

# TUT



## Animations

TUTORIAL

# Copyright and Trademark

Please read the license agreement in the 'Getting Started' booklet carefully. Subject to technical alterations.

All rights reserved. Subject to change without notice.  
Release 4700; Subject to technical alteration.

Printed in Germany

AIST - Animated Image Systems Technology GmbH  
Mobil-Oil-Str. 31  
84539 Ampfing  
Germany  
Tel.: ++49 (86 36) 98 35 0  
Fax: ++49 (86 36) 98 35 22  
Internet: <http://www.aist.com> (English)  
Internet: <http://www.aist.de> (German)  
E-mail: [info@aist.com](mailto:info@aist.com)

© 1997 - 2000 AIST - Animated Image Systems Technology GmbH



Manual



Tutorial



Reference



Effects

# ANIMATIONS

## Contents

<b>Movement in 3D Space</b> .....	<b>4</b>
Our Aim.....	4
Preparation.....	5
Project Management.....	5
Opening Animations.....	6
Studying Animations.....	8
Movie Clips in the Effect Box.....	9
Depth Displacement.....	10
Do it Yourself.....	11
New Animations.....	11
Trimming Clips.....	13
Depth Displacement.....	14
Copying Effects.....	14
Rotating Objects.....	15
Temporal Movement of Objects.....	16
Cutting Clips.....	17
Copying Objects.....	18
Replacing Objects.....	20
Choose Source.....	22
<b>Animations in the Animation</b> .....	<b>24</b>
Something New.....	24
Preparation.....	25
Integrating Animations as Scenes.....	25
Adjusting the First Frame.....	27
Adjusting the Last Frame.....	28
Playing Scenes Backwards.....	29
Altering Integrated Scenes.....	31
Step-By-Step.....	32



# Movement in 3D Space

## Learning from Existing Animations



On the MoviePack CD there are lots of example animations and transitions.

Transitions, whose appearance and effect can be modified by adjusting effect parameters or by applying other effects, can be used to pep up your films and videos.

Animations can also be used to spice up your creations. Animations are built from several objects and effects and you will soon learn how to create your own by following our examples.

### Important

Please read the "Tutorial - The Interface" booklet before beginning "Animations" as you will be using the MoviePack interface described therein in the following tutorial. A new animation will also be needed in the **Canvas** window.

### Our Aim

In this booklet you will learn how to:

- Open and examine animations
- Reproduce animations



Manual

Tutorial

Reference

Effects

- Copy effects and objects
- Substitute objects

The MoviePack interface we will use is the same as the one described in the "Tutorial - The Interface" booklet. In the **Canvas** the animation "Tut\_Cube.M3" from "Samples" will be used.

## Preparation

- ▶ Close any existing animations with the command **Close** (shortcut **Ctrl+F4**) from the **File** menu.

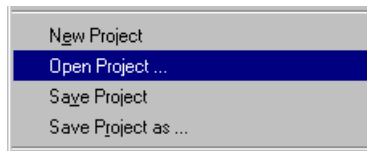
Save all existing animations.

In order to simplify working with animations, a ready-made project will be used. Many MoviePack settings (window size and position, options, browser settings etc.) can be saved in so-called projects. A project with pre-determined settings can be loaded with a few clicks of the mouse.

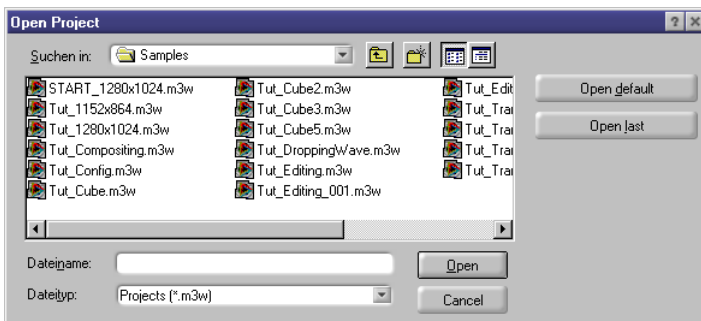
## Project Management

For the animation "Tut\_Cube.M3", the project "Tut\_Cube.M3W" saved in "Samples" is needed.

- ▶ From the **File** menu select the command **Open Project**.



In the **Open Project** dialog box the desired drive, folder and project can be selected.



- ▶ Select the "Samples" folder in the **Open Project** dialog box.


- ▶ Open the "Tut\_Cube.M3W" project.

After opening the file (either double-click the file or click the file then the **Open** button) MoviePack reloads all the settings as they were when you saved before quitting. Any animations and transitions which were saved in the project are also opened.

## Opening Animations



Animations can also be opened using existing MoviePack settings.

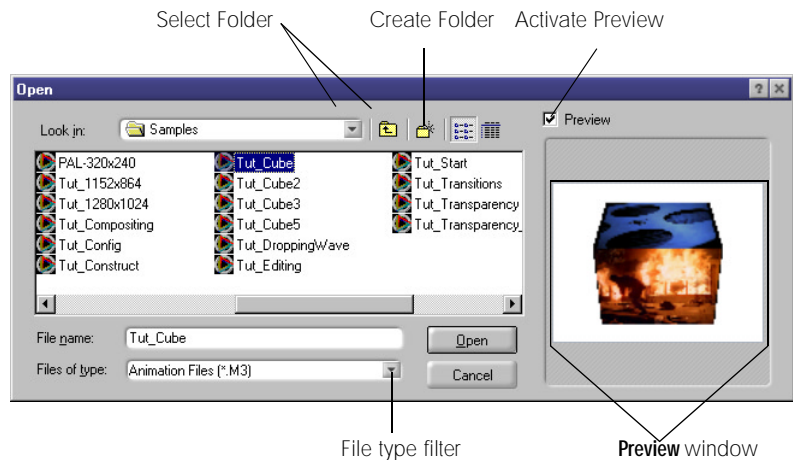
- ▶ Click the icon  **Open** on the MoviePack icon bar.

or

- ▶ From the **File** menu select **Open** (shortcut **Ctrl+O**).

Animations, transitions, projects and other MoviePack files can be selected from any drive and folder using the **Open** dialog box.

- ▶ Select the "Samples" folder from the **Open** dialog box.
- ▶ Click the "Tut\_Cube.M3" animation.



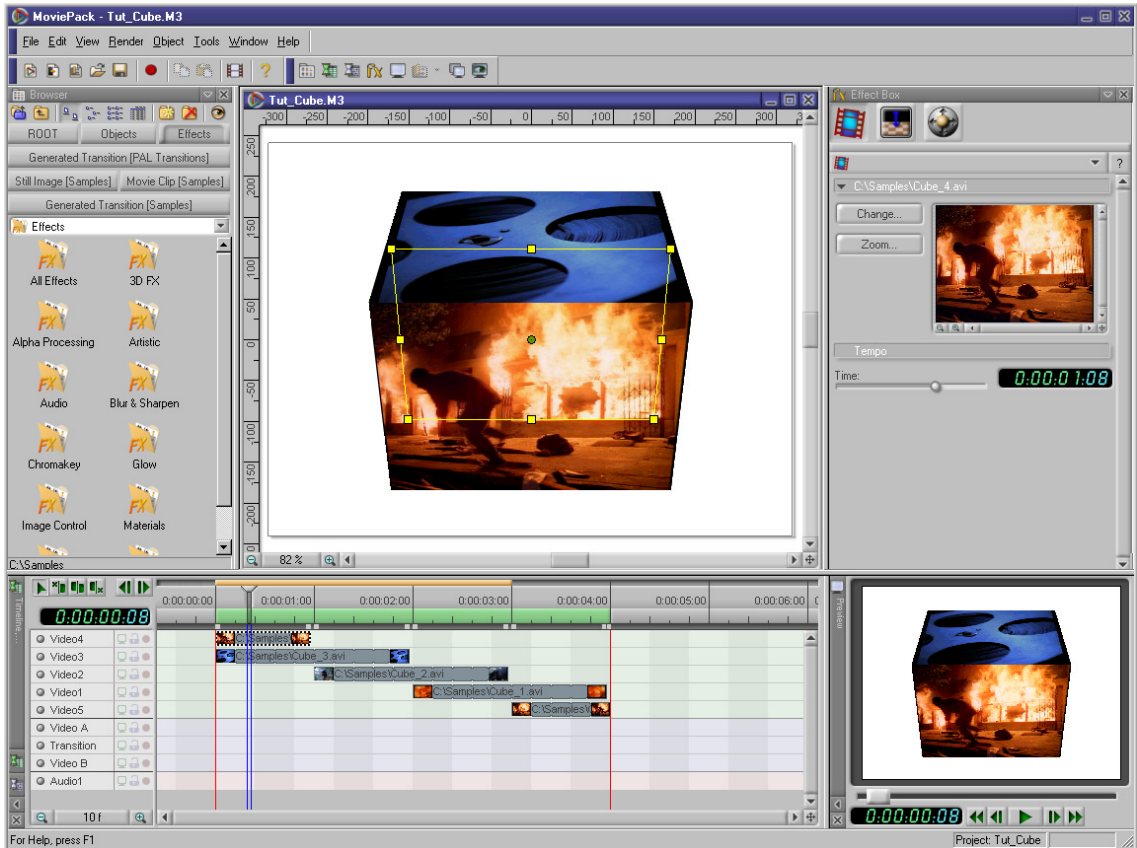
You can quickly access all MoviePack files saved on your drives. The preview and the file filter ensure quick and easy access to the correct file (file type), whether it is an animation, transition or project.

In the preview window of the **Open** dialog box, the frame over which the Timeslider in the **Timeline** was positioned when saving the animation is shown.



- Before saving your animation position the Timeslider over a distinctive frame so that the animation will be easy to find at a later stage.

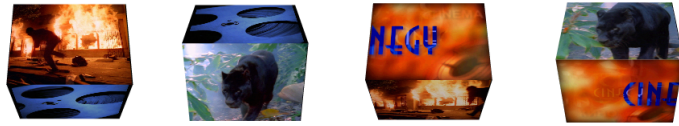
Double-click the desired file (or click the file, then **Open**) to load the animation. The animation can then be analysed and altered.



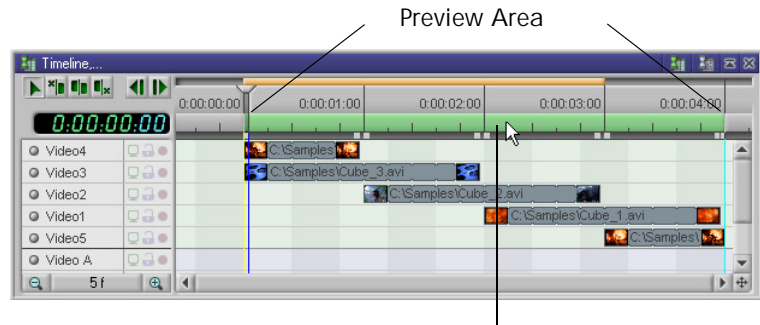
The "Tut\_Cube.M3" animation from "Samples" is shown. The preview gives you an idea of how the animation looks.

- Click  Play in the Preview.

A die rotates on the horizontal axis and movie clips are stuck to the four faces of the die.



If the die does not rotate completely, it means that only a part of the animation has been selected in the preview area. The preview area is represented by the green bar in the timescale of the **Timeline**.



Double-click the green bar of the preview area to alternate between the partial preview and the entire preview.

The preview area must extend from the beginning to the end of the animation if you want to see the entire preview.

- ▶ Double-click the preview area in the **Timeline**.
- ⓘ Each double-click in the preview area alternates between the partial and entire preview.

## Studying Animations

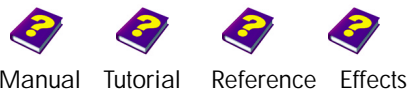


Let's take a closer look at this interesting little animation and try to work out how it was put together.

There are 4 different clips in 5 Tracks in the **Timeline**.

If the scale of the **Timeline** is too small to see details like the file name of the movie clip, it can be changed using the zoom buttons.

- ▶ Click  in the **Timeline**.





The scale becomes greater with each click. If the scale is too large it can be easily reduced again.

- ▶ Click  in the **Timeline**.

How was the "Tut\_Cube.M3" animation put together? Let's take a look at each object individually and the effects applied to them, along with the effect parameters in the **Effect Box**.




### Movie Clips in the Effect Box




- ▶ Click the top object in the **Timeline**, the "Cube\_4.avi" movie clip.
- ▶ Click the Timeslider in the **Timeline** and move it back and forwards between the first frame and the last frame of the clip.

The object turns out to be a face of the die. The object borders rotate on the horizontal axis in the **Canvas**.

On the icon bar of the **Effect Box** there are three icons for this clip:

-  for the **Movie Clip** object
-  for existing **Transformations**
-  for the **Correction by Z** effect from the **3D FX** effect group

To rotate the die face, the parameters under the **Rotate** tab of **Transformations** must be altered.


- ▶ Click icon  **Transformations** in the **Effect Box**.
- ▶ In **Transformations**, click the **Rotate** tab.
- ▶ In the **Timeline** slowly move the Timeslider from the first frame to the last frame of the active clip.
- ▶ Observe the changes in the **Effect Box**.

The value for rotation on the horizontal X axis increases in proportion to the time change of  $X = 3.27^\circ$  in the 1st frame up to  $X = 78.5^\circ$  in the last (24th) frame. This is approximately a 1/4 turn.

The second visible face of the die makes a 1/2 turn.

- ▶ Click the second movie clip, "Cube\_3.avi", in the **Timeline**.



- ▶ Click icon  **Transformations** in the **Effect Box**.
- ▶ In **Transformations**, click the **Rotate** tab.
- ▶ In the **Timeline** slowly move the Timeslider from the first frame to the last frame of the active clip.
- ▶ Observe the changes in the **Effect Box**.

The value for rotation on the horizontal X axis increases in proportion to the time change of  $X = -78.5^\circ$  in the 1st frame up to  $X = 78.5^\circ$  in the last (49th) frame.

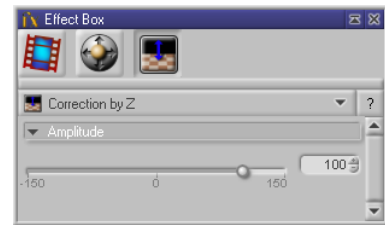
## Depth Displacement



In addition to simple rotation it is also possible to move all clips on the Z axis in the **Canvas**. This is made possible by the **Correction by Z** effect.

- ▶ In the **Effect Box**, click the third icon, **Correction by Z**.
- ▶ In the **Timeline** slowly move the Timeslider from the first frame to the last frame of the active clip.
- ▶ Observe the changes in the **Effect Box**.

The **Correction by Z** effect has only one parameter, **Amplitude**. The **Amplitude** has a constant value of 100 throughout.



This movement on the Z axis is not linked to any other effect or movement.

- ▶ Without any other movement, different **Amplitude** values for **Correction by Z** result in the clip moving away from or approaching the camera.

Imagine the cube rotating on the central horizontal axis, so that the four faces of the cube, which are parallel to the rotation axis, always keep the same distance from the rotation axis.

After studying the other objects and their parameter changes (**Rotate** in **Transformations** and **Amplitude** of **Correction by Z**), it is obvious that the same effects have been applied to all the objects and the parameter changes



are identical, because all the faces of the cube behave in exactly the same way but are only visible now and then.


Only the topmost and bottommost objects are exceptions - the topmost object is already visible at the beginning of the animation and spins downwards, the bottommost object comes into view in the last quarter of the animation. These two objects can also be compared with the middle objects - the top object behaves identically to the first half of the middle objects and the bottom object behaves identically to the second half.

This interesting creation can be put together quickly and easily:

- In the **Timeline** four movie clips, "Cube\_1.avi" to "Cube\_4.avi" from "Samples", are needed.
- The clips are different lengths and have to be trimmed to the same length.
- Apply the **Correction by Z** effect from the **3D FX** group in the **Browser** to each object.
- The rotation is adjusted in **Transformations**.

## Do it Yourself

Each new animation has to be set up.

- ▶ Click icon  **New Animation** in the MoviePack icon bar.
- ▶ In the resulting **Animation Setup** dialog box select **PAL** (or **NTSC**) on the **Time** tab.




## New Animations

The clips to be inserted have a resolution of 320 x 240 pixels and their size should not be altered, otherwise the **Canvas** itself has to be enlarged.

- ▶ In the **Page** tab select **Multimedia High, 640 x 480** in the **Size** field.

Clips should be set against a white background.

- ▶ Click the button  **Background Color**.
- ▶ In the **Select Color** dialog box use the HSB color model, click the **Saturation/Brightness** combi-slider and drag it to the white area.

- ❗ If you save these settings under a suitable name, "PAL-High-White" (Tab **Schemes**, **Save as...** ), new animations can be loaded with these settings (schemes).

In the **Timeline** four movie clips, "Cube\_1.avi" to "Cube\_4.avi" from "Samples", are required.

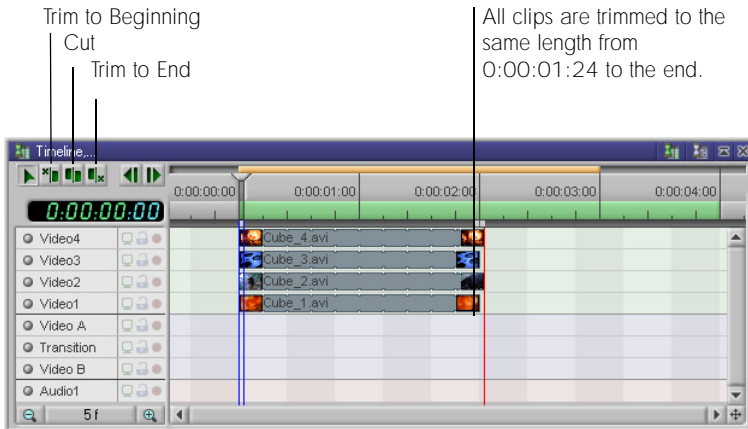
- ▶ In the **Browser**, click the **Movie Clip [Samples]** tab.
- ▶ In the **Browser**, scroll downwards using the scroll bar on the right-hand side until the thumbnail of the "Cube\_4.avi" clip is visible.
- ▶ Click the "Cube\_1.avi" thumbnail and drag it into the **Video1** track on the **Timeline**, so that the black object bar begins at 0:00:00:00.
- ▶ Click the "Cube\_2.avi" thumbnail and drag it into the **Video1** track on the **Timeline**, so that the black object bar begins at 0:00:00:00.

A new track, **Video2**, is automatically inserted into the **Timeline**.

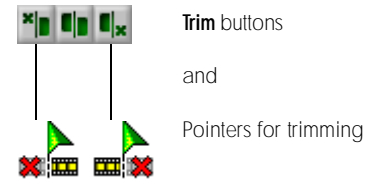
Insert the "Cube\_3.avi" clip over the **Video2** track and "Cube\_4.avi" clip over the **Video3** track and new tracks will automatically be inserted as above.



In the **Timeline** the four clips are now lying one on top of each other. They are different lengths and have an uneven number of frames and therefore have to be trimmed.




## Trimming Clips



In the **Timeline** clips can be trimmed using the mouse as a pair of scissors in both the editing and compositing areas.

▶ In the **Timeline**, click the right-hand trim button, **Trim to end**.


▶ In the **Timeline**, position the pointer over the end of the "Cube\_1.avi" clip.

 The pointer changes into a trimming icon. A vertical line indicates the time where the clip is to be trimmed.

▶ In the **Timeline**, click on the "Cube\_1.avi" clip, at 0:00:01:24.

The "Cube\_1.avi" clip is trimmed to a length of 1 s and 24 frames. In one second 25 frames are shown meaning that this clip now consists of 49 frames.

The clips "Cube\_2.avi" to "Cube\_4.avi" should be trimmed in the same way.

 If the beginning of the clip is to be trimmed, select the left-hand trim button **Trim to Beginning**.

## Depth Displacement



Apply the **Correction by Z** effect from the **3D FX** group to each clip and set the **Amplitude** to 100.

- ▶ In the **Browser**, click the **Effects** tab.
- ▶ In the **Effects**, folder click the icon **3D FX**.
- ▶ In the effect group **3D FX** click the icon **Correction by Z** and drag it onto the bottom clip, "Cube\_1.avi", in the **Timeline**.



The **Amplitude** parameter causes a virtual movement of the object on the perpendicular **Z** axis. Provided the object remains still, positive values result in the object approaching the camera and for negative values the opposite is true.

- ▶ In the **Timeline**, position the Timeslider to 0:00:00:00.
- ▶ In the **Effect Box**, set the **Amplitude** to 100.
- ▶ In the **Timeline**, set the Timeslider to 0:00:01:23.
- ▶ In the **Effect Box**, set the **Amplitude** to 100.

## Copying Effects



After setting the amplitude to 100 for the "Cube\_1.avi" clip, this effect can be applied to the other three clips.

- ▶ An effect and its parameters applied to a clip can be copied and applied to other clips.
- ▶ In the **Timeline**, click the "Cube\_1.avi" clip.
- ▶ In the **Effect Box**, click the third icon, **Correction by Z**.
- ▶ From the **Edit** menu select the **Copy** command (shortcut **Ctrl+C**).

or


- ▶ On the icon bar click the icon **Copy**.

The effect is copied to the **WINDOWS** clipboard.


- ▶ In the **Timeline**, click the "Cube\_2.avi" clip.
- ▶ From the **Edit** menu select the **Paste** command (shortcut **Ctrl+V**).





or

- ▶ On the icon bar click the icon  **Paste**.

The effect is inserted from the WINDOWS clipboard into the "Cube\_2.avi" clip.


- ▶  The effect is not deleted from the clipboard (until another marker is copied) so it can be applied to the other two clips as well.

- ▶ In the **Timeline** click "Cube\_3.avi".
- ▶ On the icon bar click icon  **Paste**.
- ▶ In the **Timeline** click "Cube\_4.avi".
- ▶ On the icon bar click icon  **Paste**.

All clips are now uniformly displaced on the Z axis.

The clips must now be rotated on the X axis.

## Rotating Objects

- ▶ In the **Timeline**, set the Timeslider to 0:00:00:00.
- ▶ In the **Timeline**, click "Cube\_1.avi".
- ▶ In the **Effect Box**, click the icon  **Transformations**.
- ▶ In **Transformations**, click the **Rotate** tab.





The object can be rotated using the slider around the globe (yellow ball) or the globe itself.


For more precise settings the angle and number of rotations can be entered numerically using the keyboard.

- ▶ For the rotation X enter 0 rotations and  $-78.5^\circ$ .
- ▶ In the **Timeline**, set the Timeslider to 0:00:01:23.
- ▶ For the rotation X enter 0 rotations and  $78.5^\circ$ .

The four faces of the cube should behave uniformly so the movement of the first clip has to be transferred to those of the other faces.

- ▶ In the **Timeline**, click the "Cube\_1.avi" clip.
- ▶ In the **Effect Box**, click the icon  **Transformations**.
- ▶ In the icon bar click the icon  **Copy**.


The movement is saved to the WINDOWS clipboard.

- ▶ In the **Timeline**, click the "Cube\_2.avi" clip
- ▶ In the icon bar click the icon  **Paste**


The movement is copied to "Cube\_2.avi". Clips "Cube\_3.avi" and "Cube\_4.avi" can be manipulated in the same way.

## Temporal Movement of Objects

In the preview you can see how the "Cube\_4.avi" clip moves and rolls forward like a real die.

- ▶ Click  **Play** in the **Preview** window.

As the three other clips are positioned directly under the top clip and mirror its behavior (the parameter values of the effect have been copied), they are not visible at present.


- ▶  If more than one clip is constantly or occasionally visible, something is wrong. The movement or rotation has not been copied to this clip and the above steps must be repeated.

If the movement of all the clips is synchronized, the clips can now be temporally displaced.

- ▶ In the **Timeline**, click the "Cube\_2.avi" clip and drag it to the right within the **Video2** track so that it begins at 0:00:01:00.
- ▶ In the **Timeline**, click the "Cube\_1.avi" clip and drag it to the right so that it begins at 0:00:02:00.






- ▶ In the **Timeline**, click the "Cube\_4.avi" clip and drag it to the left so that it begins at -0:00:01:00.
- ▶ Click  **Play** in the **Preview** window.

In the preview you will see that all the clips behave like a real die. However, a link is missing at the beginning and the end - the die is not yet closed.

It is very easy to create this link - the first 25 frames of the "Cube\_4.avi" clip, which lie in the negative area have to be cut away and inserted at the end of the animation.

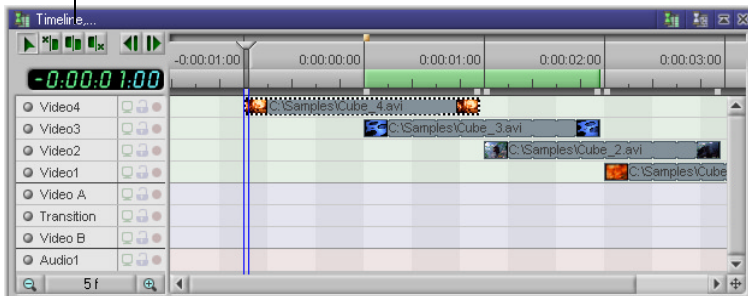
- ▶ In the **Timeline**, click clip "Cube\_4.avi".
- ▶ On the icon bar of the **Timeline** click the middle  **Cut** button.
- ▶ Position the pointer over the clip in the **Timeline**.




The pointer changes into a pair of scissors. A vertical line indicates, on the timescale, where the clip will be cut.

- ▶ Click the mouse at 0:00:00:00.

Cut button, to the left and right are the **Trim** buttons



The clip is divided into two separate pieces which can be treated as two separate objects.

-  Note that the effects applied to the object up to now are not affected and the parameter changes are transferred correspondingly.

## Cutting Clips



Cut button

and

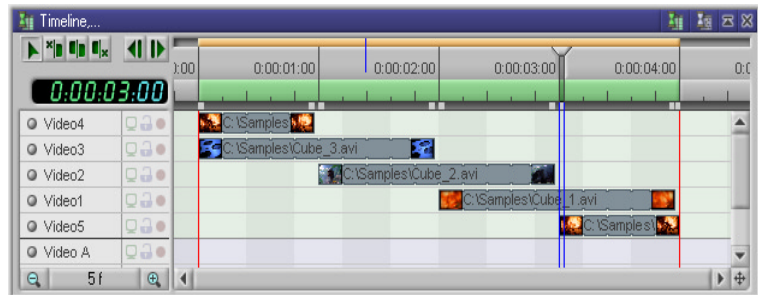



Cutting pointer

The left-hand section is then moved to the end of the clip in the bottom track, as follows.

- ▶ In the **Timeline**, set the Timeslider to 0:00:03:00
- ▶ In the **Timeline**, click the left section of the "Cube\_4.avi" clip and drag it between **Video1** and **Video A** so that it begins at 0:00:03:00.

A new track appears where the left-hand side of "Cube\_4.avi" is inserted.



- ▶ Click  **Play** in the **Preview** window.

All four sides behave identically and are positioned in the **Timeline** so that the four faces of the die roll smoothly.


The animation has now been successfully reproduced. You can experiment further with this little animation. This is the best way to learn other techniques.

## Copying Objects

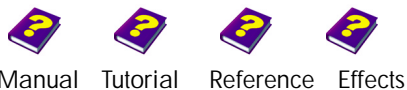



Besides effects, complete objects, including the effects applied to them and their parameter changes, can also be copied and multiplied.

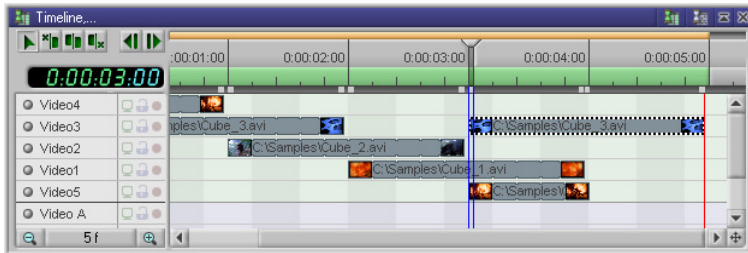
For example, the second face of the die can be copied and then inserted between the current fourth and bottom faces.

- ▶ In the **Timeline**, click clip "Cube\_3.avi".
- ▶ On the standard menu bar click icon  **Copy** (shortcut **Ctrl + C**).

The "Cube\_3.avi" clip has been copied to the clipboard and can be inserted anywhere within the Timeline.



- ▶ In the **Timeline**, set the Timeslider to 0:00:03:00.
- ▶ On the standard menu bar click icon  **Paste** (shortcut **Ctrl+V**).



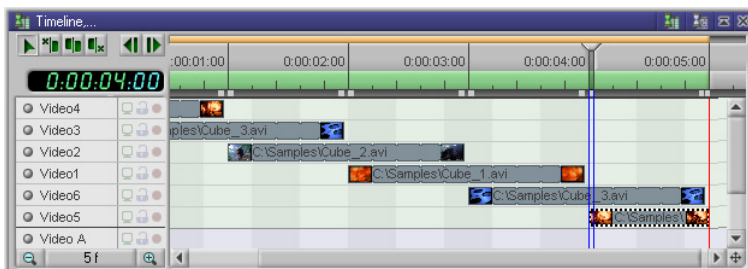
The copied clip is inserted into the track to the right of the Timeslider. This clip must also behave like the others so another two alterations are necessary.


- ▶ In the **Timeline**, click the inserted "Cube\_3.avi" clip and drag it between **Video1** and **Video5** so that it begins at 0:00:03:00.

A new track **Video6** is added for the new clip. The bottom clip must be moved 1 second to the right.

- ▶ In the **Timeline**, set the Timeslider to 0:00:04:00.
- ▶ In the **Timeline**, click the bottom "Cube\_4.avi" clip and drag it in the **Video5** track to the right so that it begins at 0:00:04:00.

The previous cascading order of the clips in the tracks has been restored.



- ▶ Press  **Play** in the **Preview** window.

In the **Preview** we can see a rolling die with five faces, the second face appears again as the fifth. Other clips can be copied and inserted at different times and in different tracks.

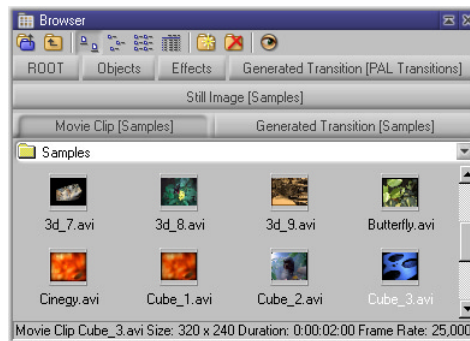
## Replacing Objects



Objects in animations can be swapped with other objects such as movie clips, still images or generated objects (**Text String** and **Titler**, **Color Ramp**, **Random Generator**, **Video Noise** etc.).

The next step is to determine the size and the length of the clips.

- ▶ In the **Browser**, click the **Movie Clip [Samples]** tab and then the thumbnail of the file "Cube\_3.avi".



The bottom line of the **Browser** shows the properties of the highlighted object.

For clips and transitions the length in seconds, the size in pixels and the frame rate in frames per second are shown, while only the name

and the size in pixels of an image are shown.


Movie Clip Cube\_3.avi Size: 320 x 240 Duration: 0:00:02:00 Frame Rate: 25,000

Still Image Rio003\_L.jpg Size: 1280 x 833

- ▶ The file extensions (avi, mov, ... , bmp, tif, ...) indicate the file format.

When searching for another clip, each file in "Samples" can be selected to show its size and length in the properties line of the **Browser**.

The "Lions.avi" clip is the ideal size and is almost the length we need. The clip can be previewed in the source preview.

- ▶ In the **Browser** activate the source preview by clicking the icon  **Enable Source Viewer**.




- ▶ In the **Browser**, position the pointer over the thumbnail of the "Lions.avi" clip.



The "Lions.avi" clip is shown in the source preview in the **Browser**, and its properties are shown in the properties line at the bottom of the **Browser**.

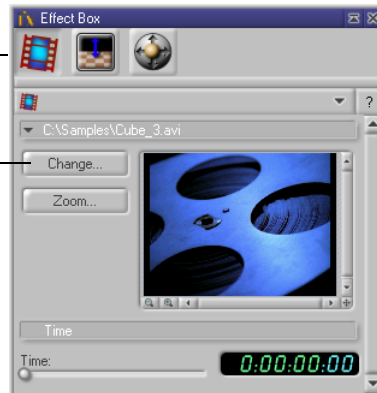
Movie Clip Lions.avi Size: 320 x 240 Duration: 0:00:03:20 Frame Rate: 25,000

This clip will now replace the bottom "Cube\_3.avi" clip.

- ▶ In the **Timeline**, click the bottom "Cube\_3.avi" clip.
- ▶ In the **Timeline**, position the Timeslider to 0:00:03:00.
- ▶ In the **Effect Box**, click the icon  **Movie Clip**.
- ▶ In the **Effect Box**, select **Change...**

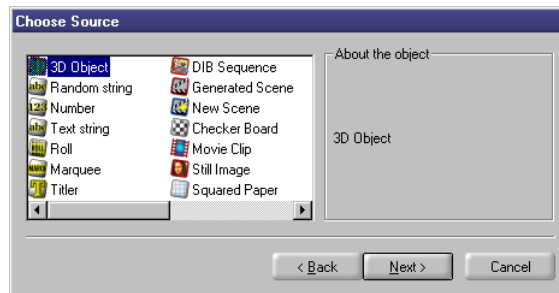
Icon bar of the **Effect Box**

Objects can be swapped using the **Change** button.




## Choose Source

The **Choose Source** dialog box allows you to select another clip from a selection of other sources.

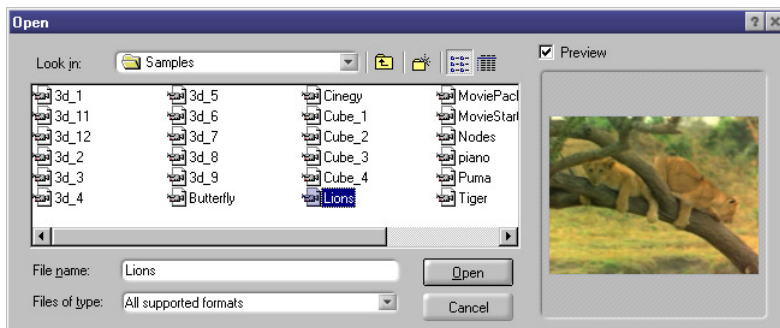


Every source can be exchanged for another object.

- ▶ In the **Choose Source** dialog box select  **Movie Clip** and then click **Next**.

The **Open** dialog box allows you to select the desired clip.

- ▶ In the **Open** dialog box select the "Samples" folder and then select the "Lions.avi" file.



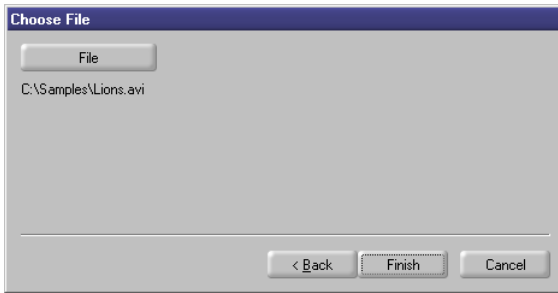
If the preview is active the first frame of the clip is shown in the small preview window.

- ▶ Open the "Lions.avi" movie clip.

In the next dialog box, **Choose File**, the file name is shown for the last time. If you have selected the wrong clip you can go back using the **<Back** button to select another file.

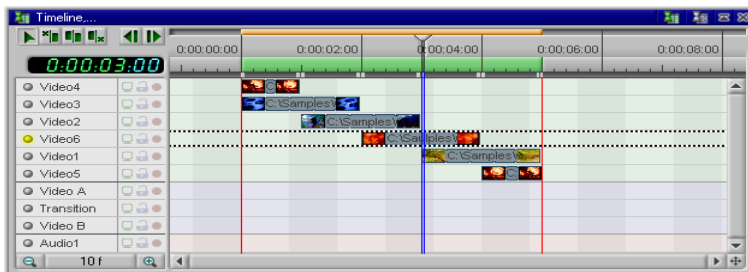



- ▶ In the **Choose File** dialog box click **Finish**.



- ❗ Another clip can be selected by clicking **File**.
- ❗ Another source (another object) can be selected by clicking **<Back**.

The "Lions.avi" clip replaces the "Cube\_3.avi" clip.



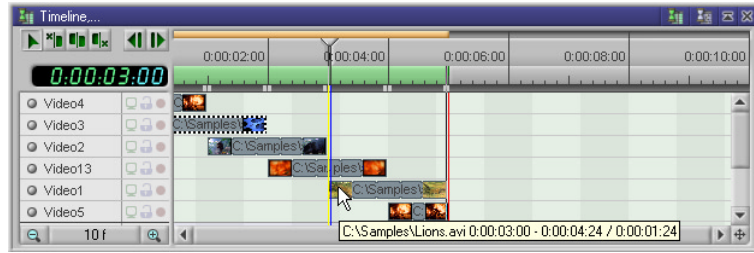
- ▶ Press  **Play** in the **Preview** window.

The new clip adopts all the settings of the former clip and fits seamlessly into the clip sequence.

Now you know just how easy it is to replace one object in an existing animation with another, whether the object is a clip, photo or generated object.

In the **Timeline**, if you position the pointer over the object bar you will see that the inserted "Lions.avi" clip is now 1 s and 24 frames or 49 frames long (at a frame rate of 25 frames per second).

- ▶ In the **Timeline** position the pointer over the "Cube\_3.avi" movie clip and the tool tip will pop up.





C:\Samples\Lions.avi 0:00:03:00 - 0:00:04:24 / 0:00:01:24

Drive\Folder\Name of Object \ Beginning - End \ Length  
(in hours:minutes:seconds:frames) of the object are shown in the **Timeline** if the pointer is positioned over the object bar.

In the properties line of the **Browser** the length of the clip is shown as 3,8 s (3 s and 20 frames or 95 frames).

Movie Clip Lions.avi Size: 320 x 240 Duration: 0:00:03:20 Frame Rate: 25,000

-  If the objects are of different lengths, the length of the second object will be stretched or compressed to the length of the first object.

-  The resulting changes to "Tut\_Cube.M3" (Die with 5 clips) will be saved in "Samples" under "Tut\_Cube5.M3", the project under "Tut\_Cube5.M3W".

## Animations in the Animation

### Integrating simple animations into our compositions

#### Something New

In our animations so far, just clips or photos from external objects (i.e. files saved on the hard disk or CD...) have been used.

However, each MoviePack animation can be saved and then inserted into other animations in its entirety, like an individual object, as an embedded scene.





Manual Tutorial Reference Effects



The MoviePack interface used to do this is the same as the one described in the "Tutorial - The Interface" booklet. A new animation is needed in the **Canvas** window.

- ▶ Close any existing animations with the **Close** command (shortcut **Ctrl + F4**) from the **File** menu.







Save all existing animations under a suitable name and in a suitable folder.

- ▶ Click icon  **New Animation** in the MoviePack icon bar.
- ▶ In the following **Animation Setup** dialog box select **PAL** (or **NTSC**) in the **Time** tab.
- ▶ In the **Page** tab select **Multimedia Medium, 320 x 240** in **Size** field.
- ▶ Click the button  **Background Color**.
- ▶ In the **Select Color** dialog box use the HSB color model, click the **Saturation/Brightness** combi-slider and drag it to the white area.

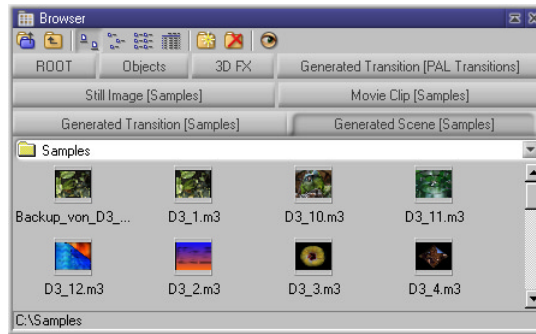
- ❗ If you save these settings under a suitable name, say "PAL-High-White" (Tab **Schemes**, **Save as...**), new animations can be loaded with these settings (schemes).

Saved animations are considered as external objects and can be accessed from the **Browser**. The "Tut\_Cube.M3" animation from "Samples" will serve as our example.

## Integrating Animations as Scenes

- ▶ Create a new tab in the **Browser** by clicking the  **Add Tab** icon.
- ▶ In **Root** double-click the icon  **Objects**.
- ▶ In the **Objects** folder double-click the icon  **All Objects**.
- ▶ In the **All Objects** folder double-click the icon  **Generated Scene** (animations or scenes created with MoviePack).
- ▶ Double-click the icon  **Desktop**.
- ▶ Double-click the icon **(X:)** (drive where the examples are saved).
- ▶ Double-click the icon  **Samples** (the folder where the examples are saved).





In the **Generated Scene [Samples]** folder all the animations from "Samples" are mapped and can be integrated into other animations as scenes.

- ▶ In **Browser**, scroll downwards until the thumbnail for the "Tut\_Cube.M3" animation is completely visible.
- ▶ Click the thumbnail for the scene "Tut\_Cube.M3".

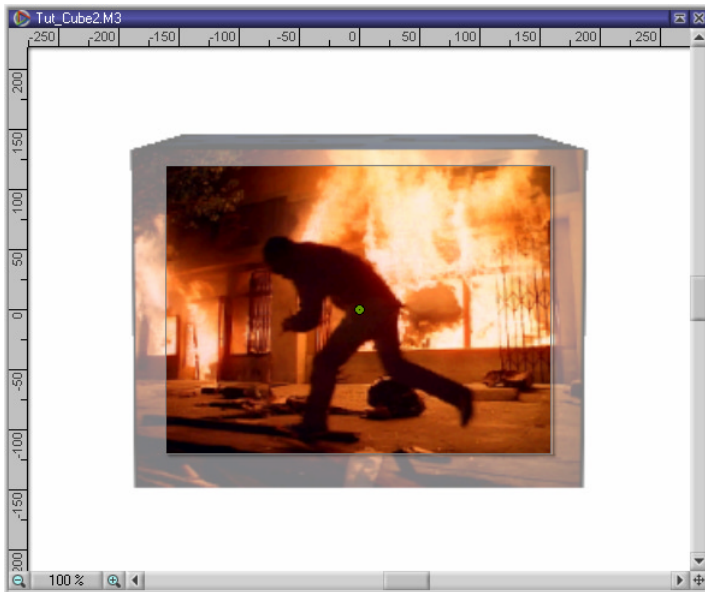
Again, in the properties line at the bottom of the **Browser** the name, size, length and frame rate of the animation are shown.


- ▶ Click the "Tut\_Cube.M3" scene and drag it into the **Video1** track in the **Timeline** so that the left-hand side of the object bar begins at 0:00:00:00.

In the **Timeline** there is only one object bar which contains all the elements of the "Tut\_Cube.M3" animation (objects, transitions as well as the applied effects).



In the **Canvas**, at a size of 320 x 240 pixels, you can see a clip of the original animation which is 640 x 480 pixels.




- ▶ Press  **Play** in the **Preview** window.

In the **Preview** you can see the rolling die which is twice the normal size due to the difference in scale of the original animation and the current **Canvas**.

By making the die smaller at the beginning of the new animation and positioning it at the top edge of the **Canvas**, it will roll forwards while increasing in size.

### Adjusting the First Frame

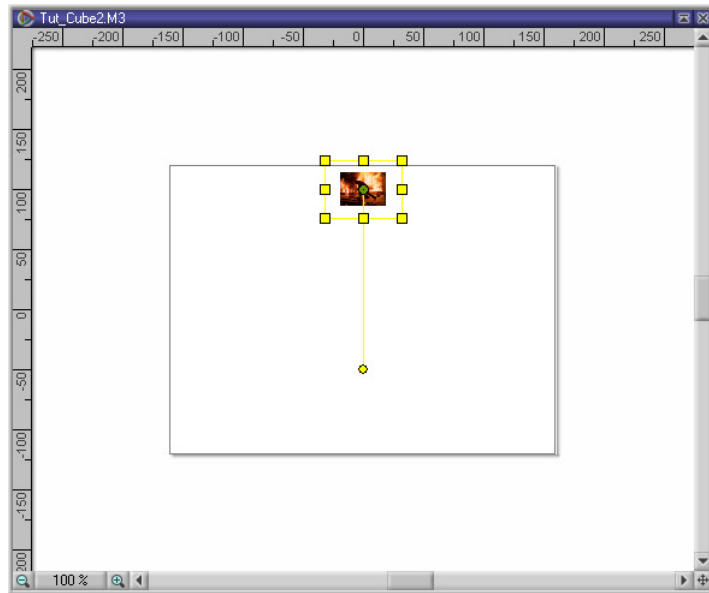
- ▶ In the **Timeline**, position the Timeslider to 0:00:00:00.
- ▶ In the **Effect Box**, click the icon  **Transformations**.
- ▶ In **Transformations**, select the **Scale** tab.

The **Scale** slider is positioned at 1.

- ▶ In the **Effect Box**, set the **Scale** slider to approx. 0,1.
- ▶ In **Transformations**, select the **Position** tab.

The die is in the center of the **Canvas** at  $X = 0$  and  $Y = 0$ .

- ▶ Using the vertical slider move the center upwards to the coordinates  $X = 0$  and  $Y = 100$ .



The settings for the first frame of the animation are now complete. The die is now small and positioned at the top edge of the **Canvas**.

## Adjusting the Last Frame

The last frame can also be quickly adjusted.

- ▶ In the **Timeline**, position the Timeslider to 0:00:04:00.
- ▶ In **Transformations**, select the **Scale** tab.

The **Scale** slider is positioned at 1.

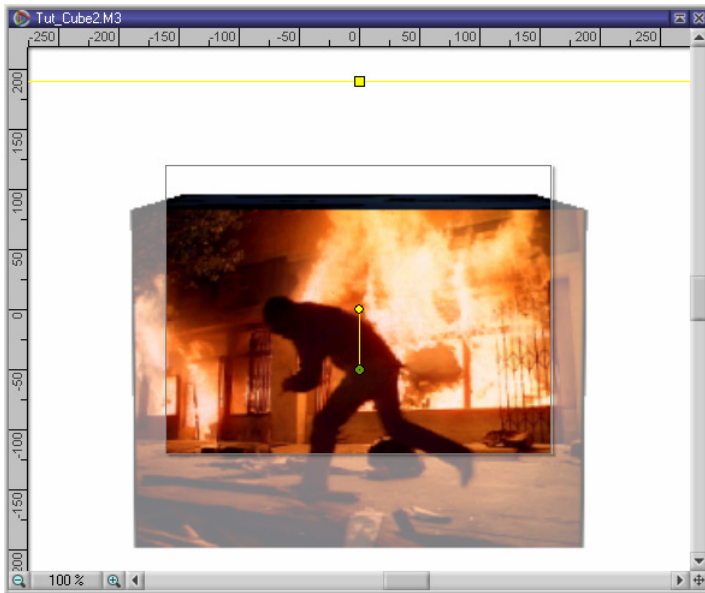
- ▶ In **Transformations**, select the tab **Position**.

The die is in the center of the **Canvas** at  $X = 0$  and  $Y = 0$ .

- ▶ Using the vertical slider move the center downwards to the coordinates  $X = 0$  and  $Y = -50$ .



The settings for the last frame of the animation are now complete. The die is now large and positioned at the bottom edge of the **Canvas**.



The die rotates on the horizontal axis from top to bottom. As it increases in size it seems as if it is approaching the camera.



The resulting modifications of "Tut\_Cube.M3" are saved in "Samples" under "Tut\_Cube2.M3", the project under "Tut\_Cube2.M3W".

The natural frame sequence of a clip or scene can be altered very easily in MoviePack.

## Playing Scenes Backwards

Create a new 320 x 240 pixels animation with 25 frames/seconds against a white background.


Import the animation we have just created, "Tut\_Cube2.M3W", as a scene in the **Video1** track.

- ▶ In the **Browser**, select the **Generated Scene [Samples]** tab.
- ▶ Scroll downwards until the thumbnail for the "Tut\_Cube2.M3" animation is completely visible.

- ▶ Click scene "Tut\_Cube2.M3" and drag it into the **Video1** track in the **Timeline** so that the black object bar begins at 0:00:00:00.

In the **Timeline** the "Tut\_Cube2.M3" animation appears as a completely embedded scene. The die rotates on the horizontal axis from top to bottom and increases in size.

Now we are going to reverse the frame sequence.

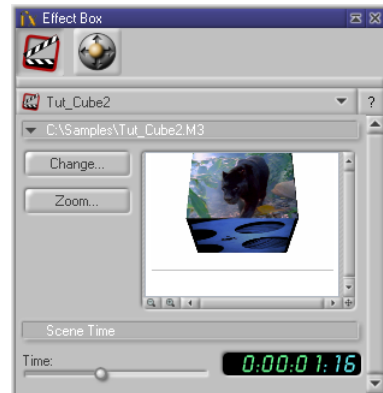
- ▶ In the **Timeline**, position the Timeslider to 0:00:00:00.
- ▶ In the **Effect Box**, click the icon  **Generated Scene**.

The time display in the **Effect Box** is at 0:00:00:00, the beginning of the scene. The **Scene Time** slider is set to the far left.

Position the Timeslider in the **Timeline** to another point in time and you will see that the time display and the **Scene Time** slider in the **Effect Box** move accordingly.

At the end of the animation the scene time is 0:00.03:24, and the **Scene Time** slider is now at the far right.

- ▶ In the **Timeline**, move the Timeslider to another point in time.
- ▶ Observe the **Scene Time** slider and the digital display in the **Effect Box**.

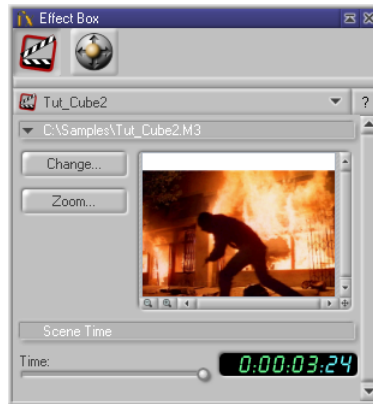


The frame sequence is reversed if the end of the scene is allocated to the beginning of the animation and the beginning of the scene to the end of the animation. The scene runs backwards in the animation.



- ▶ In the **Timeline** position the Timeslider to 0:00:00:00.
- ▶ In the **Effect Box** move the **Scene Time** slider from left to right to 0:00.03:24.

The end of the scene is allocated to the beginning of the animation.



- ▶ In the **Timeline** position the Timeslider to 0:00:03:24.
- ▶ In the **Effect Box** move the **Scene Time** slider from right to left 0:00:00:00 (beginning of the scene).

The beginning of the scene is allocated to the end of the animation.



The frame sequence of the integrated scene is now completely reversed. In the preview the die moves backwards.



The resulting modifications to "Tut\_Cube2.M3" are saved in "Samples" under "Tut\_Cube3.M3", the project under "Tut\_Cube3.M3W".

The objects and effects which make up the scene can be edited separately.

## Altering Integrated Scenes

- ▶ In the **Timeline**, double-click the "Tut\_Cube2" object.

The scene is opened in a different window. As "Tut\_Cube2" also comes from a scene "Tut\_Cube", it can be opened in the same way.

- ▶ In the **Timeline**, double-click the object "Tut\_Cube".

This scene is, in turn, opened in a separate window as an animation with all the objects and effects, which can be manipulated in the usual way.

- ❗ The changes to the objects of the scene are only saved in the animation which contains the scene ("Tut\_Cube2" or "Tut\_Cube3") and not in the original animation ("Tut\_Cube").

### Step-By-Step



You are now ready to investigate all the many animations on the MoviePack CD and to insert your own image and video material.

Creating your own animations should now be a breeze.

- 👄 Your creativity knows no bounds with MoviePack.