



Spy Hunter for the TRS-80 Color Computer

RPN 4/24/25

## Loading Instructions:

Requirements: TRS-80 Color Computer 1/2/3 with 64K memory or equivalent emulator

*To run on MAME or other emulator:*

**SHVMAME.dsk** including three files:

- **SHVM.bas** - Memory loading basic file
- **SPYH46GL.bin** - Machine code loading of graphics to high memory
- **SHVM1.bin** - Machine code of game

Run “**SHVM**” from command prompt with **SHVMAME.dsk** loaded/mounted.

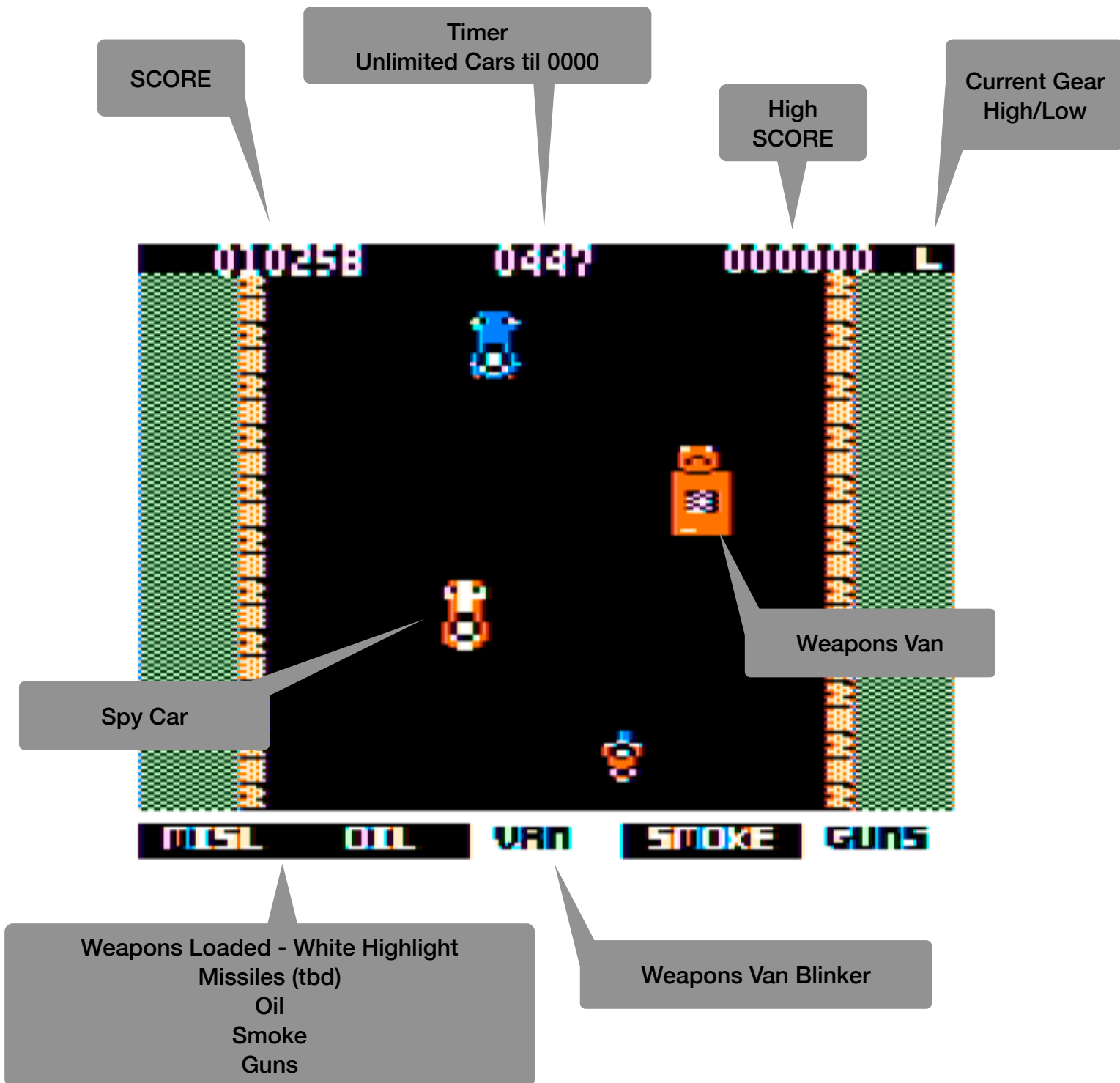
*To run on real CoCo Hardware:*

**SPYH3.dsk** including three files:

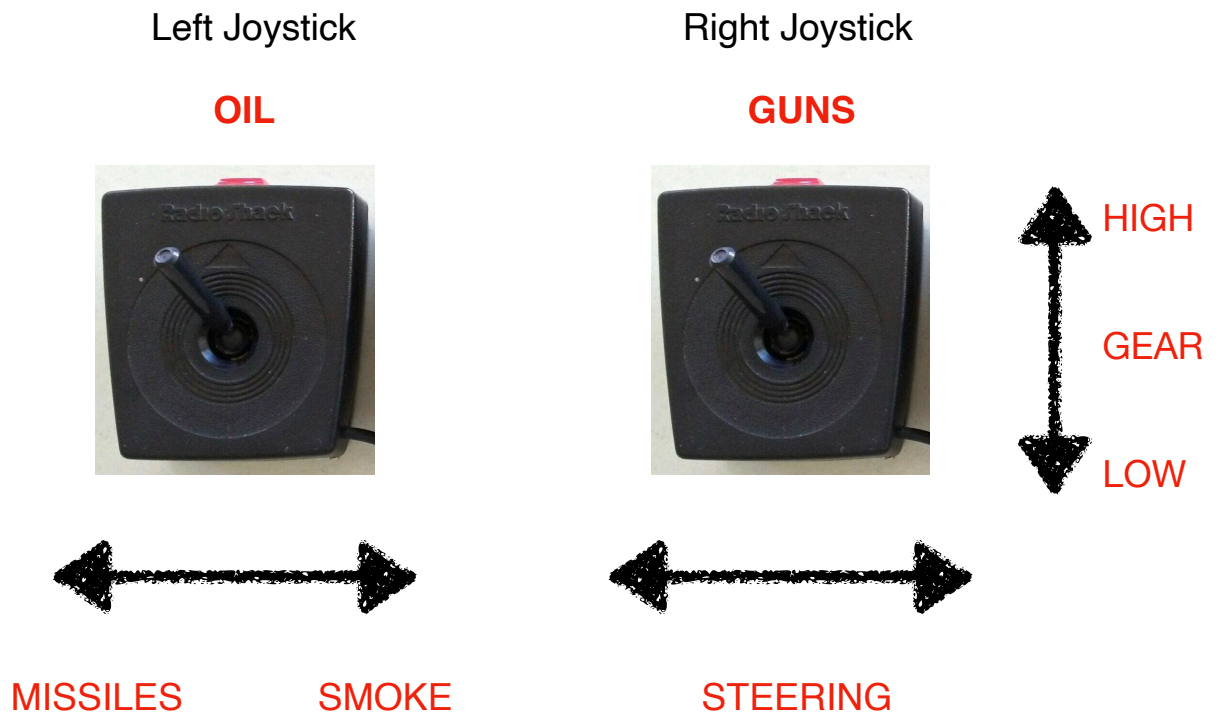
- **SHV8.bas** - Memory loading basic file
- **SPYH46GL.bin** - Machine code loading of graphics to high memory
- **SPYH55.bin** - Machine code of game

Run “**SHV8**” from command prompt with **SPYH3.dsk** loaded/mounted.

## Game Layout:



## Controls:



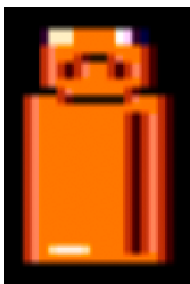
## Notes:

- When 'bumping' other cars, the farther you steer to the right or left causes a more forceful 'bump'. There is a small and large bump.
- Bonus Cars at 25,000 and 35,000 points
- Use of self-centering Left Joystick is preferred. Smoke and Oil are trigger-on and have a limited supply. Weapons Van adds more each entry.
- Works on real hardware (CoCo1 tested) and MAME with mapping of keys for analog functions
- Right Button to Start Game when prompted
- Press "G" to start another game when over
- The Mad Bomber helicopter and missiles are not yet part of the game

## Weapons Van play

The Weapons Van will unload the Spy Car at the beginning of the game and after each crash.

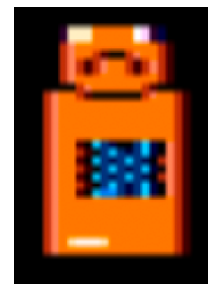
To add weapons, drive the Spy Car into the rear of the Van when it appears on the screen - the VAN light will blink on the bottom of the screen.



Empty Van



Van with Smoke

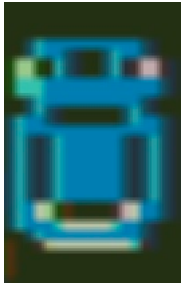


Van with Oil

## Game Play:

Game starts with 999 count timer - unlimited cars

Enemy:



### **Road Lord**

- Bullet Proof
- Will attack and try to bump Spy Hunter off road
- 150 Points



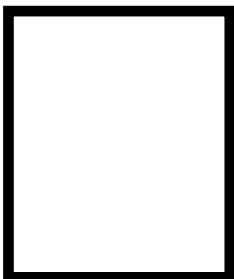
### **Switch Blade**

- Will slice Spy Hunter tires if bumped from sides
- 150 Points



### **Enforcer**

- Will take shot at Spy Car if driving too slow
- 500 Points



### **Mad Bomber (TBD)**



### **Civilians**

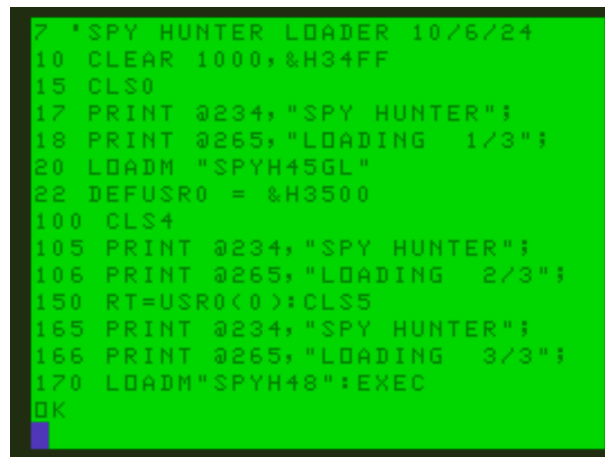
- Will stop Scoring if damaged

## Revision Notes:

### SHV8.bas:



### SHV1.bas:



### SPYH45GL.bin:

- Loads Road and Title Graphics to high memory
  - ; HIGH MEMORY MAP
  - ;
  - ;\$8000 - \$A900            \$2900 Drawn Road Data (+\$4600 from Screen #2 @ \$1C00)
  - ;\$A901 - \$AFFF            \$06FE Empty
  - ;\$B000 - \$C7FF            \$1800 Empty
  - ;\$C800 - \$E000            Title Page Graphics - a Full \$1800 Graphics Page
- This graphics loader program was not able to Stack Blast the Road data on my real CoCo1 Hardware. I did get it to work on MAME, but kept it in the main code (SPYH48.bin) to work on real hardware.

### SPYH46GL.bin:

; HIGH MEMORY MAP	
;	
;\$8000 - \$A9FF	\$2900 Drawn and Stack Blasted Road Data (+\$4600 from Screen #2 @ \$1C00)
;\$AA00 - \$AFFF	\$05FF Empty
;\$B000 - \$C7FF	12/22/24: Car, Van, Shot, Oil, Smoke Graphics
;\$C800 - \$E000	Title Page Graphics - a Full \$1800 Graphics Page
;\$E000 - \$FEFF	;Not Used
;\$FF00 - \$FFFF	\$00FF Hardware Registers

### SHVM1.bin

- MAME version for controls
- Added Weapons Van
- Added Sound Effects
- Added game levels

### SPYH55.bin

- Added Sound Effects
- Controls setup for real CoCo and Arcade Hardware
- Added Weapons Van
- Music is a demo
- Added game levels

### SPYH48.bin:

- Bumping cars works well
- Oil is hit or miss
- Smoke works well
- Notable bugs:
  - After crash animations
  - Score and Timer text
  - Some road issues
- Major punch list items:
  - Improve Enemy logic
  - Add random function
  - Move more graphics to high memory
  - Additional road types and detail
  - Van Loading for weapons - currently defaults to Guns, Oil, & Smoke
  - Mad Bomber and Missiles
  - Sound effects
  - Music



## References:

Spy Hunter - Copyright 1983 Bally Midway

"A Great Old-Timey Game-Programming Hack" - Tom Moertel - 12/14/2013 Blog

"Optimizing 6809 Assembly Code: Part 3 - Stack Blasting and Self Modifying Code" - 9/16/2017 - [nowhereman999.wordpress.com](https://nowhereman999.wordpress.com)

"CoCo (6809) Assembly on a modern computer" - 6/19/2017 - [nowhereman999.wordpress.com](https://nowhereman999.wordpress.com)

6809 Assembly Language Programming - Leventhal - 1981

Assembly Language Graphics for the TRS-80 Color Computer - Don Inman, Kurt Inman with Dymax - 1983

Dragon Machine Language for the Absolute Beginner - Reyden - 1983

"Programming in 6809 Assembly" - Lesson 12 PONG - by Steve Bjork 11/03/2018 and SPACEWAR 2.0 (RPN) variant

CoCo Town - YouTube - 2023

Assy by George - YouTube - 2023

ChibiAkumas - YouTube - 6809 ASM M2 BCD - 9/2021

CoCo Discord - @ericomont for help with artwork, Front Page and Trees in particular - 2024