COMPUTER PROGRAM CASSETTE **CʘSMI**
Use with ATARI® 400•800™ COMPUTER SYSTEMS
Full Color Graphics • High Resolution

THE **E** FACTOR

USES COMPUTER KEYBOARD AND JOYSTICK

Contains one program cassette **AC16-112** with instruction manual. Use with ATARI® 400™ or ATARI® 800™ Personal Computer System. **Accessories required:** 1. Joysticks 2. ATARI® 410™ cassette program recorder 3. Memory RAM 16K.

CʘSMI

THE **E** FACTOR
by
Robert T. Bonifacio

A 4 level, multi-speed/multi-screen game requiring control of two separate objects simultaneously, designed in 16K RAM for the Atari® 400/800/1200™ Personal Computer Systems.

GAMES WORTH PLAYING

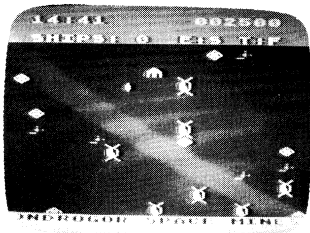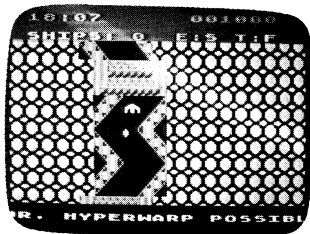Atari® 400/800/1200XL,™ Atari® 410™ and Atari® 810™ are registered Trademarks of Atari,® Inc.

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THE**E**FACTOR

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OVERVIEW

Every planet in the universe has an "E Factor." This factor represents the amount of "energy" that each planet possesses. Matter can be neither created nor destroyed, but it can be converted into energy, and through this process dissipated. Certain planets in our galaxy have consumed almost all of their energy producing materials and are in desperate need of fuel replacements. Your assignment is to deliver a massive "energy capsule" to each of these planets before their fuel runs out and the inhabitants are frozen to death.

First you consult your galactic chart to determine the exact location of the threatened planets and to plot your course. Space Control Central will print out instructions on your video screen to assist you in your journey, but beware . . . since numerous hazards lie in wait for you. Although some quadrants may be empty, allowing you to hyperwarp through them, others may contain asteroids, space mines, and even the enemy starfighters of the dreaded Mondrogor. You must safely navigate through these obstacles and deliver your precious payload. You regulate your course and speed directly with your computer controls but since the "energy capsule" is so highly radioactive that you cannot touch it, you must guide it indirectly with your tractor beam. Any collision will be fatal.

Good luck! The Federation is counting on you.

SYSTEM REQUIREMENTS

1.) The E Factor cassette or diskette.
2.) Atari® 400™ or 800™ or 1200XL™ computer.
3.) Atari® 410™ cassette program recorder or Atari® 810™ disk drive.
4.) One joystick controller.

LOADING THE PROGRAM

THE E FACTOR is a machine language game program and therefore does not use a BASIC cartridge. It is designed in 16K RAM and is loaded by the following steps in exact order:

CASSETTE VERSION

1.) Turn off the Atari® 400/800/1200XL™ and remove all cartridges from the program cartridge slots (including game cartridges and BASIC cartridge). This game will not load if any cartridge slots are occupied.
2.) Connect the cassette recorder to the PERIPHERAL jack on the right hand side of the computer. (Make certain the recorder is as far removed from the TV set or monitor as possible.)

3.) Make sure that the cassette is completely rewound to the beginning of Side 1. (The tape pack should appear on the left side when looking down into the cassette window.) Place the cassette in the recorder and press the PLAY button. Note: If you experience any difficulty loading the program after completing step number 7, try again. A back up copy of the program is available on the other side if you flip over the cassette and rewind it to the beginning.

4.) Push the yellow START key on the right of the Atari® and KEEP IT DOWN.

5.) Turn on the computer. It will beep once to let you know it is ready to load the tape. When it beeps, release the START key.

6.) Press the RETURN key on the keyboard. The cassette player will begin to run and the program will load. It will take several minutes to complete loading because of the length of the program. If you like, you can turn up the TV volume to hear the loading process and verify that all is proceeding correctly.

7.) When the entire program is loaded, the cassette player will stop automatically and you will be ready to begin the game. You should rewind the cassette and put it back in the box.

DISKETTE VERSION

1.) Turn off the Atari® 400/800/1200XL™ and remove all cartridges from the program cartridge slots (including game cartridges and BASIC cartridge). This game will not load if any cartridge slots are occupied.

2.) Connect the disk drive to the PERIPHERAL jack on the right hand side of the computer. (Make certain the disk drive is as far removed from the TV set or monitor as possible.)

3.) Turn on the disk drive and insert the diskette. Close the disk drive door.

4.) Turn on the computer. The program will automatically load and run in a few seconds.

5.) When the entire program is loaded the disk drive will stop automatically and you will be ready to begin the game. You should turn off the disk drive, remove the diskette and put it back in the box. (Do not place the diskette on the computer or TV set as their electrical fields may damage the program recording.)

NOTE: It is essential with both versions of THE E FACTOR that you start with the computer turned "off" and with no program cartridges in the computer cartridge slots (left or right).

USING THE JOYSTICK CONTROLLERS
Plug a joystick controller into jack 1 on the computer console. Hold the joystick with the red button in the upper left corner, towards the TV set. You may control your space ship moving the joystick handle in any direction. The energy capsule will remain in a constant position until you press the red "fire" button which energizes your tractor beam and pulls the capsule towards you. In this manner, after some practice, you will be able to control both objects on the screen simultaneously.

PLAYING THE E FACTOR FOR THE FIRST TIME
After the title page has been displayed, a galactic chart will appear with planets in the four corners. At this point you may select the level of difficulty you wish to play. By pressing the joystick right or left the level displayed on ths screen will move up or down from one to four. You may regulate the speed you wish to travel by pressing computer keys 1, 2 or 3. You may adjust the force of the tractor beam by pressing "T" on the keyboard. "F" is displayed for fast tractor beam attraction, "S" for slow. (You may change speeds or force during the game by pressing these keys.) Your goal is to deliver the energy capsule to each of four planets within the allotted twenty minutes while amassing the maximum number of points and avoiding collision with any of the obstacles. You control your space ship with the joystick handle and your energy capsule with the tractor beam engaged by pressing the red "fire button." The capsule will be drawn toward your ship when you press this button, but do not let it touch you (or anything else) since it is so highly radioactive that you will be destroyed and lose a ship. You start with four ships and receive an additional ship for each 10,000 points earned. (Note: Since you are controlling two objects on the screen

simultaneously; if you can't "pat your head and rub your stomach" at the same time you're going to have trouble!)

To begin the game press the "fire button" or the computer "START" key. Your "Galactic Game Chart" will be displayed, showing your position as well as that of the four planets you must save. This chart never repeats since it is generated randomly and therefore eliminates the possibility of "memorizing" a simple plan or course. (Beginners may continue to press the "START" key, which will change the chart until they find an easy chart with which to start.) The player makes his first move by pressing the joystick in the direction he wishes to move on his course to the first planet (up, down, left or right). This new quadrant will be displayed on the screen and Space Control Central will transmit across the bottom of the screen the condition in the sector you have just entered. (Empty Sector – Hyperwarp Possible, Mondrogor Space Mines, Unstable Asteroids, Planet and type.) The screen will shift automatically (or you may press the "fire button" to shift more quickly) to the quadrant you have chosen as your course. (If you enter an empty quadrant you may press the "H" key on the computer and you will automatically hyperwarp through the sector.) Now you must navigate through this sector, avoiding whatever obstacles are present and destroying any Mondrogor fighters that may appear who are attempting to destroy your energy capsule. Your starship will vaporize the enemy fighters by colliding with them before they reach the capsule which they are seeking.

When you reach a planet, another screen will be displayed depicting a series of canals in which the planets power stations are deployed. You must navigate safely through the canals and under the bridges (avoiding Mondrogor Battle Cruisers in the higher levels) and allow your energy capsule to pass through and "recharge" the planets power stations. (You must be in the proper juxtaposition to allow the capsule to pass through the station while you avoid it!) After completing each quadrant, you will be transferred back to your Galactic Chart in order to plot your next move. If you enter the same quadrant more than once, it will contain the same obstacles as it did the first time. (Empty Sectors are useful

in this regard.) Save all four planets within the alotted time and you become "Hero of the Galaxy"! You will receive a 9000 point bonus and move on to the next level.

LEVELS

OBSTACLES AND GAME HINTS

LEVEL 1

This level is for beginners just starting to learn the control functions and how to avoid obstacles. Remember, you must not collide with the mines, asteroid tips (you may pass through the center without harm), planet walls or the energy capsule itself. There are a minimum number of space mines and unstable asteroids in this level. No Mondrogor fighters or battle cruisers will attack you. You may experiment controlling your spaceship by moving the joystick handle in any direction you wish to go, and regulating your energy capsule by pressing the red "fire button" on the joystick. This button engages your tractor beam which will cause the capsule to be attracted to your spaceship. You may test your engine thrust speeds by pressing 1, 2 or 3 on the computer keyboard console. This function is displayed on the screen as E:1 (slow), E:2 (medium), E:3 fast. Practice in this area is important, since you will not be able to save all four planets in the allotted twenty minutes if you play the entire game at speeds 1 or 2. Also, you may try out the Tractor Beam Force options. By pressing the letter "T" on the computer keyboard console the screen display of T:F (fast) will change to T:S (slow). The slower tractor beam force attraction is especially desirable when navigating the complex channels you will encounter on the planets. Remember that when you enter the planets channels, you must position the energy capsule so that it passes through and recharges the glowing power stations, while your spaceship avoids the station. Collision of your spaceship with the power station results in the loss of a player. If you enter an empty quadrant, you may press the "H" key on the computer console and you will automatically hyperwarp through that sector.

LEVEL 2

Now you will encounter Mondrogor fighters at the same time you are
avoiding obstacles. These "evil meanies" are attempting to destroy your
"energy capsule" before you can safely deliver it to the planets
threatened with extinction. You must intercept, collide with and destroy
the Mondrogors before they can seek and destroy your precious "energy
capsule." You will learn different tactics in this level for defending your life
saving cargo. Watch out for early attacks from underneath! Attempt to
keep the "capsule" near the center of the screen in order to allow the
maximum time for reaction to the invading Mondrogors.

LEVEL 3

Here, not only do you encounter more mines and asteroids (as well as the
Mondrogor fighters), but you will find the planets channels infested with
the indestructible Mondrogor Battle Cruisers. These cruisers must be
avoided at all costs while in your "spare time" you direct the energy cap-
sule through the planets power stations (whew!). If you can accomplish
this, you're ready for . . .

LEVEL 4

O.K. This is it! More mines, more asteroids, more enemy fighters and
more Mondrogor Battle Cruisers at the planet! Remember, your reward
for playing this level is that you accumulate the maximum number of
points per quadrant. (Therefore, you also earn bonus players more quickly
– one for each 10,000 points up to a maximum of 9 at any one time). Also,
remember that you can regulate your engine speed (E:1, E:2, E:3) and
your tractor beam force (T:S, T:F) during play. (You may not change level
of play (L:1, L:2, L:3, L:4) once you have begun the game. If you are suc-
cessful in saving all four planets at this level, you are awarded the "Hero of
the Galaxy" medal and allowed to continue to amass an additional point
score to establish the world record.

SCORING

Level	Empty Sector	Mondrogor Space Mines	Unstable Asteroids	Planets	Points
1.	Hyperwarp ("H" key)	Random Mines	Moving Asteroids	Canals	100 pts/Quadrant
				Bridges	200 pts/Planet Power Station
					200 pts/Planet Completed
2.	Hyperwarp ("H" key)	Random Mines	Moving Ateroids	Canals	300 pts/Quadrant
		Mondrogor Fighters (Collide)	Mondrogor Fighters (Collide)	Bridges	300 pts/Fighter
					600 pts/Planet Power Station
					600 pts/Planet Completed
3.	Hyperwarp ("H" key)	2 x Random Mines	2 X Moving Asteroids	Canals	500 pts/Quadrant
		Mondrogor Fighters (Collide)	Mondrogor Fighters (Collide)	Bridges Battle Cruisers (Avoid)	500 pts/Fighter
					1000 pts/Planet Power Station
					1000 pts/Planet Completed
4.	Hyperwarp ("H" key)	3 x Random Mines	3 x Moving Asteroids	Canals	700 pts/Quadrant
		Mondrogor Fighters (Collide)	Mondrogor Fighters (Collide)	Bridges 2 x Battle Cruisers (Avoid)	700 pts/Fighter
					1400 pts/Planet Power Station
					1400 pts/Planet Completed

Remember: You can regulate your starship speed (1-3) and tractor beam force (F & S) by pressing "T" during play. You may wish to make changes when you enter more difficult quadrants. Space Control Central will display "HIGH SCORE" at the bottom of the screen.

IF YOU CANNOT LOAD THE PROGRAM

1.) Check to make certain there are **no cartridges** in the computer cartridge slots (including the BASIC cartridge or any other program or game cartridges).

2.) Check your equipment carefully to be sure that all cables and connections are correct and tightly inserted to load again. On the cassette version a duplicate copy of the game is recorded on side 2. (The side without a label.) Turn the cassette over to side 2, rewind to the beginning and attempt to load again.

3.) Re-read the section in the manual about loading machine code programs from cassette tape and diskette. Try to load again.

4.) If you can adjust the volume and tone settings on your recorder, try different settings.

5.) If possible, load another program from a tape or diskette you know works on your computer. This will prove that your equipment works. Try once more to load your game.

6.) The normal reason cassette tapes will not load is tape recorder head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to load tapes made on a different recorder for this reason. Be sure that your tape recorder heads are properly aligned. Your local computer store or dealer can help with this.

7.) If the program still cannot be loaded, send the cassette or diskette, with a description of the problem (what the computer displays on the screen, if anything, when you try to load the program or play the game) and what you did to try to correct the problem.

Defective cassettes or diskettes will be replaced at no charge.

WARRANTY

This article will be replaced if found to be defective in material and/or workmanship within 90 days of purchase. This shall constitute the sole remedy of purchaser and the sole liability of manufacturer. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representations whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall manufacturer be liable for special or consequential damages.

PROGRAMMER BIOGRAPHY – Robert T. Bonifacio

Well . . . Robert has done it again! Another extremely challenging game; requiring skill, dexterity, strategy, tactics and logic. The concept of "E Factor" occurred to Bob while he was just "fooling around" with his computer. The idea of controlling two separate objects on the screen simultaneously presented an exceptionally risky assignment. "I'm not certain that anyone can consistently win at level 4, engine speed 3," says Bob, "not even me!" (Robert can play his award winning AZTEC CHALLENGE in the two player simultaneous mode, with a joystick in each hand!) We wonder what he's been "fooling around" with on his new adventure game "CAVERNS OF KHAFKA."

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