

# Instant Software™ Inc.

Peterborough, N.H. 03458 603-924-7296

## PROGRAM DOCUMENTATION

Designed  
for use on  
**TRS-80\***  
16K  
LEVEL II

### Investor's Paradise

- Speculation
- Stock Trek



\*A trademark of Tandy Corporation

0125R

# Investor's Paradise

## STOCK TREK

This is a stock market simulation, in which each person manipulates an initial investment of \$5000 over a twelve-month period. This program accommodates as many as six investors.

A selection of nine different stocks plus one municipal bond is offered, from which you can choose your investments.

### Instructions

After the program is loaded, the computer will ask,

"HOW MANY INVESTORS?"

Type in the number of investors (1 to 6).

The computer will then ask,

"WHAT ARE THE NAMES OF THE PLAYERS?"

### TRS-80 LOADING

Unless otherwise indicated on the labels, Level I will be on one side of the cassette and Level II on the other. Make sure that your system is on, the recorder is plugged in, and the tape is rewound. Punch out the tabs on the cassette to prevent accidental erasure. Now insert the tape into your recorder and press PLAY.

Type NEW and press ENTER (E). Check the available memory by typing P.M.(E) for Level I or ?MEM(E) for Level II. Now press PLAY on the recorder and type CLOAD(E). In about ten seconds two asterisks should appear on your screen, with the right-hand one blinking. If it doesn't blink, you're not loading.

The TRS-80 is very sensitive to audio levels. If your program doesn't load, rewind the tape, adjust the volume level, and repeat the loading sequence above.

After each load, run a memory check and note how much memory the program uses.

Should you be unable to load, check the cassette with another system. If it's still no go, return it to:

Instant Software Miseries  
Peterborough NH 03458

We'll check to see whether it was the cassette or your system that was awry and get you a replacement.

### DISCLAIMER

Nothing in this world is completely perfect, including this program. I say this despite the yeoman efforts of the programmer who originally wrote and debugged it and the people in the Instant Software lab who worked far into the New Hampshire nights, all toward providing you with the best possible program.

Please enjoy it. If you come up with any improvements, you should let me know so I can pass along your ideas to other users.

Please note that there is no warranty expressed or implied that this program is going to do anything other than load and work. We don't guarantee that you will enjoy the game programs, that you will make or save money with business programs, or learn anything from educational programs. We don't guarantee that you will lose weight with a dieting program or avoid disasters with a biorhythm program. But if any program causes suffering (other than acute aggravation) or misfortune, we want to hear about it by mail, not through your lawyer. You are entirely on your own in using the programs.

If you run into problems while using a program, you can communicate with us... preferably by mail, and we'll try to help out. If a problem turns out to be commonplace, we'll put the update information in MICROCOMPUTING. You are supposed to read MICROCOMPUTING anyway.

Wayne Green

Type in the names of the players (maximum of six) and press ENTER. The program will then describe the following rules and facilities.

### How to Use Your Investment Facilities

The **Ticker-tape** announces market conditions (either "BULL" or "BEAR"), plus realistic, pertinent market commentary.

**Options.** You can buy or sell blocks of stock (ten shares to a block).

- There is a three-page prospectus for you to review, which describes each stock and its dividend potential.
- You can form a trend analysis (graph of stock prices), from the beginning of the year to present by viewing each monthly graph.

The **"Big Board"** (stock-board) displays changing prices, which are updated each month to reveal:

- The old price
- Change of price
- Current price

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**EXAMPLE OF THE STOCK BOARD DISPLAY**

AMF	50	↑	8	58	ATT	50	↑	7	57
FBN	50	↓	5	45	GM	50	↑	8	58
IBM	50	↑	8	58	PUB	50	↑	6	56
RCA	50	↑	4	54	TRS	50	↑	10	60
TWA	50	↓	10	40	HMB	=	\$1000		

JOHN: CASH = \$5000

AMF 0 ATT 0 FBN 0 GM 0  
 IBM 0 PUB 0 RCA 0 TRS 0  
 TWA 0 HMB 0 \*COMMAND .....

(END, BUY, SELL, REVIEW, GRAPH, )?

**TICKER-TAPE**

... ANNOUNCES ... MARKET ... CONDITIONS ...

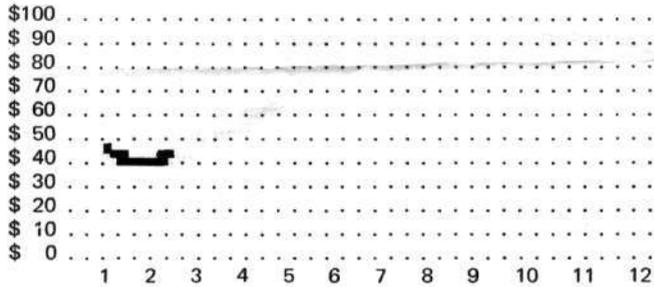
**The meaning of stock symbol abbreviations:**

- ATT = Auto-Truck Transport
- FBN = Fly-By-Night Enterprises
- GM = Genuine Mobility
- IBM = Investment Buying Management
- PUB = Public Utility Board
- RCA = Realty Conversion Associates
- TRS = Tandy-Radio Shack
- TWA = Third World Associates
- HMB = Hometown Municipal Bonds

Graphs display month-by-month growth, stock splits and bankruptcies.

EXAMPLE:

**GRAPH OF TWA STOCK**



(HIT ENTER TO CONTINUE)

Note: The graph illustrates that in February, TWA stock went up \$5, to a new price of \$45 per share.

**Rules**

Price changes occur once each month, allowing you twelve opportunities to manipulate your investments.

If a stock rises in price to exceed \$100 per share, a stock split is declared. You get two shares for each of the shares you originally owned. The price is then divided by two. However, each share retains its dividend potential. Consequently, when a stock split takes place, you will gain twice the number of dividends.

If a stock drops below \$1 per share, it is declared bankrupt, and you lose all your holdings in that stock.

You can only buy and sell blocks of stock. Each block consists of ten shares.

Dividends are computed for each investor automatically and are then added to his/her cash.

Each investor's stock prices are evaluated using the newest prices, and are added to each investor's cash to reveal the total worth of that individual.

If you wish to buy or sell a block of stock, the following examples will illustrate the form of buy or sell order to be typed:

EXAMPLE: "BUY 5 BLOCKS OF TWA" or "BUY 5 TWA"  
 "SELL 7 BLOCKS OF IBM" or "SELL 7 IBM"

Note: A special feature of this program is the computer override. If you attempt to buy more stock than you can afford (or sell more stock than you own), the computer calculates the amount which is feasible, then completes the transaction.

If you wish to examine the prospectus, simply type in "REVIEW".

If you wish to examine a graph, type in the words:

"GRAPH TWA"  
 (for TWA in particular) or  
 "SHOW ALL GRAPHS"  
 (for multi-graph display)

Note: After the REVIEW or GRAPH is displayed, the ticker-tape is re-run, to remind the investor of the latest trends.

When an investor finishes his turn, he indicates this fact by typing "END".

There will be instances when the computer has insufficient information.

EXAMPLE:

"BUY 5"  
 (which should be "BUY 5 TWA")

The computer will reject this statement, and will request a new, complete statement.

After all twelve months have passed, a last CASH (old CASH plus dividends earned) is computed and displayed. Also, a bar-graph is displayed, showing the total worth of each investor, by name, on a month-by-month basis.

After the last month of the twelve month period, press the ENTER key for the final totals which are displayed in descending order (highest to lowest). Then the winner is declared.

To start a fresh investment year, press the BREAK key and type "RUN". Then press the ENTER key.

# SPECULATION

Speculation allows you to find out if you would be able to make money on the stock market.

This is not a game in the conventional sense of the word, since it is a very realistic simulation. The investor starts with any amount up to \$10,000 in his/her stock purchasing account; a matching amount is automatically set up as a savings account at 6.5% interest rate. (This interest rate can be altered.)

The investor refers to newspaper stock prices, to buy and sell shares, and all records can be stored on data tape.

The game can be played for a period of up to five consecutive years (simulated by computer), during which time the savings account will continue to add and compound quarterly interest. The game will automatically give net costs, using real commission rates obtained from Merrill-Lynch in October 1978.

Short of actually investing real cash, this is the closest you can come to *actually* playing the stock market.

## Rules

- (1) You start with \$10,000 or less, in your stock purchasing account. An equal amount is automatically deposited in your savings account at 6.5% interest rate.
- (2) You can alter the beginning amount and the savings account interest percentage rate. However, the alterations can only be inserted during the first day of a period of speculation. If you wish to insert further changes, you must wait until the next game to insert them.
- (3) One game of speculation can be extended to cover a period from a few months all the way to five years.
- (4) Commissions are automatically computed, then added into cost and profit predictions when you are analyzing a new stock.
- (5) After each 91 days of speculation, the interest is added to your savings account, compounding that interest on a quarterly basis.
- (6) You may add dividends, paid by various companies, at the beginning of each quarter on the following dates:  

January 1st	(Caution: Be sure to add dividends quarterly
April 1st	[but only <i>once</i> per quarter], as this dividend
July 1st	money adds to your spendable money.)
October 1st	

**Note:** You simply enter the *full* amount of these dividends. The program will automatically divide the dividend by four (4), then deposit the correct amount to your bank account. (It simultaneously deducts the correct amount from the total invested in each individual stock.)

- (7) For a stock to qualify for a dividend, you *must* have owned it before the change of the current quarter.
- (8) You will only be able to own up to 25 different stocks at one time.
- (9) There are no provisions for selling short in this program, because most novice investors are not in the financial position to cover possible losses.
- (10) During the process of evaluating a stock you will be asked to supply information relating to that stock. Newspapers list information on both the New York and American Stock Exchanges, including the following items:
  - (a) The name of the stock
  - (b) The high and low for the year.
  - (c) Dividends paid
  - (d) P/E Ratio (Price-to-Earnings Ratio)
  - (e) The high and low rates for the week

(f) The closing price for the week

(g) The net change of rate for the week

- (11) If you can't get information about the earnings of a particular company, use the P/E ratio. (Sometimes the *projected* earnings are published.) These facts are listed in the newspapers when the company announces its earnings for a year or a quarter.

**Note:** The *actual* earnings of a company provide more accurate predictions.

- (12) To calculate EARNING RATIOS:

The stock price is divided by earnings (STOCK PRICE/EARNINGS).

The lower the P/E ratio, the more net earnings the stock yields per share. This is considered a good way to evaluate stock, although conversely, many times a stock does quite well with ratios of 20-to-1 and even 30-to-1.

- (13) Formulae for future price projections in this program depend entirely upon raw data (disregarding up-coming contracts or recalls of merchandise, which are *not* indicated by company earnings).

- (14) After loading the program, you will answer the following questions:

"IS THIS YOUR FIRST DAY IN THE MARKET (YES/NO)?"

"WHAT IS THE MONTH, DAY, YEAR NUMERICALLY  
XX,XX,XX"

"NUMERICALLY THIS IS NOW DAY NUMBER XXX OF  
THE YEAR"

"WHAT ORIGINAL AMOUNT DO YOU WANT IN EACH  
ACCOUNT XXXXXX"

"DO YOU WISH TO CHANGE FROM 6.5% INTEREST  
(YES/NO)?"

"ENTER INTEREST TO BE EARNED ON ACCOUNT"

- (15) Press the ENTER key, to obtain the following display:

### OPERATOR FUNCTION CALL BOARD

CASH AVAILABLE = \$XXXXX

SAVINGS ACCOUNT = \$XXXXX

STOCK ACCT. WORTH = \$XXXXX

0. - RETURNS YOU TO THIS FUNCTION BOARD

1. - CHECK CURRENT VALUE OF PORTFOLIO

2. - EVALUATE POSSIBLE NEW STOCK PURCHASE

3. - PAY QUARTERLY DIVIDEND TO STOCK ACCOUNT

4. - LIST CURRENTLY OWNED STOCK

5. - SELL CURRENTLY OWNED STOCK

6. - PURCHASE NEW STOCK

7. - RECORD DATA ON DATA TAPE - QUIT FOR THE  
DAY

8. - ADD ADDITIONAL CASH TO BOTH ACCOUNTS

9. - END PROGRAM WITHOUT CREATING DATA TAPE

\*\*\*PLEASE ENTER THE NUMBER  
OF FUNCTION DESIRED

## Notes

- (16) Try not to panic-sell when the market fluctuates. The market has done this for many years. Hang in there, and make money!
- (17) Don't put all your money into one stock.
- (18) Keep as much of your money invested as possible; it cannot grow if it is not invested.
- (19) The laws of chance dictate that any stock can go stale after purchase - you might face some deep frustration!
- (20) This program is not intended to aid you in the actual purchase and choosing of real stocks. No guarantee of predictions should be presumed, and none is made.

## ACCIDENTAL ERASING

Until you've tried it, you won't believe how easy it is to screw up a data cassette. For instance, the magnet in any loudspeaker can do a fantastic job of removing part of the data . . . and you'll find loudspeakers in portable radios, cassette recorders, TV sets, etc. Power supplies will do even better. No one can even estimate how many tapes have been wiped out by these little TRS-80 power units . . . or by putting cassettes on top of the monitors, where its electromagnetic field can weave its subtle work.

Do not treat your cassettes casually. Give them extra care and attention. Keep them away from anything electrical, magnetic or dusty at all times.

Well, accidents can happen, even to the most careful of us. One of your kids can try out a data cassette and push the record button . . . etc. You should ward this off by punching out the tabs on the back of the cassette to prevent recording. If things do go awry, we'll redo your cassette for you for a nominal service charge of \$2. Just send back the original cassette, a note as to what went wrong (we like to keep statistics) and the \$2. We'll fix it up for you and get it back as quickly as we can. Try not to get worried if it takes three weeks . . . one week each way for the post office (when they are up to that rigorous a schedule) and a week for us to horse around.

## COPYRIGHT

This program is protected by copyright. This means that it is illegal to make a copy of the tape or a listing of the program. Any copy. We feel strongly enough about this to offer a \$10,000 reward for the conviction of anyone copying this program. This means that when your life-long friend and bosom buddy asks you to run off a copy for him, you have, at that moment, to decide whether he wants the program or the ten thou. If you do decide to make the copy, you'd better be very nice to said friend from then on.

Better, if someone is insistent, is to give them the money to buy a cassette of their own. It could be cheaper in the long run.

Why the fuss? We want to make sure that programmers are paid for their programs and paid well. The more money we pay in royalties, the better programs you'll have.

## READING



Kilobaud MICROCOMPUTING is designed to help the newcomer to computing to understand computers, while still being interesting to the experts. We try to avoid the use of computerese as much as possible. You'll also find a wealth of software in Kilobaud MICROCOMPUTING . . . and more articles every month than any other magazine.

The crew putting out Kilobaud MICROCOMPUTING are the ones who originated BYTE and are the leaders in the field. Only Kilobaud MICROCOMPUTING has a complete microcomputer laboratory for checking both hardware and software.

Kilobaud MICROCOMPUTING is \$2.50 per copy, but is only \$18 for a one year subscription. Back issues are \$3.50 except for a few rare ones which are \$10. To subscribe just send your name and address to Kilobaud MICROCOMPUTING, Subscription Services Dept. ISI, P.O. Box 997, Farmingdale NY 11737. We'll start with the next published issue and send a bill for the subscription. If you are not delighted with the first issue, just return the bill and we'll be disappointed to lose you. Readers of Kilobaud MICROCOMPUTING are generally very enthusiastic and read it from cover to cover. You can also subscribe by calling (during working hours) 800-258-5473.

## SOFTWARE OPPORTUNITIES

Anyone interested in writing software for fun and profit should send for our instruction sheet: "Dear Programmer." This describes, step by step, the process used by Instant Software for producing these programs. In addition to being able to make rather remarkable money as an author of a program, there are also opportunities to work on a freelance basis (at home) evaluating programs or converting them from one microcomputer system to another.

If you are thinking in terms of distributing your own programs, you can do worse than find out the benefits of having Instant Software do this job for you. Write to: "Selling Your Software The Easy Way."

Instant Software is looking for programs to publish and distribute — business programs, games, home programs, educational programs, scientific programs, etc. For more information, please write to Instant Software, Peterborough NH 03458.

## CASSETTE RECORDER MAINTENANCE

Often when you have trouble loading a program, it's not the fault of the tape or your computer system. It may be a problem with your cassette recorder. The staff at Instant Software use a large variety of cassette recorders eight hours a day, five days a week. To insure that the recorders will keep up with the demands of our work load, they are subjected to a rigorous maintenance routine.

As you run a tape in any recorder, a particle of oxide may flake off the tape, or a bit of dust may settle from the air. These bits of debris may adhere to the play/record head, causing variations in the volume level and degrading the performance of your recorder.

To keep your recorder in top condition, clean the recorder heads regularly after every 15-20 loads or saves. Use denatured alcohol (available at any drugstore) and cotton-tipped swabs. Lightly dampen a swab and gently stroke the erase head, the record/play head, and the pinch roller. This will remove accumulated tape oxide and dust. You can also use a soft brush or vacuum cleaner to remove dust from the tape compartment.

Every time you press the record or play button, you put a small amount of stress on the play/record head. Eventually the head will be pushed out of alignment. This is one of the reasons why a program recorded when you first got your system will not load several months later or won't load on another system.

The cure is to have your recorder aligned by a qualified technician, or if you have the know-how, to align it yourself.

The technicians at Instant Software recommend using an industrial standard alignment tape (they use a Panasonic tape, part No. QZZCFM). This tape allows them to test for playback frequency response, playback level, and the head azimuth adjustment. The most critical aspect, especially for PETs, is the azimuth adjustment.

To run a test on your recorder, connect an oscilloscope to the earphone jack, insert the alignment tape into the recorder, push the play button, and adjust the head for the best waveform on the oscilloscope. If you lack test instruments, adjust the head for the loudest sound and the best high frequency response without changing the recorder's volume setting.

Remember, your recorder is a critical link in your computer system. For the best performance, give it the best care.

## IMPROVEMENTS

There are very few programs which cannot be improved. If you work out some improvements to this program, it could be worth your while to send them in for possible use in an updated version of the program. Those who contribute to an updated program will share in the royalties which result. Instant Software Inc., Peterborough NH 03458.

## PROGRAMS FOR YOUR TRS-80

Look for these fine programs at a computer store near you and save time and money. Or call toll-free 1-800-258-5473, and have your credit card handy.

- RAMROM PATROL/TIE FIGHTER/KLINGON CAPTURE**  
(16K Level II) Order no. 0028R. . . . . \$7.95
- SPACE TREK IV (16K Level II)**  
Order no. 0034R. . . . . \$7.95
- DOODLES AND DISPLAYS II**  
(16K Level II) Order no. 0042R. . . . . \$7.95
- WHO-DUN-IT? (16K Level II)**  
Order no. 0047R. . . . . \$7.95
- DEMO II (16K Level II)**  
Order no. 0049R. . . . . \$7.95
- DEMO III (16K Level II)**  
Order no. 0055R. . . . . \$7.95

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