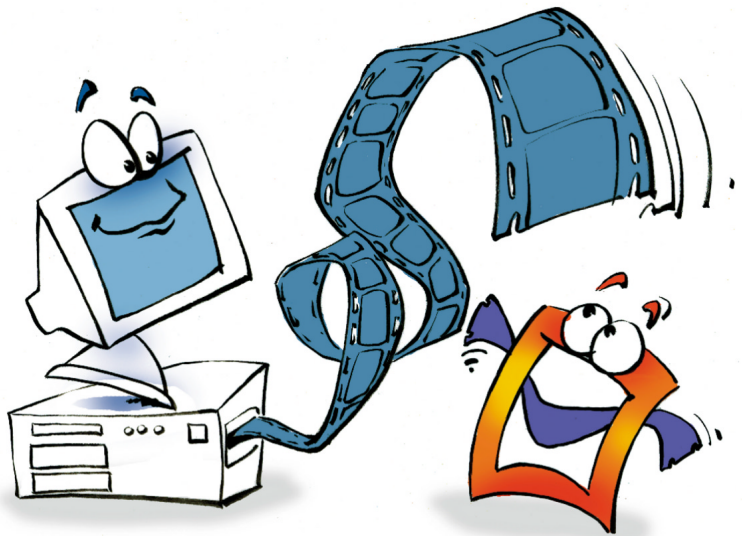


REF



Capture & Render

REFERENCE

Copyright and Trademark

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

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



© 1997 - 2000 AIST - Animated Image Systems Technology GmbH



CAPTURE & RENDER

Contents

Capture	4
Capturing Video Clips	5
Allocating File Space	7
Audio	7
Render	8
Render Setup	9
Render Settings	9
Determining the Format	9
Compression Options	10
Adjusting Frame Rate	10
Adjusting Size.....	10
Selecting the Renderer	11
M3 Final Renderer.....	11
AIST OpenGL Renderer	11
ProPro Renderer	12
Saving Schemes	12
Audio Rendering	12
Render Range	13
Determining Storage Location	14
Video Output	14
Preview	14
Frame Output	14
Printing	14
Render Frame	14

Capture



You have brought back lots of interesting video material from your vacation and you now want to create an entertaining video.

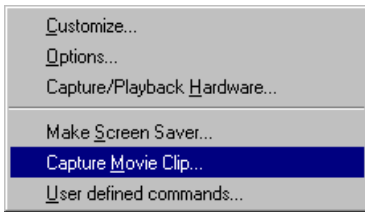
First of all you have to examine your video footage and eliminate superfluous and unsuccessful material and then import the remaining footage into your computer so that you can bring it up to a professional standard with the help of MoviePack.

The necessary capture cards contain the relevant software, but MoviePack, being an all-rounder, also has the appropriate capture tools.



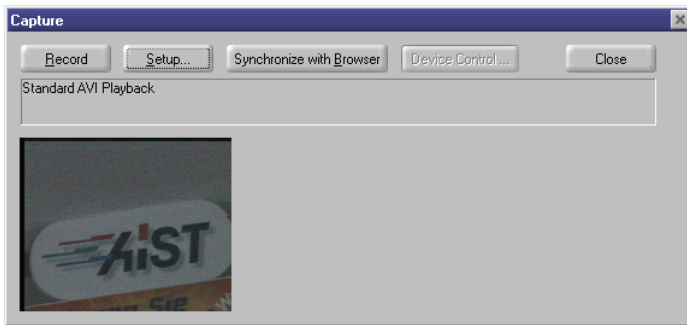
Capturing Video Clips

To transfer a video onto your computer you need a video capture board installed in your computer. Firstly you have to ensure that the correct hardware is selected under **Tools/Capture Playback Hardware**. If the hardware selected corresponds to the hardware being used click **Cancel**, if not select a new setting then click **OK**. The output from the video source is connected to the inputs of the video capture board.



► On the **Tools** menu select **Capture Movie Clip**.

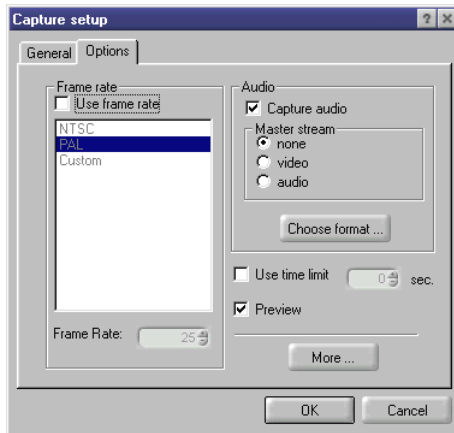
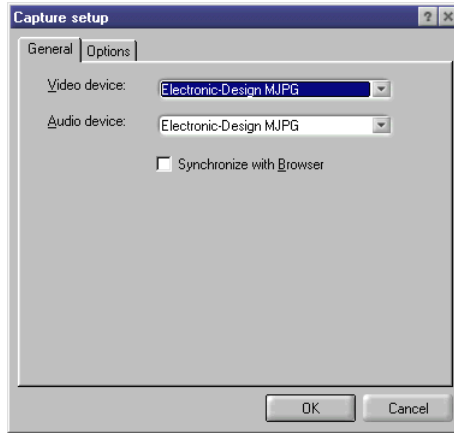
The **Capture** window opens, then select **Setup**.



Under the tab **General** you can select the video and audio devices. If you are using a capture board other than Fast DV-Master a different menu to the one show below may appear. The menus are determined by the type of board.

Clicking the button **Synchronize with Browser** allows you to determine whether or not your destination file will be shown directly in the **Browser**. A new tab will automatically be inserted.

Under **Options** you can select the frame rate and set a time limit unless you are using a FireWire board in which case the frame rate is fixed.



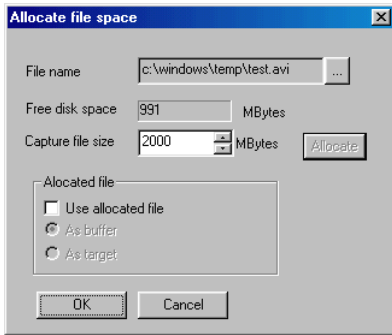
Capture audio determines whether or not audio should be digitized during capturing. If you are working with FireWire audio is captured automatically.

The default **Master stream** setting is **None**. If you are experiencing dropped frames or gaps in audio changing the **Master stream** to **video/audio** may help solve the problem.

Check **Preview** which enables you to see the progress of the capture in a small preview in the **Capture** window.



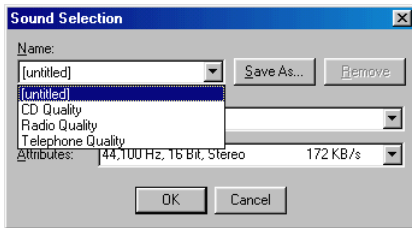
Allocating File Space



Under **More...** select **Allocate File Space**. You can determine where the video capture is to occur, give the captured file a filename and set its size. It is absolutely essential that there is enough file space available. You must have about 400 MB per video minute available.

Click **Allocate** which allows you to use the allocated file as a captured file or as a temporary **Buffer** file. Select **As Buffer** if you have a fast hard drive available which will capture the file quickly and then copy it to the target hard disk (set in the **Options** dialog box).

In the audio section you can determine the audio quality under **Choose Audio Format**.



If all the settings are correct begin capturing by pressing **Record**.

Then start video playback from the external device and begin capturing by clicking **OK**.

Render



In MoviePack fast and trouble-free output to a video cassette is a top priority.

However other demands often emerge during the project such as the need for quick output of individual frames for a print.

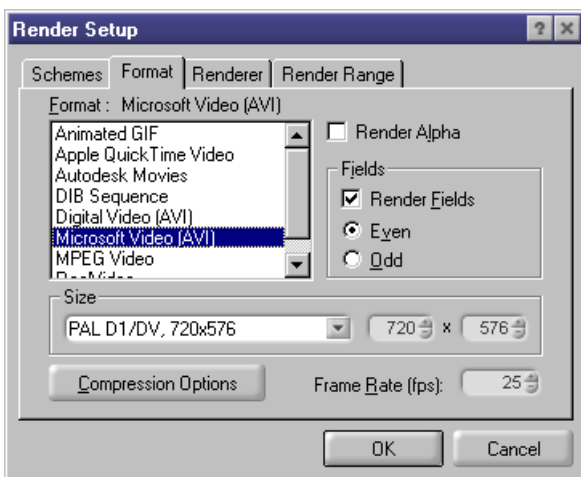


At the beginning of your project you already defined the file format under **Animation Setup**. This now saves you a lot of work as you can now begin rendering immediately.

- ▶ From the **Render** menu select the command **Render setup**.

Render Setup

Render Settings



Select the tab **Format** and then select the format you want to render to.

Determining the Format

If you check the **Render Alpha** option you will be able to render transparency.

Check the **Render Fields** option if you want to render fields. Most video boards start rendering odd fields first. However if you use the default setting **Even** and the output flickers you should then select **Odd** fields.

If your output is to be viewed on a PC screen, turn the render fields option off and render frames; same for multimedia CDs, Internet videos and high resolution output for movie productions. Fields are used only when the final output is going to be viewed on a television set.

Compression Options

Under **Compression Options** you can select the codec (video compressor) you want to use. If you are using a Firewire card, select the format digital Video (AVI) and all video and audio settings will be fixed automatically.

Adjusting Frame Rate

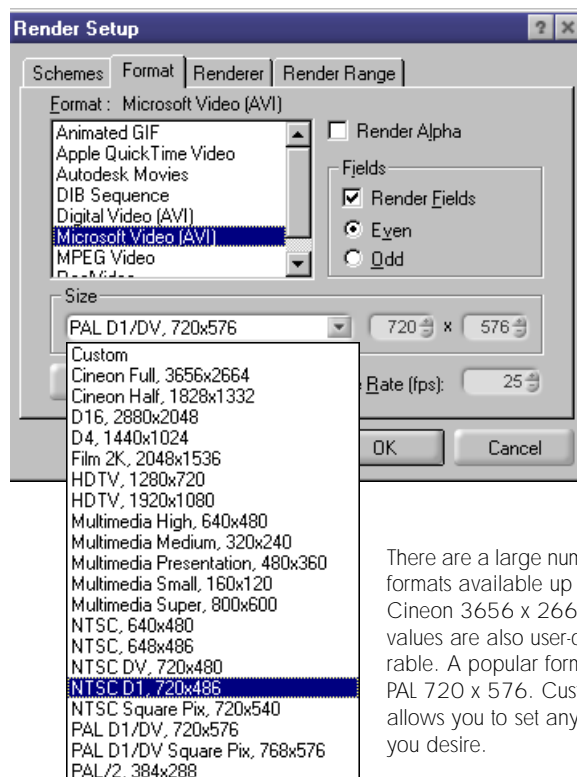
You can also adjust the frame rate in the bottom right-hand corner. Smooth movement is achieved from about 10 frames per second upwards.

The most important standards:

Europe	PAL operates at 25 frames/sec (25 Hz).
USA	NTSC operates at 30 frames/sec (29.95 Hz).
France	SECAM operates at 50 fields/sec (25 Hz)
Eastern States	differentiated SECAM

Adjusting Size

This is where you adjust the output image format and not the display of the **Preview** and **Canvas**.

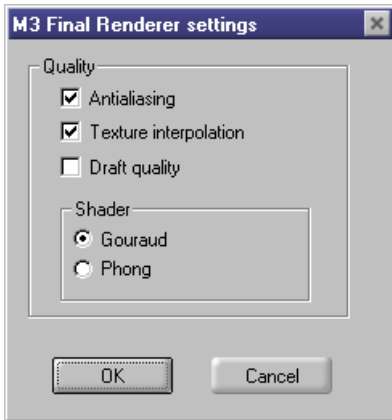


There are a large number of formats available up to Cineon 3656 x 2664. The values are also user-configurable. A popular format is PAL 720 x 576. Customize allows you to set any size you desire.



The quality of the output needed depends on the purpose of the video. The renderer and output quality can be selected under the tab **Renderer**. Select the renderer you require, click **Configure** and the following parameters appear depending on the renderer selected.

Selecting the Renderer



Antialiasing smooths or reduces diagonal edges.

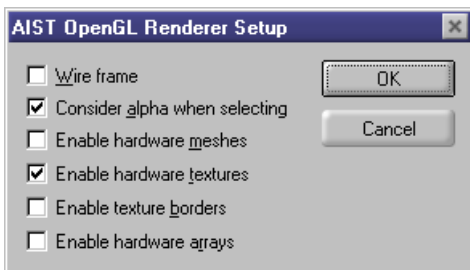
Texture Interpolation can improve the final image quality.

Draft Quality should be selected for checking projects prior to final rendering.

The **Shader** is needed only if 3D deformations or objects are contained in your project.

Gouraud is fast but gives a lower quality shading, while **Phong** gives a higher quality but is slower as a result.

M3 Final Renderer



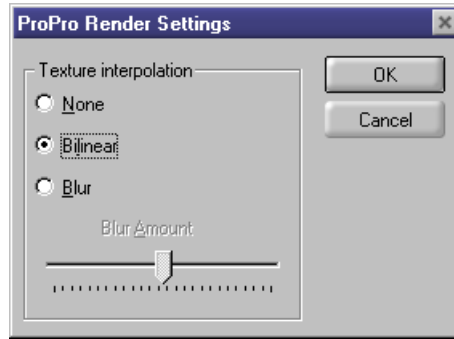
Wire frame allows the output to be rendered as a wire frame.

Consider alpha when selecting will use alpha mask information from source images but output in OpenGL cannot contain alpha

information. If your graphics card supports OpenGL, selecting any of the last four options will greatly improve rendering speed and image quality.

AIST OpenGL Renderer

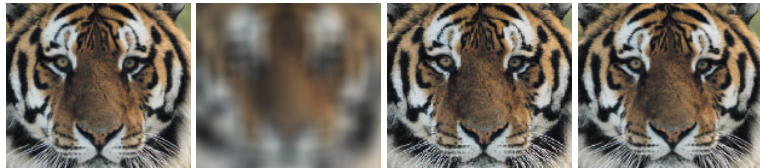
ProPro Renderer



The **ProPro Renderer** is the highest quality renderer and the default setting is **Bilinear**. This is useful if images have been scaled or rotated as it interpolates images ensuring higher quality. If **None** is selected the project is rendered using the high quality settings

only. **Blur** is used to soften textures to the rid the output of disturbances, but will not blur the entire image. The **ProPro Renderer** should be used only if a project contains a lot of compositing.


Here are four examples - from left to right Blur = 0, higher value, None and Bilinear.



Saving Schemes

Settings you frequently use can be saved as a scheme under **Render Setup / Schemes**.

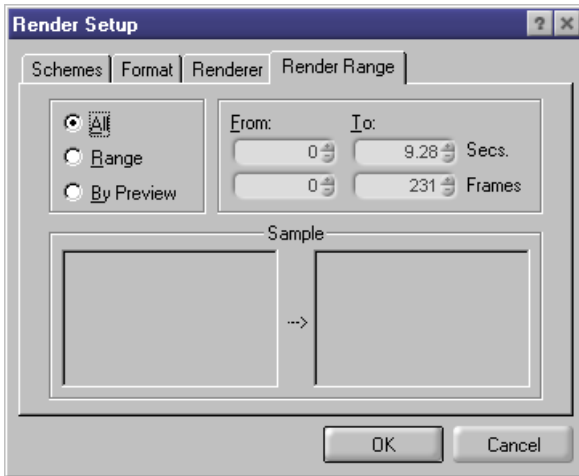
Audio Rendering


-  You can play back sound from the sound card or (depending on the hardware) from the video board. It is essential that you select the proper output medium from the control panel of your PC.



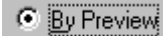
Render Range

In some cases the entire project does not have to be rendered and in MoviePack you can easily select a specific area to be rendered.




- ▶ To render the entire project you must activate the option .

In the **Timeline** and **Timegraph** a green bar determines the preview area.

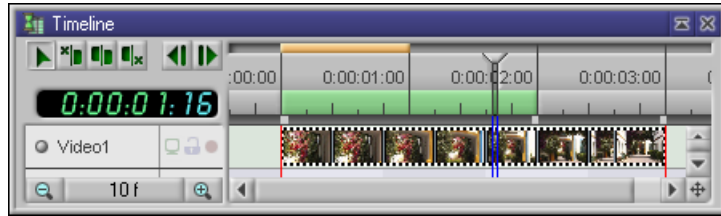
- ▶ If you want to render the area represented by the green preview bar you must select the option .

If you can identify the exact area to be rendered in the **Timeline**, you can carry out frame-exact rendering.

- ▶ Activate the option . Now either the area defined by the yellow line in the **Timeline** is rendered or you can enter the start time in the left-hand entry field and the finishing time in the right-hand field in seconds and frames.

There are different render ranges for the project below:

- Render bar = 25 Frames = Range
- Preview Area = 50 Frames = By Preview
- Project Length = 75 Frames = All



Determining Storage Location

After selecting the **Render** command you can select the filename of your project and the storage location. Please ensure that there is enough space available on a fast drive to enable playback of the animations.

Video Output

Please ensure you have chosen the correct settings in the **Render Setup** prior to rendering.

- ▶ On the **Render** menu select the **Render** command (shortcut **Ctrl + R**). The video is ready to be rendered.

Preview

You can observe the rendering in the **Preview** but the rendering process will take longer.

- ⓘ Output of a DIB sequence (set of numbered frames), e.g. for transfer into painting or 3D programs, is carried out in the same way.

Frame Output

Printing

To print a frame simply select the **Print** command on the **File** menu. The current image shown in the **Canvas** will be printed out.

Render Frame

Individual frames can be rendered in MoviePack.



Manual Tutorial Reference Effects

- ▶ Position the Timeslider on the desired frame.
On the **Render** menu select the **Render Frame** command.

Select the desired image resolution and the renderer. If you want to use these settings frequently, you should save them as a **Scheme**.



- ▶ Click **OK**.
The frame is rendered and displayed in a small window.
- ▶ Click **Save** and enter the storage location, format and file name.

