

“STAR LANES”

A NON-PROGRAMMER WRITES A COMPUTER GAME

by Steven Faber

INTRODUCTION

Since I had no significant background in programming, I spent the year or so since completing my Altair 8800 writing simple programs on the order of computing the current value of a stock portfolio, bidding jobs for my company, or calculating my mortgage. I left the game-writing programs to the “whiz kids.” You publish them; I’ll type them in. When not playing with my own simple programs, I spent my time entering, modifying and playing existing game programs. I exhausted the national magazines, anthologies and other publications. It would only be a matter of time, I assured myself, given the population explosion of amateur programmers, until the new, original, complex game programs found their way to publication. Alas, this has not been the case. Where are the new Star Treks, Star Traders, etc.? In retaliation, I decided to attempt a new game of my own. Hence, Star Lanes, printed here.

The game of Star Lanes is written in Altair 8K BASIC Version 3.2. If the instructions are deleted, it will run on about 7K on top of BASIC. It can be crunched smaller if the matrices are trimmed to allow only two players.

Star Lanes combines financial and position strategies as players attempt to lay claim to valuable pieces of real estate between stars. The galaxy in this game is a 9 x 12 matrix. As spaces are linked up, shipping companies are formed, stock in those companies is issued, sold on the open market, and converted into stock in the surviving company when companies are merged. As the game progresses, each player’s portfolio of stock increases in value. At the end of the game, the wealthiest player wins (See the instructions in the sample run, below).

HOW THE PROGRAM WORKS

An abbreviated flow chart is included here. Access to the portfolio and map print-out subroutines at the input statements has been left out for the sake of clarity.

LINES 100-130: Initializes the galactic matrix, $M(I,J)$. Stars are placed in approximately one out of every twenty spaces, using the RND function.

LINES 130-170: Initializes player roster, decides first player to move, and branches to LINE 220.

LINES 200-210: Counts moves and changes players. If the move counter shows 48 completed moves, program branches to LINE 9500, where final scores are computed and printed.

LINES 220-340: Selects five “Legal Moves” for the player to select, using the RND function. The logic for deciding which moves are legal is shown in the expanded flow chart, Figure 2.

LINES 340-390: Prints the map, offers legal moves to player, and inputs player’s selected move.

LINES 400-790: Assigns value to selected space to

identify it in the galactic matrix. Numerical assignments are made as follows:

- $M(I,J) = 1$ Space is unoccupied
- $= 2$ Space is unattached outpost
- $= 3$ Space is a star
- $= 4$ Space is assigned to Altair Starways
- $= 5$ Space is assigned to Betelgeuse, Ltd.
- $= 6$ Space is assigned to Capella Freight Co.
- $= 7$ Space is assigned to Denebola Shippers
- $= 8$ Space is assigned to Eridani Expeditors

Program first checks to see if the selected space should be an unattached outpost i.e., having no adjacent occupied spaces, then program checks to see if the new space causes a merger. If so, it branches to subroutine at LINE 1060. Program then checks to see if selected space adds to an existing shipping lane. If so, it recomputes the value of the stock in that company. If the selected space forms a new company, computer assigns value to the stock of the new company, assigns a name to the company and awards five shares of stock to the player. Lastly, the value of the stock is checked to see if it is to be split. If so, program branches to subroutine at line 1400.

LINE 800: Computes and awards dividends to player.

LINES 810-900: Stock Market. Player is offered stock in all active shipping companies. If he buys, the cost of the stock is deducted from his bank balance. Program then branches back to LINE 200.

SUBROUTINES

LINES 1000-1050: Prints the map.

LINES 1060-1170: Calculates which company is the survivor in a merger.

LINES 1180-1370: Performs calculations needed to accomplish merger. Prints announcement of merger, conversion of stock, and cash bonus paid each player. New stock value is checked to see if stock should be split. If so, program branches to subroutine at LINE 1400. Lastly, smaller company is cleared from the records, so that a new company may be formed later in the game.

LINES 1400-1480: Calculates Stock Splits.

LINES 8000-8760: Prints the instructions.

LIST OF VARIABLES USED IN STAR LANES

- $M(R,C)$ = Galactic Matrix where R (1-9) is the row, and C (1-12) is the column of a given space.
- $S(I,J)$ = Quantity of Stock matrix where I (1-5) is the number of the shipping company and J is the player number.
- $D1(I)$ = Stores the net worth of each player.

S1(I) = Stock price for company #I.
 Q(I) = Number of spaces occupied by company #I.
 B(I) = Cash in bank for Player #I.
 M\$(I) = Prints name of company #I.
 M\$ = Prints column designation (A-L) where 1 = A, 2 = B, etc.
 L\$(I) = Prints space designation on galactic map, where I = 1-8. Uses same numerical assignments as the galactic matrix, i.e., 1 = empty space, 2 = unattached outpost, etc. (See text).
 R\$, R3\$ = Input string for player response.
 PS(I) = Prints name of player #I.
 P1 = Number of players.
 P = # of player this turn.
 I,J,I3,J3 = For, next loop variables.
 K = Counts moves.
 R(I),C(I) = Stores row, column designation of computer offered legal moves.
 A1,A2,A3,A4,R3,R2,C2,F1,F2,F3,F4,T,T1,X,X1 = *Temporary variables.*

MICROCOMPUTER INSTRUCTIONS

How many players (2-4)? 2

Does any player need instructions? Yes.

Star Lanes is a game of interstellar trading. The object of the game is to amass the greatest amount of money. This is accomplished by establishing vast, interstellar shipping lanes, and purchasing stock in the companies that control those trade routes. During the course of the game, stock appreciates in value as the shipping com-

panies become larger. Also, smaller companies can be merged into larger ones, and stock in the smaller firm is converted into stock in the larger one.

Each turn, the computer will present the player with five prospective spaces to occupy on a 9 x 12 matrix (Rows 1-9, Columns A-L). The player, after examining the map of the Galaxy to decide which space he wishes to occupy, responds with the row and column of that space, 1.E., 7E, 8A, etc. There are four possible moves a player can make.

1. He can establish an unattached outpost — if he selects a space that is not adjacent to a star, another unattached outpost, or an existing shipping lane, this space will be designated with a '+'. He will then proceed with stock transactions.

2. He can add to an existing lane. If he selects a space which is adjacent to one — and only one existing shipping lane, the space he selects will be added to that shipping lane, and will be designated with the first letter of the company that owns that lane. If there are any stars or unattached outposts also adjacent to the selected space, they, too, will be incorporated into the existing lane. Each new square adjacent to a star adds \$500 per share, and each new outpost adds \$100 per share to the market value of the stock of that shipping company.

3. He may establish a new shipping lane. If there are five or less existing shipping lanes established, the player may, given the proper space to play, establish a new shipping lane. He may do this by occupying a space adjacent to a star of another unattached outpost, but not adjacent to an existing shipping lane. If he establishes a new shipping lane, he is automatically issued 5 shares in the new company as a reward. He may then proceed to buy stock in that company, or any other active company, as described below. The market value of the new stock is established by the number of stars and occupied spaces as described in #2 above.

4. He may merge two existing companies. If player selects a space adjacent to two existing shipping lanes, a merger occurs. The larger company takes over the smaller company; the stock of the larger company is increased in value according to the number of spaces and stars added to its lane. Each player's stock in the smaller company is exchanged for shares in the larger on a ratio of 2 shares of the smaller = 1 share of the larger. Also, each player is paid a cash bonus proportional to the percentage of outstanding stock he held in the smaller company. Note: after a company becomes defunct through this merger process, it can reappear elsewhere on the board if a new company is established (see #3 above).

Next the computer adds the stock dividends to the player's cash on hand (5% of the market value of the stock in his possession), and offers him the opportunity to purchase stock in any of the active companies on the board. Stock may not be sold, but the market value of each player's stock is taken into account at the end of the game to determine the winner. If the market value of a given stock exceeds \$3000 at any time during the game, that stock splits two for one. The price is cut in half, and the number of shares owned by each player is doubled.

Note: the player may look at his portfolio at any time during the course of his turn by responding with "Stock" to an input statement. Likewise, he can review the map of the galaxy by typing "Map" to an input statement.

Game ends after 48 moves. Player with the greatest net worth at that point is the winner.

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CIRCLE INQUIRY NO. 95

RUNNING STAR LANES

Player 1 What is your name? Steve.
 Player 2 What is your name? Debbie.
 Now I will decide who goes first . . .
 Steve is the first player to move.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	●	●	●	●	●	●	●	●
3	●	●	●	●	●	●	●	●	●	●	●	★
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	★	●	●	●	●	●	●
6	●	●	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	★	●	●
8	●	●	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●	●	●

Steve, here are your legal moves for this turn: 4 g / 4 i /
 7 d / 9 f / 6 b /
 What is your move? 6b

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	●	●	●	●	●	●	●	●
3	●	●	●	●	●	●	●	●	●	●	●	★
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	★	●	●	●	●	●	●
6	●	+	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	★	●	●
8	●	●	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●	●	●

Debbie, here are your legal moves for this turn: 4 d / 9 f /
 9 e / 3 e / 9 i /
 What is your move? 3e

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	●	●	●	●	●	●	●	●
3	●	●	●	●	+	●	●	●	●	●	●	★
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	★	●	●	●	●	●	●
6	●	+	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	★	●	●
8	●	●	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●	●	●

Steve, here are your legal moves for this turn: 8 i / 1 f /
 5 j / 9 i / 4 c /
 What is your move? 9 i

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	●	●	●	●	●	●	●	●
3	●	●	●	●	+	●	●	●	●	●	●	★
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	★	●	●	●	●	●	●
6	●	+	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	★	●	●
8	●	●	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●	●	+

Debbie, here are your legal moves for this turn: 5 i / 5 c /
 2 k / 1 b / 2 e /
 What is your move? 2 e

Special Announcement!!

A new shipping company has been formed!
 Its name is Altair Starways.

Your current cash = \$6050.

Buy how many shares of Altair Starways at \$200.
 You now own 5 ? 10.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	A	●	●	●	●	●	●	●
3	●	●	●	●	A	●	●	●	●	●	●	★
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	★	●	●	●	●	●	●
6	●	+	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	★	●	●
8	●	●	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●	●	+

Steve, here are your legal moves for this turn: 9 k / 3 f /
 5 j / 4 i / 1 e /
 What is your move? 9 k

Special Announcement!!

A new shipping company has been formed!
 Its name is Betelgeuse, Ltd.

Your current cash = \$6050.

Buy how many shares of Altair Starways at \$200.
 You now own 0 ? 2.

Your current cash = \$5650.

Buy how many shares of Betelgeuse, Ltd. at \$200.
 You now own 5 ? 8.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	A	●	●	●	●	●	●	●
3	●	●	●	●	A	●	●	●	●	●	●	★
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	★	●	●	●	●	●	●
6	●	+	●	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	●	●	★	●	●
8	●	●	●	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	●	B	B

Debbie, here are your legal moves for this turn: 9 e / 7 b /
 1 c / 2 j / 3 k /
 What is your move? 3k

Special Announcement!!

A new shipping company has been formed!
 Its name is Capella Freight Co.
 Time passes. There are now 5 shipping companies active.

Your current cash = \$810.

Buy how many shares of Altair Starways at \$200.

You now own 16 ? 1.

Your current cash = \$610.

SOFTWARE SECTION

SOFTWARE GAMES

Buy how many shares of Betelgeuse, Ltd. at \$200.

You now own 17 ? 0.

Your current cash = \$610.

Buy how many shares of Capella Freight Co. at \$600.

You now own 1 ? 0.

Your current cash = \$610.

Buy how many shares of Denebola Shippers at \$200.

You now own 0 ? 0.

Your current cash = \$610.

Buy how many shares of Eridani expeditors at \$600.

You now own 5 ? 1.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	●	●	●	●	●	●	●	●	●	●	●
2	●	●	●	●	A	●	●	●	●	●	●	●
3	●	●	●	●	A	●	+	●	●	●	C	*
4	+	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	*	●	●	●	●	●	●
6	●	D	D	●	●	●	●	●	●	●	●	●
7	●	●	●	●	●	●	●	E	*	●	●	●
8	●	●	+	●	●	●	●	●	●	●	●	●
9	●	●	●	●	●	●	●	●	●	B	B	B

Debbie, here are your legal moves for this turn: 5 b / 7 i / 3 j / 4 j / 9 a /

What is your move? 3 j

Your current cash = \$695

Buy how many shares of Altair Starways at \$200.

You now own 22 ? Stock

Stock	Price Per Share	Your Holdings
Altair Starways	200	22
Betelgeuse, Ltd.	200	8
Capella Freight Co.	700	9
Denebola Shippers	200	5
Eridani Expeditors	600	0

Buy how many shares of Altair Starways at \$200.

You now own 22 ? 0.

Your current cash = \$695.

Buy how many shares of Betelgeuse, Ltd. at \$200.

You now own 8 ? 0.

Your current cash = \$695.

Buy how many shares of Capella Freight Co. at \$700.

You now own 9 ? 0.

Your current cash = \$695.

Buy how many shares of Denebola Shippers at \$200.

You now own 5 ? 3.

Your current cash = \$95.

Buy how many shares of Eridani Expeditors at \$600.

You now own 0 ? 0.

More time passes.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	+	●	A	●	●	●	●	●	●	●	●
2	●	●	●	A	A	●	●	●	●	C	C	●
3	●	●	●	A	A	●	+	●	C	C	C	*
4	+	●	D	●	●	●	●	●	●	●	●	●
5	●	●	D	D	●	*	●	●	●	●	●	●
6	●	D	D	●	●	●	●	●	●	●	●	●
7	●	●	D	●	●	●	●	E	*	●	●	●
8	●	●	D	●	●	●	●	●	B	B	B	B
9	●	●	●	●	●	●	●	●	●	B	B	B

Steve, here are your legal moves for this turn: 8 i / 6 e / 6 i / 1 h / 4 h /

What is your move? 8 i

Special announcement!!

Eridani Expeditors has just been merged into Betelgeuse, Ltd.!! Please note the following transactions.

Old Stock = Eridani Expeditors

New Stock = Betelgeuse, Ltd.

Player	Old Stock	New Stock	Total Holdings	Bonus Paid
Steve	7	4	25	\$6000
Debbie	0	0	9	\$0

Your current cash = \$9520.

Buy how many shares of Altair Starways at \$500.

You now own 24 ? 2.

Your current cash = \$8520.

Buy how many shares of Betelgeuse, Ltd. at \$1600.

You now own 25 ? 0.

Your current cash = \$8520.

Buy how many shares of Capella Freight Co. at \$1000.

You now own 1 ? 3.

Your current cash = \$5520.

Buy how many shares of Denebola Shippers at \$700.

You now own 9 ? 7.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	●	+	●	A	●	●	●	●	●	●	●	●
2	●	●	●	A	A	●	●	●	●	C	C	●
3	●	●	●	A	A	●	+	●	C	C	C	*
4	+	●	D	●	●	●	●	●	●	●	●	●
5	●	●	D	D	●	*	●	●	●	●	●	●
6	●	D	D	●	●	●	●	●	●	●	●	●
7	●	●	D	●	●	●	●	●	B	*	●	●
8	●	●	D	●	●	●	●	●	B	B	B	B
9	●	●	●	●	●	●	●	●	●	●	B	B

Betelgeuse has taken over Eridani.

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	D	D	D	D	●	●	●	●	●	●	●	●
2	●	●	●	D	D	D	D	●	●	D	D	D
3	●	●	●	D	D	●	D	D	D	D	D	*
4	+	●	D	D	D	D	D	●	●	●	D	●
5	●	●	D	D	●	*	D	●	●	●	D	●
6	●	D	D	D	●	●	●	●	●	D	D	●
7	●	●	D	D	●	●	●	●	B	*	●	●
8	●	●	D	●	●	●	●	●	B	B	B	B
9	●	●	●	●	●	●	●	●	●	●	B	B

It is near the end of the game, now. Denebola has absorbed almost every other shipping company.

Debbie, here are your legal moves for this turn: 2 a / 3 a / 1 i / 9 f / 6 f /

What is your move? 6 f

Special Announcement!!

A new shipping company has been formed!

Its name is Altair Starways.

Your current cash = \$52856.

Buy how many shares of Altair Starways at \$600.

You now own 5 ? 25.

Your current cash = \$37856.

Buy how many shares of Betelgeuse, Ltd. at \$1700.

You now own 53 ? 15.

Your current cash = \$12356.

Buy how many shares of Denebola Shippers at \$2475.

You now own 379 ? 5.

DIODES/ZENERS				SOCKETS/BRIDGES				TRANSISTORS, LEDS, etc.			
1N914	100v	10mA	.05	8-pin	pcb	.25	ww	.45	2N2222	NPN	.15
1N4004	400v	1A	.08	14-pin	pcb	.25	ww	.40	2N2907	PNP	.15
1N4005	600v	1A	.08	16-pin	pcb	.25	ww	.40	2N3740	PNP 1A 60v	.25
1N4007	1000v	1A	.15	18-pin	pcb	.25	ww	.75	2N3906	PNP	.10
1N4148	75v	10mA	.03	22-pin	pcb	.45	ww	1.25	2N3054	NPN	.35
1N753A	6.2v	z	.25	24-pin	pcb	.35	ww	1.25	2N3055	NPN 15A 60v	.50
1N758A	10v	z	.25	28-pin	pcb	.35	ww	1.45	T1P125	PNP Darlington	.35
1N759A	12v	z	.25	40-pin	pcb	.50	ww	1.95	LED Green, Red, Clear		.15
1N4733	5.1v	z	.25	Molex pins	.01	To-3 Sockets	.25		D.L.747	7 seg 5/8" high com-anode	1.95
1N5243	13v	z	.25	2 Amp Bridge	100-prv	1.20			XAN72	7 seg com-anode	1.50
1N5244B	14v	z	.25	25 Amp Bridge	200-prv	1.95			FND 359	Red 7 seg com-cathode	1.25
1N5245B	15v	z	.25								

C MOS		- T T L -									
4000	.15	7400	.15	7473	.25	74176	1.25	74H72	.55	74S133	.45
4001	.20	7401	.15	7474	.35	74180	.85	74H101	.75	74S140	.75
4002	.20	7402	.20	7475	.35	74181	2.75	74H103	.75	74S151	.35
4004	3.95	7403	.20	7476	.30	74182	.95	74H106	.95	74S153	.35
4006	1.20	7404	.15	7480	.55	74190	1.75			74S157	.80
4007	.35	7405	.25	7481	.75	74191	1.35			74S158	.35
4008	1.20	7406	.35	7483	.95	74192	1.65	74L00	.35	74S194	1.05
4009	.30	7407	.55	7485	.95	74193	.85	74L02	.35	74S257(8123)	.25
4010	.45	7408	.25	7486	.30	74194	1.25	74L03	.30		
4011	.20	7409	.15	7489	1.35	74195	.95	74L04	.35	74LS00	.45
4012	.20	7410	.10	7490	.55	74196	1.25	74L10	.35	74LS01	.45
4013	.40	7411	.25	7491	.95	74197	1.25	74L20	.35	74LS02	.45
4014	1.10	7412	.30	7492	.95	74198	2.35	74L30	.45	74LS04	.45
4015	.95	7413	.45	7493	.40	74221	1.00	74L47	1.95	74LS05	.55
4016	.35	7414	1.10	7494	1.25	74367	.85	74L51	.45	74LS08	.45
4017	1.10	7416	.25	7495	.60			74L55	.65	74LS09	.45
4018	1.10	7417	.40	7496	.80			74L72	.45	74LS10	.45
4019	.70	7420	.15			75108A	.35	74L73	.40	74LS11	.45
4020	.85	7426	.30			75110	.35	74L74	.45	74LS20	.40
4021	1.35	7427	.45	74100	1.85	75491	.50	74L75	.55	74LS21	.25
4022	.95	7430	.15	74107	.35	75492	.50	74L93	.55	74LS22	.25
4023	.25	7432	.30	74121	.35			74L123	.55	74LS32	.40
4024	.75	7437	.35	74122	.55					74LS37	.40
4025	.35	7438	.35	74123	.55	74H00	.25			74LS40	.55
4026	1.95	7440	.25	74125	.45	74H01	.25	74S00	.55	74LS42	1.75
4027	.50	7441	1.15	74126	.35	74H04	.25	74S02	.55	74LS51	.65
4028	.95	7442	.55	74132	1.35	74H05	.25	74S03	.40	74LS74	.75
4030	.35	7443	.85	74141	1.00	74H08	.35	74S04	.35	74LS86	.75
4033	1.95	7444	.45	74150	1.00	74H10	.35	74S05	.35	74LS90	1.30
4034	2.45	7445	.80	74151	.75	74H11	.25	74S08	.35	74LS93	1.00
4035	1.25	7446	.95	74153	.95	74H15	.30	74S10	.35	74LS107	.95
4040	1.35	7447	.95	74154	1.05	74H20	.30	74S11	.35	74LS123	1.00
4041	.69	7448	.95	74156	1.15	74H21	.25	74S20	.35	74LS151	.75
4042	.95	7450	.25	74157	.65	74H22	.40	74S40	.25	74LS153	1.20
4043	1.25	7451	.25	74161	.85	74H30	.25	74S50	.25	74LS157	.85
4044	.95	7453	.20	74163	.95	74H40	.25	74S51	.45	74LS164	1.90
4046	1.50	7454	.25	74164	.60	74H50	.25	74S64	.25	74LS367	.85
4049	.80	7460	.40	74165	1.50	74H51	.25	74S74	.40	74LS368	.70
4050	.60	7470	.45	74166	1.35	74H52	.15	74S112	.90		
4066	1.35	7472	.45	74175	.80	74H53J	.25	74S114	1.30		
4069	.40					74H55	.25				
4071	.35										
4082	.45										

9000 SERIES		LINEARS, REGULATORS, etc.					
9301	.85	8266	.35	LM320K5 (7905)	1.65	LM340T-24	.95
9309	.35	8836	.95	LM320K12	1.65	LM340K-12	2.15
9322	.85	MCT2	.95	LM320T12	1.25	LM340K-15	1.25
95H03	.55	8038	3.95	LM320T15	1.65	LM340K-18	1.25
9601	.75	LM201	.75	LM339	.95	LM340K-24	.95
9602	.50	LM301	.25	7805 (340T-5)	.95	LM373	2.95
		LM308 (Mini)	.75	LM340T-12	1.00	LM380	.95
		LM309H	.65	LM340T-15	1.00	LM709(8,14 PIN)	.25
		LM309K(340K-5)	.85	LM340T-18	1.00	LM711	.45
		LM310	1.15				
		LM311D(Mini)	.75				
		LM318 (Mini)	.65				
MEMORY CLOCKS							
74S188 (8223)	3.00						
1702A	7.95						
MM5314	3.00						
MM5316	3.50						
2102-1	1.75						
2102L-1	1.95						
TMS6011NC	6.95						
8080AD	15.00						
8T13	1.50						
8T23	1.50						
8T24	2.00						
2107B-4	4.95						

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LM1458	.95
LM3900	.50
LM75451	.65
NE555	.50
NE556	.95
NE565	.95
NE566	1.75
NE567	1.35
SN72720	1.35
SN72820	1.35

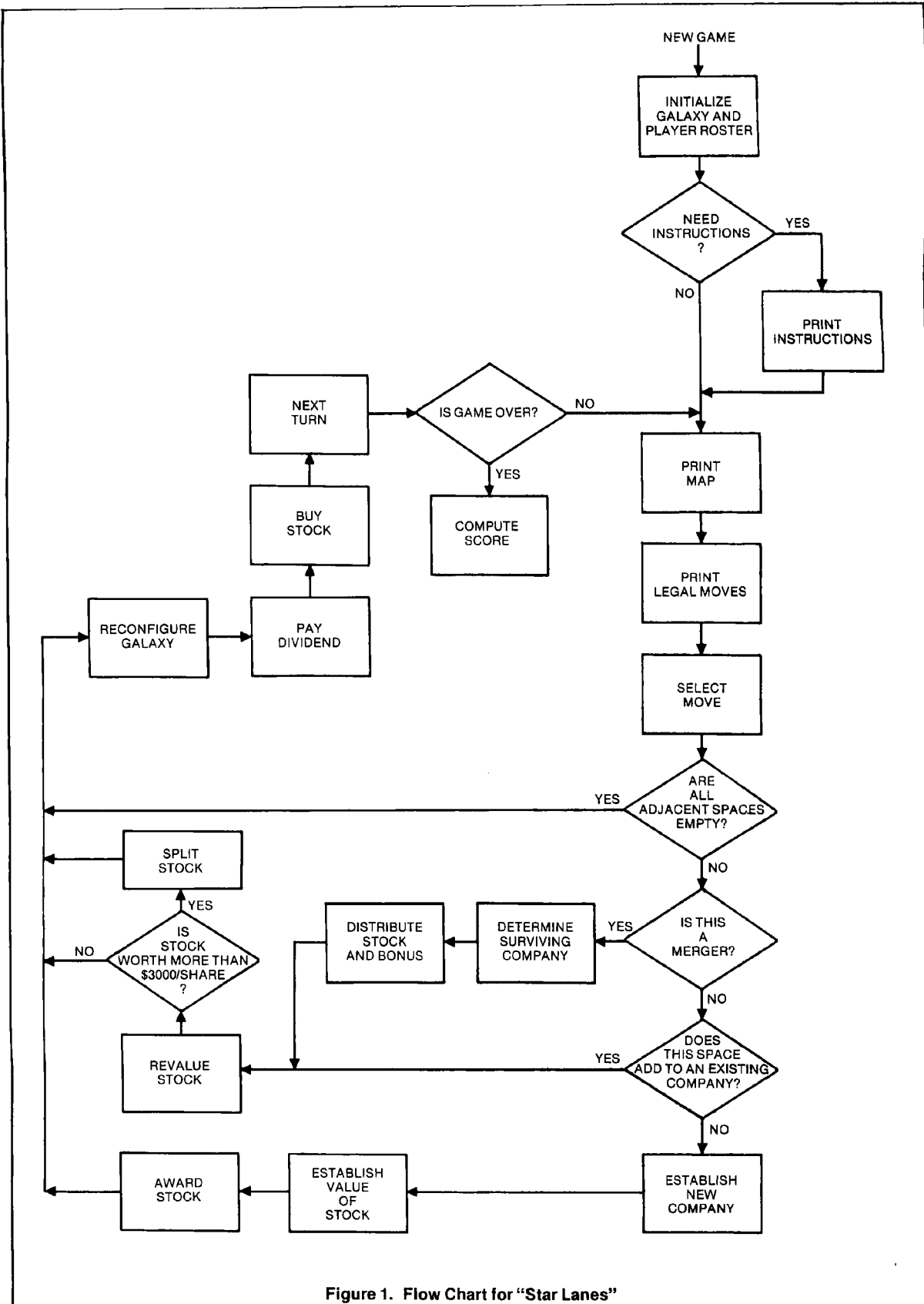


Figure 1. Flow Chart for "Star Lanes"

You only have \$12356 — try again.

Buy how many shares of Denebola Shippers at \$2475.

You now own 379 ? 4

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	D	D	D	D	•	•	•	•	•	•	•	•
2	•	•	•	D	D	D	D	•	•	D	D	D
3	•	•	•	D	D	•	D	D	D	D	D	*
4	+	•	D	D	D	D	D	•	•	•	D	•
5	•	•	D	D	•	*	D	•	•	•	D	•
6	•	D	D	D	•	A	•	•	•	D	D	•
7	•	•	D	D	•	•	•	•	B	*	•	•
8	•	•	D	•	•	•	•	B	B	B	B	B
9	•	•	•	•	•	•	•	•	•	•	B	B

Steve, here are your legal moves for this turn: 7 g / 4 b /

1 g / 7 k / 2 a /

What is your move? 7 k

Special Announcement!!

Betelgeuse, Ltd, has just been merged into Denebola Shippers! Please note the following transactions.

Old Stock = Betelgeuse, Ltd.
New Stock = Denebola Shippers

Player	Old Stock	New Stock	Total Holdings	Bonus Paid
Steve	79	40	426	\$9136
Debbie	68	34	417	\$7863

Special Announcement!!

The Stock of Denebola Shippers has split 2 for 1!

Your current cash = \$98945

Buy how many shares of Altair Starways at \$600.

You now own 0 ? 0.

Your current cash = \$98945

Buy how many shares of Denebola Shippers at \$2087.

You now own 852 ? 45

MAP OF THE GALAXY

	A	B	C	D	E	F	G	H	I	J	K	L
1	D	D	D	D	•	•	•	•	•	•	•	•
2	•	•	•	D	D	D	D	•	•	D	D	D
3	•	•	•	D	D	•	D	D	D	D	D	*
4	+	•	D	D	D	D	D	•	•	•	D	•
5	•	•	D	D	•	*	D	•	•	•	D	•
6	•	D	D	D	•	A	•	•	•	D	D	•
7	•	•	D	D	•	•	•	•	D	*	D	•
8	•	•	D	•	•	•	•	D	D	D	D	D
9	•	•	•	•	•	•	•	•	•	•	D	D

Debbie, here are your legal moves for this turn: 5 e / 9 d / 2 h / 7 a / 2 b /

What is your move? 2 h

Your current cash = \$102416

Buy how many shares of Altair Starways at \$600.

You now own 30 ? 0

Your current cash = \$102416

Buy how many shares of Denebola Shippers at \$2187.

You now own 834 ? 46

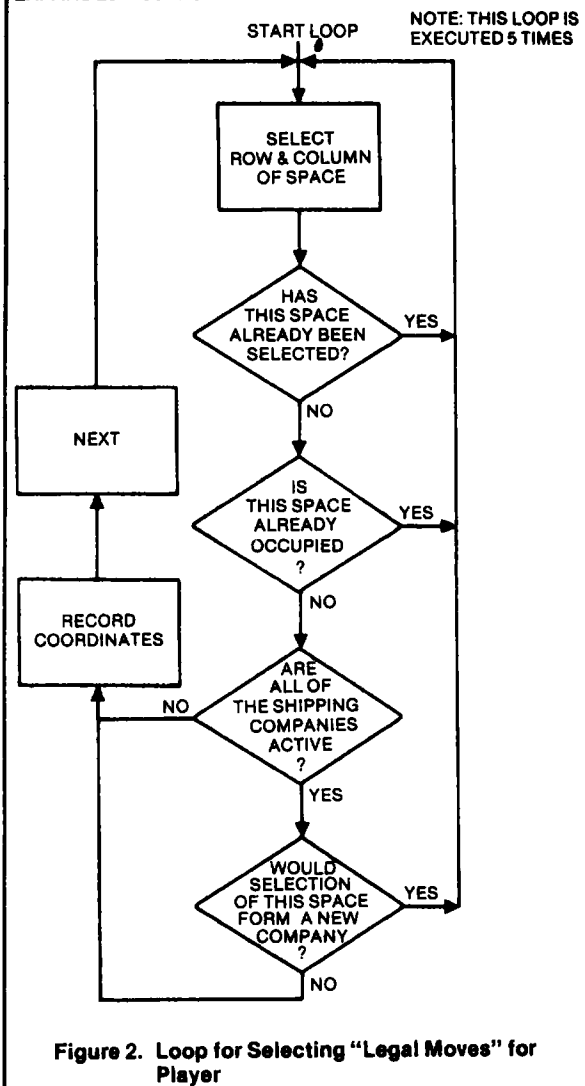
Special Announcement!!

The game is over — here are the Final Standings

Player	Cash Value of Stock	Cash on Hand	Net Worth
Steve	\$1.96174E + 06	\$5030	\$1.96677E + 06
Debbie	\$1.94256E + 06	\$1814	\$1.94437E + 06

Another game? No.

EXPANDED FLOW CHART



OK

STAR LANES PROGRAM BASIC LISTING

```

10 REM THE GAME OF STAR LANES - AN INTERSTELLAR COMMERCE GAME
20 REM FOR 2-4 PLAYERS - COPYRIGHT 1977 BY STEVEN FABER
30 REM WRITTEN IN ALTAIR BASIC 12/17/76
40 PRINTCHR$(12):PRINT:PRINT:PRINTTAB(10)"* S * T * A * R * * "
50 PRINT" L * A * N * E * S * "
60 DIMK(10,12),S(5,4),MS(5,10),SI(5,10),G(5)
70 MS(5)=""FRIDAY EXPEDITORS":FORI=1TO5:FORJ=1TO4:SI(I,J)=0
75 DI(I)=0:RI(SI(I))=0:RO(I)=0:RI(I)=0:RO(I)=0:NEXTJ,I
80 MS(3)=""CAPFLA FREIGHT CO."MS(4)=""DENEbola SHIPPERS"
90 MS(1)=""ALTair STARWAYS"MS(2)=""BETELGEUSE, LTD."
100 LS=""**ARCD**"MS=""ARCDFFGKJL":FORI=1TO9:FORJ=1TO12
110 IFINT(RND(1)*PH)*1<1THENK(I,J)=1:GOTO130
120 K(I,J)=3
130 NEXTJ,I:INPUT"HOW MANY PLAYERS (2-4)?"PI
140 INPUT"DOES ANY PLAYER NEED INSTRUCTIONS?"MS
150 IFLEFTS(MS,1)=""Y"THENGOSUB8000
160 FORI=1TOPI:PRINT"PLAYER":I:INPUT"WHAT IS YOUR NAME?"MS(I)
170 NEXTI:PRINT:PRINT"NOW I WILL DECIDE WHO GOES FIRST..."PRINT
180 I=INT(PH*HND(1)*1):PRINTPS(I)" IS THE FIRST PLAYER TO MOVE."
190 K=0
195 P=1:GOTO220
200 K=K+1:IFK=4THENP=500
210 P=P+1:IFP=P+1THENP=1
220 FORI=1TO5
230 RI(I)=INT(9*HND(1)*1):CI(I)=INT(12*HND(1)*1)
240 FORI=1TO5STEP-1:IFK(I)=K(1)ANDCI(I)=CI(1)THEN230
250 NEXTI:IFM(K(I),CI(I))>1THEN230
260 FORI=1TO5:IFQ(I)=0THEN230
270 NEXTI:IFM(K(I),CI(I))>3ORM(K(I),CI(I))>3THEN240
  
```

JUNE 1977