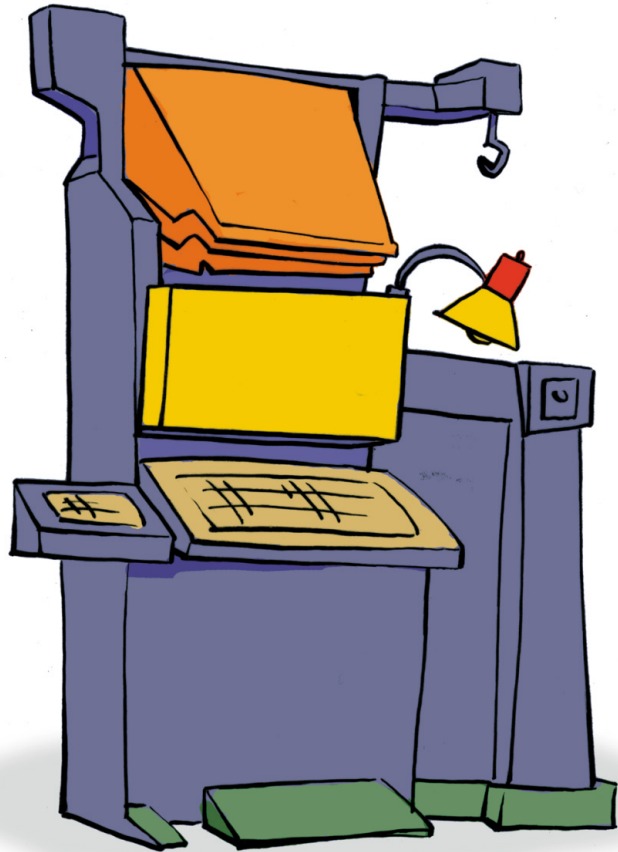


REF



Canvas

REFERENCE

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Printed in Germany

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Effects

# CANVAS

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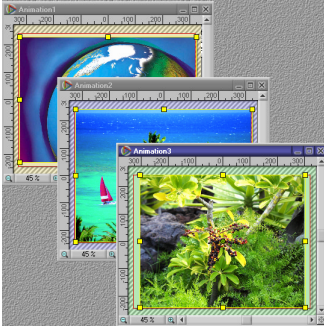


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The **Canvas** window is one of the most important windows in MoviePack. Here the objects are processed with the help of additional functions and windows. Basic functions such as Scale, Position and Rotate can be carried out using the mouse and the results can be seen immediately. It is possible to have several **Canvas** windows opened at the same time.

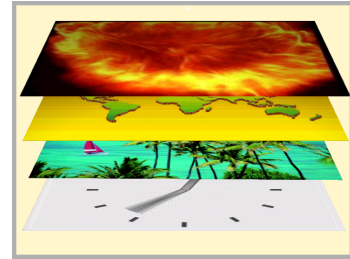


## Canvas Window

The **Canvas** window in MoviePack contains objects which are manipulated and animated. As in a Windows word processing program several documents can be opened at once in MoviePack. Moreover, each **Canvas** can contain an unlimited number of objects.

Each **Canvas** contains a project, also known as an animation, which includes objects such as movie clips or still images, transitions, audio and effects.

The objects lie on top of each other like layers.




### Opening a Canvas/ Animation



- ▶ By clicking on the left icon in the standard icon bar an empty **Canvas** will appear. A new **Canvas** can also be opened by choosing **New** from the **File** menu.

Pre-made animations (\*.M3') are also available:

- ▶ Choose the command **Open** from the **File** menu.

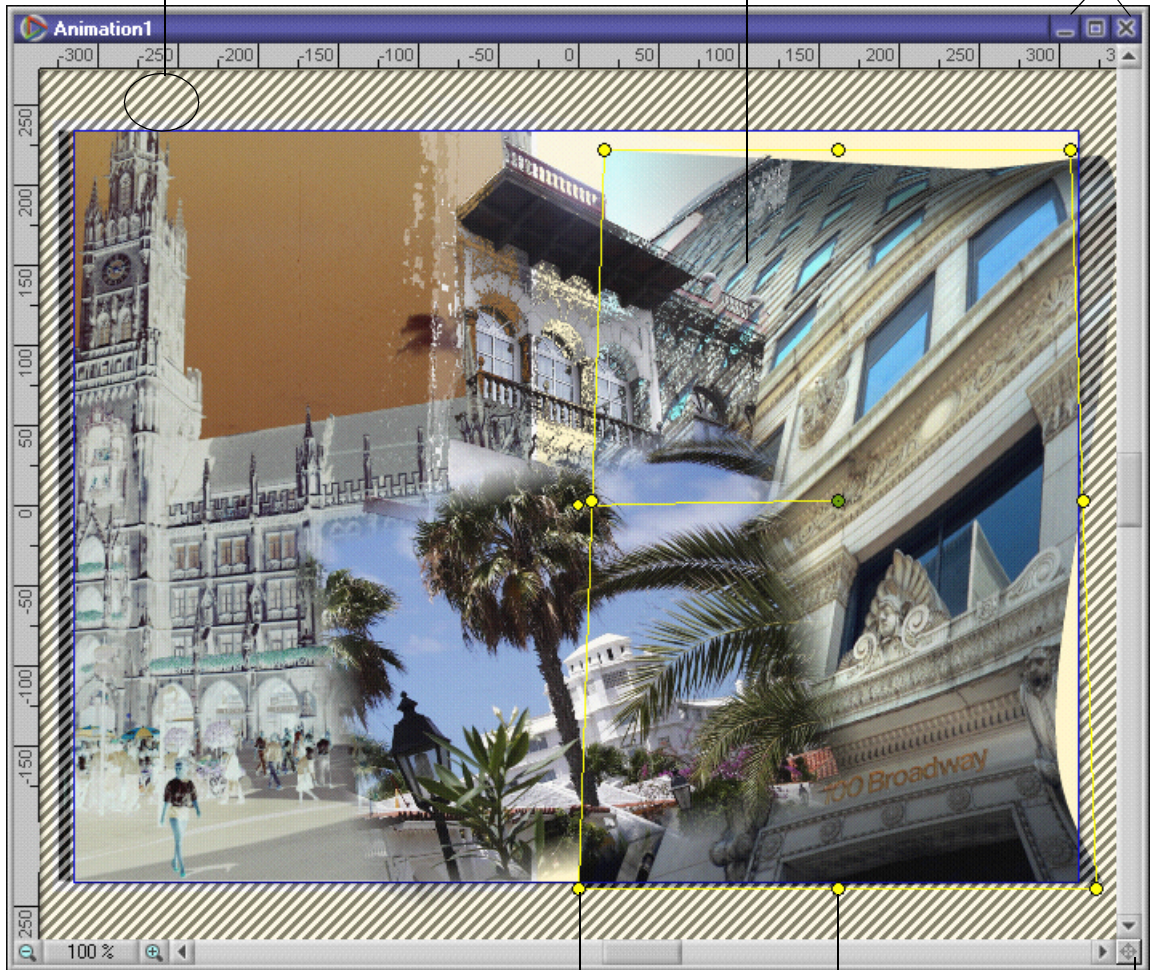
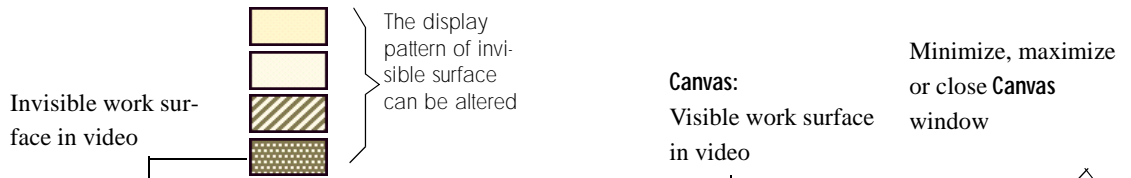
In the dialog box search for the desired file, click it and then click the **Open** button. You can also click the  **Open File** icon on the standard icon bar.



If you have inserted several objects onto your **Canvas**, the result on the **Canvas** and in the **Timeline** may look something like this. The objects are arranged on top of each other and overlap each other according to the sequence in the **Timeline**.



**Interface:** Entire work surface



**Scale menu:**  
Maximize/minimize  
Canvas



**Active Object:**  
Surrounded by a border

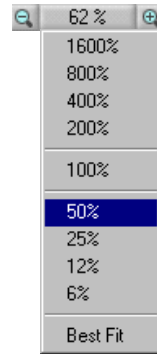
**Handles:**  
For scaling or rotating  
the object

**Center Canvas**

## Scale Canvas

It is possible to scale the **Canvas**.

- ▶ By clicking the minus magnifying glass , the **Canvas** becomes smaller.
- ▶ Click the plus magnifying glass  to enlarge the **Canvas**. The animation remains unaffected.
- ▶ Click the middle bar between the magnifying glasses to select different ratios or **Best Fit**.
- ▶ **View / Zoom** also enables you to change the size of the **Canvas**.

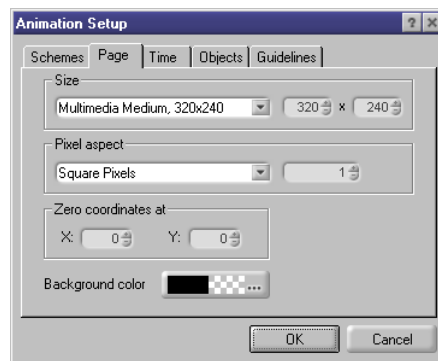


## Setting up an Animation

Under File / Animation Setup you will find five index cards or tabs. This menu also appears with a right-click in the **Canvas** and then select the **Animation Setup** command.

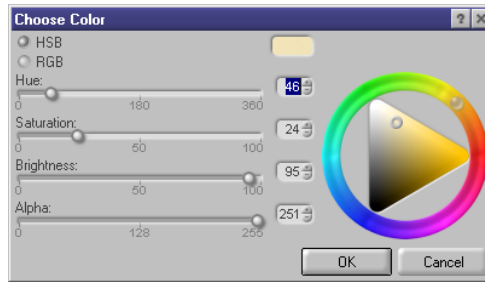
### Changing Resolution

Select the tab **Page**. Here you can choose from a large number of formats or select your own values.






This menu, obtained by clicking the **Background Color** button in **Animation Setup**, enables you to select the background color of the **Canvas** and of the animation. To do so you can use either the sliders or the color wheel and chromaticity diagram.



## Background Color

-  When saving your animation the selected background color will also be saved.

This tab determines the number of frames per minute.

## Time

If you have a setup which you may wish to use again save it under a suitable name in **Animation / Schemes**.

## Schemes

In this tab the color of the border surrounding the active object is selected. You can also determine whether or not the trajectory will be shown.

## Objects

The guidelines are helpful for the exact positioning of the objects as their position remains constant even when different objects are inserted. These guidelines can be easily transferred into another animation as their position is shown numerically.

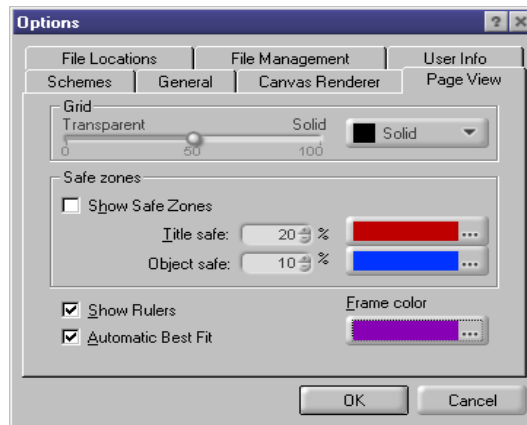
## Guidelines

## Options

Under **Tools / Options** or with a right-click in the **Canvas** and then select **Options**, tabs which contain additional important settings appear.

### Page View

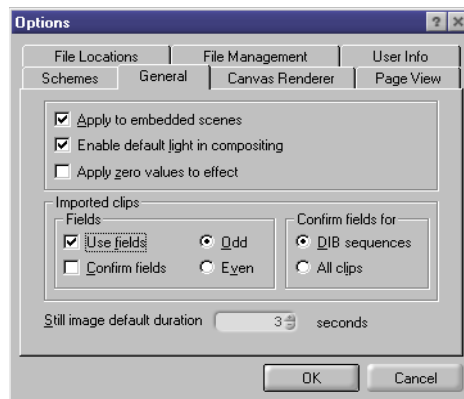
Under the **Page View** tab the pattern of the **Canvas** background, which is invisible in both the **Preview** and the completed animation, is selected.



Choose between dots, hatched or solid and determine the intensity.

The color and position of the **Safe Zones** can be determined as well as the color of the **Canvas** borders.

### General



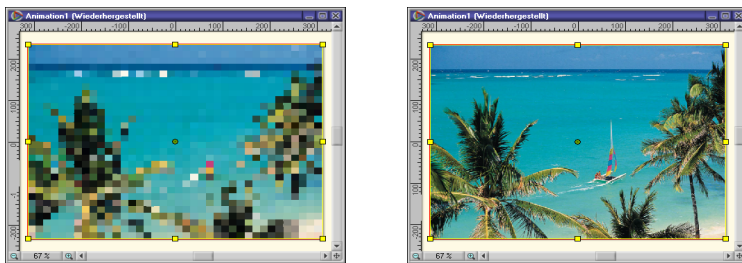
Here several basic settings can be altered. It is normally better to maintain the default settings.

If **Apply zero values to effect** is activated, then keyframes with a value of 0 will be positioned at the beginning and end of an object.



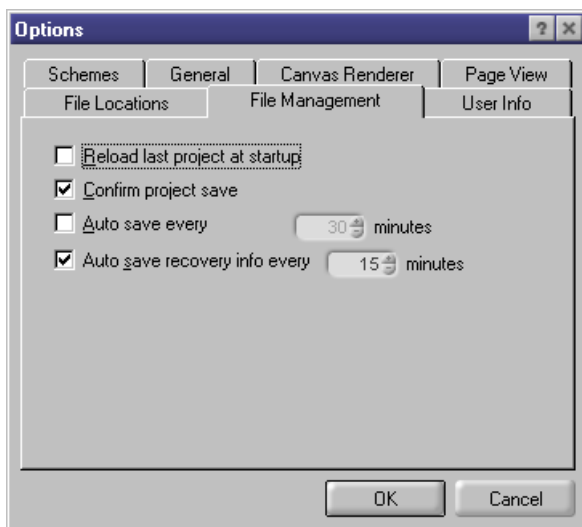
In **Canvas Renderer** the renderer and the display quality of the **Canvas** can be set. **Draft** and **Highest** are the two extreme settings.

## Display Quality



Here you can select the locations for captured files, temporary video files, additional plug-ins and additional footage. More detailed information can be found in the 'Reference - Project Management' booklet.

## File Locations

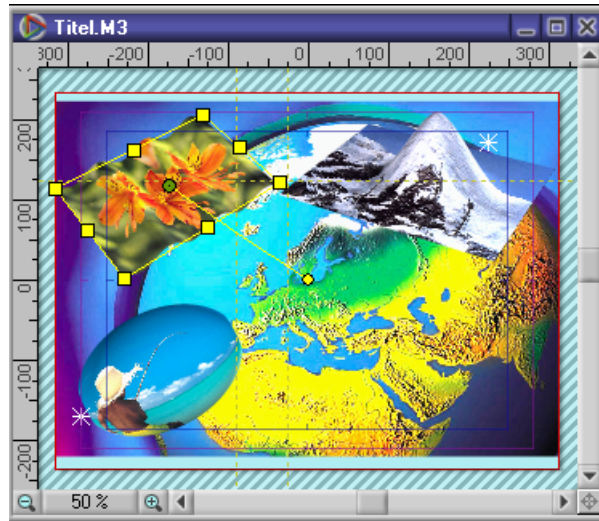


Memory management is determined here.

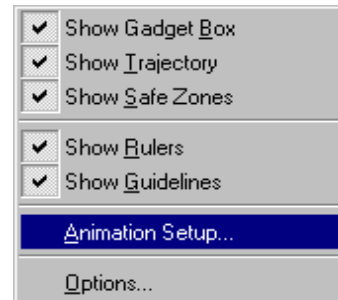
## File Management

## Additional Functions

The **Canvas** has several additional functions.



- ▶ A menu with check boxes appears with a right-click in the Canvas window.



You can now:

- | Show the border around the active object and change its color as well as the color of the trajectory.
- | Show trajectory.
- | Insert two additional borders for Safe Zones which can help to position texts.
- | Insert rulers above and at the left-hand side and pull out as many guidelines as you need from the rulers.

These five functions can also be accessed under **View / Canvas**, rulers and guidelines can be found directly in the **View** menu.

## Help with Positioning

If the **Canvas** has been moved and you want to center it:

- ▶ Click the **Center** button .

It is situated in the bottom right-hand corner of the **Canvas** window.

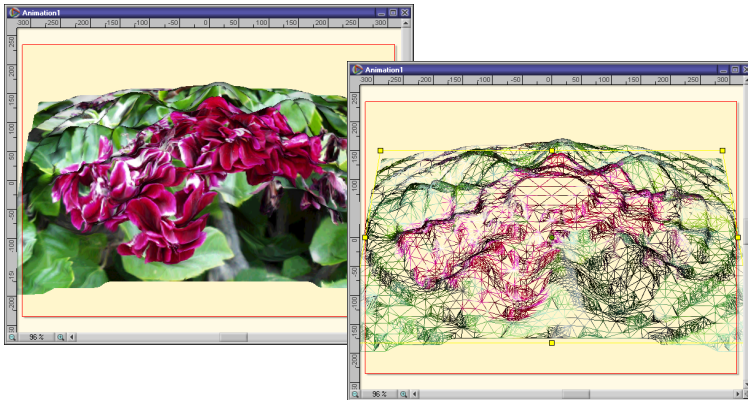
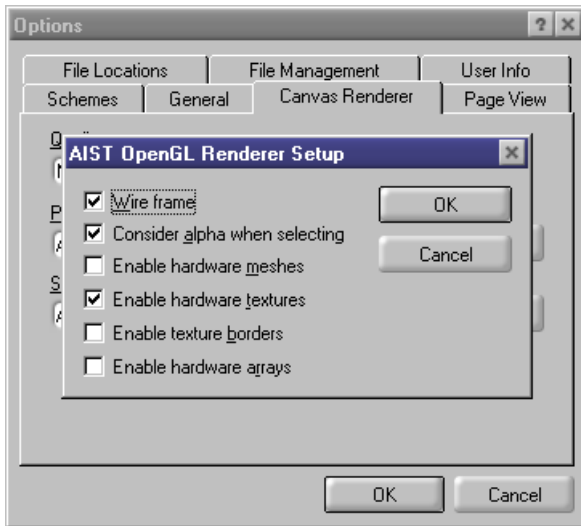


Manual Tutorial Reference Effects

# Mesh

AIST has developed the unique Adaptive Mesh Technology to ensure that rendering of 3D deformations is optimized thanks to the adaptive wire frame. On surface areas where the effect is strong, the wire frame is more finely structured. On areas where there is no deformation the wire frame is regular.

To show the wire frame on the Canvas, go to **Tools / Options / Canvas Renderer**. Select the AIST-OpenGL renderer and under **Configuration** check **Wire Frame** option.



## Processing Objects

Objects are the basic components of an animation and are placed on top of each other on the **Canvas** like layers. The picture information of the object positioned on the **Canvas** determines the outcome.

### Inserting Objects

- ▶ By double-clicking you can select an object from the **Browser** or an **Album**. It is then inserted, at its original size, onto the **Canvas** and is inserted into the topmost track in the **Timeline** behind the Timeslider. However, if a track in the **Timeline** is already activated the object is inserted there. If there is already an object in this track, a new track is opened above.

alternatively:

- ▶ You can drag the object out of the **Browser** or an **Album** and place it onto the **Canvas** or **Timeline**.


alternatively:

- ▶ Click the  **Open** icon in the standard icon bar.

### Deleting Objects

- ▶ Delete an active object from the **Canvas** using the **Del** key or under **Edit / Delete**.


### Copying Objects

- ▶ The active object can be copied onto the clipboard either using the shortcut **Ctrl + C**, or under **Edit / Copy**, or by clicking on the  **Copy** icon in the standard icon bar.

### Cutting Objects

- ▶ To cut an object go to the **Edit** menu and select **Cut** or use shortcut **Ctrl + X**.

### Pasting Objects

- ▶ Having copied or cut an object you can then paste it by going to **Edit / Paste**, use shortcut **Ctrl + V**, or by clicking on the  **Paste** icon.

### Duplicating Objects

- ▶ To duplicate go to the **Edit** menu and select **Duplicate** or shortcut **Ctrl + D**.

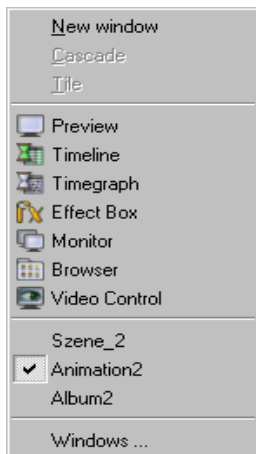


Each active object in the default setting is always surrounded by a border whose eight handles can have different meanings. A different pointer appears depending on the function:

## Changing the Handles



- ▶ A border with square handles appears by clicking the object. The object is now activated and its size and proportions can be changed.
- ▶ With a second click a border with round handles appears. The object is activated and can be rotated.
- ❗ The object can only be edited if the Timeslider in the **Timeline** is positioned on the object.
- ▶ The previous ten changes can be undone by going to **Edit / Undo** or shortcut **Ctrl + Z**.
- ▶ The reverse is also possible by going to **Edit / Redo** or shortcut **Ctrl + Y**. The changes that were undone are restored to their original state.



If you have several animations opened in MoviePack and they are arranged either on top of or next to each other, you can alternate between them by clicking on the desired **Canvas** window.

## Switching between Animations



▶ In the **Window** menu all available windows are listed. The current **Canvas** window is identified by a tick. Select the desired window.

❗ The new animation does not affect the partitioning of the windows. The **Timeline**, **Timegraph**, **Canvas**, and **Effect Box** are all updated with the addition of the new animation.


Each animation has its own **Canvas** window.

## Opening Animations




- ▶ You can open a new **Canvas** window under **File / New** or by clicking on the **New Animation** icon  in the standard icon bar.
- ▶ If you want to open an already saved animation go to **File / Open** or click on the  **Open** icon.

## Saving Animations

- ▶ Animations can be saved under **File / Save** or by clicking the **Save** icon .

## Closing Animations

- ▶ To close your animation you can click on the close icon in the top right-hand corner or go to **File / Close**.

 Please do not select **Exit** as this shuts down the entire application.

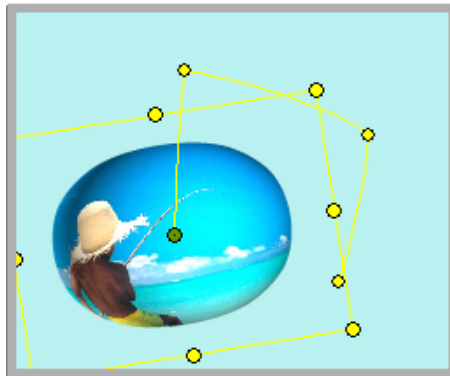



## Positioning using the Mouse

As soon as a new object such as a movie clip, still image or titler is inserted into your project, the **Transformations** icon is automatically shown in the **Effect Box**.

In MoviePack, the position, size and form of the object can be changed and the object can be rotated directly on the **Canvas**. By using the Timeslider in the **Timeline** or **Timegraph** you can determine the point in time of the change. If the object is changed on the **Canvas** the points in time of these changes are documented by keyframes in the **Timegraph**.

## Moving Objects



- ▶ Position the mouse on the object. The center of the object is marked by a green circle. By keeping the mouse button depressed you can move the entire object around the **Canvas**. The pointer will look like this. 





A line - in the default setting yellow - denotes the path from one position to the next so that a trajectory emerges.

If you want the object to cover a path, for example make it curve around the center of the **Canvas**, the time must also be adjusted.

As a default setting the object is positioned in the center of the **Canvas**. Now adjust the Timeslider in the **Timeline** or **Timegraph** using the triangle at the top of the Timeslider.

Then go back to the **Canvas**, move the object and adjust the time once more etc.

## Motion Curve

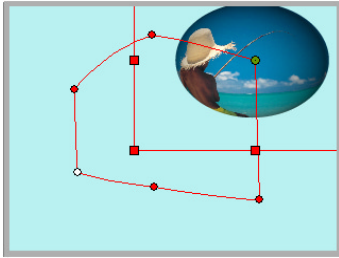
The path the object takes can be tracked using the motion curve. On each position that the object has been placed you will see small nodes. These nodes correspond to the keyframes which have been set analogically in the **Timegraph**. Your object now follows a motion curve whose movement should be rounded rather than rough and uneven. The nodes enable you to smooth your motion curve.

## Changing Motion Direction

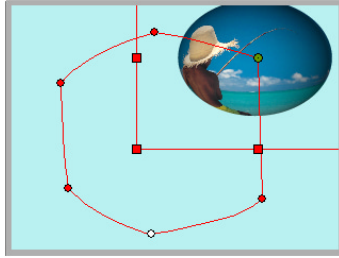
- ▶ Activate the object whose movement you would like to alter. The motion curve is then displayed and the nodes appear as dots in the color of the object border.
- ▶ When you place the mouse over one of the nodes the pointer changes to a simple cross. By clicking on the node it becomes white and can then be moved.
- ▶ Pull the node away from the object path. The object path now looks like a curve which becomes bigger and bigger the



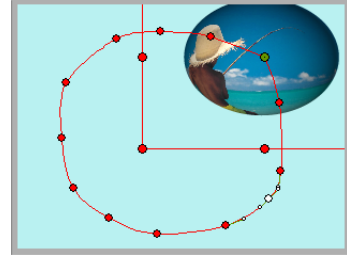
further the nodes are pulled away from the object path.



Activate object and click on one of the nodes on the object path.



Move nodes.



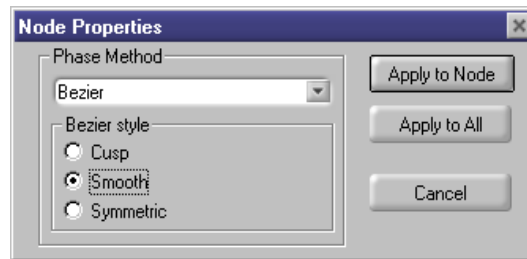
New nodes make the curve smoother.

## Inserting New Nodes

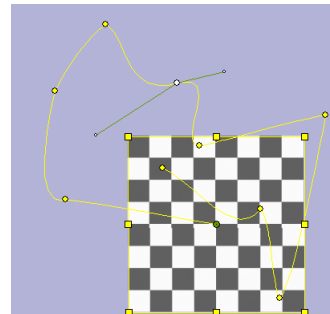
- ▶ Click the object path while holding down the **Ctrl** key to insert new nodes.

## Determining a Curve

- ▶ Place the mouse on a node and right-click. From the menu **Node Properties** select one of the three types of curves. For the Bezier style you have the additional choices of smooth or symmetric.

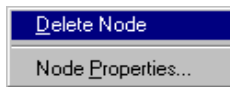



- ▶ **i** **Cusp** adds direction pointers to the nodes so that you are able to determine the direction from which the curve joins the nodes or moves away from them.



Nodes on the **Canvas** can be deleted from the animation.

- ▶ Right-click activates the unwanted node and in the menu which appears choose the **Delete Node** command.



- ▶ Activate the point in the middle of the object while at the same time holding down the **Ctrl** key .
- ▶ Drag the center point outside the object. Between the center point of the object and the object path a broken line appears. The rotation center point has been moved. With this point you can create more object paths.

## Deleting Nodes from the Canvas

## Moving Center Point



Select the object you want to move. While holding down **Ctrl** key click and drag the center point. The object remains in its original position. From now on the motion behaviour will follow the ectopic center point.




- ▶ For example, trace the outline of the orbiting object with the center point. The moving object follows while always keeping the same distance.

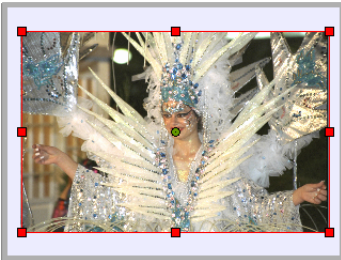
**i** If the movement is to be identical, divide the object path temporarily into two equal parts.

- ▶ If you want to relocate the entire motion curve, go to a node, hold down **Alt** and move the object path.

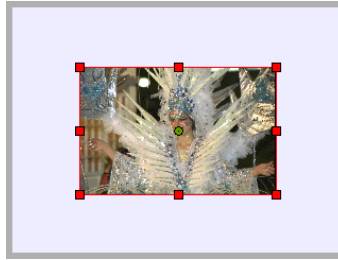
## Relocating Object Path

## Scaling Objects

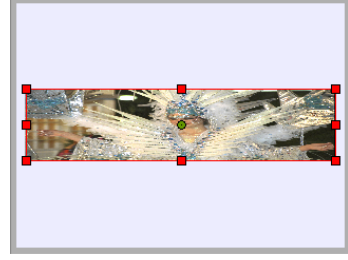
- ▶ The active object should have a border with eight square handles. If the handles are round, click the object again to switch to square handles.
- ▶ Position the mouse over one of the square handles and the pointer appears like this .
- ▶ Click the square handle and push the sides of the object together or apart. By holding down the **Ctrl** key the aspect ratio also changes.



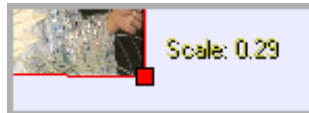
Activate object so that it is framed by a border with square handles. The size of the object can now be changed by clicking and dragging on one of the square handles.





The **Scale Factor** is shown in the **Effect Box**. The proportions remain the same. The change in size is immediately visible on the **Canvas** and in the **Preview**.



By holding down the **Ctrl** key, a non-proportional change occurs in addition to the size change. **Aspect** displays how big the distortion is.




- ▶ Using either side handle  the object can be stretched and compressed. The height however remains constant.
- ▶  If the **Ctrl** key is held down while moving the object, these limitations no longer apply. The object stretches in both height and width.

### Sizing an Object

Under **Object / Fit** to you can restore the object to its original size or fit it to the size of the **Canvas**.



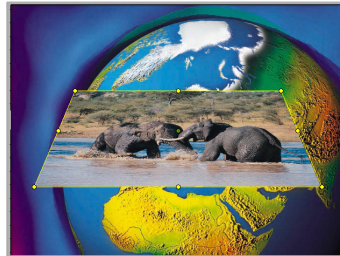
# Rotating Objects

- ▶ Activate the object you want to rotate. A border with eight handles surrounds the active object. If the handles are square, click again to obtain round handles for rotation.
- ▶ Position the mouse on a handle. A rotation pointer will appear .

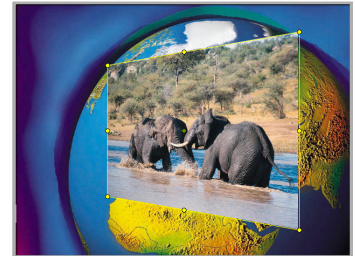
## Rotating on the X and Y Axes



Activate the object ensuring that the border handles are round.



The object can be rotated on the X axis using the top and bottom handles.

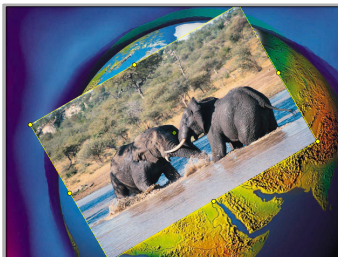


Using the side handles the object is rotated on the Y axis.

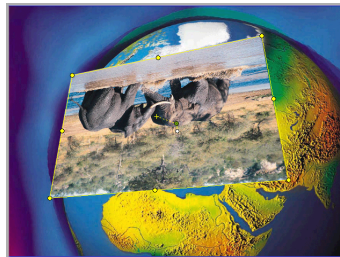


The rotations can be carried out to such an extent that the reverse side of the object is visible.

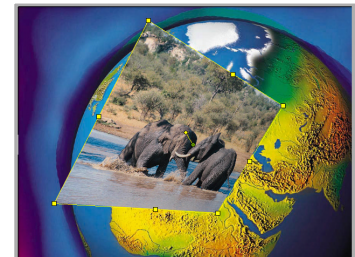
## Rotating on the Z Axis




The object can be rotated on the Z axis using the corner handles.




Numerous full rotations are possible.

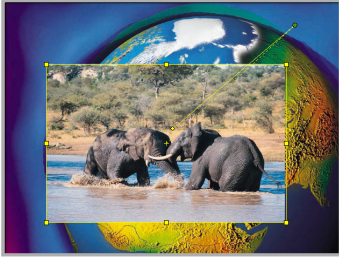


You can combine rotations whichever way you wish. Simultaneously pressing the **Ctrl** key means you can rotate on all axes from each of the handles .

## Moving Rotation Center

Rotation mode enables you to move the center around which the object rotates.

- ▶ Click on rotation center while simultaneously pressing **Ctrl** and the pointer will change to this . You can now move the center.



Z rotation now takes place from a different center.



X and Y rotations take place around the corner point.

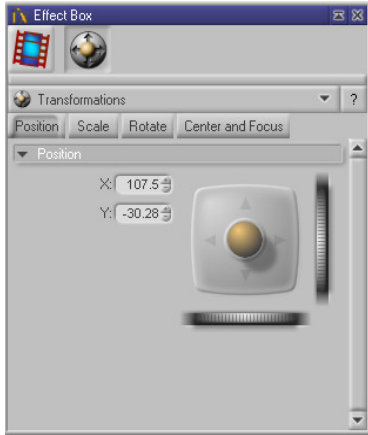
## Numerical Entry

Objects can be scaled and rotated by means other than the handles.

- ▶ In the **Effect Box**, click on the **Transformations** icon that is inserted when each clip or still image is composited.
- ▶ A window appears with four tabs, **Position**, **Scale**, **Rotate** and **Center** and **Focus** (Rotation center and perspective distortion).

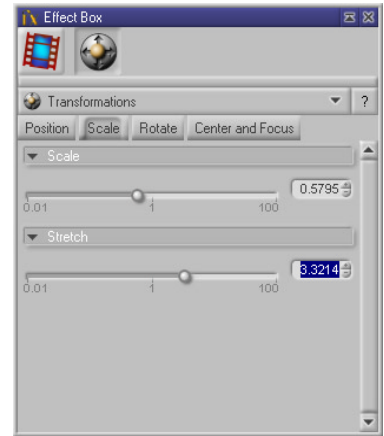


- ▶ Click the desired tab and a submenu will appear where values can be numerically changed.



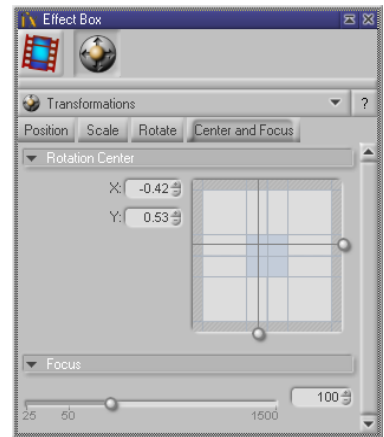
In the tab **Position** you can move the position of the object on the **Canvas** either with the joystick, wheels or in the numerical entry box.

**Scale** determines the factor of the scale and **Stretch** determines the ratio of the sides. 1 stands for the original ratio. Minus values make the object higher and narrower while plus values make it wider.



The **Rotate** tab offers you a graphic control in the form of a globe. The height however remains constant. Turn the globe to rotate on the X and Y axes while the yellow ball around the globe rotates the object on the Z axis. All values are also shown in input fields.

In the **Center** tab the rotation center can be moved. The blue field represents the object. **Focus** determines the degree of the perspective distortion. The lowest value 30, results in the biggest distortion.



Each transformation is automatically applied to the full length of an object. A default setting applies neutral values to the beginning and end of an object. Here you will also find keyframes with neutral values. After inserting just one single keyframe a smooth animation is created which runs from the beginning of the object to the inserted keyframe value. At the end of the object you will again find the default setting.

## Default Setting

If you change the motion behavior or an effect parameter on an object, a new keyframe is added.



After 12 frames



At the center (Highest amplitude)



End (Standard effect setting)

You can create an animation with just one keyframe. This means that the parameters continually change their values. Starting from the first keyframe it either increases or decreases the value of the second keyframe. Specific information can be found in the 'Reference - Timegraph' booklet.

## Switching Default Setting On/Off

If you do not want the two zero keyframes to be automatically set, under **Tools / Options / General** deactivate **Apply zero values to effect**. The effect then covers the entire object with an approximate medium.

## Unifying

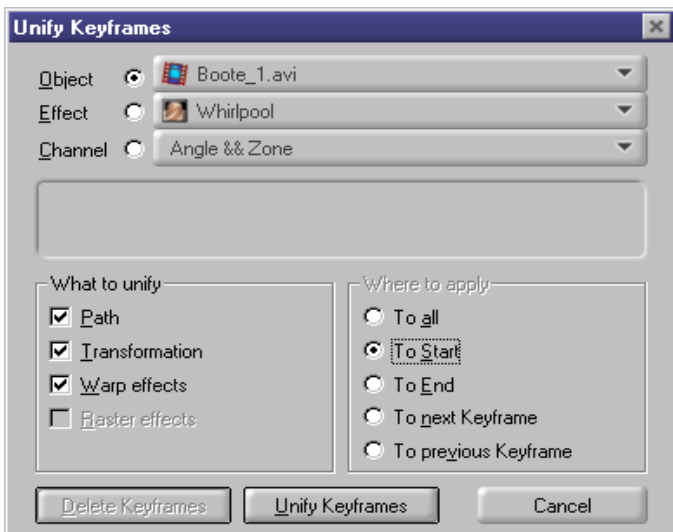
MoviePack allows you to maintain all changes made to a value until the end of an object or the next keyframe. This process is called unifying keyframes.


- ▶ Adapt your object until it has the desired position, size or effect setting.  
To unify go to **Options / Unify** or shortcut **Ctrl + U**.  
The chosen effect parameters are now standard from





beginning to end of the object (see the 'Reference - Timegraph' booklet).



-  Further functions which can be used to influence changes over time can be found in the the 'Reference - Effect Box' booklet.



Manual



Tutorial



Reference



Effects



Manual



Tutorial



Reference



Effects

