

Contents for VIDEO Help 1 of 9

Commands

[File](#)

[Edit](#)

[Image](#)

[Effects](#)

[Transition](#)

[Setup](#)

[**Information on VideoMaker**](#)

[**Other products from AiM**](#)

&File Pull Down Menu

New composition

Open composition

Save composition

Save As

Generate frames

Preview

View image

Exit

&Edit Pull Down Menu

Edit event

Delete

Fill frame

&Image Pull Down Menu

File

Color

Effects Pull Down Menu

Background

Blur

Brightness

Contrast

Crop

Edge detection

Flip

Move

Rotate

Scale

Sharpen

&Transition Pull Down Menu

Atop

Blend

Fade

Morph

Over

Pan

Side

&Setup Pull Down Menu

Composition

Timeline

New composition

This option is used to clear up the entire composition and swatch windows and start up a new composition.

Open composition

To load previously created composition you should choose this option. Upon selecting this option standard file selection dialog box opens. By default composition files have .SCE extension.

Save composition

To save current composition under its' name you should select Save composition. If the current composition is the new one standard file selection dialog box will open prompting you to enter name under which to store the composition. By default composition files have .SCE extension.

Save As

To save current composition under a different name this option should be selected. Standard file selection dialog box will open prompting you to enter a new name.

Generate frames

To produce file or files containing images defined by the current composition you should choose this option. First you will be prompted to enter starting and ending frames selection for which the frames (images) will be generated. You can also enter the step (so you can generate if you wish just every second, third, etc. frames). When you have completed questions regarding selection, next dialog box will be standard file selection dialog box. Here you can specify type of the image file format which will be used to store frames.

Available formats are: TIFF, TGA (Targa), PCX, GIF, WPG, BMP, FLI and FLC. Frames are always stored as 24 bit color images if it is supported by file format. However FLI and FLC formats which are common for animation files are 8 bit palette mapped and compressed files. FLI and FLC are also specific in a way that they support saving of multiple frames in a single file. All other formats can save just one frame in one file. So multiple frames are stored under different names. VideoMaker automatically creates file names. The names are created from two parts. First part is the basic which is user supplied (4 alphanumeric characters). The second is part is VideoMaker generated and it is actual frame number. It is a 4 digit number so you can generate 9999 frames. All this results in a 8 alphanumeric characters (4+4) name.

Extension represents the image file format. So extension .TGA is for Targa files, etc.

Resolution which is used to generate and store frames is specified in Setup (Composition Setup).

Note: For preview purposes you should generate frames in FLI format. Only this type of files can be previewed.

Preview

If you want to play your video which has been previously generated into FLI file you can use preview option. FLI files are very efficient regarding size and decompression speed so they can be played in a window in real time or almost real time.

The dialog box has couple of buttons for playing control. First you have to *Load* the FLI file which you want to play. For play control you can set up maximum speed (in frames per second) at which the video will be played. Actual window for playing can be selected swatch sub window or you can choose fixed 320x200 window by clicking in appropriate box. You can get faster playing in fixed 320x200 window. It is also the resolution of images stored in FLI file. If you play FLI file in a swatch the frames in a FLI file have to be first scaled up or down before they are showed on screen. So it is obvious why it is faster to play in a fixed 320x200 window.

If you select *Continous play* box playing will not start upon reaching the last frame but will immediately go to the first frame and start playing again.

You can position yourself on a specific frame by choosing *Go To* option.

To start playing choose *Play* and to stop choose *Stop*.

View image

You can see the image stored in any of the supported file formats by choosing view image. This option just opens an image file and displays its' contents in a swatch window. This option doesn't affect your composition in any way.

Exit

You are probably familiar with this command. Clicking on it and you end you session with VdeoMaker.

Edit event

When you select specific block representing an event in the composition window you can choose *Edit Event* option to change parameters for this event. This command is similar to double-clicking on the event block.

Cut

Copy
Item Text

Paste

Item Text

Delete

To delete an event block from the composition window select that specific block by clicking on it and then choose *Delete Event* from the Edit menu.

Fill frame

To force VideoMaker to generate a range of frames for the current composition and to show them in swatch window you should select this option. Upon selecting this option dialog box will open prompting you to enter range and step for the frames you want to be generate in swatch window.

FileIn

This is one of the most important options. It allows you to import single or multiple images into composition. After you select this option dialog box will open prompting you to enter following:

- **Name** for this event (by default the name is FileInX, x is the sequential number of this FileIn within current composition).
- **File name** contains image (or images in case of FLI or FLC files). If you select Browse button you can browse your disk for the filename. If you want to specify a range of images (representing for example an animation) you select by browse option just the first image you want to import. VideoMaker will calculate the names of the other images depending on the first frame and last frame fields as well as step.

For example: You have an animation stored if TGA files named VIDE0001.TGA, VIDE0002.TGA, ..., VIDE0020.TGA and you want to import these images into your composition. You would select by browse option just VIDE0001.TGA file (or enter this name by typing into File name field). Then you would fill first frame field with whatever number suits you (where you want these images to appear) and the last frame field with number which is equal to first frame + 20 -1 (-1 is because first frame and the last frames are both included in composition). And finally you would fill picture duration field with 1.

- **First frame** represents starting frame in the composition where this FileIn event will take place
- **Last frame** represents the last frame where FileIn take place
- Picture duration field is used only for events where you import multiple images like in the example above. So if you would like previously mentioned images VIDE0001.TGA - VIDE0020.TGA to extend to last for 40 frames in you composition you would enter step 2 and specify the last frame to be equal to first frame + 40 -1.

Color

To make frames in the specified range to be in desired color you can choose this option. It prompts you to enter, like *FileIn* option, **First frame** and **Last frame** where the event will take place. You can also select the color. Here you can also specify the alpha channel value in the background file. Alpha channel value specifies how much is the image transparent. 0 represents completely invisible image and 255 represents completely solid image (if you put 255 as the value and then if you use this image in the *Over* operation as foreground image you will not see the image which you specify as the background).

Background

This option is used to detect background in images. This option is used to fill alpha channel values of the color it detects as background to 0. Alpha channel is specified for each pixel in the image. Alpha value of 0 represents totally invisible pixel. This option is useful only when used in combination with some transition operations which use alpha channel like Over, Side and Atop.

You must specify the color which represents the background which you want detected. You can also specify the RGB range which is the range of RGB colors which will be considered as background. So if you enter 5 for R (red) all colors around specified color ranging from red -5 to red +5 will be also detected as background. If you click on **All Equal** field then the RGB tolerance range will be made the same for all three RGB parts.

Blur

This option is used to blur the image. You must specify the range in which the blur will take place (first and last frame) and **Amount** of blur. Higher numbers represent stronger blur effect. This is a digital version of taking an object "out of the focus" when using camera.

Brightness

To brighten up the source image you can use this option. You must specify first and last frame for this event, amount and the source event. **Amount** represents how much the source image will be brightened up. Higher number represents higher brightness.

Contrast

This option is used to enhance contrast of the of the source image. You must specify the range in which the contrast will take place (first and last frame) and amount of blur. Higher numbers represent higher contrast effect.

Crop

To crop or cut out one part of the source image you can use this option. You must specify **First** and **Last frame** for the range where this event will take place. As the source image is taken the output of the event specified as **Source**.

You must also set rectangle origin coordinates and the dimension of the rectangle. Coordinate system used is one where 0,0 coordinates are located in the upper left corner.

Edge detection

VideoMaker can detect edges or the contours of objects on the source image. upon detection it will outline those edges in selected color (edge color). If you don't select **Overlay** option VideoMaker will output only the edges on the specified **Background** color without the original image. **Amount** of Edge Detection represents how sharp and contrast should be the edges on the source image to be detected as edges. So when you put higher number you will have more edges detected.

Flip

It can work in two directions vertical or horizontal. When you choose vertical flip VideoMaker will rotate the source image for 180 degrees around X axis (in a 3D space). When you choose horizontal flip VideoMaker will rotate the source image for 180 degrees around Y axis (in a 3D space).

Move

It will move the image generated as the output of the event specified as **Source** with starting coordinates specified in fields **Move from X** and **Move from Y** to new coordinates specified as **Move to X** and **Move to Y**. Movement will be applied linearly through the range of frames selected by **First** and **Last frame** fields.

Rotate

It will rotate the image generated as the output of the event specified as **Source** with starting angle specified in field **Starting angle** to the new angle specified as **Ending angle**. You must also specify center of the rotation. The **Center of the rotation** are X,Y coordinates which will be taken as the origin coordinates for the X-Y plane which will be rotated. Rotation will be applied linearly through the range of frames selected by **First** and **Last frame** fields.

Scale

It will scale the image generated as the output of the event specified as **Source** along the X and Y axis. Source image will be scaled from **Starting scale** parameters to **Ending scale** parameters. Scale will be applied linearly through the range of frames selected by First and Last frame fields. Scale is implemented as bilinear function so that the quality of image is minimally distorted.

Sharpen

This option is used to sharpen up the image generated by event specified as the **Source**. You must specify the range in which the sharpen will take place (first and last frame) and **Amount** of sharpen. Higher numbers represent higher sharpen effect. Sharpen effect is something like digital version of taking an object "into focus" when using camera. As there are no actual information in the source image what should happen when you "focus in" VideoMaker invents this image data based on some mathematical algorithms.

Atop

To make the output image (or images) of the event specified as the **Foreground** appear *atop* of those specified as the **Background** you should use this option.

You should set up the duration of atop transition operation (**First** and **Last frame**). This operation makes use of the alpha values stored in the images.

The *atop* operation is done according to the following formula:

$$C_{rgbm} = A_{rgbm} * B_m + (1-A)_m * B_{rgbm}$$

C is the output of the transition operation

A is the foreground image

B is the background image

subscripts rgb represent RGB values and m represents alpha value

Blend

To *blend* images produces by events specified as **Source1** and **Source2** you should use this option. The duration (in frames) of the blending process is defined by **First** and **Last frame** fields. Blending is applied linearly from images specified as the **Source1** to **Source2**. It means that the result of the blending on the frame number in the **First frame** field is entirely the **Source1** and on the frame number in the **Last frame** field is entirely the **Source2**. In-between is a mixture.

Fade

Fade can work as *Fade in* or *Fade out*. Output image of the **Source event** disappears into the chosen **Background** in *Fade out* event. In *Fade in* event transition is done from the chosen **Background** into the image output of the **Source event**.

Duration of the transition is defined by **First frame** and the **Last frame** parameters. The transition is applied linearly.

Morph

Morph is a very sophisticated transition. It is used for "clever" transformation of one image to another. It's a smart version of blending transition. Like with the other transitions you have to specify **Source1** and **Source2** events. Their output images will be taken as input images which define the morph transformation. You must also specify the duration of the morph by setting up **First** and **Last frame** fields. Unlike any other effect or transition Morph has additional editor in which you adjust how the morphing will be done.

Morph editor is started by pressing the "Morph editor" button in the morph event dialog box. The morph editor will be created, two frames will be generated for you and displayed in the editor. The source frame, a picture you will be starting your morph sequence from is on the left window, and the destination is on the right size.

Drawing points (vectors)

To draw a point on the image, you need to have the "point cursor" active. You activate the point cursor by pressing the "point icon" on the top of the morph editor window. Once this cursor is selected, you draw a point by simply pressing the left mouse button in the place where you want the point. Second point is automatically placed on the other frame in the editor. This pair represents a vector.

Moving points

To move a point, you must select the "arrow cursor." A point is moved by pressing the left mouse button on it, then while holding the left mouse button down, moving it to the desired new position.

Deleting points

To delete a pair of points on the frames, first select the "point cursor" and then press the right mouse button. The other point in the pair is erased automatically. Any lines connected to any of those points are also removed.

Drawing lines

In order to draw a line that connects two points, select the "line cursor" by clicking the "line button" on the top of the morph editor window. Once, the line cursor is selected, press the left mouse button on the first point, while holding the left mouse button down, move the cursor to the second point and then release the button.

Moving lines

Lines can not be moved independently from the points. A point on the end of a line should be moved to move the line.

Deleting lines

To delete a line that connects two points, select the "line cursor" by clicking the "line button" on the top of the morph editor window. Once, the line cursor is selected, press the right mouse button on the first point of the line, and then while holding the right mouse button down, move the cursor to the second point of the line and then release the button.

Zooming the frame

Select the zoom cursor from the tool bar on the top of the morph editor window. To zoom in the image press the left mouse button on the part of the image you wish to see enlarged. To zoom out press right mouse button. Zooming the frame is highly recommended in order to get the best result in the result of the morph. You can also zoom in and out by selecting the desired zoom factor from the two top combo boxes on the top of the morph editor window. "Scale to fit" selection forces a image to completely occupy the display window. In this zoom mode, the aspect ratio of the picture could change.

Changing the color of points and lines

To change the color in which the lines and points are displayed, select the desired color from the two bottom combo boxes on the top of the morph editor window. Each frame can have it's own color of points. It is very helpful to select colors that differ from the colors on the frame as much as possible. So, if the images being morphed contain mostly dark colors, select the white or yellow points and lines to see them easier.

Over

This operation makes use of the alpha channel. In it the image output of the event specified as the **Foreground** is placed *Over* the one specified as the **Background**. Duration of this "mixing" is defined by **First frame** and **Last frame** fields contents.

The *Over* operation is done according to the following formula:

$$C_{rgbm} = A_{rgbm} + (1-A)_m * B_{rgbm}$$

C is the output of the transition operation

A is the foreground image

B is the background image

subscripts rgb represent RGB values and m represents alpha value

Pan

This is a scrolling transition. It can be done in all 4 directions **up, down, left** and **right**. In it image output of the event specified as **Source1** "drags" the image output of the event specified as **Source2** across the screen in the desired direction. On the frame number **First frame** output is completely image from the **Source1** and on the frame number **Last frame** image output is completely image from the event **Source2**. In-between part of the screen is from the **Source1** and the other part is from the **Source2**.

Side

This transition makes use of the alpha channel. In it the image output of the event specified as the **Foreground** is placed Inside or Outside (depending on in which field you clicked) the one specified as the **Background**. Duration of this "mixing" is defined by **First frame** and **Last frame** fields contents.

The Inside operation is done according to the following formula:

$$C_{rgbm} = A_{rgbm} * B_m$$

The Outside operation is done according to the following formula:

$$C_{rgbm} = A_{rgbm} * (1-B)_m$$

C is the output of the transition operation

A is the foreground image

B is the background image

subscripts rgb represent RGB values and m represents alpha value

Composition

This option doesn't do anything currenty. The output resolution is fixed to 320 x 200.

Timeline

Here you set up how many frames from the entire composition will be displayed in the composition window (**Number of frames on screen**). You can also specify maximum number of frames for entire composition (**First frame** and **Last frame** fields).

Information on VideoMaker

This is a shareware version of VideoMaker software. It means that registration is by the honor (and couple of benefits) after 30 days of use. AiM would very appreciate your registration of this software. It will help us bring new features in VideoMaker. **Also when you register you will receive full manual and the latest version of the software (e.g. non limited output resolution setup feature) as well as support.** You are also entitled to upgrade to VideoMaker + at any time.

Registration fee is only US\$ 99. It is a fraction of the cost of other commercial software with similar features.

We accept MasterCard/EuroCard and American Express credit cards and checks in US currency.

For money transfers to our bank account and check payments price is only US \$89.

For shipping and handling other then E-mail we charge US \$10 for air mail and \$45 for DHL or UPS.

See also "Other products from AiM" for information on VideoMaker +.

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phone/fax: + 385 41 611 126
CompuServe: 73423,3143

Other products from AiM

VideoMaker +

This is professional edition of VideoMaker. It has more enhanced features. Some of them are:

- support for Video for Windows
- time curve editor allows you to fine adjust amount of effect/transition down to a single frame
- enhanced morph with T-MESH editor
- wharp effect
- new sophisticated video effects: emboss, sepia, diffuse, posterize and lightning

List price: US \$399.

Introductory offer: US \$199. Upgrade from VideoMaker: US \$100. This offer is valid through March 31, 1994.

Windows Graphics Library

This library is used in VideoMaker software.

It is developers' library for file reading and writing various image file formats like:

TIFF, GIF, PCX, TGA, BMP, JPG

Animation file formats FLI and FLC are also supported.

The library includes comprehensive set of routines for digital effects. You can perform blur, brightness, contrast, crop, edge detection, flip, move, rotate, scale, zoom, sharpen and color conversion.

JPEG compression allows you to compress images up to 100:1 without or with minimal loss of quality.

The library is available as Microsoft/Borland C/C++ large memory model library or DLL.

You can find full working demo including manual on CompuServe. Files ITOOL1.ZIP, ITOOL2.ZIP, ITOOL3.ZIP.

Price: US \$199.

We accept MasterCard/EuroCard and American Express credit cards and checks in US currency.

For money transfers to our bank account and check payments we offer 10% discount.

For shipping and handling other then E-mail we charge US \$10 for air mail and \$45 for DHL or UPS.

VAR/Reseller and volume discounts available!

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Initial

Help on the Initial Dialog goes here

Product Information

Displays product information dialog box.

Composition Setup

This option doesn't do anything currently. The output resolution is fixed to 320 x 200.

Timeline setup

Here you set up how many frames from the entire composition will be displayed in the composition window (**Number of frames on screen**). You can also specify maximum number of frames for entire composition (**First frame** and **Last frame** fields).

_swatch Index

2 of 9

Commands

_timelin Index

3 of 9

Commands

Dummy1 Index **4 of 9**

Commands

Dummy2 Index **5 of 9**

Commands

Dummy3 Index **6 of 9**

Commands

Swatch Index

7 of 9

Commands

Time_cli Index **8 of 9**

Commands

Timeline Index **9 of 9**

Commands

Dummy1

Help on the Dummy1 Dialog goes here

Dummy2

Help on the Dummy2 Dialog goes here

Dummy3

Help on the Dummy3 Dialog goes here

VIDEO

VideoMaker software is application for producing videos on a computer. You can use it for simple tasks like replacement for video editing equipment. This means that you can perform digital video effects like blend, fade in and out, chroma key, etc., but unlike using VCRs there is no loss of quality. And, unlike video editing equipment you don't have to spend tens of thousands of dollars to perform such video effects.

Or you can go one step further and make script for video composition which will combine some or all of the digital effects. And above everything you can do things which can be done only by computer like morph effect.

VideoMaker is a comprehensive tool which you can use to produce videos ranging from simple presentations to broadcast quality professional video clips.

This is the age of multimedia and virtual reality. Personal computers are getting faster and better. For this kind of application speed and storage capabilities are very demanding. As you can store a whole book in just a couple of megabytes it is barely enough for one or two pictures. Big hard disks and fast CPUs are must for video on a PC application. Today 486 and Pentium processors offer enough speed for this purpose. PowerPC, Alpha and MIPS will be even better. Soon it will be possible to do true real time video on a PC (this could be read also that we are like many other software developers depending on next generation of CPUs).

VideoMaker is true 32 bit software so it takes the full advantage of the 386, 486 and Pentium processors. The code has been optimized for maximum speed under 486 and Pentium processors. So the operations on the images are done couple of times faster than by other standard 16 bit Windows software.

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