PANZER STRIKE

A GAME OF ARMORED WARFARE

FOR THE Ti-99/4A HOME COMPUTER

BY: WALID MAALOULI

System Requirements

TI Extended Basic

32K RAM expansion

Disk drive

Credits

Programming: Walid Maalouli

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Font: Sometimes99er

Manual cover and disk label: Kevan/Ω

Copyright Statement

Introduction

This is a platoon level game of tactical tank warfare spanning the World War II era written in TI Extended Basic. Your opponent is an artificial intelligence controlled by the computer. The objective is to maneuver your tanks, occupy a target area and defend it from tenacious enemy tanks.

Four different scenarios are included (see Appendix A) of variable difficulty, but you also have the ability to create your own scenarios using the included Scenario Builder.

Walk in the boots of Erwin Rommel at El Alamein or Manstein at Kursk and see if you can reverse the course of history. Wear Patton's helmet and find out if superior tank numbers can overwhelm a smaller but fearsomely powerful enemy tank force.

It's all up to your skill and cunning to win the day. And remember, your opponent will show you no mercy…

Running Panzer Strike

Panzer Strike loads and runs from DSK1 by default. Please refer to Appendix C for instructions on how to patch the program for your favorite disk path.

With the Extended Basic cartridge inserted in the cartridge slot and the Panzer Strike disk in disk drive #1, turn on the peripheral expansion box then the computer, press any key at the startup screen, then select Extended Basic from the menu (option 2).

At the READY prompt, type RUN "DSK1.PSTRIKE" and press the Enter key. The program's splash screen will appear. Press the Enter key to clear it, and after a brief pause the main loading screen will be displayed with 2 options:

1. Create/Edit Scenario
2. Run Panzer Strike

Select the appropriate option desired. These options are discussed in detail in the following two sections of this manual.

IMPORTANT: Please make sure that the Caps Lock key is depressed throughout the entire game.

PART 1 – PANZER STRIKE GAME

When first run, Panzer Strike will ask you for a scenario name, which should match one located on DSK1. Please refer to Appendix A for a detailed description of each scenario. Type in the name then press the Enter key.

At that point, a brief synopsis of the scenario will be displayed. Press any key to clear it, and the main battle map will be gradually drawn on the screen.

Map features

 The map consists of several scenery elements which vary depending on the scenario as indicated below:
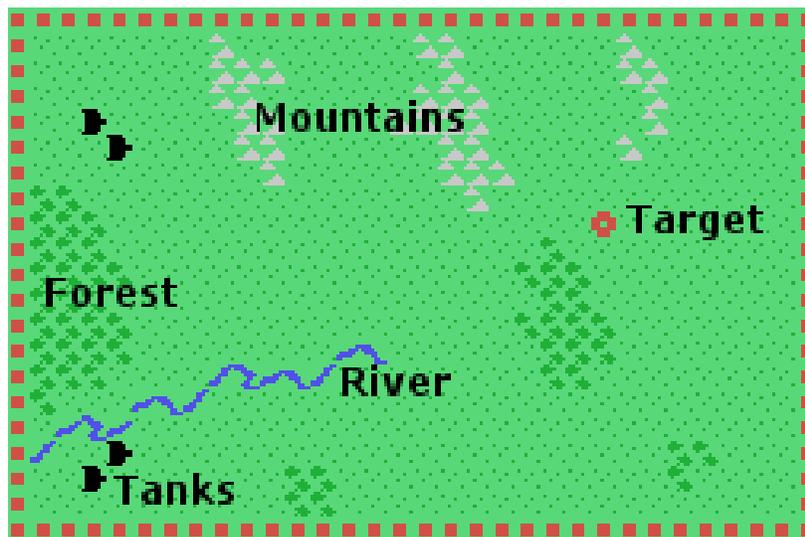
At this stage of the game, the enemy tanks will not be visible yet because they are too far away from you.

The battle map consists of 30x19 squares, each square representing 230m per side. The total surface area is 6.9x4.37 kilometers.

Game phases

The game is played in turns, each turn being the equivalent of 1 minute of real battle time. There are 3 phases to each turn:

1. Reconnaissance phase
2. Movement phase
3. Combat phase

Each side goes through each phase and the game turn ends after the combat phase. The human player always does reconnaissance and movement first, but the combat phase initiative is random.

Line of sight

The game features full line of sight, meaning that any enemy tank located further away than 10 squares (2.3 km) will not be visible. Furthermore, any obstruction (forest, mountains, wreckage or other tanks) between your tanks and enemy tanks will render the latter invisible to you. Rivers and the target square never obstruct line of sight.

However, because the tanks on each side maintain radio communication at all times amongst each other, if an enemy tank is visible to one of your tanks, then its position will be reported to all your other tanks. Furthermore, if in the process of moving the player attempts to enter the location occupied by a hidden enemy tank, then the latter will become immediately visible for the duration of the turn.

The computer side is fully subject to the line of sight rules just as the human player even though the player's tanks always remain visible on screen. A computer controlled tank could be sitting right next to a player tank in a forest and not "see" it despite the fact that the latter remains visible on screen. This could be a little disconcerting at times.

Line of sight is checked at the end of the movement phase for each side.

Note: Given the relatively low resolution of the Extended Basic screen, line of sight is not always 100% accurate, and therefore introduces a small additional level of uncertainty to the game. We will assume that visibility is hampered at times by small variations in terrain elevation as well as variability in the tank commanders' abilities on the ground.

Victory conditions

The main objective of the human player is to occupy the target square with one of his tanks for a full 3 turns. It does not have to be the same tank as long as at the end of each turn one of his tanks occupies the square. Failing that, the count is reset and another set of 3 consecutive occupation turns will be required to win.

The human player can also win by destroying all the enemy tanks.

The computer opponent's main task is to defend the target and if possible destroy all the human controlled tanks. If that happens, then the human player loses the game.

Victory conditions are checked at the end of each turn.

Reconnaissance phase

Each side has at its disposition a single reconnaissance airplane, <u>but it can only be flown once during the entire game</u>. The option to send the plane out is available at the beginning of each turn until the reconnaissance mission is authorized, and then the option will no longer be available subsequently. When prompted to launch a recon mission, press <mark>Y</mark> to launch or <mark>N</mark> to decline the option for the current turn.

There is a 25% chance that the airplane will be shot down by the enemy when the reconnaissance mission is launched before it has had a chance to collect intelligence.

If the mission is successful, then all enemy tanks will become visible regardless of line of sight <u>for the current turn only</u>. The one exception is if an enemy tank is located in a forest at the time of the reconnaissance, then it will remain invisible given the protective tree cover.

Movement phase

At the beginning of the movement phase, one of your tanks will be automatically selected by having a red cursor around it, and its vital statistics will be displayed at the bottom of the screen below the battle map.

The tanks vital statistics are derived from real world historical data and consist of:

- Type (See Appendix B)
- M: Movement factor in battle map squares
- R: Gun range in battle map squares
- P: Maximum armor penetration of the gun in millimeters
- TER: The type of terrain under the current tank location
- FA: Frontal armor thickness in millimeters
- SA: Side armor thickness in millimeters
- RA: Rear armor thickness in millimeters

Use the S and D keys to move the selection cursor to the previous or next live tank. When ready to move a selected tank, press the Enter key, and the cursor color will change to blue.

S – Move cursor to previous tank

D – Move cursor to next tank

ENTER – Select/Deselect a tank

At this point, you can rotate the tank orientation counterclockwise and clockwise by pressing the S and D keys respectively. The E key moves the tank along the current orientation direction.

Movement costs are:

- 0.5 points per rotation
- 1 point on open ground or to enter the target square
- 2 points in forests
- 3 points in mountains

Rivers, other tanks (friendly or enemy) and tank wreckage cannot be crossed. Movement is confined to the battle map edges. There is no wrap around allowed.

The movement potential is updated as you move the tank. If the movement potential is zero or you do not have enough movement factor left to enter a specific terrain, then you can no longer move the tank. Press Enter when done moving a specific tank, and the cursor will turn red again.

Should you move a tank in error, press FCTN-8 to take back one movement step. You can repeat this as needed. However, once you deselect a tank after movement, you will not be able to return to that tank and take back the previous movement steps.

If you deselect a tank with a non-zero remaining movement potential, you can always come back to it later during the movement phase and continue moving.

Movement commands:

S – Rotate counterclockwise

D – Rotate clockwise

E – Move forward

FCTN-8 – Take back one movement step

Once you have completed movement for all your tanks, press the FCTN-6 key to end your movement phase. Please note that movement is always optional.

At that point, the computer opponent will move his tanks, but their movement will remain invisible unless they are within your line of sight and close enough.

Combat phase

Combat can only occur if there is at least one visible enemy tank to either side. Unlike movement, combat initiative is random, which can have significant tactical implications.

On your combat phase turn, one of your tanks will be automatically highlighted by a red cursor similar to the movement phase, and you can use the S/D/ENTER keys to move the selection

cursor around and select a specific tank. Once a tank is selected, the cursor around your tank will turn blue, and a new red targeting cursor will appear around one of the <u>visible</u> enemy tanks. The targeted enemy tank vital statistics will be displayed below the battle map.

If you would like to select another enemy tank, press the SPACE key and the targeting cursor will move to the next available enemy tank. You may select any visible enemy tank even if they are not facing your current tank orientation because tanks are turreted and thus can move in one direction and fire in another.

Once you are satisfied with the selection, press the F key to fire your gun. If the enemy tank is out of range or if you do not have direct line of sight to it from your firing tank, then you will get a message informing you of such, and you will have the opportunity to select another enemy tank. To deselect a tank, press the ENTER key. If it has not fired yet, you can always come back to it and select it again.

> SPACE – Next available enemy tank
>
> F – Fire gun
>
> ENTER – End combat for a selected tank

There are 3 possible outcomes to fire:

- **Missed** – The chance of missing the target increases with distance.
- **Armor penetration failed** – The program will calculate the incidence angle of your shell relative to the targeted enemy tank, and if your gun does not have sufficient penetration energy to penetrate the facing enemy armor (front, side or rear), then your shell will simply bounce and no damage to the enemy tank will occur. The penetration power of the shell depends on its kinetic energy which is reflective of the tank's specific gun. Furthermore, penetration becomes less effective with distance from the target.
- **Enemy armor destroyed** – Your shell managed to penetrate the enemy tank armor and that tank is destroyed. It will be replaced by a wreck icon which will remain in place for the duration of the game and will affect line of sight. The only exception is if a tank is destroyed while on the target square, at which point the wreckage icon will be removed after a short delay.

<u>Once a tank has fired, it can no longer fire again that turn</u> and it will automatically be deselected (the cursor will turn red).

When you are done firing your tanks, press the FCTN-6 key to end your combat phase.

At that point, the computer opponent will go through each of its tanks and make firing decisions. The currently selected computer tank and its intended target will be selected, and if firing occurs then you will be informed of the outcome as noted above.

Once all combat is completed, victory conditions are checked, and if they are not met, then you are taken back to the reconnaissance phase of the next game turn. Otherwise, the game will end and you will have the option to play another game.

PART 2 – PANZER STRIKE SCENARIO BUILDER

The scenario editor gives you the ability to either modify an existing scenario or create a new one from scratch. This will allow for an unlimited capacity for experimentation with different tanks and battle maps.

When the scenario editor is launched, you need to select the option to either edit a scenario or create a new scenario.

If the EDIT option is chosen, then you will be prompted for a scenario name which should match one on DSK1, following which the battle map will be loaded and displayed.

If the NEW option is selected, then you will be asked to choose the type of base terrain, namely plain or desert. Plain terrain has a light green background while desert has a dark yellow one. Then, a blank battle map will be displayed.

Once the battle map is on screen, there will be a list of scenery options below it which vary depending on whether the base terrain is plain or desert (there are no rivers or forests for the desert terrain).
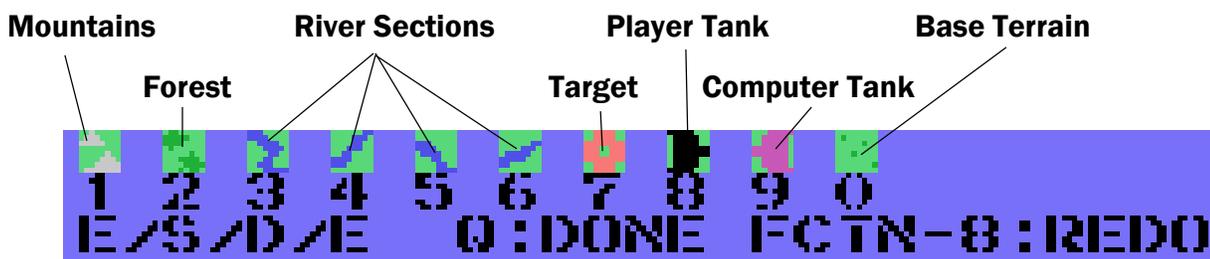

A red cursor will appear in the left upper corner of the battle map. You can move it around using the A/S/D/E keys. To place a scenery feature on the map, move the cursor to the desired location and press the number corresponding to the scenery feature to be placed. If the new feature overlaps an existing one, it will overwrite it. To erase a scenery item, simply overwrite it with the base terrain.

The following placement limitations apply:

- Player tanks need to be within 5 squares of the *left* map edge
- Computer tanks need to be within 5 squares of the *right* map edge
- The target needs to be within 10 squares of the *right* map edge
- There needs to be at least one tank for each side
- Only one target is allowed

If you wish to discard all your changes to the map, press FCTN-8. Otherwise, press Q when done editing. The map will be stored in memory, then the tank selection menu will appear:
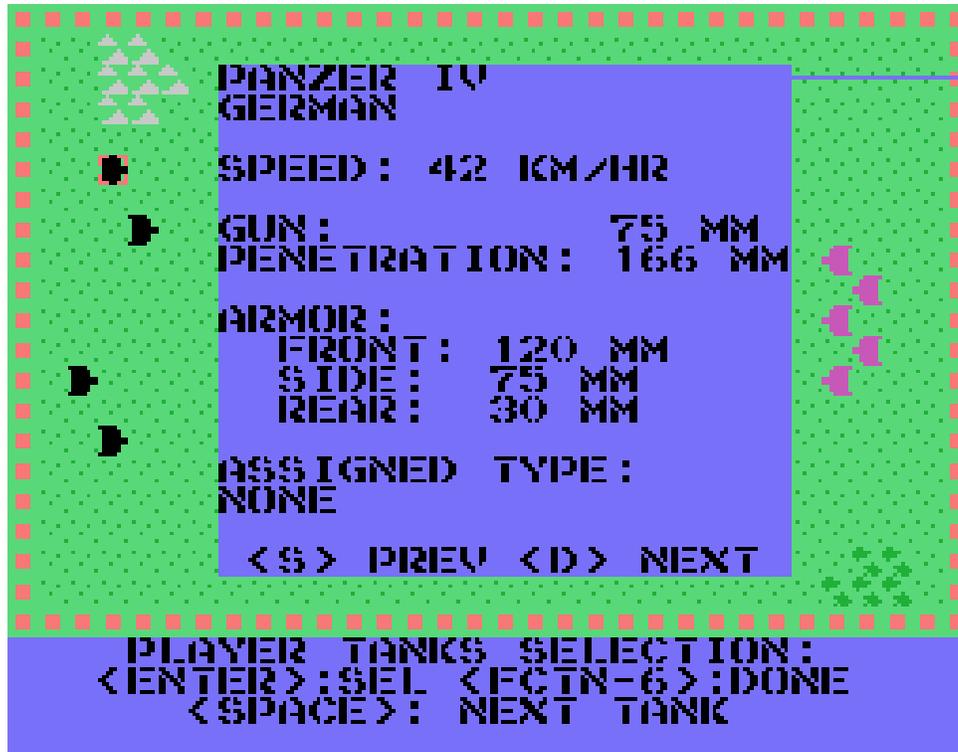
First the player tanks are assigned then the computer tanks.

A red cursor will appear around one of your tanks. If that tank does not have an assigned type as of yet, then the Assigned Type field will display NONE, otherwise it will show the tank type in that field.

To assign a tank type to a specific tank, select it with the cursor:

- Pressing the SPACE bar will move the cursor to the next available tank.
- The S and D keys will page backward and forward respectively through the different types of tanks available in Panzer Strike (See Appendix B). All the displayed characteristics are based on real life historical data. When the desired tank type is displayed, press the ENTER key to assign it to the currently selected tank.

You may modify tank assignments as many times as you wish by simply reselecting a previously assigned tank.

When you are done with the player tank assignments, press FCTN-6 to move on to the computer tank assignments. Please note that all the available player tanks have to be assigned a type prior to continuing to the computer tanks assignment phase.

In the computer assignment phase, the same process as the player phase applies. Press **FCTN-6** when done.

At that point, you will be prompted to enter a very brief scenario synopsis. You have a total of 10 lines to use. Press **ENTER** at the end of each line to move on to the next line. You cannot edit previously entered lines, only the current line. If you press **ENTER** at the end of line 10 or if you press **ENTER** on a blank line, then the editing process ends.

Obviously this is a very limited text editing facility, so plan accordingly.

Once the scenario synopsis is completed, you will be prompted for a scenario name. It should be a valid disk file name. The scenario will then be saved to DSK1, ready to be used by Panzer Strike, and you will be taken back to the main Scenario Builder menu.

APPENDIX A – SCENARIOS

Battle of Kursk

Scenario name: KURSK

Difficulty level: Moderate

This was a decisive battle for the Germans on the Eastern front. They were by that time facing stiff resistance from the Soviets, and were running out of both supplies and human materiel. This last ditch offensive was meant to return the initiative to the Germans and halt the Russian onslaught, and they threw practically every remaining resource into it. It failed...

From there on, it was one continuous fighting retreat for the Germans out of the Eastern front, ultimately ending with the Russians and Americans overrunning Berlin.

You will command a mix of Panzer IV and Tiger I tanks, while the computer opponent will have the Soviet T34 tanks at its disposal and in larger numbers as was the case in the historical record. The battle map roughly approximates the historical terrain.

Can you reverse the course of history?

Second battle of El Alamein

Scenario name: ELALAMEIN

Difficulty level: Easy

The Afrika Corps under General Erwin Rommel is running out of steam after wreaking havoc with the British Expeditionary Forces in North Africa. It's supply chain was greatly weakened by the British control of the Mediterranean sea, as well as the fact that Hitler was shifting his focus to the Eastern Front.

Nonetheless, it was vital for the Germans to conquer Egypt and take control of the Suez Canal. Unfortunately for them, General Montgomery was in no mood to allow them to do so as he was in desperate need for a decisive victory in North Africa after a series of humiliating defeats. He therefore gathered a large freshly supplied armored force to face off the Desert Fox' battle hardened units as they tried to push towards El Alamein.

You will have only Panzer IV tanks at your disposal, whereas the British forces will wield the Sherman Firefly tank, essentially a Sherman tank with a better gun but slower speed.

With proper maneuvering, you should be able to overcome the British relatively easily as they will be hampered by their limited mobility and inferior armor. But don't get too cocky: they can still inflict on you a blistering defeat if you are not careful...

In the real historical record, Rommel did indeed inflict great damage on the British, but he ran out of supplies before he could overrun them.

David versus Goliath

Scenario name: DAVID

Difficulty level: Hard

This is a fictional battle pitting a slew of American Sherman tanks against a handful of fearsome Tiger II tanks. In the historical record, the Americans lost Shermans in great numbers, but in the end their sheer numbers overwhelmed the very limited numbers of Tiger II's produced by Germany.

Winning this scenario will be very difficult because the Sherman tank's gun cannot penetrate either the front or side armor of the Tiger II tank, so the only way to kill the latter will be to fire at it from behind at close range.

Figure out how to maneuver your forces in order to do this and you just might stand a chance at winning... Hint: Use of well-timed reconnaissance is vital here as well as the judicious use of cover to ambush the enemy.

Fortress attack

Scenario name: FORTRESS

Difficulty level: Moderate

In this other fictional battle, you are wielding the very powerful German Jagdpanther tank destroyer against the best tank the Soviets had, namely the Iosif Stalin tank. The target will be protected by natural defenses, so your maneuvering will be more limited.

The tanks on both side will have no difficulty penetrating each other's armor form any angle. The Jagdpanther will have the more powerful gun, so a hit from nearly any distance within the Jagdpanther's gun range will most likely destroy the Iosif Stalin tank. On the other hand, it has the weaker armor and thus will be more vulnerable to long distance attacks.

In other words, It should be a relatively even battle from an armor standpoint, and so it will come down to tactical skill in order to win the day.

APPENDIX B – TANK CHARACTERISTICS

Tank	Speed (km/hr)	Gun Bore (mm)	Maximum Penetration (mm)	Front Armor (mm)	Side Armor (mm)	Rear Armor (mm)
Panzer IV	42	75	166	88	49	10
Jagdpanther	46	88	214	80	45	40
Panther	46	75	174	120	67	15
Tiger I	45	88	134	120	72	25
Tiger II	41	88	214	185	105	25
M4 Sherman	48	75	74	76	38	38
Sherman Firefly	32	76	118	51	38	38
T34	53	76.2	75	47	45	40
T44	53	85	127	120	90	75
Iosif Stalin	37	122	163	120	75	30

Note: The maximum penetration value is under ideal conditions at close range and is proportionally reduced by the distance to target during combat.

APPENDIX C – DISK PATH PATCHING

Panzer Strike runs by default from DSK1. However, it can be easily patched so as to run from any drive of your choice. Below are listed the files that need to be patched and the appropriate line numbers in each.

Just edit each file at the stated line numbers and replace all instances of DSK1 with the path of your choice, then save the files. Do not modify any other aspects of the programs unless you know what you're doing.

File Name: PSTRIKE

- 240

File Name: PSMENU

- 200

File Name: PSMAIN

- 140
- 190

File Name: PSBUILDER

- 1950
- 2120

Once the line changes have been done, move all the following files to the new location:

- PSTRIKE
- PSMENU
- PSMAIN
- PSBUILDER
- CHARDEF
- All the scenario files