

ON-LINE SYSTEMS PRESENTS

PADDLE -- GRAPHICS

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\$39.95/Disk 48K

Applesoft & Machine Language

A complete, professional graphics preparation system for your APPLE II Computer.

- * Upper/Lower case text in any direction or color.
- * Shape tables may be automatically constructed from any item on the Hi-Res screen in color!
- * Color fill with any of 21 Hi-Res colors.
- * Automated image generation via shape tables.

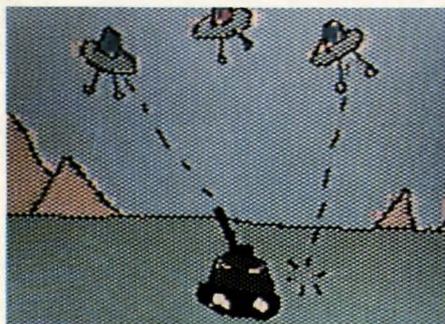
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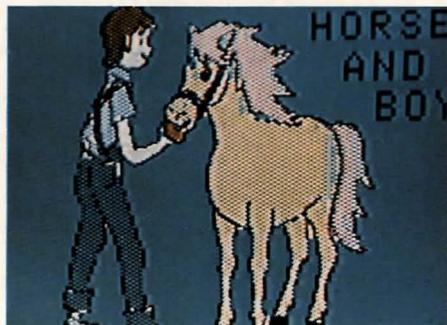
in business (slide show preparation)



at home (fun for children)



game development



art

INDEX:

1. INTRODUCTION
2. THE COMMAND HIERARCHY
3. OUTLINING A FIGURE
4. COLOR FILL
5. RETRIEVING A PICTURE FROM DISK
6. SAVING A PICTURE TO DISK
7. ADDING TEXT TO A PICTURE
8. CREATING A SHAPE TABLE
9. PICTURE CREATION USING SHAPE TABLES
10. COLOR CONFLICT
11. RECALLING SHAPE TABLES FROM YOUR BASIC PROGRAMS
12. BACKING UP YOUR PADDLE-GRAPHICS

1. INTRODUCTION

THANK YOU FOR PURCHASING PADDLE-GRAPHICS. IT MAY TAKE A WHILE TO GET USE TO, ESPECIALLY TRYING TO DO FREEFORM DRAWING, BUT DO NOT BECOME IMPATIENT. WE FEEL VERY COMPLEX DRAWINGS ARE POSSIBLE.

THE NORMAL APPROACH TO CREATING A PICTURE WITH PADDLE-GRAPHICS IS TO:

- 1) CHOOSE A BACKGROUND COLOR
- 2) OUTLINE YOUR DRAWING
- 3) COLOR FILL IT
- 4) ADD ANY APPROPRIATE TEXT
- 5) ADD IN SHAPES

FIRST IN ORDER TO SELECT A BACKGROUND COLOR AN UNDERSTANDING IS NECESSARY OF HOW THE COLOR FILL ROUTINES WORK. COLOR FILL REFERS TO A FAST METHOD OF 'COLORING-IN' AN OUTLINED FIGURE. FOR EXAMPLE IF A BLUE SQUARE WERE WANTED A SQUARE SHOULD BE OUTLINED ON THE SCREEN AND THE COLOR FILL FUNCTION USED TO FILL IT IN. UNFORTUNATELY THE COLOR FILL ROUTINES WILL COLOR ONLY ON WHITE OR BLACK. IF COLOR FILLING ON BLACK THE OUTLINE MAY BE ANY COLOR. IN THE INSTANCE WHERE WE WANTED A BLUE BOX, A BLUE OUTLINE ON A BLACK BACKGROUND

WOULD WORK. A WHITE OUTLINE WOULD HAVE PUT A BORDER AROUND THE BOX. AS YOU EXPERIMENT YOU WILL FIND WHETHER YOU PREFER A WHITE OR A BLACK BACKGROUND TO START OUT. IMPORTANT! REMEMBER THE BACKGROUND MENTIONED IN THE STEP ABOVE CAN ONLY BE WHITE OR BLACK IF YOU INTEND TO USE COLOR FILL. THIS SHOULD NOT BE A PROBLEM BECAUSE YOU CAN ALWAYS USE COLOR FILL TO CHANGE THE WHITE OR BLACK BACKGROUND TO THE DESIRED COLOR IN YOUR FINAL DRAWING. THE INITIAL BACKGROUND COLOR IS CHOSEN BY COLOR FILLING AN EMPTY SCREEN.

OUTLINING (MAIN MENU FUNCTION) IS WHERE ALL FREE-FORM DRAWING TAKES PLACE. THERE IS ALSO A SUBCOMMAND UNDER THIS MODE FOR DRAWING THICK LINES WHICH WILL ERASE PORTIONS OF A PICTURE SO THAT IT MAY BE REDRAWN.

TEXT IN GENERAL SHOULD BE ADDED TO A PICTURE AFTER COLOR FILL HAS TAKEN PLACE. OTHERWISE IF YOU TRY TO FILL AROUND THE LETTERS SOME PARTS OF THE SCREEN WILL NOT FILL EASILY.

USE OF THE APPLE SHAPE TABLE CAPABILITIES ARE A GREAT WAY TO CREATE A PICTURE. AS AN EXAMPLE OF THIS WE HAVE INCLUDED A SHAPE TABLE OF OURS 'ELECTRONIC SHAPES' WITH WHICH SCHEMATICS MAY EASILY BE CONSTRUCTED. YOU MAY WISH TO CREATE A SHAPE TABLE WITH TREES, APPLIANCES, YOUR COMPANY LOGO OR ANY OTHER COMMONLY DRAWN FIGURE. ITS CONTENTS MAY EASILY BE RECALLED AND PRINTED ANYWHERE ON THE HI-RES SCREEN.

YOU MAY WISH TO EXPERIMENT WITH TRANSPARENCIES. DRAW YOUR PICTURE ON PAPER, HAVE A PRINT SHOP MAKE A TRANSPARENCY FROM IT. THEN TAPE THE TRANSPARENCY TO THE FRONT OF YOUR TV. IN THIS MANNER OUTLINE MODE CAN BE USED TO TRACE YOUR PICTURE. THE AUTHORS HAVE HAD GREAT LUCK WITH THIS.

IN SUMMARY, PLEASE FEEL FREE TO EXPERIMENT WITH PADDLE-GRAPHICS AND REMEMBER TO FREQUENTLY SAVE YOUR PICTURE WHEN PIONEERING. WE DO SUGGEST THAT YOU READ THESE INSTRUCTIONS AS YOU GO THOUGH, AS PADDLE-GRAPHICS IS AS COMPLEX AS IT IS POWERFUL.

2. THE COMMAND HIERARCHY

PADDLE-GRAPHICS IS OPERATED AS A SERIES OF MENUS AND PROMPTS. IN GENERAL RESPONDING 'Q' TO ANY PROMPT OR MENU WILL RETURN YOU TO THE PRIOR ONE.

3. OUTLINING A FIGURE

THIS OPTION IS REACHED BY SPECIFYING '1' OUT OF THE MAIN MENU. IT IS USED TO DO DRAWING OR CORRECTING OF PICTURES. ALL DRAWING MODES UNDER THIS FUNCTION WORK ONLY IN THE STANDARD 8 APPLE HI-RES COLORS. IF YOU WISH A FIGURE TO BE ONE OF THE NON-STANDARD COLORS, OUTLINE IT IN WHITE OR BLACK AND USE THE COLOR FILL FUNCTION.

YOU ARE FIRST PRESENTED WITH A COLOR SELECTION MENU. PICK A COLOR OR 'Q' TO RETURN TO THE MAIN MENU.

AFTER PICKING THE COLOR YOU WILL BE ASKED TO CHOOSE A DRAW MODE. THEY ARE:

- A) DUAL PADDLE: THIS IS THE STANDARD PADDLE 0 IS X, PADDLE 1 IS Y "ETCHA-SKETCH" TYPE DRAWING MODE. IT SEEMS BEST SUITED TO RAPID MOVEMENT OF THE CURSOR POSITION FOR USE WITH SINGLE-PADDLE DRAW MODE OR FOR DRAWING OF STRAIGHT LINES. IT IS PROBABLY THE FASTEST AND EASIEST WAY TO DRAW BUT ALSO THE LEAST PRECISE. THE AUTHOR HAS NEVER SUCCESSFULLY COME CLOSE TO BEING ABLE TO SIGN HIS NAME IN THIS MODE.
- B) SINGLE PADDLE: THIS DRAW MODE IS FANTASTIC FOR DRAWING CURVES.
- C) LINE PLOT: THIS DRAW MODE IS USED FOR

PRECISION DRAWING OF STRAIGHT LINES. SLOWER THAN DUAL PADDLE BUT WORTH IT.

- D) DRAW MODE: USED FOR DRAWING THICK LINES. FUNCTIONS LIKE DUAL PADDLE BUT CAN DRAW A LINE SO THICK IT CAN BE THOUGHT OF AS PAINTING. VERY HANDY FOR ERASING GOOFS TO THE BACKGROUND COLOR.

PRESSING 'Q' FROM ANY OF THESE DRAW MODES WILL RETURN YOU TO THE DRAW MODE SELECTION MENU. ENTERING 'Q' FROM THE DRAW MODE SELECTION MENU WILL RETURN YOU TO THE COLOR SELECTION MENU.

3A. DUAL PADDLE DRAW

USE PADDLE 0 TO CONTROL THE HORIZONTAL POSITION OF THE CURSOR AND PADDLE 1 TO CONTROL VERTICAL POSITION. THE SPACE BAR WILL TOGGLE BETWEEN DRAWING AND NOT DRAWING.

3B. SINGLE PADDLE DRAW

AFTER SELECTING SINGLE PADDLE DRAW YOU WILL BE ASKED TO SELECT A SPEED, 1 THE SLOWEST TO 9 THE FASTEST. THIS WILL CONTROL THE SPEED AT WHICH YOU DRAW AND AS A SIDE EFFECT THE CONTROL YOU HAVE OVER THE CURSOR. FOR INSTANCE, IF YOU NEED A CIRCLE UNDER ABOUT A HALF INCH YOU WILL NEED SPEED 1. TO USE SINGLE PADDLE DRAW, MOVE THE CURSOR TO WHERE YOU WOULD LIKE TO BEGIN DRAWING USING DUAL PADDLE MODE. THEN SELECT A SPEED. AN ARROW HEAD

WILL APPEAR ON THE SCREEN. THIS INDICATES THE DIRECTION YOU WILL DRAW WHEN YOU START DRAWING. TURNING PADDLE O WILL TURN THE ARROW HEAD. YOU MAY ONLY TURN THE ARROW HEAD 360 DEGREES. IF THE PADDLE WILL NOT TURN ANY FARTHER, JUST STOP DRAWING. TURN THE PADDLE ALL THE WAY THE OTHER DIRECTION AND START DRAWING AGAIN. BOTH THE BUTTON ON PADDLE O AND THE SPACE BAR WILL TOGGLE BETWEEN DRAWING AND NOT DRAWING. WHILE DRAWING USE THE PADDLE MUCH LIKE A STEERING WHEEL WOULD BE USED IN A CAR TO DRIVE THE ARROW AROUND THE SCREEN.

3C. LINE PLOT

LINE PLOT HAS FOUR SUBCOMMANDS; S, H, V, AND E. THESE ARE FOR START A LINE, END A HORIZONTAL LINE, END A VERTICAL LINE AND END A DIAGONAL LINE RESPECTIVELY. THE PADDLES WILL MOVE THE CURSOR AS IN DUAL PADDLE MODE. ONCE THE CURSOR IS POSITIONED WHERE YOU WOULD LIKE TO BEGIN DRAWING, PRESS 'S'. IF YOU WOULD LIKE A HORIZONTAL LINE MOVE THE PADDLE TO WHERE YOU WOULD LIKE IT TO END AND PRESS 'H'. IN THIS MANNER YOU ARE GUARANTEED A STRAIGHT LINE AND ALSO GIVEN TIME TO BE CERTAIN OF PROPER POSITIONING. IF THE END OF THIS LINE IS ALSO THE BEGINNING OF YOUR NEXT LINE YOU MAY MOVE THE CURSOR TO THE NEW END POINT ON THE SCREEN AND PRESS V OR E DEPENDING ON IF YOU WANT A VERTICAL OR DIAGONAL LINE. ONE OF THE NICEST FEATURES OF THIS MODE IS IN DRAWING BOXES. MOVE THE CURSOR TO THE TOP LEFT CORNER AND PRESS 'S' THEN TO THE

LOWER RIGHT AND PRESS 'H' THEN 'V'. THEN MOVE THE CURSOR BACK TO THE TOP LEFT CORNER AND PRESS 'H' THEN 'V' AGAIN. THIS WILL ALWAYS GET YOU A NICELY ALIGNED BOX OR RECTANGLE. TO, IN EFFECT, LIFT YOUR PEN FROM THE PAPER MOVE THE CURSOR TO A NEW POSITION AND PRESS 'S'.

3D. DRAW MODE

DRAW MODE FUNCTIONS LIKE DUAL PADDLE MODE WITH A VARIABLE PEN SIZE. YOU MAY NOT TOGGLE BETWEEN DRAW AND NO DRAW, SO POSITION YOURSELF FIRST USING DUAL PADDLE MODE. SPECIFYING A COLOR OF WHITE OR BLACK WILL PERMIT YOU TO ERASE PORTIONS OF A PICTURE SO THAT YOU MAY RE-OUTLINE AND COLOR FILL.

4. COLOR FILL

COLOR FILL IS A FAST WAY OF FILLING A DRAWING WITH COLOR. IT MAY ALSO BE USED TO COLOR THE ENTIRE SCREEN.

TO USE COLOR FILL SELECT A COLOR (1-21). YOUR PICTURE WILL SUDDENLY APPEAR WITH A BLINKING CURSOR. USING THE PADDLES, POSITION THE CURSOR TO ANY WHITE OR BLACK PORTION OF THE SCREEN. PRESSING THE SPACE BAR WILL CAUSE THE OUTLINED AREA WHERE THE CURSOR IS POSITIONED TO BE FILLED IN WITH THE COLOR YOU HAVE SELECTED.

THE COLOR FILL COMMAND WILL OCCASIONALLY NOT FILL ALL AREAS OF THE OUTLINED FIGURE. WITH PRACTICE YOU WILL FIND THE BEST PLACE TO POSITION THE CURSOR TO FILL AN ENTIRE FIGURE IN THE LEAST TIME. IN GENERAL, FIND THE PORTION OF THE OUTLINE WITH THE GREATEST UNINTERRUPTED DISTANCE BETWEEN THE TOP AND THE BOTTOM.

IF A PORTION OF THE FIGURE IS MISSED OR YOU WISH TO FILL SOME OTHER FIGURE, SIMPLY MOVE THE CURSOR AND PRESS THE SPACE BAR AGAIN. TO SELECT A DIFFERENT COLOR PRESS 'Q' TO RETURN TO THE COLOR SELECTION MENU.

5. RETRIEVING A PICTURE FROM DISK

TO RETRIEVE A PICTURE FROM DISK SELECT OPTION 'B' FROM THE MAIN MENU. YOU WILL BE PROMPTED FOR THE PICTURE NAME. BEFORE YOU PRESS RETURN, THE DISK CONTAINING THE PICTURE MUST BE IN THE DRIVE. AFTER THE PICTURE HAS LOADED YOU WILL BE RETURNED TO THE MAIN MENU. AT THIS POINT, REINSERT THE 'PADDLE-GRAPHICS' DISK. THE NEXT COMMAND YOU USE SUCH AS COLOR FILL WILL SHOW YOU YOUR PICTURE.

1) EXAMINE SETUP: THIS SUBCOMMAND WILL CAUSE THE TEST WRITING OPTIONS TO BE DISPLAYED FOR YOUR REVIEW BEFORE BEGINNING TO TYPE. DISPLAYED WILL BE THE DIRECTION YOU WILL TYPE, THE SIZE, THE COLOR AND THE FONT.

2) FORMAT: BY SELECTING THIS SUBCOMMAND YOU WILL BE ABLE TO REQUEST THAT TEXT BE WRITTEN LEFT TO RIGHT (NORMAL), FROM THE TOP OF THE SCREEN TO THE BOTTOM, FROM THE BOTTOM OF THE SCREEN TO THE TOP, OR RIGHT TO LEFT (BACKWARDS).

6. SAVING A PICTURE TO DISK

TO SAVE A COMPLETE PICTURE TO DISK SELECT OPTION '7' FROM THE MAIN MENU.

YOU WILL BE PROMPTED FOR THE PICTURE NAME. BEFORE PRESSING RETURN YOU MUST PLACE THE DISK UPON WHICH YOU WOULD LIKE THE PICTURE SAVED INTO THE DRIVE. AFTER THE PICTURE IS SAVED PADDLE-GRAPHICS WILL RETURN TO THE MAIN MENU. AT THIS TIME, RE-INSERT THE PADDLE-GRAPHICS DISK INTO THE DRIVE. IF YOU CHANGE YOUR MIND ABOUT SAVING YOUR PICTURE YOU MAY RESPOND 'Q' TO THE 'ENTER PICTURE NAME' PROMPT TO RETURN TO THE MAIN MENU.

7. ADDING TEXT TO A PICTURE

PADDLE-GRAPHICS HAS A FACILITY WHICH WILL ALLOW YOU TO TYPE ONTO YOUR HI-RES SCREEN. TEXT MAY BE WRITTEN IN UPPER OR LOWER CASE AS WELL AS IN THE ENGLISH OR GREEK ALPHABETS. TEXT MAY ALSO BE WRITTEN IN ANY DIRECTION OR IN ANY OF EIGHT COLORS.

TO INVOKE THIS FACILITY SPECIFY '6' FROM THE MAIN MENU. YOU WILL RECEIVE THE TEXT WRITER OPTION SELECTION MENU. FROM THIS MENU YOU CAN CHANGE THE DEFAULTS THAT WILL BE USED TO WRITE TEXT. THESE WILL BE DISCUSSED SEPARATELY.

- 1) EXAMINE SETUP: THIS SUBCOMMAND WILL CAUSE THE TEXT WRITING OPTIONS TO BE DISPLAYED FOR YOUR REVIEW BEFORE BEGINNING TO TYPE. DISPLAYED WILL BE THE DIRECTION YOU WILL TYPE, THE SIZE, THE COLOR AND THE FONT.
- 2) FORMAT: BY SELECTING THIS SUBCOMMAND YOU WILL BE ABLE TO REQUEST THAT TEXT BE WRITTEN LEFT TO RIGHT (NORMAL), FROM THE TOP OF THE SCREEN TO THE BOTTOM, FROM THE BOTTOM OF THE SCREEN TO THE TOP OR RIGHT TO LEFT (BACKWARDS).

3) SIZE: THIS OPTION CONTROLS THE SIZE OF THE LETTERS PLACED ON THE SCREEN. SIZE 1 IS THE SAME CHARACTER SET THE APPLE USES ON THE NORMAL TEXT SCREEN. SIZE 5 PRODUCES APPROXIMATELY 2 INCH TALL LETTERS. BECAUSE OF THE WAY IN WHICH THE APPLE II PROVIDES COLOR, COLORED LETTERS AT SIZE 1 WILL APPEAR BLURRED. THIS EFFECT IS EVEN WORSE WHEN WRITING SIDWAYS. TRY TO DEFINE YOUR PICTURES SO THAT COLORED LETTERS CAN BE DRAWN AT SIZE 2 OR LARGER (THIS INCLUDES WHITE OR BLACK LETTERS DRAWN ON A COLORED BACKGROUND). WHITE ON BLACK AND BLACK ON WHITE DO NOT EXPERIENCE THIS PROBLEM.

4) COLOR: THIS OPTION WILL ALLOW YOU TO SELECT THE COLOR IN WHICH YOUR LETTERS WILL BE WRITTEN ON THE HI-RES SCREEN. ADDITIONAL COMMENTS ON COLOR APPEAR IN THE PREVIOUS SECTION ON SIZE.

5) ERASE-STORE-RECALL: THIS SECTION IS PROVIDED AS A FASTER METHOD OF SAVING, RETRIEVING, OR BLANKING THE HI-RES SCREEN WITHOUT HAVING TO RETURN TO THE MAIN MENU. THESE FUNCTIONS OPERATE THE SAME AS OPTIONS '9', '7', AND '8' IN THE MAIN MENU AND ARE PROVIDED AT THIS POINT FOR CONVENIENCE ONLY.

6) FONT: THE CHARACTER SET WITH WHICH PADDLE-GRAPHICS WRITES TEXT MAY BE EITHER ENGLISH OR GREEK. TO SPECIFY ENGLISH RESPOND 'E' AFTER SELECTING THIS OPTION OR 'G' FOR GREEK. WE ARE HOPING TO ADD OTHER CHARACTER SETS IN THE FUTURE.

7) WRITE: AFTER YOU HAVE SELECTED THE OPTIONS FOR WRITING TEXT, ENTERING '7' WILL PUT YOU INTO THE MODE TO WRITE TEXT AND YOUR PICTURE WILL APPEAR. MOVE THE FLASHING CURSOR TO WHERE YOU WOULD LIKE THE FIRST CHARACTER AND BEGIN TYPING. TYPING ANY CHARACTER WILL CAUSE THE PADDLES TO BE IGNORED. IF YOU WOULD LIKE TO MOVE TO A DIFFERENT PART OF THE SCREEN TO WRITE TEXT, ENTER CTRL-N. THIS WILL RETURN CONTROL TO THE PADDLES ALLOWING YOU TO ONCE AGAIN MOVE THE PADDLES. TO RETURN TO THE TEXT-WRITER OPTION SELECTION MENU TYPE CTRL-L. TO SWITCH TO LOWER-CASE PRESS THE 'ESC' KEY. PRESSING IT AGAIN WILL RETURN YOU TO UPPER-CASE. IF YOU MIS-TYPE, AND NEED TO BACKSPACE USE THE LEFT ARROW. YOU MAY NOT BACKSPACE UP A LINE AND BACKSPACING AGAINST A COLORED BACKGROUND WILL LEAVE HOLES IN YOUR PICTURE. OF COURSE, THESE HOLES MAY BE FILLED BACK IN USING COLOR FILL MODE.

TO RETURN TO THE MAIN MENU ENTER 'Q'
FROM THE OPTIONS SELECTION MENU.

8. CREATING A SHAPE TABLE

APPLESOFT HAS A FEATURE WHICH PERMITS ENTIRE OBJECTS TO BE DISPLAYED AND ANIMATED VERY EASILY FROM AN APPLESOFT PROGRAM. PADDLE-GRAPHICS PERMITS THESE OBJECTS TO BE CREATED INFINITELY EASIER THAN THE METHOD OUTLINED IN THE APPLESOFT REFERENCE MANUAL. A SHAPE TABLE CAN CONTAIN ANY NUMBER OF DIFFERENT OBJECTS AND CAN BE STORED ON DISK TO BE EASILY RECALLED BY YOUR BASIC PROGRAM (CONTRARY TO THE INSTRUCTIONS IN THE APPLESOFT USER MANUAL).

CREATING A SHAPE IS DONE BY OUTLINING IT BY USING OPTION '1' FROM THE MAIN MENU THEN SELECTING OPTION '2' TO COLOR IT IN. AFTER IT IS ON THE SCREEN (OF COURSE IT COULD HAVE BEEN CREATED BY SOFTWARE OTHER THAN PADDLE-GRAPHICS). SPECIFY '5' FROM THE MAIN MENU TO CALL UP THE SHAPE TABLE CREATION PROGRAM.

UPON ENTERING THE SHAPE MAKER, YOU WILL BE ASKED WHETHER YOU WOULD LIKE TO WORK WITH A NEW SHAPE TABLE OR AN EXISTING ONE. IF YOU WISH TO CREATE A NEW TABLE YOU WILL BE ASKED HOW MANY SHAPES YOU WOULD LIKE IT TO CONTAIN. THIS IS SO THAT SPACE MAY BE RESERVED IN THE INDEX PORTION OF YOUR SHAPE TABLE FOR FUTURE EXPANSION. EACH SHAPE YOU ALLOW ROOM FOR TAKES 2 BYTES IN THE DIRECTORY

BUT DOESN'T WASTE ANY OTHER SPACE UNTIL IT IS ACTUALLY USED. THEREFORE, DON'T SPECIFY ANY FEWER THAN YOU THINK YOU'LL NEED, FOR IF YOU GUESS LOW YOU'LL BE OUT OF LUCK WHEN YOU RUN OUT OF DIRECTORY SPACE. IF YOU SPECIFY THAT YOU WOULD LIKE TO WORK WITH AN EXISTING TABLE YOU WILL BE PROMPTED FOR THE TABLE NAME. IF YOU SIMPLY PRESS RETURN, YOU HAVE SPECIFIED THAT YOU WOULD LIKE TO CONTINUE TO USE THE SHAPE TABLE THAT IS ALREADY IN MEMORY. SPECIFYING ANYTHING ELSE WILL CAUSE A SHAPE TABLE OF THAT NAME TO BE LOADED. BEFORE ENTERING THE NAME, PLACE THE DISK WITH THE SHAPE TABLE INTO THE DISK DRIVE. AFTER THE SHAPE TABLE IS BROUGHT INTO MEMORY YOU WILL BE GIVEN THE OPPORTUNITY TO REDEFINE THE LAST SHAPE. IF YOU WOULD LIKE TO, REPLY 'Y', OTHERWISE, YOUR NEW SHAPE WILL BE ADDED TO THE END OF THE TABLE.

AT THIS POINT YOUR PICTURE WILL APPEAR. YOU SHOULD MOVE THE CURSOR TO THE UPPER-LEFT CORNER OF THE OBJECT YOU WOULD LIKE IN YOUR SHAPE TABLE. TO FIND THIS POINT, IMAGINE A BOX SURROUNDING THE OBJECT ON THE SCREEN. THE UPPER-LEFT CORNER IS WHERE YOU SHOULD PLACE THE CURSOR. AT THIS POINT, PRESS THE SPACE BAR TO LOCK THE POSITION, THEN MOVE THE CURSOR TO THE LOWER-RIGHT CORNER OF THE IMAGINARY BOX AND PRESS THE SPACE BAR AGAIN. A BOX WILL APPEAR AROUND THE OBJECT AND YOU WILL SEE PADDLE-GRAPHICS TRACING THE

PICTURE. WHEN THIS PROCESS HAS FINISHED YOU WILL BE ASKED FOR THE NAME UNDER WHICH TO SAVE YOUR UPDATED SHAPE TABLE. PRESSING RETURN WILL CAUSE THE SHAPE TABLE TO NOT BE SAVED BUT KEPT IN FOR ADDITIONAL UPDATING OR DISPLAYING. ENTERING A NAME WILL CAUSE THE SHAPE TABLE TO BE WRITTEN TO DISK. IT IS STILL IN MEMORY THOUGH IN CASE YOU WOULD LIKE TO ADD TO IT OR USE THE SHAPE TABLE INSPECT FUNCTION.

AT THIS POINT YOU WILL BE RETURNED TO THE ORIGINAL PROMPT WHICH ASKED WHETHER YOU WOULD LIKE TO WORK WITH A NEW OR EXISTING SHAPE TABLE. SPECIFYING 'Q' WILL RETURN YOU TO THE MAIN MENU.

9. PICTURE CREATION USING SHAPE TABLES

AFTER A SHAPE TABLE HAS BEEN BUILT USING THE SHAPE TABLE CREATION ROUTINES IT MAY BE RECALLED AND DISPLAYED OR PRINTED ON THE HI-RES SCREEN. TO DO THIS SPECIFY '4' FROM THE MAIN MENU. YOU WILL BE ASKED TO ENTER A SHAPE TABLE NAME. PRESSING RETURN AT THIS POINT WILL CAUSE THE SHAPE TABLE ALREADY IN MEMORY TO BE USED. IF YOU REQUEST THAT A SHAPE TABLE BE LOADED MAKE SURE THE DISK IT IS ON IS IN THE DRIVE BEFORE PRESSING RETURN.

WHEN YOU HAVE SPECIFIED A SHAPE TABLE YOUR PICTURE WILL APPEAR WITH THE FIRST ENTRY IN YOUR SHAPE TABLE AS THE CURSOR. THIS SHAPE MAY BE MOVED ANYWHERE ON THE SCREEN USING THE PADDLES. IN ADDITION, THE FOLLOWING ACTIONS MAY BE TAKEN:

- SPACE BAR- PRINT THE SHAPE ON THE SCREEN AT ITS CURRENT LOCATION
- R - ROTATE BY 45 DEGREES THE CURRENT SHAPE
- D - DISPLAY THE NEXT SHAPE IN THE SHAPE TABLE
- CTRL-D - CAUSES YOU TO BE PROMPTED FOR THE EXACT DRAWING NUMBER TO BE DISPLAYED
- L - LISTS THE CURRENT DRAWING NUMBER AND ROTATION
- Q - RETURNS YOU TO THE PROMPT WHICH ASKS FOR SHAPE TABLE NAME

WHEN ASKED TO ENTER SHAPE TABLE NAME YOU MAY ENTER 'Q' TO RETURN TO THE MAIN MENU.

10. COLOR CONFLICT

THANKS TO THE UNIQUE WAY IN WHICH THE APPLE II COMPUTER GENERATES COLOR, SOME COLORS MAY NOT BE PLACED SIDE BY SIDE WITHOUT DISTORTION OF COLORS. BASICALLY, THE FOLLOWING RULES WILL EXPLAIN THE PROBLEM:

- 1) NO INTERFERENCE WILL EVER OCCUR WHEN TWO COLORS TOUCH AT THE TOP OR BOTTOM.
- 2) BLUE WILL NEVER CLASH WITH ORANGE, BLACK1, OR WHITE1.
- 3) GREEN WILL NEVER CLASH WITH VIOLET, BLACK2, OR WHITE2.
- 4) BLACK1, BLACK2, WHITE1, AND WHITE2 WILL CLASH INVISIBLY.

IN ORDER TO ACHIEVE MORE THAN THE STANDARD 8 HI-RES COLORS PADDLE-GRAPHICS MIXES COLORS. THESE NEW COLORS CAN BE THOUGHT OF AS TWO COLOR GROUPS WHICH WILL NOT CLASH WHEN PUT ONTO THE SCREEN NEXT TO A COLOR FROM THE SAME COLOR GROUP.

COLOR GROUP 1 (BLUE-ORANGE)

- 1 BLACK2
- 2 WHITE2
- 5 ORANGE
- 7 BLUE
- 9 AVOCADO
- 11 DARK ORANGE

- 13 DARK BLUE
- 15 GOLD
- 17 LIGHT BLUE
- 19 LIGHT PURPLE
- 21 LIGHT YELLOW

COLOR GROUP 2 (VIOLET-GREEN)

- 0 BLACK1
- 3 WHITE1
- 4 GREEN
- 6 VIOLET
- 8 SILVER
- 10 DARK GREEN
- 12 DARK PURPLE
- 14 LIME GREEN
- 16 PINK
- 18 BROWN
- 20 AQUA

11. RECALLING SHAPE TABLES FROM YOUR PROGRAMS

TO USE A SHAPE TABLE FROM YOUR PROGRAM YOU MUST POKE ITS ADDRESS INTO ADDRESS E8-E9. THIS MUST BE POKED INTO MEMORY LO BYTE FIRST SO THAT HEX ADDRESS 9000 WOULD BE PUT INTO MEMORY AS: 00 IN E8 AND 90 IN E9. IN DECIMAL THIS WOULD BE POKE 232,0 AND POKE 233,144. BEFORE YOU REFERENCE THE SHAPE TABLE YOU MUST BLOAD IT INTO MEMORY AT THE ADDRESS YOU POKED.

YOU MAY LOAD YOUR SHAPE TABLE INTO MEMORY AT ANY LOCATION THAT DOES NOT INTERFERE WITH BASIC OR DOS. WE SUGGEST HEX 4000 (DECIMAL 16384) IF USING HIRES PAGE 1 OR HEX 6000 (DECIMAL 24576) IF USING PAGE 2.

BECAUSE OF THE WAY SHAPE TABLES WORK YOU WILL FIND THAT YOUR SHAPE TABLE WILL RETAIN ITS ORIGINAL COLORS ONLY IF:

- 1) THE SHAPE TABLE AND THE BACKGROUND ARE ALL FROM THE SAME COLOR GROUP.
- 2) THE SHAPE IS DRAWN ON AN ODD OR EVEN X COORDINATE DEPENDING ON WHERE IT WAS WHEN IT WAS CREATED.

THIS REALLY ISN'T AS DIFFICULT AS IT SOUNDS. GIVE SOME THOUGHT TO RULE 1 ABOVE WHEN CREATING YOUR SHAPE AND BACKGROUND. THEN WHEN CALLING IT BACK UP TEST DRAWING IT AT AN EVEN THAN AN ODD X COORD TO

SEE WHICH GIVES THE CORRECT COLORS. YOU WILL THEN HAVE TO PUT A FIX INTO YOUR PROGRAM IF YOU ARE ANIMATING THE SHAPE TO ONLY DRAW IT ON EVEN OR ODD X COORDS AS APPROPRIATE.

ON-LINE SYSTEMS
8875 Maple Ranch Road
Conroy, CA 95014
(909) 887-6188

PADDLE-GRAPHICS

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12. BACKING UP YOUR PADDLE-GRAPHICS

WE AT ON-LINE SYSTEMS FEEL THAT IT IS UNFAIR AND NO FUN FOR USERS NOT TO BE ABLE TO BACK UP THEIR OWN SOFTWARE. UNFORTUNATELY WE ALSO HAVE TO EAT (PRECLUDED BY EVERYONE PIRATING SOFTWARE). AFTER MANY MONTHS OF EFFORT WE HAVE COME UP WITH A PROTECTION SCHEME WHICH SEEMS TO PROVIDE THE BEST OF BOTH WORLDS. THE PADDLE-GRAPHICS DISK MAY BE BACKED UP BUT THE BACKUP WILL NOT EXECUTE. SHOULD YOUR PADDLE-GRAPHICS DISK EVER GET WIPED OUT (BUT NOT MUNCHEDED) SIMPLY COPY FROM YOUR BACKUP ONTO THE DISK.

SHOULD YOU MUNCH YOUR DISK COMPLETELY PLEASE SEND THE REMAINS WITH 5 DOLLARS TO:

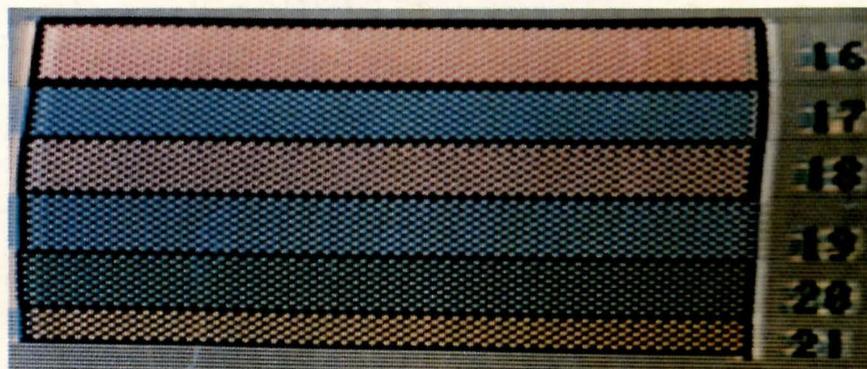
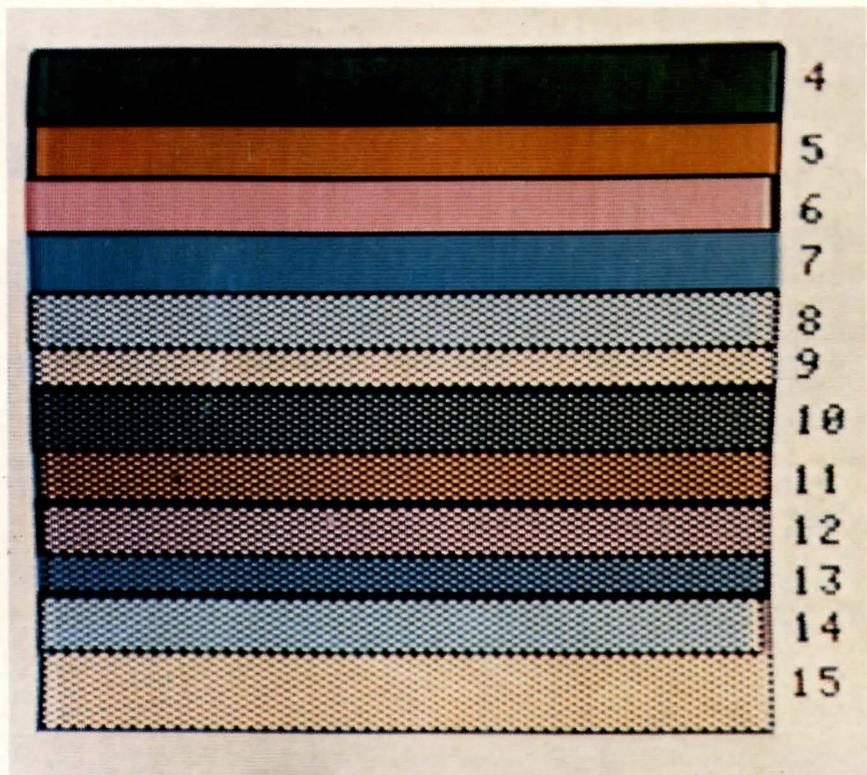
ON-LINE SYSTEMS

36575 Mudge Ranch Road

Coarsegold, CA 93614

(209) 683-6858

COLOR REFERENCE CHART



Due to differences in color televisions and the manner in which APPLE II generates color, these colors may appear differently on your television.