

Columbus 3

for Bogart SE

Manual

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Chapter 1: General information

1.1: General information

Thank you for buying Columbus 3 for Bogart SE. We are grateful for your confidence and we hope that this product will live up to your expectations.

With Columbus 3, you will be able to get even more out of Bogart SE.

Please do not hesitate to contact us if you have any further questions or suggestions for improving the product. You will find our contact phone numbers and addresses in the Bogart SE manual. Please do not forget to mention the serial number of your device or your customer number each time you contact us.

1.2: What is Columbus 3?

Columbus 3 is a program that is mainly intended to help you to clearly display your travel routes on maps or street plans. Numerous options allow you to change the look of your projects. You can import maps or use the numerous maps included in the Imagepool. You can position objects on the maps (such as town locations) and you can use any of the fonts installed on your system to create labels with town names. Way points can be used to draw straight and curved stretches of your travel route. Objects (e.g. car, plane, ship, arrow) can move along these stretches, pausing at key points and video footage recorded at those points can be inserted to show the viewer what you saw at these locations.

It is also possible to highlight selected parts of the image, such as people or objects. There is no limit but that of your imagination. Columbus 3 also allows you to check your settings at any time in full-screen mode thanks to its real-time preview function (see Chapter 3.8).

1.3: Installing and starting the program

In order to install the Columbus 3 program, your system must be running the Bogart SE editing software. Leave your system switched on and click on the **Install Product** button in the Bogart **System Settings** menu. This will open the relevant window. Now, open the DVD-drive, insert the setup CD/DVD in the drawer and close it. Some time later (you may have to wait a few minutes during which you will probably hear noises from the DVD unit while the CD/DVD is being read by the system), you will see that Columbus 3 is listed in the **Install Product** window. Select it from the list and click on **License**. After a short time, a numerical keypad will appear that you can use to enter the license code you purchased from your dealer. A message will signal that the installation is completed, after which you can remove the CD/DVD. Should you want to install

Columbus 3 as a demo version, you should do everything as described before, except that you should click on the **Demo** button in the numerical code window. You will notice that the word **Demo** has appeared after the program name. If you want to activate this demo software later on, just click on License again and enter the activation code.

When the installation is complete, you will see Columbus 3 in the alphabetical list under the **Special** option in the **Edit** menu.



After you have selected the program, you will see the following options in the area on the right (effect options):

Start program: This is where you start Columbus 3 for creating path animations.

Mode: You can choose from the following options: Video Ext. means that the active video scene will be used. This mode is excellent for maps you have filmed or photographed yourself and for maps from other available programs, such as Xpress-Maps. The Image Pool Ext. mode will enable the software to use a map or an extra large map from the Image Pool.

Split video: Use this setting to split the path animation that is to be created at your key points, resulting in several scenes. If No is selected, a single continuous scene will be generated.

Quality: Use this button to select the image quality of the scene that is to be rendered. Low should only be used for fast and preliminary rendering. The final rendering should be in higher quality, which will also lengthen the rendering time.

To start Columbus 3, you must first select the mode in which you want to use the program. Next, click on **Start Program**. If you have chosen the **Video Ext.** mode, only the first complete frame will be used from the active scene. It will be repeated as many times as necessary in order to obtain the required length when the new scene is rendered. You can stop and quit Columbus 3 by clicking on the Edit button on the bottom right of the Columbus 3 menu. It is not possible to abort using the right trackball button. Columbus 3 automatically saves all changes. This way, you can simply continue working where you left off when you took a break. However, if you work on another scene in the meantime, you will see the previously created route against this new background. You can continue to work on that one or return to a simple line default by clicking on the **Default** button. You first save your route, in case you want to use it again at some later point in time.

1.4 Using the keyboard

Columbus 3 supports the **Power Key Option**. Click on the **F2** key for an overview of the available key combinations. Additional functions that cannot, in part, be accessed using the trackball are described in **Chapter 4: Notes on the Power Key Option**.

1.5 Tips for including maps

Columbus 3 is supplied with a series of maps of different countries and continents. Since it is, of course, not possible for us to anticipate all your needs, you will doubtless also want to use your own maps or town maps. This means that you must make a video recording of these maps. The following hints will help you achieve the best possible results:

- Use a tripod to prevent camera shake
- Use weights (heavy objects) to flatten the corners of the atlas page and to smooth out creases in the map
- Use a sheet of glass to flatten out the atlas page, but watch out for reflections caused by the glass
- Ensure that lighting is suitable. Once you have imported the map to your device, you can edit it before using it. You can use effects such as **Image Correction**, **Color Correction** and other image processing effects.

Chapter 2: Operation

2.1 The route

A route, i.e. the path to be followed, is defined by positioning various waypoints. Next, a line – together with an object – can then be drawn over a configurable time period. Starting point, end point and key points can be individually highlighted and influence the creation of the line.



A route consists of several elements, displayed and listed below:

(1) Line

The line can be rendered in different ways, with the following configurable properties:

- Various line thicknesses
- Various colors (invisible when alpha = 0)
- Various line patterns

The line can also be angular (e.g. for streets) or smoothly curved (e.g. for air routes). The appearance of the line can also change from one key point to the next.

(2) Waypoints

Waypoints are used to enter the path followed by a route. They are only visible while editing, not in the final image.

(3) Key points

Key points can be placed along a route. They can then be labeled in different ways, although you will usually use the same type for all key points, to make it easy to make overall changes. You can also define pauses in the progression of the line at key points. During the rendering phase, the scene can also be split in different parts at these pauses.

(4) Starting point

The starting point for tracing out the route corresponds to the origin of the line. Otherwise, the starting point has exactly the same properties as a key point. It is, however, not possible to delete it.

(5) Head object

It is possible to attach an object to the head (the front end) of the growing line. This object, (e.g. a car, a ship, an airplane, an arrow, a hand ...) will then move along with the head. An object that moves along with the head, can automatically be turned in the direction the line is growing.

(6) Finishing point

The finishing point represents the destination of the trip and has the same properties as a key point, except that it cannot be erased. For the points listed before, various symbols are displayed within the colored points along the route. They are explained in the following table:

Symbol Name

- Starting point
- Waypoint, but also for freely positionable objects
- Key point
- × Finishing point

Starting and finishing points

If you have not done any editing yet, the starting and finishing points – connected by a line – will usually be displayed in a position outside the menu bar area. The starting and finishing points are clearly marked as such and they can be moved and edited like any other point. Erasing them is not possible, however.

Setting points

You can set a new point by moving the trackball pointer to the desired position on the line and clicking on the left trackball button. A new waypoint (green) will now appear.

Activating points

An inactive point (red) can be activated by clicking on it. The color of the point changes into green, but its location remains the same.

Moving points

Any of the points can be moved in the map display. An active point (green) can be grabbed by clicking on it. It will then become blue, while the trackball pointer disappears. While you move the point by rolling the trackball, the shape of the curve will automatically adapt to the new location. To fix the point at its current location, click again. Right clicking will cancel the move.

Deleting points

An active point (green) can be erased by clicking on the right trackball button. For this to work, the trackball pointer must be precisely positioned on the point that is to be deleted.

2.2 Transition effects

In the transition effects menu, you have the option of inserting various fade effects for transitioning from the map display to the video scene (and back again).

To create these transitions, you must set the pause time for the defined key points to a value greater than 0 and then set the **Split key points** effect option to „Yes“ in the **Special** window before the effect is calculated. This way, the sections

that are generated during the rendering process will be saved separately in the scene bin, making it possible to use the effects to connect them with your video scenes.

These effects make it therefore possible to fade from the map display to your normal film footage and back at various key points during your trip. You can, of course, choose not to use any effects or to use other transition effects. However, the effects included with Columbus 3 do offer the advantage of generating these effects with pinpoint accuracy.

The effects that come with Columbus 3 are **Rotate**, **Circle fade**, **Rectangle fade** and **Zoom**. Of course, all these effects can be customized further by additional effect options that allow you to create your own custom transitions:

To start, select the **Direction** of the transition.

Col . -> Video fades from the map scene (to the left in the storyboard) to the video scene (to the right in the storyboard).

The option **Video -> Col.** goes in the opposite direction: from the video (to the left) back to the map (to the right).

The Select key point button can be used to select the point at which you want the video scene to start fading in. Depending on the setting of the Direction button, the map image will always be displayed when you are selecting the point. Use **Position** to set the small marker on the center of the symbol that represents the key point you want to use. If you do not see the map display here, you should check the setting of the **Direction** button. The Size function cannot be activated. Additional settings depend on the effect being used:

The **Columbus 3 Rotation** effect provides you with a **Rotation** option that allows you to specify the number of scene rotations and a **Trail** option that generates trails of ghost images that become gradually more (or less) transparent.

The **Columbus 3 Circle** and **Columbus 3 Rectangle** effects have the **Threshold** effect option with which you can set the percentage of blurriness of a scene.

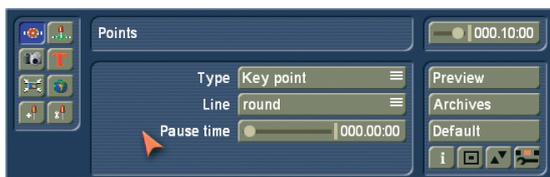
3. The menus

When seen for the first time, the Columbus 3 user interface may seem quite complicated. To help you find your way around the extensive menus, the controls are explained here. At the left of the Columbus 3 menus, you will see several buttons on the highest level (depending on the mode selected). They display different symbols that represent the main menus described below.



At the left, you can see the functions **Point**, **Look**, **Camera detail**, **Text**, **Editor detail**, **Global settings**, **Select new object** and the corresponding **Settings** menu. When you click on one of these buttons, the name of the menu thus activated will be displayed in the header of the box in the middle. This way, you will always know exactly in which menu you currently are. The top four buttons serve to open menus relating to the active (green) point. You must therefore first ascertain that the point desired is green.

3.1 Points menu

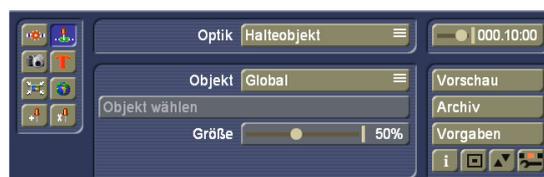


The **Type** option allows you to switch between **waypoint** and **key point**. A waypoint merely influences the path of the line, but is itself not visible in the final video. Hence, it is not possible to set a pause time. A key point, on the other hand, is usually linked to a visible object (such as a little flag) and has additional options to adjust its pause time and its look. The **Line** button can be used to influence the path of the line in the area around the point. **Round** is typically selected in order to obtain a smooth curve. **Angular** results in a straight line towards the point, a clear angle, and a straight line leaving the point towards the next point. (The object moves towards the point in a straight line and then continues on to the next point also along a straight line.)

Pause time allows you to set a time during which the progression of the line is paused at this particular key point. This function can be used when you want to record a longer comment in this location, or if you want to switch from the route display to another video scene using a transition effect or if you want to change the head object at this location.

At a key point with a pause time greater than 0, a new scene can automatically be inserted during the calculation phase (this is a setting in the effect options). The break will occur halfway the pause time.

3.2 Look menu



The look of the key point as defined in the general settings can also be changed here. You can define the key point and change the head object and the line setting. You can also configure the transition effects of the key point and the head object. Use **Look** to switch between the **Position** and **View** settings of key points and head objects.

The settings enable you to switch between **Local** and **Global**. The Object setting also allows you to select **Off**. In that case, no object will be displayed at this key point, regardless of the global settings. Normally all buttons are set to **Global**. This means that the global settings are applied to the key point. This way, all key points look the same and can be easily modified globally. Only in rare cases is it necessary to set one of the three components to **Local**, when you want to make changes to a specific point, independently of the other functions.

You can select an object with **Select object** and change the **Size**. The available options for the global changes can also be found in the **Global settings** menu (Chapter 3.6) under **Key object**, **Key object position**, **Key object view** and **Key object transition** and are explained there. In this Look menu, the option **Head object movement** will also allow you to change the speed of a head object at the active key point.

If you activate the setting for acceleration, the head object will start slower in this location, or will slow down before this key point, if this action (slow down) has been activated. The setting (percentage) is always applied to half of the stretch before (slowing down) or after (speeding up) the key point.

3.3 Camera detail menu

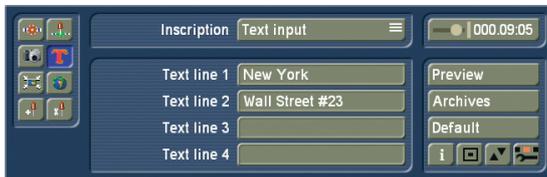


This enables you to magnify or reduce the map details that are to be displayed during the path animation. A map detail can be defined at each key point. The map will then be zoomed in or zoomed out during the animation from the active point to the next point. Zoom factor changes should be carefully considered to avoid creating scenes that appear too busy.

If you set the map movement (**Map** menu item) to manual in the **Global settings** menu, it becomes also possible to define camera detail at the waypoints. If map movement is set to **manual**, it becomes also possible to change the position of the map camera.

This influences the look of the map after the calculation. If you want to zoom the map in or out, you must indicate this in the Editor detail menu.

3.4 Text menu



This menu is only accessible for key points.

A 4-line text can be entered at each key point, independently of the other key points. Click on the **Text** button to open the familiar keyboard and enter the desired text. Should you so choose, you also have the option to enter the text using an external keyboard.

The text can be adjusted further. Use the **Text attributes** menu to set **Text alignment**, and also the **Position** relative to the point and the distance (distance from key point to text) as a percentage. Text formatting (font, color...) can be set in the **Global settings** menu (Chapter 3.6) under **Text attributes**.

These global settings can be used to set the color, the frame size and the font type for 5 different fonts. This setting can be accessed in this menu by selecting **Font selection**.

Use the **Text transition** menu to indicate whether you want the text at the key point to fade in (fade in) or to fade in and out (fade in/out) or not to fade at all (Off). You can also set a transition duration.

3.5 Editor detail menu

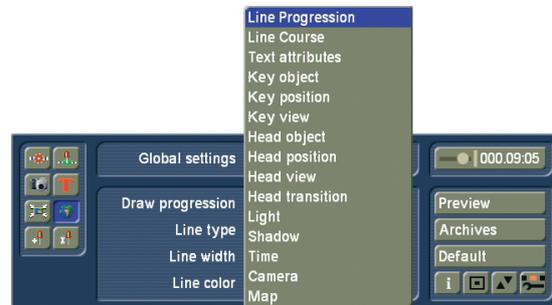


This menu can be used when you want to magnify details of a map, to better position a point or to move on a map (that is bigger than the field of view).

Use **Zoom** to define the map detail. Use the **Horizontal** slider

to move horizontally on the map and use the **Vertical** slider to move vertically on the map. If the Zoom setting of the map is such that it is not possible to move horizontally or vertically, it will still be possible to move the slider, but it will return to 0 every time.

3.6 Global settings menu



This is where various global settings can be found, i.e. settings that will be applied to the entire project and not only to specific points. These settings can be accessed by clicking on the **Global settings** selection button.

3.6.1 Line type path

Here, under **Draw path**, you can first of all configure whether you want a growing line to be drawn. If you do, you can then select the **Line type** (solid or various dashed lines), the **Line width** and **Line color**. If you have configured the setting so that a line path is not traced out, you will see a thin grayish-white line appear instead to indicate where the path is. This will of course be left out when the calculations are carried out later on. Even if the time control in the top right of this menu (see Chapter 3.9) is not set to maximum, the dashed display will still be chosen for the scene's remaining time.

3.6.2 Line type route

When you activate the **Draw course** option, the route stretch will be pre-drawn from the start, and the line will subsequently be filled with color. You can define the color using the Line color button. The line type, whether it dotted or continuous, and its thickness, are all configured through settings in the Line progression menu.

3.6.3 Text attributes

You can use any font installed on your system when working with Columbus 3 (except for DEMO fonts). This menu allows 5 fonts to be defined. You can then choose amongst them in the local text settings.

To set these definitions, you should use this menu to select fonts 1-5 in turn and configure their individual settings of font type, size, color and frame attributes.

Under the **Select font style/size** setting, you can configure the font type and size. You can use **Font color** to set the color in which the font will be displayed. **Outline** can be used to draw a border around the letters (the outline strength can be adju-

sted) and the **Outline color** allows you to select its color. Once you have done this for Font 1, you should switch to Font 2, and so on, up to and including Font 5. Of course, you need only to define as many as you require at this time. You can change these font definitions in this menu at any time. Changes to the text design always affect all the texts that use this font. Specific key points can only be created through setting these fonts.

3.6.4 Key object

The key object is an object that is displayed at key points. It is displayed in exactly the same way at all the key points that have their key object setting set to **Global** (default setting).

Notes: When you want to adjust such global settings, it will prove beneficial to have an active key point that makes use of these global settings. This way, you will see the result of the changes to the settings right away. If you have a key point with local settings, you will only see the global changes when using a slider.

First, you can activate or deactivate the key object display using the **Show key object** setting. If it is activated, you can select the object using **Select key object**. A selection window (similar to the familiar pattern selection window - see Chapter 3.13) opens allowing you to make your selection. Furthermore, you can modify the **Key object size**.

3.6.5 Key object position

You can optimize the position of the object with respect to the key point by moving it along the **X-** and **Y-axes**.

3.6.6 Key object view

In order to obtain a better view of the object, you can rotate it in three dimensions using the controls for the three **angles X, Y** and **Z**. Because of their default settings, many objects will be shown from the back. Hence, it is important to change their view setting.

3.6.7 Head object

The head object is directly linked to the growth of the line and moves together with the head of the line (i.e. the leading end). Basically, the same selection options and settings options are available as for the key objects. An additional setting under **Head object** allows you to make the direction of the head object change automatically. If **Auto direction** is activated (default setting), the head object is always rotated automatically so that it points in the direction in which the line is growing. This ensures, for instance, that an aircraft symbol will always appear to fly forwards and not sideways or backwards. For many 2D-objects it is beneficial to switch off this option.

3.6.8 Head object position

You can position the head object with respect to the tip of the line using the **Distance** and **Angle** functions. To do this, you should first enter a distance and then an angle. This will enable you to better visually verify this adjustment.

3.6.9 Head object view

In order to obtain the optimum view, you can rotate the head object in three dimensions using the controls for the three **angles X, Y** and **Z**.

3.6.10 Head object transition

This is where you define the fade-in and fade-out values for the global setting. You can choose how the head object fades in or out at the key points and how long the transitions take to complete. The times can only be adjusted if an effect has been selected. The available transitions are as follows:

Off: No transition takes place. The slider for adjusting the time is locked.

Smooth fade: The object is smoothly faded in or out.

Light up: The object briefly lights up and is then faded.

Zoom: The object grows smaller when fading out and grows in size when fading in.

3.6.11 Light

Many Columbus 3 key objects or head objects are three dimensional (3D). This effect, however, is only seen clearly if lighting is simulated. In this submenu, the **Use light** button allows you to activate and deactivate lighting. You can also use the Light button (type of light) to change the **Light direction** and the **Light color**.

Note: If the color of the light is not white, all the objects will be slightly colored by it. So if the color of some objects appears different to how you imagined they would look, please check the lighting settings.

3.6.12 Shadows

Irrespective of your light source settings, you can set a shadow casting for your course. Shadows can be set individually for 3D objects, lines, fonts and images or scenes. For each of the 4 possibilities, you dispose of the same settings.

Indicate if you want to use a **shadow** or not.

Enter the direction of the object's shadow cast, the distance to it, and its color. An alpha value of less than 100% is only natural, since that will allow the shadow casting to adapt itself somewhat to the ground on which it is cast.

3.6.13 Time

This menu allows you to set the time duration of the trajectory. The individual Pause times and Transitions are added to this time, thus resulting in a total time for the animation.

3.6.14 Camera

This is where you can configure how the camera moves in the case of oversized maps. If you decide to use **manual**, you will not be able to change any other settings options here; though in the **Camera detail** menu you will be able to enter a manual camera position for each point. If you decide on **automatic** camera movement, you can use the **Camera points** function to set whether the camera should move from key point to key point (only **key points**) or whether it should move to **all points**. Set it to static to avoid camera movements during the animation. In this case, you should configure the camera detail in such a way as to make your route appear in the desired detail.

3.6.15 Map

This menu is only available if you started Columbus 3 in **Image Pool Ext.** mode. Here you have the option of changing the map. After you click on the **Select map** button, the image pool opens and you can select a map from it. In the Imagepool you can also change the product in order to access images of other products. Please refer to the Bogart SE manual for more information regarding the Imagepool.

3.7 Selecting a new object



This allows you to choose a new object that can be positioned independently of the route. The object can be your choice of a text (4 lines), an image from the Imagepool, a scene from an active project, or an object from the pool. You can insert as many of these independent objects in your route as you would like. Once you have chosen the object type, you should click on **Create object**. This will bring you in the menu you need to select your object. Select text to enter text, Image to go the Imagepool, Scene to select a scene and 3D object to go to the Object pool. The size of the selected objects is adjustable. The object will always be positioned in the center of the image. These objects can be moved, in the same way this is done for the route.

3.8 Configuring/modifying objects



When you want to change the properties of an object, this is the menu to come to. If there are no independent objects on your route, you will see this through an empty menu and a text message.

Select your object and change the properties. Depending on the type of the object, different properties will be displayed here. These options are identical to those of the key points. They have already been described there. You can also link the object here. There are always two active points on your map: one point on your route and one free object. These can be linked by clicking on „Join object with route point“. The time component will now be linked to the route point. This is only important when you want the object to fade in/out. The object will then behave as a key object, and it will be faded in/out at the key point for the duration you have set. Only the time factor of the route point is used, all other values are not changed, nor copied. It speaks for itself that you can also delete the object again.

3.9 Time control

In the top right of the main menus you will see a slider control that you can use at any time to specify the point in time at which you want the current route display to apply. Normally it should be set to the maximum value (to the far right) so that the entire route is always visible. The default setting for the maximum value is 10 seconds, though this can be changed at any time using the **Route** button in the **Time** menu (Chapter 3.6.13). The times stated here is the net „driving time“ and does not include the time needed for transitions or pauses.

3.10 Preview

Contrary to other programs, Columbus 3 displays a full screen animated preview. The menu bar and the trackball pointer are not available during such a preview. However, you can abort a preview by clicking on the right trackball button. Depending on the complexity of the Columbus 3 project and on the system model you are using, the preview might not be played completely smoothly. However, the timing will on the whole be accurate. You might notice some display inaccuracies but these will no longer be visible after the calculations have been performed.

3.11 Archive

This is where you can store entire routes together with all their settings thus enabling you to use them as often as you like. The map used is not saved. This way, you can use the same route on any other map. If the size of the map is changed, the route will be adjusted to fit the new image limits.

3.12 Default

You can use this button to delete the created route together with all its settings and reset the settings to their predefined values. The system asks you for confirmation first.

3.13 Selecting objects

Columbus 3 provides a special window in which you can select objects for the key points (also the starting and finishing points) and for the head of the line. Its user interface is similar to the pattern selection function (image pool) that you are already familiar with. The **Type** option allows you to switch between 2D (flat) and several three-dimensional objects. Later on, you can rotate any of the types as desired. To select an object, simply click it in the list. The object is shown on the right with its name and an animated preview. You can end the selection process by clicking on **Ok**. If the **Ok** button is locked (i.e. you cannot press it), the object in question is only installed as a demo and therefore cannot be used in Columbus 3.

3.14 Supplied Columbus 3 maps

These are oversized maps that allow you to scroll over the map during the route. The maps that you see in this selection are sorted alphabetically from A (= Africa) to V (= Lake Victoria). Most of the maps can be selected with or without town names; a + after the map name indicates the difference (e.g. Spain and Spain +). Some maps also include national borders. Since these are all maps whose size exceeds the video resolution, only a part of the map will be displayed if you generate an empty scene in the **New (Edit)** menu.

3.15 FAQ

Question: How do you change a head object at a particular point?

Answer: You have defined a global head object. If you want to change it at a particular point, you must set a key point at that position and then modify the look of this key point. Activate the key point, open the **Look** menu and select the **Head object** option. Set the **Show head object** setting to **Change** and then select the new head object.

Question: Why does the camera not always follow the head object when the camera moves across the map?

Answer: If this situation arises, activate the **Camera** option in the **Global settings** menu. The **Camera movement** setting is probably set to **automatic** and the **Camera points** option is probably set to **only key points**. Set the latter to all points so that the camera also moves to all of the waypoints.

Question: Why does the head object not move when a change of direction takes place?

Answer: In the menu for adjusting the head object settings (**Global settings** and **Look**) you will find the **Auto direction** setting. This setting must be activated by setting a check-mark so that the head object aligns itself with its direction of movement.

Question: I have selected a different detail - why is it not taken into account during the preview and calculations?

Answer: You have probably modified the **Editor detail** but not the **Map detail**. You should define it so that it is also taken into account in the calculations.

Question: Why is the map constantly zoomed during the preview and the calculations? How can this be deactivated?

Answer: The **Camera detail** has probably been incorrectly defined at some positions. Take a look at the **Preview** and remember at what positions the incorrect detail appears. Afterwards activate the **key point/waypoint** in that area and check the **Camera detail** setting.

Question: Why can't I select a map in Columbus 3?

Answer: You have started the program **Video Ext.** mode – you cannot select a map in this mode. Exit the program and set the mode to **Image Pool Ext.** before you restart Columbus 3.

Question: How do I restore the previous settings in order to create a new route?

Answer: You will see the **Default** button on the right of the menu. If you press it, the settings in Columbus 3 will be reset to their default values with one starting point and one finishing point. You can now easily create a new route.

Question: I want to use the maps from Columbus 3 to create an empty scene in the **New** (Edit) menu. Why is a different map created instead?

Answer: It is not that a different map is being created but a map detail of that map, i.e. a part of the map. The maps have a larger size than can be displayed at the video resolution. For this reason it is not possible to display the entire map area in the scene display.

4. Information on the Power Key Option

Besides providing shortcuts for the existing controls that you can access using the “F2” key, Columbus 3 also provides a whole range of further functions that to some extent are only available using the keyboard. The various control options that can be accessed using the keyboard are only available if the Power Key Option is activated.

Ins: This key creates a new waypoint and configures it with the default values. To set the waypoint, you must place the trackball pointer over the required position on the route.

Ctrl-Ins: This key combination creates a new key point and configures it with the default values (trackball pointer must be placed over the position on the route).

Del: The currently selected waypoint or key point (green) is deleted. Starting and finishing points cannot be deleted.

Ctrl-c: This command copies the settings for the currently selected point into an internal memory buffer (“clipboard”).

Ctrl-v: This combination applies the values that you previously copied using <Ctrl-c> to the currently selected point.

Ctrl-i: This creates a new point using the values that you previously copied using <Ctrl-c> (trackball pointer must be placed over the position on the route).

Ctrl-s: The currently selected point changes state from “waypoint” to “key point” or vice-versa.

Enter: The currently selected point (green) is activated (blue) thus allowing you to move it. To move it, you can use the cursor keys while pressing and holding down the <Nav> key (compare also <Ctrl Nav Cursor> in the Power Key Option manual). After you have moved the point, you can “drop” it in position by pressing <Enter>. It now becomes green.

Esc: You can cancel moving an active point (blue) at any time by pressing <Esc>. The point turns green and jumps back to its original position.

Home: The starting point of the route is selected (green).

End: The finishing point of the route is selected (green).

Page Up: The next point along the route towards the starting point is selected (green).

Page Down: The next point along the route towards the finishing point is selected (green).

F13 Preview – even if the toolbar has been minimized.

5. Application examples

We recommend you work through the following application examples in order to familiarize yourself with how Columbus 3 works. The sample exercises only demonstrate a few of the functions of the program, but they do provide you with a good starting point, so that you can also easily learn to use the other functions, with just a little practice. For details on the functions of individual buttons and controls, please refer to the previous chapters. The examples have been specially put together for newcomers to the program and therefore introduce you slowly to the various controls. Afterwards, we recommend you try out your own ideas.

5.1 Creating a route on a map

In this example you will learn how to operate the Columbus 3 program, how to use simple effects and how to create a simple route through Egypt, traced out on a selected map. Open the Edit-Special menu, select Columbus 3, set the mode to Image Pool Ext. and click on Start program. You will now see a full screen image your last map or the Columbus 3, and the Columbus 3 toolbar in front of it.

If you have already changed some of the program settings before, please click on the Default button and answer the confirmation request with Yes.

You will see a yellow diagonal line that has a starting point and a finishing point each indicated by a red Pin 2.

You should now select a map. To do this, you should go to the Global settings. This is button 3 from the menu buttons at the left. Select the map option in the Global settings menu. Start the map selection and, in the following menu, set the product to „Columbus 3“ and the type to Images. Select the image in the second column of the second row. It is „Egypt+“ with city names. To confirm your choice, confirm this menu with OK.

In order to edit the route, you should click once on the green starting point (on the left) so that it turns blue. You can now move it by rolling the trackball. Position the point anywhere near the left edge of the screen, for example over the city of Cairo, and then click on the left trackball button again to confirm the new position.

Next, click twice on the finishing point so that it first turns green and then blue. You can now move it to a city near the right edge of the screen (e.g. on Luxor). Afterwards, confirm the new position by clicking on the left button again. The Columbus menu may be hiding the map you need. Just move the menu to the other side of the screen. In order to do this, you should press the second key at the bottom right, immediately next the exit Columbus key

Note: If the city of Luxor is not yet visible on your monitor, or if you would like to change the goal of the line to Assuan, you can change the map view. To do this, you should go to the Editor area menu and change the zoom factor to show more of the map. It becomes possible to locate the goal of the route on a spot of the map, which was not visible until now.

Next, position the trackball pointer over any position along the yellow line and click on the left trackball button. You will see that a new point has been set. Repeat this procedure a few more times until you have set several points evenly distributed along the line. Now click on one of the points that you have just set. If it is red, click on it twice so that it first turns green and then blue. If it is already green (i.e. active), just click on it once. The blue point can now be repositioned in the same way as the starting and finishing points. Reposition the points one after another on your map so that you create a few stopovers in other cities (e.g. El-Minya, Asyut, Sohag, Qena).

You should now open the Global settings menu by clicking in the left menu. In this menu, set the top selection button to Head object, activate the Show head object function and click on Select head object to choose a symbol for the leading end of the growing line. In the selection window that then appears, you will see several groups (can be set under Type) of which some are better suited for use as a key point and others as the head object. Settle for „Bus, transporter“ and select one. Acknowledge with OK and set the head object size to 50%. Make sure that the Auto direction function has been activated. Click on the Preview button. You will see the bus move along the line. The toolbar reappears.

Lets us now slightly modify the line that is traced out by the object. To do so, in the Global settings selection button, set the Line type path function. This is where you can change the type, width and color of the line to ensure, for instance, that the line stands out better against the background. Now look at the Preview once again, save your example (e.g. under the name „Cairo“) in the Archive and then close the program by clicking on the Edit menu icon in the bottom right corner. Next, close the Special window by clicking on Ok so that the scene is calculated with a length of 10 seconds (default value). The setting for the Split video button in the Special menu is irrelevant in this case, since you have not set any key points other than the starting and finishing points. If, on the other hand, you prefer to get a higher image quality, you should change the Quality setting. A higher quality image will take longer to calculate.

5.2 Changing the look of the key points

This example explains another feature: the look setting, i.e. appearance.

For this, we will use the same map as for the first applica-

tion example. (Please refer to that section for information on how to load the map. In case you have just followed the first example, you can simply start Columbus 3 again. That way, you will see the situation it was in when you last closed it. You can also follow the example with any other route.

Select the starting point (Cairo, in our example) to activate it (green), and click on the icon for the Look menu. In this menu, you can change the settings for the starting point. Make sure that the Key object function is selected under Look. By default, the Object selection button is set to Global, which means that the global settings from the Global settings menu are also applied to the currently active point. However, to enable individual settings here, you must select the Local option for Object. The starting point's object is now no longer displayed.

Click then on the Select object button. Please select the „Buildings“ type in this menu, choose the last entry „Stadium 3,“ and confirm your choice by clicking on OK. You will see the new object at your starting point and can now specify its size.

To make things look even better, you also have other options available to you for changing the look. Change the Look selection button setting to Key object position. If you have the starting point next to an important location on your map, the object should not cover the city. You can move the position of the object in such a way as to position it next to the city. To do this, you should set the position to local and enter the settings for position X and Y. Next, change the Look setting to Key object view and then change the View setting itself to Local. This allows you to rotate the stadium about its point on the route to obtain an even better view of the object. Simply adjust the values for the X, Y and Z angles and see how the appearance changes.

You can now make changes to the finishing point in a similar way to the settings changes you have just made. The appearance of the waypoints cannot be changed since they are, after all, not visible in the final video (they must first be converted to key points if you want to change their look).

You can then save this exercise in the archive as „Cairo 2“ and have Columbus 3 calculate the route.

The setting for the Split video button in the Special menu is also irrelevant in this example, since you have not set any key points other than the starting and finishing points.

