Contents

The following Help Topics are available:

For Help on Help, Press F1

Creating Morphs and Morph Movies

Creating a Morph involves several easy steps, briefly described below. For a more thorough explanation, please refer to Chapters 1, 2 and 3 of your manual.

To create a morph, either as a still image or as a movie:

Select the images to be used as sources. The source images can be of any type, both color or black and white. The only prerequisites are that they have to have the same dimensions (width and height) in pixels. If they are not, they can be resized in an image processing program.

Open the images in the storyboard window by double-clicking on the Start or End Thumbnails, or by selecting Read Start/End Image from the Sequence menu.

Set the key points in the Start Image that will move to specific places in the End Image. Adjust the corresponding key points in the End Image by selecting the arrow tool and dragging the point to the appropriate position. This process is crucial to ensure the smoothest possible transition between the two pictures.

To create a single frame morph, select "Morph Image" from the Windows menu to bring up the blank morph image window. Select "Morph" from the Sequence menu to obtain an inbetween frame in the Morph Image Window.

To create a morph movie, select "Compression" from the File menu and set the frames per second (frame rate), compressor and compression quality. You may also resize the movie and change the pixel depth. **To save the movie**, you must not have any empty or incomplete sequences in your document. In other words, all sequences in the document must have both a start and an end image. If a sequence is incomplete, simply delete it from the document by selecting it and pressing the 'Delete' key. The **movie duration time** at the top of the document must also be greater than zero in order to save a movie. (The duration display shows hours, minutes, seconds and hundredths of a second). To set the duration, click on the individual sequence time displays. Clicking on the upper half of the sequence time display will increase the movie duration, and clicking on the lower half of the sequence time display will decrease the movie duration.

To play a movie created by MORPH, it must have been saved as a Video for Windows (.avi) movie. (You may save the morph animation as a sequence of files or as an Autodesk FLIC animation, but you cannot play these back in MORPH.) Select **"File...Open Movie"** and select the Video for Windows movie from the open movie dialog to bring up the movie player. Press the play button at the bottom of the window to start the morph movie.

Dialogs

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Special Key Uses

This section briefly describes the action performed by pressing special keys on the keyboard while the cursor is positioned   in certain areas of the Morph document.

Pressing the **SHIFT** key when the cursor is on the Start, End or Morph windows toggles between the currently selected tool and the Hand Tool while the key remains pressed.

Pressing the **CONTROL** key and clicking on a Key Point with the Adjusting Tool selected brings up the Tension dialog box.

Pressing the **RIGHT MOUSE** button with the Magnifying Glass selected is equivalent to zooming out.

Pressing the **TAB** key selects the Adjusting Tool if it is not selected; otherwise, it toggles between the Adjusting Tool and the Key Point Tool.

The **Clear menu** command and the **Delete key**   are functionally equivalent.

Pressing the **CONTROL** key while creating Key Points automatically joins them with a line.

Pressing the **RIGHT MOUSE** button and selecting Key Points with the Adjusting Tool inverts the selection, i.e., selects deselected points and deselects selected points.

Tool Palette

Adjusting Tool

Key Point Tool

Line Tool

MagnifyingGlass

Scissor Tool

Hand Tool

Glossary

Warping

Warping is a special type of morphing.   Instead of creating a crossfade of both points and colors as with a standard morph, the colors of the Start Image are used and moved to the areas defined by the points in the End Image.

Warping can involve using the same or different images for the Start and the End.   With two similar images, areas of the image can be distorted or "stretched."   Key points are placed in the areas that are to be warped in the Start Image.   Points in the End Image are then moved according to how you want to warp those areas.   You might, for instance, make an ambivalent person smile or skew an object.

A different warping effect can be achieved when using two different images for the Start and the End.   Because the color from the Start Image are applied to the points in the End Image, you could, for example, make a pale woman dark, such as in the example given in this chapter.

Warping is achieved by selecting the **Warp Sequence** radio button in the **Sequence Options dialog box** and following the steps necessary to create a standard Morph.   A sequence can either produce a morph or warp effect.   Both effects may be combined with multiple sequences in a document.

For a more thorough explanation on Warping, please refer to **Chapter 5** of   your manual.   The topic '**Creating Morphs and Morph Movies**' in the Help Index also gives a brief overview on creating Morphs.

Dynamic Morphing

A **Dynamic Morph** is created from two animations rather than two still images.   Morph 1.5 gives you a simplified approach to creating dynamic morphs by using animations brought into Morph as a **series of still images**.   Please refer to **Chapter 6** of the manual for a more thorough explanation and example on Dynamic Morphing.

SOURCE MATERIAL

Dynamic morphing is achieved using **two sets of animation stills**.   The stills can be any of the following formats: **BMP, DIB, WMF, WPG, DCX, PCX, GIF, TGA, TIF, PCT and JPG**.   All frames for the document must be the same dimensions in pixels.

Frames from each animation will be matched up as a Start and End image of a sequence.   For example, if your animations were each 20 frames, your Morph document would contain 20 sequences.   **Morph will produce only one frame per sequence regardless of the number of frames rate set in the Compression dialog box**.

SETTING KEY POINTS

Key points still must be set for each sequence in the document.   The easiest way to achieve this is to read in the Start and End images for the first sequence and place and adjust the key points.   After the first sequence is complete, duplicate that sequence by selecting the **Duplicate Sequence** option from the **Sequence Menu**.   Read in the new Start and End images for the new sequence by selecting **Read Start Image** and **Read End Image** from the **Sequence menu** to replace the images of the duplicated sequence.   By doing this, your key points will already be placed from the first sequence, and all you need to do is adjust the key points instead of adding new points.

CREATING THE DYNAMIC MORPH MOVIE

Once the key points have been set for each sequence, you are ready to create the Dynamic Morph movie.   Follow the same steps necessary for creating a standard Morph movie.   Choose **Save Movie** from the **File menu**.   Click inside the **Dynamic Morph checkbox** to save the movie as a dynamic morph, **creating only one frame per sequence**.

Adjusting Tool

The tool used to adjust the position of Key Points.

algorithm

Sequence of instructions used to perform a specific task.

compressor

Used to reduce both the size of static images and playback time of AVI movies.

End Image

The ending image to be morphed from the Start Image in a sequence.

frame

A single image in a sequence of images.

Hand Tool

The tool used to autoscroll an image within a window.

JPEG

The Joint Photographic Experts Group.   A file type that uses a lossy spatial compression algorithm providing very good results with still images.

Key Point Tool

The tool used to set Key Points.

Key Points

Each of the points used to define areas in both the Start and End Images that correspond to each other.

key frame rate

The number of key frames per second placed into temporally compressed sequences.

key frame

A sample in a sequence of temporally compressed samples that does not rely on other samples in the sequence for any of its information.   Key frames are placed into temporally compressed sequences at a frequencey that is determined by the key frame rate.   Typically, the term key frame is used with respsect to temporally compressed sequences of image data.

Line Tool

The tool used to join Key Points with lines.

Magnifying Glass

The tool used to Zoom In or Out of an image.

matte

A pixel map where the value of each pixel governs the relative intensity of the video data for the corresponding pixel in the result image.

Morph Control Slider

A slider bar found on top of the Morph Image Window used to set what percentage of the End Image will contribute to the morph.

Morph Image Window

The window used to show the resulting morph between the Start and End images.

morph

A two-dimensional, spatially-warped crossfade between two images.   In other words, a mix of two images where elements of each of the two images move to an intermediate position between them.

Movie Duration Display

Display found on top of the Storyboard Window that shows the total movie time.

movie

A stream of morph images representing one or more sequences of transitions between Source Images.

NTSC

Abbreviation for the National Television Standards Committee, the color-encoding method employed by the committee in 1953 in the US for color TV public broadcasting.   It uses a frame rate of 30 frames per second in interlaced mode and at a resolution of 640x480 pixels.

PAL

Abbreviation for Phase Alternation Line (sometimes, Phase Alternating Line), a color encoding system in which one of the subcarrier phases derived from the color burst is inverted in phase from one line to the next.   This technique minimizes hue errors which may result during color video transmission. It uses a frame rate of 25 frames per second in interlaced mode and at a resolution of 720x576 pixels.

pixel

Short for picture element, meaning each dot on a screen.

Scissors Tool

The tool used to cut lines joining Key Points.

Sequence Duration Display

Display found below the Thumbnails in a Sequence used to set the duration of a Sequence.

Sequence

A pair of images to be morphed into each other.   A sequence is made up of two Thumbnails and a Sequence Duration Display.

Source Images

The image files to be used as Start and End Images.

spatial compression

Image compression performed on a single frame basis.   This technique discards redundant data unnecessary to accurately represent the image.   See also temporal compression.

Start Image

The starting image to be morphed into the End Image in a Sequence.

Storyboard Window

The Storyboard window represents each Morph document.   The Storyboard Window contains Sequences which in turn contain two Thumbnails.   The Storyboard Window maintains information on the ordering and duration of each Sequence.

temporal compression

Image compression that is performed between frames in a Sequence.   This compression technique takes advantage of redundancy between adjacent frames in a sequence to reduce the amount of data that is required to accurately represent each frame in the sequence.   Sequences that have been temporally compressed typically contain key frames at regular intervals.   See also spatial compression.

tension

The value used in the Color and Position Shift Sliders.   It determines the percentage of the Start and End Images that contributes to the final morph.

Thumbnails

Each of the black (when empty) square regions in a Sequence used to place a preview of both the Start and End Images.

Tool Palette

A palette containing the tools needed to perform a morph.

transition

same as "morph".

Video for Windows

Video for Windows is an addition to the Windows software that integrates time-based data into mainstream Windows applications.   Time-based data can be manipulated in the same ways as any other standard element in the Windows environment.   In Video for Windows, this time-based data is referred to as movies.   Morph is capable of displaying, editing, copying, and pasting movies and movie data in the same way as any Windows application does with text or other graphic elements.

File Menu

New

Creates   new Morph document.   A blank Storyboard Window named NEWx.MRF (where x denotes the document number) will appear on the screen.

Open Document

Opens a previously saved Morph document.

Open Movie

Opens a previously saved Morph Video for Windows movie.

Save

Saves the active Morph document.   If the document is untitled, then Morph brings up a 'Save As' dialog.

Save As

Brings up a 'Save As' dialog box, where you can enter a name for the document.

Compression

Brings up the Compression dialog box, used to set the compressor to be used and other compression information, such as resize and pixel depth parameters.

Save Image

Brings up a Save dialog box and saves the image in the Morph Image Window as the specified file type.

Save Movie

Brings up a Save dialog box and saves the selected type of movie based on parameters entered in the Duration Displays and the Compression dialog box.

Exit

Exits the Morph application.

Edit Menu

Undo

Restores the application to the state it was before the last operation was performed.

Cut

Makes a copy of the selected sequence to the clipboard, then cuts the selection.

Copy

Makes a copy of the selected sequence to the clipboard.

Paste

Pastes the contents of the clipboard.

Clear

Clears the currently selected sequence or key point.

Sequence Menu

Morph

Creates a morph between the Start and End images and places the resulting picture in the Morph Image Window.

Quality

Toggles between the "Good" and "Better" Morph quality settings.

Options

Brings up the Sequence Options dialog, used to set the type of Morph sequence (Morph or Warp), movie creation options and sequence timing.

Add Sequence

Adds a new Sequence to the Storyboard Window.

Duplicate Sequence

Makes a duplicate of the selected sequence.

Exchange

Exchanges the order of the Thumbnails in the selected Sequence.

Bring to Top

Brings the selected Sequence to the top of the Storyboard Window.

Send to Bottom

Sends the selected Sequence to the bottom of the Storyboard Window.

Move Up

Moves the selected Sequence up one place in the Storyboard Window.

Move Down

Moves the selected Sequence down one place in the Storyboard Window.

View Menu

Zoom In

Performs a 2x magnification of the view in the currently selected image window.   Its action is equivalent to using the left mouse button to click the image with the Magnifying Glass Tool.

Zoom Out

Performs a 2x reduction of the view in the currently selected image window.   Its action is equivalent to using the right mouse button to click the image with the Magnifying Glass Tool.

Normal Size

Restores the view to normal size in the currently selected image window.

Show Key Points

Toggles between showing and not showing Key Points in the selected window.   The checkmark indicates Show Key Points is on.

Show Key Lines

Toggles between showing and not showing the joining lines between Key Points in the selected image window.   The checkmark indicates Show Key Points is on.

Set Colors

Brings up the Set Colors dialog box, in which the default colors of selected and unselected Key Points and Lines can be changed.

Dither

This menu item is only available when using a 256-color video display.   It allows you to set either a Low Quality or Better Quality dither of the displayed images.   Low Quality is faster, with lower image quality, whereas Better Quality is slow, but higher quality.

Movie Menu

Play

Plays the currently open movie.   Equivalent to clicking the Play button in the player window.

Loop

Makes the built-in AVI movie player loop the currently opened movie.

Loop Back and Forth

Makes the built-in AVI movie player play the currently opened movie forwards and backwards.

Home

Goes to the beginning frame of the movie displayed in the player window.

End

Goes to the ending frame of the movie displayed in the player window.

Windows Menu

Start Image

Brings up the Start Image window.   When the window is closed, the check mark goes away.

End Image

Brings up the End Image window.   When the window is closed, the check mark goes away.

Morph Image

Brings up the Morph Image window.   When the window is closed, the check mark goes away.

Open Windows List

Lists currently open windows and activates the selected window.

Help Menu

Brings up the Morph Help Index.

Adjusting Tool

The adjusting tool is used to adjust the position of Key Points.   Use this tool to select a key point on the start or end image window and move the point to the appropriate place on the image.

Key Point Tool

The **key point tool** is used to set the key points which tell Morph which parts of the Start Image to turn into parts of the End Image.   To create key points, select the Key Point Tool from the Tool Palette and select the area in either the Start or End Image where you would like to place the key point by clicking the left mouse button.

Line Tool

The **line tool** is used to visually join key points with a line.   To join a set of key points, select the Line Tool from the Tool Palette, place the Line Tool over the desired starting Key Point and click the left mouse button.   Move to the next Key Point you want to join and click again.   Continue doing this until you finish outlining the area you are working on.   To end a line, click anywhere other than on a Key Point.

You can also join Key Ponits by pressing the CONTROL key while creating points with the Key Point tool.

Scissor Tool

The **scissor tool** is used to clear or delete a line joining two points.   To delete a line, select the scissor tool from the Tool Palette and click on the line you want to cut.

Magnifying Glass

The **magnifying glass** is used to perform a 2x magnification or reduction of the view in the currently selected window.   To perform a magnification, select the magnifying glass from the Tool Palette and click on the image window with the left mouse button.   To perform a reduction, click on the image window with the right mouse button.

Hand Tool

The **hand tool** is used to autoscroll the image within a window if the image is larger than the size of the window.   To move the image within a window, select the hand tool from the Tool Palette and click and drag the image while holding the left mouse button down.

Open Morph Document Dialog

This dialog appears after selecting **File...Open Document** from the Morph menu.

The file list box will display previously saved morph documents in the current directory if the file type "*.**mrf**" is selected in the File Type list box.   Open the desired Morph document by selecting the file from the list box and clicking the OK button.

Open Movie Dialog

This dialog appears after selecting **File...Open Movie** from the Morph menu.

The file list box will display previously saved Video for Windows movies in the current directory if the file type "***.avi**" is selected in the File Type list box.   Open the desired Video for Windows movie by selecting the file from the list box and clicking the OK button.

Open Start/End Image Dialog

This dialog appears after selecting **Sequence...Read Start Image or Read End Image** from the Morph menu or double-clicking with the left mouse button on an empty thumbnail sequence window.

If you are opening the first image for a document, the file list box will display all image files in the current directory for the selected file type.   This will set the image dimensions for the document.

Since all source images composing the document must be of the same dimensions, subsequent Open Start/End Image dialogs for the document will filter out files of invalid dimensions.

Open the desired image file by selecting the file from the list box and clicking the OK button.

This menu selection is available when a document sequence is selected.

Save Movie Dialog

This dialog appears after selecting **File...Save Movie** from the Morph menu.

Select the type of movie you would like to save from the 'Save File as Type' combo box.   Enter the name you would like the movie to saved as in the 'File Name' edit box, or select a previously saved movie from the file list box and click the OK button.   If you do not append an extension to the movie name, the selected File Type extension will be appended.

To save the movie as a dynamic morph, click in the **Dynamic Morph checkbox**.   This setting will tell Morph to save only one frame per sequence.   Refer to the chapter on Dynamic Morphing in the manual, or from the Morph Help contents menu for a more thorough explanation of Dynamic Morphing.

This menu selection is available when a document has at least one complete sequence.   A complete sequence must contain both a start and end image and time duration.

Save Image Dialog

This dialog appears after selecting **File...Save Image** from the Morph menu.

Select the type of file format you would like the image to be saved as from the 'Save File as Type' combo box.   Enter the name you would like the image to be saved as in the 'File Name' edit box, or select a previously saved image from the file list box and click the OK button.   If you do not append an extension to the file name, the selected File Type extension will be appended.

This menu selection is available when the Morph Image window is displaying an image.

Save As Dialog

This dialog appears after selecting **File...Save As** from the Morph menu, or after selecting **File...Save** on a new morph document.

Enter the name you would like the morph document to be saved as in the 'File Name' edit box, or select a previously saved document from the file list box and click the OK button.   If you do not append an extension to the file name, '.MRF' will be appended.

Compression Dialog

This dialog appears after selecting **File...Compression** from the Morph menu.

The **Compress Method** combo box will display available compressors installed on your system that are registered with Microsoft.   The selected compressor will be used when creating Video for Windows movies.   If no compression is desired, select 'No Compression'.

The **Compress Quality** scroll bar allows you to set the relative quality of the compressed images. The higher the quality rate, the lower the compression of the resulting images.

The **Frames Per Second** (frame rate) will determine how many frames Morph will generate for each second of the movie.

The **Resize** parameters allow you to change the dimensions and pixel depth of your images before they are saved.

Set Colors Dialog

This dialog appears after selecting **View...Set Colors** from the Morph menu.

Use this dialog to change the colors of the image's key points and lines.   To change the color of the selected/unselected key points or lines, double click on the corresponding color rectangle to bring up the **Select Color** dialog.   Select the desired color and click the OK button.

Sequence Options Dialog

This dialog appears after selecting **Sequence...Options** from the Morph menu.

Use this dialog to set various options for an individual sequence in a Morph document.

To generate a standard Morph for the selected sequence, click inside the **Morph Sequence** radio button.   To generate a Warp for the selected sequence, click inside the **Warp Sequence** radio button.

The movie group box contains two options that come into effect when creating a Morph movie. Select **Force End Image Frame** to generate the end image as the last frame of the morph animation sequence, as this is not always the case.   Select **Omit from Movie** to prevent the selected sequence from being included in the saved movie.

The acceleration of the movie may be changed under **Timing**:

Ease In will accelerate slowly.

Ease Out decelerates slowly.

Ease In/Out accelerates and decelerates slowly.

The **default** settings are:

Morph Sequence

Do NOT force the end image frame

Do NOT omit the sequence from the movie

Normal timing