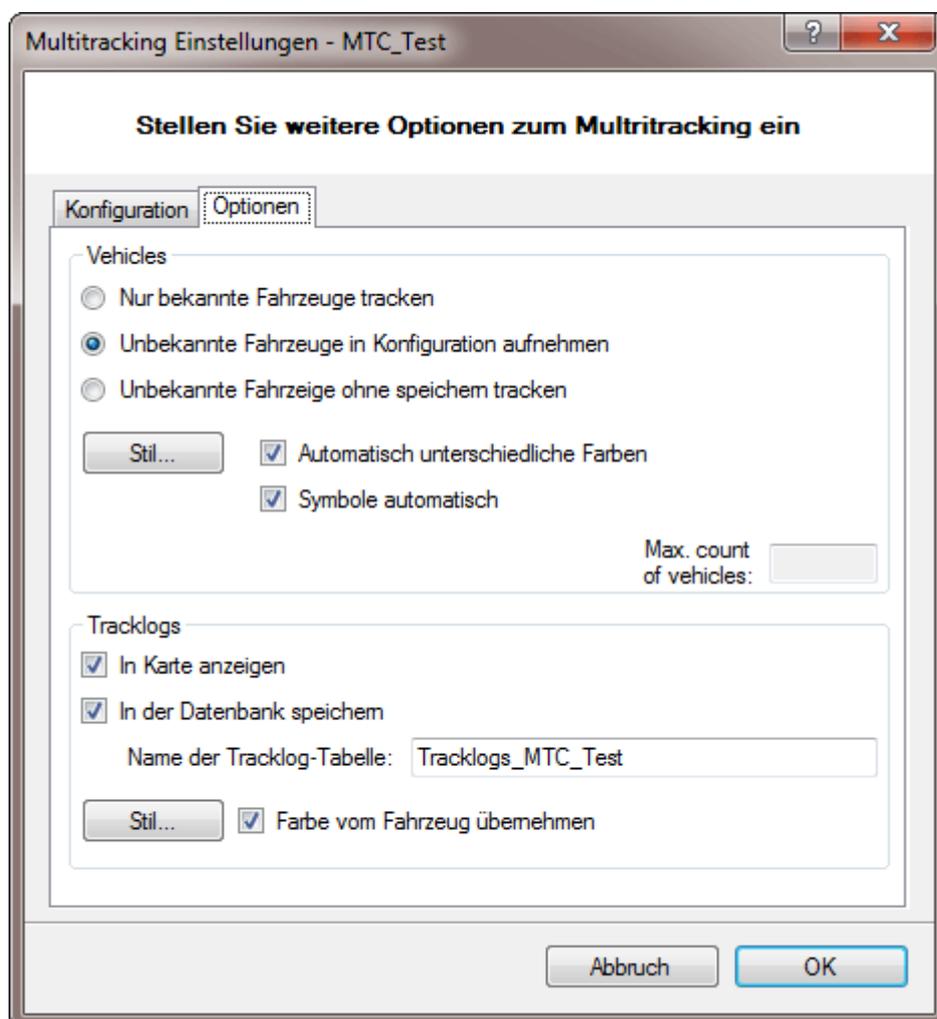
First create a source, from which positions should be collected. Click on **Add..** and choose the source of the popumenuue:

- QV-Tracking-Gateway
- Serial Port, for example for NMEA data, but also AIS and APRS over Com
- Tcp-Socket, for example for NMEA over the network
- GSM SMS, to read SMS from an connected GSM-Modem
- Garmin Astro, reads all tracklogs in intervals, treating each of them as individual vehicle/sender

The name of the source can be changed by an easy click after the selection in the list on the right side. With the name the objects are grouped in the multittracking-window. Please enter in the field below the details of the connection. At the tracking-gateway these are your account-data, which you have received. For serial connections select at the protocol, which kind of data will be received, NMEA, AIS or APRS.

You can define several connections within a configuration, if you like to see for example several accounts or different com-ports at the same time. Therefore create a new connection with **Add** or **duplicate** an existing one.

Notice: If you want to use multittracking in a vehicle, to see the others´ positions and additionally your own position, you only need to create a configuration to request the other positions. To sse your own position, please start Sie zusätzlich den normalen GPS-Online Modus.



On the second side you determine how you like to treat the several vehicles. You can create vehicles with its sender-ID, name and style in the Xplorer within the multitracking-configuration, after that this vehicle is „known“.

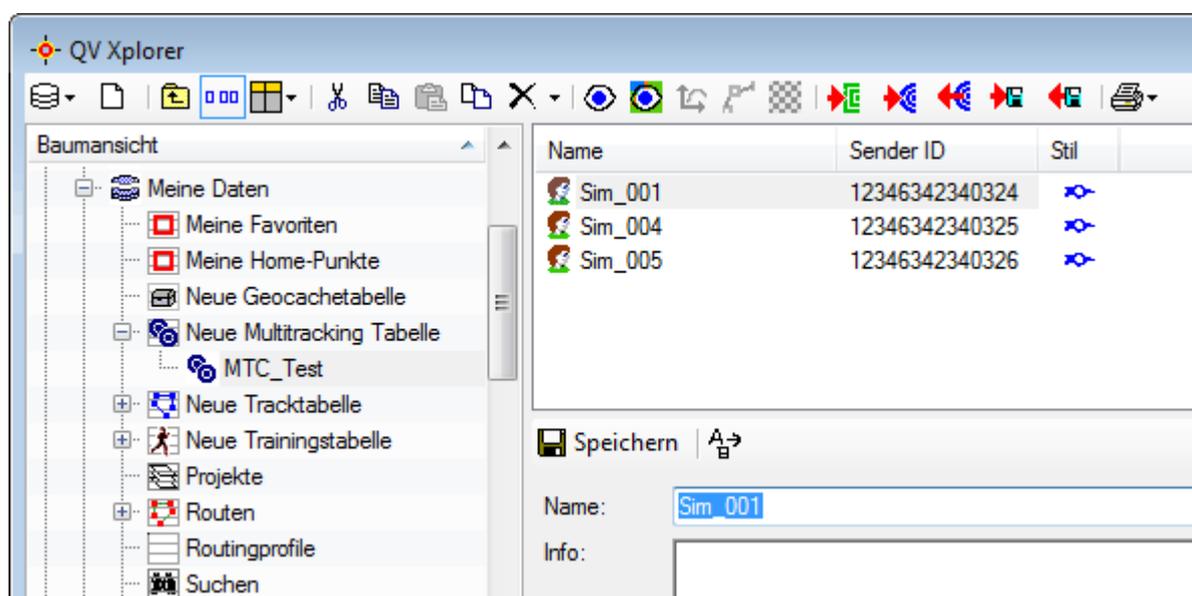
Here you can determine, how unknown vehicles, whose senderID is not yet recorded, should be treated. Either they can be ignored or they can be integrated automatically into the configuration. The third option is for example AIS or APRS-service, whereby many different objects can be shown, and only the actual position in the map is necessary, but without a storage in the database.

Notice: Maximum 5 vehicles can be **tracked and saved** in parallel. For more vehicles extension-licences can be purchased. With the options APRS and AIS as many vehicles as you like can be tracked, that means their positions in the map can be displayed, but only maximum 5 positions can be saved in the database.

In the block tracklogs you determine, if, how and where tracklogs should be saved. The tracklog-table is created in the same database, in which you find also the multitracking-configuration.

When you are ready, please save and close the configuration with OK.

To create vehicles in the table manually, go to the Xplorer, click on the multitracking-configuration in the tree-view to see the vehicles in the list window. With New you can create a new vehicle or duplicate an existing one.



## Multitracking-window

Start the configuration with the start-button from the Xplorer to open the multitracking-window and begin with the removal of the positions:

Navteq\_2009\_q4 - Oster2D: 0,84% | 65,1km 196°SSW, No Dem WGS 84

N 48,06456° O 10,98787° 0m  
N 47,50053° O 10,75529° 0m

ID	Zeit	Position	Geschw. Max	Kurs	Anzahl	Status
<input checked="" type="checkbox"/> QVTtest						
<input checked="" type="checkbox"/> Sim_003	23.06.2011 20:39:24	N 47,89112° O 8,92477°	74,7km/h	172°	58	
<input type="checkbox"/> Sim_002	23.06.2011 20:38:52	N 47,68071° O 9,97761°	87,9km/h	160°	59	
<input type="checkbox"/> Sim_001	23.06.2011 20:38:20	N 48,00924° O 9,76786°	67,4km/h	128°	59	
<input type="checkbox"/> Sim_005	23.06.2011 20:37:48	N 47,90371° O 8,88855°	54,0km/h	180°	58	

With the toolbar you can stop the track, start again, with refresh you can carry out an immediately request for new positions, change the configuration set the column display.

The checkbox at the beginning of a line determines, if the map should be scrolled on this position, when a new position comes in.

## X/Y diagram

The X/Y diagram is a graphic tool for analyzing and visualizing tracks and routes. Speed and altitude can be evaluated in relation to the distance travelled or in relation to time.

At a glance, you can visualize information such as:

- Speed profile - Where and when did I reach my maximum and minimum travelling speeds?
- Altitude profile - At which distances or travel times from the start did I reach which elevation levels?
- How does the cumulative elevation curve look like (ascending / descending)?
- For para- and deltagliders or sailplanes: How does the plot of my vertical speeds look like? How does my elevation plot look like when it is expressed as altitude above ground?
- You can also place the cursor with a simple click on every point along the curve and select Show in x-Plorer to see the corresponding data set. map cursor will be centered at the corresponding point along the track in the map window and vice-versa.
- You can also plot various tracks or routes at a time, so you can also compare various competitors or various rounds of a given course. For the latter it is necessary to divide the tracklog in separate rounds. If you want to plot tracks over time and compare several tracks, it is obligatory to convert the time stamps into time travelled since start using the Track Processor.

## Generating a X/Y diagram

To generate a X/Y diagram simply mark the tracks or routes which you want to plot and click the  icon in the X-Plorer symbol bar. The X/Y diagram will open in a separate window. You can zoom or drag-and-drop the diagram within the window wherever you like. For zooming use the webwheel of your mouse, the zoom will be centered at the mouse position.

You find an example of an altitude profile below:



## Functions

The diagram line is automatically calculated from the data available. Depending on the characteristics of the dataset, various analyses can be performed.

### X-Axis

You have three different units available along the X axis: Point number, distance traveled or time. The consecutive number and distance can always be extracted from the tracklog while time axis can only be displayed if the track or route point have a time stamp. Please not the when you plot a curve with Point number as units along the X-axis, the distance between point will always be the same. However, in their real world, this might correspond to completely different distances when those are expressed in kilometers or miles. You an altitude profil may look pretty „distorted“.

### Y-Axis

You have many parameter options which you can assign to the Y-axis: Horizontal and vertical speed, altitude (usually from GPS), altitude of the surface relief (according to the DEM), altitude above ground, cumulative elevation curve ascending, and cumulative elevation curve descending.

Of course, speed and altitude values must also be available in the database (tracklog or route). The altitude according to the DEM is always interpolated from the raster of the active DEM, so this function requires a DEM to be installed and the accuracy of the values will vary with the DEM used. For further information please refer to QV System - Map Datums, Grids and DEMs.

Vertical speed is calculated from altitude and time differences of consecutive track points. Thus, this information is only available if data on altitude and time is available in the tracklog or route.

If your tracklog only includes coordinates (including elevation), you will at least be able to generate an altitude profile. If your tracklog includes time stamps but no speed and course information, you can generate these values using the Track Processor. However, please note that those values do not represent instantaneous values (as the ones from a GPS) but average values which are calculated from distance and time differences between points. This has to be considered when interpreting the results.

The diagram is always plotted according to the style definition which you have set for the plotted track or route. The scaling is automatically calibrated according to the window size. However you can zoom the diagram using your mouse wheel and you can also drag-and drop it to the desired position within the window.

## Mouse function in the diagram

You can read various sets of values from the diagram using the mouse pointer. These are displayed in the status line at the bottom of the X/Y diagram window:

x=... y=... Shows the X- and Y- values of the mouse pointer in the units selected.

dx=... dy=... Shows the differences in X- and Y- values between the cursor  and the mouse pointer in the units selected.

## Functions of the symbol bar at the bottom of the diagram window

X axis: Point number		The number of the points are plotted along the X-axis, i.e. equal distances between the points along the track or route.
X axis: Distance		The distances travelled are plotted along the X-axis. These distances are automatically calculated from the coordinates. For routes generated by a route planner (i.e. the QV routing function with NAVTEQ maps) this is the real distance that the routing module has determined. In all other cases this is the line-of-sight distance between consecutive track- or route points.
X axis: Time		The time is plotted along the X-axis. For tracklogs downloaded from a GPS unit, this is the time when you have been at a specific trackpoint. For tracks or routes generated by a route planner (i.e. the QV routing function with NAVTEQ maps) it is the calculated (predicted) time when you will be at this place.
Y axis: Speed		The (horizontal) speed is plotted along the Y-axis. For tracklogs, these are the speed values as measured by your GPS receiver. Only possible if speed values are available in the plotted track.
Y axis: Vertical Speed (climbing / descending speed)		The vertical speed is plotted along the Y-axis. These values are calculated from altitude changes over a certain time interval. Positive values reflect climbing speeds, negative values reflect descending speeds.
Y axis: Altitude		The is plotted along the Y-axis. For tracklogs this is the GPS-altitude, for planned tracks or routes this is usually the altitude as extracted from the DEM.

Y axis: Altitude DEM		The altitude from the DEM is plotted along the Y-axis. The values are interpolated from the elevation raster, so this function is only possible if DEMs have been installed.
Y axis: Altitude above ground		Altitude differences between GPS altitude and altitude according to DEM are plotted along the Y-axis. This approximately corresponds to the flight altitude above ground. Only available if the tracklog includes altitudes and a DEM has been installed.
Cumulated sum increasing / decreasing		A cumulated altitude curve will be displayed. Ascents and descents have to be plotted separately. 
Smooth curve ON/OFF		If this function is enabled, a spline algorithm is applied to the curve. This will „smooth“ the curve, so differences between consecutive points will be levelled. This icon has a switch function, so clicking again will disable the spline function.
Draw vertical lines / show WP names ON/OFF		A vertical line (anchor) will be drawn to the X axis at each point. Also, when plotting a route, the waypoint names will be shown. This icon has a switch function, so clicking again will disable the plotting of anchor lines.
Draw X/Y axes ON/OFF		The x/Y-axis will be hidden. Doing so, you can enlarge the space for the plot. This icon has a switch function, so clicking again will show the X/Y-axis one again.
Y axes: start at 0		Will rescale the Y-axis so that it starts at 0.
Line of sight ON/OFF		Draws the projection of the line of sight from any point of the plot. Points which are out of (theoretical) sight are below this line, points above this line are within the field of vision. Three options for the calculation are available: straight, earth curvature and radio wave propagation. This icon has a switch function, so clicking again will disable the line-of-sight function.

## Mouse and keyboard functions in the diagram window

Mouse movements with pressed and hold left mouse button	Move the diagram
Mouse click	- Set cursor - Select a curve if more than one curve is available in the diagram. The selected curve is indicated in the status line.
Mouse Wheel	Zoom in/out
Arrows	Move diagram within the window

## Supported products

QuoVadis 6 supports a data exchange with all PDAs and smartphones which can read and write or import and export geodata in the GPX format.

Furthermore, the following platforms and software products allow for a direct data exchange using the proprietary formats of these products:

- PathAway
- TwoNav
- ape@map

For exchanging geodata, please use the procedures which are described in the chapters [Upload of data to the GPS](#) and [Download of data from the GPS](#) or in case of platforms which do not allow for a direct communication, the procedures for data exchange in the GPX format which are described in the chapters [Export](#) and [Import](#).

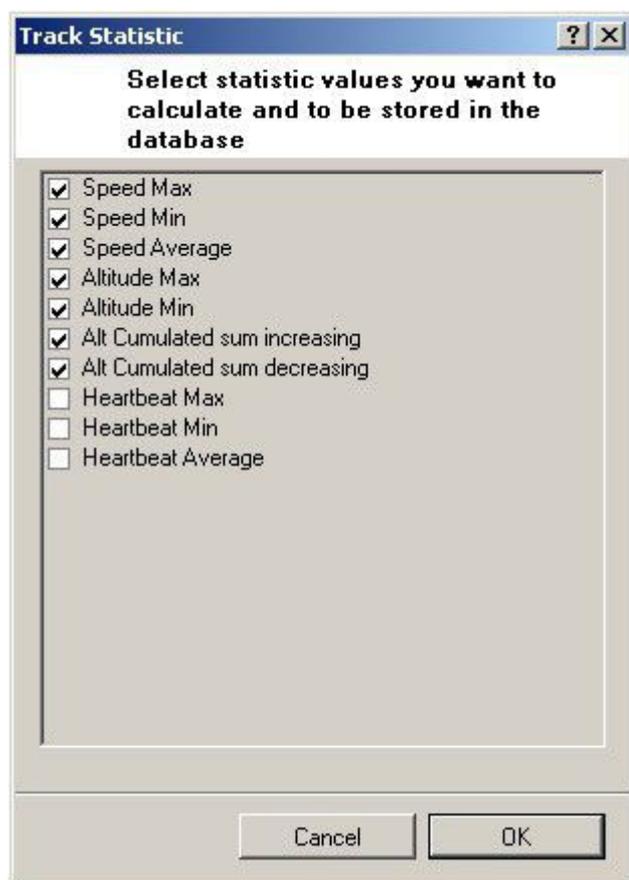
Concerning platforms which support raster map display, you find a description for uploading such maps from QV to your mobile unit in the chapter [Map export, Printing](#).

## Track statistics

Besides a more detailed analysis, a quick summary statistics of tracks or trainings is of special interest.

In QV Version 6, a new statistics function has been implemented which you find in the X-Plorer symbol bar between the list and details windows:

 When you click the Track statistics  icon, a window will open where you can choose the parameters which should be included in the statistical analysis:



Just tickmark the parameters of interest and click the OK button. The selected parameters will then be added as additional columns in the X-Plorer List window:

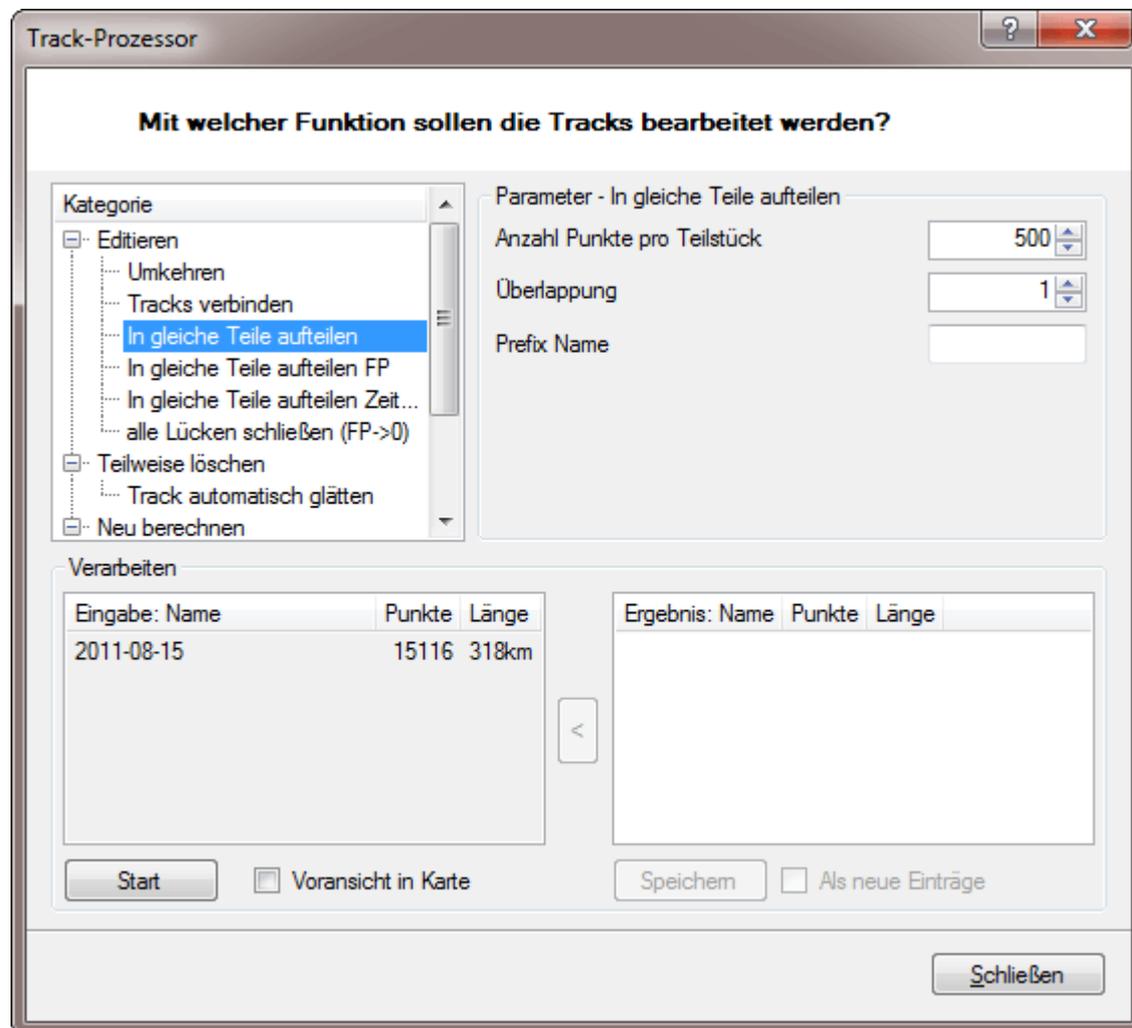
Name	Start	Finish	Distance	Date	Time	Time of day	Speed max	Speed average	Altitude max	Altitude average	Minimum altitude	Minimum altitude
4000 Intero, L	207	53.8km	2006.201	03.49.50	05.7km/h	8km/h	1.20m	30m	21.3m	21.3m	21.3m	21.3m
4000 Cassinelli, A	210	71.8km	2006.201	04.52.00	50.3km/h	8km/h	1.20m	0m	3000m	1874m	0m	0m
4006 Tando, S	210	48.3km	2006.201	03.48.16	66.3km/h	8km/h	1.25m	0m	4150m	4150m	4150m	4150m
4007 Uscio, F	208	84.7km	2006.201	05.13.03	10.8km/h	8km/h	1.20m	0m	5200m	5200m	5200m	5200m
4009 Zola, H	217	49.8km	2006.201	06.26.20	96.8km/h	8km/h	1.20m	30m	3200m	3200m	3200m	3200m
4000 Plesano, M	217	82.8km	2006.201	03.48.28	81.8km/h	8km/h	1.20m	30m	2800m	2800m	2800m	2800m
4002 Plesano, F	217	85.2km	2006.201	03.48.18	82.5km/h	8km/h	1.20m	0m	6950m	6950m	6950m	6950m
4000 Plesano, F	214	45.1km	2006.201	02.12.15	51.3km/h	8km/h	1.20m	40m	7900m	7900m	7900m	7900m
4004 Puchacki, A	243	83.8km	2006.201	03.58.18	82.7km/h	8km/h	1.74m	0m	3900m	3900m	3900m	3900m
4006 Cassinelli, K	207	13.8km	2006.201	03.45.50	41.2km/h	8km/h	1.20m	0m	52.2m	52.2m	52.2m	52.2m
4000 Intero, L	207	53.8km	2006.201	03.49.50	82.8km/h	8km/h	1.20m	30m	1800m	1800m	1800m	1800m
Plesano, M	217	82.8km	2006.201	03.48.28	11.8km/h	8km/h	1.20m	0m	0m	0m	0m	0m
PT 3306_20030620	0	8m	30.12.198	00.00.00	8km/h	8km/h	0m	0m	0m	0m	0m	0m
PT 3312_20030620	314	73.8km	2006.201	04.03.28	65.9km/h	8km/h	1.04m	0m	1385m	1385m	1385m	1385m
Salerno-Herzogen-Gr.	200	48.2km	2006.201	07.37.23	41.9km/h	8km/h	6.20m	0m	0m	0m	0m	0m

Remark: The columns will be added to all tracks of the current track table. However, the values will only be calculated for the tracks which have been marked before selecting the Track calculation function.

It is also worth to note that sorting the datasets of a track or training according to the various parameters will also give valuable information when interpreting data.

# Track processor

The Track Processor is a powerful tool for post-processing of tracks. Many options for track modifications are available, including a simultaneous transformation of multiple tracks:



These are the function-groups which are available, see below for a details explanation of all options:

- Editing of Tracks:
- Partially deleting of Trackpoints:
- Recalculation of Tracks:

The processing can be divided into a few steps:

- First of all, you have to specify one or more tracks in the QV X-Plorer which you want to process. Then click the Track Processor  icon.
- Select the desired function from the list on the left in the Track Processor window (see above). Depending on the selected function, you can define the relevant parameters to the right of the window.
- Click Start to trigger the data processing. By clicking Map Preview you can control the effect of the processing in the map window.

If you are not satisfied with the result, change the parameters and repeat the processing with the Start button.

- You can add more trackprocessing to the processed tracks by clicking on < which will copy the results into the input-list for further processing.
- If the result satisfying, save the track editing with the Save button either as a New Track or by overwriting the existing track(s).

If you choose Save as new Track, you can specify a new track name just by doubleclick on the trackname in the resultlist..

## Editing of tracks

Invert	Reverses the track in order to change its direction.
Join Tracks	After selecting several tracks you can merge them to a single track. You have two options for defining the order: A) Order according to the date/time stamp of the trackpoints B) Order according to the sequence of the track in the input-list which can be reordered by drag & drop.
Split	Splits a track into several segments. Enter the no. of points per track and the no. of overlapping trackpoints.
Close Gaps	Resets the FP variable of all trackpoints to 0, resulting in a single trackline with all points connected (no breaks).
Cut to segments at break lines	<p>This is a powerful function which allows for cutting extended tracks into separate ones. This is very useful if you want to compare several turns of a race or your jogging activities. In order to compare these turns with the XY diagram, QV will need each round as a separate track which must start and end at the same position. You can achieve this using the track processor and cut the original track at a start or an end line. First of all, you have to define a break line manually as a track in the map window. Below you find an example with many rounds where the intersecting trackline has been named</p>  <p>„Arrival2“:</p> <p>✗ Now you have to select the original track and the intersecting track line in the X-Plorer and start the Track Processor. Then choose the function Cut to segments at break lines from the Track Processor window. Now define the track which should act as break and click the Start button. Now the track named „5 Laps“ will be cut at the intersecting track line defined as „Finish2“. The result of the track processing will be separate tracks with the individual turns and the intersections before and after the first and last crossing of „Finish2“. If desired these remaining segments can automatically be deleted by tick-marking Delete segments beyond the break line.</p>

## Partially deleting of trackpoints

<p>Smooth Track automatically</p>	<p>This function is identical to the QV3 function Reduce Trackpoints.</p>  <p>You have for options for smoothing a track: Balancing, Length, Angle or point no. Smoothing If the distance between two neighbouring trackpoints is below the defined threshold, one will be deleted. Length, Angle These parameters are linked and will be analyzed simultaneously. If the distance between two points is below the defined Length threshold and the heading has changed less than the defined Angle threshold, one point will be deleted. In the example given above, on highways with view turns only trackpoints every 2 km will remain after processing while on small winding roads with many turns with a change in direction of more than 16° much more trackpoints will remain. Fine, medium, rough Selects one from three predefined profiles. However, you can also alter the settings and define the parameters according to your needs.</p>
<p>Delete Points</p>	<p>In this menu you can delete trackpoints according to a specific interval (every X-th point) or delete individual points from no. X to no. Y.</p>

## Recalculate tracks

<p>Length, duration, renumber</p>	<p>After editing of tracks, the total length and duration and also the numbering of the trackpoints can be recalculated using this function.</p>
<p>Altitude from DEMs</p>	<p>Normally the Altitude column will contain the measured altitude values from the GPS receiver. In cases where altitude information is not available you can calculate altitude values from the DEM (digital elevation model). This requires that you have installed a suitable DEM in your QV system. By default, also existing altitude values will be overwritten. However, by disabling the Overwrite existing altitude values switch you can also use this function to fill trackpoints where altitude is missing just due to a bad satellite coverage. In this case only altitude values equal to „0“ will be overwritten.</p>
<p>Edit Altitude</p>	<p>Using this function, you can edit all altitude values of a given tracks. Two options are available: Multiply - All values will be multiply with the defined coefficient Add (Scale shift) - a constant factor will be added or subtracted.</p>
<p>Course from coordinates</p>	<p>With tracks recorded through the GPS Online mode, the Course column will contain the heading values as measured by the GPS receiver. Tracks from other origin may contain „0“ in the Course column. Using this function the course will be calculated from the consecutive trackpoints and be stored in the Course column.</p>
<p>Speed</p>	<p>With tracks recorded through the GPS Online mode, the Speed column will contain the speed values as measured by the GPS receiver. Tracks from other origin may contain „0“ in the Speed column. Using this function speed will be calculated from the consecutive trackpoint distances and the time interval and be stored in the Speed column.</p>

Times from start and speed	<p>Using this option you can assign a new time scale to the trackpoints. For this purpose you can enter a starting date and time and the time for all consecutive trackpoints will be recalculated accordingly.  There are three options for recalculating the trackpoint times: Set new starting time: In this case the time scale will only be shifted according to the new starting point. Time differences between points will not be changed. Constant Speed: A constant speed is assumed and the trackpoint times will be recalculated from the starting point and the cumulative time needed to cover the distances from point to point with the defined speed. From distance and speed: Speeds between trackpoints are calculated from distance and time intervals and trackpoint times will be recalculated from the starting time and the cumulative time needed to cover the distances from point to point with the calculated speeds.</p>
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## Color-coded tracks

In QV you can color-code a track according to:

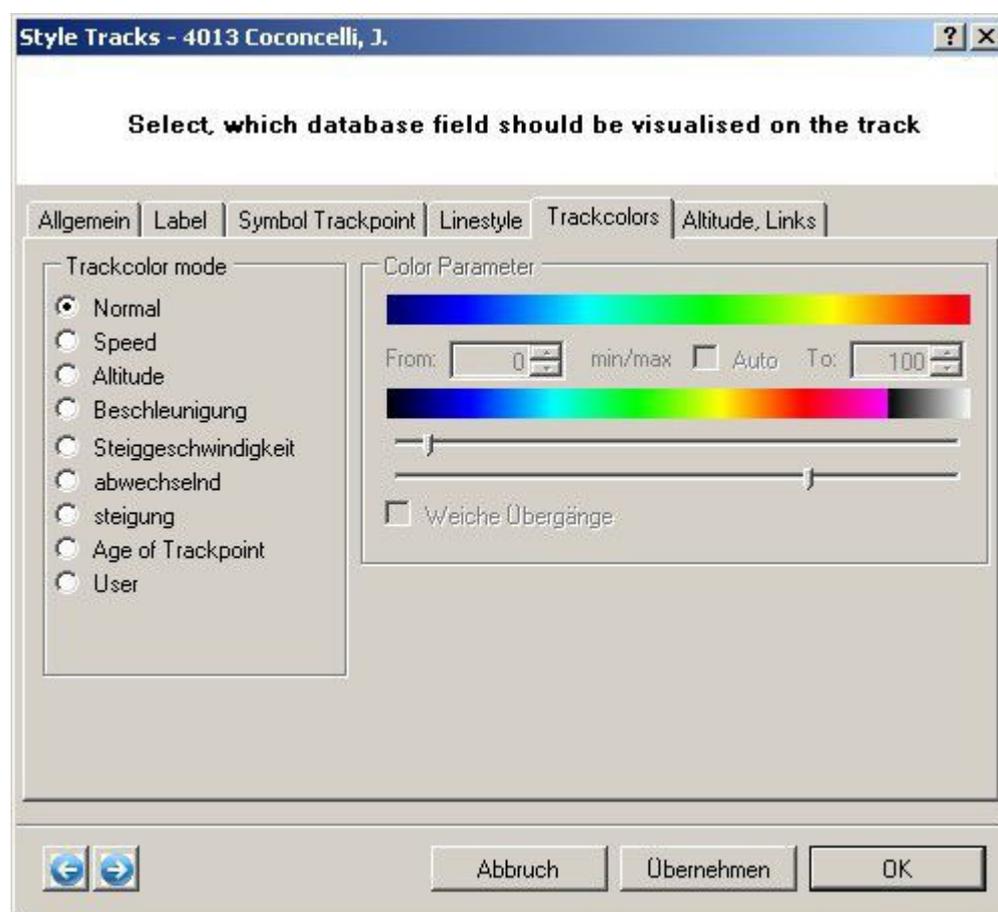
- Speed (horizontal or vertical)
- Acceleration
- Altitude
- Slope
- Age

Thus, color-coding is a highly valuable tool to analyse your trips.

To do so you can either plot the track(s) first and change the style options later on or you make your Trackcolor definitions first and then click the Show in map  icon.

You can access this function by marking the track(s) of interest in the QV X-Plorer and click the Style  icon.

Choose the Trackcolors tab and you will see the following window:



Several options are available in order to control the plotting style of the track:

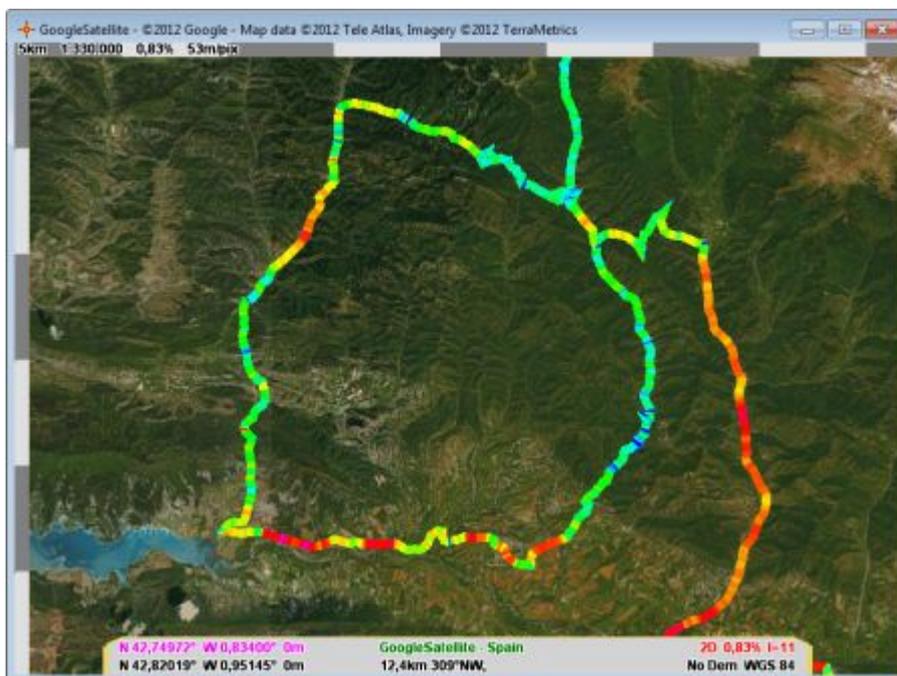
Normal	The track will be plotted as solid line with the selected Linestyle options.
--------	--

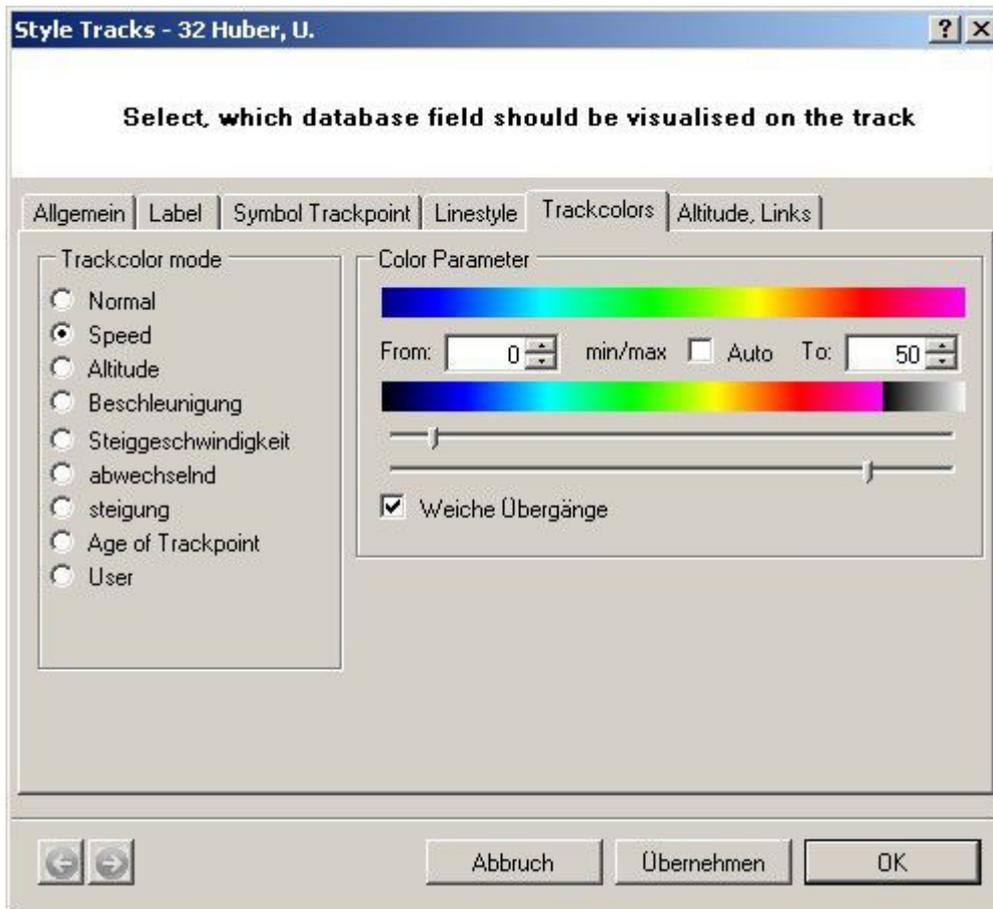
Speed Altitude Acceleration Vertical Speed Alternating Slope Age of Trackpoint User	The track line will be color-coded according to the magnitude of the selected parameter at the given trackpoint, i.e. speed or altitude, etc. When choosing Alternating, the track will be plotted as dashed line with the selected and background color alternating. Color selection is done in the Linestyle tab. When selecting the Slope option, the track will be color-coded according to the steepness of the track. Ascending and descending segments are shown in different colors. This option requires a DEM with an adequate resolution. When selecting Age of Trackpoint, a time interval can be specified and the track will be color-coded according to the age of the trackpoint. Please note that this option is only meaningful during online mode and multitracking applications. The setting User is for user-defined color-coding definitions, a function which is still to be completed.
--	--

Through the color bars on the righthand side of the window and the two sliders you can define the color range to be used and the colors which correspond to the minimum and maximum values. The minimum value has to be entered in the From field and the maximum value in the To field, respectively. By enabling the min/max Auto function, QV will automatically set the values for minimum and maximum according to the values in the corresponding X-Plorer column. The corresponding color spectrum is predefined and reaches from black over blue - cyan - green - yellow - orange - red to pink where black codes the minimum and pink the maximum value. When activating the Smooth gradient function, the colors will fade with a gliding spectrum instead of using discrete colors.

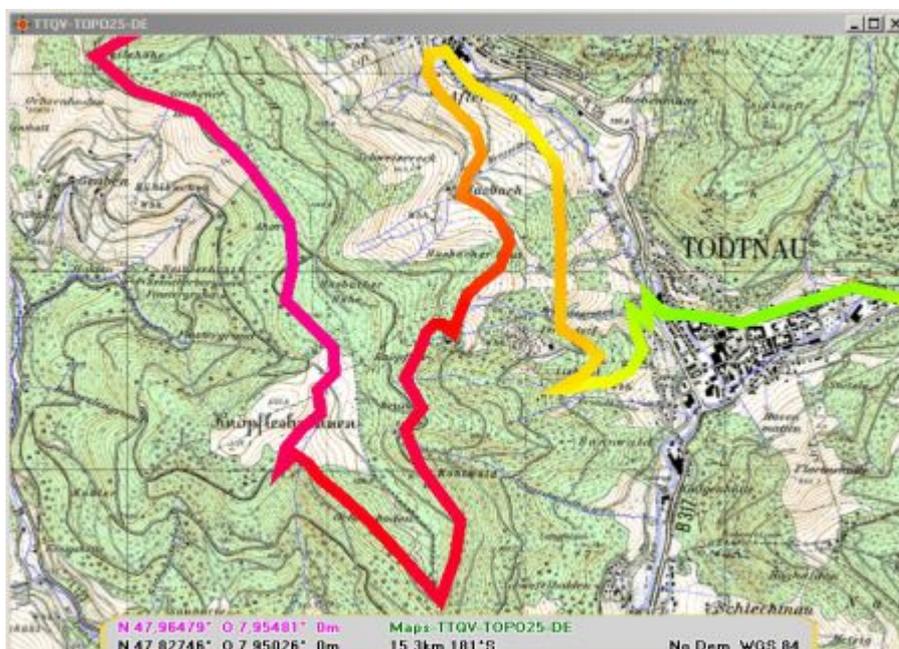
Following you find some examples using the same track in a 2D map window (the function is also possible using a 3D window).

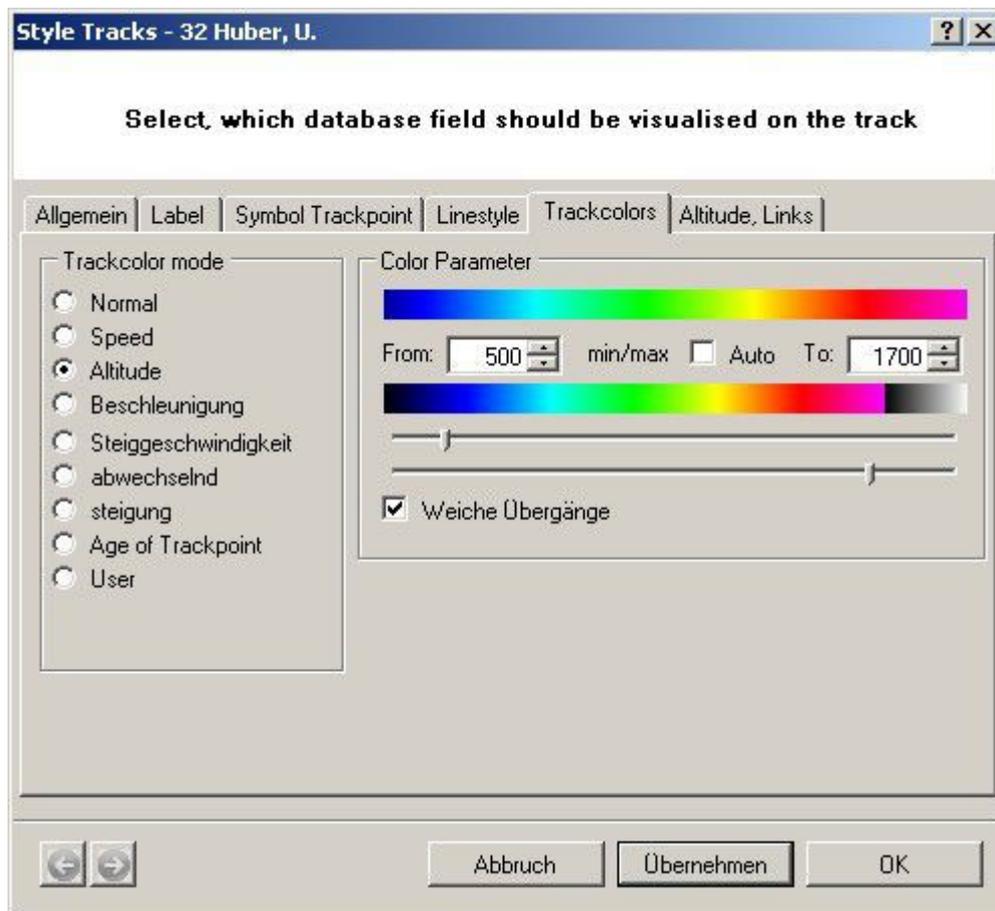
Color-coding according to speed including color bar definition:





Color-coding according to altitude including color bar definition:





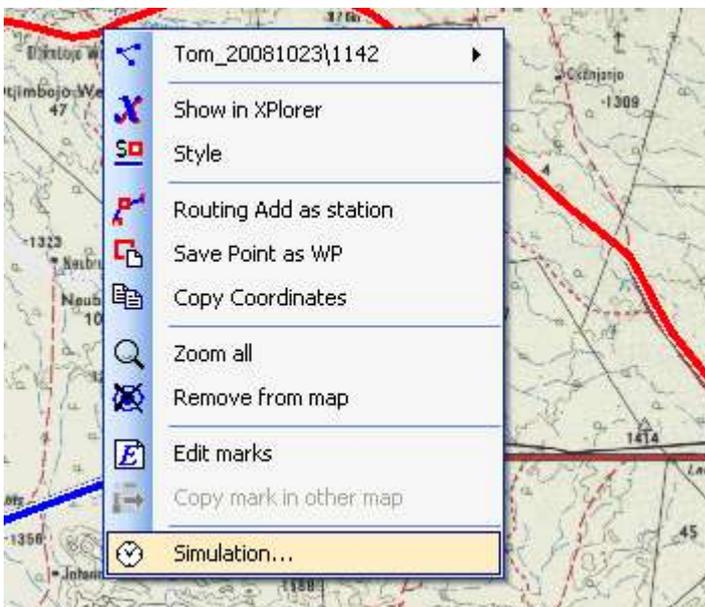
# Simulation

This function replaces and expands the track and multitrack replay function known from previously released QV4.

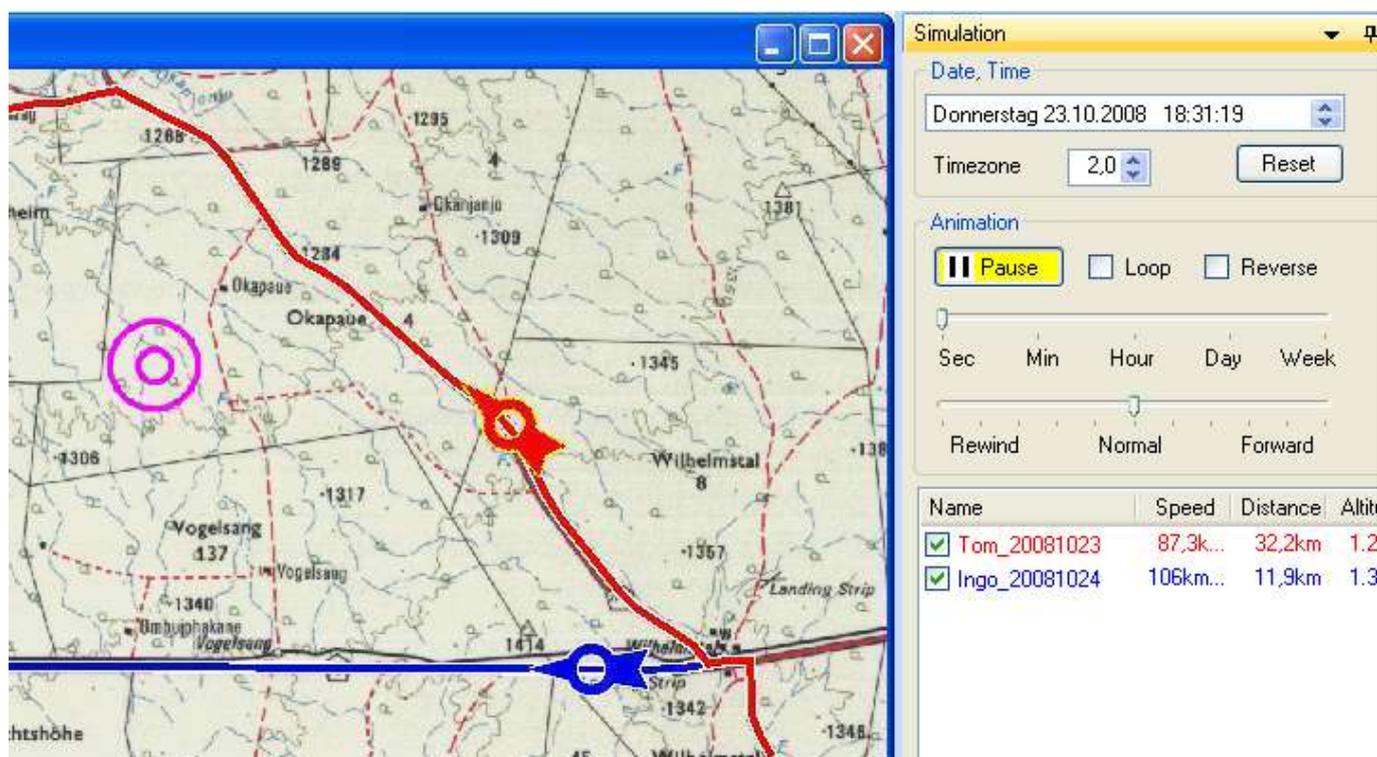
The simulation is time-based, i.e. you may choose a point of view and QV will display the tracks like they were at that point of view. Literally speaking it is like a time-machine. Moreover you can run the animation at a freely definable pace, which will make the cursor flow along the track.

Sounds abstract, but may easily be explained using this example:

- Display one or more tracks on a map.
- Ensure all tracking points contain time-related information.
- Right-click on the name of the track or a track point on the map and choose **Simulation...** from the context menu.



## Simulation-Window



In the first input field **Date, Time** you will see the time of the track point, which you have chosen. The map will also display an arrow in the color of the track.

You may now „play“ with time and enter a different time in **Date, Time**, e.g. one minute later. Immediately, the arrow will be in position corresponding to this new time.

You have done this before: Pick an arbitrary time in simulation mode and the arrow in the map will position itself and adjust accordingly.

Feel free to pick any other track point and use **Simulation...** to go to any other point in time.

Use the **Reset** function to stop a simulation and return to the current time.

## Animation

If you pick **Run**, the simulation starts with whatever pace you have chosen and the arrow constantly adjusts based on the current position. Choose **Pause** to temporarily stop the animation.

If **Loop** is enabled, the presentation will start from the beginning again once it is completed.

Use the slider to adjust the pace of the animation. The very left position of the slider (**Sec**) will display the animation in realtime, i.e. one second in the simulation corresponds to one second in reality. Moving the slider to the right will increase the speed of the animation. Moving the slider to **Min** for example means that one second of the animation is equal to one minute in reality and so on.

The second slider will allow you to forward and rewind at any time, in case you want to display an interesting part of the animation again. Left-click the slider and adjust accordingly. Unselecting the slider control will reset the pace of the animation and return to normal pace.

In the bottom part you will see a small table. This table contains a list of all tracks, that are currently

---

in the time interval. If the checkbox is ticked, the arrow will be centered in the map and the time of the simulation will be restricted to the duration of the track. Double-clicking the entry will set the time back to the start of the track.

Note: If time moves beyond the end of a track, this track is removed from the list. To prevent this from happening, enabled the checkbox in the table.

## **Astronomy**

If the astronomy module is enabled, the position of the stars will be rendered at the specific point in time. This does allow you to see the stars at a particular location and time.

# Google Earth® interface

**Important Remark: This is a preliminary chapter with sections taken from the QV4 manual. Please note that some of described functions are presently not available in QuoVadis 6 !**

With QV you can transfer GPS data and map windows to Google Earth®.

First of all, Google Earth® must be installed. It can be obtained free of charge at <http://earth.google.com/>.

There are several ways for working with Google Earth® in QV.

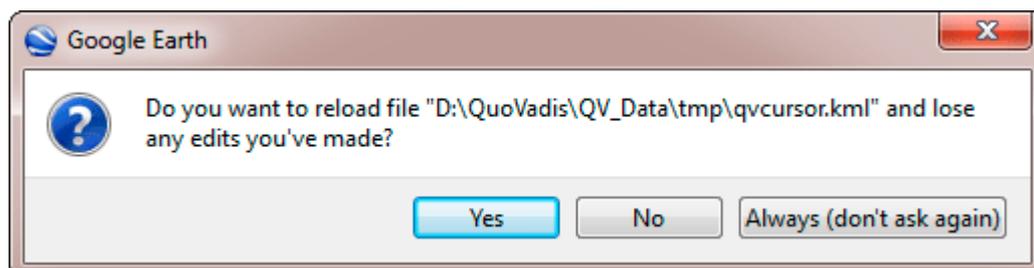
## 1. Using the Google Earth Toolbar

You will find four commands in the Google Earth® toolbox which you can also access in the QV main menu bar under Options - Google Earth:



Centre map cursor		Rotates the Google Earth® globe in order to center the QV map cursor and zoom to the position.
Show map window		Projects the current QV map window accurately into the Google Earth® globe
Show marks		Projects all QV marks like waypoints, tracks, routes, geocaches or drawings which are currently displayed in the opened map into Google Earth®.
Zoom GE-view in QV		Zooms the map in QV to the currently visible map extent shown in Google Earth®.

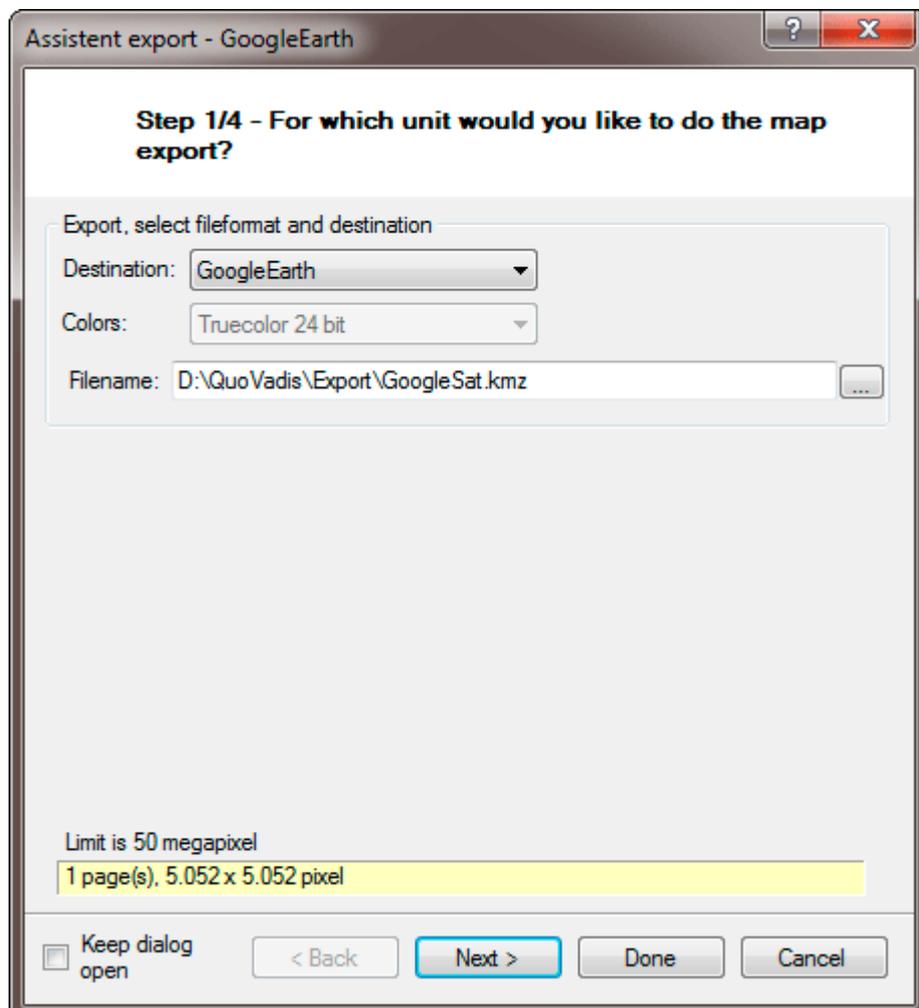
Remark: QV writes the data to a qv\*.kml file that is subsequently opened by Google Earth®. As this file is always named the same, Google Earth® will respond for the second time with the following query:



Just select Always (don't ask again) and then Google Earth® will just proceed automatically from now on.

## 2. Through the Map Export Assistant

In this case you choose the standard utilities of the map export assistant (see chapter Exporting maps). However you will have to choose Google Earth® as destination:



All other export steps are identical with the instruction given under Exporting maps. So please refer to the chapter cited.

If you want to publish exported maps in the Internet, please make sure that you respect the map manufacturer's copyrights. To do this, You require a written permit from the map copyright holder!

## 3. Exporting marks and geodata

You can export all routes, tracks and waypoints from QV to Google Earth® . This is done in the QV X-Plorer with the normal export functions.

This is done through a standard Data Export see chapter Export of data. However you must select KML as export format.

Using this option, all style options will be retained.



# Maps from Google Earth

In QuoVadis 6, an import of maps from *Google Earth*® is no longer possible.

Please use the corresponding online maps *Google Maps*® and *Google Satellite*® instead.

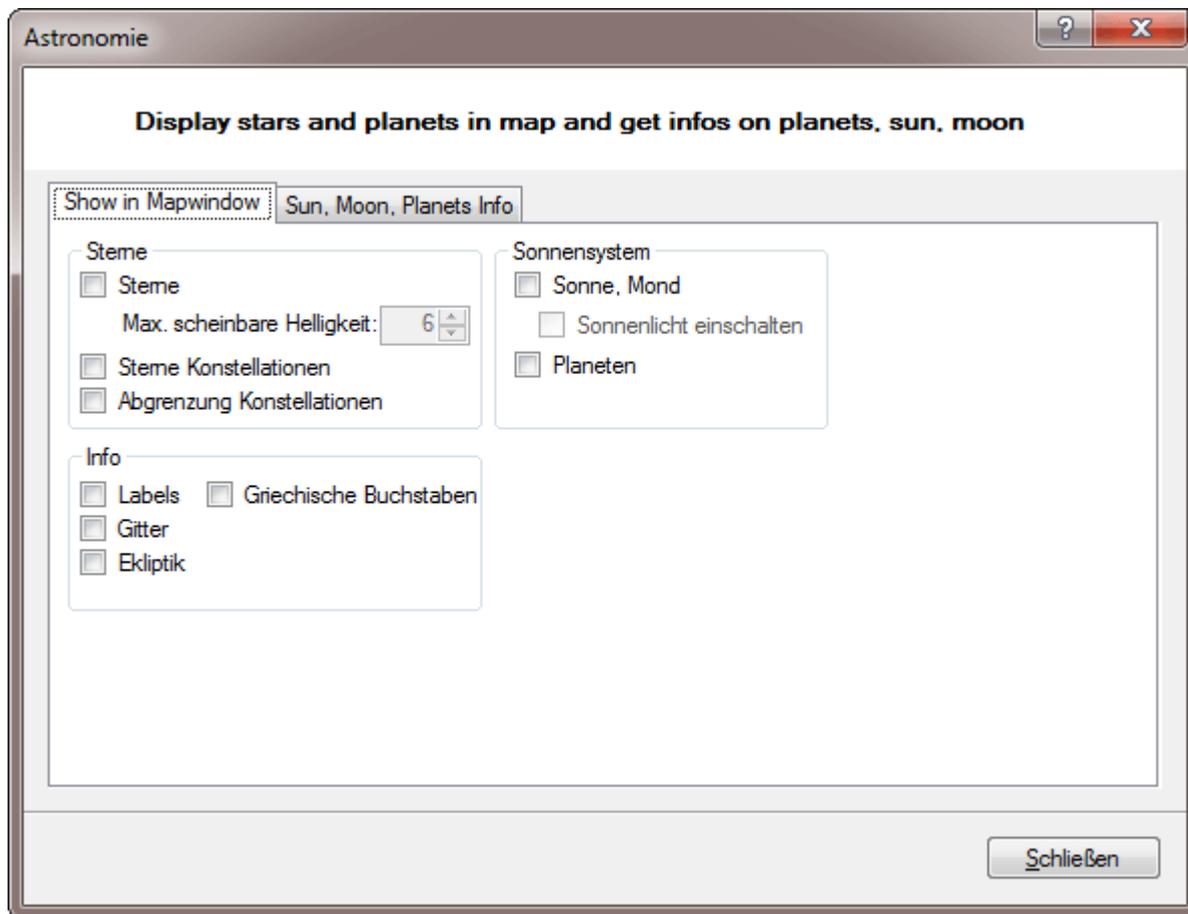
The online implementation of these maps offers a much more comfortable work flow and a very similar map design.

Another advantage is that an installation of additional programs like *Google Earth*® is no longer necessary.

Using the *Fill cache* option, you will be able to use limited map extents also offline.

For further details see chapter [Online maps](#).

# Astronomy



## Show in Mapwindow:

Under „Solar System“ in the sun, moon set a hook, you can see in the map window, depending on what time of day the stars were at the current position in the sky. The same is true with the planets. For example, the whole map is open as a Google Map in 3D, the effect of „stars“ have set a hook that can be seen in this „universe“. Just as it is current with the constellations.

In the „Info“, by which the individual items click on a grid, or even the lettering of the stars appear.

These are of course only a few examples of the possibilities. It is best, even a little bit with the settings „to play“!

Astronomie ? X

**Display stars and planets in map and get infos on planets, sun, moon**

Show in Mapwindow Sun, Moon, Planets Info

Name	Rect	Decl	Altitude	Azimut	Rise	Set	Info
Sonne	18h 29m	-23° 15,6'	-63,7°	340,7°	28.12.2011 09:22:55	28.12.2011 17:42:01	
Mond	21h 59m	-6° 51,9'	-24,5°	287,5°	28.12.2011 11:21:28	28.12.2011 22:23:14	age=3
Merkur	16h 59m	-21° 21,3'	-60,7°	26,3°	29.12.2011 07:44:01	29.12.2011 16:20:49	
Venus	20h 52m	-19° 29,8'	-43,9°	292,9°	28.12.2011 11:26:08	28.12.2011 20:23:47	
Mars	11h 25m	6° 50,9'	9,8°	90,6°	28.12.2011 23:53:26	29.12.2011 13:01:14	
Satum	13h 47m	-8° 32,6'	-25,2°	73,4°	29.12.2011 03:25:58	29.12.2011 14:12:51	
Jupiter	1h 54m	10° 26,3'	27,8°	253,3°	28.12.2011 14:07:40	29.12.2011 03:48:59	
Uranus	0h 04m	0° 21,0'	1,9°	267,7°	28.12.2011 13:06:57	29.12.2011 01:08:39	
Neptun	22h 04m	-12° 24,0'	-27,1°	282,4°	28.12.2011 12:03:34	28.12.2011 22:13:41	
Pluto	18h 30m	-19° 19,5'	-59,8°	342,2°	28.12.2011 09:05:34	28.12.2011 18:04:39	

Cam.position: N 48,57979° O 7,23731°  
Local time : 29.12.2011 00:55:49

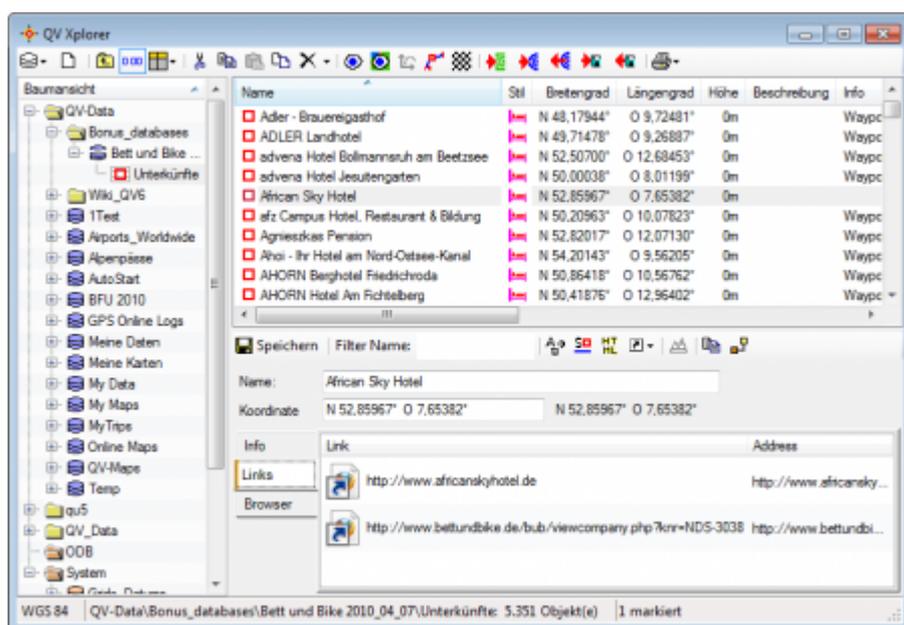
Refresh Stars list in XPloer

Schließen

# Links

## Management in the X-Plorer

In QuoVadis 6 you can assign additional information to every waypoint, track, trackpoint, route, geocache and map. Such information can be weblinks, bitmaps or any other document or file. QV will store such links in the database, organizes them comfortably and can also print them in maps.



Such links are stored and handled in the X-Plorer details window under the tab **Links**. There, all assigned links are listed and illustrated with a symbol or thumbnail in case of photos, the name and storage location.

You can add additional links by a simple drag-and-drop operation from other applications such as the WINDOWS Explorer or a webbrowser. Just tear the element from there to the X-Plorer window and drop it under *Links*.

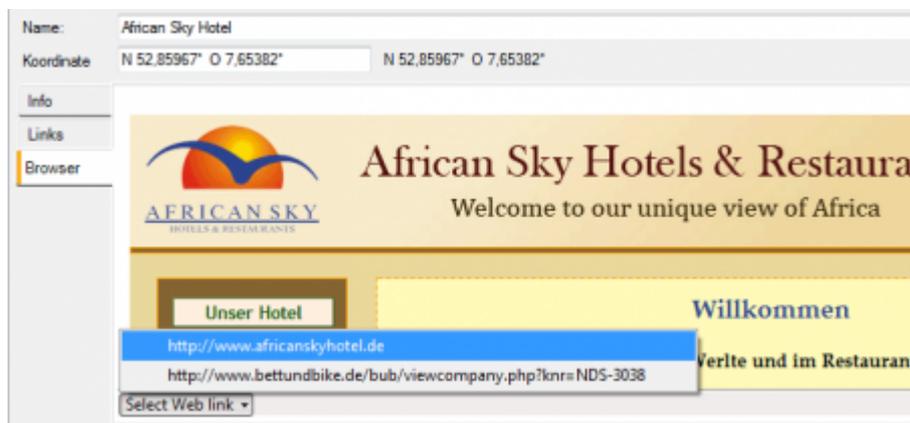
Additional information can be found in the drop-down menu **Links** :

Add file...	Select a file from the harddisk and add it as a link.
Add URL...	Select a webaddress and add it as a link.
Delete... or Del button	Delete the link which is marked in the link table.
<b>Coordinates in exif information...</b>	Geo-Tagging, writes coordinates and latitude of chosen elements in all pictures linked to those elements. Uses the external tool <a href="#">ExifTool by Phil Harvey</a> to include EXIF information in the header of JPG images.
<b>Thumbnails of pictures</b>	Enable or disable thumbnail previews of pictures.
<b>Bitmaps intern anzeigen</b>	Enable or disable the QV-internal image previewer. If disabled, the computer's default program for displaying pictures will be run.

### Nur Einträge mit Links zeigen

If enabled, only linked elements will be displayed. Allows you to quickly remove all unlinked elements.

You can open a link by a simple double-click on the list entry. Thereafter, the link will open the default application for this file. When switching to the **URL** tab, weblinks can also be displayed directly in the details window:



Just select the address of your choice from the small menu at the bottom of this window.

In order to assign multiple photos to a track, a special function is available. For more details see [Photos along Tracks](#).

## Map display

In a map, links will be displayed as a symbol or, in cases of photos and bitmaps, as a miniaturized thumbnail closeby the point to which it is assigned:

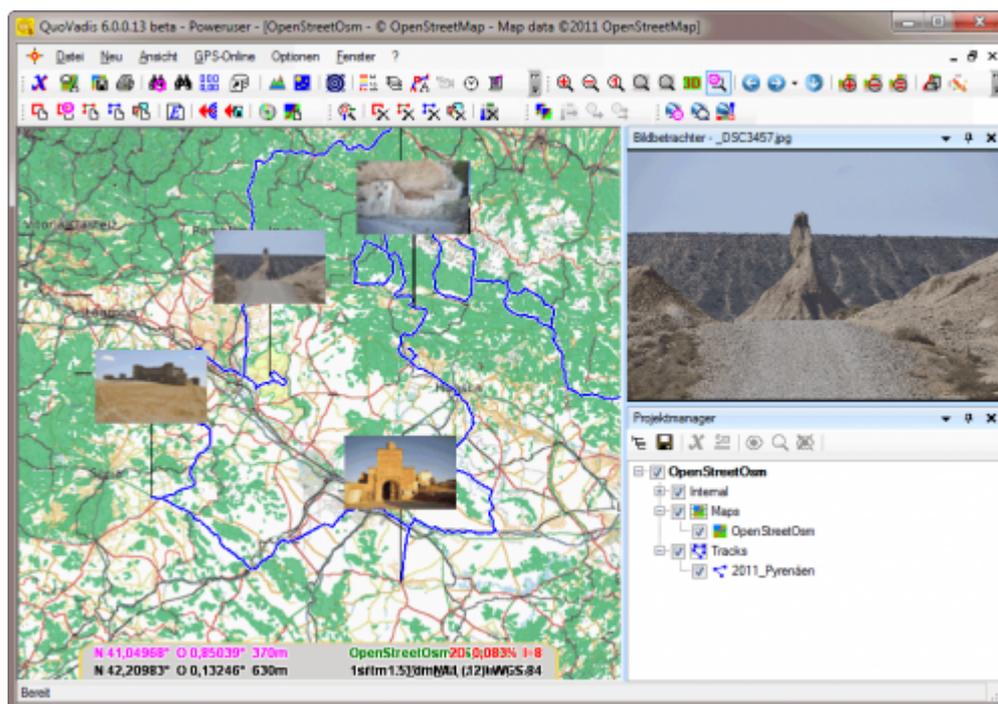


You can position the symbol however you like with the Maus (drag-and-drop). However, this requires that you switch to the **Edit**  mode.

If you double-click on the symbol in the map, the link will open.

Please also note that you can modify the size and style of linked symbols through style options. For more details, please refer to [Marks](#).

## Picture viewer



The QV-internal picture viewer normally attaches itself right to the main window. The following functions are available:

Moving the mouse while clicking the left mouse button or using the arrow keys	Moving the currently display window
Scrolling the mouse wheel or using the +/- keys	Zoom in or zoom out
Double click	Opens the standard and previewed application for displaying this picture
Button 1	Zoom: 100%
Button 2 or +	Zoom in
Button 3 or -	Zoom out
Button 4	Display entire picture

## Differences to QV4

If you are importing databases from QV4, the links previously contained in the info field will be automatically converted to the new links structure of QV6 and will no longer be stored in the info field.

This means that the links contained in the info field of QV6 can be removed.

Moreover the thumbnails generated by QV4 and stored in the folder qv\_thumbs are now obsolete. As QV6 generates thumbnails dynamically if needed, the thumbnails may be deleted.

In the list view, QV4 marked entries green that contained further information in the info field. This functionality has been removed from QV6. Thus in order to determine which entries have links attached to them, you may display and sort by the column **Links** to identify those entries having links attached to them.

**Hint:** Following a hard disk replacement or other sort of database disruption, you can go to Options - General - Folders to define the folders in which QV should look for image files in case they cannot be found in the folder defined.

# Photos along tracks

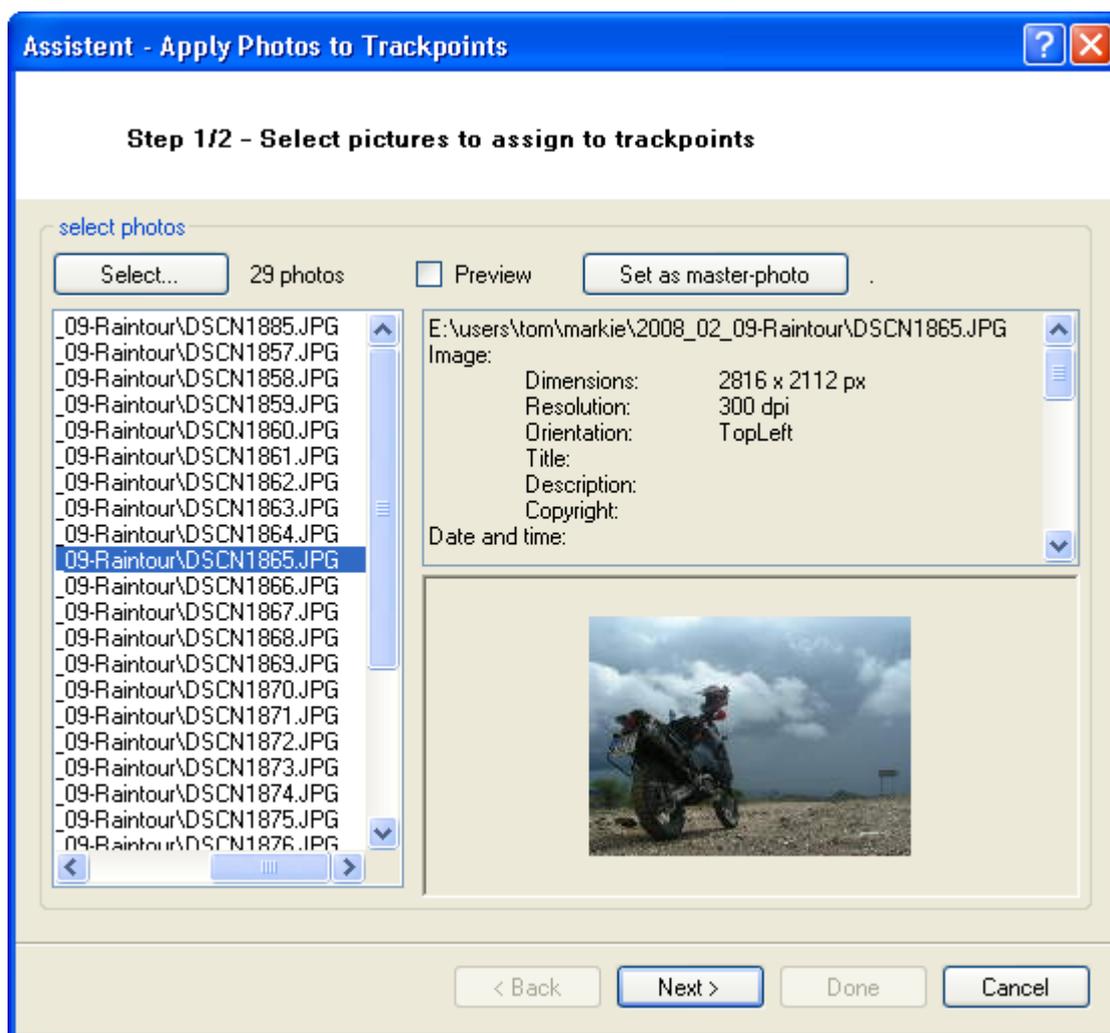
With this function, you can realize an automatic assignment of multiple photos along a track. The photos will be linked with the corresponding trackpoint.

Some requirements must be given:

- The photos must be in the JPG format and the so-called Exif Header must be available in the file. In this header all digital cameras store metadata to the photo like date/time and exposure, etc.
- Your GPS track must include plausible date/time information. For example, some older Garmin models store such information only in the *Active-Log* but not in the *Saved-Logs*.
- You must be able to specify an offset between GPS time and the time of your digital camera.

This is how you proceed:

- Select the track in the X-Plorer window
- Click the camera icon in the details window to start the assistant:



On the first page of the assistant click the **Select** button and mark all photos which should be assigned. If you click on any entry in the list, you will see a preview of the photo to the right and you

will see details on the Exif header entries in the field above. Thus, you can quickly check the photos and mark whatever those which seem adequate. Using the **del** button, you can also unmark a photo which you have already selected.

In case you can tell for a particular photo exactly the date and time, mark this one and click the button **Set as master-photo**. See the next step of the assistant for more details:

On this page you have to specify the time difference between the camera and the GPS time. If you have assigned a master photo, please enter the GPS date and time when this photo has been taken in the corresponding field.

*Tip: Make a photo of the display of your GPS unit with the status information which also includes the GPS time. Thus, you have the perfect master photo.*

Please also add a maximum temporal offset. All photos where the time difference to the next trackpoint is larger than this value will not be displayed. This makes sense to avoid that photos are linked which have not been taken while you GPS tracklog was active and which might have been taken at another place.

**Assistent - Apply Photos to Trackpoints**

**Step 2/2 - Select additional options like time-difference**

**Set times**

To assign photos to trackpoints we need the exact time-difference between GPS-Time and Cameratime. For that you have two options:

Enter exact GPS-Time, when the master-photo was taken: 09.02.2008 16:37:16

Enter time-difference between GPS- and camreatime in seconds:  
 positiv: camera ahead of gps  
 negativ: camera past gps

Maximum timediff in seconds: 3.600

Remove all existing links

0 from 29 pictures automatically assigned.  
 29 picture(s) could not be assigned because of too large time difference:  
 Select 'Finish' to save the track into the database.

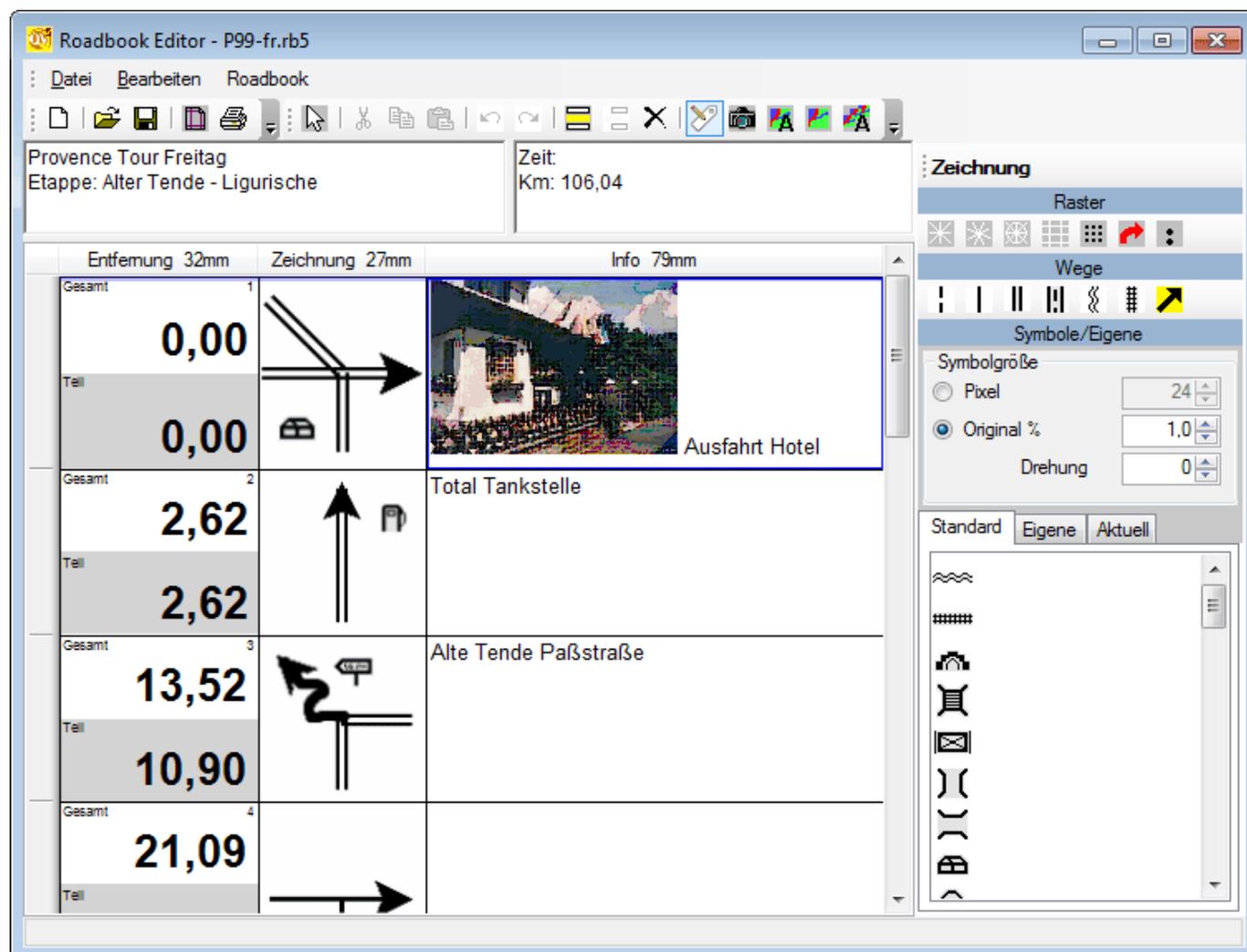
< Back   Next >   Done   Cancel

Then, please click **Start** to start the procedure. The software switch **Remove all existing links** will define whether existing links along the track should be deleted or not. If the switch is enabled, links which existed before will be deleted. If disabled, the new photos will be added as links. This is especially useful if you work with several cameras and/or want to assign your photos in various sessions.

At the end of the process you will see a status message which specifies how many photos have been linked. Up to this stage, the design of the original track has not been modified. So, at this stage you can still cancel the function without consequences. After clicking **Done**, the links will be added and stored in the database.

# Roadbook Editor

The roadbook editor is similar in its function to the previous version of QV2/3/4, but it has been modernised and expanded very much in its creative possibilities:



- Free choice of text style, size and colour in the information field
- Adding of pictures and textes mixed in the information field
- Easy selection of own symbols for drawing
- Editing the drawings to complement them with many other contents, which are not able to be modified with the fixed tools
- Easy creating of new roadbooks with kilometrage of existing GPS-tracks
- Compact fileformat for an easy transfer of roadbooks completely with all symbols and pictures
- and much more

The well known functions of the previous version has been, of course, taken over:

- Millimetre precision
- WYSIWYG-creation
- Automatically creating of roadbooks based on GPS-routes

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The roadbook editor is completely integrated in QV6 and can not be purchased separately as an own program any more.

## Creating new roadbook

Please select **roadbook editor** from the menu options or  , to start the editor with an empty roadbook.

## Creating roadbook from a route

Please select the preferred route in the QV-Xplorer and then **Copy in roadbook** from the popup menu. For every route-WP a new line will be build, the complete kilometers or parts of the kilometers will be adapted from the route, the symbols of the route-WPs are registered in the drawing and eventually existing text will be entered in the information field.

So it is easy, for example to print a calculated road route fast, appealing and clearly to take away.

## Creating roadbook from track

Please select a preferred track in the QV-Xplorer and then **Copy in roadbook** from the popup menu. In comparison to routes for tracks it will be created a picture only to those track points, which have a text in the information field. In every case the kilometerage will be identified with the distances between the track points. With track records in short intervalls you will get usually the exact distance.

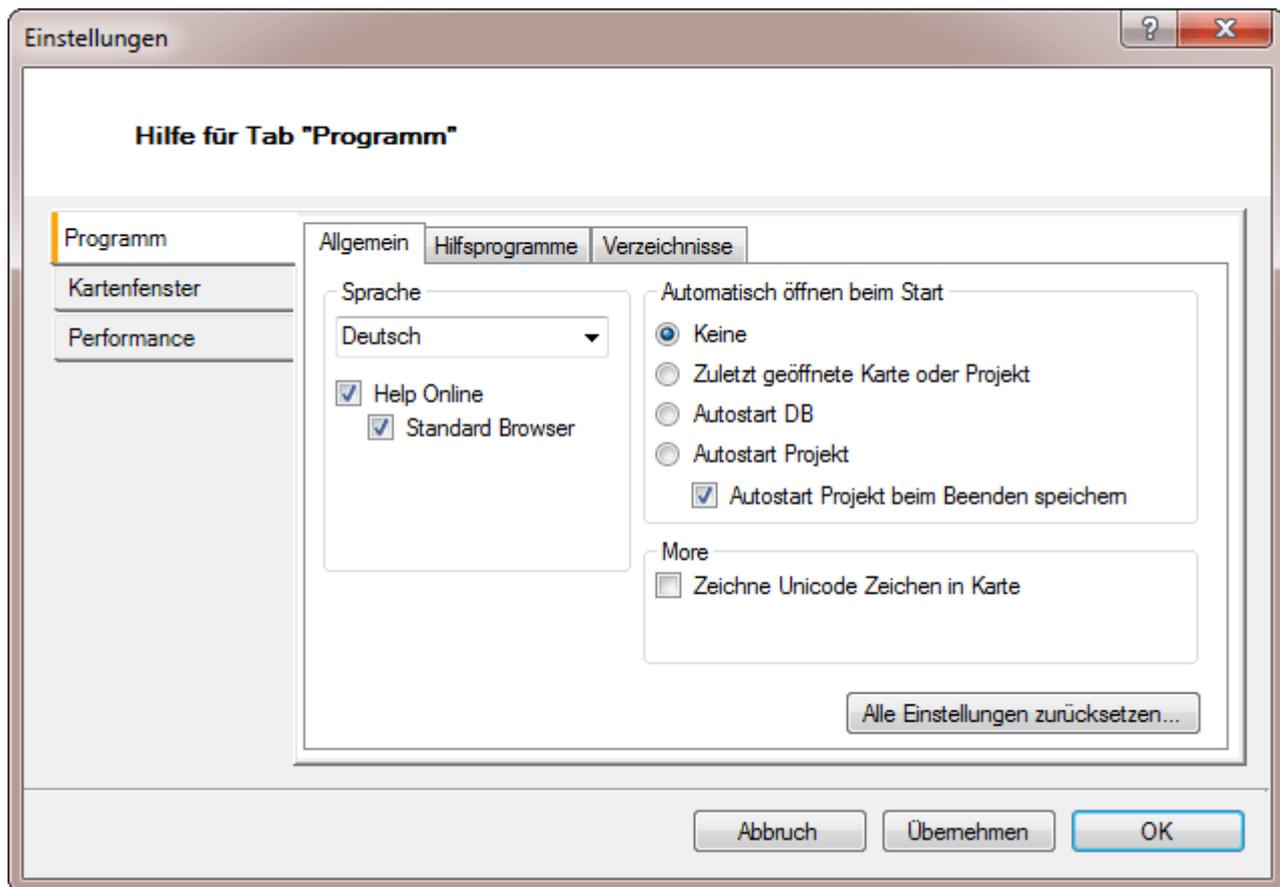
To create a roadbook from a track, follow the steps below:

- Edit the track with the edit-function, until it shows exactly the preferred route from the start to the end.
- Follow the track onto a clearly map from the start to the end. At every important point, where you would like to have an instruction in the roadbook, write down the text, for example „Turn right to the small path, which goes up to the top of the hill“, into the information field of the **track point**.
- Update the statistic, to calculate a new kilometerage
- Select **Copy in roadbook** from the popup menu in the Xplorer, to create the roadbook
- Now you can make a fine tuning, for example entering some drawings or pictures
- Saving, printing, finish

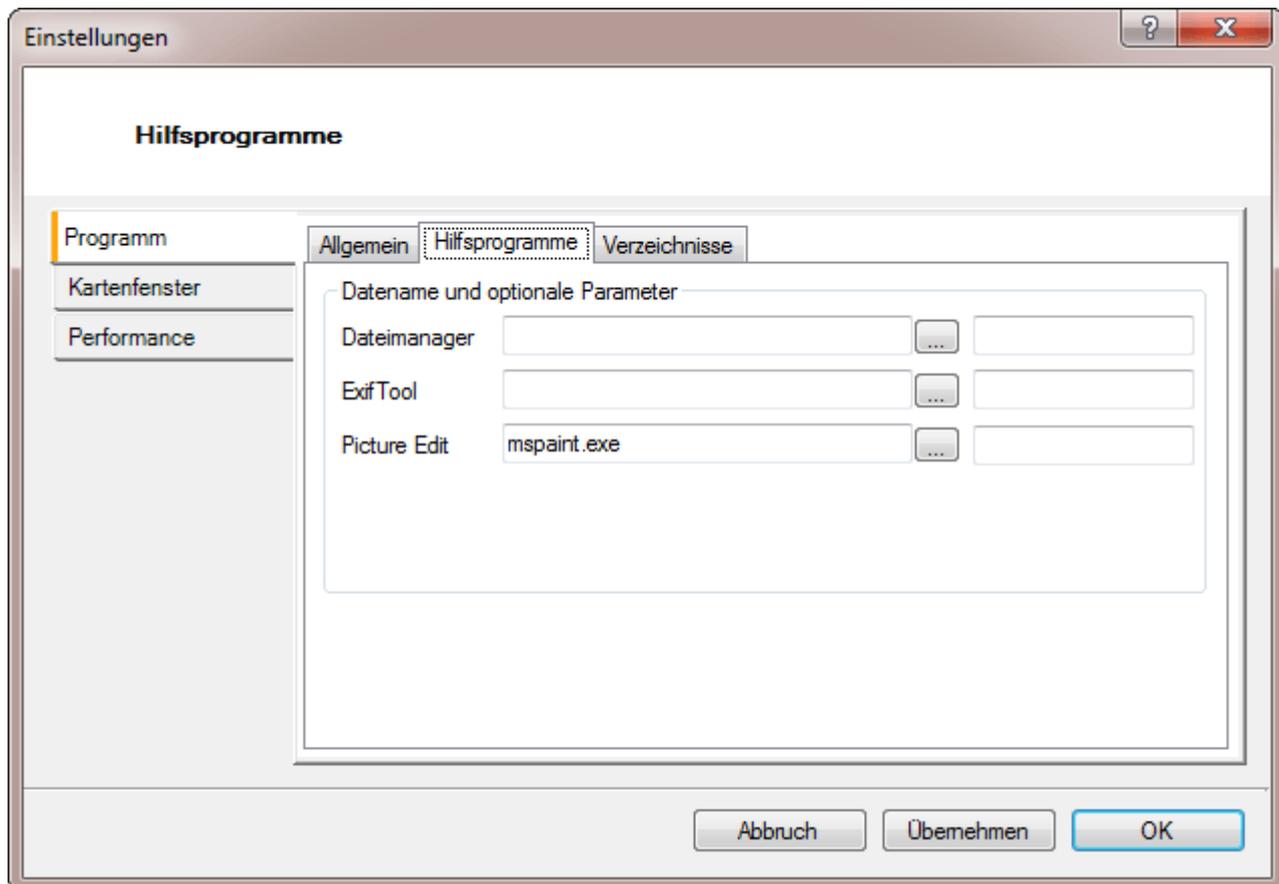
# Settings

settings for several functions of the program

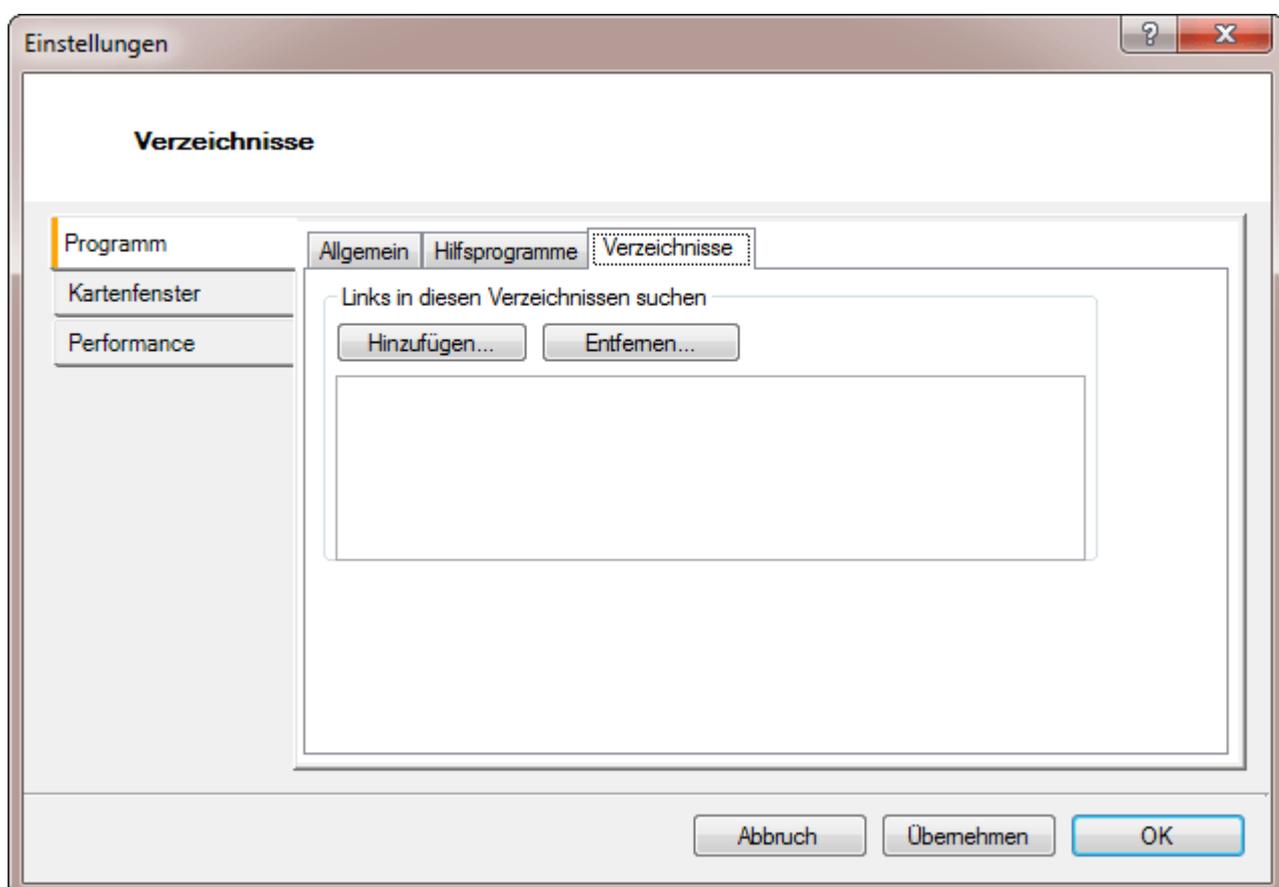
## Program



**General settings:** The button „Reset All Settings“ QV is back to its original state.

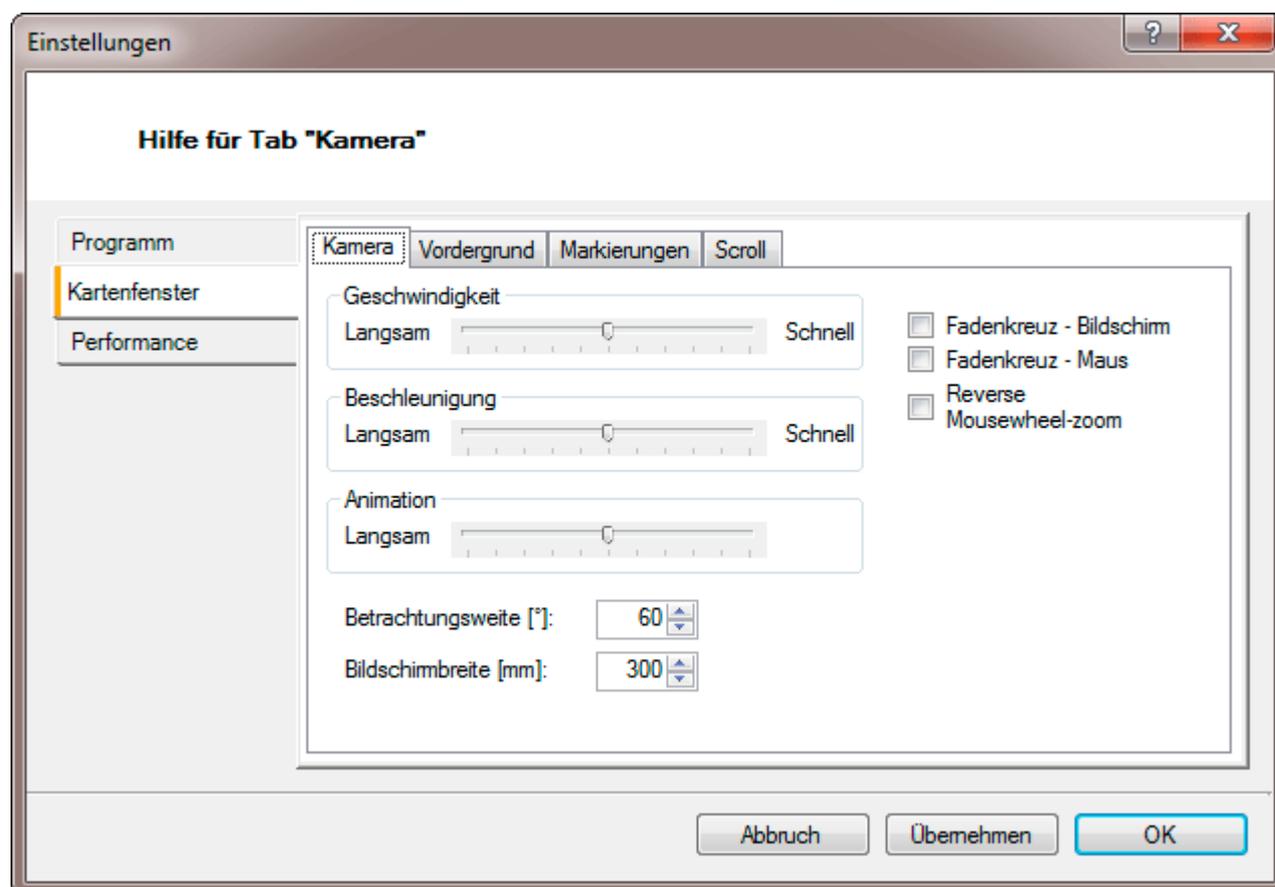


**Assistance program settings:** You can also set your own paths. For example, for the „Exif Tool“ which is in the program directory of QuoVadis. (LW:\WINDOWS\QuoVadis\exiftool.exe) A command can be in the second window, if you want, „overwrite\_original“ is entered.

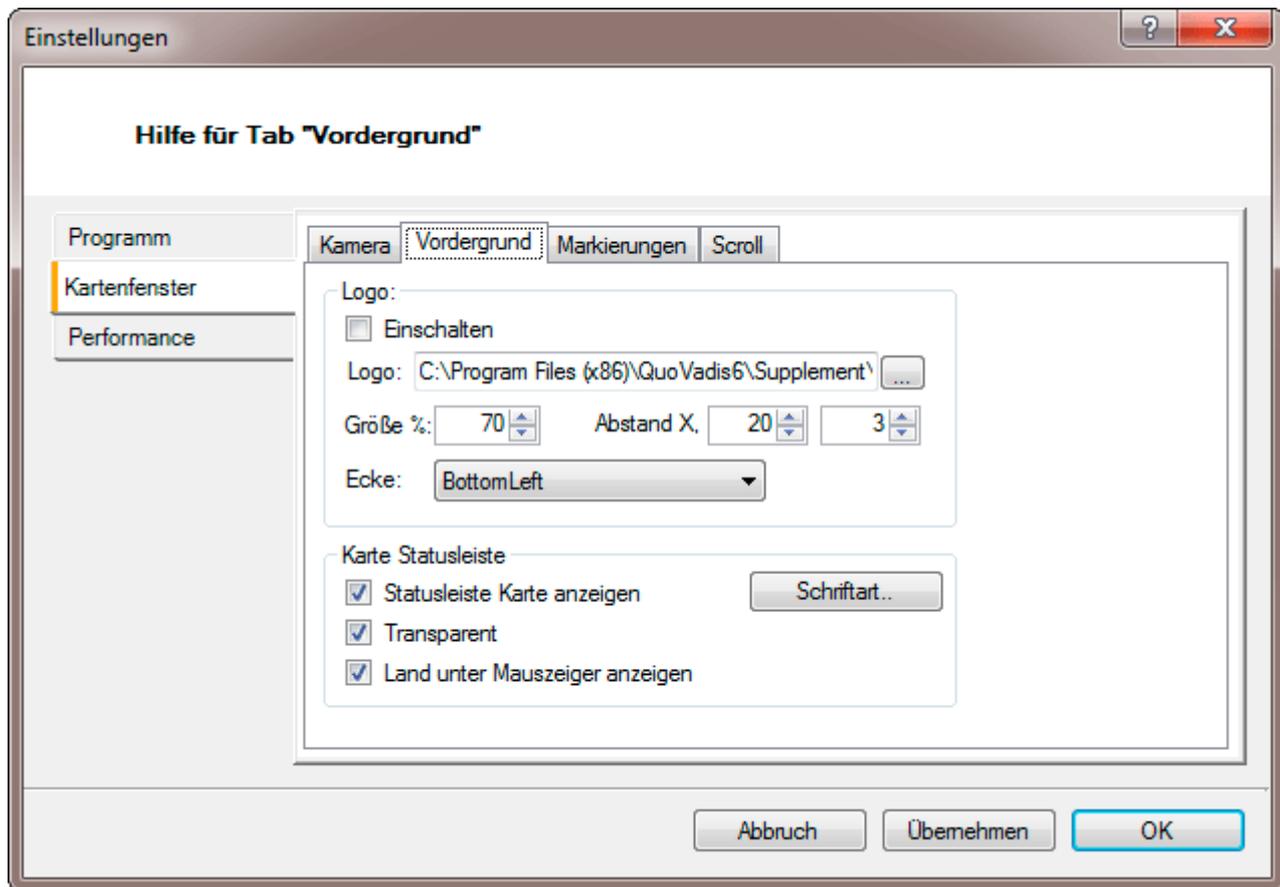


**Settings directories:** Here is the directory set in the QV should look first to linked images, for example. (LW:\Shared Documents\QV6\_Data\IMG) But it can also be entered if the path to the Waypointsymbols own. (LW:\WINDOWS\QuoVadis6\Supplement\symbols\ or LW:\WINDOWS\QuoVadis6\Supplement\symbols\CompeGPS\CompeGPS symbols for example)

## Map window

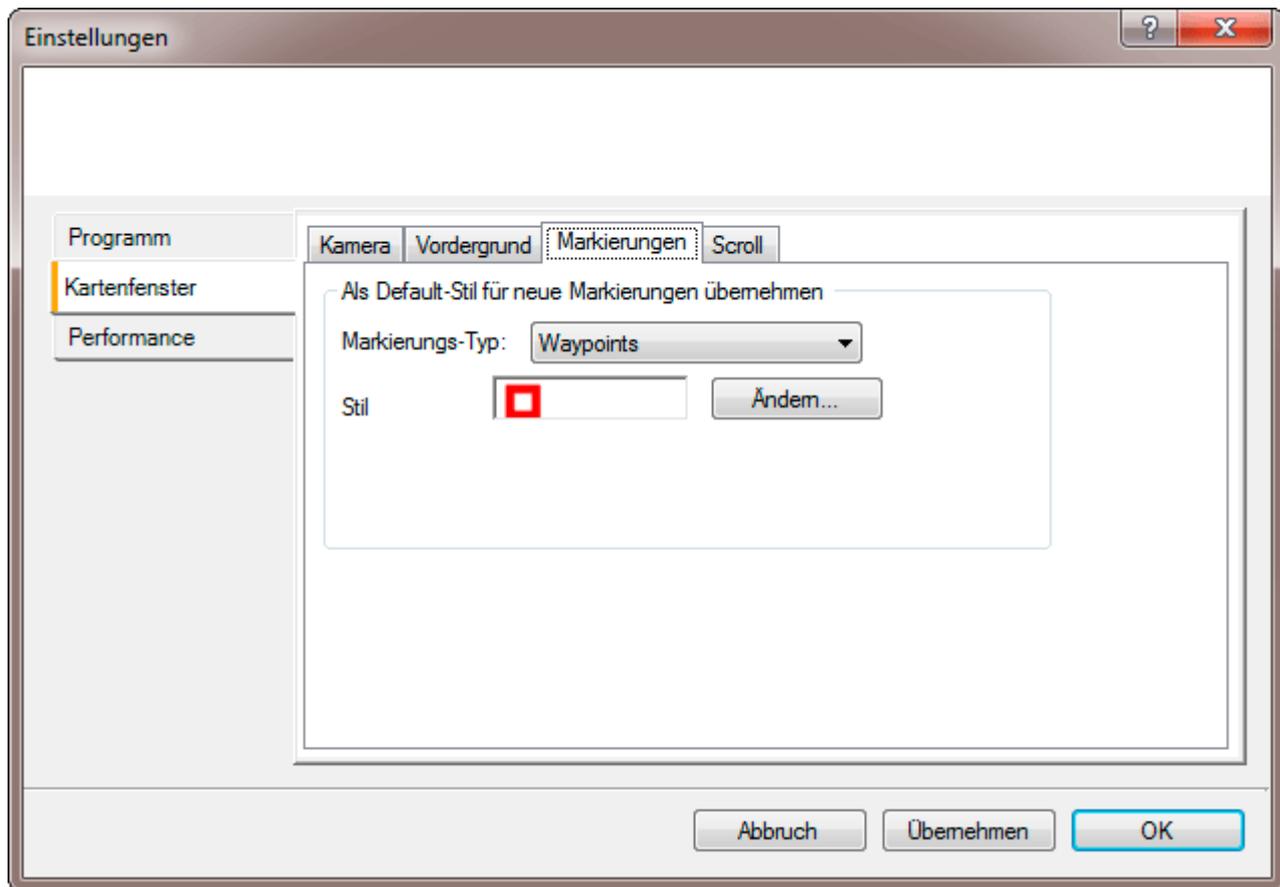


**Camera Settings:** Crosshair - Screen: Hides the crosshair in the middle of the map. Crosshair - Mouse: Shows the Crosshair with Mousecursor on Sreen. Mouswheel reverse-zoom: Turn the zoom using the mouse wheel to.



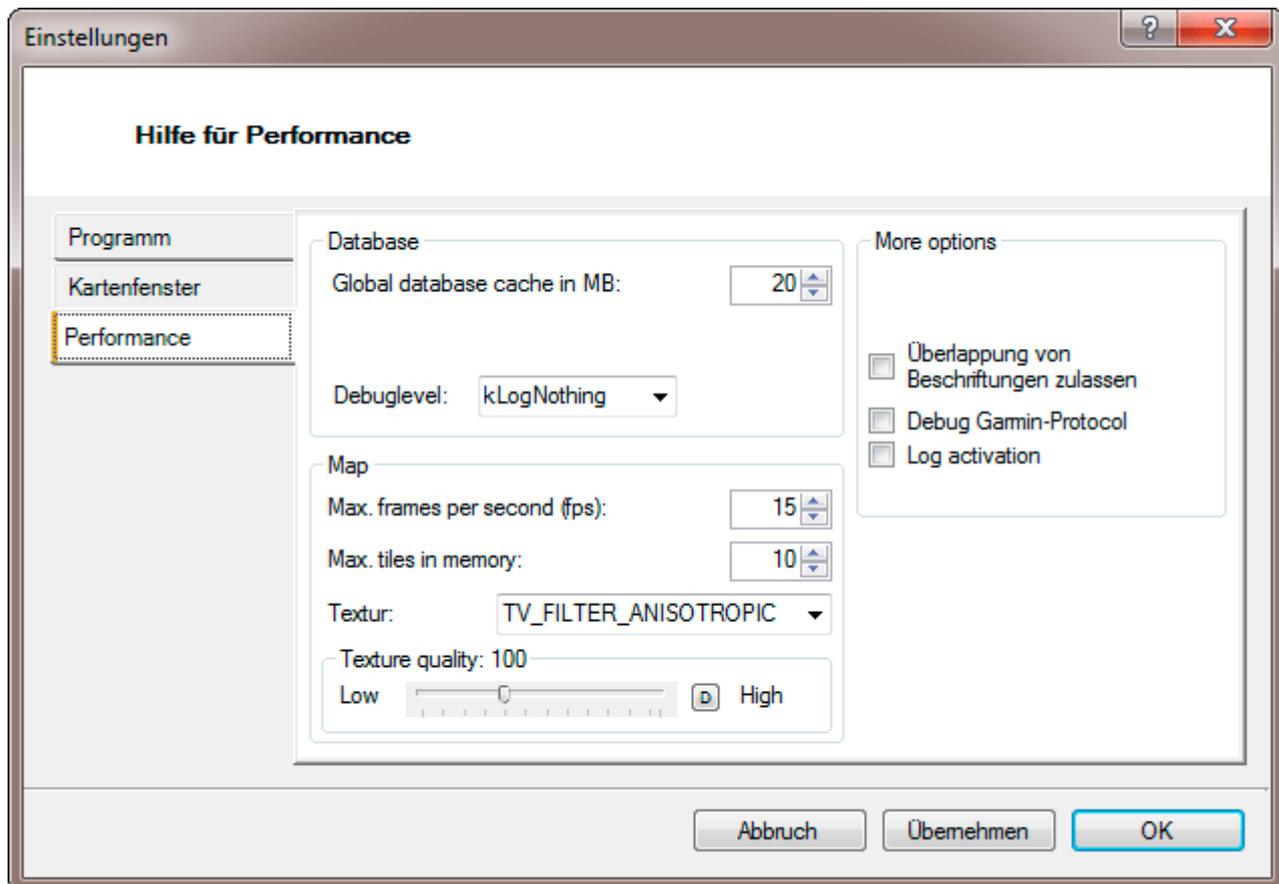
**Focus settings:** With the button „Show Logo“ the selected logo will be displayed at a map and export the map in the map window.

The switch to „Map status bar - Tansparent“, turns the entire status bar transparent so you can see behind it show through the card.



**Markings settings:** Here you can select a different „default“ set style icon of your choice for waypoints, Geocache, Routes, Tracks and GPS tracklogs online.

## Performance



**Performance:** In the value field „Database“ Global cache in MB „can you get more performance if you have a well upgraded PC, the default value may increase to 100 MB.

A set hook in the „Allow overlap“ can be zoomed in far-out map, lying close to each other waypoints are visible.

For Netbooks or current desktop PCs you can enter for the „Max frames per ...“ a higher value (possibly 30-35) for smoother shifting the card set. The different „texture filter“ change the face of the map in the map window.

All other choices are for the standard users to please keep so!

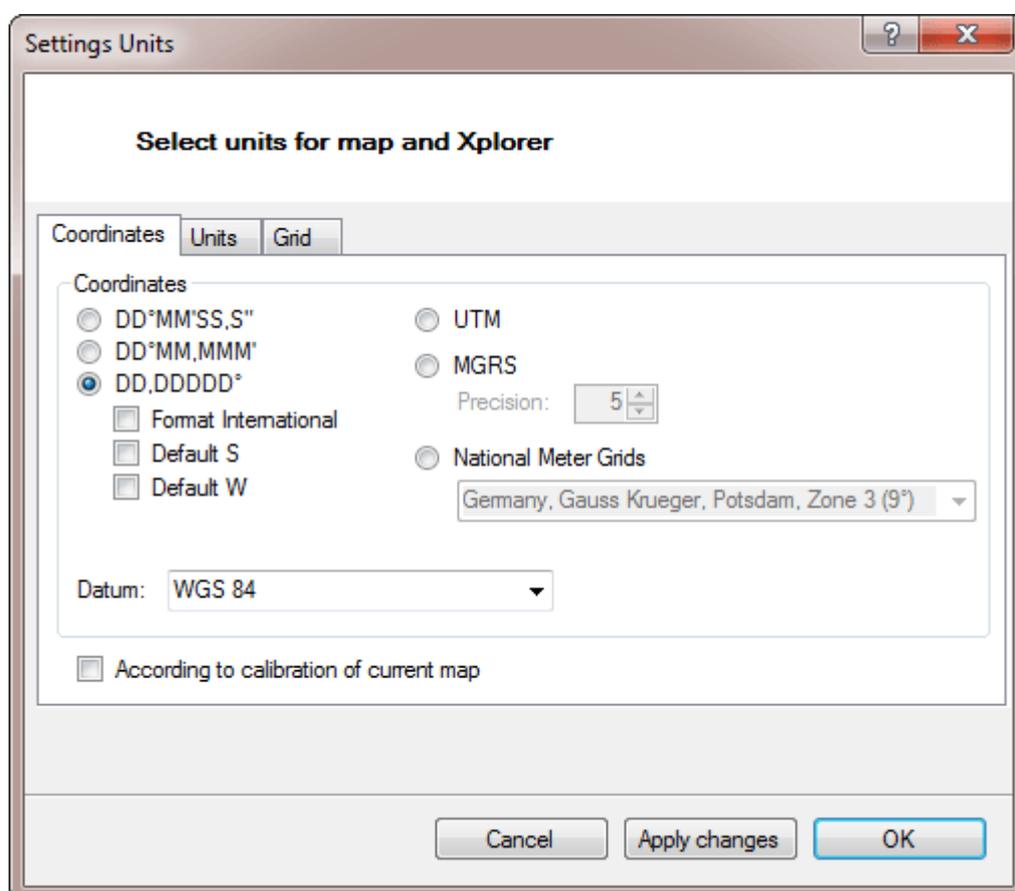
For all „sliders“ is the small **D**, the values back from standard.

# Units

Coordinates and measured parameters can be expressed in various units. Worldwide, many different units have been established, and although international conventions are existing, people use the units they are familiar with. The same holds true for coordinate systems, map datums and map grids.

Therefore, it is necessary to be able to switch or transform coordinates and parameters into various units. You can access this window where all units are summarized through the Units  icon from the Standard symbol bar.

A window will open with 3 tabs: Coordinates, Units and Grid:



## Coordinates

Under the Coordinates tab, you select all parameters which refer to coordinates systems:

- On the lefthand side you select if you want to specify Angular Coordinates in degrees, minutes, seconds and decimal seconds (line on top) or
- Degrees, minutes and decimal minutes (second line) or
- Degrees and decimal degrees (third line)

Below you can choose whether you want to use the International format notation or whether you want to use S (South) and W (West) as default prefixes. - Otherwise N (North) and E (East) are the defaults.

In the field Map Datum you must specify to which Map Datum the coordinates refer to. The default setting is WGS 84 which evolves more and more to a kind of international standard.

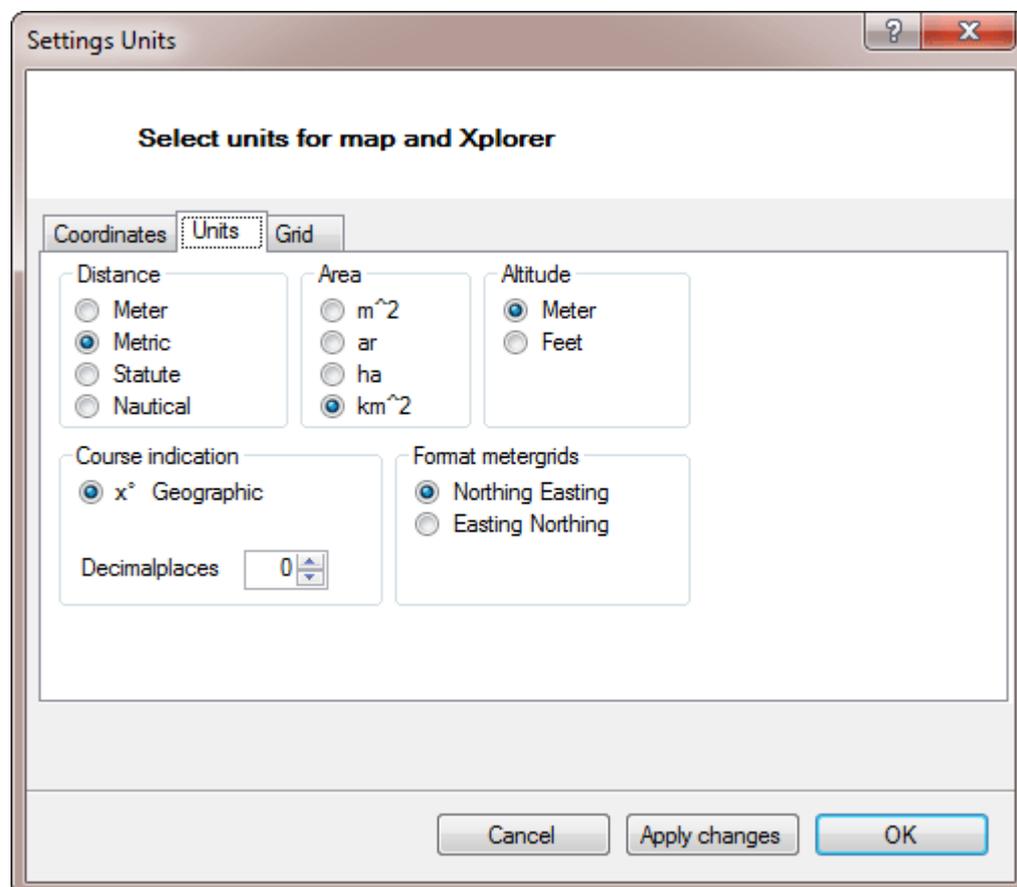
Please note that coordinates without specifying the Map Datum are misleading and not exactly defined! Using the wrong Map Datum may result in an offset of several miles! Dangerous situations can be the consequence and you might get lost or at least will not find the position you wanted! So always make sure to care for the map datum when entering or forwarding coordinates!

On the righthand side of the coordinates tab window you find several Linear Coordinate Systems like UTM, MGRS or the French Grid IGN and also all National Coordinates Systems in a pull-down menu. If you need to work with such National Coordinate Reference Systems, tickmark the option National Metric Grids and choose from the list below. If you should not find the appropriate one in the list, you can add a new definition. For further details see chapter QV System - Map Datums, Grids and DEMs.

Remark: As National Coordinate Reference Systems usually imply a specific Map Datum, the Map Datum field is disabled in order to avoid using such a National Metric Grid with an inadequate Map Datum.

## Masseinheiten

The Units tab refers to all dimensions of measured values:



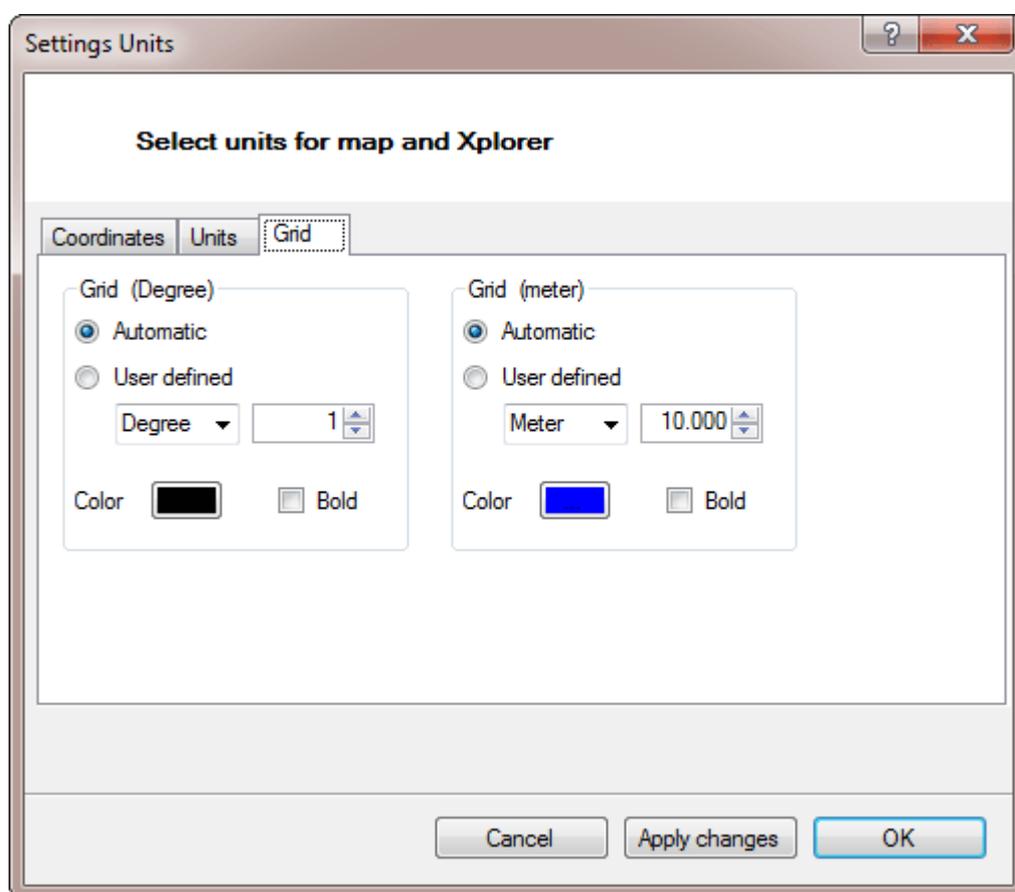
Here you can define the units of your choice for:

- Distances (Meters, Kilometers / English Miles / Seamiles)
- Area (m<sup>2</sup> / ar / ha / km<sup>2</sup>)
- Altitudes and depths (Meter / Feet)

Under this tab you also have to specify if course readings and bearings should be referred to Geographic or Magnetic North.

## Grid

Finally, the Grid tab refers to the parameters of a Grid which you might wish to use as an overlay on your map:



This might be especially helpful when printing maps. The options are:

- Automatic - In this case QV will generate adequate subdivision increments automatically.
- User - In this case you can define the increments manually. It is possible to specify different increments for longitudes and latitudes.

On the lefthand side you can also select the color of the gridlines and whether you want them in bold style.

At the bottom of the window you will find an option to apply the settings to all QV windows. This is the default setting.

Important Remark: Please note that the grid will be created in the coordinate system which you have defined in the Coordinates tab!

## Data transfer between PCs

Transferring data between different QV PC platforms is so easy that QV even does not need a specific function for this task:

Just copy the relevant QU5 database to any transfer medium (CD, DVD, memory stick, external hard disk, mail-attachment, etc.) and save it at the other PC into the QV Data directory. Usually, this is C:\Documents and Settings\All Users\Documents\QuoVadis 6\_Data\qu5\

You will find the relevant database if you select the directory in the QV X-Plorer or from the map window by choosing X-Plorer from the pop-up menu after a right-click with your mouse at any spot of the map. On the list window on the upper right of the X-Plorer you will see all elements of this database listed with file size and the path.

After restarting QV at the PC to which the data have been transferred, the database will automatically appear in the directory tree of the X-Plorer window. The data will be transferred completely; however, if the database is referring to linked tables, you might have to assign the correct paths manually if this PC uses another directory structure.

You will find further information under Copying of Maps in the chapter X-Plorer Window.

If you are going to exchange data with another PC frequently (for example between your stationary PC and your notebook) we recommend to use separate databases for your maps and GPS data. This will save you from the need of correcting your map paths frequently because map tables will normally not change while waypoints, routes and track tables do change frequently. If you follow this recommendation you will only have to copy the databases containing your GPS data.

# Export

Although QV can upload geodata to many GPS units directly (see chapter GPS), there are several cases where an export of geodata like waypoints, tracks, routes, etc. in a universal format is required. This can be the case if you want to provide geodata for other software platforms or for an upload to an Internet platform or as an e-mail attachment.

QV supports a data export in many formats. These include: GPX, LOC, Compe, KML/KMZ, TomTom, Garmin-GPI

Over the years many different formats have evolved. However, only the GPX format has established as a universal one.

Therefore we describe here the export of track in the GPX format as an example which is frequently used for internetGPS data exchange platforms.

However, exports in other formats are done in the same way.

To perform the export, please proceed as follows:

- Mark the geodata to be exported in the X-Plorer and klick the Export  icon. A Data Export Assistant will open. In the first window of this assitant you have to select the export file format of your choice and to define a file name including directory path. Click Continue to skip to the next windows of the assistant which is reserved for future options and currently not used. Click Continue to proceed:

**Assistent - Data Export** [?] [X]

**Step 1/3 - Select, which data-type you want to export**

Select file you want to export:

Type of data:

Filename:

Einstellungsfenster geöffnet

< Zurück    Weiter >    Fertigstellen    Abbrechen

---

**Assistent - Data Export** [?] [X]

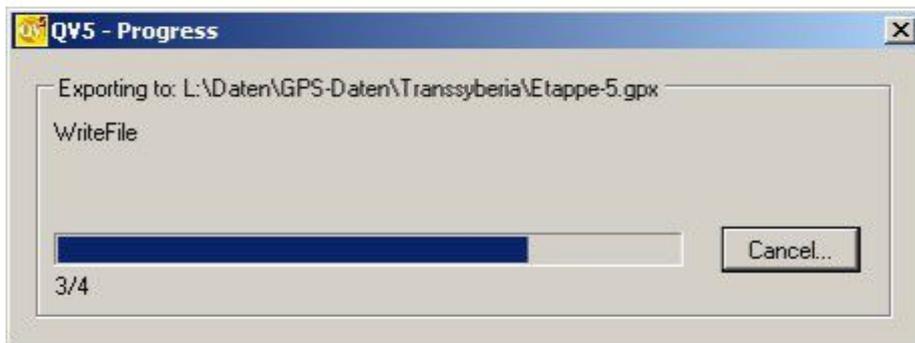
**Step 2/3 - What additional options.**

Select options for export:

Einstellungsfenster geöffnet

< Zurück    Weiter >    Fertigstellen    Abbrechen

- In the third window of the assistant you can activate additional options to be performed after the data export like opening your file manager (i.e. Windows Explorer) or starting an external program. Then start the export by clicking Finish (You can also start the export directly from the first or second assistant window if you do not want to change anything on pages 2 or 3). Thereafter a progress bar will visualize the status of the export. When the export is done, all relevant information is summarized in the last assistant window:



- You will now find the file in the defined export directory and open it with another software, upload it to an internet GPS platform or use it as mail attachment.

# Import

Through the internet, other GPS programs, and other sources there are many opportunities to acquire geodata which you want to import to QV.

The download of GPS receivers is another option which is covered in the GPS chapter.

QV can handle various import formats. These include: GPX, Compe, Garmin-TCX, KML/KMZ, TomTom, LOC, CSV and GeoJPG.

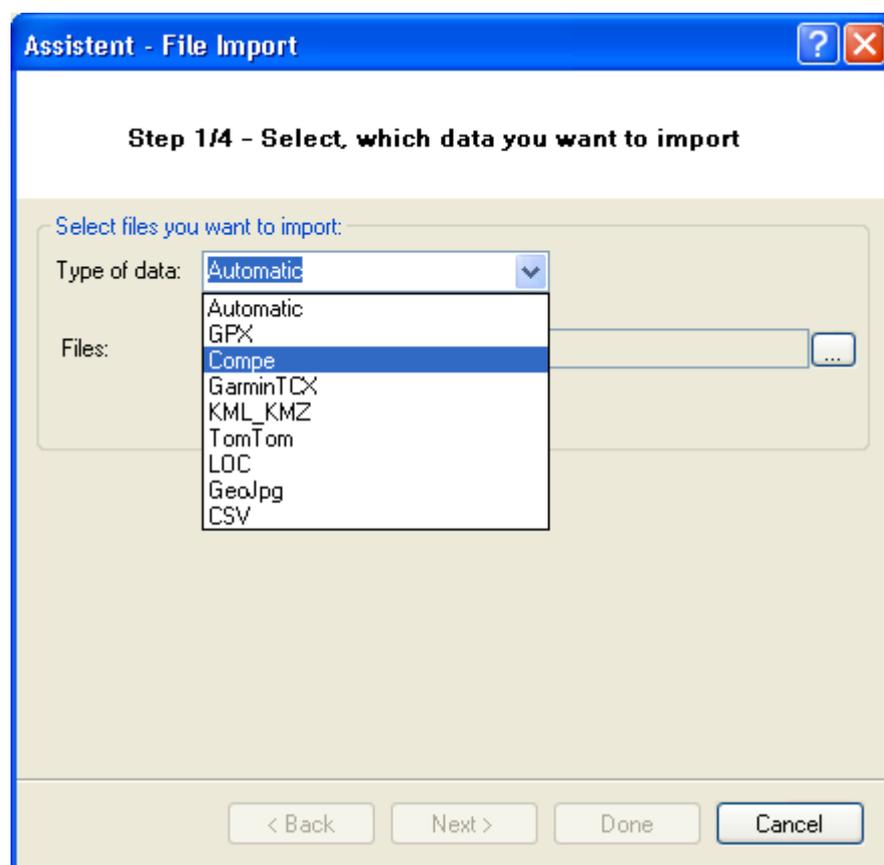
However, the GPX format has established as the universal format for an exchange of geodata. This format can also pack various geodata categories (waypoint, routes, tracks, geocaches) into one file.

Basically, you can perform such an import in three different ways:

- By clicking on the import  icon in the X-Plorer
- Through the main menu bar by selecting New > Import
- just drag&drop a file into the desired destination table in the xplorer

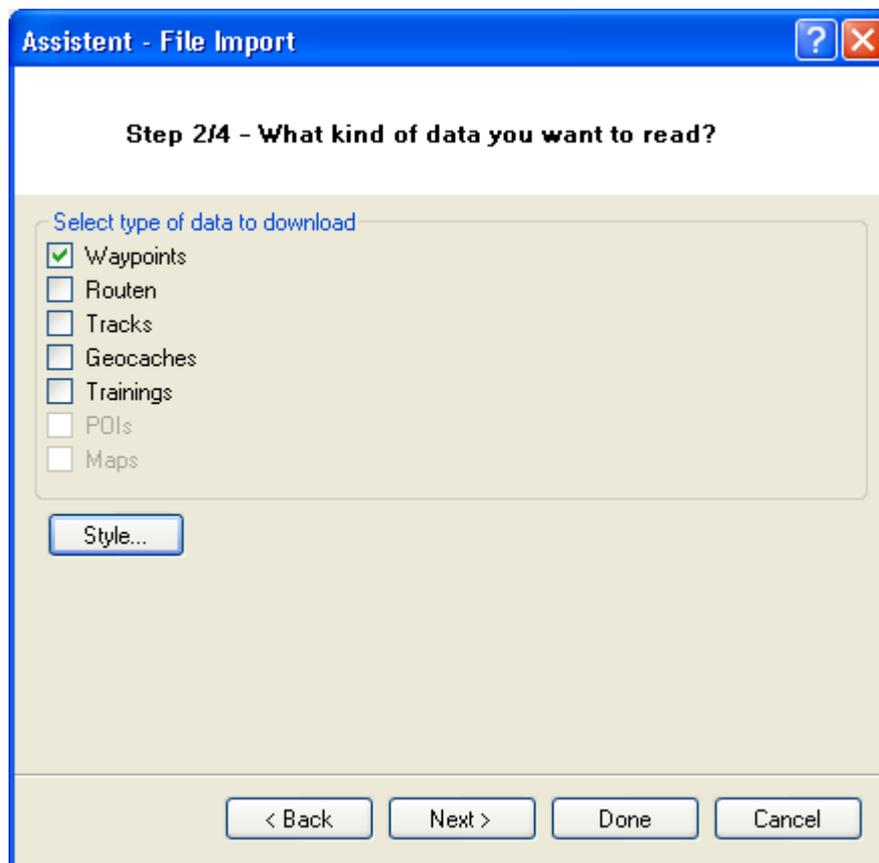
In any cases the Data Import Assitant will open. Please proceed as follows

## File selection



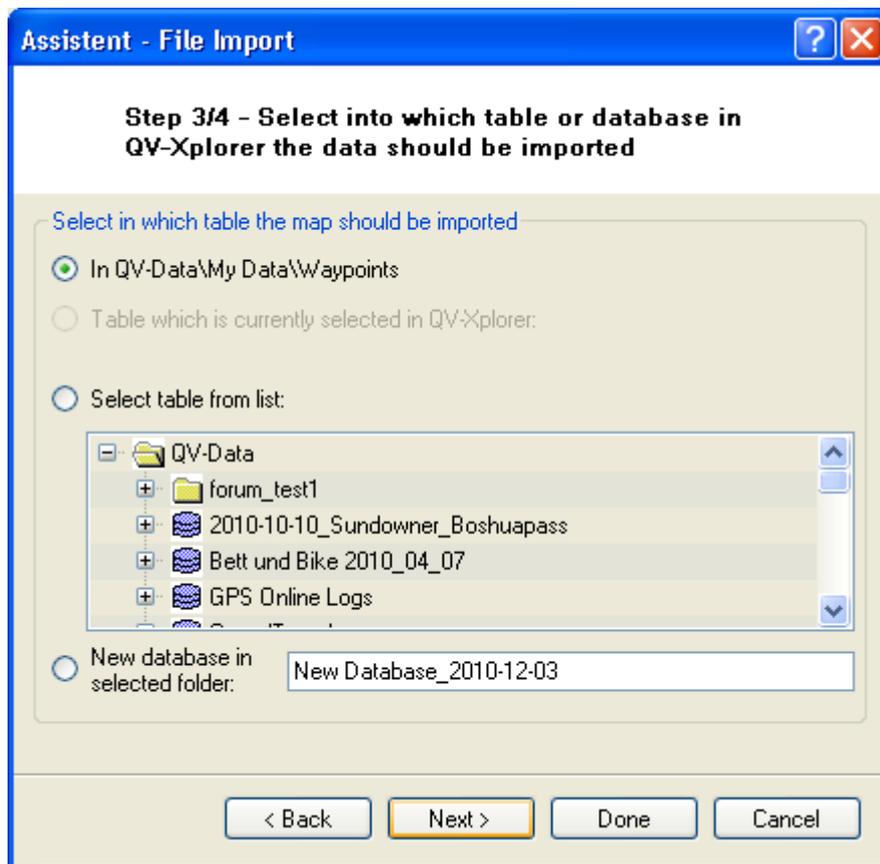
In the first window of the assistant you have to specify the file format and the file. You can choose among eight different formats. You can also leave the fault Automatic under File type and QV will identify most file formats automatically. By clicking Continue you skip to the next window of the import assistant.

## Filetype



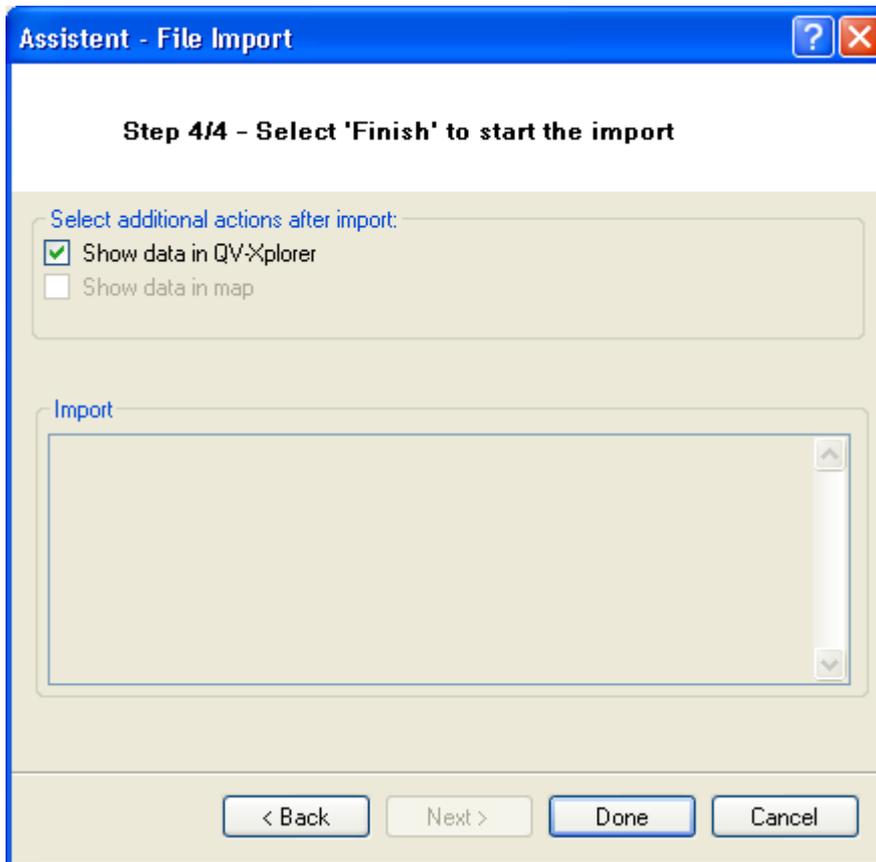
There you can specify which data categories should be imported. You can select several at a time. Click Continue to proceed.

## Destination table



In the third assistant window you can define where the imported data should be stored in the QV X-Plorer. You can leave the default (in this case QV-Data\My Data\Tracks) or choose to store the data in the actually marked X-Plorer table. You also have the option to choose a database and a table manually. In case you import several data categories (waypoints, routes, tracks, etc.) at a time, the only available option is New Database. In this case the default name is New Database\_YYYY-MM-DD vor, where YYYY represents the actual year, MM the month and DD the day. Click Continue to skip to the next window of the import assistant. There you can activate additional options to be performed after the import has finished. You can choose if you want the imported data to be listed in the X-Plorer and/or if they should directly be visualized in a map. Finally you start the Import by clicking Finish.

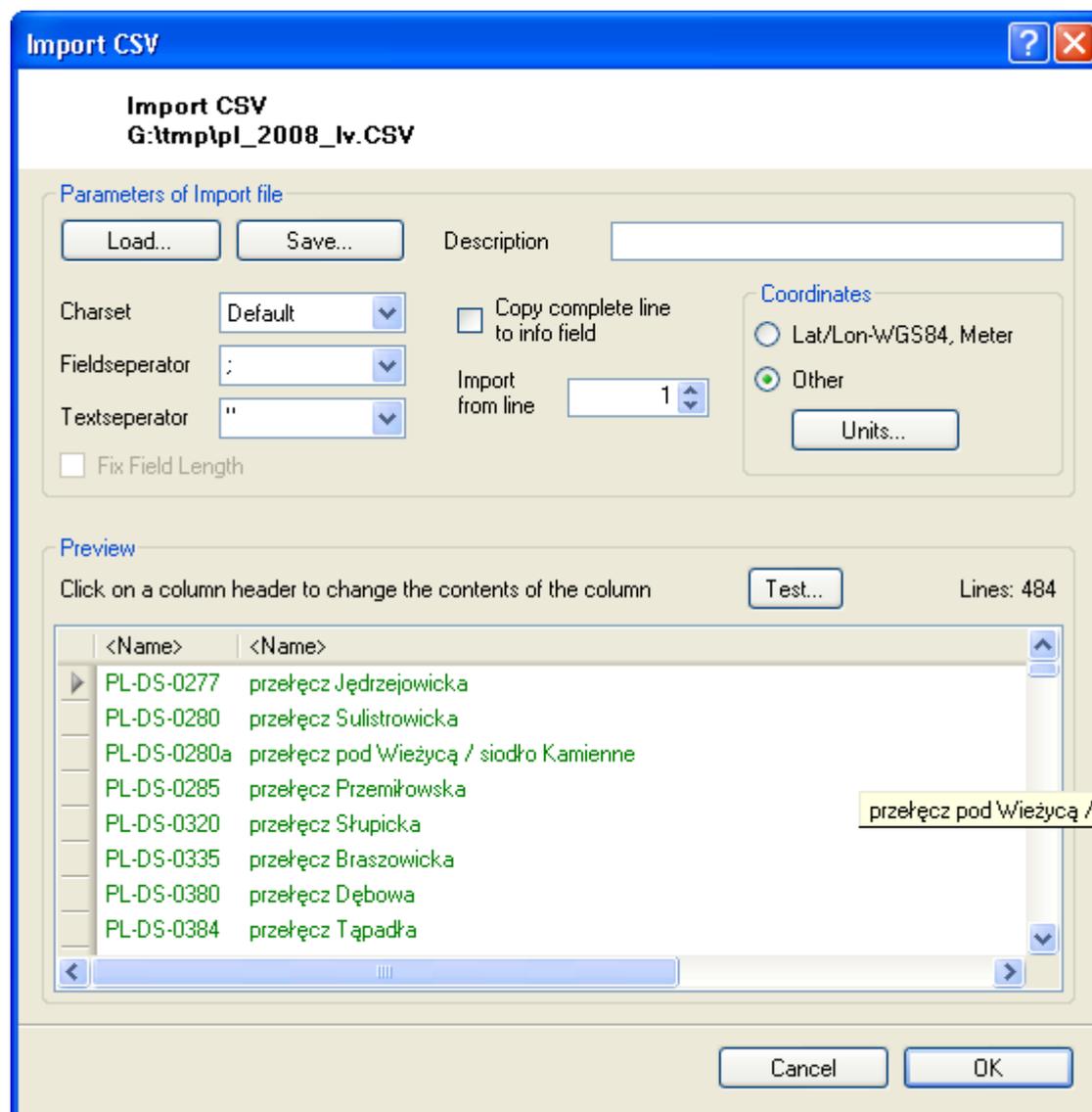
## Finish



The data import will start and the process is visualized through a progress bar. When the data import is finished, all relevant data are summarized in the last window of the import assistant.

## Import CSV

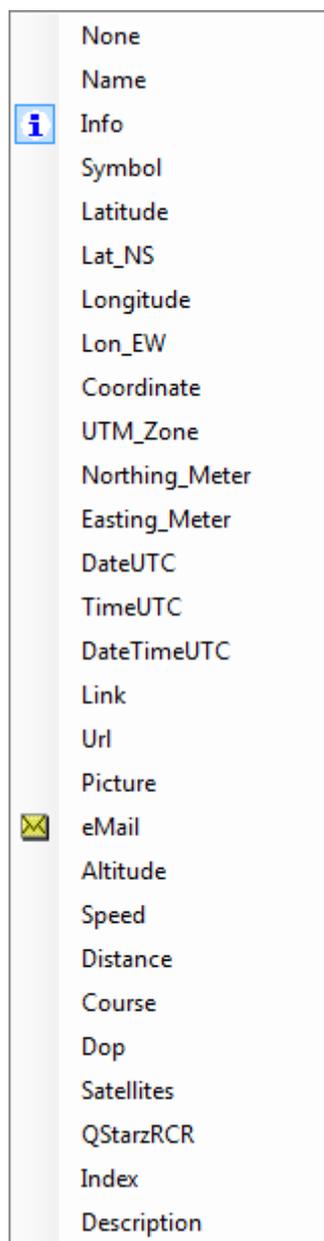
When you have selected CSV-data for the import, you have to make some other settings. For this procedure the following dialogue opens:



All changes at the settings will be shown in the preview. The goal is to put the relevant data into two separate columns, which can be assigned to the databank fields during the import.

Loading...	Loads saved qifx-file with all settings
Saving...	Saves all settings in a qifx-file, which can be loaded later, when this file or a similar file should be imported again
Description	With this function you can enter a description for this qifx-file
Character set	Select a character set, in which the file to be imported has been created. Especially for german special characters or easturopean names often a adaption is necessary, when you see in the preview „strange“ characters or many ?.
Field separator	The data fields in a csv-file are always separated by a special symbol, mostly a comma, semikolon or tab. Here you have to choose the right symbol. When the coloumns in the preview makes sense, the symbol is the right one. Beside the symbols in the dropdown-list you can enter every symbol you like into the enter-field.
Text separator	Often names are "" included in a CSV-file, which you do not like to import. The here chosen symbol will be filtered by QV during the import. Also here you can enter an own symbol, when the preferred one is not in the list.
Whole line in information field	Copies during the import process the complete original line into the information field of the appropriate WPs or TRPs.
Import from line x	With this function you can skip headlines of the file

## Classification of columns to database fiels:



This is a very important part of the action. After you have replaced the columns with the right field separator, please click on the column header of a column and select an appropriate database field.

You can select some fields several times, for example all columns, which you have linked to **Info**, have to be written into the information-field. You can also link **Name** several times, then the WP-name will be created by these columns. Please classify fields, which are not necessary, with **None**.

## Classification of coordinates

Coordinates can be described by many different ways, QV offers you some options:

Latitude	This column contains the latitude-value in degree.
Longitude	This column contains the longitude-value in degree.

If the values are not available in the degree-decimal, for example 46.5, but for example in degree minutes 46°30', then you must indicate **coordinates-others...**

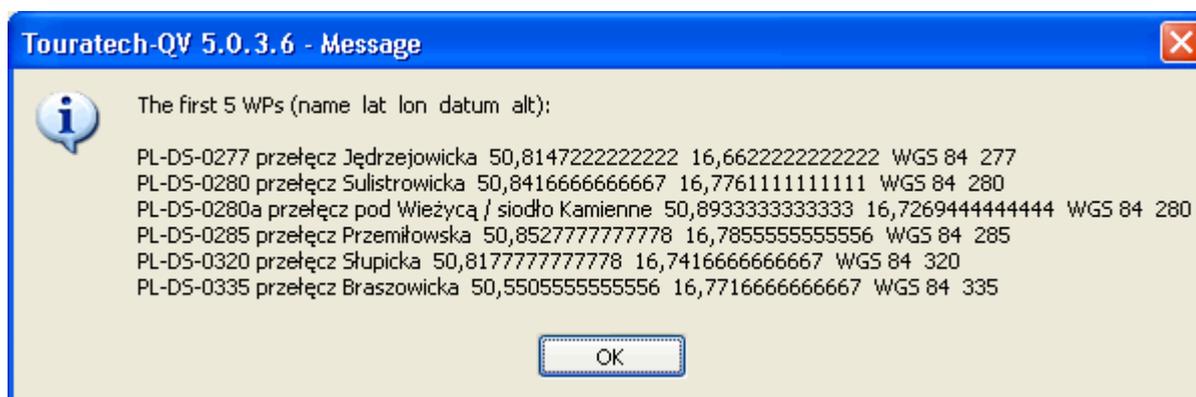
Lat-NS	With this you can characterize a column, which contains only the hemisphere, that means N or S
Lon-EW	With this you can characterize a column, die nur die Hemisphere enthält, that means E oder W

This is necessary, when the degree and the hemisphere are in separated columns.

Northing_meter	If the coordinates are available in UTM, Gauss-Krüger or in another meters-grid, then select this for the height-value.
Easting_meter	If the coordinates are available in UTM, Gauss-Krüger or in another meters-grid, then select this for the right-value.
UTM zone	If the coordinates are available in UTM, this is the UTM-zone.

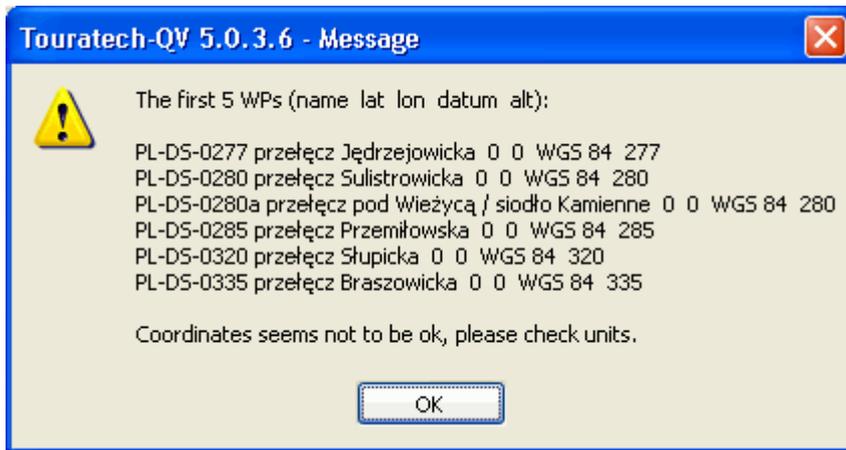
In every case you have to indicate the appropriate coordinate system for UTM or meters grid under **coordinates-others...**

With **test** you can check previously, if the settings are correct and QV can extract meaningful data. The first five lines will be read from the file and changed according to your setting in WPs or track points. The result will be displayed, with name and with in wgs84 transformed coordinate:



In this case everything seems to be ok, the WP-name and the correct longitude and latitude are recognized.

In this case no correct longitude and latitude can be recognized:



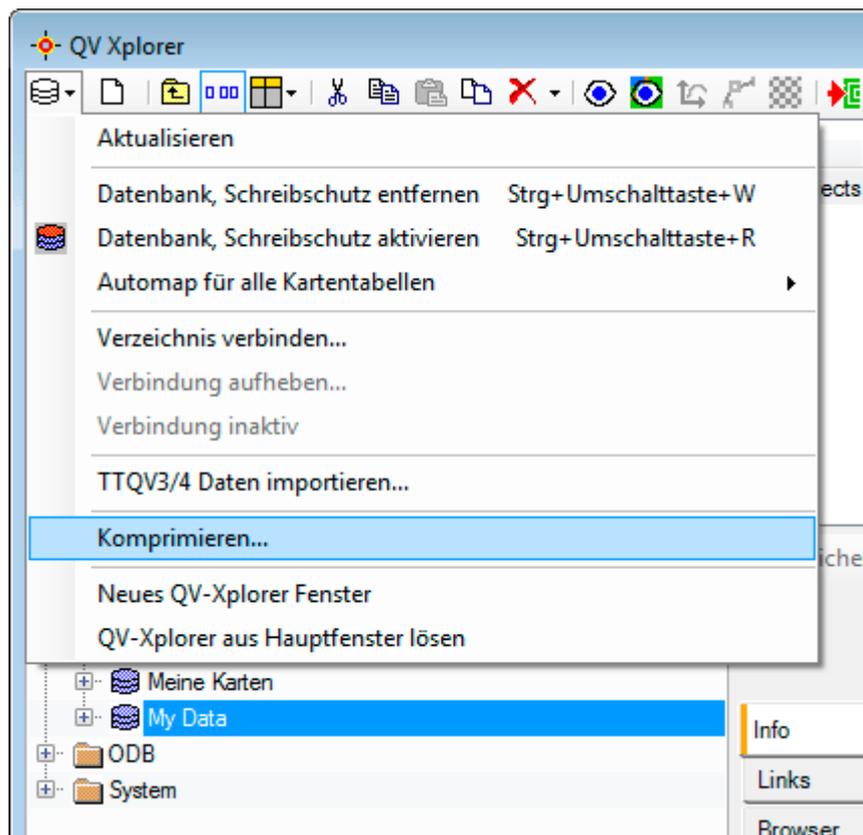
You should prove the column assignment and also the coordinate-units.

If everything is OK, you can save the settings for the next time with **Save** and start the import with **OK**.

# Compressing databases

In QuoVadis 6 databases will be compressed with the following steps:

- Please open QuoVadis 6 Xplorer
- put the cursor in the tree view on the list or a database, for example „My Data“
- click in the Icon button of the QV-Xplorer onto the left Icon „white container, database....“
- select „compressing“



... with this function the database „My-Data“ will be compressed. Please repeat this for other lists or databases if necessary. With the compressing a file with the same name will be created in the list „QV6\_Data\qu6“, which has the ending \*.qv5db.bak. This can be created newly by deleting the ending .bak, when there is a mistake in the original DB, or when a table/DB has to be read newly. (For that function QV has to be closed and started again!)

[Datenbanken komprimieren](#) (ca. 3 Min., Flash Movie in neuem Fenster)

# Printing in the scale

On the one hand it is genius in its function, on the other hand it is not so easy to understand, how QV6 realizes the scale-orientated printing. Therefore I have outlined a short workflow, which, when you follow it exactly, helps you to understand very well, how you can handle that!

## Maybe this steps will help you to understand:

- **open** one of your maps
- **zoom** on 100% and adjust the window so, that the left edge above of the map window shows also the left edge above of your print-out.
- **then:** file, print, goal „Printer“, 300dpi, „continue“
- **now** please select the option „this view“, the screen becomes a little darker, because a window in the size of the screen will be drawn which includes the chosen print-out-field.
- **now** let the „Print“ dialogue open and zoom with the scroll-wheel, with the keyboard or the icons in the QV-menue widely out of the map
- **if** not selected, place a check mark on „true-scale printing“, and on „Map section extending on paper size“
- **then** click on „Create page“, until now the two last entered options will be applied and you can see, that the window changes accordingly like the print-out-size of the selected scale.

When you determine a scale and order, that the papersize of the printer (A4?) should „be filled“ with the map, then you have determined the section in QV-window explicitly. The in this map section entered options will be applied only, when you click explicitly on the option „Creating page“!

I hope, this „little exercise“ will help you!

## Entering coordinates

In QV4 we were informed sometimes, that it is not comfortable to enter new coordinates, because we have tried to work in structured requests with separated fields for example with degrees/minutes/seconds. It was difficult for many users, „to write continuously“, not good for fast requests. Now we are going a new way in QuoVadis 6. Without time waste because of symbols like °, ', ", you can now write continuously. The problem is, that it is completely different as before and you have to know why. This reminds me (for old QV4 hands) the story with „how can I switch from N to S or O to W“? In fact this is ingeniously and trivial ... if you know how.

As an example we choose the fields for coordinate entering for the calibration. I like to mention, that the fields „operates“ also some more other enter variations as you find here, but I only show you here the easiest version! Such an entering field for the calibration needs always one point, that means a value pair of longitude and latitude, for example (DDMMSS.S):

**N50° 20' 20.2" / O9° 30' 40.4"**

that means:

**50 degrees north, 20 minutes, 20 comma 2 seconds / 9 degrees east, 30 minutes, 40 comma 4 seconds**

If you like to enter this into such a field for a coordinate point, then it is the most easy way to write the following:

**50 20 20.2 9 30 40.4**

Did you recognized the figures in comparison to the example above? We have to add, that you can show the value for the southern hemisphere, which is located west of 0°N, when you select a "-" or you can select the appropriate letter, that means, for example:

for

**S50° 20' 20.2" / W9° 30' 40.4"**

you enter

**S50 20 20.2 W9 30 40.4**

or also

**-50 20 20.2 -9 30 40.4**

As you have entered the point on the map or the ready calibration is saving, the enter will be changed into a „beautiful“ notation, with the use of °, ' ". Examples for this you will find below.

Karte Kalibrieren - 123\_22\_52K-49K-2GB

**Schritt 3/3 - Geben Sie die Kalibrierungspunkte ein**

Kalibrierungspunkte

Einheit: DDMSS  
Anordnung der Punkte: 2x2, 4 Punkte im Schnittpunkt von 4 Gitterlinien

Kalibrierungspunkte

-50 20 20.2 -9 30 40.4

P1 P2

Karte Kalibrieren - 123\_22\_52K-49K-2GB

**Schritt 3/3 - Geben Sie die Kalibrierungspunkte ein**

Kalibrierungspunkte

Einheit: DDMSS  
Anordnung der Punkte: 2x2, 4 Punkte im Schnittpunkt von 4 Gitterlinien

Kalibrierungspunkte

S 50° 20' 20,2" W 9° 30' 40,4"

P1 P2

The example above refers to the version DDMSS, the same principal applies also to the other versions DMMM and DDDDD.

# General

General questions to installation, upgrades and the program.

Who are the makers of QuoVadis?

The program QuoVadis 6, shortly QV6, is the continuation of the successful program of Dipl.-Ing. Thomas Flemming. The idea to QuoVadis came to his mind somewhere in Libyen during the measuring coordinates from a map and the transfer into the Garmin 75 in the morning. Since this morning the program was developed continuously and also the user desires were taken into account.

Which program editions exist and what are the differences?

QV6 has three different program editions with different ranges of function:

- Freeware
- Standard
- Poweruser

For the differences and a comparison of all program editions please look at [Produktfamilie](#).

Where can I download the program and do exist a test version?

You can download the program at the website [QuoVadis Software GmbH](#). The programm „QuoVadis-Poweruser“ is unlocked for 25 days without limitations. After the expiry of 25 days you can use the program in the Freeware-version, with a limited range of functions, but you can naturally upgrade to the standard or Poweruser version (look at [QuoVadis-Shop](#)).

My virus scanner deletes the installation file. Can somebody help me?

Suggestions and solutions to this problem you can find here [announcements](#) in [QuoVadis-Forum](#).

What is the difference between the release and the developer version?

The **Release** version is the stable version and was tested adequately and shows no known serious bugs. This version is recommendet for the use to everyone.

The **Developer** version contains the latest features and Bugfixes. But it can contain maybe great bugs. This version is only recommendet to users, who like to play with the latest features and know, that it is a risk. We suggest, to perform a complete backup of all QV6 databases (\*.qv5db), when you use this version. A fast opportunity for the backup is for example in QV6 the [Quick Backup](#).

I am a beginner. Which page helps me to do the first steps?

Please look at the chapter [The first steps in QV](#). For fundamental concepts and some examples please follow the link [QV6 für Neueinsteiger](#). You will find a lot of information in the documentation, but if you do not find a solution or you do not understand something, then the [QuoVadis-Forum](#) is a good plattform.

Which GPS-units are supported by QuoVadis?

You can use GPS-units, which support the NMEA-protocol or which are connected over the USB-connection, to receive or download data from GPS. You can find an overview in the chapter [GPS-Geräte](#), taking account that it can not reflect always the current status because of the wide range of different units. If your unit is not listed, you can try it on your own with the demo version<sup>1)</sup> or you can ask in the [QuoVadis-Forum](#).

Where can I get support?

You will be supported in the [QuoVadis-Forum](#), here in the wiki or directly at the website [QuoVadis Software GmbH](#)

Which indications are important for support?

That you can get the right answer to your question, please enter the following information in the forum [QuoVadis-Forum](#):

- Which version <sup>2)</sup> of QuoVadis<sup>3)</sup> do you use?<sup>4)</sup>
- Windows version (XP, Vista, Windows 7)
- Is the program running in a virtual engine? Which product (z.B. VirtualBox, VMWare) and which version? Which Hostbetriebssystem?
- Can you reproduce the mistake? Which steps have you done?
- Please give some example data, if possible.<sup>5)</sup>

Please send data **only after our order** in the forum (with a link to the forum message) to [service@quovadis-gps.com](mailto:service@quovadis-gps.com).

How can I find help for a special theme in the wiki?

The easiest way is „Schlagwort Suche“ here in the wiki. Therefore on every page you can find above on the left side a Eingabemaske and beside a button with „Searching“. Please enter only the word, which you are searching for and the wiki will list the corresponding articles, which contains the entered word .

I have found a mistake in the documentation. Where can I public this?

Please send a link to the page and a short description to [service@quovadis-gps.com](mailto:service@quovadis-gps.com), so that the mistake can be deleted. Thank you very much for your support!

## Upgrades

I like to upgrade from an older version to the latest version. Which opportunities have I?

- **Upgrade from TTQV3/4 to QV6:** QV6 uses a completely different code as TTQV3/4 and is based (since TTQV5) on a complete new development. That means, that QV6 functions without mistakes beside an existing installation of TTQV3/4. Please install QV6, an existing installation will not be influenced.
- **Upgrade from TTQV5 to QV6:** QV6 is a development of TTQV5. The installation of QV6 functions like an update for TTQV5. Please start the setup of QV6. The installation routine recognizes an existing TTQV5 and adapts and integrates all necessary data of TTQV5. Before the installation of QV6 the program in QV6 setup(not the data!) TTQV5 will be deinstalled.

- **Upgrade the existing licence code:** Owner of a licence code of an older TTQV version have different opportunities to purchase a latest licence for QV6 in [QuoVadis-Shop](#). An existing TTQV5 licence can be used also for QV6 without limitations.

Can I transfer my data from the previous version?

Naturally you can transfer the data. Depending on the previous version, there exist some little differences:

- **Data transfer from TTQV5:** During the installation of QV6 all data bases from TTQV5 will be adapted automatically and are usually available. Databases with the ending \*.qv5db, which were saved manually, are available in QV6 again, when they are copied into the data list of QV6 in the file qu5, also ".../TTQV6\_Data/qu5/". The saving location of the QV6-data list has been selected by the user during the installation or corresponds to the data list of TTQV5.
- **Data transfer from TTQV3/4:** During the first installation of QV6 the installation routine searches after an existing TTQV3/4 installation and offers an import of the data to you. Alternatively you have the opportunity in the program overview of QV6, to import the data bases from the older version. Therefore click in QV-Xplorer on the data base - symbol (white container) and select the option „TTQV3/4 import data...“. Please follow then the assistant.

Before an import/a data transfer from TTQV3/4 we recommend, to compress these data bases!

Can I use all maps from an older version further more?

You can use all maps from TTQV5 further more until some special cases.

By the usage of maps of TTQV4 you will have the following limitations: All maps, which uses the geogrid-viewer and the geogrid-mapformat of the company EADS, can not be imported in QV6 any more, but they are available for customers of TTQV4 further more because of Bestandsschutz-Regelung by the data transfer from TTQV4. This refers to all public Top10/25/50/200 maps of Germany and the Austrian FlyMap (bis V4).  
More over that the french IGN-Bayo maps with the ending \*byo and the maps of Switzerland with the ending \*.axf can not be used any more in QV6.

Can I use the TTQV5-bonus maps further more?

Yes, but you can not install the bonus maps, if TTQV5 has been deleted.

The TTQV5-bonus maps depend on TTQV5 because of the licence and can only be installed, if TTQV5 has been installed. When you like to use these maps further more with QV6, please take care, that they has been installed before the installation of QV6, then they will be adapted automatically. An installation after TTQV5 has been deleted, is not possible.

The ODB and the SRTM30 are contained in the delivery range of QV6, when you have ordered QV on DVD, but it can be downloaded, too. The world atlas 4Mio is not included in the delivery range of QV6, but you can purchase additionally an extendet world atlas in 4 und 2Mio, when you order QV .

Notice: When you have already installed the bonus-data on your first-pc, you can it copy easily on your second-pc and import it there in QV6.

## Work with QuoVadis

The functions of QuoVadis does not solve one of my problems. What can I do?

QuoVadis is currently in a developing process. We realize very often many ideas of the users. Please do not hesitate, to ask your questions in [QuoVadis-Forum](#) of QuoVadis.

Business clients have also the opportunity to get individual developments of necessary functions. We create an OEM-version, which is perfectly adaptable to your desires. Please ask us with a personal request per [service@quovadis-gps.com](mailto:service@quovadis-gps.com). In the past we have worked successfully together with many different companies, for example with companies from the emergencies, research and development.

The program has been stopped because of an error. Where can I announce the error and how can I solve it?

If you have problems with QV6, you should take a look into the paragraph „Easy repair of QuoVadis 6“ in the artikel [QuoVadis 6 will nicht laufen](#). If you can not solve the problem with this support, then please contact us in the [QuoVadis-Forum](#).

What is the difference between a route, a track and a waypoint?

- A **route** is a group of waypoints, which has been created in a special way. A route is a navigation method, which you can plan by the definition of several waypoints. Please use a route, if you can not get from one location to another location directly. In this case we call it airline-routing.
- A **track** is a chain of points, which are ordered by time. Each point contains usually information about the coordinates, time and date (and in the most cases also the height).
- A **waypoint** is a point, which refers to a geographic position (longitude- and latitude)<sup>6)</sup>. A waypoint will be defined by coordinates, which will be read by the GPS navigation unit.

I have GPS-data and want to use them in QuoVadis. How can I import them?

Please use the import-function of QV-Xplorer: The button „Import“ opens the assistant, which will lead you through the process. A detailed description find you here: [Import von GPS-Daten](#)

How can I change GPS-data with other users?

When the other user has also QV6 or TTQV5, then you can give him the database. You can find it in the QuoVadis data list, in the file „qu5“. Please transfer the \*.qu5db file. For more information please look at: [Datenübertragung zwischen verschiedenen PCs](#)

If the other user has no QuoVadis, you will find in QuoVadis 6 many export formats: Click in QV-Xplorer on the button „Export“ (Diskettensymbol with a red Pfeil to the right). A detailed explanation of the export dialogue can you find in the chapter [Export von Daten](#)

The format of my GPS-data is not listed at the supported data formats. Can I import the data anyway in the program?

QV6 offers also the import of user-defined GPS-data formats. Please look at the table in the par ["Unterstützte Datenformate"](#). Here you see on the high priority the field „Automatic“.

If your data can not be imported, you can download the freeware program [GPS-Babel](#) and try, to convert the GPS-file in one of by QuoVadis 6 supported import format. After that you can import the file in the program. If it does not work, you can ask [QuoVadis-Forum](#) for more help.

How can I enter coordinates correctly?

A description of the correct enter of the coordinates find you in this chapter [Koordinateneingabe](#).

## QV-Xplorer

I have deleted a waypoint unitentionally. Can I ich das rückgängig machen and den Wegpunkt wiederherstellen?

For this you have different methods. When you have deleted a waypoint by the QV-Xplorer Icon „Delete“  and the waypoint is not visible anymore in the QV-Xplorer, please click on the small Pfeil beside the Deleting-X . Mark the first point „Show deleted objects“. Your waypoint will be displayed with the notice [DELETED]. Mark it and click again on the small Pfeil and select „Rückgängig löschen“. Then the waypoint is recreate.

Naturally it can also be, that you have deleted a waypoint „endgültig“. Then you will have the only opportunity, if it was not too long time, to get the information from your saving of the own system-backup or the .qv5db.**bak** file (is generated from QV at every compressing). Stop QV6 and name the database with the deleted waypoint „Muster.qv5db“ in for example „MusterORIGINAL.qv5db“, delete „Muster.qv5db.bak“ the ending “.bak“ and start QV6. In QV-Xplorer you can find your database with the deleted waypoint „MusterORIGINAL“ and the saved database „Muster“, from which you can copy the unintentionally deleted waypoint back again in the „MusterORIGINAL“.

How can I delete data from the database finally?

When you delete data in QuoVadis, then they will be marked at first only as „deleted“ markiert. They are not displayed anymore, but physically the deleted data still exist. Really deleted are the data only, if you compress the database [Datenbank komprimieren](#). A similar mechanism do you have in Windows 7, when you activate the data backup for your hard disk. You can restore the deleted data on the hard disk with an activated data backup.

How can I compress the size of the databases?

In QuoVadis 6 databases can be compressed as the following:

- open QV-Xplorer
- put the cursor in the tree view on the list, for example „QV-Data“
- click in the icon bar of the QV-Xplorer on the icon on the left („white container“, database...)
- select „compressing“

All databases im the list „QV-Data“ will be compressed. Repeat this process for other lists, if necessary. You can compress also a single database (select this and make the same process).

How can I import a map?

You have three options to import new maps to QV6:

1. Installation by setup routine: Maps of QV6 are delivered normally with a setup routine, which is responsible for the whole installation and enters the maps directly in the map table.
2. Installation by the button „Import of new maps CD/DVD automatically...“: This way of installation is suitable, if you have to install many maps together. The import of CDs or DVDs is not the only advantage. Look n the opening assistant for the right list heraus and follow the assistant.
3. Installation by right mouseclick in the mactable: Hereby you can import one or more „normal“ maps together or additionally „special“ maps, like online-maps or maps of ecwp or wms server. Therefore click with the right mouse button on an existing map table and select the option „New“.

Select in the opening assistant the right map type for you and follow the assistant.

A detailed instruction and explanation of all options find you at: [Neue Karte importieren](#)

# Maps

## General

I need a map for my next travel planning. Where can I look for a suitable map?

You can look at [QuoVadis-Shop](#), if there are maps for your destination. In every case it may be worthy, to ask at the [QuoVadis-Forum](#), because you can get there additional tips of available or other map material.

What is the difference between a raster- and a vectormap?

A raster map is similar to a conventional graphic, for example like fotos of digital camera. Each pixel is now allocated to a color value and all pixels together are the map graphic. Vector maps are maps, which were for example used in the classic „Navis“ or in QV6 for example in the Navtech Navi or the QV-Telogis-Navteq maps. Therefore the vectors have special information, for example a point, from which a line goes to a special destination, represents a road sector. Advantages of vector maps have typically a smaller file size in comparison to a raster map and are crystal clear in every zoom level. In comparison to vector maps raster maps have typically a larger file size, but have mostly a more beautiful map picture or - at least at topographical maps - about a higher information density and/or more information.

More informationen to the theme you can find here: [Einführung ins Thema Karten](#)

How can I print in a scale?

It is genius in its function, but it is not very easy to understand, how QV6 realizes printing on scale. Therefore the next steps show you, how you can print on scale, if you follow them exactly! Please follow the next steps (helps you to understand):

- Open a map
- Zoom to 100% and adjust the window so, that the left edge above of the map window shows also the left edge above of the print-out.
- Then click » file» print » goal „Printer“, 300dpi, **Weiter**
- Now please select the option „this view“ - the screen becomes a little darker, because a window in the size of the screen will be drawn, which includes the chosen print-out-field.
- Now let the „Print“ dialogue open and zoom with the scroll-wheel, with the keyboard or the icons in the QV-menue widely out of the map.
- If not selected, place a check mark on „true-scale printing“ and on „Map section extending on paper size“
- Then click on „Create page“, until now the two last entered options will be applied and you can see, that the window

changes accordingly like the print-out-size of the selected scale. When you determine a scale and

order, that the papersize of the printer (A4?) should „be filled“ with the map, then you have determined the section in QV-window explicitly. The in this map section entered options will be applied only, when you click explicitly on the option „Creating page“!

I like to install QuoVadis on a new pc. Must I unlock all maps again?

That depends on, if you like to install QuoVadis on a new pc or if you like to install QuoVadis for example after a new Windows installation again on the same pc. On a completely new pc all maps need to be unlocked again.

If QuoVadis was running on this pc previously, you can avoid the unlocking process, when you copy the file *lp\_QuoVadis 6b.lic* from a backup to the file „lic“ in the QuoVadis data list.

A more detailed description you will find in the section „backup of the licence data“ in the Chapter [Aktivierung](#).

The zoom function in the map with the +/- key does not function. What can be the reasons?

Please hold the key longer pressed on the button, to zoom in the map. You can determine the zoom speed in the settings.

## Raster maps

Which maps can I use in QuoVadis?

In General you can use all offered maps on the homepage or in the [QuoVadis-Shop](#) in QuoVadis, unless, it is pointed out directly (and very clear) some contrary points. Es lassen sich weiterhin alle Karten, die mit TTQV oder QuoVadis als kompatibel gekennzeichnet sind, auch mit QV6 verwenden. Des weiteren kann man alle digitalisierten Karten, welche in einem freien, gängigen Grafikformat vorliegen in QV6 [importieren](#) und [kalibrieren](#).

An overview of a detailed list with all supported maps you find here: [Karten Einführung](#)<sup>7)</sup>

I have a paper map. How can I use this in QuoVadis?

To use the paper map in QuoVadis, it has to be digitalized, that means it has to be scanned. You can scan it at home with a normal scanner or you decide to ask a professional service, who are able to scan the map normally in one whole peace.<sup>8)</sup> QuoVadis has also an own scanner service for maps. Please ask us concerning the actual conditions and the process per e-mail: [service@quovadis-gps.com](mailto:service@quovadis-gps.com). After the digitalization [importiert](#) the map to QV6 and [kalibriert](#) it after that in the program.

What should I pay attention to during the calibration?

A detailed guideline find you here: [Karte kalibrieren](#)

## Vector maps

Which vector maps can I use in QuoVadis?

In QuoVadis you can use different vector maps. In general two maps can be distinguished: vector maps, which are suitable for road routing or road navigation (Routing, Navi) or vector maps, which

can be only displayed on a screen.

Vector maps with routing or Navi function:

1. Navteq Vector data 2009q4, for example the Navteq Navi Europe totally 2010,
2. new QV-Telogis vector data from the year 2012, for example the QV-Map Telogis 2012 Germany Truck

Vector maps, which can be displayed in Quo Vadis:

1. Garmin maps in the classic \*.img Format (but not NT maps)
2. GIS-maps in the format Shp, Dwg and Dxf
3. OSM-raw data
4. Google Earth kml files
5. and much more: Chapter „Supported formats“ in the link [GIS-Dateien](#)

I already have a vector map of another programm. Can I use this also in QuoVadis?

This is not possible. The licence guidelines of the provider of the map data do not allow this. You can use the commercial vector maps only with the product, for which it was produced and purchased.

## Online-maps

I can not find the online-maps anymore. How can I add this again to a new map table?

Create a new map table or take an established map table in QV-Xplorer and click with the right mousebutton. Select in the context menu **Neu -> Online-Karten...** and the maps will be created in the map table.

## Routing

What is the difference between a normal route and a routing-route?

A normal (or classic) route is a chain of waypoints, which you create manually, transfer it to your GPS-unit and then you should be able to drive the route without any problems. For a routing-route the way is created automatically from a data base (vector map, Google routing). Therefore it is enough, to set the start and the goal (sometimes some stopovers) and the way will be calculated by the routing-engine automatically.

Which maps do I need to create a routing-route?

In QV6 are three map basics, with which you can create a routing\_route:

1. Google routing (in all versions of QV6 available), for the usage a internet connection is necessary
2. Navteq vector data 2009q4, for example the Navteq Navi Europe totally 2010 - need to be purchased and installed separately and can be used without internet
3. new QV-Telogis vector maps, for example the QV-Map Telogis 2012 Germany Truck - need to be purchased and installed separately, can be used without internet

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An overview about the new QuoVadis Telogis vector data, including the coverage and the availability, find you here [QuoVadis-Shop](#).

## Various

Questions, which are not related to one or another category.

I can not find my question in the list. What can I do?

Ask your question in the support forum: [QuoVadis-Forum](#)

- <sup>1)</sup> When you give us a response, we can extend the Wiki, because we do not have all units for own tests available.
- <sup>2)</sup> You find them in the menu ? (= Help) in the menu point „Over ...“
- <sup>3)</sup> or in early versions: TTQV
- <sup>4)</sup> If it is not the actual version, please try to find out, if the problem exists also after the last updates of your program version or if the problem has been resolved now.
- <sup>5)</sup> These can be attached to the forum message until a special file size.
- <sup>6)</sup> In most cases it refers also to a height information
- <sup>7)</sup> Please notice, that the list has, in some cases, not always the latest update.
- <sup>8)</sup> It saves time and is mostly more detailed, because a scanner can maybe distort the grafik at the edges.

## Changing QuoVadis 6 data folder

### For Windows XP

#### **Without any guarantee, it's the users risk only!**

You can transfer the folder „C:\documents and settings\all users\documents“, which contains the QuoVadis 6 data folder and the QuoVadis 6 standard map folder, to another partition.

„C:\documents and settings\all users\documents“ is a WindowsXP system folder in which QuoVadis puts its data and maps. Here is a instruction how to transfer this system folder to another partition. It has to be a place that is available to the system at all times (**no network drive or portable hard drive**):

<http://www.wintotal.de/tipparchiv/?TID=944>

We recommend this line of action:

- deinstall QuoVadis 6
- deinstall all maps that are in ...\\QV\_Maps\
- delete remaining QuoVadis 6 folders in ...\\program files\ and in ...\\documents
- make the revision in the registry
- copy remaining data (user-defined) from the old folder ...\\documents\ into the new folder (transfer doesn't work for some files)
- reboot computer
- reinstall QuoVadis 6 and maps

Notice:

- after that the folder counts as system wide for WindowsXP
- because of that we don't exclude the possibility that other programs which use this folder must be reinstalled, because they don't use the system variables in the file path but the specific path „hardcoded“.

### For Windwos Vista and Windows 7

#### **Without any guarantee, it's the users risk only!**

Here you'll find an instruction of a clearly easier way for Windows Vista and Windows 7:

<http://www.wintotal.de/tipparchiv/?id=1348>

## DEMs don't work

There are DEMs (digital elevation models) installed in QuoVadis 6 but you can't see altitude data below the cursor or at new created tracks, 3D doesn't work:

Eventually the DEM entries in the QuoVadis 6 data bank are incorrect which could have happened when your elevation models were adopted from an older QV software. Or the DEM was imported incorrect with an older version of QuoVadis 6 and the current version can't read these entries.

In this case delete the DEM from the QV-Xplorer, restart QuoVadis 6 and reimport the DEM.

The best way for QuoVadis 6 to work with elevation models is with the file types **\*.gmg** (Globalmapper) and **\*.qv5db**. Here you can find different adequate DEMs for free downloading and usage with QuoVadis 6:  
<http://bb.quovadis-gps.com/43568-hoehendaten-von-div-touratech-kartenprodukten-im-gmg-format.html>

## QuoVadis 6 doesn't run

QuoVadis 6 is a very complex software package which includes, apart from the requirements of the internal system environment, many external modules in one. This leads to the problem that, depending on the computer on which QuoVadis 6 is installed, in individual cases corrections or an installation of additional runtime modules might be necessary. This is because a Windows computer equals only in very few cases another referring to the installation and practically every complex software implicates system wide changes in MS-Windows. The fact that QuoVadis 6 is updated constantly and that an update installed on an older foundation can lead to error messages is another source for obstacles. These problems are relatively easy to solve thanks to the absolute separation of software and user data under QuoVadis 6. In the following I want to list the easy possibility of error recovery...

### Basic notice:

In the case of a standard installation of QuoVadis 6 plus bonus-DVD the QuoVadis 6 data can be found in 3 different folders on your hard disk. Unfortunately there are differences in naming between WindowsXP and Windows7(Vista). In addition to that the names under Windows7 are displayed differently depending on the file explorer (MS-Explorer, TotalCommander).

*Tip: Under Windows7 you get the actual data path by clicking in the address bar of the MS-explorer on the right hand side of the folder names.*

### QuoVadis 6 folder under WindowsXP:

C:\program files\QuoVadis6 (program folder)

C:\documents and settings\all users\documents\QV6\_Data

(**data folder**, data banks, license administration, QuoVadis 6 system data)

C:\documents and settings\all users\documents\QV\_Maps (standard folder for maps)

### QuoVadis 6 folder under Windows7:

C:\program files\QuoVadis6 (program folder Windows 7-32)

C:\program files(x86)\QuoVadis6 (program folder Windows 7-64)

C:\users\public\documents\QV6\_Data (**data folder**, data banks, license administration, QuoVadis 6 system data)

C:\users\public\documents\QV\_Maps (standard folder for maps)

## Where to find the qv6.ini

This data contains user settings of QV6 and especially in term of updates it can happen that you begin with a new qv6.ini. If you delete this file, it will be recreated with the default settings at the start of QV6.

**Under WindowsXP the qv6.ini file can be found in this folder:**

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C:\documents and settings\all users\documents\QV6\_Data\

**Under Windows7 the qv6.ini file can be found in this folder:**

C:\users\public\documents\QV6\_Data\

## How to reset QuoVadis 6

There are two ways to reset QuoVadis 6. In „Options“, „Settings...“, „Program“ you will find a button that says „Reset all settings to default...“. If QuoVadis doesn't start at all, you can also delete the qv6.ini file (see above). Both ways work without any data loss and have the effect that all QuoVadis 6 settings are reset to the original state.

## System requirements:

QuoVadis 6 depends on the case that you use a Windows system software that is up to date at all points regardless to which Windows system software you use (XP, Vista, 7). It can absolutely happen that QuoVadis 6 starts and works in parts normally but bucks when you try to open a new window or use the mapdisplay. If that happens you should check the actuality of the necessary system files.

More information here:

[http://wiki.quovadis-gps.com/doku.php?id=de:10\\_install:a\\_setup](http://wiki.quovadis-gps.com/doku.php?id=de:10_install:a_setup)

## Often very easy...

### Your QuoVadis 6 SN (serial number) doesn't work:

- You have updated QuoVadis 6 and an error message appears that says „**The modul 904010 couldn't be found in the license file...**“ by the attempt to active QuoVadis 6 online. In this case you got a defect SN (serial number). Please send a message to [service@quovadis-gps.com](mailto:service@quovadis-gps.com) with a short information about the problem. You will then get a new SN from us.

## Backup data banks and license file

Before every attempt to repair you should backup the QuoVadis data banks and the license file. One way to do this is the integrated backup function in QuoVadis 6 under „File“, „Quick Backup - Exit“. The manual way is to shut down QuoVadis 6 and copy the content of the following folders to a save place outside of the computer:

(license file)

Windows XP: C:\documents and settings\all users\documents\QV6\_Data\\_lic

Windows 7: C:\users\public\documents\QV6\_Data\\_lic

(data banks)

Windows XP: C:\documents and settings\all users\documents\QV6\_Data\qu5

Windows 7: C:\users\public\documents\QV6\_Data\qu5

To recover the data just copy them back into the exact same folder from where you saved them. To recover automatically saved data you first have to unpack the backup file with an unpack software (e.g. <http://www.7-zip.org> or <http://www.peazip.org> as a freeware) and then copy it back into the right folder.

If the reason to repair is e.g. an error message referring to data banks (or one data bank), it might be enough to only remove this data bank out of the data banks folder.

## Easy repair of QuoVadis 6

If QuoVadis 6 starts with an error message or if opening maps causes an error message, the following method should always be the first thing to try. A possible reason for these problems can be that the step made by an QuoVadis update is too big. Then it is advantageous or even necessary to use the current complete setup instead. This method works in most cases when QuoVadis 6 doesn't start.

- reboot computer
- delete qv6.ini file with the MS-Explorer, the file can be found in the QuoVadis 6 data folder (see above)
- (optional) delete the QuoVadis 6 program folder (only this one!)

### If all named steps don't help:

- download the current complete setup
- additionally download the latest QuoVadis 6 update ("?", „Check for new update...“), shut down QuoVadis 6 and install the update.

A deinstallation of QuoVadis 6 is not necessary for this method. After the installation it is reasonable to start QuoVadis 6 and let „Compress“ go over the data banks to check for damages.

## Reinstallation on the trip

In this case it is important to backup the license file before the reinstallation (see above „backup data banks and license file“) because a reactivation of the maps without internet access can be very difficult. We recommend to backup the license file and all data banks before the trip on an external memory medium after all maps and QuoVadis 6 are activated. You can do this at any time but you should be aware that it takes a lot of work. We only recommend to do this if you are requested by the QV-Support **or if „Easy repair of QuoVadis 6“ doesn't solve the problem.** The de- and reinstallation of the complete QuoVadis 6 software must take place on the same computer, in the same folder, under the same Windows installation so that you can use the same license file.

- deinstall QuoVadis 6 in control panel, software
- reboot computer
- delete the QuoVadis 6 program folder and the data folder (backup before)
- install the available QuoVadis complete setup (if possible download at [Homepage](#) )
- launch QuoVadis 6, does it start correctly?
- shut down QuoVadis 6, recover the license file with the backup, launch QuoVadis 6 again, does it start correctly?
- shut down QuoVadis 6, recover the QuoVadis 6 data banks with the backup, launch QuoVadis 6 again, does it start correctly?

## Reinstallation of QuoVadis 6

Warning: You can do a reinstallation at any time but you should be aware that it takes a lot of work and we only recommend it if you are requested by the QV-Support. The de- and reinstallation of the complete QuoVadis 6 software on the same computer, in the same folder, under the same Windows installation needs a reactivation of the software and all maps. You can avoid this step to some extent by connecting the reinstallation with a backup as explained in „backup data banks and license file“. The activation server doesn't count this kind of a reinstallation (same computer, same folder, same Windows installation) as an activation:

- deinstall QuoVadis 6 in control panel, software
- reboot computer
- delete the 3 QuoVadis folders, if still existent, with the MS-Explorer (see above „Basic notice“)
- download the current QuoVadis 6 complete setup ([Homepage](#) )
- start QuoVadis 6 and download the latest update with the integrated update function “?”, „check for new update...“, then shut down QuoVadis 6 and install the update
- start QuoVadis 6

## My TIF files cause problems

If opening tif files doesn't work or if QuoVadis 6 often bucks when opening tif files, it is possible that the relevant libs weren't actualized at an update. You can solve this problem with the following steps:

- reboot computer
- delete qv6.ini file with the MS-Explorer, it can be found in the QuoVadis 6 **data folder** (see above)
- download the current QuoVadis 6 complete setup ([Homepage](#) )
- delete the QuoVadis 6 program folder which usually can be found in  
C:\program files\QuoVadis6 (WindowsXP, Windows 7-32)  
or C:\program files (x86)\QuoVadis6 (Windows 7-64)
- install the complete setup
- download the latest update with the integrated update function “?”, „Check for new update...“, then shut down QuoVadis 6 and install the update

For this procedure a deinstallation of QuoVadis 6 isn't necessary. After the installation it is reasonable to start QuoVadis 6 and let „Compress“ go over the data banks to check for damages. Eventually it is necessary to import the tif file again into QuoVadis 6.

## Black screen when loading a map

The correct drivers for your graphic card have to be installed on your computer. Windows often installs a „standard VGA driver“ (name can be similar) if the correct driver isn't available at the first Windows installation. These drivers are not sufficient for QuoVadis 6! In this case regularly maps can't be loaded, „black screen“.

## Problems with anti virus software

Unfortunately there are anti virus programs that reliably prohibit the start of QuoVadis, even sometimes not until the second try to start QuoVadis.

### THREATFIRE

The deinstallation of this software is unfortunately the only possibility. Attempts to get in contact with the support of this software weren't successful.

### F-SECURE

The settings of F-Secure can be changed after a recommendation of the support so that QuoVadis 6 can start. We recommend to execute the step " Easy repair of QuoVadis 6" after you changed the F-Secure settings. The answer of F-Secure to this topic was:

*The technical consultant advised the following: Select „DeepGuard“ at „settings“, „computer“. Keep „DeepGuard“ activated but deactivate „advance process control“. F-Secure is of the opinion that the anti virus safety isn't affected by this. The important thing is that it says „your computer ist protected“ in green letters on the entry page.*

Thanks a lot to Mr. Dr. Balzer for this information!

### Trend-Micro

We only have unspecific report from this case. If you have problems with starting QuoVadis 6 and use a Trend-Micro product, you could deinstall the av software and execute the step „Easy reparation of QuoVadis 6“ to check wheather that's the problem.

### Kaspersky Internet Security 2012

...is here for a reason but it might also be representative for other av software with an integrated firewall that can cause these kind of problems. The firewalls can block the port on which QuoVadis 6 communicates with the Valentina data banks. This leads e.g. to:

- unusable data banks
- error messages when compressing
- error messages when shutting down QuoVadis 6
- error messages when starting QuoVadis 6

To find out if that's the problem you can disconnect your computer from the internet (for safety), deinstall the av software, reboot the computer and try to start QuoVadis 6 again. If the error is gone and you are able to compress the data banks, the av software was the problem. You can also solve the problem by adding exceptional rules to the firewall but this changes depending on the av software. Referring to KIS 2012 the solution was:

„settings and software control > QuoVadis 6 / rules, for the software / exeptions > don't analyze opening files, don't control program activity and activitys of subprograms“, activate this setting!

## World map - world atlas doesn't work

The world map from the QuoVadis 6-bonus-DVD (or the download) is installed but doesn't open or QuoVadis 6 crashes when trying to open. In this case we recommend to reinstall this map.

### Reinstalling the world map

- delete the entry for the world atlas in the QV-Explorer, it is regularly located in the data bank „world atlas“ but please check!
- then recompress the QuoVadis 6 data banks, cursor on „QV-Data“, icon „database...“, „compress“
- then options, settings program, „recover all settings“, QuoVadis 6 will now be shut down
- now just run the setup for the world atlas again!
- start QuoVadis 6

*Notice: A previous deinstallation of the world map through Windows control panel/system/program is not necessary.*

# History

13 years QV.....

## New functions in QV 4

Vector maps:

- Garmin IMG map format: read, write, send to GPS - DXF files can be imported as a map (Davinci, emf) and will be calibrated automatically in the lat/lon - SHPs can be opened as a map - new QVM vector format which can combine various SHPs in one file including attributes - all vector maps can be used as overlays and be projected on any raster map, even several at a time

Raster maps:

- can now also process Bayo edition 3 maps - new tiled raster format QTL - ECWP files from mapservers are implemented

AutoNEW: - Route planning with the new options „Street route“ and „Altitude profile“ - Track panning with the new option „Altitude profile“

Multi XY diagram: multiple tracks or routes can be plotted, automatic recalculation if tracks or routes are modified.

Much more functions can now be handled per drag and drop.

Track processor for a flexible and comfortable editing of tracks

GPS online mode:

- Touchscreen mode for GPS-Online - Define new destination as vector projection from distance and bearing (Cap, Dist). - Dynamic routing with optional voice guidance / turn-by-turn navigation (NAVTEQ Navi maps required)

GPS: - „Auto Detect GPS“ will automatically search and identify GPS units from Garmin, Magellan or NMEA compatible devices on all COM and USB ports - GPS name check definitions can be edited and will be stored for each GPS model

X-Plorer: - Many spreadsheet field in the X-Plorer list display can now be edited as in a Excel spreadsheet - X-Plorer Pop-up menu option „open with file manager“ for all files and folders - X-Plorer Pop-up menu option „open with ...“ for all maps; will open the default application for this file type - X-Plorer list display of columns: new pop-up menu which allows to move or suppress the display of columns, sorting of columns by simple mouse-click - Info field now also for tables and databases.

Multitracking Pro/PU: - SMS configuration: implements sending and receiving of SMS through a local GSM modem, e.g. in order to configure a Microtracker or a Webtracker - Port TCP: New switch „Listen Port HTTP“ which will provide a mini-webserver at the defined port which will handle http messages and will filter the position messages, for example position uploads from a SANAV webtrac4.

Multi-Trackreplay in order to compare simultaneously recorded tracks, e.g. to compare tracks of various competitors of a race.

Implementation of freely configurable event-action definitions, separate for all defined vehicles/persons/assets.

and much more

## **New functions in QV 3**

Completely new programming of the code, new compiler with a significantly improved performance.

Simplified, modernised screen with new, removable and dockable toolboxes and windows.

Up to three map windows can be opened at the same time in the full version. For example, a route can be worked out precisely on a detailed map while in another window the whole route remains visible in the overview map. In online mode, you will see your position at the same time in different maps.

New layer manager to retain an overview of all open maps with all the markings included quite easily. Levels can be shown and hidden.

The improved AutoNEW function makes it easy to create and change routes, even at the same time in several map windows. Elastic band when creating and changing points, precise entry of new points by direct entry of either coordinates or distance and direction or distance in X/Y direction.

New EasyNEW function: A new route, a new track or new waypoints can be created immediately without the need to select a database and table first. These are saved automatically in „My Data“.

Drawings now with a 2 level hierarchy. Just as waypoints can be grouped into routes, now drawing elements (i.e. rectangles, circles etc.) can be grouped into drawings.

Printing on several pages can be done easily. The section can be specified easily by simply moving the area to be printed directly on the map. Create pages to be printed directly from the map with the pop-up menu. Fill a whole page true to scale; print true to scale over several pages.

External links to files or Internet addresses are now shown on the map with the markings. Thus these links can be opened directly from the map simply by clicking on them. A miniature view is created for photos. Digital photos can automatically be allocated to a track using a time comparison.

GPS online mode completely new: instruments that can be set freely, function that can be placed as you like and route navigation with display of direction/ distance to the destination.

Multitracking using NMEA. Using a configurable station ID position signals can be allocated to the relevant vehicle and displayed separately. In the full version 2 vehicles can be tracked. licence extensions can be purchased for additional vehicles.

„Active map extent“

Garmin data transfer with later GPS units now up to 12 times faster because of the higher transfer rate.

IGC track logs can be imported using Import in X-Plorer. Overlays too (only poly lines) both as a track and also as a drawing.

Full support for Lowrance USR files via Import/Export in X-Plorer. X added to XY diagram, jumps to the corresponding place in X-plorer.

New Special functions button in X-Plorer combines all functions that can otherwise only be reached via a pop up menu, such as digital camera support etc.

All pop up menus standardised. New: Color to quickly change the color of a marking directly on the map.

All the different settings combined centrally in a new settings window.

Markings window completely revised in the same style. With multiple selections in X-Plorer only the changed settings will be applied. Background color for each element can now be set separately.. Also trackpoints can now have their own color.

Tracks: New database fields: Track date, duration and time zone

trackpoints now with clear numbering even when re-sorted in X-Plorer.

Edit tracks: The Color selection window pop up menu assigns another color to the selected trackpoints. The Copy window selection pop up menu copies the window selection. This can then be added to another track in X-Plorer. Thus an easy graphic combination of partial tracks into a new track.

Track reduction expanded:

Maximum number of trackpoints can be selected. Can be called up from X-Plorer using the Special functions menu. Save a calculated road route as a track. Can immediately be reduced automatically to a maximum number of points.

Drawing elements can then be copied in X-Plorer and added to tracks.

Extension of the GPS name check: New Compare name and coordinates button checks for real duplicates. (as before): Finds WP's that have the same name but different co-ordinates: Only finds WP's that have the same name AND the same coordinates. Mark-X: Selects all WP's found in X-Plorer for easy further processing (e.g. delete, copy etc.).

Navtech map can be overlaid on any grid map: Open the grid map as usual then right click on the Navtech map in the X-Plorer and select Show (Overlay) from the pop up menu.

Routing: List of the last waypoints used in the routing window. The 10 last used WP's, ODB entries or addresses from the vector data search are listed here. trackpoints, map points and route WP's are not saved.

QV Internet Update Check added as a new item to the ? menu so that you can easily look up whether there are any new updates.

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## New functions in QV 2.51

A new interface in QV in order to send easily maps including its calibration from QV to PathAway.

A new interface in QV to transmit waypoints, routes and tracks between PathAway and QV.

A new multipage function. With this function several pages along the route can be printed out automatically

at any scale.

The German version of PathAway, a GPS navigation software for PDA with Palm-OS version 3 or higher.

In addition, PathAway can load waypoints, routes and tracks from Garmin® GPS devices. With this new

feature it is possible to collect track data as many as you like. During your journey just save your data on a

small Palm PDA with PathAway.

In addition to the well known vector maps of Teleinfo, we now included in our program vector maps of the

company Navtech. These maps are available one by one or in a set together with the Palm navigation software Digi-Map 2002 from Harald Körtge.

There is a new interface in QV for the creation of routes and maps for Digi-Map 2002 on the basis of Navtech

vector maps, and to send these directly to a Palm device. Furthermore, tracks stored in a Palm by Digi-Map

2002 can be loaded and saved in QV.

## New functions in QV 2.5

The Teleinfo vector map, Teleatlas, street names in Europe.

Street routing, calculating the fastest, best or shortest route using start and destination point information.

Intermediate stops are possible with automatic distance optimisation.

Results as a traditional route description, as a GPS route of the important stations or as a GPS track with the

exact road sequence for uploading into a GPS or also as a Roadbook.

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Uploading the route into the GPS or printing out into a Roadbook for simple navigation.

Search for post codes, towns, city parts, street names and sometimes even house numbers with the Teleinfo

CDs throughout Europe.

Rapid calculation of a route from the current position to the destination in online mode.

Night mode, dimmed screen for journeys with a laptop at night.

Information on track and waypoint altitudes is now managed in the database.

Information on altitudes can also be obtained from DEMs (Digital Elevation Models).

Currently the USGS Globe 30 Program DEMs and the Top50v3 CD DEMs are supported.

XY diagram: new tool for graphical evaluation and representation of tracks and routes.

Speed, altitude from the GPS or altitude from the DEM can be recorded and checked depending on the

distance or the journey time.

3D diagram: new tool for showing altitude information. Tracks and routes are drawn three-dimensionally and

can be shown with a 3D model of the region from the DEMs. You can “fly” through this imaginary world using

the keyboard arrows.

External links to QV X-Plorer: File names, directory names, web links and e-mail addresses can be allocated

WPs, tracks, routes and maps. The link or links then appear underlined in blue in the info field and can be

opened by clicking on them.

Long routes and tracks can now be divided up automatically.

Before uploading data into the GPS the name can be checked to avoid overwriting files with the same names.

Support for MLR GPS units

Reads Lizardtech SIC maps.

Simplified calibration by importing Word files.

Most windows can now be maximised.

Track replay has been linked with the XY and 3D diagrams.

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New setup program.

And many small improvements in detail and bugs fixed (as always)

## **New functions in QV 2.0**

If you know QuoVadis 1.62, here are some changes and new functions.

The name has changed from QuoVadis to QuoVadis

Complete revision of surfaces, symbols and menu bars

Completely new database and with QV X-Plorer a standard, simple to learn tool for managing all data.  
Link

from map.mdb to the maps in the directory is no longer there. The old WP, route and track windows are no

longer there.

Maps opened simply from CD ROMs with X-Plorer.

Simple organization of data with drag and drop or copy and paste

Improved print out of any lists

Database that can be used on a network

Powerful search functions

Supports GPS receivers by Magellan, Lowrance and Eagle

Supports NMEA equipment

Various national grids installed (Gauss\_Krüger for example), or many of your own grids and data can also be

compiled

Calculates the magnetic declination at any point

Different mouse pointers can be selected in the map window:

right angle crosshairs, GPS north, magnetic north, map grids and magnifying glass.

Considerably quicker image appearance with many markings on the map. Number of visible markings almost

unlimited.

New drawing functions to create lines, circles, areas, freehand lines, labeling on the map with area

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calculation

Road book editor for automatic conversion of a route into a printable road book with map clips.

Imports routes from route planners by Map & Guide and Marco Polo.

Opens ECW-Images

And lots more!

## **New functions in QV 1.6**

New look with new toolbar and status bar.

Calibration is in conformity with projection, if parameters of map are known. This new version contains more

than 60 different map projections.

GPS online mode is completely revised, supports the Garmin PVT protocol.

Uniform input / output box for coordinates.

New function: Search point in all maps. The point you are looking for can be entered in all coordinate systems supported by QV.

New function: You can identify the country below the mouse pointer. The name of country is displayed. all projection types QV supports.

North arrow can be projected on the map.

If you press and hold the left mouse button, the map within the map window can be scrolled in real time by moving the mouse.

Support of NOAA(BSB) maps. These maps are already calibrated and can be directly opened from CD.

NOTE: This function is BETA in this version. Not all types of NOAA(BSB) maps can be opened at this time.

Please check our homepage for updates.

## **New functions in QV 1.52**

Demo version now with all functions for 25 days.

This version of QV is a real 32bit program. For this reason, there is no version for Windows 3.11

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anymore,

although QV 1.51 for Windows 3.11 still is on this CD (\16\SPRACHE\SETUP.EXE). But, we do not develop

further this version.

Unfortunately, the Geographic Names Database cannot be used anymore with Windows 3.11.

Maps can now be saved in JPEG or GIF format. This saves memory on hard disc, but increases the time for loading

since the computer will internally always works with a 256 colors BMP format.

QV can be started with the following parameters:

ODB opens the Geographic Names Database during program start

ONLINE immediately opens the Garmin Online Mode

“File“ immediately opens the map “File“.

## **New functions in QV 1.51**

The slider in map window moves the map within the map window in real time (with zoom 1:1 only).

In route and track window you can now mark several entries from the list by holding CTRL or SHIFT key

while clicking with mouse.

SHOW, PRINT, DELETE and SEND/EXPORT then process all marked routes and tracks.

With the function Reduce Track trackpoints can be deleted, if requested.

You can show trackpoints by any character via Options - Marks or Style in pop-up menu.

Saving of track in database is now 90% faster, showing track is 30% faster.

Program can be operated in English or German (Options - Settings - General).

Clearer cross hair in the map window.

In the field Point in Main Window you can now enter the point which shall be displayed on the map. It is even

possible with the overview map.

When calibrating even tenth seconds can be entered.

When calibrating UTM maps you do not need to enter the zone letter anymore.

With File - Export Calibration you can save the map calibration in a text file. This map can then be copied

together with this file to another directory or to another computer without losing the calibration. During

calibration this file is created automatically.

In the three database windows WP, route and track you can create a text file with the marked data by clicking the right mouse button on Send / Export. This text file can then be imported to another computer.

And many further little improvements and corrections.

## **New functions in QV 1.5**

The main feature of the new QV 1.5 is that now you can work with several maps and that various functions

are integrated into the right mouse button.

The new function OVERVIEW shows you on a simple overview map all maps you have on your hard disk in

form of a rectangle true to scale You can open it by double click.

We supply overview maps of the whole world, Europe, Africa, ,Asia, Australia, North and South America.

Own overview maps can be defined easily.

The overview map can remain open in the background, but also be closed.

With the new function AUTOMAP always the current map is opened, whether you travel in Online mode or

when you reached the map border and need the neighboring map or if you press SHOW and the current map

does not contain this point. Also the function MARK OF FILE will find the right map itself.

With the right mouse button you can now open a pop-up menu at any point you like, see a list of all maps

which contain this point and neighbouring maps. Thus, you can open the corresponding map immediately and

change between two maps of the same region.

Waypoint, route and track marks also have pop-up menus. With the right mouse button you can save

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waypoints, routes and tracks, append them to the active route, delete marks or data or you can open the

database.

If you change maps, the marks of waypoints, routes and tracks remain in the same directory and will be

automatically calculated and drawn new. Thus, the maps can be compared.

Routes may cover several maps.

You always see all maps and waypoints/routes in the current directory. As option, the function AutoMAP and

the Map Overview can also work with all maps from the hard disk.

In the window UTM Calculator, the datum/ellipsoid list can be extended by other entries. So, also exotic

UTM maps can be used.

The marks of routes and tracks can be moved by mouse. Up to today, this was only possible with waypoint

marks.

Totally new is the track window, which - similar to the route and waypoint window - makes an administration

of your tracks possible.

The function „Maintain Database“ is extended by a map import function. Now, you can copy calibrated maps

from one directory into another, without losing the calibration.

New function: EXTERNAL DATABASE with about 5.000.000 places and coordinates of the whole world with direct access to maps of the single countries.

Furthermore, you can also calibrate maps with Swiss Grid.

The calibration is much simplified by relief lines. QV can now foresee the position of next point in map and

moves the map section correspondingly.

The list of map reference systems (datum/ellipsoid) had been extended to in total 145. Now, all map reference systems of Garmin and even some others are available.

Reception of Garmin data is now done via a new central window.



# Keyboard layout

You can find this list also in the program in the menu **?-Keyboard layout**.

## Mouse wheel in the map window

- Mouse wheel: Zoom to Cursor/center of the window, depending on the setting „Zoom centers cursor“
- Mouse wheel + Strg: Zoom to cursor
- Mouse wheel + Shift: Zoom to mouse pointer
- Mouse wheel + Shift + Strg: acceleration/braking (Space: stop)

## Mouse in the map window

- Free movement with keeping the left mouse button pressed: shifting of the map -  
Left/right-movement of the mouse with keeping the right mouse button pressed: turning around the center of the window
- Move up and down with keeping the right mouse button pressed(only 3D): tip at the center of the window

## Push buttons in the map window

- arrow left/right/up/down: moves the map
- arrow left/right + Shift: turns the map around the center
- arrow left/right + Strg (only 3D): turns into the view direction
- arrow left/right + Shift + Strg (only 3D): turns the horizon, tilt
- arrow up/down + Shift (only 3D): tip around the center of the window
- arrow up/down + Strg (only 3D): view direction up/down
- arrow up/down + Shift+Strg: acceleration/braking
- 1: zoom 100% the cursor/center of the window

- 2: nearer to cursor/center of the window
- 3: further away from the cursor/center of the window
- 4: zoom whole map
- Plus/minus/PgDown/PgUp: 2D: zoom to cursor/center of the window, 3D: height down/up
- Plus/minus/PgDown/PgUp + Strg: zoom to cursor
- Plus/minus/PgDown/PgUp + Shift: zoom to cursor/center of the window
- U, only 3D: as GE, centering, look down perpendicularly
- R, only 3D: as GE, centering, look down perpendicularly and position to nord
- R + Shift: Reset, basic screen
- Q: new creating
- N: turns map to the north
- Strg-N (only 3D): turns the horizon horizontally.
- C: centering the map cursor in the middle of the map
- Strg + I: opens the map with the next higher size of the scale („map zoom in“)
- Strg + O: opens map with the next-smaller scale („map zoom out“)
- Shift + Strg + I: opens the map with the largest scale
- Shift + Strg + O: opens the map with the smallest scale

## **Key control in GPS-online-mode**

- Leertaste: In the GPS-online mode the centering function of the actual position switches
- P: centers the actual position
- Strg + H new calculation of the actual route