

**MINDSET**

# Animation & Effects

User's Guide

100916-002

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# Introduction

**Animation & Effects** is the newest and most powerful animation tool available on the Mindset II. Developed to answer the need for smooth, multicolored, real-time animation, *Animation & Effects* works in conjunction with the *PC-Paintbrush II*, *Video Titrer II*, *Glyph*, and *Image Capture* packages. You can use it to create many kinds of animation sequences from simple wipes to elaborate special effects.

Not only does *Animation & Effects* give you the ability to create nearly any type of animation sequence, it also offers a wide variety of special effects, easily accessible.

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## HOW TO USE THIS GUIDE

Before you begin to work, please take a moment to skim through this guide to see how it's put together.

The final sections of this "Introduction" cover important technical issues, a glossary of terms, and step-by-step instructions for loading *Animation & Effects* into the Mindset II. Don't neglect these important topics.

The second section, "Animation - A Tutorial," is a guide to the basic functions of the program. In creating and saving animations, you'll get hands-on experience with the many things you can do with *Animation & Effects*. You may even want to start experimenting as you go through this section.

In the reference section, "*Animation & Effects* Menus," you'll find complete details on each menu and function. Use this section to explore the full range of the *Animation & Effects* capabilities.

The Appendices will be of interest to the advanced user; however, beginners and advanced users alike will find "Appendix B" particularly useful.

If you're already familiar with the Mindset II and other graphics packages, or are the adventurous sort, you can consult "Getting Started" and then jump right in — referring to "Ready to Animate" and the rest of this guide whenever you need information.

If you have little or no experience with computers or graphics packages, you should read "Animation — A Tutorial." Here you'll find a basic explanation of how *Animation & Effects* operates. When you're satisfied that you understand the theory of operation, start experimenting, with the reference sections close at hand.

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## GLOSSARY OF TERMS

There are certain terms, used throughout this guide, with which you should become familiar:

### **Accept**

Press the right button on the mouse — the same as pressing the spacebar on the keyboard when using a pen and tablet.

### **Animation**

A set of animated events.

### **Animation sequence file**

An ASF is a file that contains any animation created using *Animation & Effects*.

### **Cancel**

Cancel the operation you're currently doing by pressing the ESC key in the upper left portion of the keyboard.

### **Cel**

An outlined portion of a picture that can be used in creating an animation. See Section II, "How It All Fits Together," for a complete explanation of cels.

### **Chain**

A sequence of cels.

### **Cursor**

The cross-hair shape that moves around the screen as you move your input device.

### **Cursor direction keys**

The arrow keys located at the far right of the keyboard. There are four cursor control keys; each one corresponds to a particular direction. Use them when you need precise control of the cursor.

### **Event**

A moving image, a pause, a color change, and so forth.

### **Events list**

The "script" containing all the information needed for an animation sequence.

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**Input device**

A mouse or graphics tablet used to move the pointer around the screen and make selections.

**Instruction box**

Located at the bottom of many screens, this box will give you step-by-step instructions and prompt you if you forget how to do something.

**Load**

Retrieve a file from disk.

**Palette**

A set of 4 to 16 colors with which you can work, selected from a range of 512 colors.

**Parallel animation**

An animation sequence containing multiple simultaneously moving objects. This is achieved by playing two or more events simultaneously. See Appendix B for more information.

**Save**

Store a file on a disk.

**Scroll**

Move a list of directory or file names vertically on the screen.

**Select**

Move the cursor to the area of the screen where you want to make a selection and press down with the pen or press the left button on the mouse. The center of the cursor should be used to point inside the area to be selected.

**Trace**

Press and hold the pen or the left button on the mouse while moving the pen or mouse.

**Work Diskette**

A diskette used to store your Animation sequence files or pictures.

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## GETTING STARTED

Just one more note before you begin. **Animation & Effects** is designed to take advantage of the unique features of the Mindset II. You can use two disk drives or a hard disk, and a mouse or a pen and tablet along with the keyboard. However, the instructions in this guide are based on a system with two disk drives and a mouse attached to the right side of the keyboard.

If you're using a hard disk, refer to Appendix C for instructions on installation procedures.

The following table shows how the pen and tablet controls correspond to mouse controls:

Term	Mouse	Tablet
Select	left button	Press pen down on tablet
Accept	right button	Press space bar on the keyboard

### Loading Animation & Effects

Here's how to Load **Animation & Effects**:

- Place your **Animation & Effects** program diskette in the left-most disk drive (A:) and turn on your Mindset II system. If your system is already on, hold down the **ALT** key and press the **RESET** key on the keyboard.
- When the system has loaded you'll see a menu of choices:
  1. Load **ANIMATION & EFFECTS**
  2. Load **PC PAINTBRUSH II**
  3. Load **VIDEO TITLER II**
  4. Load **GLYPH UTILITY**
  5. Load **IMAGE CAPTURE UTILITY**
  6. Prepare a New Data Diskette
  7. Copy a Diskette
  8. Show Animation & Effects Files
  9. Show Paintbrush Picture Files

- 
10. Show Titler II Sequence Files
  11. Show Titler II Font Files
  12. Change PC Paintbrush Defaults
  13. Exit to DOS
  14. Display Document Updates

Here's a brief explanation of the menu choices:

**Choices 1 through 5:** These allow you to load various software programs. Just follow the instructions presented on the screen.

To load *Animation & Effects*, just type 1 and then press the RETURN key on the keyboard.

**Choice 6:** Diskettes must be in a certain format in order to be used on the Mindset II. This selection allows you to format data diskettes that will be used to store pictures, sequences, animation files, and so forth.

**IMPORTANT NOTE:** It's recommended that you prepare a couple of data diskettes to use before loading the *Animation & Effects* program.

**Choice 7:** You'll want to "backup" diskettes periodically in order to have an extra copy. This selection allows you to make copies of your data diskettes.

**Choices 8 through 11:** These allow you to display a directory of disk files for animation sequences, *PC Paintbrush II* pictures, *Video Titler II* sequences, and *Video Titler II* fonts.

**Choice 12:** When you want to change the default parameters in *PC Paintbrush II*, you'll use this choice. In other words, if you want to use another screen resolution or change from mouse input to tablet input, use this function.

**Choice 13:** This allows you to exit the menu and enter DOS (Disk Operating System). You should make this selection only if you're familiar with DOS functions and commands.

**Choice 14:** Occasionally Mindset will enhance the features of a software package after the user's guide has been printed. This selection allows you to view on the screen any document changes that are not included in your user's guide. After reading the information presented through this selection, press the ESC key at any time to return to the menu.

# Animation — A Tutorial

There are three things you need to do in order to create an animation sequence :

- create a picture,
- cut a cel from the picture, and
- tell the cel to do something.

There are a variety of ways to create a picture. You can use *PC Paintbrush II* to draw one yourself, you can use the Image Capture package to grab a picture from a video source, or you can use *Video Titrer II* to create a text-based picture.

Once you've created and saved on a disk the pictures necessary for a complete animation sequence, you'll need to create cels from these pictures.

A cel is simply an outlined portion of a picture which is to be animated. A cel can be any part of a picture you've created, or the whole picture. Keep in mind that a cel can contain any part of a picture and can be any size. Many cels can be created and used for animation. The reference section of this guide provides specific information on the number of cels that may be created. Once you've created a cel, you can do many things with it.

*Animation & Effects* has been designed to allow for maximum flexibility in animating cels. You can choose from a wide array of event classes — various movements, transitions, and eye-catching special effects. Each cel can be assigned a specific action to perform; it can be told when to do it and how. When you've tailored your animation sequence to your exact specifications, it can be saved on a disk to be re-edited and played at a later time.

When you're ready to animate, follow the steps described in this section.

**REMEMBER:** These instructions refer to a mouse as your input device. Refer to "Getting Started" in the "Introduction" if you're using a pen and tablet.

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## LOAD ANIMATION & EFFECTS

Refer to "Getting Started" for the loading procedure. When you see the *Animation & Effects* MAIN MENU, you're ready to proceed.

You may also want to move the cursor around a little to get the feel of it.

**REMEMBER:** Make sure that your *Animation & Effects* program diskette is in your left-hand drive. Put the diskette labeled *Animation & Effects* Data Diskette in your right-hand drive so you'll be ready to load sample files.

## SELECT THE SET COLOR MODE BOX

When you first load *Animation & Effects*, the program is set to the HIGH RES - 4 COLOR mode. If your pictures are in the MED RES - 16 COLOR mode, you need to choose that mode for your animation.

- Move the cursor to the SET COLOR MODE box, and
- Press the left button on the mouse.

The SET COLOR MODE menu appears.

Note that throughout this guide, "select" means move the cursor until it points to an option, then press the left button on the mouse.

For example, to specify the color mode you want — for purposes of this demonstration, select the HIGH RES - 4 COLOR mode — move the cursor to the desired color mode box and press the left button on the mouse.

There is a brief pause following your selection; then you're returned to the MAIN MENU.

## MAKE SOME CELS

**REMEMBER:** You must already have created a picture before you can make cels. For this demonstration, Mindset has included a sample picture file on the data diskette.

- 
- Select EDIT CELS — the EDIT CELS menu appears.
  - Select MAKE CELS. A list of pictures appears. (If there are no picture files on the disk, the directory window remains empty.)
  - Select the picture you wish to work with — move the cursor to the name of the picture (in this case a sample picture, CLIPART, has been drawn for you), and press the left mouse button.

Now take a moment to study the screen. Notice that —

- the picture you selected to work with is on the screen,
- there's a horizontal line with your cursor on it, and
- the MAKE CELS menu has disappeared.

Move your mouse. Notice that the horizontal line follows the motion of your mouse. This horizontal line will make up one of the four sides used to make a cel. Remember that a cel can be any part of the picture, or the whole picture.

To make a cel:

- Move the horizontal line to where you would like the top of the cel to be.
- Select this location. If you make a mistake, don't worry. You can reposition the line at any time prior to pressing the *right* button on the mouse — just reposition the outline and press the left button on the mouse again.
- When you're satisfied with the position, press the *right* button on the mouse.

Now the top of your cel is defined. Repeat the above steps to make the bottom, left, and finally the right side of the cel. Don't forget that you can redefine any side prior to pressing the right button on the mouse. Also, it's to your advantage to make your cels as small as possible; ideally, they should be just large enough to contain your animated objects.

Pressing the ESC key will erase the outline currently being defined and allow you to begin the outlining process again.

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**REMEMBER:** "Accept" means press the right button on the mouse or the space bar on the keyboard if you're using a tablet.

When you're finished making a cel, you have one last thing to do before you can animate it — you have to name it.

The instruction box is now at the bottom of the screen. Follow the instructions in the box:

- Type a name for the cel. It may be up to eight characters long. If you make a mistake, use the **BACKSPACE** key on the keyboard. Do not use spaces in a name. For purposes of this tutorial, type the name **DEMO**. When you're finished,
- Press the **RETURN** key on the keyboard.

You have now made a cel. At this point, you can make another cel or you can exit to the **MAIN MENU** and begin animating.

To create another cel, follow the exact steps outlined above. Start by defining the top of the cel.

To exit to the **EDIT CELS** Menu, press the **ESC** key, located at the upper left corner of your keyboard, twice. Select **EXIT THIS MENU**.

## **ANIMATE!**

To animate your cel:

- Select **EDIT ANIMATION** — the **EDIT ANIMATION** menu appears.
- Select **MAKE EVENTS** — the **MAKE EVENTS** sub-menu appears, showing all the options available to you.
- Select **WIPE TRANSITION** — a list of the various wipe transitions appears.
- Select **WIPE ->** — a page showing the cel(s) you've created appears, along with the instruction box. Read the instructions carefully.

- 
- Select the cel you wish to use, and your cel appears along with the instruction box at the bottom of the screen.
  - Select where you want the wipe to occur — the cel will move with the mouse. Notice that the original cel picture remains on the screen. Press the **DEL** key on the keyboard to clear the original cel image from the screen.
  - Accept this position by pressing the right button on the mouse — you automatically return to the **MAKE EVENTS** menu.
  - Select **EXIT THIS MENU** to return to the **EDIT ANIMATION** menu.

## **PREVIEW AN ANIMATION**

That's all you need to do to create a short animated sequence. Now you can watch what you've just done:

- Select **PREVIEW**. The animation you just created is played from the beginning, and you're returned to the **EDIT ANIMATION** menu. To preview the animation again, just select **PREVIEW**.

## **SAVING YOUR ANIMATION**

Whenever you've completed an animation sequence and want to save it, or when you need to break away for awhile and want to complete it later, you should save the sequence on a formatted work diskette.

Here's how:

- Select **SAVE ANIMATION** from the **MAIN MENU** — the screen clears.
- Follow the instructions in the instruction box:
  - Type a name for your animation. It may be up to eight characters long. If you make a mistake, use the **BACKSPACE** key on the keyboard. Do not include spaces as part of a file name.

- 
- When you're finished, press the RETURN key — *Animation & Effects* saves the sequence and puts the name into the directory.

If you save a newly edited animation with the same name on disk, you run the risk of erasing the old animation. You can keep both the old and the new animation by saving the new one with a different name.

**REMEMBER:** Always keep a few extra formatted work diskettes around in case you fill up one work diskette.

## LOADING AN ANIMATION SEQUENCE FILE

This loading procedure is similar to the loading procedure outlined in "Making Cels." Follow these steps to load an animation from an *Animation & Effects* work diskette:

- Select **LOAD ANIMATION** from the MAIN MENU — the LOAD ANIMATION menu appears with the instruction box.
- Follow the instructions in the instruction box:
  - Select disk drive B — a list of animation files appears.
  - Select the animation you wish to work with. A sample animation, MINDSET, has been created to show you some of the things you can do with *Animation & Effects*.

When *Animation & Effects* is finished loading the animation, you'll automatically be returned to the MAIN MENU. At this point you may play the animation or edit it (more about editing in the reference section.)

## SOME FINAL HINTS

In this section you've learned the basic procedure for animating with *Animation & Effects*. Now you can let your imagination guide you as you start to experiment in depth with *Animation & Effects*.

Before you go on your way, here are some final hints and reminders:

- 
1. The instruction box appears at the bottom of most pages. It's there to provide general instructions and prompts. If you forget how to do something, look for the instruction box. It will generally outline what needs to be done.
  2. Pressing the space bar is the same as pressing the right button on the mouse. Use the space bar to accept settings when using a pen and tablet.
  3. You can move the cursor anywhere on the screen with the cursor direction keys. These keys are particularly useful when you're doing very detailed placement and need precise control over the cursor.
  4. Pressing the RETURN key selects *and* accepts a cursor location. Use the RETURN key when doing very precise work — where pressing the button might jiggle the mouse slightly and move the cursor.
  5. Use the HOME key to reset the palette to its original color. Sometimes it becomes difficult to read things inside the instruction box. When this happens, press the HOME key and the instructions will be more readable.
  6. Be careful when loading a new animation. When you load an animation, any animation currently being worked on is erased. *Animation & Effects* will tell you when you need to save something; just read what's in the instruction box.
  7. The function keys (F1 - F5) are located at the very top of the keyboard. They can be used to flip through five different color palettes, which are automatically assigned to a function key upon loading a new picture. For a full explanation of the palette functions, refer to the "EDIT PALETTE" section of this guide.

# Animation & Effects Menus

## INTRODUCTION

This part of your *Animation & Effects User's Guide* covers all seven *Animation & Effects* menus and the procedures for using each one.

You can refer to this section when you have a specific question about a menu, or you can simply browse through it.

In either case, you'll find that this part of the guide covers the details, but not all the possibilities of *Animation & Effects*. Experimenting with various animation menus — and submenus— is the key to discovery. So let your imagination be your guide as you get to know the program.

Two more reminders. *First*, the word "select" means:

- move the cursor to the function you want, then —
- press the left button on the mouse or press the pen down if you're using a tablet.

*Second*, "accept" means:

- press the right button on the mouse or the space bar on the keyboard if you're using a tablet.

## MAIN MENU

The MAIN MENU presents all the functional submenus available for use:

**SET COLOR MODE** — set the color mode for your animation, either 4 or 16 colors.

**EDIT CELS** — add, view, rename, or delete cels in the cel list.

**EDIT ANIMATION** — make, edit, copy, move, or delete an event. Edit the color palette, create or delete a chain, and edit special animation attributes.

**PLAY ANIMATION** — play an animation repeatedly.

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**LOAD ANIMATION** — load an animation sequence file from a disk.

**SAVE ANIMATION** — save on a disk an animation sequence file containing your animation and cels.

**QUIT** — exit the program and return to the start-up menu.

To choose one of the submenus or to quit the program, select the desired function.

## **SET COLOR MODE**

This menu allows you to set the resolution and color mode. Once you've set the resolution, you can go to **MAKE CELS** in the **CREATE CELS** menu to make your cels. The options available in this menu are:

1. **HIGH RES — 4 COLORS**
2. **MED RES — 16 COLORS**

The high-resolution mode offers 640 x 400 pixel resolution and 4 colors. Select this mode if you have high-resolution, 4-color images captured with the *Image Capture* package or pictures created in the high-resolution, 4-color mode using *PC Paintbrush II* or *Video Titler II*.

The medium-resolution mode offers 320 x 400 pixel resolution and 16 colors. Select this mode when you want to work with images captured in 16 colors using the *Image Capture* package or pictures created in 16 colors using *PC Paintbrush II*.

It's important to remember that when you select the **SET COLOR MODE** menu, an animation previously being worked with will be erased. *Animation & Effects* will remind you to save an animation if you attempt to enter the **SET COLOR MODE** menu. If you want a second chance to save your animation on a work diskette, press **ESC** on the keyboard and you'll return to the **MAIN MENU**, where you may select **SAVE ANIMATION**.

There's no need to select a new color mode when you load an animation. *Animation & Effects* automatically changes to the color mode in which the animation was created.

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## SCREEN BORDER ADJUSTMENT

The Mindset screen is surrounded by a small border which cannot contain graphics, but which shows either incoming video or a solid background color. It's possible to adjust the position of the Mindset graphics within the border area. This allows the screen image to be centered in the border area or positioned flush with one or two edges of the border.

This feature is valuable when you're creating an animation in which cels are to move from completely off the left side of the video screen to some point on the screen. With the Mindset graphics screen set to the extreme left, the left border area can effectively be eliminated.

To adjust the screen border:

- From the MAIN MENU, select the SET COLOR MODE box.
- Press the four arrow keys, at the right side of the keyboard, to adjust the screen position. The border area is the dark blue area surrounding the screen in this menu.
- When the screen is properly positioned, select the EXIT THIS MENU box.
- Play your animation as usual.

## EDIT CELS

The EDIT CELS menu is used with the EDIT ANIMATION menu to create animations. The options are:

1. MAKE CELS
2. VIEW CELS
3. RENAME A CEL
4. DELETE A CEL
5. EXIT THIS MENU

When you're finished editing cels, select EXIT THIS MENU. You'll return to the MAIN MENU.

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## MAKE CELS

The MAKE CELS option is used to create new or additional cels to be used for animation.

When you first select the MAKE CELS option, *Animation & Effects* will ask you to select the picture file from which you wish to create cels. Follow the directions in the instruction box. *Animation & Effects* will tell you if you attempt to load a picture in the wrong resolution.

You may exit this menu by pressing the ESC key on the keyboard.

When the picture you selected to work with is loaded, you may create cels. Start by outlining the cel. If you make a mistake, press the ESC key to begin outlining again. When you're finished, give the cel a name. If you don't know how to create a cel, see the tutorial.

The name for your cel may be up to eight characters long. If you make a mistake in spelling, use the BACKSPACE key on the keyboard. When you're finished, press the RETURN key.

If you don't wish to type a name for your cel, press the RETURN key or the left button on the mouse and your cel will automatically be given a name.

You may now create additional cels, or return to the EDIT CELS menu. If you wish to create another cel, begin by outlining the new cel. If you're finished creating cels from the current picture, press the ESC key and return to the EDIT CELS menu.

A few tips on adding cels:

1. You can always use the HOME key to invoke the high-contrast color palette. This may make it easier to read the instruction box.
2. At any time, pressing the ESC key will take you back to the previous option or menu. (Pressing the ESC key three or four times consecutively will generally take you back to the MAIN MENU.)

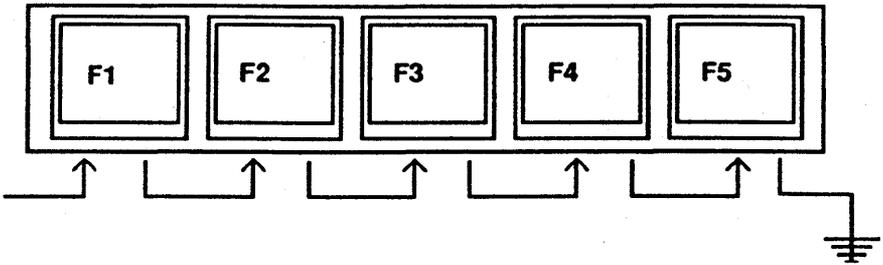
see front page addendum  
③.

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## VIEW CELS

The **VIEW CELS** option allows you to "page" through all the cels you've created for an animation. Use the right button on the mouse to flip to the next page of cels. When you're finished, press the **ESC** key to return to the **EDIT CELS** menu.

### Direction of color palettes



**Each new palette takes the F1 position and moves the other palettes one to the right.**

The function keys, **F1 — F5**, are located at the very top of the keyboard. They allow you to recall the color palettes of the last five picture files loaded to create cels. This feature is often useful when you're viewing your cels.

The **F1** key will recall the color palette of the most recent picture file you loaded, the **F2** key will recall the color palette of the second most recent picture file you loaded, and so forth.

## RENAME A CEL

The **RENAME A CEL** option allows you to change the name of any cel.

To rename a cel:

- Select **RENAME A CEL** from the **EDIT CELS** menu.
- Follow the directions in the instruction box:

- 
- Select which cel you wish to rename.
  - Type a new name for the cel. It may be up to eight characters long. If you make a mistake, use the **BACKSPACE** key on the keyboard.
  - When you're finished press the **RETURN** key.

Use the right button on the mouse to see the next page of cels.

To cancel, press the **ESC** key — you'll return to the **EDIT CELS** menu without renaming a cel.

## **DELETE A CEL**

This option allows you to delete any cel.

To delete a cel:

- Select **DELETE A CEL** from the **EDIT CELS** menu.
- Select the cel you wish to delete. (It may take a few seconds to actually delete the cel.)

Use the right button on the mouse to see the next page of cels.

To cancel, press the **ESC** key — you'll return to the **EDIT CELS** menu without deleting a cel.

## **LOAD ANIMATION**

You can load — that is, retrieve — any animation that's been saved on a work diskette. Loading an animation automatically puts the sequence in the **EVENTS LIST**, erasing whatever was there.

Here's the loading procedure:

1. Select **LOAD ANIMATION** from the **MAIN MENU** — *Animation & Effects* displays the directory window, the instruction box, and the use drive box. All the files on the work diskette are listed in the directory window.

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2. Follow the instructions in the instruction box:

- Select the disk drive your work diskette is in.
- Select the animation file in the directory window you wish to work with.

If there's an animation you've already edited in the computer's memory, *Animation & Effects* reminds you that loading the new file will erase any animation currently in memory.

3. If you're sure there's nothing valuable in the EVENTS LIST, press the space bar on the keyboard.

When you have more than 12 files on a work diskette, you can use the up and down arrows to "page" through the file directory. The up and down arrows are located at the very bottom of the directory window. To look up the list of files, select the up arrow — the list of file names moves up one page (12 file names). To look down the list of files, select the down arrow — the list of file names moves down one page.

To change work diskettes prior to loading an animation:

- Remove the first diskette from the disk drive.
- Insert the new work diskette.
- Select the disk drive your work diskette is in.

If you change your mind at any time prior to the loading process, press the ESC key — you'll return to the MAIN MENU.

---

## PLAY ANIMATION

Selecting the **PLAY ANIMATION** box will take you to the **PLAY** menu. Once an animation has been loaded from disk, this menu will allow you to play the animation.

To play an animation:

- Select **PLAY ANIMATION** in the **MAIN MENU**. The **PLAY** menu appears.
- Select **PLAY**. The **PLAY** menu disappears, and the animation begins to play.
- Press the **ESC** key to terminate animation play. The animation will play repeatedly until the **ESC** key is pressed.
- To return to the **MAIN MENU**, select the **EXIT THIS MENU** box.

## LINKING ANIMATION FOR EXTENDED PLAY

At the bottom of the **PLAY** menu are six boxes which can contain a list of animations that can be linked together to play whenever **PLAY** is selected. To put animations in this list:

- Select the first empty box in the list. The screen shows a list of animations that are on the diskette in the selected disk drive.
- Select an animation from the list of animations.
- The **PLAY** menu returns to the screen. The name of the animation just selected is added to the list of animations to link.
- You can keep adding files to this list until the slots are filled.
- Select **PLAY**. The first animation in the list begins to play. After the first animation finishes, the second animation in the list is automatically loaded from disk and begins to play. This continues until each animation in the list is played.

- 
- Press the **ESC** key on the keyboard to terminate animation play. The list of animations will play repeatedly until the **ESC** key is pressed.
  - To start a new list of animations, select the **CLEAR LINK LIST** box and repeat the above steps.

## **EDIT ANIMATION**

This is the most powerful of all the *Animation & Effects* menus. It allows you to create sophisticated animations at the touch of a button. The submenus are:

1. **MAKE EVENTS**
2. **EDIT EVENT**
3. **COPY EVENT**
4. **MOVE EVENT**
5. **DELETE EVENT**
6. **EDIT PALETTE**
7. **MAKE CHAIN**
8. **DELETE CHAIN**
9. **ANIMATION INFO**
10. **PREVIEW**
11. **EXIT THIS MENU**

When you're finished editing the animation, select **EXIT THIS MENU**. You'll return to the **MAIN MENU**.

## **EDIT ANIMATION** **MAKE EVENTS**

The **MAKE EVENTS** submenu consists of ten options:

1. **WIPE TRANSITION**
2. **BLOCK TRANSITION**
3. **CEL PATH**
4. **SPECIAL EFFECT**
5. **CHAIN PATH**
6. **COLOR TRANSITION**
7. **VIDEO TRANSITION**

- 
8. TIMING CONTROL
  9. PREVIEW
  10. EXIT THIS MENU

Each option can be used to generate a unique event in creating an animation.

When you're finished adding events, select **EXIT THIS MENU**. You'll return to the **EDIT ANIMATION** menu.

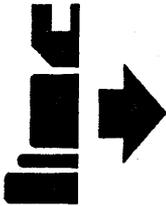
## **EDIT ANIMATION**

### **MAKE EVENTS**

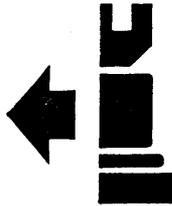
### **WIPE TRANSITION**

Here are the general instructions for generating simple wipe transitions:

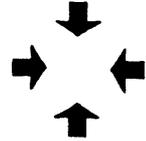
- Select **WIPE TRANSITION** from the **MAKE EVENTS** submenu — a list of various wipe transitions appears.
- Select the type of wipe transition you want to generate — see the following graphic for visual examples of the various wipe transitions available.
- Select the cel you wish to work with — use the right button on the mouse to see the next screen of cels.
- Select where you want the wipe transition to occur. When you're satisfied with this location, accept it.



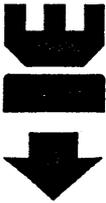
**WIPE RIGHT**



**WIPE LEFT**



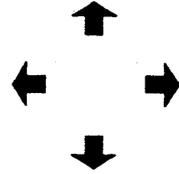
**SQUARE IN**



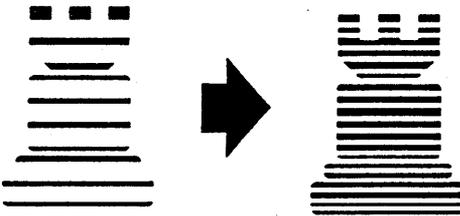
**WIPE DOWN**



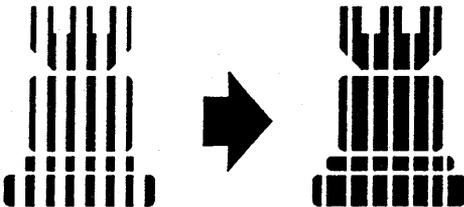
**WIPE UP**



**SQUARE OUT**



**HORIZONTAL BLINDS**



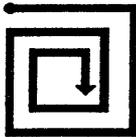
**VERTICAL BLINDS**

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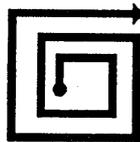
**EDIT ANIMATION**  
**MAKE EVENTS**  
**BLOCK TRANSITION**

The procedure for generating a block transition is exactly the same as for generating a wipe transition.

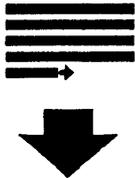
- Select **BLOCK TRANSITION** from the **MAKE EVENTS** submenu — a list of various block transitions appears.
- Select the type of block transition you want to generate — see the following graphic for visual examples of the various block transitions possible.
- Select the cel you wish to work with — use the right button on the mouse to see the next screen of cels.
- Select where you want the block transition to occur. When you're satisfied with this location, accept it.



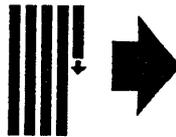
**SPIRAL IN**



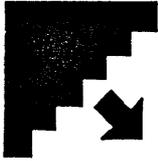
**SPIRAL OUT**



**VERTICAL STACK**



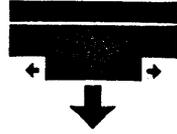
**HORIZONTAL STACK**



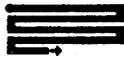
CORNER ANGLE



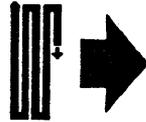
TRIANGLE



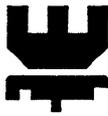
SPREAD



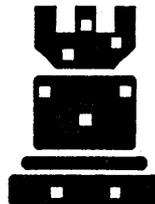
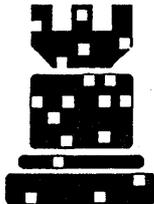
VERTICAL ZIG - ZAG



HORIZONTAL STACK



FALLS



RANDOM

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## **EDIT ANIMATION**

### **MAKE EVENTS**

### **SPECIAL EFFECT**

There are six special effect options available:

1. DRAW CHAIN
2. ZOOM
3. H FLIP ON
4. H FLIP OFF
5. V FLIP ON
6. V FLIP OFF

## **DRAW CHAIN**

**DRAW CHAIN** allows you to draw a freehand image on the screen and play back your exact drawing strokes when you play the event.

**IMPORTANT:** To use this event, you must first create a chain of cels in the **MAKE CHAIN** menu. For starters, you can simply make a chain containing a single cel. This cel will take the place of the cursor and become a "brush" with which you can draw.

- Create a chain of one or more cels in the **MAKE CHAIN** menu. A cel created with *PC Paintbrush II*, containing a 1/4-inch white filled circle with a black background, will make a nice brush.
- Select **MAKE EVENTS**.
- Select **SPECIAL EFFECT**.
- Select **DRAW CHAIN**. A list of cels contained in chain #1 appears.
- Select the **NEXT CHAIN** box until the desired chain appears.
- Press the space bar to accept the chain as the one to use. The first cel in the chain appears and is controlled by the pen or mouse.

- 
- Trace a path with the cel by pressing down and holding the pen or left mouse button while moving the pen or mouse around. A trail is deposited as you trace. You may stop tracing by releasing pressure on the mouse or pen.
  - When you're done drawing, press the space bar.

When the event is played, the image you drew will be recreated as you drew it. Each brush stroke will be replayed.

To trace perfectly straight horizontal and vertical lines: → see addendum

- If you're using a tablet,
  - Move the pen to the location where the line is to start.
  - Slowly lift up the pen, raising it *straight up* about six inches above the tablet.
  - Lay the pen on the table, away from the tablet.
- If you're using a mouse,
  - Move the mouse to the location where the line is to start.  
→
  - Adjust the position of the cel with the arrow keys, if necessary.
  - Press and hold the **SHIFT** key on the keyboard while simultaneously pressing one of the four arrow keys.  
→
  - Release the **SHIFT** key to stop tracing or to reposition the cel for another trace.
  - Press the space bar to accept your drawing.
- Select **PREVIEW** to see your animation.

The **EDIT EVENT** menu allows you to adjust the speed at which the drawing is played back. Adjusting the **PLAY SPEED** to 1 will cause the drawing to be played back accurately but somewhat slowly. Adjusting the **PLAY SPEED** to a higher number will cause the drawing to be played back less accurately, with larger gaps between successive pen positions, but drawing faster.

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Adjusting the CHAIN SPEED will give a variety of effects if you have two or more different colored cels in your chain.

This event is particularly useful in creating flow paths for cycle palette animation. During the actual draw event, no other events can run at the same time. To cancel, press the ESC key — you'll return to the MAKE EVENTS submenu without making any changes.

## ZOOM

ZOOM is a special effect that makes a cel appear to shrink, grow, come closer, move away. This effect is generated in real time from a single cel, which conserves cel space. It also provides a smoother zooming effect than if individual zoom stages were to be predrawn and then displayed. In ZOOM, a cel may change size from 0.06X magnification to 2.00X magnification, or any range in between. It's best to use ZOOM on cels that are one fourth of the size of the screen or less for optimum smoothness.

To create a ZOOM special effect:

- Select **SPECIAL EFFECT** in the MAKE EVENTS menu.
- Select **ZOOM**.
- Select the cel you want to **ZOOM**.
- Select the **SINGLE LOCATION** box for the purposes of this example. The screen shows the selected cel at 1.000X magnification.
- Choose the starting size for the ZOOM by moving the mouse to the left or right until the correct size is displayed. Accept the size. The image will return to the original size.
- Choose the ending size for the ZOOM by moving the mouse slowly to the left or right until the correct size is displayed.

(You may move the cel anywhere on the screen to compare it with a previous animation frame by holding down the SHIFT key while moving the mouse; however, this technique should not be used with very large cels.)

- 
- Accept the ending size. The SELECT PATH menu appears.
  - Select a position where you want the event to occur. In the case of POINT PATH, select each position along the path.
  - Accept the position by pressing the space bar.
  - **PREVIEW** the animation.

For a single-position ZOOM, you can adjust the speed of the ZOOM in the EDIT EVENT menu. Setting the PLAY SPEED value to 20 will cause 20 zoom stages to be generated between the starting and ending zoom sizes selected. Smaller numbers will yield a rapid zoom, while larger numbers will yield a slower, smoother zoom.

To get optimum frame speed performance while zooming, keep these guidelines in mind:

- Zooming smaller cels gives smoother results.
- When possible, setting TRANS/SOLID to **SOLID** in the EDIT EVENT menu gives smoother results.
- Zooming in the 16-color mode gives smoother results, but at a lower resolution.

## **H FLIP (ON or OFF) / V FLIP (ON or OFF)**

These events create a turning effect with a cel. An H FLIP will appear to turn on a horizontal axis, while a V FLIP will appear to turn on a vertical axis. H FLIP ON first displays a thin, on-edge view of the cel, which then stretches in size as it appears to turn to face the viewer, like a card flipping over. H FLIP OFF works in the opposite way, with the cel first displayed facing the viewer, and then turning on edge. V FLIP ON and V FLIP OFF work in a similar way.

These events, in addition to ZOOM, are actually real-time special effects. All the stages or intermediate images in these events are created on the fly from a single cel. This is made possible by the advanced graphics capabilities of the Mindset II, and it provides vastly superior special effects than if fewer intermediate stages were to be flashed on the screen.

---

## To Create a Flip:

- Select **H FLIP ON**.
- Select a cel to Flip .
- Select the **SINGLE LOCATION** box rather than a **POINT PATH** for this example.
- The mouse controls the cel on screen. Select a location for the flip to occur by pressing the left mouse button.
- Accept the location by pressing the space bar (or the right mouse button).
- **PREVIEW** the animation to see the flip.

## FLIP SPEED FOR A SINGLE POSITION FLIP

The speed of a flip can be increased by adjusting the **PLAY SPEED** in the **EDIT EVENT** menu to a lower number. The **PLAY SPEED** actually sets the number of stages and the number of animating frames that the event will last. A value of 25 will generate 25 different stages in a flip, which will appear to flip faster than a flip with a play speed of 35 with 35 stages.

## FLIP SPEED FOR A POINT PATH FLIP

The speed of a flip with a multi-point path is determined by the number of points specified for the path. A path of only 10 points will create only 10 stages for the flip, which will play for only 10 animation frames. A point path of 30 points will give the flip 30 smoother stages and a slower path velocity.

## USING A FLIP TO ACHIEVE A ROTATING LOGO

It's very easy to use a flip to make a logo or any other cel appear to rotate on a horizontal or vertical axis. An **H FLIP** is simply a 90-degree twist of a cel, starting on edge and ending face on. After creating an **H FLIP ON** event, you can edit that event in the **EDIT EVENT** menu. By setting the

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REPEAT value to 2, you can make the FLIP ON twist in the cel yet another 90 degrees or 180 degrees altogether. With a REPEAT of 2, the cel will flip on and then flip off. A REPEAT of 4 will make the cel appear to rotate once, a REPEAT of 8 will make the cel appear to rotate twice, and so forth. To make the rotation look correct, it's necessary to have a second copy of the cel that is upside down displayed every half rotation. Creating such a cel is easy using the *PC Paintbrush II* FLIP function.

To create a rotating logo:

- Create a logo using *Video Titrer II*, *PC Paintbrush II*, or the *Image Capture Module*. Ideally, the logo should be less than one fourth the size of the screen to achieve smoothest motion.
- Load the logo into *PC Paintbrush II*.
- Make a copy of the logo, so there are two copies of the same logo on screen.
- Turn one of the logos upsidedown using the FLIP function in *PC Paintbrush II*.
- Save the picture file on a *PC Paintbrush II* picture disk.
- Exit *PC Paintbrush II*.
- Load *Animation & Effects*.
- Select the proper color mode, 4 or 16 colors, depending on which mode was used to create the logo.
- Select **EDIT CELS**.
- Select **MAKE CELS**.
- Select the *PC Paintbrush II* picture file you just created containing your logos.
- Outline and name both the correct and the inverted logos in similar sized cels. Then press **ESC**.

- 
- Go to the **MAKE EVENTS** menu.
  - Select **SPECIAL EFFECTS**.
  - Select **H FLIP ON**.
  - Select the right-side-up logo as the desired cel.
  - Select the **SINGLE LOCATION** box.
  - Select a location for the logo to rotate by pressing the left mouse button.
  - Accept that position by pressing the space bar or the right mouse button.
  - Go to the **EDIT EVENT MENU**.
  - Select **HORIZ FLIP "cel name"** in the Events List (it should be the last event in the Events List).
  - Notice that the names in **CEL** and **CEL2** are the same. The cel in **CEL2** will be shown every half rotation, so select the box next to **CEL2**.
  - Select a new cel to replace the cel in **CEL2**. Select the upsidedown logo cel. Notice that the cel in **CEL2** is the upsidedown cel.
  - Select the box to the right of **REPEAT**.
  - Type in the number **16** and press the **RETURN** key (or press the left mouse button).
  - Select **DONE**.
  - Select **EXIT**.
  - **PREVIEW** the animation. The logo should rotate four times.
  - Return to the **EDIT EVENTS** menu to adjust the **PLAY SPEED** and **REPEAT** values, as desired.

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Some hints on generating transitions and effects:

- Use the cursor direction keys — the arrow keys located at the far right of the keyboard — instead of the mouse when you want precise placement of an event. When you're satisfied with its placement, use the RETURN key to select *and* accept this position.
- The last picture loaded to create cels or the screen at the *end* of an animation just played will remain on the screen when you go to place a cel for any event. Use that image for orientation or precise placement of an event.
- Use the DEL key, located at the far right of the keyboard, to erase the background.
- The color palette keys, function keys F1 — F5, can be used to cycle through the last five color palettes loaded when you outlined your cels. Sometimes you'll find it necessary to display the correct colors when placing cels on screen. Just press the keys F1 through F5 until your cels are displayed in the correct colors.

## **EDIT ANIMATION**

### **MAKE EVENTS**

### **COLOR TRANSITION**

The COLOR TRANSITION option allows you to create animation effects through changes in color. This option may be used in conjunction with the EDIT PALETTE submenu to create and store up to 32 color palettes.

Changing even one color in the palette can produce subtle changes, such as a sky that gradually lightens, or dramatic changes, such as a figure that suddenly appears.

There are three different selections available in the COLOR TRANSITION option:

1. CUT TO PALETTE
2. FADE TO PALETTE
3. CYCLE TO PALETTE

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## **CUT TO PALETTE**

This selection will cause the color palette listed under **DESIRED PALETTE** to appear on the screen.

**CUT TO PALETTE** is initially set to occur immediately before an event. However, you can change when you want a **CUT TO PALETTE** to occur by using the **EDIT EVENT** submenu.

To cut to a palette:

- Select **CUT TO PALETTE**.
- Select the desired palette by selecting the + and - boxes until the palette you wish to work with appears.
- Accept this palette.

Use the **LAST CEL / NEXT CEL** boxes to browse through your cels.

To cancel, press the **ESC** key — you'll return to the **MAKE EVENTS** submenu without making any changes.

## **FADE TO PALETTE**

This selection will cause the current color palette to fade toward the one named in the desired.

You can change the fading speed by using the **EDIT EVENT** submenu.

To fade to a palette:

- Select **FADE TO PALETTE**.
- Select the desired palette by selecting the + and - boxes until the palette you wish to work with appears.

**NOTE:** You can use the **LAST CEL/NEXT CEL** boxes to browse through your cels and compare colors.

- Accept this palette.

---

To cancel, press the ESC key — you'll return to the MAKE EVENTS submenu without making any changes.

## **CYCLE PALETTE**

This event uses color changes to achieve a color effect called cycle palette animation. For example, the lights surrounding a marquee often appear to "move." This effect is the result of rapidly switching on and then off single lights around the edge of the marquee. Each time a single light is switched off, its neighbor (say, to the right ) is switched on. The light thus appears to move from the left to the right, even though the actual light bulbs do not move. This is in part due to the eye's natural tendency to follow the "movement" of the brightly lit bulbs.

The CYCLE PALETTE event allows a series of two or more screen colors to exchange color values at the rate of several times a second.

To create a cycle palette event:

- Select **CYCLE PALETTE** in the **COLOR TRANSITION** menu. The screen displays the colors in palette F1.
- Select the **+** and **-** boxes at the top of the screen to view the other 36 available palettes.
- Press the space bar when a suitable reference palette appears.
- Select the area just to the left of each color box containing each color you wish to cycle. See "Selecting Cycle Colors," below, for guidelines. Next to each color you select, a **C** will appear to indicate that it's a color to be cycled. If you change your mind about cycling a color, select the **C**.

Use the **LAST CEL / NEXT CEL** boxes to browse through your cels.

To cancel, press the ESC key — you'll return to the MAKE EVENTS sub-menu without making any changes.

Select **PREVIEW** to view your **CYCLE PALETTE**.

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## SELECTING CYCLE COLORS

As you select your cycle colors, keep the following restrictions in mind.

You must select at least two colors to cycle out of the 4 or 16 color boxes at the left of the screen.

The colors you select must be next to each other in the color boxes. For example:

	BLACK
C	BLUE
C	YELLOW
C	WHITE

The colors blue, yellow, and white will be the colors that exchange values, or cycle, when the CYCLE PALETTE event is played. When played, black parts of the screen will remain black at all times, while parts of the screen that were originally blue, yellow, or white will appear to change among white, yellow, and blue at the rate of several times a second. As a result, colored areas will appear to flash.

### INCORRECT EXAMPLES:

	BLACK
C	BLUE
	YELLOW
	WHITE

Example A

	BLACK
C	BLUE
	YELLOW
C	WHITE

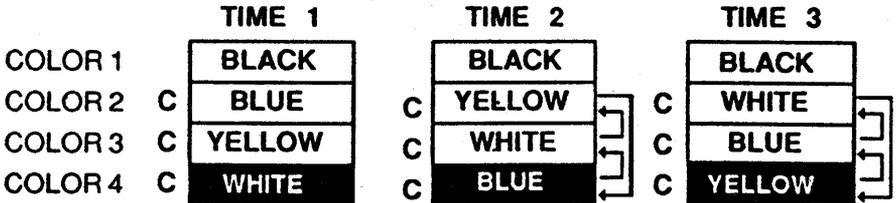
Example B

Example A shown here will not work, because only one color has been selected, so there's no second color with which to exchange values.

Example B will not work because the cycle colors chosen must not be separated by a non-cycle color (yellow, in this case).

## DIRECTION OF CYCLE

The manner in which the cycle colors exchange values is illustrated below:



Circle drawn with Color 4.



WHITE



BLUE

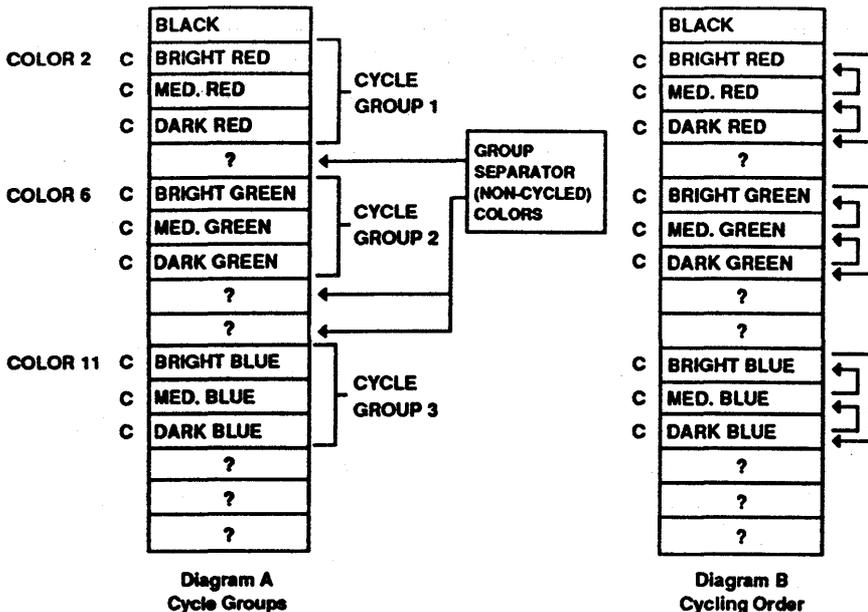


YELLOW

Cycled colors will change to a higher position in the list when the event is played. If a white circle is on screen before the CYCLE PALETTE event, then the circle will change from white to blue to yellow and then back to white when the event is played. This is because the circle was drawn with color 4 in the list, which changes to blue, then to yellow, and then back to white.

## COLOR GROUPS WITH 16 COLORS

The best use of cycle palette animation is achieved when your animation is created with the medium resolution 16-color mode. This is simply because there are more screen colors to cycle — as many as 16 altogether. Because of the number of colors, it's possible to create groups of colors that cycle independently. For example —



— as shown in Diagram A, the three shades of red constitute the first cycle group. Cycle groups must be separated by at least one non-cycled color. The three shades of green make up the second group, and three shades of blue make up the third group. When played, the three cycle groups will exchange colors as shown in Diagram B. Thus, a letter R drawn with color 2 (bright red), will cycle only through the shades of red, since only those three shades of red will be exchanged through color 2.

Similarly, a G drawn with color 6 will cycle only through shades of green, and a B drawn with color 11 will cycle only through shades of blue.

## CONTROLLING CYCLE SPEED AND DURATION

The CYCLE PALETTE event is pre-set to cycle the colors once every three frames of animation. In the EDIT EVENTS MENU, you can increase the speed with which the colors cycle by changing the PLAY SPEED value to a smaller number, or you can slow down the cycle by changing the PLAY SPEED value to a larger number.

The length of time the CYCLE EVENT plays depends on the REPEAT

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count value in the EDIT EVENTS MENU. The REPEAT value represents the total number of color changes that will take place during the event. If the REPEAT value is 128, then the event will end after the 128th color change during the cycle. Changing the REPEAT value to a smaller number will shorten the time the cycle plays; a larger number will lengthen its play time.

## **EDIT ANIMATION**

### **MAKE EVENTS**

### **CEL PATH**

The CEL PATH option allows you to set a path for a cel created through the MAKE CELS option in the CREATE CELS menu.

A path created using the CEL PATH option will automatically be inserted into the Events List.

You may preview the movement you've created for your cel by using the PREVIEW selection.

If you're not satisfied with the movement, you may delete it using the DELETE EVENT submenu, or you may change its speed using the EDIT EVENT submenu.

There are three selections available with the CEL PATH option: LINE PATH, TRACE PATH, and POINT PATH.

## **LINE PATH**

This selection allows you to move a cel along a straight line.

You can change the various attributes of this event by using the EDIT EVENT submenu.

To create a line path:

- Select the **LINE PATH** box — the SELECT CEL menu appears.
- Select the cel you wish to work with.
- Select the starting, or first, point of your line — your cel is

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deposited at this first point for reference. (Remember to press the left mouse button).

- Accept the location of the first point (remember to press the right mouse button).
- Select the ending, or second, point of your line — another cel is deposited at this second point for reference.
- Accept the location of the second point — you automatically return to the MAKE EVENTS submenu.
- **PREVIEW** your event. You should see the cel move along a straight line between the two points you selected.

To cancel before selecting a cel, press the ESC key — you'll return to the MAKE EVENTS submenu without making any changes.

## **TRACE PATH**

This selection allows you to move a cel along a path which you "trace" out.

The initial play speed is set between medium and fast. You can change the various attributes of this event by using the EDIT EVENT submenu.

To create a traced path:

- Select **CEL PATH** from the MAKE EVENTS menu.
- Select the **TRACE PATH** box — the SELECT CEL MENU appears.
- Select the cel you wish to work with.
- Trace the path you wish your cel to follow by pressing and holding the left button of the mouse while moving the mouse - a temporary path will be drawn for your reference.

Your traced path need not be continuous. If you like, you may break the path into parts. To do so, release the left button on the mouse. You may now move the cursor anywhere on the screen without tracing out a path. Move the cursor to a new location and continue to trace out the new segment of the path

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by pressing and holding the left button on the mouse while moving the mouse.

- Accept the entire traced path when you're finished — you automatically return to the **MAKE EVENTS** submenu (remember to press the right mouse button to accept).
- **PREVIEW** the event. Your cel should move along the path you traced.

To cancel before selecting a cel, press the **ESC** key — you'll return to the **MAKE EVENTS** submenu without making any changes.

## **POINT PATH**

This selection allows you to move a cel along a path that you've created using individual points.

This selection is particularly useful in achieving smooth cel motion around corners and sharp curves. In addition, it can be used to achieve the appearance of acceleration by varying the spacing between the points in the path. You can change the various attributes of this event by using the **EDIT EVENT** submenu.

To create a point path:

- Select the **CEL PATH** box from the **MAKE EVENTS** menu.
- Select the **POINT PATH** box — the **SELECT CEL** menu appears.
- Select the cel you wish to work with.
- Select each location where the cel should appear by clicking the left mouse button. At each press of the left button on the mouse, the cel is deposited as a reference point.
- Accept the path when you're finished — you automatically return to the **MAKE EVENTS** submenu.
- **PREVIEW** the event.

To cancel before selecting a cel, press the **ESC** key — you'll return to the **MAKE EVENTS** submenu without making any changes.

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## **EDIT ANIMATION MAKE EVENTS CHAIN PATH**

The **CHAIN PATH** option allows you to set a path for a chain of cels created through the **MAKE CHAIN** submenu.

**REMEMBER:** A chain of cels must have already been created through the **MAKE CHAIN** submenu in the **EDIT ANIMATION** menu.

The instructions for this option are similar to those for the **CEL PATH** option.

A path created using the **CHAIN PATH** option will automatically be inserted into the **EVENTS** List.

You may preview the movement you've created for your chain by using the **PREVIEW** selection.

If you're not satisfied with the movement, you may delete it using the **DELETE EVENT** submenu or change it using the **EDIT EVENT** submenu.

There are three selections available in the **CHAIN PATH** option:

1. **LINE PATH**
2. **TRACE PATH**
3. **POINT PATH**

### **LINE PATH**

This selection allows you to move a chain of cels along a straight line path.

You can change the independent path speed or the cel cycle speed by using the **EDIT EVENT** submenu.

To create a line path:

- Select **CHAIN PATH** — the **SELECT PATH** menu appears.

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- Select **LINE PATH** — one list of chained cels appears.
  - Select the chain you wish to work with. Select the **NEXT CHAIN** box to cycle through your list of chains. When the chain you wish to work with appears, accept it.
  - Select the starting or first point of your line — your cel is deposited at this first point for reference. (Remember to press the right mouse button to accept).
  - Accept the location of the first point. (Remember to press the right mouse button to accept).
  - Select the ending or second point of your line — another cel is deposited at this second point for reference.
  - Accept the location of the second point — you automatically return to the **MAKE EVENTS** submenu.
  - **PREVIEW** the event.

To cancel, press the **ESC** key — you'll return to the **MAKE EVENTS** submenu without making any changes.

## **TRACE PATH**

This selection allows you to move a chain of cels along a path that you've traced out.

The initial path speed is set between medium and fast. You can change the various attributes of the path by using the **EDIT EVENT** submenu.

To create a traced path for your chain of cels:

- Select **CHAIN PATH** — the **SELECT PATH** menu appears.
- Select **TRACE PATH**.
- Select the chain you wish to work with. Select the **NEXT CHAIN** box to cycle through your list of chains. When the

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chain you wish to work with appears, accept it.

- Trace the path you wish your chain of cels to follow by pressing and holding the left button of the mouse while moving the mouse — a temporary path will be drawn for your reference.

Your traced path need not be continuous. If you like, you may break the path into parts. To do so, release the left button on the mouse. Your cursor is now free to move anywhere on the screen without tracing a path. Move it to a new location and continue to trace the new segment of the path by pressing and holding the left button while moving the mouse.

- Accept the entire traced path when you're finished — you automatically return to the MAKE EVENTS submenu.

To cancel, press the ESC key — you'll return to the MAKE EVENTS submenu without making any changes.

## POINT PATH

This selection allows you to move a chain of cels along a path that you've created using individual points. It's particularly useful for achieving acceleration, and smooth motion around corners.

You can change the independent path speed and the independent cel cycle speed by using the EDIT EVENT submenu.

To create a point path for your chain of cels:

- Select **CHAIN PATH** — the SELECT PATH menu appears.
- Select the **POINT PATH** box.
- Select the chain you wish to work with. Select the **NEXT CHAIN** box to cycle through your list of chains. When the chain you wish to work with appears, accept it.
- When the first cel of your chain appears on the screen, select each location where the cel should appear by clicking the left

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mouse button. At each press of the left button, the cel is deposited as a reference point.

- Accept the path when you're finished — you automatically return to the MAKE EVENTS submenu.
- **PREVIEW** the event.

To cancel, press the **ESC** key — you'll return to the MAKE EVENTS submenu without making any changes.

To make a chain play in a single location on the screen:

- Select **LINE PATH**.
- Select the **NEXT CHAIN** box until the chain you wish to use is displayed.
- Press the right mouse button or the space bar to accept this chain.
- The first cel of the chain appears in place of the cursor.
- Position the cel at the desired screen location. Adjust the position of the cel with the arrow keys if necessary.
- Press the **RETURN** key two times *without moving the mouse*.

To change the speed at which the chain plays:

- Select **EDIT EVENT** in the **EDIT ANIMATION** menu.
- Select the **CHAIN** event in the Events List.
- Select the **CHAIN SPEED** box.
- Type in a smaller number to increase the chain speed or a larger number to decrease the chain speed. This value represents the number of frames for each cel that will remain on the screen before changing to the next cel in the chain.

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## **EDIT ANIMATION**

### **MAKE EVENTS**

### **VIDEO TRANSITION**

The VIDEO TRANSITION option allows you to control a variety of effects that affect the entire screen, from genlock fading to clearing the background with any color.

There are five selections available with the VIDEO TRANSITION option:

1. CLEAR SCREEN
2. MINDSET FADE IN
3. MINDSET FADE OUT
4. CUT TO BLACK
5. FADE TO BLACK

Each selection will be inserted at the end of the Events List.

To exit this option without making any changes, press the ESC key on the keyboard and you'll automatically return to the MAKE EVENTS submenu.

## **CLEAR SCREEN**

This selection allows you to clear the background with any of the 4 or 16 colors found in the color palette currently on screen.

To clear the screen with a color:

- Select the **CLEAR SCREEN** box — the **DESIRED PALETTE MENU** appears.
- Select the color palette which will be visible during the animation sequence.
  - Select the + and - signs until the palette you want appears in the **DESIRED PALETTE** box, and accept this palette.
- Select the color with which you wish to clear by placing the cursor just to the left and pressing the left button. The letter **C** appears next to the color you select.

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- Accept this color — you automatically return to the **MAKE EVENTS** submenu.

To cancel, press the **ESC** key — you'll return to the **MAKE EVENTS** submenu without making any changes.

## **MINDSET FADE IN**

This selection allows you to fade in Mindset graphics over an incoming video signal. Initially, the video output from the Video Production Module will contain the incoming video image only. As the event plays, the Mindset graphics will fade in. Only palette colors with **KEY OFF** (see "EDIT PALETTE") will appear to fade in. Palette colors with **KEY ON** will be transparent to the incoming video signal.

To fade in Mindset graphics over video, select **MINDSET FADE IN** and play the animation.

To adjust the speed of the fade:

- Select **EDIT EVENT** in the **EDIT ANIMATION** menu.
- Select **MS FADE IN** in the Events List.
- Select **PLAY SPEED**.
- Type in the number of frames over which the fade will take place.
- Select **DONE**.
- Exit the events list.
- Select **PREVIEW** and repeat the steps above, if necessary.

## **MINDSET FADE OUT**

This selection allows you to fade out Mindset graphics over an incoming video signal. Initially, the video output from the Video Production Module will contain the incoming video image mixed with Mindset graphics. As the event plays, the Mindset graphics will fade out until only the incoming video image is visible.

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To fade out Mindset graphics over video, select **MINDSET FADE OUT** and preview the animation.

To adjust the speed of the fade:

- Select **EDIT EVENT** in the **EDIT ANIMATION** menu.
- Select **MS FADE OUT** in the Events List.
- Select **PLAY SPEED**.
- Type in the number of frames over which the fade will take place.
- Select **DONE**.
- Exit the Events List.
- Select **PREVIEW** and repeat the steps above, if necessary.

## **CUT TO BLACK**

This selection allows you to fade from Mindset graphics to a black screen. This event fades *only* Mindset graphics, not incoming video.

To fade to black, select **FADE TO BLACK**.

Fade in from black can also be achieved by later making a **FADE TO PALETTE** event, which will fade to a selected palette.

## **EDIT ANIMATION MAKE EVENTS TIMING CONTROL**

The **TIMING CONTROL** option allows you to set up attributes for the execution of an animation.

A selection made with the **TIMING CONTROL** option will automatically be inserted at the end of the Events List.

You may preview any changes you've made in an animation by using the **PREVIEW** option in the **MAKE EVENTS** submenu.

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There are 11 selections available with the TIMING CONTROL option:

1. PAUSE 1 SECOND
2. PAUSE 5 SECONDS
3. PAUSE 10 SECONDS
4. FRAME SPEED 30 FPS
5. FRAME SPEED 20 FPS
6. FRAME SPEED 15 FPS
7. FRAME SPEED 10 FPS
8. SYNCHRONIZE EVENT
9. HALT EVENTS
10. KEY WAIT
11. TTL WAIT

To cancel, press the ESC key — you'll return to the MAKE EVENTS submenu without making any changes.

## **PAUSE**

The three pause selections, when used in various combinations, allow you to create pauses of any length in an animation.

To insert a pause in an animation, select one of the three pause boxes.

## **FRAME SPEED**

The four frame speed selections allow you to increase or decrease the maximum number of animation frames per second.

This selection is useful for maintaining a constant animation play speed. Normally an animation is played at top speed, or 30 frames per second. When more than one event is active, the animation play speed may slow down. Lowering the frame speed guarantees an even play speed throughout an animation.

To set the frame speed in an animation, select one of the four frame speeds.

---

## **SYNCHRONIZE EVENT**

This selection will cause *Animation & Effects* to wait until all parallel events are completed before proceeding to the next event.

You can change the various attributes of a synchronized event by using the EDIT EVENT submenu.

To insert a synchronize event command before a group of parallel animation events:

- Select **SYNCHRONIZE EVENT**.
- If necessary, move the **SYNCHRONIZE EVENT** command to the beginning of a sequence of parallel events by using the **MOVE EVENT** menu.

## **HALT EVENTS**

This selection will cause all parallel animation to simultaneously stop. Animation will then resume with the next playable event. For example, **HALT EVENTS** can be used to stop a cycle palette event at a particular stage in the cycle.

You can change the various attributes of a **HALT EVENTS** command by using the EDIT EVENT submenu.

Insert the **HALT EVENTS** command at the point where you want all events to stop by selecting **HALT EVENTS**.

## **KEY WAIT**

This selection will cause all animation immediately following in the Events List to wait until a key is pressed on the keyboard.

During a "key wait," pressing the **ESC** key on the keyboard will exit the animation sequence and return to the **MAIN MENU** or the **MAKE EVENTS** menu.

You can change the various attributes of **KEY WAIT** by using the EDIT EVENT submenu.

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To insert a **KEY WAIT** command, select **KEY WAIT**.

## **TTL WAIT**

This selection, similar to **KEY WAIT**, causes all animation immediately following in the events list to wait until a contact closure is received from an external device. The external device must be connected to either mouse port on the keyboard.

Pressing the left button on the mouse will act as a contact closure and will satisfy a **TTL WAIT**.

A **TTL WAIT** may be placed at the very beginning of an animation to assist in video editing. When contact closure occurs, the animation will immediately begin, thus ensuring precise timing.

You can change the various attributes of **TTL WAIT** using the **EDIT EVENT** submenu.

To insert a **TTL WAIT** command, select **TTL WAIT**.

## **EDIT ANIMATION** **EDIT EVENT**

The **EDIT EVENT** submenu allows you to change the various attributes of an event.

These are the general instructions for editing an event:

- Select the event you wish to edit:
  - Select **UP ARROW** to move up one page (10 places).
  - Select **DOWN ARROW** to move down one page.
  - Press the **ESC** key to cancel this operation.
- Select inside the boxes for the attributes you wish to change.
- Select the **DONE** box to save changes.

You may now select another event to edit, or you can select the **EXIT** box to save all changes and return to the **EDIT ANIMATION** menu.

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Here are some specifics about the attributes page:

**EVENT #:** Tells you what event number you're currently editing in your events list.

**EVENT:** Tells you what type of event you're currently editing.

**CEL:** Tells you the name of the cel the event uses. To replace this cel with another:

- Select the cel name — the **SELECT CEL** menu appears.
- Select the new cel with which you wish to replace the old cel.

**TRANS/SOLID:** Sets the cel's background as either transparent or opaque. To toggle this setting, select **TRANS** or **SOLID**.

**CHAIN SPEED:** Sets the rate at which cels in a chain are paged. To change this value:

- Select the value box, then —
- Type in a new speed value between 1 and 20. A value of 20 is the slowest speed, a value of 1 the fastest.

Use the **BACKSPACE** key on the keyboard if you make a mistake.

Press the **ESC** key to cancel this operation.

- Press the **RETURN** key to accept the new value you typed in.

**PLAY SPEED:** Sets the rate at which an event is played. To change this value:

- Select the value box, then —
- Type in a new speed value between 1 and 20. A value of 1 is the slowest speed, a value of 20 the fastest.

Use the **BACKSPACE** key on the keyboard if you make a mistake.

---

Press the **ESC** key to cancel this operation.

- Press the **RETURN** key to accept the new value you typed in.

**LEAVE CEL:** Tells you if the cel will remain on or disappear from the screen after the event is completed. This setting will toggle between **ON** and **OFF**. To toggle this setting, select **ON** or **OFF**.

**PRIORITY:** This value determines which cel will be visible when two or more events overlap. There are 31 levels of priority, with a value of 0 being the lowest priority and a value of 31 being the highest priority. A cel at priority 31 will appear to cover a cel at priority 0. To change this value:

- Select the **PRIORITY** box.
- Type in a new value from 0 to 31.

Press the **BACKSPACE** key on the keyboard if you make a mistake.

Press the **ESC** key to cancel this operation.

- Press the **RETURN** key to accept the new value you typed in.

**START FRAME:** This value is used when creating parallel animation events. The frame number listed refers to the number of animation frames elapsed since the start of the previous event. A start value of 10 will cause an event to wait 10 animation frames before beginning to play. This is used to stagger parallel events.

To change this value:

- Select the value box, then —
- Type in the new starting frame number. Use the **BACKSPACE** key on the keyboard if you make a mistake.

Press the **ESC** key to cancel this operation.

- Press the **RETURN** key to accept the new value you typed in.

---

**END FRAME:** This line appears when you edit an event by turning the **PARALLEL** feature **ON**. (In some events you also need to **PREVIEW** the event first.) The frame number listed refers to the animation frame when a parallel event will finish. Use the end frame number to synchronize the ending of parallel events. If all parallel events have an ending frame of 100, then all the events will be automatically started at a time that guarantees that all will finish on animation frame 100.

To change this value:

- Select the value box, then —
- Type in the new starting frame number. Press the **BACKSPACE** key on the keyboard if you make a mistake.
- Press the **ESC** key to cancel this operation.
- Press the **RETURN** key to accept the new value you typed in.

**REPEAT:** Tells you the number of times the event is to repeat.

To change this value:

- Select the value box, then —
- Type in the number of times you wish the event to repeat. You can repeat up to 255 times.

Press the **BACKSPACE** key on the keyboard if you make a mistake.

Press the **ESC** key to cancel this operation.

- Press the **RETURN** key to accept the new value you typed in.

---

## **EDIT ANIMATION COPY EVENT**

The **COPY EVENT** submenu allows you to copy any event in the events list.

An event that has been copied will be placed directly below the event from which it was duplicated. You may then use the **MOVE EVENT** submenu to move the new event somewhere else in the events list.

To copy an event:

- Select the event you wish to copy — the newly copied event is placed directly below the event from which it was copied.
- Select the **DOWN ARROW** to move down one page (10 spaces) of events, if required.
- Select the **UP ARROW** to move up one page of events, if required.
- Select **EXIT** when you're finished copying events — you'll automatically return to the **EDIT ANIMATION** menu.

You may copy an event as many times as you like. If you want to copy a different event, simply select it and a duplicate copy will be made.

Press the **ESC** key to return to the **MAKE EVENTS** submenu without making any changes.

---

## **EDIT ANIMATION MOVE EVENT**

The **MOVE EVENT** submenu allows you to move any event in the events list to a new position.

To move an event:

- Select the event you wish to move — the event is highlighted for your reference.
  - Select the **DOWN ARROW** to move down one page (10 spaces) of events, if required.
  - Select the **UP ARROW** to move up one page of events, if required.
- Select the new position for this event — the event is inserted in this new position.
- Select **EXIT** when you're finished moving events — you'll automatically return to the **EDIT ANIMATION** menu.

If you want to move a different event, simply select it, then select its new position.

Press the **ESC** key to return to the **MAKE EVENTS** submenu without making any changes.

## **EDIT ANIMATION DELETE EVENT**

The **DELETE EVENT** submenu allows you to delete any event in the events list.

To delete an event:

- Select the event you wish to delete — the event is highlighted for your reference.
  - Select the **DOWN ARROW** to move down one page (10 spaces) of events, if required.

- 
- Select the **UP ARROW** to move up one page of events, if required.
  - Accept this event if you're certain it's the event you wish to delete.
  - Select **EXIT** when you're finished deleting events — you'll automatically return to the **EDIT ANIMATION** menu.

If you want to delete another event, simply select it, then accept it if you're certain you want it deleted.

Press the **ESC** key to return to the **MAKE EVENTS** submenu without making any changes.

## **EDIT ANIMATION**

### **EDIT PALETTE**

The **EDIT PALETTE** submenu allows you to change the color values of your stored palettes.

There are 32 color palettes that are saved as part of your animation when you select **SAVE ANIMATION** from the **MAIN MENU**.

There are three basic steps you must follow in order to edit and store a color palette:

1. Select a color palette to edit.
2. Adjust the palette's color values.
3. Select where you want the new color palette to be stored.

If you press the **ESC** key or the right button at any time prior to completing the last step, you'll automatically return to the **EDIT ANIMATION** menu without making any changes.

Step 1: Selecting a color palette to edit.

- Select the **+** and **-** boxes until the color palette you wish to work with is listed next to **EDIT PALETTE**.
- Accept this color palette.

---

**Step 2: Adjust the color palette's values.**

For each color in the palette, there are three numbers displayed horizontally beside the color — these numbers indicate the red, green, and blue (R,G, and B) intensities, respectively.

- Select the area directly to the left of any number to decrease its value.
- Select the area directly to the right of any number to increase its value.

To the left of the color bars, you'll see the letters **B** and **K**. The letter **B** is for Border — you may select any one color as the color of the screen border. The letter **K** is for Key. Keyed colors will become invisible and allow an incoming video image to show through when used with the Video Production Module. You may key any number of colors.

- Select the area to the far left of any color to set that color as the border color — the letter **B** will appear for your reference.
- Select the area directly to the left of any color to key it — the letter **K** will appear for your reference. To turn the key off, select it again.

Use the **LAST CEL / NEXT CEL** boxes to view your cels if you want to make sure the color palette matches the colors in the cels you want to use.

**Step 3: Select where you want the new color palette to be stored.**

- Accept this palette.
- Select the **+** and **-** boxes until the color palette you wish to replace is listed next to **REPLACE PALETTE**.
- Accept this color palette.

**REMEMBER:** It's a good idea to store your color palette in one of the 32 color palettes reserved for storage.

---

When you create a cel, its color palette is stored in the F1 palette position. To use this palette in animation, you should preserve this palette in any of the numbered palettes 1 through 32. This is because the palette in position F1 may be changed the next time you create cels. So to copy the palette in F1 to palette location 8:

- Select EDIT PALETTE.
- Accept this palette as the one you wish to edit.
- You could edit the palette now, but instead "accept" again to indicate that you're done editing the palette. Thus you've made no changes to the palette.
- Now go to the + box next to REPLACE PALETTE, and select the + box until 08 appears in the number box.
- Accept this palette.

Now palette 8 contains the same colors as palette F1. To display these colors in an animation, create a CUT TO PALETTE event and select palette number 8. Again, this is necessary because palettes F1 through F5 may change from time to time, while palettes 1 through 32 only change if you edit them, so they're more permanent.

Use the MOVE command to place the CUT TO PALETTE event in the first position of your animation sequence.

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## **EDIT ANIMATION MAKE CHAIN**

The **MAKE CHAIN** submenu allows you to assemble a chain of cels. A chain of cels is simply a list of cels which are to be displayed in sequence, much like a cartoon flip book. Once a chain has been created, the **CHAIN PATH** option in the **MAKE EVENTS** submenu can be used to give the chain a path along which to move.

Each chain created will automatically be given a numerical name such as **CHAIN 1**.

To create a chain of cels:

- Select each cel you want to be included in the chain by pressing inside the cel— as you select them, the cels are listed by name at the left of the screen.
- Accept the chain when you're finished.

Use the **LAST CEL / NEXT CEL** boxes to page through your cels.

To cancel, press the **ESC** key to return to the **EDIT ANIMATION MENU** without making any changes.

## **EDIT ANIMATION DELETE CHAIN**

The **DELETE CHAIN** submenu allows you to delete any chain of cels.

- Select the **NEXT CHAIN** box until the chain you wish to delete appears.
- Accept this chain if you're certain you want to delete it — you'll automatically return to the **EDIT ANIMATION MENU**.

Use the **NEXT CHAIN** box to page through your list of chains.

Press the **ESC** key to return to the **EDIT ANIMATION MENU** without making any changes.

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## **EDIT ANIMATION ANIMATION INFO**

**ANIMATION INFO** allows you to print out the events list and other information which you may find useful when creating and editing an animation sequence.

Before you select this option, make sure you have a Mindset Printer Module connected to the back of your Mindset II computer, a printer is connected to the Mindset Printer Module, and the printer is ready to print.

- Select **ANIMATION INFO** to activate the printer.

If the Mindset Printer Module was not connected to your Mindset II when you turned on your system, *do not* attempt to print your animation information.

## **PREVIEW**

**PREVIEW** will play an animation, beginning with any selectable event in the events list. This is very useful when you're editing events at the end of a long events list. At the starting point of the preview, you can choose any event in the events list.

To Use **PREVIEW**:

- Go to the **EDIT EVENT MENU**.
- Select the area to the left of the event slot you wish to be the first event played during a **PREVIEW**. The **Start -->** pointer marks the starting event. This pointer is only visible in the **EDIT EVENTS MENU**.
- Exit the **EDIT EVENTS MENU**.
- Select **PREVIEW**. The animation begins with the event selected. The animation will cease after the last event is played, or when the **ESC** key is pressed.

The starting event may be changed by repeating the above steps.

The starting event selected for **PREVIEW** has no effect in the **PLAY ANIMATION** menu.

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## SAVE ANIMATION

This menu allows you to save an animation on a work diskette for permanent storage.

To save an animation on a work diskette:

- Select the **SAVE ANIMATION** box from the **MAIN MENU**.
- Type a name for your animation sequence.

The name may be up to eight characters long. Do not use blanks as part of the name. If you make a mistake, use the **BACKSPACE** key on the keyboard. If you're using a hard disk, type: **C:**, then the name. When you're finished —

- Press the **RETURN** key.

If you're working on an animation that has already been saved once, the name of the animation will appear at the bottom of the screen.

To save this animation again:

- Press **RETURN**.
- Press the space bar.

This will replace the previous version with the new one.

**WARNING:** Make sure a data diskette is in drive B and the disk lever is down, before attempting to save. Otherwise, you may need to restart the system.

# Internal Operation

*Animation & Effects* allows you to create cels from PC-Paintbrush II picture files. Nearly three screens of cel data, or up to 239 cels, can be created and stored for animation.

Up to 250 separate events can be created per animation, and up to 30 events can be played in parallel at one time. In addition, animation sequence files may be linked together, through the PLAY ANIMATION menu, making longer animation possible.

32 user-defined color palettes, with up to 16 colors per palette, are available per animation.



# Advanced Features

## INTRODUCTION

The information in this appendix is primarily for users who are comfortable using *Animation & Effects* and who can create relatively sophisticated animation sequences.

## PARALLEL ANIMATION

**REMEMBER:** Transitions except CUTs cannot run in parallel animation and a special effect cannot be in parallel with another special effect.

### CREATING PARALLEL ANIMATION: Visual Method

- Create the first event of the animation you wish to run in parallel.
- Select **PLAY ANIMATION** and play this first event.
- Press the **PAUSE** key, to the right of the function keys, to pause the animation.
- With each press of the **PAUSE** key, your animation will advance one frame. Continue pressing the **PAUSE** key until you find the exact frame where you wish your new event to begin playing. (The **START** key, to the left of the **PAUSE** key, will resume playing the animation.)
- When paused on the desired frame, press the **INS** key to insert a parallel event to begin at the frame number displayed.
- Use the **START** and **PAUSE** keys to resume playing the animation. When you're paused on a frame where you'd like the image on the screen to be saved for your reference, press the **ESC** key on the keyboard — you'll automatically return to the submenu.

- 
- Make the second event which is to be run in parallel. *Only* this event will be inserted at the designated frame number.

Use the image on the screen for precise placement of this second event.

Up to 30 events may be played in parallel.

- Use the EDIT EVENT submenu to change the PLAY SPEED and START FRAME values.

## **CREATING PARALLEL ANIMATION: Editing Method**

When used in conjunction with CEL PATH or CHAIN PATH, this method is especially useful for creating parallel animations composed of several events, such as exploding and imploding logos.

This method does not require that you replay the animation for each parallel event you wish to create, as in the visual method outlined above.

To create a parallel animation using this alternative method:

- Insert a SYNCRONIZE EVENT command, (found in the TIMING CONTROL submenu) as the first event in the series.
- Make the first event you want to run in parallel.
- Make the second event you want to run in parallel (it's not necessary to replay the animation at this point).
- Continue making the events that you want to run in parallel. When you're finished, select EDIT EVENT.
- Select the first parallel event you made.
- Select the PARALLEL box, so that parallel is ON.
- Select DONE.
- Continue selecting PARALLEL ON for each event you want to run in parallel.

- 
- Play the animation when you're finished creating parallel events.

## **EDITING PARALLEL ANIMATIONS**

Changing play speeds, number of repeats, and the starting frame number can all be done when editing parallel events.

In addition, changing the ending frame number can help synchronize parallel events.

To synchronize the ending time for a series of events, such as several cels coming together in an imploding logo, follow these steps:

- Create the parallel animation.
- Play the animation and note the frame number at which the last cel reaches its ending position.
- Use **EDIT EVENT** to change the ending frame number of each parallel event, using the frame number at which the last cel reached its ending position, as noted in the step above.

## **TIPS ON CELS**

- The **PGDN** (Page Down) key, located to the right of the **DEL** key, will reduce a picture to one quarter size when you're creating cels. This reduction in size improves the sharpness of the picture.
- The **TAB** key, located below the **ESC** key, will toggle a cel's transparency or opaqueness. A cel with a transparent background is easily aligned with an image on the screen.
- Use the cursor direction keys, located at the far right on the keyboard, for precise placement of cels.

---

## ACCURATE CEL PLACEMENT

The proper placement of cels on the screen is necessary to achieve the highest quality animations. *Animation & Effects* was designed to allow visual placement of cels. To take full advantage of this, it's often helpful to preview an animation so that all reference cels will appear on the screen.

Pressing the **PAUSE** key repeatedly during preview will allow you to step through the animation one frame at a time. When the frame appears that provides the best reference point for placing an event, press the **ESC** key.

Next, go to the **MAKE EVENT** menu and create your next event. Notice that when you're asked to place the cel for the event, the animation frame you previewed is displayed for reference.

It's now a simple matter to place the cel in exact relation to cels in the animation frame. Very precise placement of the cel can be achieved by pressing the arrow keys, found at the right side of the keyboard, to move the cel. To see through a cel, remember to press the **TAB** key to switch between a solid cel and a transparent cel. This will permit you to align the cel precisely, by comparing details inside the rectangle of the cel.

When using the arrow keys to place a cel, select and accept the position by pressing the **RETURN** key on the keyboard in order to avoid using the mouse button, which might move the cel accidentally.

# Installing Animation & Effects

This appendix covers the procedures necessary for installing the *Animation & Effects* program onto a floppy diskette or a hard disk drive, executing the installed program, and using the hard disk for storage in place of work diskettes.

## THE INSTALL DISKETTE

Included in your *Animation & Effects* package is an Install Diskette, which allows you to make a copy of the *Animation & Effects* Program Diskette or to install *Animation & Effects* on a hard disk. You can choose either option, but remember that you cannot do both. It's recommended that you do not use this diskette unless your program diskette is damaged or you have a hard disk.

## TO INSTALL ANIMATION & EFFECTS ON A HARD DISK:

1. MS-DOS should already be installed on the hard disk. Make sure that no diskette is in the computer's disk drives.
2. Turn the Mindset II system power on by pressing the switch on the rear of the keyboard. If the Mindset II is already on, press the **ALT** key and hold it down while you press the **RESET** key. The computer will load MS-DOS from the hard disk and begin to operate.
3. When the **C>** prompt appears, type **MKDIR C:PBRUSH** and the **RETURN** key. If the PBRUSH directory already exists, the message "Unable to create directory" will appear. Ignore it.
4. Type **CD PBRUSH** and press **RETURN**.
5. Place the Install Diskette in the left diskette drive (drive A) and turn the lever down.
6. Type **A:FXINSTAL** and press **RETURN**.

---

7. When the program prompts you to enter a letter to signify which type of device you want to install *Animation & Effects* on, type **H** and press **RETURN**.

8. When the system prompts you to verify that the Product Diskette is in drive A, press **RETURN**. The program will operate for awhile, and then tell you that **000** installs will be available after this one. Press **RETURN** to continue.

9. The program will operate for two or three minutes and then tell you that *Animation & Effects* has been successfully installed. Remove the Install Diskette from drive A.

## **TO LOAD ANIMATION & EFFECTS FROM A HARD DISK:**

1. Turn on your hard disk drive, then turn on your Mindset II system.

**NOTE:** If your system and hard disk are already turned on, hold down the **ALT** key and press the **RESET** key to boot the system.

2. If you're not at a **C** prompt, type **C:** and press **RETURN**.

3. At the **C** prompt, type **CD C:PBRUSH** and press **RETURN**.

4. To load *Animation & Effects*, type **ANIMEFX** and press **RETURN**.

To use the hard disk for storage:

- Verify that your hard disk drive is on.
- Select the letter **C** from the **USE DRIVE** Box.
- Select the file name you wish to load or save.

**REMEMBER:** If any of your files are in a root directory, you must use the Disk Operating System to change to the root directory prior to loading *Animation & Effects*.

---

## TO INSTALL ANIMATION & EFFECTS ON A FLOPPY DISKETTE

1. Place the Install Diskette in the left disk drive (drive A) and turn the lever down.
2. Place a blank diskette in the right disk drive (drive B) and turn the lever down.
3. Turn the power on by pressing the switch on the rear of the keyboard. If the Mindset II is already on, press the **ALT** key and hold it down while you press the **RESET** key. The computer will load programs from the diskette and begin to operate.
4. The program will prompt you to enter a letter to signify which type of device you want to install *Animation & Effects* on. Type the letter F and press **RETURN**.
5. The system will ask you to insert a new diskette in the right disk drive (drive B) and to strike any key when you've done so. If you've already placed the blank diskette in the correct drive, strike any key. If not, place the blank diskette in drive B, turn the lever down, and strike a key.
6. When the system tells you that it has completed formatting and asks you if you wish to format another, press **N** (for No).
7. After writing some data to drive B, the system will ask you to verify that the Product Diskette is in Drive A. Press **RETURN**.
8. The program will operate for awhile, then tell you that 000 installs will be available after this one. Press **RETURN**.
9. The program will operate for two or three minutes, then tell you that *Animation & Effects* has been successfully installed. Remove the Install Diskette from drive A.

To load *Animation & Effects* from a diskette, just follow the instructions given earlier in this guide for using your Program Diskette.

---

9. The program will operate for two or three minutes, then tell you that *Animation & Effects* has been successfully installed. Remove the Install Diskette from drive A.

To load *Animation & Effects* from a diskette, just follow the instructions given earlier in this guide for using your Program Diskette.

## Appendix C-1

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# Animation Speeds At A Glance

ANIMATION	LOW #	HIGH#
Wipe Transitions	Fast	Slow
Block Transitions	Fast	Slow
Cell Path		
Line path	Slow	Fast
Trace path	Slow	Fast
Point path	Fast	Slow
Special Effects		
Draw chain		
Chain speed	Short pen	Long
Play speed	Tight	Spread
Zoom	Fast	Slow
Flips (all paths)	Fast	Slow
Chain path (all paths)		
Chain speed	Fast	Slow
Play speed	Slow	Fast
Color Transitions		
Cut to palette	n/a	n/a
Fade to palette	Fast	Slow
Cycle palette	Fast	Slow
Video Transitions		
Clear screen	n/a	n/a
Mindset fade	Fast	Slow
Cut to black	n/a	n/a
Fade to black	Fast	Slow

# Quick Start Tutorial

## INTRODUCTION

This tutorial is designed to provide you with a quick orientation to *Animation & Effects*. Starting with the Data Diskette containing pictures painted for this tutorial, you'll learn how to animate images using four different types of animation.

The tutorial covers the following subjects:

1. How to start the *Animation & Effects* program
2. How to create animation events
3. How to save an animation
4. How to run a prepared animation sequence

For this tutorial you'll need the following:

- A Mindset II system
- The *Animation & Effects* Program Diskette
- The Animation & Effects Data Diskette
- Optional: The Mindset Video Production Module (for display over video)

**NOTE:** The *Animation & Effects* program will work with or without a Video Production Module. If you want to display your animation over video, make sure the Video Production Module is hooked up properly, is turned on, and that you have an external video source coming into the Video Production Module.

---

## 1. How to start the *Animation & Effects* program

- Insert the *Animation & Effects* Program Diskette in the left disk drive (A).
- Turn the disk lever down.
- Turn on the system switch on the back of the keyboard.

If the system is already on, hold down the **ALT** key and press the **RESET** button. The program will start loading. After a few seconds a screen with 14 choices will appear.

To load the *Animation & Effects* program:

- Press the number 1 on the keyboard.
- Press the **RETURN** key.
- Press the space bar when prompted to "press any key." The program will load, and after a few seconds the **MAIN MENU** will appear.

**NOTE:** To select a menu item, move the mouse to position the cursor on top of the word describing the item, then press the left mouse button.

## 2. How to create animation events

Creating an animation involves four basic steps:

- STEP 1: MAKE A PICTURE
- STEP 2: LOAD A PICTURE
- STEP 3: MAKE A CEL
- STEP 4: ANIMATE THE CEL

### STEP 1: MAKE A PICTURE

For this tutorial you can use the pictures already created for you on the Data Diskette but normally you would paint your own pictures with the *PC Paintbrush II* program.

---

## STEP 2: LOAD A PICTURE

- Insert the *Animation & Effects* Data Diskette in the right drive (B) and turn the disk lever down.
- Select **EDIT CELS** (remember to position the cursor inside the **EDIT CELS** box and press the left mouse button). A submenu will appear.
- Select **MAKE CELS** (press the left mouse button). A list of picture files from drive B will appear. A file named **CLIPART** is on the list.
- Select **CLIPART** (left button). A screenful of pictures will appear, and a horizontal line will be attached to the cursor.

## STEP 3: MAKE A CEL

A cel is a picture with a box around it and a name associated with it.

The first cel will contain the word **MINDSET**.

- Position the white line close to the yellow bar on top of the word **MINDSET**.
- Press the left mouse button to set the line.
- Press the right mouse button to confirm the selection.
- Position the line on the bottom of the word **MINDSET**.
- Press the left button to set the line.
- Press the right button to confirm.

Now a vertical line will appear.

- Press the left button to set the line at the left side of **MINDSET**.
- Press the right button to confirm.
- Press the left button to set the line at the right side of **MINDSET**.

- 
- Press the right button to confirm.

Now you'll be prompted to type in a name for the cel.

- Type the word **MINDSET** on the keyboard and press **RETURN**. The picture screen will reappear with a box around the **MINDSET** logo.

Repeat "STEP 3: MAKE A CEL" for the truck, the JVC logo, and the star, making a box for each and naming each **TRUCK**, **JVC** and **STAR** respectively.

When you're done with all four cels:

- Press **ESC** on the keyboard. The **EDIT CELS** menu will reappear.
- Select **EXIT THIS MENU**.

#### **STEP 4: ANIMATE THE CEL**

To learn how to wipe on an image, use a simple wipe for the first animation.

- Select **EDIT ANIMATION**.
- Select **MAKE EVENTS**.
- Select **WIPE TRANSITION**.
- Select **WIPE** — > the cels will appear on the screen.

To select the **MINDSET** cel:

- Move the cursor inside the cel containing the **MINDSET** logo.
- Press the left button.

Move the mouse and you'll see how the **MINDSET** logo follows your movement.

- Position the logo at the top of the screen, centered.
- Press the **RETURN** key on the keyboard.

---

This will select and confirm the position. The MAKE EVENTS MENU will reappear.

To preview the animation:

- Select **PREVIEW** (next to last item in the MAKE EVENTS MENU).

You'll see the word **Mindset** being wiped on the screen.

To move an object in a straight line, try an animation that sends the truck from right to left across the screen.

- Select **CEL PATH** (in the MAKE EVENTS MENU).
- Select **LINE PATH** (in the SELECT PATH MENU).

The cels will appear.

- Select the cel with the truck in it. The truck will follow the mouse movement.

Now position the truck all the way to the right of the screen, where it disappears behind the border.

- Press **RETURN** on the keyboard to accept that position.
- Position the truck all the way to the left of the screen behind the border.
- Press **RETURN**. The menu will reappear.

To preview the animation sequence:

- Select **PREVIEW**. Both animations will play, one after the other.

---

To move an object along a freeform path, follow these steps. In this animation a star will move along a looping path.

- Select **CEL PATH**.
- Select **TRACE PATH**. The cels will appear.
- Select the **STAR** cel. The star will follow the movement of the mouse.
- Position the star in the center of the screen.
- Press the left mouse button and keep it pressed down while moving the mouse in three or four loops.

The star will follow the looping trail, leaving a trace behind, which will not be visible when the animation is played. When you're done with the path:

- Release the left mouse button.
- Press the right button to accept the path.

To preview the animation sequence, select **PREVIEW**.

All three animations will play one after the other.

To zoom an image onto the screen:

- Select **SPECIAL EFFECT**.
- Select **ZOOM**.
- Select the **JVC** cel.

The **JVC** cel will pop up at the top of the screen. You'll select the final position later.

- Move the mouse to the right; this will make the logo become smaller. Make it as small as possible.
- Press **RETURN**.

- 
- Do not move the mouse!

The logo will reappear in its original size.

- Press **RETURN** again to accept the final size.
- Select **SINGLE LOCATION** (in the **SELECT PATH MENU**).

The logo will follow the movement of the mouse.

- Position the logo in the center of the screen.
- Press **RETURN** to place and accept that position.

In order to be able to view the whole screen for a second, you can add a pause at the end of the animation sequence:

- Select **TIMING CONTROL** (in the **MAKE EVENTS MENU**).
- Select **PAUSE 1 SECOND**. The pause will be the last animation event.

To preview the animation, select **PREVIEW**.

All animation events will be played, with a short pause at the end.

### 3. How to Save an Animation

To save an animation for future playing or editing, you need to save it on a data diskette.

For this tutorial you can save your animation sequence on the *Animation & Effects Data Diskette* in the right drive. Normally, you would save your animation on your own diskette.

- Select **EXIT THIS MENU** (in the **MAKE EVENTS MENU**).
- Select **EXIT THIS MENU** (in the **EDIT ANIMATION MENU**).
- Select **SAVE ANIMATION** (in the **MAIN MENU**).

---

You'll be asked to type in a name for your animation. Type a name eight or fewer characters (no spaces) — call this animation "demo."

- Type **DEMO** and press **RETURN**.

The animation will be saved on the Data Diskette in drive B.

#### 4. How to run a prepared animation sequence

You may want to play a prepared animation sequence either for taping or demonstration purposes. Two prepared animation sequences are included on the *Animation & Effects* Data Diskette.

If you have not loaded the program already, load *Animation & Effects*, following the instructions at the beginning of this tutorial.

Make sure the *Animation & Effects* Data Diskette is in the right drive with the disk lever turned down.

To load an animation sequence

- Select **LOAD ANIMATION** (in the **MAIN MENU**). A list of animation sequences will be loaded in a few seconds.
- Select **MINDSET** from the list. The animation will be loaded in a few seconds.

To play an animation sequence:

- Select **PLAY ANIMATION** (in the **MAIN MENU**). A submenu will appear.
- Select **PLAY ANIMATION** again.

The animation will play to the end and then repeat from the beginning.

If the animation does not begin to play, press the **START** key.

To stop the animation at any time:

- Press **ESC** on the keyboard.

---

The **PLAY ANIMATION** menu will appear.

To play a different animation:

- Press **EXIT THIS MENU** (in the **PLAY ANIMATION** menu). The **MAIN MENU** will appear.
- Select **LOAD ANIMATION**.
- Select **JVC** from the list. When the **MAIN MENU** reappears:
- Select **PLAY ANIMATION** (in the **MAIN MENU**). A submenu will appear.
- Select **PLAY ANIMATION** again. The animation will play in a continuous loop until you interrupt it by pressing the **ESC** key.

# **MINDSET**

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MINDSET  
ANIMATION & EFFECTS MANUAL  
ADDENDUM

READ THIS FIRST!

The Animation & Effects program has been updated from Version 1.01 to 1.04. These recent changes are not reflected in the enclosed manual. Therefore, we would like to draw your attention to the three additions that have been made.

Addition 1:

MAKE CELS (page 20).

On the bottom of the page, under "A few tips on adding cels:" we have added a third item:

3. Sometimes the image is out of phase. If that happens simply press the PG UP key on the keyboard to get the image back in phase.

---

Addition 2:

DRAW CHAIN (page 30).

On page 31, the following section replaces "To trace perfectly straight horizontal and vertical lines:"

If you're using a tablet,

- Move the pen to the location where the line is to start.
- Slowly lift up the pen, raising it straight up about six inches above the tablet.
- Lay the pen on the table, away from the tablet.

If you're using a mouse,

- Move the mouse to the location where the line is to start.

New  
→ o

To trace a straight line

- Adjust the position of the cel with the arrow keys, if necessary.
- Press and hold the SHIFT key on the keyboard while simultaneously pressing one of the four arrow keys.

- 
- New →
- o { To make a right angle (or a 180 degree) turn,
    - Release the SHIFT key
    - Press the SHIFT key again and hold it down while pressing the arrow key pointing in the new direction.
    - Release the SHIFT key to stop tracing or to reposition the cel for another trace.
    - Press the space bar to accept your drawing.
  - o Select PREVIEW to see your animation.

Addition 3:

Appendix C has been added: *see after*  
*Appendix C:*  
*Installing A&E*  
Animation Speeds At A Glance