

# 55 Years of Star Trek

## The Life and Spread of the Original BASIC Fan Game



Kevin Bunch

Website: [Atariarchive.org](http://Atariarchive.org)

YouTube:

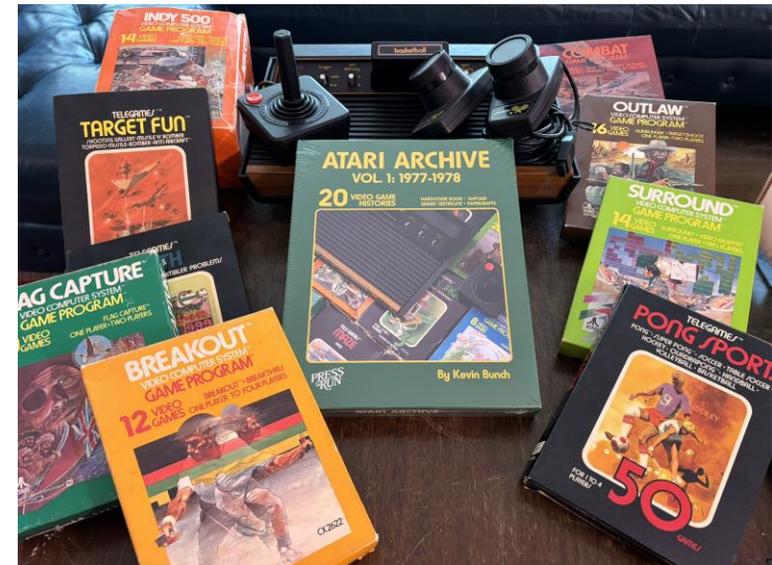
[www.youtube.com/atariarchive](http://www.youtube.com/atariarchive)

Patreon: [patreon.com/atariarchive](http://patreon.com/atariarchive)

Bluesky: [@atariarchive.org](https://bsky.app/@atariarchive.org)

Mastodon: [@Yuberus.mastodon.social](https://yuberus.mastodon.social)

Book: *Atari Archive Vol. 1: 1977-1978*,  
available via Limited Run Games



# Who knows Star Trek?





# Star Trek Fandom works

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THE TERRITORY OF RIGEL

(A ni var to be performed by two voices and Vulcan harp)

First Voice	Second Voice
Rigel in the scanner, blue-white and crystalline, shining. Light born in the corona pours into space.	Dark and silent is the field of space.
The instruments whisper, the panel lights flicker. The stars are still and clear. Their song is deliberate, long years to a cadence.	The bridge is empty. The time, three hundred.
Dust in their paths moves in their wake like water, and Rigel shines.	Three-twenty. The night is very long.
The stars like ancient trees, heavy with planets, blazing with life.	In the dark gulf is the ship, in the sleeping ship is the bridge, on the bridge am I, silence upon silence,
I wander the bright roads: whom no planet claims: live in the open Galaxy.	as quiet as memory, and dark as death.
I have clarity before me, and Rigel full of light.	I am far from my beginning and my end.
	Four hundred and the watch is changed. I leave the bridge and go from darkness into darkness.

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This is a piece supposed to have been written by Spock, many years ago. The idea is that he was on watch aboard some ship or other, all alone on the bridge. It was in the middle of the "night" cycle and the bridge was relatively dark except for the instrument panels. Outside there was also darkness, except for the faint light of the stars and the brighter light of Rigel, which was nearby. The contrast of light and darkness appealed to the duality in Spock, and he attempted (no one being around to interfere) to express it in a Vulcan form called ni var.

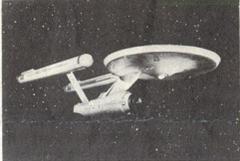
Ni var means literally "two form", and it is basically a piece comparing and contrasting two different things or two aspects of the same thing. (It need not be a literary work; a suitably-formed painting or sculpture or dance composition could be a ni var.) So in this piece there are two voices: one singing of light and the other of darkness; the little Vulcan harp accompanies them and plays short solo passages. The first voice is soprano and the second voice bass.

Although the ni var is a purely Vulcan form, Spock decided for reasons of his own to write the text in Terran. This was perhaps his undoing; Terran languages are by their nature more personal and less objective than Vulcan, and he found himself writing not only about the physical surroundings which he set out to describe, but also about himself - a totally unVulcan thing to do. He probably looked at the composition the next morning, blanched, and put the piece away for thirty years.

- Dorothy Jones



**STAR TREK LIVES!**



**A STAR TREK Convention!**

**January 21 - 23, 1972**

**At The Statler Hilton**  
33rd St. & 7th Ave., New York City

EVERYBODY WELCOME

For Information:  
STAR TREK CON  
P.O. Box 95 Old Chelsea Station  
New York, N. Y. 10011  
**LATE FLASH:**  
early Saturday afternoon. Gene Roddenberry will speak early Saturday afternoon.

# The birth of BASIC and timesharing



**Dartmouth College's Timeshare computer lab**



**Tom Kurtz and students, 1964**

# The proliferation of Trek fan games

Trek, from the TV series Star Trek, was written by Steve and Phil Gaarenstroom in the programming language Basic. It simulates a battle between the U.S. Starship Enterprise, commanded by the user, and the Klingon Vessel, commanded by the Invincible (oh really?) Igor. Since it was introduced early in winter term, it has been corrected, modified, streamlined, or in other ways made more enjoyable to play. Also, Bill Greenberg translated the program into the Focarl programming language and modified it so two people can play; one commanding the Enterprise: the other, the Klingon Starship.

The Demo and game programs serve two purposes: one is to show various non-academic usages for computers; the other is to introduce people to computers.

Carletonian, May 20 1971

```
YOUR ORDERS, SIR?5
      BATTLE SUMMARY REPORT, SIR.
* SHIP      DAMAGE      BEARING WARP      X      Y
      GAME CYCLE = 1
ENTERPRISE  0 %          45  1      0      0
<KLINGON>  -(*)- NONE -(*)-  90  7      761400
-468800

YOUR ORDERS, SIR?8
-(*)- READY TO COMPUTE AZIMUTH AND SPEED REQUIRED.
FOR ENTERPRISE TO MOVE TO ANY DESIRED NEW LOCATION.
ENTER X-COORDINATE OF DESIRED LOCATION?761400
ENTER Y-COORDINATE OF DESIRED LOCATION?-468800
      REQUIRED AZIMUTH = 121.62182
REQUIRED WARP SPEED = 447073.12
YOUR ORDERS, SIR?█
```

StarTrek, by Col. William Luebbert, 1972-73

## Brief History

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Many versions of Star Trek have been kicking around various college campuses since the late sixties. I recall playing one at Carnegie-Mellon Univ. in 1967 or 68, and a very different one at Berkeley. However, these were a far cry from the one written by Mike Mayfield of Centerline Engineering and/or Custom Data. This was written for an HP2000C and completed in October 1972. It became the "standard" Star Trek in February 1973 when it was put in the HP contributed program library and onto a number of HP Data Center machines.

In the summer of 1973, I converted the HP version to BASIC-PLUS for DEC's RSTS-11 compiler and added a few bits and pieces while I was at it. Mary Cole at DEC contributed enormously to this task too. Later that year I published it under the name SPACWR (Space War — in retrospect, an incorrect name) in my book *101 Basic Computer Games*. It is difficult today to find an interactive computer installation that does not have one of these versions of Star Trek available.

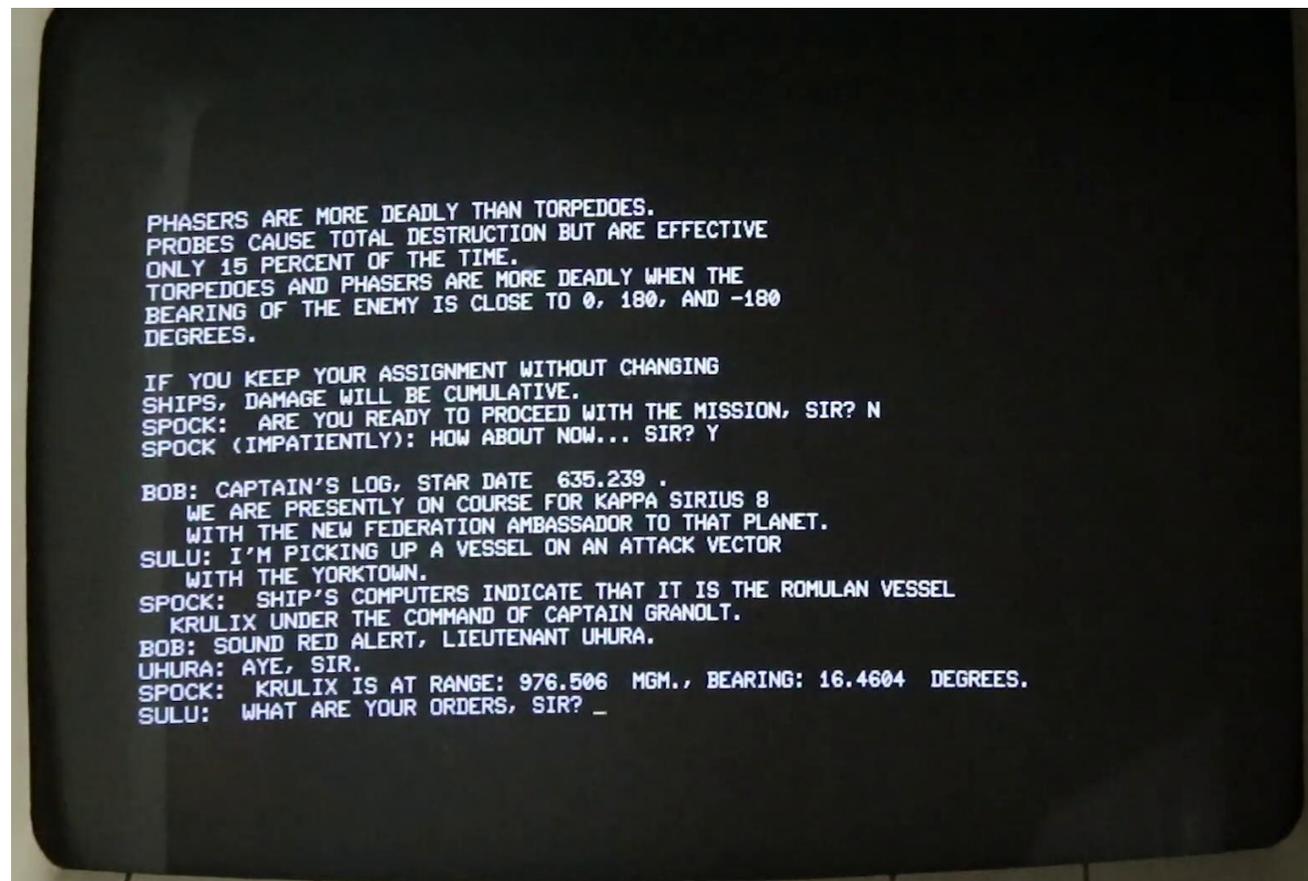
David Ahl's recollections  
BASIC Computer Games

# Other Trek Fan games: Trek73



TacTrek, Trek73 conversion to  
Atari 400

# Other Trek Fan games: “narrative” Trek, 1971



**BASTREK**

**Credit: Bob Alexander**

# Other Trek Fan Games: The arcade one



# Our main event: Mike Mayfield's game



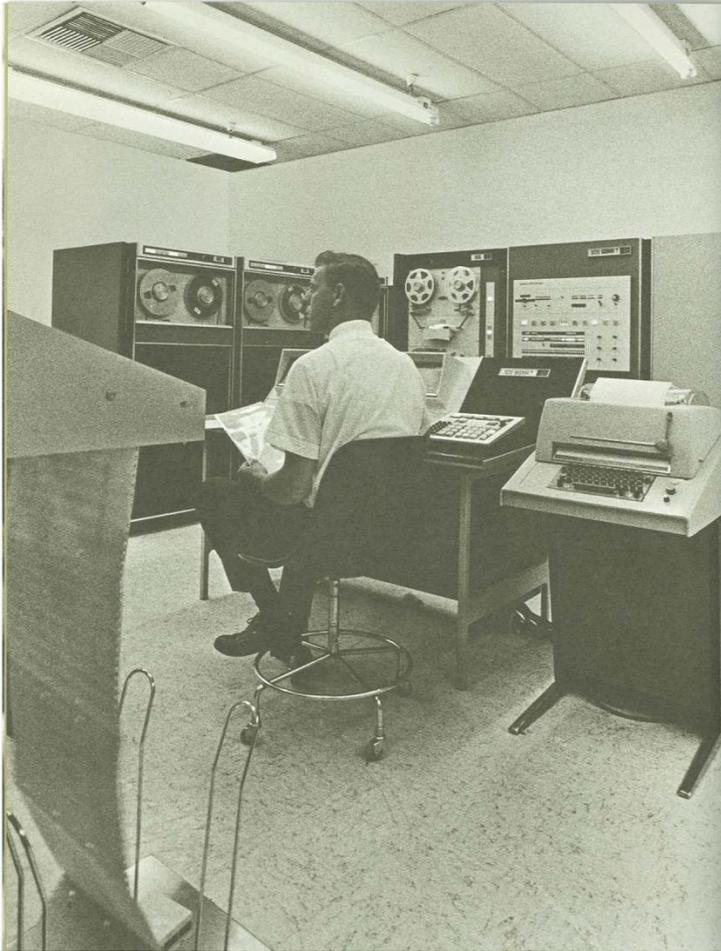
Mike Mayfield circa 1971  
and 2010s

```
-----  
COMMAND:?2  
LONG RANGE SENSOR SCAN FOR QUADRANT 7,7  
-----  
: 7 : 8 :116 :  
-----  
: 5 : 3 : 7 :  
-----  
: 305 : 6 : 6 :  
-----  
COMMAND:?0  
COURSE (1-9):?2  
WARP FACTOR (0-8):?1  
-----  
      >!<  
*           *           *           *  
*           *           *           *  
*           *           *           *  
*           *           *           *  
*           *           *           *  
*           *           *           *  
*           *           *           *  
*           *           *           *  
*           *           *           *  
-----  
STARDATE           2311  
CONDITION          RED  
QUADRANT           6,8  
SECTOR             6,6  
ENERGY             988  
PHOTON TORPEDOES  7  
SHIELDS            612  
-----  
COMMAND: ?
```

# Inspiration: Spacewar!...



**But not on a machine equipped for it...**



**SDS Sigma-7 timeshare computer**



**ASR-33 Teletype terminal**



# Mayfield's game



STTR1 HP2000 emulation  
Credit: Michael Sternberg

# Star Trek Lives!



Mo/PC



Illustrative of HP 2100 Computer power is its use in the HP 2000F Time-Sharing System. Here, up to 32 users may communicate with the computer simultaneously, in conversational BASIC language.

```

1 REM **** HP BASIC PROGRAM LIBRARY *****
2 REM
3 REM STTR1: STAR TREK
4 REM
5 REM 36243 REV B -- 10/73
6 REM
7 REM **** CONTRIBUTED PROGRAM *****
100 REM *****
110 REM ***
120 REM *** STAR TREK: BY MIKE MAYFIELD, CENTERLINE ENGINEERING ***
130 REM ***
140 REM *** TOTAL INTERACTION GAME - ORIG. 20 OCT 1972 ***
150 REM ***
160 REM *****
170 GOSUB 5460
180 PRINT " STAR TREK "
190 PRINT "DO YOU WANT INSTRUCTIONS (THEY'RE LONG!)";
200 INPUT A$
210 IF A$ <> "YES" THEN 230
220 GOSUB 5820
230 REM ***** PROGRAM STARTS HERE *****
240 Z$="
250 GOSUB 5460
260 DIM G[8,8],C[9,2],K[3,3],N[3],Z[8,8]
270 DIM C$[6],D$[72],E$[24],A$[3],Q$[72],R$[72],S$[48]
280 DIM Z$[72]
290 T0=T=INT(RND(1)*20+20)*100
300 T9=30
310 D0=0
320 E0=E=3000
330 P0=P=10
340 S9=200
350 S=H8=0
360 DEF FND(D)=SQR((K[I,1]-S1)^2+(K[I,2]-S2)^2)
370 Q1=INT(RND(1)*8+1)
380 Q2=INT(RND(1)*8+1)
390 S1=INT(RND(1)*8+1)
400 S2=INT(RND(1)*8+1)
410 T7=TIM(0)+60*TIM(1)
420 C[2,1]=C[3,1]=C[4,1]=C[4,2]=C[5,2]=C[6,2]=-1
430 C[1,1]=C[3,2]=C[5,1]=C[7,2]=C[9,1]=0
440 C[1,2]=C[2,2]=C[6,1]=C[7,1]=C[8,1]=C[8,2]=C[9,2]=1
450 MAT D=ZER
460 D$="WARP ENGINESS.R. SENSORSL.R. SENSORSPHASER CNTRL"
470 D$[49]="PHOTON TUBESDAMAGE CNTRL"
480 E$="SHIELD CNTRLCOMPUTER"
490 B9=K9=0
500 FOR I=1 TO 8
510 FOR J=1 TO 8
520 R1=RND(1)
530 IF R1>.98 THEN 580
540 IF R1>.95 THEN 610
550 IF R1>.8 THEN 640
560 K3=0
570 GOTO 660

```

# Spreading to DEC computers and beyond



David Ahl circa 2013

## SPACWR

SPACEWAR BASED ON STAR TREK

### Description

This program is an incredibly complete version of spacewar. You are Captain Kirk of the Starship Enterprise and have as your mission to destroy a certain number of enemy Klingon spaceships (generally around 24) and thus keep the galaxy safe for democracy. You must complete your mission in 30 stardates (measure of time in space--think of it as a day).

The galaxy is divided into 64 quadrants arranged in an 8x8 grid. Each quadrant is in turn divided into 64 sectors, also in an 8x8 grid arrangement. It, of course, costs time and fuel to get from one quadrant to another.

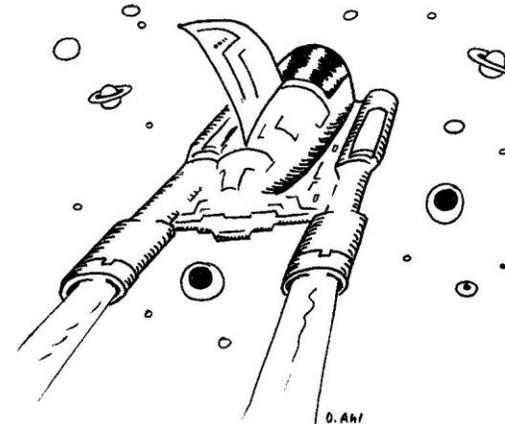
Complete playing instructions are given if you answer YES to the question, DO YOU WANT INSTRUCTIONS?

Note: This program appears to have one or two minor bugs. It's eminently usable, but occasionally funny little things happen.

### Program Author

Slightly modified by Mary Cole from the original written by:

Mike Mayfield  
Centerline Engineering





# TinyBASIC, Tiny Trek and on to Japan

## TINY TREK

-TREK FOR YOUR 8k ALTAIR

On this page you see a listing of the smallest STARTREK program known to man, dragon or even Cheshire cat. It was written by Li-Chen Wang in his own version of Tiny BASIC, and the STARTREK program plus the Tiny BASIC interpreter will all fit in an 8k Altair.

"Far out" you say - but then notice that you can't read the listing because you aren't familiar with Li-Chen's Tiny BASIC. Don't despair, for on the facing page

is a description of the language.

random numbers from 1-8

1 character mini-string

prompting included with input

double or single quotes OK

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SP-5030で記述しました。30分ほどのキーボードで楽しまます。ぜひ入力してみてください。そしてこのアルゴリズムも勉強してください。非常にわかりやすくできています。

なれ、今夜の物語で興味を持たれた方は、ぜひ正式のスタートレックをキーンし、その軽妙な会話とともにマイクロのLSIの中の広大な宇宙を飛び回ってください。そしてそのプログラムの解は、あなたのBASICの実力を数ステップも向上させることとしてしよう。

▲MZファンを代弁して

Oh! MZの読者いずれもMZを受取るマニアだと思いますが、MZに対するいろいろな要望がある—STUDIO MZを見ればよくわかる—というです。

MZマニアこそ、シャープのパソコンを歓迎して支えらるもの、1

人も多くのマニアを作ることがシャープのイメージ拡大となり、ビジネス用としてのシャープマシン推進の原動力となり、ひいてはPPCや他のOA機器のシェアアップにつながるのです。よい例がNECで、TK-80からのマニアがPCにのりつき「NECのパソコン白台」の広告をなまじ、NECファンをまたにも増やしてしまつたのです。

▲明後日はMZファンを代弁し、マニアを結ぶMZマニアへの道、そしてMZのシェア推進作戦を立てたいと思います。ゲームはライブゲームのバリエーション「タムシゲーム」を紹介しよう。記号言語VTL(Very Tiny Language)のFORTRANで書かれたものをMZに移植いたします。

(注1) 出題—1:200字の資料を収めたテープス、RAM、50k、3月号

リスト1 (石田晴久、マイクロトレック, bit臨時増刊 1978.2 VOL.10 (No.3) 共出版より移)

```

1 REM *****
2 REM      --- MICROTRK ---
3 REM
4 REM      90% 76 40% 40% (TWO UNIV.)
5 REM      BIT, 53/2 VOL.10 (NO.3)
6 REM
7 REM      MZ 7/ 40% 40% 40%
8 REM      50/07/20  FORBESIT
9 REM      70% マルコウク
10 REM      50/07  マルコウク
11 REM
12 REM      50/07  マルコウク
13 REM
14 REM *****
15 REM      20 DEF FNABY=INT(RND(1)*255/1)
16 REM      20 DEF FNABX=INT(RND(1)*255/1)
17 REM
18 REM      80 L=255
19 REM      80 FOR X=1 TO 7
20 REM      100 FOR Y=1 TO 7
21 REM      110 Z=0
22 REM      120 IF FNABX<170 THEN Z=0
23 REM      130 IF FNABX<170 THEN Z=1
24 REM      140 IF Z<X<Y<Z THEN Z=160
25 REM      150 W=1+Z
26 REM      160 IF W=0 THEN Z=0
27 REM      170 NEXT Y
28 REM      180 NEXT X
29 REM      190 IF X=0 THEN 90
30 REM      200 E=FNABX+1
31 REM      210 FNABX=FNABX+1
32 REM      220 IF FNABX=255 THEN 90
33 REM      230 IF W=0 THEN 710
34 REM      240 DIM A
35 REM      250 PRINTPRINT
36 REM      260 PRINT "  MICROTRK  BY CODED BY H.HIDAI"PRINT
37 REM      270 PRINT "  1 2 3 4 5 6 7"PRINT
38 REM      280 X=1
39 REM      290 FOR Y=1 TO 7
40 REM      300 FOR Z=1 TO 7
41 REM      310 PRINT "
42 REM      320 X=3
43 REM      330 FOR Y=1 TO 7
44 REM      340 PRINT "  STARDATE:  "ID
45 REM      350 X=4
46 REM      360 FOR Z=1 TO 7
47 REM      370 PRINT "  ENERGY:  "IL
48 REM      380 FOR Y=1 TO 7
49 REM      390 FOR Z=1 TO 7
50 REM      400 PRINT "  KLINGONK:  "IW
51 REM      410 X=6
52 REM      420 FOR Y=1 TO 7
53 REM      430 PRINT "  CONDITION:  "RED"
54 REM      440 X=7
55 REM      450 FOR Z=1 TO 7
56 REM      460 PRINTPRINT
57 REM      470 IF FNABX<225 THEN 520
58 REM      480 FNABX=FNABX+1
59 REM      490 PRINT HI  UNIT HIT FROM KLINGONK"
60 REM      500 L=L-H
510 IF K<225 THEN 730
520 IF L THEN 750
530 PRINT "  CAPTAIN:  "
540 FOR I=1 TO 750
550 IF A=1 THEN 790
560 IF A=1 THEN 930
570 IF A=3 THEN 780
580 PRINT "  WHAT SECTOR(X,Y) TO GO TO?"
590 INPUT W,H
600 INPUT W,H
610 Z=FNABX+1
620 Z=FNABX+1
630 Z=FNABX+1
640 E=H
650 F=H
660 L=L-B
670 FOR I=250
680 PRINT "  CAN'T GO"
690 GOTO 580
700 INPUT W,H
710 GOTO 580
720 GOTO 40
730 PRINT "  TIME UP"
740 GOTO 760
750 PRINT "  NO ENERGY"
760 PRINT "  YOU WERE DEAD"
770 GOTO 40
780 STOP
790 PRINT "  WHAT SECTOR(X,Y) TO FIRE AT?"
800 INPUT W,H
810 D=FNABX+1
820 IF FNABX<250 THEN 870
830 IF D=FNABX THEN 870
840 PRINT "  SPOOK! YOU MISSED. TO EPR: IS HUMAN"
850 L=L-Z
860 GOTO 230
870 PRINT "  MISS-FIRE"
880 GOTO 850
890 PRINT "  KLINGON DESTROYED"
900 Z=FNABX+1
910 GOTO 850
920 PRINT "  ---ENTERPRISE---"
930 GOTO 850
940 REM *****
950 REM ***** MAKE UP GALXY MAP *****
960 FOR X=1 TO 7
970 C=FNABX+1
980 IF C=0 THEN 1070
990 IF C=1 THEN 1070
1000 IF C=1 THEN 1070
1010 IF C=1 THEN 1070
1020 IF C=1 THEN 1110
1030 NEXT C
1040 RETURN
1050 PRINT "  "
1060 GOTO 990
1070 PRINT "  "
1080 GOTO 1000
1090 PRINT "  "
1100 GOTO 1010
1110 PRINT "  "
1120 GOTO 1020
1130 PRINT "  "
1140 GOTO 1030

```

People's Computer Company, July 1976

MicroTrek  
Bally BASIC conversion

Oh! MZ, Sept. 1984

# Retail releases



Stellar Track, Atari 2600, March 1981



Vagan Attack, ZX Spectrum, 1984



Pulsar no Hikari, Famicom Disk System, Oct. 2 1987

# The next step: Star Raiders



# The legacy of Mayfield's game



Star Trek P8  
Pico-8, 2021



EGA Trek, PC, 1988-1994

SIR, WE ARE ENTERING SECTOR 6,5  
WE ARE UNDER ATTACK. RED ALERT!  
CAPTAIN, SHIELDS ARE DOWN.

Super Star Trek 25<sup>th</sup>  
PC, 2023-2024

1	2	3	4	5	6	7	8	Date	3514.6	>>ALERT<<
1								Energy		
2	*							Shields		
3		*						Warp: 5.0		
4	*							Klingons: 9		
5										
6										
7										
8										

Chart Of Known Galaxy

1	2	3	4	5	6	7	8	
1	003	008	003	...	008	000	000	...
2	008	005	007	007	005	007	008	02
3	000	008	001	003	016	004	006	00
4	...	005	005	004	005	003	001	00
5	...	012	012	000	...	005	007	00
6	...	000	003	000	...	005	000	00
7	...	006	008	007	...	001	012	00
8	...	...	...	...	005	006	032	...

Enterprise in quad 2-2

PHASERS  
Eff 50 100  
Temp 1000 1500

COMMAND  
Command: p\_  
Quad 5,1 Sec 1,8

U.S.S. ENTERPRISE  
NCC-1701

STARFLEET COMMAND

MAIN VIEWER  
KLINGON BATTLESHIP

DAMAGE REPORT:  
M/A-M Converter failing. Now at 56%.

SCANNER REPORT:  
A Klingon has appeared at 1-5

DAMAGE REPORT:  
M/A-M Converter failing. Now at 31%.

DAMAGE REPORT  
Shields absorb 34 unit hit from 8-2  
21 unit hit from Klingon at 5-1

COMMAND? WARP SPEED / MAP  
IMP WRP LRS SHE PHA TOR DAM DCK



Classic Trek 80, iOS, 2020-2025

# Conclusions: The joy in Fanworks



Kevin Bunch

**Website:** [Atariarchive.org](http://Atariarchive.org)

**YouTube:**

[www.youtube.com/atariarchive](http://www.youtube.com/atariarchive)

**Patreon:** [patreon.com/atariarchive](http://patreon.com/atariarchive)

**Bluesky:** [@atariarchive.org](https://bsky.app/@atariarchive.org)

**Mastodon:** [@Yuberus.mastodon.social](https://mastodon.social/@Yuberus)

**Book:** *Atari Archive Vol. 1: 1977-1978*,  
available via Limited Run Games