System requirements:



IBM Color Display, or a television

64KB of memory One diskette drive

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Animation Creation

Entertainment Series





IBM Software for IBM Personal Computers

Create your own lively and colorful moving pictures. Speed up the action. Slow it down. Make your display screens come alive with a variety of special effects.



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Continued on inside back cover



Animation Creation





First Edition (October 1983)

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About This Book

Animation Creation is an entertainment package that lets you create and display colorful moving pictures. It is designed for both children and adults. You do not need any programming experience to use Animation Creation, but you should be familiar with the operation of your computer and keyboard.

This book is designed as a series of steps that show you how to use Animation Creation quickly and easily:

- program.
- Menu, and display sets of screens.
- screens.
- Chapter 4 shows you how to combine all of animation.
- . likely causes, and their possible solutions.
- . characters and colors.
- . Animation Creation program diskette.

Chapter 1 introduces you to Animation Creation and shows you what to do before you start up the

Chapter 2 shows you how to format a storage diskette, start up Animation Creation, use the Main

Chapter 3 shows you how to set up, build, and save

Animation Creation's special functions to create

Appendix A contains a list of error messages, their

Appendix B contains a list of available screen

Appendix C contains a list of the files on your

Appendix D shows you how to combine Animation . Creation screen groups with your Advanced BASIC programs and how to manage your screen sets.

As you go through the chapters, remember these two important things:

- 1. Use your computer while you work through the chapters.
- 2. Read the chapters carefully and follow the instructions exactly.

Finally, be patient. You won't be able to learn everything about Animation Creation all at once, so set a comfortable pace for yourself. In no time at all, you'll find yourself doing lots of interesting things, and you'll have fun doing them!

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Chapter 1. Before You Begin

About Animation Creation

Animation Creation is a creative entertainment package for IBM personal computers. Without any programming effort, you can create color displays using 255 different characters - special characters and text characters.

Simple ANIMATION is included too! With Animation Creation you can animate up to eight 24x40 character screens or up to four 24x80 character screens. Animation Creation lets you draw different pictures on each screen and then switch among them. By changing the positions of objects a little bit from screen to screen, you can make "moving" pictures.

Animation Creation is easy to use. Function keys and cursor movement keys help you build the screens. Built-in commands help you save and reload screen files from diskette, copy from screen to screen, set the maximum number of screens, and erase unwanted screens.

We assume that you are familiar with the operation of your personal computer and the Disk Operating System (DOS) DISKCOPY and FORMAT commands. DOS is described in your Guide to Operations and your Disk **Operating** System manual.

What You Need

To use Animation Creation, you need these items:

- An IBM personal computer with at least 64KB of . memory
- One diskette drive (single-sided or double sided)
- A color display (with the IBM Color/Graphics) . Monitor Adapter if you have an IBM Personal Computer or IBM Personal Computer XT)
- The Animation Creation program diskette .
- One formatted diskette on which to save your Animation Creation screen sets
- The IBM Disk Operating System (DOS) Version . 1.10, 2.00, or 2.10

Backing Up Your Animation Creation Diskette

We recommend that you use the DOS DISKCOPY command to make a backup copy of your Animation Creation program diskette in case of accidental damage to your original diskette. Refer to your Guide to Operations or your Disk Operating System manual for instructions on backing up diskettes.

Using Diskette Drives

We assume that your system has a single diskette drive and that you are familiar with its operation. This diskette drive is referred to as drive A throughout this book.

1. The drive on the left is called drive A.

Insert your Animation Creation program diskette in drive A.

2. The drive on the right is called drive B.

Insert your storage diskette in drive B.

Note: It is not necessary to switch or remove these diskettes while you are using Animation Creation.

3. To see a screen set that is saved on your storage

For the remainder of this book, all references to diskette drives will be for single drive systems.

Using Keyboards

Although there is more than one kind of keyboard, we assume that you are using the IBM PC jr keyboard, and this keyboard is referred to throughout this book.

Refer to this section only if you have a dual-drive system:

diskette, or to save a screen set to your storage diskette, type b: in front of your screen set names. When you are asked to type letters or numbers, just type the appropriate letters or numbers on your keyboard.

When you are asked to press any special key, press the key that has a similar or matching symbol or a similar or matching label, for example, the [Inter] key.

Note: The symbols on the keyboards, in this book, and on your computer screen may not exactly match.

Refer to the appropriate section for your keyboard when you are asked to press a key combination:

IBM PC*jr* keyboard: .

- First press the [^{fn}] key once, and then release it.
- Then press the appropriate $\begin{bmatrix} 1 \\ 1 \end{bmatrix}$ through $\begin{bmatrix} 0 \\ 10 \end{bmatrix}$ key located along the top of the keyboard.

IBM Personal Computer or IBM Personal Computer ٠ **XT keyboard:**

- There is no $[f_n]$ key on this keyboard. -
- Press the appropriate [F1] through [F10] key located along the left-hand side of the keyboard.

Chapter 2. Getting Started

Your Storage Diskette

Before you use Animation Creation to create and diskette. Follow these steps:

- instructions.
- Enter the correct date and time.
- 3 If you have DOS 1.10:
 - Type format and then press (Enter).
 - If you have DOS 2.00 or 2.10:

 - When you see this message:

4

Insert new diskette for drive A: and strike any key when ready

Remove your DOS diskette from drive A and insert a blank storage diskette in drive A, then press any key.

display screens, you need to format a separate storage

Start up your computer with your DOS diskette in drive A. See your DOS manual if you need

• Type format /8 and then press [Enter].

- 5 When the formatting is complete, the computer asks you if you want to format another diskette. Type N.
- 6 Remove your storage diskette from drive A and set it aside for future use.

System Startup

Once you've read the first chapter and formatted your storage diskette, you're ready to start using Animation Creation.

If your computer is off:

- Insert your Animation Creation program diskette in drive A.
- 2 Turn on your color display.
- 3 Turn on your computer.

If your computer is on:

- 1 Insert your Animation Creation program diskette in drive A.
- 2 Hold down the [Ctrl] and the [Alt] keys, then press the (Del) key.

3 Release the keys.

This is called a system reset.

Monitor Adjustment

Each time you start Animation Creation, you are asked to adjust your picture.

- your picture.
- 2 press [Inter] to continue.

3 Then continue to follow the directions on your screen.

Title Screen

You are ready to begin using Animation Creation when the title screen appears on your screen. Press [Enter] to continue and see the Main Menu.

Follow the directions on your screen to adjust

When your picture is adjusted to your liking,

Main Menu

This is the Main Menu.



Main Menu Selection

The Main Menu gives you several choices. If this is the first time you've used Animation Creation, continue with this chapter.

If you're familiar with Animation Creation, press the number of your choice and turn to the correct chapter for that choice in your book.

Screen Animator Demonstrations

Your program diskette includes two screen sets that you can animate to show Animation Creation's color and graphics capabilities. You also can animate these screen sets to practice using the Screen Animator.

Check to see that your Animation Creation program diskette is in drive A.

Screen Animator Screen

Type 4 on the Main Menu to see this screen:



• Type TRAIN and then press [Inter].

Note: It is not necessary to fill in all 10 white spaces before you press [Enter]. Also, if you happen to type something incorrectly, press the key to erase the mistake, then retype Backspace the correct letters.

Screen Animator Help Screen

The Screen Animator Help Screen appears after you press [Enter] :



This screen describes the five actions that you can take to present your screens. $[F_n] - [P_{g_1}]$ works throughout the animation process. The other keys work only during screen presentations.

Note: If you forget how to use these keys during a presentation, just press $[F_n] - [\frac{1}{F_1}]$ to see the Screen Animator Help Screen.

You have two methods for presenting screens:

- 1. The auto method automatically presents the screens in order from first to last and repeats them until you press $[f_n] - [f_1], [f_n] - [f_2], [f_n] - [f_2], [f_n] - [f_1].$
- 2. The step method lets you look at one screen at a time, either forward or backward.

Animating the Screen Sets

Now press [Inter] to see the screen set that you've selected, then follow these steps to see it work:

- Look for the message Loading screens... at the lower left-hand corner of your screen. Your presentation is ready to start after this message disappears.
- You are in auto method at the beginning of each screen presentation. Try pressing (Home) and (End) a few times to see what happens.

Note: Stop pressing a key if you hear a beep - the Screen Animator is moving as quickly or as slowly as it can.

3

4

5

Press $\begin{bmatrix} Fn \end{bmatrix}$ - $\begin{bmatrix} 1 \\ F1 \end{bmatrix}$ to see the help screen again.

Remember: You can always see this screen during animation by pressing [n] - [n]. Press [Inter] to continue with the animation.

Press $\begin{bmatrix} Fn \\ \end{bmatrix} - \begin{bmatrix} 9 \\ F9 \end{bmatrix}$ to end a particular demonstration. This message then appears at the bottom of your screen:

Are you sure (Y/N)?

- Menu.
- Screen Animator.

If you would like to see a different demonstration, go back to the "Main Menu" section of this chapter and repeat these steps, but type the word SUN instead of the word TRAIN.

Before You Go On

You may want to go over the steps in this chapter until you are familiar with how to use the Screen Animator

Press $[f_n] - [f_2]$ to switch to step method.

Press (Home) to move one screen forward.

Press (End) to move one screen backward.

Type Y if you want to return to the Main

Type N if you want to continue using the

and the five special actions. You will be using these steps whenever you run Animation Creation's Screen Animator.

Chapter 3. Screen Builder Commands

This chapter shows you how to set up a screen, draw something on it, and save it for future use. Once you become familiar with how Animation Creation works, you won't have to follow the steps in this chapter.

Check to see that your Animation Creation program diskette is in drive A.

Screen Types

There are two types of screens you can build:

- . a screen set - screen 1 through screen 8.
- . a screen set - screen 1 through screen 4.

Important: For best results with a color TV, build 40-column screens.

The 64KB IBM PC jr can only support 40-column screens. You must have a 128KB IBM PCjr in order to build 80-column screens.

40-column screens let you create up to 8 screens in

80-column screens let you create up to 4 screens in

Screen Builder Screen

To bring up the Screen Builder Screen, type 2 on the Main Menu.

This screen appears:



Screen Set Names

A screen set is a collection of related screens that you build and present in a certain order.

Before you can begin building screens, you've got to give your screen set a name. Screen set names can be almost anything you want, up to eight characters long. You may use numbers, uppercase letters, or lowercase letters when naming your screen sets.

You'll be practicing some of Animation Creation's special functions in this chapter, so follow these three steps to name this first screen set **PRACTICE**.

- Remove your Animation Creation program diskette from drive A.
- Insert your storage diskette in drive A.

3

Type **PRACTICE** and then press [Inter]. The system checks to make sure that there is no existing screen set named **PRACTICE**, then the first working screen in the set appears on your screen.

Note: If you type a wrong letter, just use the Backspace key to erase, then retype the screen set name correctly.

Select Working Screen

A working screen means any particular screen that you are currently working on.

Press [Fn] - (P10] a few times to switch working screens. Each time you press $[F_n] - [0_{F10}]$, watch the numbers change in the lower right-hand corner of your screen.

> Note: You can always tell which working screen you are on by looking at the s =number in the lower right-hand corner of your screen.

Now press $\binom{Fn}{F10}$ - $\binom{O}{F10}$ until your working screen is set to 1.

Steering the Cursor

The *cursor* is the blinking line that you see on your screen. It helps you create pictures by showing you where the characters you type will appear on the screen.

When you first start Animation Creation, the cursor is blinking in the upper left-hand corner of your screen. By pressing certain keys, you can move the cursor all over your screen, either one space at a time, or several spaces at once, and either forward, backward, up, or down.

Sometimes, depending on the characters that you select, the cursor changes from a blinking line to a blinking box. It still works the same way, however.

The Cursor Control Keys

The cursor control keys are located on the right-hand side of your keyboard. These are the keys with the arrows pointing (Home), (End), (FgUp), and (PgDn).

Notes:

- 1. On the IBM Personal Computer or IBM Personal Computer XT keyboard, if you press a cursor control key and numbers appear on your screen, just press the (Num Lock) key and start again. Use the Spacebar and the arrow keys to erase any numbers that are on your screen.
- 2. The first time you press a particular arrow key, you are just setting the cursor direction (unless it is already set in that direction). The cursor does not move until you press that key again, or until you begin to draw something on your screen.
- 3. You can speed up the cursor movement by holding down the arrow key until the cursor is almost where you want it and then releasing the arrow key.

key.

This list shows you how each cursor control key works. Practice using each key as you read along:

- 1. Use the (PyDn) key to move the cursor to the right on any row.
- any row.
- 3. Use the [End b] key to move the cursor down in any column.
- 4. Use the (Home) key to move the cursor up in any column.
- particular arrow key direction.
- Use $[F_n]$ (H_{ome}) to move to the beginning of a 6. particular row.
- 7. Use [Fn] (End) to move to the end of a particular row.
- Use $[f_n]$ $[f_{gUp}]$ to move to the top of a particular 8. column.
- 9. Use [Fn column.

With a little practice, you'll be able to shift cursor directions with ease.

4. Whenever you get to the end of a row or a column, the cursor automatically goes back to the beginning of that row or column if you continue to press the

2. Use the $\overline{P_{gUp}}$ key to move the cursor to the left on

5. Use the [Tab] key to move eight spaces in a

) - (PyDn) to move to the bottom of a particular

Select Characters

In addition to the 95 text characters that are available on your keyboard, you can choose from among 160 special characters to draw your pictures, using up to six different characters at one time. When you first start Animation Creation, these special characters are pre-set to blocks.

You use $[f_n] - [f_1]$ through $[f_n] - [f_6]^{6}$ for your special characters. Here's how to change the character:

- Hold down the [tr] key, then press [tr] [tr]once. The cursor disappears, and the 1 begins to blink at the bottom of your screen.
- Press (Home) or (End) to change the character to the right of the blinking area.
- 3 When you see the character you want, stop pressing the arrow key and press [Inter] to set the new character. The 1, now showing the new character, stops blinking.
- 4 Follow this procedure to reset any of the six character function keys - $[F_n]$ - $[F_1]$ through $\begin{bmatrix} Fn \\ - \begin{bmatrix} 6 \\ F6 \end{bmatrix}$.

Refer to the character chart in Appendix B for a list of all of the available special characters.

Select Colors

The next step in the screen building process is selecting your background and foreground colors.

Background Colors

These colors make up the background scenery for the pictures you draw on your screens. When you first start Animation Creation, the background color is pre-set to black.

You can change your background color if you want. For example, if you are drawing a picture of a house on a hill, you would probably change your background color to blue to represent the sky.

Here's how to select the background color:

- color.
- 2 while holding down the ^{Ctrl} key.
 - too.
- 3 time you change it.

The block to the right of 8bg at the bottom of your screen shows you the current background

Hold down the [Ctr] key, then press [Fn] - [B] + [Watch the blocks of color at the bottom of your screen change each time you press $\begin{bmatrix} Fn \end{bmatrix} - \begin{bmatrix} 8 \\ F8 \end{bmatrix}$

Remember: Only hold down the [^{Ctrl}] key. The [Fn] key won't work if you hold it down,

Stop pressing $[f_n] - [g_n] and release the [Ctrl] key$ when you find a color that you like. This becomes your background color until the next

Refer to the color chart in Appendix B for a list of all of the available background colors.

Foreground Colors

You use foreground colors to draw pictures on top of your background color. When you first start Animation Creation, the foreground color is pre-set to white.

You can change your foreground colors as often as you like. For example, if you are drawing a picture of a house on a hill and your background color is blue, you might choose a white foreground color for the house, red for the roof, and yellow for some flowers.

Here's how to change the foreground color:

- The block to the right of 7fg at the bottom of your screen shows you the foreground color.
- Hold down the [tr] key, then press [fn] [fn]Watch the special characters inside the background blocks of color at the bottom of your screen change color each time you press $[F_n] - [\frac{7}{F_7}]$ while holding down the [Ctrl] key.

Remember: Only hold down the Ctrl key. The [Fn] key won't work if you hold it down, too.

3 Stop pressing $[f_n] - [f_7]^{*}$ and release the [Ctr] key when you find a color combination that you like. This becomes your foreground and background color combination until the next time you change it.

of the available foreground colors.

Entering Commands

There are six commands that you can use with Animation Creation - COPY, ERASE, MAX, QUIT, RELOAD, and SAVE. Although each of these commands is explained in detail later in this book. here's a general list of the steps to follow when entering commands.

Note: Don't follow these steps now. They're just here for you to refer to later on if you need them.

Press $\begin{bmatrix} Fn \\ - \end{bmatrix} - \begin{bmatrix} 9 \\ F9 \end{bmatrix}$. A command message appears along the bottom of your screen. Keep pressing $[f_n] - [f_n]$ until you see the command that you want.

- and QUIT commands.
- . COPY and MAX commands.
- Press [Esc] if you want to cancel any command . before you enter it. This returns you to the command line.

The ERASE Command

Once you've selected all of your colors and characters, you can use the ERASE command to clear your working screen and set it to the background color:

Refer to the color chart in Appendix B for a list of all

Press [Inter] to enter the ERASE, RELOAD, SAVE,

Type a number and then press [Inter] to enter the

Press $\begin{bmatrix} Fn \\ \end{bmatrix}$ - $\begin{bmatrix} 9 \\ F9 \end{bmatrix}$ until you see this message along the bottom of your screen:

ERASE screen to bg color

Press [Enter] The screen changes to the background color that you have selected.

Drawing on the Screen

Once your working screen is set to the background color of your choice, you can create pictures on it.

Follow these steps to practice drawing something on your working screen:

- Use any of the cursor control keys to move the cursor to wherever you want to start drawing.
- Press $[f_n] (f_1]$ a couple of times and watch what happens.

Note: The screen characters will be entered in the same direction as the last arrow key you pressed. To change direction, stop pressing $[f_n] - (f_1]$, press another arrow key, then continue to press $\begin{bmatrix} Fn \end{bmatrix} - \begin{bmatrix} 1 \\ F1 \end{bmatrix}$.

- 3 Use $[F_n] - [F_1]$ through $[F_n] - [F_6]^6$ and the cursor control keys while drawing.
- 4 Use the Spacebar if you need to erase any areas of your screen.

It really doesn't matter what you happen to draw on this particular working screen. This is the time to practice using all of these keys and get used to moving around your screen.

Remember, if your screen gets too messy and you are having problems drawing, you can use the ERASE command to clear your screen and start over.

Practice these steps until you are familiar with them and your screen is drawn to your liking.

The SAVE Command

Once you have drawn your screens to your liking, you may save them for future use. The SAVE command lets you store your screens on diskette.

Save the screen that you've named **PRACTICE** by following these steps:

- drive A.
- the bottom of your screen:

SAVE screens to diskette

Press [Enter] to see this message:

SAVE this screen (Y/N)?

Check to see that your storage diskette is in

Press $\begin{bmatrix} Fn \\ - \end{bmatrix} - \begin{bmatrix} 9 \\ F9 \end{bmatrix}$ until you see this message along

This message appears for each working screen in your screen set, so you see it more than once whenever you have more than one screen in a screen set.

- 4 Type Y to save the screen that you just worked on.
- 5 Type N to remove the seven screens you did not work on. (You have to repeat this step seven times.)

The QUIT Command

Once you've completed your screen building session, use the QUIT command to end and return to the Main Menu:

Press $[f_n] - [f_9]$ until you see this message along the bottom of your screen:

QUIT screen building session

Press Enter)

Note: Whenever you create or change a screen without saving it, this message appears:

Are you sure (Y/N)?

Type Y to return to the Main Menu without saving your changes.

- . session.
- 3 set it aside for future use.
 - diskette in drive A.

Before You Go On

4

You used many of Animation Creation's special features in this chapter. You may want to go over these steps until you feel comfortable when drawing pictures. Once you are familiar with these steps, go on to the next chapter.

Type N to continue the screen building

Remove your storage diskette from drive A and

Insert your Animation Creation program





Chapter 4. Building a Screen Set

In order to help you learn the screen building process quickly and easily, your Animation Creation program diskette contains a partially-built set of screens. You will use this screen set in this chapter to learn how to change screens and use the MAX, RELOAD, and COPY commands.

Check to see that your Animation Creation program diskette is in drive A.

Change Existing Screens

Let's look at the screen set we've provided and practice making some changes to it:

- Type 1 on the Mai screens.
- Type the screen se

Type 1 on the Main Menu to change existing

Type the screen set name FACE and then press

This image appears on your screen:



Typing Letters of the Alphabet

3

Besides drawing pictures on your screen, you can also type letters, numbers, and words, just like you can on a regular typewriter. Let's try it on this screen:

- Your foreground and background colors and your special characters have all been pre-set for this set of screens. Don't change them now.
- 2 Move the cursor to the beginning of the blank space on the front of the hatband, set the direction to \overline{PgDn} , then type your first name.

If everything went right, your name should now appear in the space on the front of the hatband. If you're having trouble, go back and review the sections on cursor control, then try these steps again.

The MAX Command

You can create sets of up to 8 screens on a 40-column display and sets of up to 4 screens on an 80-column display. Sometimes, though, you might not want to use every single screen. You can use the MAX command to limit the number of screens in your set:

the bottom of your screen:

MAX screen number s=

Type 2 and then press [Enter]. 1 and screen 2.

The COPY Command

One of the most frequently used commands is the COPY command. It lets you copy entire displays from one screen to another. Here's how to use this command:

Press $\begin{bmatrix} Fn \\ - \end{bmatrix} - \begin{bmatrix} 9 \\ F9 \end{bmatrix}$ until you see this message along the bottom of your screen:

COPY screen to s=

Press $\binom{Fn}{F_9}$ - $\binom{9}{F_9}$ until you see this message along

The maximum number of screens is set to two screens - screen



2 Type 2 and then press [Inter]. Screen 1 is cop to screen 2.

The RELOAD Command

Sometimes, when you are making changes to a saved set of screens, you may decide that you don't like the changes. You can easily get back your original working screen by using the RELOAD command.

To see how this command works, let's RELOAD the first working screen in the screen set FACE:

Check to see that your program diskette is in drive A.

> You need your program diskette in drive A because that is where the screen set FACE is stored. Whenever a screen set is stored on your storage diskette, insert the storage diskette in drive A.

- Set your working screen to 1 using $[f_n] [f_{10}]$.
- 3 Draw anything you want on working screen 1, just to make some changes to it.
- 4 Press $\binom{Fn}{F}$ - $\binom{9}{F9}$ until you see this message along the bottom of your screen:

RELOAD screen from diskette

5 Press [Enter]. The original screen appears, and the changes are gone.

			-	
n	1	e	d	
r	-	~	~	

Creating the Animation Effect

Now that you've copied your screens and tested the RELOAD command, it's time to make some changes to one of the working screens. By making these changes and switching from one screen to another, you can produce the animation effect.

You may want to retype your name in the hatband, since it was erased when you used the RELOAD command.

Now let's redraw the character's eyebrows on working screen 1:

- eyebrow and one space above it.
- Set the cursor direction to (PgDn).
- 3 $- \left(\frac{5}{55} \right)^{\%}$ five times. Press [Fn]
- 4 Press the Spacebar two times.
- 5 Press $[F_n]$ - $[5_{F_5}]$ five times.
- 6 Position the cursor to the left of the old

Now let's erase the character's mouth:

1. Move the cursor to the bottom left edge of the mouth.

Move the cursor to the beginning of the left

eyebrows, set the direction to (PgDn), then use the Spacebar to erase the original eyebrows.

- 2. Set the direction to (PgDn).
- 3. Press the Spacebar 10 times.

Testing and Saving the Animation

You can test the animation by pressing [**] once and then holding $\begin{pmatrix} 0 \\ F10 \end{pmatrix}$. Your character's eyebrows and mouth continue to move for as long as you hold the $\binom{9}{F10}$ key.

Now insert your storage diskette in drive A, then use the SAVE command and the QUIT command that you learned in Chapter 3 to save this screen set and end the screen building session.

Using the Screen Animator

The Screen Animator provides an easy way to display the screen sets you create with the Screen Builder program. You can choose to display your screens one at a time, or you can run the screen set in order. Either way, you control the speed of the presentation.

Pre-saved Screens

Animation Creation lets you load a set of pre-saved screens quickly and easily. Follow these steps to load the screen set FACE that you just worked on and saved:

Insert your Animation Creation program diskette in drive A.

- Animator.
- diskette from drive A.
- 4
- 5 Type FACE and then press [Enter].

Animating a Set of Screens

The Animation Help Screen appears after you enter your screen set name. You saw this screen in Chapter 2.

When you are ready to animate your screen set, press [Enter] to start.

If it has been a while since you've run the Screen Animator, check over the items on the Help Screen in order to refresh your memory.

Don't Stop Now

Now that you're familiar with the way Animation Creation works, use your imagination and talents to create your own original screen sets. Here's a reminder about what steps to follow and in what order to follow them:

1. Check to make sure that the correct diskette is in the correct diskette drive.

Type 4 on the Main Menu to see the Screen

Remove your Animation Creation program

Insert your storage diskette in drive A.

- 2. Select characters and colors as often as you want.
- 3. Use the MAX command if you want to limit the number of screens in your screen set when creating a new screen set.

Use the MAX command *before* using the COPY command to increase the number of screens in an existing screen set.

- 4. Use the COPY command to move an entire working screen to a different working screen.
- 5. Use the ERASE command to clear or reset any working screen to your background color.
- 6. Use the RELOAD command to undo unwanted changes you've made to an *existing* working screen before trying to save it again.
- 7. Use $\binom{Fn}{F10}$ $\binom{O}{F10}$ to test the animation as you are building screens.
- 8. Use the SAVE command to keep your screen sets on your storage diskette.
- 9. Use the QUIT command to end a screen building session and return to the Main Menu.
- 10. Use the Screen Animator to display your finished screen sets.

Have fun!

Appendix A. Messages

This section lists all messages produced by Animation Creation, describes the conditions where they occur, and suggests corrective actions where appropriate. Messages are listed in alphabetical order.

BASIC ERROR

A BASIC error not normally encountered by the Animation Creation program has occurred. Do a system reset in order to continue with Animation Creation.

DISKETTE DRIVE ERROR (press Esc)

You entered b: for an IBM Personal Computer XT that has a single diskette drive, or the diskette drive door was open, or no diskette was found in the specified drive. Press [^{Esc}], specify the correct drive, insert the appropriate diskette in the appropriate diskette drive, and close the diskette drive door.

DISKETTE DRIVE NOT READY (press Esc)

The diskette drive door is open, or a diskette is not in the drive. Press [Esc], either close the diskette drive door or insert the correct diskette in the correct diskette drive, then re-enter the command.

DISKETTE FULL (press Esc)

All diskette storage space is in use, or you used a DOS 2.00 or 2.10 formatted storage diskette with your DOS 1.10 program diskette. Press [Esc], then insert a correctly formatted storage diskette in the correct diskette drive.

DISKETTE WRITE PROTECTED (press Esc)

You tried to save a working screen to a diskette that is write-protected. Press [Esc], remove the write-protect tab on the diskette, or insert the appropriate formatted diskette.

PROGRAM DISKETTE NOT FOUND (press Esc)

You specified a choice from the Main Menu that requires switching from the Screen Builder to the Screen Animator, or vice versa, or exiting without the program diskette in drive A, or the diskette drive door was open. Press [Esc], insert the Animation Creation program diskette in drive A, make sure that the diskette drive door is properly closed, then re-enter the option number.

SCREEN NOT FOUND (press Esc)

The screen to be reloaded was not on the diskette, or the working screen was not previously saved. Press [Esc], then insert the correct diskette in the correct diskette drive.

SCREEN SET ALREADY EXISTS (press Esc)

You specified the name of an existing set of screens when you were attempting to name a new set of screens. Press [Esc], then enter a different screen set name.

SCREEN SET NOT FOUND (press Esc)

You entered the name of a non-existent set of screens, or you did not specify A or B drive, or the diskette drive door was open. Press [Esc], then re-enter the correct screen set name, making sure that the diskette drive door is properly closed.

Sorry...This program requires the Color/Graphics Adapter

Your system does not have a Color/Graphics Adapter card. Run Animation Creation on a system that has the card and either a color display or monitor.

SWITCHING TO COLOR DISPLAY. MAKE SURE **IT IS POWERED ON.**

You started Animation Creation on a monochrome display. The program automatically switches to the color display. This is just a reminder to make sure the color display is turned on.

UNUSABLE DISKETTE (press Esc)

You tried to save a screen set in the Screen Builder to an improperly formatted diskette, you used a two-sided diskette in a single-sided drive, or you have a bad diskette. Press [Esc], then insert a properly formatted diskette in the appropriate diskette drive.

Appendix B. Charts

Special Characters

This section contains a list of the special characters that are available for use with $[F_n] - [F_1]$ through $[F_n] - \begin{bmatrix} 6 \\ F_6 \end{bmatrix}$

\odot	é	¢
۲	â	£
*	ä	¥
•	à	Pt
+	å	f
•	ç	á
	ê	í
F	ë	ó
÷Č+	è	ú
	ï	ñ
	î	Ñ
1	1	a
	Ä	0
ar-	8	ć
6	É	
9	29	
ł	æ	1/2
Y A	AL	1/4
T	0	i
+	0	
+	ò	11
+	û	11
@	ù	20005
\bigcirc	ÿ	0000
C	Ö	
ü	Ü	J

-		μ
=	-1F	т
-1		Q
		-0-
=	=	Ω
-1	-11-	δ
ii.	U	∞
-	E	Ø
-1	F	E
	II.	\cap
_	++-	=
-	+	±
L	_	2
1	F	\leq
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_		÷
+		\approx
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Ľ	β	•
IF		
JL	π	n
חר	Σ	2
F	σ	

B-1

Color Charts

This section contains lists of all of the background and foreground colors available for use with $[f_n] - [f_7]^{*}$ and $[f_n] - [f_8]^*$. The type of color display you're using influences how each of these colors appears.

Background Colors

Black Blue Green Cyan Red Magenta Brown White

Foreground Colors

Black	Gray
Blue	Light Blue
White	High-Intensity White
Green	Light Green
Cyan	Light Cyan
Red	Light Red
Magenta	Light Magenta
Brown	Yellow

Appendix C. Animation Creation Files

Your Animation Creation program diskette contains a total of 16 files:

Filename	Des
COMMAND.COM	Cor
AUTOEXEC.BAT	Cor the
INTRO.EXE	Cor and
DRIVER.EXE	Cor
BUILDER.EXE	Letand
BASICA.COM	Cor for
DEMO.BAS	Cor Prog
FACE.S41	Cor
SUN.S41 - SUN.S46	Con
TRAIN.S41 - TRAIN.S42	Con

scription

ntains DOS 1.10

ntains the command to start screen adjustments

ntains the screen adjustments the title screen

ntains the Screen Animator

s you change existing screens create new screens

ntains the BASIC interpreter the demonstration program

ntains the Demonstration gram

ntains the FACE screen set

ntains the screen set of a ch with moving birds

ntains the screen set of a ving train



Appendix D. Programming with BASICA

This appendix contains information that is more technical than the information contained in the rest of the book. If you want to work through this section, you should be familiar with IBM Advanced BASIC.

Note: If your system uses the BASIC cartridge, it must be installed in order to use the program referred to in this appendix.

Demonstration Program

Your Animation Creation program diskette contains a well-commented **Demonstration Program** that you can run and list on your screen. This program is intended to show you how to use the screens created by the Animation Creation Screen Builder in your own BASICA programs.

With Advanced BASIC, you may add sound or music by using the BASICA PLAY and SOUND statements. You may also incorporate other features of Advanced BASIC.

Here's how to refer to this program:

- 1 Press [n] [g] on DOS.
- When you see the press Enter .

Press [**] - [**] on the Main Menu to exit to

When you see the A>, type basica and then

- 3 Type load"demo to bring the program from your diskette into memory.
- 4 Type list and then press [Inter] to see a listing of this program.
- 5 Type run and then press [Inter] to run this program.

Refer to the REM statements in the program listing for further programming information.

Screen Set Management

A screen set is made up of a series of related files that are stored on your storage diskette. A file may have a filename up to 8 letters long, optionally followed by a period and a 3-letter file extension. You may use the DOS COPY, ERASE, and RENAME commands to manage your screen sets. See your DOS manual for directions.

40-Column Screen Sets

A 40-column screen set is saved with the same filename for each screen in the set, with the file extension S41 for the first screen, S42 for the second screen, S43 for the third screen, and so on up to S48, if there are eight screens in the set. No file exists for a screen that is not in the set.

80-Column Screen Sets

An 80-column screen set is saved with the same filename for each screen in the set, with the file extension S81 for the first screen, S82 for the second screen, and so on up to S84, if there are four screens in the set. No file exists for a screen that is not in the set.



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