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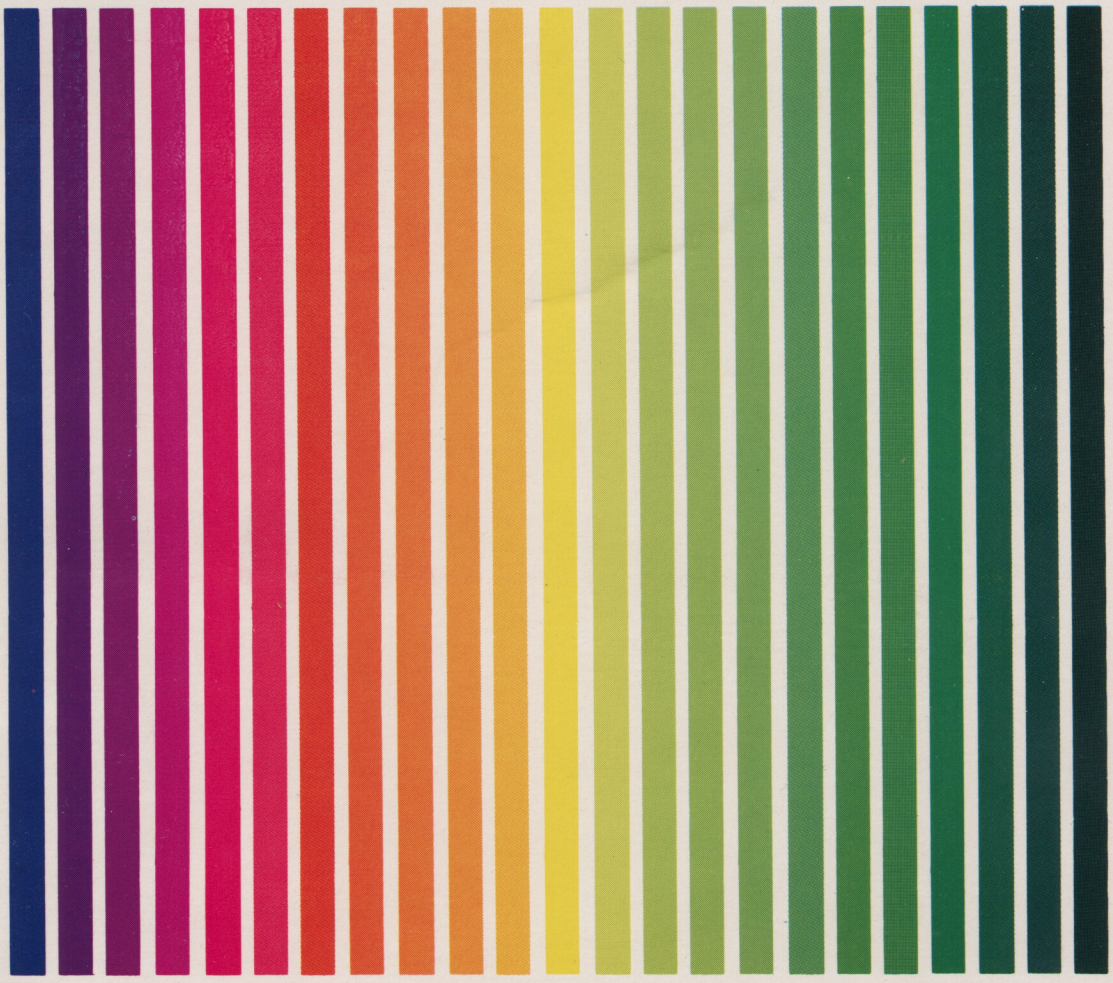

Paul G. Abell

PLAYER GENERATOR

Create players, with storage and print features

Cassette: 24K (APX-10117) Diskette: 32K (APX-20117)

User-Written Software for ATARI Home Computers

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Create players, with storage and print features

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by

Paul G. Abell

Distributed By

The ATARI Program Exchange
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INTRODUCTION

OVERVIEW

Player-missle Graphics is a relatively new world to the average ATARI Home Computer user. This program will attempt to assist the novice programmer in becoming familiar with Player Missile Graphics. Any design can be created, within resolution limits, using this program. The user will be able to create a design, save it, or load a previously saved design. Once a design is finalized, it can be used to create a program. This program can then be used as the basis of a game, educational program, or business program.

REQUIRED ACCESSORIES

ATARI BASIC Language Cartridge
One Joystick Controller

Cassette version

24K RAM
ATARI 410 Program Recorder

Diskette version

32K RAM
ATARI 810 Disk Drive

OPTIONAL ACCESSORIES

ATARI Printer or equivalent printer

CONTACTING THE AUTHOR

Users wishing to contact the author about PLAYER GENERATOR may write or call him at:

2032 St. Christopher Drive
Lexington, Kentucky 40502

(606) 233-3537

GETTING STARTED

LOADING PLAYER GENERATOR INTO COMPUTER MEMORY

1. Insert the ATARI BASIC Language Cartridge in the cartridge slot of your computer.

2. Plug your Joystick Controller into the first controller jack of your computer console.

3. If you have the cassette version of PLAYER GENERATOR:

   a. Connect your program recorder to the computer and to a wall outlet.

   b. Turn on your computer and your TV set.

   c. Slide the PLAYER GENERATOR cassette into the program recorder's cassette holder and press REWIND on the recorder until the tape rewinds completely. Then press PLAY.

   d. Type CLOAD on your computer and then press the RETURN key two times. The tape will load into computer memory.

   e. After the tape finishes loading, the word READY will display on your TV screen. Type RUN and press the RETURN key. The program's first display screen will appear on your TV screen.

If you have the diskette version of PLAYER GENERATOR:

   a. Have your computer turned OFF.

   b. Turn on your disk drive.

   c. When the BUSY light goes out, open the disk drive door and insert the PLAYER GENERATOR diskette with the label in the lower right-hand corner nearest to you. (Use disk drive one if you have more than one drive.)

   d. Turn on your computer and your TV set. The program will load into computer memory and start automatically.

THE FIRST DISPLAY SCREEN

Once the program loads into computer memory, large letters will appear on the screen, with a small text window at the bottom. The large letters will say, "PLAYER GENERATOR". The text window will say, "Press any key ato begin". Press any key and the screen will become blank. An initializtion message appears while the program sets up the design screen.

THE DESIGN GRID

A design grid, eight dots wide and twenty two lines long appears. The upper left hand dot will flash, indicating your present position on the grid. Press the red button on

the Joystick, to turn this dot into a flashing square. Press it again and the dot will return.

JOYSTICK MOVEMENTS

Use the Joystick to position the flashing dot on the grid. Make sure that you're holding the Joystick with the red button at the upper left corner and the word, TOP, facing the t.v. screen. Push the Joystick up to make the dot move up. Pull back to move the dot down. Push right and left to make the dot move to either side. Diagonal movements will cause the dot to move diagonally.

CREATING THE PLAYER

As you create the player, it is drawn simultaneously alongside the grid. When the design has been finalized, press (M) for player movement. The screen will clear and a new set of commands will appear along with the player. The player can now be moved on the screen with the joystick. During the move phase, two commands will appear at the bottom of the screen. (B) will return to the design screen. (C) will cause the screen to go blank, turn off the player and list out a new set of commands. See the command section for an explanation of each command. To create a program using the newly created design, press (L) while on the command screen, the screen will clear and if a disk is connected, the disk directory will appear. Using the DOS filename convention, type in a file name. (EXAMPLE: D:STAR.PM) If no diskette is attached, then the program will use the cassette. No file name will be asked for. Load a program, diskette or cassette and press any key. If the cassette is being used, two beeps will be heard from the speaker, indicating the user should press play and record on the cassette player. After the two beeps, press RETURN on the keyboard and the program will be saved to cassette. If the diskette is attached, then the program will be saved to diskette.

USING PLAYER GENERATOR

INTRODUCTION

This program allows the user to create a design on a grid of dots. The dots serve to outline the area that can be used for the design. The three basic screens used in the program are:

1. Design screen
2. Move screen
3. Command screen

The user will move from one screen to the next and back. It isn't necessary to go through each screen every time you run the program. Some screens may be skipped in order to load an old design for modification, or to print out player data for a particular design. Once the design is finalized, a program may be created, using this new design, or the user may simply exit without creating a program.

The program is a collection of subroutines. One of the subroutines, the Joystick vertical direction, was used with permission from COMPUTE! MAGAZINE, P.O. BOX 06, GREENSBORO NC. 27403. This subroutine is used in the interest of equalizing speed, horizontally and vertically.

COMMAND EXPLANATIONS: DESIGN SCREEN

(B)ackground 0

This command will change the background color of the screen, not the color of the player. The full range of colors available in ATARI BASIC can be selected (0, 1, 2, ..., 15). No provision has been made to alter the luminance of the background. To cycle through the colors, press C repeatedly.

(C)olor 6

This command will change the color of the player. The full range of color available in ATARI BASIC can be selected (0, 1, 2, ..., 15). To cycle through the colors, press C repeatedly.

(E)rase

This command must be used carefully, as it will erase the design on the grid and the player. You can then start over with a clean grid.

(I)nverse

This command will exchange the dots and color squares on the design grid. Press I again to return to the original dot-square pattern.

(L)uminance 2

This command will alter the luminance of the player. The full range of luminance available in ATARI BASIC can be selected (0, 2, 4, 6, ..., 14). To cycle through the luminances, press L repeatedly.

(M)ove

This command transfers the user to the Move Screen, allowing the user to move the design in any direction on the screen with the Joystick.

(R)andom

This command will generate a random pattern on the design grid, erasing whatever was previously on the grid.

(S)ize *1

This command will alter the size of the player as it is displayed. The range is from *1 (times one, normal), to *2 (twice normal), and *4 (quadruple).

COMMAND EXPLANATIONS: MOVE SCREEN

Use the commands on this screen to move your player around.

(B)ack to design screen

This command will return the user to the design screen.

(C)ommand screen

This command will transfer the user to the command screen.

COMMAND EXPLANATION: COMMAND SCREEN

(B)ack to design screen

This command will return the user to the design screen.

(E)nd

This command will end the program and return you to the READY prompt.

(L)ist program

This command will create a demonstration program using the design just created. When you use this command, the DOS directory displays along with the prompt, NAME?. To run the demonstration type NEW and press RETURN. Then type ENTER D:filename and press RETURN. Finally, type RUN and press RETURN (see filename defaults).

(P)rint

This command displays player data, consisting of:

1. Player color (e.g., COLOR = 9)
2. Player luminance (e.g., LUMINANCE = 6)
3. Player size (e.g., SIZE = *2)
4. Player byte data values (e.g., PLAYER DATA = 179, 206, 212, 19, 56, 168, 13, 168)
5. Background color (e.g., BACKGROUND = 6)

(R)etrieve design

This command will load a design from diskette or cassette. If a diskette is being used, the disk directory will be displayed and a filename asked for. If the file cannot be found, an error message will be displayed and the program will list out the directory again. See Filename Defaults. If you press RETURN in response to the NAME? prompt, the program returns you to the Command Screen.

(S)ave design

This command will save a design to diskette or cassette. If a diskette is being used, the disk directory will display first. If the design cannot be saved, an error message will be displayed and the program will list out the directory again. See Filename Defaults. Press RETURN in response to the NAME? prompt and you'll return to the Command Screen.

EXAMPLE OF ENTER COMMANDS

ENTER "C:"
ENTER "D:STAR.PM"
Then type RUN

The computer will load the program for your already created player which you can now move around the screen.

When the option (L) is chosen, the ENTER comand must be used to load the newly created program after it has been saved. Type NEW before using the ENTER command. Failure to type NEW before using ENTER will cause major problems and will result in the new program not working.

PROGRAM FEATURES

When using filenames with the diskette, you can choose to use filename extenders or not. If they're not used, the program will default to an extender name of ".SHP" for shape filenames and ".LST" for list program filenames.

A feature of the design screen is the printing of associated parameters next to the commands. The background color number is printed next to its command, and so on. The same applies for each command that has a variable.

The program will default to cassette operation if a disk drive is not connected or available.

If a printer is not connected, the program will default to the screen when printing player data.

The "screen attract" mode is disabled by the program.

The ATARI logo key is reset automatically if depressed.

The player is drawn as the design grid is changed.

There are four shape designs included with this program on diskette. They are included to give the user some idea of how the program works and what can be generated. Simply, run the program, type "M", "C", and then "R". Type in the name of one of the designs listed below and press RETURN.

1. AST1.SHP
2. AST2.SHP
3. AST3.SHP
4. AST4.SHP

The feature of "one key entry" is used throughout the program. The exceptions are:

1. After entering a filename whenever loading or saving to disk.
2. When saving of loading a design to cassette.
3. When creating a list program.
(filename asked for with disk)

In the above named instances "RETURN" must be pressed, when appropriate.

FILENAME DEFAULTS

The user is prompted for a filename whenever loading or saving a design to diskette. The DOS filename convention should be used, but is not necessary. The filename will default to an extender of "SHP" for designs and "LST" for listing programs, plus the device location will be appended to the beginning of the file name. Thus, if you type "ROBOT" was typed for the filename, the program will save the design under the name of "D:ROBOT.SHP". This default will work on both loading and saving from diskette.

EXAMPLES:

ORIGINAL user types	DEFAULT computer uses
ROBOT	D:ROBOT.SHP
ROBOT.SHP	D:ROBOT.SHP
D:ROBOT	D:ROBOT.SHP
D:ROBOT.SHP	D:ROBOT.SHP
ROBOT.PM	D:ROBOT.PM

When saving or loading, if RETURN is pressed in response to the prompt, NAME ?, the user will be returned to the Command Screen.

LIMITATIONS AND WARNINGS

Player Missile Graphics will allow up to five individual players. This program will create one player design at a time. It is possible to position all five players next to each other creating one player. This program is not set up to generate multiple players or missiles.

Type NEW before using the ENTER command. If this is not observed, the new program will be merged with the existing PLAYER GENERATOR program ! This will result in neither program working !

The demonstration program can be CSAVED to cassette, or SAVED to diskette, immediately after loading. This has the advantage of faster loading the next time the program is loaded.

If, while in the Design Screen, the cursor (flashing dot or square) is at the bottom of the grid and (I) is pressed, the grid will scroll upward. This will not affect the player, but will make it hard to use the design grid. To correct this, type (M) and then (B).

The BREAK and RESET keys are not disabled and will work if accidentally pressed. If BREAK is pressed, all is not lost. Type CONT and go on to another screen. This will reset some parameters and usually return the user to the prior condition. If RESET is pressed, the program will stop and the user will be returned to the system (BASIC).

Lower case will cause a "create error" when trying to save a design and a "file not found" error when trying to load a design. It will not cause a problem with the other commands.

This program uses 11,176 bytes of memory. It takes approximately 3 min. 54 sec. to load from cassette. It takes 16 seconds to load from disk.

HINTS

A register called PRIOR (POKE 623,X) controls the priority of the players and the playfield. You can make a player disappear behind another player or any object on the screen. This can lead to some interesting effects. Poke this register with:

Priorities are:

```
PF0, PF1, P0-P3, PF2-3, BACKGROUND   8
PF0-3, P0-3, BACKGROUND              4
P0-1, PF0-3, P2-3, BACKGROUND        2
P0-3, PF0-3, BACKGROUND              1

EX. POKE 623,8

PF0 = playfield zero
P0 = player zero
```

The playfield is the center screen only. The background is the border around the playfield. If the playfield is given priority, the player will not be visible until it appears on the border of the screen.

The player can be made to disappear by simply resetting its color to the background color.

ABOUT YOUR NEW (L)ist PROGRAM

The demonstration program created by PLAYER GENERATOR, can be made to run a little smoother and faster. To do this, reset the variable "H" to the number of non-zero data bytes used by the player missile design. You must also eliminate the zero bytes out of the data statement. This works because of the machine language move routine. It has to move these bytes in the vertical direction and the fewer bytes it has to move the faster it can do it.

This created program was designed to be used as a demonstration program. It can also be used as the basis of any new program. Use a good renumbering program, such as those offered in the APX catalog, to renumber the program after inserting any new code.

The range of movement of the player has been limited in the program to prevent errors and program crashing. The move routines will move a lot faster if these "CHECKS" are removed. The "X" range is from 1 to 255.
The "Y" range doesn't have a "RANGE" as such, but will cause problems if it gets too far off screen. The player is moved vertically through memory and when it gets out of the player missile display memory it can cause the system to crash !

COMMANDS - QUICK REFERENCE SHEET

Design Screen :

(B)ackground	(alter background color)
(C)olor	(alter color of player)
(E)rase	(erase player and design grid)
(I)nverse	(reverse color and dots)
(L)uminance	(alter luminance of player)
(M)ove	(proceed to move screen)
(R)andom	(generate a random pattern)
(S)ize	(alter size of player)

Move screen :

(B)ack	(return to design screen)
(C)ommand screen	(proceed to command screen)

Command screen :

(B)ack	(return to design screen)
(E)nd	(end program prematurely)
(L)ist	(list demo program to output device)
(P)rint	(print player data)
(R)etrieve	(retrieve design from diskette)
(S)ave	(save design to diskette)

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1. Name and APX number of program.

2. If you have problems using the program, please describe them here.

3. What do you especially like about this program?

4. What do you think the program's weaknesses are?

5. How can the catalog description be more accurate or comprehensive?

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this program:

_____ Easy to use
_____ User-oriented (e.g., menus, prompts, clear language)
_____ Enjoyable
_____ Self-instructive
_____ Useful (non-game programs)
_____ Imaginative graphics and sound

7. Describe any technical errors you found in the user instructions (please give page numbers).

8. What did you especially like about the user instructions?

9. What revisions or additions would improve these instructions?

10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?

11. Other comments about the program or user instructions:

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STAMP

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[seal here]