MotionStudios

Vasco da Gama 19

Creative Route Planning

User Handbook

Information

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Foreword

Dear Customer, thank you for choosing our Vasco da Gama software.

Vasco da Gama offers a series of new functions for the PC for increasing your video production values.

This operation manual will introduce you to the expansive capabilities of the software and give you tips for using it effectively in practice. This manual is divided into the main sections Installation and Fundamentals and Creating Routes with Vasco da Gama.

At the end of the manual you will find a small glossary, in which technical terms are explained.If you find a term in the text that you dont understand, you can check the glossary.

We wish you much enjoyment with your new Vasco da Gama 19 software.

Your MotionStudios Team

What is Vasco da Gama?

Vasco da Gama - The next step in route planning

Experience the new features of Vasco da Gama and create richer route animations. Set out in the morning with a camper in Hamburg, take in the sunset in Munich and then head out again as the sun rises the next day...

You can plan your route easily and intuitively on your computer, without the use of pen and paper! Enter your location into Vasco da Gama 19 with the GPS or just spin the globe to start planning the journeys of a lifetime. Outstanding 3-D elements provide flexible, appealing route planning to support your presentation to family, friends or colleagues.

Designing your itinerary

How you go about designing your itinerary is up to you. If you‘re planning a cruise, use high-quality images to show what your dream trip will look like. Are you going on a research safari to the depths of Africa?

What is Vasco da Gama?

Present your excursion in a presentation or documentary video. Vasco da Gama 19 helps you make sophisticated travel films for TV or lectures with animated journeys across the entire globe Spice up your footage and get ready for your audience to be amazed.

Vasco da Gama in practice

Let your fantasies run wild! Set custom criteria for designing your route and use the different kinds of special effects available. Take advantage of real-time preview to make direct and precise changes to your presentation.
Use professional, high-resolution technology that allows you to create your videos in high quality. Fast post-production conversion of your videos to all common video editing systems! Splice together all of your videos Vasco da Gama 19 to create holiday and travel films like you usually only see on TV!

New Features in Vasco da Gama 19

Experience travel like you‘ve never seen it before!

With Vasco da Gama 19, we present the most advanced and powerful version of our travel route animation software to date.

From breathtaking visual effects and optimized performance to new creative possibilities, this version sets new standards in realism and speed.

Elevation profile for your travel route

A real highlight!

For the first time, you can display your travel route with a realistic elevation profile—including GPS coordinates and altitude display. Numerous options for color design and style selection leave nothing to be desired.

Current OSM maps included for one year

Discover the world in razor-sharp quality!

With the latest OSM maps, valid until December 31, 2026, you have access to the most up-to-date maps for your projects – free of charge, of course. This allows you to design your routes in even greater detail with the latest geodata.

New Features in Vasco da Gama 19

Newly Developed Depth-of-Field Effect

More Depth. More Cinema. More Wow.
The completely redesigned Depth-of-Field effect uses advanced ray tracing to create realistic depth blur. Smooth transitions, gentle focus gradients, and an impressive sense of depth make your videos look truly cinematic.

Optimized Text Rendering with Outline

Text that impresses!
The new text engine delivers razor-sharp fonts and perfectly smooth curves. Especially outline text benefits from crisp edges and a precise, professional look – ideal for titles, captions, and animations.

Enhanced Color Requester

Now even more precise:
With the new string input in the color picker, you can enter color values directly and accurately – giving you total control over your design and perfect color matching.

New JXL Decoder and Encoder

Faster. More efficient. More modern.
Thanks to the latest JXL technology, images and map tiles now load up to four times faster. Noticeably shorter loading times mean more speed, more comfort, and more creativity.

Significantly Faster Loading of 3D Objects

Ready to go in record time!
Program startup and the loading of 3D resources – such as aircraft and other models – have been dramatically accelerated. You'll immediately notice the difference, especially with large object collections.

Modern color scheme for the user interface

Fresh, clear, and customizable:

Vasco da Gama 19 features a modern dark mode design inspired by professional video editing software. Choose between modern orange or classic blue for the look that suits you best.

Improved atmosphere calculation

Naturalness that inspires:

The new atmosphere calculation delivers harmonious lighting conditions and natural colors—without annoying red casts or unnatural transitions. Your scenes now look more realistic than ever before.

Sunrise and sunset in new brilliance

Magical moments for your projects:

The new algorithm now calculates sunlight, reflections, and color tones even more realistically. Experience impressive sunsets in fiery orange and red tones—for more emotion, drama, and romance in your travel scenes.

Conclusion

With Vasco da Gama 19, your creative journey becomes even more impressive, realistic, and intuitive.

Experience state-of-the-art technology, faster workflows, and effects that take your videos to the next level.

Whether you want to animate impressive travel routes, create documentaries, or simply visualize your adventures, Vasco da Gama 19 is your perfect companion.

The functional features of Vasco da Gama 19

Vasco da Gama 19	HDPro	HDPro XXL	HD Ultimate
Quickt & Easy Assist 3	YES	YES	YES
Depth of field effect	YES	YES	YES
Easy flight mode (flight movements with just one click)	YES	YES	YES
Switchable clouds	YES	YES	YES
3D mountain landscapes	YES	YES	YES
Simulation of ocean waves with solar reflections	YES	YES	YES
Reflections of objects, texts and mountain landscapes on the sea	YES	YES	YES
64Bit processor support	YES	YES	YES
Multi-core processor support	YES	YES	YES
Optimized display quality (latest technologies)	YES	YES	YES
Creation of stereoscopic 3D videos	YES	YES	YES
Drones camera work	YES	YES	YES
Automatic camera control with camera profiles	YES	YES	YES
Fixed camera mode for motionless cards	YES	YES	YES
Manual camera work with keyframes	YES	YES	YES
Placing objects and texts at checkpoints	YES	YES	YES
Text at stopover points	YES	YES	YES
Adjustable route color, style and width	YES	YES	YES
Using your own 2D objects (images) as head objects, key objects or free objects.	YES	YES	YES
Adding national borders	YES	YES	YES
Save videos as Raw DV, AVI DV type 1/2, VfW, AVI (DirectShow), Windows Media Video (wmv), QuickTime (mov) and as image sequences (JPG, BMP, TGA and PPM)	YES	YES	YES
Hide/show texts and objects at checkpoint	YES	YES	YES
Adjustable route color, style and width	YES	YES	YES
Acceleration and deceleration at checkpoints	YES	YES	YES
Free positioning of text and objects	YES	YES	YES
Different fonts can be used simultaneously	YES	YES	YES
Integration of own photos	YES	YES	YES
Particle animation, e.g. real smoke from steam locomotives	YES	YES	YES
Simulation of animated turns, arrivals and departures of objects	YES	YES	YES
Free camera movement (camera zoom, position, tilt and angle)	YES	YES	YES
Light and shadow effects adapt to the position of the sun (the month and time can be freely selected), e.g. the sunrise or sunset	YES	YES	YES
Alternative control dial mode	YES	YES	YES
Quick save button for projects	YES	YES	YES
Simple map mode	YES	YES	YES
Enhanced map mode	YES	YES	YES
Simple camera mode	YES	YES	YES
Uniform timeline	YES	YES	YES
Undo function	YES	YES	YES
Import of GPS tracking routes (formats such as CRS, G7T, GPX, KML, TCX, OVL and others)	YES	YES	YES
Analysis of GPS data from images, allowing for images to be placed automatically in the location where they were taken.	YES	YES	YES
Support of High Definition Video HDV, HDTV, 4K and Ultra HD	YES	YES	YES
Start of the route with exact time data	YES	YES	YES
Simulate up to 10 independent routes at the same time (rallies)	YES	YES	YES
Different speeds can be set for the selected objects	YES	YES	YES
Improved preview, i.a. the setting of mark in/out points	YES	YES	YES
3 basic world maps (Blue Marble, Classic Sat and Classic Earth	YES	YES	YES
Library with 3D objects	approx. 350	approx. 350	over 7.800
Number of GPS database entries of cities, capitals and villages	365.269	4.526.205	4.526.205
Degree of detail (map size in pixels) for land mask, night lights, city names and country borders	65.536 (0.26 GB)	262.144 (1.81 GB)	262.144 (1.81 GB)
Degree of detail (map size in pixels) for mountain landscape	65.536 (0.22 GB)	524.288 (9.75 GB)	524.288 (9.75 GB)
Object Package "Sights"	NO	NO	YES
Object Package "Aircraft and Airlines 7"	NO	NO	YES
Object Package "Ships and Boats 6"	NO	NO	YES
Object Package "Vehicles 2"	NO	NO	YES
Object Package "Wildtiere"	NO	NO	YES
Object Package "Cartoons 2"	NO	NO	YES

Chapter 1

Installation of Vasco da Gama

This chapter focuses on the installation of Vasco da Gama 19 software

Installation

In your Vasco da Gama software package are the instructions, a registration card with serial number, and a DVD or Blu-ray (Not included in the download version). Before you start working with Vasco da Gama, the software must be installed.

Note for PC Configuration:
Your PC should have at least an 2,4-GHz 64Bit-processor, 4GB RAM system memory, and a 3D-capable graphics card. Also use one of the following operating systems: Windows 7 64Bit, Windows 8 64Bit, Windows 10 64Bit or Windows 11 64Bit.
Your desktop resolution should be at least: 1024x768 Pixel, 24/32Bit colour depth.

If you have an installation DVD insert it in your DVD drive, otherwise start the download file.

Select the preferred saving location, or go with the default target directory. Now click on the button Install.

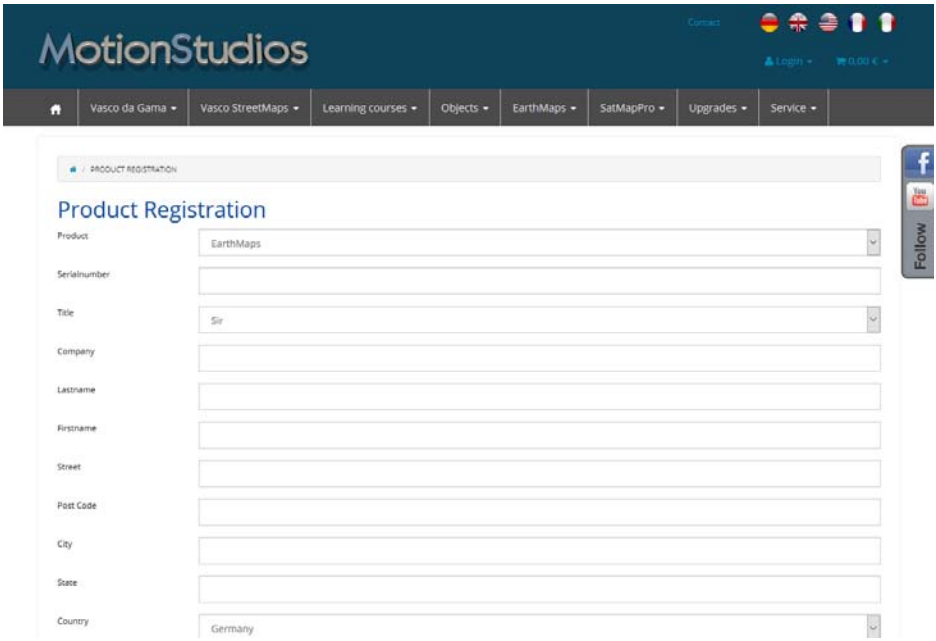
Vasco da Gama will now unpack all the necessary files and store them on your computer. This may take a few minutes. Once the copying is complete, click on the More button.

Select your language preference here, by moving the mouse arrow to one of the flags and click on the left mouse button.

The installation begins.

Depending on the DVD drive the installation can take up from 10 to 90 minutes.

Registration



You should register your Vasco da Gama.

This has some advantages: If you lose your serial number, we can find out what it is and inform you free of charge through your registration. Furthermore you can take advantage of some attractive offers, which are exclusively available for our registered customers.

Likewise if you send any questions to our support team, you need to have already registered

We also recommend visiting our service area at www.mortionstudios.de where you will find all the latest software updates and free tutorials.
You will also find interesting workshops and video tutorials on our YouTube channel: www.youtube.com/user/MotionStudios1
and on Facebook: www.facebook.com/MotionStudios1

MotionStudios

Chapter 2

User interface

Vasco da Gama 19

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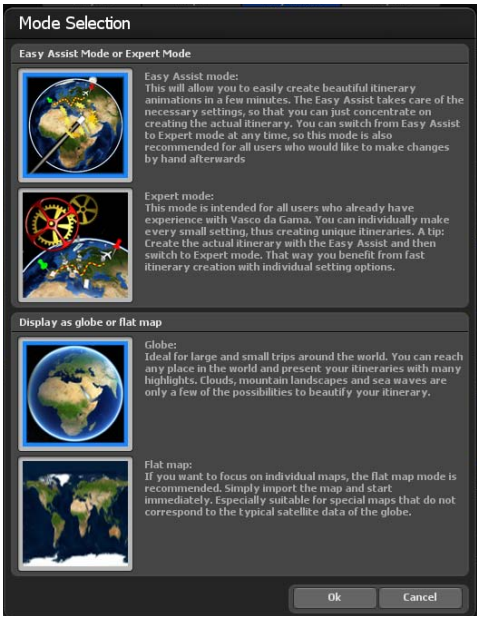
Easy Assist

Easy Assist
Project settings

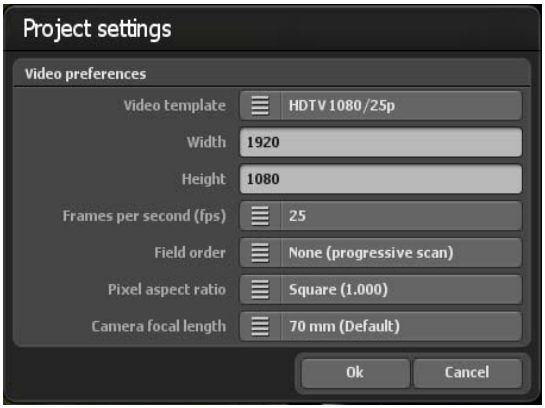
After successfully installing the software you can start Vasco da Gama by clicking on the icon displayed on the Desktop. Vasco da Gama 19 now has two modes: the new Easy Assist Mode and Expert Mode. Directly after the program start, or when creating a new project, you can now choose between both modes.



The Easy Assist mode provides a simpler working surface with the most important parameters, while the Expert Mode provides all the tools. Easy Assist makes it easier for new users to enter the route animation, but it is also useful for experienced users, as the creation of a new project is much faster because the most important parameters are available directly. At any time you can switch from Easy Assist mode to Expert Mode.

Select map mode:
You can work in Simple or Extended map mode. For example, if you choose the extended map mode, you can create travel routes on the 3D globe. The setting selected here then applies to this project and cannot be changed later. To change the map mode, you need to create a new project.

Easy Assist
Project settings



Video settings:
Here you can enter the project-related settings, such as for example the selection of the video template (PAL, NTSC, HDV and HDTV-Format) as well as the video settings (the video format 720 x 576, images/sec amongst other things).

With the type of picture it is to be noted that this must be correspondingly adjusted according to the video output format used. If you would like to work with Interlace videos, set the type of picture for the format of DV-RAW, AVI DV Type 1 and AVI DV Type 2 on the „lower half of the image first"; for Video for Windows and AVI (Direct¬Show) on the „upper half of the image first".

As the video is nearly always only displayed as a full screen (progressive) with modern PC monitors, projectors, and LCD and plasma television sets, it is recommended to place the type of picture on full screen (Progressive Scan). Simply try all 3 variants out and use the variant that is best for you. Note: (only HD Professional). In order to be able to use the video templates for HDV/HDTV, you must first change the video output format to "AVI (Direct show)" in the main settings!

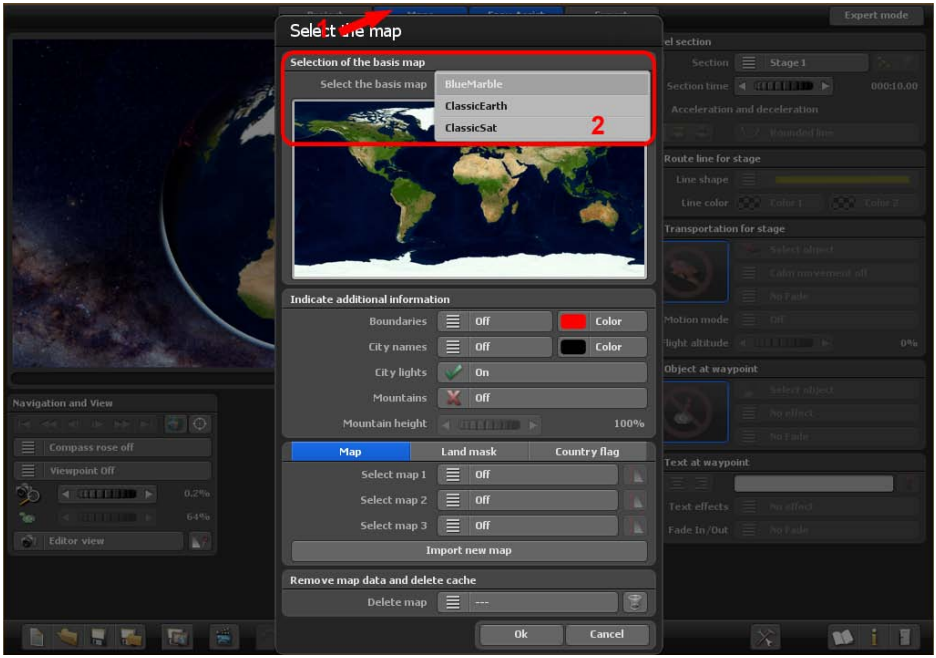
Pixel ratio:Fundamentally you should always work with the video templates, as all the necessary settings (up to the type of picture, see more above) are correctly preset here. If on a certain occasion you need different settings, it is to be noted here that the pixel relationship is not identical to aspect ratio! For example, the pixel relationship is square with HDTV 1920x1080 (1:1), but the aspect ratio is 16: 9

Video settings as default for new projects:
If you would like to automatically apply the desired settings to all new projects, press the "Apply settings as default" button.

Easy Assist
Advanced Map Mode / Map Selection

1. Advanced Map Mode:
Under the Project tab, you can choose between the extended and simple map modes. For example, selecting the advanced map mode makes it possible to create routes on the 3D globe.

Selecting a map:
Click above on **Maps (1)**in the main menu to launch the map selection dialog. Here you can choose the base map of your choosing, add borders, and add and manage your own maps.



Select basis map:
In the basic package of Vasco da Gama 19 you will find three base maps (ClassicEarth, ClassicSat and BlurMarble) of the Earth in the Select Base Map section. These maps are stored locally on your hard disk and can also be used offline.

If you have an existing Internet connection, SatMapPro 2 will continue to be available to you free of charge until 31.12.2026. This satellite map has a higher resolution and therefore offers much more detail in the view. If there is no internet connection, only the local base maps from your hard disk will be displayed.

The selected map is then displayed in the preview below and, after clicking Ok, placed around the 3D globe displayed in the editor area.

Display additional information

Borders:
You can decide whether you want to display country and sea borders or not. Country and sea borders can be activated separately from Vasco da Gama 19. Check the box if you want to display borders.

Color:
You can also choose the color of the country and sea borders. The change is immediately visible in the small preview of the world map (overlying).

City names:
This allows you to display a ready-made template for city names on your globe. You can choose whether you want the city names to fade smoothly or switch directly when zooming.

Choose a colour:
This lets you adjust the font colour of city names.

City lights:
If checked, then the lights in cities are displayed.

Mountain landscapes:
Turn this feature “On” when Vasco da Gama calculates real 3D mountain landscapes. This feature is especially useful if you want to create route animations by plane.

Mountain height:
If the mountain landscapes are activated in the map selection, you can use this to adjust the height of the mountains. Especially when it comes to a travel route where the view takes place from a long distance, you might opt to make the mountain landscapes more visible by increasing the height.

Easy Assist
Advanced Map Mode / Map Selection

Add a new map:

If you would like to add your own map, which is to be later placed on the basis map click on the Add new map button. Now a further dialogue window opens up where you can make further adjustments. For this see also "Select own map".

Select map 1 to map 3:

Here you can select your own map. Depending on the version of Vasco da Gama 19, you can use up to 3 of your own maps at the same time, in order to supplement the basis map.

If you now select one of your adapted maps with the "map 1 selection", then you can make further settings for this map by pressing the button to the right of the map selection.

Visibility settings

Here you can now indicate within which zoom range of the camera your map is to be indicated.

Visibility:

Select "Always visible" if your map is always to be indicated independent of the camera zoom. With "Fading in" the map only becomes visible with the zoom in on the map. In contrast to this, with "Fading out" the map becomes invisible with the zoom in.

Use the maximum visibility to specify the opacity of the map.

With camera zoom values over or under the start and final height, your map is completely visible or invisible depending on the selected visibility.

With ok you confirm your input.

Easy Assist
Advanced Map Mode / Map Selection

Select additional land masks

In addition to maps, Vasco da Gama 19 now allows you to add matching land masks for your map. This has the advantage that water and land areas can be separated more precisely. This can be advantageous, for example, if you create a city map where many rivers are also visible. Without a corresponding land mask, the rivers would practically spill over the banks when the water waves are switched on and thus also affect many land areas. You can prevent this with the creation of a land mask and thus enable a perfect separation.

The procedure is the same as for the maps. Just make sure that you use a different name for the land mask and that it has no more than 30 letters. For example, you can name the map „Berlin“ and the landmask „Berlin_Mask“, this way you can easily distinguish the maps even on the hard disk.

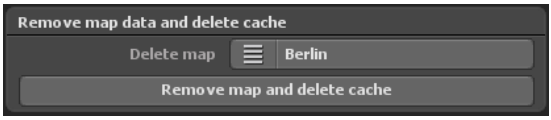
Select additional country flags

Another highlight of Vasco da Gama is the option of placing the country flag on the corresponding country on the globe. The flag is only displayed within the country‘s borders. There are 150 different country flags available.

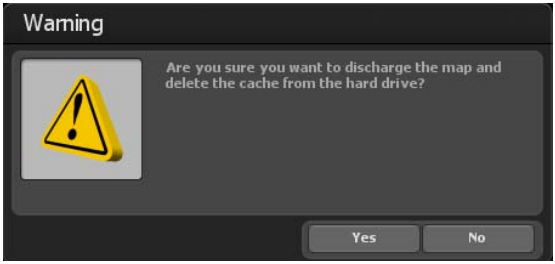
As with the country maps, you can also set the visibility of the country flags individually.

Easy Assist
Map selection

Delete the map data from the hard drive:



Here you can delete your own maps, which you do not need any longer. In doing so the map from Vasco da Gama is discharged and the hard drive memory (cache) is free again. The original map is not affected and remains as it was.



Note:
If you want to delete a map that you used in the meantime in a project, these project data are deleted! In this case you should recreate the deleted map.

Delete map:
Select the map you would like to discharge from Vasco da Gama and remove from the hard drive.

Discharge map data and delete cache
After you have selected the map you would like to remove, click on the map data to deliver and cache Discharge map data and delete cache.

Now a warning appears, whereby you are requested to reconfirm that you want to delete the map data.

Press on Yes in order to irrevocably delete the maps.

Easy Assist
Select own maps

Select own maps:

There are 3 input fields, with which you can insert your own maps in Vasco da Gama.

In the first field you can enter a directory and file name. To the right of this field there is the to the File selection window button. With one click you open the standard Windows file selection window. Here you can now select your map. This should be present in a common graphics format (PNG, JPG, TIF, GeoTiff, BMP, etc.).

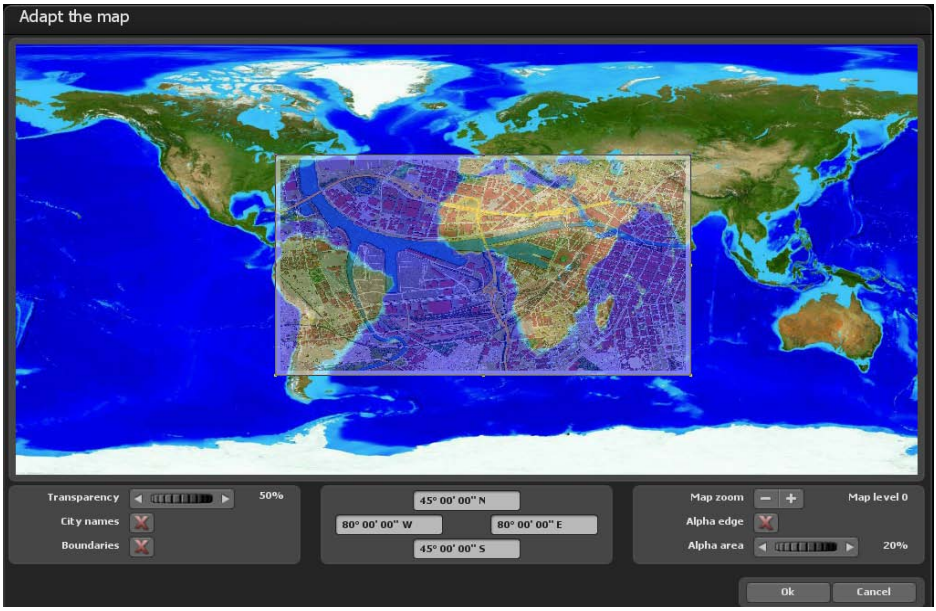
Note:
Vasco da Gama supports different graphics formats with additional coordinates for the geo-referencing of the display window, like for example, GeoTiff or XML files. Hereby Vasco da Gama can automatically assign the maps and insert them on the basis map.

Select the directory for the cache:
The map is converted into a readable format for Vasco da Gama; the data is stored in a so-called cache. Select a directory on your hard drive with sufficient memory. Depending on your map, the volume of data can quickly amount to several 100 MByte. If you work with a lot of your own maps, save them in a directory with several free Gbyte of memory. You can enter the cache separately in addition, for each map, in order to distribute the data over several hard drives.

Enter the map name for the selection list:
Finally you enter the map name, which is to appear later in the selection list of Vasco da Gama. Without specific user settings, Vasco da Gama automatically uses the file names as the map name. They can amend this however as desired. It is advisable to select a name, which describes the contents of the map and so making it easier to find it later on.

Easy Assist
Adapt the map

Having selected your map, click on the dialogue box „Choose your own map“ and then confirm with Ok. A dialogue box **Adjust Map** will appear and the new map will be

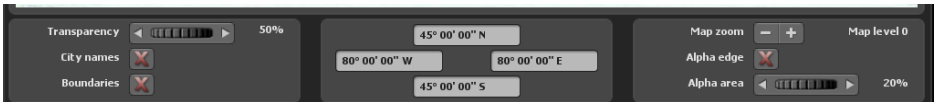


inserted in a reduced size.In this dialogue window you can adapt your map so that this is later indicated in the correct place on the globe.

Settings with the left mouse button:
You can adapt the area of your map by clicking on the corner or peripheral points with the left mouse button and pulling these in the required direction with the pressed mouse button. If you click on the corner points and simultaneously keep the “STRG” key pressed down on your keyboard, the proportions of the map are maintained. In order to move the whole area, simply click with the left mouse button within the area and pull the map to the desired place.

Settings with the right mouse button:
With the right mouse button you can shift the reference map (the background map) and, with higher map zoom, shift the reference map to the required position.

Easy Assist
Adapt the map



Transparency:
Set the transparency of your map here, you can see your map through the reference map and adapt your own map better. This value is only used for adapting the map and has no influence on the later appearance on the globe.

City names:
As a guideline, when adapting the map you can additionally indicate the city names so that you can adjust your map accordingly on the basis of the city points. Set a checkmark to indicate the city names.

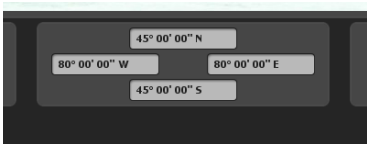
Boundaries:
Likewise, the borders serve as an orientation guideline and are indicated with the setting of a checkmark.

Map zoom:
With the buttons "- "and "+ "you can set the map level and thereby the zoom factor of the reference map. Thereby you can adapt your map even more exactly to the reference map and increase the correspondence.

Alpha edge:
If you have not already allocated your map with a Malprogram a soft focus transition area, then you can carry this out at a later date using this function. The map will no longer be indicated on the globe with a hard edge but will insert itself with a soft transition in the basic map. Set the checkmark to use this function.

Alpha area:
Select here the area meaning the thickness of the alpha edge, which is to be set around your map. Please ensure that your map has sufficient reserves all around, otherwise important information could be lost in the alpha area.

Easy Assist
Adapt the map



You can also register the coordinates of your map in the fields by hand. The fields are laid out so that they reflect the appropriate edge of your map in each case.

With the left and right entry field you can enter the longitude degree and in the upper and lower input field the degree of latitude.

Note:
Please consider the input format, so that Vasco da Gama can read your data correctly. Three variants are available for the input of the coordinates.

Degree, minutes, seconds

Latitude:	30° 26‘ 20“ N (N = north) or S (S = south)
or	N 30° 26‘ 20“ or S 30° 26‘ 20“
Longitude:	100° 13‘ 50“ W (W = west) or O (O = East, here the English E = East is possible)
or	W 100° 13‘ 50“ or O 100° 13‘ 50“

Degree, decimal minutes

Latitude:	N 30° 26.54326 or S 30° 26.54326
or	30° 26.54326 or -30° 26.54326
Longitude:	W 100° 13.5564 or O 100° 13.5564
or	-100° 13.5564 or 100° 13.5564

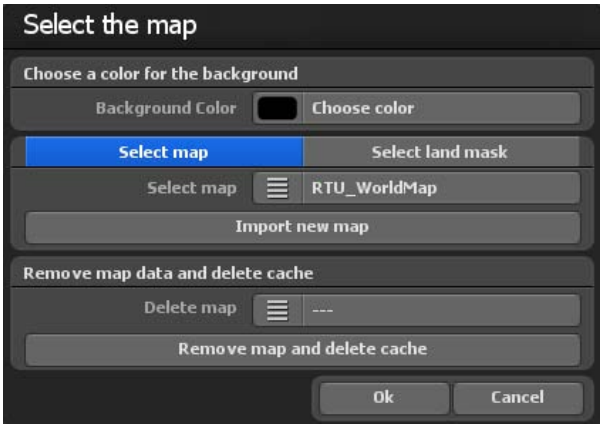
Decimal degree

Latitude:	N 30.7554326° or S 30.7554326°
or	30.7554326° or -30.7554326°
Longitude:	W 100.853532° or O 100.853532°
or	-100.853532° or 100.853532°

Note:
The abbreviations “N “, “S “, “W “ and “O” (or the English variant “E” for east) can be indicated at the beginning or at the end of the coordinates.

Easy Assist
Flat Map Mode / Map Selection

1. Flat Map Mode:
The flat map mode allows you to import flat 2D maps just like in earlier versions (Vasco da Gama 1-4). You can then create a route on the imported map.
The function for exact positioning of maps (with GPS map data) is now supported in Vasco da Gama 19 and higher in the simple map mode . Until now, the exact positioning of maps was only possible in the extended map mode. When using geo-referenced maps (with GPS coordinates, e.g. created with Vasco StreetMaps), it is now possible to use functions such as searching for places, but also to position sights (3D objects), texts and waypoints exactly via GPS. An exact location display is also possible.

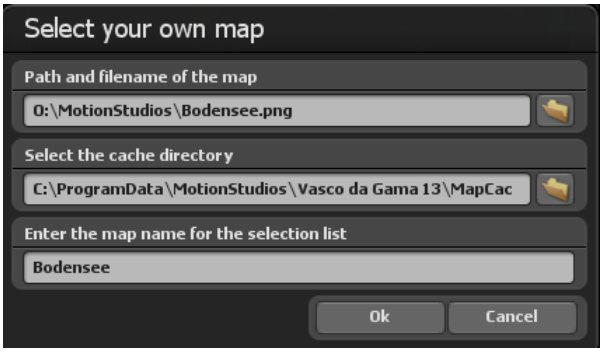


The „Map Selection“ dialog box opens. You can specify a background color that will be displayed outside of the inserted map, which may be the case, for example, in various camera settings (angles). To make a selection, click on „Choose Color“ and select a color

Easy Assist
Simple Map Mode / Map Selection

Select Additional Maps

If you would you like to create a route on a map of your own, click on the „Add New Map“ button. In the following dialog box, navigate to your map and click „Open.“ The „Choose Your Own Map“ dialog box will appear.



There are then 3 input fields that allow you to integrate your own map in Vasco da Gama.

Enter the directory and file name into the first field. Or click the folder button to the right of this field to open the file selection window. You can then navigate to and select your map. This file path will be applied and displayed. The map should be in a common graphics format (PNG, JPG, TIF, BMP, etc.).

Select additional land mask

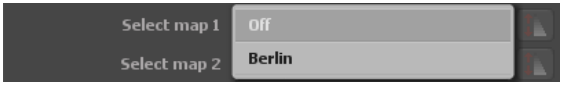
Also for the flat map mode, you can also add a land mask for your maps. To do this, select the „Select land mask“ tab. The procedure is the same as for the maps. Just make sure that you use a different name for the land mask and that it has no more than 30 letters. For example, you can name the map „Berlin“ and the landmask „Berlin_Mask“, this way you can easily distinguish the maps even on the hard disk.

Easy Assist
Simple Map Mode / Map Selection

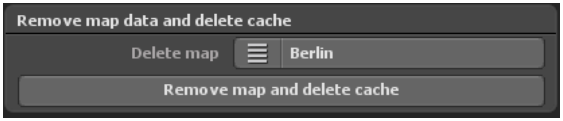
Choose the Cache Directory
The map is converted into a readable format for Vasco da Gama. Data is stored in a so-called cache. Choose a directory on your hard disk with enough space. Depending on your map, the file can quickly amount to several hundreds of MB‘s of data. If you are working with many of your own maps, select a storage space on a hard disk that has several GB of space (e.g. another video hard disk in the system). You can also specify the cache separately for each map so as to spread the data across multiple disks.

Enter a Map Name for the Selection List
Finally, enter the map name that you want to later appear in the selection list in Vasco da Gama. If you don’t enter a specific name, Vasco da Gama automatically uses the file name as the map name. You can, however, change this later if you so choose. It is advisable to choose a name that describes the contents of the map, making easier to find later.

To accept the map, click “Ok.”
The newly selected map will appear and can also be turned off in the map selection list under „Additional Maps.“



Clear Map Data from the Hard Disk:
You can delete any of your own maps, which you don‘t need anymore. Deleting a map erases it from Vasco da Gama and the memory (cache) on the hard disk once occupied by the map is freed up. The original map is not affected and is still available on your hard disk.

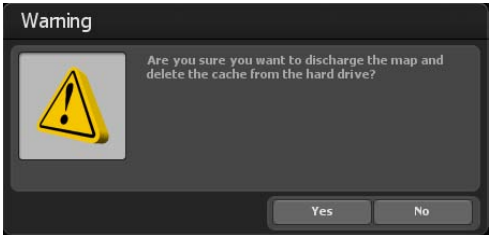


Note:
If you want to delete a map that you are still using in a project, the project data will also be deleted! In this case, you should import the missing map again.

Delete Map:
Select the map that you wish to remove from Vasco da Gama and the hard disk.

Remove Map Data and Clear the Cache:
After you have chosen the map that you want to remove, click on the „Remove Map Data and Clear the Cache“ button.

A warning will appear, prompting you to confirm for a second time that you wish to delete the map data. Click „Yes“ to delete the map permanently.



If you wish to accept the new 2D-map, click “Ok” in the Map Selection dialog box. The map is imported into the editor view of Vasco da Gama 19. Then you have completed the import process for a flat 2D map and can now start creating a route. To position the camera within your route, follow the instructions in the chapter entitled “Camera.”

Note:
For more practical tips and information about creating a route on a flat 2D map with simple camera tracking can be found in ***chapter 15****.*

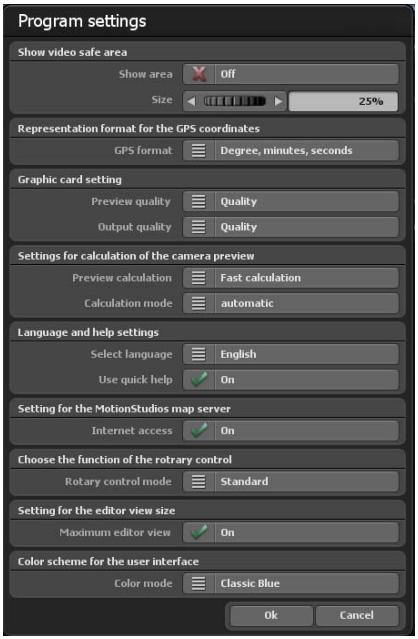
Easy Assist
Lower bar

On the lower bar you will find all the functions needed to load/secure a project, to save the video or end the program. Moreover one you can navigate from here to the project and main settings of the program.

1. Create a new project.
2. Open an existing project.
3. Save the current project.
4. Save the current project with a file selection window.
5. Save the current view in the editor area as an image.
6. Display a preview of the project.
7. undo, to reverse one or more actions.
8. Navigate to the main settings of the program (see next page).
9. Open the help file.
10. Navigate to the program information.
11. End the program.

Easy Assist
Main settings

Main Program Settings:
Move to the program's project toolbar. Start the Settings Dialog with the To the Main Settings button.



Activate the secure area for the video. Display the button area and the secure area is shown in camera mode and in the preview.

The non-secure area is darkened. If the button is on „OFF", the video secure area is not displayed. Here you should note that the video-secure area is not used when saving the video. You can therefore continuously work with the video secure area without later affecting the video. With the size area adjuster, you can set the secure area in the video from 5%-25%. The greater the selected value, the greater the dark edge around the video which is considered a video non-secure area.

With GPS format you can change the output format for the representation of the GPS coordinates according to your wishes. You can select between "degrees, minute, seconds", "degrees, decimal minutes" and "decimal degrees". At locations where you can enter GPS coordinates, all three variants are always recognised automatically and converted, independent of this setting.

Graphics card settings

To ensure smooth work even on less powerful graphics cards, you can set the desired preview quality/output quality here. It is recommended to set the preview quality to „performance" and the output quality to „quality".

Performance: the best performance for smooth work. Some features, such as reflections on the water and the calculation for smooth transitions in mountain landscapes, have been turned off.

Balanced: achieves a balanced relationship between performance and quality; only some effects are switched off for better performance.

Quality: the best quality for presentations. All visual improvements are switched on.

If this should be case, then you set this value on “compatible” “and start the programme again.

Settings for the calculation of the camera preview

Calculation Type: This is where you can decide whether the mini-preview images are to be created in camera mode or not. When opting for faster calculation, the system may not wait for the map tile to load fully, thus potentially causing blurring of the images in slower systems. The precise calculation requires a longer waiting time (as the calculation takes longer), so the preview will be sharper and more accurate.

Calculation mode - Automatic: This is where the preview is automatically recalculated whenever a change is made.
Manual: The preview images will only be calculated, if you press the corresponding button. The manual options may be the better choice especially when using a large number of camera points; otherwise calculating the preview image will take a long time

Language and help settings

Vasco da Gama is available in four languages: German. English, French and Italian. Vasco da Gama automatically selects the language based on your Windows system default language. If you would like to change the pre-selected language, you can do so here.

Using Mini-Help:
additional texts are displayed for buttons with symbols to help you better understand their function. If you don‘t want these helps to display, switch Mini-Help off.

Settings for the MotionStudios card server

As default setting the internet access is set to „On“. If you do not want Internet access or you do not have Internet access, you can disable Internet access here. This has the advantage that the start of Vasco da Gama is faster, because you don‘t have to wait unnecessarily for an internet connection that is not available. Note that you will then also not have access to the „SatMapPro 2“, in which case all local maps from your hard disk will still be available.

Easy Assist
Main settings

Choosing Function Wheel and Rotary Controls
The standard option allows you to set the wheels (rotary controls in the program) with the mouse. The click-scroll-click option enables the wheel (rotary control) with a left click of the mouse, represented by the now blue wheel. Now, values can be adjusted using the scroll function on the mouse. Another left click on the wheel and the value is accepted. Instead, you can press the right mouse button to restore the old value. The value can also be change with the arrow keys when the left mouse button has already activated the wheel. The left and down arrow keys decrease the value. The right and up arrow keys increase the value. A press of the Enter key or the left mouse button accepts the value.

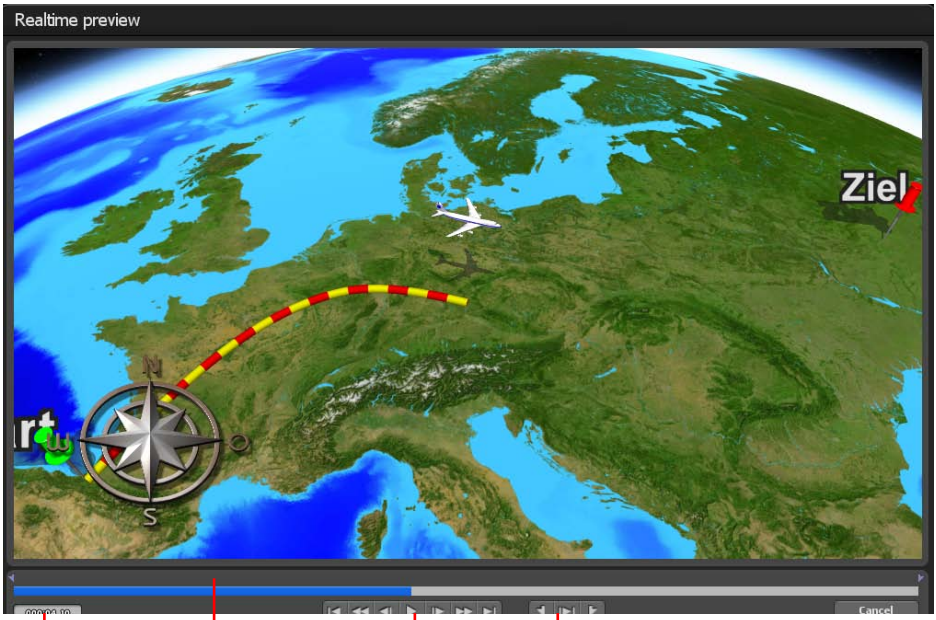
Maximum editor view
Select this option to obtain the maximum size for the view in the editor view. Depending on the window and monitor size/resolution, this gives you a better overview when editing the route.

In the camera view and in the camera menu, the selected project size and aspect ratio are used as before, just as the later video would look.

Confirm the selected main settings by clicking „Ok“.

Easy Assist
Realtime preview

In the real time preview you can examine your past work and watch it as a video.



In the HD Professional version of Vasco da Gama, aside from the real time preview you still have further possibilities in order to specifically control the display.

1. The actual time is shown here.

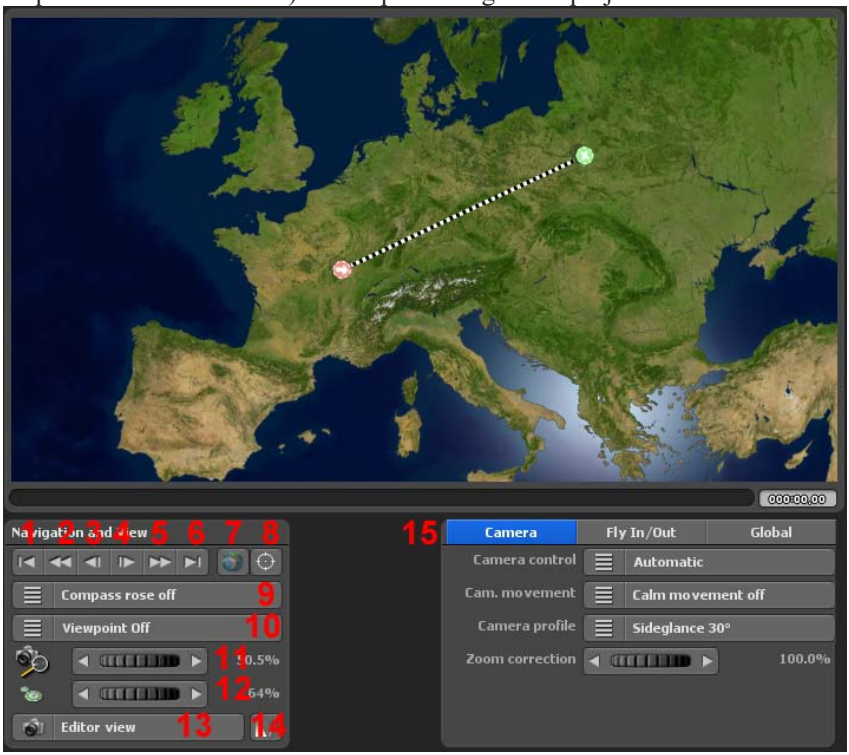
2. On the one hand the time is represented visually here; on the other hand you can drive off by clicking on the left mouse button in this area in order to be able to comfortably wind backwards and forwards.

3. Here you will see some of the following standard buttons: (a) to the start or end of the route, (b) fast forward wind or rewind, (c) frame advance and return, (d) play button to playback the video.

4. With this button you can set the MarkIn and MarkOut position and playback this fixed area.

Easy Assist
Editor area

The editor field of Vasco da Gama offers a wide range of options (displayed below the map in the form of buttons) for the processing of the project.



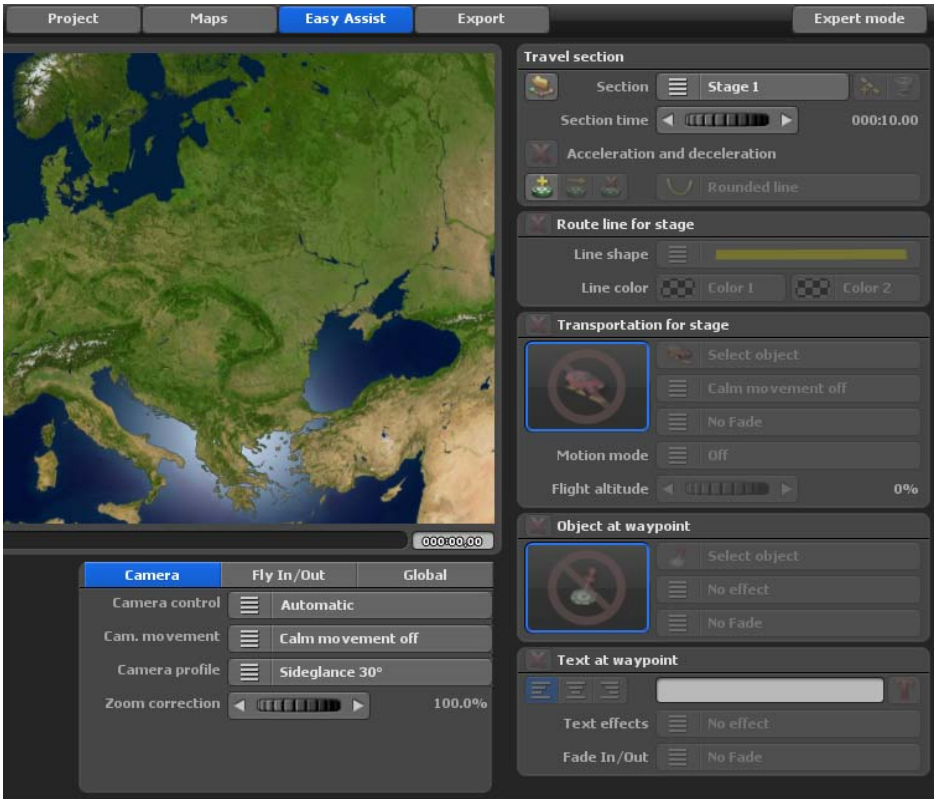
These buttons in the Editor Area (Easy Assist) have the following meaning - navigation and view:

1. Change to the starting point of the route
2. Change to the starting point of the stage
3. Change to the previous base
4. Change to the next base
5. change to the end point of the stage
6. Change to the endpoint of the route
7. Reset camera
8. Set the perspective to a location from the GPS database
9. Compass rose on/off and further positions (left bottom/top and right top/bottom) adjustable
10. Position display on/off and positioning (only available with GPS maps)
11. Zoom settings
12. Setting the size of the stopping point/ base point on the map

Easy Assist
Creating the Route

13. Switching Between Editor View and Camera View
14. View Objects - Show on or in Relation to the Timeline
15. Camera settings, including camera stabilization (starting on page 47)
16. Global settings (from page 52)

The project is still empty and the itinerary has to first be created. To do this, click the desired start position on the world map using the left mouse button. The green start point now appears at the desired position and another click creates the next route point.

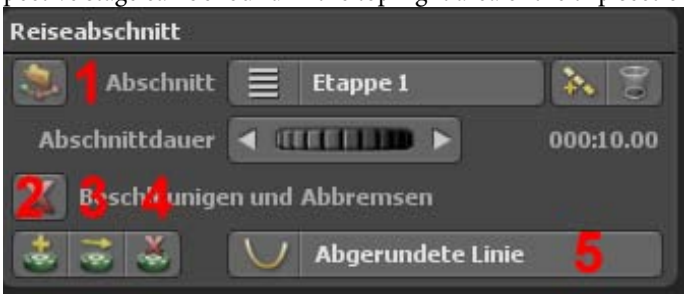


Press the left mouse button to move the set route points on the map.

Note:
You can also set a starting point for the route and other waypoints directly from the GPS database; see page 25 for more information.

Easy Assist
Creating the Route

Each itinerary consists of at least one travel section or stage. The parameters for the respective stage can be found in the top right area of the trip section.



Use the button  to add a new stage, while the Waste Bin button will delete a stage. The duration of the slider determines how long the respective stage lasts.

The Acceleration and Deceleration option gently accelerates the selected head object at the beginning and slows it down at the end of a stage.

The following functions are also available:

1. Import a GPS track and create a route from it(this option is also possible in simple map mode, if the used map is geo-referenced)

2. Create a waypoint using the GPS database (also possible in simple map mode if the map used is geo-referenced)

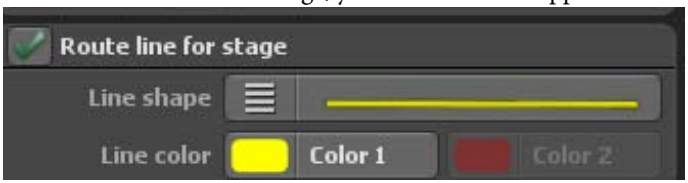
3. Move a waypoint to a position from the GPS database (also possible in simple map mode if the map used is geo-referenced)

Note:

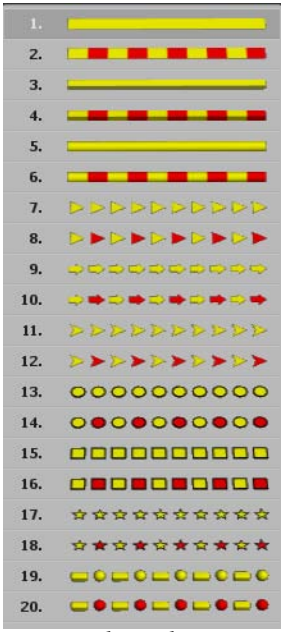
For more information on the GPS database, see page 59.

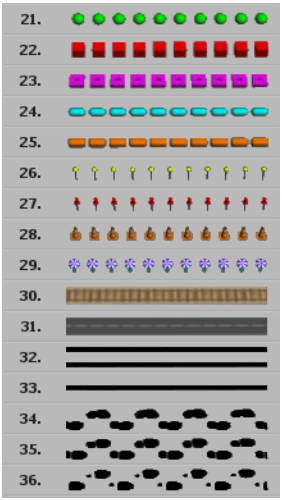
Easy Assist
Creating the Route

In the route section for a stage, you determine the appearance of the route line.

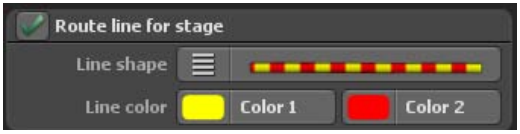


First, the route line display can be turned on or off.
When the route line is activated, the desired line shape can be selected. The following line shapes are offered





Now you have the option to change the line color. For a single-color line, only one color can be set. For example, if you select a 2-color route, then the option is 2. Color change.



If you want to move an object on a stage, first activate this function. Click on Objekt wählen to open the object selection window.

Easy Assist
Transportation

If you want to move an object on a stage, first activate this function.

Click on Select object to open the object selection window.

Since Vasco da Gama has a variety of objects, you must first select the main category. The main category Vasco da Gama contains all the objects that are supplied with the standard version of Vasco da Gama.
If you have additional object packages installed, they also appear as separate categories. In addition, the Favorites and Last used categories are also available.

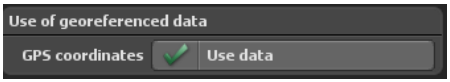
In the menu Subcategory you can now select the appropriate object group.

All objects in this subcategory are then displayed in a scroll bar at the bottom of the window, and the current object (orange framed) is displayed in the preview area.

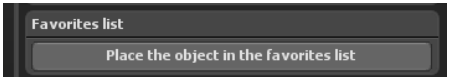
Easy Assist
Transportation

For object display, you can change the color of the object, as well as turn on / off the particle effects. You can see your settings directly in the preview area.

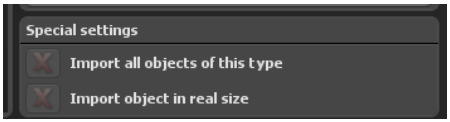
Certain objects, especially objects from the category Sights, have GPS coordinates, and Vasco da Gama can place these objects in their exact position. If you do not want this, select do not use data.



If you are using an object more frequently, you can mark this object as a favorite by clicking on the Object into the favorites list. From now on this object will appear in the main category Favorites.



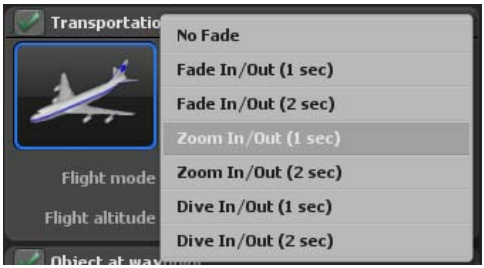
If you purchased and installed additional packages with points of interest, you can view all objects of a given type (e.g., all buildings of a city) at once. It is also possible to place these objects in their original size.



After you have selected your object with Ok , you can activate the Stabilized Motion option (with the Off and Low, Medium and High Stabilizing options) . This makes the movement of the object smoother, especially in situations where it has to make many direction changes on its route.

Easy Assist
Object at Waypoint

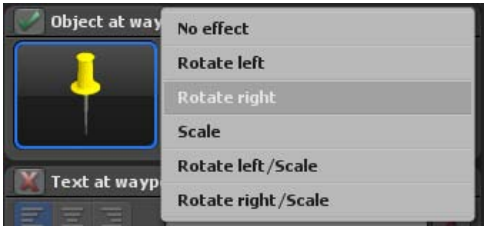
The Fade In / Out, Zoom In / Out and Dive In / Out variants, each with a one or two second duration, are available in the selection menu for the iris to show or hide the object. If you do not want an aperture effect, select No aperture.



Motion mode:

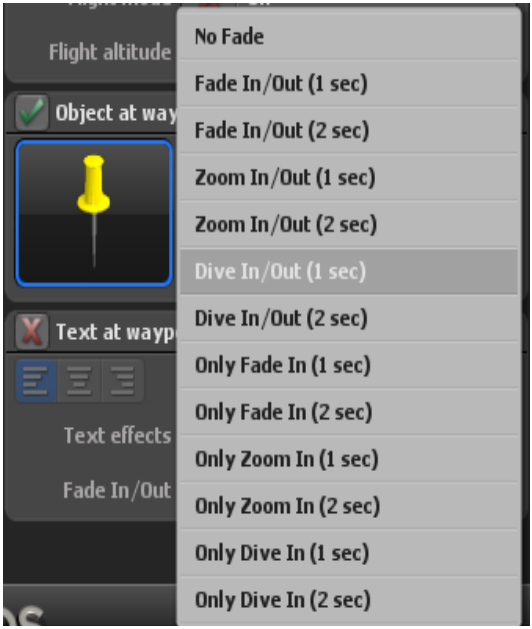
In motion mode, you can choose between airplane mode and motorcycle mode. Depending on the mode, flight or motorcycle movements are simulated.

You can display an object at each waypoint. The selection of the object takes place exactly the same as for the means of transport and you can choose between all installed objects. After you select the object, you can apply one of the Rotate, Resize, Scale, or Rotate effects from the Effect selection menu. Otherwise, select No effect to disable the function.



The fade, zoom, and dive fading options are available for fade-in, fade-out, fade-in, fade-in, and fade-in effects. Select No aperture to disable the function.

Easy Assist
Text at Waypoint



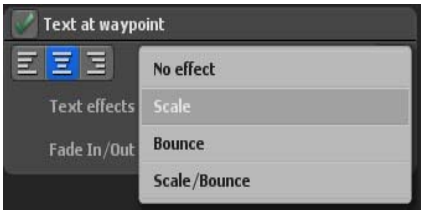
Text at the waypoint offers you the possibility of text insertion, such as city names. Activate the function first with a check and enter the desired text in the text field. Use the 3 buttons to the left of the input field to format your text to the left, centered or right-aligned on the waypoint.

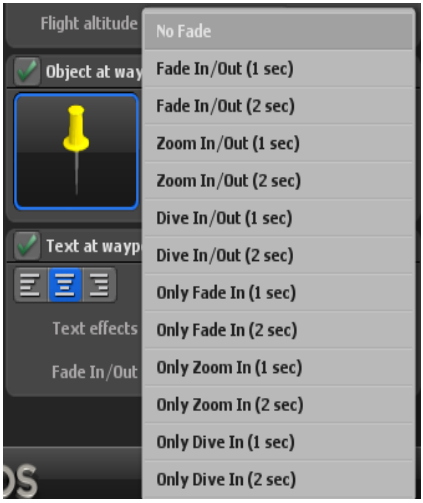
Click on the right button T to open the Select font window. Not only can you choose between all the fonts installed on your system, but you can also change the font colors, activate the borders of the letters, and also select their colors. After you have made your adjustments, confirm with Ok, then you can see your changes immediately in the preview window.

Easy Assist
Text at Waypoint

You can also add different effects (such as scaling, hopping or scaling/hopping) to the text at the waypoint .

Use the screens to set how you want texts to fade in and out. Various options are available.





Easy Assist
Camera Settings

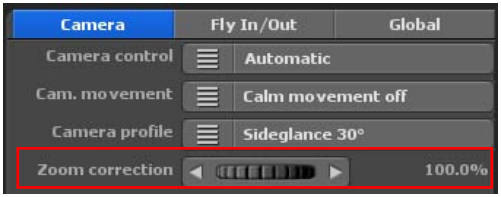
Camera settings for preview and video:
At the end of the route, you can choose between 3 different camera guides in Easy Assist, Automatic, Static and Simple Camera.

a. Automatic Camera Tracking
Vasco da Gama 19 automatically sets the camera position to the camera points available in the route. However, there are various camera profiles to choose from that offer different perspectives for the created route. You can easily switch between profiles and select the most appropriate view. With automatic camera tracking, you can even select zoom correction, which automatically corrects the calculated zoom according to your specifications.

The Camera Motion stabilization option is new in Vasco da Gama 19; it can be set in 3 levels; with the Camera Motion stabilization off, no motion stabilization will take place. When static camera operation is selected, no motion stabilization of the camera can be selected.

Under „Camera Profiles," you will find various camera view templates that enable the view of the selected header object in the course of the route on the map (globe).

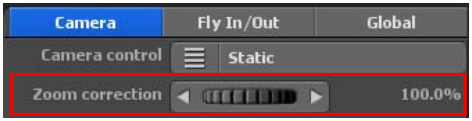
Under „Zoom Correction," you can specify the zoom factor for the automatic camera.



b. Static Camera Tracking

Select static camera tracking if you always want to see the total course of the travel route at a glance. The camera remains static (unmoved) along the course of the route

Under „Zoom Correction," you can specify the zoom factor for the automatic camera.



c. Simple Camera Tracking

Simple camera tracking allows you to quickly set the viewing and tilt angles, as well as the camera zoom, which will then be maintained throughout. With this setting, the camera position is automatically tracked along the route line, achieving quick and beautiful results in the tracking shot.

The Camera Motion stabilization option (for jerky camera pans) can also be set in 3 levels when using the simple camera; with the Camera Motion stabilization off , there will be no motion stabilization.

Camera Zoom:

With the camera zoom controller, you can zoom into the map (for detailed enlargement) or away from the map (for detailed reduction). Furthermore, you can adjust camera settings to the viewing angle, the slope and the horizon.

Easy Assist
Camera Settings

Viewing Angle:
Here, the viewing angle on the map is changed.

Tilt:
Adjust toward 100% so that the earth‘s curvature is visible.

Horizon:
This controller tilts the visible horizon (on the globe) in a vertical direction.

Horizon = 0°

Horizon = 10°

Easy Assist
Fly In / Fly Out

Fly In / Fly Out Animations

With Vasco da Gama 19 it is now easy to set a breathtaking tracking shot at the starting point and a monumental end credits at the end. Choose the animation effect and a duration for it. You can choose an animation and time separately for the Fly In and for the Fly Out, giving you even more variations to choose from.

Fly In
Here you select one of 23 animations to be displayed before the start of the actual route.

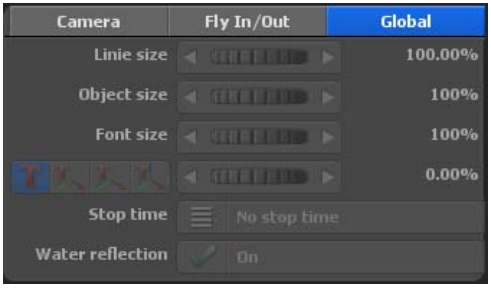
Fly In Time
Here you choose the duration of the animation. You can choose between several common times.

Fly Out
You can also choose one of 23 animations for the end credits, which will be played after the actual route.

Fly Out Time
Here you choose the duration of the credits.

Easy Assist
Global Settings

The options in the global settings apply to all objects in the same group:



The Line size slider determines the strength of all route lines.

The Object size slider determines the percentage size of all objects placed in a project.

The Font size slider defines the size of all text placed in a project.

In addition, you can influence the orientation of the texts at waypoint with the 3 buttons at the bottom left.

1. The text is displayed flatly on the floor

This switch, with an arrow pointing upwards, causes the text to lie flat on the map and does not rotate. This setting is particularly suitable for projects with static or simple camera control.

Easy Assist
Output and change to Expert Mode

2. The text is directed to the camera via 2 axes
This button, with the two arrows, causes the text to move in two axes. The text is now always upright and always turns to the camera. This mode is particularly suitable for side camera views.

3. The text is directed to the camera via 3 axes
This button, with the three arrows, allows the text to move on all three axes. This means that the text is always aligned horizontally with the camera and thus always appears clearly legible. This mode is also particularly suitable for side camera views.

The slider beside this 3 button defines the height of the text object from the ground. If the text object partially sinks into the ground - this can occur during movements of the text in mode 3 (3 axes) - the text can be raised with the height control so that it is completely visible.

With the option hold times you can configure whether objects at the holding point should receive a global hold time (of 1-4 seconds) or not. Furthermore, it is possible to switchwater reflection on and off. The change is shown in the preview.

The Water Reflection option switches on/off reflections on the water surface, visible in the Editor preview on the map, depending on the selection.

Output and change to Expert Mode
If you want to create or export your route in Easy Assist mode, to play with a software player or to process it in a video processing software, click on the Output button. You will find all details on video export (Output) in chapter 12.

Via the Expert Mode button, you enter the Extended Route settings of Vasco da Gama 19, into the Expert Mode. Here you can further optimize your route with further detailed settings. You can read all the details about Expert Mode in the following chapters.

MotionStudios

Chapter 3

User interface

Vasco da Gama 19

-

Expert Mode

Introduction

In this chapter, the focus is on the basic functions and the user interface of Vasco da Gama software, a creative tool for editing an interesting travel video.

You can use it to recreate your vacation route - that is, you can fly or drive through your trip,step by step, using extensive mapping materi-als and various 3D objects (such as airplanes, vehicles, or ships).

You can set stops (such as a layover stop on a trip), and later insert your actual video footage from a video editor.

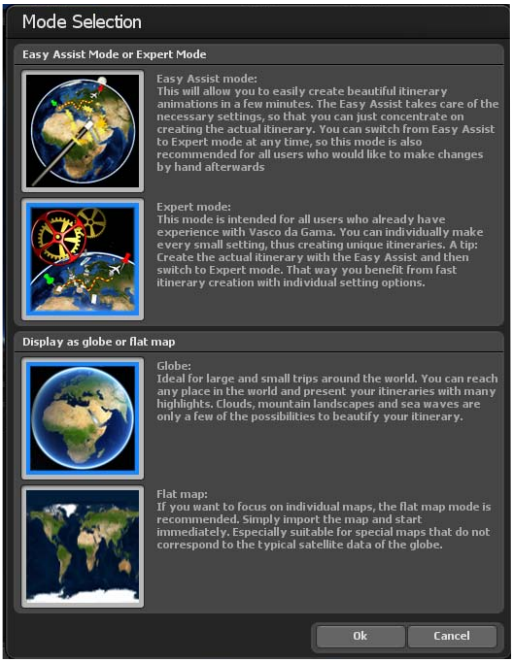
The video project created in Vasco da Gama is then exported as a video file.

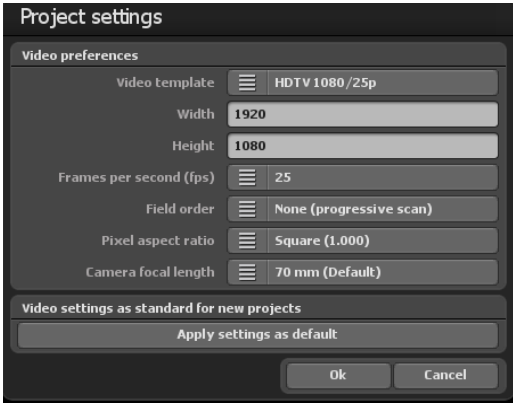
Note: *If you have already been using Vasco da Gama 17, your projects can be imported into and further developed in Vasco da Gama 19.*

Start the program

After successfully installing the software you can start Vasco da Gama by clicking on the icon displayed on the Desktop

Afterwards, the selection option appears in which Modie Vasco da Gama 19 is to be started. Select Expert Mode on the right and confirm with Ok.



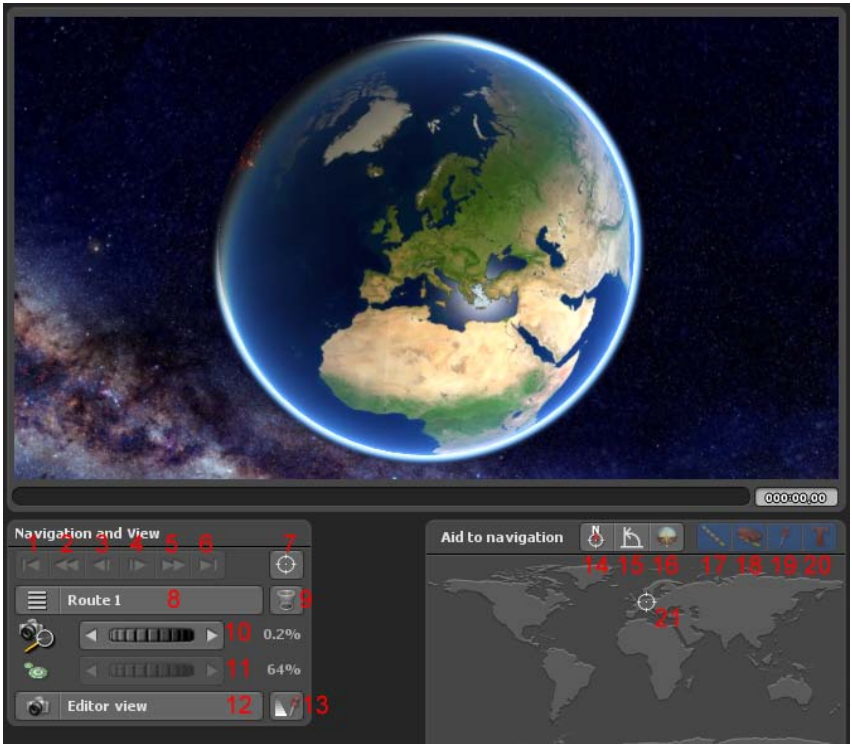


The dialog for the project settings in Vasco da Gama 19 will now appear. You will find all details about the preferred video settings and the time calculation of the entire route in Chapter 5.

After selecting the project settings, click on OK; the working surface of Vasco da Gama 19 will appear in Expert Mode

User interface
Editor area

The editor field of Vasco da Gama offers a wide range of options (displayed below the map in the form of buttons) for the processing of the project.



These buttons in the editor field have the following meanings:

1. Change to the starting point of the route
2. Change to the starting point of the stage
3. Go to the previous waypoint
4. Switch to the next waypoint
5. Change to the end point of the stage
6. Change to the end point of the route
7. Set the perspective to a location from the GPS database
8. Multi-route selection - creating multiple routes on a single map
9. Delete the current route
10. Zoom settings
11. Setting the size of the stopping point/ base point on the map
12. Switching Between Editor View and Camera View
13. View Objects - Show on or in Relation to the Timeline

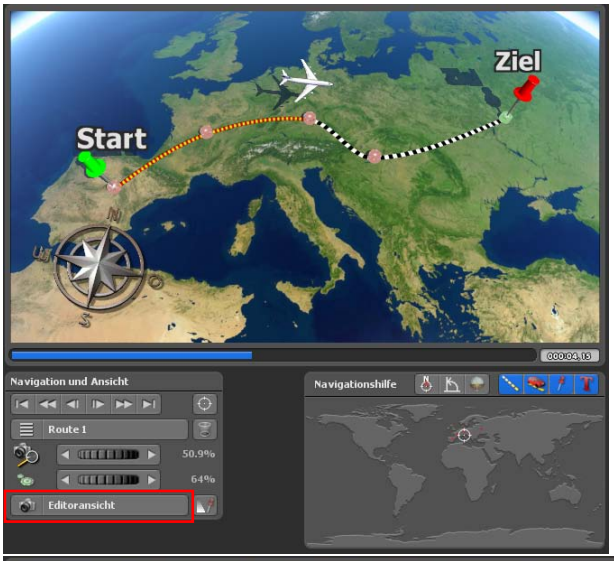
User interface
Editor area

The navigation aid:
In the “navigation aid” on the lower right side, the current position is displayed to orient your position on the overview map.

Furthermore, you will find the following options for route design:
14. Align the map to the North
15. Align the camera vertically
16. Align the camera horizontally
17. Set the display of the route line
18. Show Header Object Yes / No
19. Show key objects Yes / No
20. Show text objects Yes / No
21. Current position of the route in the world map overview

With the introduction of a single timeline for the editor and camera modes, you have maximum control over the actual appearance of the route that you are creating at any time, as well as over the position of inserted objects and texts.
There is one single timeline, both in the editor and in the camera mode, which maps out the entire project period. The uniform timeline spans across and takes into account all route animations, just like in the camera mode. That is, the timeline starts at the beginning of the first animation and ends at the end of the last route. This way, you can always have an overview of the whole project. You can track and edit every object with precise timing to the route animation.

In addition to the new timeline, it is now also possible to switch directly between the current editor view and any desired time in the camera view. This feature lets you check while editing a route if the text and objects will be displayed correctly in the camera view. What’s more, you can simply shift or place the objects and text directly in the camera view. This way, you always work with maximum visibility and control over the entire route animation..

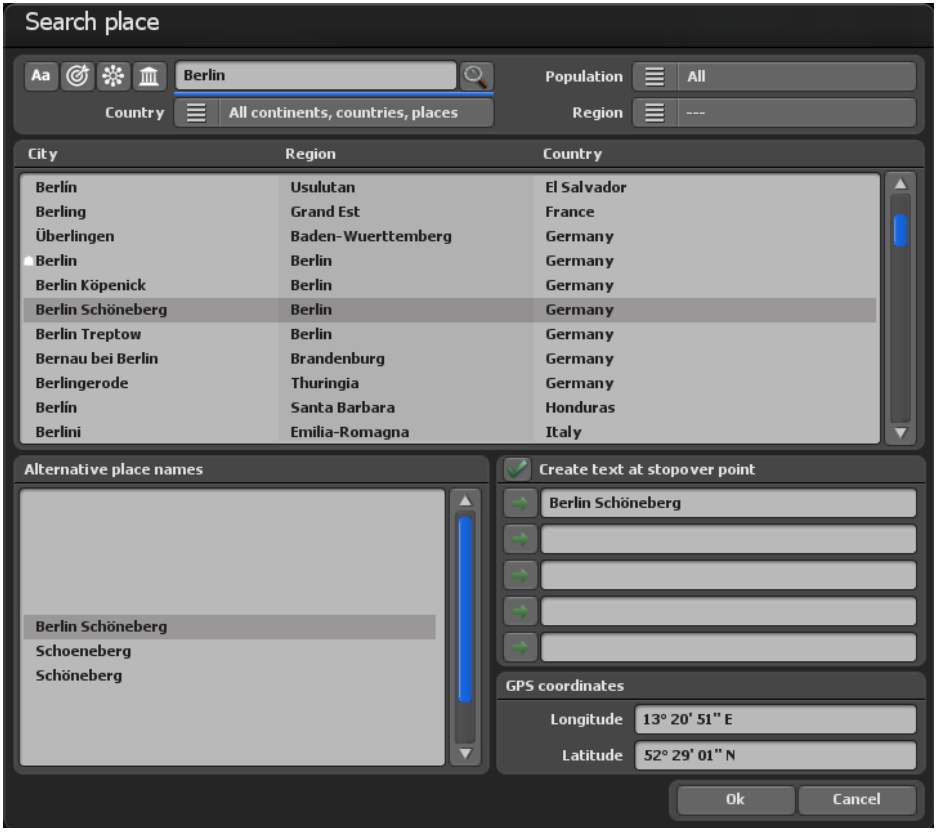


Editor View:

Camera View:

User interface
Location search

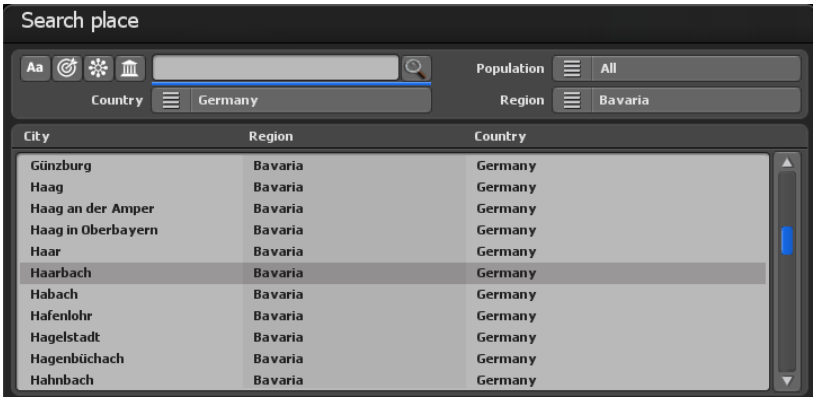
Create a waypoint from the GPS database (Point **5** from the overview of the Editor panel, see page 25, available in extended map mode). After clicking on Create a waypoint with the help of the GPS database (available below the map), the Find location dialog box will appear. Here you can find and set the starting point of your route, for example, and position one or more waypoints along the route with precision.



Location search:
You can pull up the GPS database at various points in the program to search for specific locations. Specify in the top left input field the place and then press Enter to start the search.

User interface
Location search

There are numerous search filters available which can help limit and speed up receiving your search results. If you do not know how to spell a place name, for example, you can set filters by country and region and thus minimise the number of results. Or you can use this option to display only places in a particular region, for example, for country you can enter “Germany” and for region “Bavaria”. Now you‘ll only be shown places in the region “Bavaria” and you can decide which location you want.



Population:
A further possibility with which to limit the number of places is by permitting only locations which have over a minimum number of inhabitants. Thereby you can completely exclude small locations with a low number of inhabitants.

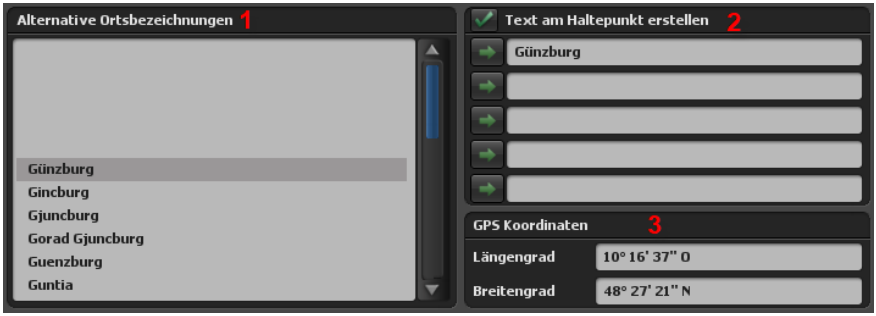
Vasco da Gama offers the following features for location searches:

1. Case sensitivity: If the option is switched on, case sensitivity is activated, which can minimize the number of location results.

2. Exact match: The searched location must match the exact search term. For example, if the search term is „Munich“ then only places containing only the term „Munich“ will be found. Places such as „Garching bei München“ or „Münchenbernsdorf“ are not found in this case.

3. Alternative location names: If this function is switched on, then all alternative location names are searched also. Alternative names for Munich, for example, are “Gorad Mjunkhen” or “Lunsod ng München” and many others. When using this function, it should be noted that the search time may be significantly extended.

4. Capitals: If this filter is used, only state and federal capitals with the searched name are included in the search.



1 .
Alternative location names: In addition, alternative location names are displayed here, such as the location name in different language.

2. Create text at the holding point: This switch appears when you have accessed the GPS database in order to create an additional waypoint. Check this box to display the location name as text at the holding point at the same time.

3. GPS coordinates with Longitude and latitude:
The exact coordinates of the search location are displayed here. You can also enter your own coordinates, thereby adjusting the position according to your requests.

Note:
As soon as you click a place from the search list, the input fields “degree of longitude, degree of latitude and place name” are overwritten with the data from the GPS data base! If you only want to change the place name but maintain the coordinates of a place from the search list, then first select the place from the search list and thereafter change the desired input fields!

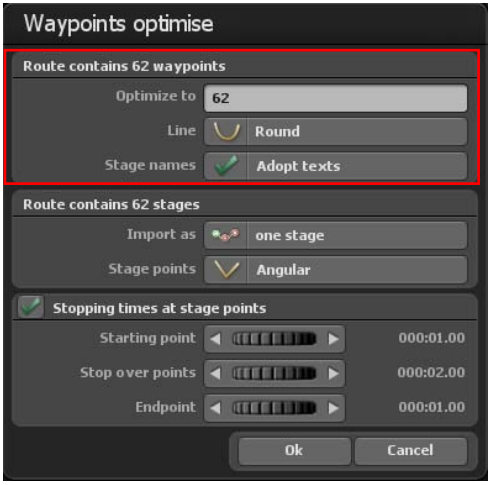
In the end confirm your entries with Ok so that they are adopted. Select Cancel in order to reject all entries..

User interface
Import a GPS-Tracking route

Create a route from a GPS-Track:
GPS tracks can be imported in extended map mode and from Vasco da Gama 19 in simple map mode if the maps used are geo-referenced.

To import a GPS tracking route, press the displayed icon below the displayed map in the Editor. To import a GPS Tracking route you press on the symbol displayed above the editor. Now the file selection window opens, in which you can select your GPS Tracking route. Vasco da Gama supports the most common formats used by different manufacturers, including formats such as GPX, KML, G7T, CRS, OVL, TCX, TK, TRK and TXT.

Note: Since other manufacturers constantly developing their own formats, it may be that Vasco da Gamma does not recognise or cannot read the data format properly. If this is the case simply contact our support team and send us an example file. We will then update the changed format in Vasco da Gama if possible



Optimise waypoints:
In other cases it may be that the number of waypoints is too great in a GPS Tracking route and is of no use to you. Vasco da Gama offers the possibility of optimising this route and of reducing the number of waypoints.

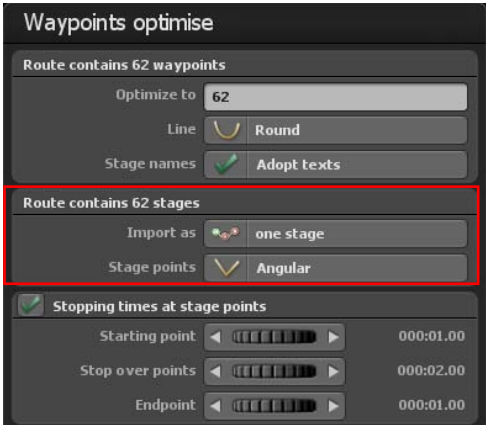
At first you see the number of found waypoints in the dialogue window in the GPS Tracking route

Optimise:
Select the number of desired waypoints on which the route is to be optimised. Values between 100-250 waypoints are completely sufficient in most cases. Vasco da Gama supports a maximum of up to 2,500 waypoints for each route.

User interface
Import a GPS-Tracking route

Route line:
Select here whether the route line should have a round or angular course.

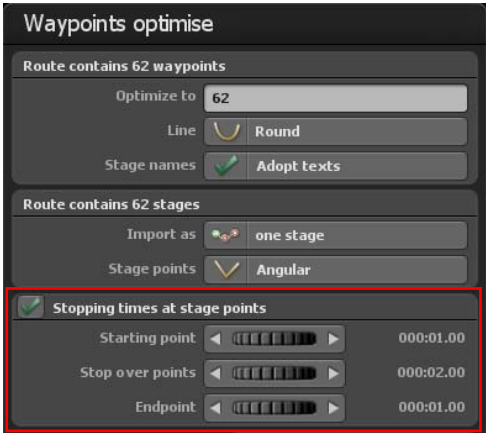
Stage names:
If the GPS track has place names, the texts can be imported.



In the middle part you can decide whether you want to import the GPS track as a single stage or as multiple stages. The number of included stages can be found in the menu heading. In some cases it makes more sense to import the GPS track as a single stage, because the number of stages is identical to the number of waypoints. A maximum of 200 stages can be created per route.

Import as:
You can decide whether to import the GPS track in „multiple stages“ or as „one stage“.

Stage points:
Here you can choose if the route line should be „angular“ or „round“ to the stage point respectively.



In the lower section, you can also specify whether hold times should be set for the respective stage points.

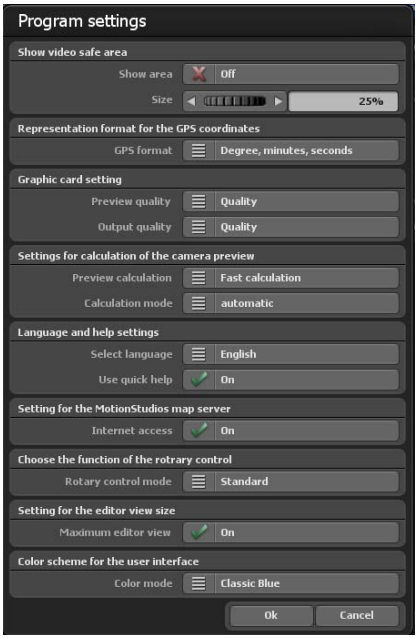
User interface
Lower bar

On the lower bar you will find all the functions needed to load/secure a project, to save the video or end the program. Moreover one you can navigate from here to the project and main settings of the program

1. Create a new project.
2. Open an existing project.
3. Save the current project.
4. Save the current project with a file selection window.
5. Save the current view in the editor area as an image.
6. Display a preview of the project.
7. undo, to reverse one or more actions.
8. Navigate to the main settings of the program (see next page).
9. Open the help file.
10. Navigate to the program information.
11. End the program.

User interface
Main settings

Main Program Settings:
Move to the program's project toolbar. Start the Settings Dialog with the To the Main Settings button.



Activate the secure area for the video. Display the button area and the secure area is shown in camera mode and in the preview.

The non-secure area is darkened. If the button is on „OFF", the video secure area is not displayed. Here you should note that the video-secure area is not used when saving the video. You can therefore continuously work with the video secure area without later affecting the video. With the size area adjuster, you can set the secure area in the video from 5%-25%. The greater the selected value, the greater the dark edge around the video which is considered a video non-secure area.

With GPS format you can change the output format for the representation of the GPS coordinates according to your wishes. You can select between "degrees, minute, seconds", "degrees, decimal minutes" and "decimal degrees". At locations where you can enter GPS coordinates, all three variants are always recognised automatically and converted, independent of this setting.

Graphics card settings

To ensure smooth work even on less powerful graphics cards, you can set the desired preview quality/output quality here. It is recommended to set the preview quality to „performance" and the output quality to „quality".

Performance: the best performance for smooth work. Some features, such as reflections on the water and the calculation for smooth transitions in mountain landscapes, have been turned off.

Balanced: achieves a balanced relationship between performance and quality; only some effects are switched off for better performance.

Quality: the best quality for presentations. All visual improvements are switched on.

If this should be case, then you set this value on “compatible” “and start the programme again.

Settings for the calculation of the camera preview

Calculation Type: This is where you can decide whether the mini-preview images are to be created in camera mode or not. When opting for faster calculation, the system may not wait for the map tile to load fully, thus potentially causing blurring of the images in slower systems. The precise calculation requires a longer waiting time (as the calculation takes longer), so the preview will be sharper and more accurate.

Calculation mode - Automatic: This is where the preview is automatically recalculated whenever a change is made.
Manual: The preview images will only be calculated, if you press the corresponding button. The manual options may be the better choice especially when using a large number of camera points; otherwise calculating the preview image will take a long time

Language and help settings

Vasco da Gama is available in four languages: German. English, French and Italian. Vasco da Gama automatically selects the language based on your Windows system default language. If you would like to change the pre-selected language, you can do so here.

Using Mini-Help:
additional texts are displayed for buttons with symbols to help you better understand their function. If you don‘t want these helps to display, switch Mini-Help off.

Settings for the MotionStudios card server

As default setting the internet access is set to „On“. If you do not want Internet access or you do not have Internet access, you can disable Internet access here. This has the advantage that the start of Vasco da Gama is faster, because you don‘t have to wait unnecessarily for an internet connection that is not available. Note that you will then also not have access to the „SatMapPro 2“, in which case all local maps from your hard disk will still be available.

User interface
Main settings

Choosing Function Wheel and Rotary Controls
The standard option allows you to set the wheels (rotary controls in the program) with the mouse. The click-scroll-click option enables the wheel (rotary control) with a left click of the mouse, represented by the now blue wheel. Now, values can be adjusted using the scroll function on the mouse. Another left click on the wheel and the value is accepted. Instead, you can press the right mouse button to restore the old value. The value can also be change with the arrow keys when the left mouse button has already activated the wheel. The left and down arrow keys decrease the value. The right and up arrow keys increase the value. A press of the Enter key or the left mouse button accepts the value.

Maximum editor view
Select this option to obtain the maximum size for the view in the editor view. Depending on the window and monitor size/resolution, this gives you a better overview when editing the route.

In the camera view and in the camera menu, the selected project size and aspect ratio are used as before, just as the later video would look.

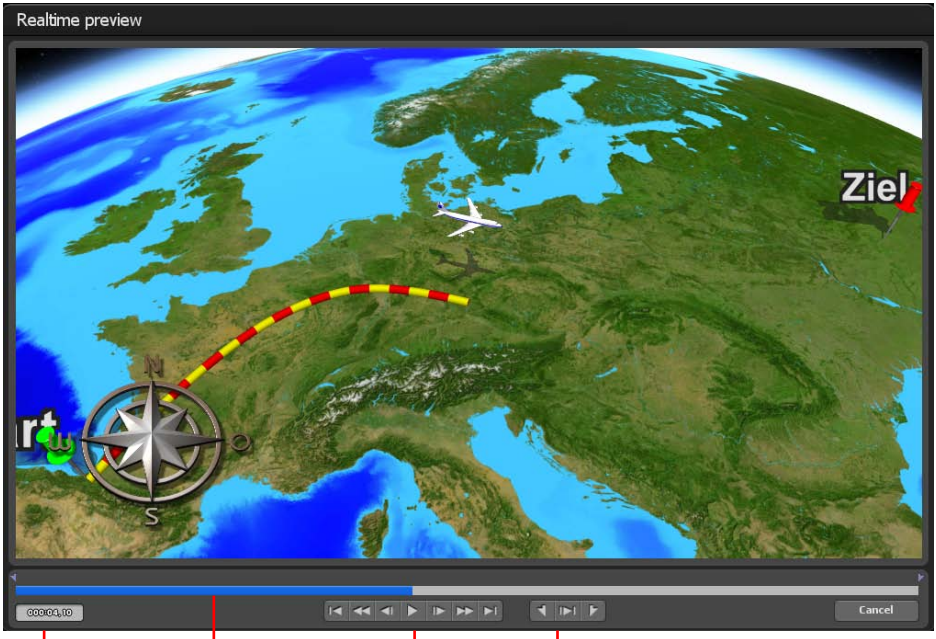
Color scheme for the user interface
The “Color mode” switch allows you to choose between the modern orange and classic blue user interface. Please note that the selected color scheme will only be used after restarting Vasco da Gama.

Confirm the selected main settings by clicking „Ok“.

User interface
Realtime preview

In the real time preview you can examine your past work and watch it as a video

.



In the HD Professional version of Vasco da Gama, aside from the real time preview you still have further possibilities in order to specifically control the display.

1. The actual time is shown here.

2. On the one hand the time is represented visually here; on the other hand you can drive off by clicking on the left mouse button in this area in order to be able to comfortably wind backwards and forwards.

3. Here you will see some of the following standard buttons: (a) to the start or end of the route, (b) fast forward wind or rewind, (c) frame advance and return, (d) play button to playback the video.

4. With this button you can set the MarkIn and MarkOut position and playback this fixed area.

MotionStudios

Chapter 4

Basic functions

Basic function
Mouse configuration

Left mouse button:
The left mouse button can perform various actions.

1. On the route line
Here you can select waypoints, shift and set new waypoints.

2. On the globe
If point on the globe with the mouse, you can freely turn the globe.

3. With free objects
If you selected free objects in the menu, you can select and move them accordingly. You can resize the objects in conjunction with the CTRL key.

Right mouse button:
Various actions are possible likewise with the right mouse button:

1. On the route line
If you follow the route line and click with the right mouse button on the waypoints already set, you delete them.

2. On the globe
Here you can set the perspective and the tilt angle.

3. Different button-actions:
If you made a change e.g. with a pop-up or a wheel button and did not confirm them yet, you can stop the change by using the right mouse button and resume the previous value.

4. with the free objects
You can rotate the objects with the right mouse button. In connection with the CTRL or SHIFT key you can rotate the objects around the other axes.

Middle mouse wheel:
With the middle mouse wheel (between the left and right mouse button) you can set the camera zoom.

Keyboard shortcuts

Vasco da Gama is operated using the mouse, unless you are entering text. Aside from this there are also keyboard commands. These facilitate the operation for the advanced user, as there are some actions that can be performed more quickly.
In „Vasco da Gama“ there are the following keyboard commands:

Ctrl - C: (Copy Key)
Using Ctrl - C the most important data of a stop are copied into the cache.

Ctrl - D: (Copy Camera)
Using this keyboard shortcut the position and setting of the camera are copied into the cache.

Ctrl - V: (Paste)
Here the cache (of Ctrl C or Ctrl D) is copied into the stop.

Ctrl - Z: (Undo)
The Undo function (reset).

Ctrl - I:
You can hereby insert a base/stop on the map, the mouse position is important here. The data from Ctrl C are used.

Picture up:
With this shortcut key you activate the previous base/stop.

Picture down:
With this shortcut key you activate the next base/stop.

Shift- Picture up:
With this shortcut key you activate the previous base/stop, which contains a camera point.

Shift- Picture down:
With this shortcut key you activate the next base/stop, which contains a camera point.

Keyboard shortcuts

Shift F1 - F4 (editor area only)
With the key combination Shift F1 to F4 you can save up to 4 camera positions.

F1 - F4 (editor area only)
With the function key F1 to F4 you can recall and display the saved camera positions. This function is very useful if you need to switch between different camera perspectives while working.

Pos 1:
Activate the starting point.

End:
Activate the end point.

Ins (Insert key): (set a waypoint)
A base is hereby set on the map; the position of the mouse is to be noted.

Del: (Delete Key)
Using Del you delete the base/stop.

Esc: (Cancel)
Using Esc you can cancel an action. If you move, for example, a free object with the mouse, but you did not release the mouse button, then the object is still in “limbo” and you can press the ESC key to cancel the procedure and the object goes back to its starting position. You can do the same thing, if you click on the right mouse button, while the left is continuously held down.

1-9 and 0:
With these keys you can select the respective route 1 to route 10.

Q: Specify the representation of the route line.

W: Display head object: on/off

E: Display retaining object: on/off

R: Display text object: on/off

Keyboard shortcuts (Preview)

I: (only in the preview)
Set the MarkIn position

O: (only in the preview)
Set the MarkOut position

P: (only in the preview)
Start/stop preview

Ctrl-P: (only in the preview)
Start/stop preview of the marked area (MarkIn/MarkOut)

+: (only in the preview)
fast forward-wind (10 Frames)

-: (only in the preview)
fast rewind (10 Frames)

Right arrow: (only in the preview)
Single frame advance (1 Frame)

Left arrow: (only in the preview)
Single frame return (1 Frame)

Keyboard shortcuts - List und PopUp window

Pos 1:
Selects the first entry in the list.

End:
Selects the last entry in the list.

Up arrow:
Moves up one entry in the list.

Down arrow:
Moves one entry down in the list.

Return (Enter):
The selected entry is accepted and the window is closed. Corresponds to the “Ok” button.

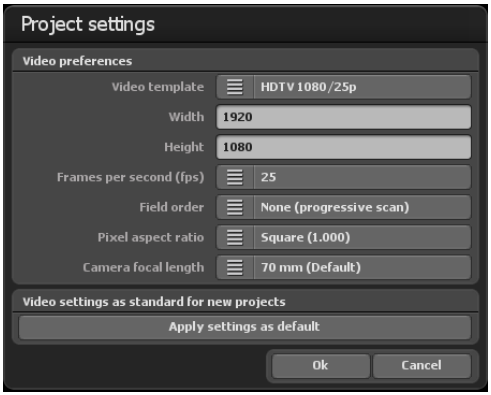
ESC:
The window is closed and all previous settings are canceled. Corresponds to the “Cancel” button.

Chapter 5

Project settings

Main menu
Project settings

Project Settings: Start the Project Settings Dialog with the To the Project Settings button.



Here you can enter the project-related settings, such as for example the selection of the video template (PAL, NTSC, HDV and HDTV-Format) as well as the video settings (the video format 720 x 576, images/sec amongst other things).

Furthermore you can enter the settings for the type of picture (lower half of the image first) and the aspect ratio (4:3 or 16:9).

Main menu
Project settings

With the type of picture it is to be noted that this must be correspondingly adjusted according to the video output format used. If you would like to work with Interlace videos, set the type of picture for the format of DV-RAW, AVI DV Type 1 and AVI DV Type 2 on the „lower half of the image first“; for Video for Windows and AVI (Direct¬Show) on the „upper half of the image first“.

As the video is nearly always only displayed as a full screen (progressive) with modern PC monitors, projectors, and LCD and plasma television sets, it is recommended to place the type of picture on full screen (Progressive Scan). Simply try all 3 variants out and use the variant that is best for you. Note: (only HD Professional). In order to be able to use the video templates for HDV/HDTV, you must first change the video output format to “AVI (Direct show)” in the main settings!

Pixel ratio:Fundamentally you should always work with the video templates, as all the necessary settings (up to the type of picture, see more above) are correctly preset here. If on a certain occasion you need different settings, it is to be noted here that the pixel relationship is not identical to aspect ratio! For example, the pixel relationship is square with HDTV 1920x1080 (1:1), but the aspect ratio is 16: 9.

Camera focal length:
The focal length determines how large the image section is displayed. The focal length is specified in millimetres. The default setting is 70mm as the focal length. In some situations, it is necessary to use a different focal length for the camera, e.g. if not all of the image content is visible in a scene. In this case, a smaller focal length can help.

Video settings as default for new projects:
If you would like to automatically apply the desired settings to all new projects, press the “Apply settings as default” button.

MotionStudios

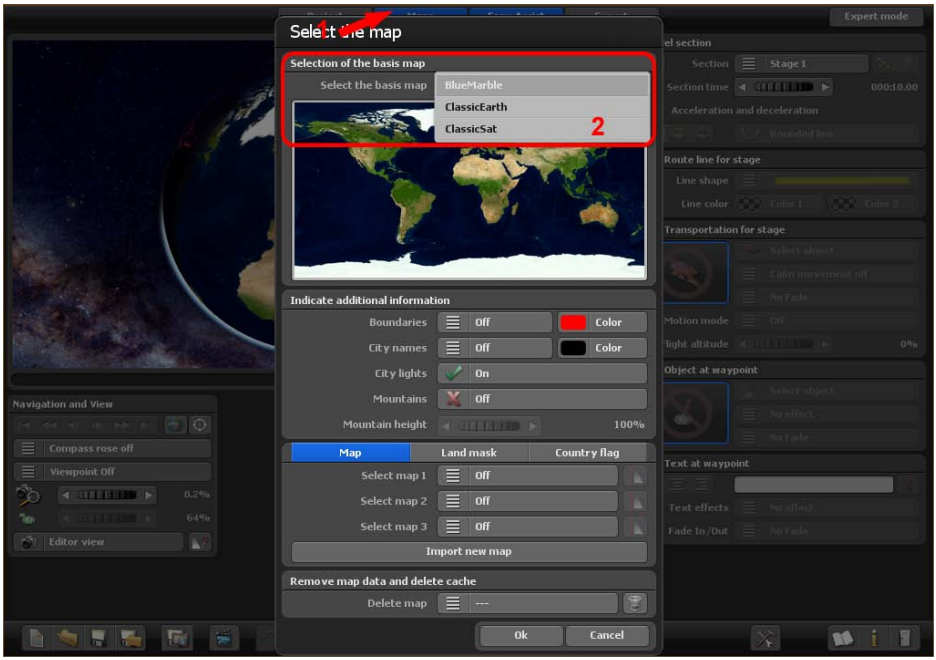
Chapter 6

Advanced Map Mode
&
Simple Map Mode

Main menu Maps
Advanced Map Mode / Map Selection

1. Advanced Map Mode:

Selecting a map:
Click above on **Maps (1)**in the main menu to launch the map selection dialog. Here you can choose the base map of your choosing, add borders, and add and manage your own maps.



Select basis map:
In the basic package of Vasco da Gama 19 you will find three base maps (ClassicEarth, ClassicSat and BlurMarble) of the Earth in the Select Base Map section. These maps are stored locally on your hard disk and can also be used offline.

If you have an existing Internet connection, SatMapPro 2 will continue to be available to you free of charge until 31.12.2026. This satellite map has a higher resolution and therefore offers much more detail in the view. If there is no internet connection, only the local base maps from your hard disk will be displayed.

The selected map is then displayed in the preview below and, after clicking Ok, placed around the 3D globe displayed in the editor area.

Main menu Maps
Advanced Map Mode / Map Selection

Display additional information

Borders:
You can decide whether you want to display country and sea borders or not. Country and sea borders can be activated separately from Vasco da Gama 19. Check the box if you want to display borders.

Color:
You can also choose the color of the country and sea borders. The change is immediately visible in the small preview of the world map (overlying).

City names:
This allows you to display a ready-made template for city names on your globe. You can choose whether you want the city names to fade smoothly or switch directly when zooming.

Choose a colour:
This lets you adjust the font colour of city names.

City lights:
If checked, then the lights in cities are displayed.

Mountain landscapes:
Turn this feature “On” when Vasco da Gama calculates real 3D mountain landscapes. This feature is especially useful if you want to create route animations by plane.

Mountain height:
If the mountain landscapes are activated in the map selection, you can use this to adjust the height of the mountains. Especially when it comes to a travel route where the view takes place from a long distance, you might opt to make the mountain landscapes more visible by increasing the height.

Main menu Maps
Advanced Map Mode / Map Selection

Add a new map:

If you would like to add your own map, which is to be later placed on the basis map click on the Add new map button. Now a further dialogue window opens up where you can make further adjustments. For this see also "Select own map".

Select map 1 to map 3:

Here you can select your own map. Depending on the version of Vasco da Gama 19, you can use up to 3 of your own maps at the same time, in order to supplement the basis map.

If you now select one of your adapted maps with the "map 1 selection", then you can make further settings for this map by pressing the button to the right of the map selection.

Visibility settings

Here you can now indicate within which zoom range of the camera your map is to be indicated.

Visibility:

Select "Always visible" if your map is always to be indicated independent of the camera zoom. With "Fading in" the map only becomes visible with the zoom in on the map. In contrast to this, with "Fading out" the map becomes invisible with the zoom in.

Use the maximum visibility to specify the opacity of the map.

With camera zoom values over or under the start and final height, your map is completely visible or invisible depending on the selected visibility.

With ok you confirm your input.

Main menu Maps
Advanced Map Mode / Map Selection

Select additional land masks

In addition to maps, Vasco da Gama 19 now allows you to add matching land masks for your map. This has the advantage that water and land areas can be separated more precisely. This can be advantageous, for example, if you create a city map where many rivers are also visible. Without a corresponding land mask, the rivers would practically spill over the banks when the water waves are switched on and thus also affect many land areas. You can prevent this with the creation of a land mask and thus enable a perfect separation.

The procedure is the same as for the maps. Just make sure that you use a different name for the land mask and that it has no more than 30 letters. For example, you can name the map „Berlin“ and the landmask „Berlin_Mask“, this way you can easily distinguish the maps even on the hard disk.

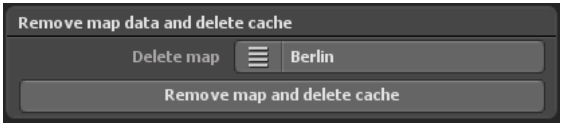
Select additional country flags

Another highlight of Vasco da Gama is the option of placing the country flag on the corresponding country on the globe. The flag is only displayed within the country‘s borders. There are 150 different country flags available.

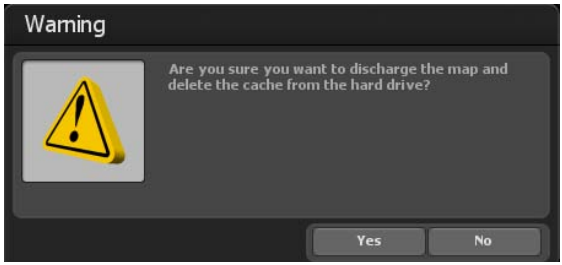
As with the country maps, you can also set the visibility of the country flags individually.

Main menu Maps
Map selection

Delete the map data from the hard drive:



Here you can delete your own maps, which you do not need any longer. In doing so the map from Vasco da Gama is discharged and the hard drive memory (cache) is free again. The original map is not affected and remains as it was.



Note:
If you want to delete a map that you used in the meantime in a project, these project data are deleted! In this case you should recreate the deleted map.

Delete map:
Select the map you would like to discharge from Vasco da Gama and remove from the hard drive.

Discharge map data and delete cache
After you have selected the map you would like to remove, click on the map data to deliver and cache Discharge map data and delete cache.

Now a warning appears, whereby you are requested to reconfirm that you want to delete the map data.

Press on Yes in order to irrevocably delete the maps.

Main menu Maps
Select own maps

Select own maps:

There are 3 input fields, with which you can insert your own maps in Vasco da Gama.

In the first field you can enter a directory and file name. To the right of this field there is the to the File selection window button. With one click you open the standard Windows file selection window. Here you can now select your map. This should be present in a common graphics format (PNG, JPG, TIF, GeoTiff, BMP, etc.).

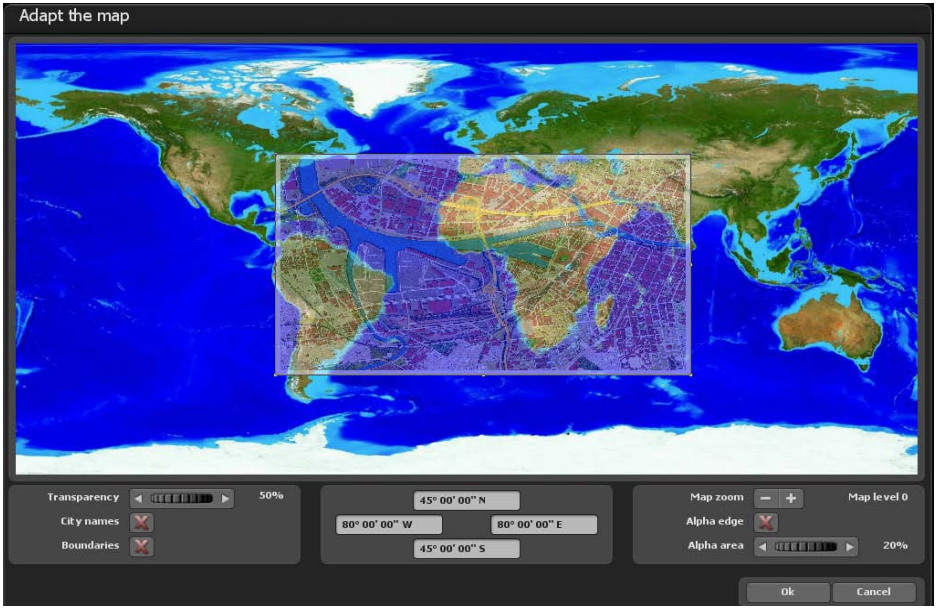
Note:
Vasco da Gama supports different graphics formats with additional coordinates for the geo-referencing of the display window, like for example, GeoTiff or XML files. Hereby Vasco da Gama can automatically assign the maps and insert them on the basis map.

Select the directory for the cache:
The map is converted into a readable format for Vasco da Gama; the data is stored in a so-called cache. Select a directory on your hard drive with sufficient memory. Depending on your map, the volume of data can quickly amount to several 100 MByte. If you work with a lot of your own maps, save them in a directory with several free Gbyte of memory. You can enter the cache separately in addition, for each map, in order to distribute the data over several hard drives.

Enter the map name for the selection list:
Finally you enter the map name, which is to appear later in the selection list of Vasco da Gama. Without specific user settings, Vasco da Gama automatically uses the file names as the map name. They can amend this however as desired. It is advisable to select a name, which describes the contents of the map and so making it easier to find it later on.

Main menu Maps
Adapt the map

Having selected your map, click on the dialogue box „Choose your own map“ and then confirm with Ok. A dialogue box **Adjust Map** will appear and the new map will be

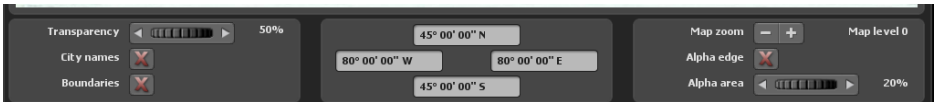


inserted in a reduced size.In this dialogue window you can adapt your map so that this is later indicated in the correct place on the globe.

Settings with the left mouse button:
You can adapt the area of your map by clicking on the corner or peripheral points with the left mouse button and pulling these in the required direction with the pressed mouse button. If you click on the corner points and simultaneously keep the “STRG” key pressed down on your keyboard, the proportions of the map are maintained. In order to move the whole area, simply click with the left mouse button within the area and pull the map to the desired place.

Settings with the right mouse button:
With the right mouse button you can shift the reference map (the background map) and, with higher map zoom, shift the reference map to the required position.

Main menu Maps
Adapt the map



Transparency:
Set the transparency of your map here, you can see your map through the reference map and adapt your own map better. This value is only used for adapting the map and has no influence on the later appearance on the globe.

City names:
As a guideline, when adapting the map you can additionally indicate the city names so that you can adjust your map accordingly on the basis of the city points. Set a checkmark to indicate the city names.

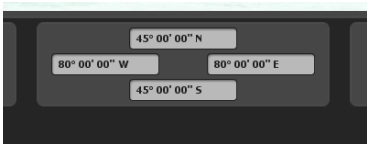
Boundaries:
Likewise, the borders serve as an orientation guideline and are indicated with the setting of a checkmark.

Map zoom:
With the buttons "- "and "+ "you can set the map level and thereby the zoom factor of the reference map. Thereby you can adapt your map even more exactly to the reference map and increase the correspondence.

Alpha edge:
If you have not already allocated your map with a Malprogram a soft focus transition area, then you can carry this out at a later date using this function. The map will no longer be indicated on the globe with a hard edge but will insert itself with a soft transition in the basic map. Set the checkmark to use this function.

Alpha area:
Select here the area meaning the thickness of the alpha edge, which is to be set around your map. Please ensure that your map has sufficient reserves all around, otherwise important information could be lost in the alpha area.

Main menu Maps
Adapt the map



You can also register the coordinates of your map in the fields by hand. The fields are laid out so that they reflect the appropriate edge of your map in each case.

With the left and right entry field you can enter the longitude degree and in the upper and lower input field the degree of latitude.

Note:
Please consider the input format, so that Vasco da Gama can read your data correctly. Three variants are available for the input of the coordinates.

Degree, minutes, seconds

Latitude:	30° 26‘ 20“ N (N = north) or S (S = south)
or	N 30° 26‘ 20“ or S 30° 26‘ 20“
Longitude:	100° 13‘ 50“ W (W = west) or O (O = East, here the English E = East is possible)
or	W 100° 13‘ 50“ or O 100° 13‘ 50“

Degree, decimal minutes

Latitude:	N 30° 26.54326 or S 30° 26.54326
or	30° 26.54326 or -30° 26.54326
Longitude:	W 100° 13.5564 or O 100° 13.5564
or	-100° 13.5564 or 100° 13.5564

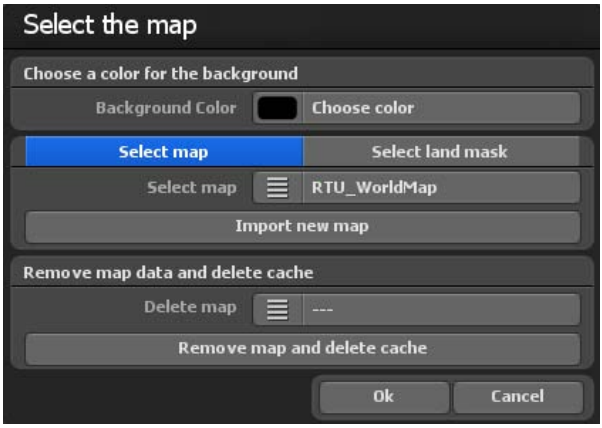
Decimal degree

Latitude:	N 30.7554326° or S 30.7554326°
or	30.7554326° or -30.7554326°
Longitude:	W 100.853532° or O 100.853532°
or	-100.853532° or 100.853532°

Note:
The abbreviations “N “, “S “, “W “ and “O” (or the English variant “E” for east) can be indicated at the beginning or at the end of the coordinates.

Main menu Maps
Flat Map Mode / Map Selection

1. Flat Map Mode:
The flat map mode allows you to import flat 2D maps just like in earlier versions (Vasco da Gama 1-4). You can then create a route on the imported map.
The function for exact positioning of maps (with GPS map data) is now supported in Vasco da Gama 19 and higher in the simple map mode . Until now, the exact positioning of maps was only possible in the extended map mode. When using geo-referenced maps (with GPS coordinates, e.g. created with Vasco StreetMaps), it is now possible to use functions such as searching for places, but also to position sights (3D objects), texts and waypoints exactly via GPS. An exact location display is also possible.



The „Map Selection“ dialog box opens. You can specify a background color that will be displayed outside of the inserted map, which may be the case, for example, in various camera settings (angles). To make a selection, click on „Choose Color“ and select a color

Main menu Maps
Flat Map Mode / Map Selection

Select Additional Maps
If you would you like to create a route on a map of your own, click on the „Add New Map“ button. In the following dialog box, navigate to your map and click „Open.“ The „Choose Your Own Map“ dialog box will appear.

There are then 3 input fields that allow you to integrate your own map in Vasco da Gama.

Enter the directory and file name into the first field. Or click the folder button to the right of this field to open the file selection window. You can then navigate to and select your map. This file path will be applied and displayed. The map should be in a common graphics format (PNG, JPG, TIF, BMP, etc.).

Select additional land mask

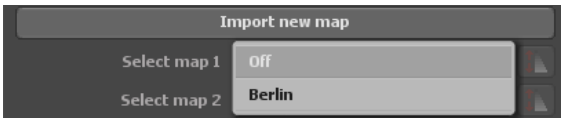
Also for the flat map mode, you can also add a land mask for your maps. To do this, select the „Select land mask“ tab. The procedure is the same as for the maps. Just make sure that you use a different name for the land mask and that it has no more than 30 letters. For example, you can name the map „Berlin“ and the landmask „Berlin_Mask“, this way you can easily distinguish the maps even on the hard disk.

Main menu Maps
Flat Map Mode / Map Selection

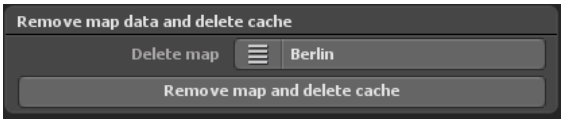
Choose the Cache Directory
The map is converted into a readable format for Vasco da Gama. Data is stored in a so-called cache. Choose a directory on your hard disk with enough space. Depending on your map, the file can quickly amount to several hundreds of MB‘s of data. If you are working with many of your own maps, select a storage space on a hard disk that has several GB of space (e.g. another video hard disk in the system). You can also specify the cache separately for each map so as to spread the data across multiple disks.

Enter a Map Name for the Selection List
Finally, enter the map name that you want to later appear in the selection list in Vasco da Gama. If you don’t enter a specific name, Vasco da Gama automatically uses the file name as the map name. You can, however, change this later if you so choose. It is advisable to choose a name that describes the contents of the map, making easier to find later.

To accept the map, click “Ok.”
The newly selected map will appear and can also be turned off in the map selection list under „Additional Maps.“



Clear Map Data from the Hard Disk:
You can delete any of your own maps, which you don‘t need anymore. Deleting a map erases it from Vasco da Gama and the memory (cache) on the hard disk once occupied by the map is freed up. The original map is not affected and is still available on your hard disk.



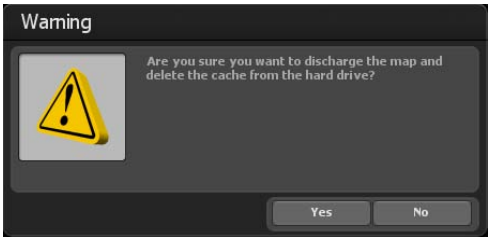
Note:
If you want to delete a map that you are still using in a project, the project data will also be deleted! In this case, you should import the missing map again.

Delete Map:
Select the map that you wish to remove from Vasco da Gama and the hard disk.

Main menu Maps
Simple Map Mode / Map Selection

Remove Map Data and Clear the Cache:
After you have chosen the map that you want to remove, click on the „Remove Map Data and Clear the Cache“ button.

A warning will appear, prompting you to confirm for a second time that you wish to delete the map data. Click „Yes“ to delete the map permanently.



If you wish to accept the new 2D-map, click “Ok” in the Map Selection dialog box. The map is imported into the editor view of Vasco da Gama 19. Then you have completed the import process for a flat 2D map and can now start creating a route. To position the camera within your route, follow the instructions in the chapter entitled “Camera.”

Note:
For more practical tips and information about creating a route on a flat 2D map with simple camera tracking can be found in ***chapter 15****.*

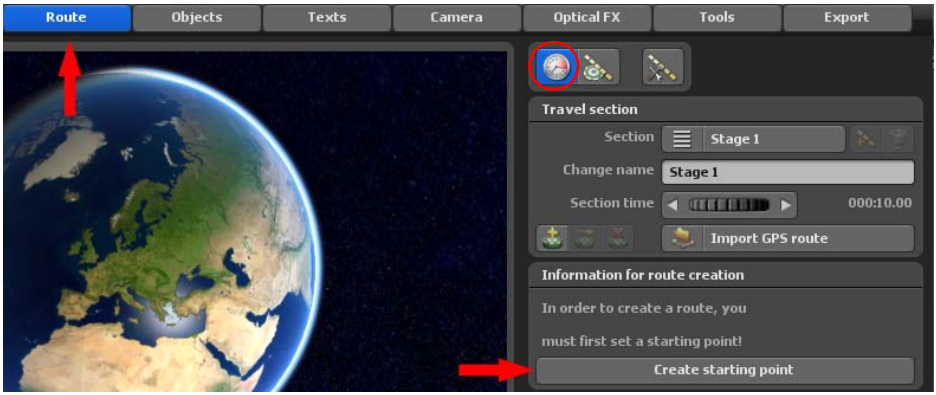
MotionStudios

Chapter 7

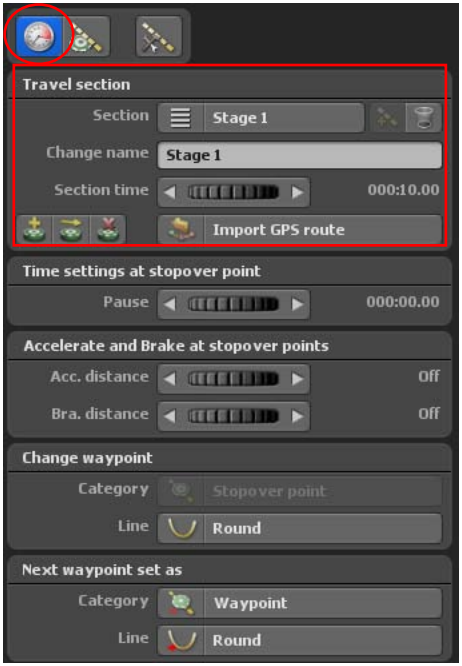
Route

Main menu
Route

Settings for the breakpoints and base points as well as the route line can be implemented in the **route** main menu. Currently, the **route settings at breakpoint** menu is active. To make settings in this menu, click on the create starting point button.



Then, while holding down the left mouse button, position the set breakpoint (green starting point of the route) at the desired position within the map view.



The detailed settings in the **route settings at breakpoint** menu are now displayed.

Each travel route consists of at least one travel section or stage. The parameters for the respective stage can be found in the top right area of the trip section.

Use the  button to add a new stage and the recycling bin button to delete a stage.

Under „change name“, you can enter an individual name for the respective stage.

The section duration controller determines how long the respective stage lasts.

Main menu
Route

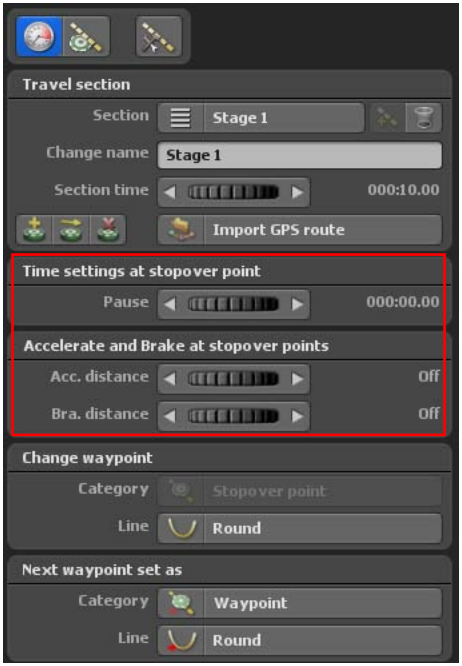
The following functions are also available:

1. Create a waypoint using the GPS database (also possible in simple map mode if the map used is geo-referenced)

2. Move a waypoint to a position from the GPS database (also possible in simple map mode if the map used is geo-referenced)

3. Delete a waypoint

4. Import a GPS track and create a route from it, (this option is also possible in simple map mode if the map used is geo-referenced)



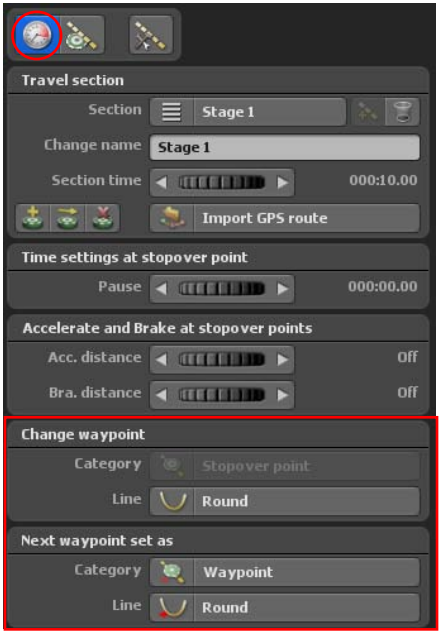
Break time:
Here you determine the time how long a head object should stay at a breakpoint before the journey to another stop on the route is to be continued.

Acceleration and deceleration at breakpoint:
The acceleration and deceleration option gently accelerates the selected head object at the beginning and slows it down at the end of a stage.

Acceleration path:
The acceleration distance defines the acceleration path of the head object at the breakpoint of the route. Use the controller to set the acceleration path of the head object at the starting point of the desired route section.

Stopping distance:
This option defines the stopping distance of the head object before a breakpoint. Use the controller to determine the stopping distance of the head object at the end of the desired route section.

Main menu
Route



Adjust waypoints:

Category:
Change the current waypoint between base point/breakpoint.

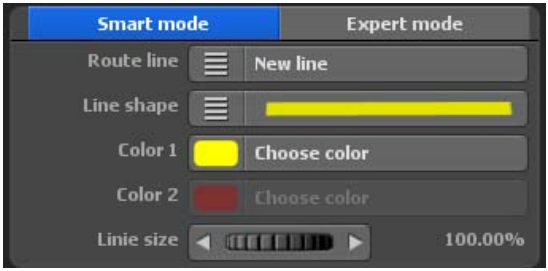
Line layout:
Switch the current waypoint between angular/ rounded course.

Set the next waypoint as:

Category:
Insert the next waypoint as the base point/ breakpoint

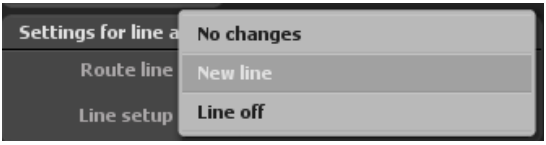
Line layout:
Insert the next waypoint with square/round line layout

Main menu Route
Route line Smart mode



Line style settings:

Here you can establish the settings for the line display between the individual stopping points along the route. This allows you to customise the line style individually for each stopping point along the route.



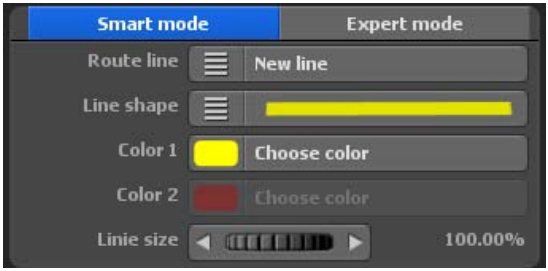
Line Layout:
These can be chosen as follows.

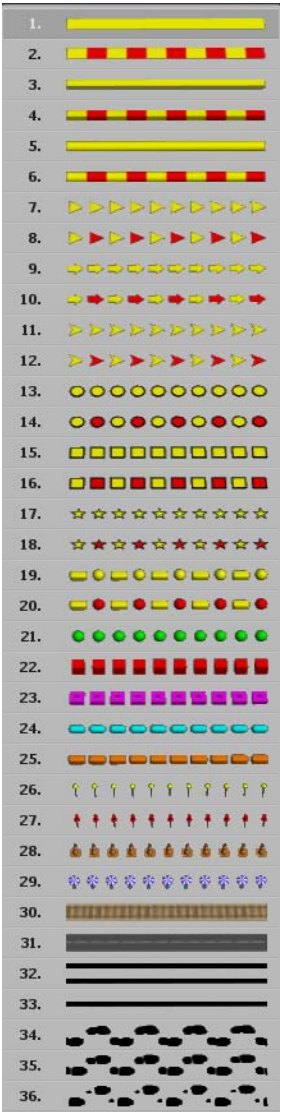
No change:
If no modifications to route display are set at stopping point, then the line settings from the previous stopping point will be applied.

New line section:
If you choose this option, you can make further settings for the appearance of the route.

Switching the line function off:
When the line is switched off, no lines will be displayed and the settings will not be accessible.

Main menu Route
Route line Smart mode



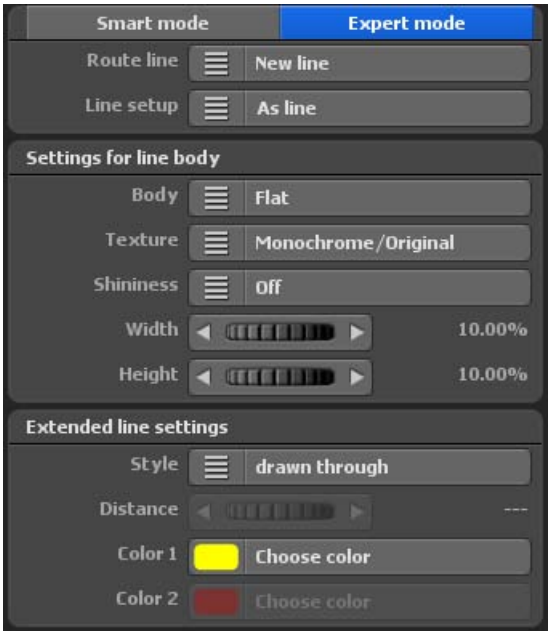


Line shape:
For the line shape, you have a choice of 36 predefined lines. Select the variant you want here.

Color 1 and Color 2:
Using this option, you can adjust the line color according to your wishes.

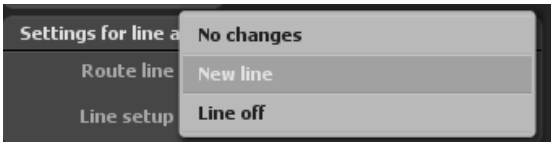
Line size:
This is where you can make adjustments to the size of the line. Select the size so that the route line is easy to see.

Main menu Route
Route line Expert mode



Line style settings:

Here you can establish the settings for the line display between the individual stopping points along the route. This allows you to customise the line style individually for each stopping point along the route.



Advanced line settings:
Line Layout:
These can be chosen as follows.

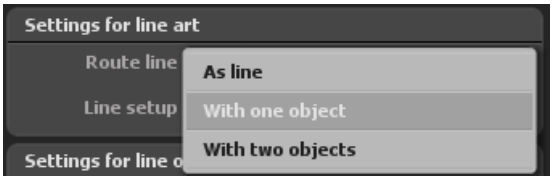
No change:
If no modifications to route display are set at stopping point, then the line settings from the previous stopping point will be applied.

New line section:
If you choose this option, you can make further settings for the appearance of the route.

Switching the line function off:
When the line is switched off, no lines will be displayed and the settings will not be accessible.

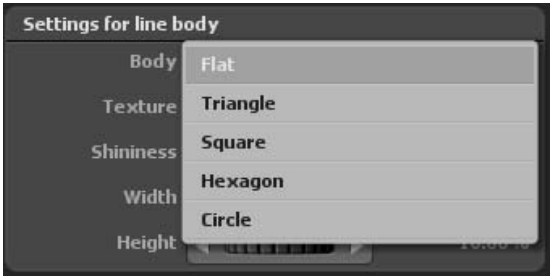
Main menu
Route

Choose between line bodies and line objects
Here you may select what forms are to be used to create the line structure.



Line bodies (displayed as lines) are available in the form of a single-line object or double-line objects. Vasco da Gama 19 thus also provides for the opportunity to structure a line from various objects.

Line Body Settings
Choose the line bodies and then you will be able to use some of the following line body types.



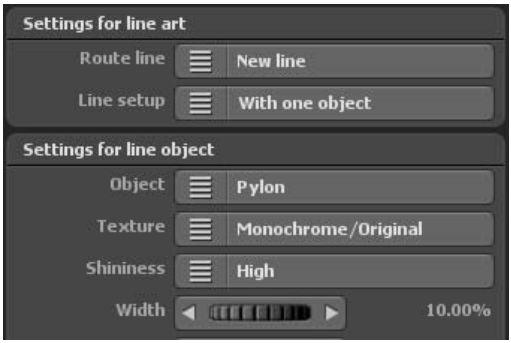
The Texture option provides you with numerous design templates for designing the interface. The line bodies (such as flat, triangular etc.) can thus be defined in the interface design itself.

The Gloss option allows the display of line bodies on 2 levels (medium and high) giving them a glossy glow quality. It can also be turned off.

The options of Width and Height determine the width and height of the chosen line bodies, depending on the selection.

Note:
The newly configured settings will now be visible in the Vasco da Gama 19 project preview.

Settings for a single line object or two line objects
Select a line object and then you will be able to use various object types for the display of the line structure with the help of the Object Option.



The Texture option provides you with numerous design templates for the design of the interface. The selected line objects (e.g. pylons, balls etc.) can thus be defined in the interface design itself.

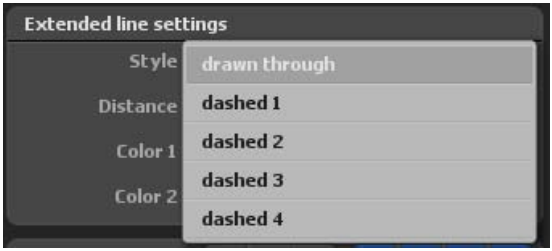
The Gloss option allows for the display of line bodies on 2 levels (medium and high) giving them a glossy glow quality. It can also be turned off.

The options of Width and Height determine the width and height of the chosen line objects, depending on the selection.

If you wish to structure the route line out of two line objects, then choose the option of Out of Two Line Objects under Line Structure. Then, another settings tab will appear for the definition of the second line object Object2.

Note:
The newly configured settings will now be visible in the Vasco da Gama project preview.

Main menu
Route



Style:

Here you decide whether the route line should be drawn through or dashed. In addition to the solid line, there are also 4 different variants of a dashed line available.

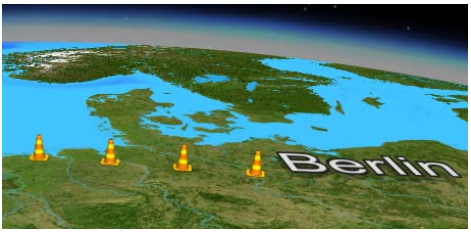
Spacing

The solid line style does not allow for a definition of the **spacing**; it is possible only for the dotted line style and for line types with an object or with two objects, as in the case of Line Type 10.

The spacing between the objects on the line, depending on the selection, might be displayed in the Project Preview like so:

Spacing of 25%

Spacing of 60%



Colour:
When selecting the New Line Section option, you will be granted access to colour settings. In order to choose the option Colour 1 click on the button „Choose a Colour“. The Colour Selection dialogue box allows you to set your desired colour for the route line.

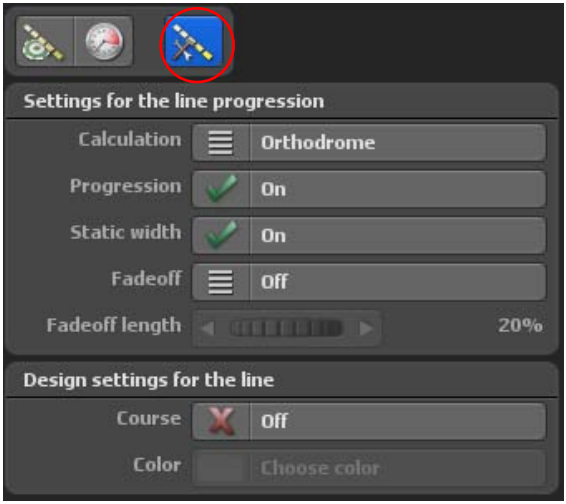
By clicking Ok, you will confirm the colour settings (e.g. yellow).

Note:
If for example if you have selected a written dotted line style or that consist of 2 objects,then you can adjust the color of the dotted line and that of both object types independently of one another. Use the color 2 option to select your desired color. The color 2 option is not selectable for line types with an object or for solid lines.

Main Menu - Route
General Settings for Displaying the Route Line

Menu settings for the route line

Here you may find the global settings for the Line Flows and the settings for the drawing of the lines.



Display of the course of the line

Course: Here switch the Display line function On and/or Off. This line indicates the course of the travel route. Select for example, an airplane as a head object, it leaves a line behind it as it travels from A to B.

Line calculation:

With the selection of the line calculation you indicate the method with which Vasco da Gama should calculate the line on the globe. Here we differentiate between Loxodrome and Orthodrome. With the Orthodrome calculation the shortest path between two points on a globe is calculated. The Loxodrome calculation resembles a spiral route line over large distances.

Static width:

Here you can indicate whether the line width is the same as the camera zoom shot or if should increase or decrease. Alternatively you can adjust it so that the line is not affected by the zoom and remains the same.

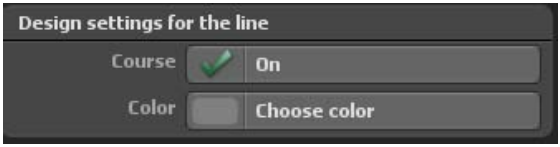
Fade out:

Here you can select 3 conditions: Off, On (still) and On (consecutive). When you select the Off setting, the line course remains faded in for the entire course of the journey.
In contrast to this, with the other settings the line course is only displayed immediately after the head object. You can see the difference at a stop with stopping time: With still the line remains as it is, with consecutive the line is faded out further on.

Main Menu - Route
General Settings for Displaying the Route Line

Fade out duration:
This function is active, if On (still) and On (consecutive) were selected before fading out. With this setting you specify, how long the line course lasts for, before it is faded out. mit Haltezeit: Bei Still bleibt die Linie unverändert, bei Fortlaufend wird sie weiterhin ausgeblendet.

Settings to mark the line
Distance:
If you switched this option to On, the complete route is shown as a line. Provided that the line course is also turned on, the distance is displayed over it during the course of the route.



Colour:
By using the Select colour button you determine the colour of the distance.

MotionStudios

Chapter 8

Objects

Main menu Objects
Settings for the head object

Das Hauptmenü Objekte und seine Menüs:

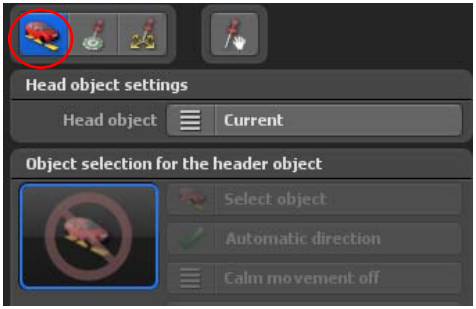
1. Menu: Head object settings
2. Menu: Object at stop-over point
3. Menu: Free object settings
4. Menu: Drag&Drop function for free 3D objects

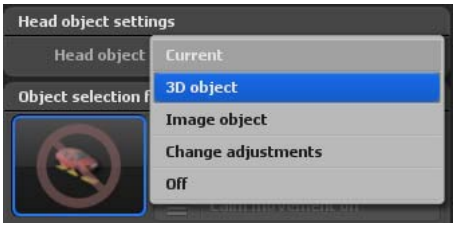
In the Main Menu under **Objects**, you will find the settings for object selection and their application to base and stopping points, as well as to free objects, which can be positioned on the map at any desired location. In the first Menu, you will find the **settings for the header object**. Fly or drive your route through using header objects (moving objects).

Object selection for the head object:

Head object (moving object):

When you click on the button No change, further options appear. In the No change mode, it is not possible to make any adjustments.





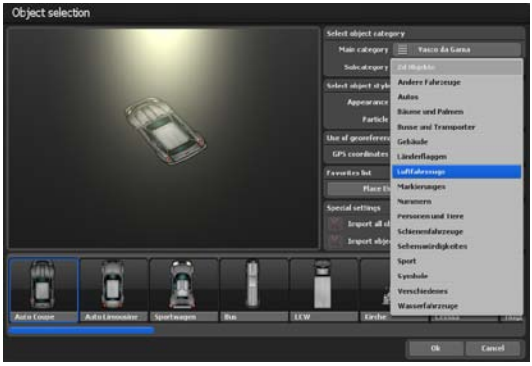
The options 3D Object or Image Object allows you to select a new head object. When you press Change setting you can change the currently selected object (but an object must have already been selected). Switch off object removes the object from the route.

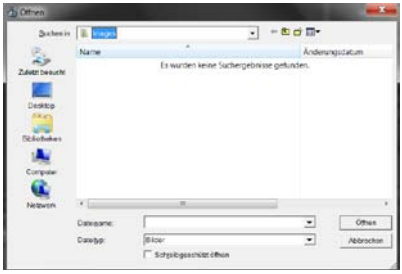
Select:

After you have selected the option 3D Object or Image Object the Select object button will appear.

Main menu Objects
Settings for the head object

Now click on the Select object, button and a dialogue appears Object selection or file selection window depending on the respective selection of the head object.





The Main category is active with additionally installed object packages or after creating a favorites list; currently the standard category Vasco da Gama is available. In the Subcategory you will find various categories of objects (for example, aircraft, etc.). In the Select Object Views area, you can set the appearance of the head object (color) as well as the use of Partial Effects. The use of georeferenced data is inactive for the header objects. It is possible to add objects to a Favorites list.

Select an object and click Ok. The object is inserted at the active breakpoint in the route. Further information can also be found in the chapter 3D Object Gallery.

It is recommended that your turn on the auto direction option, so that the head object moves in the direction of the course of the route.

Main menu Objects
Settings for the head object

Stabilized motion
Switch on the Stabilized Motion option, there are 3 smoothing options available: Low, Medium and Strong. Then the moving head object will be calmed in the course of the movement in the case of routes with very many curves or in the course of city maps (with an angular route); possible hidden object movements will be reduced.

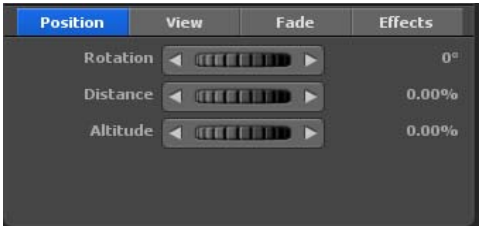
Motion mode:
In motion mode, you can choose between airplane mode and motorcycle mode. Depending on the mode, flight or motorcycle movements are simulated.

With the option Animation animated objects can be stopped at the holding point (if a hold time was specified!). Therefore, a hiker at the holding point does not walk in place.
Static sizes: Here you can set the fixed size of an object.

Size:
Here you can specify the setting of the object size (from 1 % to 1000 %). Please also note the global settings for the object size of 3D objects, pictures and text.


At the bottom of the **settings field for header objects**, you will find 4 lists in which you will be able to set such features as: positioning, elevation, or fade time of the header object. Furthermore, you will have the possibility to add various effects.

Position setting
Angle, distance and height:
With these automatic controllers you can specify the exact position of the object at the selected stop.



Angle:
Here you indicate, in a clockwise direction, in which direction the object is to distance from the stop. In doing so 0° stands for the direction of north, 90° is east, 180° is south and 270° is west.

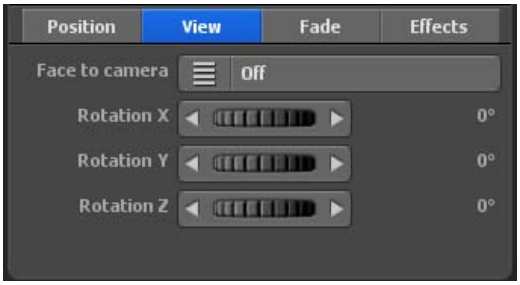
Distance: The greater the distance the further away the object moves from the stop.

Main menu Objects
Settings for the head object

Height:
Here you can specify the relative height of the object on the map. This is particularly interesting, if you would like, for example, to have an airplane fly along the ground.

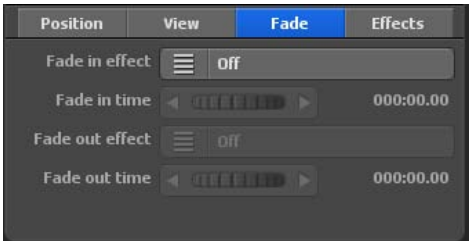
Note:
The settings can be checked directly in the preview window.

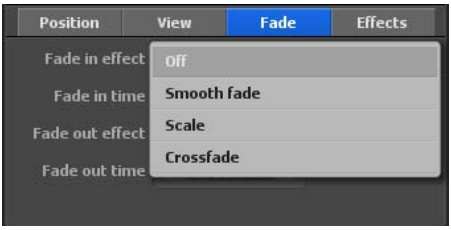
View setting
Camera direction:
Select On if you liked to have the objects always turned towards the camera. This is very useful in order to for example always turn a picture at the optimal angle to the camera.



Angle X, Angle Y and Angle Z:
With these automatic controllers you can move the object in X/Y/Z direction.

Blending time setting
You will have the option of blending your selected header object out or in at the stopping point. You will also be able to set the fade time..
Fading in effect:
Click on the Fading in effect, in order to call up and choose from a selection fade in / out effects.





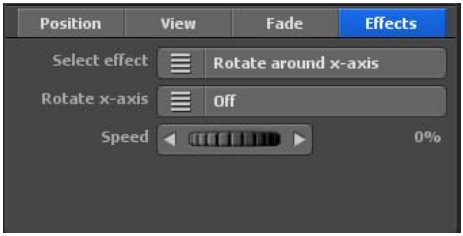
Select, for example, Soft fade.

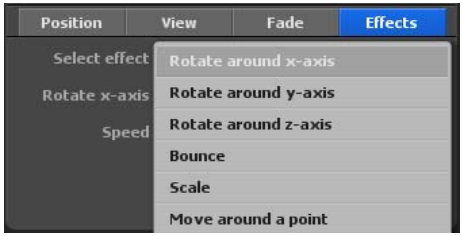
Fading in effect:
Here you specify how long it will take to fade in the object.

Fading out effect:
Click on the Fading out effect button in order to call up and choose from a selection fade in / out effects. Select, for example, Soft fade.

Fading out time:
Here you specify how long it will take to fade out the object.

Setting effects
You will have the option to set your chosen header object effects. The speed of the effects can also be defined.
Selecting effects:
Click the Effect selection button to set an effect for the selected object set (such as rotating around the y-axis).



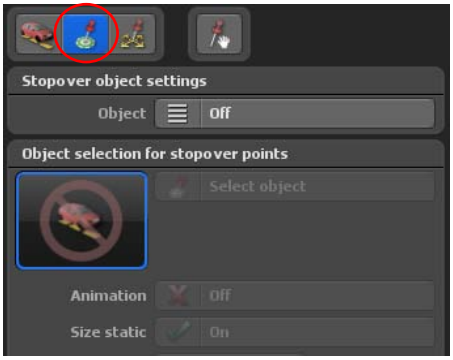


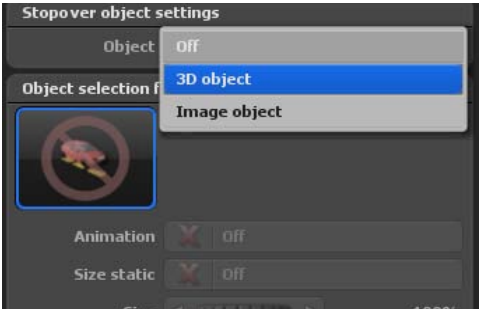
Y-Rotate on y-axis (depending on the effect selected):
Click this button to turn on and off.

Speed:
This sets how fast the selected effect changes the object.

Main menu Objects
Settings for the stop over object

In the Main Menu under **Objects**, you will find the settings for objects and images at stopping points, which may be accessed from the menu item **Object at Stopping Point**.

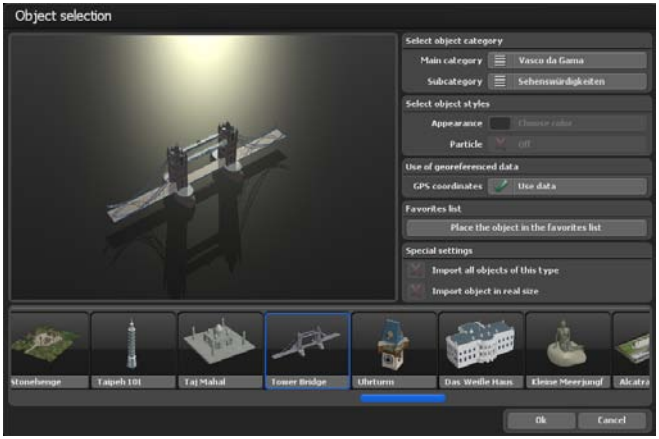




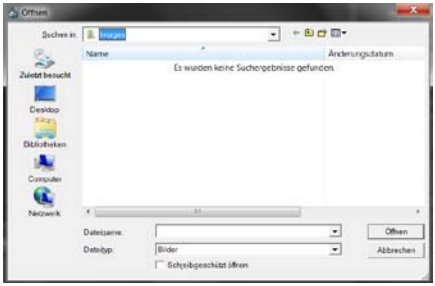
Object selection for stop:
Object:
When you have selected the Off option, you cannot make adjustments in this menu.

For each individual stop in your travel route you can integrate another object. To do this select the 3D Object or picture object option. This activates further setting possibilities.

Press on Select object, in order to open the object selection (with 3D Object) or the file selection (with Image object). Select the object, which you would like to place at the stop.



Main menu Objects
Settings for the stop over object



The Main category is active with additionally installed object packages or after creating a favorites list; currently the standard category Vasco da Gama is available. In the Subcategory, you will find various categories of objects (for example, sights, etc.).

In the Object Display area, no settings can be made for the sights. The use of georeferenced data is active for the header objects, so the objects can be positioned precisely. It is possible to add objects to a Favorites list.

Select an object and click Ok. The object is inserted at the active breakpoint in the route. Further information can also be found in the chapter 3D Object Gallery.

Animation:
There are objects in Vasco da Gama that can also be used as holding objects, e.g. a car, so of course you do not want the tires to turn when the car is stationary. Another example would be a windmill that rotates, but sometimes you do not want it to rotate. This is controlled by the Animation On/Off option . 3D objects such as points of interest rarely have built-in animation (movement of object elements), so the Animation option is switched off.

Static sizes:
Here you can set the fixed size of an object

Size:
Here you specify the setting of the object size (up to 1000%).

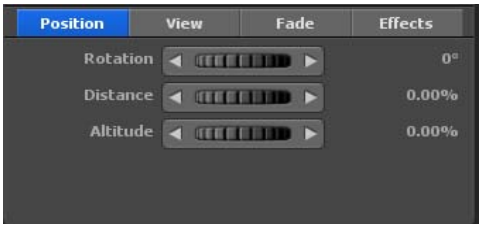
Main menu Objects
Settings for the stop over object

At the bottom of the **Key Object Settings Field**, you will find 4 tabs under which you will be able to set such features as positioning, elevation, or fade time of the key object. You will also have the possibility to add some effects.

Position setting

Angle, distance and height:

With these automatic controllers you can specify the exact position of the object at the selected stop.



Angle:

Here you indicate, in a clockwise direction, in which direction the object is to distance from the stop. In doing so 0° stands for the direction of north, 90° is east, 180° is south and 270° is west.

Distance:

The greater the distance the further away the object moves from the stop.

Height:

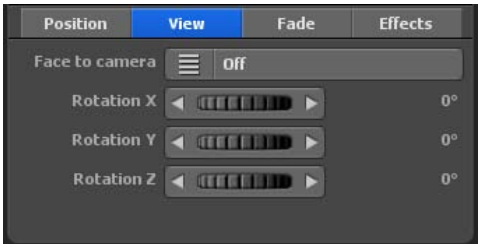
Here you can specify the relative height of the object on the map. This is particularly interesting, if you would like, for example, to have an airplane fly along the ground.

View setting

Camera direction:

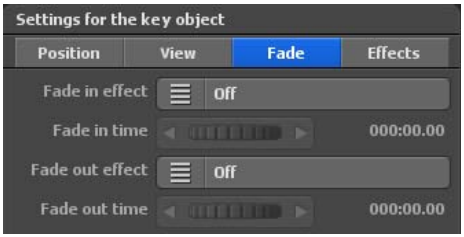
Select On if you liked to have the objects always turned towards the camera. This is very useful in order to for example always turn a picture at the optimal angle to the camera.

Main menu Objects
Settings for the stop over object



Angle X, Angle Y and Angle Z:
With these automatic controllers you can move the object in X/Y/Z direction.

Fading time setting
You will have the option of blending your selected key object out or in at the stopping point. You will also be able to set the fade time.
Fading in effect:
Click on the Fading in effect, in order to call up and choose from a selection fade in / out effects.



Select, for example, Soft fade.

Fading in effect:
Here you specify how long it will take to fade in the object.

Fading out effect:
Click on the Fading out effect button in order to call up and choose from a selection fade in / out effects. Select, for example, Soft fade.

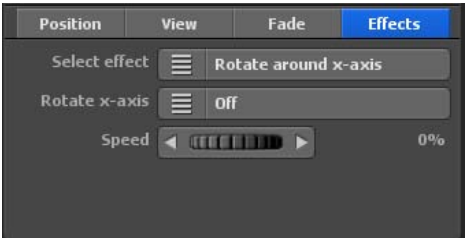
Fading out time:
Here you specify how long it will take to fade out the object.

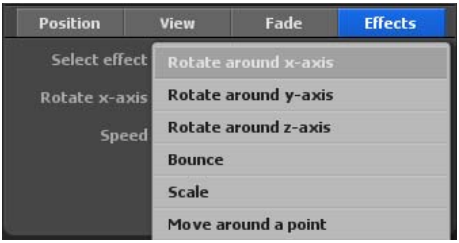
In the list of aperture effects, you will find 3 effects to fade in/out the objects and 7 effects to focus on the objects, with various options to choose from.

Hauptmenü Objekte
Settings for the stop over object

Stopping time:
Here you can set a stopping time of the object at a stop/base. With the stopping time you can specify on the one hand for how long the object should be visible at the stop. On the other hand you can determine additional stopping time.

Effects settings
You will have the option to set effects for your chosen key object. The speed of the effects can also be defined.
Selecting effects:
Click the Effect selection button to set an effect for the selected object set (such as rotating around the y-axis).



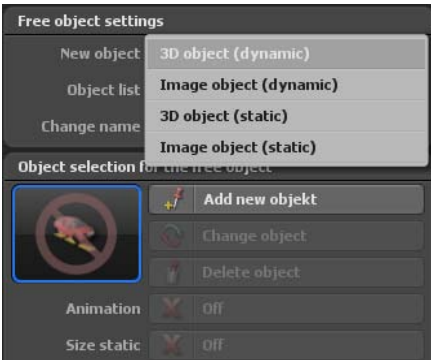


Rotate on y-axis (depending on the effect selected):
Click this button to turn on and off.

Speed:
This sets how fast the selected effect changes the object.

Main menu Objects
Settings for free objects

The Objects register, positioning of free objects and text, the menu **Settings for free objects.**



In this menu you can select objects, which you can freely position (align) in the respectively used map in the work monitor.

Note:
In the Objects register you can select the base and stop points, which however cannot be moved.

Object selection:
Type of object:
Here you enter whether you would like to use a 3D object or an Image object.

Now you can indicate the positioning of the objects.
„Dynamic positioning“ means that the objects ‚walk along together‘ on the globe and the same on the route. In contrast to this there are static objects, which are fixed in the selected position and remain fixed, even if the globe is moved. So, for example, pictures can be placed at the top right hand corner in a static position and they will remain in the same position during the whole process.

Main menu Objects
Settings for free objects

3D object / image (dynamic):
The selected object is set in a dynamic positioning. The dynamic objects walk along with the map.

3D object / image (static):
The selected object is set in a static positioning. The static objects stop in the video at the selected fixed position and do not walk with the map. This is suitable particularly for sub-titles and stationary pictures (for example in the top right hand corner).

Press on Add new object (1), in order to open the object selection (with 3D object) or the file selection (with Image object). Select the object you would like to place on the map.

The newly selected free object / image appears in the object list. In the Change name field, you can customize objects / images individually to easily and quickly retrieve them for repeated use at any time.
After you have selected the object, the Change (1) and Delete (2) buttons are active.

With Edit object you can change the current object / image or replace it with another object / image. If you want to remove the object / image from the Earth globe, click the Delete object button.

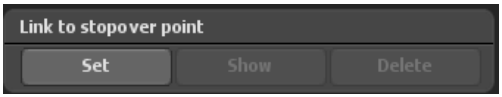
Animation:
There are objects in Vasco da Gama that can also be used as holding objects, e.g. a car, so of course you do not want the tires to turn when the car is stationary. Another example would be a windmill that rotates, but sometimes you do not want it to rotate. This is controlled by the Animation On/Off option . 3D objects such as points of interest rarely have built-in animation (movement of object elements), so the Animation option is switched off.

Static sizes:
Here you can set the fixed size of an object.

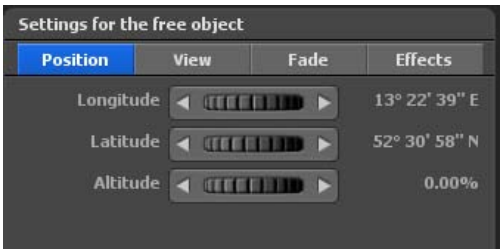
Main menu Objects
Settings for free objects

Size:
With this automatic controller you can specify the display size of the free object. After the change by the automatic controller, the size of the free object has changed as follows.

Linking to the stop
Here you can set, display or delete a link to the free object.



Position setting (dynamic)
For dynamic objects the respective position is indicated on the basis of longitude, latitude and height. Thus you can place the object at any place on the map.



Longitude:
The longitude determines the position from west to east, whereby 180° 00' 00" W represents the westernmost point and 180° 00' 00" E the easternmost point on the map.

Latitude:
The latitude determines the position from north to south, whereby 90° 00' 00" N represents the northernmost point and 90° 00' 00" S the southernmost point on the map.

Height:
Here you can specify the relative height of the object on the map. So you can, for example, position a hot-air balloon at a certain height.

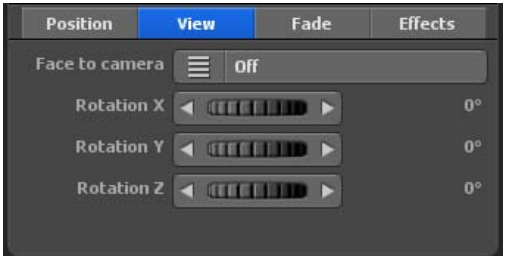
Position setting (static)
For static objects the position is indicated relative to the width and height of the video.

Main menu Objects
Settings for free objects

Horizontal:
Here you can specify the horizontal (x axis) position of the object over the map.

Vertical:
Here you can specify the vertical (y axis) position of the object over the map.

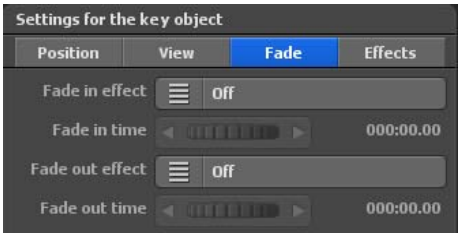
View setting
Camera direction:
Select On if you liked to have the objects always turned towards the camera. This is very useful in order to for example always turn a picture at the optimal angle to the camera.



Angle X, Angle Y and Angle Z:
With these automatic controllers you can move the object in X/Y/Z direction.

Blending time setting
Fading in effect:
Click on the Fading in effect, in order to call up and choose from a selection fade in / out effects.

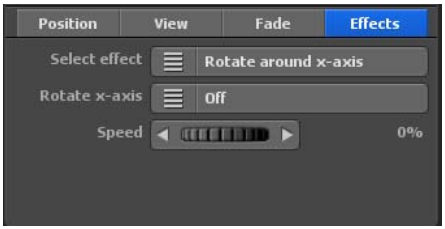
Main menu Objects
Settings for free objects

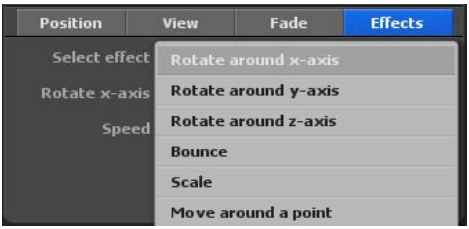


Select, for example, Soft fade.
Fading in effect: Here you specify how long it will take to fade in the object.
Fading out effect: Click on the Fading out effect button in order to call up and choose from a selection fade in / out effects.
Select, for example, Soft fade.
Fading out time: Here you specify how long it will take to fade out the object.
Stopping time: Here you can set a stopping time of the object at a stop/base. With the stopping time you can specify on the one hand for how long the object should be visible at the stop. On the other hand you can determine additional stopping time.

In the list of aperture effects, you will find 3 effects to fade in/out the objects and 7 effects to focus on the objects, with various options to choose from.

Effects settings
Selecting effects:
Click the Effect selection button to set an effect for the selected object set (such as rotating around the y-axis).





Rotate on y-axis (depending on the effect selected):
Click this button to turn on and off.

Speed:
This sets how fast the selected effect changes the object.

Main menu Objects
Drag&Drop function for free 3D objects

With the new drag & drop mode for free 3D objects, you simply drag the desired 3D objects onto the map. It is no longer necessary to call up the object selection window. So you can quickly place many 3D objects on your map.

In addition, you can conveniently adjust the size and orientation of the objects with the mouse. You can resize the objects in conjunction with the CTRL key. You can rotate the objects using the right mouse button. So you can create entire forests in a fraction of the time.

You should already be familiar with all of the switches from the previous pages on the subject of „Settings for free objects/images“.

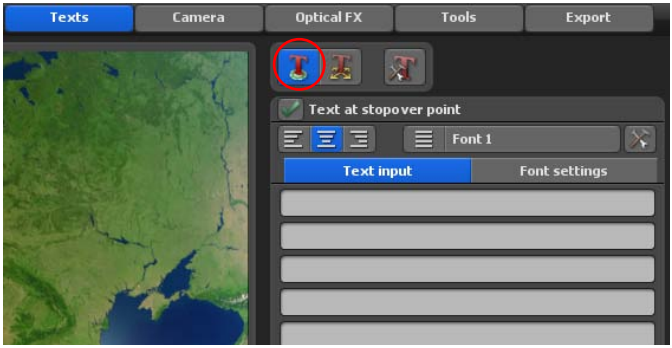
It should also be mentioned here that all switches on the right side only work for 3D objects that have already been placed. All switches in the lower area are intended for the selection of the 3D objects.

Chapter 9

Texts

Main menu Texts
Settings of the text object

In the Main Menu item **Texts**, you will find the option **Text at Stopping Point** for creating and setting texts at Stopping Point.

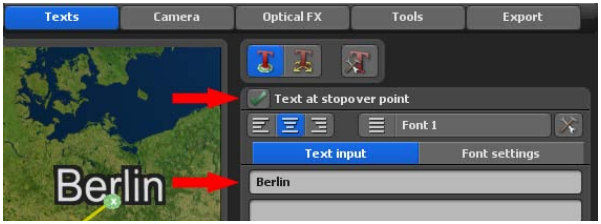


Every stop can be labelled with a text element, in order to label stations, for example, that still have no name within the points used so far.

Text data for the stop:

Display text:

Here you can select whether you would like to insert a text element at the stop. If you want to insert text, turn on the option. In the Text input dialog, enter the text (for example, Berlin) that you want to display at the breakpoint.



Keyboard shortcuts for the entry:

Pos 1:

To arrive at the beginning of the text line.

End:

To arrive at the end of the text line.

Remove:

To delete the characters on the right.

Delete:

To delete the characters on the left.

Main menu Texts
Settings of the text object

Downward arrow:
To arrive at the text line one row below.

Upward arrow:
To arrive at the text line one row above.

Esc:
To cancel the entry.

Return:
To end text entry.

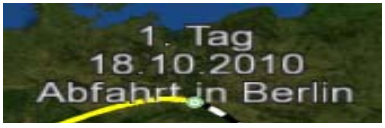
Control - C (Ctrl - C):
To copy the text of a line into a file.

Control - V (Ctrl - V):
To copy the text from the file into a text line

With the last two key combinations you can very easily copy texts from other programs and insert them in Vasco da Gama. Thereby you can also insert and represent Asian characters, by selecting a character font that also contains these characters!

Alignment:
Here you can specify the alignment of the text (useful only if you have several lines of text)

Left:
The text is aligned to the left.



Centre:
The text is aligned to the centre.

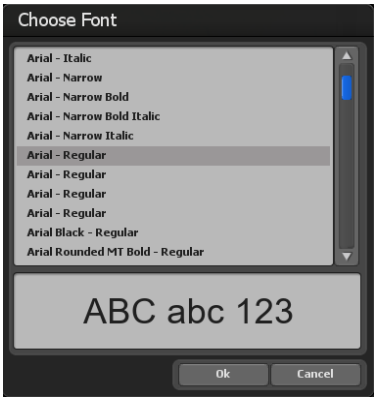
Right:
The text is aligned to the right.

Main menu Texts
Settings of the text object

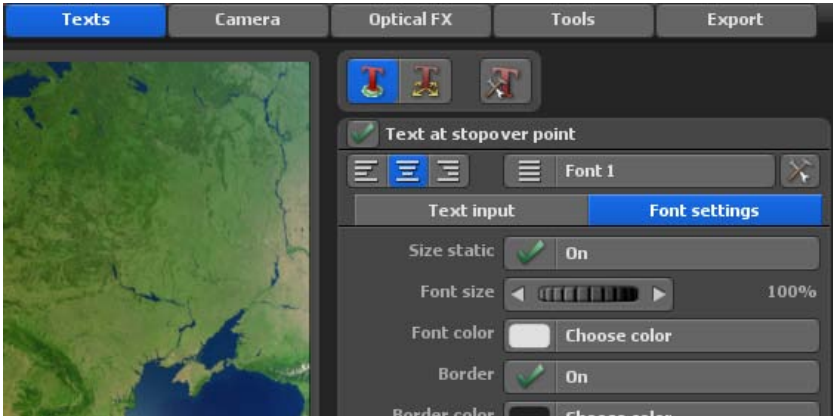
Font1...5:
Here you configure 5 possible fonts, which can be used to display the text in the route project. For example, choose Font 1 and set the desired font, size, color, and so on.

Select font:
Click the following button

to select a desired font.



In the Font settings dialog, you can make the following settings for the text at the breakpoint:



Main menu Texts
Settings of the text object

Static Size
At this point, you can specify whether you wish your text to be static or dynamic. If the static option is switched off, then the text‘s size is changable.

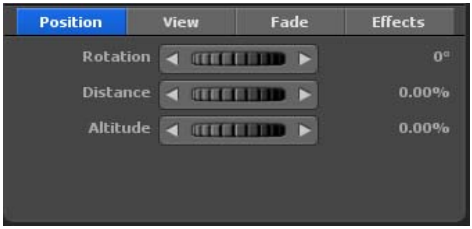
Font size:
Set desired font size here. The changes are immediately visible on the world globe.

Font colour:
By clicking on the Select colour button you define the colour of the text on your globe.

Framework:
Here you can specify whether there is to be a frame around the existing text.

Framework colour:
By clicking on the Select colour button you define the colour of the text framework in the following colour selection dialogue.

Position setting: Angle, distance and height:
With these automatic controllers you can specify the exact position of the object at the selected stop.



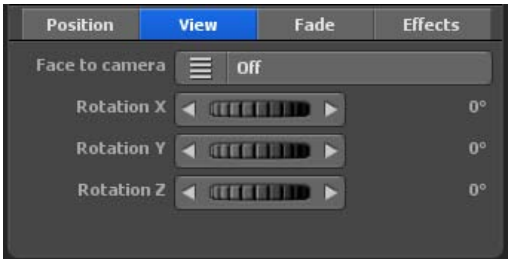
Angle:
Here you indicate, in a clockwise direction, in which direction the object is to distance from the stop. In doing so 0° stands for the direction of north, 90° is east, 180° is south and 270° is west.

Distance:
The greater the distance the further away the object moves from the stop.

Main menu Texts
Settings of the text object

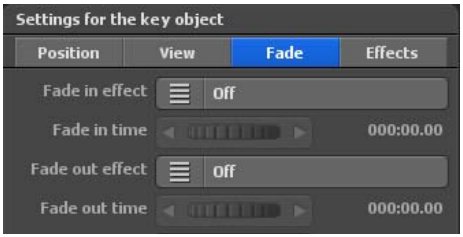
Height:
Here you can specify the relative height of the object on the map. This is very useful, for example if you would like to place text over a retaining object (picture or 3D object).

View setting
Camera direction:
Select On if you liked to have the objects always turned towards the camera. This is very useful in order to for example always turn a picture at the optimal angle to the camera.



Angle X, Angle Y and Angle Z:
With these automatic controllers you can move the object in X/Y/Z direction.

Blending time setting
Fading in effect:
Click on the Fading in effect, in order to call up and choose from a selection fade in / out effects.



Select, for example, Soft fade.

Fading in effect:
Here you specify how long it will take to fade in the object.

Fading out effect:
Click on the Fading out effect button in order to call up and choose from a selection fade in / out effects.

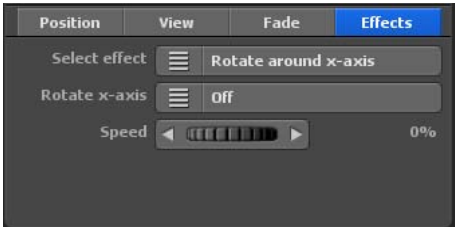
In the list of aperture effects, you will find 3 effects to fade in/out the objects and 7 effects to focus on the objects, with various options to choose from.

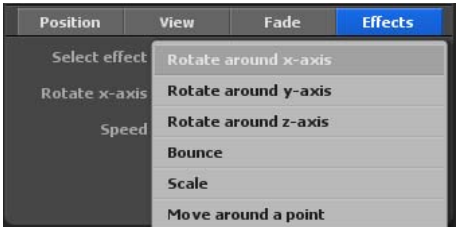
Main menu Texts
Settings of the text object

Fading out time:
Here you specify how long it will take to fade out the object.

Stopping time:
Here you can set a stopping time of the object at a stop/base. With the stopping time you can specify on the one hand for how long the object should be visible at the stop. On the other hand you can determine additional stopping time.

Effects settingss
Selecting effects:
Click the Effect selection button to set an effect for the selected object set (such as rotating around the y-axis).



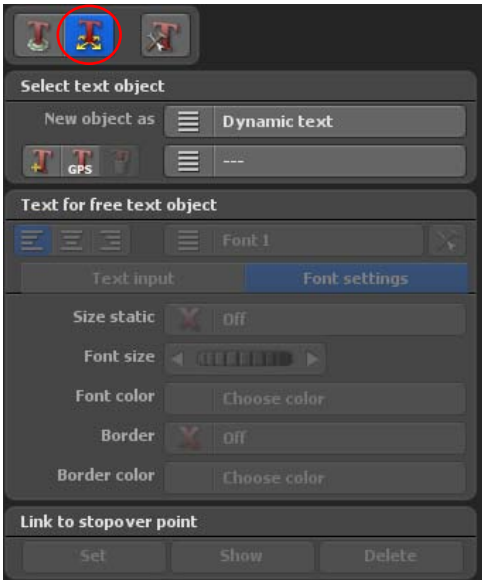


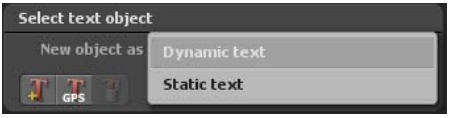
Rotate on y-axis (depending on the effect selected):
Click this button to turn on and off.

Speed:
This sets how fast the selected effect changes the object.

Main menu Texts
Settings for free text

In the Main Menu field of **Texts**, the free text placement on the map can be accessed through the menu option of **Creating Free Texts**.





In this menu you can insert texts, which you can freely position in the work monitor on the respectively used globe section - independently of a base or a stop.

New item:
Here you can specify free text as either static text or dynamic text.

Dynamic:
The selected object is set in a dynamic positioning. The dynamic objects walk along with the map.

Static:
The selected object is set in a static positioning. The static objects stop in the video at the selected fixed position and do not walk with the map. This is suitable particularly for sub-titles and stationary pictures (for example in the top right hand corner).

Main menu Texts
Settings for free text

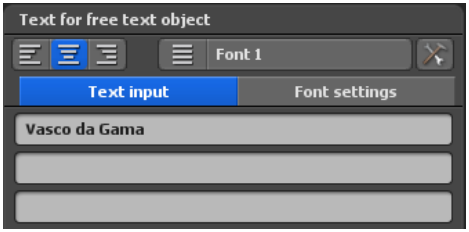
1. 2. 3.

1. You can insert a new text object in the current position.

2. Click on this if you would like to add a text object from the GPS database in a certain position.

3. Remove the current text object from the map.

Text specifications for the free text object:
In the Text input dialog, enter the desired Narratives, you want to display at and enter the desired free text that you want to display at any point on the map.



Alignment:
Here you can specify the alignment of the text (useful only if you have several lines of text)

Left: The text is aligned to the left.

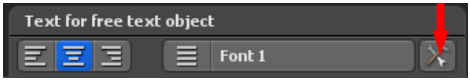
Centre: The text is aligned to the centre.

Right: The text is aligned to the right.

Main menu Texts
Settings for free text

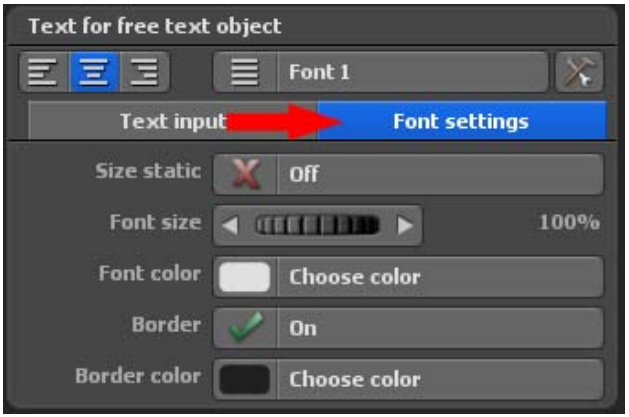
Font1...5:
Here you configure 5 possible fonts, which can be used to display the text in the route project. For example, choose Font 1 and set the desired font, size, color, and so on.

Select font:
Click the following button



to select a desired font.

In the Font settings dialog, you can make the following settings for free text



Main menu Texts
Settings for free text

Static Size
At this point, you can specify whether you wish your text to be static or dynamic. If the static option is switched off, then the text‘s size is changable.

Font size:
Set desired font size here. The changes are immediately visible on the world globe.

Font colour:
By clicking on the Select colour button you define the colour of the text on your globe.

Framework:
Here you can specify whether there is to be a frame around the existing text.

Framework colour:
By clicking on the Select colour button you define the colour of the text framework in the following colour selection dialogue.

Please also note the keyboard shortcuts on the next page for the entry of text!
Keyboard shortcuts for the entry:

Pos 1:
To arrive at the beginning of the text line.

End:
To arrive at the end of the text line.

Remove:
To delete the characters on the right.

Delete:
To delete the characters on the left.

Downward arrow:
To arrive at the text line one row below.

Upward arrow:
To arrive at the text line one row above.

Main menu Texts
Settings for free text

Esc:
To cancel the entry.

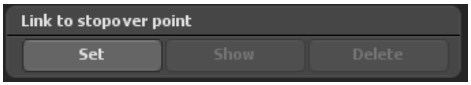
Return:
To end text entry.

Control - C (Ctrl - C):
To copy the text of a line into a file.

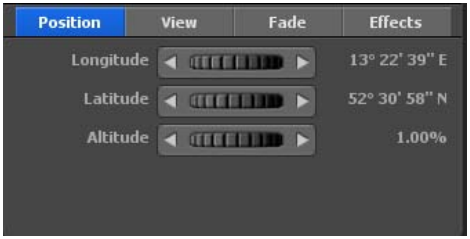
Control - V (Ctrl - V):
To copy the text from the file into a text line

With the last two key combinations you can very easily copy texts from other programs and insert them in Vasco da Gama. Thereby you can also insert and represent Asian characters, by selecting a character font that also contains these characters!

Linking to the stop
Here you can set, display or delete a link to the free object.



Position setting (dynamic)
For dynamic objects the respective position is indicated on the basis of longitude, latitude and height. Thus you can place the object at any place on the map..



Longitude:
The longitude determines the position from west to east, whereby 180° 00’ 00” W represents the westernmost point and 180° 00’ 00” E the easternmost point on the map.

Main menu Texts
Settings for free text

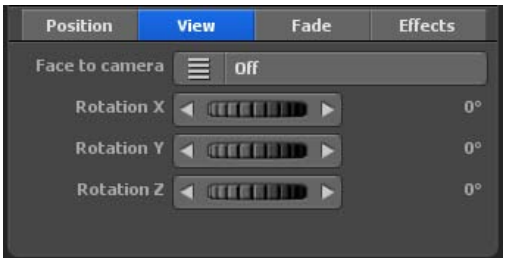
Latitude:
The latitude determines the position from north to south, whereby 90° 00’ 00” N represents the northernmost point and 90° 00’ 00” S the southernmost point on the map.
Height:
Here you can specify the relative height of the object on the map. So you can, for example, position a hot-air balloon at a certain height.

Position setting (static)
For static objects the position is indicated relative to the width and height of the video.

Horizontal:
Here you can specify the horizontal (x axis) position of the object over the map.

Vertical:
Here you can specify the vertical (y axis) position of the object over the map.

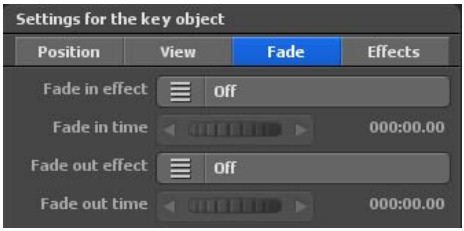
View setting
Camera direction:
Select On if you liked to have the objects always turned towards the camera. This is very useful in order to for example always turn a picture at the optimal angle to the camera.



Angle X, Angle Y and Angle Z:
With these automatic controllers you can move the object in X/Y/Z direction.

Blending time setting
Fading in effect:
Click on the Fading in effect, in order to call up and choose from a selection fade in / out effects. Select, for example, Soft fade.

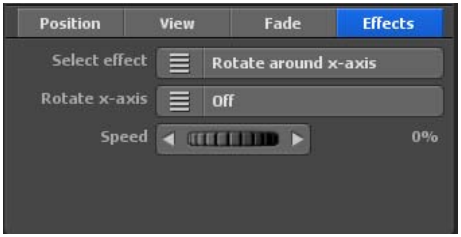
Main menu Texts
Settings for free text

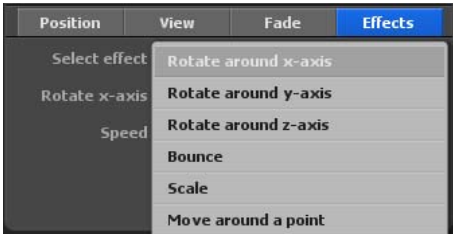


Fading in time: Here you specify how long it will take to fade in the object.
Fading out effect: Click on the Fading out effect button in order to call up and choose from a selection fade in / out effects. Select, for example, Soft fade.
Fading out time: Here you specify how long it will take to fade out the object.
Stopping time: Here you can set a stopping time of the object at a stop/base. With the stopping time you can specify on the one hand for how long the object should be visible at the stop. On the other hand you can determine additional stopping time.

In the list of aperture effects, you will find 3 effects to fade in/out the objects and 7 effects to focus on the objects, with various options to choose from.

Effects settingss
Selecting effects:
Click the Effect selection button to set an effect for the selected object set (such as rotating around the y-axis).



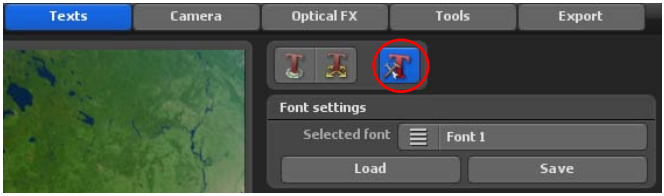


Rotate on y-axis (depending on the effect selected):
Click this button to turn on and off.

Speed:
This sets how fast the selected effect changes the object.

Main menu Texts
Goblal Text Attributes

The Main Menu section **Texts** contains the global text settings, which may be accessed through the menu item **General Settings for Text Attributes**.



Settings for the font

Font:

Click on the Font 1 button, you will then see Font 1 – 5 displayed.

Note:

It is imperative that you note the link into register for route / text data for the stop. If you select Font 1 in the font menu, then you must likewise select Font 1 in the register global / text attributes / font. Only when the font sizes agree, you will determine a change of the inserted text in the work monitor.

Load:

With this function you can load font settings that you have previously saved. Thus you can use settings saved for other projects and you do not have to select these again every time.

Save:

With this function you can save font settings that you would like to use more frequently.

Chapter 10

Camera

Camera Tracking in Vasco da Gama

IMPORTANT!
Camera tracking is explained in this chapter using the example of a route in advanced map mode on the 3D globe.
If you have chosen to work with a flat 2D map in simple map mode, aligning the longitude and latitude of the camera is impossible. In this example, vertical and horizontal positioning is made possible through manual camera tracking. The camera settings are otherwise identical.

Vasco da Gama has 5 different camera modes:

a. Automatic Camera Tracking
Vasco da Gama automatically sets the camera position to the camera points available in the route. However, there are various camera profiles to choose from that offer different perspectives for the created route. You can easily switch between profiles and select the most appropriate view. With automatic camera tracking, you can even select zoom correction, which automatically corrects the calculated zoom according to your specifications.

b. Manual Camera Tracking
Select manual camera tracking to set your own camera settings, regardless of the route. For example, you can set the time settings at camera points, determine the acceleration and deceleration at camera points, program the position settings, such as longitude, latitude and zoom, as well as the view settings, such as viewing angle, tilt and horizon. With manual camera tracking, adjusting the position of the sun is also possible. Use, for example, the actual times from your trip to create your route and day/night views will be set automatically on the globe.
In Vasco da Gama, you can also insert other camera points along the course of the route. These camera points can be viewed and adjusted independently from the breakpoints that are already available.

c. Static Camera Tracking
Select static camera tracking if you always want to see the total course of the travel route at a glance. The camera remains static (unmoved) along the course of the route.

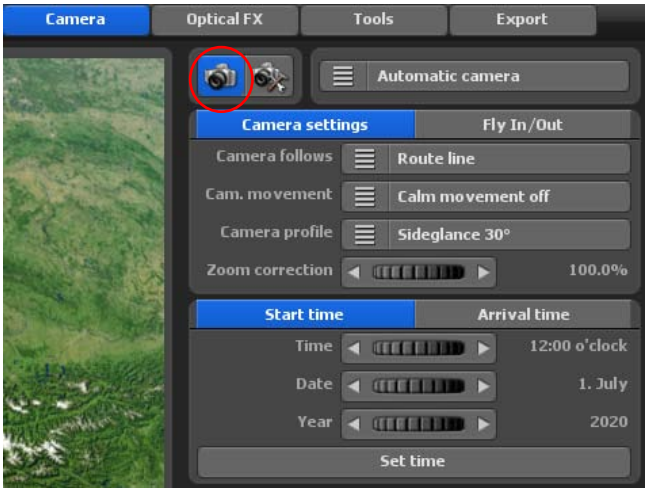
d. Simple Camera Tracking
Simple camera tracking allows you to quickly set the viewing and tilt angles, as well as the camera zoom, which will then be maintained throughout. With this setting, the camera position is automatically tracked along the route line, achieving quick and beautiful results in the tracking shot.

e. Drones camera guidance
The drones camera guidance functions like the simple camera guidance, except that the movement of the head object is transferred to the camera. The Rolling Motion option can be switched on and off. With drones camera guidance, the camera with the head object is rotated along the route, which does not happen in simple mode. If the head object moves/flies with a right turn, the camera does so too; if it moves into a left turn, then the camera also turns to the left. The Rolling Motion is ideal when the flight mode (from the head object settings) is used and the aircraft tilts into a curve.

f. Advanced camera control
This is where manual and automatic camera guidance meet. You benefit from the advantages of both worlds, you can adjust as many settings as possible individually and at the same time the focus always remains on the route line, no matter from which perspective.

Main menu Camera
Settings for that Current Camera Point
Automatic Camera Tracking

In the main menu entitled **"Camera,"** you will find the **"Current Camera Point Settings"** menu. You decide which kind of **camera tracking** you want to use.

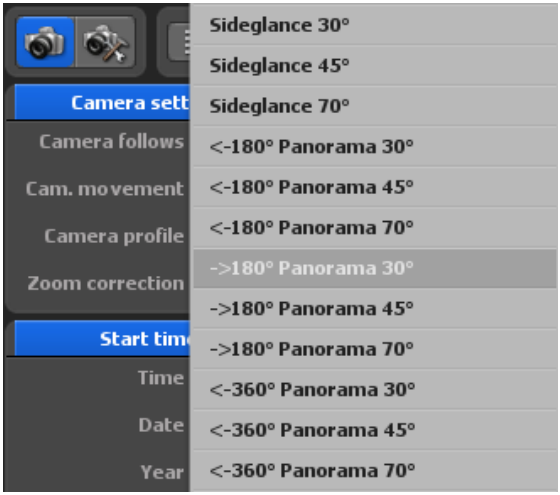


1. Select **automatic camera tracking** to automatically set the camera position to the camera points available in the route.

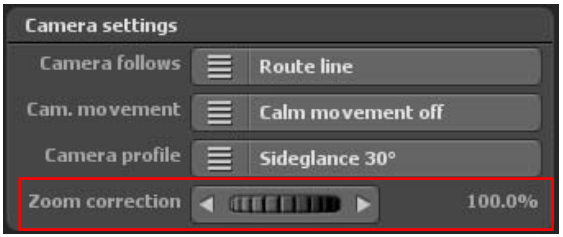
Camera follows:
If you select „route line", the camera always follows the path of route 1 including all waypoints.
With the „Head object" setting, the camera always tracks the current head object. This is particularly advantageous if the object is hovering/flying above the route line and can therefore stray outside the field of view.

If the camera pans jerkily, you can use the camera motion option to stabilize the camera in 3 stages. If you choose the camera motion stabilization off option, no motion stabilization will take place.

Main menu Camera
Settings for that Current Camera Point
Automatic Camera Tracking



Under „Camera Profiles," you will find various camera view templates that enable the view of the selected header object in the course of the route on the map (globe).

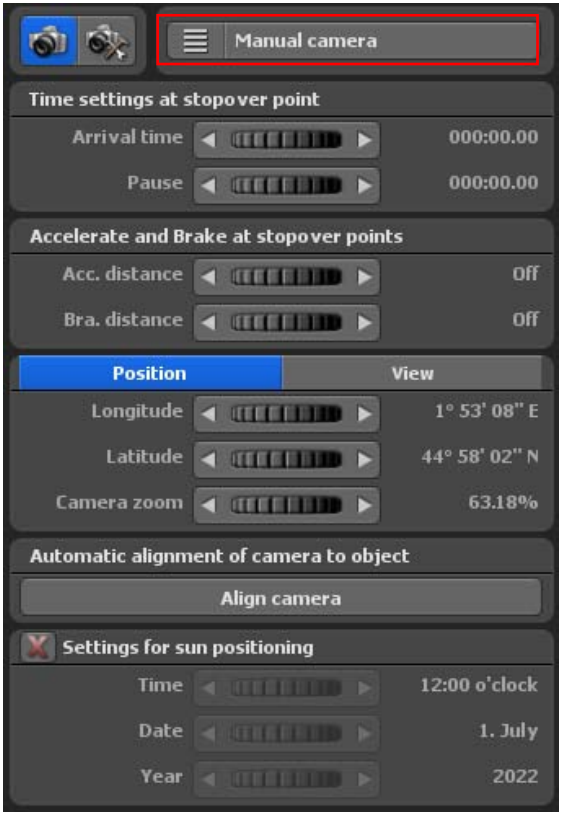


If the automatic camera zoom does not quite meet your requirements, you can adjust the zoom factor of the automatic camera with the „zoom correction" switch.

The settings for the sun position can be adjusted here. Determine the time, date and year of your trip for the start and arrival times. Make sure that the arrival time always has a later time (also pay attention to the date), so that you can create a nice sun progression for your travel route. If you do not make any changes to the arrival time, then the start time will also be used for the arrival time, so that the same time will always prevail over the entire course of the travel route. When you have entered a time for the start or arrival time, press the „accept time information" switch.

Main menu Camera
Settings for the Current Camera Point - Manual Camera Tracking

2. Select **manual camera tracking** to set your own camera settings for the route.



With manual camera tracking, you can change the camera settings for the camera view, determine time information, the acceleration and deceleration at breakpoints, define the position and view of the camera, as well as the sun position. These settings will then be displayed in the generated route video.

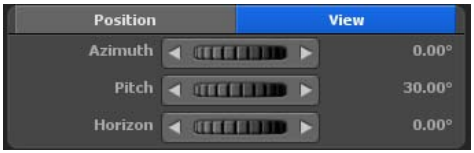
As far as time information at the breakpoint, you can determine the arrival and breaktimes of the camera at the selected camera point on the route.

In terms of acceleration and deceleration at the breakpoint, you are able to set the acceleration distance of the camera. The acceleration distance can be turned off with the controller. Otherwise, you can set the acceleration distance of the camera.

With the controller, you can also set the braking distance of the camera.

Then, under the **„Position“** tab, you can determine which longitude, latitude and camera zoom should be used in the manual camera settings.

Under the **„View“**tab, you can select the camera settings for the viewing angle, for the tilt angle and for the horizon. Your camera setting changes based on the specific waypoint are instantly visible in the editor on the map.



Longitude:
Longitude determines the position from east to west, where 180° 00‘ 00“ W represents the westernmost point and 180° 00‘ 00“ E represents the easternmost point on the map.

Latitude:
Latitude determines the position from north to south, where 90° 00‘ 00“ N represents the northernmost point and 90° 00‘ 00“ S represents the southernmost point on the map.

Camera Zoom:
With the camera zoom controller, you can zoom into the map (for detailed enlargement) or away from the map (for detailed reduction).

Viewing Angle:
Here, the viewing angle on the map is changed.

Tilt:
Adjust toward 100% so that the earth‘s curvature is visible.

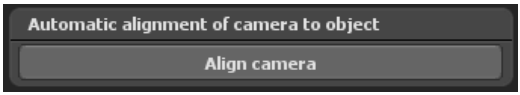
Horizon:
This controller tilts the visible horizon (on the globe) in a vertical direction.

Horizon = 0°

Horizon = 10°

Main menu Camera

Einstellungen am aktuellen Kamerapunkt - Manuelle Kameraführung

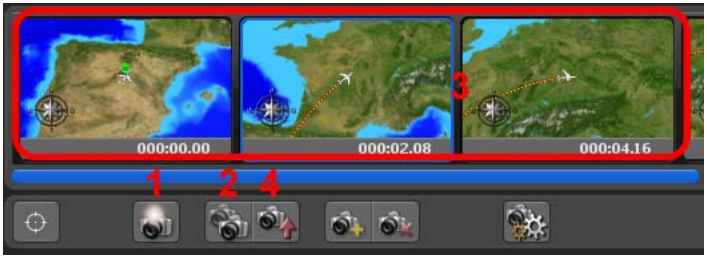


If you lose your bearings, simply click on „Align camera“ and the camera is automatically aligned with the current head object or the route line.

Settings for the sun position can also be adjusted via manual camera guidance. Determine the time, date and year of your trip for the respective camera point. So that you do not have to set the times manually at every camera point, you can simply set the checkmark for „Setting to sun position“ at the important camera points and only specify the times at these points. All other times are then automatically calculated by Vasco da Gama. Don‘t forget to press the „apply camera settings“ switch at each camera point so that the times are also applied.

IMPORTANT: If you are you satisfied with the current camera position at the camera point, click on the „Camera Settings“ button to accept the settings. The manual camera settings are then applied to the selected point in the route.

Multiselect application in manual camera control:
1. Method: If you want to adjust camera settings such as hold time, acceleration distance, braking distance as well as degree of latitude, latitude, camera angle, angle of view, inclination and horizon at a camera point of the route and want to transfer these to other camera points, click on the button Copy Camera Settings (2). Now press the Ctrl or Shift key and select additional Camera Points (3) below the route preview with a simple mouse click. To copy the settings, click Insert camera settings (4). Follow the same procedure as copying / pasting in the Windows workstation.

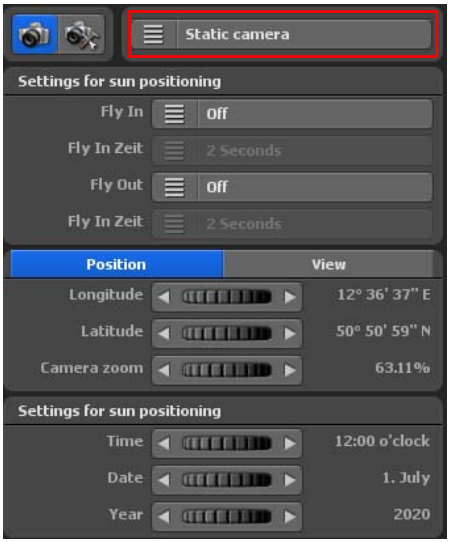


You can now select or deselect all setting options in the Copy / Paste dialog. The selected settings from a camera point are now applied to all selected camera points.

2. Method: Under the route preview, hold down the Ctrl or Shift key to highlight the desired camera points, then your settings such as hold time, acceleration distance, stopping distance, degree of latitude, latitude, camera zoom, angle of view, slope and horizon.

Now click Apply camera settings (1). The Copy / Paste dialog opens, where you can select or deselect all setting options to be transferred to the selected camera points.

3. Select static camera tracking if you always want to see the total course of the travel route at a glance. The camera remains static (unmoved) along the course of the route.



Now, under the **„Position“** tab, you can specify which longitude, latitude and zoom should be used with the static camera setting.

Under the **„View“** tab, you can select the viewing angle,tilt angle and horizon camera settings. Changes will be immediately displayed in the editor on the map.

Main menu Camera
Settings for the Current Camera Point - Static Camera Tracking

Longitude:
The longitude refers to the relative position from west to east, with 180°00‘00” W being the westernmost point and 180°00‘00” E the easternmost point on the map.

Latitude:
The latitude determines the relative position from north to south, with 90°00‘00” N being the northernmost point and 90°00‘00” S being the southernmost point on the map.

Camera Zoom:
The camera zoom lets you enlarge or reduce the detail shown on the map.

Viewing angle:
This changes the perspective from which you are viewing the map.

Curve:
If you set closer to 100% , the earth‘s curvature becomes visible.

Horizon:
This controller tilts the visible horizon (on the globe) in the vertical direction.

Horizont = 0°

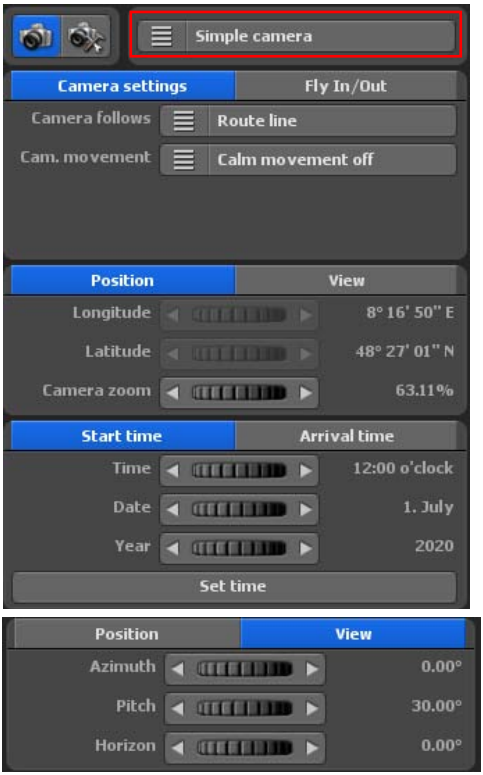
Horizont = 10°

Sun position settings are also possible with manual camera tracking. You can determine the time, the date and even the year of your trip. Then, you will be able to adapt the position of the sun to your route on the date of your journey.

Main menu Camera
Settings for the Current Camera Point - Static Camera Tracking

IMPORTANT: If you are you satisfied with the current camera position at the camera point, click on the "Camera Settings" button to accept the settings. The static camera settings are then applied to the entire route.

4. Simple camera tracking allows you to quickly set the viewing and tilt angles, as well as the camera zoom, which will then be maintained throughout. The camera position is automatically tracked to the route line or the head object, so that you get fast and beautiful results for the camera movement with this setting..



The Camera Motion stabilization option (for jerky camera pans) is new in Vasco da Gama 19, it can be set in 3 levels; with the Camera Motion stabilization off there will be no motion stabilization.

Under the **„Position"** tab, you can specify which zoom should be used for the simple camera setting. Longitude and latitude are not adjustable with simple camera tracking.

Camera Zoom:
With the camera zoom controller, you can zoom into the map (for detailed enlargement) or away from the map (for detailed reduction).

Under the **„View"** tab, you can choose the viewing angle, tilt angle and the horizon camera settings Changes will be immediately displayed in the editor on the map.

Viewing angle:
This changes the perspective from which you are viewing the map.

Main menu Camera
Settings for the Current Camera Point - Simple Camera Tracking

Tilt:
If you set closer to 100% , the earth‘s curvature becomes visible.

Horizon:
This controller tilts the visible horizon (on the globe) in the vertical direction.

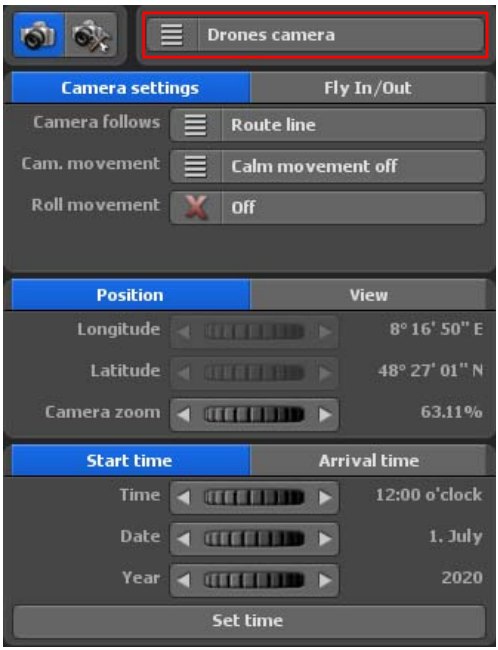
Horizont = 0°

Horizont = 10°

The settings for the sun position can be adjusted here. Determine the time, date and year of your trip for the start and arrival times. Make sure that the arrival time always has a later time (also pay attention to the date), so that you can create a nice sun progression for your travel route. If you do not make any changes to the arrival time, then the start time will also be used for the arrival time, so that the same time will always prevail over the entire course of the travel route. When you have entered a time for the start or arrival time, press the „accept time information“ switch.

IMPORTANT: If you are you satisfied with the current camera position at the camera point, click on the “Camera Settings” button to accept the settings. The camera position will be automatically tracked along the route line.

5. The drones camera guidance functions like the simple camera guidance, except that the movement of the head object is transferred to the camera.

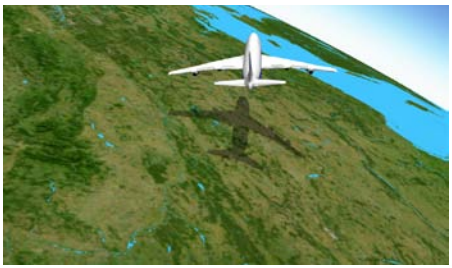


The Camera Motion stabilization option (for jerky camera pans) is new in Vasco da Gama 19, it can be set in 3 levels; with the Camera Motion stabilization off there will be no motion stabilization.

The Rolling Motion option can be switched on and off. In drone mode, the camera is rotated with the head object along the route, which does not happen in simple mode. If the head object moves/flies with a right turn, the camera does so too; if it moves into a left turn, then the camera also turns to the left. The Rolling Motion is ideal when the flight mode (from the head object settings) is used and the aircraft tilts into a curve.

without Rolling Motion

with Rolling Motion



Main menu Camera
Settings for the Current Camera Point - Drone Camera Tracking

Now you can specify in the **Position** tab which camera zoom should be used for the drone camera setting. The longitude and latitude are not adjustable in the drone camera control.

Camera Zoom:
With the camera zoom controller, you can zoom into the map (for detailed enlargement) or away from the map (for detailed reduction).

Under the **„View“** tab, you can choose the viewing angle, tilt angle and the horizon camera settings Changes will be immediately displayed in the editor on the map.

Viewing angle:
This changes the perspective from which you are viewing the map.

Tilt:
If you set closer to 100% , the earth‘s curvature becomes visible.

Horizon:
This controller tilts the visible horizon (on the globe) in the vertical direction.

Horizont = 0°

Horizont = 10°

Settings for the sun position can also be adjusted via manual camera guidance. Determine the time, date and year of your trip for the respective camera point. So that you do not have to set the times manually at every camera point, you can simply set the checkmark for „Setting to sun position“ at the important camera points and only specify the times at these points. All other times are then automatically calculated by Vasco da Gama. Don‘t forget to press the „apply camera settings“ switch at each camera point so that the times are also applied.

Main menu Camera
Settings for the Current Camera Point - Fly In / Fly Out

Fly In / Fly Out Animations

With Vasco da Gama 19 it is now easy to set a breathtaking tracking shot at the starting point and a monumental end credits at the end. Choose the animation effect and a duration for it. You can choose an animation and time separately for the Fly In and for the Fly Out, giving you even more variations to choose from.

Fly In
Here you select one of 23 animations to be displayed before the start of the actual route.

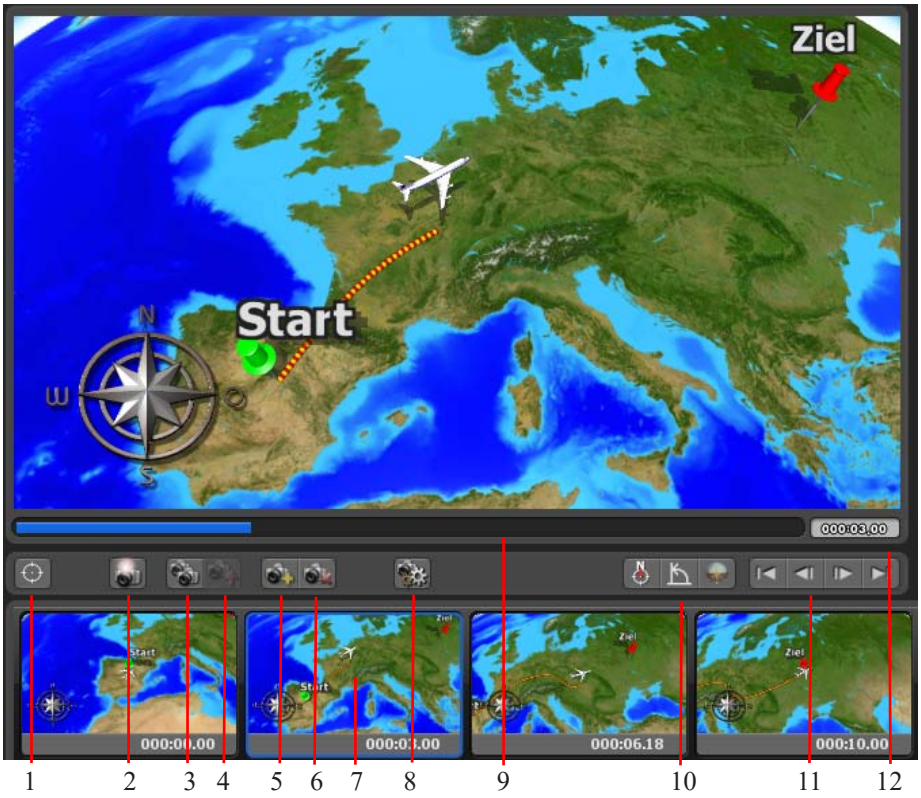
Fly In Time
Here you choose the duration of the animation. You can choose between several common times.

Fly Out
You can also choose one of 23 animations for the end credits, which will be played after the actual route.

Fly Out Time
Here you choose the duration of the credits.

Main menu Camera
Settings for the Current Camera Point

Under „Map Preview,“ you‘ll find the camera settings for every breakpoint and camera point available.



1. Set the camera position from the GPS database
2. Apply the camera settings to the current camera point
3. Copy the camera setting
4. Paste the camera setting
5. Set new camera point (camera points are independent of breakpoints)
6. Delete the current camera point
7. Select a camera point
8. Recalculation of the preview images
9. Sychronize the positioning controller with the preview
10. Navigation functions
11. Control of the preview
12. Time display

Main menu Camera
Settings for the Current Camera Point

Notes to controlling the preview:
All camera settings can be configured **in the main menu entitled**“Menu.“
You can switch between individual points with the keyboard shortcuts pos 1 (choose a starting point), end (choose and end point), page up (select previous point) and page down (select next point).

Begin with the starting point and select the desired camera settings. Switch to the next camera point or add a new camera point along the course of the route. Then re-select your desired settings for the camera view.
You can use this procedure to determine the camera settings for all breakpoints and other camera points. In camera mode, you always see the section of the route that will later appear 1:1 at the selected point in time.

Main menu Camera
General Camera Settings

In the main menu entitled **„Camera“**, you can also find the **„General Camera Settings**“ menu. Here you will find global settings for sun position and for Stereo3D video presentation for the respective selected camera tracking.

Local time determines the actualy time at the waypoint on your route.

GMT time (Greenwich Mean Time) is the mean solar time for zero at the tprime meridian. You can set the clock in Europe for 12.00 noon, while in Australia it is nighttime.

Global sun positions can be set to static or dynamic.
A static sun position means that the camera is always adjusted to every location on the earth. A dynamic sun position means that every breakpoint has a different sun position and the route can therefore be changed dynamically.

MotionStudios

Chapter 11

Optical Effects

Main Menu Optical Effects
Global Size Settings for Objects

In the Main Menu under **Optical Effects**, you can configure global size settings for objects; in order to do that, click on the Menu item **Global Size Settings for Objects**.

Apart from the possibility of individually modifying the size for each object (head object, stop, free object) you can set the size for all respective 3D objects, image objects and text objects. This can be very useful if you would like to illustrate a route close to the ground or from a great height

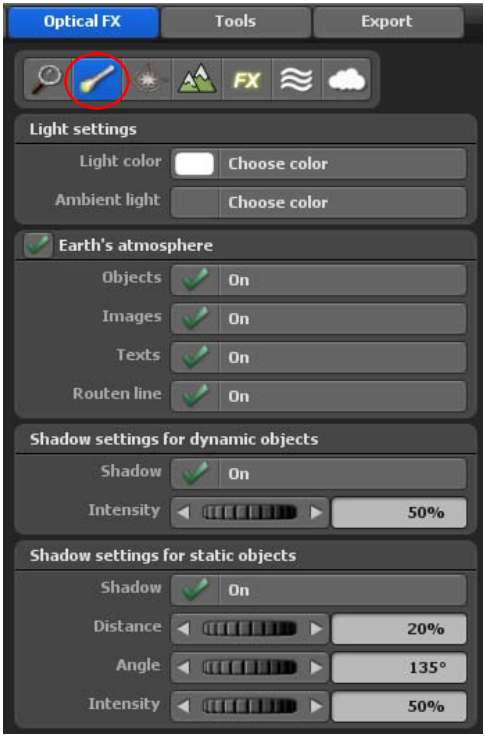
3D objects:
Here you can modify all 3D objects, which are present on the map.

Image objects:
Here you can set the global size of all Image objects.

Text objects:
Here you can modify the global size of the Text objects.

Main menu Optical FX
Light, Ambiance and Shadow Settings

In the main menu under **Optical effects,** you can also find global settings for **Light, ambiance and shadow** for the objects used at holding and base points.



In this menu you can enter the global settings for light, shadows and particles related to all objects used in your travel route.

Settings for the light

Light:

The following settings can be made: Off, On (local time) and On (GMT time).

Off: Select this option, if you do not want any lighting on the objects.

Light colour:

By clicking on the Select colour button you define the colour of the light, which radiates on the objects already integrated on your globe.

Ambient light:

Here you can select the colour of the surrounding light. The surrounding light is radiated on the side turned away from the sun.

Ambiance settings

When the ambiance feature is switched on, you will see that the view becomes hazy as you approach the ground, which in turn reduces visibility. In combination with lens reflection, spectacular effects can be achieved this way.

You can now turn this option on and off separately for 3d objects, images, texts and for the route line.

Main menu Optical FX
Light, Ambiance and Shadow Settings

Shadows for dynamic objects

Shadows:

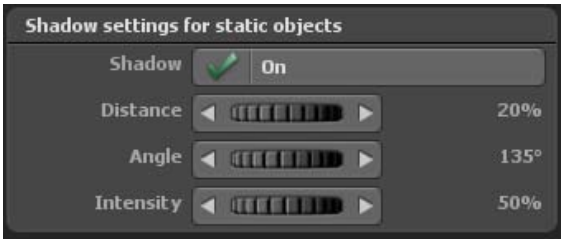
The use of the shadow option can be switched on and off. When the shadow option is switched on it casts a shadow on every dynamic object.

Intensity:With the intensity you can indicate how dark the shadow is to be displayed.

Shadow for static objects

Shadows:

The use of the shadow option can be switched on and off. When the shadow option is switched it generates a shadow for each static object.



Distance:

Set the distance of the shadow to the respective static object.

Angle:

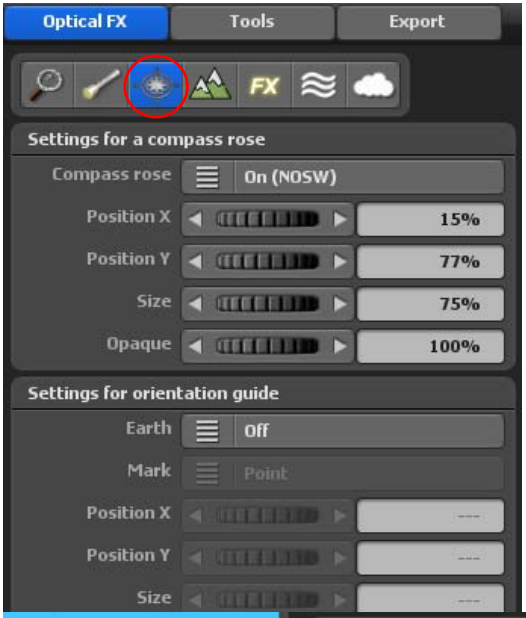
You can determine the direction of the shade.

Intensity:

With the intensity you can indicate how dark the shadow is to be displayed.

Main menu Optical FX
Orientation

In the Main Menu under **Optical Effects**, the use of **Orientation Helpcan** also be set for the project.

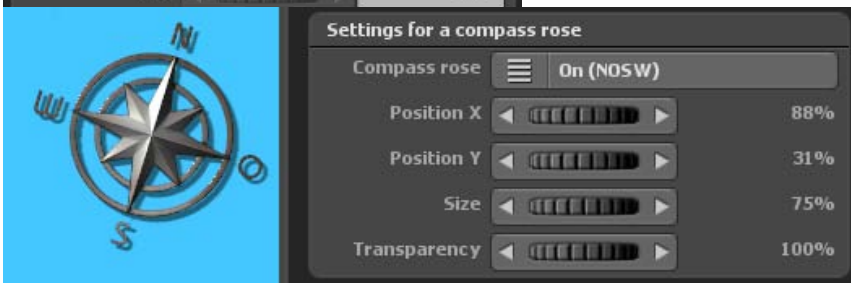


Compass Settings
You can also add a compass to your itinerary.

Compass:
Here you can switch the Compass on or off.

Position X:
Moves compass in x direction.

Position Y:
Moves compass in y direction.



Size:
Here you can specify the size of the compass rose.

Transparency:
Define the visibility of the compass rose.

Settings for orientation aids
A reduced globe shows you the location of your route, which offers the possibility of improving orientation.

Main menu Optical FX
Orientation

Settings for orientation aids

Globe:

First, select a reduced globe template in the menu.

If the option is set to Off, a globe is not inserted.

Markers:

Here you can select the types of markers: point, arrow and pin.

Position X:

Move globe in x direction.

Position Y:

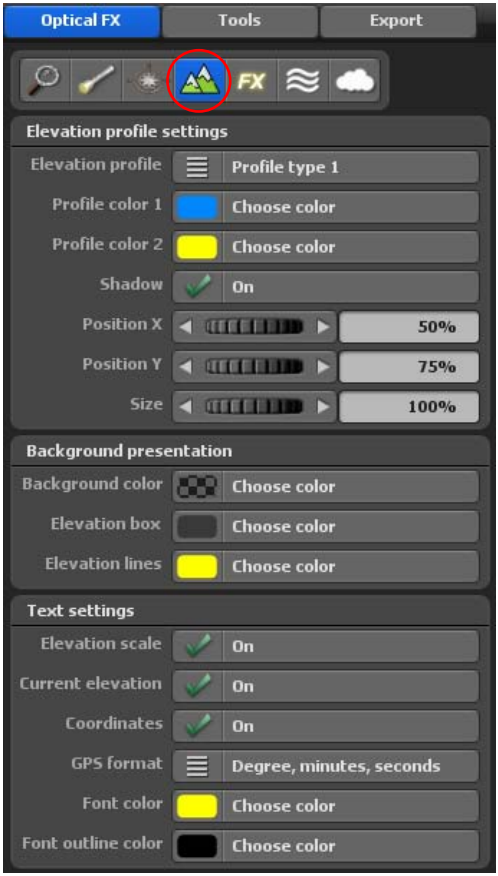
Move globe in y direction.

Size:

This sets the size of the globe.

Main menu Optical FX
Elevation profil

An elevation profile is a graphical representation of the elevation changes along a specific route, which looks like a longitudinal section through the terrain.



Elevation profile settings

Elevation profile:
Select the display type to be used for the elevation profile here. Different profile types offer different shapes or styles of the elevation curve.

Profile color 1:
Sets the color of the section of the route that has not yet been traveled.
Example: Blue represents the upcoming route.

Profile color 2:
Determines the color of the section of the route that has already been traveled.
Example: Yellow shows the animated part of the route so far.

Shadow (On/Off):
Activates a shadow effect under the elevation profile.
This makes the profile stand out more clearly from the background.

Position X:
Moves the elevation profile horizontally in the image.
The value is given in percent (0% = far left, 100% = far right).

Position Y:
Moves the elevation profile vertically in the image.
The value is given in percent (0% = top edge, 100% = bottom edge).

Size:
Determines the overall size of the elevation profile in relation to the video image.
At 100%, the profile is displayed in its original size; at smaller values, it is reduced accordingly.

Main menu Optical FX
Elevation profil

Background display
Background color:
Sets the color of the background field of the elevation profile.
A slightly transparent or high-contrast color can visually highlight the profile.

Elevation scale box:
Determines the background color of the area in which the elevation profile is displayed.

Elevation scale lines:
Defines the line color of the elevation markers (e.g., 3600 m, 4100 m, etc.).
A bright or high-contrast color improves readability.

Text settings
Elevation scale (on/off):
Shows or hides the elevation labels (e.g., 3600 m to 5600 m).

Current elevation (On/Off):
Displays the current altitude of the route point directly in the profile.
The value is updated during the animation.

Coordinates (On/Off):
Displays the geographical coordinates of the current point.

GPS format:
Select the format in which the coordinates are to be displayed:

Degrees, minutes, seconds (default display)
Degrees and minutes
Decimal degrees (compact notation)

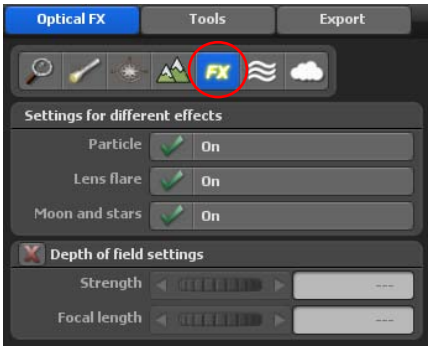
Font color:
Determines the text color of the scale labels, coordinates, and altitude information.

Font outline color:
Sets the outline color (contour) of the font.
A dark contour ensures good readability on light backgrounds.

Main menu Optical FX

FX - Settings for effects particles, aperture spots, moon / stars and depth of field

In the **Optical Effects** main menu, you can also set the global use of **particles,**aperture spots, **moon** / **stars, water area, depth** of field, and **clouds** .



Settings for different effects

Particles:
This is the main switch for the particles: If set to Off, particles for all objects are turned off. If set to On, only those particles connected to objects with particles switched on will be turned on.

Setting the Use of Lens Flares
This is where the application of Lens Flares as additional effects in the project may be enabled or disabled. Lens Flares occur whenever the sun is shining directly into your camera.

Moon and stars settings
The display of moon and stars can be switched on and off here. Please note that the moon is only visible in a certain position of the globe.

Main menu Optical FX

FX settings for Particles, aperture effects, sun reflections, depth of focus as well as moon & stars

Depth of focus settings

The use of depth of focus as an additional effect for better depth perception in the film can be switched on or off here. You can also change the appearance of the depth of focus using the adjustment controls Strength and Focal width .

Settings for water waves
You can adapt one of the visual highlights from Vasco da Gama to your needs with various settings.

Water waves
Use this to turn the water waves on or off. You can also choose between “On: Manual”, where you can set the wave height manually, and “On: Automatic”, where the wave height is automatically adjusted according to the camera zoom.

Wave height
You can use this setting to change the height of the water waves.

Wave direction:
You can use this to specify the direction of the waves to the exact degree.

Water reflection
Using this switch, you have the option of switching on or off whether objects and text should be reflected on the water surface.

Water reflection
Here, you have the option to adjust the intensity of the sun reflections on the water.

Settings for clouds
You can switch the use of clouds as an additional effect on or off. After switching on, cloud formations are displayed in the Editor on the map, depending on the selection of the cloud type.

Sie können diese Wolkenarten auswählen. Nach Auswahl einer Wolkenart (leicht bewölkt, stark bewölkt oder stürmisch bewölkt) starten Sie die Vorschau, um sich einen Eindruck von der Wolkenart aber auch vom Bewegungsverhalten zu machen.

With the Move X and Move Y options you define the position of the clouds in X and Y direction on the 3D globe or on your map in use.

In addition, you have options available for wind direction and wind strength which you can use to create cloud formations in more detail. If, for example, you select a wind force of zero, then no wind direction can be set and the clouds remain still. If you increase the wind strength, the clouds move faster in the preview.

Chapter 12

Tools

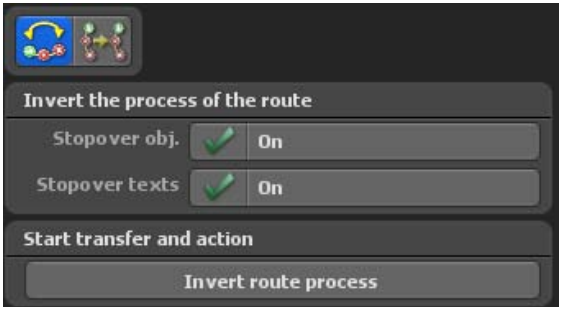
Main menu
Tools

The Tools main menu lets you reverse, copy or move the route.

Inverting route

With this tool you can very simply invert your route. This can, for example, be very useful if you have already set a route and only now notice that you have exchanged the start and end point. In this case you can simply invert the route and the route immediately runs in the desired direction. Another area of application would be if wish to drive a route in both directions, then can you simply the copy the route and convert with this tool. This enables you to drive the route first in one direction and then back again in the other direction

Whenever required, you may also highlight both the key objects and key texts for the reversal process (with a simple click on a checkmark box). Then click on the option Reverse Itinerary. The itinerary will now be displayed in reverse direction on the map.



Copying/shifting routes
Copying or shifting of a route can be very useful in different cases. The one possibility would be, as already mentioned with “inverting route”, if you want to drive a route in both directions and do not want to register the route twice.

A further possibility would be to use the camera position independent of the route. So you can simply apply an already entered route on “route 2” and thereby apply “route 1” independent of the camera position. In practice you will undoubtedly find further application possibilities.

Mode:
Here you select whether the function should “copy” or “shift” the route.

Head objects, stop-over objects and texts:
Copy or move, active/inactive

Source:
Indicate here which route you would like to copy or shift.

Destination:
Indicate here in which route the data are to be copied/shifted.

Start copy/ shifting:
Here the selected function is implemented.

MotionStudios

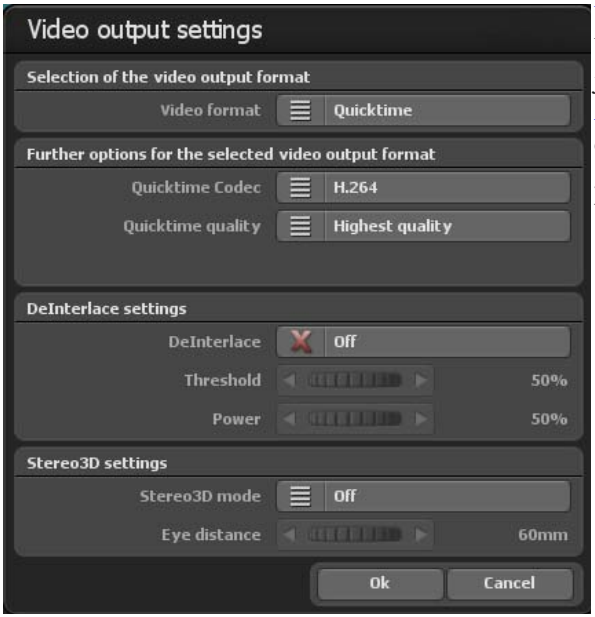
Chapter 13

Video output

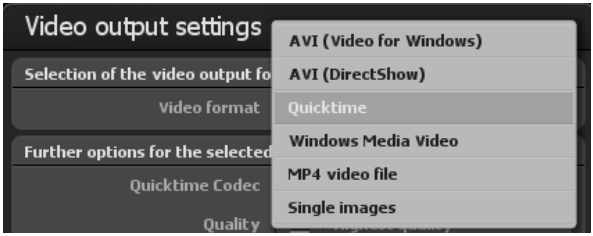
Main menu
Video output

Before you produce a video the following window is indicated where you can make further settings

Asides from the desired video output format, you can also select the settings for a possible DeInterlacing of the video. A further function offers you the possibility of creating videos in the so-called “Stereo 3D” format. This stereoscopically simulates spatial depth which you can then see using special 3D eyeglasses.



Video-Ausgabeformat:
Vasco da Gama bietet Ihnen jetzt 5 verschiedene Video-Ausgabeformate, so dass Sie die erzeugten Videos in allen gängigen Videoschnittsystemen weiter verwenden können.



Main menu
Video output

Here is a list of the provided video output formats
-RAW: Data processing format (only for PAL/NTSC), is, for example, used with iMove with, Final Cut and QuickTime)

AVI DV-Typ 1: Data processing format (only for PAL/NTSC) in an AVI file, the Audio trace is stored in an extra file. As Vasco da Gama does not support audio no extra file is provided.

AVI DV-Typ 2: Data processing format (only for PAL/NTSC) in an AVI file, the Audio trace is embedded in the Data processing-Stream. As Vasco da Gama does not support audio no extra file is provided.

AVI(Video für Windows): Outdated video format which produces an AVI file. Only video files smaller than 2 GByte can be produced here. This format should only be used in exceptional cases if, for example other formats do not function. The AVI format (DirectShow) should be preferred here!

AVI (DirectShow): You can create AVI files larger than 4GB (e.g. as an uncompressed AVI), so that there are no losses in the exported video, but there are large amounts of storage space on the hard disk.

Quicktime: With this format you can select different codecs from the QuickTime format and create videos which offer High quality but clearly require less fixed disk storage. This format is particularly suitable for users who want to further process their videos on Apple computers (e.g. FinalCut Pro).

Windows Media Video: This format provided by Microsoft likewise offers high quality with the requirement of small fixed disks. The field **Other Options** offers more options for the selected video output format, such as WMV Quality and different quality levels (e.g. from very low to the highest quality possible when selecting Windows Media Video).

MP4 video file:
With this modern video output format, you can create videos with the codec mpeg4 and h.264. This format is compatible with most video editing systems. The quality is at a very high level, while the file size is kept low.

Main menu
Video output

Frames:
In rare cases it is necessary to produce the video as a sequence of frames to be imported on another system which cannot work with modern formats.

Further options:
Here further options are indicated for the respectively selected video output formats where you can, for example, adjust the codec and set the desired quality.

DeInterlace:
Here before saving a video you can decide whether a DeInterlace filter is to be applied to the video. A DeInterlace filter works on certain areas in the video, which are prone to flickering, are treated accordingly, thereby minimising the flickering. A special adaptive DeInterlace filter is used that only works on areas that exceed a certain threshold value.

The advantage is that the image definition remains and the flickering is greatly reduced.

DeInterlace:
Off: The DeInterlace filter is not used for the video to be saved. On: The DeInterlace filter is used.

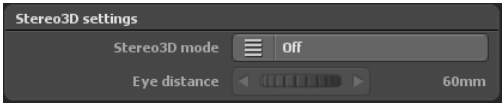
Threshold value:
The threshold value indicates from which value the DeInterlace filters is to intervene.

Main menu
Video output

Effect:
If a certain threshold value is reached or exceeded, the video is treated within this range. The effect now indicates to what extent the video is to be treated within this range.
The greater the value, the more intense the treatment and thus settling any possible flickering. This value should not be set too high however, since the image definition can consequently suffer.

Note:
However, this value should not be set too high, as this may adversely affect the image sharpness.

Stereo 3D settings:
Vasco da Gama 19 now offers the possibility of outputting the picture, and naturally also the later video, as stereoscopic 3D and of thereby simulating a spatial effect. If you work with many 3D models (car, trees, houses etc.), the effect becomes particularly important.



Stereo3D mode:
Off:
If you did not want to use any Stereo3D effect then switch the button to “out”.

Anaglyph (red / cyan):
With the classical format you can produce a video file which can be played with any video-player. In order to see the spatial effect special “Red/green” or “red/cyanogen“ eyeglasses are required.

Side by Side (half-width):
With this format half of the dissolution of the left and/or right picture is used. This procedure is actually used by many television stations as the receiver does not require any additional hardware for the conversion of the pictures and the provided video can be treated like a normal video. For this format you need a 3D indicator with appropriate 3D eyeglasses.

Main menu
Video output

Side by Side (full width):
With this format the selected output width is doubled, so that a video is produced from a 1920x1080 picture which corresponds to a 3840x1080 pixel, which is then represented on the left and right side of the respective video picture for the appropriate eye. For further processing video editing software is required which can handle this format.

Left eye only:
Hereby you produce a video file which only produces one point of view of the eye. This video behaves like any other video. A Stereo3D video be only be produced in connection with the video of the right eye. Video editing software which contains this function is required for this.

Right eye only:
Like “Only left eye”, only here a file for the right eye is produced.

Eye distance:
Hereby you can change the viewing distance value, whereby the distance between the left and right eye is intended. The default value is 60mm.

The video is then created after clicking the Ok button.

MotionStudios

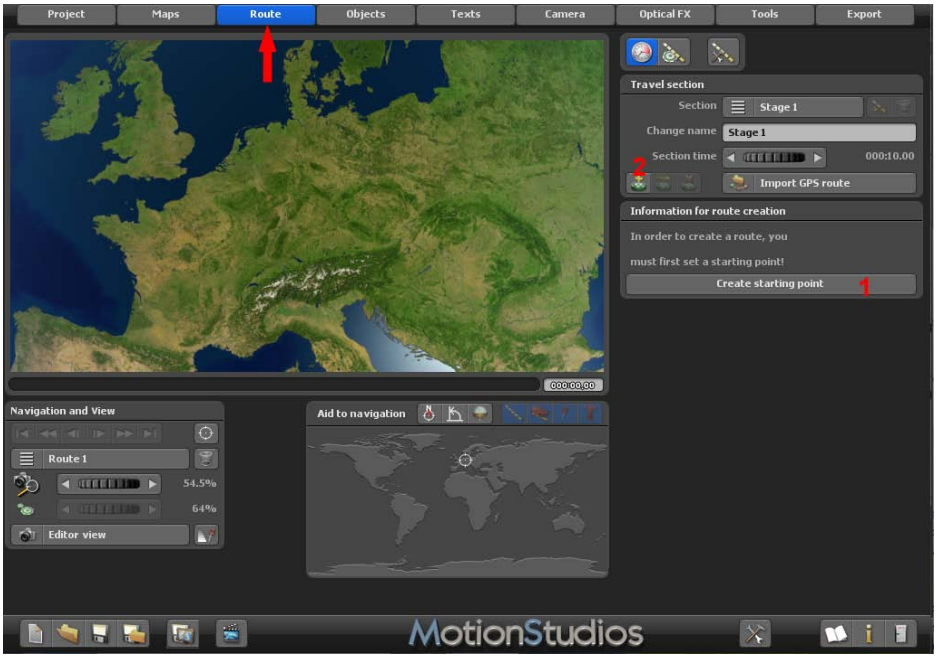
Chapter 14

Creating a

Travel route

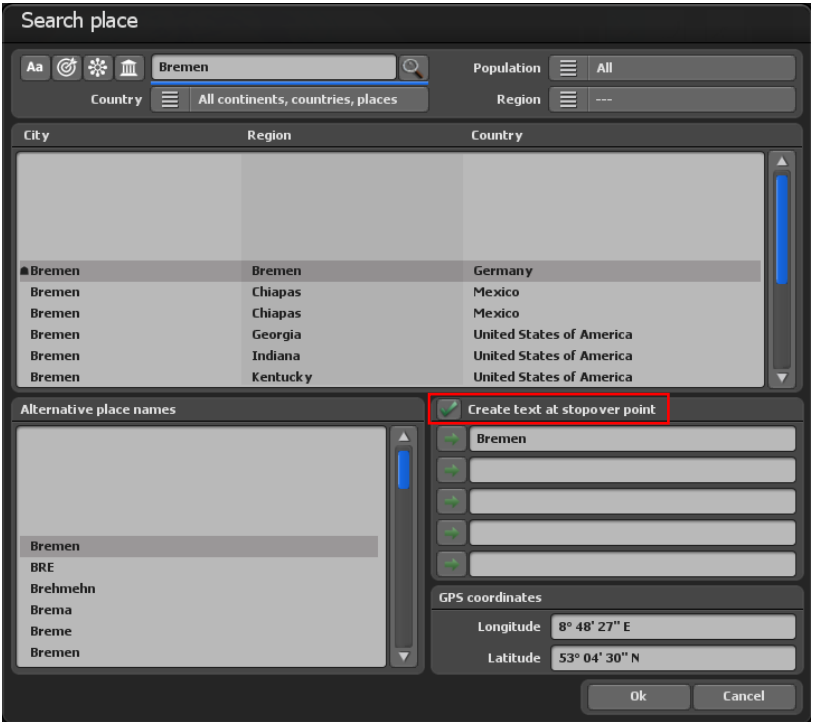
Create a route

When you start working with Vasco da Gama the first clip you'll see is of Europe. The Main Menu **Route** item is actively displayed over the map preview. You can now zoom in on the map, so as to get a rough overview of the ever area of your route. For example, a route from Bremen (by car) via Munich (by plane) to Tenerife and then by ship to Cádiz (Andalusia / Spain) will be created.



In order to set a starting point, Vasco da Gama gives you two options: Either you use Create the starting point of a new route button, in doing so a starting point is set in the current position. Or you use the Create a waypoint from the GPS database button, and then you can look for a specific place in the GPS database

Thus the starting point is immediately set in the correct position. We start with the latter and click on the Create a waypoint from the GPS database button.



The Search place dialogue window now opens. Enter the location you are looking for, in our case we are now looking for the city of Bremen. After you confirmed the input with Enter, all entries containing the name Bremen, are displayed. The city we are looking for is already correctly selected so that no further inputs must be made here.

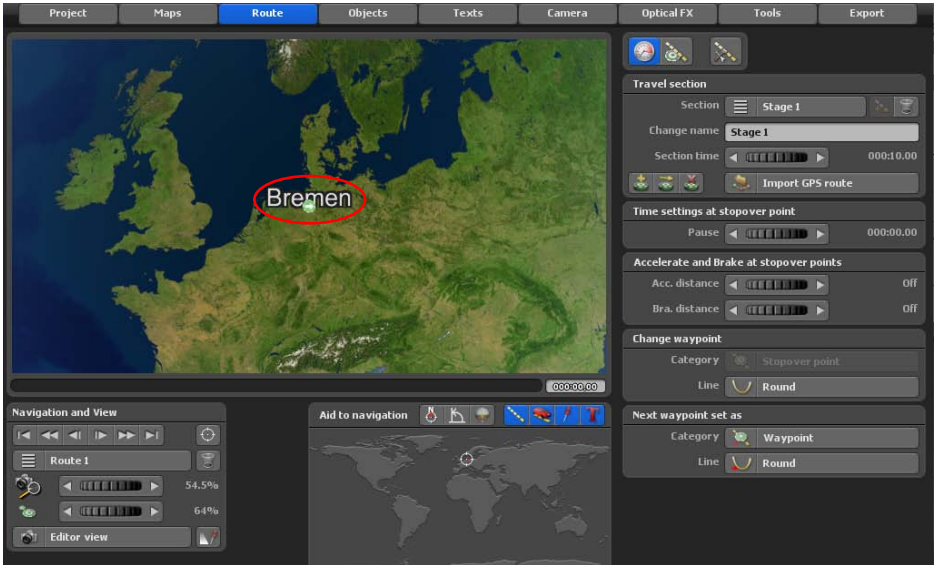
Since we would like to use the location name as Text at the stop at the same time also we place a tick on the Create text at the stop button.

The specified input is now adopted with the Ok button.

The Starting point is set now on the map. As you can see the name of the city, Bremen is likewise entered in the map.

Furthermore, you now have the access to additional features in the Main Menu **Route** item which will enable you, for instance, to configure new Route Settings at Stopping Point.

Create a route

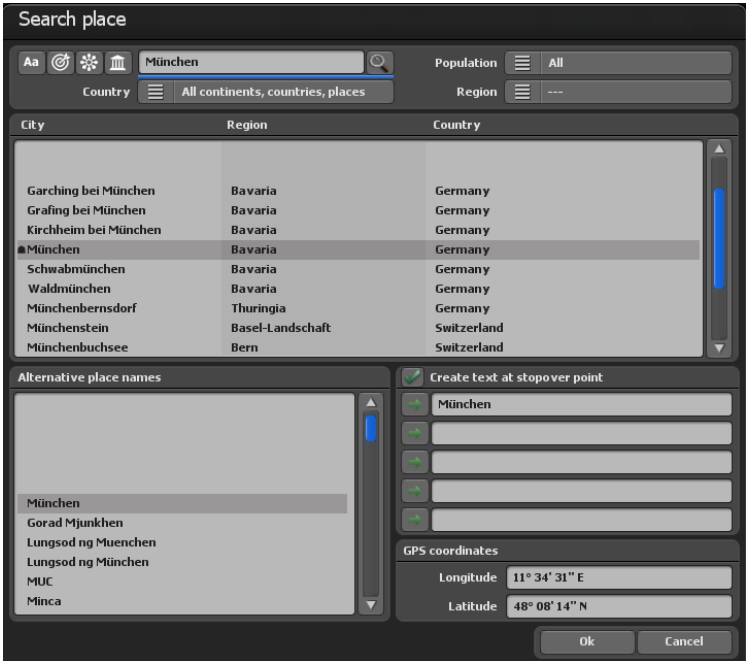


Note:
A preview is not yet possible for this time point, as at least a starting point and an end point must be set for the itinerary first.

Now click in the bottom menu bar on the button „Save the current project with file selection“ and save the new project.

Now set another waypoint using the button „Create a waypoint from the GPS database“.

Now, the city of Munich should be used as the second waypoint. So you enter Munich in the upper search field and confirm your entry again with the enter key (Enter Key on your keyboard). The field below will display the search results. The searched city has not been correctly selected. You can do this now by hand, whether by clicking with the mouse on the desired location, or using the pull bar (scroll bar) or the arrow buttons located on the right-hand side, next to the search results.



The name of the city of Munich should also appear at stopping point as a text, so reselect the option „Create text at stopping point“.

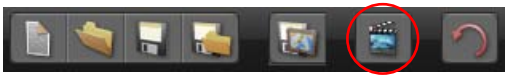
Now accept the default settings by clicking Ok.

Now we already successfully created the first travel route. Now, if you like, you can adjust the camera zoom using the mouse wheel (which is in between the left and right mouse button), to implement more exact inputs or changes in your journey, for example.

Note:
The camera zoom in the editor mode is used exclusively to better view certain areas and to make settings easier. Camera settings for the future video are carried out exclusively in camera mode (click up on the left on the Camera tab).

Create a route

Now you can already take a look at the first preview of the itinerary. To do this, click the button Show a preview of this project (available from the bottom bar of Vasco da Gama).

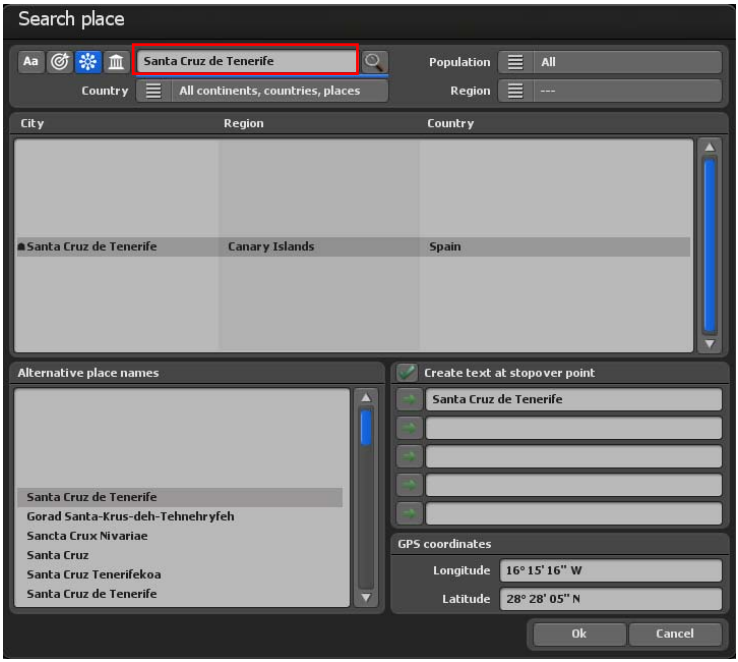


Our journey should unfold further. Now we choose another location, and this time, the journey takes us to Teneriffa. Re-open the dialogue box Search Location and enter the name Santa Cruz de Tenerife.

Now select the location Santa Cruz de Tenerife in Spain and confirm the preset defaults by clicking Ok.

Also in this case the city name of Santa Cruz de Tenerife should appear as a text at the stopping point, so, yet again, select the option Create text at stopping point.

Create a route

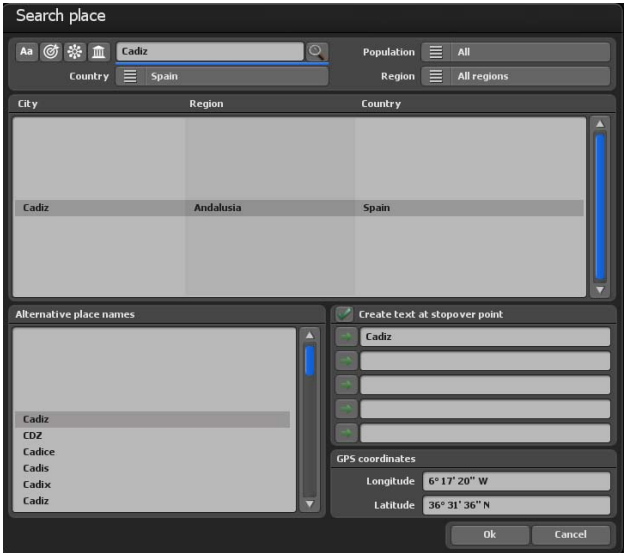


Our journey will continue for a while. Now select the city of Cádiz (Andalusia/Spain). Re-open the dialogue box Search Location and enter the name Cádiz.

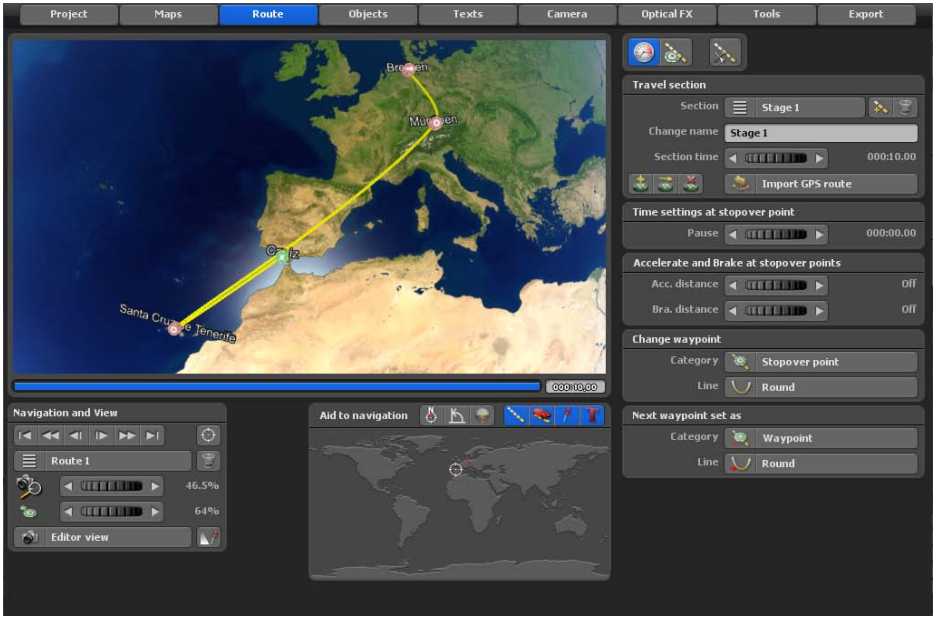
Now select the location as Cádiz in Spain and confirm the preset defaults by clicking on Ok.

Also here, the city name of Cádiz should appear as a text at the stopping point, so, yet again, select the option Create a text at stopping point.

Create a route



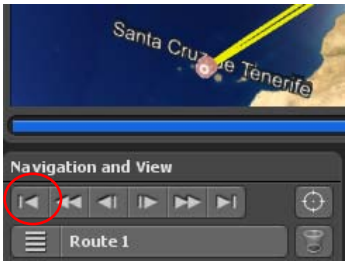
Now, the itinerary leading from Bremen via Munich and Tenerife all the way to Cádiz should be successfully created. If you wish to, you can now adjust the camera zoom in the editor on the map, using the mouse wheel (which is located between the left and right mouse buttons), in order to make more accurate entries or modifications to your itinerary.



Create a route

The travel route is now finished. Start the preview in order to simulate the route process.

Now we would like different vehicles to drive along the route. First select the starting point again by pressing either the Change the starting point button or the Pos 1 key on your keyboard.



The starting point should be shown now green.

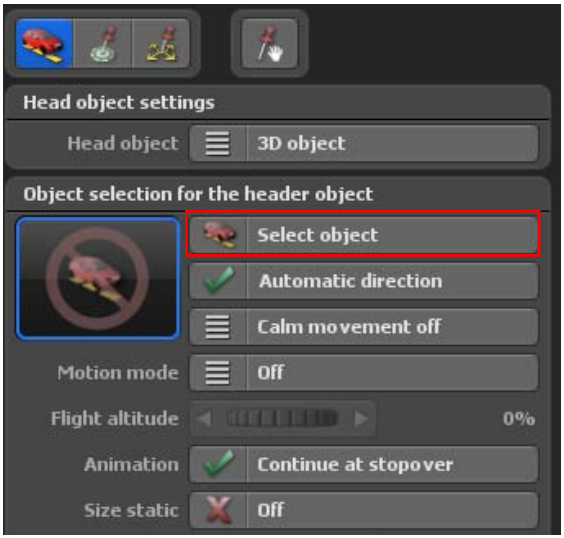
Note:
First always activate the desired waypoint so that it is shown in green. Only then can you make any changes and further adjustments to this waypoint!

Position a head object

In order to have a vehicle driving along the route you must select a head object. In addition you click on the Object tab and afterwards the Menu button: Settings for the head object

Afterwards you place the Head object button to No change on 3D object.

Now you can click on the Select object button, then the selection window for 3D objects opens where you can select the desired vehicle.



Position a head object

For the first section of the travel route we have selected a car as the vehicle. This can be found in Select object category under main category Vasco da Gama, subcategory Cars. You can also adjust the color of the car and use the Particle Effects option, then, as in this case, the exhaust emission smoke is also displayed.

Confirm the selection with Ok

Position a head object

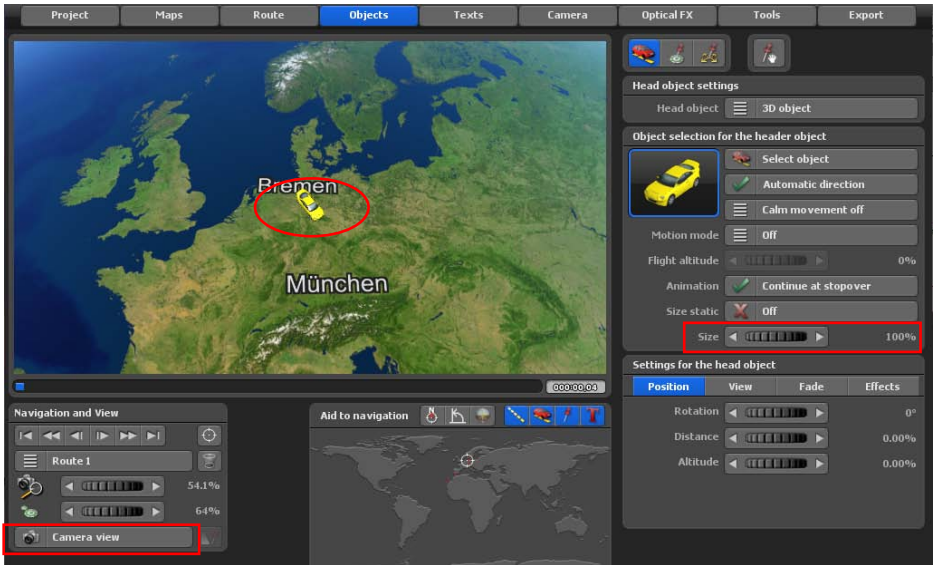
The newly selected head object (Jeep) will be inserted at the start of the route.

Start the preview now in order to check the results to date.

Note:
The head object can hardly be seen on the current map in the editor, but it is recommended that you do not change the size of the object now in the editor mode since this does not correspond to the future video and/or the preview. You can best measure the size of the object in the camera mode - more about this later on.

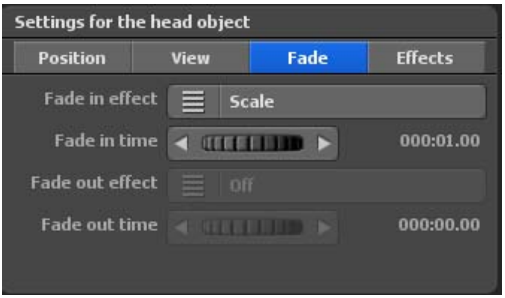
In order to be able to recognize the object better, simply zoom into the map by turning the mouse wheel.

Position a head object



Next we position the head object in such a way that it starts to fade in at the starting point and only appears after the journey.

Vasco da Gama gives you two options: On the one hand you can let the object appear through a Soft fade in, on the other hand illustrate it by Scaling (enlargement of the object from completely small to the full size). For our example we have used Scaling.



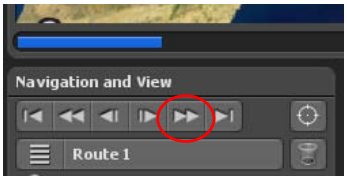
First click on the Fade time tab and then on the Fading in effect button and select Scaling. The fading in time shows how long the fading in effect will last. We leave this value on 1 second.

Now you can view the result in preview.

Change the head object

Now we select the second waypoint. In this case it concerns a stop.

Click either with the left mouse button on the desired waypoint, so that it becomes active (green) or click on the Change to the next base /stop button, if the starting point is still selected.



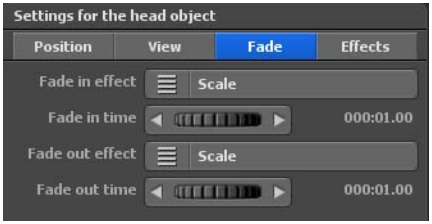
We would like to have another head object drive along the route now. Select the menu from the Route tab for the Head objects and adjust the Head object button again from No change to 3D object. Finally you select the desired object in the Object selection.

We choose the airplane. Now we can go to the preview again to check our work.

We are still not happy with the change of vehicles yet; we would like a fading in and out of the objects. We want to do this in the next step.

Change the head object

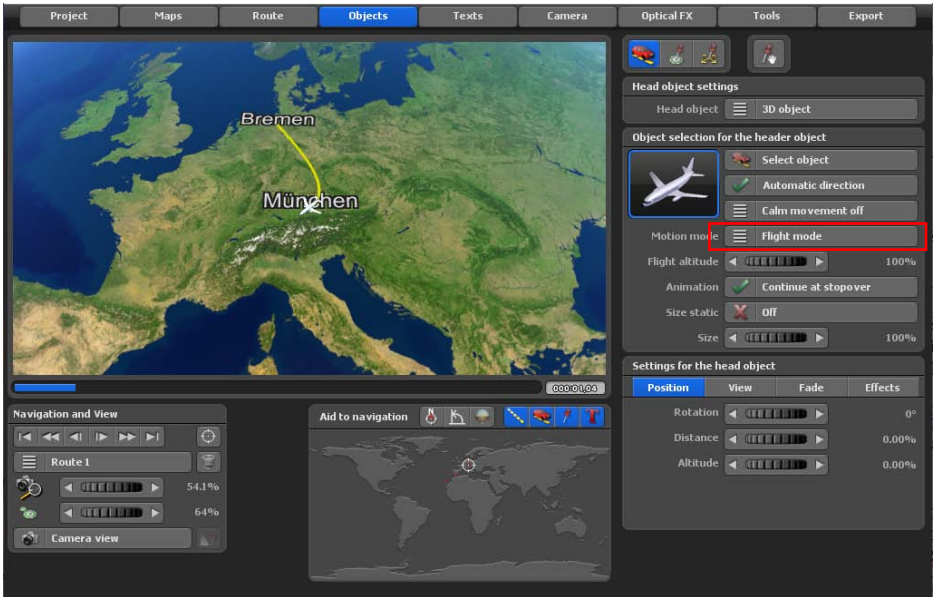
First we click the Fade time tab, afterwards we set the Fading in effect and Fading out effect to Scaling. Of course, depending on your wishes, you can also use the Soft fade in. Naturally you can use also different settings for the Fading in effect and Fading out effect.



We leave the Fading in time and Fading out time at 1 second.

With the preview we can check our current changes.

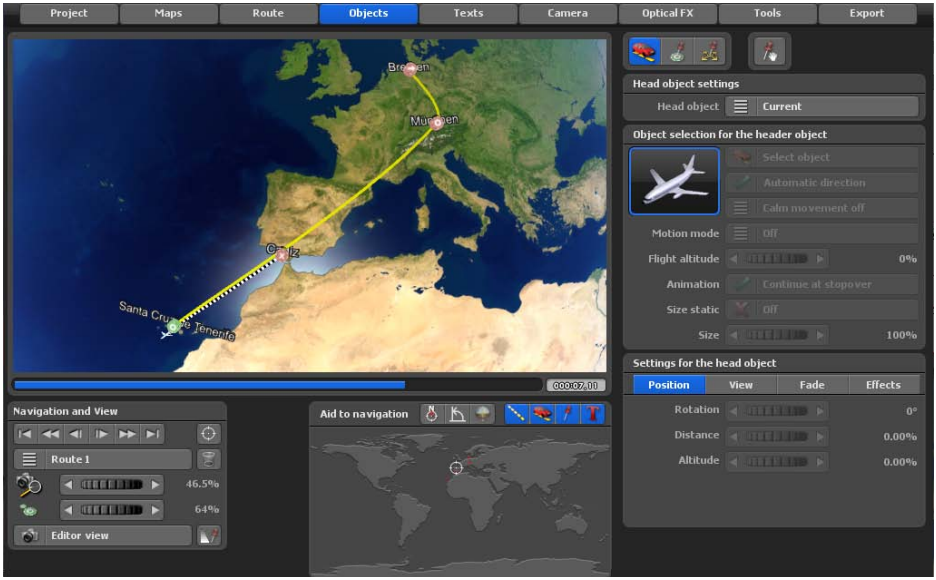
Now switch on the option Flight mode for the travel route Munich - Santa Cruz, then a takeoff and landing of the aircraft is automatically calculated.



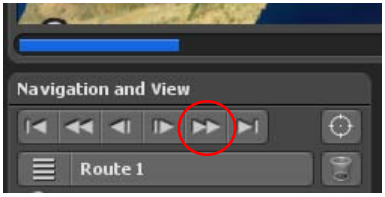
By switching from editor view to camera view , you can check how the route or animation actually appears at that point.

Change the head object

Now select the third waypoint. In this case, the stopping point is Santa Cruz de Tenerife.



Click either with the left mouse button on the desired waypoint, so that it becomes active (green) or click on the Change to the next base /stop button, if the starting point is still selected.



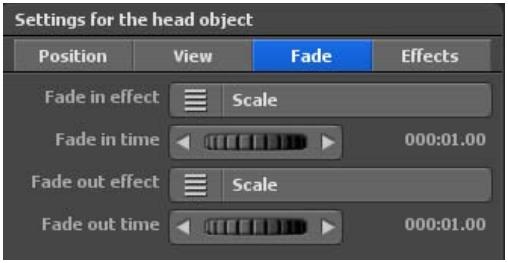
We would like to have another head object drive along the route now. Select the menu from the Route tab for the Head objects and adjust the Head object button again from No change to 3D object. Finally you select the desired object in the Object selection.

We choose the ship. Now we can go to the preview again to check our work.

We are still not happy with the change of vehicles yet; we would like a fading in and out of the objects. We want to do this in the next step.

Change the head object

First we click the Fade time tab, afterwards we set the Fading in effect and Fading out effect to Scaling. Of course, depending on your wishes, you can also use the Soft fade in. Naturally you can use also different settings for the Fading in effect and Fading out effect.



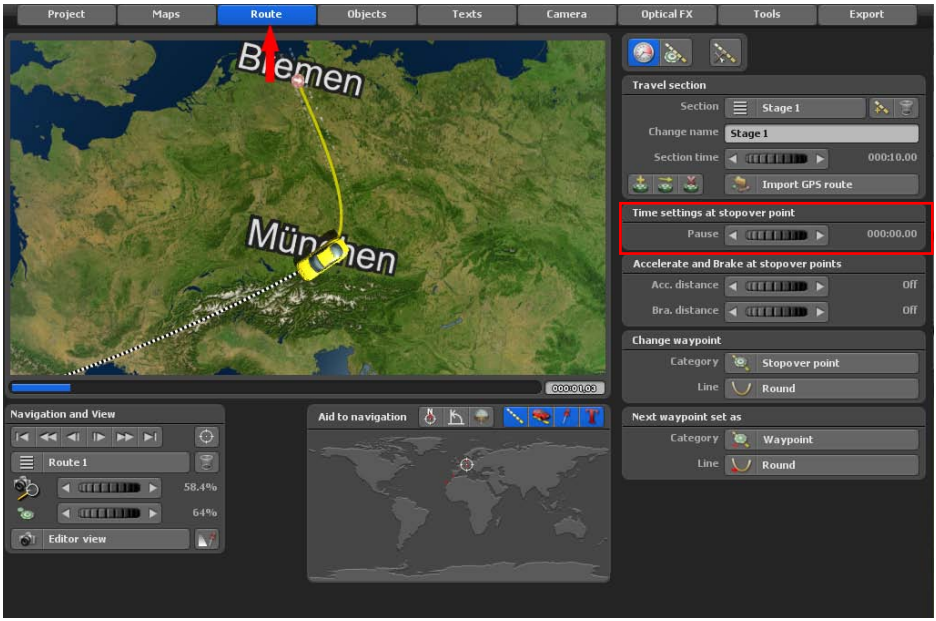
We leave the Fading in time and Fading out time at 1 second.

With the preview we can check our current changes.

Note:
At the end of the route in Cádiz, you will also be able to hide the selected ship with a fade-out of your choice. Accordingly, mark the end point of the route and select from the Blend Time tab a fade-out of your choice (e.g. scaling).

Setting the stopping time

In addition, yet another holding time of 2 seconds should be added to the stopping points of Munich and Santa Cruz. Just click on the Main Menu item „Route“.



First, select the stopping point at Munich in the itinerary. Under the menu item **Route Settings at Stopping Point**, you can set the holding time to 2 seconds in the field - **Time Information on the Stopping Point**.

Next up, set the stopping point as Santa Cruz de Tenerife in the itinerary. Now, use the field **Time Information on the Stopping Point** to set the hold time for Santa Cruz de Tenerife also to 2 seconds.

Note:
For these two stopping points, the journey will register a 2-second pause before the beginning of the next leg of the trip.

Save the project

Now we have almost already finished the basic structure for our travel route. In the next step we accentuate and refine the route in order to decorate the route arrangement visually.

At this point in time you should save the project. To do this click on the Save the current project with file selection button.

Afterwards enter the project name in the file selection window and select the path where you would like to save the project.

It is advisable to save the itinerary after each subsequent step. In order to do that, click the command Save the current project (represented by a floppy-disk icon on the bottom menu bar).

Route speed

Now you can set the speed or the time calculation of the route. The project with the travel route was played far too quickly in the preview.

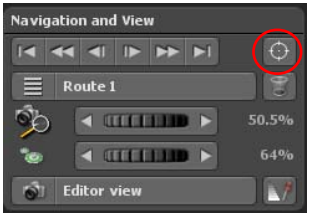
You can set the route time in the trip section area. Since we have only worked with a single stage so far, it is sufficient to change the section duration for stage 1. The longer the route time, the slower the route is traveled. For example, select a time of 30 seconds for this route.

In the preview, you will notice that the route will now be traveled much more slowly. You can change or adjust the travel time again at any time, as you wish.

Positioning free objects

Now we would like to place a few more objects of interest on the globe. On the one hand to give to our viewer a helpful guideline and on the other hand to clearly optimize the visual effects.

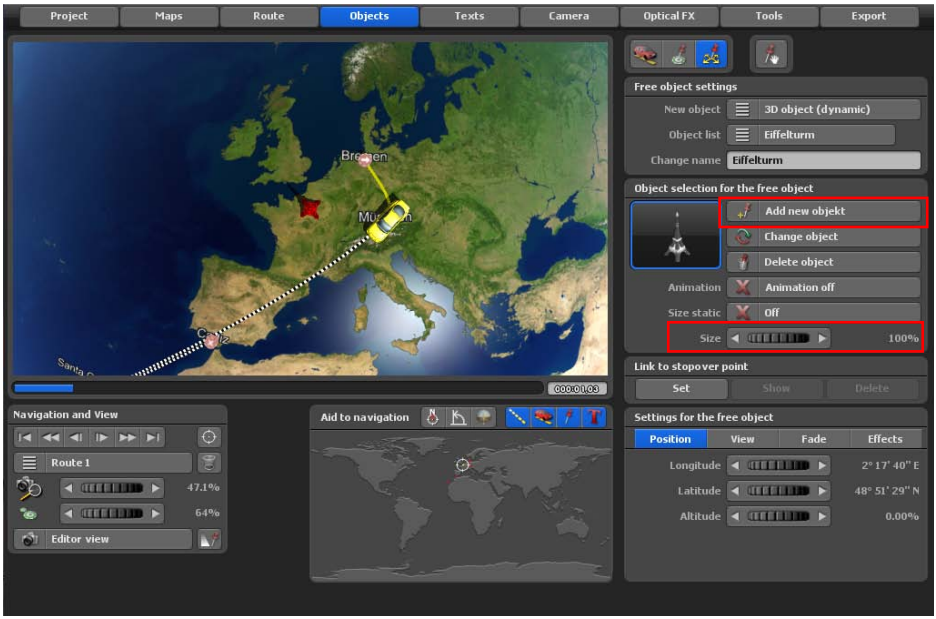
First click on the Place a position from the GPS database button.



Now open the dialogue window for Location search, which is well known to you by now. First we are looking for the location, Paris. Select the city of Paris and confirm with Ok. The world now automatically turns to the selected location.

Positioning free objects

Click on the option „New Object“ to make your choice. From the field „Object Selection“, choose the Eiffel Tower from the column marked „Tourist Attractions“. By clicking Ok accept the Eiffel Tower for the preview. Of course, you may use the controller to change the size of the Eiffel Tower, reducing it or enlarging it, according to your wishes.



The Eiffel Tower is now positioned in Paris just as it should be.

Note:
To get a different perspective, you can simply click on the globe with the right mouse button and move then the mouse. That is how to change the tilt angle and the perspective as you wish.

We now repeat this procedure with further capital cities such as Berlin, Madrid and London. First we always look for the location, in order to determine the position on the map. From this we then select the appropriate object in the Object selection.

Positioning free objects

Now your travel route should look somewhat as in the picture above.

In order to optimize the travel route further, you can click for example directly on the route line with the left mouse button and create more stops or bases. Move the new waypoint (bases/stops) by clicking on it with the left mouse button and keeping it pressed down.

Note:
Zoom in on the globe section in order to place waypoints more accurately.

Assign an altitude to the header object of the plane

You will now notice in the preview that the aircraft from Munich to Santa Cruz has no altitude listed. This can be changed at a later stage as follows.

At the stopping point of Munich leave the altitude at 0%. You can configure the settings in the Main Menu under „**Objects**“ / menu item „**Settings of Header Objects**“/ Tab **Position**. Switch the next waypoint to Munich for the Stopping Point, and then you will be able to configure further settings. First, select the option Change Header Object Settings. Using the tab **Position**, you will now be able to set an altitude of 6%, for instance. The airplane will now simulate a take-off and it will reach the altitude set for this route section.

Now, select the last waypoint before Santa Cruz in the itinerary. Next, choose the option Change Header Object Settings again. Using the tab **Position**, you will now be able to, for instance, set an altitude of 3%. By clicking directly on a spot before Santa Cruz add another waypoint, and switch it back to the stopping point. Now choose the option Change Header Object Settings again. Using the Position tab you can also set the altitude at 0%, which indicates the landing of the plane.

Now check the itinerary, especially the flight characteristics of the aircraft, using the Preview. The picture below displays the difference in height of the aircraft, as visible on the map.

Camera settings

We have recently programmed camera positions for the route video. Camera tracking in Vasco da Gama has nevertheless already been automatically adapted to the newly created itinerary

To make your own camera position settings along the course of the route, go to the main menu entitled „**Camera**.“ Camera settings can only be adjusted in this menu. If you want to use automatic camera tracking, you can use the camera profile side view 70 degrees at all points, for example. The camera is automatically aligned at all points along the course of the route.

To find the manual camera settings, click the „Automatic Camera Tracking“ button and more camera modes will appear. For this example, select the manual camera tracking.

Note:
Further explanation as to the other kinds of camera tracking can be found in the chapter entitled „Camera“

The**“Settings for the CurrentCamera Point“** menu will then appear. You can freely define the camera settings for the individual waypoints.

Camera settings

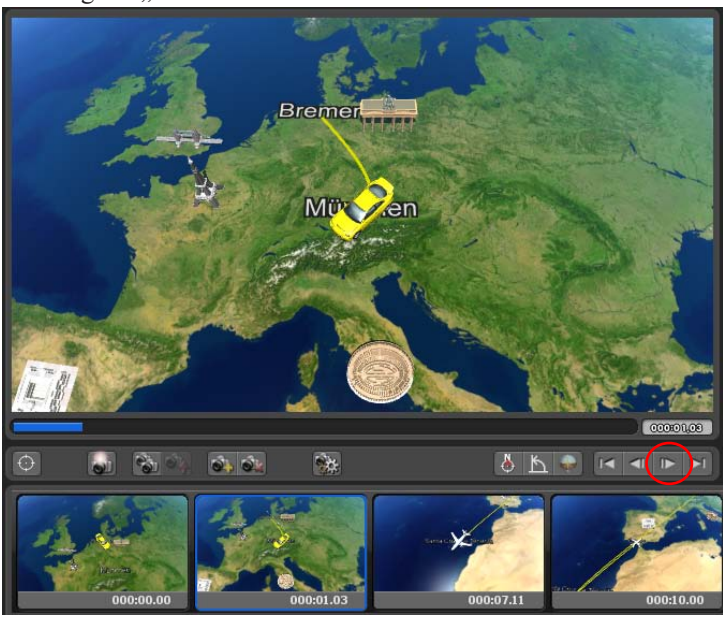
Now, while in the editor view, click on the camera starting point of the route in order to begin with the manual camera settings, for example. You should only determine the sttings for this route under the **“Position”** and **“View”** tabs.

Then, under the **“Position”** tab, you can spcify which longitude, latitude and zoom camera should be used for the camera settings at the starting point. Under the **“View”** tab, you can set the viewing angle, the tilt angle and the horizon. Changes will be immediately displayed in the editor on the map.

If you are you satisfied with the current camera position at the camera point, click on the „Camera Settings“ button to accept the settings.

Camera settings

To specify the camera position at the starting point, go to the next camera point by clicking the „Go to the Next Camera Point“ button.



Determine again, for example, the settings under the **„Position“** and **„View“** tabs, which should be valid at this waypoint. Repeat these steps until you have processed all camera points and then open the preview for your route.

The route from Bremen to Cádiz is now ready.

MotionStudios

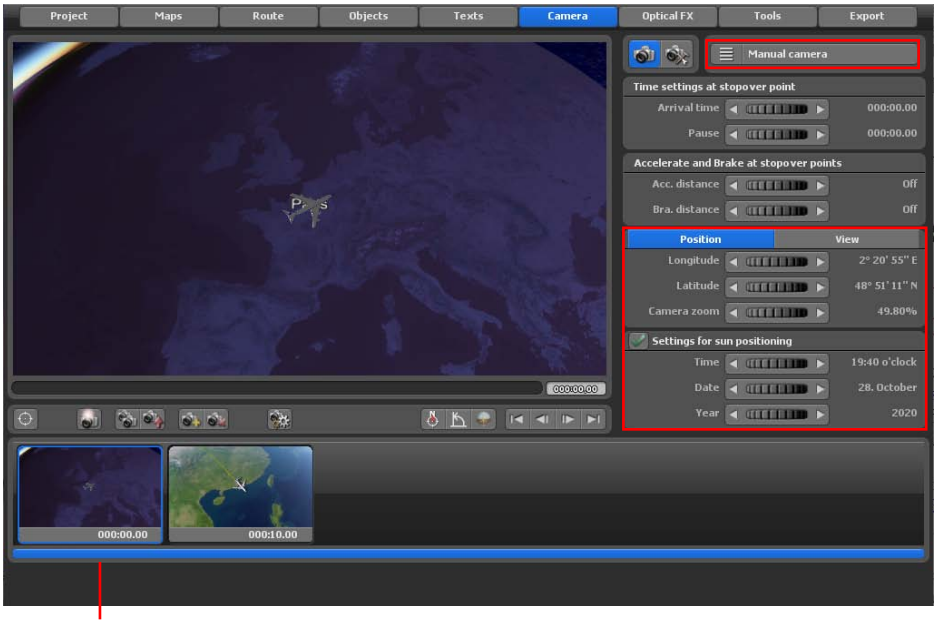
Chapter 15

Creation of an Over-night Itinerary

Creation of an Over-night Itinerary

Now, our aim is to create an **Over-Night Itinerary** from Paris to Hong Kong.
In order to set the start point in Paris, use the button Create a Waypoint from the GPS Database, so you can search for Paris in the GPS Database.
Once a starting point has been established, it will appear on the globe in the map preview. Now, you will be able to set the end point in Hong Kong using the button Create a waypoint from the GPS database.
At the starting point in Paris, a plane should be selected as the header object (from the Main Menu under **Objects/ Header Object Settings**), and the size of the aircraft should be set to 140%. Please follow the procedure of the previous tutorial.
Now, go to the **Camera** section of the Main Menu. Once here, click on the option Switch to manual camera mode; now you should be able to configure manual camera settings for the start and end points of the route.

First, set up the start point in Paris, together with the Sun position, and the exemplary time of 18.40 hrs on 27.10.2013. Afterwards, focusing on your starting point in Paris, position the camera using the tabs Position and View according to your wishes.

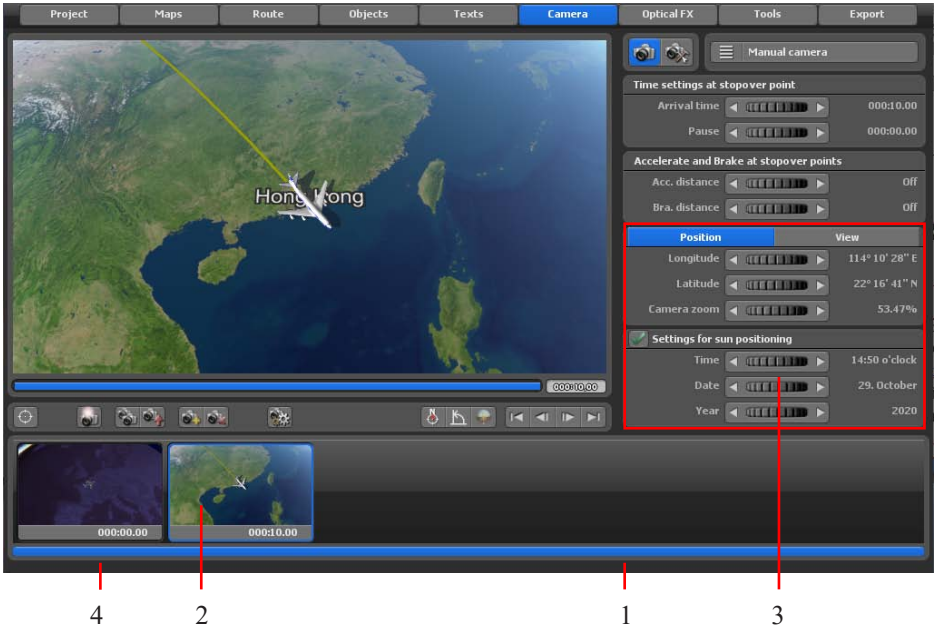


1

If you are happy with the current camera position at the starting point, then click on the button Confirm Camera Settings(1). The manual camera settings will now be applied.

Creation of an Over-night Itinerary

Now go to the Endpoint in Hong Kong by clicking the control button Jump to Endpoint located below the Preview (1). The second Camera Point (2) will now be highlighted. Now, set the end point at Hong Kong together with the sun position and the exemplary time slot of 14.26 hrs on 28.10.2013. Then bearing in mind that the end point is Hong Kong, position the camera using the tabs Position and View (3) according to your wishes.

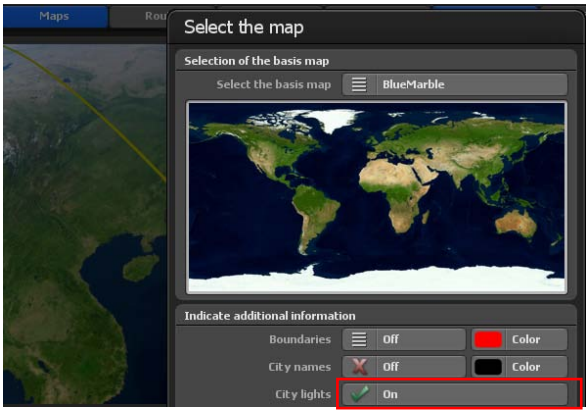


Creation of an Over-night Itinerary

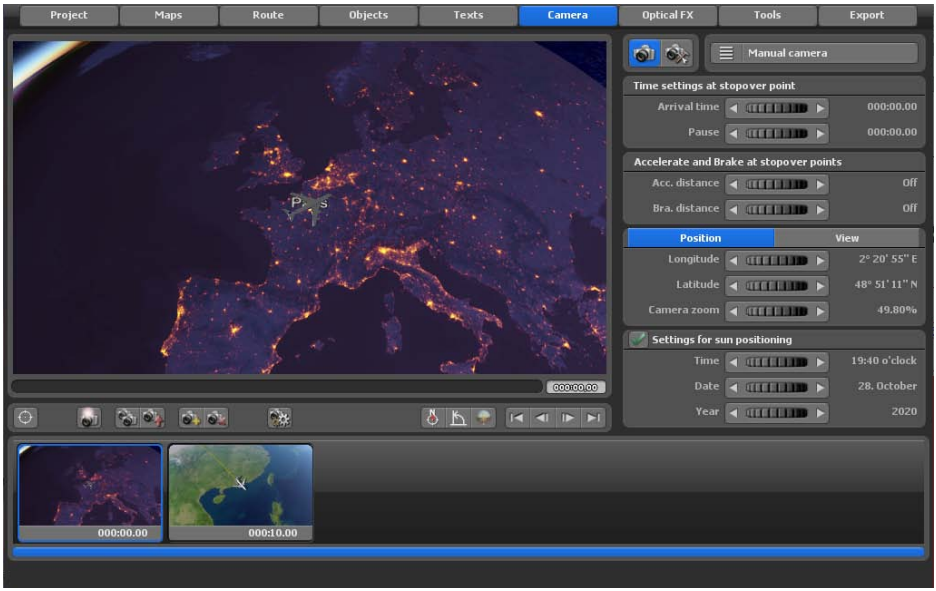
If you are satisfied with the current camera position at the end point, then click the button Confirm Camera Settings. The manual camera settings will now be applied. Now, the first preview of the over-night Route can be loaded. At the start point in Paris it is still dark at the time of the take-off, but upon arrival in Hong Kong the following day, we already have daylight.

Creation of an Over-night Itinerary

Accessing the Main Menu item „**Maps**“ will allow you to activate the option of City Lights, which will cause the city lights to be displayed during the night flight.



The editor (on the globe) will display the Night Route as follows. The City Lights are also visible in the night field of the route..



Creation of an Over-night Itinerary

The preview of the night route at the start point and end point from Paris to Hong Kong will be now displayed like so:

And so the night route has been created.

Note:
If you wish to add extra settings such as texts, images, and various objects, or further stopping points for this route, you may, naturally, do so as well.

MotionStudios

Chapter 16

Creating a Route to on a Flat 2D Map

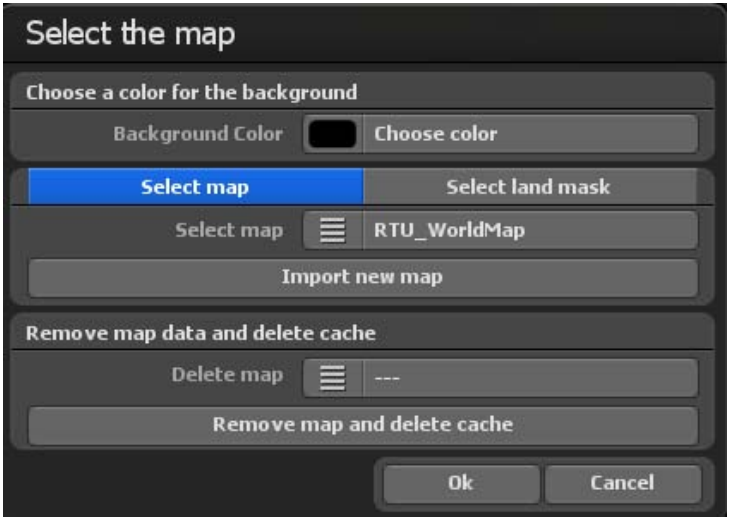
(in simple map mode and with simple camera tracking)

Flat Map Mode in Practice

The flat map mode allows you to import flat 2D maps just like in earlier versions (Vasco da Gama 1-4). You can then create a route on the imported map.

Note: The function for exact positioning of maps (with GPS map data) is now supported in Vasco da Gama 19 and higher in the simple map mode . Until now, the exact positioning of maps was only possible in the extended map mode. When using geo-referenced maps (with GPS coordinates, e.g. created with Vasco StreetMaps), it is now possible to use functions such as searching for places, but also to position sights (3D objects), texts and waypoints exactly via GPS. An exact location display is also possible.

The „Map Selection“ dialog box opens. You can specify a background color that will be displayed outside of the inserted map, which may be the case, for example, in various camera settings (angles). To make a selection, click on „Choose Color“ and select a color



Flat Map Mode in Practice

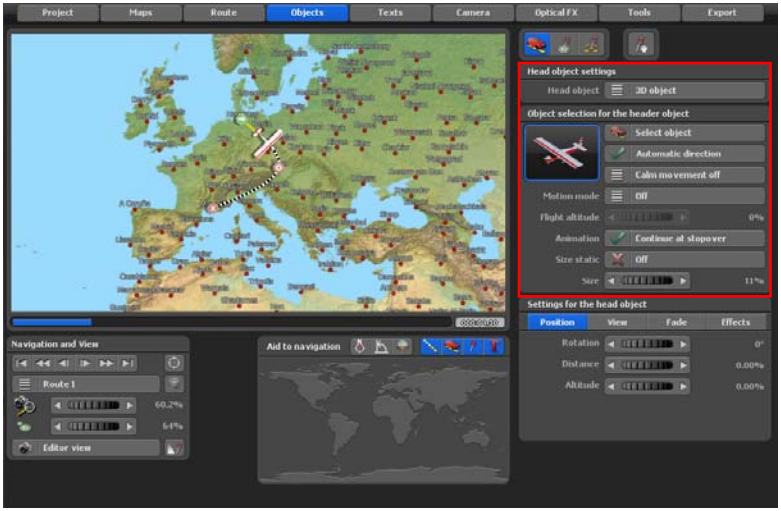
Select Additional Maps

Now import your own map, on which your route is meant to be created. Click on the „Add New Map“ button. In the following dialog box, navigate to your map and click „Open.“ The „Choose Your Own Map“ dialog box will appear.

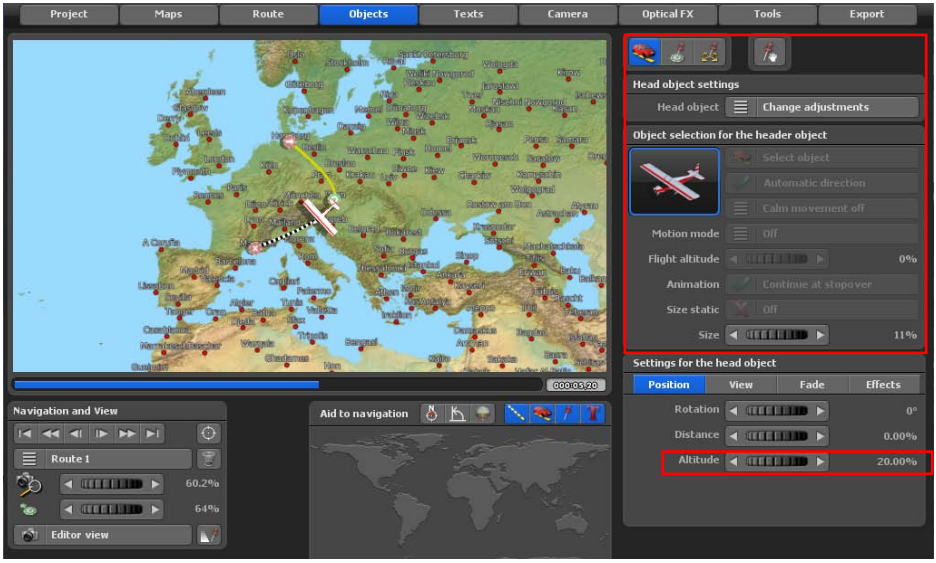
If you have previously imported a map, only click once on the Map option, pulling you up the ready maps. To accept the new map, click „Ok.“ The map is displayed in the editor view of Vasco da Gama 19.

Flat Map Mode in Practice

Then create the course of the route in the main menu entitled „Route.“ For example, add 3 breakpoints and place a head object from the main menu entitled „Objects“ at the start of the route.



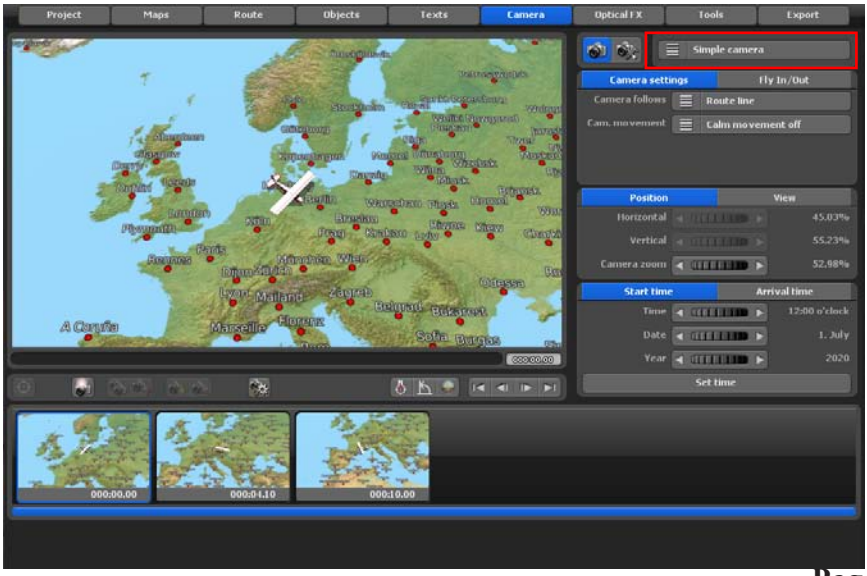
In order for the aircraft to gain altitude and also to drop again, use the new automatic Flight mode. Or do it manually and switch to the 2nd holding point of the route, here you first select the head object Change settings and then determine in the register Position an altitude of 20% At the end point of the route, enter an altitude of 0%. This simulates a landing of the airplane.



Flat Map Mode in Practice

Now, switch to camera view and you will find that the camera position is not yet optimal. The green background may, but need not be visible along the course of the route, which can be optimized. You can switch camera anytime to the available breakpoints along the route and check them.

Of course, you can position more objects and text at breakpoints or wherever you desire along the course of the route. This workshop will show how a simple route is created on a 2D map. Now, you just need the exact positioning of the camera, for example, with simple camera tracking. Go to the main menu entitled „Camera“ and activate simple camera tracking.

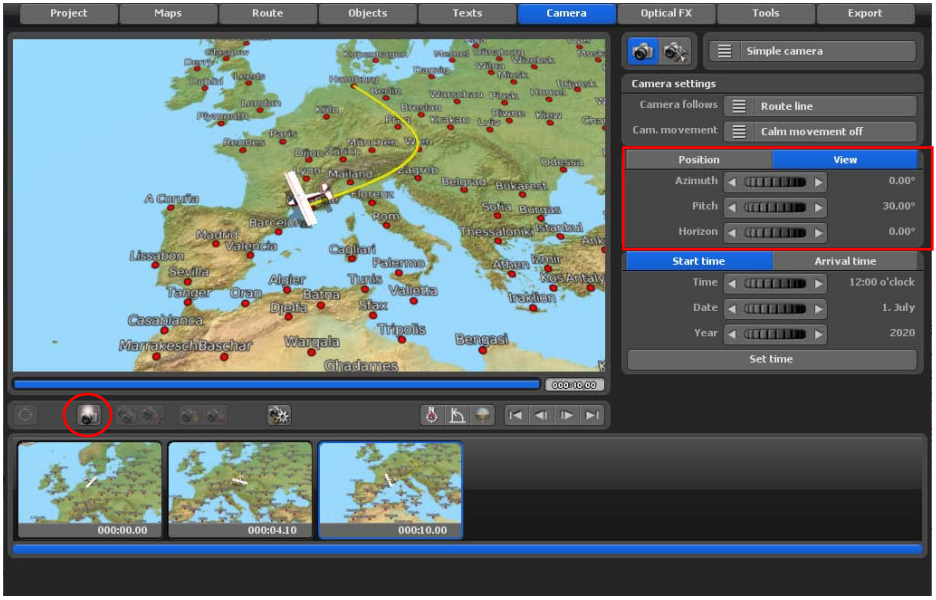


Simple Map Mode in Practice

If the camera pans jerkily, you can use the camera motion option to stabilize the camera in 3 stages. If you choose the camera motion stabilization off option, no motion stabilization will take place.

Then in the editor, for example, click on the starting point of the route to determine the settings for the camera. <You should only determine settings for this route under the **„Position“** and **<“View“** tabs. Under the **„Position“** tab, you can adjust the camera zoom, which will be used for the camera settings. For example, choose a zoom setting so that there is no green background visible.

In the **View** tab, select the settings for the view angle, tilt and horizon. On the map you can immediately see the changed camera setting. If you are satisfied with the current camera position, click the button Accept Camera Settings. This view will remain for the entire route. The camera position automatically follows the route line.



Simple Map Mode in Practice

Note: *Note that if you use your own flat maps and position a route, you have enough "map meat." That means, if you use maps that are considerably larger than your final video resolution, the camera will be perfectly positioned without any visible background, where you otherwise would be able to select a color of your choice. Simple camera tracking* ***does not allow for custom horizontal*** *or* ***vertical positioning*** *of the camera. This is only possible with manual camera tracking.*

MotionStudios

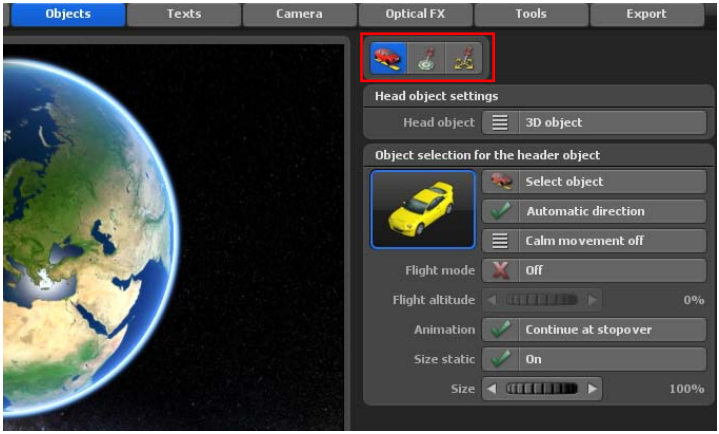
Chapter 17

3D-Object

Gallery

3D Object-Gallery

The 3D Object Gallery can be accessed from the menus Header Objects, Key Objects and Free Objects, depending on the function of the object.



When you click on the Select Object button, the 3D Object Gallery will open. Once inside, click on the Typ option, which will display a wide gamut of Object Categories, from which you may choose your desired object.

3D Object-Gallery

You can change the appearance (color) of the available objects in the Change Object Settings area, as well as activate Particle Effects. Furthermore, you can turn on the use of georeferenced data (GPS coordinates), which is very useful when placing sights.

Vasco da Gama 19 also offers the creation of a Favorites list, where you can organize your most used objects. Select, for example, cars, aircraft, etc., and click the option Object into the favorites list. Then select Favorites as the main category, and the added object favorites are now available for selection.

If you want to delete an object in the favorites list, select it from the list by clicking on it and then click on Remove object from the favorite list.
In the Special Settings section, you can also find the Load the all objects of this type and Load object in original size settings. They are active with additionally installed object packages.

3D Object-Gallery

If you have decided on an object, select it with a simple mouse click and then click on Ok, the selected object will then be transferred to the current project or inserted into the map (globe).

Note:
If you have purchased and installed additional object packages, then these will also be available for selection from the 3D Object Gallery.

MotionStudios

Chapter 18

Important

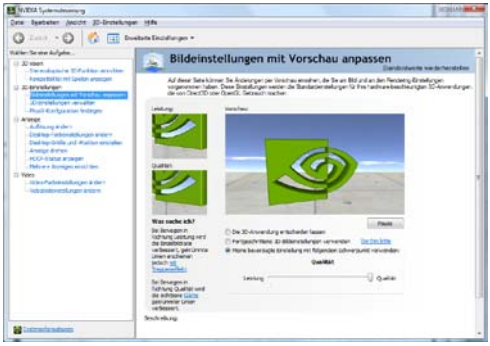
Information

Quality Settings

This chapter deals mainly with graphics card settings. Quality improvements in the objects integrated in your travel route can be obtained. The higher the AntiAlias-Faktor, the better the object will appear while calculating.
A problem with this is that, if you are using, for example, a graphics card with 64 MB, the 4x anti-aliasing factor is maybe just barely usable, depending on the desktop resolution and the Vasco da Gama window. Test your graphics card settings to see which settings are possible, and which are not. Start with a small anti-aliasing factor, then increase the factor step by step..

If Vasco da Gama does not display the calculation correctly, or long processing times result (several seconds for a picture,) then the graphics card does not have enough memory! Most graphics cards that have 32 MB (Please note that the Vasco da Gama 19 requires a 128 MB graphics card memory as a minimum!) or less do not even allow anti-aliasing. In conclusion, the more memory the graphics card has on board, the higher the anti-alias factor can be set and still get better results with Vasco da Gama.

The AntiAlias settings are changed in the settings for the graphics card. If, for instance, you use a GeForce chip-based graphics card (Nvidia), the do the following to change Anti-aliasing Settings::



1. Click with the right mouse on the Desktop.

2. Select NVIDIA System control in the pull-down menu.

3. A dialogue window opens with detailed setting options for the graphics card. Click on the menu option 3D Settings - > Adapt image settings with preview.

4. Now an automatic controller appears, among other things, so you can adjust the quality. Select the optimum quality.

Quality Settings

For ATI and Matrox graphics cards, the anti-alias factor settings are also made in the Monitor and Video Card Properties dialog.

A small sample calculation may help:
The Desktop has 1600x1200 Pixel at 32Bit. Without Anti-Alias, therefore , 1600*1200*4 pixels would be needed to grab one buffer, without textures of 3D objects. This makes 7.680.000 Pixel (ca. 7.4 MB). At 4x AntiAlias, this becomes 122.880.000 Pixel (ca. 117.2 MB), since the width and height are multiplied by 4.

Note:
It is recommended that you upgrade to a PCIExpress graphics card, since they are particularly well-suited for video editing. The reason is that the bottleneck AGP Bus is no longer a choke point. PCI Express is significantly faster and data can therefore be read from the graphics card much more quickly.
Depending on the model, up to 2-10 times as fast!!

System requirements and Troubleshooting

System requirements:

• 64Bit Prozessor with 2,4 GHz or higher
• Microsoft® Windows 7 64Bit, Windows 8 64Bit, Windows 10 64Bit und Windows 10 64Bit
• 8 GByte RAM or higher
• 50 GByte hard drive for the program installation
• 3D Graphics card with the following minimum requirements:
    • 4 GB MB RAM or more
    • Supports OpenGL 3.3 or higher
    • Supports ShaderModel 3.0 or higher
    • Supports 24 Texture mapping units or higher

What graphics card is suitable?
Vasco da Gama requires the following OpenGL functionality from the graphics card:
Vasco da Gama 5 and 6 : OpenGL 2.1 and up
Vasco da Gama 7 and higher : OpenGL 3.3 and up
You can find out about the OpenGL functionality of your graphics card at the following links.
AMD graphics card (or ATI): AMD-Grafikkarten (oder ATI): http://en.wikipedia.org/wiki/Comparison_of_AMD_graphics_processing_units
NVIDIA graphics cards: http://en.wikipedia.org/wiki/Comparison_of_Nvidia_graphics_processing_units

Troubleshooting:
If Vasco da Gama has a problem when starting, or while working on a problem, this is reported to you in an error message.

Most error messages will never see the light of day. These error messages refer to tight system resources, such as working memory. If your Windows system is configured properly, then it will send data to the hard drive (virtual memory) when needed. This type of error therefore only occurs with a full hard drive. It is generally recommended that you ensure that enough free memory is in place on the C:\Partition (5 GB are enough).

Vasco da Gama requires a powerful graphics card. If the program does not start for you, or gives an error message immediately after start, please contact our support.

If you create videos in the Video for Windows format, your video may not be correctly created. In this format, extreme compression algorithms are used, which sometimes don't work with all programs. In such cases, try the DV format type 2 or 1.

Support

More help with problems with Vasco da Gama, and information on current software updates, can be found on our website, or sent by mail:

Internet Page: www.motionstudios.de
Email: info@motionstudios.de

Please note that you must be a registered user of Vasco da Gama Software to take advantage of our support. In order that we can process your email request quickly, please send the following information:

• Vasco da Gama software version number: This is found in the information window, which you can call up by pressing a button on the toolbar.

• Your serial number:
This number is on the registration card, and on the back cover of the booklet. It is displayed in the information window as well.

• Your address:
Please also send us your address, so that we can compare it with your registration data.

Glossary

16:9
Widescreen format, also used in theatres. There are also lots of TV sets with widescreen format.

4:3
Screen format of most TV sets. The image is only slightly wider than it is high.

AVI
The standard file format for videos on Windows systems. The AVI format describes the construction of the file, and can accept different video formats Thus AVI is also called a container format.

DV
Digital video, standard for digital notation of videos with a camcorder.

Colour space
Different colour spaces are defined in the industry. In our case the colour space is determined by three values. The colouring that is relevant here goes through the colours from 0° to 360° as the rainbow does along with the brightness and the colour saturation.

Colour saturation
With colour saturation you determine whether a colour (e.g. red) is only easily discernible or if it appears brightly coloured. With 0% colour saturation there is no hue to the colour and you see all in grey.

HD, HDV, HDTV
It deals with the new high-resolution video formats, which attain a resolution of up to 1920 x 1080.

NTSC
Video standard used primarily in the USA, but also in countries like Japan, e.g. 720x480 pixels at a refresh rate of 60 Hz.

PAL
This video standard is used mostly in European countries, e.g. 720x 576 pixels at a refresh rate of 50 Hz.

Glossary

RAW-DV
This is not a 'real' file format. A file with video data as RAW-DV contains only blank video data, without a file header in which additional data, such as video resolution, is noted.

RGB
Additive colour model consisting of the components Red, Green, and Blue. If all three sections are null, the colour black results. With all three at the highest brightness, the result is white. Thus the designation 'additive' – white is made by adding colour components together.

Video for Windows
Standard video format for Microsoft Windows Systems. Files in this format typically have the extender '.avi'. Video data can be stored in such a file using different processes.

Widescreen (2,35:1)
Wide screen, also known as Cinemascope and Panavision. This format is somewhat wider than the 16:9 widescreen format of modern TV sets.

Zoom
Enlarge (more details) or reduce (better overview) part of an image.

FAQ, Updates...

Where can you find helpful FAQs for Vasco da Gama?
Visit the MotionStudios website:

www.motionstudios.de

Click on **FAQ** and log in to your personal MotionStudios account. There you will find numerous tips & tricks, updates and free workshops on working with Vasco da Gama.

You will also find other interesting workshops and video tutorials on our YouTube channel: **www.youtube.com/user/MotionStudios1**

or on Facebook: **www.facebook.com/MotionStudios1**

MotionStudios

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