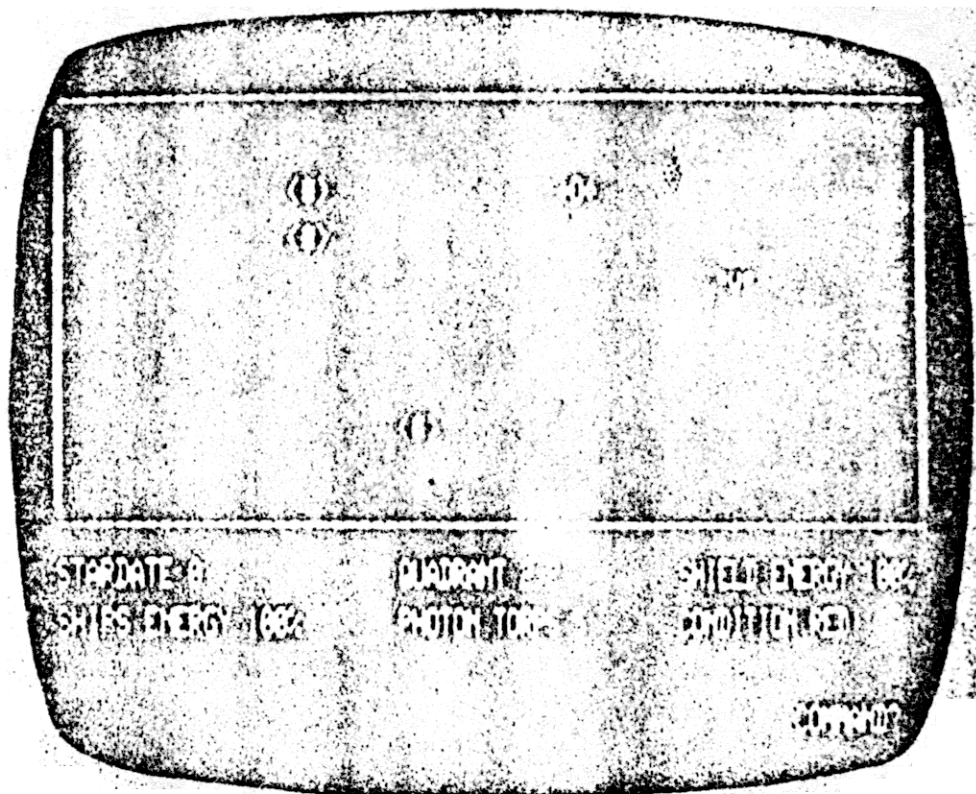


# TIME TREK



A Real Time Action Game  
For the TRS-80 Level I and II  
4K RAM

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## Introduction

Time Trek is a Z-80 machine language version of the popular computer game Star Trek or Space War, with real time action and exciting graphics and sound effects. The program runs in 4K or more RAM on either a Level I or Level II TRS-80, and requires no additional equipment, even for sound effects (although an amplifier may be added for enhanced sound). As captain of the Enterprise and champion of the Federation, your goal is to wipe out the Klingon invasion force which threatens the galaxy, before the Klingons destroy all the Federation starbases or the Enterprise.

You seek out the Klingons with your scanners (or you may receive S.O.S. messages from starbases under attack), and do battle with them using your shields, phasers and photon torpedoes. Because the game is in real time, the Klingons are constantly on the move, and so is the Enterprise. With practice you can fire your weapons while moving and evading enemy shots. Time Trek demands both sharp wits and fast reflexes, and has ten levels of play to challenge you time after time as you master the game.

Since Time Trek is a Z-80 machine language program, the procedures for loading it are slightly different from those for regular BASIC programs. Also, Time Trek can only be loaded from the supplied cassette; it cannot be copied onto another cassette using the BASIC CSAVE command or the machine language monitor, nor can it be reliably copied using two tape recorders. So you should treat your Time Trek cassette with care and read these instructions carefully before you begin. To ensure that you can load Time Trek, the program is recorded twice on the Level I side and twice on the Level II side. Make sure that the correct side is 'up' in your cassette recorder, and follow the appropriate procedures below.

Once Time Trek is loaded, you can fight as many battles with the Klingons as you wish. You will find, however, that neither the BREAK key nor the Reset switch at the back of your keyboard has the usual effect. To load or type in another program, you must first turn power off on your TRS-80 and then turn it on again. (On Disk BASIC systems, pressing the Reset switch will boot the DOS.)

Time Trek and many other TRS-80 products are produced and marketed by **Personal Software™, Inc.**, 592 Weddell Drive, Sunnyvale, Calif. 94086, telephone (408) 745-7841. For a catalog of additional programs, send us a letter or postcard.

## Level I

Set the volume on your cassette recorder at about 7¼-8½, and test the volume setting by loading a Radio Shack supplied tape (Black Jack, etc.; your own tapes may be slightly different). After you have verified that such a 'standard' program will load, insert your Time Trek cassette (Level I side up), and rewind if necessary to the beginning of the tape.

Now type **CLOAD** (followed by the **ENTER** key) and wait. You should see two flashing asterisks in the upper left corner of the screen. Do not be surprised if the asterisks hold steady and flash only occasionally; this is normal for a machine language program. (If the asterisks never change, the volume is probably too low; raise the volume slightly and try again.)

If all is well, the Time Trek title and copyright notice will appear on the screen. Go on to the section entitled 'Beginning Play.'

If you get the message **WHAT?**, invalid data has been read and a 'checksum error' has occurred. This usually means that the volume setting on your recorder is too low; raise the volume slightly and try again. You can also try loading the second copy of the program starting from the point where your cassette player has stopped. If this doesn't solve the problem, you should clean and/or demagnetize your recording heads. With some effort, you should be able to load Time Trek again and again without any problems..

## Level II

Set the volume on your cassette recorder at about 5½-6½, and test the volume setting by loading a Radio Shack supplied tape (Black Jack, etc.; your own tapes may be slightly different). After you have verified that such a 'standard' program will load, insert your Time Trek cassette (Level II side up) and rewind if necessary to the beginning of the tape.

## Level II (cont'd)

Now type **SYSTEM** (followed by the ENTER key). You should see the '?' prompt of the Level II machine language loader. Now type **TREK** (followed by ENTER). You should see two flashing asterisks in the upper right corner of the screen. Do not be surprised if the asterisks hold steady and flash only occasionally; this is normal for a machine language program. If you don't see the asterisks at all, the volume setting is probably too high; lower the volume slightly and try again. If a **C** appears in the upper right corner of the screen, a 'checksum' error has occurred and the volume is probably too low; raise the volume slightly and try again.

If all is well, the Time Trek title and copyright notice will appear on the screen. Go on to the section entitled 'Beginning Play.' If you still obtain a **C** (checksum error), try loading the second copy of the program starting from the point where your cassette player has stopped. If this doesn't solve the problem, you should clean and/or demagnetize your recording heads. With some effort, you should be able to load Time Trek again and again without any problems.

### Beginning Play

Once you have successfully loaded Time Trek and the program title and copyright notice has appeared, Time Trek will ask you:

**WHAT LEVEL DO YOU WISH TO PLAY (1-10)?**

Type a number from 1 to 10, followed by the ENTER key, to choose the level of difficulty at which you want to play. The higher the level, the more Klingons there will be and the more rapid and powerful their attacks will be. Level 1 is very easy (you will have to fight about 8 Klingons), while level 10 is extremely difficult (about 80 Klingons) and can only be won occasionally by the most experienced players. After you press the ENTER key, Time Trek will give you your mission, for example:

**YOUR MISSION:  
DESTROY THE FLEET OF 37 KLINGON SHIPS BEFORE  
THEY DESTROY THE 9 FEDERATION STARBASES  
GOOD LUCK!**

Your goal is to destroy all the Klingons while losing as few starbases as possible, in as short a time as possible. In the game, time is measured in stardates; a stardate is equivalent to one minute in 'real time.'

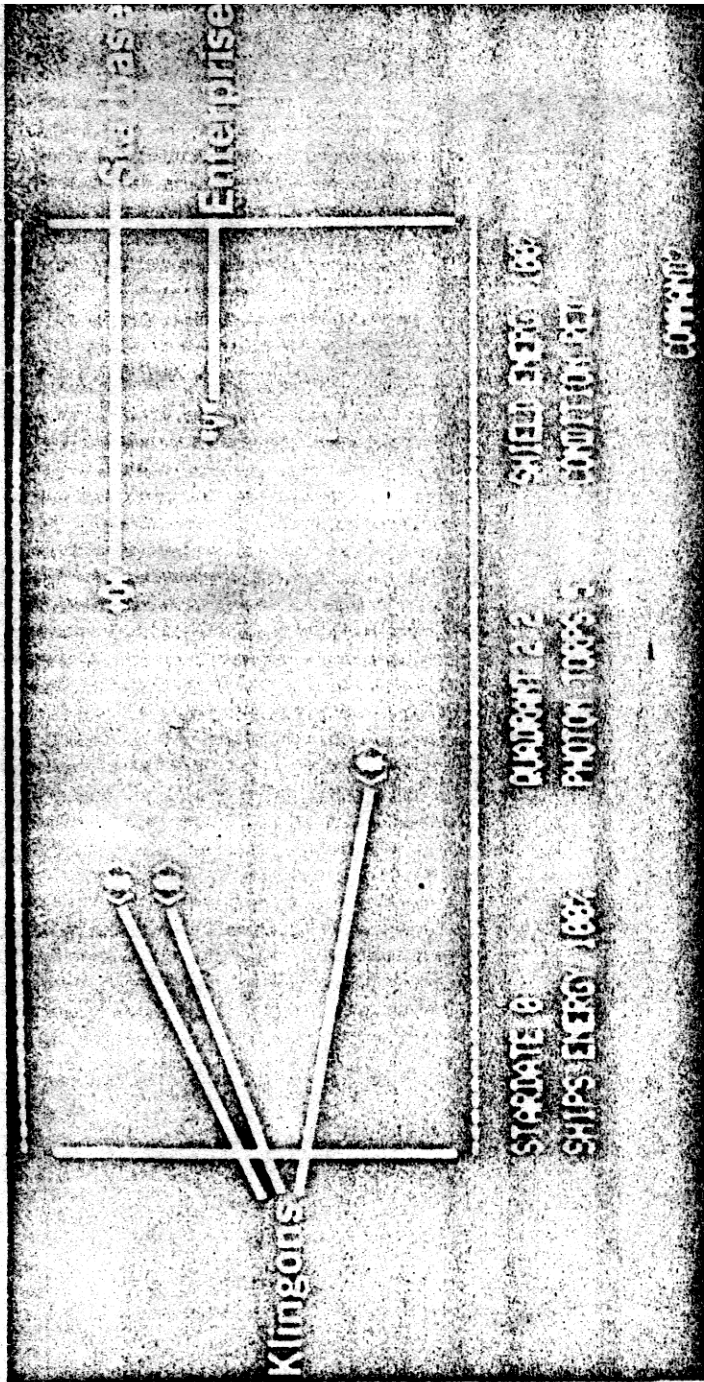
## Beginning Play (cont'd)

If you manage to destroy all of the Klingons before they destroy all of the starbases or the Enterprise, Time Trek will give you a score. The score is based on the fraction of starbases destroyed and the number of Klingons destroyed per stardate. It will be between 1 and 250. The score does not take into consideration the level of difficulty at which the game was played. When the game is over, you will have an opportunity to play another game, simply by pressing the Y key in response to the question CARE TO PLAY AGAIN?

When you are ready for action, press the ENTER key, and the Time Trek screen display will appear.

## Screen Display

The universe of Time Trek is an 8 by 8 matrix of divisions known as quadrants. (No one knows why they are called quadrants, since there are 64 of them.) Your screen display normally depicts the situation in the quadrant where the Enterprise is currently located, and this is where the action takes place. See the screen display photo on the next page. Inside a quadrant at any given time there may be the Enterprise (symbolized by "V"), a starbase (shown as "+"), and any number of Klingons (shown as "K") and stars (shown as "."). Besides these elements, which you can see on your screen display, a quadrant may contain a black hole. A black hole is an invisible danger which can only be detected by firing one of your weapons. If your phasers or photon torpedoes are obstructed by something, but nothing is visible, you are near a black hole. If your ship should fall into a black hole, it will be lost forever. When you first enter a quadrant, you will be warned if there is a black hole present in that quadrant, unless your scanners are rendered ineffective by a magnetic storm (see section entitled 'Scanners').



## Scanners

The current quadrant may or may not contain any enemy Klingon ships. (If there are Klingons, they will turn to fire at you unless you move very quickly to attack and/or evade their shots.) If no Klingons are present, they will be prowling around other quadrants of the galaxy, preparing to attack some starbase. Your job is to seek out and destroy the Klingons before they have chance to attack. For a look at the entire galaxy, press the number 3 key in response to COMMAND? The current quadrant display will disappear and the galaxy map will be displayed. (To return to the current quadrant display, press ENTER.)

The 64 quadrants form a grid of 8 columns by 8 rows. The columns and rows are each numbered from 0 to 7. A particular quadrant's coordinates are given as *column first, row second*. The current quadrant is located on the galaxy map where the letter E shows the location of the Enterprise. (This quadrant's coordinates are also given at the bottom of the current quadrant display.) Your scanners will cover the eight quadrants immediately surrounding the quadrant containing the Enterprise, the digit appearing in each of these surrounding quadrants on the galaxy map tells you the number of Klingons in that quadrant. All of the Federation starbases are also in constant communication with the Enterprise. Each quadrant in which there is a starbase will contain the letter B on the galaxy map, followed by a digit indicating the number of Klingons in the base's quadrant. If an M appears in a quadrant on the galaxy map, there is a magnetic storm in that quadrant, which disrupts the operation of the scanners. A quadrant with a magnetic storm may contain Klingons, but you will not be able to detect this unless and until you enter that quadrant. Moreover, if you enter a quadrant with a magnetic storm, you will receive no warning if there is a black hole in that quadrant. (Both black holes and magnetic storms are rare. You will probably never be in a quadrant with both.)

## Warp Engines

You move from quadrant to quadrant with your Warp engines. Once you reach a quadrant, you can move about within it using your Impulse engines (see below). To use your Warp drive, simply press the number 2 key in response to COMMAND? Time Trek will ask:

**SET COURSE FOR?**

You type just two digits, *first the column coordinate, then the row coordinate* of the destination quadrant to which you want to move. You need not, and should not press the ENTER key (doing so will abort the Warp command). If you wish to backspace and retype one of the digits, press the CLEAR key. At Warp speeds (i.e. instantly), the Enterprise will move to the new quadrant, and a screen display of the new quadrant will appear. Watch out for enemy Klingons as you enter the quadrant! As you come out of Warp drive, your ship will stabilize its position at a random location in the new quadrant, whereupon you can resume movement using your Impulse engines.

## Impulse Engines

You can move the Enterprise around in the current quadrant by using your Impulse engines, which are always engaged unless they have been damaged and are currently inoperable. To move your ship up, down, left or right, press one of the arrow keys on your TRS-80 keyboard. If you press and hold down one of the arrow keys, it will automatically 'repeat' and your ship will continue its movement in any of the four directions. You can move diagonally by pressing both a left or right and an up or down key. Now is a good time to practice moving your ship around on the screen using the arrow keys (unless the Klingons have crept up on you and begun firing at you while you are reading this). You can press the arrow keys at any time, even while in the midst of entering another command, e.g. to fire one of your weapons. If you are fast enough you can use them to dodge enemy phaser fire. Especially when you are moving quickly, you must be careful not to hit a star or a black hole. If you do your ship will be destroyed!



## Sustaining Hits

The enemy Klingons can move and fire at any time. They may attempt to dodge your fire, hide behind a star, maneuver to attack a starbase or the Enterprise, or escape to another quadrant. If a Klingon attacks a starbase in another quadrant, the starbase will send you an S.O.S. message which will flash at the bottom of the screen. You should then use your Warp drives (if they are operable) to move to the other quadrant and attempt to save the starbase. If you do not act in time, the starbase will be destroyed.

When a Klingon fires and hits the Enterprise, your ship's energy will be decreased and some of your other systems may be damaged. When your ship's energy falls to zero, you will be destroyed. If one of your ship's systems is extensively damaged, it will become inoperable. You can check the damage to your systems by asking for a DAMAGE AND STATUS REPORT: Simply press the number 1 key in response to COMMAND? The report will tell you the following (for example):

7 KLINGONS LEFT	9 BASES LEFT
DAMAGE	
IMPULSE ENGINES	21%
WARP ENGINES	19%
SCANNERS	30%
SHIELDS	18%
PHASERS	10%

Press the ENTER key to return to the current quadrant display. If your Impulse or Warp engines are sufficiently damaged, you may be unable to move about in the current quadrant or warp to another quadrant; you will have to wait helplessly as the Klingons attack you or the Federation starbases. If your phasers are sufficiently damaged, you will be unable to fire unless you have a photon torpedo left (see below).

You can partially defend yourself against enemy fire by devoting energy to your shields. The higher your shield energy, the more effective your shields are in dissipating the impact of Klingon fire, and the less your ship's energy will be reduced by sustaining a hit. If you are hit with your shield energy at zero, you will be destroyed. However, your shields also operate in the opposite direction and will reduce the energy of your phasers. 50% shield energy will dissipate  $\frac{1}{2}$  of the energy of your own phaser fire, and 100% shields will dissipate  $\frac{2}{3}$  of your phasers. To change your shield energy, simply press the number 4 key in response to COMMAND? Time Trek will ask you:

## Sustaining Hits (cont'd)

### **% ENERGY TO SHIELDS?**

Type a number from 0 to 100, and then press the ENTER key. To backspace and retype the number, press the CLEAR key. Your current ship's energy and shield energy are constantly displayed at the bottom of the current quadrant screen display.

The Enterprise is constantly repaired by its own repair crews; however this is a very slow process. If you need immediate repair or wish to replenish your supply of photon torpedoes (see below), you can dock at a starbase. To dock you must move the Enterprise directly above or below a starbase; when you are in position the message ENTERPRISE DOCKED will be displayed.

## Phasers and Photon Torpedoes

To destroy an enemy Klingon in your current quadrant, you must use your phasers and/or photon torpedoes. Phasers can be fired repeatedly, but they will use up a portion of your ship's energy. If you fire too many times, you will use up your energy and render yourself helpless. The power of your phasers is variable and depends on the energy devoted to your shields, as discussed above. To obtain the maximum energy from your phasers you must lower your shields long enough to fire — at the risk of a Klingon hit while your shields are down. Even at maximum energy, phasers have limited power, and you will usually have to fire several times to destroy a Klingon. The number of shots required is based on your phaser energy and the distance between you and the Klingon. The same is true of Klingon fire, so watch out for a Klingon shot at close range!

To fire your phasers, press the number 5 key in response to COMMAND? Time Trek will respond (for example):

**PHASERS AT 67%**

**DEGREES?**

Type an angle from 0 to 360, followed by the ENTER key, to aim your phasers at the Klingon; and watch to see if your shot is high, low or on the mark. Use the CLEAR key to backspace and retype a number. Angle 0 is horizontal to your right; 90 is straight up; 180 is horizontal left; and 270 is straight down (see the Torpedo Compass in the Command Summary).

Photon torpedoes are aimed and fired like phasers, but they are unaffected by your shields, and one torpedo will destroy a Klingon anywhere in the current quadrant. However, you have only three torpedoes, and you can replenish your supply only by docking at a starbase. To fire a torpedo, press the number 6 key in response to COMMAND? Time Trek will ask:

#### DEGREES?

Again, type an angle from 0 to 360, followed by the ENTER key, to aim your torpedo. The CLEAR key can be used to backspace and retype the angle. Like phasers, photon torpedoes are obstructed by stars and black holes. The Klingons will sometimes hide from your fire by ducking behind a star, and you may do the same to avoid their shots temporarily. If you are careless or malicious, your own phasers and photon torpedoes will, if so aimed, destroy your own starbases.

If you are near the end of a game and are in the same quadrant as the last few Klingons, but are too weak to destroy them before they destroy you (or if you just want to give up), you can cause the Enterprise to self destruct. Simply type the number 7 key in response to COMMAND? Time Trek will ask:

#### CONFIRM?

If you want the Enterprise to self destruct, type the confirmation code 123 and press the ENTER key. (if you pressed 7 by mistake, type any other number followed by ENTER.) This will destroy the Enterprise and all Klingons in the current quadrant. If, after the destruction, all Klingons have been eliminated, you will win with no penalty. If you gave up without fighting to the bitter end, the Federation will be conquered by the remaining Klingons.

## Sound Effects

Even without any additional equipment, you will hear sound effects accompanying the graphics explosion on the screen whenever a Klingon, starbase, or the Enterprise is destroyed. The sound is produced by vibrating the armature of the cassette motor control relay inside the TRS-80 keyboard. For improved sound effects, simply plug your cassette output cable (the one with the larger grey plug at the end) into an appropriate input jack on your favorite audio amplifier and speaker. If you don't already own such an amplifier, a good low-cost choice is the Microsonic amplifier available at your local Radio Shack store. Experiment with the volume and tone controls on your amplifier for the best results.

## Command Summary

WHAT LEVEL DO YOU WISH TO PLAY (1-10)?

Type a number from 1 (easiest) to 10 (most difficult), followed by ENTER.

1 DAMAGE REPORT

Press ENTER to return to quadrant display.

2 WARP ENGINES

Press digit (0-7) for column, then digit (0-7) for row of destination quadrant.

IMPULSE ENGINES

Press arrow keys to move around in the current quadrant.

3 SCANNERS

Press ENTER to return to quadrant display.

4 SHIELDS

Type shield energy percentage (0-100) followed by ENTER.

5 PHASERS

Type angle (0-360) followed by ENTER.

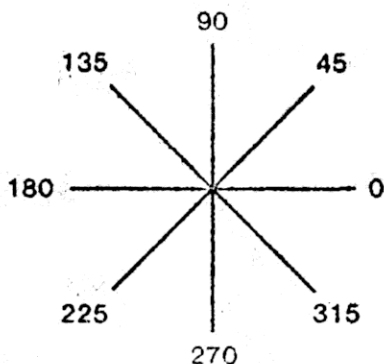
6 PHOTON TORPEDO

Type angle (0-360) followed by ENTER.

7 SELF-DESTRUCT

Type confirmation code 123 followed by ENTER.

Note: Press the CLEAR key to backspace and retype a digit. Press the ENTER key to get out of a command and return to the quadrant display.



Torpedo Compass